



THE EFFECTS OF CORPORATE RESTRUCTURING STRATEGIES AND INDUSTRY UNCERTAINTY ON FIRM PERFORMANCE: EVIDENCE FROM LISTED NON-FINANCIAL FIRMS IN VIETNAM

Phan Thi Huong^{1*}

¹University of Finance - Marketing, Vietnam

*Corresponding author: Email: huongphan@ufm.edu.vn

ARTICLE INFO	ABSTRACT
DOI: 10.52932/jfmr.v4i4ene.1487 <i>Received:</i> May 29, 2026 <i>Accepted:</i> July 18, 2026 <i>Published:</i> July 25, 2026 Keywords: Corporate Restructuring Strategies, Firm performance, Industry uncertainty, SGMM Article classification: Research paper JEL codes: G34, D81, L25	Purpose – This study examines how three defensive restructuring strategies (asset retrenchment, debt reduction, and cost retrenchment) affect the performance of listed non-financial firms in Vietnam under industry uncertainty. The study is motivated by the increasing prevalence of corporate restructuring in Vietnam and the need to clarify which restructuring strategy is more effective under different industry uncertainty conditions. Design/ methodology/ approach – The study uses an unbalanced panel of 484 listed non-financial firms with 6,862 firm-year observations on HOSE and HNX during 2010-2024. The system GMM estimator is employed to address dynamic performance persistence and potential endogeneity. Industry uncertainty is measured by a composite index constructed through principal component analysis from the cross-sectional dispersion of firm-level shocks in sales, profits, and operating cash flows within each industry-year. Findings – The results show that debt reduction improves ROA, whereas asset retrenchment reduces firm performance. Cost retrenchment has mixed effects, indicating that cost cutting does not always translate into better operating outcomes. The benefits of restructuring are clearer under low industry uncertainty, where debt reduction performs best. Economically, a one-percentage-point increase in debt reduction is associated with an approximately 0.739 percentage-point increase in ROA under low industry uncertainty. Originality/ value – This study contributes to the restructuring and uncertainty literature by distinguishing three defensive restructuring channels and examining their performance effects under different

industry uncertainty states. It proposes a composite uncertainty measure tailored to Vietnamese listed firms.

Practical implications – Managers should not treat restructuring as a uniform solution. Asset retrenchment should be used cautiously to avoid weakening revenue-generating resources, debt reduction should be prioritized when firms face financial pressure, and cost retrenchment should be implemented selectively to preserve human resources.

Social implications – A better understanding of industry uncertainty can help firms, investors, and regulators assess the timing and intensity of restructuring decisions, thereby supporting more stable corporate adjustment and resource allocation in emerging markets.

1. Introduction

Recently, many Vietnamese firms have had to adjust their operations in a more volatile environment, as evidenced by pressure on cash flow, capital costs, the need for asset reallocation, and changes in industry prospects. In 2023, approximately 172,600 firms nationwide withdrew from the market, a 20.5% increase compared to 2022 (VCCI, 2025). The author's statistics from FiinPro for 2010-2024 show that 64.86% of listed non-financial firms recorded at least one restructuring activity during the sample period. For listed companies, this pressure not only reflects short-term difficulties in liquidity or working capital, but also raises a broader question: which channels should companies use to adjust resources to maintain or improve operational efficiency under uncertain conditions? Currently, uncertainty has become an increasingly important characteristic, especially when firms face uncertainty in economic policy (Baker et al., 2016), and short-term financial management pressures related to working capital requirements (Chang et al., 2024). According to Bloom (2009) and real options theory (ROT), as uncertainty increases, so does the value of delaying investment decisions, leading firms to tend to suspend or scale back investment and hiring until market

prospects become clearer. From a policy perspective, Baker et al. (2016) pointed out that policy uncertainty undermines confidence and reduces investment and employment, especially in policy-sensitive sectors. This waiting mechanism can slow down resource reallocation and reduce productivity. Campello et al. (2024) showed that uncertainty can also delay the adjustment of company assets and reduce asset productivity. Recent research reflects that uncertainty exists not only at the macro level but also at the industry level. Industry uncertainty can capture the volatility and unpredictability of specific sectors within a business's operating environment, while industry uncertainty networks provide forward-looking information that can help predict the contraction of business cycles (Baruník et al., 2024). Therefore, studying industry uncertainty levels allows businesses to more specifically assess the risks and adjustment pressures that each business faces. Corporate restructuring (CR) has long been considered a crucial strategic tool for addressing firm performance decline and creating value for stakeholders (Bowman & Singh, 1993; Sudarsanam & Lai, 2001). However, restructuring is a double-edged sword. Engaging in restructuring can drive attractive returns on company performance (McGrath, 2025),

but not all types of restructuring are effective. For example, Debt-based restructuring may increase leverage or tighten financing conditions, while equity-based restructuring may dilute existing shareholders (Koh et al., 2015). These issues don't lie in whether the restructuring is effective, but rather in the type of strategy, under what uncertainty, and with what intensity of adjustment.

During the period 2010-2024, listed non-financial enterprises in Vietnam operated in a highly volatile environment. Shocks such as the post-bad debt crisis, banking system restructuring, stock market volatility, the COVID-19 pandemic, supply chain disruptions, interest rate fluctuations, and sharp adjustments in the real estate market increased the level of uncertainty in the business environment (Dan & Chung, 2022). Given this context, the author poses the central question: how do defensive restructuring strategies impact business performance, and does this impact vary under different levels of industry uncertainty? The author approaches CR through three defensive restructuring strategies: asset retrenchment, debt restructuring/debt reduction, and cost retrenchment. According to Lim et al. (2013), asset retrenchment can help eliminate inefficient assets but also risks undermining long-term competitiveness. Furthermore, debt restructuring can contribute to reducing financial pressure and insolvency risk but may be limited by adjustment costs and access to capital (Faulkender et al., 2012; Flannery & Rangan, 2006). Cost retrenchment can improve short-term liquidity, but this adjustment is not always proportional to revenue due to sticky costs and management expectations (Anderson et al., 2003; Banker & Byzalov, 2014; Weiss, 2010). Accordingly, Part 2 of the study will present a theoretical overview and develop research hypotheses, Part 3 will cover the methods and model, and finally, the results, discussion, and management implications.

2. Theoretical background and hypothesis development

2.1. Asset retrenchment and firm performance

According to Morrow et al. (2004) and Lim et al. (2013), asset retrenchment (CRA) is a form of defensive adjustment in which a company reduces its asset size when operating efficiency declines or when under pressure to reallocate resources. According to business recovery theory, these reduction measures can help companies stabilize cash flow, control costs, and maintain survival before implementing long-term recovery strategies (Robbins & Pearce, 1992; Sudarsanam & Lai, 2001). CRA can enable companies to eliminate redundant assets and improve resource efficiency (Morrow et al., 2004). Similarly, Cascio et al. (2021) also showed evidence that downsizing and asset retrenchment depend more on prior performance and contextual conditions than on consistently positive outcomes. Lim et al. (2013) also argued that asset retrenchment can have an adverse impact on long-term performance when asset retrenchment is linked to the company's value creation mechanism. Thus, it can be seen that the impact of CRA on business performance remains a subject of much debate and inconsistency.

Given that listed companies in Vietnam often face liquidity pressure and resource reallocation challenges in a limited capital market, CRAs are more likely to be defensive than proactive strategic restructuring. From a resource-based view (RBV) perspective, if asset retrenchment weakens resources tied to core competencies and revenue-generating capabilities, the company's performance will be negatively impacted (Barney, 1991).

Therefore, although CRA may offer short-term benefits by eliminating excess assets, Vietnamese firms are constrained by capital, liquidity, and market demand. Thus, the impact on long-term efficiency is expected to prevail.

Based on this, the author proposes the following hypothesis:

Hypothesis H₁: Asset retrenchment (CRA) has a negative (-) impact on firm performance.

2.2. Financial restructuring and firm performance

A review of research literature on business recovery shows that financial restructuring is often considered part of a recovery strategy. Financial restructuring through debt reduction (CRD) helps businesses lessen their payment burden, improve cash flow, and create room for further operational adjustments (Koh et al., 2015; Sudarsanam & Lai, 2001). Authors Denis and Kruse (2000) showed that poorly performing firms often simultaneously implement multiple restructuring actions, with debt adjustment playing a key role in restoring financial capacity. According to the dynamic capital structure literature, due to adjustment costs and transaction costs, firms often do not immediately adjust to their target leverage level (Leary & Roberts, 2005). The debt restructuring process is gradual and depends on the company's internal financial capacity. When internal cash flow is relatively stable, debt reduction can be achieved at a lower marginal cost (Faulkender et al., 2012).

Non-financial listed companies in Vietnam remain significantly dependent on bank credit, while the cost of capital is not yet truly low. This point is particularly relevant because non-financial listed firms in Vietnam remain significantly dependent on bank credit, while capital costs are still important. Although debt may provide tax shield benefits and financial discipline under trade-off theory (Modigliani & Miller, 1963), excessive leverage can increase financial risk. Therefore, the benefits of reducing financial risk are expected to outweigh the lost leverage benefits, leading to the expectation that CRD improves firm performance.

Hypothesis H₂: Financial restructuring through debt reduction (CRD) has a positive (+) effect on firm performance.

2.3. Cost retrenchment and firm performance

Cost retrenchment (CRC) is often adopted by firms as a short-term defensive response when operational efficiency declines or financial pressure increases. In these situations, cost reduction isn't necessarily a long-term strategic option but primarily aims to stabilize operations in the short term. Studies in the turnaround field show that cost control can help firms improve cash flow and liquidity in the early stages of adjustment (Lim et al., 2013; Morrow et al., 2004; Robbins & Pearce, 1992). According to RBV, some costs are directly linked to strategic resources such as brand, human capital, or organizational capacity (Barney, 1991). Furthermore, selling, general and administrative expenses (SG&A) represent a crucial component reflecting the resources allocated to these activities. Excessive cuts to these expenses can weaken the foundation for long-term competitive advantage. Therefore, cost retrenchment is a necessary consideration. Studies on "cost stickiness" show that costs do not adjust proportionally to revenue. Anderson et al. (2003) indicated that SG&A increased by 0.55% when revenue increased by 1% but only decreased by 0.35% when sales decreased by 1%, demonstrating the existence of cost stickiness. This phenomenon is often explained by resource-adjusting costs and managers' tendency to retain committed resources (Banker & Byzalov, 2014). Hence, CRC may fail to generate proportional cost savings while still weakening operating capacity and revenue-generating ability.

Empirical evidence also suggests that the effectiveness of cost retrenchment depends on the context, timing, and intensity of implementation. Lim et al. (2013) emphasize that cost retrenchment can be detrimental

when it erodes activities that support future capability development, while Cascio et al. (2021) show that the consequences of restructuring are heterogeneous and depend on pre-restructuring conditions. Sticky cost theory explains why cost retrenchment does not always generate proportional improvements in ROA. Due to resource adjustment costs, committed resources, and managerial expectations, SG&A costs may not decrease proportionally when sales decline (Anderson et al., 2003; Banker & Byzalov, 2014). Thus, CRC may create short-term savings but simultaneously weaken revenue-supporting resources such as human capital, marketing, and managerial capabilities. In the context of listed non-financial firms in Vietnam, CRC is more likely to be a defensive response to cash-flow pressure rather than a purely proactive strategic reconfiguration. Therefore, this study expects the negative effect of CRC on firm performance to dominate.

Hypothesis H₃: Cost retrenchment (CRC) has a negative effect on firm performance.

2.4. Industry uncertainty and firm performance

Industry uncertainty reflects the volatility and unpredictability of the competitive environment within an industry, including changes in demand, technology, competition, and operating conditions faced by firms (Dess & Beard, 1984). Unlike macro-level uncertainty, Industry uncertainty emphasizes cross-industry differences in risk and predictability, which may directly shape firms' strategic behavior and performance outcomes (Baruník et al., 2024; Hambrick & Mason, 1984). Empirically, Industry uncertainty is often captured through the dispersion of firm-level shocks within the same industry, reflecting the extent to which the industry environment is difficult to forecast (Bloom et al., 2018; Dan & Chung, 2022). The impact of industry uncertainty on business performance is not easily determined in a single direction. According to ROT, when the

industry environment becomes unpredictable, businesses often have reason to wait rather than immediately expanding investment, hiring, or scaling up operations (Bloom, 2009, 2014). This response may be reasonable in the short term, especially when investment decisions are irreversible. However, if this wait-and-see attitude persists, the reallocation of resources among firms and industries may slow down, degrading productivity and performance in subsequent periods. Similarly, threat-rigidity theory (TRT) suggests that high uncertainty may trigger defensive responses, narrow information processing, and more rigid decision-making, thereby reducing adaptability and performance (Staw et al., 1981). Empirical evidence also shows that uncertainty may adversely affect resource allocation and performance in industry-specific contexts (Dan & Chung, 2022). ROT also implies that uncertainty may increase the value of strategic flexibility, especially for firms capable of adapting, reallocating resources, and exploiting emerging opportunities in turbulent environments (Bloom, 2009; Drnevich & West, 2023). Based on these competing theoretical arguments, this study proposes the following alternative hypotheses:

Hypothesis H4a: Industry uncertainty Index (UI) has a negative (-) effect on firm performance.

Hypothesis H4b: Industry uncertainty Index (UI) has a positive effect (+) on firm performance.

2.5. Differences in the effects of restructuring strategies under high and low industry uncertainty conditions

Defensive restructuring strategies (CRA, CRD, CRC) do not necessarily have the same impact on business performance, partly because they operate through different internal channels. Treating CRA, CRD, and CRC as a single restructuring response may obscure important differences. Recovery theory suggests that cost

cutting can help businesses stabilize when performance declines, but this does not mean that all cost-cutting actions operate through the same mechanism (Robbins & Pearce, 1992; Sudarsanam & Lai, 2001). Specifically, downsizing assets typically alters the scale of operations as well as the resource structure. Conversely, debt adjustments primarily affect financial risk and management flexibility. Meanwhile, cost retrenchment are directly linked to day-to-day operations and can impact the efficiency of existing resource utilization. These differences are not merely technical. Morrow et al. (2004) and Lim et al. (2013) shows that restructuring can either improve or degrade efficiency, depending on whether a business eliminates inefficient elements or inadvertently disrupts value-creating activities. Dynamic Capability Theory provides an additional explanation for firms' adaptability under industry uncertainty. Dynamic capabilities refer to a firm's ability to integrate, build, and reconfigure internal and external resources in response to changing environments (Teece et al., 1997). Therefore, it is difficult to expect defensive restructuring strategies to produce identical results. Their impacts are likely to differ in both magnitude and direction, depending on how they alter the resources and operating conditions of the business.

Hypothesis H₅: Defensive restructuring strategies (CRA, CRD, and CRC) have different effects on firm performance.

This difference can become even more pronounced when considering external environmental factors, particularly the degree of industry uncertainty. From a contingency theory perspective, there is no single optimal strategy for every context; strategic effectiveness depends on how well it fits the environmental conditions (Donaldson, 2001). In conditions of high uncertainty, businesses tend to be more cautious. According to TRT, managers often narrow their decision-making scope and

prioritize defensive responses when faced with an unfavorable environment (Staw et al., 1981). This can reduce the effectiveness of restructuring if the business does not adjust its resources sufficiently. ROT, however, argues that uncertainty can also provide value by allowing businesses to delay or adjust decisions in order to maintain flexibility (Bloom, 2009, 2014). Combining these arguments shows that the impact of restructuring is not fixed but depends on the degree of uncertainty the business faces. This is because the level of uncertainty varies across industries and business cycles (Barunik et al., 2024). This implies that the same strategy can produce different outcomes under conditions of high versus low uncertainty. In this study, industry uncertainty is viewed not only as a condition, but also as a state that can alter how each restructuring channel is translated into operational outcomes. Therefore, the author proposes hypothesis H₆ as follows:

Hypothesis H₆: The effects of defensive restructuring strategies on firm performance differ between high and low industry uncertainty states.

3. Research methodology

3.1. Research data

This study collects data from the FiinPro database for listed non-financial firms on HOSE and HNX over 2010-2024. Three sample selection criteria are applied: firms must be officially listed on HOSE or HNX; have at least five consecutive years of financial data; and belong to Level-2 Fiin/ICB industry groups with at least 24 firm-year observations. The Level-2 classification is used because it balances industry detail with sufficient observations to construct a stable dispersion-based industry uncertainty measure (Jenkins & Quintana-Ascencio, 2020). The final sample includes 484 firms and 6,862 firm-year observations in an unbalanced panel, covering eight industry groups. These 484

firms account for 83.16% of the eligible listed non-financial firms, suggesting broad market coverage. The unbalanced structure reflects actual listing, delisting, and data availability in Vietnam; retaining it helps avoid unnecessary sample loss and is consistent with the SGMM estimator used in this study.

3.2. Empirical model and estimation method

This study applies to the SGMM estimator to address dynamic effects and potential endogeneity. The lagged dependent variable captures persistence in firm performance, but may bias conventional estimators such as OLS, REM, and FEM in panel settings (Goddard et al., 2005; Nickell, 1981). SGMM mitigates this problem by using appropriate lagged variables as internal instruments in both differenced and level equations (Arellano & Bover, 1995; Blundell & Bond, 1998). Before estimation, variables are classified according to their potential endogeneity: lagged performance, restructuring variables, and industry uncertainty are treated as potentially endogenous or predetermined because firm performance may influence subsequent restructuring decisions and industry exposure. Other firm-level and macroeconomic controls are included as control instruments depending on the specification. To avoid instrument proliferation, the study restricts lag depth and reduces the instrument matrix following Roodman (2009). Model validity is assessed using AR(1), AR(2), and Hansen tests; AR(2) is expected to be insignificant, while the Hansen test should not reject instrument validity.

This study constructs a composite industry UI using PCA from three uncertainty components measured by the cross-sectional dispersion of firm-level shocks in sales, cash flows, and profits within each industry-year. This approach is consistent with uncertainty measures based on the dispersion of micro-level shocks (Bloom et al., 2018; Dan & Chung, 2022). The dynamic

panel specification allows the estimated effects to capture both short-term impacts and their persistence over time. The long-run effect is computed as $LR = \beta/(1-\alpha)$, where α is the coefficient on lagged performance and β represents the short-run effect, assuming $|\alpha| < 1$. This follows the view that firms adjust gradually rather than instantaneously due to adjustment costs and financing constraints (Faulkender et al., 2012; Flannery & Rangan, 2006).

3.3. Empirical model and research variables

The empirical model is proposed as follows:

$$ROA_{it} = \alpha ROA_{i,t-1} + \beta Restruct_{it} + \gamma UI_{jt} + \delta Controls_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where i , t and j denote firm, year, and industry, respectively; μ_i and λ_t denote firm fixed effects and year fixed effects, respectively. ROA is used as the main performance measure because it captures operating profitability relative to the firm's asset base, which is directly related to asset, debt, and cost restructuring. ROE is used as a robustness check, while Tobin's Q and stock returns are not selected as main measures because they may reflect market expectations, liquidity, and valuation effects rather than short-term operating performance. $Restruct_{it}$ represents CRA, CRD, and CRC, respectively. In addition to the continuous measures of restructuring intensity, this study employs the threshold variables CRA5, CRD5, and CRC5 to identify cases in which asset, debt, and cost retrenchment reach at least 5%, thereby distinguishing restructuring-oriented adjustments from ordinary operational fluctuations. The 5% threshold is used as a robustness check because such a magnitude of change is commonly considered large enough to capture economically meaningful adjustments in studies on retrenchment and CR (Cascio et al., 2021; Morrow et al., 2004). The PCA method is used to aggregate three standardized components of industry uncertainty into a composite UI index, with component weights

determined by the loadings of the first principal component rather than being subjectively assigned (Jolliffe, 2002). Variables with potential endogeneity are treated within the SGMM framework using appropriate lagged values as internal instruments. The control variables are selected to represent firm size, capital structure, leverage, liquidity, growth, and GDP, which are factors that have been shown to affect firm performance in the following model (see *Appendix 1 online*).

4. Research results and discussion

4.1. Descriptive statistics results

Appendix 2 (see *Appendix 2 online*) reports the descriptive statistics, correlation matrix, multicollinearity diagnostics, and stationarity tests. The mean ROA is 0.07, indicating positive profitability during the sample period. Among the restructuring variables, CRD is slightly more prevalent than CRA, while CRC remains relatively small. Although CRA and CRD are highly correlated (0.86), CRC shows low correlations with both variables. The VIF values remain below common warning thresholds, with a mean VIF of 1.73, suggesting that multicollinearity is not a serious concern (Hair et al., 2010). The Fisher–ADF results further indicate that all variables are stationary, supporting the use of a dynamic panel framework (Wooldridge, 2010).

Appendix 3 (see *Appendix 3 online*) shows that restructuring activities of listed non-financial companies in Vietnam tend to be gradual adjustments, rather than large and abrupt changes. Most cost-cutting strategies are focused on low to medium intensity. It can be seen that Vietnamese companies often choose gradual cuts to limit disruption to operations. Considering each strategy individually, CRA and CRD have strong adjustment rates (over 20%) at 10.58% and 10.93% respectively, higher than CRC (6.83%). This partly indicates that companies prioritize adjusting assets and debt structure over large-scale cost retrenchment. For CRC, the observed rate in the 0-5% range is quite high (31.91%), while higher rates account for a small proportion. This may reflect the fact that operating costs, especially SG&A, are not easily adjusted quickly in the short term due to the existence of resource adjustment costs (Anderson et al., 2003; Banker & Byzalov, 2014). Overall, the distribution of restructuring intensity supports the argument that, under uncertainty, Vietnamese firms tend to avoid large and difficult-to-reverse adjustment decisions; instead, they favor partial and incremental adjustments to preserve resources and maintain strategic flexibility (Bloom, 2009; Campello et al., 2024).

4.2. Regression results and discussion

Table 1. SGMM Estimates of Restructuring Strategies, Industry Uncertainty, and Firm Performance

Variable	ROA- Main test				Robustness			
	CRA Only	CRD Only	CRC Only	All three strategies	ROA UI_high	ROA UI_low	ROA threshold 5%	ROE
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
ROE _(t-1)								0.42*** (0.000)
ROA _(t-1)	0.63*** (0.000)	0.82*** (0.000)	0.39** (0.05)	0.60*** (0.000)	0.317** (0.010)	0.291*** (0.000)	0.59*** (0.000)	

Variable	ROA- Main test				Robustness			
	CRA Only	CRD Only	CRC Only	All three strategies	ROA UI_high	ROA UI_low	ROA threshold 5%	ROE
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
CRA	-0.52** (0.04)			-0.51** (0.02)	-0.104 (0.602)	-0.752** (0.012)		-1.94* (0.06)
CRA5							-0.13*** (0.006)	
CRD		0.104** (0.04)		0.32** (0.02)	0.083 (0.283)	0.739*** (0.005)		1.46* (0.05)
CRD5							0.09*** (0.006)	
CRC			-1.18* (0.09)	1.21* (0.08)	0.145 (0.780)	0.746 (0.107)		1.93** (0.03)
CRC5							0.01* (0.09)	
UI	0.014* (0.07)	0.011* (0.07)	-0.01*** (0.02)	0.01** (0.032)			0.016** (0.02)	0.02** (0.05)
SizeTA	-0.011** (0.05)	-0.005** (0.03)	0.01 (0.34)	0.003 (0.504)	-0.003 (0.447)	0.002 (0.834)	-0.005 (0.47)	-0.008 (0.46)
DE	-0.007* (0.09)	-0.003 (0.21)	0.013** (0.03)	0.007* (0.08)	0.003 (0.339)	-0.001 (0.279)	0.01*** (0.008)	-0.002 (0.51)
LevA	0.137** (0.06)	0.066 (0.14)	-0.33*** (0.00)	-0.07* (0.09)	-0.004 (0.912)	-0.023 (0.763)	-0.24*** (0.009)	0.08 (0.34)
Liq	0.001 (0.66)	0.003 (0.10)	-0.008** (0.03)	-0.001 (0.89)	0.004 (0.118)	0.002 (0.518)	-0.008** (0.03)	0.002 (0.66)
GSALE	0.007 (0.49)	-0.013 (0.50)	0.004 (0.76)	-0.01 (0.37)	0.012 (0.102)	0.010 (0.186)	-0.01 (0.19)	0.003 (0.70)
AGE	0.002 (0.36)	-0.00 (0.93)	-0.001* (0.07)	-0.00 (0.43)	-0.000 (0.374)	-0.001 (0.449)	-0.000 (0.79)	0.000 (0.91)
GDP	0.723 (0.40)	1.158 (0.33)	-2.80 (0.49)	-0.05 (0.88)	-0.010** (0.034)	0.009** (0.010)	-0.86 (0.75)	-2.05 (0.48)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6376	5891	5914	6376	2894	3482	6376	6376
Groups	484	484	484	484	484	484	484	484
Instrument	38	37	39	57	40	40	41	39
AR(1)	0.000	0.000	0.004	0.000	0.001	0.003	0.000	0.000
AR(2)	0.407	0.432	0.371	0.764	0.531	0.758	0.621	0.439
Hansen test (P_value)	0.763	0.560	0.739	0.639	0.729	0.145	0.683	0.789
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Symbols *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

As shown in Table 1, the SGMM diagnostics are satisfactory: AR(1) is significant as expected, AR(2) is insignificant in all models, and the Hansen p -values do not reject instrument validity. The regression results indicate persistence in firm performance, as the coefficient of ROA_{t-1} is positive and statistically significant in most models. This is consistent with the dynamic nature of firm performance and supports the use of the SGMM dynamic panel estimator (Goddard et al., 2005; Nickell, 1981). Regarding the individual effects of restructuring strategies, model 1 shows that CRA has a negative effect on ROA, with a short-run coefficient of -0.52 and a long-run effect of approximately -1.41, supporting H_1 . This finding is consistent with the argument that asset retrenchment may weaken the firm's revenue-generating base and strategic resources (Lim et al., 2013). Model 2 shows that CRD has a positive effect on ROA, with a short-run coefficient of 0.104 and a long-run effect of approximately 0.58, supporting H_2 . This implies that debt reduction or debt restructuring may reduce financial pressure and improve financial flexibility, consistent with the partial adjustment view of capital structure (Faulkender et al., 2012; Flannery & Rangan, 2006; Leary & Roberts, 2005). Model 3 indicates that CRC has a negative coefficient of -1.18, with a long-run effect of approximately -1.93, supporting H_3 . This result suggests that operating cost retrenchment, particularly SG&A reductions, do not necessarily improve performance because of cost stickiness and resource adjustment costs (Anderson et al., 2003; Banker & Byzalov, 2014).

For UI, Models 1 and 2 show a positive effect on ROA, supporting H_{4b} and aligning with ROT, which suggests that uncertainty may increase the value of strategic flexibility for firms capable of adjusting resources (Bloom, 2009, 2014). In the CRC specification, however, UI has a negative coefficient, supporting H_{4a} . This suggests that the effect of UI is not uniform,

but depends on the restructuring channel considered, particularly when cost adjustment is constrained by cost stickiness and resource adjustment costs (Anderson et al., 2003; Banker & Byzalov, 2014). Model 4 shows that CRA remains negatively associated with ROA, CRD has a positive effect, while CRC turns positive and weakly significant (10%) when the three restructuring strategies are jointly included. This pattern supports H_5 , indicating that defensive restructuring should not be treated as a single homogeneous response. Rather, asset, debt, and cost adjustments affect different parts of the firm's value-creation process (Lim et al., 2013; Morrow et al., 2004).

Models 5 and 6 further show that restructuring effects differ across UI states. Under high UI, all three restructuring variables are statistically insignificant. Under low UI, CRA reduces ROA, whereas CRD improves ROA. This supports H_6 and suggests that restructuring decisions are more likely to generate measurable performance outcomes when the industry environment is relatively stable. By contrast, high uncertainty may blur these effects through higher adjustment costs and weaker predictability (Baruník et al., 2024; Bloom, 2009; Campello et al., 2024). H_6 is tested through a state-based heterogeneity approach rather than an interaction-term specification, by estimating restructuring effects separately for high-UI and low-UI subsamples. Economically, in Model 6, the CRD coefficient is 0.739, implying that under low industry uncertainty, 1% increase in debt reduction is associated with an approximately 0.739% increase in ROA.

Control variables show limited stability across specifications. In the full model, SizeTA, Liq, GSALE, AGE, and GDP are insignificant, while DE is weakly positive and LevA weakly negative at the 10% level. This suggests that debt-related variables remain more relevant to firm performance during restructuring than other firm characteristics.

4.3. Robustness checks

To examine robustness, this study conducts two additional tests: using restructuring dummy variables based on the 5% threshold and replacing ROA with ROE. Model 7 shows that CRA5 remains negatively associated with ROA and is statistically significant at the 1% level, while CRD5 is positive and significant at the 1% level. CRC5 also has a positive coefficient, although its statistical significance is weaker at the 10% level. Importantly, the signs of the effects remain consistent with the main results, supporting the heterogeneous roles of asset retrenchment, debt reduction, and cost retrenchment. When ROE is used as an alternative performance measure in Model 8, CRA remains negative, while CRD and CRC are positive. These results suggest that the findings are relatively robust across alternative restructuring measures and performance indicators. The AR(2) and Hansen tests do not reject the validity of the SGMM specification (Arellano & Bond, 1991; Roodman, 2009).

5. Conclusion and managerial implications

5.1. Conclusion

This study examines the effects of three defensive restructuring strategies – asset retrenchment, debt reduction/debt restructuring, and cost retrenchment – on the performance of listed non-financial firms in Vietnam under industry uncertainty. The findings show that restructuring in Vietnam mainly follows an incremental adjustment pattern rather than abrupt large-scale cuts. The proportion of strong restructuring above 20% is higher for asset retrenchment and debt restructuring than for cost retrenchment, while cost retrenchment is concentrated mainly in low-intensity adjustments, reflecting managerial caution in cost retrenchment and the presence of resource adjustment costs (Anderson et al., 2003; Banker & Byzalov,

2014; Bloom, 2009). Another important finding is that industry uncertainty does not work uniformly across restructuring channels. The different effects of CRA, CRD, and CRC reflect different mechanisms: asset retrenchment may weaken revenue-generating resources, debt reduction can improve financial flexibility, while cost retrenchment may be constrained by cost stickiness and resource adjustment costs (Banker & Byzalov, 2014; Lim et al., 2013). Under low UI, these restructuring effects are clearer, whereas high UI may blur them through higher adjustment costs, delayed resource reallocation, and weaker predictability (Bloom, 2009; Campello et al., 2024). Compared with evidence from developed markets, the findings are broadly consistent with studies showing that restructuring outcomes depend on the type of resources being reduced (Morrow et al., 2004; Lim et al., 2013), but they also highlight the stronger role of bank-credit dependence and incremental adjustment in Vietnam.

5.2. Managerial implications

The findings suggest that managers should not treat restructuring as a uniform solution. Since asset retrenchment, debt reduction, and cost retrenchment affect performance through different channels, the choice of strategy should depend on both the firm's internal pressure and the level of industry uncertainty. For asset retrenchment, the negative coefficients of CRA indicate that firms should avoid cutting assets that are directly linked to revenue generation or competitive capabilities. Asset retrenchment should be adopted only when redundant or inefficient assets can be clearly identified and removed without weakening the firm's operating base.

For debt reduction, the positive CRD coefficients, especially under low industry uncertainty, suggest that deleveraging can improve performance when firms face cash-flow pressure and need to restore financial

flexibility. This implication is particularly relevant in Vietnam, where listed non-financial firms remain highly dependent on bank credit and capital costs are still important. For cost retrenchment, the mixed results imply that cost cutting should be selective rather than mechanical. Reductions in SG&A-related expenditure may improve short-term liquidity, but excessive cuts in human resources, marketing, technology, and managerial capabilities may weaken the firm's ability to recover after uncertainty.

From a policy perspective, the results highlight the need for closer monitoring of industry uncertainty. A systematically updated UI measure can help firms, investors, and regulators assess the timing and intensity of restructuring decisions more effectively. This is especially important because restructuring effects are clearer under low UI, whereas high UI may blur performance outcomes through higher adjustment costs and weaker predictability.

This study is limited by its sample of listed non-financial firms, the 2010-2024 period,

and eight Level-2 industry groups; future research may extend the analysis to broader samples, longer periods, or alternative industry classifications.

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Data Availability

The data used in this study were obtained from the FiinPro database. Due to provider restrictions, the raw data are not publicly available. Processed data and supporting information may be made available from the author upon reasonable request, subject to data access restrictions.

AI Usage Statement

During manuscript preparation, the author used Google Translate and ChatGPT to support translation and language editing. The author reviewed, edited, and takes full responsibility for the final content.

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