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Chapter 2

DEBT GOVERNANCE AS A DYNAMIC SYSTEM: RISK MITIGATION AND VALUE CREATION IN MEDIUM-SIZED ENTERPRISES



DEBT GOVERNANCE AS A DYNAMIC SYSTEM: RISK MITIGATION AND VALUE CREATION IN MEDIUM-SIZED ENTERPRISES

Leandro Borges¹

Abstract: Debt management is a field of tension between the pursuit of growth and the need for risk control. In medium-sized enterprises, this tension is amplified by the combination of expansion ambitions and greater vulnerability to shocks. Reactive and fragmented debt management emerges as a primary source of financial risk. Through a systematic literature review, based on the PRISMA protocol and a thematic analysis of 42 articles, we critically investigate the pillars of debt management: capital structure theories, debt architecture, and the ambivalent role of covenants. Our analysis reveals not only fragmentation in the literature but also inherent paradoxes, such as the fact that control mechanisms (covenants) can induce risky behaviors (earnings management). We propose, as a theoretical contribution, a Dynamic Debt Governance Framework (DDGF), which conceptualizes debt management not as a sequence of phases, but as an adaptive and cyclical system. The framework explores the interdependencies and feedback loops between the Strategy, Structuring, and Monitoring phases, positioning debt management as a continuous organizational learning process. We delve into the specific implementation challenges for medium-sized enterprises and conclude with a research agenda focused on the empirical validation of the framework and the impact of technology on the automation of debt governance.

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Introduction

Corporate debt can be seen as an inherent field of tension between value creation and risk exposure. While financial leverage amplifies returns on equity and finances growth (MODIGLIANI; MILLER, 1958), it also introduces financial rigidity that can lead to difficulties and, in extreme cases, insolvency (MEHMOOD; DE LUCA, 2025).

For medium-sized enterprises, this dilemma is particularly acute. They require capital to compete and scale, but their lower diversification and more restricted access to capital markets make them disproportionately vulnerable to adverse shocks (TUFFOUR et al., 2025). Management practice in many of these companies tends to approach debt reactively and fragmentedly, as a series of discrete transactions motivated by immediate needs, rather than a continuous strategic discipline. This approach, devoid of robust governance, is an endogenous source of risk, potentially leading to suboptimal capital structures, maturity mismatches, and excessive costs of capital (POESCHL et al., 2023).

In this article, we argue that effective financial risk mitigation lies not only in the choice of debt instruments but in the implementation of a debt governance system. To this end, we conduct a systematic literature review to dissect the components of debt management and, crucially, to expose their interconnections and the theoretical debates permeating them. We analyze capital structure theories, debt architecture, and the ambivalent role of covenants, which, although designed to control risk, can paradoxically induce risky behaviors, such as earnings manipulation to avoid violation (PITTMAN; ZHAO, 2020).

Our main contribution is theoretical. By identifying fragmentation in the literature, which



tends to analyze these components in isolation, we propose the Dynamic Debt Governance Framework (DDGF). This framework reconceptualizes debt management not as a linear process, but as a complex adaptive system characterized by feedback loops between the Strategy, Structuring, and Monitoring phases. The DDGF aims to move the debate beyond the prescription of best practices, exploring the dynamics of organizational learning and continuous adjustment essential for effective governance. Additionally, we deepen the analysis of specific challenges medium-sized enterprises face in implementing such a system, contributing to the overlap between financial theory and management practice in this important segment.

Methodology

This study adopts a systematic literature review methodology, guided by the PRISMA protocol, to ensure a transparent and rigorous research process. The central research question is: "How can the interaction between capital structure theories, debt architecture, and monitoring mechanisms (covenants) be structured into a governance framework to mitigate financial risk in medium-sized enterprises, and what are the underlying theoretical debates and tensions?"

Search Strategy and Selection Criteria

The search was conducted in the Scopus, Web of Science, and Google Scholar databases for articles published between January 2021 and February 2026. The search string was: ("debt management" OR "capital structure" OR "debt structure" OR "financial risk") AND ("covenants" OR "debt monitoring" OR "financial governance") AND ("medium-sized enterprises" OR "SME" OR "mid-cap").

Inclusion criteria were: (1) peer-reviewed articles; (2) studies with a theoretical or empirical focus on debt management, capital structure, or covenants; (3) applicability to the context of medium-



sized enterprises. Excluded were: (1) grey literature; (2) studies focused exclusively on financial institutions or large corporations; (3) articles with only marginal mention of the themes. The selection process, following the PRISMA flowchart, resulted in the final inclusion of 42 articles.

Data Synthesis and Analysis

To go beyond mere description, data synthesis followed a thematic analysis approach. The 42 articles were imported into qualitative analysis software and coded line by line. Codes were grouped into first-order themes (e.g., "cost of debt", "debt maturity", "performance covenants"). In a second stage, these were aggregated into more abstract second-order themes (e.g., "debt architecture", "control mechanisms"). Finally, these themes were organized into the three analytical pillars structuring the literature review. This process allowed for identifying key concepts and mapping relationships, controversies, and gaps in the literature.

Critical Literature Review: Debates and Paradoxes in Debt Governance

The thematic analysis reveals that debt governance rests on three pillars, each permeated by theoretical debates and practical challenges.

The Capital Structure Dilemma: Trade-off vs. Pecking Order

The discussion on optimal capital structure remains dominated by the tension between Trade-off Theory and Pecking Order Theory. The former, proposing an optimal balance between the tax benefits of debt and financial distress costs (BRADLEY; JARRELL; KIM, 1984), is normatively attractive but empirically elusive. The difficulty in measuring distress costs and the observation that the most profitable firms are paradoxically the least indebted challenge its universal validity (GIGLIO;



RYLOV, 2022; BRUSOV; FILATOVA; OREKHOVA, 2023).

Pecking Order Theory, prioritizing internal financing to avoid negative signaling associated with issuing securities (MYERS; MAJLUF, 1984), offers a more robust explanation for the behavior of many SMEs facing high information asymmetry (D'AMATO, 2020). However, it is criticized for its descriptive nature and for not explaining the existence of firms operating with high leverage levels sustainably. Recent literature attempts to reconcile the two, suggesting Pecking Order describes short-term decisions while Trade-off represents a long-term target (FRANK; GOYAL, 2009). This reconciliation remains a field of debate.

Debt Architecture and the Maturity Paradox

Debt maturity structure presents a central paradox: the security of long-term debt versus the flexibility and lower cost of short-term debt. Literature confirms that longer maturity increases resilience in crises (VERMOESEN; DELOOF; LAVEREN, 2013; CHIU et al., 2021), but also imposes higher costs and more restrictive covenants, which may limit growth opportunities—a vital concern for medium-sized enterprises (WU et al., 2022; HEYMAN et al., 2008; FEITO-RUIZ et al., 2023; CHRISTENSEN et al., 2022). Maturity decisions are thus a dynamic trade-off between resilience and agility.

The Ambivalence of Covenants: Control or Trigger for Risky Behavior?

Covenants are the primary explicit governance mechanism in debt contracts. The traditional view positions them as efficient tools to mitigate agency conflicts between debtors and creditors (DEMERJIAN, 2017). However, a growing critical strand, grounded in Agency Theory, exposes their ambivalence. Studies show that proximity to a covenant violation can induce dysfunctional behaviors. Managers may engage in earnings management to artificially meet targets (JAGGI; LEE, 2002;



NIKOLAEV, 2010) or adopt a sub-investment posture, rejecting positive NPV projects that could jeopardize short-term indicators (SPYRIDOPULOS et al., 2017). This is the paradox of control: a mechanism designed to mitigate risk may, under certain conditions, incentivize it.

Theoretical Proposition: The Dynamic Debt Governance Framework (DDGF)

The critical analysis reveals the need for a model capturing the complexity and dynamism of debt management. We propose the Dynamic Debt Governance Framework (DDGF), conceptualizing debt management as a complex adaptive system where Strategy, Structuring, and Monitoring phases are linked by continuous feedback loops.

Framework Phases

The DDGF consists of three interdependent phases:

- **Capital Structure Strategy:** Defining debt policy, target leverage levels, and risk appetite.
- **Debt Architecture Structuring:** Executing the strategy through resource mobilization, negotiating maturity, cost, collateral, and covenants.
- **Monitoring and Active Management:** Continuous tracking of performance indicators, covenant compliance, and market conditions.

Dynamic Interdependencies and Feedback Loops

The core contribution of the DDGF lies in the feedback loops:

- **Feedback Loop 1 (Monitoring → Strategy):** Monitoring is a source of strategic learning.



Proximity to a violation signals that underlying strategy assumptions may be flawed, forcing a re-evaluation of risk appetite.

- Feedback Loop 2 (Structuring → Strategy): Negotiation with creditors functions as a risk price discovery mechanism. Terms offered reflect external risk perception, serving as a counterpoint to internal self-assessment.

DDGF in the Context of Medium-Sized Enterprises

Application to medium-sized enterprises reveals specific challenges:

- Information Asymmetry and Bargaining Power: Higher asymmetry makes feedback from the Structuring phase critical but costly.
- Resource Scarcity for Monitoring: Implementing robust monitoring is challenging due to a lack of integrated BI systems and specialized personnel.

Conclusion

This study investigated debt governance as a dynamic system. Our main contribution is the DDGF, which reconceptualizes debt management as a continuous organizational learning process. By focusing on interdependencies and feedback loops, it offers a model to understand how information from monitoring and negotiation can refine capital strategy, increasing resilience and adaptive capacity, especially for medium-sized enterprises navigating the complex territory of corporate debt.

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