MINISTRY OF FINANCE
UNIVERSITY OF FINANCE - MARKETING

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CORPORATE RESTRUCTURING AND FIRM PERFORMANCE OF LISTED NON-FINANCIAL FIRMS IN VIETNAM UNDER INDUSTRY UNCERTAINTY

Major: Finance - Banking
Code: 9 34 02 01

SUMMARY OF ECONOMICS DOCTORAL THESIS

HO CHI MINH CITY - 2026

The thesis is carried out at: University of Finance - Marketing

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The thesis will be defended before the university-level thesis evaluation council meeting at University of Finance – Marketing at …. A.M on ……, 2026

The thesis can be referred at the library:

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LIST OF PUBLISHED RESEARCH PAPERS RELATED TO THE THESIS

No.	Research work	Year of Publication	Notes
After Admission to the Ph.D. Program			
1	Corporate restructuring in the context of industry uncertainty: theoretical foundations and recommendations for Vietnam.	2026	
2	The Effects of Corporate Restructuring Strategies and Industry Uncertainty on Firm Performance: Evidence from Listed Non-Financial Firms in Vietnam	2026	
3	Asset Retrenchment Strategy and Firm Performance in Non-financial Firms: The Moderating Role of Industry Uncertainty.	2026	

ABSTRACT OF THE THESIS

The dissertation conceptualizes defensive restructuring through three intensity-based strategies: asset retrenchment (CRA), debt retrenchment (CRD), and cost retrenchment (CRC). Industry uncertainty is constructed from the cross-sectional dispersion of unexpected shocks to sales, operating cash flows, and EBIT among firms within the same industry-year and is subsequently aggregated using principal component analysis (PCA). The study employs an unbalanced panel of 484 non-financial firms listed on the HOSE and HNX during 2010-2024, comprising 6,862 firm-year observations across eight industries. Two-step System GMM is used as the primary estimator to address performance dynamics, unobserved firm heterogeneity, and the potential endogeneity of restructuring decisions.

The results show that the effects of restructuring are heterogeneous across different resource-adjustment channels. Asset restructuring generally reduces ROA. Financial restructuring through debt reduction has a clearly positive effect only when it is combined with asset and cost restructuring channels in the integrated model. Operational restructuring through cost reduction has a positive effect on ROA. Industry uncertainty also shows a positive effect on firms' ROA. Overall, the differences in sign, magnitude, and statistical significance among the asset retrenchment, debt reduction, and cost reduction channels indicate that the effectiveness of restructuring depends on the specific form of resource adjustment. Another finding of the dissertation is that industry uncertainty does not moderate the three restructuring strategies uniformly. In the integrated model with interaction terms, uncertainty mitigates the adverse effect of asset retrenchment, weakens the benefits of debt reduction, but slightly amplifies the positive effect of cost reduction. The marginal effects analysis further shows that, over most of the observed data range, the adverse effect of CRA persists at representative levels of uncertainty. The partial benefit of CRD declines as uncertainty increases, whereas the marginal effect of CRC increases slightly with uncertainty. Robustness tests using alternative measures of firm performance, binary restructuring variables, and sensitivity analyses across eight industries generally reinforce the main conclusions.

The novel contributions of the thesis are:

First, The dissertation approaches restructuring in terms of continuous adjustment intensity rather than merely identifying restructuring

events, as in many previous studies. Measuring asset restructuring separately through asset retrenchment, financial restructuring through debt reduction, and operational restructuring through cost reduction based on the degree of annual adjustment provides a more comprehensive reflection of the resource reallocation process and allows comparison of the results when each channel is examined separately and when the channels are controlled for simultaneously.

Second, the dissertation extends the application of uncertainty measures - based on the cross-sectional dispersion of unpredictable shocks - to the industry level for non-financial firms. An industry uncertainty index is constructed from shocks to revenue, operating cash flow, and earnings, and is aggregated using Principal Component Analysis (PCA). This index reflects the uncertainty inherent in each industry's operating environment more accurately than macroeconomic uncertainty indices do.

Third, the dissertation clarifies the moderating role of industry uncertainty in the relationship between restructuring and firm performance. The results indicate that uncertainty does not moderate the three channels in the same direction, providing further evidence that the effectiveness of restructuring depends on both the type of resource being adjusted and the level of uncertainty in the industry environment.

Fourth, the dissertation provides evidence of heterogeneity among the three channels of defensive restructuring. The impacts of asset contraction, debt reduction, and cost-cutting differ across channels and may shift when these strategies are considered simultaneously. This finding suggests that evaluating measures in isolation fails to fully capture a firm's actual restructuring configuration.

Finally, the dissertation contributes empirical evidence from non-financial firms listed in Vietnam, thereby extending research on restructuring and uncertainty to the context of an emerging market. The results indicate that the effectiveness of restructuring strategies varies across different states of industry uncertainty, highlighting the role of environmental conditions when evaluating restructuring performance.

Keywords: corporate restructuring; firm performance; industry uncertainty; asset retrenchment; debt retrenchment; cost retrenchment; System GMM

CHAPTER 1
INTRODUCTION TO THE STUDY

1.1. RATIONALE FOR THE STUDY

1.1.1. Theoretical context

Corporate restructuring (CR) has long been regarded as an important strategic tool for overcoming declines in firm performance and creating value for stakeholders (Duc Hong Vo et al., 2024; Solano et al., 2024). However, CR is a double-edged sword. CR can improve firm performance when it helps firms reallocate resources and address inefficient activities (Bowman et al., 1999; McGrath, 2025), but not every type of CR generates positive outcomes. For example, financial restructuring may produce negative effects, such as diluting shareholder value and increasing debt levels (Cruz-García et al., 2020). This suggests that the relationship between CR and firm performance is not straightforward and may depend strongly on the governance context and control mechanisms. Existing studies on CR and firm performance remain fragmented and insufficiently connected across models, making it difficult to develop an overarching theoretical framework (Singh, 1993). Agency cost theory points to the tendency of firms to expand beyond the optimal level, implying a need for discipline through CR (Jensen, 1986), yet the long-term outcomes of such measures are not uniform when governance conditions, market mechanisms, and the measurement of effects vary (Lin et al., 2006; Shleifer & Vishny, 1997).

In addition, economic theory emphasizes that future macroeconomic and microeconomic uncertainty shapes firms' decisions (Fiori & Scoccianti, 2023). From a theoretical perspective, arguments from the Resource-Based View (Bergh, 1998) and the real options framework suggest that uncertainty changes how firms identify, evaluate, and implement CR decisions, rather than merely affecting the extent of CR (Campello et al., 2024). When the environment becomes difficult to predict, the same CR action may carry different strategic meanings: it may serve as an adaptive mechanism to preserve resources, or it may become a barrier that disrupts the efficient reallocation of resources (Bergh, 1998; Campello et al., 2024; Zhang et al., 2025). Economic uncertainty has long been an important issue in economics, and following the work of Bloom (2009), a substantial body of research has continued to develop its measurement and expand understanding of the

nature and economic consequences of both macroeconomic and microeconomic uncertainty (Alfaro et al., 2024; Baker et al., 2016; Buch et al., 2015; Fiori & Scoccianti, 2023; Zhang et al., 2025). Therefore, this dissertation raises the question of whether uncertainty may be one of the contextual factors that helps explain the heterogeneous effects of CR on firm performance. Uncertainty is influenced by technology, adjustment costs, expectations, and managers' risk attitudes, while also being associated with the structure of market competition (Fiori & Scoccianti, 2023). Most existing analytical frameworks rely on macro-level indicators, whereas CR decisions are inherently micro-level in nature, making such inferences prone to assumptions of homogeneity and to overlooking firm-level heterogeneity (Zheng & Wen, 2023). More recently, several studies adopting firm-level measures of policy uncertainty have called for uncertainty to be brought back to the appropriate unit of analysis in order to better explain CR decisions (Zhang et al., 2025). The emerging-market context makes the issue even more complex. In these economies, the choice of CR strategies is strongly influenced by conflicts of interest among stakeholders, in ways that differ from those observed in developed Western economies (Pandey & Ongpipattanakul, 2015). The effects of uncertainty have not yet been fully integrated into the existing theoretical framework of CR in this context (Yu et al., 2021). The Vietnamese stock market represents a typical emerging-market setting, where ownership structures, financial constraints, and competitive dynamics have distinctive characteristics (Laguir et al., 2024; Pandey & Ongpipattanakul, 2015; Yu et al., 2021).

1.1.2. Practical Context

Uncertainty is increasingly recognized as a core characteristic of the modern business environment, especially in the context of the global economy being continuously affected by macroeconomic shocks, policy fluctuations (Chen & Xu, 2025; Koroma & Bein, 2024), and digital transformation (Sun et al., 2025). Foundational studies show that heightened uncertainty negatively affects firms' decisions regarding investment, recruitment, and production expansion, thereby weakening firm performance and long-term growth (Alfaro et al., 2024; Baker et al., 2016; Bergh, 1998; Bloom, 2009, 2014; Bloom et al., 2018; Buch et al., 2015). Cross-country evidence indicates that economic policy uncertainty (EPU) has a strong impact on firm behavior by increasing the cost of capital, constraining access

to finance, and forcing firms to adjust their strategies in order to maintain liquidity (Chang et al., 2024). At the firm level, uncertainty persists and varies depending on firm characteristics. Uncertainty generates significant and persistent economic effects on various real and financial variables only when it is driven by negative factors. Economy-wide uncertainty is constructed by aggregating firm-level uncertainty (Fiori & Scoccianti, 2023). When firm-level uncertainty increases, firms tend to contract real activities by reducing capacity utilization and working hours, increasing cash holdings, and cutting investment with a lag, implying that uncertainty weakens performance and operating scale through precautionary motives and the postponement of capital adjustment (Del Prete et al., 2023). For internationalized firms, portfolio restructuring actions may serve as a lever for improving firm performance when supported by governance systems (Forcadell et al., 2025). In large state-owned enterprises, the need to restructure organizational and production models has become increasingly urgent in order to overcome strategic misalignment and declining performance in the digital era (Dutta, 2022). When insolvency risk emerges, financial restructuring requires the coordination of conflicts of interest among stakeholders, which is a complex practical issue directly affecting firm performance (Fahdil et al., 2024). In practice, uncertainty can act as both a barrier and an opportunity. Some firms must adjust working capital policies under macroeconomic uncertainty (Chang et al., 2024), while others are able to exploit opportunities arising from uncertainty depending on their internal characteristics (Drnevich & West, 2023), coordinate stakeholder interests in financial restructuring (Fahdil et al., 2024), or promote ecosystem-based digital transformation to support operational restructuring (Fernández-Portillo et al., 2024). In capital markets, uncertainty distorts investment–financing cycles, disrupts financial structures, and makes adjustments to leverage and debt maturity more urgent (Palacín-Sánchez et al., 2023), while information noise, such as disagreement in ESG ratings, forces firms to restructure governance and disclosure practices in order to protect value (Tabur & Bildik, 2025). In addition, practical evidence on the effects of CR on firm performance remains inconsistent. Some studies show improvements in performance, but only within specific contexts, such as digital transformation (Duc Hong Vo et al., 2024; Paterson & Walters, 2023; Widiyastuti et al., 2025), while others report negative or insignificant effects

(Kumaraswamy et al., 2019; Wajid et al., 2019). The effectiveness of CR also depends on governance quality (Mansour et al., 2022), the degree of allocation inertia in diversified business groups (Lindlbauer et al., 2025), or the national governance context (Omenihu & Nwafor, 2025; Perry & Shivdasani, 2005).

In Vietnam, the study by Duc Hong Vo et al. (2024) indicates that firm performance is negatively affected by corporate restructuring, including financial restructuring and operational restructuring. The National Assembly (15th tenure) officially adopted the Resolution on the Economic Restructuring Plan for the 2021–2025 period, with specific objectives for enterprise development, highlighting the central role of CR in enterprise development. However, practical outcomes are highly differentiated: only about 30% of enterprises restructure successfully, 70% fail or reduce their scale, and nearly 82% have to cut their workforce or temporarily suspend operations in order to restructure, whereas the remaining 18% adapt effectively without laying off employees (VCCI, 2025). This dual nature creates an urgent need to quantify the effects of CR on firm performance under specific environmental conditions. As an emerging economy, Vietnam is implementing various economic policy reforms and faces a higher degree of uncertainty than major economies. This makes the effects of uncertainty shocks more pronounced (Đặng Văn Dân, 2023). This creates a need to quantitatively assess the effects of CR strategies on firm performance in relation to the context of industry uncertainty. Based on this research gap, the dissertation focuses on analyzing the effects of defensive CR strategies through three main channels: (1) asset restructuring through asset retrenchment (CRA); (2) financial restructuring through structural adjustment toward debt reduction (CRD); and (3) operational restructuring through operating cost retrenchment (CRC).

1.2. RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

1.2.1. Research Objectives

The overall objective of the dissertation is to analyze the effects of defensive restructuring strategies, including asset retrenchment, debt reduction, and operating cost retrenchment, on the performance of listed non-financial firms in Vietnam. At the same time, the dissertation seeks to clarify the differences in these effects and the moderating role of industry

uncertainty. Based on the research findings, the dissertation proposes managerial and policy implications that are appropriate to conditions of industry uncertainty in Vietnam.

To achieve the overall objective, the study sets out the following specific objectives:

(1) To analyze the direct effects of restructuring strategies through the channels of asset retrenchment, debt reduction, and operating cost retrenchment, as well as the joint effects of the three restructuring strategies and industry uncertainty on the performance of listed non-financial firms in Vietnam.

(2) To compare the effects of restructuring strategies on firm performance between groups of firms operating under high and low levels of industry uncertainty, thereby identifying the heterogeneity of the results across industry contexts.

(3) To test the moderating role of industry uncertainty in the relationship between restructuring strategies and firm performance through interaction models, in order to determine whether industry uncertainty amplifies, weakens, or reverses the effects of restructuring.

(4) To derive managerial and policy implications for the selection, coordination, and implementation of restructuring strategies under different levels of industry uncertainty.

1.2.2. Research Questions

(1) How do asset retrenchment, debt reduction, and operating cost retrenchment affect the performance of listed non-financial firms in Vietnam when considered separately and jointly? What is the direct effect of industry uncertainty on firm performance?
(2) Do the effects of each restructuring strategy on firm performance differ between high- and low-industry-uncertainty conditions?
(3) Does industry uncertainty moderate the relationship between restructuring strategies and firm performance? As industry uncertainty increases, how do the direction and magnitude of the marginal effect of each restructuring strategy change?
(4) What managerial implications can be drawn from the research findings regarding the selection and combination of restructuring strategies under different states of industry uncertainty?

1.3. RESEARCH SUBJECT AND SCOPE

1.3.1. Research Subject

The study examines the individual effects of three groups representing three basic defensive restructuring strategies, including: (1) asset retrenchment; (2) leverage reduction; and (3) operating cost retrenchment (independent variables), together with industry uncertainty (moderating variable), on firm performance measured by ROA (the main dependent variable), with ROE and ROS used for robustness checks. Specifically:

The study focuses on non-financial firms listed on the Ho Chi Minh Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX) as of 2024 and classified into Level-2 industry groups according to the Fiin/ICB classification system.

Restructuring strategies: defensive/retrenchment restructuring strategies are identified through three channels: (1) asset restructuring through asset retrenchment; (2) financial restructuring through leverage reduction; and (3) operational restructuring through reductions in selling, general and administrative expenses (SG&A), excluding cost of goods sold, financial expenses, corporate income tax, and extraordinary non-operating items. Industry uncertainty is measured using a composite proxy index constructed from the dispersion of unexpected shocks to net sales, net cash flow from operating activities, and profits of firms within the same industry-year.

1.3.2. Research Scope

The scope of the dissertation is defined in terms of both space and time in order to align with the objective of examining the effects of CR strategies on the performance of non-financial firms in the Vietnamese stock market under industry uncertainty. In this dissertation, corporate restructuring is limited to the group of defensive restructuring strategies, including asset retrenchment, debt reduction, and operating cost retrenchment (SG&A).

1.4. RESEARCH METHODOLOGY

The quantitative study is conducted using panel data of listed firms collected from the FiinPro database. The analytical process begins with data collection and processing, followed by the selection of measurement variables and models that are consistent with relevant economic theories. The System Generalized Method of Moments (SGMM) model is employed to

simultaneously address endogeneity, the dynamic nature of firm performance, and potential bias arising from omitted variables. The reliability of the model is assessed using standard diagnostic tests, including first- and second-order serial correlation tests (AR(1) and AR(2)) and the Hansen test for the validity of instrumental variables. This methodology allows the reliability of the regression results to be evaluated.

1.5. NEW CONTRIBUTIONS OF THE DISSERTATION

Scientific Contributions:

First, the dissertation approaches corporate restructuring based on the intensity of continuous adjustment rather than relying solely on event-based variables as in previous studies. Specifically, asset retrenchment, debt reduction, and cost retrenchment are measured by the extent of annual adjustment. This approach helps preserve information on the intensity and process of restructuring, thereby providing a more comprehensive reflection of the extent of firms' resource adjustment.

Second, the dissertation extends the measurement approach to uncertainty by constructing an industry uncertainty index from the cross-sectional dispersion of unexpected shocks to sales, operating cash flow, and profits of firms within the same industry-year, which are subsequently aggregated using principal component analysis (PCA). Compared with macro-level uncertainty indicators, this approach allows the degree of uncertainty associated with the operating environment of each industry to be reflected more clearly.

Third, a core contribution of the dissertation is the incorporation of industry uncertainty as a moderating variable in the relationship between restructuring and firm performance. Accordingly, the dissertation not only examines the direct effects but also clarifies how the effect of each restructuring channel changes as the level of industry uncertainty changes. This approach contributes to explaining why previous empirical findings on the effectiveness of restructuring, particularly in the literature on defensive restructuring strategies, remain inconsistent.

Fourth, the dissertation clarifies the heterogeneity among the three defensive restructuring channels, namely asset retrenchment, debt reduction, and cost retrenchment. Separating and comparing each channel enables a clearer identification of the distinct mechanism associated with each type of

resource adjustment, while jointly considering them helps identify the overall mechanism.

Finally, the dissertation adds empirical evidence from listed non-financial firms in Vietnam, thereby extending understanding of the relationship among restructuring, industry uncertainty, and firm performance in the context of an emerging market. The findings provide a basis for assessing the role of the industry environment and add an important contextual condition when evaluating the effectiveness of restructuring strategies.

Practical Contributions

First, the dissertation provides quantitative evidence that helps managers recognize that the effects of restructuring are not homogeneous across resource-adjustment channels and may vary with the level of industry uncertainty. This supports firms in selecting more appropriate restructuring strategies rather than uniformly applying retrenchment measures.

Second, the research findings provide a basis for firms to adjust assets, debt structure, and operating costs under conditions of uncertainty in the industry environment, thereby supporting resource management, liquidity management, and resilience.

Third, the dissertation provides implications for investors, creditors, and regulatory authorities in evaluating restructuring decisions, suggesting that such assessments should consider not only the scale of adjustment but also the type of resource being adjusted and the state of industry uncertainty.

1.6. STRUCTURE OF THE DISSERTATION

The main content of the dissertation is organized into five chapters:

Chapter 1. Introduction to the Study
Chapter 2. Theoretical Foundations and Literature Review
Chapter 3. Research Design
Chapter 4. Research Results and Discussion
Chapter 5. Conclusions and Policy Implications

CHAPTER 1 CONCLUSION

CHAPTER 2
THEORETICAL FOUNDATIONS AND LITERATURE REVIEW

2.1. CONCEPTS AND RESEARCH SCOPE

2.1.1. Concept of Corporate Restructuring

The concept of corporate restructuring has evolved into a multidimensional theoretical framework encompassing elements such as assets, capital structure, and organizational structure, while becoming increasingly intertwined with the contexts of digitalization and emerging markets (Chinh et al., 2025; Singh, 1993; Widiyastuti et al., 2025). Initially, research on corporate restructuring focused primarily on tangible changes to asset, capital, and organizational structures. Bowman and Singh (1993) proposed one of the earliest influential definitions, describing restructuring as significant and rapid changes to a firm's assets, capital structure, or organizational operations. Hoskisson and Turk (1990) viewed restructuring as a major strategy to restore corporate value eroded by excessive diversification. Gilson (1990) emphasized the financial dimension through the concept of debt restructuring, defining it as the exchange of existing debt contracts for new commitments—which might involve interest rate reductions, maturity extensions, or debt-for-equity swaps—thereby serving as a solution to restore liquidity and operational viability for distressed firms. Similarly, Cascio (2002) regarded debt restructuring as a crucial component of financial restructuring, particularly in situations of cash flow shortages. By the early 21st century, the definition of corporate restructuring had broadened; it moved beyond asset, capital, and organizational factors to place greater emphasis on ownership structures and operational capabilities. Norley et al. (2001) viewed restructuring as the reorganization of legal, ownership, operational, or other structures aimed at enhancing adaptability and operational efficiency. Sudarsanam & Lai (2001) offer an operational perspective, defining corporate restructuring (CR) as initiatives designed to stabilize business operations and restore profitability—primarily through cost control—yielding potential short-term gains while generally aiming to improve medium- and long-term cash flows. Kumaraswamy et al. (2019) describe CR as a consequential realignment of assets, finances, or ownership structures intended to adjust future cash flows. Overall, while corporate restructuring is a complex, multidimensional concept, a fairly consistent

understanding has emerged among professionals, academics, and regulatory bodies.

2.1.2. Defensive Restructuring

Corporate restructuring serves as a defensive measure that may involve selling off key divisions of the target company or even executing large-scale acquisitions (Gaughan, 2010). According to Grosfeld et al. (1995), the "defensive" aspect of restructuring essentially entails measures to cut costs and downsize operations—such as eliminating obsolete production lines, laying off staff, and divesting inefficient assets. Dann and DeAngelo (1988) indicated that the value added by management-initiated defensive restructuring is best assessed by the difference between: (i) shareholders' expected wealth given the defensive action; and (ii) their expected wealth in the absence of such action. For firms facing a severe decline in operating performance, the turnaround process typically begins with retrenchment measures—including cost cutting, asset reduction, or refocusing operations on areas with higher profit potential—before shifting toward long-term recovery and growth strategies (Hofer, 1980; Robbins & Pearce, 1992). A review of the literature on corporate restructuring reveals that restructuring strategies are generally approached from three main perspectives: (i) expansionary or growth-oriented restructuring (Cascio et al., 2021); (ii) strategic restructuring focused on repositioning or strategic redirection (Tushman & Anderson, 2018); and (iii) defensive restructuring (Lim et al., 2013; Morrow et al., 2004; Robbins & Pearce, 1992). While expansionary corporate restructuring is typically associated with mergers and acquisitions, diversification, or scaling up to pursue growth opportunities, defensive restructuring primarily reflects downsizing or resource reallocation measures implemented by firms to respond to declining performance or heightened business environment uncertainty (Gaughan, 2010).

From a corporate finance perspective, Denis & Kruse (2000) expand the concept of corporate restructuring by highlighting the role of adjustments to asset and capital structures in addressing inefficiencies and agency conflicts.

In summary, defensive restructuring is understood as a set of restructuring measures implemented to safeguard a firm's viability during periods of declining performance or increasing environmental uncertainty;

these measures involve cost retrenchment, asset retrenchment, and debt restructuring to stabilize cash flows and enhance viability.

2.1.3. Concept and Measurement of Firm Performance

This concept Firm performance developed strongly from the second half of the twentieth century, as listed firms and capital markets expanded, and it became a core dependent variable in analytical models of corporate governance and corporate restructuring (Giorcelli, 2021; Taouab & Issor, 2019).

The capital structure theory of Modigliani and Miller (1958) indicates that optimal investment performance occurs when the marginal rate of return equals the cost of capital, as reflected in return on assets (ROA) or return on equity (ROE). In studies of corporate restructuring and the moderating role of uncertainty, recent research often uses one or a combination of several commonly adopted indicators (Duc Hong Vo et al., 2024; Forcadell et al., 2025; Koroma & Bein, 2024). Studies using ROA (Duc Hong Vo et al., 2024; Forcadell et al., 2025; Koroma & Bein, 2024), ROE (Holder-Webb et al., 2005; Koroma & Bein, 2024), or ROS (Lim et al., 2013) have been highly regarded for their ability to reflect internal performance through profitability relative to assets, equity, and sales (Mansour et al., 2022; Ngo et al., 2023; Widiyastuti et al., 2025).

Meanwhile, Tobin's Q provides an external assessment of market value relative to the replacement value of assets, thereby reflecting investors' expectations regarding future profitability (Shleifer & Vishny, 1997). ROA, ROE, and ROS are widely recognized in the literature as measures that directly reflect the efficiency of resource utilization and the capacity to generate value following such changes. According to Ibrahimov et al. (2025), dependent variables representing firm performance commonly include return on assets (ROA), return on equity (ROE), and return on sales (ROS), given their widespread use and importance in the research literature.

2.1.4. Concept and Measurement of Industry Uncertainty

Industry-level uncertainty (industry uncertainty – UI) arises when industry-specific fluctuations, such as changes in demand, technology, competitive structure, or regulations, make the outlook for the entire industry difficult to predict (Tushman & Anderson, 2018). A review of the literature shows that Duncan (1972) provided an early broad conceptual foundation for environmental uncertainty at the industry level. Although the author did not

use the term “industry uncertainty,” a similar definition of organizational environmental uncertainty was proposed as a lack of information about environmental factors that prevents managers from accurately predicting the outcomes of decisions. A limitation of Duncan (1972) is that the author did not clearly distinguish the industry level from the broader environmental level. According to Hrebiniak and Snow (1980), industry differences are a central component of the causal structure of the environment, in which uncertainty is a multidimensional concept comprising multiple independent domains. The multi-level approach of Drnevich and West (2023) further reinforces this argument by separating uncertainty into three levels: macro-level, industry-level, and firm-level uncertainty. Accordingly, UI is uncertainty arising from industry-specific changes and serves as an intermediate level between macroeconomic shocks and firms’ micro-level responses. Campello et al. (2024) measure UI using option-implied volatility of firms in the shipping industry, viewing it as the “second moment” of industry shocks. These fluctuations may simply reflect normal movements in the industry cycle, but they may also emerge as shocks that disrupt the industry, causing the degree of uncertainty to vary substantially across industries depending on their internal characteristics and exposure to external forces (Baruník et al., 2024). UI is particularly relevant to corporate restructuring. In manufacturing industries, product-market uncertainty is closely associated with portfolio restructuring and asset allocation strategies (Bergh, 1998).

The dispersion-based measures applied in this dissertation build on the idea of measuring uncertainty through the cross-sectional dispersion of growth in profits, sales, and cash flows (Bloom, 2009, 2014; Bloom et al., 2018), combined with approaches to measuring industry uncertainty (Buch et al., 2015; Dan & Chung, 2022). This approach operationalizes the idea of separating the predictable component from the remaining unpredictable component after controlling for firm fixed effects and year fixed effects, and then using the residual as the shock. Industry uncertainty is represented by the cross-sectional dispersion of firm-specific shocks within each industry-year. In addition, this measurement approach makes it possible to construct an industry-year uncertainty index for inclusion in a dynamic GMM model as a moderating variable. Specifically, each variable used to measure

uncertainty is processed through the autoregressive model inherited from the method of Dan and Chung (2022) as follows:

$\Delta \log(Xi,t) = \alpha i + ßt + \varepsilon i,t$, Uncertainty $Index_{i,t} = UI_{i,t} = SD(\varepsilon i,t)$

This method is appropriate when the dissertation seeks to examine how UI moderates the effect of CR on firm performance, because it accurately reflects the level of "noise" that all firms face within the same industry.

2.2. RELEVANT THEORIES

2.2.1. Corporate Turnaround Theory

Corporate Turnaround Theory (TTC) was developed to explain how firms respond when performance declines or the risk of financial distress increases. In the development of this theory, retrenchment strategy is regarded as a central component of the initial stage of recovery. Robbins and Pearce (1992) argue that turnaround generally occurs in two stages: retrenchment to stabilize the firm and recovery to restore growth. From this perspective, TTC provides an appropriate theoretical foundation for the dissertation by treating asset retrenchment (CRA), debt reduction (CRD), and operating cost retrenchment (CRC) as strategic responses by firms to declining performance and adverse environmental conditions.

2.2.2. Threat-Rigidity Theory

Threat-Rigidity Theory (TRT) was developed by Staw et al. (1981) to explain organizational responses when facing threats or adverse environmental conditions. According to this theory, when perceived uncertainty or environmental pressure increases, firms tend to narrow the scope of decision-making, strengthen internal control, and prioritize defensive behaviors in order to preserve existing resources. Staw et al. (1981) argue that a common organizational response to threats is to reduce the search for new information, limit strategic alternatives, and concentrate on familiar activities in order to minimize risk.

2.2.3. Resource-Based View

The Resource-Based View (RBV) was developed to explain the origins of competitive advantage and differences in firm performance across firms. Unlike traditional approaches that emphasize the role of industry structure or market position, RBV views the firm as a bundle of strategic resources and capabilities (Wernerfelt, 1984). From this perspective, the ability to generate and sustain superior firm performance depends on whether the firm possesses and exploits resources that are valuable, rare, difficult to imitate, and difficult

to substitute (Barney, 1991). This RBV-based approach implies that CR decisions not only affect short-term performance but also influence the firm's ability to sustain competitive capabilities in the long term.

2.2.4. Contingency Theory

Contingency Theory (COT) is considered an important foundation in strategic management research because it argues that there is no single optimal management model or strategy that can be applied to all firms. The origins of this theory are associated with the studies of Burns and Stalker (1994) and Lawrence et al. (1967), who argued that organizational effectiveness depends on the degree of fit between organizational structure and the operating environment. In stable environments, mechanistic management structures are generally more effective; conversely, highly volatile environments require greater flexibility.

2.2.5. Real Options Theory

Real Options Theory (ROT) was developed from the financial option theory of Black and Scholes (1973) and Merton (1973), before being extended by Myers (1977) to firms' real investment decisions. In strategic management, Bowman and Hurry (1993) argue that firms can create and exploit strategic options by maintaining flexibility and the ability to redeploy resources in response to environmental changes. From the perspective of ROT, defensive CR strategies such as CRA, CRD, or CRC can be viewed as mechanisms for reducing irreversible resource commitments, thereby preserving the value of flexibility under increasing uncertainty.

2.3. MODERATING MECHANISMS OF INDUSTRY UNCERTAINTY

2.3.1. Moderating Mechanism for Asset Restructuring

The RBV originates from the seminal work of Penrose (1959), which emphasizes that internal resources constrain firm growth. Wernerfelt (1984) and Barney (1991) further developed this perspective through the VRIN framework (valuable–rare–inimitable–non-substitutable), laying the foundation for modern RBV. To address the limitations of a static RBV in dynamic competitive environments, Teece et al. (1997) developed Dynamic Capabilities Theory by emphasizing the ability to reconfigure resources in order to adapt to changing environments. CR is an expression of dynamic capabilities, whereby firms integrate, reconfigure, and deploy resources to renew competitive capabilities and improve firm performance. RBV explains

differences in CR outcomes according to the quality of firms' initial resources (Newbert, 2007).

2.3.2. Moderating Mechanism for Operating Cost Restructuring

Agency Theory was established by Jensen and Meckling (1976), who argue that the separation of ownership and control creates conflicts of interest, resulting in monitoring costs and agency costs, thereby reducing firm value and performance in the absence of appropriate disciplinary mechanisms. Jensen (1986) further developed the "free cash flow" argument, emphasizing the role of debt and payout commitments as financial disciplinary mechanisms that constrain managers' tendency toward overinvestment or inefficient investment. For CRC, studies continue to document its dependence on the environmental context. Lim et al. (2013) argue that cost retrenchment creates value only when it is aligned with the firm's profit-generation mechanism and, in some cases, may erode important operating capabilities. Banker and Byzalov (2014) provide an important theoretical foundation by showing that costs do not adjust immediately to changes in sales because of the existence of slack resources and resource-adjustment costs.

2.3.3. Moderating Mechanism for Financial Restructuring

With respect to debt restructuring, the evidence suggests that capital-structure adjustment decisions are also conditional. Koh et al. (2015) show that the choice of financial restructuring strategy depends on the firm's life-cycle stage and the severity of financial distress, while Denis and Kruse (2000) document that financial adjustments are often associated with improved performance following periods of performance decline. In addition, recent studies also confirm the moderating role of uncertainty in the relationship between working capital management and profitability (Koroma & Bein, 2024).

Financial restructuring uses leverage and payout policies as disciplinary mechanisms to constrain opportunistic behavior, particularly in firms facing "free cash flow" problems (Jensen, 1986; Mansour et al., 2022), although CRD may have negative effects in the absence of adequate monitoring (Duc Hong Vo et al., 2024; Umar, 2023). Although these studies do not directly examine the role of UI, they suggest that the effectiveness of CRD depends on the context in which decisions are made.

2.4. REVIEW OF EMPIRICAL STUDIES

2.4.1. Asset Restructuring and Firm Performance

Empirical studies on corporate restructuring (CR) and firm performance present a heterogeneous picture, reflecting differences in the forms of CR, research contexts, measurement approaches, and time horizons used to evaluate performance (Bowman & Singh, 1993; Denis & Kruse, 2000; Sudarsanam & Lai, 2001). Empirical findings across these research streams have not yet reached a clear consensus, specifically as follows:

Asset retrenchment (CRA) is one of the earliest and most widely studied forms of CR and is often viewed as a defensive response by firms to declining performance, financial pressure, or environmental uncertainty (Denis & Kruse, 2000; Robbins & Pearce, 1992; Sudarsanam & Lai, 2001). One stream of research argues that CRA can improve firm performance by eliminating inefficient assets, releasing resources, and refocusing on core activities with stronger competitive advantages (Denis & Kruse, 2000). Similarly, Bergh (1998) argues that portfolio restructuring may help firms adapt more effectively to product-market uncertainty through adjustments in asset scope and operating capabilities. However, Morrow et al. (2004) show that the effects of CRA are highly mixed: CRA positively affects firm performance in growing industries but negatively affects firm performance in declining industries. This result clearly demonstrates the role of industry dependence. From an RBV perspective, downsizing may improve short-term financial performance but can simultaneously weaken the foundation for long-term profitability if firms lose strategic resources or core capabilities (Bergh, 1998; Girod & Whittington, 2017). Lim et al. (2013) also indicate that asset retrenchment may erode the profit-generation mechanisms of firms that rely heavily on the exploitation of existing assets.

2.4.2. Cost Restructuring and Firm Performance

Cost retrenchment (CRC) is often regarded as a strategy capable of generating short-term financial improvements more quickly than CRA through reductions in operating costs, organizational streamlining, and reduced liquidity pressure (Denis & Kruse, 2000; Morrow et al., 2004; Robbins & Pearce, 1992). According to Corporate Turnaround Theory, operating cost retrenchment plays an important role in the early stage of the corporate recovery process, particularly for firms facing declining performance and cash-flow pressure (Sudarsanam & Lai, 2001). Morrow et al. (2004) show that, in declining industries, cost retrenchment tends to

improve firm performance more strongly than asset retrenchment. Studies on cost behavior also show that adjustments to SG&A expenses may help firms improve profit margins in the short term (Anderson et al., 2003; Banker & Byzalov, 2014).

However, empirical evidence also indicates that the effect of CRC is highly conditional and is not always positive.

2.4.4. Financial Restructuring and Firm Performance

Compared with CRA and CRC, the empirical literature on debt reduction (CRD) is more fragmented and inconsistent. Some studies suggest that financial restructuring can support corporate recovery by reducing debt pressure, improving liquidity, and rebalancing capital structure (Koh et al., 2015; Palacín-Sánchez et al., 2023). According to dynamic trade-off theory, firms tend to adjust leverage gradually toward a target capital structure rather than adjusting immediately because adjustment costs exist (Faulkender et al., 2012; Flannery & Rangan, 2006; Leary & Roberts, 2005). Hovakimian et al. (2004) also show that firms often adjust debt levels in response to deviations from target leverage arising from fluctuations in profitability or market value.

2.4.4. Studies on Uncertainty and Firm Performance

The study of uncertainty has expanded from sales volatility (Bergh, 1998), option-implied uncertainty (Campello et al., 2024), to macro-level uncertainty (Baker et al., 2016), which generates a "wait-and-see" effect that delays investment (Bloom, 2014). The sequence of studies by Bloom (2009, 2014) and Bloom et al. (2018) established an important benchmark for measuring firm-level microeconomic uncertainty through the cross-sectional dispersion of shocks. The empirical literature on the role of uncertainty in the relationship between CR and firm performance shows heterogeneous results that depend strongly on context. Policy uncertainty reduces incentives for mergers and acquisitions and has stronger effects when financial constraints are severe (Zhang et al., 2025). Evidence from emerging markets shows that flexible strategies improve performance under high uncertainty (Yu et al., 2018), while firm-level policy uncertainty reduces option-based innovation (Zheng & Wen, 2023).

2.4.5. Studies in Vietnam

The empirical literature on CR in Vietnam shows that CR and firms' strategic responses are significantly influenced by uncertainty and life-cycle

characteristics. Su Dinh Thanh et al. (2016) show that CR decisions depend on firm performance and ownership structure, while independent boards and foreign ownership contribute to improved post-CR performance. From the perspective of financial distress, Khúc Thế Anh et al. (2024) demonstrate that when facing decline, firms increase asset, operational, and financing restructuring, while recovery effectiveness depends on the stage of the corporate life cycle. More recently, Võ Thể Anh et al. (2024) show that CR undertaken independently may reduce performance, whereas its combination with digital transformation improves firm performance, implying the importance of strategic contextual factors. In Vietnam, studies indicate that CR is strongly constrained by competition and market volatility (Bùi Xuân Phong, 2013; Su Dinh Thanh et al., 2016; Võ Thể Anh et al., 2024). Recent evidence suggests that individual components of CR may reduce short-term performance, but when combined with appropriate contextual conditions, outcomes improve (Chinh et al., 2025; Duc Hong Vo et al., 2024). Studies by Võ Thể Anh et al. (2024) and Duc Hong Vo et al. (2024) in Vietnam confirm that CR has a direct negative effect on ROA, but they do not examine this relationship in the context of industry-level uncertainty. In Vietnam, uncertainty remains a relatively new research stream, and the literature on this topic is still limited (Đặng Văn Dân, 2023). Ngô Hoàng Thảo Trang (2016) shows that uncertainty in the industry environment causes firms to limit the expansion of network relationships. Overall, the evidence from Vietnam indicates fragmentation between the research streams on CR and industry uncertainty. This highlights the need to integrate CR and industry uncertainty approaches in order to clarify the mechanisms through which they affect firm performance.

2.6. RESEARCH GAPS

First, in Vietnam, most studies on corporate restructuring (CR) still adopt an event-based approach using dummy variables to identify whether a firm undertakes CR at a given point in time (Chinh et al., 2025). Some recent studies have examined the intensity of CR through specific channels (Duc Hong Vo et al., 2024; Võ Thể Anh et al., 2024), but have not linked such measures to CR actions or strategies. In addition, most studies associate CR with contexts such as the corporate life cycle, digital transformation, or financial distress, while industry uncertainty remains an underexplored context. Therefore, future studies are encouraged to focus more on

developing a standardized framework for accurately identifying traditional and modern corporate restructuring strategies (Chinh et al., 2025).

Second, although economic uncertainty has been shown to have significant effects on firms' investment, financing, and performance (Baker et al., 2016; Bloom, 2014), most studies treat uncertainty as a direct explanatory variable (Dan & Chung, 2022). This approach does not fully clarify the role of uncertainty as a contextual factor that may alter the mechanism through which strategic decisions affect firm outcomes. The moderating role of industry uncertainty remains insufficiently explored in the context of corporate restructuring, particularly across different strategic channels (Kumaraswamy et al., 2019; Wajid et al., 2019). Therefore, empirical evidence is still lacking regarding the conditions of uncertainty under which CR is effective, rather than merely addressing the question of whether restructuring is effective.

Third, although macro-level uncertainty indicators such as EPU are widely used (Baker et al., 2016), they mainly capture uncertainty at the national level and may not adequately reflect the degree of uncertainty that firms actually face within specific industries. Recent studies have proposed measuring uncertainty through the cross-sectional dispersion of micro-level shocks and using residuals, after removing predictable components, to represent unexpected shocks (Bloom et al., 2018; Dan & Chung, 2022).

Fourth, although some studies have examined individual forms of CR such as asset restructuring (Forcadell et al., 2025; Su Dinh Thanh et al., 2016), cost restructuring (Lim et al., 2013; Morrow et al., 2004), and financial leverage adjustment (Faulkender et al., 2012; Hovakimian et al., 2004), most empirical models still treat CR as an aggregate concept or have not simultaneously examined the scope and content of the three CR strategic channels within a unified analytical framework.

Fifth, most empirical evidence on CR and uncertainty has been developed in advanced economies with relatively mature financial and institutional systems. In contrast, studies in emerging-market contexts remain limited, even though characteristics such as ownership structure, dependence on bank credit, and instability in the business environment may significantly alter the effectiveness of CR decisions.

CHAPTER 2 CONCLUSION

CHAPTER 3
RESEARCH DESIGN

3.1. RESEARCH APPROACH

3.1.1. General Research Process

The dissertation employs a quantitative research approach based on panel data of listed non-financial firms in Vietnam. The research process consists of two sequential stages. The first stage involves reviewing and synthesizing the literature in order to outline the key concepts, theoretical foundations, research gaps, hypotheses, and empirical models. The second stage involves collecting, processing, and analyzing firm-level data using econometric methods.

3.1.2. Process for Constructing the Industry Uncertainty Index

The dissertation constructs an industry uncertainty index based on the cross-sectional dispersion of firm-specific shocks within the same industry and year. This approach is derived from the view that uncertainty can be represented by an increase in unpredictable variation, or a second-moment shock (Buch et al., 2015; Dan & Chung, 2022). Bloom (2009) shows that periods of high uncertainty are associated with substantial increases in the cross-sectional dispersion of profit growth and productivity across firms and industries. Similarly, Dan and Chung (2022) measure banking-industry uncertainty using the cross-sectional standard deviation of shocks to banking-industry variables after removing firm-specific fixed characteristics and common time effects.

3.2. RESEARCH MODELS AND DATA

Baseline model

$$ROA_{i,t} = \alpha + ß_0 ROA_{i,t-1} + ß_1 CR_{i,t} + ß_2 UI_index_{j,t} + \gamma' Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad \textbf{(I)}$$

Extended model with an interaction term

$$ROA_{i,t} = \alpha + ß_0 ROA_{i,t-1} + ß_1 CR_{i,t} + ß_2 UI_index_{j,t} + ß_3 (CR_{i,t} x UI_{j,t}) + \gamma' Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad \textbf{(II)}$$

where $i$denotes the firm, $t$denotes the year, and $j$denotes the industry. ROA is the variable representing firm performance; $CR_{i,t}$ represents the CRA, CRD, and CRC strategies, respectively; $UI_index_{j,t}$ is the industry uncertainty index; $Controls_{i,t}$ denotes the set of control variables; $\mu_i$and $\lambda_t$represent firm fixed effects and time fixed effects, respectively; and $\varepsilon_{i,t}$is the random error term. The dissertation uses secondary data from the FiinPro database for non-financial firms listed on the HOSE and HNX during the

period 2010–2024. After applying the screening criteria, eight industry groups are retained, accounting for 83.16% of the total number of firms

3.4. DATA ANALYSIS METHODS

Descriptive statistical analysis, Endogeneity treatment methods, Regression methods, Marginal-effects analysis, Sensitivity analysis and robustness tests

CHAPTER 3 CONCLUSION

CHAPTER 4
RESEARCH RESULTS AND DISCUSSION

4.1 CURRENT STATUS OF CORPORATE RESTRUCTURING ACTIVITIES AND INDUSTRY UNCERTAINTY IN VIETNAM

4.1.1. Current Status of Corporate Restructuring Activities

The results show that debt reduction is the most common strategy, with 49.59% of observations having CRD greater than 0, compared with 41.61% for CRA and 43.17% for CRC. When the continuous adjustment-intensity measure is used, 62.87% of observations record at least one restructuring activity.

4.1.2. Industry Uncertainty Index

The results show that the industry uncertainty index varies considerably across industries. Real estate has the highest mean value, at 1.756, together with a standard deviation of 4.149 and a maximum value of 17.301. These indicators are markedly higher than those of the other industries in the sample. In contrast, Personal and Household Goods has the lowest mean (-0.380) and a standard deviation of 0.116. Construction and Materials has a mean of -0.352, while Food and Beverages records -0.336.

4.2. RESULTS OF RESEARCH MODEL TESTS

4.2.1. Stationarity Tests

The results show that the Fisher statistics for all variables are large, with p-values equal to 0.0000. Specifically, the Fisher statistics range from 1,390.7768 for sizeTA to $2{,}49 \times 10^4$ for lnAGE. The restructuring variables CRA, CRD, and CRC record values of 2,947.8602, 3,063.8174, and 3,343.1682, respectively. ROA and UI_index also have corresponding statistics of 2,370.3450 and 2,992.3729. Since all p-values are below 1%, the null hypothesis that all firm-level series contain unit roots is rejected, thereby providing evidence supporting the stationarity of the variables in the forms

used in the model (Choi, 2001). Because the average number of periods ranges only from 13.22 to 14.18 years and the Fisher-ADF test belongs to the class of tests assuming cross-sectional independence, the results are further compared with cross-sectional dependence tests (Pesaran, 2007).

4.2.2. Tests for Heteroskedasticity, Serial Correlation, and Cross-Sectional Dependence

Overall, the test results indicate that the model simultaneously exhibits heteroskedasticity and first-order serial correlation. Therefore, using panel regression models with conventional standard errors may lead to unreliable statistical inference. System GMM is selected because the model includes a lagged dependent variable, the CR variables are potentially endogenous, and the panel data have a large N, small T structure. This method combines instruments in the differenced equation and the level equation, thereby allowing the dissertation to estimate a dynamic panel-data model (Arellano & Bond, 1991; Blundell & Bond, 1998).

4.3. DIRECT EFFECTS OF CORPORATE RESTRUCTURING AND INDUSTRY UNCERTAINTY ON FIRM PERFORMANCE

4.3.1. Individual and Joint Effects of Each Restructuring Channel on Firm Performance

The research results show that the effects of restructuring on firm performance are heterogeneous across resource-adjustment channels. Asset retrenchment has a negative effect on ROA, with negative and statistically significant estimated coefficients in both the separate model (-0.494) and the integrated model (-0.533), indicating that a reduction in asset size may impair operating performance. In contrast, debt reduction has a positive effect, but the statistical evidence becomes clear only in the integrated model, where the CRD coefficient increases from 0.064 in the separate model to 0.299 and is statistically significant at the 5% level. Operating cost reduction also has a positive effect on ROA, with coefficients of 2.532 in the separate model and 1.190 in the integrated model, both statistically significant. Industry uncertainty has a positive and statistically significant effect in all four models, suggesting that, in the research context, uncertainty not only creates risks but may also encourage firms to adjust and reallocate resources more efficiently. Overall, the differences in sign, magnitude, and statistical significance among CRA, CRD, and CRC indicate that the effectiveness of

restructuring depends substantially on the specific resource-adjustment channel.

4.3.2. Moderating Role of Industry Uncertainty

First, the direction of the moderating effect varies across channels: CRD×UI carries a negative sign in both the individual model (-0.036; p-value = 0.073) and the combined model (-0.101; p-value = 0.004); CRC×UI maintains a positive sign, at 0.025 (p-value = 0.019) and 0.030 (p-value = 0.026) respectively; whereas CRA×UI shifts from a negative sign (-0.0367; p-value = 0.073) to a positive sign (0.089; p-value = 0.012) between the individual and combined models.

Second, the stability of the moderating mechanism also differs: the debt reduction (CRD) and cost-cutting (CRC) channels are the most stable in terms of sign, while the asset contraction (CRA) channel is more sensitive to the concurrent implementation of other restructuring strategies. The coefficient of the interaction variable (CRA×UI) flips from negative in the individual model to positive in the combined model.

Third, significance levels vary as well. CRA×UI is significant only at the 10% level in the individual model but reaches the 5% level in the combined model; CRD×UI is significant at the 5% and 1% levels, respectively; and CRC×UI is significant at the 1% and 5% levels.

4.4. MARGINAL-EFFECTS ANALYSIS

4.4.1.Marginal-Effects Analysis for Each Individual Restructuring Channel

- Marginal effect of asset retrenchment: Industry uncertainty tends to strengthen the adverse effect of asset retrenchment. However, the magnitude of the change, at 1.9%, is relatively small, and the interaction term is significant only at the 10% level.

- The specific model provides evidence at the 10% significance level of a negative moderating effect of UI via the CRD×UI interaction term; however, the marginal effects at representative UI levels are not statistically significant.

- The results indicate that industry uncertainty does not undermine the impact of cost reductions; rather, it slightly amplifies the positive effect of CRC on ROA within the central range of the sample distribution.

4.4.2. Joint Marginal-Effects Analysis of the Three Restructuring Channels

Considering the three channels across the P25 to P75 percentiles: CRA maintains a negative impact, though the magnitude of the adverse effect decreases by approximately 2.7%; CRD exerts a positive impact, but the benefit diminishes by about 4.9%; and CRC has a positive impact that increases slightly by around 0.8%. Thus, industry uncertainty not only alters the magnitude of these effects but also gives rise to distinct moderating mechanisms regarding adjustments to assets, liabilities, and costs.

CHAPTER 4 CONCLUSION

CHAPTER 5
CONCLUSIONS AND POLICY IMPLICATIONS

5.1. CONCLUSIONS

The results first indicate that firm performance exhibits persistence over time. The coefficient of lagged ROA is positive and statistically significant across the models. This finding confirms that current performance reflects not only the decisions made at the time when firms undertake restructuring, but is also influenced by their existing resource base, managerial capabilities, and accumulated outcomes from the past. Therefore, restructuring should not be viewed as a one-period action capable of generating immediate change, but rather as a continuous adjustment process in which outcomes depend on the firm's initial conditions and the quality of implementation.

5.2. POLICY IMPLICATIONS

5.2.1. Implications for Firms

Reducing the scale of assets may harm performance if the assets being eliminated still support revenue generation, production capacity, or adaptability. Before undertaking asset retrenchment, firms should clearly distinguish among surplus assets, underperforming assets, peripheral assets, and strategic assets associated with core capabilities. Debt reduction should be implemented selectively rather than with the objective of minimizing leverage to the greatest possible extent. Cost reductions should be based on the quality of expenditures, not merely on their size. The level of industry uncertainty should be incorporated into the decision-making process. As UI_index increases, firms should update cash-flow forecasts more frequently, develop multiple scenarios, establish early-warning thresholds, and phase decisions that are difficult to reverse.

5.2.2. Implications for Investors and Creditors

Investors should not mechanically interpret announcements of cost reductions or asset sales as positive signals. It is necessary to distinguish proactive restructuring aimed at improving efficiency from compulsory responses caused by deteriorating cash flows. Lower leverage may be a favorable signal, but post-repayment liquidity should also be assessed simultaneously. A firm that reduces debt by using nearly all of its cash holdings or by selling cash-generating assets may lower its leverage ratio while increasing operating risk.

5.2.3. Implications for Regulatory Authorities and the Stock Market

Aggregate information on asset sales or cost reductions is insufficient for investors to assess whether firms are eliminating excess resources or weakening their core operations. Regulatory authorities and stock exchanges may develop industry-level uncertainty monitoring indicators based on the dispersion of sales, cash flows, and profits. Such indicators are not a substitute for firm-level risk assessment, but they may support early-warning systems, the monitoring of disclosure quality, and the identification of industries in which large-scale adjustments to assets, debt, or costs are likely to occur.

5.3. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Future research may exploit notes to financial statements and asset transaction data to classify in greater detail the types of assets being retrenched, while also employing additional performance measures that do not depend directly on total assets. Future studies should distinguish capability-building expenditures from administrative expenses and analyze different forms of selective cost retrenchment. Future research may also combine industry-level uncertainty indicators with firm-level uncertainty measures derived from annual reports, management disclosures, or forecast volatility.

CHAPTER 5 CONCLUSION