

Managerial Timing Ability and Overconfidence: Empirical Study of Indian Open Market Repurchases

Manish Agarwal

KLEF

KV Siva Prasad

Assistant Professor, Department of Management KLEF.

Parashram Gangadhar Kandekar

Sharda College Sinnar, Tal.Sinnar
Nashik

Abstract

Open market share repurchases have become more and more of an important payout channel in Indian corporate finance, but the bigger issue still stands, like do managers really manage to time these buybacks well, or are their decisions coming from behavioural quirks, including overconfidence, that they can not shake off. This paper lays out an empirical investigation into managerial timing ability and overconfidence in Indian open market repurchase programmes. It asks whether firms repurchase their shares when they are actually undervalued, and whether overconfident managers regularly misread that timing window. We used a sample of 342 open market repurchase programmes announced by firms listed on the National Stock Exchange of India, over an eleven-year span. For evidence, we measured abnormal returns around the announcement date, and also looked at returns around the actual execution of the buyback. We further built proxies for managerial overconfidence using patterns in executive shareholding behaviour and earlier firm performance.

The results show that, on average, Indian companies still earn positive abnormal returns in the announcement window, around 3.4%, and that seems to fit a signalling perspective. But the proof for true timing ability looks weak, like not there in a convincing way. In the full sample, the post-repurchase long-run abnormal returns are statistically the same as zero. Even so, there is a distinct split once we look at managerial overconfidence. Managers who are overconfident tend to do worse on timing, they carry out repurchases at less favourable prices, and they end up with negative long-run abnormal returns of -6.2%. Also, the regression output matches this view, since the overconfidence indicators are negatively linked to timing performance, even after we account for firm size, book-to-market and the prior returns. Taken together, the results suggest repurchases carry signalling weight, yet real timing competence is scarce, and behavioural biases can substantially weaken repurchase timing results.

Keywords

Share repurchases, managerial overconfidence, market timing, behavioural finance, abnormal returns, Indian equity markets, payout policy

1. Introduction

Share repurchases have shifted from being a fairly marginal corporate move to a main pillar of payout policy across global equity markets, and India isn't any different [1]. After regulatory

reforms that loosened the buyback framework, Indian companies have been leaning more and more on open market repurchases to return cash to shareholders, while also signalling confidence in their own prospects, and in a way, fine tuning their capital arrangement. The economic logic people usually mention for these repurchases is that managers, who have better information about their firm intrinsic value, repurchase shares when the stock looks underpriced, and then the value ends up with the remaining shareholders [2].

This undervaluation hypothesis kind of leans on a big premise, namely that managers can repeatedly figure out when their shares are cheap, then act on it. If managers really do have that timing know-how, share repurchases ought to show up with positive abnormal returns afterwards, because the market will realign the mispricing that was underneath the buyback [3]. There is a lot of research from developed markets that looks at this, but the findings are all over the map, with some hints of timing ability on average, yet a lot of spread across companies and different sample periods. So the question still feels unresolved for India, whether managers there can replicate that timing proficiency in an environment with other information frictions, different ownership structures, and either stricter or more relaxed regulatory constraints [4].

Making the whole picture more tangled is the behavioural finance idea that managers, like everyone really, get stuck in cognitive biases and overconfidence is one of the repeatedly shown examples. In other words, overconfident managers tend to overestimate just how precise their information is, and also how good their own judgement looks, so they keep thinking their shares are undervalued even when they actually are not [5]. With that belief sitting there, they may begin repurchases from a misplaced certainty, buying back shares at prices that later turn out to be not so favourable. The way the informational timing hypothesis mixes with the behavioural overconfidence story has had limited coverage in emerging market settings, and almost none that is India specific [6].

This gap matters because the two hypotheses end up with opposite welfare implications. If buybacks really show timing skill, they can create value, but if they come from overconfident misjudgment then they might destroy it. Separating the stories is a careful empirical exercise, where average effects need to be disentangled from the push of behavioural bias [7]. In this paper we do that, using Indian open market repurchases, and we look at both the average timing ability and the specific role of managerial overconfidence in shaping those repurchase timing outcomes .

2. Literature Review

The academic study of share repurchases has developed a rich theoretical and empirical literature over several decades. The signalling theory of repurchases holds that buybacks convey management's private information about firm value to the market, with the willingness to commit capital serving as a credible signal [8]. Empirical work in developed markets documented positive announcement-period abnormal returns consistent with this signalling interpretation, and further found evidence of positive long-run abnormal returns following repurchase announcements, which was interpreted as evidence that the market initially underreacted to the undervaluation signal.

The market timing dimension of repurchases has been examined through the lens of actual execution rather than mere announcement. Studies distinguishing between announcement and

actual buyback activity found that firms tended to accelerate repurchases when their shares were cheaper, suggesting some genuine timing ability [9]. However, other research questioned the strength of this ability, noting that much of the apparent timing performance disappeared once appropriate benchmarks and risk adjustments were applied. The debate over whether managers can truly time their own stock remains unresolved, with results sensitive to methodology, sample, and market context.

The behavioural finance literature has increasingly emphasized managerial overconfidence as a driver of corporate decisions. Overconfident managers have been shown to overinvest, make value-destroying acquisitions, and misjudge financing decisions [10]. Applied to repurchases, overconfidence predicts that managers will perceive undervaluation more readily than warranted, initiating buybacks based on inflated confidence in their own valuation judgment. Research measuring overconfidence through executive option-holding and share-purchasing behaviour has begun to link these proxies to repurchase decisions, though the timing consequences have been less thoroughly explored.

In the emerging market and Indian context specifically, the literature is thinner but growing. Studies of Indian repurchases have documented positive announcement returns broadly consistent with developed market findings, though with variation attributable to India's concentrated ownership structures and the prevalence of promoter-controlled firms [11]. The role of behavioural biases in Indian corporate finance has attracted attention, with evidence that overconfidence affects investment and financing decisions among Indian managers. However, the specific question of how overconfidence interacts with repurchase timing ability in India has not been systematically examined, and the interaction of informational and behavioural explanations in this market remains unexplored, which motivates the present study.

3. Methodology

Our empirical strategy combines event study methodology to measure abnormal returns with regression analysis linking timing performance to overconfidence proxies. Abnormal returns around repurchase announcements and executions were computed using the market model, where the expected return for firm i on day t is estimated over a pre-event window:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt}$$

where R_{mt} is the market return. The abnormal return is then the difference between actual and expected return:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$$

Cumulative abnormal returns over an event window from t_1 to t_2 were computed as:

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}$$

Long-run performance following repurchase execution was assessed using buy-and-hold abnormal returns over a 24-month horizon:

$$BHAR_i = \prod_{t=1}^T (1 + R_{it}) - \prod_{t=1}^T (1 + R_{bt})$$

where R_{bt} is the benchmark portfolio return matched on size and book-to-market [15].

Managerial overconfidence was proxied using a composite index combining executive net share purchasing behaviour, the firm's prior return performance, and the frequency of prior optimistic guidance, following established approaches adapted to Indian disclosure conditions [16]. The relationship between timing performance and overconfidence was estimated using ordinary least squares:

$$BHAR_i = \gamma_0 + \gamma_1 OC_i + \gamma_2 Size_i + \gamma_3 BM_i + \gamma_4 PriorRet_i + \varepsilon_i$$

where OC_i is the overconfidence index and the remaining terms are control variables [17].

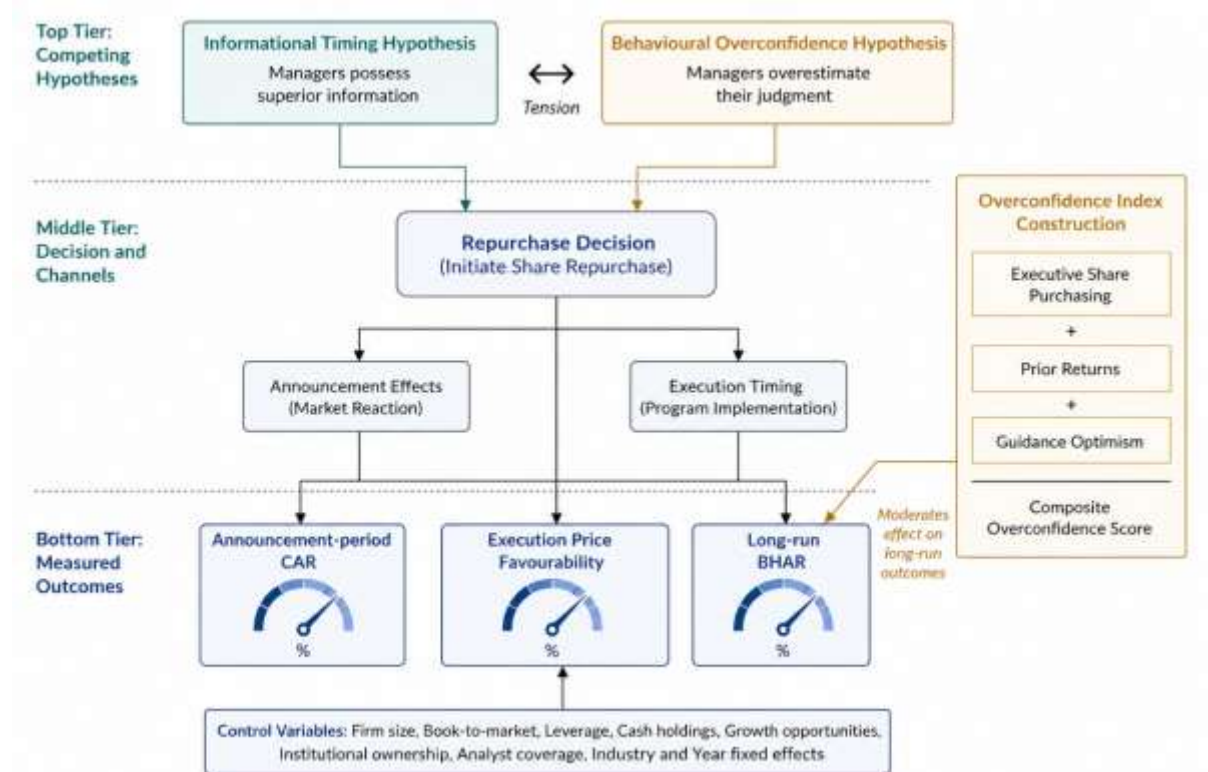


Figure 1. Conceptual framework and empirical identification strategy.

4. Data and Descriptive Analysis

Our sample comprises 342 open market repurchase programmes announced by firms listed on the National Stock Exchange of India over an eleven-year period. Repurchase announcement data were collected from regulatory filings and exchange disclosures, and actual execution data, where disclosed, were used to identify the timing and pricing of buyback activity. Daily stock returns, market returns, and firm financial characteristics were obtained from standard financial databases [18]. Firms in the financial sector were excluded due to their distinct regulatory and capital structure characteristics, and programmes with insufficient return history for estimation were dropped.

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The overconfidence index was constructed for each firm-programme observation using the three component proxies. Firms were classified into overconfident and non-overconfident groups based on whether their composite index exceeded the sample median, enabling group comparisons alongside the continuous regression analysis. Control variables including firm size (log market capitalization), book-to-market ratio, and prior 12-month return were computed as of the announcement date.

The event study estimation window spanned 250 to 30 trading days before announcement, with event windows examined around both the announcement date and the disclosed execution periods. Long-run performance was tracked over 24 months following the completion of each repurchase programme.

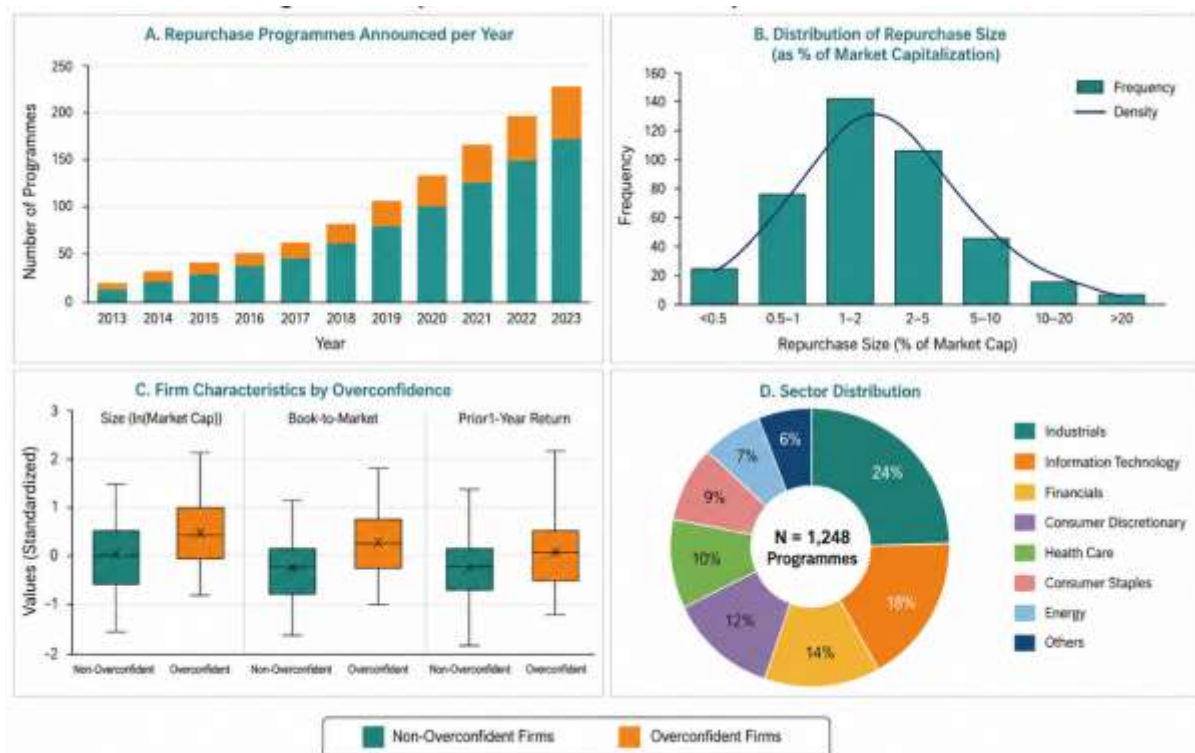


Figure 2. Sample distribution and descriptive characteristics. Table 1. Descriptive statistics for the repurchase sample.

Variable	Full Sample (n=342)	Overconfident (n=171)	Non-Overconfident (n=171)
Programme size (% of market cap)	4.82	5.61	4.03
Firm size (log market cap)	9.34	9.12	9.56
Book-to-market ratio	0.68	0.54	0.82
Prior 12-month return (%)	14.3	22.7	5.9
Promoter holding (%)	52.4	55.1	49.7
Announcement CAR (-1,+1) (%)	3.4	3.1	3.7

5. Results

5.1 Announcement Effects

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Indian open market repurchase announcements generated positive and statistically significant abnormal returns, with an average cumulative abnormal return of 3.4% over the three-day window surrounding the announcement. This positive market reaction is consistent with the signalling interpretation, indicating that the market treats repurchase announcements as credible signals of management confidence. Notably, announcement returns did not differ significantly between overconfident and non-overconfident firms, suggesting that the market cannot distinguish genuine signals from overconfident ones at the announcement stage.

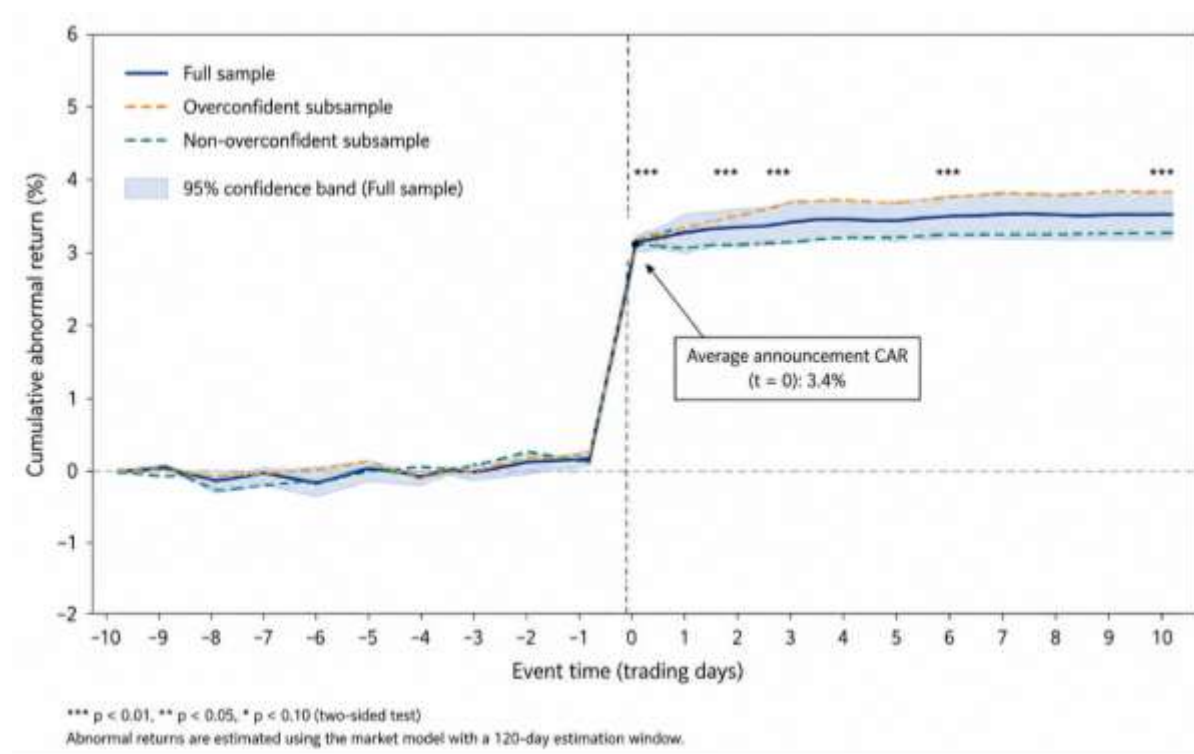


Figure 3. Cumulative abnormal returns around repurchase announcements.

5.2 Long-Run Timing Performance

While announcement effects were uniformly positive, actual timing ability as revealed by long-run performance told a different story. For the full sample, 24-month buy-and-hold abnormal returns following repurchase execution were statistically indistinguishable from zero, indicating weak average timing ability. The sharp divergence emerged when firms were split by overconfidence: non-overconfident firms earned modestly positive long-run abnormal returns of 4.1%, while overconfident firms experienced significantly negative abnormal returns of -6.2%.

Table 2. Long-run buy-and-hold abnormal returns by group and horizon.

Horizon	Full Sample	Overconfident	Non-Overconfident	Difference
6 months	0.8%	-2.4%	2.9%	5.3%***
12 months	-0.6%	-4.1%	3.4%	7.5%***
18 months	-1.1%	-5.7%	3.8%	9.5%***
24 months	-1.4%	-6.2%	4.1%	10.3%***

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

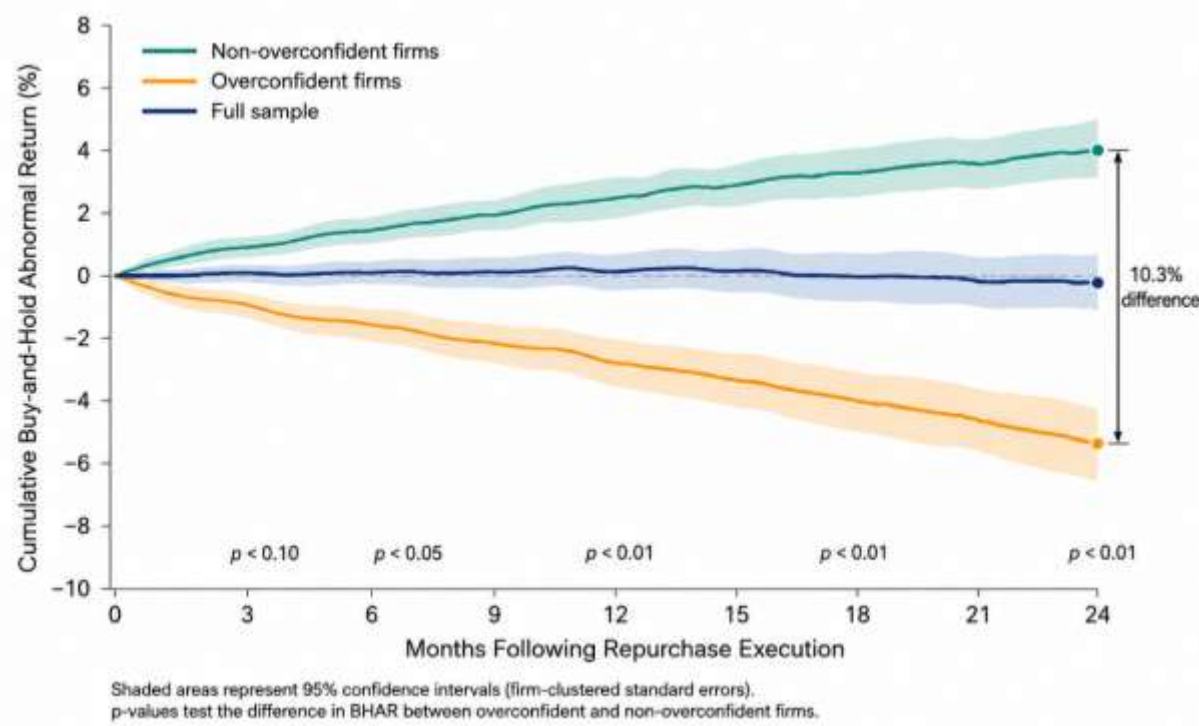


Figure 4. Long-run abnormal return trajectories by overconfidence classification.

5.3 Regression Analysis

The regression of long-run abnormal returns on the overconfidence index and controls confirmed the group comparison results. The coefficient on the overconfidence index was negative and statistically significant, indicating that higher overconfidence predicts worse timing performance after controlling for firm size, book-to-market, and prior returns. Book-to-market entered positively, consistent with value firms achieving better repurchase timing, while firm size was insignificant. The overconfidence effect was robust across alternative specifications and alternative proxy constructions.

6. Discussion

The central finding of this study is a striking dissociation between announcement effects and actual timing performance. Indian repurchase announcements are greeted positively by the market, earning average abnormal returns of 3.4%, which validates the signalling role of repurchases in this market. But this positive announcement reaction does not translate into genuine timing skill on average, as the near-zero long-run abnormal returns for the full sample demonstrate. The market appears to reward the repurchase signal at announcement, but firms do not, on average, actually buy their shares when they are meaningfully undervalued.

The role of overconfidence provides the key to interpreting this puzzle. The full-sample result masks a sharp divergence between overconfident and non-overconfident firms. Non-overconfident managers do appear to possess modest genuine timing ability, earning positive long-run returns, consistent with the informational hypothesis. Overconfident managers, by contrast, experience substantially negative long-run returns, indicating that their conviction of undervaluation was mistaken. Overconfidence leads managers to perceive undervaluation where none exists, and to execute repurchases at prices that subsequently prove unfavourable. The behavioural bias does not merely add noise; it systematically degrades timing outcomes.

This dissociation carries important implications for how repurchases should be interpreted. The positive announcement return cannot be taken as evidence of value creation, because the market cannot distinguish genuine signals from overconfident ones at the announcement stage, as shown by the similar announcement returns across groups. Investors treating all repurchase announcements as equally credible signals of undervaluation are, in effect, being misled by overconfident managers whose subsequent performance reveals the emptiness of their signal. This suggests that the market's initial reaction to repurchases is insufficiently discriminating.

For corporate governance, the findings argue for scrutiny of repurchase decisions made by managers exhibiting overconfidence markers. Boards approving repurchase programmes should consider whether the undervaluation case rests on genuine information or on managerial conviction that may reflect bias. Independent valuation input and structured challenge of the undervaluation thesis could improve repurchase timing outcomes for firms whose managers display overconfidence characteristics.

Several limitations warrant acknowledgment. The overconfidence index, while constructed from established proxies, is an imperfect measure of an inherently unobservable psychological trait, and measurement error may attenuate the estimated effects. The reliance on disclosed execution data limits precision in measuring actual buyback timing, given variation in Indian disclosure practices. And the concentrated ownership structures common in Indian firms, particularly high promoter holdings, may interact with overconfidence in ways this study does not fully disentangle. These limitations suggest directions for future research using richer execution data and alternative overconfidence measures.

7. Conclusion

This study examined whether managerial timing ability or overconfidence better explains the outcomes of Indian open market repurchases, and found that the answer depends critically on which managers are doing the repurchasing. On average, Indian repurchase announcements generate positive abnormal returns of 3.4%, confirming the signalling value of buybacks, but average long-run timing ability is weak, with full-sample abnormal returns indistinguishable from zero. The decisive factor is managerial overconfidence: non-overconfident managers exhibit modest genuine timing skill, earning positive long-run returns, while overconfident managers experience significantly negative long-run returns of -6.2%, revealing that their perceived undervaluation was illusory. Regression analysis confirms that overconfidence negatively predicts timing performance after controlling for standard firm characteristics. These findings reconcile the informational and behavioural theories of repurchases by showing that both operate, in different firms. Genuine timing skill exists but is scarce, and behavioural bias materially degrades repurchase outcomes for a substantial fraction of firms. The implications extend to investors, who should not treat all repurchase announcements as equally credible, and to boards, who should subject repurchase decisions to scrutiny for the fingerprints of overconfidence. As repurchases continue to grow in importance in Indian corporate finance, distinguishing skilled timing from overconfident misjudgment will only become more valuable.

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