Fidèle Shukuru Balume

Trois essais sur les coûts de la détresse financière des LBO

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Trois essais sur les coûts de la détresse financière des LBO

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In memory of my father, Herman Balume.

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Summaries of the thesis in French and English

Trois Essais sur les Coûts de la Détresse Financière des LBO

Résumé

Cette thèse explore la relation entre les leverage buyouts (LBO) et les coûts de faillite, en apportant une explication supplémentaire au lien empirique négatif entre ces deux éléments. Le premier essai s'intéresse au rôle des coûts cognitifs et des fonds vautours (FV) dans les situations de faillite des LBO. Les coûts cognitifs, issus des divergences d'intérêts, sont liés aux faillites des LBO, tandis que les fonds vautours sont souvent capables de fausser les évaluations des LBO en raison des caractéristiques propres aux entreprises en difficulté financière. Le deuxième essai examine l'influence des préférences managériales dans les décisions de restructuration, en lien avec des facteurs cognitivo-comportementaux contextuels tels que la charge cognitive et la sensibilité aux valeurs sociales. En analysant le ratio de Sharpe, on constate que les managers soumis à une charge cognitive sont plus susceptibles de licencier massivement pour éviter d'accroître le risque de faillite. Enfin, le troisième essai analyse le coût d'opportunité lié à la diminution de l'engagement ESG des entreprises cibles. Il étudie l'attention accordée aux investissements Environnementaux, Sociaux et de Gouvernance (ESG) avant et après le LBO, ainsi que l'impact de ces opérations sur l'engagement ESG comparativement à d'autres entreprises similaires. Les résultats indiquent que les investissements ESG sont rarement prioritaires pour les acteurs des LBO et subissent un impact négatif lors du processus, les critères financiers à court terme prenant le pas sur les engagements ESG à long terme.

Mots clés : LBO, Fonds Vautours, Détresse financière, Restructuration, Charge Cognitive, Préférences sociales, , critères ESG, Responsabilité Sociale de l'Entreprise

Three Essays on the Financial Distress Costs of LBO

Summary

This thesis explores the relationship between leveraged buyouts (LBOs) and bankruptcy costs, providing an additional explanation for the negative empirical link between these two elements. The first essay focuses on the role of cognitive costs and vulture funds (VFs) in LBO bankruptcy situations. Cognitive costs, arising from divergent interests, are associated with LBO failures, while vulture funds are often able to distort LBO valuations due to the specific characteristics of financially distressed firms. The second essay examines the influence of managerial preferences in restructuring decisions, in relation to contextual cognitive-behavioural factors such as cognitive load and sensitivity to social values. By analyzing the Sharpe ratio, we find that managers subject to cognitive load are more likely to engage in large-scale redundancies to avoid increasing the risk of bankruptcy. Finally, the third essay analyzes the opportunity cost of reducing the ESG commitment of target companies. It examines the attention paid to environmental, social and governance (ESG) investments before and after the LBO, as well as the impact of these transactions on ESG commitment compared with other similar companies. The results indicate that ESG investments are rarely a priority for LBO players and are negatively impacted during the process, with short-term financial criteria taking precedence over long-term ESG commitments.

Keywords : LBO, Vulture funds, Distress Financial distress, Restructuring, Cognitive load, Social preferences, Environmental, Social and Governance policy, ESG criteria, Corporate Social Responsibility

Brief Contents

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List of Abbreviations

AFFI	French Finance Association
BAS	Behavioral Activation System
BAS.D	Behavioral Activation System - Drive
BAS.FS	Behavioral Activation System - Fun Seeking
BAS.RR	Behavioral Activation System - Reward Responsiveness
BIS	Behavioral Inhibition System
CAPEX	Capital Expenditure
CEO	Chief Executive Office
CL	Cognitive Load
EBITDA	Earnings Before Interest Depreciation and Amortization
EMEFA	Educational Major in Economics, Finance or Accounting
ESG	Environmental, Social and Governance
ESG-DS	Environmental, Social and Governance Disclosure Score
EV	Enterprise Value
ExE	Experiment Experience
FCF	Free Cash Flow
JEL code	Journal of Economic Literature Code
KKR	Kohlberg Kravis Roberts
LBO	Leverage Buyout
PC	Professional Certification
PSM	Propensity Score Matching
RA	Risk Aversion
ROE	Return On Equity

SVO	Social Value Orientation
UK	United Kingdom
USA	United States of America
USD	United States Dollar
VF	Vulture Funds

General Introduction

1. General research issue and context

As a financial technique for acquiring a company, leveraged buyout (LBO)[1] can provide both significant growth opportunities and considerable risks to the companies involved (for a summary of the literature, see Renneboog and Vansteenkiste, 2017; Hotchkiss et al., 2021). This technique allows investors to use a combination of debt and equity to finance acquisitions, often pledging the target company's assets as collateral. By allowing acquirers to control the target with a relatively small initial equity contribution, the LBOs offer potentially significant financial resources that can be reinvested in the business. The funds raised can be used to finance organic growth initiatives such as expanding production capacity, entering new markets, or developing new products. Additionally, LBOs are often accompanied by the promise of strategic reorganization and improved operational efficiency, which can lead to significant productivity gains (Ghosh, 2022). New owners, often private equity funds, and the management team also bring valuable managerial, strategic, and financial expertise that can help transform acquired companies into more competitive and agile players. From a financial and tax perspective, LBOs rely on financial leverage to increase the potential return on a deal through the massive use of debt (Kaplan and Stromberg, 2009). Similarly, acquirers use tax optimization techniques, such as interest deductibility or integration, to increase the target's return (e.g. Kaplan, 1989). Because of these possibilities, LBOs are expected to act as catalysts for positive transformations, stimulating growth and increasing the long-term value of the firm.

When the incentive systems and various calibrations of the post-deal organization are functional, and above all, in the absence of any exogenous shock, LBO transactions can result in the creation of value measured in terms of valuation at the exit of the transaction, which is often higher than at the entry[2], or in terms of financial indicators such as cash flows and financial and real returns (e.g. Kaplan, 1989 ; Cumming et al., 2007 ; Guo et al., 2011). One

[1] Public-to-private (PTP) is another concept for LBO transactions. However, we use the concept of LBO in this research to emphasise the importance of leverage and its consequences

[2] This view may be challenged by criticisms of valuation thresholds that exceed real value and are associated with bubbles. In addition, this view is totally challenged by certain studies which show either no impact, or a negative impact of LBOs on value creation, as will be discussed below.

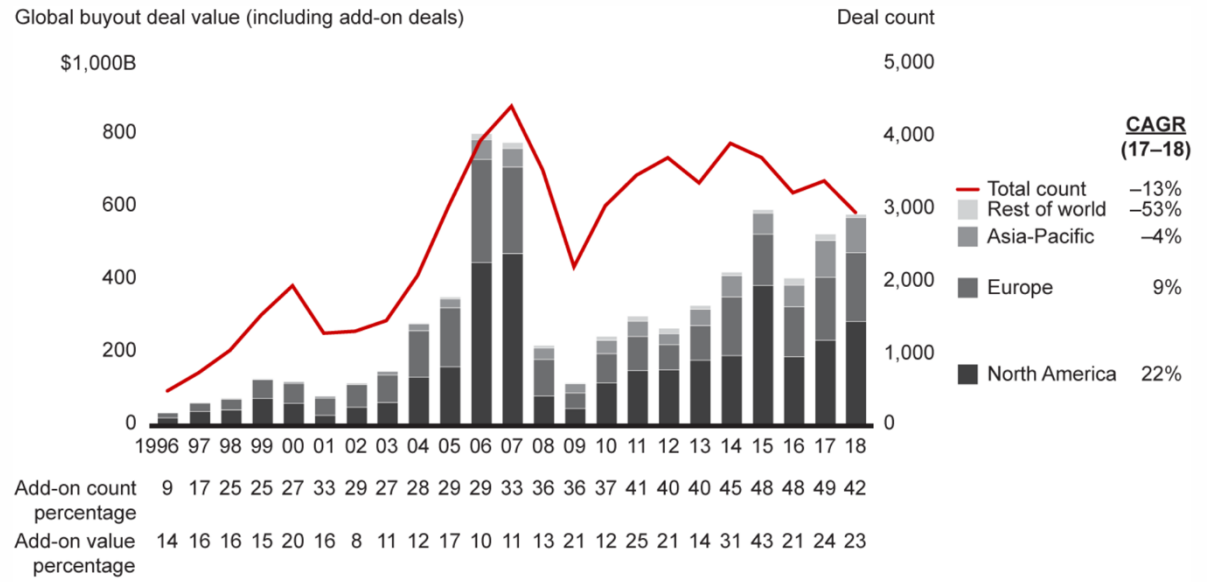
example is the Burger King, whose transformation by 3G Capital in 2010 led to international expansion and improved profit margins. Burger King had reached a valuation of 8 billion (USD), equivalent to twice its valuation at the time of the LBO two years earlier. Similarly, the revitalization of Hertz when Ford Motor Company sold this subsidiary in 2005 through Clayton, Dubilier, and Rice led to efficiency gains and a strategic expansion of Hertz, culminating in its IPO a year later with a valuation differential of 2 billion (USD).

The Burger King and Hertz examples illustrate how LBOs can create value. In previous academic research on LBOs, value creation comes from reducing the agency problems that often arise in large publicly traded firms, where managers may prioritize their personal objectives, such as growth or stability, over maximizing shareholder value, thus creating a divergence of interests (Jensen and Meckling, 1976; Fama and Jensen, 1983 ; Shleifer and Vishny, 1989 ; Bebchuk and Fried, 2003 ; Kesten, 2010). Thus, LBOs can align management incentives with those of shareholders through mechanisms such as performance-based compensation or high debt (Jensen, 1986 ; Jensen, 1989). High debt levels impose strict financial discipline, forcing managers to optimize costs and generate cash flow to repay debt. This strict financial discipline combined with increased management involvement in performance leads to improved efficiency. For this reason, Michael Jensen, in his article “The Eclipse of the Public Corporation’ (1989), argues that the characteristic mechanisms of LBOs, such as the alignment of interests and the discipline imposed by debt, make this model more efficient and attractive than large listed companies, ultimately leading to the decline of large listed companies in favor of LBOs.

However, although many LBOs have been presented as success stories, the reality is more nuanced. The profitability of LBOs varies considerably, and some may fail, particularly in the event of an economic downturn or poor management (Tykvová and Borell, 2012; Ayash and Rastad, 2020). This variability in the performance of LBOs as a function of economic cycles and other factors, such as financing conditions and regulations, may explain why trading volumes in the LBO market are highly volatile. For example, there are periods when the market experiences historical peaks that are not comparable to those of the previous years. This was the case in 2021, when the global LBO market reached an all-time peak of USD 1,100 billion, doubling its 2020 value to USD 577 billion, or in 2006, when total deal value reached USD 804 billion compared to only USD 260 billion in 2005 (see Figure 1).[3]

[3] https ://www.bain.com/about/media-center/press-releases/2022/global-pe-report-2022/

Figure 1. Number and total value of buyout transactions since 1996



Notes: Excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date: includes announced deals that have been completed or are pending, with data subject to change; geography based on the target's location

Source: Dealogic cited by Bain & Company, 2019

The literature recognizes that LBO transactions inevitably generate a substantial increase in risk because of their intrinsic reliance on high levels of leverage. In addition, the imbalance in the financial structure created by the reliance on debt makes the LBO target more vulnerable to economic fluctuations and market pressures. Some studies indicate that under these conditions, the risk of bankruptcy is greater among companies under LBO (Tykvová and Borell, 2012 ; Bédu and Palard, 2014 ; Ayash and Rastad, 2020).

Historically, the failure of LBOs has been illustrated by groups that have gone bankrupt. For example, RJR Nabisco is one of the most famous LBOs in the history. In 1988, the purchase of RJR Nabisco by Kohlberg Kravis Roberts (KKR) for $ 25 billion led to a mountain of debt that weighed heavily on the company. The pressure to repay this debt led to asset sales, mass redundancies, and a significant reduction in long-term investments, all of which weakened the company in the long term. Similarly, the purchase of Toys ‘R Us in 2005 by a consortium of private equity funds, including Bain Capital, KKR, and Vornado Realty Trust for $6.6 billion also led to a debt overhang. High interest payments reduce a company’s ability to invest in digital transformation, making it vulnerable to the increasing competition from e-commerce. Ultimately, these unsustainable financial burdens contributed to the bankruptcy of Toys ‘R Us

in 2017. These examples and others, such as the Vivarte and Camaïeu cases studied in depth in this thesis, illustrate that while LBOs can offer opportunities for rapid growth and substantial gains for investors, they can also expose companies to significant risks that can have disastrous consequences for employees and the communities in which they are located (Goergen and Wood, 2014).

In the literature, the question of LBO bankruptcy has often been explored by limiting attention to an increase in the risk of bankruptcy and providing an explanation of bankruptcy, which is fundamentally linked to mainstream finance theories (Marais et al., 1989 ; Andrade and Kaplan, 1998 ; Easterwood, 1998 ; Guo et al., 2011 ; Goergen and Wood, 2014 ; Ayash and Schütt, 2016 ; Ayres, 2020). Adopting this approach, research on the financial distress of LBOs proposes explanations by drawing on a paradigm identical to that used to describe the merits and success factors of LBOs. Although this approach has merits, it has limitations in certain contexts. For example, in the complex environment of an LBO company in financial distress, restructurings become more frequent because of the increased vulnerability of targets to shocks, and the possibility of diverging interests is likely to have a significant impact on the company because of the redistribution of control power. The constant financial pressure to repay debt should be added to these factors. This pressure can lead to an excessive focus on the short term and distort managers' priorities. An approach based solely on traditional finance does not provide an in-depth understanding of the dynamics of financially troubled LBOs. By limiting itself to explanations based on mainstream finance factors, the existing research misses the opportunity to question the practices surrounding LBO deals with a view to improving them and minimizing certain inefficiencies that may be observed after an LBO deal. Therefore, it is essential to conduct in-depth research on the impact of LBOs on target companies, taking into account the specific characteristics of the companies concerned, as well as the particular context of financial distress. The three essays in this dissertation aim at exploring the following question with a view to proposing a complementary explanation: **What is the impact of the form of organization resulting from an LBO on the costs associated with the risk of bankruptcy ?**

The main objective of our research is to extend the possibility of explaining the inefficiencies observed in LBOs to theories other than mainstream theories. Although necessary, reliance on traditional theories to explain financial distress and other LBO inefficiencies can be complemented using theoretical frameworks related to behavioral finance (in particular, cognitive governance) and the stakeholder approach. This conceptual framework

makes it possible to consider recommendations in the literature concerning the need to consider subjective perception or the fact that financial decisions can be both rational and emotional (Olsen, 2010). It also allows us to consider the fact that the complexity of financial arrangements and contractual clauses that characterize LBO companies can be considered a source of conflict (Betker, 1995), or that the divergence of interests that emerges in a situation of financial distress can fuel the costs of bankruptcy (Taatian, 2021). By considering these dimensions, the conceptual framework of behavioral finance and the stakeholder approach make it possible to contribute to the construction of a complete model to better identify the costs associated with bankruptcy.

Our analysis revolves around two periods. We attempt to answer the question of how the specific restructuring context of LBOs can influence the outcome of this process during a period of financial distress. Outside the period of financial distress, our analysis attempts to answer the question of how the LBO operation itself influences long-term investments such as the environmental, social, and governance (ESG) policy. In fact, intense pressure to maintain high levels of profitability and satisfy creditor demands can lead management to favor short-term measures, such as drastic cost cutting and asset sales, to the detriment of long-term growth strategies. Although these decisions are necessary to reduce the likelihood of bankruptcy in the short term, they can often accelerate the deterioration of a company's financial health, making its long-term survival even more precarious. The need to generate sufficient cash flow to repay debt can restrict a company's ability to invest in innovative projects or sustainable development initiatives, thereby compromising its future competitiveness. This analysis is a simple extension of research showing that LBOs have negative impact on investment in general (Kaplan, 1989 ; Ayash, 2020). By analyzing LBOs themselves and concrete cases of post-LBO restructuring, our research contributes empirically to a better understanding of the dynamics that lead to the failure of companies under LBO. This research provides valuable insights for formulating recommendations on the best selection practices and post-deal management of LBOs, with the aim of minimizing the risk of failure and promoting a long-term strategic vision that promotes the viability and sustainable growth of target companies.

For a clearer understanding of the approaches adopted to explain inefficiencies in LBOs, it is important to describe the context of companies under LBO. When a company is acquired through an LBO, the need to generate sufficient cash flow to repay debt may restrict its ability to invest in long-term projects (Ayash, 2020) and withstand periods of underperformance (Andrade and Kaplan, 1998 ; Tykvov and Borell, 2012 ; Ayash and Rastad, 2021). The pressure

exerted by investors to obtain quick returns can lead to risky strategic decisions favoring a short-term vision or increased bankruptcy costs due to conflicts of interest. The differences arising from the defense of interests by each of the groups can engender a climate of conflict between management and the various pressure groups and can considerably affect the survival of the company (Betker, 1995). For example, when investors demand short-term gains, they may push managers to adopt risky strategies such as cutting spending on R&D, rushing to launch new products without adequate testing, or making opportunistic acquisitions that are not properly evaluated. Conversely, some managers may collaborate with investors who are excessively focused on their return on investment to accelerate the dismantling of a company by selling off its assets or subsidiaries. Ultimately, in many cases, short-term performance can lead to certain abuses, resulting in a significant increase in anticipated bankruptcy costs or an acceleration in the likelihood of bankruptcy. Under such pressure, a manager may neglect the fundamental aspects of long-term strategy, compromise quality and innovation, or make imprudent financial decisions, all of which may ultimately damage the company's viability. In situations of financial distress, stakeholders with residual creditors' status increase their pressure (Cappelen et al. 2019; Kim, 2022), which further increases agency conflicts.

Beyond the normal reorganization phase of LBOs, our research focuses on the restructuring phases in the event of financial distress and financial constraints implied by LBOs. The restructuring to which we refer involves all measures put in place when the company encounters significant financial difficulties after acquisition. These difficulties can be caused by a number of factors, including unfavorable economic conditions, operating performance that falls short of expectations, and excessive interest charges. As a result, companies often fail to meet their financial obligations. Restructuring in this context includes corrective actions, such as debt renegotiation, asset sales, significant cost reductions, and, very often, even changes to the company's ownership structure and governance. Faced with this situation, management's primary objective is restore the company's financial situation so that it can continue to operate, meet its financial covenants, and maintain the dividend distributions expected by investors.

Consequently, our research focuses not only on managerial agency costs but also on cognitive agency costs. In the event of persistent financial difficulties, the climate of conflict and resulting costs may become a significant source of increased bankruptcy costs. Indeed, tensions between managers and investors can lead to costly litigation, legal proceedings, and high consultancy costs when managing disagreements. In addition, the lack of cohesion between management and stakeholders can complicate the restructuring of the company,

slowing down the recovery process and increasing the associated costs. Management mistakes caused by rushed decisions and internal disharmony can lead to additional financial losses and exacerbate the difficulties and costs of bankruptcy.

Moreover, in addition to examining the impact of the LBO itself in Essay 3[4], the restructuring context can reveal important dynamics in the behavior of key players, such as managers and investment funds. Faced with intense pressure to meet creditors' demands, managers can adopt short-term or risky management strategies. For example, the pressure to generate more cash quickly can lead managers to cut back on long-term investments such as those linked to environmental, social, and governance initiatives. This neglect of long-term projects, while helping meet immediate cash needs, can compromise a company's sustainability and reputation. Additionally, investment funds, often focused on maximizing short-term returns, can exert a significant influence on these decisions, favoring measures that, while offering quick gains, may be detrimental to the long-term health of the company. In this environment, investors can maintain a constant pressure to ensure that their return expectations are fulfilled. This interaction between investor pressure and management decisions can lead to costly management errors and exacerbate restructuring costs. Therefore, analyzing management behavior and the role of Private Equity (PE) firms during this critical period can provide valuable insights into the evolution of bankruptcy costs and changes in company value in the long term.

2. The research object

The research object of this study was companies under the LBO. In the first two essays, LBOs are analyzed in the specific context of financial distress, while in the third chapter, we analyze the impact of the operation in general on the aspect of long-term investment. We examine both specific cases to illustrate the dynamics underway in LBOs, such as the cases of Vivarte and Camaïeu in France. However, we also examine the overall situation of LBOs, first through an experiment and then through a quantitative study.

As the research object in our first essay, the Vivarte and Camaïeu groups can briefly be described as textile distribution groups bought by the LBO during the decade 2000. They faced major financial difficulties after the LBO, which led to several restructuring and bankruptcy in

[4] The LBO is a transaction leading to an in-depth change in the configuration of the company (governance structure, work organization, reporting requirements, etc.) and its financial structure

2019 and 2020, respectively. The choice to study these two groups is partly justified by the richness of the available data, which offers the possibility of an in-depth analysis. In addition, the nature of the data makes it possible to extend the analysis to a cognitive governance framework. By studying these cases, we attempt to identify the key factors that explain the failure of post-LBO restructuring strategies, thereby providing valuable insights for the future investment and management of companies in this context.

We then examine the overall situation of the LBOs analyzed through the experiment to complete the exploration of Vivarte and Camaïeu with variables relating to the profile of the manager that cannot be observed externally. The context of companies under LBO in difficulty, and therefore requiring restructuring, led us to set up an experiment consisting of a decision-making task and testing of two variables of interest: cognitive load and social preferences.

Finally, the impact of LBOs on ESG commitment is studied with reference to the context of strong financial constraints on companies and the pressure to prioritize short-term profitability. Indeed, companies under an LBO are often under increased pressure to maximize short-term profitability because of the high level of debt linked to the acquisition. This situation leads them to prioritize immediate cash-flow-generating activities to the detriment of longer-term investments, particularly those linked to ESG objectives. ESG commitments, which generally require financial resources and long-term vision, may be relegated to the background under pressure from creditors and shareholders, leading to a decline in the target's ESG commitment.

Overall, we propose an answer to the question "What is the impact of LBOs on the costs associated with bankruptcy ?" required not only studying LBOs to assess their overall impact, but also the context of financial distress of companies under LBO. These two aspects encompass the research objectives. Our research question is analyzed from three perspectives: a behavioral point of view, a point of view of the role of the actors involved in financing, and the perspective of the company’s social responsibility. These three aspects are based on three theories – behavioral theory, stakeholder theory, and trade-off theory– in the context of restructuring and considering bankruptcy costs. The fact that this line of research allows an analysis of the role of the actors involved and their impact on social responsibility is all the more interesting, given that the existing literature tends to describe LBOs and their consequences from an exclusively traditional point of view.

3. Review of literature and theoretical concepts

3.1. The LBO as viewed by traditional financial theory

The technique of Leveraged Buyouts (LBOs) began to gain popularity in the 1980s, based on traditional finance theories. One reason why the systematic study of LBOs is interesting is that many of the traditional theories in vogue during the 80s found in this practice are favorable grounds for their empirical application. It is therefore possible to associate LBOs with a number of mainstream theories, but here we restrict the discussion to those that we consider to be the most important and directely related to the development of LBOs. We developed theoretical arguments concerning agency, transaction costs, and trade-offs.

Agency is one of the main theories cited in research on LBOs that justifies their ability to create more value. Jensen and Meckling (1976) developed this theory and described the relationship between management and shareholders as a potential source of cost for a company. Specifically, agency theory provides a framework for examining the relationships and potential conflicts between stakeholders when one person or group of people (the agent) is engaged in acting on behalf of another person or group of people (the principal). According to this theory, agency costs can arise if a firm's configuration is inefficient. Jensen (1986) states that by reducing management's control over free cash flow (FCF), LBOs make it possible to resolve agency problems by reducing these costs and by improving the agent's (manager's) defense of the principal's (shareholders') interests.

Agency costs can be analyzed in relation to transaction costs (Williamson, 1988). Agency theory focuses on the principal-agent relationship, while transaction cost theory focuses on the costs of economic exchange. Transaction costs include the costs of seeking information, negotiating, drafting, and implementing contracts as well as the costs of monitoring and managing the relationship. LBO transactions reduce the transaction costs. LBOs enable a governance configuration that minimizes the transaction costs associated with monitoring and control. Similarly, LBOs reduce information asymmetries because they become private (Fox and Marcus, 1992). This reduction in asymmetries can also reduce the transaction costs.

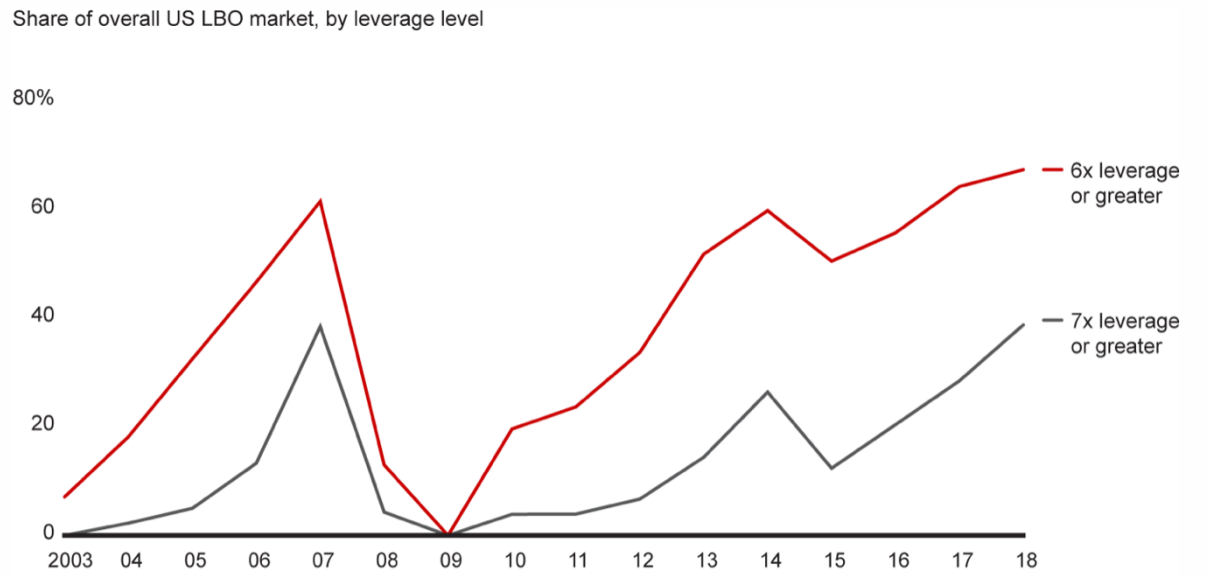
By aligning the interests of managers with those of investors through equity participation and strict financial discipline, LBOs reduce agency conflicts and monitoring costs (Kaplan, 1989). In addition, investment funds involved in LBOs centralize and rationalize administrative functions, negotiate better contractual terms, and rapidly restructure companies to eliminate

inefficiencies. Thus, these transactions should reduce both agency and transaction costs, thereby maximizing organizational efficiency and the value of the company. This argument leads Jensen (1989) to assert that the traditional managerial firm should disappear and be replaced by firms evolving under an LBO configuration.

One formalization of how LBOs can reduce agency costs comes from the related theory of free cash flow. Jensen (1986) explains that companies with large free cash flows and few profitable investment opportunities are likely to waste these resources on unprofitable projects or on excessive spending to the detriment of shareholders. Therefore, the solution would be to reduce the amount of free cash flow in the hands of managers to prevent them from adopting suboptimal behavior by wasting resources. Thus, by increasing debt servicing and financial flows leaving the company, the increase in the level of debt allows greater discipline on the part of the manager and automatically encourages him or her to manage more efficiently. By forcing a company to make regular debt payments, managers are less likely to have excess cash available for unprofitable investments. Similarly, managers may be required to pay dividends, which reduces the amount of cash available to them. Jensen (1989) finds that LBOs are perfectly consistent with these two solutions, making them the perfect form of organization for disciplining managers in terms of FCF management.

Other theories have been used to justify the additional value that LBOs can bring to a company. Before the LBO boom of the 1980s in the USA, Modigliani and Miller (1958, 1963) brought to the fore a very interesting debate concerning the trade-off between the level of debt and the level of capital within a company. This debate gave rise to the trade-off theory. This theory explains that companies can weigh the fiscal advantages of debt against the costs of financial distress (Modigliani and Miller, 1963 ; Warner, 1977 ; Myers, 1984). There should be an optimal level of indebtedness at which the company's value is maximized. This level is reached when the marginal benefits of debt (mainly tax savings) are equal to the marginal costs associated with bankruptcy and financial distress. It would then be rather attractive for a company to continually increase its level of debt as long as its marginal costs of bankruptcy are lower than the marginal benefits of debt. However, the problem lies in the assessment of the marginal costs. Over the years, LBO operations have completely ignored the consequences of increasing debt on bankruptcy cost. This has resulted in high levels of debt and an unbalanced capital structure over time (Axelson et al., 2013) (see Figure 1). We suggest that this increase in leverage impacts bankruptcy costs not only through traditional financial variables but also through other factors beyond traditional finance.

Figure 1. The increase in the number of highly leveraged buyouts over time



Notes: The proportion of debt in LBO deals has risen steadily for several years. This has become increasingly important in recent years. However, it should also be mentioned that LBOs are highly sensitive to economic shocks, as was the case during the 2007-2009 period.

Source: LPC cited by Bain & Company, 2019

3.2. The theoretical gap and academic contribution

The theoretical framework provided by traditional finance theories provides a relevant perspective for understanding the development of LBOs, particularly by explaining the mechanisms underlying financing and capital structure decisions. However, despite their merits, these theories also have significant limitations that raise questions regarding the optimal threshold for the trade-off between debt and bankruptcy (Ayash and Rastad, 2021 ; Ayash, 2020). These operations have been described in relation to value creation, employment, investment, innovation, and strategy (Easterwood et al., 1989 ; Andrade and Kaplan, 1998 ; Harris et al., 2005 ; Tykvov and Borell, 2012 ; Ayash and Rastad, 2021). The increased risk of bankruptcy in these transactions is exclusively explained from the perspective of traditional finance (Ayash and Rastad, 2021). Regarding the real effects of LBOs on companies, there is a lack of consensus among researchers and practitioners regarding the effectiveness and sustainability of LBOs. This situation underlines the importance of complementary analysis of the theories underlying LBOs to better understand their practical implications and the challenges they encounter. With this objective in mind, the critical period of financial distress

and the real impact of the deal were analyzed. However, the reader should first be made aware of the limitations of the existing theories, which will enable us to identify the various theoretical gaps addressed in the remainder of this essay.

As far as agency theory is concerned, it is possible that in a situation of financial distress in an LBO, unresolved conflicts may remain or new conflicts may emerge. While increased debt has the merit of reducing agency conflicts between managers and shareholders through an alignment of interests (Jensen, 1986, 1989), excessive debt can exacerbate these conflicts by increasing pressure on managers (Betker, 1995 ; Taatian, 2021). In such an environment, managers may take excessive risks to generate sufficiently high returns to cover the cost of debt. This may increase the mismanagement of managers. Furthermore, with very high levels of debt and the problem of incompleteness inherent in any contract (Tirole, 2009), the source of agency conflict and pressure on the manager may become different. Creditors who hold a company's debt may exert considerable pressure on the executive by virtue of their new status. Contractual clauses skillfully negotiated at the time of the LBO may give them considerable leverage (Harner, 2011 ; Harner et al., 2014 ; Baird and Rasmussen, 2009). In this situation, there is a significant risk of divergence between the managers and stakeholders. This possibility of divergence makes the cognitive factor crucial factor (Curseu et al., 2016). These factors encourage us not only to analyze managerial agency conflicts, but also to extend the analysis to other types of agency conflicts. In particular, we focused on cognitive agency conflicts in essays 1 and 2.

However, in the agency relationship and increased pressure from new groups that have seen their power of control grow, an increase in moral risk within the company's managerial decisions is plausible. High levels of debt can force a company to comply with the conditions imposed by creditors, thus limiting its strategic flexibility and ability to take advantage of new opportunities. A financial structure inclined towards excessive indebtedness can thus encourage managers to make decisions with an immediate impact on short-term debt repayments, sometimes even at the risk of abandoning activities with a long-term impact, such as investment (Ayash, 2020). In some cases, social responsibility activities may be affected by severe financial distress. Studies have demonstrated an inverse relationship between the risk of financial distress and a company's ESG performance (Hong et al., 2012 ; Chan et al., 2017 ; Sun and Gunia, 2018 ; Leong and Yang,2021). We draw on these studies to extend the analysis to LBO firms in section 3. However, this is a fairly broad approach because we attempt to analyze the impact of the LBO arrangement as a factor that increases financial constraints and the risk of financial

distress. Essay 3 expands on the exploratory study in Essay 1, which identifies the link between the pressure exerted by vulture funds and reduced vigilance regarding working conditions and supply chain. Similarly, Essay 2 experimentally tests cognitive pressure on managers when they must consider the interests of various pressure groups.

Overall, trade-off theory argues that there might be an optimal level of debt that balances the tax benefits of debt and the costs associated with bankruptcy (see for e.g. Kraus and Litzenberger, 1973 ; Myers, 1984). However, in many LBOs, increasing levels of debt do not appear to be concerned with finding equilibrium. Indeed, increasingly high levels of debt have sometimes been justified by favorable market conditions rather than by the relationship between marginal bankruptcy costs and marginal profits (see for e.g. Axelson et al. 2013), which exposes the company to an increased risk of bankruptcy. Excessive debt in an LBO can be detrimental to long-term value creation by leading to very high and anticipated bankruptcy costs (in the event of restructuring). This is the consequence of the excessive indebtedness analyzed in general terms in this dissertation.

Considering this theoretical gap, this research has several academic implications. Our results challenge the foundations of dominant theories that exclusively justify LBO transactions by failing to consider the crucial relationship between marginal profit and marginal cost of bankruptcy. In traditional theoretical models, debt levels are generally determined based on a company's ability to generate sufficient returns to offset associated risks. However, our study shows that the excessive debt levels often encountered in LBOs exceed reasonable limits by ignoring the potential costs associated with bankruptcy. In particular, our analyses show that these costs are not only financial but also include cognitive costs, such as managerial decision overload, as well as opportunity costs that undermine the long-term value of the company. This highlights the need to reconsider how debt levels are calibrated in LBO transactions, especially in contexts where the probability of bankruptcy is high, by integrating behavioral aspects and the stakeholder approach into financial models.

The first methodological contribution is the innovative use of a qualitative methodology to explore the costs associated with bankruptcy in the first trial. In finance, the qualitative approach is rarely used. Moreover, to the best of our knowledge, this is the first time that this method has been applied systematically and in depth to analyze the costs associated with bankruptcy and the impact of the action of vulture funds on companies under LBO. This approach makes it possible to capture the nuanced and complex dimensions of bankruptcy costs,

which often escape traditional quantitative methodologies, thereby enriching our understanding of financial dynamics at work in these critical situations.

The second methodological contribution concerns the main decision-making experimental task in the context of financial distress in Essay 2. This experiment is based on the Sharpe ratio financial criterion, which is widely recognized in financial decision-making processes but, to the best of our knowledge, has never been used in restructuring experiments. The Sharpe ratio enables us to capture a rigorous decision-making model based on proven financial principles.

4. Research objectives, hypotheses and methodology

The main objective of our research is to propose an explanation for the inefficiencies observed in LBO transactions by exploring another theoretical framework. Although traditional approaches such as agency theory explain some of the observed failures, we believe that other theoretical perspectives can shed additional light. Thus, we contribute to the literature on bankruptcy costs by exploring agency relationships, cognitive governance, and optimal capital structure.

To achieve this objective, we analyzed LBO companies in three different essays, each exploring distinct hypotheses that allow us to divide the main objective of our research into specific objectives, allowing us to deepen our analyses (Morse, 2003). Given the nature of the hypotheses developed in each of the three essays, we employed different methodologies. In the first essay, we develop two exploratory hypotheses through qualitative analysis using an in-depth case study. The second essay focuses primarily on the experimental hypotheses. In this study, an experimental analysis was conducted through a controlled experiment involving managers from the USA and the UK. The third essay empirically tests the impact of LBOs on corporate ESG engagement by examining two quantitative hypotheses. In this study, a quantitative analysis based on financial and non-financial data was conducted to assess the impact of LBOs on long-term investments.

By combining qualitative, experimental, and quantitative hypotheses and methodologies, our aim is to offer a more comprehensive and nuanced view of the implications of agency relationships and capital structure in the context of LBOs and situations of financial distress. This multidimensional approach not only enables us to test our hypotheses more rigorously but also provides sound practical recommendations for improving the upstream conditions for

setting up deals with targets and the downstream management of companies under LBO, particularly those facing financial distress.

For each of the three essays, let us briefly present the hypotheses tested and each of the three methodologies used, considering the specific problems of each essay. The justification of the hypotheses and a more detailed description of each methodology are provided in the respective sections of the different essays in this dissertation.

4.1 Essay n°1 : Vulture funds, cognitive costs and LBO bankruptcies

The first essay analyses the role of vulture funds in the bankruptcy of LBO companies. The aim is to examine the impact of these actions on the valuation of companies undergoing restructuring. Specialized in the acquisition of distressed companies, these funds can accelerate liquidation or restructuring under an LBO. This essay aims to demonstrate how their intervention is destabilizing by measuring the effect of these practices on company value and inefficiencies in times of crises. Two main exploratory hypotheses were tested:

- *Hypothesis 1: Vulture funds find it easier to act on financially distressed companies subject to LBO;*
- *Hypothesis 2: Actions by VFs increase the cognitive costs of financially distressed companies under LBO, which in turn increase in the probability of their bankruptcy.*

To address these hypotheses, we used a case study methodology. The case study was carried out on two French groups in the clothing sector that were bought by LBOs in the mid-2000s: Vivarte and Camaïeu. Given the issues addressed and the nature of the empirical material, the case study was the most appropriate method for this first essay. This methodology enabled us to explore in depth the internal dynamics of companies under an LBO, as well as the interactions between management and vulture funds. Using this approach, we were able to analyze the role of vulture funds (VFs) in companies in financial distress, as well as the impact of divergences between these funds and management on the company's bankruptcy trajectory.

4.2 Essay n°2 : Cognitive Load, Social Values, and Financial Distress: Drivers of Restructuring Decisions

To study the impact of managerial variables on restructuring decisions in LBO companies in depth, the second essay proposes two hypotheses:

- *Hypothesis 1: Managers under cognitive load avoid debt increases and prefer massive layoffs to restructure distressed companies under LBO ;*
- *Hypothesis 2: Managers with strong social value orientations avoid massive layoffs and prefer to increase debt to restructure distressed companies under LBO.*

Furthermore, we explored the link between the variables of interest and moral judgment rules. For example, we examined whether managers with a high cognitive load follow more deontological rules, favoring the moral correctness of their decisions.

In examining these hypotheses, Essay 2 aims to measure the influence of contextual elements affecting managerial behavioral variables on restructuring choices. As mentioned, traditional approaches often neglect the importance of managerial decisions, even though they may explain the inefficiencies of LBOs.

To test the hypotheses of essay 2, we used an experimental methodology. This methodology involves testing experimental scenarios by manipulating behavioral variables specific to managers. Given the nature of the variables studied, the experimental design proved to be most appropriate for essay 2. Using this methodology, we were able to complement and corroborate some of the results obtained in essay 1 by proving that the effect of cognitive costs on restructuring outcomes can be explained by the link between cognitive variables and changes in managerial preferences. Essay 2 enables us to examine the impact of cognitive load and social values on restructuring decisions.

4.3 Essay n°3 : LBO and ESG commitment

The third essay examines the financial constraints of LBOs and their impact on companies' commitment to ESG. The aim is to analyze how increased financial pressure linked to debt associated with LBOs affects companies' ability to maintain their ESG commitments. The following two hypotheses were tested:

- *Hypothesis 1: At the time of the LBO deal, all things being equal, target firms have higher ESG activities than their counterparts ;*
- *Hypothesis 2: During the post-deal period, LBO targets are likely to reduce their ESG commitment.*

To answer these hypotheses, we used a quantitative methodology. This methodology involves econometric tests to assess the impact of LBOs on a company's ESG commitment. Therefore, this study is an empirical analysis of financial and extra-financial data. This study also provides an in-depth analysis of the effect of LBOs on the costs associated with bankruptcy, particularly in terms of the opportunity costs associated with a reduction in ESG commitment. It also examines the strong financial constraints of companies under an LBO compared to their peers. The analysis highlights an increase in financial distress as a characteristic of LBO companies. Using this method, we were able to demonstrate that the ESG commitment of LBO companies is negatively affected by LBO operations.

5. Summary of main results

The first empirical result of our research documents the reasons vulture funds (VFs) find it easier to attack financially distressed LBO. These reasons can be summed up as a match between the objectives of the VFs and the characteristics displayed by financially distressed LBO companies that facilitate VFs (see Essay 1). In Essay 1, we explain that characteristics such as vulnerability to exogenous shocks for companies that remain profitable despite the burden of debt service, the existence of several tranches of debt with different contractual conditions, and the large number of creditors involved in these operations are factors that make it easier for VFs to operate. Because the targets are often success stories, media attention is likely to amplify the campaigns of VFs when they resort to unconventional methods to achieve their goals.

Additionally, the characteristics of distressed LBOs allow VFs to introduce valuation bias into their targets. In addition to the debt discount, these valuation biases can be introduced during various negotiations to restructure distressed companies. For example, VFs can rely on the nature of the contractual clauses, which very often favor debt-for-equity conversions, and on terms that are more favorable to the VFs. Given the ability to use negative media campaigns

and other unconventional methods, VFs will find it relatively easy to change the valuation of a target in one direction or another. These elements were developed in more detail in Essay 1.

The second result concerns the negative impact of cognitive costs on the probability of bankruptcy and firm value (EV). The distressed situation of LBO firms and the limited margin of action available to managers may accelerate a firm's bankruptcy. These two factors are exacerbated by changes in the distribution of power among stakeholders. The agency relationship and the main potential source of agency costs are no longer simply between the manager and shareholders but are also becoming much more important between the manager and creditors. Managers must consider the interests of shareholders, creditors, and possibly employees if unions have significant bargaining power. These divergences give rise to what the literature defines as cognitive costs. In essay 1, we document how these divergences increase the indirect costs of bankruptcy through management errors, social crises, demotivated employees, etc.

To deepen our explanations of cognitive costs, we extended our analysis in Essay 2 to an unobservable but experimentally tested variable: cognitive load. This essay shows how cognitive load affects restructuring decisions in the context of LBOs in financial distress. In particular, it leads managers to avoid decisions that affect the most powerful pressure groups to the detriment of employees who often have little bargaining power. This result can be explained by the manager's search for a decision with the least negative consequences (easier decisions). This would be an easy solution for the manager, as explained in more detail in Section 2.

Furthermore, our results show that managers are less inclined to follow deontological logic when faced with high mental workloads.

Given the multidimensional nature of human beings, we were interested in the degree of social sensitivity of the manager, in addition to cognitive load. This variable was selected based on the calibration of the experiment. Among the restructuring decisions studied, one involved a decision hostile to employees. Therefore, we had to check whether a manager might not have chosen to always lay off, regardless of the situation, because he is simply less sensitive to social values. In a regression model incorporating the two variables and other control variables, we found that one factor does not exclude the other. Specifically, we find that managers with a strong preference for social values avoid decisions to lay off large numbers of employees, and prefer to increase company risk. However, they may dismiss in certain situations when the risk-

return premium is significant (with reference to the inverted Sharpe ratio) (see essay n°2 for full documentation).

Furthermore, our results show that managers are less inclined to follow utilitarian logic when they are highly sensitive to social values.

Testing the effect of LBO transactions on LBO targets compared with peer companies, we find that LBO transactions are negatively associated with a company's ESG commitment. Companies under an LBO initially have lower ESG scores than their peers, and fail to increase their ESG commitment after the transaction. Although we expected the opposite result in view of several arguments suggesting that companies in which investment funds are involved may value their activities more highly, we conclude that the increase in these companies' financial constraints is the main factor explaining their decline in ESG commitment. This is because managers are not prepared to invest in activities that have only a long-term impact on value when they have short-term financial objectives. ESG activities do not seem to be a priority for investors at the time of target selection or management during the post-target period because they prioritize short-term returns during the post-deal period. This result calls for better consideration of the ESG policy before and after the LBO deal.

The purpose of this general introduction was not only to present the problem and the general context of this research, but also to review the main elements addressed in the various essays of this thesis. After this introduction, the rest of the thesis is divided into three research essays. All the essays that constitute the chapters of this dissertation have similar structure. Each essay begins with an introduction, setting out the problem and the specific question addressed in the chapter. Each essay then reviews the literature and the specific context, and presents the research hypotheses. The research design is then explained, including the sample selection, empirical model specifications, and variable definitions. The results are discussed, including a descriptive analysis of the sample and regression results. Finally, each essay concludes with a summary of the results and implications. Finally, we present a general conclusion that recalls the objective pursued, how we proceeded to achieve this objective, and the main results obtained. In this section, we discuss some of the limitations encountered in this research and conclude by proposing an avenue for future research on the issues addressed in this dissertation.

Essay 1
Vulture funds, cognitive costs, and LBO bankruptcies[5]

Abstract

The financial distress of companies subject to leveraged buyouts (LBO) might help explain their bankruptcy. The current research establishes a link between the presence of vulture funds and an increased probability of bankruptcy following LBOs. With an exploratory study, the author reveals that the characteristics of companies under LBO facilitate the actions of vulture funds, whose strategy is not limited to the use of discretionary control power but also extends to unconventional methods, such as media campaigns and other informal tactics. Such actions by vulture funds contribute to increase the chances of bankruptcy, through two main routes: different biases in valuation at each stage of action and residual cognitive costs. Notably though, the increase in cognitive costs created by divergences between managers and vulture funds is unrelated to managerial competence.

JEL Codes: G41, G34.

Keywords: Leveraged Buyouts, Vulture Funds, Financial Distress, Corporate Restructuring

[5] This chapter refers to the article entitled "Vulture funds, cognitive costs, and LBO bankruptcies" published in *Finance Contrôle Stratégie* Review, 2024, Vol. 27 No. 2 : https://journals.openedition.org/fcs/12700

1. Introduction

In a company's lifecycle, periods of financial distress represent particularly critical stages, likely to produce a definitive disappearance (bankruptcy) or at least deeply profound changes (e.g., loss of skills, dilution of shareholders, substantial modifications to the capital structure). Yet the ultimate consequences of financial distress also vary with the configuration of the firm. For example, a leveraged buyout (LBO) configuration arises if the firm seeks to become efficient by reducing its managerial agency costs (Jensen, 1989). Through a financial leverage effect, LBOs enable the firm to increase its return on equity through debt (taking taxation into account); a legal leverage effect also stems from the parent-child integration linked to LBOs (Poniachek, 2019). Ongoing debates center on the ability of LBOs to create value or jobs (Kaplan, 1989a, 1989b ; Lehn and Poulsen, 1989 ; Harris et al., 2005 ; Goergen et al., 2011 ; Goergen and Wood, 2014), but more generally, LBO targets tend to be more vulnerable to shocks and riskier than comparable firms (Andrade and Kaplan, 1998; Guo et al., 2011; Pommet, 2012 ; Tykvová and Borell, 2012 ; Bédu and Palard, 2014 ; Ayash and Rastad, 2020). A company subjected to an LBO enters into a state of financial distress, from the moment it experiences a covenant breach that constitutes a payment default (Altman et al., 1994). In turn, the likelihood of its bankruptcy increases, such that it may culminate in a state of insolvency. During this period, some stakeholders risk losing all or some of their rights. These "residual claimants" (or "residual creditors") incur a "residual risk" of losses (Fama and Jensen, 1983).

Noting the importance of debt for LBOs, the current study also considers the implications of the behavior exhibited by vulture funds (VFs), a specific category of residual creditors. These specific types of hedge funds specialize in intervening in distressed companies, purchasing their debt and implementing strategies aimed at generating capital gains (Gietzmann et al., 2018). Unlike other types of hedge funds, such as turnaround funds, private debt funds, or LBO funds, VFs engage in speculative investment activities in financially distressed companies. They initially emerged in the field of sovereign debt, but their practices have extended to focus on indebted companies in financial distress, with the same general modus operandum (Schumacher et al., 2021; Lequesne-Roth, 2018). That is, they repurchase debt that has been discounted due to increased risk, then manage it with the explicit goal of increasing their returns (Lequesne-Roth, C., 2018). Because of their strong preference for a very short-term returns on their

investment, VFs' activities can jeopardize the survival of the companies they buy (Ito et al., 2023). Their strategies sometimes are extralegal; they are clearly linked to corruption and influence peddling, thus calling into question the moral integrity of VFs (Bayliss et al., 2023; Scott, 2019).

Furthermore, VFs apply investment strategies in such a way as to become influential residual creditors, with substantial control power, to the detriment of the company's other stakeholders (Baird and Rasmussen, 2009 ; Harner, 2011 ; Harner et al., 2014). As previous research has shown, residual creditors with significant control power can influence company value during the restructuring process by exploiting the discretionary power conferred to them by bankruptcy law (Gietzmann et al., 2018). Moreover, valuations carried out during a corporate turnaround process tend to incorporate not only managers' private information but also the interests of influential actors (Franks and Torous, 1989 ; Gilson, 2000 ; Lehavy, 2002). Plausibly then, as influential residual claimants, VFs actively adopt strategies to influence the company's default trajectory in ways that will maximize their gains. According to Gietzmann et al. (2018), VFs' returns derive not from their superior managerial skills but rather, at least in part, from their efforts to introduce valuation biases into the turnaround process of financially distressed companies.

Even if the presence of VFs clearly can influence the bankruptcy process for companies subject to an LBO, their specific practices and the channels through which they introduce bias into the valuation process have not, to the best of our knowledge, been the subject of any in-depth analyses. In an effort to fill this gap, we examine two specific LBO failure cases and document how actions by VFs affect their bankruptcy trajectories. By considering the link between the characteristics of failing LBOs and the actions of VFs, we propose hypotheses regarding how these funds introduce valuation biases at different stages of the process. We also analyze the actual strategies deployed by VFs, as a function of their discretionary power, which stems from bankruptcy laws but also some unconventional methods. Because the bankruptcy processes of the studied companies resulted in progressive losses of value, until their ultimate judicial liquidation, we also examine the impact of the VFs' actions on the company's value in an attempt to explain the bankruptcy trajectory.

An alternative view suggests that managers might be interested in cooperating with VFs, to avoid long, unsuccessful reorganization procedures and preserve their own careers at risk (Brav et al., 2008), in the belief that VFs can offer them better incentives. Furthermore, it is legitimate

to ask whether the managers of distressed LBO companies use the private information at their disposal effectively to get the company out of financial distress. Similar to Brockmann and Fornaciari (2004), we draw on a strategic choice perspective (Ansoff, 1988) and upper echelon theory (Hambrick and Mason, 1984), such that we position the manager as a key figure and assume his or her managerial decisions reflect the perspectives of the entire LBO management team. With this theoretical framework, we assert that the manager's performance is decisive for the company's survival, so VFs seeking to increase their power and performance must find ways to influence managers' decisions, with means that help them achieve their objectives. For existing shareholders though (including executives, who are often minority shareholders), the interaction between VFs and the executive might create divergences that influence the LBO outcomes. Accordingly, we explore how cognitive costs, which arise due to a lack of understanding between the executive and various actors at the corporate governance level (Wirtz, 2006), affect LBO outcomes. This notion is in line with the theory of transaction costs (Williamson, 1985), particularly with regard to exploiting the limits inherent to the incomplete nature of contracts (Tirole, 2009). With this research, we explore the effects specifically in the context of cognitive governance (Charreaux, 2002b). As Curseu et al. (2016) explain, in conflict situations (e.g., between the manager and VFs), cognitive factors become a primary source of decision-making errors.

With a case study methodology, we explore these predictions and attempt to explain the increased probability of bankruptcy among financially distressed LBOs. To analyze the cognitive costs, we gather statements by managers and informed sources, with insights into the two cases we study, namely, Camaïeu and Vivarte. The empirical material consists of press data on their LBOs. Prior to their bankruptcies, both companies operated in the same sector, which provides a homogeneous context for comparing their strategies and identifying differences in their bankruptcy trajectories. Such strategic heterogeneity helps enrich the findings. The successive LBOs associated with these two companies led them into states of excessive financial leverage, explaining their financial distress, as confirmed by both participant testimonies (M.A1 and M.A3) and press data (e.g., L'AGEFI on February 12, 2014, for Vivarte; Les Echos of May 09, 2018, for Camaïeu). The LBO packages spanned the same general periods, which included both the 2008 subprime crisis and the COVID-19 pandemic. Thus, we can eliminate irrelevant variables without compromising the external validity of the results.

In the next section, we present elements of the conceptual framework that underlies our research. Then we discuss the case study methodology and present a brief history of the focal cases. Finally, we present the results of our explorations.

2. Conceptual framework

In establishing our conceptual framework, we start by addressing cognitive governance (2.1), then review literature pertaining to residual creditors and the actions of VFs toward distressed companies (2.2). Finally, we consider the relationship between cognitive costs and firm value (2.3).

2.1. Bankruptcy according to a cognitive governance approach

The relevance of the multiple approaches used to study the probability of corporate failure in relation to corporate governance varies according to specific institutional and historical circumstances (Hodgson, 1998). For this study, we adopt cognitive governance as our theoretical approach (Charreaux, 2002a; Charreaux, 2002b), in light of the institutional circumstances (e.g., changes in the governance of LBO companies) and historical events, such as the financial distress of the LBO company and the resulting managerial divergences. Cognitive governance captures the conflicts of interest and tensions associated with financial distress, by focusing on how stakeholders' beliefs, values, and perceptions shape their decisions (Charreaux, 2002b). Because it offers valuable insights into the complex dynamics of distressed companies, it can complement traditional theories, such as agency (Jensen and Meckling, 1976), contractual (Hart, 2001 ; Tirole, 2010), and transaction cost (Williamson, 1988). In addition, cognitive governance approaches highlight costs similar to those described by managerial agency theory (Jensen and Meckling, 1976), as Wirtz (2006) establishes by linking monitoring costs to the cognitive costs of mentoring. Bonding costs also correspond to the cognitive costs of persuasion, and residual losses correspond to residual cognitive costs.

2.2. Financial distress

2.2.1. Residual creditors and vulture funds

When a company is in financial distress, all actors with any residual interest in the company seek to protect those interests. Because they bear the residual risk associated with the company's bankruptcy, they are referred to as residual claimants (Fama and Jensen, 1983); they can be

classified as shareholders, creditors, suppliers, the state, or employees. This last category is particularly important, because in LBO contexts, employees often are the first to bear risk (Black, 2001 ; Kim, 2022). However, for the purposes of this study, we focus on the behavior of creditors, and VFs specifically, in interaction with two other stakeholders: management and shareholders. In this setting, VFs have a distinct role: They are creditors during the first phase of action, but they also might become shareholders and act as such during latter phases (Gietzmann et al., 2018). When VFs transform, from creditors to shareholders, they alter their strategies, which can influence the company's valuation in various ways, as detail subsequently, in the Results section. To achieve their return objectives, VFs use unconventional methods, designed to optimize the risk–return trade-off associated with their investments at each strategic stage (Scott, 2019 ; Bayliss et al., 2023). If their goal is to buy out a target's debt, they generally seek to cause a discount, to reduce its value (Lequesne-Roth, 2018); if they seek to take control of their target through equity participation, they might try to invoke a valuation bias to their advantage (Gietzmann et al., 2018).

2.2.2. Choice of financial distress context: France

To achieve their objectives, VFs need targets that are vulnerable but that also entail a manageable level of risk. Both conditions must be met for VFs to achieve their objectives, and LBO companies in default uniquely align with these conditions. That is, these companies are vulnerable to exogenous shocks (Andrade and Kaplan, 1998 ; Guo et al., 2011 ; Tykvová and Borell, 2012 ; Wilson and Wright, 2013 ; Bédu and Palard, 2014; Ayash and Rastad, 2020) but also have contracts that are sufficiently robust to protect contractors, more so than classic managerial firms (Jensen, 1989; Harris et al., 2005). Most LBO contracts are designed by professionals with the explicit aim of anticipating the various risks that might be incurred by stakeholders. They thus include a wide range of clauses, such as debt-to-equity swaps, waivers, earn-outs, and Representations and Warranties. Yet incompleteness is inherent to all contracts (Tirole, 2009), so VFs can influence the negotiations of defaulting LBOs to achieve their capital gain objectives. Similarly, multiple debt tranches in LBOs offer VFs more opportunities, in that they can focus on a particular debt tranche or build a weighted portfolio of different tranches to manage their risk.

The French LBO context also features some particularities that make it especially relevant for analyzing the impact of VFs. In particular, LBO arrangements have been increasing in prevalence in France (Figure 1.1). Following a 2005 reform, French bankruptcy law has leaned

more toward U.S.-inspired approaches (Stankiewicz Murphy, 2011), which are more favorable to creditors, meaning that they can significantly influence the outcomes of restructuring negotiation processes (Stankiewicz Murphy, 2011; Gietzmann et al., 2018). In contrast, French bankruptcy law historically was more favorable to job preservation (Blazy et al., 2011). Other European countries also have been inspired by U.S. laws, but Belgium, for example, also added specific legislation to limit the impact of VFs, whereas France did not (Sourbron and Vereeck, 2017). In France, the Sapin II law, passed in 2016, sought to ensure business ethics, but it is questionable whether it has had any effect on the bankruptcy trajectory of companies of our study. Thus, it is plausible to anticipate that VFs actively seek out French companies subject to LBO. These various elements justify our investigation of the French context to test our first exploratory proposal:

P1. Vulture funds find it easier to act on financially distressed companies subject to LBO.

[Insert Figure 1.1. here]

2.3. Cognitive costs and company value

2.3.1. Integrating cognitive costs into the explanation of failure

The effectiveness and popularity of LBOs result from the strong managerial discipline and incentives available through these financing mechanisms. As a result, managerial agency problems significantly diminish in LBOs (Jensen and Meckling, 1976 ; Jensen, 1989). However, the residual demand that persists in a default setting suggests a challenge to this assertion. Managerial decision-making for companies in financial distress cannot be analyzed solely with conventional approaches, because the shifting balance of power, involving residual creditors seeking to protect their interests, forces managers to consider the demands of the most influential residual creditors. In particular, they must acknowledge the interests of the VFs, whether because they have greater control power than other residual creditors (Baird and Rasmussen, 2009; Harner, 2011; Harner et al., 2014) or because they have means to exert significant pressure on managers (Brav et al., 2008). Intense disagreements between the manager and various residual creditors also can arise, depending on their bargaining power.

Such disagreements incur costs, linked to differences in viewpoints, ideas, or opinions at the decision-making stage (Jehn, 1995). According to Wirtz (2006), these costs are cognitive in nature and comprise mentoring, conviction, and residual costs. Mentoring costs result from having to bring managers' behavior in line with current practices; conviction costs are related to understanding the intrinsic value of a new project; and residual costs refer to all other costs resulting from any misunderstanding among various stakeholders. In the exceptional situation created by a firm's financial distress, it often needs to pursue novel projects to avoid bankruptcy, which likely increases its conviction costs. It also tends to experience greater divergence, which implies an overall increase in costs. For the current study, we propose that influential residual creditors (VFs and shareholders) exert the greatest impact on these costs, because of their significant power to exert pressure. Accordingly, we focus on the actions of VFs, first as creditors and then as shareholders.

2.3.2. Impacts of cognitive costs on company value

The capital asset pricing model (CAPM) establishes a relationship between the cost of capital and a company's level of risk. However, it is based on a restrictive assumption, namely, the total absence of uncertainty. To challenge this restrictive assumption, we draw on previous work (Gietzmann et al., 2018; Wirtz, 2006) and acknowledge how uncertainty associated with disagreements might increase the level of risk for the company, particularly in the presence of VFs and in contexts marked by financial distress. Taking cognitive costs into account during the valuation process arguably should enhance the ability of models, such as CAPM, to predict the outcomes of companies in financial distress. A similar reasoning underlies research that identifies the influence of managerial costs on stock prices (Jensen and Meckling, 1976).

From an empirical perspective, the link between cognitive costs and company value reflects actions taken by VFs, which can produce a valuation bias in their favor during restructuring negotiations (Gietzmann et al., 2018). To induce changes in a company's valuation that enable them to profit, VFs leverage their capacity to influence reorganization negotiations and tilt control rights in their favor (Hotchkiss and Mooradian, 1997; Kahan and Rock, 2009; Jiang et al., 2012; Lim, 2015 ; Ivashina et al., 2016). At the company level, VFs are unlike hedge funds in that they choose to invest specifically in financially distressed companies, but otherwise, their strategies and objectives tend to be similar to those of hedge funds. Although some studies suggest positive effects of hedge fund involvement (see Lim, 2015), research on VFs usually

specifies negative effects, such as excessive control, to the detriment of other stakeholders (Baird and Rasmussen, 2009; Harner, 2011; Harner et al., 2014).

For failing LBOs, risk-taking and decision-making functions can be separated, and thus further problems arise, due to diverging interests. In the presence of VFs' significant bargaining power, these divergences incur cognitive costs that affect the valuation of the company and therefore its bankruptcy probability. To determine the extent to which the presence of VFs accelerates a company's bankruptcy, we turn to previous research that implies two key mechanisms by which VFs might induce such downgrading: (1) press campaigns to alter the quality of information held by creditors and shareholders (Defond and Zhang, 2014) and (2) contractual and bankruptcy law mechanisms that guarantee some certain level of discretionary power to creditors (Gietzmann et al., 2018).

It is worth mentioning that over-indebted companies do not make growth investments but instead are likely to reduce their investment budgets and operating expenses (Myers, 1977). Restructuring leads to a range of "low road" strategies to mobilize more cash, such as by minimizing labor costs and selling off assets (Cremers and Vitols, 2016). Financially distressed companies under an LBO might resort more to such strategies in the presence of VFs, because of the constraints they face, linked to debt and the VFs' target returns. Adopting these strategies represents an easy solution for managers, but it does not solve the company's real problems or financial distress; instead, it might exacerbate these problems in the long-term, potentially leading to the loss of skills and diminished employee motivation (Ashta et al., 2005). In view of these elements, we offer a second exploratory proposal:

P2: Actions by VFs increase the cognitive costs of financially distressed companies under LBO, which in turn increase in the probability of their bankruptcy.

3. Methodology

3.1. Case study

The default period of an LBO is both complex and dynamic, characterized by substantial and complementary financial contracts, increased power of creditors, and conflicts of interest among residual creditors. These characteristics make case studies advisable (Wirtz, 2000). In contrast with studies that explain LBO failures in terms of financial fundamentals, we explore the phenomenon from a cognitive approach and according to the impact of VFs' actions. To

explain failure, based on the behavior of the actors involved in the target company, we require an in-depth examination of their interactions. In turn, we adopt a processual case study method (Pettigrew, 1997 ; Yin and Ridde, 2012, Langley et al., 2013). With an exploratory approach, this analysis examines the failure process over time to derive new insights, according to a cognitive theoretical approach (Eisenhardt, 1989 ; Dyer and Wilkins, 1991; Woodside and Wilson, 2003).

3.2. Empirical data

3.2.1. Collection of empirical data

The empirical material consists of secondary textual data and semi-structured interviews. The secondary data represent statements by informants to the press, including managers, employees, union representatives, and professional experts in the field. We extract these data according to a longitudinal logic. The semi-structured interviews involve middle managers, and we use these data to triangulate the findings.

In more detail, we collected the press articles that contain relevant secondary data from the Factiva database, spanning an 18-year period (01/01/2006 to 31/12/2023). We focused on three main online financial press sources: Les Echos (based in France), AGEFI (based in Switzerland), and Le Figaro (based in France). We integrated other sources selectively if they had exclusive interview rights. Thus, the comprehensive data collection also includes data published in La Tribune, Le Figaro, Option Finance, Capital Finance, and Challenges, along with two generalist sources, Le Monde and Agence France Presse. The choice of sources specializing in finance was informed by the frequency of publications relating to the focal cases and availability on Factiva. Thus for example, we did not rely on CFNews, though with a verification check, we confirm that CFNews contains very similar information.

The three main sources are ideologically liberal, which helps strengthen the validity of the results by reducing an ideological bias that might corroborate the capital owners' actions. In addition, the Swiss-based AGEFI provides a form of diversification. This newspaper is frequently cited as a highly specialized medium that helps predatory investors destabilize their targets (Depallens, 1980 ; Duval, 2015), making it a particularly relevant source of data to address the problem we study. Furthermore, to reduce possible ideological bias, Lorda (2001) suggests considering sequences and the thematic domain (including the identity and activity of the selected actors). Accordingly, for this study, we sequenced the actors' statements. Although

executives' statements are privileged, the actors quoted in the press have diverse roles and a good command of the issues, reflecting perspectives both inside and outside the company. Even if taking some position is inevitable when disseminating information, Lorda (2001) asserts that the difference between commentary versus informative newspapers ultimately is less important, because all commentaries aim to fulfill an informative function.

The seven direct interviews include five middle managers and two experts, as detailed in Table 1.1. With these interviews, we sought to obtain new insights, as well as triangulate the information available from the secondary press data.

[Insert Table 1.1. here]

For in-depth accounting and financial analyses, it can be difficult to gain access to relevant data about companies facing financial difficulties (Breitkopf and Elsas, 2012). Companies under LBO also tend to be delisted, to avoid the obligation to publish their financial statements. Despite these constraints though, we collect pertinent financial information, by relying in secondary sources. But in addition, we focus on qualitative and exploratory analyses, which means that we do not rely exclusively on financial data to draw conclusions. The absence of a fully detailed financial analysis does not necessarily call into question the validity of our results, which are based on an exploratory approach aimed at understanding the influence of disagreements surrounding financially troubled LBO companies on their bankruptcy.

3.2.2. Validity assessments

We conducted a content analysis, involving three techniques (floating reading, lexicometric analysis, and coding into units of analysis), before engaging in the inference and interpretation steps. With floating reading, we organize the empirical material by selecting relevant press articles that refer to our research objectives. By using lexicometry (content analysis), we gain a better understanding of the various data collected and thereby update the systems of representations conveyed by discourse (Blanchet and Gotman, 2001). In cognitive psychology research, this technique supports the evaluation of basic dimensions of mood or emotion, such as positive or negative affect (Gray and Watson, 2007). Finally, in the coding process, we determined the structure of the corpus of data according to a reduced number of categories,

directly linked to the divergences between residual creditors and managers. With this analysis, we can make inferences about issuers (through the comments of managers, shop stewards, employees, and experts) and search for meaning in the information contained in press articles. We also extended this analysis to implicit content, to detect key causes of the bankruptcy of the LBO targets.

The approach is based in grounded theory, which asserts that theories cannot be derived from raw data but instead require conceptualization, categorization, and propositions (Glaser and Strauss, 1967; Corbin and Strauss, 1990). With an iterative approach, closely linked to the data (Eisenhardt and Graebner, 2007), the coding process, focused on identifying units of analysis, gave rise to 14 themes, defined according to the content of the press articles. In most cases, a unit of analysis corresponds to a paragraph in an article, though sometimes more than one paragraph.

In line with the processual approach, a technique akin to storytelling serves to highlight the links among the various events surrounding the default process and cognitive mechanisms. This technique makes it possible to establish a link between the vulture funds' actions and the company's loss of value.

Finally, generalizing case study findings is a persistent challenge to research using this method (Yin, 2013). To strengthen the internal validity of our findings, we used a rival explanation and logic modeling technique. The relative richness and diversity of the two cases, particularly in terms of the strategic dimensions and number of actors involved, supported the derivation of rival explanations. In addition to the comments in the press articles representing the views of a wide variety of informants, we achieved triangulation with the interview data. We draw on previous work for the analytical generalization (Yin, 1994). In addition to the possibility of an intra-case analysis, greater abstraction helps reinforce replicability. Finally, logical consistency and the principle of parsimony (Eisenhardt, 1989), as achieved by focusing on cognitive causes, tend to offer a good degree of empirical validity.

4. Case studies

4.1. Camaïeu Group

Camaïeu is a French textile group, founded in 1984 in Roubaix by four partners. After its creation, the Camaïeu Group experienced strong growth and international expansion, which

justified several transactions in the 2000s, including stock market flotation and two successive LBOs. However, the debt burden resulting from the two successive LBOs, in 2005 and 2007, left Camaïeu in financial difficulty. Figure 1.2 offers a more detailed summary of the history of the Camaïeu Group.

For the purposes of this research, we focus more specifically on the dynamic context during the study period. After its second LBO in 2007, a shock, in the form of diminished demand in the ready-to-wear sector, heralded future difficulties, though they did not become fully evident until its main shareholder (Cinven fund) struggled with a delisting in 2011. This action created a series of challenges for both minority shareholders (with blocking rights) and creditors. Negotiations were delayed, mainly due to disagreements over delisting valuations. Without the delisting, which was intended to guarantee the company's leverage, particularly in tax and operating terms, the management team could not find a way to repay its debt. The disagreements over valuation offered just one example of the ongoing, dynamic divergences that characterized the entire default period, from 2010 to 2022. Despite its successful international strategy and omnichannel positioning, Camaïeu became easy prey to VFs, as its sector continued to lose momentum as well.

4.2. Vivarte Group

Founded in 1896, the Vivarte Group served as a benchmark in the French textile industry. In the 2000s, it underwent several transformations, including two LBOs, in 2005 and 2007, after which its financial situation deteriorated steadily. The company's eventual bankruptcy necessitated the group’s liquidation and resulted in court proceedings throughout the 2010s. After 125 years, Vivarte was liquidated in 2021. Figure 1.3 depicts the key dates in its long history.

In the post-LBO period in particular, we note a series of significant events. Following the 2005 LBO, the subprime crisis of 2007 prompted diminished sales growth in the apparel sector. Vivarte’s fragile financial structure exacerbated the impact of the crisis. Despite a strategy initiated by the CEO to increase the number of points of sale, the group was unable to make the necessary investments in key areas, such as omni-channel positioning and digital development. In turn, it found itself unable to finance its investments; the debt arising from the LBO absorbed all of its liquidity. As a former board chair pointed out, "Cash is the King.” Although the group seemed to be prospering when its former CEO left in 2011, this period of prosperity proved short-lived. The group's financial health, seemingly solid with a profitability peak of €411

million EBITDA in 2011, declined to €360 million in 2012, before plummeting further a few years later (see Table 1.4, provided in the Results section). These growing challenges prompted several restructurings, but the initiatives also opened the group up to attacks by VFs. These attacks exacerbated its difficulties by generating cognitive costs, especially residual cognitive costs, resulting from the divergences between the management team and VFs.

The changes in management, at both Camaïeu and Vivarte, bear witness to the complexity associated with both groups and confirm the presence of significant divergences between management and VFs. With this exploratory study, we highlight how such failing LBO companies can become easy prey for VFs, how VF strategies contribute to the already difficult financial situation, and thus how probability of bankruptcy increases, due to the increase in cognitive costs.

[Insert Figure 1.2 here]

[Insert Figure 1.3 here]

4.3. Identifying vulture funds

To identify the VFs involved in our cases, we refer to a list provided by Distressed-Debt-Investing.com, as also used by Gietzmann et al. (2018). The funds on this list can be defined as VFs, due to their modus operandi, which involve a loan-to-own strategy that targets financially distressed companies. Thus, we can identify the presence of at least one VF during each major restructuring by Vivarte and Camaïeu (Table 1.2).

[Insert Table 1.2. here]

The list in Table 1.2 is not exhaustive though; some hedge funds involved with the Vivarte or Camaïeu restructurings also might function as VFs, such as Sculptor Capital Management (formerly Och-Ziff), which was present in Camaïeu's restructuring in 2018. The initial

shareholders of the LBO setups had to exit following various restructurings. Thus for example, Cinven saw its stake diluted during the 2013 and 2016 restructurings and finally withdrew from Camaïeu in 2018. The Charterhouse's stake in Vivarte was diluted as early as the 2014 restructuring.

5. Vulture funds, cognitive costs, and LBO bankruptcy

5.1. How VFs operate in failing LBOs

In describing how VFs achieve their control and return objectives, we highlight their roles in two distinct stages: (1) when they first acquire discounted debt, and then (2) when they seek to increase their equity stake. To increase their returns, VFs induce valuation biases at each stage.

5.1.1. Ease of debt acquisition and LBO risk management

Once VFs have identified a company with financial difficulties, they first acquire more of its debt. The two cases we study suffered financial distress as a result of the 2008 financial crisis and slowdown in demand in the French apparel sector. As suggested by prior literature, their financial distress due to the slightest exogenous shock is predictable (Andrade and Kaplan, 1998 ; Guo et al., 2011 ; Tykvová and Borell, 2012 ; Wilson and Wright, 2013 ; Bédu and Palard, 2014 ; Ayash and Rastad, 2020). In this sense, the primary explanatory factor for their financial distress is an imbalance in their financial structure. But that factor cannot explain the persistence of their financial distress, especially after multiple restructuring events that rebalanced their financial structures. Moreover, some observers assert that neither managerial problems nor market positioning strategies caused the companies' distress. Despite their vulnerability to negative exogenous shocks and high risk levels, the companies remained profitable for investors, as an observer close to Camaïeu indicated in LeFigaro (19/10/2018):[6]

> But the battle for control of the company proves that the brand, which is still very profitable, is attracting a lot of interest. Its real problem is much more its debt than its strategy and operating performance.

[6] All quotations were translated by the author.

This situation is what makes LBOs in financial difficulty attractive targets for VFs: Their problem is neither their business models nor their economic profitability. Experts M.A1 and M.A3 expressed similar opinions. The ability of LBOs to generate profits can be explained by the rigorous due diligence process conducted by competent, specialized investment funds during the LBO structuring stage. That is, LBOs' targets often are companies in good financial health.

However, compared with other types of unlisted companies, LBOs are relatively easy to attack, due to the characteristics of their financial structure. Although they are mostly unlisted companies, LBOs usually have debt that has been made public by the number of creditors involved. For example, Vivarte could count a very large number of creditors (at least 172, according to LesEchos on 12/02/2014), which makes it easier for VFs to implement strategies to acquire discounted debt. The more public the debt, the easier it is for VFs to operate (Jostarndt and Sautner, 2010). Similarly, LBO debt often comprises several tranches, with different contractual conditions, which gives VFs more opportunity to diversify by combining multiple tranches and thereby achieve enhanced risk management. These observations highlight the incentives for VFs to intervene in distressed LBOs: They have means to manage the risk while also enjoying a good chance of achieving attractive returns.

In their first stage of action, VFs do not seek to acquire debt directly. Similar to hedge funds, they apply a strategy aimed at depreciating the value of debt, then acquire it at a discount. For example, VFs might launch negative media campaigns to create unfavorable sentiments about the target and prompt other creditors to sell their claims. Negative information leads to a decrease in debt value (Defond and Zhang, 2014), so negative media campaigns enable VFs to acquire debt at an advantageous price. In the specific case of Vivarte, some executives explicitly mentioned VFs' media strategies, including influence campaigns, misleading press releases, web page manipulations, and rumors spread among banking, insurance, and credit operators (Les Echos, 06/01/2017).

Such media campaigns also are relatively easy to undertake in relation to LBOs, because of the substantial public attention that these companies attract. The reputation as "success stories" is, at least to some extent, a determinant of their identification as LBO targets. Public attention also might stem from increased union activity during LBO failure periods; the measures adopted to turn the companies around often are perceived as threats to jobs, as all our interviewees confirmed.

5.1.2. VFs' strategy for acquiring shares

To acquire the discounted debt of LBOs in financial distress, the VFs pursue a "loan-to-own" strategy (Gietzmann et al., 2018). Hedge funds also use their bargaining power to strengthen their control rights in bankruptcy proceedings (Hotchkiss and Mooradian, 1997; Kahan and Rock, 2009; Jiang et al., 2012; Lim, 2015; Ivashina et al., 2016). The VFs achieve this right during the reorganization stage, by inducing bias in the valuations derived from negotiations (Gietzmann et al., 2018). Acquiring debt is crucial to enable the VFs to enter the financially distressed company and exercise their control. In addition to the legal guarantees they enjoy as creditors, VFs use informal strategies to influence company valuation decisions; these strategies depend on the type of divergence within the LBO (Table 1.3):

1. With other influential residual creditor categories (shareholders, employees if unions are very active) ;
2. Between VFs that are already shareholders and VFs that are still creditors and seek to acquire a stake in the capital ;
3. With the company's management.

[Insert Table 1.3 here]

Executives' lack of cooperation with VFs increases cognitive costs, but greater cooperation increases divergences with shareholders and thus also cognitive costs. It can lead to the dismissal of the manager and thus a loss of skills for the company.

Most of the insights in Table 1.3 are consistent across both analyzed cases. However, there is one notable difference: Vivarte faced several waves of attacks from VFs. Thus, in some restructuring stages, when VFs seek to become shareholders, they also must deal with new creditor VFs, which are seeking to become shareholder VFs, in line with their loan-to-own strategy.

5.2. Valuation bias, cognitive costs, and LBO bankruptcy

In this section, we present the results of an exploratory analysis of the impact of VF actions on the probability of LBO bankruptcy. We seek to demonstrate that valuation biases and heightened residual cognitive costs increase bankruptcy probability.

5.2.1. Valuation bias and bankruptcy probability

The ways that VFs induce valuation biases exert lasting negative impacts on companies in financial distress. In an initial intervention stage, as the VFs acquire debt, the valuation biases reflect their strategy to obtain debt discounts, as exemplified by Vivarte's case, for which

> Of the 2.8 billion euros of debt, only 780 million has survived. Since the definitive signing of the conciliation agreement at the end of October, the value of this residual debt collapsed. [In comparison, a week earlier], blocks were offered at 49.33 eurocents, while it was still quoted at 85 eurocents at the beginning of November. (L'AGEFI, 08/12/2014)

Such debt impairment has an immediate impact on a company's valuation, measured according to economic assets (i.e., sum of shareholders' equity and net financial debt). In general, a decrease in a company's value suggests that investors believe it is not generating sufficient cash flow to repay its current liabilities. In turn, the probability of bankruptcy increases, based on investors' estimates of its anticipated cost. This estimate also is influenced by VFs' media campaigns, which they run to provoke downgrades (Les Echos 06/01/2017). The VFs' business model even can be described by this strategy, as a professional from a U.S. "distress debt" (VF) fund acknowledges when describing that "their business is to disgust other funds, to buy up their debt at a low price, to remake themselves by selling the assets for scrap." Thus, the presence of VFs can be directly linked to an increased probability of bankruptcy, because their actions affect investors' expectations.

Valuation biases also result from VFs' actions to strengthen their rights, such as exploiting contractual mechanisms, trusts, and discretionary power granted by bankruptcy laws, as well as other, unconventional methods. Regardless of the method used though, collaboration with executives is essential. These managers have in-depth knowledge of the true value of the company's assets and operations (Franks and Torous, 1989; Wruck, 1990). However, bankruptcy laws might allow VFs to take over decision-making functions or strongly influence managerial decisions, with or without executive cooperation. The valuation strategies in this case aim to present the company's situation in such a way that the VFs obtain an advantageous valuation at the time of any restructuring negotiation.

In both of the focal cases, the VFs succeeded in aligning certain executives with their interests, likely reflecting some threat to the executives' own careers. If VFs hold excessive control power, to the detriment of other residual creditors (Harner, 2011 ; Baird and Rasmussen,

2009 ; Harner et al., 2014), managers might choose to cooperate with the VFs to preserve their careers. Other managers might cooperate in an effort to avoid being associated with the lengthy turnaround process, which might damage their reputation (Brav et al., 2008). Regardless of the rationale, a manager who agrees to cooperate conforms with the VF's objectives and applies its preferred strategy. Such cooperation makes it easier for the VF to achieve control and its performance objectives and also allows the manager to remain in office. A striking example of totally aligned interests involves P. Puy in the Vivarte case, described as a "mercenary in the service of the funds" in Les Echos (30/10/2016).

5.2.2. Cognitive costs

As central figures, managers experience pressure from both shareholders, including VFs, and vulture creditors. Both groups seek to ensure that strategic decisions maximize their interests (Gietzmann et al., 2018). As a result, managers may find themselves at odds with one or more residual creditor groups, which would increase cognitive costs and thus potentially disrupt the corporate turnaround process. These costs reflect managers' choice dilemma: Their decisions, performance, and probability of remaining with the company depend on whether they choose to cooperate with one of the two groups. Several observations signal the existence of these costs. The evident divergences between management and VFs or shareholders make it difficult for companies to act strategically, as effectively summarized by Vivarte's shop steward:

> These are hedge funds that have taken over the group, and the only strategy that makes sense is to make money. They manage and direct it... Maquaire wanted to propose a merger of La Halle aux Vêtements and La Halle aux Chaussures under a single banner, but he did not want to go any further with restructuring. Then, among other things, he sounded the alarm to the ad hoc bodies about the financial problems, and that did not sit well with the shareholders. (La Nouvelle République du Centre Ouest, November 8, 2016)

The former Vivarte CEO M. Lelandais also offered an indication of residual cognitive costs:

> What recourse do managers have in the face of these methods? Either bend and compromise in a headlong rush doomed to failure, with the blessing of the Boards of Directors whose docility is proportional to the number of directors' fees, often more generous than those of the CAC 40, or oppose at

> the cost of their career and reputation. Whether this involves placing the company under an ad hoc mandate under the aegis of the commercial court or any other amicable or collective procedure, or embarking on a lengthy renegotiation of a debt waiver by the funds, the manager ipso facto puts themselves at odds with shareholder funds. (LesEchos, 06/01/2017).

In this situation, managers confront a difficult dilemma, unable to align their interests fully with both groups. This dilemma is a source of cognitive costs, because it diminishes the managers' ability to make good decisions. Divergences resulting from managers' alignment with one of the groups also can explain why managerial dismissals are so frequent. Both creditor VFs and existing shareholders (including shareholder VFs) have the power to dismiss managers. At Camaïeu for example, six changes of managers, directly linked to three major restructurings, took place over a period of just seven years; there were five changes of managers in four years at Vivarte. These multiple departures also impose costs, which then affect the firms' valuation. In particular, a manager's departure leads to a costly loss of managerial skills (Wiersema, 2002). Even if shareholders initially have considerable control power, it gradually tilts in favor of VFs, due to the contractual mechanisms mandated by bankruptcy law, such as trusts or discretionary power, that favor creditors.

Cognitive costs also prompt other consequences, including inconsistent management strategies, referred to as management errors. Some pertinent expert criticisms thus apply to both our cases: "the succession of attempts at financial restructuring reveals a short-termist strategy that never considered the next step" (LesEchos, 06/02/2017), and "They simply opened stores to cover lost sales" (LesEchos, 06/02/2017). To comply with VF performance targets, cooperating managers tend to seek to minimize costs, such that their decisions often feature massive layoffs, salary cuts, or the elimination of bonuses—that is, measures with negative implications for employees—as well as disinvestments and asset disposal (former Vivarte CEO R. Simonin in LesEchos, 06/02/2017; M.A3, A4, Mme.A5, A6, and A7). Considering the implications for the company's future productivity and profitability, these decisions inevitably influence its value. We also observe that managers who cooperate with VFs tend to neglect corporate social responsibility activities: Camaïeu was associated with the Rana Plaza tragedy, and Vivarte suffered an illegal surveillance scandal.

Experience with restructuring is associated with longer tenures for executives, in line with the findings of Chowdhury and Doukas (2022) regarding the effect of experience on executive

performance during times of financial distress. However, this success seems attributable to recourses to "low road" strategies, like massive cost-cutting or asset disposals, rather than greater managerial skill. Moreover, managers with experience in restructuring join the companies on behalf of the VF shareholders. Thus, they naturally tend to align themselves with the interests of VFs and display decision-making guided not by a utilitarian logic aimed at maximizing the well-being of the whole company but rather by the goal of maximizing the interests of the VFs. The opportunity costs resulting from such choices represent another cognitive cost.

Finally, French bankruptcy law gives company managers recourse to judicial proceedings if they want to try to limit their cognitive costs. Managers thus might appoint an administrator or liquidator, depending on the level of difficulty. Blazy et al. (2011) show that French bankruptcy law facilitates continuation rather than liquidation, while promoting job preservation, which may be why managers in both our case studies indicated willingness to open safeguard procedures. In contrast, the VFs prefer to avoid such legal proceedings, which creates a further source of divergence and cognitive costs. Moreover, the 2005 reform of French bankruptcy law shifted toward greater consideration of creditors, making it easier for creditor VFs to obtain valuation biases at the time of a restructuring. The presence of an administrator also might "not produce the expected effects" (M.A1 and M.A3), because their very presence implies a special regime that modifies managers' decision-making power.

5.2.3. VFs, residual cognitive costs, and increased bankruptcy probability

To depict the dynamics of financially distressed LBOs in the presences of VFs, we represent the bankruptcy trajectory in Figure 1.4, in relation to valuation biases and cognitive costs. The different points (A–H) represent spaces corresponding to the impact of VFs on company value over time. The company's valuation (EV) increases from A to B when the VFs use media campaigns and other unconventional methods to acquire the company's debt. For simplicity, we represent this event as a fixed, immediate effect on EV, with other factors being held constant. It represents the first valuation bias attached to the VF strategy for acquiring debt at a discount. From the new value, at which the VFs acquire debt, the EV remains low and even decreases, because the causes of the default still exist (i.e., economic crisis and slowdown in sector demand), until the restructuring negotiations prompt a turnaround (C). During these negotiations, the VFs seek to acquire a stake in the company, such as through trusts. At this

stage, the VFs work to induce an upward bias in the company's EV, reflecting their call option, guaranteed by the contracts (trust clause), which allows them to lock in a debt-to-equity swap price. This new valuation also is biased (space D–E–F) and creates a bubble (E); it then tends toward an equilibrium value (H) that is lower than the one following the initial trajectory without any VF intervention (point F on trajectories A–G). This difference in valuation reflects the cognitive costs associated with the divergences between groups holding control power and the manager. As noted, VFs' acquisition of a company stakes enables them to increase their control rights.

[Insert Figure 1.4 here]

5.2.4. Debt, sales, and EBITDA at the time of restructuring

Table 1.4 contains some key financial data, gathered at the time of various restructuring events, to illustrate the evolution of the two groups' financial situations. Confronted with a lack of available data to estimate a company's value precisely, we analyze the evolution of operating efficiency after restructuring by calculating the EBITDA to sales ratio.[7] Both indicators are indirectly linked to EV, so they should be relevant for assessing the effect of restructuring on financial health, with the explicit recognition that they also are influenced by the strategies we have detailed previously. For example, between two restructurings, if a manager adopts a strategy of massive asset disposal to comply with the VF's cost-cutting policy, they must do so while also seeking to retain the most profitable activities. Even if sales are falling, we would expect the EBITDA to sales ratio to rise, in the absence of the impact of cognitive costs. In addition, restructuring is supposed to reduce debt servicing by converting debt into equity, so it should enable the company to increase its investments to improve operating efficiency. However, the data in Table 1.4 indicate that as restructuring events pile up, operating efficiency steadily decreases. We propose that this outcome is linked to the impact of the greater cognitive costs.

[7] Proportional impact of operating costs on operating revenues.

[Insert Table 1.4 here]

Evidence of debt repayment through various restructuring processes (Table 1.4) also underlines that VFs are not necessarily seeking the bankruptcy of their targets. However, by pursuing their objective of maximizing short-term returns, the VFs seemingly fail to consider the company's long-term interests sufficiently. Vivarte's November 2014 restructuring—the largest debt-for-equity conversion in France's history—offers a perfect illustration. Two billion euros of debt were converted into capital, but at the same time, the new shareholders injected 500 million euros in new money, on terms likely to worsen the situation in the medium-term. This injection took the form of interest-bearing bonds with 11% interest. Combined with the modification of conditions linked to existing, remaining debt of 1.5 billion euros, the 2014 restructuring generated 200 million euros of additional debt in just over one year (LesEchos, 30/10/2016; L'AGEFI, 08/12/2014). In addition, the restructuring imposed a new condition on Vivarte, favorable to the VFs, guaranteeing that two-thirds of the servicing of the debt issued by the VFs would occur through asset disposals.

5.3. Factors mitigating cognitive costs

The few differences between the two cases that we study make it possible to explore factors that are likely to mitigate the effect of cognitive costs on bankruptcy trajectory. In particular, managers' effectiveness in dealing with cognitive costs may be a function of their tenure with the company. Overall, we observe relatively greater efficiency in the decisions taken for Camaïeu's turnaround compared with Vivarte's during the bankruptcy period. Vivarte appears to have achieved a moderately stable financial position on two occasions.

In addition to the number of creditors involved already mentioned in section X, these differences can be explained by two other factors : (1) strategic coherence and (2) management profiles. First, Camaïeu deployed an internationally focused strategy early, which acted like a countershock to the effects of the 2018 financial crisis and diminished demand in the French apparel sector. It suffered less from cognitive costs, because its managers could present solid turnaround plans based on international prospects, which the VFs could not easily oppose. Nevertheless, this initially successful strategy was not sufficient to cope with the wider crisis invoked by the COVID-19 pandemic. Thus, during the 2020 restructuring, Camaïeu decided to abandon 20% of its international store base, leading to increased internal divergences. In

contrast, Vivarte had pursued very little international diversification, geared instead toward territorial anchoring and the multiplication of sales outlets in France. Vivarte continued to implement this strategy even when the company faced intense difficulties, which prevented it from coping with the effects of the crisis. The inappropriateness of Vivarte's strategy amplified the cognitive costs, by increasing company risk.

Second, we can distinguish two managerial profiles at Vivarte, reflecting developments over time. Initially, the continuation of the existing situation for a first few years after the first LBO produced a fairly solid financial situation that favored additional LBO packages. Furthermore, Vivarte retained the same management. An experience effect and the "legitimacy" of their decisions made managers' tasks easier, reducing cognitive costs. But after 2016, Vivarte was led by a CEO described as a "cost-killer," whose decisions reflected VF objectives, including efforts to secure a significant portion of debt through asset disposals.[8] These decisions initiated the long-term process of dismantling of Vivarte, until its bankruptcy in 2021. At Camaïeu, similar explanations pertain to two managers: the "brand image and legitimacy of the manager" for Mme. Cunin and "effect of experience" for implementing the internationalization strategy for Mr. Jaugeas, as we detail in Table 1.5.

Such results are not linked to questions about managerial skills though, due to the characteristics of our study context. Companies under an LBO are relatively unlikely to suffer skill problems, because investment funds have the resources and capacities needed to select the best managers (Wirtz, 2015). The incentive systems implemented for these LBOs also were designed to attract the best managers. A comparison of the weight of debt to EBITDA reveals that the two companies are in a comparable situation, with ratios averaging around 7 during 2014–2017. That is, the weight of debt is not a determinant of the differences in the management and strategy exhibited by the two groups, reinforcing our conclusions about the impact of cognitive costs on their respective trajectories.

[Insert Table 1.5. here]

[8] This amount was equal to two-thirds of the value of asset disposals since the 2014 restructuring.

5.4. Managerial recommendations

The Sapin Law (2016) marked a turning point, toward more prominent ethics in economic activities in France, as well as a significant step forward in framing the ethical choices of business partners. It passed when the cases under analysis already had reached an advanced stage of financial distress. While we believe it has the potential to prevent similar abuses (e.g., Rana Plaza scandal), our analysis cautions that limiting assessments to partners' integrity, as recommended by Sapin II, is not enough to limit VF problems for distressed companies, which often lack the means to fight VFs on their own. An interesting legal development would be to offer distressed companies more financing options, such as by creating a sovereign distress debt fund that is able to invest, alongside other investment funds, in companies, with the mandate to preserve their survival and thus the jobs they represent. To avoid the multiplication of structures, such a mission could be entrusted to Bpifrance, whose existing vocation is to reconcile the interests of the state with those of the private sector.

We also recommend supplementing the ethical component of Sapin II by extending it to financial partners, potentially drawing inspiration from Belgian regulations governing VFs. Such a law might limit, at the time of restructuring, the guarantees granted to VFs that have taken advantage of discounted debt to increase their control power, by not allowing them to obtain more than their acquisition price (Sourbron and Vereeck, 2017). At the company level, it is also important to ensure that the valuation price at the time of the debt-to-equity swap transaction does not favor increased yields for creditors seeking to convert their debt into equity.

Noting that the best way to solve problems is to prevent them, we also recommend preventing LBO companies from experiencing difficulty by setting valuation thresholds that cannot be exceeded when setting up LBOs. Extremely high initial valuations can create bubbles and increase the likelihood of financial distress (Ayash and Rastad, 2020). Such a measure could help limit the risks associated with LBO deals and protect companies from the adverse consequences of VFs. Control over valuation thresholds might be entrusted to a reputed public body, such as the AMF, Bpifrance, or the Banque de France.

6. Conclusions

This exploratory study helps explain and predict the bankruptcy trajectory of financially distressed LBOs by considering divergent interests and the evolution of control, with a particular focus on the role of VFs and cognitive costs. We establish that VFs find it easy to target LBOs in financial distress, due to their specific characteristics, such as the relatively large number of creditors and multiple debt tranches with varying terms. In turn, the VFs pursue short-term returns, in two stages: acquire debt at a discount, and then acquire a stake in the company. In each stage, VFs use distinct strategies to alter the valuation of their targets and thereby increase their returns. In addition to using discretionary power to induce these valuation biases, VFs exhibit unconventional methods, such as media campaigns. These actions put them in divergence with managers, which creates cognitive costs. Both the valuation biases and cognitive costs emerge as key determinants of the probability of LBO bankruptcy, as illustrated in Figure 1.4.

This study thus makes pertinent contributions to literature on cognitive governance. Furthermore, with its case study methodology, this research offers an in-depth reflection on the role of influential residual creditors in the context of default and dynamic ownership structures, illustrated by the actions of VFs among financially distressed LBOs. Explaining bankruptcy trajectories by valuation biases and cognitive costs offers a more nuanced perspective than is available through traditional analyses of managerial agency costs. In this way, our study complements existing explanations and supports more accurate predictions of LBO failures. We also stress that the explanatory factors we propose herein are not isolated but rather represent part of the wider context, consisting of factors that might intervene upstream (e.g., 2008 financial crisis) and during distress periods (e.g., slowdown in demand). All these factors interact and potentially exacerbate a company's difficulties.

This study features a particularly notable limitation, linked to the difficulty of accessing relevant company-specific data. As a result, we cannot offer a detailed analysis of the contractual clauses or describe the debt structuring, interest rate conditions, loan durations, or maturities of each debt tranche. Furthermore, the analysis involves on two case studies, both representing the French apparel sector, so the generalizability of the results may be limited. Even as we acknowledge the relevance of these limitations, particularly considering the complementary nature of our study in relation to traditional theories, we note that the exploratory nature of this research means they do not call into question the validity of the

results. The combination of secondary press and primary interview data supports a valid analysis of bankruptcy probabilities, based on cognitive costs that result from divergences among governance actors. These data not only enable us to obtain key indicators at crucial moments of restructuring, but they also reflect multiple points of view from different actors close to the cases. Finally, the ethical implications of VF actions should be subject to more in-depth analyses, which should be a focus of continued research.

References

Altman, E., Marco, G., & Varetto, F. (1994). Corporate distress diagnosis : Comparisons using linear discriminant analysis and neural network s (the Italian experience). Journal of Banking and Finance, 18 :505–529.

Andrade, G. & Kaplan, N. S. (1998). How costly is financial (not economic) distress? Evidence from highly leveraged transactions that became distressed. The Journal of Finance, 53(5) :1443–1493.

Ashta, A., Bretones, F. D., & Tolle, L. (2005). Selecting Restructuring Strategies for Sick Companies : Incorporating the Decision-Making Element. SSRN Scholarly Paper 1003214, Social Science Research Network, Rochester, NY.

Ayash, B. & Rastad, M. (2020). Leveraged buyouts and financial distress. Finance Research Letters, page 101452.

Baird, D. G. & Rasmussen, R. K. (2009). Antibankruptcy. Yale Law Journal, 119 :648.

Bayliss, K., Van Waeyenberge, E., & Bowles, B. O. L. (2023). Private equity and the regulation of financialised infrastructure : The case of Macquarie in Britain's water and energy networks. New Political Economy, 28(2), 155-172.

Bédu, N. & Palard, J.-E. (2014). L'impact des LBO sur la défaillance des entreprisesLe cas des cibles françaises (2000-2010). Finance Contrôle Stratégie, 17(17-2).

Black, B. S. (2001). Corporate Law and Residual Claimants (Partial Draft). SSRN Scholarly Paper 1528437, Social Science Research Network, Rochester, NY.

Blanchet, A., & Gotman, A. (2001). L'Enquête et ses Méthodes : L'entretien.

Blazy, R., Chopard, B., Fimayer, A., & Guigou, J.-D. (2011). Employment preservation vs. creditors' repayment under bankruptcy law : The French dilemma? International Review of Law and Economics, 31(2), 126-141.

Brav, A., Jiang, W., Partnoy, F., & Thomas, R. (2008). Hedge Fund Activism, Corporate Governance, and Firm Performance. The Journal of Finance, 63(4) :1729–1775.

Breitkopf, N., & Elsas, R. (2012). From Underleverage to Excess Debt : The Changing Environment of Corporate Debt (SSRN Scholarly Paper 2016978).

Brockmann, E. N., Hoffman, J. J., Dawley, D. D., & Fornaciari, C. J. (2004). The Impact of CEO Duality and Prestige on a Bankrupt Organization. Journal of Managerial Issues, 16(2), 178-196.

Charreaux, G. (2002a). L'actionnaire comme apporteur de ressources cognitives. Revue française de gestion, (5) :77–107.

Charreaux, G. (2002b). Variation sur le thème : A la recherche de nouvelles fondations pour la finance et la gouvernance d'entreprise. Finance contrôle stratégie, 5(3) :5–68.

Chowdhury, R. & Doukas, J. A. (2022). Are CEOs to Blame for Corporate Failure? Evidence from Chapter 11 Filings. Review of Corporate Finance, 2(1) :1–63.

Corbin, J. M. & Strauss, A. (1990). Grounded theory research : Procedures, canons, and evaluative criteria. Qualitative sociology, 13(1) :3–21.

Cremers, J. & Vitols, S. (2016). Introduction-Takeovers with or without worker voice : Workers' rights under the EU Takeover Bids Directive. In Takeovers with or without Worker Voice : Workers' Rights under the EU Takeover Bids Directive, pages 11–29. ETUI.

Defond, M. L., & Zhang, J. (2014). The Timeliness of the Bond Market Reaction to Bad Earnings News. Contemporary Accounting Research, 31(3), 911-936.

Depallens, J. (1980). La presse économique et financière en France. Technical report, Ecole Nationale Supérieure des Bibliothécaires, Villeurbanne.

Dyer Jr, W. G. & Wilkins, A. L. (1991). Better stories, not better constructs, to generate better theory : A rejoinder to Eisenhardt. Academy of management review, 16(3) :613–619.

Eisenhardt, K. M. (1989). Building theories from case study research. Academy of management review, 14(4) :532–550.

Eisenhardt, K. M. & Graebner, M. E. (2007). Theory building from cases : Opportunities and challenges. Academy of management journal, 50(1) :25–32.

Fama, E. F. & Jensen, M. C. (1983). Agency Problems and Residual Claims Corporations and Private Property. Journal of Law & Economics, 26(2) :327– 350.

Franks, J. R. & Torous, W. N. (1989). An Empirical Investigation of U.S. Firms in Reorganization. The Journal of Finance, 44(3) :747–769.

Gietzmann, M., Isidro, H., & Raonic, I. (2018). Vulture funds and the fresh start accounting value of firms emerging from bankruptcy. Journal of Business Finance & Accounting, 45(3-4) :410–436.

Gilson, S. C. (2000). Valuation of Bankrupt Firms. Review of Financial Studies, 13(1) :43–74.

Glaser, B. & Strauss, A. (1967). The discovery of grounded theory Aldine Publishing Company. Hawthorne, New York.

Goergen, M. & Wood, G. (2014). The employment consequences of private equity acquisitions : The case of institutional buy outs. European Economic Review, 71 :67–79.

Goergen, M., O'Sullivan, N., & Wood, G. (2011). Private equity takeovers and employment in the UK : Some empirical evidence. Corporate Governance : An International Review, 19(3) :259–275.

Gray, E. K. & Watson, D. (2007). Assessing positive and negative affect via self-report. Handbook of emotion elicitation and assessment, pages 171–183.

Guo, S., Hotchkiss, E. S., & Weihong, S. (2011). Do Buyouts (Still) Create Value? The Journal of Finance, 66(2) :479–517.

Hambrick, D. C. & Mason, P. A. (1984). Upper echelons : The organization as a reflection of its top managers. Academy of management review, 9(2) :193– 206.

Harner, M. M. (2011). Activist Distressed Debtholders : The New Barbarians at the Gae. Washington University Law Review, 89 :155.

Harner, M. M., Griffin, J. M., & Ivey-Crickenberger, J. (2014). Activist Investors, Distressed Companies, and Value Uncertainty. American Bankruptcy Institute Law Review, 22 :167.

Harris, R., Siegel, D. S., & Wright, M. (2005). Assessing the impact of management buyouts on economic efficiency : Plant-level evidence from the United Kingdom. Review of Economics and Statistics, 87(1) :148–153.

Hart, O. (2001). Financial Contracting. Journal of Economic Literature, 39(4), 1079-1100.

Hodgson, G. M. (1998). Competence and contract in the theory of the firm1This article is dedicated to the memory of Edith Penrose.1. Journal of Economic Behavior & Organization, 35(2) :179–201.

Hotchkiss, E. S. & Mooradian, R. M. (1997). Vulture investors and the market for control of distressed firms. Journal of Financial Economics, 43(3) :401– 432.

Ito, B., Tanaka, A., & Jinji, N. (2023). Why do people oppose foreign acquisitions? Evidence from Japanese individual-level data. Japan and the World Economy, 66, 101187.

Ivashina, V., Iverson, B., & Smith, D. C. (2016). The ownership and trading of debt claims in Chapter 11 restructurings. Journal of Financial Economics, 119(2) :316–335.

Jehn, K. A. (1995). A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict. Administrative Science Quarterly, 40(2) :256–282.

Jensen, M. C. (1989). Eclipse of the publc corporation. Harvard Business Review.

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm : Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4) :305–360.

Jiang, W., Li, K., & Wang, W. (2012). Hedge Funds and Chapter 11. The Journal of Finance, 67(2) :513–560.

Jostarndt, P. & Sautner, Z. (2010). Out-of-Court Restructuring versus Formal Bankruptcy in a Non-Interventionist Bankruptcy Setting*. Review of Finance, 14(4) :623–668.

Kahan, M. and Rock, E. (2009). Hedge Fund Activism in the Enforcement of Bondholder Rights. Northwestern University Law Review, 103 :281.

Kaplan, S. (1989a). The effects of management buyouts on operating performance and value. Journal of Financial Economics, 24(2) :217–254.

Kaplan, S. (1989b). Management Buyouts : Evidence on Taxes as a Source of Value. The Journal of Finance, 44(3) :611–632.

Kim, S. E. S. (2022). Dynamic Corporate Residual Claimants : A Multicriteria Assessment. SSRN Scholarly Paper 4124493, Social Science Research Network, Rochester, NY.

Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management : Unveiling temporality, activity, and flow. Academy of management journal, 56(1) :1–13.

Lehavy, R. (2002). Reporting Discretion and the Choice of Fresh Start Values in Companies Emerging from Chapter 11 Bankruptcy. Review of Accounting Studies, 7(1) :53–73.

Lehn, K. & Poulsen, A. (1989). Free cash flow and stockholder gains in going private transactions. The Journal of Finance, 44(3) :771–787.

Lequesne-Roth, C. (2018). La fin des « vautours » ? Retour sur le contentieux stratégique des dettes souveraines. Revue internationale de droit économique, t. XXXII(3), 351-367.

Lim, J. (2015). The Role of Activist Hedge Funds in Financially Distressed Firms. Journal of Financial and Quantitative Analysis, 50(6) :1321–1351.

Lorda, C.-U. (2001). Les articles dits d'information : la relation de déclarations politiques. Semen. Revue de sémio-linguistique des textes et discours, (13).

Myers, S. C. (1977). Determinants of corporate borrowing. Journal of Financial Economics, 5(2) :147–175.

Pettigrew, A. (1997). The double hurdles for management research. Dartmouth Press.

Pommet, S. (2012). Capital-Investissement et performances des firmes : Le cas de la France. Vie & Sciences De l'Entreprise, 1(190) :30–45.

Poniachek, H. A. (2019). Mergers & Acquisitions : A Practitioner's Guide To Successful Deals. World Scientific.

Schumacher, J., Trebesch, C., & Enderlein, H. (2021). Sovereign defaults in court. Journal of International Economics, 131, 103388.

Scott, S. M. (2021). Vultures, debt and desire : The vulture metaphor and Argentina's sovereign debt crisis. In Languages of Economic Crises. Routledge.

Sophie, S. M. (2011). L'influence du droit américain de la faillite en droit français des entreprises en difficulté. Vers un rapprochement des droits? Université de Strasbourg.

Sourbron, L. A., & Vereeck, L. (2017). To Pay or Not to Pay? Evaluating the Belgian Law Against Vulture Funds. Journal of Globalization and Development, 8(1).

Tirole, J. (2009). Cognition and Incomplete Contracts. American Economic Review, 99(1) :265–294.

Tykvová, T. & Borell, M. (2012). Do private equity owners increase risk of financial distress and bankruptcy? Journal of Corporate Finance, 18(1) :138– 150.

Vernimmen, P., Fur, Y., Dallocchio, M., Salvi, A., & Quiry, P. (2024). Leveraged Buyouts (LBOs) (p. 836-850).

Wiersema, M. (2002). Holes at the top. Why CEO firings backfire. Harvard business review, 80(12) :70–7, 133.

Williamson, O. (1985). The Economic Institutions of Capitalism. The Free

Williamson, O. E. (1988). Corporate finance and corporate governance. The journal of finance, 43(3), 567-591.

Wilson, N. & Wright, M. (2013). Private Equity, Buy-outs and Insolvency Risk. Journal of Business Finance & Accounting, 40(7-8) :949–990.

Wirtz, P. (2000). L'étude de cas : réflexions méthodologiques pour une meilleure compréhension du rôle de la comptabilité financière dans le gouvernement d'entreprise. Comptabilité - Contrôle - Audit, 6(3) :121.

Wirtz, P. (2006). Compétences, conflits et création de valeur : vers une approche intégrée de la gouvernance. Finance Contrôle Stratégie, 9(n° 2) :187–221.

Wirtz, P. (2015). Chapter 30 Entrepreneurial Finance and the Creation of Value : Agency Costs vs. Cognitive Value. In Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship, In the Advances in Business Strategy and Competitive Advantage (ABSCA) Book Series. IGI Global, United States of America.

Woodside, A. G. & Wilson, E. J. (2003). Case study research methods for theory building. Journal of Business & Industrial Marketing.

Wruck, K. H. (1990). Financial distress, reorganization, and organizational efficiency. Journal of Financial Economics, 27(2) :419–444.

Yin Robert, K. (1994). Case study research : Design and methods. sage publications.

Yin, R. & Ridde, v. (2012). Théorie et pratiques des études de cas en évaluation de programmes. In Approche et Pratiques En Évaluation de Programmes, volume 2. Les Presses de l'Université de Montréal, Montréal, Quebec, 2e edition.

Yin, R. K. (2013). Validity and generalization in future case study evaluations. Evaluation, 19(3), 321-332.

Table 1.1. Descriptions of Interviews and Participants

Case	Identifier	Status	Interview Duration
Camaïeu	M.A1	Expert in Mergers & Acquisitions	1h
Camaïeu	Ms.A2	Store Manager	1h05
Vivarte	M.A3	Expert in Mergers & Acquisitions	1h03
Vivarte	M.A4	Employee representative	2h
Vivarte	Ms.A5	Import-Export Manager	1h25
Vivarte	Ms.A6	Store Manager	1h45
Vivarte	Ms.A7	Store Manager	2h

Table 1.2. Presence of vulture funds over time

Case	Vulture Funds Present	Restructuring Year (Capital Increase)
Camaïeu	Boussard	2013
	Polygon	2013
	Gavaudan	2013
	Centerbridge	2016
	Carval	2018
	Farallon	2018
Vivarte	Alcentra	2014
	GLG Partners	2014
	Oaktree	2014
	Canyon	2014
	Goldentree	2014
	Babson	2014
	Oak Hill	2014
	Alcentra	2017
	GLG Partners	2017
	Oaktree	2017
	Canyon	2017
	Goldentree	2017
	Babson	2017
	Oak Hill	2017
	Anchorage	2019
	Alcentra	2019

Table 1.3. Specific VF strategies for raising capital

Discrepancies	VF Strategies	Impact on Company
VF vs Employees	Low road strategy affecting employees: mass layoffs, wage cuts, bonus cuts, deteriorating working conditions.	Social crises, employee demotivation and/or loss of skill due to resignations.
VF vs Shareholders	Offensive strategy often achieved through trust, leading to the dilution of former shareholders. Double dilution stems from the valuation bias obtained by the VFs, in addition to the increase in capital.	Increased cognitive costs due to differences between the two groups.
VF Shareholders vs VF Creditors	Defensive and offensive strategy: Shareholder VFs seek to protect the value of their shares, while creditor VFs seek to induce a valuation bias to acquire capital at an advantageous price.	Increased effects of divergences and therefore more cognitive costs. Increased pressure on manager leads to more management errors and inconsistent strategies.
VF Creditors vs Manager	Using pressure tactics or promises of financial benefits to keep the executive in place.	Executives' lack of cooperation with VFs increases cognitive costs, but greater cooperation increases divergences with shareholders and thus also cognitive costs. It can lead to the dismissal of the manager and thus a loss of skills for the company.

Table 1.4. Sales, debt, and EBITDA in various restructuring scenarios

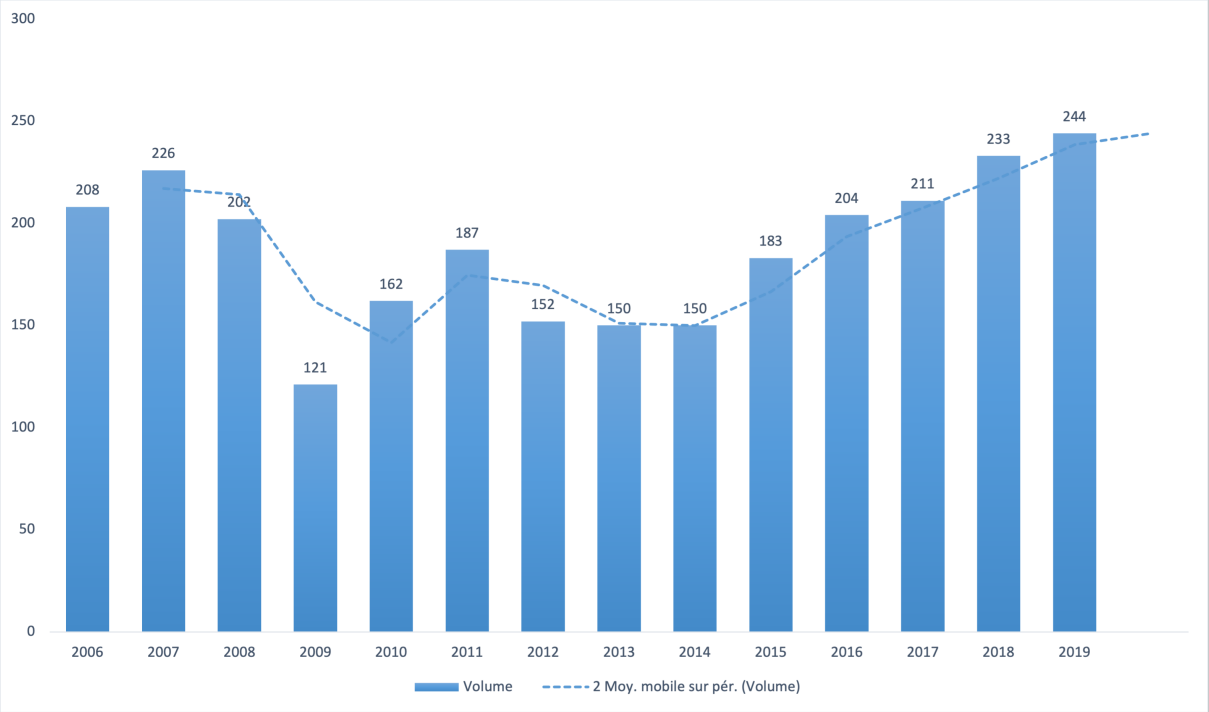
Case	Year	Converted Debt	Remaining Debt	Sales	EBITDA	Sales/EBIDTA
Camaïeu	2013	1Bn	0.8 billion	1Bn	0.08Md	8%
	2016	0.6 billion	0.4 billion	0.8 billion	0.08Md	10%
	2018	0.5 billion	<€0.1bn	0.7 billion	0.07Bn	9.5%
Vivarte	2014	2Bn	0.8 billion (*€1.5 billion, 2016*)	2.8 billion	0.290 billion	10.3%
	2017	0.6 billion	0.85Md	1.8 billion	0.08Md	4.4%
	2019	0.5 billion	<€0.1bn	1.2Bn	0.04Md	3.3%

Notes: These data were collected manually from secondary press data.

Table 1.5. Mitigating factors for residual cognitive costs

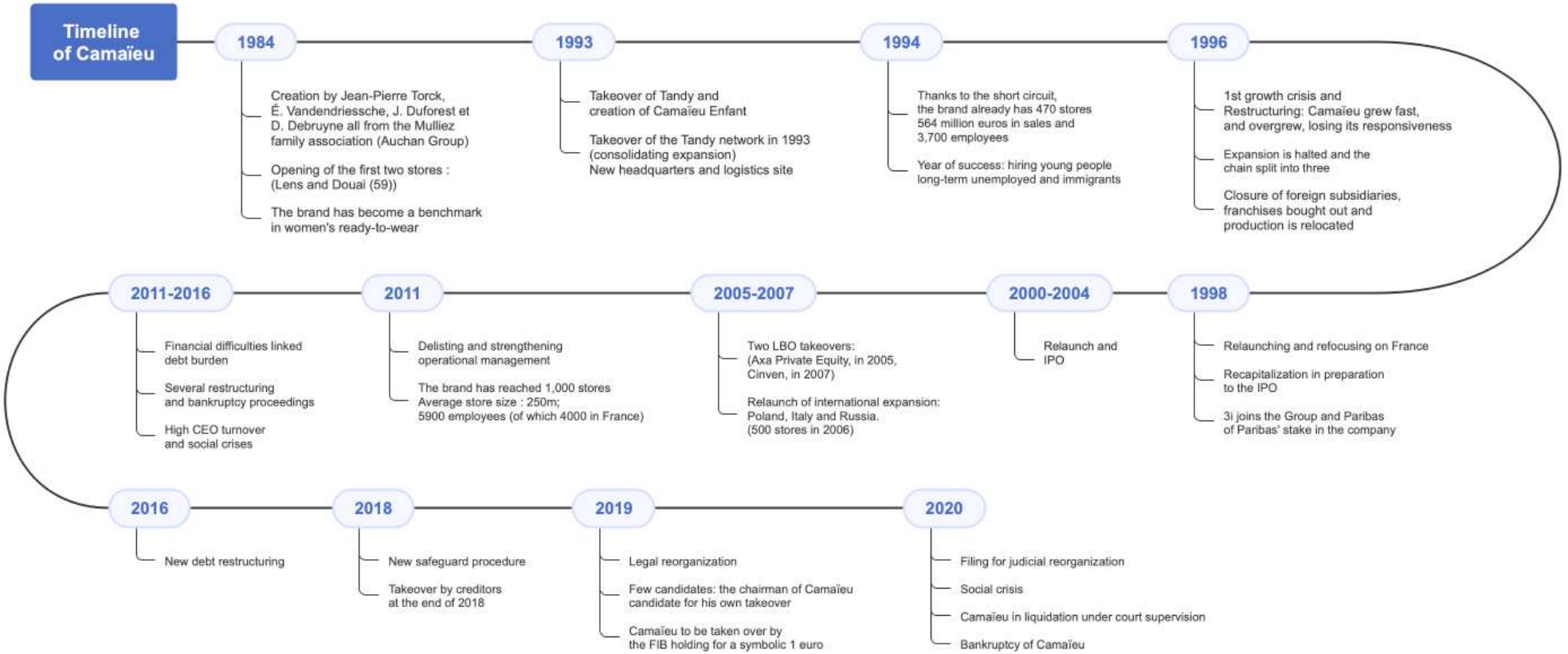
Case	CEO	Mitigation factors
Camaïeu	M. Jaugeas	- Experience effect (several years of international experience); strategic coherence (diversification strategy and relocation); use of "low road" strategies (Rana Plaza scandal)
	Mrs Cunin	- Consistency with brand image; Effect of experience in consulting, then in fashion
Vivarte	M. Plassat	- Experience effect (several years as CEO of Vivarte, basis of all group LBO operations); use of "low road" strategies (illegal labor surveillance scandal)
	M. Puy	Use of "low road" strategies (carving up the group, "cost-killer"); experience effect in the restructuring

Figure 1.1. Volume of LBOs among French companies, 2006 to 2019



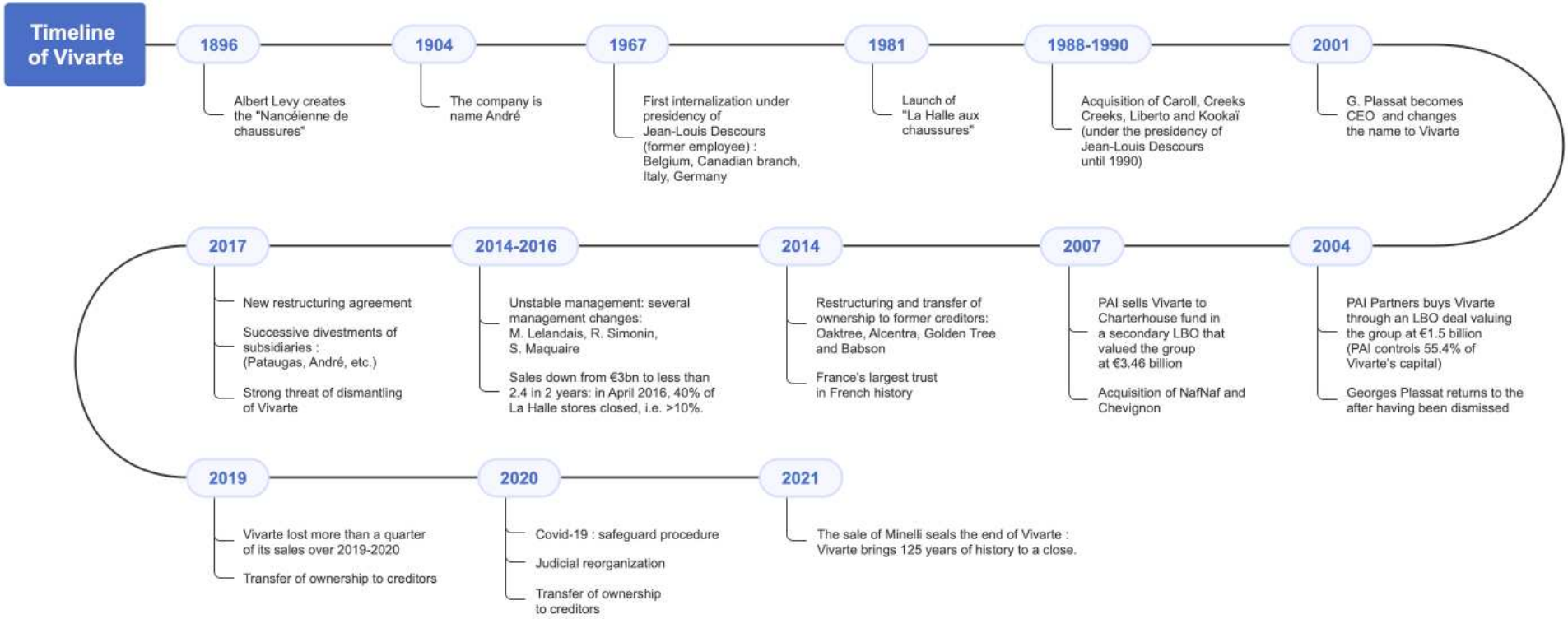
Source: Capital Finance

Figure 1.2. Timeline for Camaïeu



Source : Author's own creation from press articles

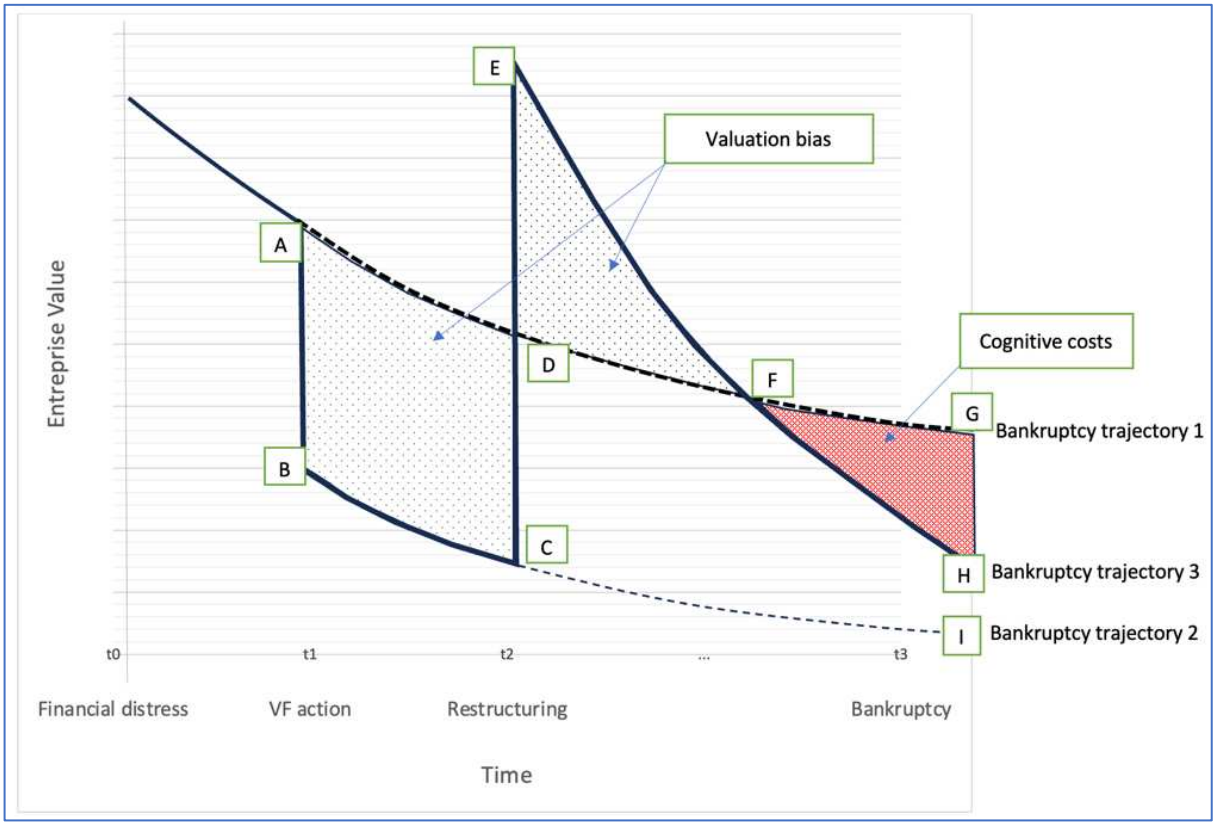
Figure 1.3. Timeline for Vivarte



Source : Author's own creation from press articles

Figure 1.4. Valuation biases, cognitive costs, and bankruptcy trajectory

This figure represents the bankruptcy dynamics of the LBO companies explored in this study. Points A–B to G–H–I reveal the dynamics around a restructuring operation. Bankruptcy trajectory 3 is closest to reality, according to the dynamics in this study.



Source ：Author's own creation

Essay 2
Cognitive Load, Social Values, and Financial Distress: Drivers of Restructuring Decisions[9]

Abstract

During a leveraged buyout involving financial distress, the dynamics of agency relations might influence managers' preferences for two different types of restructuring decisions. That is, the manager might pursue organizational restructuring and opt for massive layoffs or else undertake financial restructuring and increase the firm's debt. By investigating the impact of managers' cognitive load and social value orientation on this decision, the current study reveals that, on average, cognitively loaded managers prefer massive layoffs over increased debt levels. The massive layoffs seemingly provide a relatively easier way to avoid conflict with influential, residual claimants. Further analysis suggests that managers under heavy cognitive loads are unlikely to adopt deontological decision-making rules. In contrast, social value–oriented managers actively avoid massive layoffs and prefer to increase debt. Consistent with prior literature on social preferences, the managers also are less likely to adopt utilitarian rules. In summary, the performance mechanisms usually recommended to improve agency relations suffer their own limitations when financial distress exists, due to cognitive distortions.

JEL Codes: G41, G34.

Keywords: cognitive load, social preferences, leverage buyout, restructuring decision-making

[9] This chapter refers to the article " Cognitive Load, Social Values, and Financial Distress: Drivers of Restructuring Decisions " published in *Review of Accounting and Finance (2024)*, Vol. 23 No. 4, pp. 506-536. with Jean-François Gajewski and Marco Heimman. https://doi.org/10.1108/RAF-07-2023-0212. It was presented at the French Finance Association Conference (Bordeaux, 2023), the Clermont Financial Innovation Workshop (Clermont-Ferrand, 2023), and the Investor Emotions and Asset Pricing Meeting (Lille, 2023).

1. Introduction

When a firm encounters financial distress, reorganization arguably is preferable to bankruptcy, because reorganization can avoid suboptimal incentive alignment in existing contracts (Bulow and Shoven, 1978 ; Broude, 1984 ; Brown, 1989 ; Altman et al., 2019 ; Hotchkiss et al., 2021). As part of a reorganization plan, restructuring depends on the decisions of company leaders; its success usually is judged according to whether those decisions lead to optimal alignment among the interests of residual creditors (Senbet and Seward, 1995). However, achieving such op timal alignments represents a complex task for managers (Bulow and Shoven, 1978 ; Brown, 1989 ; Senbet and Seward, 1995), particularly considering the increased complexity created by enhanced agency conflicts (Betker, 1995) and divergent interests that arise in distress situations (Taatian, 2021). Both these factors strongly influence the nature of the restructuring plans adopted by companies in financial distress (Ayadi, 2012 ; Cappelen et al., 2019 ; Kim, 2022).

Considering the substantial agency conflicts, divergent interests, and relevant contextual effects that affect managers, particularly in financial distress contexts, they likely struggle to make restructuring decisions. Behavioral analysis thus might be insightful, because constraints on decision-making have clear relevance for agency relationships (Zhang et al., 2020). Olsen (2010) explicitly calls for leveraging cognitive and affective traits to predict and explain managers' financial decisions. Moreover, well-established research outlines how people's cognitive systems function in situations marked by uncertainty (Tversky and Kahneman, 1981 ; Tversky and Kahneman, 1992), which certainly arises in response to financial distress. Building on these observations and calls for research, we seek to extend explanations of the factors that influence restructuring decisions to include behavioral characteristics of the decision-maker, that is, the manager. The specific question that motivates this research is as follows: Do managers' cognitive capabilities and personality traits influence their restructuring preferences, even in the presence of strong agency relations and in a situation marked by financial distress?

To answer this question, we consider the case of leveraged buyout (LBO) firms, which are generally highly leveraged and face an increased risk of bankruptcy (Ayash and Rastad; 2020). In addition, agency conflicts likely increase among these firms (Betker; 1995 ; Taatian; 2021).

For example, agency conflict between the manager and shareholders might decrease at the moment the deal is made (Jensen and Meckling; 1976 ; Jensen; 1989), but it increases in relation to other stakeholders, such as creditors, after the deal. We therefore investigate agency conflicts involving managers and three other types of stakeholders: creditors, shareholders, and employees.

First, creditors recognize that the firm's excessive debt will increase their discretionary power. Financial distress puts creditors in a strong negotiating position (Gietzmann et al., 2018), which likely gets reinforced by contractual covenants or by the creditors' dominance in the financial structure (Taatian, 2021). Powerful creditors, determined to defend their interests, push management decision-making in their favor; they reject any decision that would increase the company's risk of default. Second, shareholders also have considerable discretionary power, and they will not accept decisions that could lead to dilution of their shares, as detailed by the "debt overhang problem" described by Myers (1977). Third, the interests of the company's employees are critical too. They bear the most immediate risk of financial distress, and they lack the same level of bargaining power as creditors or shareholders (Daigle and Maloney, 1994; Cappelen et al., 2019). However, managers cannot make decisions that harm this group of residual claimants, because doing so would risk decreased work motivation among existing employees (Ashta et al., 2005), as well as damage the company's market reputation and future prospects. Noting employees' relatively weak bargaining power though decisions in their favor likely do not result from their pressure on decision-makers but rather might stem from the manager's social sensitivity. Managers who are more sensitive to social values might balance other stakeholders' interests to remain consistent with their own values (Xu and Ma; 2016), such as by avoiding massive layoffs, even if that decision would be preferred by creditors and stockholders. In this sense, we need to consider which moral judgment rules managers use to make their decisions.

With a controlled experiment, we present a scenario involving LBO companies in financial distress. The experiment indicates their high level of indebtedness (i.e., the initial level is 74%), signaling the likelihood that they experience conflict with and across stakeholders. Such a distressed situation should increase managers' cognitive burdens; we also manipulate participants' cognitive loads in the controlled experiment (Neys, 2006). Then these participants join a lottery with a choice between massive layoffs and debt increases. The layoff outcome remains constant; the debt increase starts high and then diminishes. Participants indicate the level at which they prefer to switch from layoffs to debt.

The experimental design also includes social preferences, which represents a personality trait and which we measure with a task approach (Murphy et al., 2011). That is, participants choose a desired monetary allocation, knowing that each choice means a different allocation to other parties. The experiment also integrates several control variables, including other personality traits, risk aversion, and socio-demographic variables (e.g., prior LBO experience, prior experience in experiments, education level, age, gender).

The results reveal that cognitively loaded managers prefer to lay off large numbers of employees rather than increase the debt level of the financially distressed company. Prosocial managers behave in precisely the opposite way and avoid massive layoffs. However, we cannot establish whether prosocial managers struggling with heavy cognitive loads exhibit different decision preferences. Rather, we observe that managers under cognitive loads are less likely to follow deontological moral judgment rules, and prosocial managers are less likely to exhibit utilitarian judgments. These results challenge previous studies that suggest emotional responses resulting from cognitive distortions or linked to personality traits lead people to adopt deontological rules (Greene et al., 2008). Yet consistent with other studies (e.g., Carver and White, 1994 ; Corr, 2004), managers with a fun-seeking orientation tend to choose massive layoffs rather than increasing debt. Risk aversion does not seem to exert any effect on decision-making in our study context.

In the next section, we detail the experimental context more fully, then present the hypotheses to be tested. After explaining our methodology, we present the results. Finally, we discuss these findings in the conclusion section.

2. Context and hypothesis development

With this experiment, we seek to explain the impact of managerial preferences on restructuring decisions between massive layoffs or increased debt. To identify managerial preferences, we rely on two behavioral variables: cognitive load and social value orientation (SVO). With our experimental design, we can capture multiple contextual elements that likely affect managers faced with restructuring decisions. In addition, we define the context in a way that helps reveal the potential influence of different stakeholders' bargaining power on decision-makers. We thus divide stakeholders into two groups: those with substantial bargaining power (i.e., creditors and shareholders) and those with weak bargaining power (i.e., employees).

The first, heterogeneous group features divergent interests, all of which managers much take into account. Thus, managers experience a greater mental workload if they prefer restructuring; we capture this workload with our manipulated measure of cognitive load. A high mental load should prompt managers to avoid making decisions unfavorable to the group with strong bargaining power. In detail, a cognitively overloaded manager might avoid increasing the company's indebtedness and prefer massive layoffs of employees.

However, human behavior is invariably multidimensional, so we also consider sensitivity to social values as an explanatory variable. Social preferences, as an interpersonal factor, drive people to consider the consequences of their decisions on others. Therefore, we investigate whether, despite the agency conflicts that arise in distress situations, managers who are sensitive to social values prefer not to make decisions that are unfavorable to employees. As recommended by Olsen (2010), we thus combine the cognitive dimension indicated by the manipulated cognitive load with an affective dimension linked to social preferences. Because pro-social managers want to avoid negative consequences for employees, they likely choose to increase the debt level. We specify these distinct effects of cognitive load and SVO next.

2.1. Effect of cognitive load on restructuring decision preferences

Cognitive load refers to the burden that performing a particular task places on a person's cognitive system (Paas et al., 2003). Humans' cognitive information processing capacity is inherently limited, so decision-makers often engage in cognitive distortions if their cognitive load is too high (Abatecola and Cristofaro, 2018). Prior studies identify how cognitive load influences various other behaviors and outcomes, such as risk aversion (Whitney et al., 2008 ; Benjamin et al., 2013 ; Gerhardt, 2013), such that a cognitively loaded manager generally avoids making risky decisions. By adding the specific context created by financial distress when studying the implications of cognitive load, we seek to uncover more nuanced effects as well.

In addition to influencing decision outcomes, cognitive load likely affects how people make decisions. For example, it might prompt them to act in less sophisticated ways in games like the prisoner's dilemma (Carpenter et al., 2013 ; Deck and Jahedi, 2015; Allred et al., 2016 ; Sarah et al., 2016) or else act seemingly randomly (Franco-Watkins et al., 2010). More broadly, prior research has established that cognitively loaded decision-makers reach different decisions than those who are not cognitively loaded (Cornelissen et al., 2011 ; Schulz et al., 2014). Notably, they exhibit poorer performance on lottery tasks (Hinson et al., 2002), so we use this type of task to shed light on the effect of cognitive loads on managers' restructuring decisions

in a situation involving financial distress and LBOs. We recall that the choice of cognitive load as an explanatory variable was dictated by the context of financial distress. Situational variables can have significant effects on reorganization outcomes (e.g., Francis and Desai, 2005). We restrict the choices to two types, to simplify the experiment. Both organizational restructuring, which consists of massive layoffs to reduce costs, and financial restructuring, which consists of increasing the level of debt to enhance the firm's financial strength, add to managers' existing cognitive loads (i.e., due to their financial distress) by creating a thorny dilemma. Increasing the company's debt has probable consequences for the manager's career and the company's future; it conflicts with the preferences of residual claimants (shareholders and creditors). A massive layoff decision also should have consequences for the manager at a personal level, who may feel bad that so many employees are losing their jobs, and create conflict with those employees (Daigle and Maloney, 1994 ; Cappelen et al., 2019). Moreover, this decision likely affects the company's productivity (Johnson, 1996). Still, layoffs remain the easier solution for managers who want to avoid severe sanctions by influential residual claimants. Accordingly, we formulate the following hypothesis:

H1. Managers under cognitive load avoid debt increases and prefer massive layoffs to restructure distressed companies under LBO.

2.2. Social value orientation and managers' restructuring decisions

Managers' decisions and preferences during a restructuring task should depend on interpersonal considerations, considering that these decisions have consequences for all stakeholders of the company. We use social preferences to reflect relevant interpersonal traits and measure them with a social value orientation (SVO) variable. It measures people's preferences when they must allocate resources to themselves and to others in an interdependent context (McClintock, 1978). Social psychology concepts indicate that social values can determine preferences for restructuring decisions, in the form of conscious and unconscious beliefs about the potential consequences of the action (Gray and Bjorklund, 2018). For example, managers who are (un)aware of the consequences of their actions for employees or the firm in general likely exhibit different restructuring preferences, regardless of the effects of contextual elements. As Zhang et al. (2020) demonstrate, people who are more aware to social values display similar risk-taking and sensitivity to potential gains and losses in decisions for themselves and for strangers, whereas those without such awareness indicate more tolerance

for risk-taking and less sensitivity to the gains and losses of others. In our study context, we thus anticipate that managers displaying strong social preferences try to avoid massive layoffs. In line with Zhang et al.'s (2020) findings, managers with strong social preferences also should be less reluctant to increase the firm's level of debt, even if they know it increases the firm's risk of bankruptcy, because they are more risk tolerant.

H2: Managers with strong social value orientations avoid massive layoffs and prefer to increase debt to restructure distressed companies under LBO.

2.3 Moral judgment rules followed by prosocial managers

Drawing on the extant literature on cognitive load, social preferences, and decision-making in financially distressed contexts (Paas et al., 2003 ; Neys, 2006 ; Murphy et al., 2011 ; Gray and Bjorklund, 2018 ; Zhang et al., 2020), we offer an exploratory proposition: Managers, when faced with restructuring decisions in the face of financial distress, adhere to either deontological or utilitarian moral judgment rules (Greene et al., 2001, 2004). A deontological approach is characterized by a duty-based ethic, according to which certain actions are inherently right or wrong, regardless of their consequences (Gray and Bjorklund, 2018). A utilitarian approach instead is outcome-oriented, and it holds that the morally right action is the one that maximizes overall welfare or utility (Zhang et al., 2020).

We anticipate that managers under high cognitive loads are more likely to follow deontological rules, focusing on the inherent rightness or wrongness of decisions, such as layoffs or debt. In support of this prediction, Greene et al. (2008) find that when they experience cognitive distortions, people tend to adopt deontological approaches. In contrast, managers with strong social preferences likely prefer utilitarian rules and focus on the broad consequences of their decisions for all stakeholders. We test these predictions empirically.

3. Methodology

3.1. Research Design

For this research, we use a randomized, controlled trial experiment. Participants were randomly assigned to one of two conditions, in which we manipulated the cognitive load and availability of cognitive resources to apply to the subsequent decision. This study was

conducted in accordance with ethical standards. Participants gave their informed consent, and their confidentiality was guaranteed throughout the research process (see Appendix 2.12).

3.2. Participants, Procedure, and Data Collection

The 260 participants recruited through the Prolific platform and paid £10.27 for participation (Appendix 2.1) were all current or former managers from the United Kingdom and United States, which helps ensure a common understanding of business practices and financial concepts. They completed the experiment in a single session on the Qualtrics platform. This session consisted of various tasks, including the cognitive load manipulation, decision-making scenarios, and questionnaires that we used to evaluate the participants' risk preferences and SVO, as well as gather their demographic information. An instruction manipulation control (Appendix 2.2) at the beginning of the survey helped ensure data quality (Oppenheimer et al., 2009). We collected the data over a period of four weeks.

3.3. Materials

3.3.1. Experimental Task: LBO Firm Restructuring Decisions

The managerial participants read a scenario description of the restructuring of a firm under an LBO, which required them to choose between massive layoffs or increased debt. The descriptions noted that the former strategy offers immediate improvements in cash flow and is preferred by shareholders and creditors, whereas the latter method might alleviate short-term payment pressures, at the expense of potential underinvestments and increased debt discipline. Across 13 different scenarios, we presented distinct conditions in terms of varying levels of expected risk and returns for the two restructuring options (Appendix 2.4). The layoff option (option A) initially indicated equal chances of producing either a $12M gain or a $4M loss. In contrast, the increased debt option (option B) started with equal chances of a $12M gain or a $12M loss, representing a debt increase of 26% with leverage of 100%. As the scenarios unfolded, the potential loss decreased while the potential gain increased, ending with a 50–50% chance of either a $24M gain or no loss, corresponding to a debt increase of just 2% at 76% leverage.

The presentation of these decisions mimicked a lottery, so that we could elicit risk preferences. By design, the scenarios start by favoring layoffs and then gradually make the debt

increase option more attractive; the seventh scenario represents the point of indifference—that is, the theoretical equilibrium between risk and return—according to the inverted Sharpe ratio (Sharpe, 1994). We use this reference point to determine where, theoretically, a manager should be equally likely to choose either option. The shift in the participants' inclination from the layoff option to the debt increase option served as the dependent variable.

3.3.2. Cognitive Load Manipulation

For half of the participants, the experimental condition included a cognitive load manipulation designed to mimic high-pressure cognitive demands that managers often experience in reality (Appendix 2.5.). Specifically, we required these participants to engage in a complex memory exercise before making their restructuring decision: They saw a matrix, filled with black dots, and were instructed to memorize the positions of the dots. After making their restructuring decision, these participants had to recall the exact locations of the dots in the matrix. This intense memory task (Neys, 2006) significantly taxed their working memory, which effectively simulates the cognitive stress managers usually experience during critical decision- making processes. By manipulating cognitive load, we can evaluate the impact of heightened cognitive strain on managerial decision-making and particularly its potential effect on the transition from favoring layoffs to taking on extra debt.

3.3.3. Measures

Social Preferences

To assess participants' social preferences, we used an existing SVO task (Murphy et al., 2011), which involves a series of six decisions. Participants must allocate resources between themselves and another anonymous participant. The six items represent four relevant social orientations (altruistic, prosocial, individualistic, and competitive) (Appendix 2.6 and 2.7). Accordingly, we obtain a single SVO index with good psychometric properties (Murphy et al., 2011), by calculating the average allocation for the self (AS) and for the other (A0), then adjusting these averages by deducting 50. The adjustment reorients the base of the resulting angle to the center of a circle at (50,50), rather than at the Cartesian origin. To obtain the SVO index, we take the arctan of the ratio of these adjusted means, and this single index value represents each participant's SVO, as follows (Equation 2.1) :

$$SVO^{\circ} = \frac{A_o - 50}{A_s - 50} \qquad (2.1)$$

Risk Preferences

With a series of financial decision-making tasks, adapted from Riedl and Smeets (2017), Dohmen et al. (2011), Holt and Laury (2002), we also measure participants' risk preferences. The tasks require choices between safe and risky options, with varying probabilities and rewards, so we can quantify individual levels of risk tolerance (Appendix 2.8).

Behavioral Inhibition and Activation Systems (BIS-BAS)

The BIS-BAS scales, derived from a framework offered by Carver and White (1994), serve to measure participants' responses to rewards and punishments. That is, the behavioral inhibition system (BIS) indicates sensitivity to potential negative outcomes, while the behavioral activation system (BAS) pertains to responsiveness to potential rewards. These scales provide information about participants' motivational orientations, which may influence their decision-making under pressure (Appendix 2.9).

Control Variables

We include various demographic variables as controls, namely, age, gender, professional background, educational level (Appendix 2.10), and a scale measure of comprehension of the LBO firm restructuring decision (Appendix 2.11).

4. Results

In this section, we present the descriptive statistics and correlation matrix first. Then we detail the results regarding the effect of cognitive load and social preferences on restructuring decisions. Finally, we explore the moral judgment rules that prosocial managers follow when they are under a heavy cognitive load.

4.1. Descriptive Statistics

Table 2.1 contains the descriptive statistics for the entire sample. We started with 260 respondents, but in processing these data, we excluded any responses that were inconsistent with our decision criterion based on the inverted Sharpe ratio, in relation to the dependent variable. Thus, we retained 222 responses, or 85% of the original sample. These participants demonstrated effective managerial decision-making, in that their average switching score was

7.63, closely aligned with the standard switching point determined by the Sharpe ratio. The observed standard deviation for this measure was 3.54. The score ranged from a minimum of 1 (managers who eschewed massive layoffs) to higher values that reflect different managerial choices.

In terms of social preferences, the average score on the SVO variable was 27.38°, indicating that most managers were prosocial (i.e., defined as an SVO value between 22.45° and 57.15°; Murphy et al., 2011). Yet we also capture variability in social preferences, according to the standard deviation of 13.08, such that the values range from -13.70 to 52.90.

[Insert Table 2.1. here]

Among the control variables, we find that the average BIS score was 2.88, with a standard deviation of 3.76. Across the components of the BAS, we determine that drive (BAS.D) averaged 9.23 (SD = 2.44), fun seeking (BAS.FS) was 8.86 (SD = 2.20), and the average for reward responsiveness (BAS.RR) was 8.82 (SD = 2.24). The average risk aversion score reached 3.46, with a standard deviation of 2.68. Furthermore, 8% of participants had prior experience with LBOs. Their average age was 40 years, and the most typical educational attainment fell between an undergraduate and graduate level.

4.2. Cognitive Load Manipulation Check

Due to our manipulation, 107 (48%) randomly chosen participants experienced a cognitive load. In verification results similar to Neys's (2006), we find that the mean number of accurately located dots was 3.22 (SD = 1.01). In detail, participants in our study accurately reproduced about 81% of the four-dot patterns. Thus, the manipulation of cognitive load appears effective, such that the participants assigned to this group had fewer cognitive resources available during the LBO decision task.

4.3. Effects of Cognitive Load and Social Preferences on Restructuring Decisions

To H1 and H2, we gauge the effect of cognitive load and SVO on managers' preference for debt increases or massive layoffs, according to the switching point (Sw). With these hypotheses,

we predicted that managers under a heavy cognitive load would prefer massive layoffs, but high SVO managers would prefer the debt increase. Table 2.2 presents the results, including the switching points at which participants changed their choice for massive layoffs to increased debt.

In Model 1, we consider the results of the regression with only the variables of interest. Then we successively integrate the control variables in Models 2, 3, and 4. According to the F-statistic, all the models explain significant variance in the switching decisions. However, with an adjusted R2 value of 7.7%, Model 3 proves to be the superior version.

Notably, we find a positive and significant coefficient at the 1% level of the cognitive load variable in all regressions. Therefore, incorporating additional control variables does not alter the relationship between cognitive load and restructuring decisions, revealing the robustness of the effect of cognitive load on restructuring preferences. Managers with a heavy cognitive load tend to prefer massive layoff decisions longer than non-cognitively loaded managers. Because of its straightforward nature, the massive layoff decision appears to be the easier choice, demanding fewer cognitive resources. We thus find support for H1.

The negative and significant coefficient at the 5% level for SVO in all regressions also indicates support for H2. This result remains robust when we add the different control variables too. In line with our expectations, social value–oriented managers seek to avoid massive layoffs and therefore switch quickly to the debt increase.

[Insert Table 2.2. here]

In Table 2.3, we also report the results of our collinearity tests, on the basis of Model 4. Because the tolerance values generally are greater than 0, and the variance inflation factors are below standard thresholds, we find no evidence of multicollinearity among our study variables.

[Insert Table 2.3. here]

Finally, we can specify a significant positive effect of the BAS.FS variable at the 5% level, suggesting that reward-seeking managers who also have a propensity for fun-seeking behaviors are more inclined to choose layoffs as a cost reduction strategy that might be perceived as a reward for achievement. Furthermore, previous experience with LBOs, denoted by the LBOPE variable, appears to have a positive and significant impact, such that managers with such experience work to avoid increasing debt, perhaps due to the financial risks associated with elevated leverage.

4.4. Moral Reasoning

The decision-making scenario in our study involved a complex moral dilemma, due to the negative consequences associated with either option. Choosing layoffs incurs significant moral costs for the manager, but choosing to escalate debt levels could lead to bankruptcy, posing a grave risk to the firm. Particularly for LBO firms, such decisions also are compounded by heightened bankruptcy costs and managers' intensified incentive structures.

To investigate our exploratory proposition, we therefore analyze the behavior patterns displayed by our participants. Specifically, we examine their propensity to transition from layoff decisions to increased debt by analyzing the frequency distributions of these decisional shifts, as illustrated in Figure 2.1.

[Insert Figure 2.1. here]

It reveals three distinct groups, each of which exhibits a unique decision-making pattern. This segmentation, based on managerial conduct, also suggests a spectrum of underlying reasoning processes that influence their strategic choices. In turn, we propose a triad of managerial archetypes: one characterized by a propensity to pivot at the earliest juncture; another that tends to delay the transition as late as possible; and a third that displays a Gaussian distribution centered around a conventional switching threshold, with the Sharpe ratio as the referential benchmark.

The first group of managers is averse to extensive workforce reductions, defying the logic of the inverted Sharpe ratio. Their reasoning, rooted in deontological principles, prioritizes safeguarding employee welfare by immediately increasing corporate debt. In stark contrast, the

second group of managers adopts a postponement strategy that extends beyond the normative decision-making horizon. Their approach, heavily anchored in a utilitarian philosophy, champions the greater collective good, achieved through significant cost curtailments that result from extensive layoffs. The third group embraces a rational pivot point, as demarcated by the Sharpe ratio. The actions of these managers imply a balanced integration of financial prudence and ethical considerations. With these distinct archetypes, we can better understand the unique frameworks that underlie decision-making during corporate turnarounds.

4.5. Antecedents of Moral Judgment Rules

To delve deeper into those behaviors, we create three separate switching variables that reflect the three decision-making approaches we observed:

- **Sw 1: Deontological Reasoning :** This group comprises managers who shift from layoff decisions to opting for debt solutions in the initial scenario. This early shift is indicative of deontological moral reasoning.
- **Sw 2: Utilitarian Reasoning :** This group includes managers who change their decisions in the latter two scenarios, reflecting utilitarian moral reasoning.
- **Sw 3: Rational Decision-Making** : The final category includes managers who altered their decisions near the rational decision-making point, identified by the Sharpe ratio. This category represents managers who do not adhere exclusively to either single mode of moral reasoning.

With these categories, we can further assess the correlation between moral reasoning in restructuring decisions and various other factors.

In particular, by using logistic regressions to predict each of these variables, we gain critical insights into the influence of various factors on the moral reasoning approaches that managers take during restructuring, as we detail in Table 2.4. Regression (1), pertaining to the effect of cognitive load on deontological reasoning (Sw1), reveals a negative correlation. That is, managers with significant cognitive loads tend to eschew deontological reasoning, possibly due to their diminished capacity to recall and apply moral rules and principles in high- pressure scenarios, such as those involving LBO bankruptcy risks. Instead, they opt for more immediate, albeit less morally governed, solutions like massive layoffs.

We also find a negative association between high BAS.FS and deontological reasoning. This observation aligns with the notion that managers seeking immediate rewards, such as cost reductions through layoffs, are less inclined to embrace deontological processes.

[Insert Table 2.4 here]

Regression (2) demonstrates a negative relationship between SVO and utilitarian reasoning (Sw2). Managers with stronger personal social values are less likely to resort to utilitarian reasoning, suggesting a moral aversion to actions that could harm employees.

Regression (3) shows the results for heterogeneous moral reasoning; we find no significant correlation between our predictor variables and the decision-making processes of this third group. Rather, they demonstrate a complex and varied approach to moral reasoning, not distinctly aligned with either deontological or utilitarian frameworks.

Thus, in the specific context of LBO firms experiencing financial difficulties, we demonstrate a pronounced tendency among managers under cognitive loads to prefer cost-cutting measures, such as downsizing. In experimental decision-making scenarios, these managers easily choose to lay off employees rather than incur additional debt for corporate recovery. This tendency might be attributed to the dynamics of the power distributions among the residual claimants, such that shareholders and creditors exert considerably more influence in their efforts to protect their assets, whereas employees possess limited bargaining power and cannot exert similar levels of pressure on managerial decisions. This observation is consistent with existing research linking cognitive load to risk-averse behaviors (Whitney et al., 2008 ; Benjamin et al., 2013).

However, decision-making patterns change when we include managers' SVOs. Those with a strong orientation toward social values consistently avoid drastic cost-cutting measures, such as massive layoffs, regardless of their cognitive load. This finding aligns with the concept of social preferences and reinforces the importance of leader characteristics in decision-making processes (Zhang et al., 2020).

6. Conclusion

This study highlights the relevant impacts of cognitive resources and orientations toward social values on managerial decision-making in a leveraged buyout context, particularly when the firm faces financial distress. As our findings reveal, both cognitive overload and social preferences influence managers' restructuring choices, often with significant organizational and social consequences. Notably, managers of LBO firms likely perceive substantial pressure to deliver results and meet debt obligations. In severe cases of financial distress, managers under such high cognitive loads need to implement restructuring plans, which could include cost-cutting measures, layoffs, and other strategies to improve financial performance. Such tactics might be necessary for financial recovery, but they also threaten negative social and organizational consequences.

By shedding light on these internal and interpersonal dynamics and how they interact to inform decision-making, this research contributes to a deeper understanding of strategic processes in high-stakes financial environments. Furthermore, it underscores the need for more comprehensive approaches when evaluating managerial behaviors and decisions, especially during financial crises in LBO scenarios.

References

Abatecola, G., Caputo, A., & Cristofaro, M. (2018). Reviewing cognitive distortions in managerial decision making : Toward an integrative co-evolutionary framework. Journal of Management Development, Vol. 37 No. 5, pp. 409-424. https://doi.org/10.1108/JMD-08-2017-0263

Allred, S., Duffy, S., & Smith, J. (2016). Cognitive load and strategic sophistication | Elsevier Enhanced Reader. Journal of Economic Behavior & Organization, Vol. 125, pp. 162–178. https://doi.org/10.1016/j.jebo.2016.02.006

Altman, E. I., Hotchkiss, E., & Wang, W. (2019). Corporate financial distress, restructuring, and bankruptcy : Analyze leveraged finance, distressed debt, and bankruptcy. John Wiley & Sons, 368 p.

Ashta, A., Bretones, F. D., & Tolle, L. (2005). Selecting Restructuring Strategies for Sick Companies : Incorporating the Decision-Making Element, Social Science Research Network. https://doi.org/10.2139/ssrn.1003214

Ayadi, R. (2012). Reorganization of Bankrupt Firms in France Continuation Versus Sale. Social Science Research Network. https://doi.org/10.2139/ssrn.2079697

Ayash, B., & Rastad, M. (2021). Leveraged buyouts and financial distress. Finance Research Letters, 101452. https://doi.org/10.1016/j.frl.2020.101452

Benjamin, D. J., Brown, S. A., & Shapiro, J. M. (2013). Who is Behavioral ? Cognitive Ability and Anomalous Preferences. Journal of the European Economic Association, Vol. 11 No. 6, pp. 1231-1255. https://doi.org/10.1111/jeea.12055

Betker, B. L. (1995). Management's Incentives, Equity's Bargaining Power, and Deviations from Absolute Priority in Chapter 11 Bankruptcies. The Journal of Business, Vol. 68 No. 2, pp. 161-183.

Broude, R. F. (1984). Cramdown and Chapter 11 of the Bankruptcy Code : The Settlement Imperative. The Business Lawyer, Vol. 39 No. 2, pp. 441-454.

Brown, D. T. (1989). Claimholder Incentive Conflicts in Reorganization : The Role of Bankruptcy Law. The Review of Financial Studies, Vol. 2 No. 1, pp. 109-123. https://doi.org/10.1093/rfs/2.1.109

Bulow, J. I., & Shoven, J. B. (1978). Forced Bankruptcy. Bell Journal of Economics, Vol. 9 No. 2, pp. 437-456.

Cappelen, A. W., Luttens, R. I., Sørensen, E. Ø., & Tungodden, B. (2019). Fairness in Bankruptcies : An Experimental Study. Management Science, Vol. 65 No. 6, pp. 2832-2841. https://doi.org/10.1287/mnsc.2018.3029

Carpenter, J., Graham, M., & Wolf, J. (2013). Cognitive ability and strategic sophistication. Games and Economic Behavior, Vol. 80, pp. 115-130. https://doi.org/10.1016/j.geb.2013.02.012

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment : The BIS/BAS Scales. Journal of Personality and Social Psychology, Vol. 67 No. 2, pp. 319-333. https://doi.org/10.1037/0022-3514.67.2.319

Cornelissen, G., Dewitte, S., & Warlop, L. (2011). Are Social Value Orientations Expressed Automatically? Decision Making in the Dictator Game. Personality and Social Psychology Bulletin, Vol. 37 No. 8, pp. 1080-1090. https://doi.org/10.1177/0146167211405996

Corr, P. J. (2004). Reinforcement sensitivity theory and personality. Neuroscience & Biobehavioral Reviews, Vol. 28 No. 3, pp. 317-332. https://doi.org/10.1016/j.neubiorev.2004.01.005

Daigle, K. H., & Maloney, M. T. (1994). Residual Claims in Bankruptcy : An Agency Theory Explanation. Journal of Law & Economics, Vol. 37 No. 1, pp. 157-193.

Deck, C., & Jahedi, S. (2015). The effect of cognitive load on economic decision making : A survey and new experiments. European Economic Review, Vol. 78, pp. 97-119.

Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual Risk Attitudes : Measurement, Determinants, and Behavioral Consequences. Journal of the European Economic Association, Vol. 9 No. 3, pp. 522-550. https://doi.org/10.1111/j.1542-4774.2011.01015.x

Francis, J. D., & Desai, A. B. (2005). Situational and organizational determinants of turnaround. Management Decision, Vol. 43 No. 9, pp. 1203-1224. https://doi.org/10.1108/00251740510626272

Franco-Watkins, A. M., Rickard, T. C., & Pashler, H. (2010). Taxing executive processes does not necessarily increase impulsive decision making. Experimental psychology, Vol. 57 No.3, pp. 193-201.

Gerhardt, H. (2013). Essays in experimental and neuroeconomics [doctoralThesis, Humboldt-Universität zu Berlin, Wirtschaftswissenschaftliche Fakultät]. https://doi.org/10.18452/16722

Gietzmann, M., Isidro, H., & Raonic, I. (2018). Vulture funds and the fresh start accounting value of firms emerging from bankruptcy. Journal of Business Finance & Accounting, Vol. 45 No. 3-4, pp. 410-436. https://doi.org/10.1111/jbfa.12303

Gray, P., & Bjorklund, D. F. (2018). Psychology (8th edition), Macmillan Learning, 750 p.

Greene, J. D., Morelli, S. A., Lowenberg, K., Nystrom, L. E., & Cohen, J. D. (2008). Cognitive load selectively interferes with utilitarian moral judgment. Cognition, Vol. 107 No. 3, pp. 1144-1154. https://doi.org/10.1016/j.cognition.2007.11.004

Greene, J. D., Nystrom, L. E., Engell, A. D., Darley, J. M., & Cohen, J. D. (2004). The Neural Bases of Cognitive Conflict and Control in Moral Judgment. Neuron, Vol. 44 No. 2, pp. 389-400. https://doi.org/10.1016/j.neuron.2004.09.027

Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. Science, Vol. 293 No. 5537, pp. 2105-2108.

Hinson, J. M., Jameson, T. L., & Whitney, P. (2002). Somatic markers, working memory, and decision making. Cognitive, Affective, & Behavioral Neuroscience, Vol. 2 No. 4, pp. 341-353. https://doi.org/10.3758/CABN.2.4.341

Holt, C. A., & Laury, S. K. (2002). Risk Aversion and Incentive Effects. American Economic Review, Vol. 92 No. 5, pp. 1644-1655. https://doi.org/10.1257/000282802762024700

Hotchkiss, E. S., & Mooradian, R. M. (1997). Vulture investors and the market for control of distressed firms. Journal of Financial Economics, Vol. 43 No. 3, pp. 401-432. https://doi.org/10.1016/S0304-405X(96)00900-2

Hotchkiss, E. S., Smith, D. C., & Strömberg, P. (2021). Private Equity and the Resolution of Financial Distress. The Review of Corporate Finance Studies, Vol. 10 No. 4, pp. 694-747. https://doi.org/10.1093/rcfs/cfab015

Jensen, M. C. (1989). Eclipse of the public corporation. Harvard Business Review, September-October.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm : Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, Vol. 3 No. 4, pp. 305-360.

Johnson, R. A. (1996). Antecedents and outcomes of corporate refocusing. Journal of Management, Vol. 22 No. 3, pp. 439-483. https://doi.org/10.1016/S0149-2063(96)90032-X

Kim, S. E. (Summer). (2022). Dynamic Corporate Residual Claimants : A Multicriteria Assessment. Social Science Research Network. https://papers.ssrn.com/abstract=4124493

McClintock, C. G. (1978). Social values : Their definition, measurement and development. Journal of Research & Development in Education, Vol. 12 No. 1, pp. 121–137.

Murphy, R. O., Ackermann, K. A., & Handgraaf, M. (2011). Measuring Social Value Orientation. Social Science Research Network. https://doi.org/10.2139/ssrn.1804189

Myers, S. C. (1977). Determinants of corporate borrowing. Journal of Financial Economics, Vol. 5 No. 2, pp. 147-175. https://doi.org/10.1016/0304-405X(77)90015-0

Neys, W. D. (2006). Dual Processing in Reasoning : Two Systems but One Reasoner. Psychological Science, Vol. 17 No. 5, pp. 428-433. https://doi.org/10.1111/j.1467-9280.2006.01723.x

Olsen, R. A. (2010). Toward a theory of behavioral finance : Implications from the natural sciences. Qualitative Research in Financial Markets, Vol. 2 No. 2, pp. 100-128. https://doi.org/10.1108/17554171080000383

Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks : Detecting satisficing to increase statistical power. Journal of Experimental Social Psychology, Vol. 45 No. 4, pp. 867-872. https://doi.org/10.1016/j.jesp.2009.03.009

Paas, F., Tuovinen, J. E., Tabbers, H., & Van Gerven, P. W. M. (2003). Cognitive Load Measurement as a Means to Advance Cognitive Load Theory. Educational Psychologist, Vol. 38 No. 1, pp. 63-71. https://doi.org/10.1207/S15326985EP3801_8

Riedl, A., & Smeets, P. (2017). Social Preferences and Portfolio Choice (SSRN Scholarly Paper 2334641). Social Science Research Network. https://doi.org/10.2139/ssrn.2334641

Sarah R, A., L Elizabeth, C., Sean, D., & John, S. (2016). Working memory and spatial judgments : Cognitive load increases the central tendency bias, Psychonomic Bulletin & Review, Vol. 23, pp. 1825–1831. https://doi.org/10.3758/s13423-016-1039-0

Schulz, J. F., Fischbacher, U., Thöni, C., & Utikal, V. (2014). Affect and fairness : Dictator games under cognitive load. Journal of Economic Psychology, Vol. 41, pp. 77-87. https://doi.org/10.1016/j.joep.2012.08.007

Senbet, L. W., & Seward, J. K. (1995). Chapter 28 Financial distress, bankruptcy and reorganization. In Handbooks in Operations Research and Management Science, Vol. 9, pp. 921-961. Elsevier. https://doi.org/10.1016/S0927-0507(05)80072-6

Sharpe, W. F. (1994). The Sharpe Ratio. Journal of Portfolio Management, Vol. 21 No. 1, pp. 49-58.

Taatian, A. (2021). Debt Holders and the Choice of Restructuring : Evidence from Dual Holders (SSRN Scholarly Paper 3847056). Social Science Research Network. https://doi.org/10.2139/ssrn.3847056

Tversky, A., & Kahneman, D. (1981). The Framing of Decisions and the Psychology of Choice. Science, Vol. 211 No. 4481, pp. 453-458. https://doi.org/10.1126/science.7455683

Tversky, A., & Kahneman, D. (1992). Advances in Prospect Theory : Cumulative Representation of Uncertaint. Journal of Risk and Uncertainty, Vol. 5, pp. 297-323.

Whitney, P., Rinehart, C. A., & Hinson, J. M. (2008). Framing effects under cognitive load : The role of working memory in risky decisions. Psychonomic Bulletin & Review, Vol. 15 No. 6, pp. 1179-1184. https://doi.org/10.3758/PBR.15.6.1179

Xu, Z. X., & Ma, H. K. (2016). How Can a Deontological Decision Lead to Moral Behavior? The Moderating Role of Moral Identity. Journal of Business Ethics, Vol. 137 No. 3, pp. 537-549. https://doi.org/10.1007/s10551-015-2576-6

Zhang, Y., Yu, Z., & Mai, X. (2020). The influence of social value orientation on self-other risk decision-making and its mechanisms. Acta Psychologica Sinica, Vol. 52 No. 7, pp. 895-908.

Table 2.1. Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Sw	222	7.63	3.54	1	14
CL	222	0.48	0.50	0	1
RA	222	3.46	2.68	0	14
SVO	222	27.38	13.09	-13,70	52.90
BAS.D	222	9.23	2.44	4	16
BAS.FS	222	8.86	2.20	4	15
BAS.RR	222	8.82	2.24	5	18
BIS	222	2.88	3.76	-4	14
Gender	222	1.52	0.50	1	2
Age	222	39.68	10.40	24	65
EduLev	222	1.43	0.65	0	3
ExE	222	0.38	0.49	0	1
ExCS	222	6.69	2.33	0	10
EMEFA	222	0.18	0.39	0	1
PC	222	0.18	0.39	0	1
LBOPE	222	0.08	0.27	0	1

Source: Author own creation

Notes: Sw = the switching dependent variable; CL = cognitive load; RA = risk aversion; SVO = social value orientation; BAS = behavioral activation system, which reflects three components: drive, or BAS.D, fun seeking, or BAS.FS, and reward responsiveness, or BAS.RR; BIS = behavioral inhibition system; EduLev = education level; ExE = experiment experience; ExCS = experience comprehension score; EMEFA = educational major in economics, finance, or accounting; PC = professional certification; and LBOPE = leveraged buyout prior experience.

Table 2.2. Regression Analyses

	Dependent Variable: Switching			
	(1)	**(2)**	**(3)**	**(4)**
CL	1.342***	1.309***	1.394***	1.361***
	(0.464)	(0.461)	(0.462)	(0.478)
SVO	2.403**	-2.530**	-2.406**	-2.451**
	(1.033)	(1.039)	(1.037)	(1.089)
BIS	-0.017	-0.016	-0.033	-0.028
	(0.063)	(0.064)	(0.065)	(0.071)
BAS.FS	0.238**	0.312**	0.310**	0.303**
	(0.107)	(0.126)	(0.126)	(0.128)
BAS.RR		-0.124	-0.087	-0.079
		(0.135)	(0.136)	(0.139)
BAS.D		0.046	0.054	0.060
		(0.134)	(0.134)	(0.138)
RA		-0.036	-0.040	-0.047
		(0.086)	(0.086)	(0.088)
LBOPE		2.014**	1.967**	2.105**
		(0.878)	(0.875)	(0.907)
ExCS			0.178*	0.189*
			(0.104)	(0.109)
PC				-0.577
				(0.667)
EMEFA				0.490
				(0.665)
EduLev				-0.096
				(0.365)
Age				-0.002
				(0.023)
Gender				0.149
				(0.537)
ExE				-0.092
				(0.505)
Constant	6.075***	6.095***	4.494***	4.890***
	(1.132)	(1.246)	(1.556)	(1.862)
Observations	222	217	217	217
R^2	0.072	0.103	0.116	0.120
Adjusted R^2	0.055	0.069	0.077	0.055
Residual Std. Error	3.440 (df = 217)	3.375 (df = 208)	3.360 (df = 207)	3.400 (df = 201)
F statistic	4.208*** (df = 4; 217)	2.990*** (df = 8; 208)	3.005*** (df = 9; 207)	1.835** (df = 15; 201)

*p<0.1; **p<0.05; ***p<0.01.

Source: Authors own creation

Notes: The variables in this table are defined in the notes to Table 2.1.

Table 2.3. Collinearity Test Results

Statistic	N	Mean	St. Dev.	Min	Max
Tolerance	15	0.80	0.14	0.47	0.94
Variance inflation Factor	15	1.31	0.31	1.07	2.12

Source: Authors own creation

Table 2.4. Logit Analysis of Switching Variables

	Dependent Variables		
	Sw1	Sw2	Sw3
	(1)	(2)	(3)
CL	-1.080**	0.495	0.279
	(0.479)	(0.445)	(0.328)
SVO	0.012	-0.031**	0.012
	(0.018)	(0.015)	(0.012)
BAS.FS	-0.231**	0.168	0.027
	(0.107)	(0.103)	(0.076)
LBOPE	-0.979	0.825	0.060
	(1.072)	(0.703)	(0.606)
Constant	0.065	3.184***	0.564
	(1.012)	(1.045)	(0.754)
Observations	222	222	222
Log Likelihood	-72.965	-72.174	-116.166
Akaike Inf. Crit.	155.930	154.349	242.332

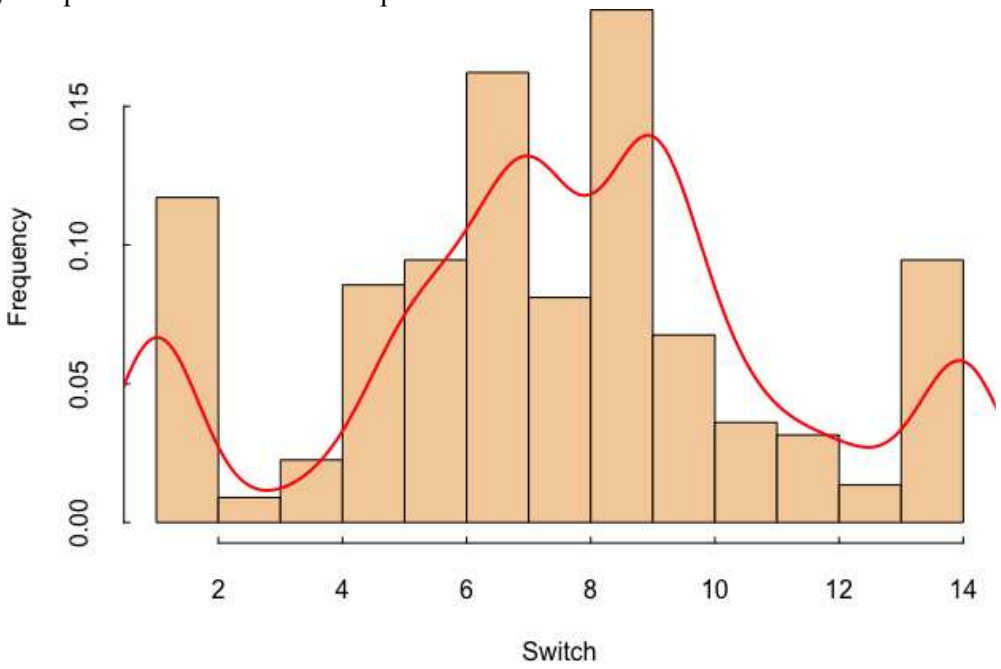
$*p < 0.1$; $**p < 0.05$; $***p < 0.01$.

Source: Authors own creation

Notes: Sw1 is the dummy dependent variable for the group of managers who switched from the massive layoff solution to the increase in debt immediately in the first scenario. Sw2 is the binary dependent variable for the group of managers who switched from the massive layoff solution to the increase in debt later in the last scenario. The Sw3 variable refers to managers who do not belong to either of the first two groups. The regression includes the CL (cognitive load), SVO (social value orientation), BAS.FS (behavioral activation system–fun seeking), and LBOPE (experience in prior leveraged buyouts).

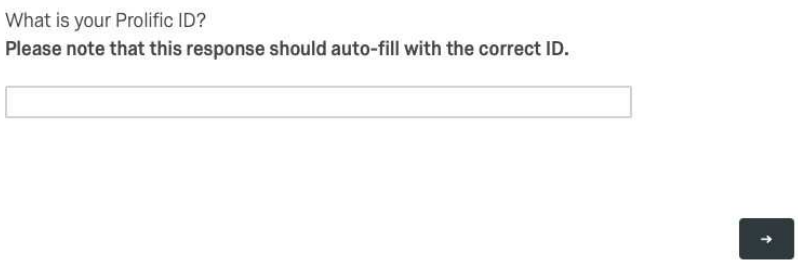
Figure 2.1. Switch Point Distribution

Figure 2.1 illustrates the frequency distribution of switching points from the layoff option to the debt increase option.



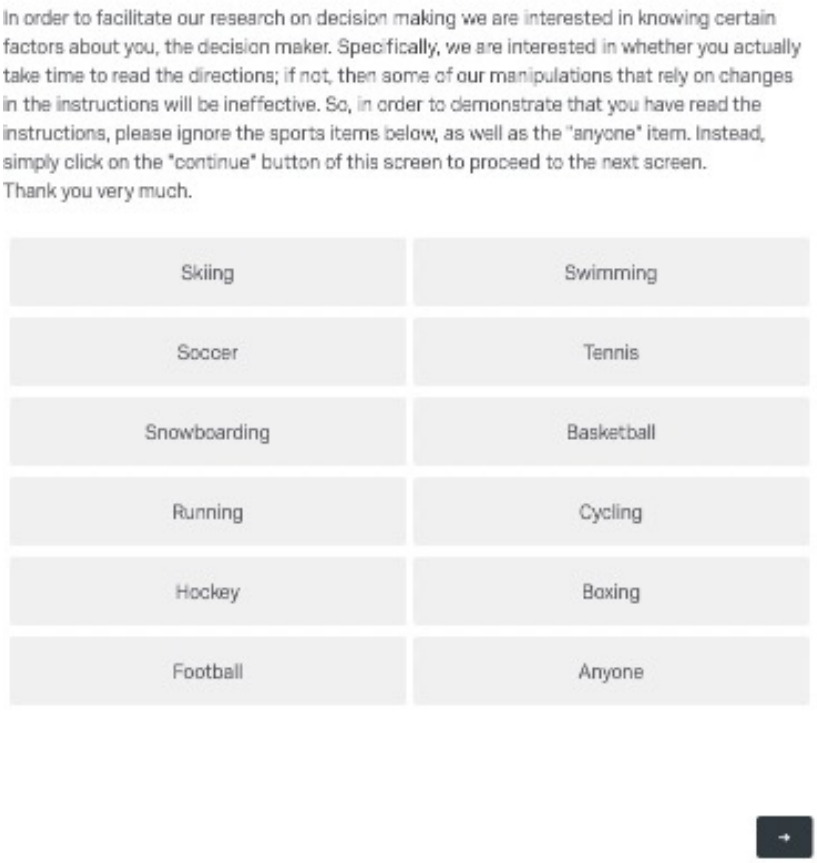
Source: Authors own creation

Appendix 2.1. Prolific auto-fill ID



Source: From Prolific recommendation

Appendix 2.2. Instruction Manipulation Check


In order to facilitate our research on decision making we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you actually take time to read the directions; if not, then some of our manipulations that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the sports items below, as well as the "anyone" item. Instead, simply click on the "continue" button of this screen to proceed to the next screen.
Thank you very much.

Skiing	Swimming
Soccer	Tennis
Snowboarding	Basketball
Running	Cycling
Hockey	Boxing
Football	Anyone

→

Source: Instruction Manipulation Check from Oppenheimer et al. (2009)

Appendix 2.3. Restructuring decision

For this experience, you are the manager of a distressed firm after completion of a Leveraged BuyOut (LBO) deal, which is a firm acquisition by using a very important amount of debt. This deal has led to an imbalance in the financial structure of the firm, which was already heavily indebted. The transaction also allowed you to become a shareholder while remaining a manager of the company. To try to improve the financial situation of the company, you have to choose between two options : - Either you lay off a lot of people (but the moral cost can be high) ; - Or you increase the debt further (the risk increases for the company).

If you lay off people, you have a 50% chance that your company will make a profit of $12 M and a 50% chance that it will make a loss of $4M. If you increase the debt, you have a 50% chance of restoring the company with a positive result and a 50% chance of obtaining a negative result.

If you lay off a lot of people, it can be morally difficult, and you will have to face the unions. Alternatively, choosing a high debt level can avoid layoffs but can quickly put the entire company in danger. Now, you are faced with the decision of whether to layoff massively or to increase significantly the firm debt.

(on separate page)

The table below presents the series of choices between laying off, on the left, and increasing debt, on the right. Each row in the table corresponds to a new scenario of choice. When choosing the layoff option, the scenarios are all identical. And when choosing the debt increase option, each new scenario corresponds to a lower debt increase. This means that debt increase becomes smaller and smaller from row to row.

For each choice, the two sub-columns describe the positive and negative outcome, each of which has a 50% chance of occurring. If you choose to layoff, your company will either earn 12M or loose 4M. The outcome is identical in all scenarios. If you choose to increase the debt of the company, the earnings of your company may vary.

In the first scenario, laying off 10% of the employees leads to 4M in expected earnings (50%*12+50%*-4). Increasing debt by 26% to a leverage of 100% leads to 0 in expected earnings (50%*12+50%*-12). Consider that this additional debt leads to a very high risk of bankruptcy putting all jobs at stake.

As the scenarios progress, the debt increase level decreases and you ask yourself at which line debt becomes preferable to layoffs.

In other words, given the high moral cost of layoffs, at which scenario are you ready to move to a debt increase ?

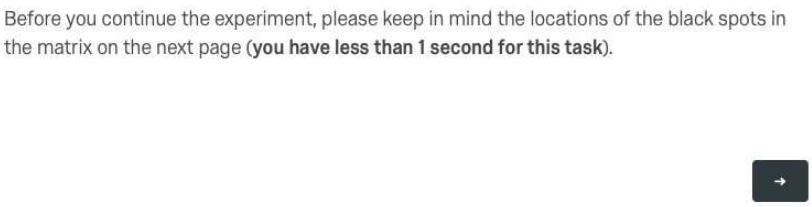
Appendix 2.4. Restructuring decision-making task

			Layoff	Increase debt			
	50%	50%			50%	50%	
6k layoffs (10% of employees)	12 M	-4 M	○	○	12 M	-12 M	Debt : +26% (100% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	13 M	-11 M	Debt : +24% (98% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	14 M	-10 M	Debt : +22% (96% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	15 M	- 9 M	Debt : +20% (94% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	16 M	- 8 M	Debt : +18% (92% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	17 M	- 7 M	Debt : +16% (90% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	18 M	- 6 M	Debt : +14% (88% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	19 M	- 5 M	Debt : +12% (86% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	20 M	- 4 M	Debt : +10% (84% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	21 M	-3 M	Debt : +8% (82% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	22 M	-2 M	Debt : +6% (80% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	23 M	-1 M	Debt : +4% (78% leverage)
6k layoffs (10% of employees)	12 M	-4 M	○	○	24 M	0 M	Debt : +2% (76% leverage)

Source: Authors own creation.

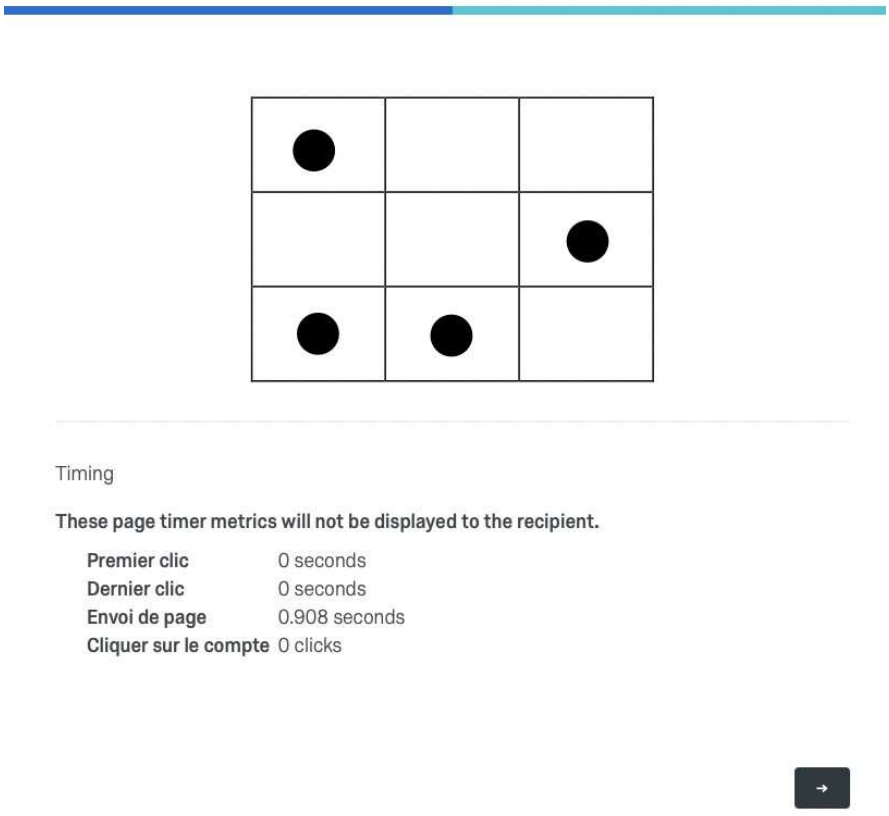
Appendix 2.5. Cognitive load manipulation

Appendix 2.5.1. Cognitive load instruction



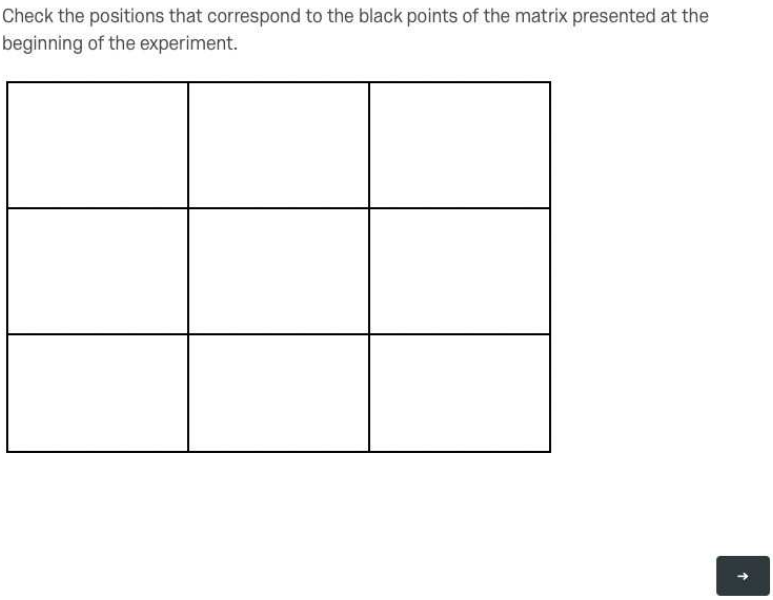
Source: Cognitive load task from Neys (2006)

Appendix 2.5.2. Cognitive load instruction



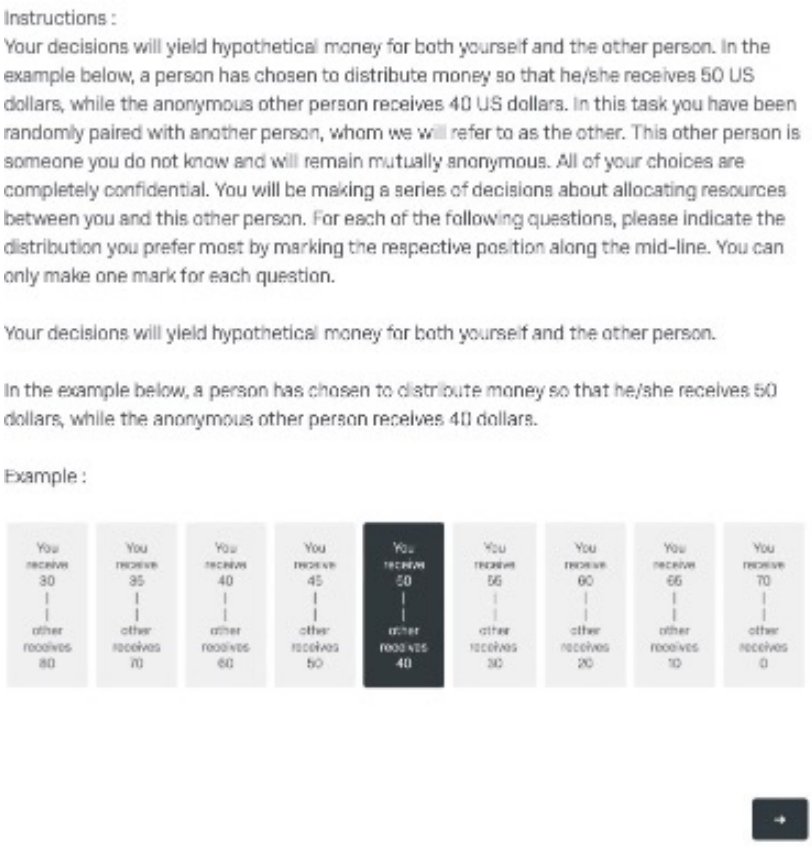
Source: Cognitive load task from Neys (2006)

Appendix 2.5.3. Cognitive load check



Source: Cognitive load check from Neys (2006)

Appendix 2.6. Social value orientation

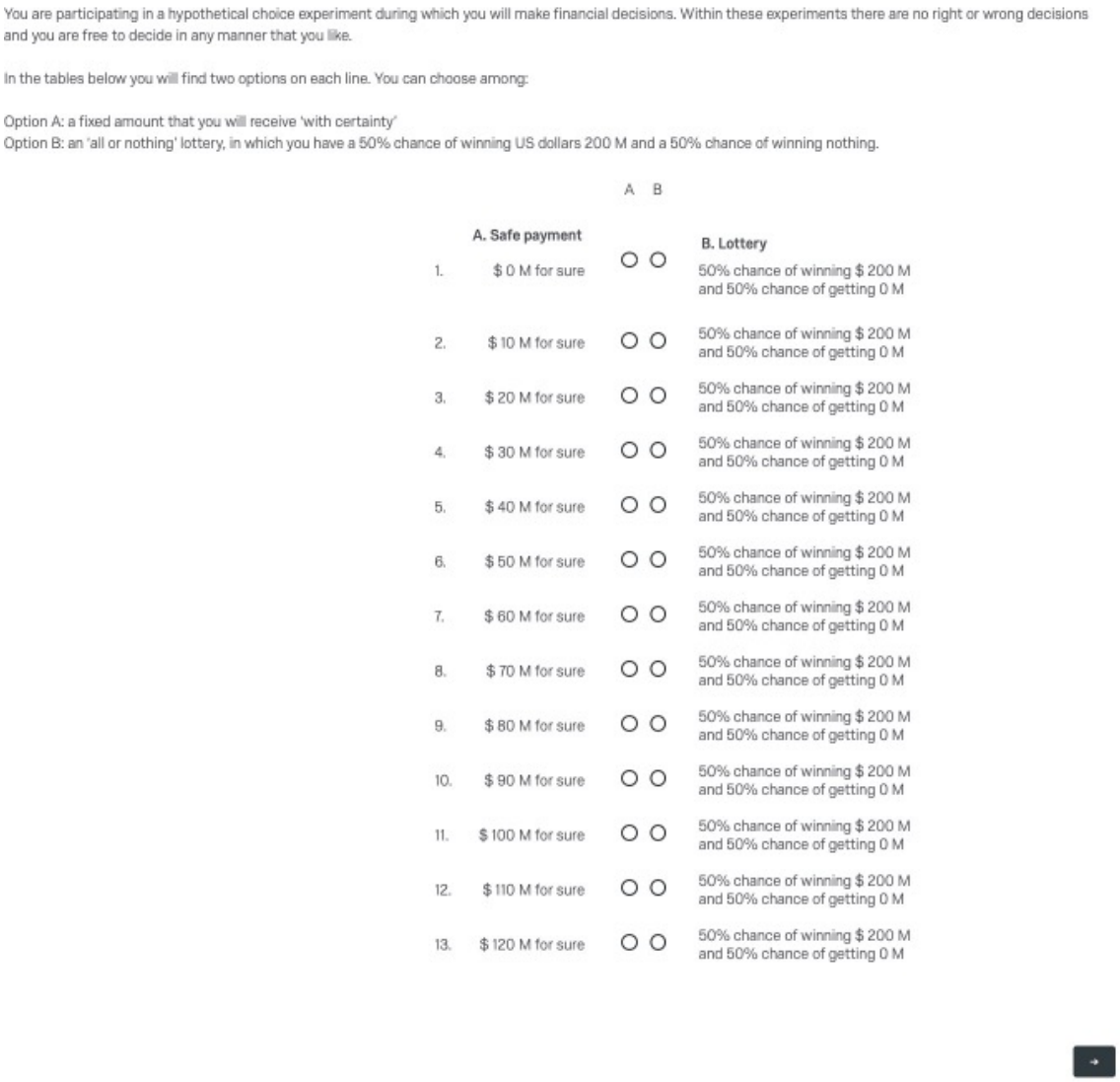


Source: Social value orientation measurement instruction from Murphy et al. (2011)

Appendix 2.7. Social value orientation measurement

Source: Social value orientation measurement from Murphy et al. (2011)

Appendix 2.8. Risk aversion measurement task



You are participating in a hypothetical choice experiment during which you will make financial decisions. Within these experiments there are no right or wrong decisions and you are free to decide in any manner that you like.

In the tables below you will find two options on each line. You can choose among:

Option A: a fixed amount that you will receive 'with certainty'
Option B: an 'all or nothing' lottery, in which you have a 50% chance of winning US dollars 200 M and a 50% chance of winning nothing.

	A. Safe payment	A	B	B. Lottery
1.	$ 0 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
2.	$ 10 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
3.	$ 20 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
4.	$ 30 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
5.	$ 40 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
6.	$ 50 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
7.	$ 60 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
8.	$ 70 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
9.	$ 80 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
10.	$ 90 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
11.	$ 100 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
12.	$ 110 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M
13.	$ 120 M for sure	○	○	50% chance of winning $ 200 M and 50% chance of getting 0 M

→

Source: Risk aversion measurement task from Dohmen et al. (2011)

Appendix 2.9. BIS-BAS (1/2)

Each item of this questionnaire is a statement that a person may either agree with or disagree with. For each item, indicate how much you agree or disagree with what the item says. Please respond to all the items; do not leave any blank. Choose only one response to each statement. Please be as accurate and honest as you can be. Respond to each item as if it were the only item. That is, don't worry about being "consistent" in your responses. Choose from the following four response options:

	very true for me	somewhat true for me	somewhat false for me	very false for me
A person's family is the most important thing in life.	○	○	○	○
Even if something bad is about to happen to me, I rarely experience fear or nervousness.	○	○	○	○
I go out of my way to get things I want.	○	○	○	○
When I'm doing well at something I love to keep at it.	○	○	○	○
I'm always willing to try something new if I think it will be fun.	○	○	○	○
How I dress is important to me.	○	○	○	○
When I get something I want, I feel excited and energized.	○	○	○	○
Criticism or scolding hurts me quite a bit.	○	○	○	○
When I want something I usually go all-out to get it.	○	○	○	○
I will often do things for no other reason than that they might be fun.	○	○	○	○
It's hard for me to find the time to do things such as get a haircut.	○	○	○	○
If I see a chance to get something I want I move on it right away.	○	○	○	○
I feel pretty worried or upset when I think or know somebody is angry at me.	○	○	○	○

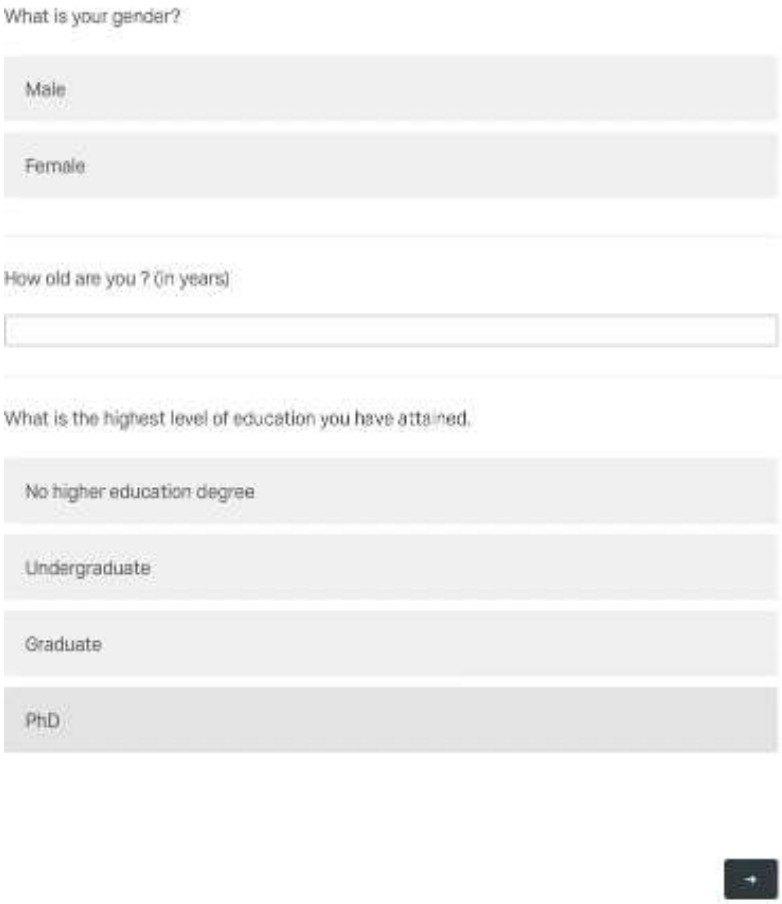
Source: BIS BAS measurement 1.1 form Carver and White (1994)

Appendix 2.9. BIS-BAS (2/2)

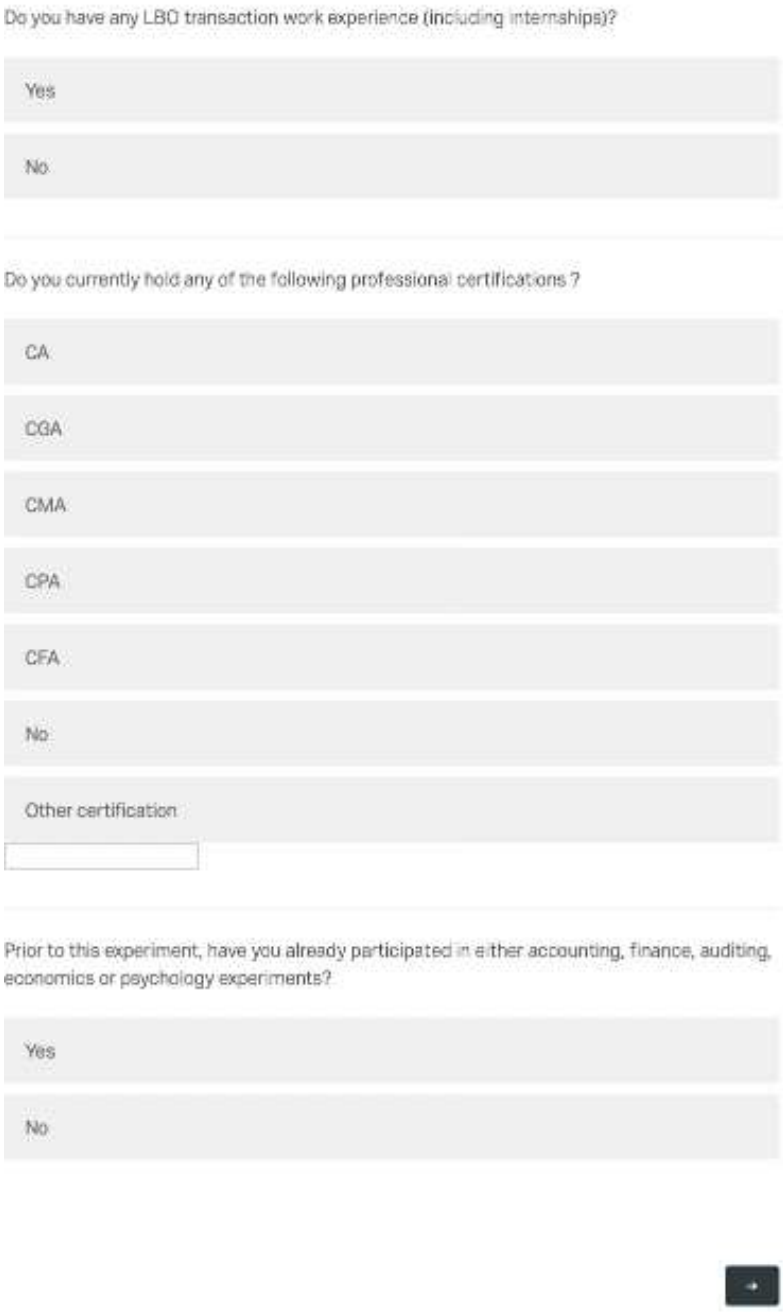
Source: BIS BAS measurement 1.2 form Carver and White (1994)

Appendix 2.10. Sociodemographic variables

Appendix 2.10.1. Identification

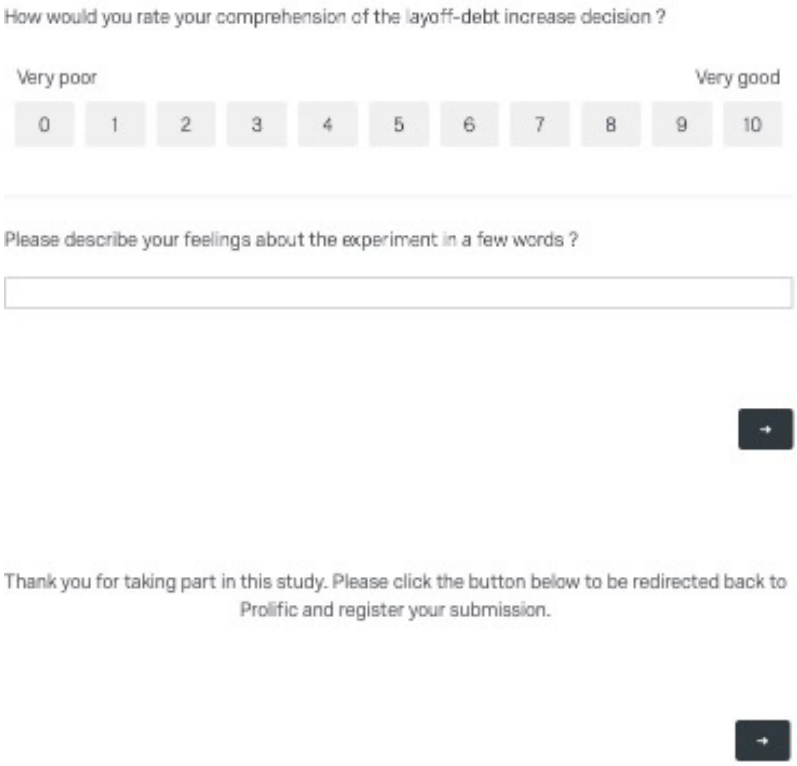


Appendix 2.10.2. LBO experience



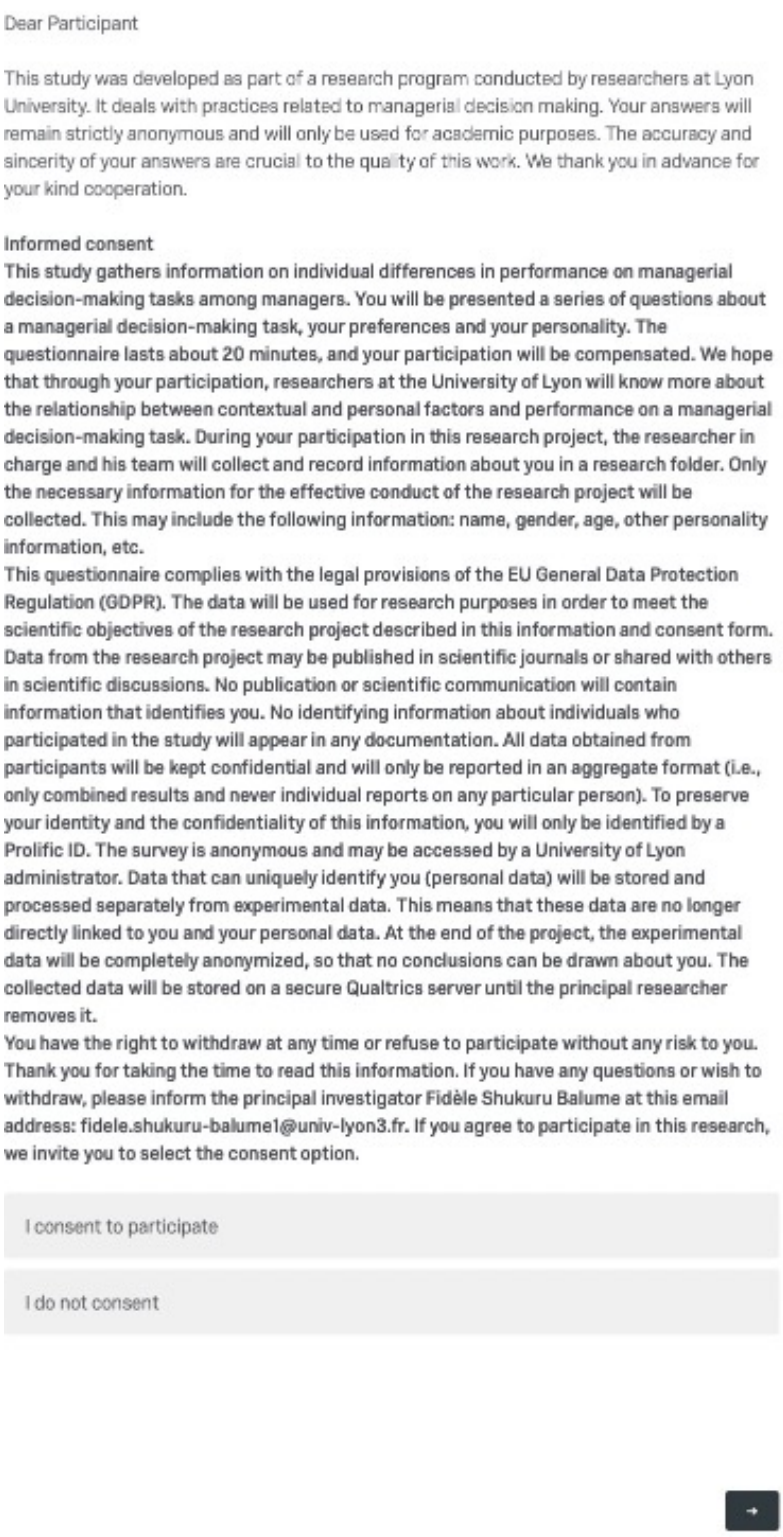
Source: Authors own creation

Appendix 2.11. Experiment comprehension score



Source: Authors own creation

Appendix 2.12. Consent Form



Dear Participant

This study was developed as part of a research program conducted by researchers at Lyon University. It deals with practices related to managerial decision making. Your answers will remain strictly anonymous and will only be used for academic purposes. The accuracy and sincerity of your answers are crucial to the quality of this work. We thank you in advance for your kind cooperation.

Informed consent

This study gathers information on individual differences in performance on managerial decision-making tasks among managers. You will be presented a series of questions about a managerial decision-making task, your preferences and your personality. The questionnaire lasts about 20 minutes, and your participation will be compensated. We hope that through your participation, researchers at the University of Lyon will know more about the relationship between contextual and personal factors and performance on a managerial decision-making task. During your participation in this research project, the researcher in charge and his team will collect and record information about you in a research folder. Only the necessary information for the effective conduct of the research project will be collected. This may include the following information: name, gender, age, other personality information, etc.

This questionnaire complies with the legal provisions of the EU General Data Protection Regulation (GDPR). The data will be used for research purposes in order to meet the scientific objectives of the research project described in this information and consent form. Data from the research project may be published in scientific journals or shared with others in scientific discussions. No publication or scientific communication will contain information that identifies you. No identifying information about individuals who participated in the study will appear in any documentation. All data obtained from participants will be kept confidential and will only be reported in an aggregate format (i.e., only combined results and never individual reports on any particular person). To preserve your identity and the confidentiality of this information, you will only be identified by a Prolific ID. The survey is anonymous and may be accessed by a University of Lyon administrator. Data that can uniquely identify you (personal data) will be stored and processed separately from experimental data. This means that these data are no longer directly linked to you and your personal data. At the end of the project, the experimental data will be completely anonymized, so that no conclusions can be drawn about you. The collected data will be stored on a secure Qualtrics server until the principal researcher removes it.

You have the right to withdraw at any time or refuse to participate without any risk to you. Thank you for taking the time to read this information. If you have any questions or wish to withdraw, please inform the principal investigator Fidèle Shukuru Balume at this email address: fidele.shukuru-balume1@univ-lyon3.fr. If you agree to participate in this research, we invite you to select the consent option.

I consent to participate

I do not consent

→

Source: Authors own creation

Essay 3
LBO and Firm ESG Commitment[10]

Abstract

This study analyzes the impact of leverage buyouts (LBOs) on firms' Environmental, Social and Governance (ESG) commitments. Contrary to the hypothesis that companies under the LBO have higher ESG levels, our results reveal that these companies exhibit lower ESG scores than their comparable firms immediately prior to the LBO deal. Looking at the post-deal period, we find a significant decrease in the ESG commitment of the target firms. The post-deal reduction in ESG commitment can be attributed to greater financial constraints. The heightened financial pressure stemming from the use of substantial debt to finance the LBO leads companies to prioritize short-term profitability over long-term sustainable investments. These findings underline the importance of close monitoring ESG practices in LBO transactions by investors, regulators, and other stakeholders to promote sustainable and responsible corporate management in the long term.

Keywords : ESG commitment, financial distress risk, leverage buyout, financial structure

JEL classification : M14, G3

[10] This chapter refers to the paper entitled: " LBO and Firm ESG Commitment " with Pr. Jean-François Gajewski (UJML3) and Pr. Dolly King (UNCC . It has been initiated when we visited the University of North Carolina at Charlotte in 2023. Thanks to the UNCC. It was presented at the French Finance Association Conference (Lille, 2024), the Clermont Financial Innovation Workshop (Clermont-Ferrand, 2024), and the Investor Emotions and Asset Pricing Meeting (Lille, 2024). Many thanks to Wendi Huang, Aymen Turki, Jean-Gabriel Cousin, and Diana Pop for their useful comments.).

1. Introduction

Leverage buyout (LBO) is an acquisition method whose importance has been widely recognized since the seminal work of Jensen (1989). At the beginning of the 21st century, leveraged buyouts accounted for approximately 25% of the global M&A market (Metrick and Yasuda, 2010). The LBO structure involves the acquisition of a company by an investment company, using substantial debt financing and a relatively small proportion of equity (Kaplan and Stromberg, 2009). However, when analyzing the impact of LBOs on a company, the literature has focused on financial and operational performance. Some authors point to the negative impact of LBOs on financial performance and employment (Goergen and Wood, 2014), while others emphasize the benefits of these operations in terms of value creation (Kaplan, 1989; Cumming et al., 2007; Guo et al., 2011). In recent years, major findings based on empirical evidence have emerged, with studies demonstrating that LBOs have no real effect on operating performance (Ayash and Schütt, 2016), that LBOs ultimately increase a company's risk of financial distress (Andrade and Kaplan, 1998 ; Tykvov and Borell, 2012; Ayash and Rastad, 2021) and that these operations can become a means by which wealth transfers are carried out (Marais et al., 1989 ; Easterwood, 1998 ; Ayres, 2020). With regard to corporate governance, the literature emphasizes that LBOs lead to numerous changes in the company's direction and strategy (Easterwood et al., 1989 ; Harris et al., 2005). New owners, mostly private equity (PE) firms, set objectives for the management team to focus primarily on financial performance. The management team is committed to the private equity' strategy since it often participates in their capital or benefits from a significant financial incentive scheme (DeAngelo and DeAngelo, 1987).

Although the financial, organizational, and strategic impact of LBOs has received considerable attention in the literature, their impact on the company's Environmental, Social and Governance (ESG) policy has not been extensively examined. The aim of this study is to shed light on this impact. Indeed, ESG criteria are integrated at a fast pace into corporate investment strategies owing to growing awareness of the risks and opportunities associated with sustainable practices (Zaccone and Pedrini, 2020 ; Christensen et al., 2022). Private equity investors (often involved in LBOs) and stakeholders demand greater transparency and accountability in terms of

corporate social responsibility (Berthelot et al. 2012 ; KPMG, 2022[11]). From a theoretical point of view, the impact of ESG activities on firm value can be explained through a number of theories such as the stakeholder theory, which argues that Corporate Social Responsibility (CSR) activities can create value by reducing conflicts between stakeholders (Freeman, 2010). On the other hand, the signal theory provides support for why PE firms may value a target firm depending on its CSR performance (Choi et al., 2015). Several studies empirically demonstrate that a higher level of ESG disclosure is positively associated with corporate performance, suggesting that greater transparency, accountability, and improved stakeholder trust are elements that boost corporate value (Li et al., 2018 ; Marshall et al., 2022 ; Sood et al., 2022). Based on the literature on LBO and ESG, we believe it is important to explore whether the ESG commitment differs between a target firm and its comparable firm at the time of the LBO deal, and if the target's ESG commitment changes after the deal. In other words, this study seeks to answer the following questions: Do LBO targets have different ESG commitment compared to their counterparts? For these LBO targets, do they experience a change in ESG policy post-deal?

LBOs are carried out by sophisticated investors who often have the resources and skills to identify, through pre-deal due diligence, various factors affecting a company's financial performance. Given the positive relationship between ESG/CSR activities and company performance (Aktas et al., 2011) and the fact that investors value this relationship (Crifo et al., 2015 ; Gomes and Marsat, 2018), we expect acquirers such as PE funds to take this factor into account when selecting LBO targets. The aim is to ensure favorable post-deal performance until they exit (Li et al., 2018). Moreover, there is a link between the reputation of the PE funds involved in LBOs and LBO financing (Demiroglu and James, 2010), which may lead to the inclusion of responsible companies in their portfolios. Therefore, a fund concerned about its reputation will seek to select companies with rigorous ESG practices. This can facilitate financing and enhance deal credibility. By integrating the ESG criteria from the beginning, a reputation-conscious PE fund demonstrates its commitment to responsible and sustainable management, thereby reducing the risks associated with scandals or mismanagement. Under these conditions, we can expect LBO targets to have a higher level of ESG commitment than their comparable firms.

[11] https://kpmg.com/de/en/home/insights/overview/esg/esg-kapitalmarkt-finanzierung.html.

In the post-deal period, LBOs tend to lead to increased pressure on companies to improve profitability and generate rapid returns for investors because of the requirements of heavy debt services and the expectation of an exit of the PE funds. The financial pressure induced by LBOs can have a negative effect on investments needed to support ESG initiatives, whose returns often span over a long horizon. Numerous studies have highlighted a negative relation between the risk of financial distress and the level of a company's ESG activities. In particular, financial distress risk leads to a reduction in a company's ESG performance (Hong et al., 2012 ; Chan et al., 2017 ; Sun and Gunia, 2018 ; Leong and Yang, 2021). Indeed, in the event of financial difficulties, or even in anticipation of them, the management team may reduce ESG investments or reallocate available resources to more urgent needs to maintain liquidity and profitability so as to ensure its ability to repay debt and stay afloat. On the other hand, some studies pointed out that ESG helps shield companies from financial difficulties. Evidence of this effect was found during the Covid-19 crisis, which offered a unique opportunity to analyze the relation between the ESG policy and a company's ability to create value in times of crisis. Arora et al. (2022) conclude that a good ESG policy helps maintain value creation during a period of crisis. Van Hoang et al. (2023) report that these companies had lower stock market performance volatility during the COVID-19 pandemic. Assuming that management and PE funds wish to protect the value of the company post-deal from future crises or shocks, they may consider increasing or maintaining ESG investments as a strategy to protect the firm from the consequences of a major downturn. It is therefore important to examine during the post-deal period whether target companies reduce their ESG investments due to greater financial risk or they maintain/improve ESG initiatives as a strategy of protecting from potential industry or macroeconomic shocks.

In this study, we examine the level of ESG commitment of LBO targets compared to their counterparts and the change in target firms' ESG policy around the LBO deal. In the first analysis, we examine the difference in ESG level between the LBO target firms and their comparable firms. In the second analysis, we look at the variation in ESG policy from the year before the deal compared to the year after the deal. We conduct univariate comparisons and multivariate analyses based on panel and probit regression models. Our sample consists of 182 U.S. LBO targets and 182 comparable companies over the period 2010-2023. Financial data and ESG disclosure scores are collected from the Bloomberg database with additional data collected from SDC Platinum and CRSP-Compustat databases. The data collection process was

carefully done to identify as many companies as possible with financial information and ESG disclosure scores in Bloomberg.

In the univariate analysis, our results show that LBO target firms do not exhibit a higher level of ESG commitment (measured by the ESG disclosure score) than their comparable firms prior to the LBO deal. In the post-deal period, the level of ESG commitment of the target firms remains lower compared to their comparable firms and even experiences a post-deal drop. We perform a comprehensive set of multivariate analysis to determine whether the results of the univariate analysis remain when control factors are incorporated. We find that the LBO dummy variable has a negative and significant effect on the ESG commitment, confirming that the target firms have a lower ESG level than the comparable firms at the time of the LBO deal. In addition, Target firms experience a significant drop in ESG level after the LBO event. These results have two important implications. First, LBO targets exhibit a lower ESG level than their counterparts, which is contrary to what the literature suggests. Second, LBO events are not conducive to strengthening of ESG commitment of the target companies, contrary to what might be expected in a context where ESG criteria are playing an increasingly important role in investment strategies. More importantly, the downward trend in ESG commitment post-LBO raises concerns regarding management team's weakened commitment to sustainability as a result of a leveraged buyout, which could ultimately affect the firm's long-term performance/value and CSR reputation in the views of the investors.

This study makes the following important contributions to literature. First, our results contribute to the debate on the consequences of LBOs, particularly in the field of corporate social responsibility (CSR). While the majority of studies focus on the impact of LBOs on financial performance and the reduction of agency costs, this research brings a novel perspective by highlighting the negative effects of LBOs on ESG practices. This calls into question the assumption that the arrival of new investors via LBOs could improve companies' overall performance. Furthermore, our study highlights the need to further explore the mechanisms by which LBOs influence management priorities beyond financial incentives. Lastly, our findings provide an interesting contrast to the literature by presenting evidence that firms with a lower, not a higher, ESG level are more likely to be selected as an LBO target.

The rest of the paper is organized as follows. In Section 2, we present the theoretical background and hypotheses. In Section 3, we discuss research design and data sources. Empirical results are presented in Section 4. Section 5 concludes.

2. Literature review and hypotheses

In this section, we discuss the literature relevant to our research questions and present our hypothesis development.

2.1. Selection of Future LBO Targets based on ESG Commitment

LBOs are financial transactions that are generally carried out by acquirers that are institutional investors such as PE firms. Previous literature on LBO target selection has focused on the criteria linked to financial fundamentals, such as profitability, stability of cash flows, cost reduction (e.g., economies of scale, sharing of supply chain, tax savings/shields), and the capital structure of the target company. Billett et al. (2010) find stable cash flows and undervaluation as potential reasons for target firms to be selected. Bharath and Dittmar (2010) suggest low transaction costs as another criteria. Andres et al. (2007) highlight the possibility of the realignment of interests in target companies. Other studies suggest that the likelihood of financial distress is an important factor for buyers (Opler and Titman, 1993). In addition to the above reasons, some studies have shown that the strategic aspects also influence the choice of targets for LBO deals (Renneboog and Vansteenkiste, 2017). For example, the target company's market position, competitiveness, and future growth potential can be considered when selecting a target for an LBO.

To add to the literature on LBO target selection, we conjecture that acquirers may consider ESG investments as a possible criterion. This conjecture is supported by a number of recent studies suggesting that hedge funds or PE firms are increasingly concerned with transparency and accountability (Berthelot et al., 2012). Companies with good ESG practices offer long-term benefits. These benefits include risk management, which can come from anticipating and mitigating ESG-related risks such as unfavorable environmental impacts, labor disputes, and corporate governance issues. By integrating robust ESG practices, companies can avoid unforeseen costs and business interruptions, thus protecting their assets and profitability. Thus, a large body of literature shows that there is a positive relationship between ESG performance and performance (Gillan et., 2021). This view is in direct alignment with the stakeholder theory (Freeman, 2010).

A company's ESG activities also play a role in improving its reputation. Given that the reputation of acquirers is associated with the financing of LBOs (Demiroglu and James, 2010), reputation can be an important consideration for selecting a target. ESG-compliant companies

earn the trust and loyalty of consumers, investors, and stakeholders. For hedge or PE funds, this can be a powerful way to attract investors. For the target firm, a good reputation can lead to increased sales, better valuation of financial markets, and a sustainable competitive advantage. In terms of the workforce, companies that are perceived as socially responsible can attract quality talent, as an increasing number of professionals wish to work for companies aligned with their personal values (Judge and Bretz, 1992 ; Branco and Rodrigues, 2008).

Ultimately, a sound ESG policy prior to the LBO deal may be associated with greater resilience in the face of economic and financial shocks, regulatory changes, and consumer expectations (Van Hoang et al., 2022 ; Arora et al., 2023). Companies that have integrated ESG principles are better prepared to respond to crises, new regulations, and societal pressure. This enables them to adapt quickly to legal requirements and market trends. This adaptability and proactivity ensure greater stability and sustainability, making these companies more attractive to investors seeking long-term growth opportunities. Crifo and Forget (2013) find that PE funds may consider ESG in selecting targets when they are seeking new value creation sources or attracting investors who are interested in firms adopting socially responsible practices.

Consistent with these aforementioned arguments, we suggest that PE funds consider the target's level of ESG commitment when selecting LBO targets. We expect that LBO target companies have a higher level of ESG investment than their peers. The first hypothesis is as follows:

Hypothesis 1: At the time of the LBO deal, all things being equal, target firms have higher ESG activities than their counterparts.

2.2. Financial Constraints and ESG Commitment

LBO firms are likely to experience greater financial constraints than their non-LBO counterparts because of the structure of deal financing (Andrade and Kaplan, 1998 ; Tykvová and Borell, 2012 ; Ayash and Rastad, 2021). For an LBO deal, a significant proportion of the firm purchase is financed by debt, which substantially increases the target company's financial leverage (Kaplan and Stromberg, 2009). Consequently, these companies must devote a considerable proportion of their cash flows to service debt obligations. The significant increase in financial pressure limits the firm's ability to reinvest in growth or innovation and makes them more vulnerable to market fluctuations and economic crises. In addition, owing to high takeover premiums, companies under LBO are often subject to high expectations from the acquirers in

terms of yield and profitability. This can intensify the focus on short-term performance to the detriment of long-term strategic investments, such as ESG initiatives.

The decision to cut back on a company's ESG activities can be analyzed through the prism of the theory of financial constraints. Financial constraints caused by an unbalanced financial structure make it difficult for a company to obtain external financing, resulting in illiquidity and a higher cost (and/or probability) of bankruptcy. To tackle this problem, companies may prioritize their investments according to profitability and immediate necessity (Musso and Schiavo, 2008). ESG activities, while beneficial in the long term, can be perceived as less urgent than the other critical financial needs such as debt services or capital investments required for short-term survival. To alleviate financial constraints, companies can reduce or eliminate ESG-related expenditures to free up funds and strengthen their cash position, thereby ensuring their ability to operate and invest in projects directly linked to their core business.

This explanation is supported by the prospect theory that decision makers are more sensitive to losses than gains, which strongly influences their behavior in situations of risk or uncertainty (Kahneman and Tversky, 1979). When companies find themselves in a difficult financial situation, the fear of incurring immediate losses may prompt them to scale back ESG initiatives, even if this goes against their long-term interests. Prospect theory also suggests that companies with financial difficulties are more likely to make conservative decisions to avoid further losses, which may include reducing ESG spending perceived as non-essential in the immediate term.

A number of empirical studies find evidence that ESG activities are negatively related to a company's level of financial constraints. For example, Chan et al. (2017) use the KZ index and Altman Z-score and find that financially constrained companies engage less in corporate social responsibility activities. The literature suggests that financially sound firms are more likely to engage in expanding ESG activities (Waddock and Graves, 1997 ; Hong et al., 2012); Sun and Gunia, 2018). Hong et al. (2012) analyze the ex-ante constrained versus unconstrained companies and find that unconstrained companies increase their ESG/CSR investments, and this increase seems to be related to these firms' stock market performance.

The financing and operational mechanisms of LBOs impose heavy demands on cash flows available within the company, placing pressure on liquidity and increasing the level of financial constraints. As a result, LBO firms may reduce their ESG activities post-deal. We formulate our second hypothesis as follows:

Hypothesis 2: During the post-deal period, LBO targets are likely to reduce their ESG commitment.

3. Research design and data sources

3.1. ESG Commitment Measure

Following Zhao and Xiao (2019), we measure the company's ESG commitment using a proxy for the company's ESG disclosure score. We use the disclosure score (the global ESG divulgation score) provided by the Bloomberg database. Using the financial and ESG reports provided by companies in line with the recommendations of the Global Reporting Initiative (GRI), Bloomberg assigns a disclosure score to a given firm. This score varies between 0 and 100 and provides information on the transparency of each company's ESG reporting. A higher ESG score indicates a greater level of ESG commitment.

The main dependent variable (the global ESG divulgation score) and the three related dependent variables representing the three ESG pillars (Environmental, Social, and Governance) used in our analysis are calculated as follows: We calculate the Euclidean distance between the LBO companies and their comparable firms for each of the dependent variables. Euclidean distance is a measure of the gap between two points; in this case, the difference in ESG disclosure level between the LBO and its comparable firm at a given point in time. The gap between the buyout target and its comparable firm relative to the global ESG disclosure score is noted as D_ESG_DS, the gap of the environmental score as D_ENV_DS, the gap of the social score as D_SOC_DS, and the gap of the governance score as D_GOV_DS. These variables are calculated on an annual basis. We further transform these distance variables into binary variables to enable us to distinguish between positive or zero deviations (assigned a value of one) and negative deviations (assigned a value of zero).

In addition, we construct dependent variables relating to the variation in the level of ESG policy for the LBO and comparable firms around the LBO deal year (denoted by T0). For each target (or comparable) firm, we calculate the change in ESG score during the period [T-1, T+1]. The resulting variables POSTDEAL_VAR_ESG_DS, POSTDEAL_VAR_ENV_DS, POSTDEAL_VAR_SOC_DS, and POSTDEAL_VAR_GOV_DS represent the difference between post-deal and pre-deal ESG score based on the global ESG disclosure score (ESG_DS), environmental score (ENV_DS), social score (SOC_DS), and governance score (GOV_DS),

respectively. We further transform the above distance variables into binary variables to indicate a positive or neutral change in ESG score (assigned a value of one) or a negative (assigned a value is zero).

3.2. Financial Constraint Measure

We measure the level of financial constraints using the Altman Z-score (Altman, 1968). This measure has been long established in the literature to estimate the severity of financial constraints and distress (Udin et al., 2017), and has been adopted widely in the literature (e.g., Chen and Wang, 2012 ; Erhemjamts et al., 2013 ; Chan et al., 2017). We adopt the Altman Z-score (Z-Score) as a measurement of financial distress and bankruptcy probability[12].

3.3. Firm-level Characteristics and Other Control Variables

Consistent with the previous literature, we control for several firm-level factors that may affect ESG policy (Chih et al., 2010 ; Clarkson et al., 2011 ; Melo, 2012 ; Xu et al., 2015; Chan et al., 2017 ; Haque, 2017 ; Lisi, 2018; Sun and Gunia, 2018). In particular, we include the following firm-level variables in our multivariate analysis:

LN_TOT_ASSET as a proxy for firm size, is measured by the natural logarithm of total assets. This is an important control variable in the examination of corporate ESG commitment. Large companies generally have more financial, human, and technological resources at their disposal to commit to investments beyond their core products and services, such as the ESG-related initiatives. They benefit from a better relationship with investors and creditors, which can facilitate more favorable access to capital. Moreover, their visibility and media exposure often oblige them to maintain a certain level of compliance with ESG standards to preserve their reputation. In contrast, small- and medium-sized enterprises (SMEs) typically have limited resources which are allocated for the purpose of short-term performance. Their ability to invest in ESG initiatives is restricted and the pressure to quickly generate cash flows can make sustainability investments less feasible. In addition, SMEs have less public and regulatory pressure to adhere to strict ESG standards. In our analysis, we expect a positive relationship between ESG commitment and firm size as in Clarkson et al., 2011.

[12] The Altman Z-score variable is an indicator used to assess the probability of a company going bankrupt. Usually, the variable is obtained by combining a weighted set of financial ratios representing liquidity, profitability, indebtedness, solvency and activity. Knowing that there are different weightings depending on the type of business involved, we preferred to use the variable collected on the basis of Bloomberg data.

DUM_LOSS is a dummy variable equal to one if the firm's net income is negative and zero otherwise. Companies suffering significant financial losses may find it difficult to maintain or invest in ESG initiatives. Financial losses can also affect stakeholder perception, reducing the company's ability to attract investment and partnerships associated with sustainability. Financial losses may force companies to focus on activities critical to short-term survival, such as cutting costs and improving immediate profitability, to the detriment of sustainability initiatives. As a result, we expect a negative association between loss and a company's commitment to ESG.

ROE (Return on equity) measures firm profitability. According to the literature, a firm can invest in ESG activities when profitable (Sun and Cui, 2014). Thus, the literature advocates a positive relationship between profitability and a firm's ESG commitment. On the other hand, some studies find no significant relation between profitability and CSR performance (e.g., Chih et al., 2010). Other studies find a negative relation between profitability and ESG variation, as in Di Giuli and Kostovetsky (2014). Thus, we use ROE as a control variable and explore the empirical relation between profitability and variation in ESG disclosure in our analysis.

LEVERAGE represents the firm leverage and is defined as the ratio of total debt to total assets. High leverage is likely to limit a company's ESG commitment because of the obligations associated with servicing debt. Highly indebted companies are forced to prioritize debt repayment and interest management, thus reducing the resources available for ESG initiatives. Particularly, pressure from private and public creditors on debt repayment can lead to a reduction in discretionary spending, including ESG practices, which executives consider non-essential during times of financial stress (Branco and Rodrigues, 2008). Thus, we expect a negative relation between leverage and company ESG commitment.

CAPEX represents the capital expenditure made by the firm. Following Jo and Na (2012), we include CAPEX in our regression analysis. The effect of capital expenditure on a company's ESG commitment is dependent on the nature of the investment. For example, if a certain capital expenditure is used to reduce information asymmetry or enhance monitoring of the firm, it can have a positive effect on governance. If capital expenditures are directed towards green industrial facilities, these will improve the firm's environmental commitment. On the other hand, new production technology may lead to a positive or negative effect on working conditions. Thus, we use CAPEX as a control variable and believe that the empirical relation

between CAPEX and variation in ESG disclosure will reflect the nature of the capital expenditure investments.

We also control for dividend policy and tangible assets using DUM_DIV_PAY and TANGIBILITY, respectively. DUM_DIV_PAY is a dummy variable equal to 1 if the firm pays dividend and zero otherwise. Dividend-paying companies may find their ability to invest in ESG initiatives reduced because less cash is available, however a commitment to paying (especially high) dividends reflects financial stability. TANGIBLITY is the proportion of fixed assets to total assets. Similar to the aforementioned discussion for CAPEX, the relation between TANGIBILITY and a company's ESG policy depends on the nature of a company's tangible investments. We define all variables in Appendix 3.1.

Lastly, we control for the COVID-19 and industry effects in the regressions. In particular, the variable COVID-19_Effect captures the specific effect of COVID-19 on the dependent variable. This variable corresponds to a binary variable taking 1 for the period 2020 to 2022 and 0 otherwise. The variable INDUSTRY is industry classification code based on the Fama–French 12 industry classification.

3.4. Empirical Model

To gauge the incremental influence of the LBO Deal and the subsequent increase in financial constraint on the firm's ESG commitment, we adopt two multivariate regression models after controlling for factors that are likely to affect ESG policy according to the previous literature. First, we test Hypothesis 1 by examining whether ESG commitment is considered when LBO targets are selected by acquirers using the below model shown in Equation (3.1).

$$ESG\_DS_{it} = B1 \times LBODummy_{it} + B2 \times Z\text{−}Score_{it} + B3 \times LN\_TOT\_ASSET_{it}$$
$$+B4 \times ROE_{it} + B5 \times DUM\_LOSS_{it} + B6 *\times LEVERAGE_{it} + B7 \times CAPEX_{it}$$
$$+B8 \times DUM\_DIV\_PAY_{it} + B9 \times TANGIBILITY_{it} + B10 \times COVID\text{-}19\_Effect_{i}$$
$$+ B11 \times INDUSTRY_{it} + E_{it}. \quad (3.1)$$

The dependent variable ESG_DSi is the gap in the ESG divulgation score of the buyout firm or its equivalent comparable for firm i in the year prior to the LBO deal, T-1, where T0 is the year

of the LBO deal. The main explanatory variable LBODummy indicates whether the firm is a target firm. All variables are measured in T-1, the year immediately prior to the LBO deal. After testing this model using ESG_DS, we also run the same model using each of the three variables representing the ESG pillars: ENV_DS, SOC_DS, and GOV_DS.

To test Hypothesis 2, we replace the dependent variable of ESG_DS in Equation (3.1) with D_ESG_DS that measures the gap in ESG score between a target firm and its comparable firm. The goal is to examine if the ESG score (relative to a comparable firm) of the LBO target changes from the pre-deal to post-deal period. More specifically, we test the following model shown in Equation (3.2) using LBO target firms only.

$$\begin{aligned}D\_ESG\_DS_{it} = {} & B1 \times PostDeal_{it} + B2 \times Z\text{-}Score_{it} + B3 \times LN\_TOT\_ASSET_{it} \\ & + B4 \times ROE_{it} + B5 \times DUM\_LOSS_{it} + B6 \times LEVERAGE_{it} + B7 \times CAPEX_{it} \\ & + B8 \times DUM\_DIV\_PAY_{it} + B9 \times TANGIBILITY_{it} + B10 \times COVID\text{-}19\_Effect_{i} \\ & + B11 \times INDUSTRY_{it} + E_{it}. \quad (3.2)\end{aligned}$$

As an additional test of Hypothesis 2, we use POSTDEAL_VAR_ESG_DS, the change in ESG score from T-1 to T1 for a given target or its comparable firm, as the dependent variable and LBODummy as the main explanatory variable to explore how LBO affects ESG investments. The model is shown in Equation (3.3) below.

$$\begin{aligned}POSTDEAL\_VAR\_ESG\_DS_{it} = {} & B1 \times LBODummy_{it} + B2 \times Z\text{-}Score_{it} + B3 \times LN\_TOT\_ASSET_{it} \\ & + B4 \times ROE_{it} + B5 \times DUM\_LOSS_{it} + B6 \times LEVERAGE_{it} + B7 \times CAPEX_{it} \\ & + B8 \times DUM\_DIV\_PAY_{it} + B9 \times TANGIBILITY_{it} + B10 \times COVID\text{-}19\_Effect_{i} \\ & + B11 \times INDUSTRY_{it} + E_{it}. \quad (3.3)\end{aligned}$$

After testing this model using POSTDEAL_VAR_ESG_DS, we further run the same model using each of the three variables representing the ESG pillars: POSTDEAL_VAR_ENV_DS, POSTDEAL_VAR_SOC_DS, and POSTDEAL_VAR_GOV_DS.

3.5. Data Sources

We use Bloomberg as the primary database to collect data on company ESG and financial information. Before arriving at our final sample, we follow an identification strategy commonly used in relevant studies on LBO deals (Kaplan, 1989 ; Guo et al., 2011 ; Ayash and Schütt, 2016 ; Ayash and Rastad, 2021). The first phase of data collection was carried out using the SDC Platinum database, which specializes in M&A transactions. This enabled us to collect all LBO deals with U.S. targets and a total transaction value of over USD 50 million from January 1, 2000, to December 31, 2022 (Ayash and Rastad; 2021).

Company financial data is collected from the CRSP-Compustat Annual Fundamentals database. Based on size, financial performance, and industry sector, we perform a propensity score matching to find the best-matched comparable firm for each of the LBO target firms. This match is conducted in the year preceding the LBO deal. A comparison of the propensity scores between the two groups before and after matching (see Figure 3.1) indicates that the matching is done in a satisfactory manner to ensure the best possible comparable firm is matched to each LBO target firm.

[Insert Figure 3.1 here]

Using the matching pairs of LBO target and its comparable firm, we collect ESG data from Bloomberg and remove all companies with missing data. A comparison of databases between SDC (via Refinitiv) and Bloomberg leads to the decision to collect ESG data from Bloomberg due to the better data coverage of ESG disclosure especially given that ESG is the main focus of our study. After merging all data and eliminating observations with missing variables, we arrive at the final sample of 182 LBOs and 182 comparable firms for the period from 2010 to 2023. The sample size is determined by the availability of ESG and financial data before and after the LBO deal. The availability of ESG data over this period can be explained by the growing attention to ESG activities, starting with the introduction of the UN Principles for Responsible Investment in 2006. The data collected for the sample firms covers a period of 11 years for each company. Taking the year of the LBO deal as T0, we collected our data for the five years preceding the deal (T−5 to T−1), the deal year (T0), and the five years following the deal (T1 to T5). Loss of observations as we move from SDC Platinum to Bloomberg due to the

availability of ESG data is significant; however, our sample size is consistent with (if not better than) the average sample size in previous studies focusing on LBO targets (Kaplan, 1989 ; Guo et al., 2011 ; Ayash and Rastad, 2021).

[Insert Table 3.1 here]

[Insert Table 3.2 here]

In Tables 3.1 and 3.2, the final sample represents 806 firm-year observations for LBO target firms (447 before the LBO deal and 359 after the deal). The loss of data after the deal suggests that the LBO deal leads to a drop in availability of the target companies' financial and ESG data. This is consistent with the notion that the acquirers may be incentivized to avoid extensive data disclosure or that the targets are, in most cases, delisted after the LBO deal. The literature confirms the challenge of obtaining data on companies acquired through LBOs. For example, Kaplan (1989) studies a sample of 76 LBO firms over a period of seven years, while Guo et al. (2011) examine 192 buyouts for a period of 17 years.

Table 3.1 presents the annual distribution of available data with a high level of data disclosure in 2015 and 2016. This pattern can be explained by two major events during this period, which increased the attention paid to companies' ESG activities: the Paris Agreement on Climate Change and the implementation of the United Nations Sustainable Development Goals. Table 3.2 presents the number of observations by industry. We find that the business equipment sector is the most represented in our sample, with 200 observations for the pre-deal period and 160 for the post-deal period.

4. Empirical results

In this section, we first perform comparative univariate analysis. Next, we present a multivariate analysis incorporating firm-level characteristics and other control variables to test the effect of LBOs on firms' ESG commitment.

4.1. Univariate Analysis

In this sub-section, we focus on the comparative analysis of the ESG scores between the LBO target companies and their comparable firms and how the ESG scores of the LBO firms change from the pre-deal to post-deal period. As discussed above, we formulate Hypothesis 1 that a company that goes through an LBO is likely to have a higher level of ESG activities prior to the LBO deal than its peer. Table 3.3 reports the ESG score variables and firm-level variables for the LBO target firm observations by the pre-deal and post-deal period. For each variable, we perform a t-test to determine whether the difference between the pre-deal and post-deal period is statistically significant.

[Insert Table 3.3 here]

The results suggest a decrease in the level of ESG disclosure from the pre-deal to the post-deal period. The overall ESG score drops from 25.912 before the deal to 23.703 after the deal. We also note that this drop is mainly driven by the governance pillar, which drops from 76.814 before the deal to 71.604 after the deal. Looking at the gap in the level of ESG commitment between companies under an LBO and that of comparable companies, we find that LBO companies generally have a lower ESG commitment score than their comparable firms: D_ESG_DS, D_ENV_DS, D_SOC_DS, and D_GOV_DS are negative in both the pre-deal and post-deal periods. More interestingly, the gap in ESG scores between the two groups becomes larger (in absolute value) post-deal.

Z-Score decreases significantly, moving from an area of good financial health (3.88) to an area of high uncertainty (2.42). This result is in line with previous findings that demonstrate an increased risk of financial distress among companies involved in LBOs (Guo et al., 2011 ; Tykvov and Borell, 2012 ; Ayash and Rastad, 2021). The other firm-level variables show no significant variation between the pre-deal to post-deal period. This is not surprising if we refer, for example, to Ayash and Schütt (2016), who find no significant differences in company performance from pre- to post-LBO event.

For the group of companies under LBO and their peer firms, we present in Table 3.4 the ESG disclosure scores, the change in ESG scores from the pre-deal to post-deal period, and firm-level variables. Consistent with the finding of Table 3.3, the result in Table 3.4 shows that the

level of ESG disclosure by LBO companies is generally lower than that of comparable companies. This finding is inconsistent with Hypothesis 1 which is supported by the notion that companies with a stronger ESG commitment are more likely to be targeted for an LBO. This observation implies that acquirers do not necessarily favor companies with a strong ESG commitment.

[Insert Table 3.4 here]

The results in Table 3.4 also demonstrate that the variation in the ESG disclosure scores around the LBO deal is significantly different between the LBO companies and their peer companies. This means that companies under LBO tend to lower their ESG commitments after the deal, whereas comparable companies tend to increase their ESG commitments over the same period of time. We observe this trend for the overall disclosure score, which falls by an average of 0.561 for LBO companies and rises by an average of 1.541 for comparable firms. This difference is mainly driven by the environmental and social pillars.

The two groups do not differ significantly in terms of the probability of bankruptcy measured by Z-Score. We also observe no difference in financial performance (measured by ROE and DUM_LOSS) of the two groups, which means that the propensity score matching has produced homogeneous groups in terms of financial risk and performance before the LBO deal. The results suggest a significant difference in leverage between the two groups. The LBO target firms' leverage is lower on average (59.48) than that of their peers (63.5). Again, this is consistent with what we might expect, since the companies chosen for the LBO must offer the possibility of increasing financial leverage as a part of the transaction. Thus, the difference between the leverage of the two groups is intuitive and is justified by the fact that companies under the LBO may have a financial structure that allows for an increase in debt as part of the LBO. Furthermore, companies under LBO pay fewer dividends and invest more heavily in CAPEX than their pre-deal peers.

Tables 3.3 and 3.4 show that companies under LBO reduce their commitment to ESG after the deal, which is consistent with our Hypothesis 2 presented in Section 2. This finding can be explained by the financial pressure of heavy debt obligations and the need for managers to cut costs or reserve resources to optimize the performance of LBO companies. In other words, A

heavy burden of debt can exert significant pressure on a company's cash flows, often compromising its ability to maintain a strong commitment to environmental, social, and governance (ESG) issues. Priority is often given to reducing costs and improving immediate financial performance to meet debt repayment obligations to the detriment of sustainable investments and ESG initiatives that require additional resources and a longer time horizon to generate tangible returns. This financial pressure can also limit the flexibility needed to integrate responsible business practices into daily operations, leading to a decline in overall ESG commitment within the company.

The reaction of the LBO company's management in anticipation of the increased risk of bankruptcy leads to a foreseeable decision of a reduction in ESG commitment. Indeed, it makes great sense for the management team to anticipate the increased financial constraints as the company's financial structure is dramatically different as a result of the deal. The resulting higher leverage increases the probability of bankruptcy, which is supported by a post-deal drop in Z-Score. As the company faces an increased risk of bankruptcy, managers may be forced to prioritize short-term survival and cost management above investments in ESG initiatives that often require significant resources and a longer-term return on investment. Although robust ESG practices can strengthen a company's resilience and long-term value, the pressing financial pressure, and the need to meet debt obligations or other financial commitments prevail. Therefore, although increased ESG engagement could offer long-term financial benefits, companies in vulnerable situations may forgo investments in such initiatives for the fear of compromising their short-term financial stability.

In sum, the univariate comparisons yield evidence that is not consistent with Hypothesis 1 that LBO targets have a higher level of ESG commitment than their comparable firms before the deal. On the contrary, LBO firms have a lower level of ESG commitment than their peers before the deal. However, we find evidence consistent with Hypothesis 2 that LBO targets lower their ESG commitment after the LBO deal.

4.2. The Effect of LBO Deals on ESG commitment

Building on the univariate analysis, in this section we extend the investigation by incorporating a multivariate analysis. This approach allows us to account for the potential influence of other factors, thereby testing the robustness of our results. Our goal is to determine whether the relationship between LBO and ESG commitment remains robust in a multivariate framework. One of the main factors we consider is the increase in financial distress risk indicated by

empirical studies on LBOs. In addition, we include other factors that can affect a company's ESG commitment, such as firm size, financial performance, tangible assets, and other factors as suggested by prior literature.

We first present the regressions of the model specified in Equation (3.1) above. More specifically, we examine whether ESG commitment is considered when LBO targets are selected. Using the sample of LBO firms and their comparable firms, we regress the ESG scores (ESG_DS, ENV_DS, SOC_DS, and GOV_DS) on LBODummy and control variables. We use the observations in the per-deal period from T-5 to T-1.

[Insert Table 3.5 here]

The regression results are reported in Table 3.5. We find a negative but weak association of the LBO and the overall ESG and social scores. The negative sign indicates that LBO targets have lower ESG scores than their comparable firms prior to the LBO event, which confirms what we find in the univariate analysis. We rerun the same model in Equation (3.1) using only the observations year prior to the deal, T-1 and present the results in Table 3.6. Of the four regressions, LBODummy has a negative and significant effect on the ESG score in the ESG_DS regression only. Based on the univariate and multivariate results, we do not find evidence supporting Hypothesis 1 stating that LBO firms have higher ESG activities than their comparable firms.

[Insert Table 3.6 here]

To examine Hypothesis 2, we explore if and how the ESG scores of the target firms change from the pre-deal to the post-deal period. Using the sample of LBO firms and their ESG scores relative to those of the comparable companies over the 5-year pre-deal period [T-1 to T-5] and the 5-year post-deal period [T+1 to T+5], we run the regression model specified in Equation (3.2) by using D_ESG_DS or DUM_ESG_DS as the depending variable and PostDeal as the main explanatory variable. The goal is to see if the ESG scores of the target firms change as a result of the LBO deal.

Table 3.7 presents the regression results for DUM_ESG_DS, DUM_ENV_DS, DUM_SOC_DS, and DUM_GOV_DS, respectively. The results using D_ESG_DS, D_ENV_DS, D_SOC_DS, and D_GOV_DS are similar and available upon request. The results present robust evidence LBO target firms reduce their ESG commitment post-deal, providing support for Hypothesis 2. As discussed above, the reduction in ESG initiatives can be explained by the increased pressure to generate cash stemming from the jump in debt financing as a result of the deal. Relatedly, we find that financial leverage (LEVERAGE) has a negative effect on the ESG commitment of LBO companies. In addition, the CAPEX and DUM DIV PAY variables, which represent cash outflows, are negatively correlated with the ESG commitment.

[Insert Table 3.7 here]

A surprising result is found concerning the negative link between Z-Score and ESG commitment. This finding suggests that a higher bankruptcy risk (a lower Z-Score) is associated with better ESG commitment by companies under LBO relative to their comparable firms.[13] This result seems inconsistent with previous literature showing a negative relationship between bankruptcy probability and CSR commitment (Chan et al., 2017 ; Sun and Gunia, 2018). However, upon closer examination, we suspect that this result is influenced by the level of ESG commitment before the deal compared with the post-deal period (see Table 3.3). Therefore, we further test this relation by interacting the measure of the financial distress risk (Z-Score) with the post-deal period dummy (PostDeal) and present the results in Table 3.8.

Our results confirm that, for ESG activities that are significantly different before and after the LBO deal, low Z-Score (high financial distress risk) LBO companies are likely to reduce their ESG commitment after the deal. Overall, LBO targets reduce their ESG commitment post-deal. This finding is more pronounced for firms with high financial distress risk (a low Z-Score) prior to the deal.

[Insert Table 3.8 here]

[13] Since a high Z-score indicates a sound financial condition, a low Z-score implies financially distressed conditions or a higher probability of bankruptcy.

The results in Tables 3.7 and 3.8 can be linked to managerial decisions in anticipation of a heightened financial burden and reallocation of resources among certain activities. When a company is an LBO target, the management team anticipates an increased risk of bankruptcy post-deal. The strategy is to ensure that the company is in the best possible condition to face the risk of financial distress. This may lead managers to increase or maintain ESG investments in the pre-deal period as these initiatives can become crisis shock absorbers (Arora et al. 2021; Van Hoang et al., 2023). This is illustrated by the negative relation between Z-score and ESG commitment reported in Table 3.7.

In the post-deal period, once the risk of bankruptcy is already high, the executive may choose to focus on activities that create value in the short term. In this case, the company reduces its ESG investments. Indeed, given the return requirement over a short and limited time horizon (the period corresponding to the exit of funds), it is possible that, in a situation of difficulty, the management team seeks to reduce certain activities that are considered to be less of a priority in order to maintain the company's return. Thus, we observe in models 1 and 4 of Table 3.8 a negative relationship between Z-score and ESG commitment, which are also the models in which ROE is significant and positively linked to the level of ESG commitment.

The aforementioned results presented in Tables 3.7 and 3.8 are based on the LBO target firms' ESG scores relative to their comparable firms and a sample consisting of LBO targets only. As an additional robustness test, we examine the variation in ESG scores around the LBO deal based on a sample of LBO and their comparable firms using the model specified in Equation (3.3). More specifically, we use POSTDEAL_VAR_ESG_DS or POSTDEAL_VAR_ESG_Dummy as the dependent variable. The former is the absolute difference in ESG score from T-1 to T+1, whereas the latter is a dummy variable taking the value of 1 if the former is positive/neutral and 0 otherwise. Table 3.9 presents the results for POSTDEAL_VAR_ESG_Dummy (and the dummy variables associated with the three pillars). The results using POSTDEAL_VAR_ESG_DS and the three pillar variables are similar and available upon request.

[Insert Table 3.9 here]

Concerning the annual variation in ESG policy, our results confirm that companies under LBO are more likely to exhibit a drop in ESG commitment after the deal. In particular, the coefficient on the LBODummy is significant and negative in all four models. ESG initiatives, which require long-term investment with no immediate financial return, may be perceived by LBO target firms as secondary to the immediate needs of reducing costs and improving profitability in the short term. In addition, private equity funds may focus on maximizing short-term returns in the hope of achieving an exit soon, thereby favoring short-term financial decisions over ESG commitments. Thus, companies under an LBO are most likely to lower their ESG commitment after the ESG deal.

Regarding the other control variables, we find that larger companies have a larger drop in disclosure scores after the deal. Large companies are often the most involved in ESG activities because of their (typically) greater financial and human resources, enabling them to invest in sustainable initiatives. Their high visibility drives them to improve their reputation and strengthen stakeholder confidence. Additionally, large firms are often subject to stricter regulations and heightened expectations from investors and the public, prompting them to adopt rigorous ESG practices. As a result, it is reasonable to argue that larger firms have stronger ESG scores than smaller firms in the pre-deal period. The result suggests that larger firms with higher pre-deal scores experience a bigger drop than smaller firms. In addition, COVID-19_Effect has a negative and significant effect on the variation in ESG scores around an LBO. This suggests that firms facing a major shock, such as the COVID-19 pandemic, reduce the ESG commitment. Overall, the results of our various regressions allow us to validate Hypothesis 2 that LBO leads to a significant drop in ESG commitment for target firms.

5. Conclusion

This study explores whether ESG commitment differs between LBO target firms and their peers, and if these target firms change their ESG policy after the deal. We first evaluate the hypothesis that LBO target companies have higher ESG levels than their peers immediately before the LBO event. We also examine if the ESG scores of the target firms change after the LBO in absolute level and in relative terms by examining the difference in ESG engagement between the LBO companies and their comparable firms.

We find several interesting results. First, companies under LBO tend to have lower ESG scores than their peers. This finding is persistent throughout the 11-year period from five years before

to five years after the deal. We especially note that in the year prior to the LBO deal, target firms have significantly lower ESG scores than their comparable firms. This is inconsistent with the hypothesis that acquirers select firms with higher ESG scores as potential targets. We also find that buyout targets experience a drop in their ESG commitment after the LBO in both absolute level as well as relative term compared to their peers. These findings can be attributed to several interrelated factors. First, the LBO process, often characterized by substantial debt financing, puts immediate pressure on the cash flows of the target companies to repay debt. This intense financial pressure leads to an increased focus on cost reduction and high profitability at the expense of the long-term investments needed to support robust ESG initiatives, such as environmental sustainability and responsible social practices.

In a world where ESG policy is becoming an increasingly crucial aspect for investors, regulators and stakeholders, our results argue in favor of strong consideration of ESG policy for all firms, especially those who may become LBO targets. The post-deal declines in ESG commitment, exacerbated by financial pressure due to high debt levels, calls into question the ability of companies under LBO to effectively balance between the focus on short-term profitability and the commitments to social and environmental responsibility. This raises concerns about the sustainability of post-LBO corporate practices, and could potentially affect their long-term performance, reputation, and social acceptability.

The findings enrich our understanding of the post-LBO dynamics by revealing the trade-offs of companies when they face increased financial constraints. Contrary to the implications suggested in prior literature that LBOs can lead to better management and optimization of overall corporate performance, this study highlights the potentially detrimental effects on ESG practices, an area often overlooked in post-LBO performance analyses. Overall, this study highlights the importance of considering the financial and strategic dynamics of LBOs when assessing companies' ESG commitments. These findings highlight the need for investors, regulators, and stakeholders to closely monitor the evolution of ESG practices in the context of LBO transactions to promote long-term sustainable and responsible management.

References

Aktas, N., de Bodt, E., and Cousin, J.-G. (2011). Do financial markets care about SRI? Evidence from mergers and acquisitions. Journal of Banking & Finance, 35(7):1753–1761.

Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. The Journal of Finance, 23(4):589–609.

Andrade, G. and Kaplan, N. S. (1998). How costly is financial (not economic) distress ? Evidence from highly leveraged transactions that became distressed. The Journal of Finance, 53(5):1443–1493.

Andres, C., Betzer, A., and Weir, C. (2007). Shareholder wealth gains through better corporate governance—The case of European LBO-transactions. Financial Markets and Portfolio Management, 21(4):403–424.

Arora, S., Sur, J. K., and Chauhan, Y. (2022). Does corporate social responsibility affect shareholder value? Evidence from the COVID-19 crisis. International Review of Finance, 22(2):325–334.

Ayash, B. and Rastad, M. (2021). Leveraged buyouts and financial distress. Finance Research Letters, page 101452.

Ayash, B. and Schu¨tt, H. (2016). Does going private add value through operating improvements? Journal of Corporate Finance, 40:192–215.

Ayres, R. U. (2020). Leverage: How the Rich Keep Getting Richer. In Ayres, R. U., editor, On Capitalism and Inequality: Progress and Poverty Revisited, pages 191–198. Springer International Publishing, Cham.

Barnea, A. and Rubin, A. (2010). Corporate Social Responsibility as a Conflict Between Shareholders. Journal of Business Ethics, 97(1):71–86.

Bernard, Y., Godard, L., and Zouaoui, M. (2018). The Effect of CEOs' Turnover on the Corporate Sustainability Performance of French Firms. Journal of Business Ethics, 150(4):1049–1069.

Berthelot, S., Coulmont, M., and Serret, V. (2012). Do Investors Value Sustainability Reports? A Canadian Study. Corporate Social Responsibility and Environmental Management, 19(6):355–363.

Bharath, S. T. and Dittmar, A. K. (2010). Why Do Firms Use Private Equity to Opt Out of Public Markets? The Review of Financial Studies, 23(5):1771–1818.

Billett, M. T., Jiang, Z., and Lie, E. (2010). The effect of change-in-control covenants on takeovers: Evidence from leveraged buyouts. Journal of Corporate Finance, 16(1):1–15.

Branco, M. C. and Rodrigues, L. L. (2008). Factors Influencing Social Responsibility Disclosure by Portuguese Companies. Journal of Business Ethics, 83(4):685–701.

Chan, C.-Y., Chou, D.-W., and Lo, H.-C. (2017). Do financial constraints matter when firms engage in CSR? The North American Journal of Economics and Finance, 39:241–259.

Chen, S.-S. and Wang, Y. (2012). Financial constraints and share repurchases. Journal of Financial Economics, 105(2):311–331.

Chih, H.-L., Chih, H.-H., and Chen, T.-Y. (2010). On the Determinants of Corporate Social Responsibility: International Evidence on the Financial Industry. Journal of Business Ethics, 93(1):115–135.

Choi, G., Christmann, P., and Kim, T.-N. (2015). Target CSR as a Signal in Acquisitions: Its Effect on Acquisition Premium. Academy of Management Proceedings, 2015(1):17621.

Christensen, D. M., Serafeim, G., and Sikochi, A. (2022). Why is Corporate Virtue in the Eye of The Beholder? The Case of ESG Ratings. The Accounting Review, 97(1):147–175.

Clarkson, P. M., Overell, M. B., and Chapple, L. (2011). Environmental Reporting and its Relation to Corporate Environmental Performance. Abacus, 47(1):27–60.

Crifo, P. and Forget, V. D. (2013). Think Global, Invest Responsible: Why the Private Equity Industry Goes Green. Journal of Business Ethics, 116(1):21–48.

Crifo, P., Forget, V. D., and Teyssier, S. (2015). The price of environmental, social and governance practice disclosure: An experiment with professional private equity investors. Journal of Corporate Finance, 30:168–194.

Cumming, D., Siegel, D. S., and Wright, M. (2007). Private equity, leveraged buyouts and governance. Journal of Corporate Finance, 13(4):439–460.

DeAngelo, H. and DeAngelo, L. (1987). Management Buyouts of Publicly Traded Corporations. Financial Analysts Journal, 43(3):38–49.

Demiroglu, C. and James, C. M. (2010). The role of private equity group reputation in LBO financing. Journal of Financial Economics, 96(2):306–330.

Di Giuli, A. and Kostovetsky, L. (2014). Are red or blue companies more likely to go green? Politics and corporate social responsibility. Journal of Financial Economics, 111(1):158–180.

Easterwood, J. C. (1998). Divestments and financial distress in leveraged buyouts. Journal of Banking & Finance, 22(2):129–159.

Erhemjamts, O., Li, Q., and Venkateswaran, A. (2013). Corporate Social Responsibility and Its Impact on Firms' Investment Policy, Organizational Structure, and Performance. Journal of Business Ethics, 118(2):395–412.

Freeman, R. E. (2010). Strategic Management: A Stakeholder Approach. Cambridge University Press.

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility : A review of ESG and CSR research in corporate finance. Journal of Corporate Finance, 66, 101889.

Goergen, M. and Wood, G. (2014). The employment consequences of private equity acquisitions: The case of institutional buy outs. European Economic Review, 71:67–79.

Gomes, M. and Marsat, S. (2018). Does CSR impact premiums in M&A transactions? Finance Research Letters, 26:71–80.

Guo, S., Hotchkiss, E. S., and Weihong, S. (2011). Do Buyouts (Still) Create Value? The Journal of Finance, 66(2):479–517.

Haque, F. (2017). The effects of board characteristics and sustainable compensation policy on carbon performance of UK firms. The British Accounting Review, 49(3):347–364.

Harris, R., Siegel, D. S., and Wright, M. (2005). The impact of leveraged buyouts on strategic direction. Review of Economics and Statistics, 87(1):148–153.

Hong, H., Kubik, J. D., and Scheinkman, J. A. (2012). Financial Constraints on Corporate Goodness.

Jensen, M. C. (1989). Eclipse of the public corporation. Harvard Business Review.

John C. Easterwood, Easterwood, J. C., Anju Seth, Seth, A., Ronald F. Singer, and Singer, R. F. (1989). The Impact of Leveraged Buyouts on Strategic Direction. California Management Review, 32(1):30–43.

Judge, T. A. and Bretz, R. D. (1992). Effects of work values on job choice decisions. Journal of Applied Psychology, 77(3):261–271.

Kahneman, D. and Tversky, A. (1979). Prospect Theory: An Analysis of Decision Under Risk. Econometrica, 47(2):263–292.

Kaplan, S. (1989). The effects of management buyouts on operating performance and value. Journal of Financial Economics, 24(2):217–254.

Kaplan, S. N. and Stromberg, P. (2009). Leveraged Buyouts and Private Equity. Journal of Economic Perspectives, 23(1):121–46.

Leong, C. K. and Yang, Y. C. (2021). Constraints on "Doing Good": Financial constraints and corporate social responsibility. Finance Research Letters, 40:101694.

Li, Y., Gong, M., Zhang, X.-Y., and Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. The British Accounting Review, 50(1):60–75.

Lisi, I. E. (2018). Determinants and Performance Effects of Social Performance Measurement Systems. Journal of Business Ethics, 152(1):225–251.

Marais, L., Schipper, K., and Smith, A. (1989). Wealth effects of going private for senior securities. Journal of Financial Economics, 23(1):155–191.

Marshall, A., Rao, S., Roy, P. P., and Thapa, C. (2022). Mandatory corporate social responsibility and foreign institutional investor preferences. Journal of Corporate Finance, 76:102261.

Melo, T. (2012). Determinants of corporate social performance: The influence of organizational culture, management tenure and financial performance. Social Responsibility Journal, 8(1):33–47.

Metrick, A. and Yasuda, A. (2010). The Economics of Private Equity Funds. The Review of Financial Studies, 23(6):2303–2341.

Musso, P. and Schiavo, S. (2008). The impact of financial constraints on firm survival and growth. Journal of Evolutionary Economics, 18(2):135–149.

Muttakin, M. B., Khan, A., and Mihret, D. G. (2018). The Effect of Board Capital and CEO Power on Corporate Social Responsibility Disclosures. Journal of Business Ethics, 150(1):41–56.

Opler, T. and Titman, S. (1993). The Determinants of Leveraged Buyout Activity: Free Cash Flow vs. Financial Distress Costs. The Journal of Finance.

Renneboog, L. and Vansteenkiste, C. (2017). Leveraged buyouts: Motives and sources of value. Annals of Corporate Governance, 2(4):291–389.

Sood, K., Pathak, P., Jain, J., and Gupta, S. (2022). How does an investor prioritize ESG factors in India? An assessment based on fuzzy AHP. Managerial Finance, 49(1):66–87.

Sun, X. and Gunia, B. C. (2018). Economic resources and corporate social responsibility. Journal of Corporate Finance, 51:332–351.

Tykvova´, T. and Borell, M. (2012). Do private equity owners increase risk of financial distress and bankruptcy? Journal of Corporate Finance, 18(1):138–150.

Udin, S., Khan, M. A., and Javid, A. Y. (2017). The effects of ownership structure on likelihood of financial distress: An empirical evidence. Corporate Governance: The International Journal of Business in Society, 17(4):589–612.

Van Hoang, T. H., Pham, L., Lahiani, A., and Segbotangni, E. A. (2023). Does ESG Disclosure Transparency Mitigate the COVID-19 Pandemic Shock? An Empirical Analysis of Listed Firms in the UK. Journal of Innovation Economics & Management, Prepublication(0):I131–32.

Waddock, S. A. and Graves, S. B. (1997). Finding the link between stakeholder relations and quality of management. Journal of Investing, 6(4):20–24.

Xu, E., Yang, H., Quan, J. M., and Lu, Y. (2015). Organizational slack and corporate social performance: Empirical evidence from China's public firms. Asia Pacific Journal of Management, 32(1):181–198.

Zaccone, M. C. and Pedrini, M. (2020). ESG Factor Integration into Private Equity. Sustainability, 12(14):5725.

Zhao, T. and Xiao, X. (2019). The impact of corporate social responsibility on financial constraints: Does the life cycle stage of a firm matter? International Review of Economics & Finance, 63:76–93.

Table 3.1. Sample of Buyout Firms by Year

This table reports the number of buyout firms in the pre-deal and post-deal periods by year.

	Pre-deal Period	Post-deal Period	Total
2010	28	4	32
2011	45	4	49
2012	50	13	63
2013	46	17	63
2014	52	20	72
2015	51	23	74
2016	40	37	77
2017	42	37	79
2018	36	36	72
2019	28	32	60
2020	20	35	55
2021	9	38	47
2022	0	35	35
2023	0	28	28
Total	447	359	806

Table 3.2. Sample of Buyout firms by Industry

This table reports the number of buyout firm observations in the pre-deal and post-deal periods by industry.

	Pre-deal Period	Post-deal Period	Total
Business Equipment	200	160	360
Wholesale, Retail	40	47	87
Healthcare, Medical	45	32	77
Finance	27	31	58
Consumer Nondurables	23	10	33
Telephone and Television	16	13	29
Manufacturing	15	9	24
Consumer Durables	10	9	19
Chemicals	8	6	14
Oil	1	5	6
Utilities	1	3	4
Other	61	34	95
Total	447	359	806

Table 3.3. Major Variables of LBO Firms: Pre-deal and Post-deal Comparison

This table reports the t-test comparing the pre-deal to the post-deal periods for LBO firms. In addition to the various ESG variables taken directly from the database used, we calculated the variables D_ESG_DS, D_ENV_DS, D_SOC_DS, and D_GOV_DS, which represent the differences between the disclosure score of the company under LBO compared to its comparable, respectively, for the global ESG score, and for the environmental, social, and governance scores. These variables are transformed into dummy variables respectively DUM_ESG_DS, DUM_ENV_DS, DUM_SOC _DS, DUM _GOV _DS. All these variables take the value of 1 if the gap is positive, and 0 if the gap is negative. The other variables were standard financial variables. The Z-score measures the probability of bankruptcy; LN_TOT_ASSET is the natural logarithm of the total assets; DUM_LOSS is a dummy variable taking 1 if the net income is negative and 0 if positive; ROE is the Return On Equity, LEVERAGE is the proportion of total debt on the total assets; CAPEX is the capital expenditure; DUM_DIV_PAY is a dummy variable of whether the firm paid dividends (1) or not (0); and TANGIBILITY is the proportion of tangible assets in the firm's total assets.

	Pre-deal Period	Post-deal Period	T-Test	
N	273 (60.8%)	176 (39.2%)		
ESG_DS	25.912 (10.451)	23.703 (8.918)	0.021	**
ENV_DS	2.254 (7.906)	1.429 (3.648)	0.235	
SOC_DS	7.488 (8.442)	8.030 (7.166)	0.512	
GOV_DS	76.814 (12.578)	71.604 (15.072)	<0.001	***
D_ESG_DS	-6.792 (14.245)	-11.991 (13.605)	<0.001	***
D_ENV_ DS	-5.084 (17.031)	-9.285 (17.654)	0.020	**
D_SOC_DS	-2.742 (11.864)	-7.370 (12.715)	<0.001	***
D_GOV_DS	-4.010 (14.913)	-10.527 (17.554)	<0.001	***
DUM_ESG_DS	0.344 (0.476)	0.199 (0.400)	<0.001	***
DUM_ENV_DS	0.697 (0.460)	0.548 (0.499)	0.003	***
DUM_SOC_DS	0.488 (0.501)	0.320 (0.468)	<0.001	***
DUM_GOV_DS	0.443 (0.498)	0.216 (0.413)	<0.001	***
Z-Score	3.888 (4.285)	2.424 (7.765)	0.012	**
LN_TOT_ASSET	6.516 (1.354)	6.588 (1.749)	0.661	
DUM_LOSS	0.327 (0.470)	0.374 (0.485)	0.338	
ROE	-5.040 (85.114)	0.550 (51.946)	0.465	
LEVERAGE	61.586 (29.476)	62.857 (25.968)	0.664	
CAPEX	0.041 (0.042)	0.042 (0.046)	0.846	
DUM_DIV_PAY	0.325 (0.469)	0.368 (0.484)	0.392	
TANGIBILITY	0.166 (0.213)	0.168 (0.285)	0.942	

Standard errors in parentheses * p<0.10, ** p<0.05, *** p<0.01

Table 3.4. Major Variables of LBO Firms and their Comparable Firms

This table reports the t-test comparing the pre-deal to the post-deal periods for LBO firms and their comparable firms. In addition to the various ESG variables taken directly from the database used, we calculated the variables POSTDEAL_VAR_ESG_DS, POSTDEAL_VAR_ENV_DS, POSTDEAL_VAR_SOC_DS, and POSTDEAL_VAR_GOV_DS, which represent the annual variation between the disclosure score of the company under LBO in the pre-deal period compared to the post-deal period for the global ESG score, and for the environmental, social, and governance scores. These variables are transformed into dummy variables: POSTDEAL_VAR_ESG_Dummy, POSTDEAL_VAR_ENV_Dummy, POSTDEAL_VAR_SOC_Dummy and POSTDEAL_VAR_GOV_Dummy. The other variables were standard financial variables. The Z-score measures the probability of bankruptcy; LN_TOT_ASSET is the natural logarithm of the total assets; DUM_LOSS is a dummy variable taking 1 if the net income is negative and 0 if positive; ROE is the Return On Equity, LEVERAGE is the proportion of total debt on the total assets; CAPEX is the capital expenditure; DUM _DIV_PAY is a dummy variable of whether the firm paid dividends (1) or not (0) and TANGIBILITY is the proportion of tangible assets in the firm's total assets.

	LBO	Comparables	T-Test	
N	80 (47.9%)	87 (52.1%)		
ESG_DS	23.309 (10.291)	32.182 (10.077)	<0.001	***
ENV_DS	2.128 (5.282)	6.172 (14.357)	0.022	***
SOC_DS	7.972 (7.422)	10.005 (10.475)	0.166	
GOV_DS	72.301(16.134)	80.965 (10.554)	<0.001	***
POSTDEAL_VAR_ESG_DS	-0.561 (4.967)	1.541 (3.699)	0.002	***
POSTDEAL_VAR_ENV_DS	-0.036 (1.900)	2.185 (5.273)	<0.001	***
POSTDEAL_VAR_SOC_DS	-0.387 (2.012)	2.387 (4.753)	<0.001	***
POSTDEAL_VAR_GOV_DS	-1.315 (8.302)	0.170 (7.184)	0.220	
POSTDEAL_VAR_ESG_Dummy	0.621 (0.488)	0.863 (0.347)	<0.001	***
POSTDEAL_VAR_ENV_Dummy	0.878 (0.329)	0.962 (0.194)	0.058	*
POSTDEAL_VAR_SOC_Dummy	0.757 (0.432)	0.923 (0.268)	0.005	***
POSTDEAL_VAR_GOV_Dummy	0.644 (0.482)	0.875 (0.333)	<0.001	***
Z-Score	3.790 (5.041)	-3.682 (48.575)	0.169	
LN_TOT_ASSET	6.618 (1.354)	7.634 (2.425)	0.001	***
DUM_LOSS	0.329 (0.473)	0.275 (0.449)	0.450	
ROE	-3.893 (43.761)	10.218 (93.623)	0.234	
LEVERAGE	59.483 (29.562)	63.5 (0.278)	<0.001	***
CAPEX	0.041 (0.046)	0.030 (0.037)	0.078	*
DUM_DIV_PAY	0.259 (0.441)	0.607 (0.493)	<0.001	***
TANGIBILITY	0.181 (0.195)	0.134 (0.199)	0.130	

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3.5. LBO and Corporate ESG Policy – Five-Year Pre-Deal Period

This table presents the results of panel regressions testing the relationship between the LBO firms group (LBODummy) and the ESG global disclosure score (ESG_DS) (Model 1), and then the different disclosure scores pillar by pillar (in absolute value) for the environmental, social, and governance pillars, respectively (ENV_DS, SOC_DS and GOV_DS), in Models 2, 3, and 4. The sample size used corresponds to all LBO and comparable company data for the five-year period preceding the deal (T_{-5} to T_{-1}, where T_0 is the LBO deal year). We test the simultaneous effects of different financial variables in the different models. The different variables correspond to the Altman Z-score (Z-score), the logarithm of total size (LN_TOT_ASSET), the Return-On-Equity (ROE), the binary variable informing whether or not a loss was incurred (DUM_LOSS), the LEVERAGE, the Capital Expenditure (CAPEX), the binary variable informing whether or not dividends were paid (DUM_DIV_PAY), and the variable informing the proportion of tangible assets (TANGIBILITY). We integrated the effect of time by taking covid-19 period into account. We also controlled the industry effect.

	ESG_DS	ENV_DS	SOC_DS	GOV_DS
	(1)	(2)	(3)	(4)
LBODummy	-4.264*	-2.298	-3.024*	-4.655
	(2.237)	(1.869)	(1.804)	(3.010)
Z-score	0.011	-0.021	-0.012	0.079**
	(0.024)	(0.021)	(0.020)	(0.036)
LN_TOT_ASSET	1.708***	2.787***	2.968***	0.345
	(0.505)	(0.427)	(0.411)	(0.697)
ROE	0.018	-0.007	-0.001	-0.005
	(0.022)	(0.017)	(0.017)	(0.028)
DUM_LOSS	0.360	0.394	-0.473	-0.425
	(1.178)	(0.826)	(0.815)	(1.265)
LEVERAGE	-0.042	0.010	0.022	0.003
	(0.030)	(0.023)	(0.022)	(0.035)
CAPEX	0.001	0.001**	0.001**	0.001
	(0.001)	(0.000)	(0.000)	(0.001)
DUM_DIV_PAY	1.856	0.925	0.430	2.134
	(1.405)	(1.107)	(1.076)	(1.759)
TANGIBILITY	-8.254***	-2.645*	-4.769***	-3.792
	(2.183)	(1.596)	(1.567)	(2.467)
COVID19_Effect	2.068	3.709***	3.365***	-1.038
	(1.353)	(0.927)	(0.916)	(1.417)
Constant	20.183***	-17.404***	-11.281**	73.937***
	(5.260)	(5.084)	(4.857)	(7.817)
Industry Effect	Yes	Yes	Yes	Yes
R-squared	0.455	0.629	0.499	0.126
Observations	428	403	405	428

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3.6. LBO and Corporate ESG Policy - One Year Before the Deal

Table 3.6 presents the results of the relationship between the LBO firms group (LBODummy) and the ESG commitment, and then the different disclosure scores pillar by pillar (in absolute value) for the environmental, social, and governance pillars (ENV_DS, SOC_DS and GOV_DS) in Models 2, 3, and 4, respectively. The sample size used corresponds to all LBO and comparable company data for the year preceding the deal (T_{-1}, where T_0 is the LBO deal year). We test the simultaneous effects of different financial variables in the different models. The different variables correspond to the Altman Z-score (Z-score), the logarithm of total size (LN_TOT_ASSET), the Return-On-Equity (ROE), the binary variable informing whether or not a loss was incurred (DUM_LOSS), the LEVERAGE, the Capital Expenditure (CAPEX), the binary variable informing whether or not dividends were paid (DUM_DIV_PAY), and the variable informing the proportion of tangible assets (TANGIBILITY). We integrated the effect of time by taking covid-19 period into account. We also controlled the industry effect.

	ESG_DS	ENV_DS	SOC_DS	GOV_DS
	(1)	(2)	(3)	(4)
LBODummy	-6.768*	0.896	0.323	-8.658
	(3.973)	(3.678)	(2.981)	(6.168)
Z-score	-0.266	-0.271	-0.043	0.161
	(0.207)	(0.177)	(0.143)	(0.322)
LN_TOT_ASSET	1.659**	4.656***	3.173***	1.247
	(0.832)	(0.728)	(0.590)	(1.292)
ROE	-0.005	-0.043	-0.043	-0.044
	(0.038)	(0.033)	(0.027)	(0.058)
DUM_LOSS	-0.281	0.322	-3.807*	-0.476
	(2.843)	(2.492)	(2.019)	(4.414)
LEVERAGE	-0.033	-0.060	-0.026	0.048
	(0.056)	(0.052)	(0.042)	(0.086)
CAPEX	-0.000	-0.001	-0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.002)
DUM_DIV_PAY	5.739**	2.907	3.276*	1.426
	(2.393)	(2.037)	(1.651)	(3.715)
TANGIBILITY	-4.682	-4.592	-6.133	-5.077
	(5.709)	(5.017)	(4.066)	(8.863)
COVID19_Effect	8.817***	6.011***	11.032***	6.092
	(2.664)	(2.257)	(1.829)	(4.136)
Constant	20.126**	-27.403***	-9.285	62.455***
	(8.065)	(7.556)	(6.123)	(12.520)
Industry Effect	Yes	Yes	Yes	Yes
Adj R-squared	0.431	0.622	0.600	0.005
Observations	110	100	100	110

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3.7. The Effect of LBO on ESG Commitment of LBO Target Firms:

From Pre-Deal to Post-Deal

In this table, the dependent variables are measured in relative value, considering the level of ESG of LBO firms compared to peer firms. The different regressions are Probit regressions. Respectively in model 1 to 4, the dependent variables represent the gap between the ESG policy of an LBO firm and it comparable for the overall policy (DUM_ESG_DS) and for the environmental pillar (DUM_ENV_DS), for the social pillar (DUM_SOC_DS) and for the governance pillar (DUM_GOV_DS). Our variable of interest is the binary variable of whether the firm is under LBO or not (PostDeal). The sample contains all LBO target firm observations over the five-year period preceding the deal (T_{-5} to T_{-1}, where T_0 is the LBO deal year) and the five-year period after the deal (T_{+1} to T_{+5}). We incorporated the simultaneous effects of different financial variables in the different models. The different variables correspond to the Altman Z-score (Z-score), the logarithm of firm size (LN_TOT_ASSET), the Return-On-Equity (ROE), the binary variable informing whether or not a loss was incurred (DUM_LOSS), the LEVERAGE, the Capital Expenditure (CAPEX), the binary variable informing whether or not dividends were paid (DUM_DIV_PAY), and the variable informing the proportion of tangible assets (TANGIBILITY). We integrated the effect of time by taking covid-19 period into account. We also control for the industry effect.

	DUM_ESG_DS (1)	DUM_ENV_DS (2)	DUM_SOC_DS (3)	DUM_GOV_DS (4)
PostDeal	-1.040***	-0.783***	-0.905***	-1.060***
	(0.009)	(0.073)	(0.030)	(0.185)
Z-score	-0.060***	-0.099**	-0.078***	-0.024***
	(0.000)	(0.045)	(0.015)	(0.001)
LN_TOT_ASSET	0.546***	0.058	0.531***	0.534***
	(0.073)	(0.050)	(0.149)	(0.045)
ROE	0.008***	-0.001	-0.000	0.012***
	(0.001)	(0.001)	(0.004)	(0.001)
DUM_LOSS	-0.071	0.036	-0.472***	-0.105
	(0.063)	(0.109)	(0.104)	(0.249)
LEVERAGE	-0.021***	-0.011	-0.009	-0.019***
	(0.006)	(0.016)	(0.011)	(0.005)
CAPEX	-0.001	-0.000	-0.003***	-0.004**
	(0.002)	(0.002)	(0.001)	(0.002)
DUM_DIV_PAY	-0.575***	-0.430***	-0.755***	-0.949***
	(0.061)	(0.077)	(0.031)	(0.136)
TANGIBILITY	-1.181**	1.867***	0.302	-1.055***
	(0.533)	(0.202)	(0.291)	(0.260)
COVID19_Effect	0.060***	-0.302	-0.171**	0.199***
	(0.015)	(0.255)	(0.085)	(0.074)
Constant	-1.797***	0.725	-1.862***	-1.399***
	(0.194)	(1.046)	(0.485)	(0.152)
Industry Effect	Yes	Yes	Yes	Yes
R-squared	0.313	0.179	0.232	0.275
Observations	285	245	256	294

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3.8. The Effect of LBO on the Change in ESG Commitment of LBO Target Firms: Conditioning on Financial Distress Risk

This table adds to the results in Table 3.7 the test of the impact of the interaction between the Buyout and the financial distress risk on the ESG commitment after the LBO deal (PostDeal* Z-score). The different regressions are Probit regressions. Respectively in models 1 to 4, the dependent variables represent the gap between the ESG policy of an LBO firm and its comparable for the overall policy (DUM_ESG_DS) and for the environmental pillar (DUM_ENV_DS), for the social pillar (DUM_SOC_DS) and for the governance pillar (DUM_GOV_DS). The sample contains all LBO target firm observations over the five-year period preceding the deal (T_{-5} to T_{-1}, where T_0 is the LBO deal year) and the five-year period after the deal (T_{+1} to T_{+5}). We incorporated the simultaneous effects of different financial variables in the different models. The different variables correspond to the Altman Z-score (Z-score), the logarithm of firm size (LN_TOT_ASSET), the Return-On-Equity (ROE), the binary variable informing whether or not a loss was incurred (DUM_LOSS), the LEVERAGE, the Capital Expenditure (CAPEX), the binary variable informing whether or not dividends were paid (DUM_DIV_PAY), and the variable informing the proportion of tangible assets (TANGIBILITY). We integrated the effect of time by taking covid-19 period into account. We also control for the industry effect.

	DUM_ESG_DS (1)	DUM_ENV_DS (2)	DUM_SOC_DS (3)	DUM_GOV_DS (4)
PostDeal*Z-score	0.097***	0.048	-0.018	0.200***
	(0.011)	(0.072)	(0.017)	(0.003)
PostDeal	-1.486***	-0.555	-0.974***	-2.002***
	(0.162)	(0.384)	(0.061)	(0.036)
Z-score	-0.140***	-0.076**	-0.091***	-0.101***
	(0.001)	(0.032)	(0.029)	(0.027)
LN_TOT_ASSET	0.548***	0.051***	0.531***	0.605***
	(0.091)	(0.016)	(0.154)	(0.040)
ROE	0.008***	-0.001	-0.000	0.013***
	(0.001)	(0.002)	(0.004)	(0.001)
DUM_LOSS	-0.135***	0.063	-0.485***	-0.223
	(0.022)	(0.158)	(0.078)	(0.143)
LEVERAGE	-0.022***	-0.011	-0.009	-0.019***
	(0.007)	(0.016)	(0.011)	(0.006)
CAPEX	-0.002	-0.000	-0.003***	-0.005**
	(0.002)	(0.002)	(0.001)	(0.002)
DUM_DIV_PAY	-0.572***	-0.443***	-0.755***	-1.025***
	(0.051)	(0.074)	(0.028)	(0.144)
TANGIBILITY	-1.581***	1.956***	0.242	-1.520***
	(0.454)	(0.169)	(0.363)	(0.536)
COVID19_Effect	0.035	-0.323*	-0.180***	0.204***
	(0.039)	(0.183)	(0.065)	(0.012)
Constant	-1.338***	0.619	-1.781***	-1.393***
	(0.329)	(1.182)	(0.440)	(0.037)
Industry Effect	Yes	Yes	Yes	Yes
R-squared	0.326	0.181	0.233	0.308
Observations	285	245	256	294

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3.9. The Effect of LBO on ESG Score Variation One Year after the Deal

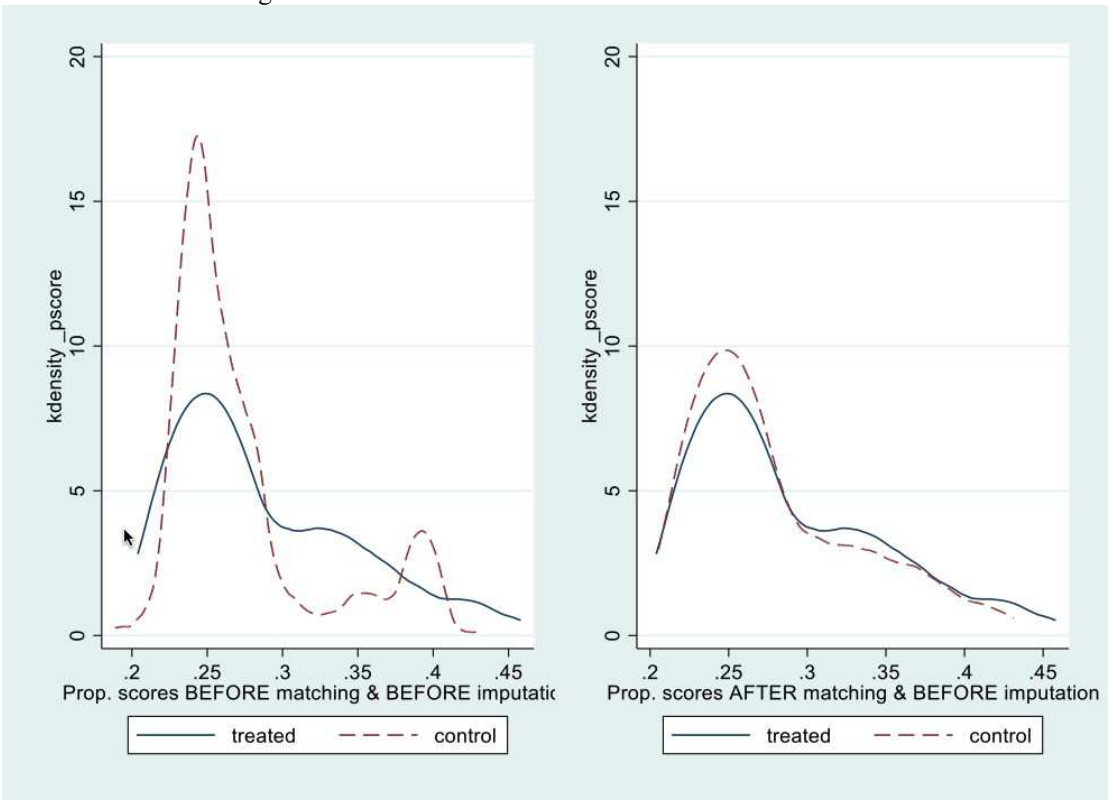
Table 3.9 presents the results of the association between the LBO deal and the ESG commitment measured by the annual variation of the ESG disclosure score. The different regressions are Probit regressions. We test the impact on the global ESG policy variation (POSTDEAL_VAR_ESG_Dummy) (model 1), and then on the variation for the environmental, social, and governance pillars (POSTDEAL_VAR_ENV_Dummy, POSTDEAL_VAR_SOC_Dummy and POSTDEAL_VAR_GOV_Dummy) in Models 2 to 4, respectively. The sample contains all LBO target and their comparable firm observations from one year prior to one year after the deal (T_{-1} to T_{+1}). We incorporate the simultaneous effects of different financial variables in the different models. The different variables correspond to the Altman Z-score (Z-score), the logarithm of total size (LN_TOT_ASSET), the Return-On-Equity (ROE), the binary variable informing whether or not a loss was incurred (DUM_LOSS), the LEVERAGE, the Capital Expenditure (CAPEX), the binary variable informing whether or not dividends were paid (DUM_DIV_PAY), and the variable informing the proportion of tangible assets (TANGIBILITY). We integrated the effect of time by taking covid-19 period into account. We control for the industry effect.

	POSTDEAL_VAR_ESG_Dummy (1)	POSTDEAL_VAR_ENV_Dummy (2)	POSTDEAL_VAR_SOC_Dummy (3)	POSTDEAL_VAR_GOV_Dummy (4)
LBODummy	-0.249***	-0.462***	-1.558**	-1.386
	(0.053)	(0.169)	(0.618)	(0.913)
Z-score	0.014***	0.062***	0.031	0.011
	(0.004)	(0.011)	(0.020)	(0.021)
LN_TOT_ASSET	-0.071*	-0.511*	-0.378***	-0.248***
	(0.038)	(0.269)	(0.053)	(0.094)
ROE	0.004	0.004	0.011***	0.017***
	(0.004)	(0.008)	(0.003)	(0.001)
DUM_LOSS	0.204	0.095	0.578	0.887***
	(0.488)	(0.996)	(0.745)	(0.011)
LEVERAGE	-0.007	-0.004	0.008	0.004
	(0.007)	(0.008)	(0.013)	(0.005)
CAPEX	0.000	0.000***	0.000	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
DUM_DIV_PAY	0.113	0.699	-0.291	0.045*
	(0.234)	(0.986)	(0.199)	(0.024)
TANGIBILITY	-0.512**	0.895	0.248**	0.671
	(0.254)	(0.651)	(0.121)	(0.877)
COVID19_Effect	-0.363***	-0.712***	-0.602**	-0.505***
	(0.033)	(0.100)	(0.264)	(0.107)
Constant	1.542***	5.518***	4.400***	2.884**
	(0.010)	(2.104)	(0.382)	(1.211)
R-squared	0.095	0.267	0.207	0.202
Observations	111	99	99	111

Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Figure 3.1: Propensity Score Matching for Sample and Comparable Firms

This figure shows the density distribution as a function of the probability score that companies have similar characteristics in terms of size, sector, and profitability before and after matching.



Appendix 3.1. Variable Definitions

Variable	Definition
LBODummy	An indicator variable that equals 1 if the firm is an LBO firm and 0 otherwise
PostDeal	An indicator variable that equals 1 if in the post-deal period and 0 if in the pre-deal period
Z-Score	An indicator of the probability of a company going bankrupt (Altman, 1968). We use the variable collected directly from the Bloomberg database.
ESG_DS	Represents the Environmental, Social and Governance disclosure score
ENV_DS	Represents the Environmental disclosure score
SOC_DS	Represents the Social disclosure score
GOV_DS	represents the Governance disclosure score
D_ESG_DS	The difference in the level of ESG_DS between an LBO firm and its comparable firm
D_ENV_DS	The difference in the level of ENV_DS between an LBO firm and its comparable firm
D_SOC_DS	The difference in the level of SOC_DS of an LBO firm and its comparable firm
D_GOV_DS	The difference in the level of GOV_DS between an LBO firm and its comparable firm
DUM_ESG_DS	Represents the transformation of D_ESG_DS into a dummy variable, taking 1 if D_ESG_DS >=0 and 0 otherwise
DUM_ENV_DS	Represents the transformation of D_ENV_DS into a dummy variable, taking 1 if D_ENV_DS >= 0 and 0 otherwise
DUM_SOC_DS	Represents a transformation of D_SOC_DS into a dummy variable, taking 1 if D_SOC_DS >= 0 and 0 otherwise
DUM_GOV_DS	Represents a transformation of D_GOV_DS into a dummy variable, taking 1 if D_GOV_DS >= 0 and 0 otherwise
POSTDEAL_VAR _ESG_DS	Represents the annual variation of the ESG_DS around the LBO deal year, taking into account the gap between [-1 and +1] years
POSTDEAL_VAR _ENV_DS	Represents the annual variation of the ENV_DS around the LBO deal year, taking into account the gap between [-1 and +1] years
POSTDEAL_VAR _SOC_DS	Represents the annual variation of the SOC_DS around the LBO deal year, taking into account the gap between [-1 and +1] years
POSTDEAL_VAR _GOV_DS	Represents the annual variation of the GOV_DS around the LBO deal year, taking into account the gap between [-1 and +1] years
POSTDEAL_VAR _ESG_Dummy	Represents a transformation of POSTDEAL_VAR_ESG_DS into a dummy variable taking 1 if POSTDEAL_VAR_ESG_DS >= 0 and 0 otherwise
POSTDEAL_VAR _ENV_Dummy	Represents a transformation of POSTDEAL_VAR_ENV_DS into a dummy variable, taking 1 if POSTDEAL_VAR_ENV_DS >= 0 and 0 otherwise

POSTDEAL_VAR _SOC_Dummy	Represents a transformation of POSTDEAL_VAR_SOC_DS into a dummy variable, taking 1 if POSTDEAL_VAR_SOC_DS >= 0 and 0 otherwise
POSTDEAL_VAR _GOV_Dummy	Represents a transformation of POSTDEAL_VAR_GOV_DS into a dummy variable, taking 1 if POSTDEAL_VAR_GOV_DS >= 0 and 0 otherwise
LN_TOT_ASSET	Represents the natural logarithm of Total Assets
ROE	Return on equity that is equal to Net income scaled by Total Assets
DUM_LOSS	Represents a binary variable that takes a value of one if the net result is positive, and zero if the net result is negative
LEVERAGE	Represents the proportion of Total Debt to Total Assets
CAPEX	Represents Capital Expenditure
DUM_DIV_PAY	Represents a dummy variable equal to one if the company pays dividend and zero otherwise
TANGIBILITY	Presents the proportion of Tangible Assets to Total Assets
COVID19_Effect	Captures the specific effect of COVID-19 on the dependent variable. It corresponds to a binary variable taking 1 for the period 2020 to 2022 and 0 otherwise
INDUSTRY	Industry classification code based on the Fama–French 12 industry classification.

General conclusion

This dissertation investigates the link between LBO deals and the costs associated with bankruptcy. This issue has mainly been addressed in the literature through the prism of traditional finance variables such as leverage, capital structure, and return on assets. This traditional approach has undeniably revealed the crucial financial mechanisms that influence bankruptcy costs, thus providing a solid basis for understanding the dynamics of LBOs within a traditional financial framework. However, while this approach is relevant, it remains incomplete in that it neglects the integration of more modern perspectives, notably those stemming from behavioral finance and the stakeholder approach. Such an extension of the analysis is all the more interesting, as the characteristics and contextual elements associated with LBOs offer the possibility of using a different analytical framework. Therefore, we used the behavioral finance framework and stakeholder approach to analyze the bankruptcy costs associated with LBOs. This approach allows an in-depth exploration of the complex and often irrational dynamics that influence management decisions as well as the impact of interactions between various stakeholders on bankruptcy costs in LBOs.

The main objective of this research is to offer an explanation for the inefficiencies observed in LBO transactions by integrating an innovative approach that draws on several key concepts, including agency relationships, cognitive governance, and the theory of optimal capital structure. To achieve this objective, we divided our analysis into two complementary axes. The first is based on the theory of behavioral finance, which enables us to explore how the cognitive biases of financial players influence the strategic decisions and performance of companies under LBO. The second is based on stakeholder theory, which enables us to assess the role of actors involved in bankrupt LBOs. This dual approach enables us to better understand the complex dynamics at work in these transactions and propose recommendations for improving governance and reducing the risks of inefficiency.

The first chapter explores the distress of LBO firms through two representative cases: Camaïeu and Vivarte. In this chapter, we seek to explain the bankruptcy trajectory of financially distressed LBOs by considering the divergence of interests and evolution of control, focusing

on cognitive costs and the role of FVs. Our results indicate that VFs find it easy to target distressed LBOs because of the specific characteristics of these firms, such as the relatively large number of creditors and debt tranches with varying terms. FVs have a short-term return objective that is achieved in two stages. First, they acquire debt at a discount, and then acquire a stake in the company. FVs do this by introducing valuation biases using unconventional methods, such as media campaigns and other informal methods. The modus operandi of FVs leads to divergence between the manager and VFs, which engenders cognitive costs. We argue that valuation bias and cognitive costs are important factors in explaining LBO firms' increased probability of bankruptcy.

The second chapter experimentally examines the impact of cognitive resources and sensitivity to social values on managerial decision making in the context of leveraged buyouts, particularly in times of financial distress. Our results show that cognitive overload and social preferences influence managers' restructuring choices, often with significant organizational and social consequences. Managers of LBO firms perceive significant pressure to achieve their results and meet their debt obligations. In severe cases of financial distress, executives under such cognitive burdens must implement restructuring plans that may include cost-cutting measures, redundancies, and other strategies to improve financial performance. These tactics may be necessary for financial recovery, but are also likely to have negative social and organizational consequences.

The third chapter examines the impact of LBOs on companies' ESG commitments. We sought to determine whether companies under an LBO are selected on the basis of their ESG policy and whether they manage to strengthen this commitment after the transaction, given the involvement of investment funds and their need to maintain a positive image. We hypothesized a positive relationship between the LBO and the company's ESG commitment, as ESG activities are becoming increasingly important in finance because of their implications for reputation and performance. However, we obtained surprising results showing an inverse relationship between LBO and ESG commitment. Overall, our results indicate that the actors involved in the LBO are not concerned with the company's ESG policy. Before the deal, our results indicate that investors do not select targets because they have a better ESG commitment than their comparables. Moreover, companies under LBO are more likely to lower their ESG commitment after the deal. These results are explained by the prioritization of financial performance criteria over criteria whose impact on the value of the company is only long-term.

We attribute the downward trend after the LBO to increasing financial constraints. This explanation is consistent with and complementary to the first.

Overall, this dissertation highlights the existence of bankruptcy costs that have not previously been studied in the context of LBOs. In a situation of financial distress, these costs relate to cognitive factors and are fuelled by the redistribution of power by certain stakeholders (such as FVs). Outside of a situation of financial distress, these costs take the form of opportunity costs arising from a shift away from ESG activities due to very strong financial constraints. Therefore, this research contributes to the literature on cognitive governance and calls for the stakeholder approach to be taken into account to avoid penalizing the company's long-term value in the context of severe financial constraints.

The results of this research have several important implications. At the academic level, our results question the foundations of dominant theories that almost exclusively justify LBO transactions by failing to consider the crucial relationship between marginal profit and marginal cost of bankruptcy. In traditional theoretical models, debt levels are generally determined based on a company's ability to generate sufficient returns to offset associated risks. However, our research shows that these excessive debt levels, often encountered in LBOs, exceed reasonable limits by ignoring the potential costs associated with bankruptcy. In particular, our analyses show that these costs are not only financial but also include cognitive costs, such as managerial decision overload, as well as opportunity costs that undermine the long-term value of the company. This finding highlights the need to reconsider how debt levels are calibrated in LBO transactions, particularly in contexts where the probability of bankruptcy is high.

From a regulatory point of view, our results suggest that regulators need to intervene more actively to better supervise LBO debt levels, whether primary, secondary, tertiary, or other LBOs. It seems essential to review certain rights granted to creditors, particularly in the context of bankruptcy proceedings, to prevent them from exacerbating the vulnerability of distressed companies. Additionally, stricter regulations could prevent the intervention of vulture funds, which often target LBO companies in financial distress. By seeking to maximize profits in a crisis situation, these funds exacerbate financial tensions and accelerate the failure of these companies. Therefore, it is crucial that regulators adopt stricter measures to limit the destructive impact of these players on LBO companies, notably by strengthening protection mechanisms for distressed companies and introducing additional constraints on the leverage levels allowed in such transactions.

This research has been challenged by the difficulty of gathering extensive data on LBO companies, as these companies often become unlisted after a transaction. This situation limited access to detailed financial and contractual information, which could have enriched our analysis. For example, we were unable to integrate specific data concerning contractual clauses, debt structuring in tranches, interest rate conditions, loan maturity periods, and the contents of lawsuits relating to distressed companies under the LBO. Such data would have been of particular interest to deepen certain technical aspects of our study, especially those related to traditional financial analysis and default risk management. However, despite this lack of very specific data, we consider that the information mobilized in this research is sufficient to answer the main question and validate, or if necessary reject, our hypotheses. The wealth of accessible data has enabled us to carry out a coherent and rigorous analysis, focusing on key variables that capture the dynamics of companies under LBO.

While we recognize the importance of being able to access primary data directly from companies, their managers, or investment funds to deepen the analysis, the results obtained based on the available data and through multiple methodologies are sufficiently robust to complement previous research. They also allow us to question certain established hypotheses, notably, the idea that LBOs represent the optimal configuration for companies. In 1989, in his article "*Eclipse of the Public Corporation*," Jensen predicted the gradual elimination of large managerial firms, which he predicted would be replaced by LBO-type structures. In his view, LBOs represent an optimal solution to agency problems inherent in large firms. However, our research shows that these agency problems persist, in large part, because of the significant cognitive costs that managers may face in these transactions, as well as the opportunity costs associated with the reduction of long-term investments, such as ESG divestments. Therefore, the debate on the optimal form of organization remains open, underlining the importance of the trade-off between managerial control and long-term value creation. In this sense, this research makes a significant contribution while opening the way for future research.

After this dissertation, a number of topics that will constitute future avenues of research remain. First, in addition to the study dealing with the association between LBOs and a company's ESG commitment, it is worth exploring in greater detail how ethics are affected by LBOs. Further investigation should examine how companies that exit LBOs behave in terms of ESG investment. In addition, an experiment studying the link between the internal and behavioral factors of the executive and the restructuring context of a financially distressed LBO should be supplemented by a study using laboratory tools, such as eye tracking and skin

conductors. Using these tools, the aim was to test the results obtained in this research under new conditions. In the hope of overcoming the constraints associated with data on companies under LBO through access to specialized databases, other research ideas have focused on investigating the link between FVs and the costs of bankruptcy using a quantitative method.

References

Axelson, U., Jenkinson, T., Strömberg, P., & Weisbach, M. S. (2013). Borrow cheap, buy high ? The determinants of leverage and pricing in buyouts. *The Journal of Finance*, *68*(6), 2223-2267.

Ayash, B. (2020). The origin, ownership and use of cash flows in leveraged buyouts. *The Quarterly Review of Economics and Finance*, *77*, 286-295. https://doi.org/10.1016/j.qref.2019.10.004

Bebchuk, L. A., & Fried, J. M. (2003). Executive Compensation as an Agency Problem. *Journal of Economic Perspectives*, *17*(3), 71-92. https://doi.org/10.1257/089533003769204362

Fama, E. F., & Jensen, M. C. (1983). Agency Problems and Residual Claims Corporations and Private Property. *Journal of Law & Economics*, *26*(2), 327-350.

Fox, I., & Marcus, A. (1992). The causes and consequences of leveraged management buyouts. *Academy of Management Review*, *17*(1), 62-85.

Ghosh, R., Kamal. (2022). *Mergers And Acquisitions, Second Edition : Strategy, Valuation And Integration*. PHI Learning Pvt. Ltd.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, *76*(2), 323-329.

Kesten, J. (2010). Managerial Entrenchment and Shareholder Wealth Revisited : Theory and Evidence From a Recessionary Market. *BYU Law Review*, *2010*(5), 1609-1660.

Kraus, A., & Litzenberger, R. H. (1973). A State-Preference Model of Optimal Financial Leverage. *The Journal of Finance*, *28*(4), 911-922. https://doi.org/10.2307/2978343

Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review*, *48*(3), 261.

Modigliani, F., & Miller, M. H. (1963). Corporate Income Taxes and the Cost of Capital : A Correction. *The American Economic Review*, *53*(3), 433-443.

Morse, D., & Shaw, W. (1988). Investing in Bankrupt Firms. *The Journal of Finance*, *43*(5), 1193-1206. https://doi.org/10.1111/j.1540-6261.1988.tb03964.x

Myers, S. (1984). Capital Structure Puzzle. *Journal of Finance*, *39*(3), 575-592. https://doi.org/10.3386/w1393

Shleifer, A., & Vishny, R. W. (1989). Management entrenchment : The case of manager-specific investments. *Journal of Financial Economics*, *25*(1), 123-139. https://doi.org/10.1016/0304-405X(89)90099-8

Warner, J. B. (1977). Bankruptcy Costs : Some Evidence. *The Journal of Finance*, *32*(2), 337-347. https://doi.org/10.2307/2326766

Résumé de la Thèse en Français

1 Contexte de la recherche et problématique générale

Le rachat avec effet de levier (LBO) est une stratégie financière d'acquisition d'entreprise qui présente d'importantes opportunités de croissance, mais qui comporte également des risques significatifs pour les entreprises concernées (voir Renneboog et Vansteenkiste, 2017; Hotchkiss et al., 2021 pour un résumé de la littérature). En pratique, cette technique permet aux investisseurs de combiner dette et fonds propres pour financer l'acquisition, en utilisant souvent les actifs de l'entreprise cible comme garantie. Cela offre aux acquéreurs la possibilité de prendre le contrôle de la cible avec un apport initial en fonds propres relativement faible, libérant ainsi des ressources financières considérables pour un réinvestissement potentiel dans l'entreprise. Ces ressources peuvent être orientées vers des initiatives de croissance organique, telles que l'augmentation des capacités de production, l'entrée sur de nouveaux marchés, ou le développement de nouveaux produits. En outre, les LBO s'accompagnent fréquemment d'une promesse de réorganisations stratégiques et d'améliorations opérationnelles, ce qui peut entraîner des gains de productivité significatifs (Ghosh, 2022). Les nouveaux propriétaires, souvent des fonds de capital-investissement et des équipes de direction, apportent également une expertise en matière de gestion, de stratégie et de finance, renforçant ainsi la compétitivité et la réactivité de l'entreprise acquise. Sur le plan financier et fiscal, les LBO reposent sur l'effet de levier pour augmenter le rendement potentiel de l'opération, notamment par le recours à un endettement important (Kaplan et Stromberg, 2009). De plus, les acquéreurs mettent en œuvre des techniques d'optimisation fiscale, comme la déductibilité des intérêts ou l'intégration fiscale, pour améliorer la rentabilité de l'entreprise cible (cf. Kaplan, 1989). Ainsi, les LBO sont souvent perçus comme des moteurs de transformations, favorisant la croissance et la création de valeur à long terme pour l'entreprise.

Lorsque les systèmes d'incitation et les ajustements organisationnels post-acquisition sont correctement mis en place, et en l'absence de chocs exogènes, les opérations de LBO peuvent générer une création de valeur, mesurée par une valorisation à la sortie de l'opération souvent supérieure à celle de l'entrée ; ou en termes d'indicateurs financiers tels que les flux de trésorerie, les rendements financiers et réels (e.g. ; Kaplan, 1989 ; Cumming et al., 2007 ; Guo

et al., 2011). . Par exemple, la transformation de Burger King par 3G Capital en 2010 a entraîné une expansion internationale et une amélioration des marges bénéficiaires. Burger King avait atteint une valorisation de 8 milliards de dollars, soit le double de sa valorisation lors du LBO deux ans auparavant. De la même manière, la revitalisation de Hertz suite à sa cession par Ford Motor Company en 2005 orchestrée par Clayton, Dubilier & Rice, a conduit à une plus grande efficacité et à une expansion stratégique de Hertz, ce qui a permis son introduction en bourse un an plus tard avec un gain de valorisation de 2 milliards de dollars. Ces cas illustrent la manière dont un LBO peut effectivement engendrer une création de valeur significative.

Les exemples de Burger King et de Hertz illustrent la manière dont les LBO peuvent créer de la valeur. Dans les recherches académiques antérieures sur les LBO, la création de valeur provient de la réduction des problèmes d'agence qu'on rencontre souvent dans les grandes entreprises cotées. En effet, les dirigeants deces entreprises peuvent privilégier leurs objectifs personnels, tels que la croissance ou la stabilité, à la maximisation de la valeur actionnariale. Cette divergence d'intérêt crée alors une situation de risque (Jensen et Meckling, 1976 ; Fama et Jensen, 1983 ; Shleifer et Vishny, 1989 ; Bebchuk et Fried, 2003 ; Kesten, 2010). Ainsi, en rachetant ces entreprises par LBO, on peut aligner les incitations des dirigeants sur celles des actionnaires par le biais de mécanismes tels qu'une rémunération basée sur les performances ou des niveaux élevés d'endettement (Jensen, 1986 ; Jensen, 1989). Des niveaux d'endettement élevés imposent une discipline financière stricte, obligeant les dirigeants à optimiser les coûts et à générer des flux de trésorerie pour rembourser la dette. Cette discipline financière stricte, combinée à une implication accrue de la direction dans les performances, conduit à une amélioration de l'efficacité. C'est la raison pour laquelle Michael Jensen, dans son article « The Eclipse of the Public Corporation » (1989), soutient que les mécanismes caractéristiques des LBO, tels que l'alignement des intérêts et la discipline imposée par la dette, rendent ce modèle plus efficace et plus attractif que celui des grandes entreprises cotées, au point d'entraîner à terme le déclin de ces dernières au profit des LBO.

Bien que de nombreux LBO soient considérés comme des réussites, la réalité est plus complexe. La rentabilité des LBO varie de manière significative, et certains d'entre eux peuvent se solder par des échecs, notamment en cas de retournement économique ou de mauvaise gestion (Tykvová et Borell, 2012 ; Ayash et Rastad, 2020). Cette variabilité des performances, influencée par les cycles économiques, les conditions de financement, la réglementation et d'autres facteurs, explique en partie pourquoi l'évolution du volume des transactions sur le marché des LBO connaît des fluctuations. Certaines périodes affichent en effet des pics

d’activité nettement plus élevés que les années précédentes. Par exemple, en 2021, le marché mondial des LBO a atteint un sommet historique de 1100 milliards de dollars, soit près du double des 577 milliards de 2020. De même, en 2006, le volume total des transactions a atteint 804 milliards de dollars contre seulement 260 milliards en 2005.

Il est important de souligner un élément constant des opérations de LBO : elles entraînent inévitablement une augmentation substantielle du risque en raison de leur forte dépendance à l’endettement. Ce recours massif à la dette déséquilibre la structure financière de l’entreprise cible, qui devient ainsi plus vulnérable aux fluctuations économiques et aux pressions du marché. Dans ce contexte, une partie de la littérature soutient l’idée que les entreprises sous LBO présentent un risque de faillite plus élevé (Tykvová et Borell, 2012 ; Bédu et Palard, 2014 ; Ayash et Rastad, 2020).

Les échecs des LBO ont été illustrés de manière emblématique par plusieurs cas de faillite au fil du temps. L’un des exemples les plus célèbres de l’histoire est celui de de RJR Nabisco. En 1988, son rachat par Kohlberg Kravis Roberts (KKR) pour 25 milliards de dollars a engendré un endettement massif qui a lourdement pesé sur l’entreprise. La pression pour rembourser cette dette a entraîné des ventes d’actifs, des licenciements massifs et une réduction significative des investissements à long terme, affaiblissant ainsi l’entreprise sur le long terme. De manière similaire, le rachat de Toys "R" Us en 2005 par un consortium de fonds d’investissement incluant Bain Capital, KKR, et Vornado Realty Trust pour 6,6 milliards de dollars a également entraîné une surcharge de dettes. Les paiements d’intérêts élevés ont réduit la capacité de l’entreprise à investir dans sa transformation digitale, la rendant vulnérable face à la montée du commerce électronique. Finalement, ces charges financières insoutenables ont conduit à la faillite de Toys "R" Us en 2017. Outre l’exemple de Toys "R", les cas de Vivarte et Camaïeu dans cette thèse prouvent que, malgré les opportunités de croissance et de rendements rapides qu’offrent les LBO, ces opérations exposent aussi les entreprises à des risques considérables pouvant entraîner des conséquences désastreuses pour les employés et les collectivités (Goergen et Wood, 2014).

La littérature s’est souvent penchée sur la faillite des LBO en se contentant de constater un risque accru de défaillance, en s’appuyant sur des explications principalement issues des théories financières traditionnelles (Marais et al., 1989 ; Andrade et Kaplan, 1998 ; Easterwood, 1998 ; Guo et al., 2011 ; Goergen et Wood, 2014 ; Ayash et Schütt, 2016 ; Ayres, 2020). Bien que cette approche soit pertinente, elle demeure limitée lorsqu’il s’agit de comprendre les

dynamiques spécifiques des LBO en situation de détresse financière. En effet, les recherches actuelles restent largement influencées par le cadre utilisé pour justifier les LBO et analyser leurs facteurs de réussite. Elles négligent ainsi les spécificités des restructurations fréquentes, des divergences d'intérêts, et de la pression financière susceptibles de biaiser les priorités managériales. Cela empêche de saisir pleinement les complexités des LBO en difficulté et de remettre en question les pratiques associées à ces opérations afin d'améliorer les montages et de réduire les inefficiences. Il est donc important d'explorer l'impact des LBO en tenant compte des caractéristiques propres à ces entreprises et du contexte particulier de détresse financière. Cette thèse, structurée en trois essais, cherche à aborder cette problématique et à apporter des éclairages complémentaires. La question problématique de recherche à laquelle cette thèse cherche à répondre est la suivante : **quel est l'impact des LBO sur les coûts liés à la faillite ?**

L'objectif principal de notre recherche est d'approfondir l'analyse des inefficiences observées dans les LBO en incorporant des théories financières alternatives aux théories traditionnelles. Bien que ces dernières soient indispensables pour expliquer la détresse financière et d'autres inefficiences des LBO, leur compréhension peut être enrichie par l'apport de la finance comportementale, notamment à travers le prisme de la gouvernance cognitive, ainsi que par l'approche centrée sur les parties prenantes (*stakeholders*). Ce cadre conceptuel permet d'intégrer les recommandations de la littérature concernant la nécessité de prendre en compte la perception subjective et le fait que les décisions financières peuvent être à la fois rationnelles et émotionnelles (Olsen, 2010). Il tient également compte de la complexité des montages financiers et des clauses contractuelles dans les LBO, qui peuvent générer des conflits (Betker, 1995) ainsi que des divergences d'intérêts en situation de détresse financière, susceptibles d'accroître les coûts de faillite (Taatian, 2021). En intégrant ces dimensions, l'approche de la finance comportementale et la perspective stakeholders contribuent à la construction d'un modèle plus complet pour une meilleure identification des coûts associés à la faillite.

Notre analyse s'articule autour de deux périodes distinctes. Pendant la période de détresse financière, nous explorons comment le contexte spécifique des LBO influence le processus de restructuration et ses résultats. En dehors de cette période, nous nous penchons sur l'impact des LBO sur les investissements à long terme, en portant une attention particulière aux politiques environnementales, sociales et de gouvernance (ESG). La forte pression exercée pour maintenir une rentabilité élevée et satisfaire les créanciers peut inciter les dirigeants à privilégier des actions à court terme, telles que des réductions de coûts drastiques et la vente d'actifs, au détriment de stratégies de croissance à long terme. Si ces mesures peuvent réduire le risque de

faillite à court terme, elles risquent également d'accélérer la dégradation de la santé financière de l'entreprise et de compromettre sa survie à long terme. À travers l'étude des LBO et d'exemples concrets de restructurations post-LBO, notre recherche vise à mieux comprendre les mécanismes qui mènent à l'échec des entreprises sous LBO et à formuler des recommandations pour améliorer les pratiques de sélection pré-deal et de gestion post-deal, afin de favoriser la viabilité et la croissance durable des entreprises cibles.

Lorsqu'une entreprise est acquise via un LBO, la nécessité de générer des flux de trésorerie suffisants pour rembourser la dette peut limiter sa capacité à investir dans des projets à long terme (Ayash, 2020) et à surmonter les périodes de sous-performance (Ayash et Rastad,2021 ; Tykvov et Borell, 2012 ; Andrade et Kaplan, 1998). La pression exercée par les investisseurs pour obtenir des rendements rapides peut entraîner des choix stratégiques risqués et axés sur le court terme, tout en augmentant les coûts de faillite en raison des conflits d'intérêt. Les divergences d'objectifs entre les différents groupes d'acteurs peuvent créer un climat de tension entre la direction et les parties prenantes, affectant de manière significative la survie de l'entreprise (Betker, 1995). Par exemple, les exigences de gains rapides de la part des investisseurs peuvent inciter les dirigeants à adopter des stratégies risquées telles que la réduction des dépenses en R&D, le lancement accéléré de nouveaux produits sans tests adéquats, ou des acquisitions opportunistes mal évaluées (Baird et Rasmussen, 2009 ; Harner, 2011). A l'inverse, certains dirigeants pourraient collaborer avec des investisseurs privilégiant leur retour sur investissement au point d'accélérer le démantèlement de l'entreprise en vendant ses actifs ou ses filiales. En résumé, dans de nombreux cas, la recherche de performance à court terme peut entraîner des dérives significatives, augmentant les coûts anticipés de la faillite ou accélérant sa probabilité. Un dirigeant soumis à cette pression peut négliger les aspects fondamentaux de la stratégie à long terme, compromettre la qualité et l'innovation, ou prendre des décisions financières imprudentes, nuisant ainsi à la viabilité de l'entreprise. En situation de détresse financière, la pression exercée par les créanciers résiduels sur les parties prenantes s'accentue (Cappelen et al. 2019 ; Kim, 2022), ce qui aggrave davantage les conflits d'agence.

Au-delà de la phase de réorganisation prévue dans le cadre du LBO, notre recherche se concentre sur la restructuration en situation de détresse financière ainsi que sur les contraintes financières associées au LBO. Cette restructuration englobe les mesures mises en œuvre lorsque l'entreprise rencontre des difficultés financières significatives après l'acquisition (Altman et al., 2019). Ces difficultés peuvent provenir de plusieurs facteurs, tels que des conditions économiques défavorables, une performance opérationnelle inférieure aux attentes, ou des

charges d'intérêts excessives, comme le mentionne la littérature existante (Kaplan et Stein, 1983 ; Opler et Titman, 1994 ; Easterwood, 1998 ; Cohn et al., 2014). Elles se traduisent souvent par un non-respect des engagements financiers de l'entreprise. Dans ce contexte, la restructuration implique des mesures correctives telles que la renégociation de la dette, la vente d'actifs, des réductions de coûts significatives, et parfois des changements dans la structure de propriété et la gouvernance. Notre recherche s'étend à des facteurs supplémentaires liés à la finance comportementale et à l'approche par les parties prenantes.

En explorant le contexte de restructuration, nous mettons en lumière des dynamiques essentielles dans le comportement des acteurs clés tels que les dirigeants et les fonds d'investissement. Ainsi, notre recherche se concentre non seulement sur les coûts d'agence managériaux, mais aussi sur les coûts d'agence cognitifs. Lors de difficultés financières persistantes, le climat de conflit et les coûts associés peuvent significativement accroître les coûts de faillite. En effet, les tensions entre dirigeants et investisseurs peuvent entraîner des litiges coûteux, des procédures judiciaires et des frais de conseil élevés pour résoudre les désaccords. Par ailleurs, l'absence de cohésion entre la direction et les parties prenantes peut compliquer la restructuration, ralentir le redressement et accroître les frais associés. Les erreurs de gestion résultant de décisions hâtives et de désaccords internes peuvent entraîner des pertes financières supplémentaires, aggravant ainsi les difficultés et les coûts liés à la faillite.

Sous une pression intense pour répondre aux exigences des créanciers, les dirigeants peuvent être amenés à adopter des stratégies risquées et à court terme. Par exemple, pour générer rapidement des liquidités, ils pourraient réduire les investissements à long terme, notamment ceux liés aux initiatives ESG. Bien que ces ajustements puissent répondre aux besoins immédiats de trésorerie, ils risquent de compromettre la durabilité et la réputation de l'entreprise. De plus, les fonds d'investissement, souvent axés sur la maximisation des rendements à court terme, influencent fortement ces décisions, favorisant des mesures qui, bien que générant des gains rapides, peuvent nuire à la santé à long terme de l'entreprise. Cette pression constante pour atteindre des objectifs de rendement peut entraîner des erreurs de gestion coûteuses et augmenter les coûts de restructuration. L'analyse des comportements des dirigeants et du rôle des fonds d'investissement dans les investissements ESG pendant ces périodes critiques peut offrir des perspectives précieuses sur l'évolution des coûts de faillite et l'impact sur la valeur à long terme de l'entreprise.

2 L'objet de la recherche

L’objet de la présente recherche est l’entreprise sous LBO. Dans les deux premiers essais, les LBO sont analysés dans le contexte spécifique de détresse financière, tandis que dans le troisième chapitre, nous étudions l’impact global de l’opération sur les investissements à long terme. Nous nous penchons à la fois sur des cas spécifiques, tels que Vivarte et Camaïeu en France, pour illustrer les dynamiques des LBO, et sur la situation générale des LBO. Cette dernière est examinée à travers deux méthodes distinctes : une expérimentation et une étude quantitative.

Dans notre premier essai, nous analysons les groupes Vivarte et Camaïeu. Tous deux, issus du secteur de la distribution textile ont été acquis par LBO au cours des années 2000. Ils ont ensuite rencontré d’importantes difficultés financières, conduisant à plusieurs restructurations, et finalement à leur faillite en 2019 et en 2020 respectivement. Le choix d’étudier ces deux groupes est en partie motivé par la richesse des données de presse, ce qui a permis une analyse approfondie. De plus, la nature de ces données a facilité l’exploration du cadre de la gouvernance cognitive. En appliquant des techniques exploratoires éprouvées pour analyser ces cas, nous avons cherché à identifier les facteurs clés expliquant l’échec des stratégies de restructuration post-LBO. Cela permet d’offrir des enseignements précieux pour de futurs investissements et la gestion des entreprises dans ce contexte.

Nous avons ensuite examiné la situation générale des LBO à travers une expérimentation, visant à enrichir l’analyse des cas de Vivarte et Camaïeu avec des variables de profil du dirigeant non observables de l’extérieur. Le contexte des entreprises sous LBO en difficulté, nécessitant une restructuration, nous a conduit à concevoir une expérimentation comportant une tâche de prise de décision, où nous avons principalement testé deux variables : la charge cognitive et les préférences sociales.

Enfin, l’impact des LBO sur l’engagement ESG a été étudié en tenant compte du contexte de forte contrainte financière des entreprises et de pression en vue de prioriser la rentabilité à court terme. En effet, les entreprises sous LBO subissent souvent une pression accrue pour maximiser la rentabilité à court terme, en raison de l'important niveau d'endettement lié à l'acquisition. Cette situation les pousse à prioriser les initiatives génératrices de cash-flow immédiat, au détriment des investissements à plus long terme, notamment ceux liés aux objectifs ESG. Les engagements ESG, qui nécessitent généralement des ressources financières et une vision à long terme, peuvent être relégués au second plan sous la pression des créanciers et des actionnaires, ce qui conduit à une baisse de l'engagement ESG de la cible.

En résumé, pour répondre à la question "quel est l'impact des LBO sur les coûts associés à la faillite ?" il a été nécessaire d'étudier non seulement les LBO pour évaluer leur impact global, mais aussi le contexte de détresse financière des entreprises concernées. Ces deux dimensions forment le cadre de notre recherche. Notre question de recherche est analysée selon trois perspectives : un point de vue comportemental, un point de vue sur le rôle des acteurs impliqués dans le financement et un point de vue sur la responsabilité sociale de l'entreprise. Ces trois aspects s'appuient sur trois théories qui sont la théorie comportementale, la théorie des parties prenantes et la trade-off theory dans le contexte de restructuration et de des coûts liés à la faillite.

3 Cadre théorique et conceptuel

3.1 Les LBO dans la théorie financière traditionnelle

Pour offrir un résumé concis de la littérature, il est important de noter que la technique d'acquisition par LBO a commencé à prendre de l'ampleur dans les années 80 en s'appuyant sur les théories traditionnelles de la Finance. L'intérêt de l'étude systématique des LBO réside en partie dans le fait qu'un grand nombre de ces théories ont trouvé un terrain favorable pour leur application empirique à travers cette pratique. Il est ainsi possible d'associer les LBO à plusieurs théories dominantes, mais nous nous concentrerons ici sur celles que nous considérons comme les plus significatives et en lien direct avec le développement des LBO. Nous développons les arguments théoriques concernant la théorie de l'agence, la théorie des coûts de transaction, et enfin la Trade-Off Theory.

L'une des théories majeures évoquées dans les recherches sur les LBO pour expliquer leur capacité à créer de la valeur est celle de l'agence. Développée par Michael Jensen et William Meckling en 1976, cette théorie décrit la relation entre les dirigeants et les actionnaires comme étant une source potentielle de coût pour une entreprise. Plus précisément, la théorie de l'agence offre un cadre pour analyser les relations et les conflits potentiels entre les parties prenantes lorsqu'un individu ou un groupe (l'agent) est chargé d'agir au nom d'une autre personne ou groupe (le principal). Selon cette théorie, lorsque la configuration de l'entreprise est inefficiente, alors il en résulte des coûts dits « coûts d'agence ». Jensen (1986) soutient qu'en réduisant le contrôle de la direction sur les FCF (*Free Cash-Flows*), les LBO aident à résoudre les problèmes d'agence en réduisant ces coûts et en renforçant la défense des intérêts des actionnaires (le principal) par rapport aux dirigeants (l'agent).

Les coûts d'agence peuvent être analysés en relation avec les coûts de transaction comme l'a proposé Williamson (1988). Alors que la théorie de l'agence se concentre sur la relation entre le mandant et le mandataire, la théorie des coûts de transaction met l'accent sur les coûts liés aux échanges économiques. Ces coûts incluent la recherche d'informations, la négociation, la rédaction et l'exécution des contrats, ainsi que la surveillance et la gestion des relations. Le LBO permet de réduire ces coûts de transaction en instaurant un mode de gouvernance qui minimise les dépenses associées à la surveillance et au contrôle. De plus, les LBO réduisent les asymétries d'information, car les entreprises cibles deviennent généralement des entités cotées (Fox et Marcus, 1992). Cette réduction des asymétries d'information contribue également à la réduction des coûts de transaction.

En alignant les intérêts des managers avec ceux des investisseurs par le biais de la participation au capital et d'une discipline financière rigoureuse, les LBO réduisent les conflits d'agence ainsi que les coûts de surveillance (Kaplan, 1989). Par ailleurs, les fonds d'investissement impliqués dans les LBO centralisent et optimisent les fonctions administratives, négocient des conditions contractuelles plus avantageuses, et restructurent rapidement les entreprises pour éliminer les inefficacités. Ces actions permettent ainsi de diminuer à la fois les coûts d'agence et les coûts de transaction, et d'accroître ainsi l'efficacité organisationnelle et la valeur de l'entreprise. Cet argument conduit Jensen (1989) à affirmer que la firme capitaliste traditionnelle est vouée à disparaître, pour laisser la place aux entreprises opérant sous la configuration des LBO.

Une explication formalisée de la manière dont les LBO permettent de réduire les coûts d'agence repose sur la théorie des flux de trésorerie disponibles ou FCF (*Free-Cash-Flow)*. Selon cette théorie, Jensen (1986) explique que les entreprises générant des flux de trésorerie disponibles importants, tout en ayant peu d'opportunités d'investissement rentables, risquent de dilapider ces ressources dans des projets non rentables ou des dépenses excessives, au détriment des actionnaires. La solution consiste alors à limiter les flux de trésorerie disponibles à la disposition des dirigeants afin d'éviter qu'ils ne s'engagent dans des investissements sous-optimaux. Un endettement plus élevé entraîne une augmentation des obligations liées au service de la dette et des sorties financières de l'entreprise. Il impose ainsi une plus grande discipline aux dirigeants, qui seront davantage incités à une gestion plus efficace. Dans le même esprit, on peut imposer aux gestionnaires une distribution de dividendes, réduisant ainsi les fonds disponibles. Jensen (1989) souligne que les LBO s'alignent parfaitement sur ces deux solutions,

faisant de cette configuration la forme idéale d'organisation pour discipliner les dirigeants en matière de gestion des FCF.

D'autres théories ont également contribué à expliquer la valeur ajoutée que les LBO peuvent apporter à une entreprise. Avant l'essor des LBO dans les années 80 aux États-Unis, Modigliani et Miller (1958, 1963) avaient déjà alimenté un débat intéressant sur l'arbitrage entre le niveau de dette et de capital au sein d' une entreprise, donnant naissance à la trade-off theory. Selon cette approche, il existe un niveau d'endettement optimal qui maximise la valeur de l'entreprise, atteint lorsque les avantages fiscaux de l'endettement provenant surtout des économies d'impôt sont égaux aux coûts marginaux liés au risque de faillite et à la détresse financière (Modigliani et Miller, 1963 ; Warner, 1977 ; Myers, 1984). Ainsi, une entreprise a intérêt à augmenter son niveau d'endettement tant que les coûts marginaux de la faillite restent inférieurs aux bénéfices marginaux de l'endettement. Cependant, l'enjeu réside dans l'évaluation de ces coûts marginaux. Avec le temps, les opérations des LBO ont souvent négligé les conséquences de l'accroissement de la dette sur les coûts de la faillite, conduisant à des niveaux d'endettement élevés et à une structure du capital déséquilibrée (Axelson et al., 2013). Nous estimons que cet accroissement de l'endettement a un impact sur les coûts de la faillite non seulement à travers les variables financières traditionnelles mais également par d'autres facteurs dépassant le cadre de la finance classique, qui font l'objet d'une analyse plus précise dans cette thèse.

3.2 Gap théorique et contributions académiques

3.2.1. Gap théorique et contributions théoriques

Le cadre des théories financières traditionnelles offre un éclairage pertinent pour comprendre le développement des LBO, en particulier en ce qui concerne les mécanismes de financement et les choix de structure du capital. Cependant, malgré leur intérêt, ces théories présentent d'importantes limites, notamment en ce qui concerne la détermination du seuil optimal d'arbitrage entre l'endettement et le risque de faillite (Ayash, 2020 ; Ayash et Rastad, 2021). Les recherches ont étudié les LBO sous différents angles tels que la création de valeur, l'emploi, les investissements, l'innovation, les stratégies d'entreprise (Easterwood et al., 1989 ; Andrade et Kaplan, 1998 ; Harris et al., 2005 ; Tykvov et Borell, 2012 ; Ayash et Rastad, 2021). Toutefois, l'accroissement du risque de faillite associé à ces opérations est souvent expliqué uniquement à travers le prisme de la finance traditionnelle (Ayash et Rastad, 2021). Concernant l'impact réel des LBO sur les entreprises, il y a une absence de consensus parmi les chercheurs et les

praticiens quant à leur efficacité et leur durabilité. Cette divergence souligne l'importance d'une analyse complémentaire des théories sous-jacentes aux LBO, afin de mieux appréhender les implications pratiques et les défis qu'ils posent. C'est dans ce contexte que notre recherche se concentre sur la période critique de détresse financière et l'impact réel des LBO. Cependant, il est d'abord essentiel de mettre en lumière les limites des théories existantes, ce qui permettra d'identifier les différents gaps théoriques abordés dans cette thèse.

En ce qui concerne la théorie d'agence, il est possible d'envisager que des conflits non résolus subsistent ou émergent en situation de détresse financière d'un LBO, il puisse subsister des conflits non résolus ou que de nouveaux conflits émergent. Bien que l'augmentation de l'endettement soit reconnue pour son rôle dans la réduction des conflits d'agence entre les dirigeants et les actionnaires en alignant leurs intérêts (Jensen, 1986, 1989), un endettement trop élevé peut au contraire aggraver ces conflits en augmentant la pression exercée sur les dirigeants (Betker, 1995 ; Taatian, 2021). Dans un tel contexte, un dirigeant pourrait être poussé à prendre des risques excessifs afin de générer des rendements suffisamment élevés pour couvrir les coûts de la dette, ce qui peut augmenter les erreurs de gestion. De plus, en recourant à un endettement très élevé, et du fait du problème d'incomplétude inhérent à tout contrat (Tirole, 2009), la source des conflits d'agence et de la pression sur les dirigeants peut changer. En effet, les créanciers détenteurs de la dette de l'entreprise peuvent exercer du fait de leur nouveau statut une pression importante sur les dirigeants, d'autant plus si clauses contractuelles négociées lors du LBO leur confèrent un pouvoir significatif (Baird et Rasmussen, 2009 ; Harner, 2011 ; Harner et al., 2014). Cette situation augmente le risque de divergences entre les dirigeants et les autres parties prenantes, rendant le facteur cognitif crucial (Curseu et al., 2016). Ces éléments suggèrent qu'il est nécessaire non seulement d'examiner le conflit d'agence managérial, mais également d'étendre l'analyse à d'autres types de conflit d'agence. C'est la raison pour laquelle l'essai n°1 se concentre spécifiquement sur les conflits d'agence cognitifs.

Dans le cadre de la relation d'agence et de l'accroissement du pouvoir de contrôle des nouveaux groupes d'investissement, le risque moral associé décisions managériales de l'entreprise est susceptible de croître. Un endettement élevé peut contraindre l'entreprise à se conformer aux exigences des créanciers, réduisant ainsi sa flexibilité stratégique et sa capacité à saisir de nouvelles opportunités. Une structure financière orientée vers un endettement excessif peut inciter les dirigeants à privilégier des décisions axées sur le remboursement de la dette à court terme, souvent au détriment des activités ayant un impact sur le long terme, notamment les investissements (Ayash, 2020). Dans les situations de forte détresse financière, les activités liées

à la responsabilité sociale de l'entreprise peuvent également en souffrir. Plusieurs études ont mis en évidence une relation inverse entre le risque de détresse financière et la performance ESG de l'entreprise (Hong et al., 2012 ; Chan et al., 2017 ; Sun et Gunia, 2018 ; Leong et Yang, 2021). Sur la base de ces études, l'essai n°3 vise à approfondir l'analyse des entreprises rachetées par LBO, en considérant le montage LBO comme un facteur amplifiant les contraintes financières et le risque de détresse. Cet essai n°3 s'inscrit dans la continuité de l'étude exploratoire menée dans l'essai n°1 qui établit un lien entre la pression exercée par les Fonds vautours et une baisse de la vigilance concernant les conditions de travail et la chaîne des approvisionnements. Par ailleurs, l'essai n°2 explore expérimentalement la pression cognitive subie par les dirigeants lorsqu'ils doivent concilier les intérêts de divers groupes de pression.

Enfin, la théorie du trade-off postule qu'il existe un niveau optimal d'endettement qui équilibre les avantages fiscaux de la dette avec les coûts associés à la faillite (Kraus et Litzenberger, 1973 ; Myers, 1984). Cependant, dans de nombreux LBO, cet équilibre est souvent ignoré, car l'augmentation de l'endettement est plus motivée par des conditions de marché favorables que par une analyse des coûts marginaux de faillite et des bénéfices marginaux (Axelson et al., 2013). Cette pratique accroît le risque de faillite des entreprises concernées. Un endettement excessif dans le contexte d'un LBO peut ainsi nuire à la création de valeur à long terme en entraînant des coûts de faillite et des coûts anticipés de faillite (en cas de restructuration) particulièrement élevés. Cette thèse analyse donc de manière approfondie les conséquences de cet endettement excessif.

Cette recherche a plusieurs implications sur le plan académique. Nos résultats remettent en cause les fondements des théories dominantes qui justifient de manière exclusive les opérations de LBO, sans prendre en compte la relation cruciale entre le profit marginal et le coût marginal de la faillite. Dans les modèles théoriques traditionnels, les niveaux d'endettement sont généralement déterminés en fonction de la capacité de l'entreprise à générer des rendements suffisants pour compenser les risques associés. Or, nos travaux montrent que ces niveaux d'endettement excessifs, souvent rencontrés dans les LBO, dépassent les limites raisonnables en ignorant les coûts potentiels liés à la faillite. En particulier, nos analyses montrent que ces coûts ne sont pas uniquement financiers, mais qu'ils incluent également des coûts cognitifs, tels que la surcharge de décision managériale, ainsi que des coûts d'opportunité qui minent la valeur à long terme de l'entreprise. Cela souligne la nécessité de reconsidérer la manière dont les niveaux d'endettement sont calibrés dans les opérations de LBO, en particulier dans les

contextes où la probabilité de faillite est élevée, en intégrant dans les modèles financiers les aspects comportementaux et l'approche selon les parties prenantes.

3.2.2. Principales contributions méthodologiques

La première contribution méthodologique réside dans l'utilisation assez innovante de la méthodologie qualitative pour explorer les coûts associés à la faillite dans le premier essai. En finance, l'approche qualitative est rarement employée et, à notre connaissance, c'est la première fois que cette méthode est appliquée de manière systématique et approfondie pour analyser ces coûts, ainsi que l'impact des fonds vautours sur les entreprises sous LBO. Cette approche permet de saisir des dimensions nuancées et complexes des coûts de faillite qui échappent souvent aux méthodologies quantitatives traditionnelles, enrichissant ainsi la compréhension des dynamiques financières en jeu dans ces situations critiques.

La deuxième contribution méthodologique concerne la tâche principale de prise de décision en contexte de détresse financière réalisée lors de l'expérimentation de l'essai n°2. Cette expérience repose sur le ratio de Sharpe, un critère financier largement reconnu dans les processus de prise de décision financière, mais qui, à notre connaissance, n'a jamais été utilisé dans les expérimentations liées à la restructuration. Le recours au ratio de Sharpe permet ainsi de développer un modèle de décision rigoureux fondé sur des principes financiers éprouvés.

4 Hypothèses de recherche et méthodologies

L'objectif principal de notre recherche est de contribuer à la littérature sur les coûts associés à la faillite en explorant les relations d'agence, la gouvernance cognitive, et la structure optimale du capital. Pour y parvenir, nous analysons les entreprises sous LBO en adoptant une approche multiméthode séquentielle (Morse, 2003) : une analyse qualitative à travers une étude de cas approfondie, une analyse expérimentale via une expérience contrôlée sur des managers aux États-Unis et au Royaume Uni, ainsi qu'une une analyse quantitative basée sur des données financières et extra-financières afin d'examiner l'impact des LBO sur les investissements à long terme.

En combinant les approches qualitative, expérimentale et quantitative, notre objectif est de proposer une vision plus complète et nuancée des implications des relations d'agence et de la structure du capital dans le contexte des LBO, en particulier en situation de détresse financière. Cette approche multidimensionnelle nous permet non seulement de tester nos hypothèses de manière plus rigoureuse, mais aussi de fournir des recommandations pratiques solides pour

améliorer, en amont, les conditions de montage de l'opération sur les cibles et en aval la gestion des entreprises sous LBO, notamment celles confrontées à des situations de détresse financière.

La diversité méthodologique, reflétée par l'utilisation des trois méthodes évoquées, offre une explication solide de la faillite des LBO. Elle soulignant l'importance d'une analyse fondée sur des approches complémentaires aux théories traditionnelles. Ces méthodes nous ont permis de mettre en lumière le rôle crucial de l'approche cognitive, des acteurs impliqués et de la nécessité de considérer les investissements à long terme pour analyser les LBO et leur détresse financière. Ces éléments ont des implications pratiques significatives en matière de gouvernance et de durabilité des entreprises.

Dans les paragraphes suivants, nous présentons brièvement les hypothèses testées et les trois méthodologies utilisées, en tenant compte de la problématique spécifique à chaque essai. La justification des hypothèses et une description plus détaillée de chaque méthodologie sont développées dans les sections méthodologiques respectives des différents essais de cette dissertation.

4.1 Essai n°1 : Vulture funds, cognitive costs and LBO bankruptcies

Ce premier essai analyse le rôle des fonds vautours dans la faillite des entreprises sous LBO. L'objectif est d'examiner l'impact de leurs actions sur la valorisation des entreprises en restructuration. Spécialisés dans l'acquisition d'entreprises en difficulté, ces fonds peuvent accélérer la liquidation ou la restructuration sous LBO. Il cherche à démontrer en quoi leur action est déstabilisante, en analysant son impact sur les coûts cognitifs. Deux hypothèses principales sont proposées :

- Hypothèse 1 : Les fonds vautours agissent plus facilement sur les entreprises en difficulté sous LBO.
- Hypothèse 2 : Leurs actions augmentent les coûts cognitifs des entreprises sous LBO, augmentant ainsi la probabilité de faillite.

Pour répondre à ces hypothèses, nous avons fait recours à la méthodologie de l'étude de cas. L'étude de cas a été réalisée sur deux groupes français du secteur de l'habillement, ayant été rachetés par LBO au milieu des années 2000 : Vivarte et Camaïeu. Compte tenu de la problématique abordée dans cet essai et de la nature du matériau empirique constitué d'articles de presse, la méthodologie de l'étude de cas s'est avérée être la méthode la plus appropriée. Elle

nous a en outre permis d'explorer en profondeur les dynamiques internes des entreprises sous LBO ainsi que les interactions entre les dirigeants et les fonds vautours. Grâce à cette approche, nous avons pu analyser le rôle des Fonds Vautours (FV) dans les entreprises en détresse financière, ainsi que l'impact des divergences entre ces fonds et les dirigeants sur la trajectoire de faillite de l'entreprise.

4.2 Essai n°2 : Cognitive Load, Social Values, and Financial Distress: Drivers of Restructuring Decisions

Dans le but d'étudier l'impact des variables managériales sur les décisions de restructuration dans les entreprises sous LBO, le deuxième essai pose deux hypothèses:

- Hypothèse 1 : Sous une charge cognitive élevée, les managers évitent d'augmenter l'endettement et préfèrent les licenciements massifs.
- Hypothèse 2 : Les managers ayant de fortes valeurs sociales évitent les licenciements massifs et favorisent l'augmentation de la dette.

Nous avons également exploré le lien entre nos variables d'intérêt et les règles de jugement moral. Par exemple, nous avons examiné si les managers ayant une charge cognitive élevée suivaient davantage de règles déontologiques, favorisant ainsi la justesse morale de leurs décisions.

En s'attaquant à ces hypothèse, l'essai n°2 vise à mesurer l'influence des éléments contextuels affectant les variables comportementales du dirigeant sur ses choix en matière de restructuration. Comme évoqué précédemment, les approches traditionnelles négligent souvent l'importance des décisions managériales, bien que celles-ci puissent expliquer les inefficacités des LBO.

Pour répondre aux hypothèses de l'essai n°2, nous avons utilisé la méthodologie expérimentale. Cette méthodologie a consisté à tester des scénarios expérimentaux en manipulant des variables comportementales propres aux dirigeants. Étant donné la nature des variables étudiées, la méthodologie expérimentale s'est révélée la plus adaptée pour l'essai n°2. En recourant à cette méthodologie, nous avons pu compléter et corroborer une partie des résultats obtenus dans l'essai n°1, en prouvant que l'effet des coûts cognitifs sur les résultats d'une restructuration peut s'expliquer par un lien entre les variables cognitives et la

modification des préférences managériales. L'essai N°2 nous a permis d'examiner l'impact de la charge cognitive et des valeurs sociales sur les décisions de restructuration.

4.3 Essai n°3 : LBO and ESG commitment

Le troisième essai examine les contraintes financières des LBO et leur impact sur l'engagement des entreprises en matière de critères ESG. Il s'agit d'analyser comment la pression financière accrue, liée à l'endettement associé aux LBO, affecte la capacité des entreprises à maintenir leurs engagements ESG. Deux hypothèses ont été testées :

- Hypothèse 1 : Au moment du LBO, les entreprises cibles présentent un niveau d'activité ESG supérieur à celui de leurs pairs.
- Hypothèse 2 : Après l'opération, ces entreprises sont susceptibles de réduire leur engagement ESG.

Pour répondre à ces hypothèses, nous avons fait recours à la méthodologie quantitative. Cette méthodologie a consisté en des tests économétriques visant à évaluer l'impact des LBO sur l'engagement ESG de l'entreprise. Il s'agit d'une analyse empirique recourant aux données financières et extra-financières. Cette étude permet également d'analyser en profondeur l'effet des LBO sur les coûts associés à la faillite, notamment en termes de coûts d'opportunité liés à une diminution de l'engagement ESG. Elle examine également la forte contrainte financière des entreprises sous LBO par rapport à leurs comparables. L'analyse met en évidence l'accroissement de la détresse financière comme une caractéristique des entreprises sous LBO. Grâce à cette méthode, nous avons pu démontrer que l'engagement ESG des entreprises sous LBO est négativement affecté par l'opération de LBO.

Dans la section suivante, nous présentons un aperçu succinct des résultats de notre recherche. Une analyse plus détaillée et exhaustive de ces résultats est présentée dans les sections correspondantes de chaque essai, où nous approfondissons également leurs implications pour la théorie et la pratique des LBO.

5 Synthèse des résultats de la recherche

5.1 Caractéristiques des LBO comme facteurs facilitant l'action des FV et les biais de valorisation

En ce qui concerne les résultats empiriques, notre recherche met en lumière les raisons pour lesquelles les fonds vautours trouvent des opportunités d'intervention auprès des entreprises sous LBO en détresse financière. Ces raisons découlent de l'adéquation entre les objectifs des FV et les caractéristiques affichées par les entreprises sous LBO en détresse financière (voir l'essai n°1). Dans cet essai, nous soulignons que des traits tels que la vulnérabilité aux chocs exogènes des entreprises rentables, l'existence de plusieurs tranches de dette avec des conditions contractuelles variées, et le nombre parfois élevé de créanciers impliqués facilitent l'intervention des FV. De plus, les cibles, souvent perçues comme des success stories, bénéficient d'une attention médiatique qui peut amplifier les campagnes des FV, surtout lorsque ceux-ci adoptent des méthodes peu conventionnelles pour parvenir à leurs fins.

De plus, les caractéristiques des LBO en détresse financière permettent aux FV de créer des biais de valorisation au sein de leurs cibles. En plus de la décote de la dette, ces biais peuvent se manifester au moment des différentes négociations de restructuration auxquelles l'entreprise en difficulté est soumise. Par exemple, les FV peuvent exploiter la nature des clauses contractuelles souvent favorables à la conversion de la dette en capital, ce qui leur offre des conditions plus avantageuses. Grâce à leur capacité à recourir à des campagnes médiatiques et d'autres méthodes peu conventionnelles, les FV peuvent facilement influencer la valorisation de la cible dans un sens ou dans l'autre. Ces éléments sont explorés de manière plus détaillée dans notre essai n°1.

5.2 Pertinence de compléter l'analyse des coûts d'agence managériaux par les coûts d'agence cognitifs

5.2.1 Impact des coûts cognitifs sur la VE et la trajectoire de faillite

Le deuxième résultat empirique de notre recherche concerne l'impact négatif des coûts cognitifs sur la probabilité de faillite et la valeur de l'entreprise. La situation de détresse des entreprises sous LBO combinée à la faible marge de manœuvre des dirigeants peut précipiter la faillite. Ces facteurs sont accentués par un changement dans la répartition du pouvoir entre les différentes parties prenantes. Ainsi, la relation d'agence, qui traditionnellement concernait les dirigeants et les actionnaires, devient également cruciale entre les dirigeants et les créanciers. Les dirigeants doivent jongler avec les intérêts des actionnaires, des créanciers et potentiellement des salariés surtout si les syndicats exercent une forte pression. Ces divergences entraînent ce que la littérature définit comme des coûts cognitifs. Dans l'essai n°1, nous

documentons comment ces divergences augmentent les coûts indirects de la faillite par le biais d'erreurs de gestion, de crises sociales, et de démotivation des salariés, entre autres.

5.2.2 Impact de la charge cognitive sur la décision de restructuration

Pour approfondir notre analyse des coûts cognitifs, nous avons étendu notre étude dans l'essai n°2 en examinant une variable non observable mais testée expérimentalement : la charge cognitive. Cet essai montre comment dans un contexte des LBO en détresse financière, la charge cognitive influence les décisions de restructuration. En particulier, elle incite les dirigeants à éviter les décisions qui pourraient nuire aux groupes de pressions les plus influents au détriment des salariés qui ont souvent un pouvoir de négociation plus limité. Ce résultat suggère que les dirigeants privilégient des choix qui minimisent les conséquences négatives pour eux, optant ainsi pour la solution la plus simple, comme expliqué en détail dans l'essai n°2.

Par ailleurs, en ce qui concerne les règles de jugement moral, nos résultats indiquent que les dirigeants sont moins susceptibles d'adopter une approche déontologique lorsqu'ils sont confrontés à une charge mentale élevée.

5.3 La sensibilité du dirigeant aux valeurs sociales

Compte tenu de la nature multidimensionnelle de l'être humain, nous avons examiné non seulement la charge cognitive, mais aussi le degré de sensibilité sociale des dirigeants. Cette variable a été choisie en fonction du calibrage de notre expérience, puisque l'une des décisions de restructuration impliquait des choix hostiles envers les salariés. Il était donc crucial de vérifier si un dirigeant pourrait systématiquement opter pour des licenciements, indépendamment de la situation, en raison d'une moindre sensibilité aux valeurs sociales. Dans un modèle de régression intégrant ces deux variables ainsi que d'autres variables de contrôle, nous constatons que l'influence de l'une n'exclut pas celle de l'autre. Plus précisément, les dirigeants affichant une forte sensibilité aux valeurs sociales évitent les licenciements massifs et préfèrent prendre des risques accrus pour l'entreprise. Cependant, ils peuvent tout de même envisager des licenciements lorsque la prime rendement-risque devient significative. Ce résultat est présenté de manière plus détaillée dans l'essai n°2.

En ce qui concerne les règles de jugement moral, nos résultats révèlent que les dirigeants ayant une forte sensibilité aux valeurs sociales sont moins enclins à adopter une approche utilitariste.

5.4 La baisse de l'engagement ESG

En comparant l'effet de l'opération de LBO sur les entreprises cibles par rapport à des entreprises comparables, nous constatons que l'opération de LBO est négativement associée à l'engagement ESG de l'entreprise. Les entreprises sous LBO affichent initialement des scores ESG inférieurs à ceux de leurs comparables, et ne parviennent pas à accroître leur engagement ESG après la transaction. Bien que l'on aurait pu s'attendre à un résultat inverse, étant donné les arguments suggérant que les entreprises soutenues par des fonds d'investissement pourraient accorder plus d'importance aux activités ESG, nous concluons que l'accroissement de la contrainte financière est le principal facteur expliquant la baisse de l'engagement ESG dans ces entreprises. Les dirigeants ne sont pas prêts à investir dans les activités dont l'impact sur la valeur ne se manifeste qu'à long terme, car ils sont contraints par des objectifs financiers à court terme. Les activités ESG ne semblent donc pas prioritaires, ni pour les investisseurs lors de la sélection des cibles, ni pour les dirigeants pendant la période post-transaction, en raison d'une focalisation sur le rendement à court-terme. Ce résultat souligne l'importance d'une meilleure valorisation des politiques ESG avant et après une opération de LBO.

6 Implications managériales

Cette thèse met en évidence l'existence de certains coûts de faillite qui n'avaient pas été étudiés auparavant dans le contexte des LBO. En situation de détresse financière, ces coûts sont liés à des facteurs cognitifs et sont alimentés par la redistribution du pouvoir de certaines parties prenantes (comme les VF). En dehors d'une situation de détresse financière, ces coûts prennent la forme de coûts d'opportunité découlant d'un abandon des activités ESG en raison de contraintes financières très fortes. Cette recherche contribue donc à la littérature sur la gouvernance cognitive et appelle à la prise en compte de l'approche par les parties prenantes afin de ne pas pénaliser la valeur de long terme de l'entreprise dans un contexte de fortes contraintes financières.

D'un point de vue réglementaire, nos résultats suggèrent que les autorités de régulation doivent intervenir plus activement pour mieux encadrer les niveaux d'endettement dans les LBO primaires et secondaires, tertiaires, etc. Il est crucial de revoir certains droits accordés aux créanciers, notamment dans le cadre des procédures de faillite, afin d'éviter que ces droits n'aggravent la vulnérabilité des entreprises en difficulté. Par ailleurs, une réglementation plus stricte pourrait empêcher l'intervention des fonds vautours, qui s'attaquent souvent aux sociétés sous LBO en difficulté financière. En cherchant à maximiser leurs profits dans une situation de crise, ces fonds exacerbent les tensions financières et accélèrent la faillite de ces entreprises. Il

est donc essentiel que les régulateurs adoptent des mesures plus strictes pour limiter l'impact destructeur de ces acteurs sur les sociétés sous LBO, notamment en renforçant les mécanismes de protection des sociétés en difficulté et en introduisant des contraintes supplémentaires sur les niveaux d'effet de levier autorisés dans ces transactions.

7 Ouverture et recommandations pour les futures recherches

En mettant en lumière les coûts cognitifs et les coûts d'opportunité liés au désengagement ESG dans les LBO en difficulté, nos résultats remettent en question l'idée que les LBO constituent la configuration parfaite pour résoudre les problèmes d'agence, contrairement à la conclusion de Jensen en 1989. Ainsi, la question de la résolution du problème d'agence reste ouverte. Concernant l'agenda de recherche, ces conclusions pourront être approfondies de diverses manières dans les études futures. Premièrement, il serait intéressant d'examiner plus en profondeur l'impact des LBO sur l'éthique des entreprises, en complément de l'étude de la relation entre les LBO et l'engagement ESG des entreprises. Deuxièmement, une analyse approfondie pourrait se pencher sur le comportement en matière d'investissement ESG des entreprises ayant achevé leur LBO. Enfin, il serait utile d'enrichir l'expérimentation du lien entre les facteurs internes et comportementaux des dirigeants et les processus de restructuration des LBO en situation de détresse financière, en intégrant des outils de mesure physiologique tels que le suivi oculaire (eye-tracking) et l'activité électrodermale (skin conductance). Ces outils permettraient de tester les conclusions de cette recherche dans des environnements plus contrôlés. Enfin, en surmontant les contraintes liées à la disponibilité des données sur les entreprises sous LBO, l'accès à des bases de données spécialisées pourrait permettre des études plus approfondies sur le lien entre les fonds vautours et les coûts de faillite.

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