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HOW DO INSTITUTIONAL OWNERS HANDLE THE MANAGERS' COMPROMISE BETWEEN RESTRUCTURING AND INNOVATION?

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Abstract

Present study intends to detect the explicit association between restructuring charges and R&D expenditures, and the specific influence of institutional ownership on this association. This study examines panel data by two-step system GMM. For the period 2000-2023, the data set includes 13,230 firm-year observations of non-utility and non-financial entities. Results show that the restructuring charges have an impeding influence on R&D expenditures. Moreover, institutional ownership reduces the impeding influence. The acquaintance about the influence of restructuring charges on R&D expenditure will guide investors in the identification and selection of investments with good future prospects. Also, the information about the influence of institutional ownership on the link between restructuring charges and R&D expenditures will help investors in judging the effectiveness of institutional investors. Based on this judgment, investors can consider institutional ownership as a component of their investment screening criteria. The link between restructuring charges and R&D expenditures has not gained attention of researchers in the past, which makes current study a valuable contribution to the literature as it examines this unexplored link along with the influence of institutional ownership on this link.

Keywords: Restructuring Charges, R&D Expenditures, Institutional Ownership.

Introduction

Innovation, being the driver of the economy, is inducing firms to spend gradually more on research and development (R&D) on the long-term basis (Bhana, 2001; Duppati et al., 2023; Fu et al., 2024; Sánchez-Selleroa & Bataineh, 2022). R&D decision is critical as it results in commitment of huge funds for risky pay-offs (Kouaib & Jarboui, 2016)

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and is generally recognized as one of the critical success factors due to its influence on long-term performance and productivity growth of firms (Long & Ravenscraft, 1993). Successful R&D expenditures benefit firms and the economy in various ways. It leads to the improvement of existing processes, services and products as well as the development of new processes, services and products (Fu et al., 2024). These outcomes increase firms' market share, competitiveness and earnings (Srinivasan et al., 2011). Moreover, it leads to persistent innovations that make firms sustainable (Banerjee, 2025). It also results in productivity enhancement and new jobs creation, which accelerates economic growth (Hasan & Tucci, 2010; Mohnen & Hall, 2013). Lastly, it makes firms' future prospects better, which attracts investors and makes firms' capital acquisition facile (Dhaoui, 2008).

Corporate restructuring is pivotal as it significantly alters the entity's way of doing business and/or the range of its business activities (IAS-37). Firms carry out restructuring activities on various grounds. The motives include: performance enhancement, productivity improvement, cost reduction, human capital improvement, relief from the financial distress, conformance with the new laws, modification of strategic focus, adoption of technological improvements, amendments against market changes, divestment of business units, acquisitions and mergers (Atiase et al., 2004; Jiang et al., 2019; Kam et al., 2008; Sallehu, 2017; Xiao et al., 2024). Firms can restructure their assets, capital, operations and organizational structure. In asset-restructuring, firms' sell their excess and loss creating assets to meet their liquidity requirements and/or reallocate released funds to value generating activities (Kang et al., 2010; Ushijima & Iriyama, 2015). In capital-restructuring, firms alter debt/equity proportion and resettle with creditors regarding financing rate and repayment date (Frantz & Instefjord, 2019; Kim et al., 2019). In operational-restructuring, firms re-organize their processes for business optimization (Mavlutova et al., 2021). In organizational-restructuring, firms alter their internal structure for human capital improvement, efficiency enhancement, and performance augmentation (Hirsch & Soucey, 2006; McKinley & Scherer, 2000).

Corporate managers are responsible for R&D and restructuring decisions. So, we are curious to know how managers simultaneously decide the levels of restructuring and R&D expenditures as both decisions have somewhat different benefits but similar income effects. For instance, appropriate restructuring actions by firms improve productivity, human capital, strategic focus and capital structure. High and effective R&D spending enables firms to innovate (Fu et al., 2024). However, higher levels of both restructuring and R&D spending result in recognition of high costs, which reduce current period income. The reason for recognition of high costs is that IAS-37 instructs firms to record restructuring costs when incurred and IAS-38 instructs to record all research expenditures as an expense and capitalize development expenditures if they meet the specified criteria or otherwise. Moreover, reduction in current period income has various repercussions. It may obliterate or reduce the performance linked incentives of managers. It may impede managers from meeting forecasters' income prediction. It may result in negative income surprises for owners. It may induce owners to question the decision making abilities of managers. All such negative repercussions may push

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managers to compromise on the levels of restructuring and R&D spending. Precisely, restructuring charges may force managers to reduce R&D expenditures as implementation of financial accounting standard number 146 (FAS-146) and IAS-37 have significantly reduced their freedom of managing restructuring charges (Bhojraj et al., 2016). This approach may save managers from the unfavorable repercussions but by relinquishing the future value enhancing outcomes of R&D. In this context, Roychowdhury (2006) states that cutting discretionary expenses enables managers to meet earnings targets for fulfillment of their personal goals but hinders enhancement of long-term firm value. Hence, the first query of present study is specified below:

RQ1: Do restructuring charges impede R&D expenditures?

In corporations, the dissociation of ownership and management provides agents the chance to make decisions that satisfy their personal desires rather than the desires of their principals (Jensen & Meckling, 1976). Instead of taking decisions that can enhance long-term firm value for owners, managers' aspiration for high performance linked incentives, recognition of supercilious managerial ability, and appreciation by others for meeting short-term income expectations of forecasters and owners can drive them to suboptimal levels of restructuring and R&D expenditures. Literature recognizes this particular situation as an agency problem and suggests efficacious corporate governance (CG) as its cure (Jensen & Meckling, 1976; Wang et al., 2021). Institutional ownership is the salient integrant of this governance system (Kapoor & Goel, 2025). Ideally, through active and efficacious surveillance, institutional investors impel managers to make decisions that fulfill the desire of owners (Liu & Suzuki, 2024; Striewe et al., 2013). However, the passivism of institutional investors propels managers towards the self-satisfying decisions, which penalize owners in the shape of substandard firm performance (Satt et al., 2025). The second query of present study is mentioned below:

RQ2: Do institutional ownership attenuate the impeding effect of restructuring charges on R&D expenditures?

Literature Review

R&D

The essence of R&D expenditures led many researchers to study it from different perspectives. Bhana (2001) studied the market reactions to the R&D budget increase announcements of the firms. According to the author, the market considers this information as an indication that announcing firms will get a first mover advantage and will lead the R&D race. This perception results in a positive market reaction. Dhaoui (2008) probed the impact of corporate's R&D decentralization on the wealth of its owners. Author states that geographic diversification of R&D has detrimental effects on the owners' wealth. To manage earnings, managers escalate information asymmetry by decentralizing R&D. Decentralizing raises firms' size and enables managers to maximize their own utilities. Riding et al. (2012) examined the financing preferences of firms that invest in R&D. Authors noted a high inclination in firms towards equity issues. Duqi et al. (2015) probed the valuation of R&D concentrated firms by the financial markets. Authors observed stock mispricing for most of the firms. Precisely,

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stocks of most of the firms were recognized as undervalued, giving investors a chance to earn abnormal returns. Altomonte et al. (2016) examined the influence of R&D investment on the corporate's inclination to export. This study reports that R&D investment enhances the firms' chances of exporting their market offerings.
Oswald et al. (2022) examined the effect of accounting methods on the level of R&D expenditures. Authors observed a subsequent increase in firms' R&D spending when they started following IFRS requirement of capitalizing development expenditures. Sánchez-Selleroa and Bataineh (2022) examined the impact of R&D practices on green innovation. Authors noted a positive connection of external and internal R&D spending with green innovation, which indicates that R&D spending at both levels fosters green innovation. Ma et al. (2022) investigated the influence of R&D investment on wealth of bondholders. Authors observed a non-linear association between R&D investment and wealth of creditors. Precisely, creditors' wealth initially increases with increase in R&D investment. However, after a certain increase in R&D investment, creditors' wealth starts decreasing. Additionally, this nonlinear link diminishes when the firm holds sufficient financial resources. Chu and Oldford (2023) examined the impact of board gender diversity on R&D activities and investment efficiency. This study indicates a negative effect of diversity on R&D inputs and outputs, and a positive effect of diversity on investment efficiency. Authors argue that more representation of females on the board results in less but high quality R&D activities, which in turn enhances the investment efficiency and consequently yields better firm performance. Fu et al. (2024) examined the impact of foreign returned top-level executives on firm level innovation. Authors observed that foreign returned executives stimulate innovation via higher R&D investment. Additionally, executives play a relatively high fostering role in firms that are state owned, high-tech and large.

Restructuring

Literature shows that researchers investigated different aspects of restructuring previously. For the influence of restructuring on firm value, Choi and Han (2013) state that firms create value for their owners through spin-in strategy. Moreover, Elsiefy and AbdElaal (2019) state that the use of a sale-lease-back strategy for assets diminishes firms' value. Concerning the influence of restructuring on financial performance, Bhana (2004) states that implementation of spin-off strategy improves performance of parent and divested operating units. Additionally, Atiase et al. (2004) reports that higher restructuring charges results in better future performance. However, Ghosh and Dutta (2014) state that mergers do not improve financial performance. Regarding the effect of restructuring on stock returns, Khurana and Lippincott (2000) report positive impact for loss reporting entities and no impact in case of profitable entities. Moreover, Kam et al. (2008) report positive impact for restructuring strategies including purposeful asset sales, paid acquisitions and mergers, leverage enhancing oriented debt restructuring, and asset swaps. However, authors report negative impact for managerial restructuring. Additionally, Jaggi et al. (2009) report positive impact for restructuring activities when investors perceive it as performance enhancing and negative impact

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when investors perceive it as futile. Also, Ren and Xiao (2024) report negative impact for firms having high restructuring costs.

Numerous researchers focused on debt restructuring in their studies. Kim et al. (2019) probed the association of follow-on equity issuance with debt restructuring. This study states that financial difficulties force firms to restructure their debt by using the proceeds of follow-on equity issuance. Authors further state that firms sometimes issue new shares directly to creditors for restructuring. However, it often ends in shifting of corporate control. Additionally, Frantza and Instefjord (2019) examined the debt restructuring approach of firms under debt overhang situations. This study reports that firms continuously manage their debt by swapping debt with equity or vice versa. This practice lasts until firms reach the investment trigger point where they finally issue new debt, redeem whole old debt and use the remaining proceeds to partially back the new investments. Halford and Li (2020) questioned the role of political linkages in the debt restructuring of firms facing financial difficulties. Authors state that firms receive restructuring linked favors due to political linkages, which protects them from bankruptcy petitions and enables them to survive financial crises. In addition, Tan and Luo (2021) probed the influence of debt restructuring on conflict of interest between creditors and owners, financing and investment decisions. Authors state that high growth opportunities and lower renegotiation cost leads firms to restructure their debt. Also, high uncertainty regarding cash flows and lesser restructuring costs induces firms to use private debt instead of public debt. Moreover, debt restructuring reduces underinvestment, discourages owners from risk shifting via asset substitution and hence lessens the agency cost between owners and creditors. Moreover, Wan et al. (2023) investigated the debt restructuring tactics of directors. This study states that directors defer debt restructuring to the late stage of the financial crisis, which decreases the chances of firms' rescue from the crisis. However, by incentivizing directors, they can be propelled to restructure debt at the early stage of crisis.

Restructuring and R&D expenditures

The behavioral theory of firms indicates that entities explore ways for performance enhancement when they ascertain that their performance level is less than the desirable level (Cyert & March, 1963). To ameliorate performance, firms endure restructuring (Atiase, 2004) and incur R&D expenditures to introduce new products through innovation (Fu et al., 2024). However, higher levels of restructuring and R&D spending results in incurrence and recognition of higher costs, which reduce income of the reporting period. The anticipated negative repercussions of lower income may drive managers to decrease restructuring and/or R&D expenditures. Before IAS-37 and FAS-146, managers had more freedom in estimation and reporting of restructuring charges along with their employability for managing income (Bhojraj et al., 2016). However, the implementation of these standards significantly reduced the managers' freedom of using restructuring charges for earnings manipulation. On the other hand, managers cozily use discretionary R&D expenditures for managing income (Kouaib & Jarboui, 2016; Roychowdhury, 2006). So, we expect that higher restructuring charges compel

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managers to reduce R&D expenditures. The first hypothesis of present study is as follows:
H1: Restructuring charges impedes R&D expenditures.

Institutional Ownership and Restructuring charges-R&D expenditures link

Numerous studies in the past ascertained the influence of IO on various firm-level factors. Satt et al. (2025) examined the influence of IO on financial performance. Authors observed a negative influence of IO on performance for both privately-owned and government-owned institutions. This study endorses the exploitation view, which indicates that institutional investors strive for reaping benefits on their investment portfolios rather than performing the monitoring role. Additionally, Glambosky et al. (2025) scrutinized the influence of IO on operating performance across stages of life cycle. Authors state that the presence of IO results in better operating performance in the introduction and the decline stages. However, their presence has an insignificant effect on performance in the growth and the maturity stages. Wang et al. (2023) scrutinized the influence of IO on environmental, social and governance (ESG) performance. Authors state that ESG performance improves with increase in IO. Moreover, the pressure-resilient nature of long term investors causes this improvement. Likewise, Giordino et al. (2025) examined the influence of various kinds of IO on ESG performance. Authors state that ESG performance improves with increase in foreign IO, financial IO, and pension fund IO. However, performance worsens with increase in cross-holding IO.

Potharla et al. (2021) probed the association of earnings management (EM) with IO and found a negative association. This finding indicates that EM decreases with increase in IO. Authors state that institutional investors restrict managers from EM by playing an active monitoring role. Moreover, Ali et al. (2024) scrutinized the influence of IO on income quality by using two indicators of earnings management (EM) including real EM and discretionary accruals (DA). Authors observed less real EM and low DA in firms having high IO, which implies that income quality improves with increase in IO. Kapoor and Goel (2025) investigated the influence of IO on the links of gender diversity and board independence with earnings quality. This study reports that IO positively influences both links, which indicate that institutional investors effectively monitor their investments.

Sakawa et al. (2021) analyzed the influence of IO on the risk-taking level of managers. Authors state that in case of foreign IO, investors push managers to abandon their silent life and take more risk. However, in case of domestic IO, investors permit managers to continue their silent life by not compelling them to take high risk. Duppati et al. (2023) studied the influence of IO and innovation on idiosyncratic risk. Authors report that risk decreases with increase in IO and innovations. Vo and Mazur (2023) probed the influence of IO on volatility of stock returns during crisis and non-crisis spans. Authors state that IO increases volatility during crisis span but reduces it during non-crisis span. Zhou et al. (2024) tested the link of corporate social responsibility (CSR) with IO and found a positive association. Moreover, authors report that CSR improves due to the equity ownership of pressure-resilient institutions. Fan et al. (2024) analyzed the

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influence of domestic and foreign IO on CO_2 ejection. This study states that foreign IO causes reduction in CO_2 ejection. However, authors found no proof for reduction in CO_2 ejection due to domestic IO.

Mishra (2022) investigated the impact of institutional ownership on R&D spending. This study states that R&D spending increases with an increase in institutional ownership up to a certain point, after which it decreases with further increase in institutional ownership. Author further states that at a higher level of institutional ownership, pressure from investors drives managers to reduce R&D spending. Miller et al. (2022) scrutinized the influence of IO on innovation for investors having monitoring motivation. Authors state that IO fosters innovation when investors are interested in making monitoring efforts. Deng et al. (2025) studied the influence of IO steadiness on exploratory innovation. Authors state that IO steadiness nurtures exploratory innovation by incapacitating learning traps and stimulating an environment that inspires exploratory initiatives.

Efficacious CG forces managers to make decisions that conform to the owners' interest (Jensen & Meckling, 1976; Kapoor & Goel, 2025; Wang et al., 2021). Institutional ownership, being the salient integrant of the governance system is contemplated to restrain managers from deliberate reduction in R&D expenditures due to the incurrence of restructuring charges. Based on the monitoring assumption of CG, we assume that effective monitoring by institutional investors can restrain managers from reducing the R&D expenditures. Thus, the second hypothesis of present study is as follows:

H2: Institutional ownership curtails the impeding influence of restructuring charges on R&D expenditures.

Methodology

Data and Sample Selection

The intention behind this study is to reveal the nature of the association between restructuring charges and R&D expenditures, and to determine the influence of IO on this relationship. For data analysis, this study employs a panel data approach. Moreover, firm-level data for entities is obtained from S&P Capital IQ Pro for the period 2000-2023. Non-utility and non-financial entities were excluded as their presence leads to sector-related biases, which distort the results. The sample comprises 11,453 firm-year observations from 2,598 firms across 57 countries. A list of sample countries, along with their average R&D, is reported in Table A of the Appendix.

Research Model

The econometric model of present study is built on panel data regression because it aids in estimation of time-varying and firm-specific effects. The models used for testing RC-R&DE link and the influence of IO on this link are as follows:

$$R\&DE_{it} = \beta_0 + \beta_1 RC_{it} + \beta_2 DER_{it} + \beta_3 LFCF_{it} + \sum \eta_j IND_j + \sum \delta_j YEAR + \varepsilon_{it} \quad (1)$$

$$R\&DE_{it} = \beta_0 + \beta_1 RC_{it} + \beta_2 IO_{it} + \beta_3 DER_{it} + \beta_4 LFCF_{it} + \sum \eta_j IND_j + \sum \delta_j YEAR + \varepsilon_{it} \quad (2)$$

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$$R\&DE_{it} = \beta_0 + \beta_1 RC_{it} + \beta_2 IO_{it} + \beta_3 RC_{it} * IO_{it} + \beta_4 DER_{it} + \beta_5 LFCF_{it} + \sum \eta_j IND_j + \sum \delta_j YEAR + \varepsilon_{it} \quad (3)$$

In equation 1, 2 and 3, *R&DE* is the dependent variable and symbolizes research and development expenditures. Moreover, R&DE is scaled by total assets. *RC* is the independent variable and symbolizes restructuring charges. It is also scaled by total assets. *IO* is the moderator and symbolizes institutional ownership. *IO* is measured as the percentage of an entity's shares owned by the institutions. *DER* and *LFCF* are the control variables and symbolize debt/equity ratio and leverage free cash flow respectively. All models contains Industry fixed effects ($\sum \eta_j IND_j$) for controlling the industry-specific elements that may influence *R&DE*. Models also include year fixed effects ($\sum \delta_j YEAR$) to account for time-specific macroeconomic elements. Lastly, ε_{it} symbolizes error term that captures all other unobserved factors that may influence R&DE.

Data Analysis Techniques

Two-step system GMM is used for ascertaining the nature of RC-R&DE links and the influence of IO on this link. Moreover, the robustness of the results is tested by splitting the full sample into two samples i.e. firms having high IO and low IO and then applying the two-step system GMM.

Results and Discussion

Descriptive Statistics

The descriptive statistics are shown in Table 1, mean value of R&DE is 0.044, which indicates that on average, sample firms spent 4.4% of the amount of total assets on R&D. Moreover, the mean value of RC is 0.739, which shows that on average, sample firms recognized 73.9% of the amount of total assets as restructuring charges. Both these numbers indicate that firms R&D spending is considerably lower than its restructuring charges. Also, the mean value of IO is 18.814, which indicates that on average, institutional investors own 18.814% shares of firms. Figure 1 and 2 shows R&DE and RC for the period 2000-2023.

Table 1: Descriptive Statistics

Variable	Mean	SD	25th Percentile	50th Percentile	75th Percentile
R&DE	0.044	0.080	0.020	0.000	2.264
RC	0.739	2.345	0.101	0.000	66.180
IO	18.814	14.787	16.258	0.002	64.958
DER	–0.002	0.002	–0.003	–0.003	0.117
LFCF	–0.001	0.002	–0.001	–0.018	0.057

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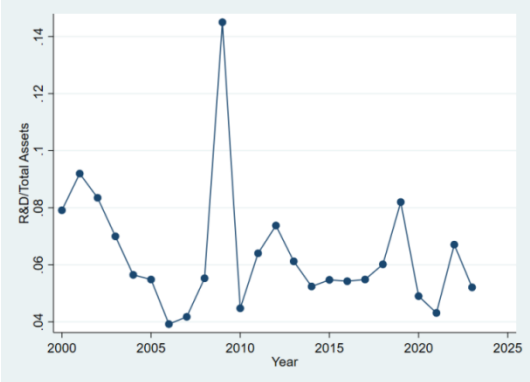

Figure 1: R&D expenditures over time

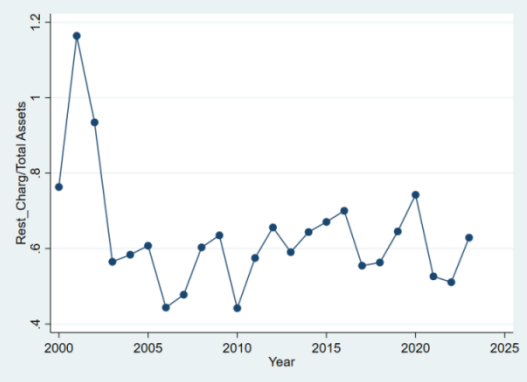

Figure 2: RC over time

Pairwise Correlations

Table 2 reports the Pearson correlations among the study variables. All coefficients are close to zero, the largest being a modest positive association between institutional ownership (IO) and research-and-development intensity (R&DE, r = 0.040). The restructuring-charges variable (RC) is essentially uncorrelated with R & D expenditure (-0.008) and with leverage-free cash flow (LFCF, 0.001). Debt-to-equity (DER) shows no meaningful linear link with any other variable ($|r| \leq 0.007$). Because no correlation approaches conventional multicollinearity thresholds ($|r| < 0.80$), the variables can enter the multivariate regressions without risking unstable coefficient estimates.

Table 2: Pairwise Correlations

Variable	R&DE	RC	IO	DER	LFCF
R&DE	1				
RC	–0.008	1			
IO	0.040	0.023	1		
DER	0.001	0.007	–0.001	1	
LFCF	–0.001	0.001	0.030	0.000	1

Regression Results

The results of the two-step system GMM are reported in Table 3. The results of model 1 show a negative association between RC and R&DE. This indicates that the RC impedes R&DE. Therefore, we accept H1. The occurrence of RC prompts managers to reduce R&DE. The results of Model 3 show a significant interaction term between RC and IO, confirming the influence of IO on the RC-R&DE link. The negative coefficient of RC (-0.0025) and the positive coefficient of interaction term (0.0001) results in a

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negative marginal coefficient ((-0.0025) + 0.0001 = −0.0024), which indicates that IO lessens the impeding effect of RC on R&DE. Thus, we accept H2, IO curtails the impeding influence of RC on R&DE. Precisely, when restructuring charges are incurred, the presence of institutional owners restricts managers from larger reductions in R&D expenditures.

Table 3: Two-Step System GMM: Effect of Restructuring and Institutional Ownership on R&DE

Variables	Model 1	Model 2	Model 3
Lag R&D	0.6775***	0.6835***	0.4300***
	(0.00411)	(0.0047)	(0.0346)
RC	-0.0001***	-0.0001***	-0.0025***
	(0.0000)	(0.0000)	(0.0009)
IO		-0.0001***	0.0001***
		(0.0000)	(0.0000)
RC × IO			0.0001***
			(0.0000)
DER	1.7116***	1.5784***	0.0000***
	(0.2607)	(0.2411)	(0.0000)
LFCF	-0.0405***	-0.0538***	0.0000***
	(0.0058)	(0.0087)	(0.0000)
Constant	0.0151***	0.0156***	0.0185***
	(0.0008)	(0.0008)	(0.0020)
Observations	11,453	11,453	11,453
Number of Firms	2,598	2,598	2,598
Hansen J-stat	251	271	190
AR(1) p-value	0.1100	0.1650	0.0000
AR(2) p-value	0.2770	0.2800	0.1720
Hansen p-value	0.2160	0.1040	0.3230

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Robustness Tests

The results of the robustness test are presented in Table 4 after dividing the sample into high vs low institutional ownership groups. These results show significant interaction terms between RC and IO for both samples, i.e., firms with high and low IO, which

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proves the influence of IO on the RC-R&DE link. For the high-IO subsample, the combined impact remains negative (-0.0059 + 0.0002 =−0.0057), confirming that even well-monitored firms reduce R&D when restructuring charges arise. For the low-IO subsample, the combined effect is likewise negative (-0.0001 + (−0.0005) =- 0.0006), indicating that limited institutional oversight does not counteract the R&D-suppressing influence of restructuring.

Table 4: Robustness: Effect of RC and High vs Low IO on R&DE

Variables	**Model 1** **(**High Institutional Ownership**)**	**Model 2** **(**Low Institutional Ownership**)**
Lag R&DE	0.5092***	0.8079***
	(0.0361)	(0.0001)
RC	-0.0059***	-0.0001***
	(0.0012)	(0.0000)
IO	0.0002***	0.0002***
	(0.0000)	(0.0000)
RC × IO	0.0002***	-0.0005***
	(0.0000)	(0.0000)
DER	-0.0000	0.0001***
	(0.0000)	(0.0000)
LFCF	-0.0000	0.0001***
	(0.0000)	(0.0000)
Constant	0.0121***	0.0004***
	(0.0023)	(0.0000)
Observations	8,542	2,911
Number of Firms	1,949	1,181
Hansen J-stat	185	279
AR(1) p-value	0.1970	0.0080
AR(2) p-value	0.2840	0.4920
Hansen p-value	0.4250	0.2120

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Discussion of Findings

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The present study highlights the explicit association between restructuring charges and R&D expenditures, as well as the specific influence of institutional ownership on this relationship. Results indicate that restructuring charges impede R&D expenditures. Specifically, an increase in restructuring charges compels managers to reduce voluntary R&D expenditures. Results further suggest that institutional ownership mitigates the impending effect of restructuring charges on R&D expenditures. Precisely, with the incidence of restructuring charges, the presence of institutional owners restricts managers from larger reductions in R&D expenditures.

In corporations, the dissociation of ownership and management provides agents the opportunity to make decisions that satisfy their personal interests rather than those of their principal (Jensen & Meckling, 1976). Instead of opting for choices that can enhance long-term firm value for the owners, managers' aspiration for high performance linked incentives, recognition of supercilious managerial ability, and appreciation for meeting short-term income expectations of forecasters and owners, may force them to report good current period income through deliberate reduction in the expenses of the same period. Thereby, managers can fulfill their personal desires by foregoing the long-term value-enhancing outcomes of the relevant expenditure. This problem can be remedied through efficacious CG (Jensen & Meckling, 1976; Wang et al., 2021) and its salient integrants, such as institutional ownership (Kapoor & Goel, 2025).

The strict guidelines of accounting standards (IAS 37 and FAS No. 146) limit managers' discretion in managing restructuring charges. Conversely, the voluntary nature of R&D spending affords managers full autonomy in managing R&D expenditures. Thus, when restructuring charges are incurred, managers' desire to report good current-period income, the austere directions of accounting standards (IAS 37 and FAS No. 146), and the voluntary nature of R&D expenditures induce managers to reduce R&D expenditures. In the absence of institutional ownership, the incurrence of restructuring charges forces managers to make large reductions in R&D expenditures. However, the presence of institutional ownership prohibits managers from making large reductions in R&D expenditures.

Conclusion

The importance of restructuring and R&D, along with the managerial flexibility regarding these aspects, motivated us to investigate the impact of restructuring charges on R&D expenditures. Moreover, the monitoring assumption of CG led us to assess the effectiveness of monitoring by examining the influence of institutional ownership on the relationship between restructuring charges and R&D expenditures. Results indicate that restructuring charges have an impeding effect on R&D expenditures. The incurrence of restructuring charges compels managers to reduce voluntary R&D expenditures. Results also suggest that institutional ownership mitigates the impending influence of restructuring charges on R&D expenditures. Precisely, with the incidence of restructuring charges, the presence of institutional owners restricts managers from larger reductions in R&D expenditures. Thus, to some extent, institutional owner monitoring appears effective.

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The results of the current study are useful for investors. Acquaintance with the specific influence of restructuring charges on R&D expenditure will guide investors in identifying and selecting investments with good future prospects. Additionally, the information about the impact of institutional ownership on the relationship between restructuring charges and R&D expenditures will help investors assess the effectiveness of institutional investors. Moreover, investors can include institutional ownership as a screening criterion for their investments based on this judgment.

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Appendix

Table A: Average R & D expenditure by country (in $)

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Country	Mean R & D	Country	Mean R & D
Argentina	70 893 000	Norway	33 256 000
Australia	14 279 000	Pakistan	2 210 000
Austria	44 976 000	Philippines	4 211 000
BVI	5 045 000	Poland	6 558 000
Bangladesh	2 000	Portugal	4 459 000
Belgium	104 041 000	Qatar	147 000
Bermuda	28 953 000	Romania	1 217 000
Brazil	130 516 000	Russia	6 377 000
Canada	88 029 000	Saudi Arabia	157 882 000
Cayman Islands	3 469 000	Serbia	5 540 000
Chile	10 961 000	Singapore	35 109 000
China	78 423 000	South Africa	14 519 000
Colombia	7 142 000	South Korea	105 705 000
Czechia	295 000	Spain	63 368 000
Denmark	60 618 000	Sweden	262 926 000
Finland	568 653 000	Switzerland	942 707 000
France	474 711 000	Taiwan	36 714 000
Germany	694 940 000	Thailand	137 000
Gibraltar	33 600 000	Türkiye	9 819 000
Greece	3 424 000	USA	503 191 000
Hong Kong	136 686 000	United Kingdom	263 351 000
Iceland	49 316 000		
India	7 665 000		
Indonesia	610 000		
Ireland	449 789 000		
Israel	32 108 000		
Italy	254 129 000		
Jamaica	40 000		
Japan	412 150 000		
Luxembourg	94 642 000		
Malaysia	6 922 000		
Malta	32 705 000		
Mauritius	25 000		

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Mexico	37 000 000		
Netherlands	514 884 000		
New Zealand	9 386 000		

Average R&D by country for the period 2000 to 2023.