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Review Article

Capital Structure Dynamics and Financial Flexibility: A Review of Theory and Empirical Evidence

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Abstract

This study provides a systematic review of more than six decades of theoretical and empirical research on capital structure dynamics and financial flexibility, highlighting their central role in modern corporate finance. It traces the evolution of capital structure theory from the Modigliani and Miller (1958) irrelevance propositions to Trade-off, Pecking Order, and contemporary dynamic models that incorporate adjustment costs, information asymmetry, and time-varying targets. Using a structured literature review methodology, the study synthesizes evidence across different institutional settings and crisis periods. The findings emphasize financial flexibility as a strategic capability that allows firms to preserve debt capacity and liquidity, thereby explaining persistent empirical patterns such as conservative leverage, simultaneous cash and debt holdings, and zero-leverage behavior. Empirical studies consistently show that financially flexible firms invest more efficiently, adjust leverage asymmetrically, and exhibit greater resilience during periods of economic uncertainty, including financial crises. Overall, the review demonstrates that financial flexibility transforms capital structure from a static optimization problem into a dynamic, forward-looking strategy for resilience and long-term value creation, while identifying sustainability, fintech, and corporate governance as key avenues for future research.

Keywords: *Capital Structure Dynamics; Financial Flexibility; Financing Policy; Debt Adjustment; Leverage Dynamics; Corporate Resilience.*

Jel Classification: *G31; G32; G34*

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Sermaye Yapısının Dinamikleri ve Finansal Esneklik: Teori ve Ampirik Kanıtların Bir İnceleme

Öz

Bu çalışma, sermaye yapısı dinamikleri ile finansal esneklik üzerine altmış yılı aşkın teorik ve ampirik araştırmayı sistematik biçimde inceleyerek, bu kavramların modern kurumsal finans içindeki merkezi rolünü ortaya koymaktadır. Çalışma, sermaye yapısı teorisinin Modigliani ve Miller'in (1958) ilgisizlik önermelerinden başlayarak, Trade-off ve Pecking Order yaklaşımlarına ve uyum maliyetleri, bilgi asimetrisi ve zamana bağlı hedefleri içeren çağdaş dinamik modellere uzanan evrimini izlemektedir. Yapılandırılmış bir literatür taraması metodolojisi kullanılarak, farklı kurumsal bağlamlar ve kriz dönemleri boyunca elde edilen ampirik bulgular sentezlenmiştir. Bulgular, finansal esnekliğin işletmelerin borçlanma kapasitesini ve likidite tamponlarını korumasına olanak tanıyan stratejik bir yetkinlik olduğunu vurgulamakta; ihtiyatlı kaldıraç politikaları, eş zamanlı nakit ve borç tutma ile sıfır kaldıraç davranışı gibi kalıcı ampirik olguları açıklamaktadır. Ampirik çalışmalar, finansal açıdan esnek firmaların daha etkin yatırım yaptığını, kaldıraçlarını asimetrik biçimde ayarladığını ve finansal krizler dâhil olmak üzere ekonomik belirsizlik dönemlerinde daha yüksek dayanıklılık sergilediğini tutarlı biçimde göstermektedir. Genel olarak bu derleme, finansal esnekliğin sermaye yapısını statik bir optimizasyon probleminden, dayanıklılık ve uzun vadeli değer yaratımını hedefleyen dinamik ve ileriye dönük bir stratejiye dönüştürdüğünü ortaya koymakta; sürdürülebilirlik, fintech ve kurumsal yönetişimi gelecekteki araştırmalar için temel çalışma alanları olarak belirlemektedir.

Anahtar Kelimeler: *Sermaye Yapısının Dinamikleri; Finansal Esneklik; Finansman Politikası; Borç Ayarlaması; Kaldıraç Dinamikleri; Kurumsal Dayanıklılık.*

Jel Sınıflandırması: *G31; G32; G34*

1. Introduction

The corporate financing decision—the determination of the optimal mix of debt and equity—remains one of the most persistent and intellectually challenging questions in financial economics, commonly described as the "capital structure puzzle" (Myers, 1984). The foundational contribution of Modigliani and Miller (1958) constituted a decisive turning point by establishing, under conditions of perfect capital markets, that firm value is invariant to financing choices. This irrelevance proposition replaced earlier institutional arguments with a rigorous, equilibrium-based framework and continues to serve as the theoretical benchmark against which all subsequent capital structure theories are evaluated.

Once real-world frictions such as corporate taxation, bankruptcy costs, agency conflicts, and information asymmetry were introduced, the M&M framework became conditional rather than definitive, prompting scholars to identify the determinants that meaningfully influence financing behavior (Jensen & Meckling, 1976; Miller, 1977). This shift gave rise to two dominant yet competing paradigms: the Static Tradeoff Theory (STT) and the Pecking Order Theory (POT) (Myers, 1984; Myers & Majluf, 1984). While STT assumes that firms balance tax advantages of debt against expected distress costs to converge toward an optimal leverage ratio, POT rejects the notion of a target structure altogether, arguing instead for a financing hierarchy driven by information asymmetry and earnings volatility. Recent empirical studies continue to operationalize these competing logics when examining capital structure choices across different institutional contexts (Anggara et al., 2023; Putri & Willim, 2024; Arhinful et al., 2025).

Despite decades of empirical testing, evidence distinguishing between STT and POT has remained inconclusive (Leary & Roberts, 2010). Early empirical failures to identify stable target leverage ratios were later attributed to methodological limitations rather than theoretical flaws. Using dynamic partial adjustment models, Flannery and Rangan (2006) demonstrated that firms do possess target capital structures and adjust toward them at economically meaningful speeds. Subsequent surveys of the literature confirm that adjustment speed (SoA) has become a central empirical metric in modern capital structure research, although reported estimates vary substantially depending on firm characteristics, market conditions, and adjustment costs (Nguyen et al., 2023).

The limitations of static theories and the heterogeneity observed in leverage dynamics have redirected scholarly attention toward financial flexibility as a strategic determinant of capital structure. Financial flexibility refers to a firm's ability to access and reconfigure financial resources efficiently in response to unexpected shocks or investment opportunities (Byoun, 2011). Survey evidence indicates that managers consistently rank the preservation of flexibility above tax optimization concerns when making financing decisions (Graham & Harvey, 2001), a finding reinforced by more recent corporate finance surveys during periods of heightened uncertainty (Pagano & Zechner, 2022).

The financial flexibility framework explains several stylized facts that traditional theories struggle to reconcile. Central to this paradigm is the concept of unused debt capacity, whereby firms deliberately maintain conservative leverage to preserve future borrowing power (Marchica & Mura, 2010; Denis & McKeon, 2012). This strategy is particularly relevant for firms operating under high earnings volatility or uncertain growth prospects, where flexibility outweighs short-term tax benefits (Melianti & Kontesa, 2022; Delila & Kristanti, 2025). Empirical evidence shows that financially flexible firms invest more aggressively when opportunities arise and generate superior abnormal returns, confirming that low leverage often reflects strategic foresight rather than inefficiency (Marchica & Mura, 2010).

Financial flexibility is inherently multidimensional, encompassing both debt flexibility (low leverage) and cash flexibility (excess liquidity) (Dalwai, 2023). Theoretical models developed by Gamba and Triantis (2008) rationalize the coexistence of debt and large cash holdings as an intertemporal optimization strategy that preserves future tax shields while minimizing issuance costs. International evidence further shows that firms actively engage in liquidity matching, using cash as insurance against cash flow shocks while reserving credit lines for strategic expansion (Lins et al., 2010). Recent firm-level studies confirm that asset structure, earnings volatility, and flexibility jointly shape leverage outcomes, especially in emerging markets (Anggara et al., 2023; Putri & Willim, 2024).

Integrating financial flexibility necessitates a dynamic conception of capital structure, where target leverage is neither fixed nor universal. Dynamic models incorporating managerial preferences and productive capital demonstrate that optimal capital structure evolves over time in response to changing expectations and adjustment frictions (Karpavičius, 2014). Empirical evidence strongly supports this view: DeAngelo and Roll (2015) show that leverage cross-sections are highly unstable over long horizons, implying that time-varying firm-specific and macroeconomic factors dominate capital structure decisions. CEO characteristics have also been shown to influence adjustment behavior and risk tolerance, reinforcing the role of managerial discretion in dynamic capital structure outcomes (Le et al., 2025).

Further refinements emphasize asymmetry in adjustment speeds. Dang et al. (2012) document that firms adjust toward target leverage at heterogeneous rates depending on whether they are over- or under-levered and on prevailing financing constraints. Over-levered firms, particularly during periods of stress, tend to adjust more aggressively to mitigate distress risk. This dynamic logic also accounts for the persistent zero-leverage phenomenon, where firms intentionally avoid debt to preserve maximum flexibility under uncertainty (Choi, 2025).

The strategic importance of financial flexibility has become especially evident during major exogenous shocks. The COVID-19 pandemic constituted an unprecedented natural experiment in corporate finance, severely constraining external financing and testing firms' resilience (Vo et al., 2022). Empirical evidence shows that crisis exposure significantly slowed leverage adjustment speeds and amplified the value of pre-existing flexibility (Jain et al., 2024). Firms with greater financial and real flexibility were better able to sustain investment, absorb revenue shocks, and navigate policy uncertainty (Ho et al., 2023).

Moreover, pandemic-era research demonstrates that financial flexibility plays a crucial role in downside risk mitigation. Flexible firms reduced future stock price crash risk and actively shifted financing preferences toward liquidity accumulation rather than debt issuance during periods of elevated economic policy uncertainty (Nguyen & Dang, 2023; Dalwai, 2023). Zero-leverage firms, in particular, exhibited superior resilience, experiencing smaller investment contractions and selectively increasing leverage only when conditions stabilized, validating the strategic value of conservative pre-crisis financing (Choi, 2025).

Despite the rapid expansion of this literature, research on capital structure dynamics and financial flexibility remains fragmented. Studies employ diverse methodologies and sometimes yield conflicting interpretations regarding the relative importance of information asymmetry versus dynamic tradeoffs (Leary & Roberts, 2010; Mabrouk & Boubaker, 2019). Additionally, the growing emphasis on macroeconomic uncertainty, crisis exposure, and institutional constraints further complicates empirical inference, necessitating a more integrated synthesis of firm-level and macro-level determinants (Graham et al., 2015).

Against this backdrop, this systematic literature review aims to synthesize the theoretical and empirical research at the intersection of capital structure dynamics and financial flexibility. It addresses the central question: *How has the strategic concept of financial flexibility reshaped both the theoretical understanding and empirical modeling of capital structure decisions in a dynamic and uncertain environment?* To answer this question, the review traces the evolution of capital structure theory, clarifies the multidimensional nature of financial flexibility, evaluates methodological advances in modeling adjustment dynamics, and consolidates empirical evidence on flexibility's role in enhancing investment capacity, crisis resilience, and firm value. Finally, it identifies emerging research gaps, particularly concerning non-linear adjustment processes, managerial heterogeneity, and the interaction between financial flexibility and macroeconomic shocks.

The remainder of this paper is structured as follows. Section 2 outlines the Methodology. Section 3 reviews the Theoretical Foundations of Capital Structure. Section 4 defines the Concept and Dimensions of Financial Flexibility. Section 5 discusses Capital Structure Dynamics and Adjustment Speed. Section 6 presents Empirical Evidence Linking Capital Structure and Financial Flexibility. Section 7 details the Determinants of Financial Flexibility in Practice. Section 8 evaluates Methodological Approaches in the Literature. Section 9 identifies Emerging Trends and Research Gaps, and Section 10 concludes the review.

2. Methodology

This study adopts a systematic literature review approach to synthesize the theoretical and empirical evidence on capital structure dynamics and financial flexibility. To ensure rigor and transparency, the review followed structured procedures for literature identification, screening, and classification, consistent with PRISMA guidelines.

Search Strategy: Relevant studies were collected from leading academic databases, including *Scopus, Web of Science, JSTOR,* and *SSRN*. A combination of keywords was used, such as *"capital structure dynamics," "financial flexibility," "financing policy," "debt adjustment," "leverage dynamics,"* and *"investment and liquidity policies."*

Inclusion and Exclusion Criteria: The review covered the period from 1958 to 2025, capturing both classical and contemporary contributions. Only peer-reviewed journal articles and high-quality working papers were included, while non-academic sources, conference papers, and non-English studies were excluded to maintain consistency and comparability. Studies focusing exclusively on taxation, behavioral finance, or macro-level regulation without direct implications for firm-level capital structure were also excluded.

Screening Process: The initial search retrieved approximately 250 records. After removing duplicates and irrelevant articles, 95 studies were retained for full-text screening. Following methodological and thematic assessment, 19 studies were included in the final review (see Table 1). This table summarizes the main studies analyzed in the systematic review, detailing each author's focus, methodology, and key findings on capital structure dynamics and financial flexibility from 1958 to 2025.

Classification Approach: The selected studies were categorized along multiple dimensions:

- Theoretical vs. Empirical Contributions (e.g., Modigliani & Miller, 1958, vs. Flannery & Rangan, 2006).
- Geographical Context (developed markets such as the US and UK vs. emerging markets such as Vietnam).
- Methodological Orientation (theoretical models, simulation models, panel regressions, surveys, and literature surveys).
- Temporal Context (pre- and post-financial crises, including COVID-19).

To ensure consistency and accuracy, references were managed using *Zotero*. This structured approach allowed for a comprehensive synthesis of over six decades of research, ranging from foundational theories of capital structure to contemporary evidence on financial flexibility under uncertainty and crisis conditions.

Table 1: Overview of studies included in the Systematic Review

Author (year)	Focus / Topic	Methodology	Key Findings
Modigliani & Miller (1958, 1963)	Capital structure irrelevance & tax shield	Theoretical model	Established the MM propositions; showed capital structure irrelevance under perfect markets; later introduced tax benefits of debt.
Myers (1984)	Pecking Order Theory	Conceptual framework	Firms prefer internal financing, then debt, then equity due to information asymmetry.
Jensen (1986)	Free cash-flow & agency costs	Theoretical model	High debt disciplines managers but increases financial distress risk.
Flannery & Rangan (2006)	Speed of adjustment toward target leverage	Dynamic panel (US firms)	Firms adjust partially toward target leverage; adjustment speed ≈ 30% per year.
Gamba & Triantis (2008)	Modeling financial flexibility	Simulation model	Flexibility adds significant value by allowing firms to exploit future growth opportunities.
Marchica & Mura (2010)	Financial flexibility and investment	Panel data (UK firms)	Financially flexible firms invest more efficiently and outperform peers.
Lins *et al.* (2010)	Corporate liquidity and financial crises	Survey of CFOs (2008 crisis)	Firms held cash to mitigate crisis risks; flexibility strongly valued in downturns.
Byoun (2011)	Financial flexibility and adjustment behavior	Panel data analysis	Firms with higher flexibility adjust leverage faster; constrained firms adjust slowly.
Denis & McKeon (2012)	Debt capacity and financial flexibility	Empirical (US firms, 1980–2009)	Firms maintain unused debt capacity to preserve flexibility for future investments.
Dang *et al.* (2012)	Capital structure dynamics across firm size	Dynamic panel (GMM)	Small firms adjust more slowly due to financing constraints.

Graham *et al.* (2015)	A century of capital structure research	Panel data analysis	Highlighted evolution of theories; emphasized importance of dynamics and flexibility.
DeAngelo & Roll (2015)	Historical perspective on capital structure	Long-term empirical review (US, 1900–2000)	Firms rarely follow a strict target; capital structure changes slowly over time.
Lambrinoudakis *et al.* (2019)	Expectations of future shocks & leverage / financial flexibility	Panel regressions	Firms reduce leverage when expectations about future shocks increase; effect stronger for small & financially constrained firms. Those expectations explain more leverage variation than many standard variables.
Nguyen & Dang (2023)	Financial flexibility & stock price crash risk during COVID-19 (Vietnam)	Panel data; fixed effects, system GMM, quantile regression.	Financial flexibility reduces crash risk; effect stronger during COVID-19 crisis. High flexibility helps firms absorb shocks, protect value.
Deviyanti *et al.* (2023)	COVID-19's global impact on capital structure in consumer goods sector	Panel data; fixed effects models; breakdown by region, sector, year.	Initially COVID-19 increased leverage (particularly short-term debt) in the first 2 years; by year 3, shift toward reducing leverage; sector & regional heterogeneity.
Dalwai (2023)	Economic policy uncertainty & financial flexibility before/during COVID-19	Panel regressions	Higher policy uncertainty worsens constraints on financial flexibility; firms with more flexibility cope better; flexibility moderates negative effects of uncertainty.
Rehman *et al.* (2024)	COVID-19 exposure & speed of leverage adjustment	US listed firms 2019Q1–2022Q1	COVID exposure slows down adjustment speed; firms more exposed move more slowly toward target capital structure during pandemic.
Fliers (2024)	Market power & financial flexibility's effect on corporate investment	Empirical regressions (large, mature US firms)	Firms with greater market power and financial flexibility tend to invest more aggressively; flexibility amplifies investment when firms have influence in their markets.
Choi (2025)	Zero-leverage firms during COVID-19: preserving financial flexibility	Panel data across 42 countries	Zero-levered firms used excess debt capacity during COVID-19 to finance cash flow shortfalls & maintain investment; had smaller investment declines vs. levered firms. Suggests preserving flexibility matters.

Source: Author

3. Theoretical Foundations of Capital Structure

The question of how firms determine their optimal mix of debt and equity—known as the capital structure decision—has been a cornerstone of corporate finance since the mid-20th century. Theoretical development began with highly simplified models, evolved through the incorporation of market frictions like taxes and distress costs, and ultimately embraced dynamic considerations, managerial behavior, and informational asymmetries. A thorough review of capital structure dynamics must be anchored in these foundational, classical, and modern theories.

3.1 Classical Theories

The foundational understanding of capital structure is built upon three classical frameworks: the M&M theorem, the Trade-off Theory, and the Pecking Order Theory.

The 1958 work of Franco Modigliani and Merton H. Miller represents a pivotal milestone in modern corporate finance, as it laid the foundation for capital structure theory by examining how financing decisions influence the cost of capital under uncertainty. They adopted a market value maximization approach, asserting that an investment is worthwhile if it increases the market value of the firm's shares (Modigliani & Miller, 1958). Their propositions were built on the critical assumption of perfect capital markets, from which two fundamental insights emerged. The first, known as the Irrelevance Proposition, states that a firm's market value is determined solely by capitalizing its expected returns, entirely independent of its capital structure; the average cost of capital thus remains constant regardless of leverage. This conclusion rests on an arbitrage logic—investors can replicate or reverse corporate leverage through personal borrowing, ensuring that firm values equalize. The second proposition relates to the expected return on common equity, positing that it increases linearly with leverage: as debt rises, shareholders demand higher returns to compensate for additional risk, keeping the overall weighted average cost of capital (WACC) unchanged. Later, Modigliani and Miller introduced a more realistic perspective by incorporating corporate income tax, demonstrating that interest deductibility creates a tax shield that enhances firm value and reduces the cost of capital (Modigliani & Miller, 1963).

The Trade-off Theory (TOT) emerged as an extension of the Modigliani–Miller framework, integrating real-world market imperfections to justify the existence of an optimal capital structure. It argues that firms establish a target debt ratio by weighing the benefits of debt—mainly the tax shield from interest deductibility—against its costs, which include financial distress, agency, monitoring, and bankruptcy costs. In its static version, the theory maintains that firms continuously adjust their financing decisions to approach the debt-to-value ratio that maximizes market value. However, empirical evidence has exposed notable limitations, as the theory fails to fully account for the wide disparities in leverage among similar firms, and the link between tax status and higher leverage remains weak (Myers, 1984). Despite these shortcomings, TOT provides a valuable insight by predicting that riskier firms—particularly those rich in intangible assets or growth opportunities—tend to rely less on debt, given the higher potential loss of value under financial distress.

Proposed by Myers (1984), the Pecking Order Theory (POT) provides an alternative view of capital structure decisions based on information asymmetry between managers and external investors. Unlike the TOT, which assumes firms target an optimal debt-to-equity ratio, the POT suggests that leverage results from a sequence of financing decisions rather than a predefined target. Firms follow a strict financing hierarchy to minimize adverse selection costs: they prefer using internal funds (retained earnings) first, as they involve no information cost; then debt, whose valuation is less affected by private managerial information; and finally, external equity, used only as a last resort because issuing new shares may signal overvaluation and cause a decline in stock prices. Empirical evidence supports this signaling effect, as stock prices typically drop following equity issuance announcements. However, the theory has faced empirical criticism—Leary and Roberts (2010) found that a strict POT explains only 17% of financing choices, with explanatory power improving only when TOT-related factors are included. They also argued that observed financing patterns may stem more from agency conflicts, as emphasized by Jensen (1986), than from information asymmetry. Similarly, evidence from French firms revealed that debt issuance did not fully adjust to financing deficits, with the adjustment coefficient approaching zero (Mabrouk & Boubaker, 2019).

3.2 Modern Theories

The limitations of classical theories in explaining real-world financing behavior, particularly the negative correlation between profitability and leverage (Myers, 1984), led to the development of modern, dynamic models that incorporate market frictions and time dependency.

The Market Timing Theory (MTT) proposed by Baker and Wurgler (2002), argues that a firm's capital structure is primarily the cumulative outcome of managers' past efforts to exploit temporary market misvaluations rather than the result of a deliberate pursuit of an optimal leverage ratio. Managers tend to issue equity when they either perceive their firm's stock to be overvalued and repurchase shares or issue debt when it appears undervalued. This perspective implies that firms may not have a meaningful target leverage ratio—or, if such a target exists, deviations from it entail minimal costs that managers readily ignore when favorable timing opportunities arise. Consequently, leverage tends to exhibit inertia, reflecting the historical sequence of market valuations and financing choices rather than active adjustments toward a target, as highlighted by Welch (2004). Nonetheless, empirical evidence from Flannery and Rangan (2006) indicates that while market-timing factors are statistically significant, they account for less than 10% of observed capital structure variations, suggesting their influence is limited compared to target-oriented financing behavior.

Dynamic Trade-off Models (DTOM) represent an advancement of the traditional Trade-off model, integrating the concept of adjustment costs that explain why firms do not instantly return to their theoretical target leverage ratios (Fischer et al., 1989). The core of these models lies in estimating the SoA (λ), which quantifies the portion of deviation from the target leverage (MDR) corrected each period. Flannery and Rangan (2006) revitalized the TOT by employing a dynamic panel model with firm-fixed effects, revealing that firms adjust toward their target structures at a relatively high pace of around 34% per year—strong evidence supporting the economic relevance of the theory, which earlier studies had underestimated. However, subsequent research found that this adjustment is not symmetric across firms. Dang et al. (2012), using a dynamic panel threshold model, demonstrated that the adjustment speed varies depending on a firm's leverage condition, with over-levered firms facing high distress costs and large financing deficits adjusting much faster—sometimes up to 75%—often through net equity issuance. Furthermore, DTOMs have been applied to assess macroeconomic and crisis-related influences; for instance, Rehman et al. (2024) showed that the COVID-19 pandemic significantly slowed leverage adjustments for highly exposed firms, as elevated adjustment costs and constrained financial flexibility reduced their capacity to realign capital structures.

3.3 Challenges in Incorporating Financial Flexibility into These Theories

While classical and modern theories offer competing narratives, they face a critical challenge from the financial flexibility paradigm, which posits that a primary managerial objective is the preservation of untapped borrowing capacity to mobilize resources for uncertain future events (Byoun, 2011).

The financial flexibility paradigm, supported by survey evidence showing CFOs prioritize flexibility (Graham & Harvey, 2001), reframes several traditional "puzzles":

a) Challenging the TOT and the Low Leverage Puzzle: The traditional TOT suggests that forgoing debt tax shields (by maintaining low leverage) is sub-optimal. However, the financial flexibility hypothesis argues that the option value inherent in unused debt capacity outweighs the immediate tax benefits, especially when future growth opportunities are valuable but uncertain. Marchica and Mura (2010) empirically demonstrated that firms maintaining SDC for a period subsequently invest significantly more and achieve superior long-run shareholder returns (Jensen's alpha), providing robust evidence that low leverage is a strategic, value-enhancing policy, not a puzzle.

b) Challenging the Pecking Order's Hierarchy: The POT stipulates that equity is a last resort due to adverse selection. The financial flexibility hypothesis, particularly for developing firms that have uncertain futures and face borrowing constraints, predicts they will often issue external equity first to build cash reserves and a financial buffer, thus maintaining low leverage and maximizing flexibility. This reversal of the hierarchy is explained because the need to build precautionary cash balances trumps the adverse selection costs of equity, thereby resolving the empirical "equity issuance puzzle" (Byoun, 2011).

c) Integrating Flexibility into Dynamics: The instability of capital structures over long horizons (DeAngelo & Roll, 2015) suggests that theories must accommodate wide leverage swings and acknowledge that proximity to a target is secondary. Denis and McKeon (2012) found that large, proactive leverage increases are generally driven by the need to fund investments and operations, compelling firms to move away from their estimated targets. This behavior supports models where the long-run target is maintained conservatively to preserve the ability to borrow when sudden shocks or opportunities arise, confirming that financial flexibility (unused debt capacity) is a transitory, but vital, component of debt dynamics.

d) The Role of Liquidity and Cash: The financial flexibility paradigm emphasizes that a firm's total liquidity portfolio is key. Gamba and Triantis (2008) showed theoretically that, in the presence of debt issuance costs, it is optimal for firms to simultaneously hold cash and borrow debt. Cash provides realized liquidity (general insurance), while LOCs provide optional liquidity (flexibility to seize growth options) (Lins et al. 2010). This joint management of debt and cash is essential for preserving flexibility.

The theoretical consensus in modern finance is shifting toward a hybrid model where a conservative, long-run target (Trade-off) is managed dynamically to maximize financial flexibility, especially against anticipated future shocks (Lambrinoudakis et al. 2019). This integrated framework views flexibility as a strategic necessity, essential for resilience during major crises like the COVID-19 pandemic (Choi, 2025; Nguyen & Dang, 2023).

Table 2: Comparative Overview of Capital Structure Theories

Theory	Key Assumptions	Main Prediction on Leverage	Limitations Addressed by Financial Flexibility
Modigliani–Miller (1958, 1963)	Perfect markets; no taxes or distress costs	Capital structure is irrelevant to firm value (with taxes, 100% debt optimal)	Ignores uncertainty, adjustment costs, and precautionary behavior
Static Trade-off Theory	Taxes vs. bankruptcy and agency costs	Firms target an optimal leverage ratio	Cannot explain persistent low leverage or zero-debt firms
Pecking Order Theory	Information asymmetry	Financing follows a hierarchy (internal funds → debt → equity)	Fails to explain equity issuance for flexibility and cash hoarding
Market Timing Theory	Market mispricing	Capital structure reflects cumulative timing decisions	Limited explanatory power in long-run leverage dynamics
Financial Flexibility Framework	Uncertainty and future investment needs	Firms preserve unused debt capacity and liquidity	Integrates dynamic behavior, crises, and precautionary motives

Source: Author

Table 2 provides a comparative synthesis of the major capital structure theories, highlighting their core assumptions, leverage predictions, and explanatory limitations. The comparison reveals that while classical frameworks—such as the Modigliani–Miller theorem, the Trade-off Theory, and the Pecking Order Theory—offer valuable insights into specific financing mechanisms, they remain largely static and struggle to account for observed behaviors under uncertainty. In contrast, the financial flexibility framework integrates dynamic considerations by explicitly recognizing adjustment costs, future investment opportunities, and precautionary motives. This comparison underscores that financial flexibility does not contradict existing theories but rather reconciles their empirical inconsistencies by embedding capital structure decisions within a forward-looking strategic context.

4. Concept and Dimensions of Financial Flexibility

The concept of financial flexibility has emerged as a crucial element in modern corporate finance, providing a dynamic framework that reconciles the limitations of static models such as the traditional TOT and the original POT. Financial executives consistently emphasize the preservation of flexibility as a primary determinant of capital structure choices. In essence, financial flexibility refers to a firm's capacity to mobilize financial resources to effectively respond to uncertain future events, representing a forward-looking strategic policy designed to preserve valuable options for future contingencies (Byoun, 2011; Graham & Harvey, 2001).

4.1 Dimensions of Financial Flexibility: Liquidity, External Financing Capacity, and Cash Reserves

Financial flexibility consists of two interrelated but distinct components that firms strategically manage on their balance sheets: cash flexibility, representing realized liquidity, and debt flexibility, representing optional liquidity or external financing capacity (Dalwai, 2023). Cash flexibility entails holding excess cash reserves, serving as a precautionary measure or insurance policy against unexpected cash flow shortfalls, particularly for developing firms facing uncertain opportunities and borrowing constraints (Lins et al., 2010; Byoun, 2011). Firms may simultaneously hold cash and incur debt to mitigate issuance costs and preserve the option to restore net debt levels without friction, though this strategy involves a trade-off, as cash holdings reduce financing and distress costs but may lead to tax disadvantages (Gamba & Triantis, 2008). However, total reported cash holdings do not necessarily equate to strategic flexibility, since only about 40% of cash is non-operational and available for discretionary use (Lins et al., 2010). The second dimension, debt flexibility, reflects the firm's ability to take on additional debt when needed, achieved by maintaining low long-run leverage targets to preserve unused borrowing capacity for unexpected investments or earnings shortfalls—commonly referred to as SDC (Denis & McKeon, 2012; Marchica & Mura, 2010). Firms that deliberately operate below their optimal leverage level create this SDC reserve, while bank LOCs often serve as a more significant source of strategic liquidity than cash holdings, providing optional liquidity for future growth opportunities, particularly when firms perceive their equity as undervalued (Lins et al., 2010). Empirical evidence supports that firms typically increase leverage primarily to finance long-term investments and operational needs, underscoring the critical role of preserving borrowing power as a core element of financial flexibility (Denis & McKeon, 2012).

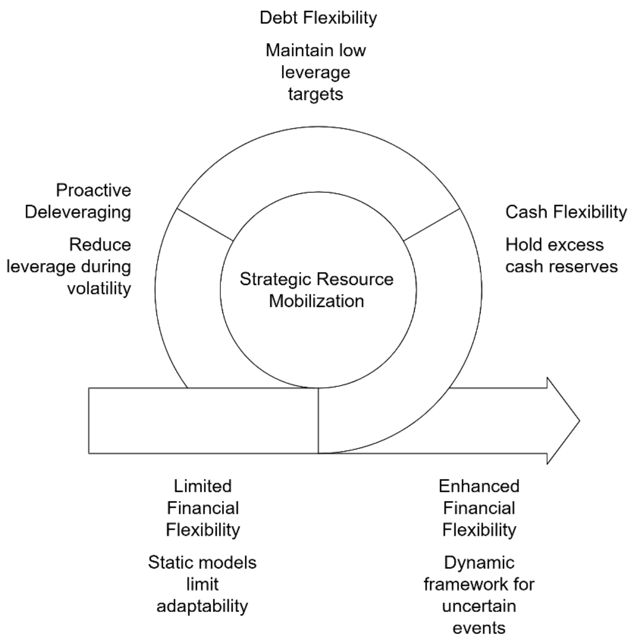
4.2 Role of Flexibility in Dealing with Shocks and Crises

Financial flexibility serves as a strategic tool that enables firms to withstand economic uncertainty and crises, functioning as a vital financial buffer (Nguyen & Dang, 2023). Firms actively manage their leverage in anticipation of future conditions, as theoretical models indicate an inverse relationship between leverage and expectations of future shocks to investment opportunities (Lambrinoudakis et al., 2019). When markets anticipate greater volatility or a higher probability of extreme events—measured through risk-neutral volatility and kurtosis from options markets—firms tend to proactively deleverage, thereby preserving debt capacity for future profitable opportunities or adverse events (Lambrinoudakis et al., 2019). The COVID-19 pandemic provided a clear test of this principle: firms with higher financial flexibility were better equipped to absorb its impact and maintain stock price stability (Nguyen & Dang, 2023). Empirical evidence from firms with zero leverage further supports the flexibility hypothesis, showing that such firms experienced smaller investment declines during the 2020 crisis and strategically increased leverage afterward, demonstrating the deliberate use of preserved borrowing capacity (Choi, 2025). Nonetheless, the crisis also exposed the limits of flexibility, as firms heavily affected by COVID-19 exhibited slower leverage adjustments due to heightened financial frictions, agency conflicts, and adjustment costs. This reinforces that the negative relationship between expected shocks and leverage is most pronounced among financially constrained firms, which have the strongest incentive to maintain financial optionality (Lambrinoudakis et al., 2019; Rehman et al., 2024).

4.3 Relationship between Flexibility and Firm Market Value

Financial flexibility represents a value-enhancing strategy that strengthens a firm's market perception and overall valuation by enabling it to invest strategically and adapt to changing financial conditions (Marchica & Mura, 2010). Empirical evidence shows that financially flexible firms, particularly those that have previously adopted conservative debt policies, engage in significantly higher investment once they decide to deploy their debt capacity, financing these investments primarily through new debt issuance, which leads to superior long-term performance and positive abnormal returns (Marchica & Mura, 2010). The benefits of maintaining such flexibility are especially evident among young, high-growth firms that depend heavily on external financing; by holding both cash and debt, they preserve optionality and achieve higher firm value compared to peers with identical net debt but no liquidity buffers, particularly when issuance costs are present (Gamba & Triantis, 2008). Beyond its financial dimension, flexibility also mitigates information asymmetry and agency costs by signaling sound governance practices, discouraging managerial opportunism, and stabilizing stock prices through reduced bad-news hoarding (Nguyen & Dang, 2023). Moreover, firms with substantial market power use flexibility strategically to preserve debt capacity for future rent-extraction or competitive positioning rather than immediate investment, emphasizing its broader role as a dynamic tool for managing strategic and market contingencies (Fliers, 2024). The interaction between liquidity, debt capacity, and external financing in achieving financial flexibility is conceptually illustrated in Figure 1, which shows how firms combine cash reserves, unused debt capacity, and access to external funding to maintain resilience under uncertainty.

Figure 1: Achieving Financial Flexibility



Source: Author

5. Capital Structure Dynamics and Adjustment Speed

The question of whether firms actively pursue an optimal leverage ratio—and if so, how quickly—is a central theme in modern corporate finance, primarily distinguishing the TOT from the POT. Dynamic models of capital structure acknowledge that adjustment is not instantaneous but occurs over time, governed by the SoA parameter, which captures the influence of adjustment costs and market frictions.

5.1 Studies on the SoA toward target capital structure

The empirical literature on capital structure dynamics is largely dominated by studies employing the partial adjustment model, which tests the hypothesis that firms actively narrow the gap between their actual and target leverage ratios. In this context, Flannery and Rangan (2006) revitalized the Trade-off Theory by providing compelling evidence that firms indeed pursue target capital structures, adjusting toward them at a surprisingly rapid pace. Using a generalized partial adjustment model with firm-fixed effects, they estimated an adjustment speed of about 34% per year for U.S. non-financial firms, implying that a typical firm corrects more than half of its deviation from the target within two years. Their findings challenged earlier research suggesting slow or nonexistent adjustment, showing that such low estimates were mainly due to methodological bias arising from omitting firm-fixed effects, which capture unobserved, time-invariant heterogeneity across firms. Their results further indicated that this targeting behavior accounts for over half of the observed changes in capital structure, reducing the explanatory power of competing frameworks such as the Pecking Order and Market Timing theories. However, subsequent studies introduced greater nuance to this narrative. Dang et al. (2012) demonstrated that adjustment speeds and leverage targets are asymmetric and contingent on firms' financial conditions. Using a dynamic panel threshold model for UK firms, they found a generally high speed of adjustment (53–59% per year), which rose sharply to 75% among firms facing large financing imbalances—mainly through net equity issuance—suggesting that over-levered firms act aggressively to mitigate potential distress costs, strongly supporting the dynamic trade-off model. In contrast, DeAngelo and Roll (2015) challenged the assumption of long-term leverage stability, arguing that stability is the exception rather than the rule. Their long-horizon analysis revealed that leverage rankings among firms diverge significantly over time, indicating that current leverage is a poor predictor of future positions. Their simulations showed that models assuming rapid adjustment speeds (≥30% per year) fail to replicate the observed instability, while models with time-varying targets or slower adjustment speeds (around 15%) and wider target zones provide a more accurate empirical fit.

5.2 Influencing factors: firm size, profitability, growth, and risk

The target capital structure (MDR*) and the adjustment speed (λ) are jointly determined by firm-specific characteristics and forward-looking risks, reflecting a balance between trade-off benefits and external frictions. Profitability, for instance, plays a crucial yet complex role: highly profitable or mature firms tend to maintain lower leverage ratios. Byoun (2011) attributes this to the Financial Flexibility Hypothesis, arguing that profitable firms rely on internally generated funds to reduce debt, thereby restoring borrowing capacity (SDC) and maintaining a moderate, safe level of leverage for future contingencies. Similarly, the firm's life cycle and growth prospects substantially shape its capital structure decisions. According to Byoun (2011), there exists an inverted-U relationship between financial flexibility needs and leverage, where early-stage firms preserve low leverage and high liquidity as a precautionary buffer, while growing firms take on more debt to finance expansion. Denis and McKeon (2012) reinforce this dynamic view, showing that firms deliberately increase leverage—often deviating from target levels—to fund long-term investments such as capital expenditures and acquisitions, which accounted for 67% of observed cases, implying that immediate investment demands often outweigh the pursuit of strict target adherence. Moreover, risk and uncertainty are pivotal in determining both the optimal leverage level and the speed of adjustment. In line with financial flexibility theory, firms tend to proactively deleverage when anticipating future risks. Lambrinoudakis et al. (2019) demonstrated that higher expected market volatility and kurtosis are negatively related to leverage, suggesting that firms reduce debt to preserve borrowing capacity under heightened uncertainty. Dalwai (2023) found similar behavior among Indian tourism firms during the COVID-19 crisis, where elevated EPU prompted a shift toward greater cash flexibility and reduced debt exposure. Conversely, Rehman et al. (2024) revealed that severe, unexpected shocks—like the pandemic—can slow leverage adjustment, particularly for overleveraged firms, as increased agency conflicts and higher adjustment costs hinder debt restructuring and limit financial maneuverability.

5.3 Differences between Developed and Emerging Markets

While the fundamental drivers of target capital structure behavior, as posited by the Trade-off and Pecking Order theories, are universally relevant, the institutional and macroeconomic context exerts a decisive influence on how these dynamics manifest across different economies, particularly between developed and emerging markets. Graham et al. (2015) demonstrated that the century-long rise in U.S. corporate leverage was primarily shaped by external macroeconomic factors—such as the expansion of financial intermediation and its inverse relationship with government borrowing—rather than by firm-specific characteristics, highlighting the limitations of models focused solely on micro-level determinants. Moreover, the behavioral dynamics of firms during crises reveal significant contextual differences in adjustment speed (SoA). Rehman et al. (2024) found a general slowdown in SoA among U.S. firms exposed to COVID-19, whereas Nguyen and Dang (2023), studying Vietnamese firms, showed that financial flexibility served as a crucial buffer mitigating the pandemic's adverse effects in an emerging market context. Similarly, Deviyanti et al. (2023) observed that global consumer goods firms experienced an initial surge in leverage followed by deleveraging during the pandemic—a pattern consistent across developed, emerging, and frontier markets—suggesting a universal yet contextually constrained adaptability. Collectively, these findings indicate that while external constraints differ across environments, the strategic pursuit of financial flexibility remains a constant global driver of capital structure dynamics, often resulting in opportunistic rather than strictly target-driven adjustments.

Table 3: Financial Flexibility, Crises, and Adjustment Speed

Study	Crisis Context	Effect on Leverage Adjustment Speed (SoA)	Interpretation
Flannery & Rangan (2006)	Normal periods	Fast adjustment (~34% per year)	Active targeting behavior
Dang et al. (2012)	Normal periods	Asymmetric SoA (up to 75%)	Over-levered firms adjust faster
Rehman et al. (2024)	COVID-19	Slower adjustment	Flexibility constraints increase adjustment costs
Choi (2025)	COVID-19	Flexible firms increase leverage	Preserved debt capacity enables resilience
Dalwai (2023)	High EPU periods	Shift from debt to cash flexibility	Precautionary liquidity dominates

Source: Author

Table 3 focuses on the role of financial flexibility during periods of heightened uncertainty and crisis, particularly in shaping the speed and direction of leverage adjustment. The evidence indicates that adjustment toward target leverage is highly state-dependent: during stable periods, firms actively rebalance toward targets, whereas crises significantly alter adjustment incentives and constraints. Firms with preserved financial flexibility are able to deploy unused debt capacity to stabilize investment and operations, while highly exposed or financially constrained firms experience slower adjustment due to elevated financing frictions. This comparative analysis highlights that financial flexibility not only affects the level of leverage but also governs the dynamic response of capital structure to exogenous shocks.

6. Empirical Evidence Linking Capital Structure and Financial Flexibility

The theoretical relevance of financial flexibility—defined as a firm's capacity to raise capital efficiently or sustain operations through internal resources when needed (Byoun, 2011; Gamba & Triantis, 2008)—has been decisively supported by empirical studies. These studies move beyond the static Trade-Off and Pecking Order models by demonstrating that financial decisions are forward-looking and dynamic, often prioritizing the strategic option value of unused debt capacity and liquidity over immediate tax benefits. This section reviews the key empirical evidence linking capital structure decisions directly to the pursuit and utilization of financial flexibility across various contexts, including financial crises, investment policies, and liquidity management.

6.1 Investment Decisions, Growth Financing, and the Value of Flexibility

The primary economic value of financial flexibility lies in its capacity to mitigate investment distortions—both under- and over-investment—arising from market frictions such as external financing costs and information asymmetry (Marchica & Mura, 2010; Gamba & Triantis, 2008). Empirical evidence underscores that maintaining a conservative capital structure is a deliberate strategy to preserve SDC for future growth opportunities (Marchica & Mura, 2010). Firms intentionally borrow below their optimal capacity to maintain this flexibility, enabling them to capitalize on valuable investment prospects when external funding becomes expensive due to information asymmetries. In their study of UK firms, Marchica and Mura (2010) found that financially flexible firms—those maintaining SDC for three consecutive years—subsequently increased their capital expenditures by about 37%, primarily financed through net debt issues, thereby generating significant shareholder value reflected in positive abnormal returns (Jensen's alpha). Complementary findings by Denis and McKeon (2012) reveal that debt is often used as a funding mechanism rather than merely a tool for leverage adjustment; in their sample, firms undertaking large, proactive leverage increases primarily used the proceeds to finance long-term investments (67%) and working capital (23%), confirming that borrowing decisions are often opportunity-driven. Moreover, flexibility-based models explain why firms simultaneously hold cash and debt—an apparent paradox under static theory. Gamba and Triantis (2008) demonstrated that when debt issuance costs are considered, it becomes optimal to hold both: cash serves as a costless option to restore leverage and capture future tax benefits without the need for new debt issuance. Consistent with this view, Lins et al. (2010) found that firms strategically hold cash and LOCs for distinct purposes, further reinforcing the dynamic nature of financial flexibility as a core element of corporate financial strategy.

6.2 Evidence from Financial Crises and Exogenous Shocks (COVID-19 and Beyond)

Financial crises serve as real-world stress tests for financial flexibility, revealing the protective role of unused debt capacity and liquidity when external financing markets freeze. Lambrinoudakis et al. (2019) showed that capital structure decisions are inherently forward-looking: when markets anticipate higher volatility or the likelihood of extreme shocks, firms proactively reduce leverage to preserve borrowing capacity, thereby preparing for future investment disruptions. The COVID-19 pandemic provided a definitive test of this flexibility hypothesis. Choi (2025) found that zero-leverage firms experienced smaller investment declines during 2020 than their levered counterparts, as they actively tapped into their unused debt capacity to sustain operations and investment—indicating that zero leverage represents a strategic flexibility policy rather than a constraint. In contrast, Rehman et al. (2024) demonstrated that firms heavily exposed to the pandemic faced slower leverage adjustment toward optimal levels due to eroded liquidity and higher default risk, particularly among financially constrained and overleveraged firms. Similarly, Nguyen and Dang (2023) confirmed in the Vietnamese stock market that financial flexibility mitigated stock price crash risk, showing that firms with stronger flexibility were better equipped to absorb and withstand the shock of the COVID-19 crisis.

6.3 Liquidity Management, Cash Holdings, and Financing Costs

Empirical research has deepened the understanding of corporate liquidity by distinguishing between readily available funds, such as cash, and contingent liquidity sources, such as LOCs or standby debt commitments (SDCs), highlighting their distinct roles in managing financial constraints. Lins et al. (2010), through an international survey of CFOs, demonstrated that LOCs represent the dominant component of corporate liquidity worldwide, often exceeding total cash holdings. They introduced the concept of "liquidity matching," emphasizing that firms maintain cash (realized liquidity) primarily as a general insurance policy against unexpected shortfalls, while relying on LOCs (optional liquidity) to finance growth opportunities or when equity is perceived as undervalued. The finding that median non-operational cash represents only about 2% of book assets challenges the notion that firms excessively hoard cash. Complementing this, Dalwai (2023) found that during periods of elevated EPU—as seen in the Indian tourism sector during COVID-19—firms exhibited a negative relationship between EPU and debt flexibility, but a positive one with cash flexibility, confirming that under uncertainty, firms prioritize holding cash over leveraging debt to preserve financial resilience.

6.4 Sectoral Evidence and the Role of Market Power

Financial flexibility and capital structure policies differ significantly across industries, shaped by regulatory conditions, market power, and sectoral dynamics. Graham et al. (2015) demonstrated over a century of U.S. corporate leverage data that regulated sectors such as electric utilities, railroads, and telecommunications sustained high and stable leverage ratios (40–50%) throughout the 20th century, unlike unregulated firms whose leverage tripled post–World War II—evidence that regulatory environments impose structural debt constraints overriding flexible capital adjustments. Fliers (2024) showed that market power dampens investment sensitivity to value increases, particularly among highly flexible firms operating below target leverage with financing surpluses, as they preserve debt capacity and liquidity to sustain strategic advantage rather than deploying immediate investments. Sector-specific evidence reinforces these dynamics: Deviyanti et al. (2023) found that global consumer goods firms raised debt during the first two years of the COVID-19 shock (2020–2021) but reversed course by 2022 once stability returned, while Jensen (1986) documented how 1980s oil firms with excessive free cash flow pursued inefficient investments until takeovers enforced higher leverage and disciplined capital allocation, supporting the "control hypothesis" of debt. Collectively, the empirical literature confirms that financial flexibility is a foundational, forward-looking dimension of corporate finance rather than a residual outcome—firms intentionally build surplus debt capacity to secure future growth (Marchica & Mura, 2010), actively manage cash and debt as distinct instruments for insurance and optionality (Gamba & Triantis, 2008; Lins et al., 2010), and leverage flexibility to withstand external shocks such as COVID-19, maintaining investment stability even under market disruptions (Choi, 2025; Rehman et al., 2024). Ultimately, financial flexibility proves most valuable in less competitive industries, where it enables firms to sustain strategic advantage through delayed and disciplined investment decisions (Fliers, 2024).

Table 4: Empirical Evidence on Financial Flexibility and Capital Structure Dynamics

Author(s)	Country / Sample	Methodology	Measure of Financial Flexibility	Key Findings
Marchica & Mura (2010)	UK firms	Panel regressions	Spare Debt Capacity (SDC)	Flexible firms invest more and outperform peers
Denis & McKeon (2012)	US firms	Event-based analysis	Unused debt capacity	Firms borrow primarily to fund investment, not to rebalance targets
Byoun (2011)	US firms	Panel data	Leverage and cash holdings	Flexible firms adjust leverage asymmetrically
Lambrinoudakis et al. (2019)	US firms	Panel regressions	Expected shocks & leverage	Firms deleverage proactively when uncertainty rises
Nguyen & Dang (2023)	Vietnam	GMM, quantile regressions	Cash and debt flexibility	Flexibility reduces stock price crash risk
Choi (2025)	42 countries	Panel data	Zero leverage	Zero-debt firms are more resilient during COVID-19

Source: Author

Table 4 synthesizes key empirical studies linking financial flexibility to capital structure dynamics across different institutional settings and methodological approaches. Despite variations in samples, proxies, and estimation techniques, a consistent pattern emerges: firms that preserve unused debt capacity and liquidity exhibit superior investment efficiency, more adaptive leverage adjustments, and enhanced resilience to shocks. The comparative evidence also illustrates that financial flexibility explains several empirical regularities—such as conservative leverage, asymmetric adjustment behavior, and simultaneous cash and debt holdings—that remain ambiguous under traditional theories. Collectively, these findings support the view that financial flexibility is a fundamental determinant of financing behavior rather than a residual outcome of capital structure decisions.

7. Determinants of Financial Flexibility in Practice

Financial flexibility is defined as a firm's capacity to mobilize financial resources to respond to uncertain future events, representing a forward-looking decision designed to preserve valuable options for future contingencies (Byoun, 2011). Empirical evidence consistently shows that CFOs rank the preservation of financial flexibility as a primary driver of capital structure decisions, often outweighing strict adherence to a pre-defined target leverage ratio (Graham & Harvey, 2001; Gamba & Triantis, 2008; Marchica & Mura, 2010). The literature identifies several mechanisms through which firms actively manage and maintain this crucial strategic resource.

7.1 Financing Policies (Debt vs. Equity)

Financing policies—specifically the choice between debt and equity are fundamentally tied to a firm's strategy for maintaining SDC, which represents the core of financial flexibility (Marchica & Mura, 2010; Denis & McKeon, 2012). Firms deliberately borrow below their optimal capacity to build a reserve of unused borrowing power that can be deployed quickly when profitable opportunities arise, particularly when information asymmetry makes external equity issuance prohibitively expensive (Myers, 1984; Marchica & Mura, 2010). In practice, increases in leverage are often driven not by the pursuit of a target ratio but by immediate financing needs for operations, acquisitions, or capital expenditures (Denis & McKeon, 2012). Evidence from the COVID-19 crisis underscores this strategic use of zero leverage: firms with no prior debt were able to draw on preserved borrowing capacity during 2020, substantially increasing leverage and mitigating investment declines compared to their indebted counterparts (Choi, 2025).

Financial flexibility plays a crucial role across the firm's life cycle, often leading to financing choices that diverge from the traditional pecking order theory (Byoun, 2011). Developing firms—typically small, uncertain, and financially constrained—prioritize flexibility by issuing equity to build financial buffers, maintaining low leverage to avoid fixed obligations and restrictive covenants. Growth firms, as their opportunities become more tangible, capitalize on their flexibility by increasing reliance on debt financing, thus exhibiting higher leverage ratios. Mature firms, with stable cash flows and diminishing growth prospects, focus on restoring flexibility by reducing debt using internal funds, thereby replenishing borrowing capacity for future shocks.

The pursuit of financial flexibility introduces a forward-looking dimension to capital structure management. Firms proactively lower leverage when anticipating future investment shocks to preserve borrowing capacity (Lambrinoudakis et al., 2019). This behavior is particularly pronounced among financially constrained firms, for whom the negative effect of expected shocks on leverage is stronger. However, when severe external shocks like the COVID-19 pandemic occur, high firm-specific exposure slows leverage adjustment, revealing that financial flexibility becomes impaired when financing costs spike (Rehman et al., 2024).

7.2 Dividend Policy and Share Repurchases

Dividend and share repurchase policies are deeply intertwined with capital structure dynamics, primarily through the management of free cash flow (FCF) and the mitigation of agency conflicts (Jensen, 1986). According to Jensen's "control hypothesis," debt serves as a disciplinary mechanism against the agency costs of FCF—defined as cash flow exceeding what is needed to fund all positive NPV projects—by constraining managerial discretion. Managers often have incentives to retain excess cash for inefficient investments or organizational slack rather than distributing it to shareholders. In this context, debt issuance operates as an effective substitute for dividends, as it imposes a binding obligation to allocate future cash flows toward interest and principal payments, thereby forcing greater operational efficiency and reducing wasteful spending. This disciplinary role of leverage is particularly relevant for mature firms with substantial cash generation but limited growth opportunities. Such firms typically offset agency costs by paying higher dividends while using internal funds to deleverage and restore financial flexibility (Byoun, 2011). Share repurchases, as an alternative payout policy, also play a strategic signaling role: they are generally perceived by the market as a sign of managerial confidence in the firm's undervaluation (Myers, 1984). When firms experience financial surpluses cash flows exceeding investment and dividend requirements—they often balance debt reduction with discretionary payouts such as buybacks, indicating that the objective is not necessarily to reach a fixed leverage target but to optimize cash flow management and preserve flexibility (Denis & McKeon, 2012).

7.3 Liquidity Management and Cash Reserves

Liquidity management—encompassing both cash reserves and contingent credit lines—constitutes a central pillar of financial flexibility, allowing firms to mitigate financing constraints and withstand unexpected shocks (Gamba & Triantis, 2008). Companies adopt a liquidity-matching approach in which cash and lines of credit (LOCs) serve distinct strategic functions (Lins et al., 2010). Cash reserves, representing realized liquidity, act as a form of general insurance and a buffer against cash flow volatility; developing firms, in particular, tend to maintain large precautionary cash balances due to financing constraints and uncertain growth prospects (Byoun, 2011). In contrast, LOCs represent optional liquidity and are often the dominant source of corporate liquidity worldwide, providing firms with flexibility to fund investment opportunities or exploit undervalued equity without committing permanent capital, thereby preserving financial flexibility. Given debt issuance costs and tax considerations, the optimal policy for maximizing flexibility involves holding both cash and debt simultaneously (Gamba & Triantis, 2008), which enables firms to avoid the frequent costs of reissuing debt and retain the option to restore net debt levels to benefit from tax shields. For mature firms, cash balances serve as the main adjustment tool for managing net debt in response to productivity shocks, ensuring long-term debt stability and demonstrating that cash cannot be regarded as "negative debt" under financing frictions. During periods of high economic policy uncertainty (EPU)—as seen during the COVID-19 pandemic—firms tend to prioritize liquidity by hoarding cash and reducing debt flexibility, reflecting a precautionary motive aimed at navigating volatile financial environments. Moreover, firms exposed to higher perceived risks or persistent productivity shocks adopt more conservative financial postures, accumulating larger cash balances to preserve financial slack and sustain resilience.

7.4 Corporate Governance and Regulatory Constraints

Both internal governance mechanisms and the external regulatory and competitive environment play a decisive role in shaping the effectiveness and value of financial flexibility. Although the POT is rooted in information asymmetry, empirical evidence indicates that adherence to its financing hierarchy is more strongly driven by agency conflicts (Leary & Roberts, 2010), as firms with higher agency risks tend to follow the POT sequence more closely. When internal governance fails to contain these agency costs—particularly the misuse of free cash flow—the market for corporate control (through takeovers) serves as an external corrective mechanism (Jensen, 1986). Financial flexibility itself acts as a governance signal, mitigating managerial opportunism and reducing the likelihood of information hoarding, which in turn lowers the firm's stock price crash risk, especially during crises (Nguyen & Dang, 2023). Moreover, market power interacts critically with financial flexibility to shape investment behavior; firms with strong market power face weaker pressure to invest immediately in response to profitability increases (Fliers, 2024). This underinvestment tendency is most evident among firms that are both financially flexible and dominant in their markets, as they strategically use their SDC to preserve competitive advantage and delay investment for future rent-extraction opportunities. Beyond firm-specific factors, macroeconomic and regulatory conditions also constrain financial flexibility. In the U.S., long-term corporate leverage has been significantly affected by external developments such as financial intermediation and a strong negative relationship between corporate and government leverage—where government borrowing effectively "crowds out" corporate debt and restricts firms' ability to maintain debt capacity when needed (Graham et al., 2015). Likewise, variations in regulatory environments, particularly those shaping credit markets, influence the global reliance on lines of credit (LOCs) as a liquidity management tool.

8. Methodological Approaches in the Literature

The rigorous testing of capital structure and financial flexibility theories necessitates the use of increasingly sophisticated econometric and theoretical tools. The methodological landscape has evolved significantly, moving from simple static models to dynamic panel data analysis, complex structural simulation models, and cross-sectional empirical designs aimed at overcoming endemic econometric challenges and isolating causal effects, particularly during periods of economic shock.

8.1 Dynamic models (dynamic panel models, GMM)

Dynamic panel models, particularly those employing the Generalized Method of Moments (GMM), have become central to understanding capital structure as a dynamic, rather than static, process characterized by continuous partial adjustments toward a long-run target. These models estimate the Speed of Adjustment (SoA)—the proportion of the gap between actual and target leverage closed each year. Flannery and Rangan (2006) made a key methodological contribution by introducing a partial adjustment model with firm-fixed effects to control for unobserved, time-invariant heterogeneity affecting target leverage. Their findings revealed that neglecting these fixed effects, as done in earlier studies, leads to a significant downward bias in SoA estimates, while their model indicated a notably high adjustment rate of around 34% annually. To handle the econometric complications of dynamic data—particularly the correlation induced by lagged dependent variables and the removal of firm-fixed effects—many researchers have turned to GMM estimators, such as the Arellano and Bond (1991) approach. Dang et al. (2012) further advanced this by employing a one-stage dynamic panel threshold GMM model to avoid the "generated regressors problem," where noisy proxies for target leverage bias the SoA downward. Modern dynamic models now integrate firm-fixed effects and time-series analyses to capture the influence of exogenous shocks, reaffirming that firm-specific heterogeneity plays a critical and systematic role in shaping leverage dynamics.

8.2 Simulation and General Equilibrium Models

Unlike empirical models that rely on historical data, simulation and general equilibrium models offer a forward-looking theoretical framework to determine optimal financial policies. Foundational work by Modigliani and Miller (1958) established the irrelevance propositions under perfect capital markets through an arbitrage-based equilibrium approach. Building on this, modern dynamic structural models analyze the complex interactions among investment, financing, and liquidity decisions under market frictions. Gamba and Triantis (2008), for example, employed a numerical dynamic programming technique in an infinite-horizon, discrete-time model to distinguish between borrowing and lending choices, thereby explaining why firms rationally hold both debt and cash simultaneously. Similarly, Karpavičius (2014) advanced a dynamic partial equilibrium model incorporating production functions and managerial preferences, using a steady-state framework to explore long-term relationships. Moreover, simulations serve to assess the realism of theoretical predictions; DeAngelo and Roll (2015), for instance, simulated various frameworks—such as random evolution, stationary targets, and target zones—to evaluate their ability to reproduce the long-term instability observed in corporate leverage.

8.3 Cross-country and Sector-specific Approaches

To strengthen both the generalizability and contextual relevance of empirical findings, scholars have increasingly employed cross-country and sector-specific approaches. Comparative international studies are particularly valuable for testing how legal, institutional, and macroeconomic environments shape corporate financial behavior. For instance, Lins et al. (2010) surveyed firms across 29 countries to uncover the hidden components of liquidity management, notably the global dependence on lines of credit, while Choi (2025) analyzed zero-leverage policies across 42 nations during the COVID-19 crisis. In contrast, sector- and country-focused analyses offer finer contextual insights often obscured in large cross-sectional datasets. Mabrouk and Boubaker (2019) examined French firms to link capital structure to firm life cycles, whereas Dalwai (2023) and Nguyen and Dang (2023) explored how tourism and stock market firms in India and Vietnam, respectively, responded to pandemic-related shocks. Complementing these perspectives, Deviyanti et al. (2023) conducted a global industry-based analysis of the consumer goods sector across developed, emerging, and frontier markets to capture differentiated financial reactions. Finally, historical investigations such as Graham et al. (2015) provide essential long-term context, tracing a century of corporate leveraging behavior in the United States and contrasting regulated with unregulated firms to illuminate enduring structural trends.

8.4 Limitations of Existing Studies (Data Constraints, Biases)

Despite the methodological advancements, empirical research on capital structure and financial flexibility continues to confront several limitations:

a) Econometric and Specification Biases: A significant limitation stems from inappropriate model specification. Historically, failure to account for firm-fixed effects led to biased estimates of the SoA. The use of two-stage estimation procedures, where the target leverage is estimated in a first stage, introduces the "generated regressors problem," causing measurement error that mechanically biases the estimated SoA toward zero. Furthermore, dynamic panel models must address the Nickell (1981) bias that results from the correlation between the lagged dependent variable and the error term.

b) Data Constraints and Proxies: Studies are often constrained by the availability and quality of data. Graham et al. (2015) addressed the survivorship bias prevalent in pre-1962 Compustat data by hand-collecting information. Lins et al. (2010) noted that reliance solely on public financial statements is restrictive, as crucial liquidity components like LOCs are often unobservable. Additionally, some studies rely on proxies that may be deemed "crude," such as using broad industry market share to represent market power.

c) Statistical Power and Interpretation: Conflicting findings in the capital structure literature have been linked to low statistical power in older testing methods. For example, the initial empirical support for the POT was later criticized due to the low power of the deficit regression model to discriminate against alternative hypotheses.

d) Model Scope Limitations: Theoretical and structural models often rely on simplifying assumptions. For instance, Gamba and Triantis (2008) acknowledged that excluding agency problems from their dynamic model might lead to an overstatement of the optimal level of cash holdings. Furthermore, the analysis of long-term macroeconomic determinants is often inherently correlational and cannot definitively establish causality between variables like government debt and corporate leverage.

9. Emerging Trends and Research Gaps

The literature review demonstrates a continuous evolution in capital structure theory, moving from static arbitrage models (Modigliani & Miller, 1958) to dynamic models that incorporate market frictions, managerial preferences (Karpavičius, 2014), and the strategic value of preserving financial flexibility (Myers, 1984; Byoun, 2011). While recent empirical work confirms that firms actively adjust towards targets (Flannery & Rangan, 2006) and that flexibility is crucial during crises (Nguyen & Dang, 2023; Choi, 2025), several dimensions remain underexplored, presenting fertile ground for future research.

9.1 Financial Flexibility in the Context of Sustainability and ESG

The intersection of capital structure dynamics and sustainability, particularly Environmental, Social, and Governance (ESG) factors, represents a significant research frontier. Although the provided sources do not contain direct empirical tests linking standard financial flexibility proxies (like SDC or cash holdings) to formal ESG metrics, the theoretical foundation for this link is already established in the evolution of corporate objectives.

a) Integrating Value Maximization and Stakeholder Focus: Michael C. Jensen's later work, as reviewed by Stulz (2025), emphasized that long-term value maximization requires managers to necessarily attend to the needs of all key stakeholders. Stulz posits that Jensen's concept of organizational integrity—defined as a state of being "whole and complete"—is a precursor to modern ideas of organizational capital and sustainability. This theoretical perspective suggests that a firm's commitment to sustainable practices (ESG) may be viewed as a form of organizational capital necessary to maximize value over the long run.

b) Flexibility and Long-Term Resilience: Financial flexibility inherently supports long-term resilience, a core component of sustainability. Firms that maintain flexibility, such as low-leverage firms identified by Choi (2025) or firms with substantial cash reserves, are better equipped to withstand systemic shocks, such as the COVID-19 crisis. Future research should empirically test whether firms with demonstrably high ESG ratings exhibit greater financial flexibility or, conversely, whether financial flexibility enhances a firm's capacity to invest in costly, long-term ESG initiatives, thereby providing a more rigorous link between financial strategy and sustainability outcomes.

c) Agency Costs in Green Investment: While Jensen's FCF theory (1986) focuses on managers wasting FCF on value-destroying projects, an emerging gap is analyzing whether financial flexibility allows managers to fund long-term "green" projects that might initially possess negative short-term NPV but are crucial for long-term survival and stakeholder appeasement. Research is needed to examine how governance mechanisms (the board of directors' role emphasized by Fama & Jensen, 1983) align managerial incentives toward sustainable investments without triggering agency costs.

9.2 The Role of Financial Technology in Access to Finance

The traditional literature focuses primarily on debt capacity provided by banks and standard equity markets. However, the rise of financial technology (FinTech) is likely transforming firms' access to capital, creating a major gap in the established capital structure literature.

a) Mechanism of Change: Classical models implicitly assume a reliance on traditional financial intermediation. Graham et al. (2015) confirmed that the growth of the financial intermediation sector was a factor in the "levering up" of corporate America over the 20th century. Future research needs to quantify how new FinTech platforms and digital lending solutions might further expand firms' debt capacity, particularly for small and developing firms that traditionally face severe borrowing constraints.

b) Cost and SoA: The dynamic TOT emphasizes that adjustment speed (λ) is governed by transaction costs. FinTech potentially lowers the information asymmetry (Myers & Majluf, 1984) and issuance costs associated with obtaining external finance. A critical research gap is measuring how FinTech adoption influences the estimated speed of leverage adjustment and whether it creates new non-bank sources of capital that allow firms to navigate financial deficits more easily, especially during high uncertainty (Dalwai, 2023).

Recent literature has increasingly examined the role of financial technology (FinTech), embedded finance, and sustainable financing instruments in shaping firm value, capital structure, and capital market dynamics. For instance, Keskin (2025a) highlights how digital banking models and embedded finance are transforming financial intermediation and improving firms' access to funding, thereby altering traditional financing constraints. Similarly, Keskin (2025b) investigates the comparative valuation dynamics of major technology firms alongside alternative assets such as Bitcoin and gold, illustrating the growing interaction between financial innovation, market valuation, and uncertainty. In addition, Keskin (2023) emphasizes the value-creation potential of sustainable financing instruments—particularly sustainable bonds—by aligning corporate financing decisions with environmental, social, and governance (ESG) objectives.

Although the empirical literature directly linking FinTech and sustainability to financial flexibility remains relatively limited, these studies point to important channels through which technological innovation and sustainable finance may enhance firms' financing capacity and resilience.

9.3 Differences Between Family-Owned and Publicly Listed Firms

The financing and investment policies of firms are heavily influenced by their ownership structure, leading to distinct behaviors between publicly listed firms with diffuse ownership and family-owned or closely held private firms.

a) Agency Costs and Managerial Incentives: The foundational agency theory (Jensen & Meckling, 1976) centers on conflicts arising from the separation of ownership and control, primarily relevant to large, publicly held corporations. In contrast, family-owned firms typically possess highly concentrated ownership, which inherently mitigates the agency costs of FCF by aligning managerial incentives with owners' wealth maximization. This suggests that the disciplinary function of debt (Jensen, 1986) may be less critical for family firms than for diffusely held public firms.

b) Financial Flexibility and Control: While publicly listed firms prioritize financial flexibility to fund unexpected growth options (Marchica & Mura, 2010) or navigate market timing issues, family-owned firms may place an even higher premium on flexibility to preserve control and avoid external monitoring, thus affecting their reliance on debt versus internal funds. While Lins et al. (2010) surveyed private firms regarding liquidity, dedicated research comparing the dynamics of capital structure adjustment for family-owned versus public firms—especially during periods of severe uncertainty (Deviyanti et al., 2023) —remains necessary to understand if and how their underlying financial flexibility motives differ.

9.4 Underexplored Issues: Corporate Culture, Institutional Environment, and Policy

While macro-level and organizational factors have been identified as crucial, their specific influence on capital structure dynamics offers rich areas for investigation.

a) Corporate Culture and Managerial Behavior: The preferences and characteristics of top management are known to be highly influential determinants of financial decisions. Karpavičius (2014) showed that the manager's subjective time preference (proxied by compensation structure) significantly determines the optimal capital structure, with more patient managers utilizing proportionally less debt. This managerial attribute is closely related to corporate culture. Furthermore, Leary and Roberts (2010) found that the observed financing hierarchy (pecking order) is driven more robustly by agency conflicts (governance) than by information asymmetry. Future research must delve deeper into how organizational culture—beyond formal governance indices—influences the willingness of firms to deviate from targets (Denis & McKeon, 2012) and risk debt, or, as Stulz (2025) suggests, how the culture of integrity affects the cost of capital and efficiency.

b) The Institutional and Policy Environment: The long-run evidence suggests that the largest changes in corporate leverage are driven by forces external to the firm. Graham et al. (2015) identified macroeconomic factors, particularly the development of the financial intermediation sector and the relationship with government debt, as critical time-series drivers. Similarly, Lins et al. (2010) showed that liquidity strategies (holding cash vs. credit lines) are dependent on the development of external credit markets in a given country. The COVID-19 crisis further illuminated the impact of the EPU environment, showing that high EPU negatively impacts debt flexibility and increases precautionary cash holdings (Dalwai, 2023). A gap remains in constructing dynamic models that fully integrate these institutional and policy variables to accurately predict time-varying leverage targets (DeAngelo & Roll, 2015).

10. Conclusion

This systematic literature review synthesized the extensive theoretical and empirical evidence linking capital structure dynamics with the strategic importance of financial flexibility, highlighting the evolution of corporate finance from static optimality to dynamic strategic maneuvering in an uncertain environment. Traditional theories such as the static trade-off and pecking order models have struggled to consistently explain observed capital structure behaviors, including wide leverage variations and the persistent preference for maintaining large cash reserves.

Recent developments have emphasized dynamic models of capital structure, showing that firms actively pursue target leverage ratios and adjust toward them over time. This adjustment process is not uniform but often asymmetric, influenced by financing needs and market conditions, with over-leveraged firms accelerating deleveraging to mitigate financial distress risks.

Financial flexibility emerges as the key link between theoretical models and practical financial management. It encompasses both cash flexibility—realized liquidity—and debt flexibility—potential liquidity maintained through unused borrowing capacity. Preserving this flexibility allows firms to respond effectively to unexpected opportunities or shocks, even if that means maintaining lower leverage and forgoing some tax benefits. This strategic restraint enhances firm value by ensuring access to financing during periods when external markets become costly or inaccessible, as demonstrated during global crises.

Despite these advances, significant research gaps persist. One pressing direction for future inquiry involves incorporating financial flexibility, uncertainty, and non-linear dynamics into capital structure models. Current approaches often assume a stable long-run leverage target, yet empirical evidence suggests that these targets fluctuate with changing expectations and market volatility. Future frameworks should therefore integrate option-based valuation techniques to better capture the real value of liquidity and borrowing capacity under different economic regimes.

Another important research avenue concerns the behavior of capital structure dynamics and financial flexibility in emerging markets. Institutional and macroeconomic factors—such as government debt, financial system maturity, and credit access—play decisive roles in shaping firms' ability to sustain flexibility. Understanding these local dynamics is crucial for developing context-appropriate models that reflect the realities of constrained or asymmetric financial environments.

Finally, future research should examine how financial regulations affect corporate flexibility over the long term. Regulatory frameworks influence issuance costs, credit availability, and the disciplinary role of debt. Clarifying these relationships will refine our understanding of how firms balance regulatory constraints with strategic flexibility, confirming that financial flexibility is not merely a precautionary measure but a fundamental strategic capability that underpins corporate resilience and value creation in an increasingly volatile global economy.

AUTHORSHIP CONTRIBUTIONS

The author solely contributed to the conception and design of the study. The research idea was developed by the author, who also conducted the literature review and data analysis. The manuscript was written and critically revised by the author, who read and approved the final version of the work.

CONFLICT OF INTEREST DECLARATION

The author has no relevant financial or non-financial interests to disclose.

ETHICAL STATEMENT REGARDING THE USE OF ARTIFICIAL INTELLIGENCE AND OTHER SITUATIONS

In the writing process of this study, limited use was made of artificial intelligence-supported software called chatgpt for language control purposes. The content creation, analysis, and scientific evaluation were entirely performed by the author(s).

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