

A Comparative Analysis of
High-Yield Bonds and Leveraged Loans as
Acquisition Financing Strategies in
Sponsor-Backed LBOs

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Dissertation written under the supervision of
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ABSTRACT

This thesis investigates the determinants of acquisition financing choices in sponsor-backed leveraged buyouts (LBOs), with emphasis on the comparative use of high-yield bonds and leveraged loans in the European market between 2000 and 2024. While both instruments target speculative-grade issuers, they differ in maturity, covenant structure, pricing mechanisms, and investor base, making the financing decision central to transaction feasibility, sustainability, and profitability. Using a manually collected dataset of European LBOs, the empirical analysis applies logit regression models to estimate the probability of selecting one instrument over the other, controlling for company-specific characteristics such as size, profitability, growth, and technological intensity, as well as transaction features and macro-financial conditions. The study accounts for structural changes across historical regimes, including the pre-crisis expansion, the post-2008 deleveraging phase, the COVID-19 rebound, and the recent environment of inflation and rising interest rates. Results indicate that larger, more profitable firms with stable cash flows are more likely to issue high-yield bonds, benefiting from longer maturities and lighter covenants, whereas smaller, riskier, or more cyclical companies typically rely on leveraged loans, valued for flexibility and faster execution. Sponsor reputation, market liquidity, and monetary policy cycles further shape these decisions. The findings provide implications for sponsors optimizing capital structures, investors assessing risk-return dynamics, and regulators evaluating systemic resilience in leveraged finance. By bridging theory with empirical evidence, the thesis contributes to understanding how financing strategies influence value creation, market efficiency, and financial stability in European sponsor-backed LBOs.

Keywords: Leveraged Buyouts; High-Yield Bonds; Leveraged Loans; Private Equity; Sponsor-Backed Transactions; Capital Structure; Speculative-Grade Firms; European Leveraged Finance.

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RESUMO

Esta dissertação analisa os determinantes das escolhas de financiamento em operações de leveraged buyouts (LBOs) patrocinados por fundos de private equity, com foco no uso comparativo de obrigações high-yield e empréstimos alavancados na Europa entre 2000 e 2024. Embora ambos os instrumentos sejam destinados a emissores de grau especulativo, diferem em maturidade, estrutura de covenants, custos e base de investidores, tornando a decisão de financiamento essencial para a viabilidade das transações. Utilizando um conjunto de dados de LBOs europeus, a análise empírica aplica modelos de regressão logit para estimar a probabilidade de escolha entre os instrumentos, controlando por características da empresa (tamanho, rentabilidade, crescimento, intensidade tecnológica), variáveis da transação e condições macroeconômicas. O estudo considera também diferentes regimes históricos: a expansão pré-crise, a desalavancagem pós-2008, a recuperação após a COVID-19 e o recente contexto de inflação e taxas de juro elevadas. Os resultados mostram que empresas maiores e mais lucrativas, com fluxos de caixa estáveis, tendem a emitir obrigações high-yield, beneficiando-se de prazos mais longos e covenants menos restritivos, enquanto empresas menores ou mais arriscadas recorrem a empréstimos alavancados, valorizados pela flexibilidade e rapidez de execução. A reputação do sponsor, a liquidez de mercado e os ciclos de política monetária também influenciam estas escolhas. As conclusões oferecem implicações para sponsors na definição de estruturas de capital, para investidores na avaliação de risco-retorno e para reguladores que acompanham a resiliência do mercado, contribuindo para compreender como estratégias de financiamento moldam a criação de valor e a estabilidade financeira nos LBOs europeus.

Palavras-chave: Leveraged Buyouts; High-Yield Bonds; Leveraged Loans; Private Equity; Sponsor-Backed Transactions; Capital Structure; Speculative-Grade Firms; European Leveraged Finance.

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Introduction

In the contemporary corporate finance landscape, leveraged buyouts (LBOs) represent one of the most complex and significant forms of acquisition, as they combine industrial logic, financial engineering, and value creation strategies in a single operational scheme. The crucial aspect of such transactions lies in the financing structure: the choice of debt instruments not only determines the feasibility of the transaction, but also has a decisive influence on its sustainability, risk-return profile, and ability to generate returns for investors. In this context, the two main funding channels – high-yield bonds and leveraged loans – play a central role. Although both are aimed at speculative-grade companies, they differ profoundly in terms of contractual nature, flexibility, costs, and investor base. Understanding the determinants of the choice between the two instruments is therefore essential not only for private equity sponsors, but also for investors and policymakers, as this decision reflects the balance between micro-business needs and macro-financial conditions. The existing literature has extensively analyzed corporate financing through bank loans or bond issues, but few studies have focused specifically on LBO transactions sponsored in the European segment. In fact, most research has focused on the US market or on heterogeneous samples of companies, neglecting the unique role of private equity funds and the growing importance of the European context. This represents a significant gap: the sponsor-backed LBO segment is no longer a niche, but now constitutes a significant share of global financial markets, with its own characteristics in terms of capital structure, cyclicity, and value creation. This thesis aims to fill this gap by investigating the factors that explain the choice between high-yield bonds and leveraged loans in sponsor-backed LBO transactions in Europe, with a particular focus on speculative-grade companies. The analysis aims to understand whether and to what extent company characteristics (size, growth, profitability, technological intensity), transaction specifics, and macro-financial conditions have influenced financing choices. Furthermore, the approach is not static: the evolution of these determinants is considered across different historical regimes – from the pre-crisis expansion to the post-2008 period, up to the recent phase of rising interest rates – with the aim of understanding how changes in the economic context have redefined the preferences of sponsors and investors.

The ultimate goal is not only to describe a phenomenon, but to offer an interpretative key that is useful to various players: for sponsors, the possibility of better calibrating structuring strategies; for investors, a deeper understanding of the risk-return dynamics associated with different instruments; for regulators, insights for assessing the resilience of the leveraged

finance market. In this way, the thesis contributes to a highly topical academic and professional debate, at a time when the combination of high leverage, macroeconomic volatility, and the growing role of private credit makes the choice of financing channel more crucial than ever.

The research question that guides this thesis is therefore as follows:

What characteristics of the transaction and the target company explain the probability that an LBO will be financed through high-yield bonds rather than leveraged loans?

The objective is not only to measure these determinants statistically, but also to understand how they have evolved in different phases of the economic and financial cycle, offering an original contribution to the interpretation of the choices made by sponsors and investors in Europe.

The thesis is divided into five main chapters. Chapter 1 presents the theoretical framework and the main findings of the literature, focusing on the trade-off between bank debt and bond debt. Chapter 2 introduces the context of leveraged finance, describing the technical and contractual characteristics of the most common instruments. Chapter 3 illustrates the historical and cyclical evolution of LBOs, highlighting how moments of crisis and expansion have influenced capital structure. Chapter 4 develops the empirical analysis, based on a sample of European transactions between 2000 and 2024, estimating logit models to assess the determinants of financing choices. Finally, Chapter 5 discusses the implications of the results obtained in terms of investor behavior, sponsor strategies, and overall market functioning.

To summarize, this research aims to offer a comparative and rigorous analysis of financing strategies in sponsor-backed LBOs, helping to clarify which factors drive the use of high-yield bonds and which, on the other hand, drive the use of leveraged loans, and reflecting on the consequences that these choices have in terms of allocative efficiency, market resilience, and the future prospects of leveraged finance. To develop this analysis, we begin by outlining the theoretical framework and historical evolution of M&A and LBO transactions, in order to clarify the conceptual basis on which our empirical investigation is founded.

1. Theoretical Framework

1.1 Overview of the M&A Market with a Focus on the U.S.

1.1.1 The Historical Evolution of M&A Activity

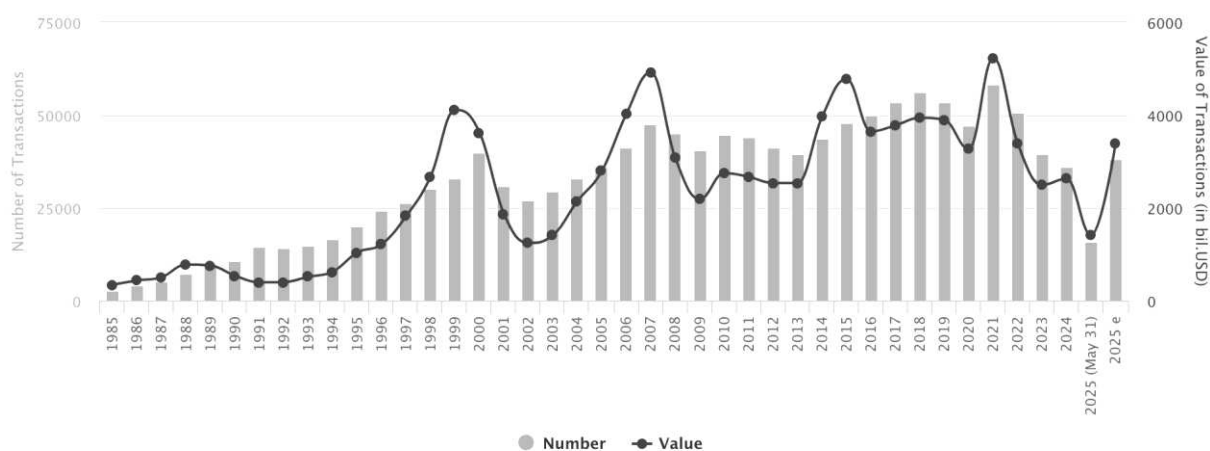
Mergers and Acquisitions, also known as M&A, refer to inorganic growth strategies implemented through the purchase, sale or integration of companies, their divisions or holdings, and generally involve an acquirer and a target company. In the form of a merger, two legally

independent entities combine to form a single economic-legal entity, while in the case of an acquisition, the target company may lose its economic autonomy while retaining-in some cases-its legal personality. These deals allow firms to leverage external sources of financing to expand their activities and diversify their business either geographically or in terms of service offerings and operational capabilities (Ross et al., 2008).

Mergers and Acquisitions have a long tradition, and the centrality of these transactions is reflected especially in the U.S. market, which continues to lead the global M&A market in terms of value and frequency of transactions. According to S&P Global (2025), in 2024 the global M&A market registered a total volume of over \$7.2tn, mainly driven by the US, which alone accounted for 54% of the total value transacted. This dominance reflects a historically dynamic U.S. market whose M&A activity has been cyclical over time, with alternating phases of expansion and slowdown. This has been marked by six major waves, each one driven by specific factors as deregulation, financial innovations, large liquidity and favourable macroeconomic dynamics (Springer, 2022). After peaking in 2007, the market contracted as a result of the global financial crisis, only to recover strongly in the post-2010 period, partly due to the expansion of private equity and the abundance of cheap capital.

Globally, the volume of M&A deals has experienced a gradual and structured growth over the past four decades, with a strong acceleration since the 2000s. According to the Institute for Mergers, Acquisitions and Alliances data, more than 790,000 deals have been recorded globally since 1985, with an aggregate value exceeding \$57tn. North America has consistently been the leading market in terms of both number of deals and value, while Europe has shown more volatile but still significant dynamics in terms of market share (see Appendix). The data consistently support and show the cyclical pattern, with clear peak moments in 2007, 2015 and 2021 followed by downturns related to macroeconomic crises or exogenous shocks. The graph below (Figure 1) shows that global M&A activity reached all-time highs in terms of value in 2007 and 2021, and then contracted during the global financial crisis and following the post-Covid period, respectively, in which economic uncertainty and the changing interest rate environment temporarily slowed the market.

Figure 1.1. Number & Value of M&A Worldwide



Source: IMAA analysis, imaa-institute.org

Source: IMAA Institute, 2025

The post-2020 wave was especially driven by extraordinary factors related to the economic rebound after Covid-19, the availability of low-cost capital, and renewed interest in strategic acquisitions in high-growth sectors such as technology, healthcare, and energy (BCG, 2024). However, since the second half of 2022, the market has been shrinking due to macroeconomic uncertainty and the changing interest rate environment, although the first nine months of 2024 show signs of recovery with more than 22,400 announced deals worth about \$1.6 trillion, up 10 percent from the same period in 2023 (BCG, 2024). This reversal pattern suggests renewed interest from market participants in response to a slightly more stable economic environment and a more encouraging outlook. Taken together, this data consistently demonstrates how M&A is now a central strategic lever for inorganic growth and competitive repositioning and is a sensitive indicator of investor confidence in macroeconomic conditions, capital availability, and long-term fundamentals.

1.1.2 Market Drivers and Strategic Motivations

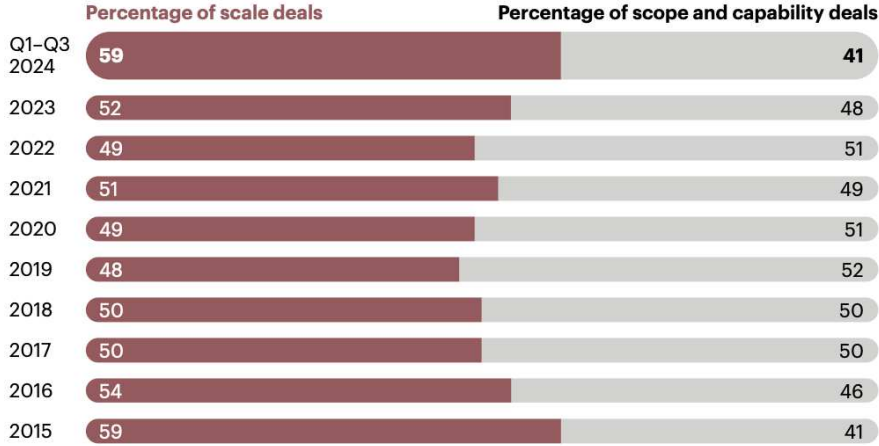
Mergers and Acquisitions are the result of comprehensive strategic considerations conducted by the actors involved in the transaction, on both the buyer and seller sides. The rationales behind these deals strongly depend on (whose decisions are strongly influenced by the) the competitive environment, the stage of the business lifecycle and the company’s short-term and long-term operational goals (Wirtz, 2012). In general, acquiring firms pursue M&A as a means to achieve accelerated growth especially in technology-intensive industries or where time advantage is crucial – often more cost-effective than organic growth. These operations allow,

for instance, rapid entry into new geographic markets, expansion of the product range and customer portfolio, access to proprietary technologies and unique capabilities, and exploitation of economies of scale or scope (RBS Citizens Financial Group, 2012; Hitt et al., 2024). Furthermore, to increase market share in highly competitive markets, acquiring a company with an established position in a target market may be more convenient than building new business or production facilities in-house. These transactions are also driven by the possibility of generating operational and financial synergies. Cost synergies can easily arise from production efficiencies, sharing of production sites, or increased negotiating ability with suppliers and stakeholders. At the same time, revenue synergies emerge when the merged entity generates greater revenues than the two stand-alone companies could have achieved separately. This may be due to cross-selling opportunities, better market coverage, greater product offerings, or stronger pricing power. However, realizing these synergies requires a high degree of integration, which can increase costs and post-deal risks.

More recently, emerging strategic levers have increasingly influenced M&A activity, reflecting the evolution of the economic and technological context. According to Bain & Company (2025), in response to structural vulnerabilities revealed during recent global crises, many companies are now reshaping their supply chains and operating models, aiming to improve resilience and reduce dependence on geographically distant suppliers. From this perspective, acquisitions of localized partners become a strategic lever to consolidate operational strength and optimize efficiency throughout the supply chain. At the same time, companies are being pushed to integrate targets that can strengthen their credibility in the environmental and social spheres into their growth paths because of the growing reputational pressure toward alignment with ESG (Environmental, Social and Governance) criteria. “Green deals,” i.e., transactions focused on climate or energy transition-related goals, are now a priority for many portfolio strategies, as shown by the evolution of deals in the energy, utilities, and materials sectors. Therefore, as highlighted by BCG (2024), this leads to a growing interest in targets that can help improve performance in areas such as decarbonization, circularity, social impact, and responsible governance. In parallel, 2024 saw a notable shift in global M&A strategy as companies navigated a landscape shaped by high interest rates, stricter regulations, and fast-paced technological advancements. According to Bain & Company's Global M&A Report 2025, many companies adjusted their strategies, leaning more toward 'scale' deals – aimed at consolidating competitive position and generating cost synergies – rather than 'scope' deals which are more focused on innovation and expansion into new markets. Scale deals accounted

for 59 percent of strategic deals over \$1 billion in the first three quarters of 2024, the highest level recorded since 2015 (see Figure 2).

Figure 1.2. Significant Strategic Deals

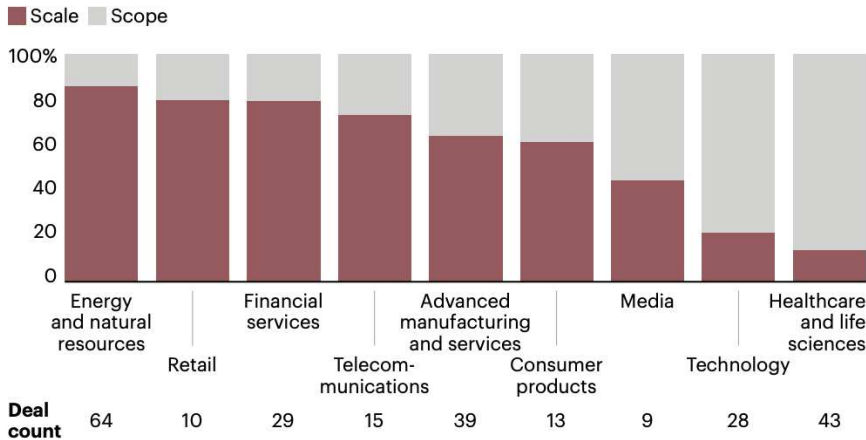


Note: Analysis includes strategic deals with value greater than \$1 billion, excludes real estate and services
 Source: Bain M&A Scale-Scope database

Source: Bain & Company, 2025

This reversal reflects a clear preference for deals with more predictable returns and tangible synergies in the short term, especially in fixed-capital-intensive sectors such as energy, telecommunications, and financial services (Figure 3). A case in point is ONEOK's \$2.6 billion acquisition of Medallion Midstream in the oil & gas sector, aimed at strengthening infrastructure and operational profitability in midstream.

Figure 1.3. Distribution of “scale” vs. “scope” operations by industry sector



Note: Analysis includes strategic deals with value greater than \$1 billion during the first three quarters of 2024, excludes real estate and services
 Source: Bain M&A Scale-Scope database

Source: Bain & Company, 2025

In addition, technological transformation driven by the adoption of generative artificial intelligence (GenAI) tools is also having an increasing impact on the M&A lifecycle. As data show, 21% of companies have already introduced GenAI into dealmaking processes, and more than 50% plan to do so by 2027. Major benefits include faster target identification, more effective screening, accelerated due diligence, and automation of post-integration steps (Bain, 2025). Early adopters are gaining significant competitive advantages – they are identifying value creation opportunities faster, reducing manual tasks, and improving the quality of pre-deal analysis, also leading to improved TSR (total shareholder return).

Looking forward, long-term trends such as the energy transition, process digitization, and accelerated adoption of artificial intelligence are key factors in continuing to foster M&A, not only to gain access to advanced technologies, but also to acquire key skills, specialized talent (through “acquihire” operations), and distinctive capabilities needed to remain competitive in an environment of permanent transformation.

1.2 The Strategic Role of Leveraged Buyouts in Corporate Acquisitions

1.2.1 Origins/Genesis and Underlying Rationale of LBOs

In this context of continuing strategic evolution and growth of M&A as a lever for innovation and competitive positioning, the ways in which transactions are financed have also adapted, with increasing emphasis on structures such as leveraged buyouts (LBOs), which are particularly prevalent in sponsor-backed acquisitions. This technique, widely used by private equity funds, allows them to acquire companies by combining equity and debt, thus maximizing returns on investment. Indeed, investors can gain control of a company with limited use of equity through the heavy use of leverage. In a typical LBO deal, in fact, most of the purchase price is financed through debt, while a residual portion is backed by equity (Gottschalg et al., 2004). The goal of this structure is to multiply the returns on the sponsors' investment by leveraging the positive difference between the return generated by the investment and the cost of debt and by improving the operating performance of the acquired company and increasing its value in the medium term.

Over the years, the evolution of LBOs has been followed by an intensive academic literature and empirical evidence that has researched the economic, strategic, and structural motivations behind these transactions. In particular, when it comes to public-to-private (PTP) deals – where a publicly traded company is bought by non-strategic buyers and then delisted – they've gotten

more and more attention in the literature, especially since the 1980s in the US, when deals like KKR's takeover of RJR Nabisco (1989) reached unprecedented sizes. During that year, the US PTP market exceeded \$250 billion in value (Opler & Titman, 1993). This phenomenon was not limited to the United States: a new wave of public LBOs emerged in the early 2000s in the United Kingdom and continental Europe, supported by easy access to debt and the boost from CDO markets. The reasons that cause companies or their buyers to move from public to private through leveraged buyouts can be grouped into two main categories (Kaplan, Jensen, Jensen & Meckling, DeAngelo et al.): on the one hand, agency cost theories, which describe going private as a way to balance incentives between shareholders and managers; on the other hand, financial, tax, and strategic assumptions (e.g., tax optimization, bondholder expropriation, or asset undervaluation). To support the analysis, Table 1 below summarizes the main hypotheses on the mechanisms of value creation for shareholders in public-to-private transactions, distinguishing between agency-based hypotheses and additional opportunistic motivations.

Table 1.1. Theoretical approach on delisting transactions through LBOs

Hypotheses on shareholder wealth gains in public-to-private transactions				
Shareholder-related agency cost hypotheses		Other hypotheses		
<ul style="list-style-type: none"> • Incentive realignment • Control • Free cash flow 		<ul style="list-style-type: none"> • Wealth transfers • Tax benefit • Transaction costs 	<ul style="list-style-type: none"> • Takeover defense • Undervaluation 	

Four strands of empirical literature	Offer	Delisting	Exit	
	INTENT	IMPACT	PROCESS	DURATION
Data	<ul style="list-style-type: none"> • Data on characteristics of large sample of firms going private • A control sample of firms that stay public 	<ul style="list-style-type: none"> • Selling shareholder wealth gain data for large sample of firms going private • Characteristics of firms going private 	<ul style="list-style-type: none"> • Small sample data for case studies, large sample data for quantitative studies • Data on (unexpected) performance improvements during private status or after 	<ul style="list-style-type: none"> • Large sample data on the duration of private status and its determinants
Methodologies	<ul style="list-style-type: none"> • Discriminant analysis • Likelihood models 	<ul style="list-style-type: none"> • Event study • Premiums analysis 	<ul style="list-style-type: none"> • Quantitative studies • Case studies 	<ul style="list-style-type: none"> • Hazard functions
Econometric challenges	<ul style="list-style-type: none"> • Out of sample testing • Can the model accurately distinguish between LBOs and leveraged recapitalizations? 	<ul style="list-style-type: none"> • Determination of announcement date • Non-uniformity of events across observations • Determination of anticipation window • Definition of "final" takeover share price 	<ul style="list-style-type: none"> • Survivorship bias of reverse LBOs • Limited data availability for private companies • Definition of expected performance • Correction for industry performance effects 	<ul style="list-style-type: none"> • Availability of sufficiently large sample sizes (for Europe) • Accounting for attrition bias

Source: Luc Renneboog and Cara Vansteenkiste, 2017

Amongst agency hypotheses, the incentive realignment hypothesis asserts that taking the firm out of regulated markets provides the potential to align better ownership and management, e.g., CEO and senior management shareholding (Kaplan & Strömberg, 2009). The free cash flow hypothesis (Jensen, 1986) posits that leveraging ensures disciplining of managers against

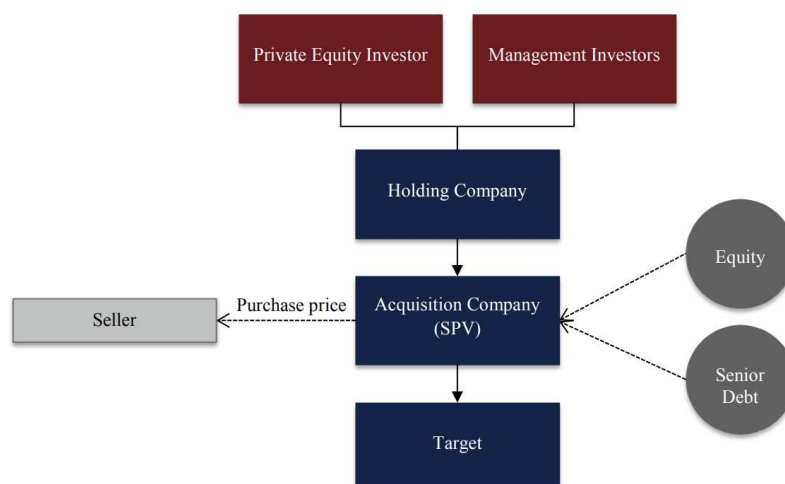
making inefficient investments and returning cash to the shareholders. Finally, the control hypothesis holds that the dense shareholding in private companies increases collection powers over the dispersion of listed firms (Grossman & Hart, 1988).

In addition to these mechanisms, there are also more 'opportunistic' or fiscal explanations: the wealth transfer hypothesis argues that the LBO arrangement offers a transfer of wealth from bondholders (without convenances protection) to post-buyout shareholders; the tax benefit hypothesis stresses the advantage of debt deductibility for interest; the transaction cost hypothesis considers savings on costs of delisting the firm from the stock exchange; finally, the takeover defense and undervaluation hypothesis explain the LBO as a managerial defense technique or as an opportunity for exploiting market undervaluation of assets. This multiplicity of theoretical drivers has been formalized in the literature in a coherent framework (Boucly et al., Renneboog et al.) that distinguishes four phases of the LBO process – Intent, Impact, Process, Duration – and links each phase to a series of empirical drivers and study methodologies.

1.2.2 Transaction Design and Value Creation Levers

In leveraged buyouts (LBOs), the structure of the transaction is among the most significant considerations in maximizing return on investment and in mitigating underlying risk. The transaction is commonly structured through a Newco or Holdco, an acquisition vehicle that allows for the necessary debt financing to be passed through. The sponsor fund, through the Newco, acquires the target company with a combination of debt (typically between 60% and 75%) and equity (25% and 40%), the latter of which is put up by the fund itself, but also, to a lesser extent, by the target's management, which is prompted to participate by way of co-investment plans (Gilligan & Wright, 2010). The structure described above is illustrated in the corporate diagram shown in Figure 4.

Figure 1.4. Typical Corporate Structure of a Leveraged Buyout



Source: Baker McKenzie (2023), "Global Leveraged Buyout Guide"

Practically, the transaction is typically structured by creating two new legal entities: a holding company, which is owned by the private equity fund (and partly also by the target management through co-investment), and an acquisition company or SPV (special purpose vehicle)¹. The former is the true operating arm of the acquisition, while the latter is the legal vehicle for bringing in the required financial means – both in the form of debt and equity – and tendering the purchase price to the seller.

As can be seen from the diagram, it is the Acquisition Company that directly takes loans from the lenders (typically in the form of senior debt and, where relevant, subordinated instruments), while the equity is provided mainly by the fund and, to a lesser extent, by the target management. After the transaction has been finalized, the target company is consolidated into the SPV or becomes its subsidiary, thus incorporating the new post-acquisition structure.

This form fulfills a number of demands: risk of isolation (whereby the fund is protected from direct liabilities), incentive alignment (through management participation in the capital), and financial flexibility to allow debt restructuring or tax optimization down the line. In addition, the presence of an intermediate holding company facilitates refinancing or exit activities, i.e., IPO or strategic sale.

In an LBO model, once the acquisition has been completed, the major work of the sponsor fund is to extract maximum value from the target business, achieving the highest returns for investors within the time frame typically of 4 to 7 years. Literature and research articles (Kaplan &

¹ The holding company is owned by institutional investors (private equity funds) and a minority stake held by management investors. The special purpose vehicle (SPV) raises capital – both debt and equity – and uses it to finance the acquisition of the target company.

Strömberg, 2009) group four most significant levers of value creation: financial engineering, operational engineering, governance engineering, and market timing.

1. Financial Engineering

Financial engineering is the most typical lever of LBOs compared to other acquisition types. It is based on the use of financial leverage in order to increase returns on equity. The investment directly put in by the fund is kept to a minimum, while the majority of the acquisition price is covered by debt, whose service is assured by the company's own cash flows. The instrument offers two fundamental advantages:

- Leverage effect on ROE: with same company growth has greater return to shareholders because of debt.
- Tax effect: interest charge is deductible for tax, reducing taxable income and hence shareholder net worth (tax shield).

More debt, however, also involves more financial risk: it is thus imperative that the debt structure needs to be sustainable and in accordance with the target's ability to bring in cash.

2. Operational Engineering

Operational engineering is aimed at improving the economic and operating performance of the target company. Private equity funds introduce sector expertise, human capital, and strategic insight with the goals of enhancing revenues (e.g., commercial growth, expansion into new geographies), improving EBITDA margin (e.g., supply chain efficiencies, SG&A reduction), optimizing asset utilization (e.g., divestiture of non-core businesses or operating leases). Such a strategy is complemented by targeted recruitment of an appropriate management team, often incentivised through co-investment vehicles or stock options to align interests.

3. Governance Engineering

Governance engineering entails reforming the target's decision-making and control structure. Funds implement more focused and effective governance structures than listed companies, eliminating conflicts of interest, bureaucracy, and short-term objectives. Key elements include small, expert committees (e.g., performance, investments, M&A), intensive monitoring of results (e.g., monthly reporting and stringent KPIs), variable compensation based on value creation.

This lever is particularly valuable in family companies or former public companies where the fund can bring a results-oriented culture.

4. Market Timing (or Mispricing Exploitation)

Although not always predictable, entry and exit timing represents a fourth potential source of value. Funds seek to enter at favorable spots in the cycle (e.g., low valuations or loose credit markets) and exit when market valuations are favorable (e.g., broad multiples, open IPO windows). The financial and sectoral expertise of the funds allow them to identify opportunities of "mispricing" wherein a company is bought at a valuation below its intrinsic potential, and they realize additional returns at the time of divestment.

All things considered, value creation in an LBO depends not on a solitary driver but on an interdependent network of levers: leverage maximizes financial returns, whereas intervention at the operation and organizational levels reengineers the business. It is this interdependence – acutely sensitive to the target firm's context – that explains LBOs' prodigious ability to generate alpha compared to other investment approaches.

1.2.3 Cyclicity and Evolution of LBO Activity

The market for leveraged buyouts (LBOs) has historically been extremely cyclical, being susceptible to macroeconomic factors, access to credit, and investor risk appetite.

In the pre-financial crisis period (2003-2007), LBO volume was at historic levels: sponsors enjoyed access to abundant liquidity, low spreads, and historically low interest rates, all of which encouraged the use of highly leveraged capital structures. During this period, deal volumes rose not only in the US but also in Europe, with more use of covenant-lite loans and second-lien loans (Kaplan & Strömberg, 2009; Axelson et al., 2013).

During the 2008 crisis, buyout activity drastically decreased. Financing new deals became very challenging due to the freezing of credit markets and the failure of large financial institutions. Banks were hesitant to sponsor new high-risk debt during those years, and the capital market's role sharply deteriorated. These years were marked by much more conservative capital structures. Because of the worsening credit conditions, buyouts that were carried out in the time leading up to the crisis performed poorly, according to studies like the one by Guo, Hotchkiss, and Song (2011).

Starting from 2010-2011, the recovery was supported by ultra-expansionary monetary policies (quantitative easing, zero interest rates), prompting institutional investors to take on riskier assets in order to gain a return. In this phase, the market saw a rebalancing in leveraged loan and high-yield bond usage: loans remained the center due to flexibility and seniority, whereas

high-yield bond issues became an increasingly popular tool for sponsors to utilize in funding large deals, drawing on the markets' insatiable appetite for debt capital markets (Bain & Company, Global Private Equity Report 2015-2020; PitchBook, Annual LBO Report 2019).

The pandemic period (2020-2021) was another stress test: during the first half of 2020, activity collapsed in the face of worldwide uncertainty and operating difficulties, but the unprecedented central bank reaction quickly restored confidence in the markets. Fiscal and monetary stimulus, ultra-low rates, and ubiquitous liquidity created a spectacular rebound, and a deluge of high-valuation deals and very generous financing terms ensued. In such an environment, loan and bond spreads narrowed, and sponsors got an opportunity to take advantage of a very concessional window to organize buyouts as leverage levels rose again (S&P LCD, 2021; McKinsey, Global Private Markets Review 2022).

Since 2022, rising interest rates, persisting inflation, and geopolitical risk (Ukraine conflict, supply chain dislocation) have redefined the market. The cost of debt has sharply risen, reducing LBO volume and placing sponsors under greater financial constraint. In a particular way, the market of high-yield bonds has attracted a steep decline, sanctioned by the increase in yields that are demanded by investors, while loans have kept a relatively higher percentage in financing structures, on account of their floating rate nature and the rising ability of banks to manage credit risk in turbulent conditions (IMF, Global Financial Stability Report 2023; Bain & Company, Global PE Report 2023). Following this phase, the leveraged buyout space has reflected a paradox between operational momentum and structural prudence. 2024 witnessed a strong recovery: deal value rose by 37% owing to stabilizing credit conditions, an enormous pick-up in leveraged loans (+83%), and a boom in direct lending (+66%), which explained 90% of middle-market LBOs (Chambers & Partners, 2025; Bain & Company, 2025). In Q1 2025, the loan market hit a quarterly high of \$355 billion, with January contributing \$215 billion, spurred by M&A deals and refinancing activities (Matrix Capital Markets Group, 2025). As stated by Baker McKenzie (2025), the perspective continues to be positive, driven by the revival of the M&A market and emerging opportunities connected to AI, digital bonds, and restructuring deals. Yet in the first half of 2025, however, the overall number of LBO transactions decreased by 16%, whereas their total value rose by 50% compared to the previous year, featuring a notable focus on mega-deals surpassing \$1 billion and an increase in strategic exits (Ropes & Gray, 2025). In 2024, fundraising decreased by 20%, but in 2025, large funds took control, indicating an increasing market concentration (NEPC, 2025).

At the same time, private credit has expanded to some \$2.5 trillion globally, absorbing the riskiest borrowers excluded from the public high-yield market (Barron's, 2025). While

relatively narrow spreads and a larger loan market have been the result, areas of weakness remain: the revival of student loans and persistent inflation have raised investor concern (Reuters, 2025), and some large LBO refinancing transactions have been delayed in the face of market volatility (Financial Times, 2025). In conclusion, the 2023–2025 timeframe underscores the robustness of the LBO market, propelled by ample liquidity and large transactions, while also facing increasing structural intricacies, an essential factor for grasping financing decisions between high-yield bonds and leveraged loans.

As a result of the above analysis, the longer-term historical evolution of LBOs fully shows their macro-financial cycle sensitivity. Expansionary phases are fueled by favorable credit conditions, which lead to vast utilizations of both loans and bonds, while contractionary phases see sharp drops in volumes and a shift towards more conservative structures. This connection is directly related to the subject matter of this thesis: understanding the degree to which market circumstances and credit situations influence the utilization of high-yield bonds relative to leveraged loans as source of funds in sponsored buyouts.

1.3 Sponsor Backed Leveraged Buyouts

1.3.1 Sponsor-Driven Transactions

In the leveraged buyout (LBO) market, private equity sponsor-led transactions are today the most common and organized type of leveraged acquisition. As opposed to corporate acquisitions, where the underlying rationale is mainly industrial and targets strategic goals such as vertical integration, market development, or the realization of operational synergies, sponsored transactions are guided by a basically financial rationale. The aim is to optimize the return on invested capital in a relatively brief period by selling to strategic purchasers, executing secondary buyouts, or launching stock market listings (Kaplan & Strömberg, 2009). This differentiation significantly affects the organization of transactions, relationships with creditors, and approaches to generating value. In these transactions, the private equity sponsor assumes a crucial and diverse role. Initially, it offers the equity portion needed to facilitate the transaction, supplemented by substantial debt financing. The sponsor's involvement goes beyond just supplying funds: it serves as a mediator with investment banks, debt funds, and institutional investors, coordinating the arrangement of the financing package and enhancing the adaptability of the capital structure. Additionally, once the deal is finalized, the private equity sponsor takes on the role of ensuring effective governance post-acquisition, overseeing company performance and aligning management with goals for value creation using specific

incentive programs (Rosenbaum & Pearl, 2020; Gilligan & Wright, 2020). As shown in Figure 5, the sponsor occupies a central position in the LBO architecture, acting as a link between financiers, management, and advisors.

Figure 1.5. Key Participants in LBOs

-
- Financial Sponsors
 - Investment Banks
 - Bank and Institutional Lenders
 - Bond Investors
 - Target Management
-

Source: Rosenbaum, J., & Pearl, J. (2020), Leveraged Buyouts

One such key factor is the reputation and track record of the sponsor, which directly influence the terms obtainable on the debt market. The literature suggests that more mature sponsors with a long-established history of success are able to tap more favorable sources of funding, with lower spreads, less onerous covenants, and greater leverage availability. First-time sponsors or those with a less stable reputation, on the other hand, are likely to be forced to accept more onerous and restrictive terms, which has a considerable bearing on the overall profitability of the transaction. Reputation, in this context, is a real intangible asset that reduces the risk perceived by investors and plays a part in debt pricing (Axelson, Jenkinson, Strömberg & Weisbach, 2013; Ivashina & Kovner, 2011). This is also reflected in the due diligence process, which in sponsor-led LBOs is even more comprehensive and focused on the target's ability to generate stable and predictable cash flows. The sponsor focuses its attention on debt servicing sustainability – i.e., the ability of the acquired business to service interest and repayment – and closely scrutinizes the resilience of operating margins and competitive position. High cash conversion targets, low fixed capital investment requirements, and stable margins are particularly attractive, as these permit more aggressive leverage levels without compromising financial stability (Kaplan, 1989; Hotchkiss, Smith & Strömberg, 2021). Figure 6 summarizes the typical characteristics of a target considered “strong” in an LBO, highlighting the key elements that guide the sponsors' due diligence.

Figure 1.6. Characteristics of a Strong LBO Candidate

-
- Strong Cash Flow Generation
 - Leading and Defensible Market Positions
 - Growth Opportunities
 - Efficiency Enhancement Opportunities
 - Low Capex Requirements
 - Strong Asset Base
 - Proven Management Team
-

Source: Rosenbaum, J., & Pearl, J. (2020), Leveraged Buyouts

In this scenario, the sponsor works as a catalyst for the financial structure of the deal: its own network of relationships with banks and institutional investors, together with the power to dictate innovative solutions (like covenant-lite loans or hybrid instruments like PIK notes), enables it to maximize the capital structure and provide the flexibility required for investment management (Phalippou, 2020; S&P Global, 2023).

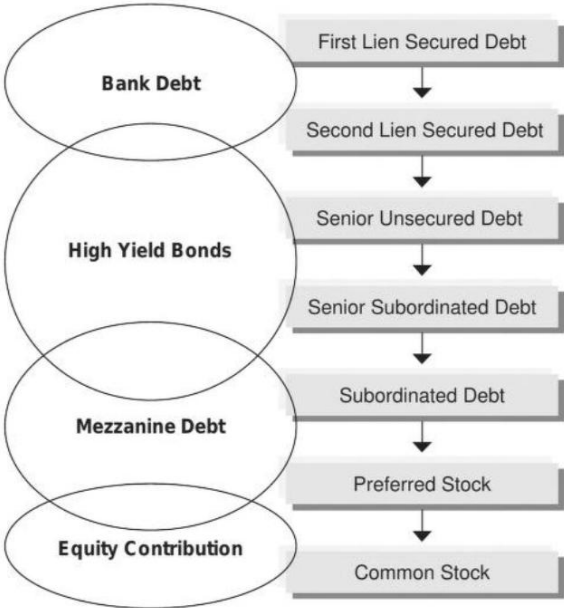
Finally, a key point regards the difference between established and emerging global sponsors. The big international players – like Blackstone, KKR, and Carlyle – can rely on their reputation, established relationships, and access to capital, which enable them to tap leveraged loan and high-yield bond markets more readily, negotiating very favorable terms and also turning to large-scale direct lending (Bain & Company, 2024). Conversely, mid-market and emerging sponsors, while having lower bargaining power, have managed to find a competitive niche for themselves by specializing in sector specialization, more flexible financing structures, and relationships with private debt investors (PitchBook, 2023). This enables them to compete successfully in the mid-market space, particularly in an environment with high interest rates and heightened credit selectivity.

1.3.2 Sponsor Influence on Structuring, Execution and Post-Acquisition Strategy

The sponsor's influence in a leveraged buyout transaction does not end with the acquisition phase but instead extends throughout the entire investment process: from deal structuring at the beginning, to leading the financing, to post-acquisition strategic guidance and the timing of exit. Its ability to dominate these phases is based on reputation, access to capital markets, and experience from previous deals, which directly affect the risk-return profile of the transaction (Kaplan & Strömberg, 2009). When defining the financial structure, the sponsor acts as the architect of the transaction, determining the composition of the capital between debt and equity, as well as the type of debt instruments used. As seen in Figure 7 – General Ranking of Financing

Sources in an LBO Capital Structure, the financing sources are ordered in a hierarchy from low-cost senior secured debt to mezzanine debt and equity, which are more expensive but more flexible (Rosenbaum & Pearl, 2020). The decision on the optimal mix depends on the target's strength, market conditions, and risk tolerance of the sponsor. An aggressive approach can have high use of low-cost debt, while more conservative ones have a bigger equity portion to have financial stability.

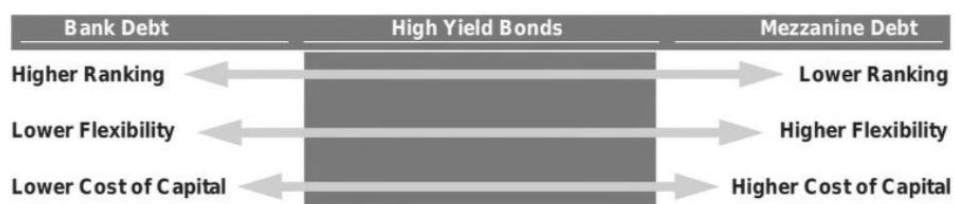
Figure 1.7. Financial Sources Ranking in an LBO Capital Structure



Source: Rosenbaum, J., & Pearl, J. (2020), Leveraged Buyouts

During the execution of the deal, the sponsor plays a primary role in lender negotiations and syndication of the debt. The reputation and bargaining power of the sponsor have a direct impact on the availability of capital and the terms imposed. As explained by Axelson et al. (2013), well-reputed sponsors obtain more flexible covenants and tighter spreads, while lesser-known operators are subjected to more restrictive terms. Sponsors also lead the bookbuilding and coordinate the various participants involved (banks, credit funds, bondholders), ensuring the financing structure is aligned with the return expectations. The overview in Figure 8 – Summary of Selected Key Terms – describes how the various instruments (bank debt, bonds, mezzanine) differ in terms of security, flexibility, and cost, testifying to the sponsor's central role in orchestrating the combination (S&P Global, 2023).

Figure 1.8. Financial Sources Ranking in an LBO Capital Structure



Source: Rosenbaum, J., & Pearl, J. (2020), Leveraged Buyouts

After the deal closure, the sponsor's influence is most evident in the investment management phase, where the main value creation levers are activated. These include, on one hand, operational improvements, i.e., process rationalization, cost reduction, and governance strengthening, and, on the other, deleveraging actions, i.e., debt progressive reduction due to the generated cash flows, allowing the improvement of equity value and financial strength of the target. To these levers is added multiple expansion, permitted by the improved business performance and strategic repositioning on the market, helping to increase the company's value at divestment time (Kaplan, 1989; Phalippou, 2020). The blending of these strategies is not only aimed at easing the company's intrinsic growth, but also at preparing the exit foundations in a disciplined manner. As a matter of fact, unlike corporate acquisitions, where divestment decisions rely on long-term industrial logic, sponsors have a predefined time horizon – typically spanning between four and seven years – and plan the timing of the exit based on sector multiples and best market conditions. The capacity to balance operational value creation and exit planning is thus a unique characteristic of sponsor-backed deals, and accounts for the fact that discipline in managing the investment lifecycle is viewed as a key success factor in leveraged buyouts (Kaplan & Strömberg, 2009; Bain & Company, 2024).

1.4 Acquisition Financing in LBOs

1.4.1 Capital Structure Choices in Buyout Transactions

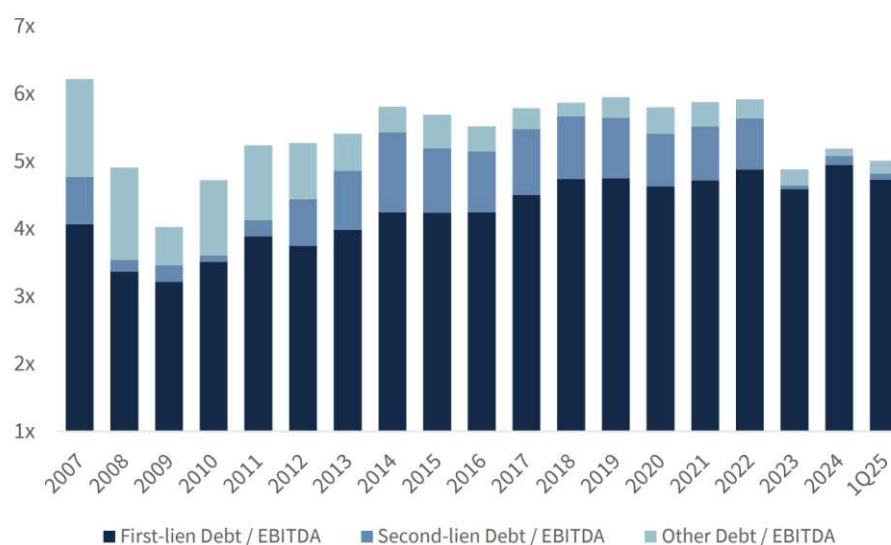
The capital structure definition is one of the most sensitive phases in an LBO structuring. The mix of debt and equity defines not only whether the transaction is feasible, but also the risk-return profile for the sponsor and the lenders. On a practical level, the analysis always starts with Sources & Uses of Funds, which illustrates, on the one hand, the sources of capital available (equity, senior debt, high-yield bonds, mezzanine, hybrid instruments like PIK notes) and, on the other hand, the principal uses, usually the acquisition of the target's shares, the refinancing of existing indebtedness, and the payment of fees on the transaction. This view is

critical for lenders and investors, as they can thereby instantly determine the quantum of leverage necessary and the target's capacity to generate enough cash flows to repay the debt (Rosenbaum & Pearl, 2020).

In a typical transaction, the sponsor makes an equity contribution of, on average, 30–40% of the purchase price, and the remainder is paid with debt, historically equal to 60–70% of the total (Kaplan & Strömberg, 2009). In recent years, though, changing market conditions have made the mix more flexible: Bain & Company (2024) reports that in 2023 the average equity contribution in global buyouts was around 45%, above the past level due to the contraction of credit market liquidity and rising interest rates. This reveals a structural change: the years of cheap credit (2015–2021) had witnessed far more aggressive leverage levels favored, with deals often structured on debt/EBITDA multiples in excess of 6x; in 2022–2023, wider spreads and more discerning investors have imposed more conservative structures.

The trade-off between debt capital and risk capital is one of the most important aspects to model in LBO. From a theoretical point of view, Modigliani and Miller's (1958) view would imply that capital structure does not matter under perfect markets. In the real world of buyouts, this stance is moderated by insolvency costs, debt-beneficial taxation (tax shield on interest), and, most importantly, lender-imposed constraints (Axelson et al., 2013). Additional debt enables increased returns on equity due to leverage, but simultaneously raises default risk and contractual inflexibility. Equity, while costing more, ensures additional resilience and flexibility in the event of financial distress. Credit market conditions are determinant in setting the level of sustainable leverage. During times of plentiful liquidity, sponsors are able to push more aggressive structures; during credit tightening periods, more equity is needed. As evident in Figure 8, average leverage levels on LBOs have changed quite significantly in recent times: as of the first quarter of 2025, average leverage was placed at ca. 5.0x EBITDA, down from 5.2x in 2024 and well below the highs seen in 2021 (Raymond James, 2025). First lien debt, specifically, is the most stable component, with figures of around 4.7x, attesting to the primacy of senior secured tranches in the funding mix.

Figure 1.9. Debt/EBITDA Ratio of Leveraged Loans in LBOs (2007–2025)



Source: Raymond James, *Debt Market Insight – Q1 2025*

An additional factor influencing the choice of a structure includes the cost of capital, the flexibility of financial instruments, and the probability of default. For example, senior bank debt is cheaper, but is more restricted by covenants and repayment schedules, while bonds offer greater operating freedom at a higher cost. Subordinated instruments, such as mezzanine financing and payment-in-kind (PIK) facilities, add to the structure in the case of insufficient equity, thus increasing flexibility at the cost of higher coupon rates (Phalippou, 2020).

Finally, there are significant geographical differences. In the US, the use of bond markets is well established, thanks to the great depth and liquidity of capital resources; in Europe, the traditionally more bank-based framework of the financial system has privileged a relatively greater use of leveraged loans (Kaplan & Strömberg, 2009; S&P Global, 2023). This explains why US transactions tend to be larger and more complex, while European transactions tend to be more conservative in nature and in the dependence on sponsor-bank relationships.

1.4.2 Structural Classifications of Debt

The financial structure of a leveraged buyout is determined dynamically by prevailing debt market conditions and the level of negotiating flexibility that can be achieved by sponsors and lenders. Historically, eras of high liquidity and compressed spreads have favored a higher incidence of high-yield bond issuances and the utilization of covenant-lite structures, which enable sponsors to enhance leverage while minimizing contractual constraints. In eras of risk aversion or systemic financial crises, the environment has favored senior secured loans, which

are viewed as more protective by lenders and easier to restructure in the event of credit weakness (Demiroglu & James, 2015; Ivashina & Scharfstein, 2010). In this respect, the debt structure in an LBO is not monolithic, but a mosaic of complex instruments classifiable in terms of repayment priority, risk level, and contractual flexibility. Understanding how these elements interact and how their relative importance changes based on market conditions is essential to evaluating the sustainability of the transaction and the prospects for investment success.

As supported by current literature (Rosenbaum & Pearl, 2020; Pinto, 2021), leveraged buyout (LBO) financing follows a structured hierarchy that moves from senior secured bank debt to subordinated and mezzanine debt to the final equity contribution provided by the sponsor. The classification is not merely conceptual; it reflects the relationship between the cost of capital, the risks involved, and the degree of control exercised by lenders through covenants. Generally:

- The higher the ranking in the capital structure, the less the cost of debt but also the less flexibility given to the issuer.
- The lower the position, the greater the return demanded by investors, yet the more operating flexibility given to the sponsor.

At the bottom of the hierarchy are secured loans, which historically constitute the primary element of an LBO. In the shape of revolving credit facilities or term loans extended by banking syndicates, this debt enjoys asset guarantees and strict covenants demanding adherence to precise financial ratios. For the banks, this is the safest kind of financing, with less risk and cheap cost of capital, but for the sponsor it means operating restrictions and reduced flexibility. Next are second lien loans and other types of subordinated debt, instruments that compensate investors with a higher return in exchange for decreased repayment priority. They have a tendency to become more prevalent during benign market conditions, when there is hunger for risk and sponsors desire to stretch leverage beyond the reach of senior debt, but vanish nearly completely during credit crunch times.

High-yield bonds play a significant role, especially in large buyout deals. As non-investment grade, they have higher coupon expenses but offer significant advantages: a longer duration of up to ten years, the lack of maintenance covenants which are replaced by less restrictive incurrence covenants, and the ability to diversify the investor base through the secondary market. In times of abundant liquidity, high-yield bonds can account for around 30-40% of the funding mix in U.S. deals (S&P Global, 2023); in times of monetary tightening or intense volatility, their use falls sharply, forcing sponsors to adapt the financing structure to bank loans and higher equity contributions.

Midway between debt and equity is mezzanine debt, a flexible and expensive instrument typically provided by specialized funds and institutional investors. Mezzanine debt combines high coupons with additional features like warrants or PIK elements, which enable partial remuneration to be transformed into future equity. Its purpose is to fill the gap between the maximum amount of senior debt available and the amount of equity that the sponsor is ready to contribute. Although mezzanine debt was extremely common in the past, nowadays it is more selectively used, having been substituted by private credit and unitranche facilities, but is still pertinent in mid-market transactions, where contractual term customization is of primary concern (Phalippou, 2020). In addition to these longer-term instruments, bridge loans serve a specific purpose. These are short-term loans provided by investment banks to ensure the closing of the transaction until the issuance of permanent instruments, usually HY bonds. These loans are costly and have fees that escalate over time, but they constitute an execution guarantee for the sponsor when the market windows for issuing bonds are unclear or temporarily shut. Finally, the equity contribution of the sponsor constitutes the residual portion of the structure, but at the same time provides the basis for ensuring alignment of interests with the lenders.

Overall, the debt composition in an LBO reflects a constant trade-off between capital availability, the level of risk accepted by lenders, and the sponsor's return objectives.

During times of euphoria, bonds, second liens, and subordinated instruments dominate, enabling higher leverage but simultaneously increasing the risk of insolvency and decreasing recovery rates for junior creditors if default occurs.

In non-crisis times, by contrast, the financial structure often tracks more closely senior secured debt and a larger share of equity, a configuration that limits overall leverage but adds financial strength and senior lender recovery rates. The flexibility with which sponsors make these choices, taking into account the credit cycle and balancing projected returns with potential hazards, is a critical driver of success and an important distinguishing feature relative to traditional corporate acquisitions.

1.4.3 Debt Market Conditions and Financing Flexibility

Analyzing in detail how credit market conditions influence the composition and evolution of debt structure is therefore essential to understanding the extent to which sponsors can adapt their financing schemes to different phases of the economic and financial cycle. In times of abundant liquidity, operators can often structure deals with a more aggressive mix of long-term instruments and less restrictive clauses, benefiting from institutional investors' greater risk

appetite. Conversely, in periods of macro-financial instability or tightening liquidity, the focus shifts to more conservative strategies, with a preference for secured bank financings and a larger equity contribution, thus guaranteeing the financial sustainability of the transaction and reducing the exposure to potential loss for the creditors.

The monetary policy cycle plays a role in reinforcing this dynamic: rate increases by the Federal Reserve or European Central Bank result in a decrease in overall leverage capacity and a corresponding increase in required equity from sponsors (Becker & Ivashina, 2014), while monetary easing regimes are characterized by quick growth in bond markets and increased availability of subordinated instruments.² This direct relationship with monetary policy is compounded by the behavior of credit default swaps (CDS), an immediate barometer of systemic risk perception: the widening of CDS spreads in times of financial crises or macroeconomic shocks results almost immediately in increased funding costs and a more conservative examination of financing structures (Pan & Singleton, 2008).³

Historical events provide clear evidence of the cyclicity of the credit market's influence on the sustainability of buyouts: in 2008, the financial crisis caused a meltdown in the leveraged loan market and a massive recourse to bank credit lines (Ivashina & Scharfstein, 2010);⁴ in 2020, at the time of the pandemic, stress in the bond markets compelled sponsors to restructure designs with a higher proportion of secured loans (Acharya & Steffen, 2020); More recently, in 2022–2023, higher interest rates compressed the availability of subordinated debt and drove the average equity contribution to over 40% (Bain & Company, 2023).⁵ The latest data provide further confirmation: during the first quarter of 2025, average leverage for US buyouts was around 5.0x EBITDA, with nearly all of the leverage concentrated in first-lien debt at 4.7x, reflecting an environment still characterized by senior instruments and prudent caution on the part of institutional investors (S&P Global LCD, 2025).

In conclusion, the above theoretical framework emphasizes how the rationale of sponsor-backed LBOs cannot be appreciated if one does not take into account the contribution of market conditions and the characteristics of the financing sources involved. For this reason, the next chapter will focus on the leveraged finance market, examining in depth the functioning of the

² An increase in interest rates reduces the ability of acquired companies to generate sufficient cash flows to cover debt servicing: this lowers the maximum sustainable leverage and forces a greater contribution of equity.

³ CDSs act as an immediate “thermometer” of risk: when spreads widen, they reflect not only a higher perception of default but also an increase in the cost of capital, which makes access to subordinated instruments more expensive.

⁴ During the 2008 crisis, many banks exposed to losses on the interbank market drastically reduced their granting of leveraged loans, forcing sponsors to seek refuge in revolving lines and secured loans.

⁵ Increasing the equity ratio during the most turbulent two-year periods is not only a prudent choice, but often a condition imposed by lenders to compensate for the greater perception of systemic risk.

key instruments – leveraged loans and high-yield bonds – which represent the central components of the capital structure in private equity transactions. Special attention will be given to the use of these instruments to finance speculative grade companies, usually featuring a higher risk profile but also the potential to generate the cash flows to sustain a highly leveraged financial structure.

2 Leveraged Finance Overview

2.1 Introduction to Leveraged Finance

2.1.1 Definition and Scope

The term leveraged finance refers to debt financing of large firms with a speculative credit profile, typically with a rating below investment grade (below BBB-/Baa3) or, in the absence of an official rating, with spreads consistent with the sub-IG universe.

This category primarily includes two main instruments: high-yield bonds and leveraged loans, which, while sharing the same universe of issuers, differ in contractual structure, types of investors, and position in the creditor hierarchy. These markets have experienced explosive growth over the last two decades: outstanding leveraged loans have risen from around \$200 billion in 2001 to over \$1.3 trillion in 2021, and the stock of high-yield bonds has tripled over the same period and now stands at over \$1.5 trillion. Overall, leveraged finance has reached a size of approximately \$3 trillion of outstanding debt, making it a fundamental source of credit for large firms and, at the same time, a legitimate asset class for institutional investors (Nini & Smith, 2023).

This trend has persisted in recent years. Following the abrupt slowdown in 2022-2023, caused by increasing interest rates and macroeconomic uncertainty, 2024 was characterized by a sudden comeback in activity: the overall volume of leveraged loan and high-yield bond issuance in the United States and Europe more than doubled year-on-year compared to 2023, representing the busiest year since 2021. Specifically, the high-yield market expanded by around +75% year-on-year, whereas leveraged loans recorded historical highs of new issuance, thanks to institutional demand and the increasing presence of CLOs as structural buyers.

As illustrated in Figure 2.1, extracted from Baker McKenzie's annual report, the recovery was already noticeable in the first quarter of 2024, with consistent growth in both bond and loan volumes, testifying renewed market confidence in the leveraged finance market.

Figure 2.1. Global leveraged finance issuance 2021–2024⁶



Source: Baker McKenzie, *In the Know: Leveraged Finance Annual Report 2025*, data from Refinitiv

From a technical perspective, the difference between leveraged and high-yield loans is mainly seen in their contractual nature: the former are issued under indentures, have mostly fixed coupons, and are predominantly senior unsecured; the latter, under credit agreements, pay variable indexed rates (SOFR/Euribor/SONIA plus spread), are almost always senior secured (First lien, occasionally Second lien) and feature bullet repayment profiles like bonds. This structural difference also implies very different recovery rates: in case of default, secured loans recover on average more than 75%, whereas unsecured bonds hardly ever recover by more than 35%. The hierarchy of creditors, established by seniority and collateral, along with types of contractual and structural subordination, thus becomes key to understanding the dynamics of risk and pricing in this market (Bear Stearns, *Leveraged Finance Handbook*).

The investor base also separates the two segments. High-yield bonds are placed traditionally under Rule 144A and drawn in specialized funds, asset managers, and insurance companies, whereas leveraged loans, especially term loan B, are nearly solely focused on non-bank institutional investors. Among the latter, Collateralized Loan Obligations (CLOs) emerge prominently, constituting today's principal purchasing force and recording issuance highs in

⁶ HY bonds and Leveraged Loans, quarterly volumes and values. The chart highlights the market rebound in 2024, with issues more than doubling compared to 2023 and strong growth for both leveraged loans and high-yield bonds.

2024 with more than \$465 billion of resets/refinancing and \$187 billion of new transactions. CLO presence has contributed to the resilience of the secondary loan market's liquidity, which is nonetheless less transparent than the bond market, where OTC dealers dominate.

On the issuer side, the usual borrowers are large speculative grade corporations in cyclical industries like industrials, telecommunications, and energy, which are frequently the subject of sponsor-backed deals. Included in this universe are also the so-called fallen angels, corporations that have lost their investment grade status due to operational weakness or sectorial shocks. In every instance, the common trait is having to raise substantial capital against the backdrop of a risk profile that precludes access to safer markets. It is no coincidence that most new leveraged finance issuance is traced to M&A, leveraged buyouts, refinancing, and recapitalizations.

In this context, the universe of leveraged finance overlaps with the corporate debt universe addressed to speculative-grade issuers who, not having access to investment-grade markets, finance themselves mainly through high-yield bonds and leveraged loans. While differing in structure, contractual terms, and investor base, these instruments are substitute within the capital structure of sponsor-backed deals and are strategic levers in LBO financing choices. Their prominence can be gauged by noticing that, on average, 50% to 75% of the purchase price in a buyout is financed with debt (Leveraged Commentary & Data, 2020), sometimes routed through a newly formed company ad hoc by the sponsor to carry out the deal and merge with the target (Axelson, Jenkinson, Strömberg & Weisbach, 2008). Over time, the market has developed instruments with tailored features to customize the debt/equity structure according to investor appetite and satisfy different risk-return combinations (Banegas & Goldenring, 2019).

It is hence within this universe that the analysis proposed in this thesis is collocated, with the aim of comprehending to what extent the choice between high-yield bonds and leveraged loans is a function of market conditions, company specifics, and sponsor strategies.

2.1.2 Speculative Grade Issuers and Credit Rating Classification

Credit ratings are integral to the functioning of capital markets because not only does this choice determine the ability to gain access to funds, but the type of instruments that will, in reality, become available to the firm. Rating agencies (Moody's, S&P, Fitch) are central to determining this classification, distinguishing investment grade from speculative grade corporations. The critical threshold is the BBB-/Baa3 level: above this threshold are the investment grade issuers, who have access to capital with comparatively low expense as well as broader and more

conservative investor base; below this level are sub-IG issuers who are deemed to be speculative grade with the resultant necessity to bear a higher cost of capital as well as to seek investors who are more risk-loving. The importance of this distinction is confirmed by extensive literature. Kaplan & Strömberg (2009) emphasize how the contractual structure and tools of the credit markets developed to accommodate issuers with diverse ratings, while Strömberg (2008) refers to the fact that over 90% of cross-border LBOs have been financed in at least partial sub-IG debt. Speculative-grade borrowers are therefore not minority cases, but the very heart of leveraged finance, especially in sponsor-backed acquisitions.

The rating process integrates several profiles:

- Industry profile: which considers sector factors such as the degree of competition, regulation, cyclicity, and capital intensity;
- Business profile: focused on market leadership, diversification, profitability, and operating track record;
- Financial profile: which assesses financial policy, cash generation, leverage, interest coverage, and liquidity. In addition to these, agencies also incorporate other elements such as ownership structure, any government guarantees, or the availability of external support.

These dimensions contribute to defining the overall rating, which is expressed as a letter grade (from “Aaa/AAA” to “D”) but has concrete and immediate effects on funding conditions. The figure below highlights the distinction between investment grade (AAA–BBB/Baa3), speculative grade (BB/Baa1–CC/C), and default. The BBB–/Baa3 threshold is the operational boundary that separates access to low-cost capital from dependence on typically leveraged instruments.

Figure 2.2. Corporate Rating Scale⁷

Investment Grade	Standard & Poor's	Moody's	Meaning
	AAA	Aaa	Highest rating assigned. Capacity to pay interest and repay principal is extremely strong.
	AA+ AA AA-	Aa1 Aa2 Aa3	Very strong capacity to pay interest and repay principal and differs from the highest rated issues only in small degree.
	A+ A A-	A1 A2 A3	Strong capacity to pay interest and repay principal although it is somewhat more susceptible to the adverse affects of changes in circumstances and economic conditions than debt in higher rated categories.
	BBB+ BBB BBB-	Baa1 Baa2 Baa3	Adequate capacity to pay interest and repay principal. Whereas it normally exhibits adequate protection parameters, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to pay interest and repay principal for debt in this category than in higher rated categories.
High Yield	BB+ BB BB-	Ba1 Ba2 Ba3	Less near-term vulnerability to default than other speculative issues. However, faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to inadequate capacity to meet timely interest and principal payments.
	B+ B B-	B1 B2 B3	Greater vulnerability to default but currently has the capacity to meet interest payments and principal repayments. Adverse business, financial, or economic conditions will likely impair capacity or willingness to pay interest and repay principal.
	CCC+ CCC CCC-	Caa1 Caa2 Caa3	Currently identifiable vulnerability to default, and is dependent upon favorable business, financial, and economic conditions to meet timely payment of interest and repayment of principal. In the event of adverse business, financial, or economic conditions, it is not likely to have the capacity to pay interest and repay principal.
	CC C	Ca C	Subordinated debt of higher rated senior debt issuers or bankruptcy petition will be filed.
	D		In Default.

Source: Bear Stearns, Leveraged Finance Handbook

Speculative grade issuers do not constitute a homogeneous group. The BB rating category includes the best-positioned companies within the non-IG segment, often with broad access to both the loan and HY bond markets. The B rating category, on the other hand, includes more speculative issuers, including many sponsor-backed LBO target companies, whose access to debt is mainly guaranteed by syndicated loans and the availability of CLOs as primary buyers. Finally, the CCC and lower categories indicate extremely high credit risk, where the cost of debt can become prohibitive and accessible instruments are drastically reduced (S&P Global, 2024).

The rating classification affects not only the cost of funding but also the type of financial instruments available. Investment grade companies can issue commercial paper, senior bonds, and traditional corporate loans with low spreads and long maturities. Conversely, speculative-grade companies must resort to a more limited range of options, often characterized by higher costs and more stringent covenants. A sub-IG rating mainly allows access to leveraged loans, high-yield bonds, private placements, and subordinated or mezzanine instruments, which form the backbone of modern leveraged finance.

⁷ Fitch uses a rating scale that is broadly aligned with that of Standard & Poor's, with the same investment grade and high yield classification.

Existing empirical studies corroborate this dichotomy. Altman (1989) revealed that default rates grow dramatically as ratings decline, from less than 1% per annum for IG companies to more than 10% for speculative grade companies in the course of recessions. More recently, Destraz & Lahaye (2012) noted that the probability default of HY issuers is as much as 25 times more exposed to market volatility as that of IG issuers, which again highlights the very high intrinsic cyclicity of the leveraged segment. Moreover, Banegas & Goldenring (2019) revealed that HY bond spread patterns are not only due to macroeconomic variables, but to micro borrowers' traits, such as sponsor reputation as well as performance history.

All things considered, speculative grade borrowers are the very heart of leveraged finance. They differ from investment grade borrowers not only in their credit, but in the entire universe of instruments, investors, and arrangements governing their access to finance, they represent a distinct reality. For sponsor-backed LBO transactions, this implies a significant choice: to resort to the loan market or to the HY bond market. This decision is conditioned by macroeconomic fundamentals, the specific features of the target company, as well as value creation initiatives undertaken by the sponsor.

2.1.3 Risk Profile and Pricing Mechanisms

Sub-investment grade issuers, most commonly rated between BB+ to CCC (by S&P/Moody's/Fitch scales), have by their nature a risk level higher than that of investment grade issuers. That risk is mainly covered in three points: more leveraged capital structure, volatility in operating cash flow, as well as lower resilience in cases when macro-financial stress is noted. Access to capital from these issuers is very cycle-like in nature. During "risk-on" environments, when liquidity is good and spreads are tight, the markets for leveraged loans as well as high-yield bond markets quickly emerge to facilitate large issuances. But in "risk-off" environments (e.g., the Covid shock in 2020 or the tightening in 2022), access is more binary and discriminatory, with extensive use of CLO⁸ investors in the case of loans as well as HY funds in the case of bonds (Marquette Associates; Baker McKenzie).

From a cost perspective, there are significant trade-offs between high-yield bonds and leveraged loans in both the US and Europe, linked to the nature of pricing and base rates. In the US, the Option-Adjusted Spread (OAS)⁹ on the ICE BofA US High Yield Index, stands at around 2.75%

⁸ CLOs (*Collateralized Loan Obligations*) are securitization vehicles that purchase portfolios of leveraged loans, constituting the main source of structural demand in this market.

⁹ The Option-Adjusted Spread (OAS) is a spread calculated on the government (Treasury) or swap curve that measures the yield premium of a fixed-rate bond relative to risk-free, adjusted for any implied options. It is the standard measure for comparing the funding costs of high-yield issuers in the bond markets.

in August 2025, significantly compressed compared to the historical average – around 5% (FRED). However, leveraged loans remain more expensive: the three-year discount margin (3y-DM)¹⁰ on the S&P LSTA/S&P UBS Leveraged Loan Index is around 470 bps, which, when added to a SOFR above 4%, produces a total cost of close to 9% (S&P Dow Jones Indices; FRED). Similarly, in the European context, the OAS on the Euro High Yield Index is around 2.8%, with an effective yield in the 6% range (YCharts). Meanwhile, the S&P UBS Western European Leveraged Loan Index, hedged in euros, shows a 3y-DM of around 450 bps and a yield to worst¹¹ above 7%, with Euribor/€STR above 3.5% in 2025 (S&P DJI). Therefore, in both regions, leveraged loans are more expensive in terms of carry (expected coupon), especially in high-interest rate scenarios, compared to HY bonds, which offer lower fixed coupons but with less flexibility (call protection, fewer prepayment/amend-and-extend options). A higher risk premium for leveraged loans can be explained by their variable rate nature, direct exposure to credit events, and the fact that they are largely purchased by CLOs, investors who require higher margins to compensate for volatility and operational risk (S&P Global). Conversely, high-yield bonds, with fixed coupons and longer durations, are more attractive to institutional funds and asset managers, who favor stability and predictability of cash flows. In favorable market conditions, this translates into tighter spreads than loans, albeit at the cost of less operational flexibility due to call protection and contractual rigidity. These figures clearly show that the cost of debt is more variable and at the same time higher for leveraged loans than for high-yield bonds, even in contexts of spread compression. This has direct implications for the choice of financing instrument in an LBO: leveraged loans offer flexibility and speed, but at a higher recurring cost, while high-yield bonds may be more affordable in terms of spreads, but are constrained by call protection and fewer pre-payment options.

2.2 Debt Financing Alternatives for Non-Investment Grade Issuers

2.2.1 High-yield Bonds

High-yield (HY) bonds, commonly referred to as “junk bonds,” are now an essential tool for financing sub-investment grade companies with ratings between BB+ and CCC. From a

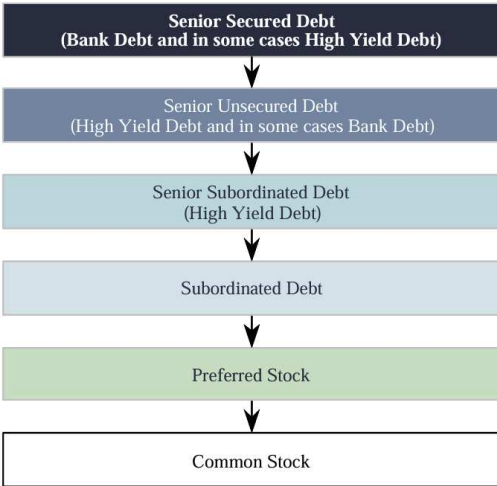
¹⁰ The three-year discount margin (3y-DM) is the yield margin that equates the market price and expected cash flows of a floating-rate leveraged loan, assuming an average life of three years. This metric, used by loan indices (e.g., S&P/LSTA or S&P UBS), is comparable to the OAS spread for floating-rate instruments.

¹¹ Yield to worst (YTW) represents the minimum return that an investor can obtain, assuming early redemption at the first available call. It is a prudential measure that captures the worst-case scenario for the issuer, particularly relevant in high-yield markets where call protection limits redemption flexibility.

structural point of view, they are mainly senior unsecured notes, without collateral, and therefore subordinate to secured loans in terms of repayment priority.

Figure 2.3 illustrates the position of high-yield bonds in the capital structure, highlighting their subordination to secured loans and their higher risk in terms of expected recovery.

Figure 2.3. Capital Structure Ranking



Source: Leveraged Finance Handbook, 2001

In higher-risk transactions, subordinated notes are sometimes used, which have even lower recovery rates (around 30–40%, compared to 60–70% for secured loans).¹²

Typical maturities are between 7 and 10 years, longer than leveraged loans (5–7 years on average), with fixed semi-annual coupon payments that provide stability to creditors but increase the issuer's exposure to refinancing risk in unfavorable environments. A characteristic feature is callability: issues usually offer an initial non-call period between 2–3 years, then decreasing call schedule with diminishing premiums (103–102–101–100), with the option to make-whole in the first years. These provisions enhance investors' protection from early refinancing, but decrease the issuer's flexibility in operation, valuable particularly in LBO structures.

The process of issuing a high-yield bond follows a well-defined sequence of internal and external activities involving the issuer, arranging banks, rating agencies, and institutional investors. Figure 2.4 summarizes the main stages of a typical high-yield offering, from initial due diligence to the roadshow, pricing, and closing.

¹² Moody's, Annual Default Study 2023

Figure 2.4. Timeline of a Transaction

Week	Internal Process	Origination/Execution Process
NA	<ul style="list-style-type: none"> ■ Develop capital structure and financing recommendation. ■ Prepare pitchbook materials to present to client. 	<ul style="list-style-type: none"> ■ Presentation to client.
1-2	<ul style="list-style-type: none"> ■ Due diligence. ■ Prepare Principal Activities Committee memo and obtain internal approvals.⁽¹⁾ ■ Execute engagement letter. ■ Begin drafting description of notes with legal counsel. 	<ul style="list-style-type: none"> ■ Organizational meeting. ■ Drafting of Offering Memorandum.
3-4	<ul style="list-style-type: none"> ■ Prepare purchase agreement with legal counsel. 	<ul style="list-style-type: none"> ■ Prepare rating agency presentation. ■ Prepare roadshow presentation. ■ Meet with rating agencies. ■ Continue drafting Offering Memorandum.
5-6	<ul style="list-style-type: none"> ■ Prepare materials for the salesforce. ■ Educate salesforce regarding the financings. 	<ul style="list-style-type: none"> ■ Continue drafting Offering Memorandum. ■ Finalize roadshow presentation. ■ Receive ratings from agencies.
7	<ul style="list-style-type: none"> ■ Prepare Commitment Committee Memo and receive internal approval. 	<ul style="list-style-type: none"> ■ Finalize and print Offering Memorandum. ■ Commence roadshow.
8-9	<ul style="list-style-type: none"> ■ Complete bring-down due diligence. 	<ul style="list-style-type: none"> ■ Continue roadshow. ■ Pricing.
10	<ul style="list-style-type: none"> ■ Compile materials related to the financing in a due diligence file. 	<ul style="list-style-type: none"> ■ Closing and funding.

Source: Leveraged Finance Handbook, 2001

While loans always come with maintenance covenants supported by regular tests of finances, high-yield bonds are treated with incurrence covenants that limit specified transactions (issuance of new debt, payment of dividends, sale of assets) only when specified events take place. This means more freedom for the sponsor, but less protection for investors, who get some compensation through clauses like the change of control put, which allows early redemption at 101% in case of acquisition or change of ownership (S&P Global). It is exactly this blend of operational flexibility for the sponsor and flow stability for the investor that can account for why HY has become the linchpin in the evolution of leveraged finance. Historically, its spread is linked to the 1980s, when Drexel Burnham Lambert, led by Michael Milken, promoted the systematic use of sub-investment grade bonds as a vehicle for financing the first major waves of leveraged buyouts. Its success was based on institutional investors that hungered for higher yields and were willing to tolerate lighter covenants than in conventional banking routes (Hurduzeu & Popescu, 2015; Kaplan & Stein, 1993). This is when HY bonds became the keystone in LBOs, which remains to this day in a market that grew to over \$1.5 trillion in 2024 (S&P Global). In modern-day LBOs, HY bonds are most often employed to "term-out" bulky chunks of the debt structure, establishing the cost of capital for extended periods, as well as to diversify the investor base relative to loans. HY bonds are extremely competitive when interest rates are elevated, due to their fixed-coupon mechanism, though less agile in early refinancing and more market-window dependent than loans. What became amply clear in 2022 is that the European HY market effectively ground to zero, new issues dropping by 78%, while loans held

up better due to demand for CLOs as well as rising significance of private credit (Baker McKenzie, 2025). Lastly, another important trend in recent years has been the increased convergence between bonds and loans: in Europe, in particular, loans have taken on covenant-lite as well as incurrence-style form, while certain HY bonds have been brought to market in secured form for more cautious investors. This trend has lessened the documentary as well as substantive distance between the asset classes, providing sponsors with a broader and more diverse array of solutions that can be tailored to the macroeconomic environment as well as investors' return targets. In conclusion, high-yield bonds remain an essential tool in sponsor-backed LBO financing structures: they provide access to substantial capital with long maturities and stable cash flows, but with less contractual flexibility than loans and greater exposure to market volatility.

2.2.2 Leveraged Loans and Syndication Process

Leveraged loans are one of the core components of leveraged finance and represent a primary source of capital in sponsor-backed leveraged buyout transactions. These are medium- to long-term loans granted to sub-investment grade companies, typically in the form of senior secured loans with floating rate coupons calculated on a reference index plus a spread that reflects the issuer's credit risk. In the United States, the benchmark is currently the SOFR (Secured Overnight Financing Rate), in Europe the Euribor, while in the United Kingdom the SONIA (Sterling Overnight Index Average) is used. This floating-rate structure makes loans less exposed to duration risk than high-yield bonds, but more sensitive to monetary policy cycles: in periods of aggressive base rate rises, such as in 2022–2023, the effective cost for issuers rose rapidly (S&P Global). A distinctive feature is the division of the market between pro-rata tranches and institutional tranches. The former include Revolvers and Term Loan A (TLA), mainly placed with commercial banks, with shorter maturities (5–7 years), a progressive amortization structure, and maintenance covenants. The latter include Term Loans B, C, and D, as well as second-lien loans, typically placed with institutional investors such as funds, insurance companies, and, above all, CLOs. These tranches have longer maturities (6–9 years), bullet repayment, and progressively lighter covenants, often covenant-lite. Figure 2.5 shows the differences between pro-rata and institutional tranches in terms of maturity, repayment, covenants, and investor base, highlighting how the banking portion is more conservative, while the institutional portion offers greater flexibility and market liquidity.

Figure 2.4. Committed Bank Debt

	"Pro Rata" Tranches		"Institutional" Tranches
	Revolver	Term Loan A	Term Loans B, C, etc.
Funded/Unfunded:	Funded or Unfunded.	Funded (occasionally deferred).	Funded (occasionally deferred).
Representative Applications:	Acquisition financing, refinances indebtedness, fees and expenses, future acquisitions, capital expenditures, and general corporate purposes.	Acquisition financing, refinancing indebtedness, fees and expenses.	Acquisition financing, refinancing indebtedness, fees and expenses.
Pricing:	LIBOR + applicable margin on funded amount. Commitment fee on undrawn amount.	LIBOR + applicable margin.	LIBOR + applicable margin, at a premium to the pro rata tranches (approx. 50 to 75 bps).
Maturity:	5 to 7 years.	5 to 7 years.	6 to 9 years.
Availability:	Can be borrowed and repaid at any time prior to maturity.	Generally in a single draw at closing. May include a delayed-draw feature.	Generally in a single draw at closing. May include a delayed-draw feature.
Required Amortization/Repayment:	Bullet at maturity or reducing commitment schedule. Outstandings may convert to a term loan at a specific future date.	Generally, increasing amortization payment requirements in concert with free cash flow growth.	1% per annum, with balance due in final year prior to maturity.
Prepayments:	<ul style="list-style-type: none"> ■ Mandatory prepayments from net proceeds of debt, equity and asset sales as well as excess cash flow recapture may apply. 	<ul style="list-style-type: none"> ■ Mandatory prepayments from net proceeds of debt, equity and asset sales as well as excess cash flow recapture may apply. 	<ul style="list-style-type: none"> ■ Mandatory prepayments from net proceeds of debt, equity and asset sales as well as excess cash flow recapture may apply. Can refuse in certain cases if Term Loan A is outstanding. ■ Call premium may be required based on market conditions.
Security:	Determined by issuer's credit ratings. <ul style="list-style-type: none"> ■ BB+/Ba1: generally secured by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%). ■ BB/Ba2 or below: secured by all assets, by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%). 	Determined by issuer's credit ratings. <ul style="list-style-type: none"> ■ BB+/Ba1: generally secured by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%). ■ BB/Ba2 or below: secured by all assets, by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%). 	Determined by issuer's credit ratings. <ul style="list-style-type: none"> ■ BB+/Ba1: generally secured by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%). ■ BB/Ba2 or below: secured by all assets, by the stock of domestic material subsidiaries and a percentage of the stock of material foreign subsidiaries (usually 65%).
Pricing Grid:	Always.	Always.	Based on market conditions.
Covenants:	Maintenance covenants.	Maintenance covenants.	Maintenance covenants.
Registration:	None.	None.	None.
Principal Investors:	Commercial banks, investment banks.	Commercial banks, investment banks.	CBOs, CLOs, prime rate funds, insurance companies, commercial banks, investment banks.

Source: *Leveraged Finance Handbook, 2001*

The syndication process is crucial for the distribution of loans and the transfer of credit risk from originator banks to investors. Arranging banks define the structure, prepare the documentation (term sheet, commitment letter, information memorandum), initiate interactions with rating agencies, and organize the roadshow. Institutional investors (CLOs, mutual funds, insurance companies) evaluate the transaction and subscribe to the various tranches during bookbuilding, determining the final pricing. There are varying forms of syndication: best efforts, whereby the arranger makes no commitment of full subscription; fully underwritten, whereby the banks commit to full amount; and bought deal, where one or more banks take the risk of full subscription directly. Figure 2.5 below outlines the different ways in which arrangers engage in loan placement, assuming varying levels of underwriting risk.

Figure 2.5. Methods of Committing Capital

Best Efforts/Arranged	Partially Underwritten	Fully Underwritten	Bought Deal
<ul style="list-style-type: none"> ■ Commit to hold level, a level that the Arranger seeks to hold on a permanent basis, (a portion of the total amount of facilities sought by the Company). ■ Arrange balance of deal using Arranger's "commercially reasonable best efforts". ■ If syndication is not successful, the Arranger's commitment is limited to the hold level. Company bears risk that funds raised are below targeted amounts. ■ Timing of Funds—Post-Syndication. 	<ul style="list-style-type: none"> ■ A single underwriter or multiple underwriters commit to levels higher than their estimated hold levels, which collectively aggregate to the full amount of funds required. ■ Objective is to raise adequate dollars to reduce each underwriter to its pre-specified estimated hold level before reducing exposure of the next level syndicate participants. ■ If syndication is not successful, the Arranger's exposure can be up to the commitment level. ■ If the allocation is greater than the hold level, underwriters attempt to sell such excess amount in the secondary market. ■ Risk is not dissimilar from full underwriting ("first dollars easiest to sell") in achieving hold positions. ■ Timing of Funds—Post-Syndication. 	<ul style="list-style-type: none"> ■ Commit to full amount of funds required. ■ In all underwritten deals, commitment amount is higher than estimated hold level. ■ Objective to raise adequate dollars to reduce each underwriters exposure to its pre-specified hold level before reducing exposure of the next level of syndicate participants. ■ If syndication is not successful, the Arranger's exposure "potentially" will be up to full amount of transaction. ■ Introduce market flexibility language.⁽¹⁾ ■ Timing of Funds—Post-Syndication. 	<ul style="list-style-type: none"> ■ Funds guaranteed to be delivered at a price and structure. ■ Timing of Funds—"Potentially" Pre-syndication.

Source: Leveraged Finance Handbook, 2001

The timeline of a syndication transaction is articulated: from initial due diligence to the drafting of the information memorandum, from presentation to rating agencies to roadshows with investors, to pricing and closing. This process typically takes 6-8 weeks and reflects the high level of organizational complexity required to place high-risk loans with a diverse group of creditors (Ivashina & Sun, 2011). Leveraged loans placed with institutional investors, such as CLOs and funds, tend to have less stringent covenants and longer maturities than those held by banks. This segmentation reflects heterogeneous investor preferences and allows for more efficient risk allocation (Wolder & Yadav, 2017).

Figure 2.6 summarizes the main stages of syndication, from internal structuring to closing, highlighting the central role of arranging banks in coordinating between borrowers and investors.¹³

¹³ The reputation of the arranger acts as a signal in the market: loans originated by banks with a more solid track record tend to have lower initial spreads and better performance, reducing the problem of information asymmetry (Ivashina & Sun, 2011; Sufi, 2007).

Figure 2.6. Timeline of a Loan Syndication

Week	Internal Process	Origination/Execution Process
NA	<ul style="list-style-type: none"> ■ Develop capital structure alternatives and recommendation. ■ Prepare pitchbook materials to present to client. 	<ul style="list-style-type: none"> ■ Presentation to client.
1	<ul style="list-style-type: none"> ■ Due diligence—prepare principal activities memo. 	
2	<ul style="list-style-type: none"> ■ Receive approval from PAC and Executive Committee. ■ Secure mandate—develop term sheet and execute engagement letter. 	<ul style="list-style-type: none"> ■ Develop marketing strategy and prescreen potential lenders.
3-4	<ul style="list-style-type: none"> ■ Begin documentation process with legal counsel. 	<ul style="list-style-type: none"> ■ Prepare Offering Memorandum. ■ Prepare Bank Meeting Presentation. ■ Finalize Potential Investor invitation list.
5	<ul style="list-style-type: none"> ■ Finalize loan documentation with company. ■ Prepare sales force materials. 	<ul style="list-style-type: none"> ■ Distribute Offering Memorandum. ■ Host investor meeting with company management. ■ Assist investors in credit approval process.
6-7	<ul style="list-style-type: none"> ■ Compile materials related to the financing in a due diligence file. ■ Complete bring-down due diligence. 	<ul style="list-style-type: none"> ■ Accept commitments from lenders and make final allocations. ■ Negotiate documentation with lenders on behalf of the Company. ■ Close and fund the facility(ies).

Source: Leveraged Finance Handbook, 2001

From a contractual point of view, leveraged loans have historically been characterized by maintenance covenants, which require periodic testing of leverage, interest coverage, and fixed charge coverage ratios. However, the market has seen a growing prevalence of covenant-lite loans, particularly in institutional tranches, which eliminate periodic testing and are limited to incurrence covenants. This trend, analyzed by Wolder & Yadav (2017) and Shepard (2017), has reduced investor protection but increased management flexibility for sponsors, bringing the contractual structure of loans closer and closer to that of HY bonds. Collateralized Loan Obligations (CLOs) play a decisive role in the market and are responsible for more than 60% of new US and European leveraged loan issuances (S&P Global, Leveraged Finance Handbook 2024). They offer a constant base of demand and contribute to market liquidity but bring about procyclicality and concentration risks (Carey & Gordy, 2007). From an academic perspective, the literature has highlighted the unique risk-return combination of leveraged loans: Blume, Keim & Patel (1991) show that recoveries are higher but losses are more pronounced in periods of stress; Ivashina & Sun (2011) highlight the importance of the arranger's reputation as a signal of quality and mitigation of placement risk; Zhang et al. (2019) document the growing correlation between loans and HY bonds, due to the convergence of covenants and increasing standardization; Shepard (2017) and MV Credit (2019) find higher average Sharpe ratios for loans than for HY bonds, thanks to lower volatility and greater capital protection.

Ultimately, leveraged loans are a key instrument in sponsor-backed LBOs because they offer greater security to investors thanks to their seniority and collateral, they ensure placement

flexibility through the syndication process and a diversified investor base (banks and CLOs), but at the cost of increasing contractual complexity and heavy dependence on the market cycle.

2.2.3 Other Debt Instruments

Alongside leveraged loans and high-yield bonds, the leveraged finance market offers sponsors a range of “hybrid” or subordinated instruments that allow them to expand their funding capacity and modulate the risk-return profile of the capital structure in LBO transactions. Among these, second-lien loans are lines secured by second-ranking pledges, placed on assets already encumbered by first-lien. They offer an average spread premium of 200-300 bps higher than first-lien senior secured loans, but with a lower recovery rate and higher legal risk. The use of these instruments has increased, especially in Europe after the 2008 crisis, as an alternative to unsecured bonds in riskier deals, and today they are almost always indexed to post-LIBOR benchmarks such as SOFR, Euribor, or SONIA in the United Kingdom, often with floor clauses to protect the margin. Another important form is represented by unitranche loans, provided mainly by private credit funds, which combine senior and subordinated debt into a single line. These are bullet loans, with higher spreads than TLBs, customized covenants, and greater documentary flexibility, often combined with delayed-draw facilities to finance add-on acquisitions. The growth of private credit has made these instruments particularly popular in mid-market deals, especially in Europe, where competition from CLOs is less pronounced. The expansion of the unitranche market has also been documented in recent literature as a response to the reduction in traditional bank credit and as a tool for stabilizing LBO finance in stress cycles (Benmelech, Kumar & Rajan, 2022a). Mezzanine debt, on the other hand, sits deeper in the capital structure, as a long-term subordinated form, typically with higher returns (IRR low-to-mid teens), often composed of PIK or PIK-toggle coupons and enhanced by equity kickers (warrants or options). The main function of mezzanine debt in LBOs is to reduce the equity contribution of sponsors and provide a “buffer” in difficult market conditions. Despite its more expensive nature, it can prove strategic when access to HY markets is closed and loans are not sufficient to cover requirements. Empirical studies show that the use of subordinated debt or debt with PIK components increases in periods of greater risk aversion, reflecting the elasticity of the capital structure with respect to macroeconomic cycles (Schwert, 2020). A specific role is played by bridge loans, which are loans taken out by banks to ensure the completion of a transaction, pending refinancing through bonds or permanent loans. They include ticking fees, progressive spread step-ups, and term-out clauses, which encourage the issuer to replace them

quickly. The use of bridge loans is particularly critical in periods of primary market volatility, when pipeline risk remains with the arrangers (Ivashina & Sun, 2011). Finally, listed hybrid instruments such as convertible bonds and holdco PIK notes offer additional flexibility. Convertibles, which are more common in growth sectors, allow the current cost of debt servicing to be reduced by trading a risk of equity dilution; PIK notes at the holding company level allow interest to be capitalized, reducing cash outlay but increasing effective leverage and structural default risk. These instruments have been used more frequently during the Covid-19 pandemic, reflecting the fact that in stress scenarios, investors demand higher risk premiums but accept clauses that favor the survival of the issuer (Zhang et al., 2019).

Academic literature confirms that the choice between these instruments is strongly influenced by the cycle. Benmelech, Kumar & Rajan (2022a) document how, in times of tightening, speculative-grade companies tend to gravitate more towards secured or subordinated forms with high coupons; Schwert (2020) shows consistent recovery differentials between senior secured loans (~75%), secured bonds (~51%) and subordinated/unsecured (~35%); Ivashina & Sun (2011) and Sufi (2007) emphasize the role of bank reputation in mitigating the risk of bridge and complex syndicated loans; Santos & Winton (2008) and Hale & Santos (2009) highlight how access to alternative markets strengthens the bargaining power of speculative-grade companies.

2.3 Covenant-Lite Structures

The evolution of leveraged loan contracts of the past two decades has caused a slow alignment of covenants and simultaneously the spread of so-called covenant-lite (cov-lite) structures. While previously leveraged loans were distinguished by sophisticated sets of financial and operating clauses with regular checks of periodical leverage and interest cover – the so-called maintenance tests – nowadays issues directed at institutional investors often come with only incurrence covenants, excluding conventional maintenance tests. This trend is a significant alignment of loans and high-yield bonds, which always used less burdensome covenants (Markland, 2007; Brunner et al., 2018). The literature emphasizes how the growth of covenant-lite reflects a redistribution of bargaining power. Today, the share exceeds 90% in senior leveraged loans in the United States and reached 97% in Europe in 2024 (PitchBook; AFME). While in the early 2000s banks still imposed detailed covenant packages, the influx of capital from CLOs and private credit funds has progressively reduced creditors' ability to negotiate severe restrictions (Dias & Magnus, 2019). In this context, sponsors and borrowers have gained

greater operational freedom, limiting investors' ex ante intervention possibilities and shifting protection more towards pricing and spread levels than towards contractual structure (Ivashina & Sun, 2011). From an empirical perspective, the data endorse the scale of the phenomenon: Moody's calculated that the Loan Covenant Quality Indicator worsened gradually from 2010 up to 2018 and at that point was at its lowest recent level. Fitch Ratings calculated at the same time that already by 2018 about 80% of new issues of leveraged loans from the United States were covenant-lite structured (Gluckman & Eckert, 2019). This development was reflected equally in Europe where the volume of cov-lite loans was smaller but followed a similar growth trend, benefited by the increasingly significant role of the CLOs as main buyers. Regulators have been warning of these risks. ECB (2018), the Bank of England (2019), and the IMF (2019) have underlined how the weakening of covenants deepens the exposure of investors to loss if credit declines and decreases the likelihood of early intervention and raises the procyclicality of the market. Meanwhile, the growth of cov-lite loans has opened up non-bank investment and encouraged the development of the secondary market and assisted the access of speculative-grade issuers to funds even when the market is tightening (Chava & Roberts, 2008). Therefore, covenant-lite loans are one of the clearest examples of the convergence between the loan market and high-yield bonds. While they offer sponsors greater flexibility and reduce the risk of technical default, they also provide less protection for investors, which is reflected in higher spreads and a greater risk of losses in the event of macroeconomic downturns (Bradley & Roberts, 2015).

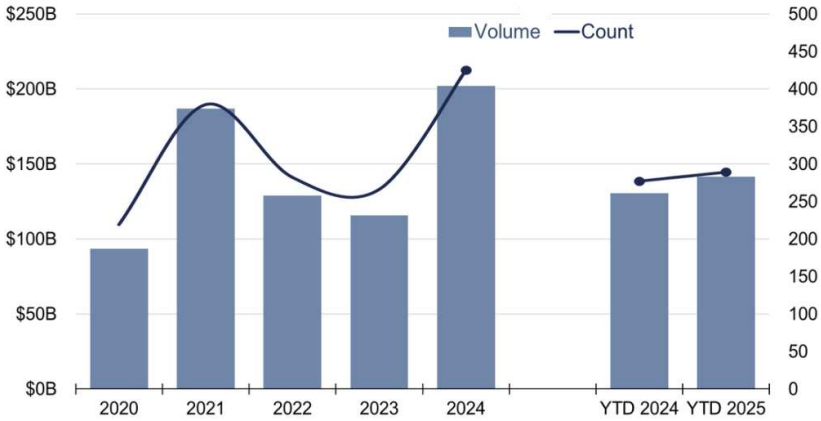
2.4 CLOs and Structured Credit

The Collateralized Loan Obligations (CLOs) represent the main securitization vehicle for leveraged loans and constitute a crucial source of demand for the sub-investment grade market. Through a Special Purpose Vehicle (SPV), CLOs purchase portfolios of leveraged loans and refinance them by issuing notes with different degrees of seniority, from AAA investment grade tranches to residual equity tranches, generating a classic liability waterfall mechanism. This scheme attracts a diverse range of investors, from pension funds to insurance companies, broadening the pool of lenders beyond the traditional banking channel and providing stability to the LBO market (Shivdasani & Wang, 2011).

As mentioned in the previous paragraphs, empirical evidence shows that the expansion of CLOs has played a key role in broadening the leveraged loan market, fostering more flexible contractual structures and supporting the rise of covenant-lite facilities. Studies by Shivdasani

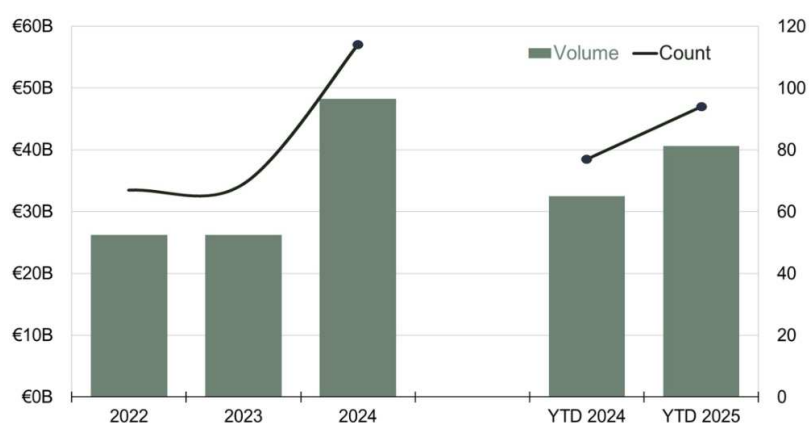
& Wang (2011) demonstrate that LBO transactions financed through CLOs benefit from more favorable terms – such as lower spreads and lighter covenant packages – without exhibiting higher default risk compared to other leveraged loans. Other contributions (Benmelech et al., 2022a) emphasize that pooling loans into diversified CLO portfolios reduces the incentive to impose strict covenants, thereby increasing the appeal of these products to institutional investors. In the United States, CLOs now represent around 65% of the leveraged loan market (Fitch, 2024), while in Europe their share is estimated at over 50% (AFME, 2024). This strong and stable demand explains why the loan market has shown greater resilience during periods of stress – such as in 2022, when issuance in the high-yield bond market collapsed, yet leveraged loans continued to attract capital thanks to CLO managers. Recent estimates place the global stock of CLOs outstanding at roughly USD 1.2 trillion in 2025, up from about USD 620 billion in the U.S. market in 2018 (Federal Reserve, 2018). The dynamics of new CLO issuance also underline this expansion: after the slowdown of 2022, activity rebounded sharply in 2024, with annual volumes exceeding USD 200 billion in the U.S. and nearly EUR 50 billion in Europe (PitchBook LCD, 2025). Figures 2.7 and 2.8 illustrate this recent evolution in the U.S. and European CLO markets, showing how issuance surged in 2024 and has continued to grow in the early months of 2025, reinforcing the systemic role of CLOs as the primary source of demand for leveraged loans.

Figure 2.7. Annual US CLOs Activity



Source: LCD, PitchBook, 2025

Figure 2.8. Annual Euro CLOs Activity



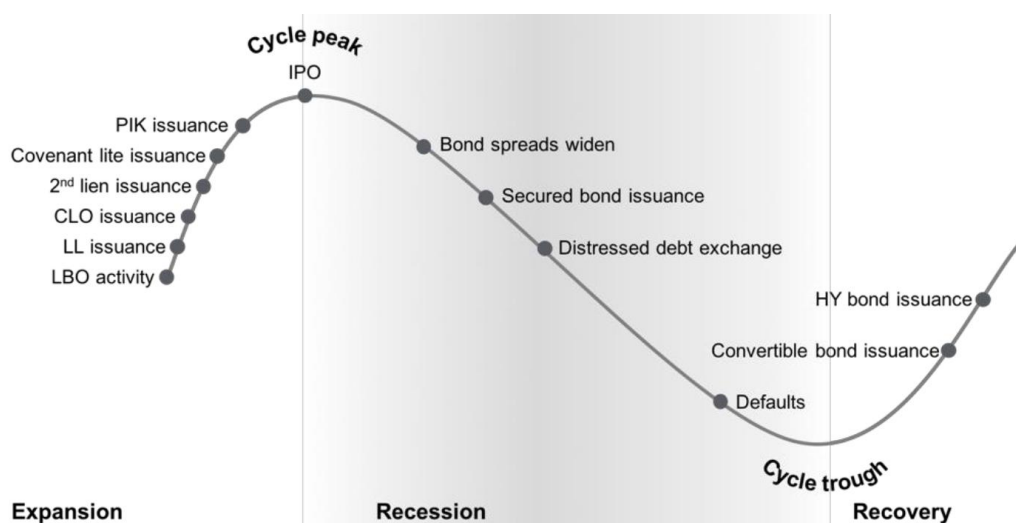
Source: LCD, PitchBook, 2025

Regulatory authorities, including the ECB and BoE, have pointed out that the rapid expansion of the CLO market also entails systemic risks. On the one hand, investor concentration can amplify volatility in downturns; on the other, the growing presence of equity tranches held by specialized investors accentuates the search for yield and may lead to a deterioration in the average quality of the underlying loans. However, the intrinsic diversification of CLOs and the structural subordination of equity and mezzanine tranches continue to provide a high degree of protection for senior tranches. Hence, CLOs have taken on a decisive role in the leveraged lending market, acting as a bridge between sub-investment grade issuers and global institutional investors. They support the supply of capital and have fostered convergence between loans and bonds through the spread of covenant-lite, but at the same time they increase the financial system's exposure to concentration risks and pro-cyclical dynamics.

2.5 Capital Structure Evolution and Tranching in Sponsor-Backed Deals

The capital structure in leveraged buyouts (LBOs) evolves cyclically, responding to credit market trends, monetary policy, and investors' risk appetite. Several studies have documented that levels of leverage rise during expansion periods, when credit is readily available and contractual terms are lax, and decline during stress periods, when lenders require higher spreads and stricter covenants (Kaplan & Strömberg, 2009; Axelson, Jenkinson, Strömberg & Weisbach, 2013). The cyclical nature of the credit market and its impact on the composition of capital structure are summarized in Figure 2.9, which illustrates how the instruments used in LBOs and the overall level of financial leverage change during the different phases of the cycle.

Figure 2.9. Credit cycle and capital structure evolution



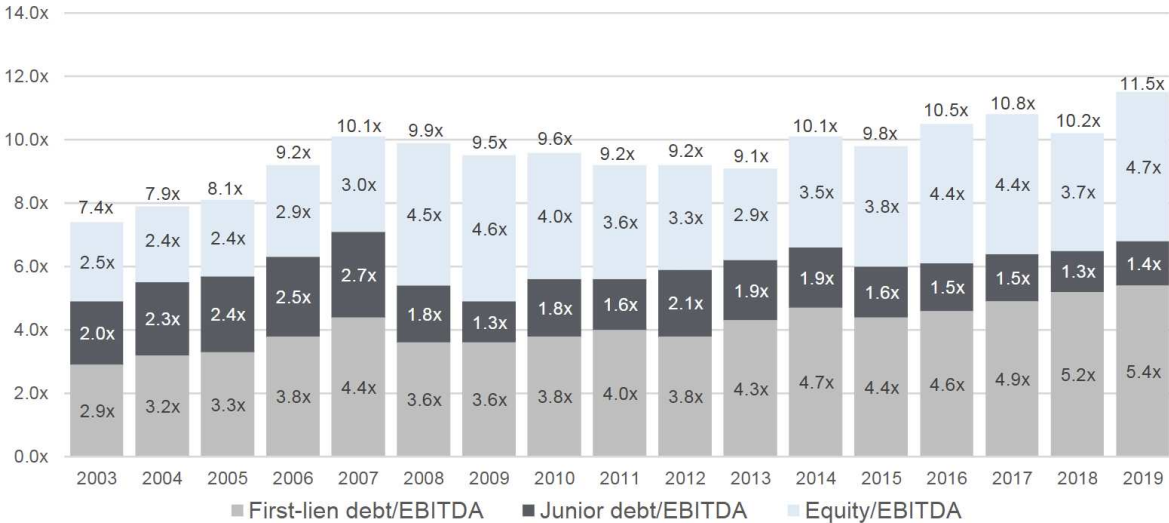
Source: Fitch Ratings, 2018

The debt supply rises in periods with low default rates and liquid supplies, while it falls dramatically in recessive periods, pushing sponsors to raise their equity contributions. During the peak phase, when spreads decrease and protection within contracts is reduced, sponsors can push overall leverage upwards mainly due to senior debt. This was true in the US market in 2007, when leverage levels in LBOs reached record highs before the global financial crisis (Axelson et al., 2013). Conversely, during periods of macroeconomic decline, companies weaker in credit exposures encounter higher refinancing difficulties, defaults become higher, and transaction numbers plunge drastically. Only credit fundamentals strong borrowers can reach credit at such periods in a majority of instances, typically owing to a safer structure and tighter covenant provisions. The credit cycle model posited by Fitch Ratings (2018) adequately encapsulates the cycle involving expansion, recession, and rebound and related effects on capital structures. They correspond directly to tranching in LBO debt. Expansion periods feature structures led by senior secured tranches (e.g., Term Loan B), supported often by second-lien loans/subordinated notes that raise overall leverage even further. Contraction periods, conversely, feature vanishing subordinated tranches: investors seek higher protection and preference senior debt collateralized with a higher equity contribution. Empirical research supports that senior and junior tranche structure relies on a trade-off between institutional investors' yield-chasing/risk tolerance (Colla, Ippolito & Wagner, 2012; Demiroglu & James, 2010). Accommodative monetary policies have amplified these dynamics. The era of very low interest rates since the 2008 financial crisis and then again due to the Covid-19 pandemic has created a new era of highly leveraged buyouts financed against lower spreads and softer

contractual terms. Average entry multiples in 2019 US deals reached 11.5x EV/EBITDA, levels close to the peak reached in 2007 (Bain & Company 2020). Concurrently, tranche structure exhibited some compression: while senior leverage returned to pre-crisis levels, subordinated tranches were less common, decreasing the extent of effective subordination and hence capacity to absorb losses. A further source of concern is the quality of the leverage data reported. Several observers (Bank of England, 2019; IMF, 2019) have pointed out that leverage multiples may be underestimated due to EBITDA adjustments (so-called add-backs), which artificially inflate cash flow metrics and make leverage levels appear lower than they really are. The combination of covenant-lite, tranche compression, and aggressive EBITDA adjustments has reduced the historical distinction between senior and subordinated debt, raising questions about the resilience of LBO structures in the event of future macroeconomic shocks.

The below chart illustrates the historical trend of the average EV/EBITDA multiple paid in US leveraged buyouts (LBOs) between 2003 and 2019. Beyond showing the aggregate valuation multiple, it breaks down the capital structure into its main financing components: senior debt (first-lien), junior debt, and equity. This decomposition provides insights into how the relative use of leverage and equity has evolved over time, reflecting shifts in credit market conditions, risk appetite, and broader macroeconomic and financial environments. The data highlights periods of higher reliance on debt financing as well as phases where equity contributions played a more significant role in sustaining deal activity. Looking ahead, we can expect similar dynamics to emerge in Europe, with leverage levels and equity contributions largely driven by credit availability, investor sentiment, and macroeconomic developments.

Figure 2.10. Evolution of Leverage and Equity Multiples in US LBOs (2003–2019)



Source: Fitch Ratings, 2019

Overall, the capital structure in LBOs follows the credit cycle: during expansive phases, leverage increases and tranches multiply, while during recessions, leverage decreases and equity increases. However, the spread of covenant-lite agreements and the use of EBITDA adjustments have blurred the distinction between senior and subordinated debt, raising doubts about the solidity of LBO structures in the face of new market shocks.

3 Data and Methodology

3.1 Research Question and Methodological Approach

After providing an overview of the key trends in the leveraged finance market, this paper focuses on analyzing capital structure choices in sponsor-backed leveraged buyouts (LBOs), with particular attention to the trade-off between issuing high-yield bonds and using leveraged loans. The literature has long emphasized how factors such as the size of the transactions, the financial strength of the target companies, the degree of information transparency, and the possibility of renegotiating contracts affect the choice between bank debt and bond debt (Diamond, 1984; Denis & Mihov, 2003). However, most empirical studies have focused on the US market and heterogeneous samples of companies, often including both bilateral loans and public debt transactions, while analyses of the European context and LBOs remain more limited (Altunbaş, Kara & Marques-Ibanez, 2010). The US segment is characterized by deeply integrated bond markets and a more limited role for banking intermediaries. In Europe, on the other hand, the financial architecture presents banks as having traditionally provided the lion's share of credit intermediation and bond markets as growing less rapidly. This calls for a specific analysis to verify whether the dynamics observed in the United States are also confirmed in this context, or whether distinctive factors emerge that influence the choices of sponsors and investors differently.

Additionally, the restriction of the field of observation to this segment of sponsor-backed LBOs for speculative-grade companies is motivated by its growing weight in the financial markets and by the peculiarities that distinguish it from traditional corporate debt in terms of capital structure, risk profile, and the presence of sponsors capable of monitoring and supporting target companies. The research aims to verify whether and to what extent certain characteristics of companies and transactions – related to size, capital structure, growth opportunities, profitability, technological intensity, and macro-financial conditions – influence the likelihood of financing being provided through bonds rather than leveraged loans (and vice versa). The

hypothesis at the base of the research is that items connected to the ability to finance and accounting clarity tend to support access to the bond markets, whereas items connected to the presence of high renegotiation costs and informational asymmetries push the trend in the opposite direction and support the choice for syndicated bank finance.

Our work therefore differs in three main ways. First, it focuses exclusively on speculative grade sponsor-backed transactions, a segment that represents a growing share of the LBO market but remains largely unexplored in the literature, despite playing a crucial role in understanding risk dynamics and financing preferences. Second, the analysis is not limited to a static perspective but adopts a temporal approach that distinguishes between different historical periods in order to capture the effects of the profound macro-financial transformations of the last twenty-five years, from the 2008 crisis to the era of near-zero interest rates, up to the recent reversal of the monetary cycle. Finally, the study is part of a still limited body of European research, filling a significant gap compared to the extensive tradition of analysis on the US market. Within this framework, the guiding research question of our study can be stated as follows: what factors explain the choice between high-yield bonds and leveraged loans in sponsor-backed LBOs of speculative-grade companies in Europe, and how has this choice changed across different market phases?

3.2 Data collection

The sample used in this analysis was constructed using data provided by SDC Platinum (Refinitiv Workspace), from which all syndicated loan and corporate bond issues for the period 2000–2024 were extracted. In line with the literature (Altunbaş, Kara & Marques-Ibanez, 2010), the financial and utilities sectors were excluded, as they are characterized by specific capital structures that are not comparable with those of other companies. Furthermore, only issues attributable to speculative-grade and sponsor-backed LBOs were considered, so as to focus the analysis on a less explored segment that is particularly relevant for leveraged finance markets. After a data cleaning process, which involved the elimination of non-corporate or non-European issues, the final sample consisted of 1,399 transactions, divided into 848 leveraged loans and 551 high-yield bonds, attributable to 350 companies for loans and 160 companies for bonds, spread across 22 European countries. Overall, the database covers 397 unique companies headquartered in Europe. Only the following types of instruments were selected: for syndicated loans, Term Loans (A, B, C), Delayed Draw Term Loans, and Bridge Loans; for bonds, Medium Term Notes, Senior Unsecured Notes, Senior Secured Notes, Fixed/Straight Bonds, Senior

Notes, Guaranteed Notes, and Floating Rate Notes. At the same time, accounting and market data for companies were retrieved through Wharton Research Data Services (WRDS), including variables such as Total Debt, Total Assets, Fixed Assets, Current Liabilities, Technology Expenditures, Net Equity, Sales, Net Income, and Market Capitalization, referring to the period 2000–2024. These data enabled the calculation of the main financial indices used as independent variables in the empirical models. In addition, interest rates were obtained from Refinitiv Datastream, while exchange rates were used to convert values expressed in different currencies into euros. Structural exchange rate changes were also taken into account, such as the introduction of the new Turkish lira in 2005 and the replacement of the Italian lira with the euro in 2002. Each deal was associated with accounting and market data from the previous fiscal year, assuming that the financing decision reflects both the company's already consolidated financial structure and the macro-financial conditions (e.g., interest rate levels) prevailing at the time of issuance. The table below shows the total number of observations, companies, and countries for each type of instrument, highlighting the composition of the reference sample.

Table 3.1. Sample Construction

Panel A	Leveraged Loans	HY Bonds
Number of Observations	848	551
Number of Firms	350	160
Number of Countries	22	16
Panel B	Leveraged Loans	High Yield Bonds
Austria	16	28
Belgium	21	9
Croatia	3	-
Czech Republic	1	-
Denmark	10	4
Finland	48	33
France	146	169
Germany	216	115
Greece	3	-
Ireland	25	3
Italy	116	78
Lithuania	1	-
Netherlands	59	44
Norway	11	8
Poland	4	3
Portugal	12	6
Slovakia	2	-

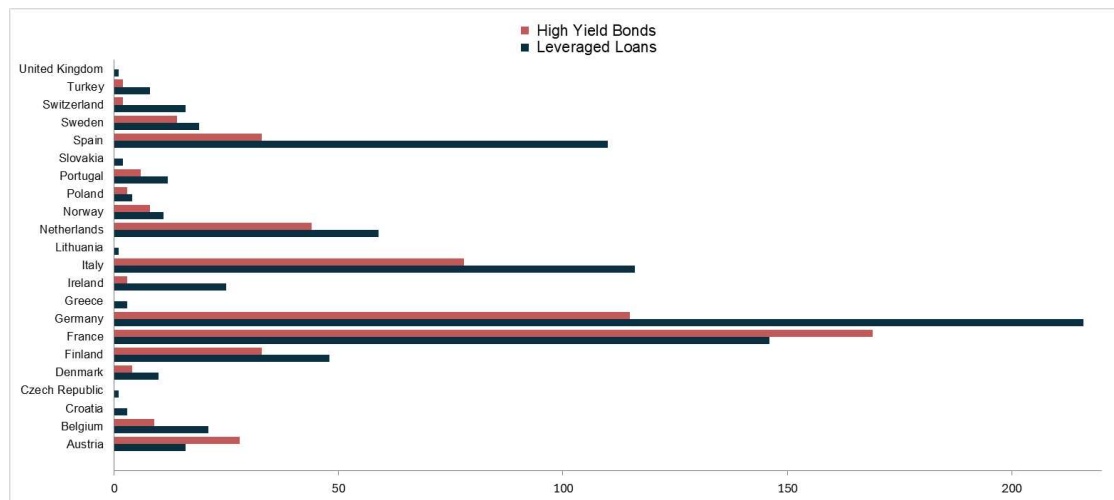
Spain	110	33
Sweden	19	14
Switzerland	16	2
Turkey	8	2
United Kingdom	1	-

Source: SDC Platinum

Geographically, the distribution of the sample confirms the predominant role of certain key economies: France, Germany, Italy, and Spain account for the largest share of transactions, both in terms of leveraged loans and high-yield bonds. Other countries, such as the Netherlands, Finland, and Austria, have a significant share, while smaller economies (e.g., Croatia, Lithuania, and Slovakia) show marginal numbers but are useful in representing European heterogeneity.

Figure 3.1 illustrates the breakdown of transactions between loans and bonds in different European countries, highlighting the weight of the main markets and the relative differences between the two instruments.

Figure 3.1. Sample by Geography



Source: SDC Platinum

This configuration allows for a comparative analysis of how sponsor-backed speculative-grade companies in Europe have used alternative financing instruments, with the possibility of observing specific patterns by country and distinguishing common dynamics at the continental level. The following paragraphs describe in detail the variables used in the analysis and the criteria for constructing proxies, in order to clarify how the information in the sample has been transformed into indicators that can be used in empirical models.

3.3 Variable Definition and Proxy Selection

The empirical analysis aims to explain the choice between issuing high-yield bonds and using leveraged loans in sponsor-backed and speculative-grade LBOs. To ensure a symmetrical reading of the results, the dependent variable was coded in two ways: a first specification with a value of 1 for loans and 0 for bonds, and a second with the coding reversed (1 for bonds, 0 for loans). The two versions allow for a clear interpretation of the direction of the effects of the independent variables. The selection of the latter is based on established findings in the literature on debt structure (Diamond, 1984; Denis & Mihov, 2003; Altunbaş et al., 2010) and takes into account the specificities of leveraged finance. The proxies used are shown in Table 2, together with the sources and multipliers applied to harmonize the units of measurement.

Table 3.2. Variables Description

Variable	Definition	Data Source	Multiplier Applied
Deal Amount	<i>Total Deal Amount of Corporate Bond or Syndicated Loan</i>	SDC Platinum	0.0001x
Leverage		Wharton Research Data Services	0.1x
Liquidation		Wharton Research Data Services	0.1x
Current ratio		Wharton Research Data Services	0.01x
Market capitalisation		Wharton Research Data Services	0.000001x
Market-to-book-value		Wharton Research Data Services	0.01x
Sales growth		Wharton Research Data Services	0.1x
Technology expenditure		Wharton Research Data Services	0.0001x
Profitability		Wharton Research Data Services	1x
Interest Rates	<i>10-year Government Bond for all countries (Exception: Turkey (1-year Government Bond))</i>	Workspace/Datastream	0.01x
Year fixed effects	<i>Dummy variables controlling for year-specific macroeconomic conditions affecting all countries</i>	Authors' calculation	n.a.

Country fixed effects	<i>Dummy variables controlling for country-specific characteristics constant over time</i>	Authors' calculation	n.a.
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The independent variables were defined as follows based on the literature on debt structure and adapted to the specific context of leveraged finance. The data comes from a combination of sources: deal characteristics were extracted from SDC Platinum (Refinitiv Workspace), while accounting and market data for companies was obtained from Wharton Research Data Services (WRDS). Monetary values were converted into euros using the annual exchange rates available on Refinitiv.

- **DEAL AMOUNT:** The total amount of financing is a crucial variable for understanding the nature of the transactions considered. The data, reported in millions of euros, is derived from information on debt contracts available in SDC Platinum. To reduce dispersion and make the coefficients more readable in the analyses, the values have been scaled by dividing the amount by 10,000. This variable provides a measure of the economic size of the deal, allowing for the comparison of transactions of very different sizes.
- **LEVERAGE:** The degree of financial leverage was calculated as the ratio of total debt to total assets. The data were extracted from company financial statements via WRDS and normalized by dividing by 10. The variable summarizes the intensity of the company's indebtedness relative to its capital base, providing a proxy for the soundness of its capital structure and its ability to sustain further debt issuance.
- **LIQUIDATION:** The ability to liquidate assets was approximated by the ratio of tangible fixed assets to total assets. The proxy captures the degree of tangibility of the resources available to the company and therefore the possibility of offering collateral to support the financing. As with other variables, the values were scaled by dividing by 10.
- **CURRENT RATIO:** To measure short-term liquidity, the ratio of current assets to current liabilities was calculated. The data were collected via WRDS and scaled down by dividing by 100. This variable provides an immediate indication of the company's ability to meet its short-term financial commitments and manage any cash flow tensions.
- **MARKET CAPITALIZATION:** Market capitalization was derived from stock data available on WRDS and converted into euros. The values were normalized by dividing by one million, so as to reduce the range of the variable and allow for easier comparison between companies of very different sizes. This measure reflects the size of the

company from the investors' point of view, representing a proxy for its relevance in the market and visibility to potential lenders.

- **MARKET-TO-BOOK VALUE:** The ratio between market value and book value of assets is a proxy for the company's growth opportunities. It was calculated by combining balance sheet data with market capitalization and scaled by dividing by 100. This indicator provides information on the market valuation of the ability to generate value relative to invested capital.
- **SALES GROWTH:** Sales growth was calculated as the percentage change in turnover compared to the previous year. Again, the data was extracted from WRDS and scaled by dividing by 10. The variable captures the dynamism of the company and its ability to expand in the market, an aspect that can influence financing decisions.
- **TECHNOLOGY EXPENDITURE:** Technology expenditure was used as a proxy for the company's innovation intensity. The variable was constructed from balance sheet data on technology investments and capitalized in millions of euros. The values were then scaled down by dividing by 10,000. This measure allows us to capture the impact of intangible investments on the company profile.
- **PROFITABILITY:** The company's profitability was approximated by the ratio of net profit to total assets, expressed as a percentage and scaled by dividing by 100. The variable provides a summary indication of the company's ability to generate economic returns from the resources employed.
- **INTEREST RATES:** We account for macroeconomic conditions by controlling for interest rates, in order to isolate whether differences in the issuance of syndicated loans versus bonds are driven by firms' financing preferences and financial characteristics, or instead by changes in the external cost of capital.

Finally, to account for unobservable differences related to institutional and temporal contexts, we include fixed effects for both year and country. This approach controls for heterogeneities across national legal and financial systems, captures business cycle dynamics, and absorbs the impact of major global shocks such as the financial crisis and the COVID-19 pandemic.

3.4 Descriptive Statistics

An examination of the descriptive statistics reveals a set of patterns consistent with what has been documented in the literature on corporate financing in high-risk contexts, but enriched by specific numerical evidence relating to the sample in question. In line with the results reported

by Denis and Mihov (2003) and more recently by Becker and Ivashina (2014), there is a clear distinction between companies that mainly use leveraged loans and those that finance themselves through high-yield bonds, a distinction that reflects both structural differences between issuers and the nature of the markets in which these instruments are placed. As shown in Table 2, bond issuers are significantly larger on average (market capitalization of approximately €178.7 billion, compared to €123.2 billion for loans), higher profitability (5.6% versus 2.7%) and more than triple the technology expenditure (€13.9 billion versus €4.9 billion), confirming the tendency of the high-yield bond market to attract more established companies that are able to sustain capital-intensive investments and have relatively lower risk profiles. On the other hand, loan issuers stand out for their significantly higher sales growth rates (11.9% compared to 4.2% for bond issuers), a characteristic that suggests a stronger focus on growth and greater potential for expansion, albeit with lower profit margins. These differences therefore confirm the trade-off observed in previous studies (see Bolton & Freixas, 2000), according to which small and developing companies tend to favor more flexible and guaranteed instruments, while mature and more profitable companies turn to more liquid bond markets with less restrictive covenants.

Table 3.3. Variable Statistics

	Unit	Leveraged Loans	High Yield Bonds
Avg. Deal Amount	(€m)	792,74	783,03
Avg. Leverage	(%)	24,33	24,55
Avg. Market Capitalization	(€bn)	123,17	178,66
Avg. Market-to-book value	(x)	2,51	2,82
Avg. Sales Growth	(%)	11,87	4,19
Avg. Technology Expenditure	(€bn)	4,93	13,87
Avg. Profitability	(%)	2,73	5,63
Avg. Interest Rates	(%)	2,60	2,54

The temporal dynamics, summarized in Table 3, allow these characteristics to be contextualized within the various macroeconomic cycles. In the case of loans, the average deal amount shows strong sensitivity to market conditions: after high values in the pre-crisis period (\approx €1,159 million), there was a collapse in the post-crisis period (\approx €513 million), a rebound in the pre-COVID phase (\approx €943 million), and a subsequent post-COVID normalization (\approx €707 million). In contrast, high-yield bonds show a more stable trajectory, with a gradual increase from around €760 million in 2000–2007 to around €871 million in 2021–2024, confirming the greater

resilience of the bond market and institutional investors' preference for issuers with more solid capital structures even during periods of turbulence. In both markets, however, there has been a gradual increase in leverage (loans: 21.9%→27.2%; bonds: 22.8%→27.3%) and market-to-book multiples (loans: 2.20→2.69; bonds: 2.57→3.05), phenomena that reflect, on the one hand, greater market risk tolerance and, on the other, the growing centrality of intangible assets as value drivers, in line with the theses of Brown, Fazzari, and Petersen (2009) on the transformation of corporate finance paradigms in the knowledge economy. Interest rate trends complete the picture: high values in the pre-crisis period ($\approx 4.3\%$), a sharp decline in the following years with historic lows in the pre-COVID period ($\approx 0.6\text{--}0.8\%$), and a rise in the post-2020 period ($\approx 2.0\%$), consistent with monetary policy regimes and changing inflationary scenarios.

Table 3.4. Sample Characteristics by Period

		Post- Financial			
		Pre- Financial Crisis	Crisis	Pre- COVID-19	Post- COVID-19
Panel A - Loans	Unit	2000 - 2007	2008 - 2015	2016 - 2020	2021 - 2024
Number of					
Observations	#	195,00	309,00	183,00	161,00
Max deal value	(€m)	17.255,00	7.334,68	18.622,17	11.082,37
75th Quantile deal					
value	(€m)	1.241,10	493,90	754,60	587,87
Median deal value	(€m)	302,35	184,94	272,06	245,48
Average deal value	(€m)	1.159,09	512,78	950,58	706,94
25th Quantile deal					
value	(€m)	104,78	69,11	92,40	101,13
Min deal value	(€m)	10,60	2,24	3,62	10,17
Panel B - Bonds	Unit	2000 - 2007	2008 - 2015	2016 - 2020	2021 - 2024
Number of					
Observations	#	122,00	261,00	120,00	48,00
Max deal value	(€m)	4.409,25	5.998,41	5.702,22	4.108,80
75th Quantile deal					
value	(€m)	959,46	1.026,14	1.060,57	1.015,04
Median deal value	(€m)	536,78	523,53	511,11	528,35
Average deal value	(€m)	760,27	754,54	833,07	870,67
25th Quantile deal					
value	(€m)	314,29	292,09	312,22	484,63
Min deal value	(€m)	49,49	9,76	30,64	50,76
Panel C - Loans	Unit	2000 - 2007	2008 - 2015	2016 - 2020	2021 - 2024
Avg. Deal Amount	(€m)	1.159,09	512,78	942,95	706,94
Avg. Leverage	(%)	21,94	24,56	23,83	27,20
Avg. Market					
Capitalization	(€bn)	99,07	98,47	143,45	175,41

Avg. Market-to-book value	(x)		2,20	2,72	2,37	2,69
Avg. Sales Growth	(%)		19,49	5,64	7,35	19,66
Avg. Technology Expenditure	(€bn)		4,19	5,11	4,03	6,52
Avg. Profitability	(%)		4,47	2,69	1,79	1,78
Avg. Interest Rates	(%)		4,35	2,92	0,80	2,11
Panel D - Bonds	Unit		2000 - 2007	2008 - 2015	2016 - 2020	2021 - 2024
Avg. Deal Amount	(€m)		760,27	754,54	833,07	870,67
Avg. Leverage	(%)	22,75	24,18	26,07	27,32	
Avg. Market Capitalization	(€bn)	268,40	126,38	170,92	254,19	
Avg. Market-to-book value	(x)	2,57	2,94	2,71	3,05	
Avg. Sales Growth	(%)	4,97	4,42	0,51	10,10	
Avg. Technology Expenditure	(€bn)	24,83	10,24	11,79	11,17	
Avg. Profitability	(%)	8,13	4,28	6,66	4,00	
Avg. Interest Rates	(%)	4,35	2,69	0,64	1,90	

Overall, the descriptive analysis highlights systematic and persistent differences between the two markets: leveraged loans are more frequently used by smaller companies, characterized by high growth rates but greater cyclicalities, while high-yield bonds appear to be more closely linked to larger capitalization companies, with more stable profitability and a greater propensity for technological investment. These preliminary results suggest that the choice of financing instrument is not neutral, but reflects specific structural features of the issuing companies and their interaction with the macro-financial conditions of each period. In light of this evidence, the following empirical analysis aims to rigorously and quantitatively verify whether variables such as size, profitability, leverage, technological expenditure, and growth rates are statistically significant drivers of the choice between loans and bonds, allowing us to move from a comparative description to a causal and robust assessment of the determinants of the financing structure.

4 Empirical Analysis and Discussion of Results

4.1 Construction of the Regression Models

Having summarized the main trends in European leveraged finance, the empirical analysis verifies which company and transaction characteristics are associated with the choice of debt instrument in sponsor-backed LBO transactions with speculative-grade companies. In line with the literature on “marginal source choice” (Diamond, 1984; Denis & Mihov, 2003; Altunbaş, Kara & Marques-Ibanez, 2010), we estimate models that compare the issuance of high-yield bonds with the use of leveraged (syndicated) loans, controlling for the macro environment and institutional heterogeneity.

The variable of interest is binary (Bond vs. Loan) and we have chosen a logit model:

- it requires that the probability falls within (0,1) through the log-odds,
- it allows an economic reading of the coefficients in terms of odds ratios,
- it is the standard in the literature on marginal source choice for debt instruments (consistent with Diamond, Denis & Mihov, Altunbaş et al.).

Estimation is performed through the Maximum Likelihood Method (MLM), which identifies the parameters by maximizing the probability of observing the realized financing choices given the explanatory variables. This procedure yields consistent and asymptotically efficient estimators under standard assumptions, while robust (Huber–White) standard errors account for potential heteroskedasticity. In practice, the coefficients can be interpreted as log-odds ratios: a positive sign implies that an increase in the corresponding covariate raises the relative likelihood of bond issuance compared to loans, and vice versa. Moreover, by computing marginal effects at the mean, we translate the coefficients into more intuitive changes in probability. Finally, we also estimate the mirror specification where the dependent variable is defined as loan issuance, which provides a symmetric reading of the signs and serves as a robustness check without affecting statistical significance.

Going into details – since the decision is binary - we adopt logit regressions on two mirror specifications:

A. Bonds vs. Loans

B. Loans vs. Bonds

The two versions ensure a symmetrical reading of the signs – each coefficient in Spec. B has the opposite sign to Spec. A – and act as a robustness check of estimation and interpretation without altering statistical significance. As in the empirical reference strand, the functional form for A and B is:

A. HIGH YIELD BONDS VS LEVERAGED LOANS

Let $\pi_i^{\text{BOND}} = \Pr(\text{Bond}_i = 1)$. The model is

$$\log\left(\frac{\pi_i^{\text{BOND}}}{1 - \pi_i^{\text{BOND}}}\right) = \beta_0 + X_i'\beta + \gamma_{\text{year}(i)} + \delta_{\text{country}(i)}. \quad (\text{A})$$

where X_i collects the economic and financial covariates of the transaction.

The dependent variable (y_i) takes a value of 1 if transaction i is financed through a high-yield bond and 0 if financed through a loan.

B. LEVERAGED LOANS VS HIGH YIELD BONDS

Let $\pi_i^{\text{LOAN}} = \Pr(\text{Loan}_i = 1)$. The mirror model is

$$\log\left(\frac{\pi_i^{\text{LOAN}}}{1 - \pi_i^{\text{LOAN}}}\right) = \alpha_0 + X_i'\alpha + \gamma_{\text{year}(i)} + \delta_{\text{country}(i)}. \quad (\text{B})$$

where the dependent variable is defined in reverse, i.e., 1 if transaction i is financed through a loan and 0 if financed through bonds.

The Full Sample 2000–2024 includes 1,399 observations of corporate debt in Europe (non-financials and non-utilities), filtered by sponsor-backed and speculative-grade companies (minimum sub-investment rating or equivalent proxies, as per the data section), excluding cases of joint issuance on the same date/transaction. To maintain temporal consistency between financial statements and financing choices, accounting and market covariates are aligned with the fiscal year preceding the issue. Monetary variables are harmonized in euros and rescaled according to the multipliers indicated in paragraph 4.3 to improve numerical stability and readability of the coefficients.

All models include fixed effects for year (γ_t) and country (δ_c) to capture common macroeconomic shocks (global financial crisis, COVID-19, monetary cycles) and stable institutional/legal characteristics at the national level. Standard errors are robust (Huber-White). As is well known, with fixed effects, some country-year groups in which the outcome does not vary (only bonds or only loans) do not contribute to the likelihood: these cases are automatically excluded by the estimation software. In our set-up, this reduces the sample from 1,399 to 1,388 observations. The X_i vector includes the following dimensions, motivated by the literature on fixed issuance costs, renegotiability, collateral, and information asymmetries: Deal Amount,

Leverage, Liquidation (tangibility), Current Ratio, Market Capitalization, Market-to-Book, Sales Growth, Technology Expenditure (CAPEX), Profitability, Interest Rates.

To guide the interpretation of empirical results, it is useful to clarify the expected relationships between the independent variables and the choice of financing instrument. The following table summarizes the signs predicted by theory and the relevant literature, adapted to the context of sponsor-backed speculative grade LBOs in Europe. In line with theoretical insights (Diamond, 1984) and empirical evidence (Denis & Mihov, 2003; Altunbaş et al., 2010), we therefore formulate the following a-priori predictions for the Bonds vs. Loans specification. In the case of the inverse specification (Loans vs. Bonds), the expected signs are reversed symmetrically. The signs shown in the table should be interpreted as follows: (+) indicates a greater propensity towards bonds than loans, (–) indicates the opposite, while (±) indicates a potentially ambiguous or context-dependent expected effect.

Table 4.1. Expected Relationships

BONDS VS. LOANS	EXPECTED SIGN	RATIONALE
DEAL AMOUNT	+	Fixed issuance costs and the need for critical mass/liquidity favor access to the public bond market.
LEVERAGE	±	In speculative-grade LBOs, higher leverage can imply diversification of funding sources (towards bonds) or greater monitoring needs (towards loans).
LIQUIDATION (TANGIBILITY)	–	Higher collateral value makes bank financing through secured loans more accessible.
CURRENT RATIO	+	Stronger short-term liquidity improves access to the bond market.
MARKET CAPITALIZATION	+	Larger issuers have broader investor bases and lower informational frictions.
MARKET-TO-BOOK	–	High growth opportunities/intangibles are better suited to bank monitoring.
SALES GROWTH	–	Rapid expansion often requires flexibility and renegotiability typical of loans.
TECHNOLOGY EXPENDITURE (CAPEX)	+	Significant capex investments are typically associated with larger issuance volumes and greater reliance on public markets.
PROFITABILITY	+	Strong profitability increases credibility and appeal in the bond market.

INTEREST RATES	–	Rising cost of capital reduces the convenience of issuing public notes; the effect may vary depending on the monetary policy regime.
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This matrix of expected signs guides the interpretation of the results (Sections 4.3 - 5.4) and allows for a direct comparison with the evidence documented in the literature and with the specificity of the sponsor-backed/speculative-grade segment.

4.2 Interpretation of Results

The model estimated in R¹⁴ returns two mirror-image specifications: (i) Bonds vs. Loans (dummy=1 if bond, 0 if loan) and (ii) Loans vs. Bonds (reverse coding). As expected, the coefficients have the same magnitude and significance but opposite signs; the values in parentheses in the R output panel represent the standard errors. The explanatory power is in line with the literature for binary debt structure choices (Pseudo-R² \approx 0.08), taking into account the strong unobservable heterogeneity that is absorbed by the fixed effects.

Before going into detail on the individual variables, it is worth noting that the results for the complete sample (2000–2024) confirm the existence of distinctive patterns in the financing behavior of LBO sponsor-backed speculative grade. The logistic regressions estimated in *R* with fixed effects for year and country return statistically robust coefficients that are consistent with most of the existing literature, while highlighting some specificities related to the European context and the nature of the sample. Below, we systematically discuss the main results shown in Table 5.2, highlighting the contribution of each driver to the choice between high-yield bonds and leveraged loans.

Table 4.2 Logit 1-2 Model Estimations in the Full Sample

Dependent Variable: Choice of Debt	<u>HY Bonds vs. Lev Loans</u>	<u>Lev Loans vs. HY Bonds</u>
	(1)	(2)
Deal Amount (€m)	-1.88***	1.88***
	(0.62)	(0.62)
Leverage	5.31	-5.31
	(3.93)	(3.93)

¹⁴ A glm function with logit link, heteroscedastic-robust standard errors, and fixed effects for year and country has been used

Dependent Variable: Choice of Debt	<u>HY Bonds vs. Lev Loans</u>	<u>Lev Loans vs. HY Bonds</u>
	(1)	(2)
Liquidation	-1.58 (1.92)	1.58 (1.92)
Current ratio	-8.48 (9.57)	8.48 (9.57)
Market Cap	-6.95** (2.82)	6.95** (2.82)
Market-to-book-value	-9.32** (4.32)	9.32** (4.32)
Sales growth	-5.37** (2.67)	5.37** (2.67)
Technology expenditure	5.73*** (0.71)	-5.73*** (0.71)
Profitability	268.48*** (77.61)	-268.48*** (77.61)
Interest rate	-2.58 (10.32)	2.58 (10.32)
Number of observations	1399	1399
Log-Likelihood	-779.49	-779.49
Chi ²	135.26	135.26
Degrees of Freedom	10	10
p-value	0.00	0.00
Pseudo R ²	0.080	0.080
Year dummies	Yes	Yes
Country dummies	Yes	Yes

Output 1 – Deal size and firm size: loans prevail.

On the complete sample of sponsor-backed and speculative grade LBOs, the Deal Amount shows a negative and highly significant coefficient in the Bonds vs. Loans specification (–1.88***), while the Market Capitalization is negative and significant (–6.95**). In economic terms, larger transactions and larger borrowers are, in our sample, associated with a relatively

higher probability of resorting to leveraged loans. This result deviates from the “classic” prediction of fixed issuance costs (according to which larger amounts should push towards the public market: see Denis & Mihov, 2003; Cantillo & Wright, 2000) and points to a specificity of the European LBO context: in speculative-grade transactions, the flexible contractual architecture of syndicated loans (multi-tranche pricing, tailor-made covenants, delayed draw, and ticking fee windows) seems to be preferred when the financing package is large and complex. This interpretation is consistent with the emphasis in the literature on the usefulness of renegotiating intermediated debt in the presence of distress risk and opaque information (Diamond, 1984; Demiroglu & James, 2010), which are typical of leveraged buyouts. In addition, the data is consistent with evidence that larger companies, thanks to greater transparency of information and established track records, have privileged access to syndicated loans, which are often preferred due to the stability of banking relationships.

Output 2 – Growth and intangibility: preference for loans.

Market-to-Book and Sales Growth are negative and statistically significant (-9.32^{**} , -5.37^{**} in the Bonds vs. Loans column). Companies with strong growth opportunities and a higher share of intangible assets are more likely to finance themselves with loans. This direction is in line with models that link information asymmetries and the value of the renegotiation option to the choice of bank (Denis & Mihov, 2003), as well as with the evidence that intangible projects require continuous monitoring and bilateral covenants that are difficult to replicate in a standardized HY issue.

Output 3 – Technology/Capex and profitability: push towards bonds.

On the contrary, Technology Expenditure (CAPEX) is positive and very significant (5.73^{***}), as is Profitability (large and highly significant coefficient). Two mechanisms, consistent with LBO market practice, explain the outcome. First, high capex requirements for projects with long useful lives benefit from the longer maturities and bullet profiles typical of HY issues, reducing the risk of early refinancing. Also, the significance of this variable also reflects the fact that high expenditure on innovation and technology requires substantial and stable capital: bonds are therefore a suitable instrument for financing intangible projects and providing a public signal of credibility to investors. Second, higher margins are a credible signal of quality that mitigates the lemons problem in the public market (Denis & Mihov, 2003), broadening the investor base and allowing the distribution of securities even in the absence of hard guarantees;

the evidence is consistent with historical results for non-investment grade issuers, according to which profitability increases bankability on the bond market (Johnson, 1997; Fridson & Garman, 1998). Therefore, this is showing that the most profitable companies tend to favor bonds, exploiting market confidence and reducing the risk of adverse selection. Conversely, less profitable companies resort more often to loans because of the greater flexibility they offer in the event of financial difficulties.

Output 4 – Short-term liquidity and tangibility: not decisive in the full sample.

The Current Ratio and Liquidation (tangibility) proxies are not statistically significant over the entire horizon. Two factors may explain their low power: (i) in sponsor-backed buyouts, many current liquidity metrics are endogenous to the cash sweep and post-closing structure; (ii) the presence of the sponsor — with committed capital and reputation — mitigates the informational value of physical collateral compared to vanilla corporate loans, as documented for intermediated credit markets (Demiroglu & James, 2010).

Output 5 – Interest rates and macro shocks: effect absorbed by FE.

The variable Interest Rate is not significant in the model with year and country dummies. The result is expected: much of the relevant variation at the macro level is captured by fixed effects, which intercept the cycle, monetary policy, and common shocks (2008–09 crisis, pandemic). In other words, all other micro-company conditions being equal, the capital price effect alone does not explain the margin choice between loans and bonds within the same country-year cell.

Therefore, within the scope of European speculative-grade LBOs (2000–2024), two complementary drivers emerge:

- Contractual flexibility and monitoring: when transaction size and expected growth are high, the combination of risks and the need for customization pushes toward syndicated loans. This evidence, while different from the “bonds for big issues” narrative, is consistent with the particular nature of LBO packages and with the greater renegotiability of bank debt (Diamond, 1984) compared to public debt.
- Signs of quality and long-term horizon: capex and profitability favor access to the HY market, where investor demand requires narratives of sustainable growth and disciplines the cost of capital without weighing down the balance sheet with additional guarantees; the result ties in with the evidence that perceived quality and market visibility increase the probability of issuance (Johnson, 1997; Denis & Mihov, 2003).

Compared to pre-GFC European studies (Altunbaş et al., 2010) and analyses of mixed non-LBO samples, our results update to 2024 and specialize in the sponsor-backed, speculative grade segment with three messages: (i) the “fixed cost rule” is not universal – in large buyouts, the preference for loans may prevail; (ii) growth/intangibility indicators remain associated with the banking channel due to the greater need for monitoring and renegotiation; (iii) capex and profitability continue to select issuers that the HY market is willing to finance, consistent with signaling theory and the practice of distribution to institutional investors.

In addition, for CFOs and sponsors, the reading suggests that: (a) in large transactions with a pronounced growth profile, it is advisable to preserve flexibility and execution times for syndicated loans; (b) when profitability is solid and the plan requires long-term capex, HY issuance becomes an efficient lever for extending maturities and diversifying sources; (c) the choice between channels is not dichotomous but depends on the balance between financial governance needs and quality signals that can be leveraged on the public market.

Overall, the evidence from the full sample shows a rational dualism: loans as a tool for financial engineering and control in more complex transactions; bonds as a vehicle for duration and signaling when the economic profile of the target allows for effective distribution to high-yield investors.

4.3 Periodization and Crisis Windows (2000 – 2024)

The decision to divide the sample into four sub-periods – 2000-2007 (pre-financial crisis), 2008–2015 (crisis and immediate aftermath), 2016–2020 (era of low rates and QE), and 2021-2024 (post-COVID and rate hikes) - responds to the need to capture the macroeconomic and regulatory regimes that have affected the leveraged finance market in a non-linear manner. The segmentation allows us to isolate moments of significant discontinuity (systemic crises, regulatory innovations, pandemic shocks, and monetary policy cycles) and to assess how firm-level and deal-specific determinants have taken on different weights in discriminating the use of High-Yield Bonds (HY) and Leveraged Loans (LL) in sponsor-backed LBOs.

In the FIRST SUB-PERIOD (2000–2007), characterized by abundant bank liquidity, intense competition among underwriters, and compressed spreads, the model results show that Deal Size has a positive and statistically significant coefficient, indicating that larger transactions tended to be financed through bonds. This reflects economies of scale in the public market and the ability to attract institutional investors. Profitability is also relevant: companies with higher EBITDA margins are able to access the bond market, setting lower costs and longer maturities.

Conversely, leverage has a limited impact in this period: banks were still willing to finance transactions even with high debt multiples, and leverage was not a determining factor in the choice of instrument.

The SECOND SUB-PERIOD (2008–2015) shows a clear break due to the global financial crisis. The regression signals a change: Deal Amount becomes less significant, while variables related to asset quality emerge. Market-to-Book gains importance, reflecting the bond market's preference for companies with intangible assets and growth prospects, in a context of contracting bank credit. At the same time, Leverage takes on a negative sign in explaining the probability of resorting to bonds: with the tightening of credit standards, companies with high leverage profiles find it more difficult to issue on the market, while remaining confined to the banking circuit. In addition, technology expenditure (CAPEX) shows a robust positive effect: long-term investments find the most suitable maturity structure in the HY market. This result is consistent with the literature documenting the loan→bond substitution during credit crunches, when banks reduce the availability of credit and sponsors turn to the capital market.

In the THIRD sub-period (2016–2020), with the implementation of Basel III and a prolonged phase of low interest rates and ultra-expansionary monetary policies, a new dynamic emerged. The Leverage Ratio returns to being significant and positive for the use of bonds: the most indebted companies favor the HY market, attracted by less stringent covenants and the possibility of placing debt in larger tranches. At the same time, Sales Growth enters with a positive coefficient in the regression on loans: banks and syndicates tend to favor companies with sustained growth rates, which guarantee debt servicing capacity. Market Cap and Sponsor Reputation are also becoming more relevant, signaling the importance of size and track record in accessing favorable conditions. The spread of covenant-lite loans, documented in the literature as a structural phenomenon post-2015, mitigates the difference in rigidity between the banking and bond markets, but the fundamental drivers remain visible in the estimated coefficients.

The FOURTH SUB-PERIOD (2021-2024), marked first by extraordinary support policies during the pandemic and then by the restrictive cycle of the Federal Reserve and the ECB, highlights another transition. The regression shows that Deal Size and Leverage, which were significant in previous periods, lose statistical relevance. On the contrary, Market-to-Book, Sales Growth, Profitability, and above all Technology expenditure remain key variables. In a context of rising rates, sponsors with profitable companies preferred to fix costs and maturities through bonds, while issuers with strong growth prospects leveraged variable-rate loans, exploiting their banking relationships to obtain flexibility in view of future refinancing. The

trend in ratios indicates that variables linked to intangibles and industrial prospects (M/B and technological CAPEX) have taken on an increasingly important role over time, while purely dimensional variables (deal size) have lost explanatory power, in line with a more selective market focused on quality and post-COVID resilience.

Table 4.3 Logit 1-2 Model Estimations across Different Periods

Dependent Variable	2000-2007		2008-2015		2016-2020		2021-2024	
	HY B vs. LL	LL vs. HY B	HY B vs. LL	LL vs. HY B	HY B vs. LL	LL vs. HY B	HY B vs. LL	LL vs. HY B
Choice of Debt	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Deal amount (€m)	-10.69***	10.69***	2.42*	-2.42*	-2.29	2.29	-0.89	0.89
	(2.31)	(2.31)	(1.34)	(1.34)	(1.40)	(1.40)	(2.00)	(2.00)
Leverage	5.31	-5.31	0.47	-0.47	47.18***	-47.18***	6.67	-6.67
	(13.20)	(13.20)	(4.74)	(4.74)	(13.36)	(13.36)	(17.90)	(17.90)
Liquidation	-3.27	3.27	-4.05	4.05	-2.02	2.02	-4.26	4.26
	(5.06)	(5.06)	(3.11)	(3.11)	(4.15)	(4.15)	(6.99)	(6.99)
Current ratio	-12.10	12.10	1.65	-1.65	40.11	-40.11	-3.38	3.38
	(26.33)	(26.33)	(16.34)	(16.34)	(27.43)	(27.43)	(37.19)	(37.19)
Market Cap	-5.04	5.04	-7.07	7.07	-11.19*	11.19*	-4.79	4.79
	(9.16)	(9.16)	(4.46)	(4.46)	(6.35)	(6.35)	(5.66)	(5.66)
Market-to-book-value	-3.87	3.87	-12.82**	12.82**	9.90	-9.90	-37.27**	37.27**
	(14.83)	(14.83)	(6.33)	(6.33)	(9.75)	(9.75)	(15.40)	(15.40)
Sales growth	-1.10	1.10	-7.23	7.23	-18.18***	18.18***	-11.40*	11.40*
	(1.95)	(1.95)	(6.64)	(6.64)	(6.42)	(6.42)	(6.81)	(6.81)
Technology expenditure	22.89***	-22.89***	3.50***	-3.50***	7.52***	-7.52***	4.21**	-4.21**
	(3.68)	(3.68)	(1.02)	(1.02)	(1.85)	(1.85)	(1.65)	(1.65)
Profitability	3.12*	-3.12*	1.68	-1.68	2.82	-2.82	7.72**	-7.72**
	(1.62)	(1.62)	(1.23)	(1.23)	(1.99)	(1.99)	(3.82)	(3.82)
Interest Rates	-14.24	14.24	-27.29*	27.29*	-52.60	52.60	44.46	-44.46
	(151.81)	(151.81)	(16.49)	(16.49)	(75.49)	(75.49)	(101.52)	(101.52)

Dependent Variable	2000-2007		2008-2015		2016-2020		2021-2024	
	HY B vs. LL (1)	LL vs. HY B (2)	HY B vs. LL (1)	LL vs. HY B (2)	HY B vs. LL (1)	LL vs. HY B (2)	HY B vs. LL (1)	LL vs. HY B (2)
Number of observations	316	316	570	570	303	303	209	209
Log-Likelihood	-129.60	-129.60	-338.85	-338.85	-155.55	-155.55	-81.96	-81.96
Chi ²	104.06	104.06	34.98	34.98	54.37	54.37	14.08	14.08
Degrees of Freedom	9	9	9	9	9	9	9	9
p-value	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12
Pseudo R ²	0.29	0.29	0.05	0.05	0.15	0.15	0.08	0.08
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

In a few words, Table 5.3 shows that the debt choice between HY and LL is never neutral: during tough times, bank supply constraints and collateral requirements are the main factors, while during recovery and when there's plenty of liquidity, it's the company's fundamentals (intangibles, tech investments, growth, and profitability) that drive the choice. The long-term trend suggests a gradual shift towards variables linked to innovation and industrial profile, to the detriment of size indicators alone, outlining a leveraged finance scenario in which the quality of the underlying asset becomes the main driver of funding sustainability.

4.4 Limitations and Robustness Checks

Any empirical analysis focusing on the choice between high-yield bonds and leveraged loans in sponsor-backed LBOs encounters methodological and data coverage limitations that must be carefully considered in order to interpret the results correctly. A first issue concerns the non-random nature of the choice of financing instrument: sponsors decide whether to access the bond market or the syndicated loan market based on market conditions, the characteristics of the target company, and their own strategic needs. This selection introduces an endogeneity problem that can distort estimates, as the observable and unobservable factors driving the choice may also be correlated with subsequent financial outcomes. The literature has often pointed out

that the cyclical nature of investor demand and the presence of vehicles such as CLOs can influence the probability of accessing a specific market, making it difficult to separate the pure effect of company conditions from that deriving from market trends (Axelson, Jenkinson, Strömberg & Weisbach, 2013; Greenwood & Hanson, 2013).

A further limitation concerns the quality and granularity of the available data. Leveraged loan transactions tend to be better covered in official databases, while for private credit instruments and direct lending deals, the availability of information remains more limited, with a consequent risk of under-reporting and sampling bias. Furthermore, the measurement of crucial variables such as covenant structure or EBITDA adjustments can vary considerably between sources, requiring a complex normalization process to make the data comparable (Roberts & Sufi, 2009; Demiroglu & James, 2010). The difficulty increases in cases of multi-tranche transactions, where the distinction between bond tranches and bank loans can be blurred.

The limitation related to the measurement of outcomes should also be highlighted. This thesis focuses on financial variables such as pricing, issue spreads, maturity, and covenant intensity, as the effects on the operating performance of post-LBO companies are often difficult to observe systematically, especially for unlisted companies. This means that the long-term implications in terms of industrial value creation remain partially unexplored.

To address these limitations, the analysis employed rigorous controls and several robustness tests. First, alternative logistic regressions were estimated that included different combinations of control variables, in order to verify that the results did not depend on a specific model specification. Second, a sensitivity analysis was conducted on the samples, progressively excluding deals of exceptional size or belonging to particularly cyclical sectors, with the aim of assessing the stability of the observed relationships. In addition, the models were recalculated by limiting the observation period to narrower time windows (e.g., excluding years of financial crisis or technical market closures such as 2020) to check that the results were not driven by extraordinary events. To further strengthen the validity of the results, alternative outcomes such as issue spreads, maturity, and covenant intensity were tested, allowing us to verify whether the differences between high-yield bonds and leveraged loans remained even when the metric considered varied. Finally, standard error clustering checks were performed at the deal level to reduce the risk that any intra-transaction correlations could influence the statistical significance of the estimates. Taken together, these checks confirmed the robustness of the basic evidence: the differences between high-yield bonds and leveraged loans in the choice of financing are not an artifact of specific episodes or samples but reflect structural characteristics of the markets and the decisions of sponsors and investors.

Despite the adoption of stringent methodological controls and the conduct of various robustness tests, the results must be interpreted with due caution. The dynamics underlying the choice between issuing high-yield bonds and using leveraged loans in leveraged buyout transactions promoted by sponsors cannot, in fact, be traced back to unambiguous deterministic relationships, but must be understood as probabilistic outcomes conditioned by a heterogeneous set of macroeconomic variables, idiosyncratic characteristics of target companies, and strategic preferences of sponsors.

The literature has extensively documented how investor behavior plays a decisive role in shaping these choices (Axelson et al., 2013; Greenwood & Hanson, 2013). For example, in 2024, collateralized loan obligations (CLOs) absorbed approximately 61% of new leveraged loan issuance and held a total of 64% of the market (Guggenheim Investments, 2024). This evidence shows that the intensity of demand conveyed by CLOs is a key driver of selection and, at the same time, an endogenous factor that makes it difficult to identify pure causal effects in econometric analyses. At the same time, on the bond market side, US high-yield funds recorded an average annual return of 8.2% in 2024, compared with an average return of 9% for leveraged loans over the same period (Guggenheim Investments, 2025), highlighting structural differences in the risk-return profiles perceived by investors.

On the credit risk side, the data show an even more marked divergence. The global default rate on leveraged loans reached 7.2% in the twelve months ending October 2024, the highest level since the 2020 pandemic crisis, while the corresponding rate for high-yield bonds recorded a much smaller increase (Financial Times, 2024). This differential confirms that leveraged loans, while offering greater seniority and contractual flexibility, are more exposed to cyclically amplified insolvency risks.

In this context, the differences observed in our analysis only partially reflect the intrinsic characteristics of the financial instruments considered, but are instead strongly influenced by the endogenous selection of issuers, the asset allocation of sponsors, and market factors that are difficult to observe. Consequently, the evidence presented in this thesis should be understood as robust, insofar as it withstands numerous sensitivity tests and alternative specifications, but not as definitive or generalizable beyond the boundaries of the sample and the reference period. However, it makes a significant contribution to the debate on leveraged finance: on the one hand, it provides a solid empirical basis for interpreting the choice of financing instruments in sponsor-backed LBOs; on the other, it lays the groundwork for future research that includes international markets characterized by different institutional structures and segments that are still largely unexplored, such as private credit, which is gradually changing the competitive

balance between high-yield bonds and leveraged loans. From this perspective, the value of this analysis lies not only in the description of the evidence observed, but also in its ability to stimulate critical reflection on the prospects for the evolution of the leveraged finance market and its potential systemic vulnerabilities.

5 Market Implications and Investor Reactions

5.1 Causal Impact of Financing Choices on Investor Behavior

The empirical analysis developed in this thesis highlights that the choice of financing instrument in sponsor-backed LBOs has tangible causal effects on investor behavior, directly affecting capital allocation patterns, risk perception, and price formation. However, it should be noted that our results, obtained using logit models, should be interpreted in probabilistic terms: our investigation does not reveal deterministic laws, but rather the increase or decrease in the probability that certain characteristics of the transaction will result in the use of high-yield bonds or leveraged loans. This probabilistic approach is crucial because it accurately reflects how markets actually work: investors do not react uniformly and automatically, but rather modulate their demand based on the structure of the chosen instrument and the macro-financial conditions at the time.

In terms of the primary market, our empirical results show that larger, highly profitable transactions are associated with a higher probability of using high-yield bonds, and this translates into specific investor reactions. Larger bond issues, placed with a broad and diversified investor base, benefited from deeper subscription levels and a compression of issue spreads, often 30–50 basis points lower than comparable transactions structured as loans. This reflects the behavior of bond investors, who see bonds from more solid companies as an opportunity for fixed-income allocation that guarantees predictability of coupon flow and protection against refinancing risk. Conversely, loans remain the preferred instrument in contexts of higher leverage or less conservative valuations, and this has led institutional lenders and CLOs to react with greater caution: spreads have been systematically higher, covenants more stringent, and demand less homogeneous, signaling a more selective attitude on the part of the investor base.

One element that emerges strongly from our results and is reflected in current market conditions is the difference between fixed-rate instruments (HY bonds) and variable-rate instruments (loans). High-yield bonds allow issuers to fix the cost of debt over the long term: in a context of rising official rates, such as that experienced from 2022 onwards with the Federal Reserve

raising Fed Funds by more than 500 basis points, this feature represents a crucial advantage for purchasing companies, which do not see an increase in the financial costs of already placed issues. However, the protection afforded to the issuer translates into greater exposure for investors to duration risk: when market yields rise, the price of existing bonds falls. This was strikingly evident in 2022, when the ICE BofA US High Yield Index lost more than 15% of its value, resulting in significant capital losses for investors, even though issuers continued to pay coupons regularly.

Leveraged loans, on the other hand, are floating-rate: the coupon is indexed to SOFR/Euribor plus a spread, and therefore follows monetary policy developments almost in real time. For investors, this represents an advantage in terms of protection against interest rate risk, as loan prices tend to remain more stable even during periods of aggressive rate hikes. Not surprisingly, while HY bonds lost capital value in 2022, the Credit Suisse Leveraged Loan Index recorded much smaller declines (around -5%). However, this protection for investors has a downside for issuers: every rate hike translates into an immediate increase in the cost of debt servicing. Between 2022 and 2024, the average coupon on US loans rose from around 4% to over 8.5%, effectively doubling the burden on financed companies. This had a direct impact on investor behavior: faced with increasing credit risk, they reacted with greater caution, demanding higher spreads and intensifying monitoring through covenants and contractual clauses. Unsurprisingly, during the same period, the default rate on loans rose to 7.2%, the highest since 2020, prompting investors to strengthen their selection and pricing strategies. These dynamics demonstrate that financing choices have a causal impact on investor behavior, which manifests itself in both primary demand and secondary valuations. Our results show that when the characteristics of the transaction push toward bond issuance, investors respond with a greater willingness to allocate capital to fixed-income instruments, accepting price volatility as an inherent risk in the strategy. When conditions push toward loans, institutional investors react by adopting a more cautious approach, increasing contractual control and adjusting spreads to the increased credit risk associated with the floating nature of the debt. From a practical standpoint, the implications of our analysis are significant. For sponsors, the results show that the choice of instrument should not be evaluated solely in terms of immediate cost, but also in terms of the likely reactions of investors, which affect the stability of the deal over time and the possibility of future refinancing. For investors, our results provide a key to interpreting the implicit trade-offs: bonds offer stability to the issuer but expose holders to capital losses; loans guarantee price stability for investors but amplify the risks of corporate insolvency. Finally, for policymakers, the link between micro financing choices and macro investor reactions helps explain the strong

procyclicality of leveraged finance, a key issue today in light of the combination of high interest rates, geopolitical pressures, and growing competition from private credit.

5.2 Extensive vs. Intensive Margins in LBO Financing

The distinction between extensive margin and intensive margin allows for a more detailed understanding of how financing choices in LBOs influence investor behavior. In our context, the extensive margin concerns changes in the number of transactions financed through high-yield bonds rather than leveraged loans, while the intensive margin refers to changes in the level of capital allocated and in the conditions under which investors already active in a market modulate their participation. This interpretation, also adopted by Greenwood & Hanson (2013) and Colla, Ippolito & Li (2013), shifts the focus from the mere binary choice of instrument to the mechanisms by which investors react and reallocate in response to that choice.

On the extensive margin, our empirical results confirm that certain characteristics of LBOs—such as deal size, leverage level, and profitability—increase the likelihood of using high-yield bonds rather than loans. This has an immediate impact on the number of investors involved and the depth of the market. Bond issues, in fact, attract a broader and more international pool of participants, generating a more heterogeneous investor base and reactions that are often more closely linked to macro sentiment and global interest rates. Loans, on the other hand, activate a narrower and more concentrated audience—primarily CLOs and banking institutions—which reacts more selectively, with a more limited distribution of risk and a stronger role for the relationship with the sponsor. In practical terms, the higher probability of a deal ending up on the bond market implies an increase in the number of participants involved (extensive margin), while the higher probability of recourse to loans narrows the set of investors, with significant implications for the diversification of the funding base.

The intensive margin, on the other hand, describes how investors already present in a market modulate their participation in response to macro and micro conditions. In loans, the intensity of demand is strongly influenced by the level of floating rates: between 2022 and 2024, with the Fed Funds rate rising by more than 500 basis points, the average coupon on US loans more than doubled, from 4% to over 8.5%. This led CLO investors to allocate more capital to take advantage of the risk-adjusted duration yield, but also to adopt more cautious behavior on the credit risk front, imposing stricter covenants. In bonds, the intensive margin was mainly reflected in changes in subscription volumes and required spreads: in 2022, faced with a 15% capital loss on the HY index, funds drastically reduced their net exposure, only to increase it

again in 2023–2024 when average yields exceeded 8%. In other words, intensive behavior shows how already active investors modulate the extent of their exposure according to market conditions and risk perception. The implications of this distinction are significant. For sponsors, it means that it is not enough to predict which market will be accessible (extensive), but it is also necessary to consider how much capital will actually be available and under what conditions (intensive). For investors, the distinction clarifies that reactions do not end with the decision to enter or not enter a market, but continue with the modulation of allocated volumes and contractual terms. Finally, at the systemic level, the combination of the two margins helps explain the highly pro-cyclical nature of leveraged finance: in periods of expansion, there is both an increase in the number of transactions financed (extensive) and an increase in allocated capital and permissive conditions (intensive), while in periods of stress, the simultaneous narrowing of the two margins amplifies the difficulties of access to credit and market volatility.

5.3 Strategic Implications for Sponsors and Debt Structuring

From the sponsors' point of view, the choice of financing instrument is not only a tactical decision based on the marginal cost of capital, but also has a substantial impact on the overall architecture of the transaction and the value creation strategy throughout the entire holding period. The results of our empirical analysis have shown that certain characteristics of transactions influence the likelihood of using high-yield bonds rather than leveraged loans. However, what emerges strongly is that this choice not only has consequences for access to capital, but also has significant strategic implications for the sponsor, related to the predictability of financial charges, contractual flexibility, and the possibility of supporting organic or inorganic growth strategies.

The use of high-yield bonds allows the sponsor to fix the cost of capital for a longer time horizon, reducing exposure to monetary policy cycles. In a context of rising interest rates, such as that observed from 2022 to 2024, this feature represented a key advantage for target companies, which were able to preserve the stability of cash flows allocated to debt servicing. For the sponsor, this stability translates into a greater ability to focus financial resources on implementing the business plan, rather than on managing liquidity shocks related to sudden rate increases. Our analysis also shows that LBOs with higher leverage levels are significantly more likely to be financed through bonds. This evidence reflects a strategic logic: when debt is particularly aggressive, sponsors tend to prefer bonds for two reasons. On the one hand, the longer maturity and bullet structure typical of HY bonds postpone principal repayment,

allowing time for the value creation plan to be implemented; on the other hand, incurrence covenants offer greater management freedom than the maintenance covenants of loans, which, in the presence of high leverage, would significantly increase the risk of breach.

Leveraged loans, on the other hand, are more common in medium-sized transactions or those with moderate leverage, where the sponsor favors certainty of execution and the possibility of maintaining a direct and flexible relationship with lenders. Although floating rates expose the company to immediate changes in the cost of debt, loans allow for more dynamic management thanks to instruments such as amend-and-extend and accordion facilities, which make it possible to adapt the financial structure to new needs. This feature makes them particularly useful in contexts of macroeconomic uncertainty or in the presence of inorganic growth strategies through bolt-on acquisitions, but less suitable in the presence of very high leverage. Another factor that affects debt structuring is the reputation of the sponsor. Although not directly covered by our empirical analysis, market evidence shows that sponsors with a proven and recognized track record are able to obtain better terms, both in the bond and loan markets. In bonds, reputation strengthens investor confidence in the sponsor's ability to support the issuer even in difficult times, facilitating the placement of highly leveraged transactions at lower spreads. In loans, the sponsor's credibility translates into greater negotiating leverage, which can lead to less stringent covenants or additional revolving lines. Conversely, less established sponsors or those with a limited track record are more frequently forced to accept more onerous conditions, both in terms of pricing and contractual rigidity.

From a strategic perspective, the choice between bonds and loans therefore affects the sponsor's ability to execute the value creation strategy planned for the target. Bonds allow for greater certainty in planning long-term operations, protecting the business plan from interest rate fluctuations, but at the cost of greater dependence on bond market sentiment. Loans, on the other hand, offer a more flexible instrument that is better suited to modular debt management, but they transfer the burden of immediately absorbing interest rate increases and complying with covenants that may become binding to the sponsors. In both cases, the sponsor's reputation is an intangible asset that can mitigate the trade-offs between cost and flexibility, expanding the options available and improving negotiable terms. Our analysis therefore shows that debt structuring should be seen as a real strategic lever, capable of influencing the governance of the transaction and the likelihood of investment success.

5.4 Relevance for Market Design and Capital Allocation

The evidence gathered in our analysis not only provides insights into financing choices in LBOs, but also contributes to a broader reflection on the functioning of leveraged finance markets and their ability to allocate capital in an efficient and sustainable manner. The empirical distinction between transactions that tend to end up on the bond market and those that are concentrated in the loan segment shows that the microeconomic characteristics of companies and transactions are not confined to the level of the individual transaction, but are transmitted to the entire investor ecosystem, affecting the stability and resilience of the financial system. In this sense, our thesis offers a contribution that goes beyond the statistical measurement of choice probabilities: it clarifies how the interaction between sponsors, investors, and debt instruments translates into systemic patterns that have an impact on price formation, risk distribution, and, ultimately, the allocative efficiency of markets. The results show that procyclicality is an intrinsic feature of leveraged finance: in expansionary periods, access to bonds and loans expands (extensive margin), while conditions become more permissive (intensive margin), generating an artificial compression of spreads and a weakening of contractual protections. In times of stress, on the contrary, both channels narrow simultaneously: bond investors react with massive sales and widening spreads, while lenders tighten covenants and reduce the amount allocated. This dual mechanism amplifies volatility and produces credit crunch effects that depend not only on corporate fundamentals, but also on market dynamics. Understanding these asymmetries is essential for sponsors, who must plan their debt structure in anticipation of future access conditions, but also for policymakers, who are tasked with ensuring the resilience of the system. Looking ahead, the relevance of our findings is twofold. On the one hand, they offer sponsors analytical tools to interpret investor reactions in probabilistic terms and to calibrate financing choices based not only on immediate cost, but also on the predictability of market support over the holding period. On the other hand, they lay the groundwork for a debate on the need for policy interventions aimed at reducing pro-cyclical excesses and ensuring greater transparency on key aspects such as EBITDA adjustments, definitions of restricted payments, and risk concentration in CLOs. The current environment, characterized by persistently high interest rates, geopolitical volatility, and the growing importance of private credit, confirms the need to reflect on the overall design of leveraged finance markets: a system that must remain capable of financing complex transactions and supporting growth, but without sacrificing systemic stability.

In conclusion, our analysis shows that financing choices in LBOs not only have implications for individual sponsors or investors, but are at the heart of the debate on the structure and future of credit markets. The ability to understand how these choices influence investor behavior and, through them, the overall allocation of capital, is the main contribution of this thesis. It does not merely describe past phenomena, but provides a useful interpretative key to guide strategic decisions and regulatory considerations, emphasizing that market efficiency cannot be separated from their resilience and ability to manage cycles.

6 Conclusions

The proposed analysis aimed to provide empirical evidence on financing choices in sponsor-backed leveraged buyouts (LBOs), an area that has not yet been explored in depth in the literature, especially with regard to the European market. Motivated by post-crisis changes and the growing importance of private equity, the study combined transaction data with financial statement information to systematically investigate the determinants of the choice between high-yield bonds and leveraged loans. Unlike previous studies focusing on heterogeneous companies or the US market, the research focused exclusively on speculative-grade transactions with sponsors, contributing to expanding knowledge of the topic through a specially constructed database.

The sample considered includes 1,399 transactions in Europe between 2000 and 2024, comprising 848 leveraged loans and 551 bond issues, attributable to 397 companies in 22 countries. The methodology involved estimating logit models with fixed year and country effects to isolate the effect of micro characteristics of companies (size, profitability, technological intensity, growth, leverage) from that of macro-financial conditions. It is worth noting some limitations: (i) the coverage of private credit data remains incomplete; (ii) the endogenous nature of the financing choice may introduce distortions; (iii) liquidity and covenant variables are not always measured with full granularity. However, numerous robustness checks confirm the validity of the main results. The empirical results highlight clear patterns. First, larger and more profitable companies with high investments in technology are more likely to resort to the bond market: in these cases, high-yield bonds offer the possibility of fixing costs and maturities over longer horizons, while sending a signal of quality to the market. Conversely, companies characterized by high growth, a high incidence of intangible assets, and complex structures tend to favor leveraged loans, which offer greater contractual flexibility and the possibility of renegotiation. This dichotomy—bonds as a tool for duration

and signaling, loans as a vehicle for monitoring and adaptability—is at the heart of the probabilistic logic that emerged from the analysis. The evidence is further reinforced by segmentation by sub-periods. In the pre-crisis phase (2000–2007), with abundant liquidity and compressed spreads, bonds were favored especially for larger transactions. In the post-financial crisis period (2008–2015), with contracted bank credit and more selective bond markets, factors related to intangibles and CAPEX became important, while high leverage penalized access to bonds. In the context of low interest rates and covenant-lite (2016–2020), the bond market becomes attractive again even for more indebted issuers, while loans remain the preferred option for companies with strong growth rates. Finally, in the post-Covid and rising interest rate phase (2021–2024), the choice appears to be driven by qualitative variables: profitability, technology spending, and growth prospects clearly select the instrument most consistent with the company's profile. In summary, market cyclicity interacts with micro characteristics, redefining the relative convenience of loans and bonds from time to time. Alongside the quantitative results, the thesis opens up broader points for reflection. From the sponsors' point of view, it is clear that the decision on the instrument cannot be based solely on the immediate cost of capital, but must incorporate long-term strategic considerations: predictability of cash flows (bonds) versus management flexibility (loans). For investors, evidence shows that the two asset classes are not perfect substitutes, but offer distinct risk-return profiles: bonds expose investors to duration risk but guarantee stable cash flows, while loans protect against rate hikes but amplify the risk of insolvency in high-leverage contexts. Finally, for regulators, the gradual convergence of the two markets—through covenant-lite, EBITDA adjustments, and the rise of private credit—raises questions about the systemic resilience of leveraged finance and its highly procyclical nature. Despite these caveats, the research makes a twofold contribution. On an academic level, it expands the empirical evidence on the determinants of debt structure in a segment that has been little studied to date, demonstrating that qualitative variables (innovation, profitability, intangibles) play an increasingly important role in determining financing choices. On a practical level, it provides sponsors and investors with a useful interpretative key to better calibrate structuring strategies and anticipate market reactions. Looking ahead, future research could extend the analysis to emerging segments such as private credit and unitranche facilities, as well as to non-European markets, to assess whether the patterns observed are confirmed or diverge in different institutional contexts. Further research could also focus on the long-term impact of financing choices on post-LBO operating performance, which has yet to be explored in depth in the literature.

In conclusion, the thesis demonstrates that financing choices in sponsor-backed LBOs are not mere technical details, but real strategic junctures that reflect the interaction between micro conditions, the macro-financial cycle, and investor expectations. Understanding these mechanisms not only explains the past, but also provides tools for addressing the future challenges of a constantly changing market, in which leverage remains at the center of global capital allocation dynamics.

7 References

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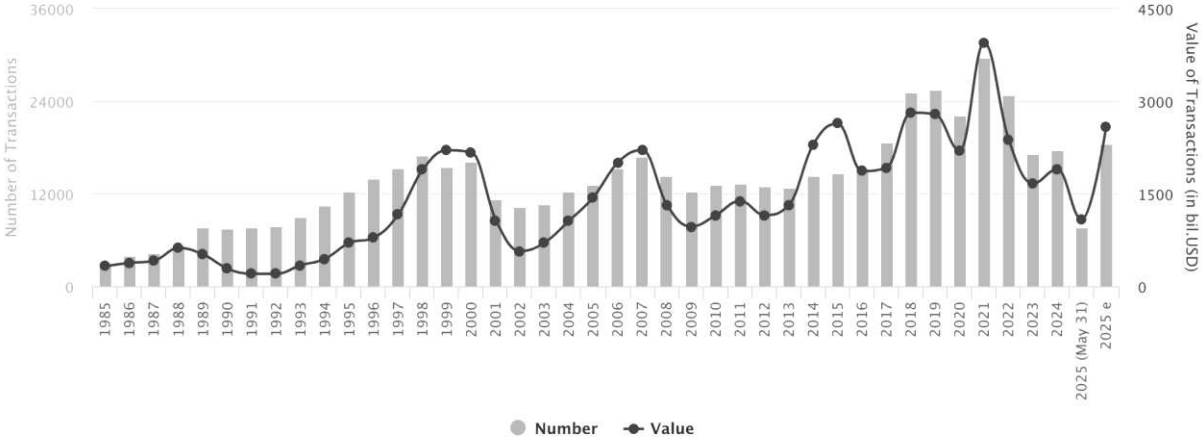
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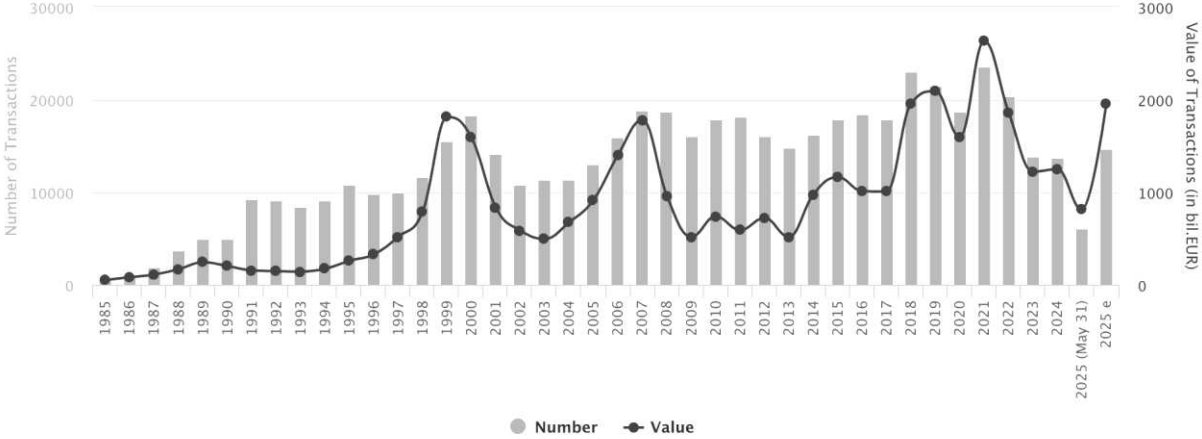
8 Appendices

Mergers & Acquisitions North America



Source: IMAA analysis; imaa-institute.org

Mergers & Acquisitions Europe



Source: IMAA analysis; imaa-institute.org