HOW PRIVATE EQUITY-BACKED BUYOUT CONTRACTS SHAPE CORPORATE GOVERNANCE

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ABSTRACT

This paper explores how contracts in private equity-backed buyouts shape corporate governance in portfolio companies. Drawing upon agency theory and incomplete contracting theory, 50 actual contracts are analyzed in detail. Contracts focus on reducing adverse selection risks through limiting pre-investment information asymmetries and aligning the goals of investors and sellers. Moral hazard risks vis-à-vis management are limited through limiting post-investment information asymmetries and limiting shirking behavior through limiting free cash flows. Goal alignment is achieved through high-powered incentive structures combined with shifting risk of underperformance to management. Managerial hold-up problems are addressed through restricting share transactions and limiting managerial actions. Residual powers and contingencies are mainly used to deal with incomplete contract designs due to uncertainties. Few clauses are used to address the reverse agency problem in which management is protected against moral hazard problems created by the private equity investor. PE contracts have transparent and very strong outcome-based cash flow rights, both limiting downside risk and rewarding upside potential. This contrasts with VC contracts which are especially contingency-based given the high levels of uncertainty of the portfolio companies.

Keywords

Buy-out; Private equity; Contracts; Agency Theory; Incomplete Contract Theory; Adverse Selection; Moral Hazard

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Introduction

Private equity (PE) backed buyouts, which are transactions in which a business, business unit or company are acquired from its current shareholders by a PE investor together with the management team (Gilligan & Wright, 2014; Renneboog & Vansteenkiste, 2017), represent "*an increasingly important phenomenon of the contemporary corporate landscape*" (Kaul, Nary, & Singh, 2017). In 2020, for instance, 1,188 buyouts were conducted in Europe for a total value of €60 billion, representing 68% of total investments in PE across Europe. Total fundraising for buyout funds reached €62 billion (Invest Europe, 2022).

While PE investors typically target mature companies for their buyout transactions, they increasingly foster an entrepreneurial mindset in their portfolio companies through their active involvement (Meuleman, Amess, Wright, & Scholes, 2009). They thereby limit agency risks, which ultimately leads to both efficiency enhancements and growth in their portfolio companies (Verbouw, Meuleman & Manigart, 2021). This balance is achieved through shaping the corporate governance of their portfolio companies, i.e., the system of rules, practices, and processes by which a firm is directed and controlled, amongst others (Gompers, Kaplan, & Mukharlyamov, 2016). Corporate governance ensures that the goals of PE investors and management are aligned and that information asymmetries are limited (Jensen & Meckling, 1976). While corporate governance has received a lot of academic attention, early research mainly focused on listed companies. Only more recently, research has focused on privately-held companies (Cumming, Vanacker, & Zahra, 2021),

but the precise corporate governance mechanisms employed in PE-backed buyouts remain largely a black box (Witney, 2017).

The goal of the present paper is to explore how contracts between PE investors and management shape governance and especially address agency risks in buyout transactions, i.e., transactions in which PE investors acquire a majority stake. Prior studies on contract design in PE-backed buyouts have relied on surveys (Gompers, Kaplan, & Mukharlyamov, 2016), mandatory legal filings (Bengtsson & Ravid, 2009), publicly available information or proprietary databases (Caselli, Garcia-Appendini, & Ippolito, 2013). Our explorative study is, to the best of our knowledge, the first to use real-world PE contracts, following rare examples using real-world venture capital (VC) contracts (Bellavitis, Kamuriwo, & Hommel, 2019; Kaplan and Strömberg, 2003). Doing so allows us to analyze the full complexity and multidimensionality of buyout contracts.

The VC contracting literature will inform our analyses, as PE-backed buyouts are to some extent comparable to VC transactions. Both VC and PE investors acquire equity stakes in private companies with the aim to create value through active ownership and to sell their stake in the medium term with a profit (Manigart & Wright, 2013). PE investors differ from VC investors, however. First, PE investors acquire a majority stake in the target, while VC investors typically acquire a minority stake. Next, PE investors invest in more mature companies, while VC investors invest in young, early-stage companies, providing seed, start-up, and growth capital.[1] As a result, some contractual features may be important for both VC and PE transactions, while others may be specific to VC or PE. For instance, given the high level of uncertainty surrounding VC-backed companies, VC investors mitigate their risk through staged financing, depending on the state of

[1] In this paper, we follow Gompers et al. (2016) and narrowly define PE as investments in mature companies.

the company. Staged financing provides the VC with the option to abandon the project if bad news arises (Cornelli & Yosha, 2003). As PE-backed companies are more mature and hence less uncertain, state-contingent financing is less relevant: the financing of a PE-backed buyout is typically fully secured at the date of the acquisition. Given the differences between VC and PE, but also between PE buyouts and public companies, there is a need to better understand the governance mechanisms used in PE buyouts.

We draw on agency theory and incomplete contracting theory. Agency theory focuses on how principals (PE investors) engage agents (management) to perform services on their behalf, which involves delegating some decision-making authority to the latter (Jensen & Meckling, 1976). As contracts are an important instrument to ensure that agents act in the best interest of principals (Eisenhardt, 1989; Eisenhardt, 1985), agency theory is well-suited in our context. However, agency problems can never be fully eliminated (Cumming & Johan, 2013). A contract is never complete, as it cannot foresee each specific potential future situation (Grossman & Hart, 1986; Hart & Moore, 1990). Therefore, it is important to define who has the right to decide what to do in a contingency not covered by the contract (Grossman & Hart, 1986). Although the PE buyout setting is characterized by lower levels of uncertainty than the VC setting, important uncertainties are present in the former as well, for example, with respect to exit. Understanding how contracts address these contingencies is hence relevant. Combining agency and incomplete contracting theory, we thus propose a conceptual model of governance mechanisms used to organize the relationship between PE investors and managers in buyout transactions.

We rely on a unique dataset of 50 Continental-European PE-backed buyout contracts from 2004 to 2021. By analyzing real-life contracts, we are able to offer richer insights in the features of buyout contracts. The data originate from a corporate law firm with more than three decades of

experience in PE-backed buyout transactions.[2] The law firm acted as counsel for the PE investor(s) in slightly more than half of the contracts used in our analysis and for the managers involved in the transaction in the others. Given the exploratory nature of our study, sample selection bias is less of a concern, while our data provide a unique level of reliability.

Our paper contributes to the buyout and governance literature in several ways. First, we examine how contracts in a PE context differ from those in a VC context. While contracting has received scholarly attention in the VC context, the contractual framework that governs the relationships between participants of PE-backed buyouts is understudied. Our primary contribution is hence to provide an in-depth understanding of how contracts address agency risks. We also highlight how the reverse agency problem, i.e. the risk that PE investors do not act in the best interest of management, is contractually addressed and how residual control rights address contingencies not explicitly foreseen in the contract. Next, we contrast buyout contracts with VC contracts. Finally, we propose testable propositions.

In the remainder of the paper, we first explain a typical PE-backed buyout transaction and its contractual features. We then outline how agency theory and incomplete contracting theory are applicable in the context of PE-backed buyouts. Subsequently, we develop a conceptual model that explains the governance mechanisms that are embedded in PE-backed contracts and we contrast them with VC contracts. Finally, we suggest a future research agenda and present our conclusions.

[2] Data cannot be disclosed on an individual buyout or PE investor level due to confidentiality reasons.

Setting the stage: The complexity of a PE-backed buyout

In a PE-backed buyout transaction, a PE investor buys a company or a business unit together with the management team (Guo, Hotchkiss, & Song, 2011; Kaplan, 1991; Wright, Hoskisson, & Busenitz, 2001). As the PE investor typically invests much more money in the transaction than the management team, the PE investor becomes the majority shareholder. Before the transaction, the PE investor performs an extensive due diligence to assess both the company and the management team. If satisfactory, the PE investor then engages in complex negotiations with multiple parties: with the original shareholders (sellers) to define the conditions of the acquisition (e.g., valuation), with management to define its future governance and with other financiers like banks or PE syndicate partners to optimize the finance structure. PE investors aim to earn a financial return through intermediate cash flows like dividends or interest payments and through selling their shares at a capital gain upon exit. The latter is achieved through financial engineering, but also through enhancing the value of the company (Verbouw et al., 2021). PE investors typically aim to sell their stakes after 3 to 7 years.

As value creation is central to the PE-backed buyout model, PE investors are active owners. They strengthen the governance of their portfolio companies and provide resources like know-how, next to capital. As a result, PE-backed buyouts show greater productivity and grow more strongly compared to their non-PE backed peers (Acharya, Gottschalg, Hahn, & Kehoe, 2012), leading to increased employment and innovation (Tåg, 2012). These operational improvements, together with a strong reliance on financial leverage when buying the company (Guo et al., 2011) and a PE's ability to time the market (Harris, Jenkinson, & Kaplan, 2014), lead to high returns to investors in PE funds.

Target governance is to a large extent described in the contracts that a PE investor negotiates with the management team, detailing all legally enforceable obligations agreed upon between the two parties. Buyout contracts are long-term agreements which govern the relationship between principals and agents over the lifetime of the PE investment, from initial investment up to exit. Unlike other agreements such as employment contracts, buyout contracts are rarely renegotiated as repeated short-term or implicit contracts would be too costly or too difficult to enforce (Gompers & Lerner, 1996). Considerable effort, time and costs are spent on negotiating the final buyout contract, suggesting that buyout participants deem them to be important.

A buyout contract consists of different legal instruments that together define the relationship between the PE investor and other buyout participants (Cumming, 2012; Hale & Travers, 2015). The most important documents are the articles of association and the shareholders' agreement. The articles of association define the constitution of the company; they set out the rights that the shareholders have vis-à-vis the company and how the company is governed. Next, the shareholders' agreement is a contract between the various shareholders in the company setting out what they can and cannot do. As such, it is at the core of the contractual structuring of buyouts. If a shareholder breaches the terms of the agreement, other shareholders can sue the shareholder who is in breach, and may claim damages for the loss they have suffered. A buyout contract additionally includes the investment agreement (also called "participation agreements" or "subscription agreements"), the employment or management agreements of the executive team, and other arrangements, such as an employee stock option plan. In what follows, the buyout contract refers to all documents together.

Insert Table 1 about here

Our explorative analysis of contractual governance in PE-backed buyouts is based on 50 transactions in which a PE investor acquired a majority stake (see Table 1).[3] A Continental-European law firm, which was involved in drafting the contracts for either the PE investor or management team, provided access to the original versions of the contracts, as signed by the participants in the transaction. We selected a set of heterogeneous transactions in which 32 different PE investors were involved, spread over a 17-years time span. Four fifths of the buyouts were primary transactions, in which the PE investor bought the target company from a non-financial shareholder, while the others were secondary transactions, in which the seller was another PE investor. As secondary buyouts are a more recent phenomenon, the earlier years of our data collection relate exclusively to primary buyouts.

Buyout transactions in our sample increased in size over the years, with an average equity value of €54 million (median: €17 million), which is substantially lower than in the sample of (Gompers et al., 2016). Our sample is hence geared towards small- to medium sized transactions. On average, the PE invested €31.9 million in the transaction (median: €6 million), while the management team invested €4.5 million on average (median: €2.5 million). PE investors hold between 50% and 94% of the ordinary shares, with a median of 67% and an average of 65%. The difference between the transaction value and the investment of the shareholders is financed through debt (mean: 50.8%; median: 54.4%), which is comparable to the median debt-to-total capital ratio of 60% in U.S. buyouts (Gompers et al., 2016). At the time of the transaction, the PE investor acquired on average 66.7% of the shares (median: 65.0%) and the CEO 20.3% (median: 18.6%).

[3] Due to the complexity of buyout contracts, in particular the need for an in-depth review and analysis of certain contractual clauses, individual agreements were coded by individuals experienced in contract law. This assures a high reliability of our data. Despite the similar objectives and structures of these shareholders' agreements and the relatively limited number of contracting parties, the shareholders' agreements in the dataset are heterogeneous in their inclusion of covenants.

Exits have occurred in 42% of the buyouts; the others are still in the portfolio of the PE investors. Of those exited, it took on average five years to reach an exit.

Agency and Incomplete Contracting Theory

Agency theory helps to explain the relationship between a PE investor (as the principal), and the CEO and management team (as the agent) (Jensen & Meckling, 1976). It is well established in agency theory that goal incongruencies and asymmetric information between the principal and the agent may lead to issues of adverse selection (hidden information problem) and moral hazard (hidden action problem) (Allegrini & Greco, 2013; Eisenhardt, 1989). Adverse selection in a PE context entails that a PE investor may not be able to select the best targets and management teams, as information about management's ability or the state of the company may be either missing or misrepresented (Eisenhardt, 1989). A well-documented way in which buy-out transactions limit moral agency risks is using high debt levels. Increased leverage puts pressure on management to generate high levels of free cash flows to service interest and principal repayments, thereby ensuring that management runs the business as efficiently as possible and limiting shirking behavior (Jensen & Meckling, 1976). Next to structuring the transaction with a lot of debt, specific contractual clauses are used to further reduce agency risks. The remainder of the paper will focus on these clauses.

Reducing information asymmetries is hence essential to mitigate potential adverse selection problems (Grossman & Hart, 1983; Holmstrom, 1979). Moral hazard may also occur in this context as a PE investor is not directly involved in the day-to-day management of its portfolio companies, but instead relies on the management team to run the business properly (Hale & Travers, 2015). Combined with substantially diverging equity stakes (66.7% for the PE investor

vs. 30% for management), this may be problematic as both parties may have different goals and engage in shirking behavior (Eisenhardt, 1989; Schmidt, 2017). For instance, whereas the PE investor is likely predominantly interested in maximizing shareholder value, management might focus on limiting risk, for example by an excessive diversification of activities, or in empire building, for example through hiring too many employees or engaging in non-core acquisitions. Contracts between PE investors and management will therefore aim to reduce these agency risks. In situations with high moral hazard risks, outcome-based contracts are better suited than behavior-based contracts (Eisenhardt, 1989; Eisenhardt, 1985; Harris & Raviv, 1979), for example by giving management a claim to the firm's profits (Grossman & Hart, 1983) or an ownership stake in the company (Jensen & Meckling, 1976).

Both in VC and PE, double-sided moral hazard problems occur (Casamatta, 2003; De Bettignies & Brander, 2007; giifFu, Yang, & An, 2019; Gifford, 1997; Schmidt, 2003). PE investors claim that they are active owners and as such help to create value (Bruining, Verwaal, & Wright, 2013). The ultimate outcome hence does not only depend on the actions of the management team, but also on the efforts exercised by the PE investor. PE investors may, however, also engage in shirking behavior and provide sub-optimal efforts, leading to sub-optimal outcomes (Casamatta, 2003; Gifford, 1997). This creates a risk for the management team, especially if their contracts are outcome-based. This problem is exacerbated in our setting as the PE investors possess the majority of the shares and associated voting rights in the company (Armour et al., 2009).

Next to agency theory, contract theory deals with the fundamental problem of economic cooperation when different parties aim to collectively generate a surplus, compared to what each would be able to generate on their own. According to the theory of incomplete contracting, a contract is never complete: in the real world, parties are not able to design a contract that fits each

specific circumstance (Aghion & Bolton, 1992). This is due to moral hazard issues induced by the fact that the actions of some parties are not observable, or that the different states of the world cannot all be described at the time of the writing of the contract (Grossman & Hart, 1986; Hart & Moore, 1990).

The incomplete contracts approach helps in explaining the allocation of control rights in different states of the world, distinguishing between specific and residual control rights (Grossman & Hart, 1986). Specific control rights are explicitly contracted and can be assigned to either the agent or the principal. In contrast, residual control rights are the rights to make any decisions that are not explicitly assigned to the other party in the contract (Grossman & Hart, 1986). As contracts are incomplete, it is important to define whether the management team, the company's board or the shareholders have the right to decide what to do in a contingency not covered by the original contract, or who has residual control rights (Grossman & Hart, 1986).

Addressing adverse selection risk through contracting

Governance in a buyout context involves a multitude of contractual mechanisms that mitigate agency costs associated with both adverse selection and moral hazard, in an incomplete contracting framework. Given the dearth of academic work on PE-backed buyout contracting, we draw upon the VC contracting literature to create a conceptual model defining the governance mechanisms embedded in buyout contracts and present it in Table 2.[4] This model draws upon the 50 contracts introduced earlier, differentiating between older transactions (between 2004 and 2012) and more recent transactions (between 2013 and 2021) to highlights shifts in contracts over time. We show

[4] We will not extend our theorizing to how the legal or institutional environment might impact contract design, which has been widely acknowledged in VC contracts (e.g., Cumming & Johan, 2008; Bengtsson & Ravid, 2009a; Bengtsson & Ravid, 2015), nor how the power or expected quality of the management impacts the contract (Bengtsson & Bernhardt, 2014b). We leave this as an avenue for future research.

how specific contractual items protect PE investors from adverse selection and moral hazard risks through limiting information asymmetry and shirking opportunities, aligning the goals of the principal and the agent, and limiting hold-up problems (Table 2). Residual control rights allocate decision making powers beyond those decisions that are contractually specified. Finally, only a limited set of contractual items address the reverse agency problem by protecting management from moral hazard problems induced by the PE investors, especially potential hold-up problems (Table 3).

Insert Table 2 about here

Addressing adverse selection risk through limiting information asymmetry

In PE, just like in VC, there is a severe adverse selection risk of financing low-quality lemons. Yet, there is a key difference between PE and VC: entrepreneurs and early investors remain dominant shareholders in the company after a VC investment, which limits adverse selection risks as entrepreneurs remain fully embedded in the company. A typical buyout transaction, however, entails that pre-transaction shareholders sell all or a significant part of their shares to the buyers, being a mix of the PE investor and management. Therefore, selling shareholders in buyouts do not bear significant post-transaction risks in buyouts. This hence strongly enhances the potential of adverse selection problems in buyouts compared to VC transactions. Hence, a buyout more closely resembles an acquisition than a VC investment in that respect (Hale & Travers, 2015).

The adverse selection risk is limited by reducing pre-investment information asymmetries between buyers, sellers, and the management, and by aligning the goals between buyers and sellers. To mitigate the adverse selection problem caused by pre-contractual information asymmetries, all contracts include *representations*, which are statements made by both the sellers

and, insofar applicable, the managers about the specific situation of the company in which the investor intends to invest, including its assets and liabilities. They elicit disclosure of information about the company that might otherwise not be available (Wei, Lee, Huang, & Dong, 2015). Next, PE investors perform a thorough *due diligence* in which the target is screened by the PE investors and by professional advisers on behalf of the PE (Cumming & Johan, 2013).

Next to the sellers, management is a major source of information for the PE investor during the due diligence process. Therefore in 26% of the contracts in our sample, management is asked to give *warranties* directly to the PE investor, and this has even become more prevalent in the more recent contracts (37%). Warranties given by management relate to the information that was provided during the due diligence process. Through these warranties, managers typically confirm that (i) the personal information that each manager has provided to the PE investor in response to its questionnaire is complete and accurate; (ii) they have read the financial, legal and commercial due diligence reports that the buyer has prepared, and they agree with the factual issues and the opinions expressed therein; and finally, (iii) they have prepared the business plan properly, taking into account the relevant information and using reasonable assumptions. Managers will also be requested to confirm that they have not become aware of anything that materially affects the business since the due diligence. Warranties given by management are typically not included in VC contracts. Taken together, representations, due diligence and warranties provide a strong protection against pre-contractual information asymmetries.

Addressing adverse selection risk through aligning goals

In line with the predictions of agency theory, a cornerstone feature of all buyout transactions is that *management becomes a shareholder*, next to the PE investor (Jensen, 1989),

thereby benefiting from the value they aim to create post-transaction. As such, management is offered a high-powered outcome-based contract. This aligns the goals of both parties, but it also shifts risk from the PE investors to the management team (Eisenhardt, 1989). The median equity percentage held by the management team in our sample is 31.0%, while the median CEO holds 18.6%, which is comparable with the percentages reported by Acharya, Hahn, and Kehoe (2008). These percentages are substantially higher than those in U.S. buyouts, however, where the median management team holds only 16% and the median CEO holds only 5.4% of the equity (Kaplan & Strömberg, 2009).

A second mechanism used to mitigate adverse selection risk is through aligning the goals of buyers and sellers. In 26% of the transactions, the *seller retains a minority equity stake*. If so, seller retain on average 15% of the shares, with a maximum of 28%. This reduces the risk that the seller will sell a lemon to the PE investor.

Addressing moral hazard risk

A PE contract also devotes much attention to reducing moral hazard risks, thereby ensuring management works in the best interest of the PE investor. This is done through limiting information asymmetry post-transaction, aligning the goals of management and PE investor, and addressing hold-up problems. We will discuss each of these mechanisms consecutively.

Addressing moral hazard risk through limiting information asymmetry

While limiting information asymmetries is a prime mechanism used to address the pre-contractual adverse selection risk, it is also used to address moral hazard risk after the investment. A PE investor aims to have sufficient *regular updates related to the financial performance* to understand the actions of management. During the investment period, PE investors -just like VCs- are entitled

to receive pre-defined information related to the company on a regular basis (70% of the contracts), for example monthly information on cash flows, profit and loss, and assets and liabilities. In some transactions, management needs to provide additional information on a quarterly or semi-annual basis (67% of the contracts). Next to financial KPIs, some contracts stipulate operational KPIs (27% and 22% of the contracts). The PE investors thus have regular access to information that enables them to limit information asymmetries, but also to react appropriately should the company deviate from the business plan.

Additionally, 28% of the contracts in our sample include an obligation to immediately inform the PE investors should *specific circumstances* arise. Information *exchange outside the board of directors* is typically not stipulated in buyout contracts. Structural consultation moments other than the meetings of the board of directors, such as regular work sessions, are rare (present in 11% of the recent contracts, not in the older contracts). Interestingly, information rights have become more prevalent in more recent years.

Addressing moral hazard risk through goal alignment

Moral hazard risk is further limited through aligning the goals of the PE investor and management. On the one hand, risk is shifted to management, ensuring that management is worse off when underperforming, but on the other hand, management is entitled to higher cash flow rights when overperforming. These are hence very strong outcome-based contracts, where management compensation is largely driven by the outcome they achieve.

Risk shifting is organized through PE investors buying a *combination of ordinary shares and more senior, fixed return instruments* in 36% of the contracts, while management buys *ordinary shares*. Senior securities take the form of either cumulative *preferred* (or fixed income)

shares (16% of the contracts), *shareholder loans or subordinated bonds* (20% of the contracts). These instruments provide an annual fixed preferential return in the form of dividends or interests[5], and they are repaid at exit before ordinary shareholders (including management) get a return. While managers and other shareholders may also provide shareholder loans, the amount granted by the latter is typically proportionally much lower than the amount provided by the PE investor. This structure makes the cash flow rights of management more comparable with the pay-off of options, highlighting that they are riskier compared to the stake of the PE investor. Additionally, 22 % of the contracts include *board remuneration*, typically for the independent directors and the representatives of the PE investor (although this is less prevalent in more recent transactions). Finally, a *follow-up fee* for the PE investor is included in 18% of the buyouts, with annual amounts between €15,000 and €75,000. Directors' remuneration and fixed fees further enhance the fixed preferential return to PE investors.

The structure of the cash flow rights departs from those in VC transactions, in which investors typically buy convertible preferred shares (Bengtsson & Sensoy, 2011; Cumming, 2008; Gompers, Lerner, Blair, & Hellmann, 1998; Kaplan & Stromberg, 2003; Sahlman, 1990; Trester, 1998). Taxes may explain the use of a combination of ordinary shares and subordinated debt. Interest on debt is typically tax deductible and hence provides a valuable tax shield for profitable, mature companies as in a PE buyout setting. VC-backed companies are typically making losses, hence the tax shield provided by interest payments is not valuable.

The structure of the cash flow rights not only shifts risk to management, but also enhances their upside potential through the use of an *envy ratio* in 32% of the contracts. As PE investors typically invest disproportionally in fixed return securities like cumulative preference shares or

[5] Dividends and interests may accumulate until the sale or liquidation of the target, when they will be paid preferentially.

shareholder loans, which do not share in the upside potential, management buys a disproportionate fraction of the ordinary shares and hence of the upside potential. In other words, a euro invested in the transaction by the management team buys a higher proportion of ordinary shares than a euro invested by the PE investors. Once the debt, the shareholder loans, and the preference (fixed rate) shares have been repaid including interest or dividends, ordinary shares are entitled to all the remaining value at exit. Thus, the remaining value of the ordinary shares will be distributed between the PE investor and management in accordance with their ordinary shareholdings. As such, the risk of the management is higher than that of the PE investor (as they only benefit when all fixed return securities have been repaid), but also their upside potential (as they share disproportionally in value creation). This is in line with the suggestion of agency theory to provide high-powered contracts to managers in situations where moral hazard risks may be high. The envy ratio measures the difference between the aggregate amount invested by the PE investors and that invested by the managers for their respective percentage of ordinary shares (Hale & Travers, 2015; Lamon, 2005). For example, an envy ratio of 2 shows that management invested half the amount compared to the PE investor for a percentage in the ordinary shares[6]. It aims at providing management a sufficient stake in the company and ensuring a sufficient share in value creation for the management, despite management's more limited investment than the PE investor. The technique of the envy ratio is increasingly used. Whereas only 15% of the old contracts used an envy ratio, this increased to 36% of the recent contracts. The average envy ratio in recent contracts is 4.15 (when used).

Another technique to provide management additional cash incentives when overperforming is the use of a *ratchet*, used in 36% of the contracts. A ratchet (in a buyout) context

[6] The envy ratio is calculated as: total amount invested by the PE investors/percentage of equity of the PE investors)/(total amount invested by the management/percentage of equity of the management).

is a mechanism which allocates a larger percentage of common shares to the holder at the time of exit. Typically, the ratchet allocates the exit return based on a specified allocation key (e.g., 80% to PE and 20% to management) for an excess return exceeding a pre-defined hurdle rate (e.g., the PE achieving an IRR of 25%). A ratchet mechanism hence increases the proportion of the ordinary shares held by management in case of a successful exit. PE investors may hence allow a greater proportion of the shares to be allocated to the managers if the business overperforms on exit compared to PEs' expectations, conditional on the PEs' realizing their target rate of return (as specified by the hurdle)[7].

The use of ratchets in buyouts is hence less common than in VC contracts. As VC investors operate in more uncertain environments, their higher use of contingent ratchet mechanisms is in line with predictions of agency theory.

Finally, 14% of the contracts contain a fixed *exit bonus* in favor of the CEO (in 86% of these contracts) and key management (57% of these contracts), further enhancing their upside potential contingent on a positive outcome.

Taken together, a typical buyout transaction structure mainly combines ordinary shares for management and PE investors, and fixed income securities mainly for PE investors, incentivizing management through the envy ratio. In case of overperformance, management additionally benefits through ratchets or an exit bonus. Managements' rewards are hence mainly based on outcomes achieved at exit. Underperformance leads to low cash flow rights for management (if any), while overperformance is disproportionally rewarded. As such, the goals of the agents are aligned with those of the principals and moral hazard risks are reduced. Interestingly, fixed

[7] Anglo-Saxon PE-backed buy-out contracts often include a reverse ratchet, whereby the management's ratchet shares automatically convert into worthless shares in case of underperformance. As a consequence, the percentage of ordinary shares held by the managers may decrease (Hale & Travers, 2015). The reverse ratchet was not included in any of the contracts in our Continental-European contracts, however.

bonuses for overperformance were only used in the old transactions (26% of the contracts), but not in the more recent ones. In contrast, recent transactions include more frequently an envy ratio (36% of the contracts) or ratchets (50% of the contracts). As such, PE-backed buyouts place more emphasis on rewarding management in case of overperformance, which is in line with the enhanced focus of PE investors on growth, next to efficiency (Meuleman et al., 2009; Verbouw et al., 2021).

Addressing moral hazard risk through limiting hold-up problems

The high-powered incentives towards management provided through the design of securities is beneficial when the company overperforms, but it may create diverging goals when the company underperforms. In that situation, managements' ordinary shares may be worthless, creating a disincentive for management to remain with the company and hence enhancing the risk that managers leaves the company or sell their shares. Investors are hence concerned that management could hold up the investor by threatening to leave when their human capital is particularly valuable for the company (Hart & Moore, 1994). In the VC context, where founder's human capital is an especially valuable resource and hence the hold-up risk severe, VC investors use vesting provisions[8] that make it more costly for the manager to leave the firm (Andrade & Kaplan, 1997). Interestingly, PE investors do not negotiate vesting provisions, but 56% of the buyout contracts stipulate that *management needs to remain in place for a minimum period of time* (typically four years) from the transaction date.

Conversely, *leaver provisions* in PE contracts detail what happens with the managers' shares when they leave the company. Leaver provisions are call options for the PE investor, giving

[8] Under a vesting scheme, managers do not get all their shares at the time of the transactions, but they get them over time.

them the right to purchase all the securities owned by a manager should the manager leave the company. This makes it costly for management to leave the company prematurely, thus mitigating potential hold-up problems. The exercise price of the option will depend on whether the management leaves in good faith (good leaver, for example in case of illness) or in bad faith (bad leaver, for example when management takes up a job in a competing firm). In a bad leaver event, the price paid to the manager will be much lower than in a good leaver event. The description of what constitutes a good or bad leaver event is hence important. The contractual freedom of the parties is relatively broad to define good and bad leaver events. For example, the parties can define the circumstances that will be considered as bad leaver events in a restrictive way so that anything that does not fall under the defined circumstances qualifies as a good leaver event. Such a definition is to management's advantage as it limits the situations under which a manager will have to leave the buyout as a bad leaver. On the other hand, if the contract defines the circumstances that are to be considered as good leaver events in a restrictive manner, any other circumstance will qualify as a bad leaver event, which is less advantageous for management.

Good leaver and bad leaver provisions are frequently used. In 76% of the contracts, the contract posits good leaver as the rule and therefore bad leaver as the exception. Half of the good leaver provisions define the exercise price of the option as the initial purchase price or actual fair market value, whichever is *highest*. Two thirds of the bad leaver provisions relate to a price per share equal to the subscription price or actual market value, whichever is *lowest*. The fair market value is often defined as an EBITDA multiple, which is typically explicitly stated in the contract and varies between 4 and 12 for a good leaver (with an average of 7.11), and between 3 and 12 for a bad leaver (with an average of 5.25). When the fair market value is not defined in the contract (or occasionally in the event of disagreement), an independent auditor will determine the fair value.

To further address the hold-up problem, almost all buyout contracts (92%) limit the transferability of securities by including a list of *permitted transfers of shares*[9]. A *standstill* or lock-up covenant prohibits shareholders to transfer their shares for a certain period, typically five years (median value). This ensures that the shareholder base remains stable during the lock-up period. Lock-up periods apply to management shares in 70% of the contracts of our sample and are more frequently used in the more recent transactions (77% of the contracts).

Should a shareholder wish to sell shares after the lock-up period, then the *right of first refusal* (or pre-emption right) will protect non-selling shareholders against getting a new shareholder on board under terms and conditions that might not be deemed appropriate. Under this clause, the selling shareholder must first offer the shares on sale to the other shareholders at the price proposed by the potential buyer or at the price set out in the contract. Almost all buyout contracts use pre-emption rights, and in 96% of the cases they unilaterally favor the PE investor. This implies that in the event of a sale of shares by any shareholder, the PE investor almost always has the right to buy the shares of any selling shareholder before a third party can acquire them. In addition, almost all buyout contracts require the prior approval of the board in case of a transfer of management shares, and hence approval of the PE investor.

While the goals of management and PE investors are relatively well aligned in the post-investment phase, i.e., creating shareholder value, their goals may not be aligned at exit. PE investors' only concern is to maximize their financial return in the medium term, but managers may additionally be interested in retaining their jobs or steering the company in a direction that is agreeable to them. The risk of a hold-up problem by management is high in this stage, as they

[9] It is typically permitted to transfer shares for specific situations that do not create a hold-up risk, like intra-group transactions (which may be important for PE investors) or for estate planning purposes (which may be important for management).

might take actions that are detrimental for an exit. Next to the strong cash flow incentives embedded in the buyout structure that should align the financial interests of managers and PE investors at exit, contracts additionally include various clauses to reduce these hold-up problems.

Two-thirds of the contracts in our dataset provide the PE investors the *right to initiate an exit* (either an Initial Public Offering or an acquisition). Typically, this right can only be exercised after a pre-determined period or subject to the fulfillment of certain conditions. When a time horizon is specified, it ranges between three and seven years after the investment, with an average and median of five years. Interestingly, while only 45% of the old contracts contained this right for the PE, 85% of the recent contracts contain such right.

PE investors protect themselves from managers not willing to sell their shares through a *drag-along obligation*. Not being able to sell the totality of the shares would put the PE investors in a weak position at exit, limiting their possibility to negotiate a full acquisition. It is hence not surprising that all (but one) contracts contained a drag-along obligation, which requires all shareholders to sell their shares if the investor decides to sell. Drag-along rights hence allow the investor to negotiate the sale of all the company's shares. In 67% of the contracts, a hurdle or a minimum percentage of shares for sale is needed to invoke the drag-along obligation. the average hurdle is 65% (median of 60%). Interestingly, management can claim the drag-along obligation in 58% of the contracts. In these cases, the drag-along obligation could lead to PE investors being forced to sell all their shares when a third-party makes an offer to purchase all (or part of) the shares. In this situation, the exercise of the drag-along obligation is typically subject to the condition of achieving a predefined minimum return for the PE investor, so that management will only be able to impose the drag-along obligation if this minimum return is achieved.

Buyout contracts may also include provisions that *limit the representations, warranties or indemnities PE investors* will give at exit to the shares held by them in the buyout, and to their capacity to sell those shares.

As in VC contracts, PE investors typically include *non-compete provisions* to further mitigate potential hold-up problems between the managers and investors. In our sample, 92% of the contracts include non-compete and non-solicitation clauses, with an average duration of 30 months (median of 36 months). A breach of this obligation is generally sanctioned by a lump-sum penalty (applicable in 70% of the contracts).

Interestingly, both VC and PE investors typically include *non-compete and non-solicitation provisions* which aim to also reduce hold-up problems *at exit*. Half of the contracts require the manager to continue to act as manager for a minimum period after the exit. This provides comfort to the buyer to having a smooth transition after the exit. The average duration is 22 months (median of 24 months). In case the exit is a secondary buyout, it is not uncommon for a manager to reinvest as a manager-shareholder in the new transaction.

A final highly important mechanism employed by PE investors to manage agency risks is through managing decision making, through their presence at shareholders meetings and in the board of directors (BoD). Consistent with PE investors being majority shareholders, they have the majority in the shareholders' meeting and in the board of directors. This gives them the residual right to decide on any action that is not pre-specified in the contract. This is in contrast with VC contracts, where state-contingent board and voting control rights are common (Berglof, 1994; Kaplan & Stromberg, 2003; Kaplan & Strömberg, 2004). Interestingly, 53% of the contracts contain an explicit provision concerning the *attendance quorum in the BoD*, which states that the board cannot validly deliberate about specific matters unless at least the director(s) nominated by

the PE investors or the director(s) nominated by management are present. This again aims to reduce the PE's agency risk, but also protects the management team against moral hazard problems of the PE investor. This clause is more prevalent in more recent transactions (67%) than in the older transactions (35%).

The power to decide and to represent the company on *day-to-day managerial issues* will typically be delegated to the CEO or the chairperson of the executive committee. One in five contracts (20%) clearly defines the powers management retains to engage in day-to-day management, although this clause is more prevalent in older transactions (29%) than in more recent transactions (12%). Three in four (76%) contracts also include positive *covenants* which specify that the company will be operated in certain ways, and negative covenants specifying that certain actions will not be taken. In dealings with third parties that go beyond day-to-day management, the company will in 49% of the transactions be represented by two directors acting jointly, typically with one of such directors mandatorily being a PE director for reserved matters.

Finally, 37% of the contracts contain provisions dealing with the event that *emergency financing* is required (e.g., in the case of a subsequent acquisition or underperformance). In half of those clauses, these contractual provisions describe a well-defined pecking order: first, the company's own reserves should be used, followed by debt finance, shareholder loans and, ultimately, equity). When new equity should be raised, PE and management typically can participate proportionally enabling each party to retain its proportional stake in the company (whether or not through a catch-up right that management can exercise within a certain period following the issuance of new shares). Emergency financing is more frequently covered in recent transactions (42%) than in older transactions (17%).

Residual rights in buyout contracts

Despite the detailed contracts negotiated in buyout transactions, contracts do include residual rights to either shift residual risk or allocate residual control rights.

Allocating residual risk

First, to limit adverse selection risks, contracts shift any remaining risk resulting from pre-contractual information asymmetries to the seller and the management. *Warranties* allocate the residual risk between the sellers and the investor as to who takes responsibility for the state of the company (Hale & Travers, 2015), thereby addressing problems of incomplete contracting. Protection from warranties is more important in PE-backed buyouts compared to VC investments given the higher adverse selection problems. Sellers are expected to provide warranties regarding the various areas of the business being acquired (e.g. with regard to the ownership of the shares, the financial accounts, any litigation, taxation, intellectual property, permits, etc. of the company), which protect investors against hidden defects. Warranties are hence an important form of protection for a buyer and reduce adverse selection. If warranties prove to be untrue, the buyer can claim indemnification within the contractual limitations of the purchase agreement.

Next, sellers must declare that the *data room* is complete, and that all relevant information has been provided. A *disclosure letter*, in contrast, shields the seller from a claim for breach of representations and warranties. Such a disclosure letter specifies details regarding the target that are of interest to the buyer, and for which indemnification claims cannot be made about items the seller has disclosed. In some cases, the PE investor will even request management to provide a *sweeper warranty*, whereby the management declares that they are not aware of any breach of the warranties given by the seller (Hale & Travers, 2015). While PE investors will seldom give

warranties when selling the company at exit, management will typically provide customary warranties and indemnities to potential purchasers.

Allocating residual control rights

The PE investor will also allocate residual control rights. As majority shareholder, PE investors have the majority of the *votes in the shareholders meetings*, which gives them, a.o., the right to replace the CEO. This is one of the most effective control rights (Cumming, 2008). This right is hence implicit in buyouts, in contrast to VC, in which VC investors often negotiate the explicit right to replace the entrepreneur as CEO (Cumming, 2008).

Controlling the shareholders meeting provides only high-level control rights to PE investors. They will aim to further reduce information asymmetries and enhance the company's governance through their participation in the *board of directors* (BoD). While the PE investors de facto control the BoD thanks to their majority equity stake, 64% of all contracts explicitly states that PE investors have the right to appoint the majority of the members of the BoD.. Almost all PE-backed buyouts (86%) are governed by a one-tier BoD (also known as single or unitary board), which implies that in most buyout contracts a single unified board has both managerial and supervisory responsibilities (Block, 2016). The contract typically specifies either a fixed number of board members (median of 5) or a range (e.g., between 3 and 5 members). On average, PE investors assign at maximum four board members while management assigns in general one or two board members. In 26% of the buyouts, additional independent directors are appointed; if this is the case, between one and three independent directors are appointed. Interestingly, the composition of the board may be contingent upon the share percentage of the managers (in 22% of the contracts in our sample) or, rather exceptionally, the financial performance of the company

(in 6% of the transactions). Such state-contingent contracts are much more prevalent in VC (Kaplan & Strömberg, 2004) than in PE-backed buyouts.

The contracts explicitly specify who can appoint the chairperson of the BoD in 72% of the cases. If specified, the chairperson is mostly appointed by the PE investor (86% of the relevant cases while in less than 10% of the contracts the board is chaired by an independent director. In 41% of the contracts, the chairperson of the BoD has a decisive vote in situations in which there is a tie vote. In 76% of the contracts, it is also specified how frequently the BoD will meet, and if so, this is typically at least four meetings per year.

Addressing management's reverse agency risk

The previous sections described the mechanisms employed by PE investors to address agency risks in buyout contracts. Interestingly, contracts also include a limited number of mechanisms that protect management against the reverse agency risk that the PE investor will not act in their best interest, as shown in Table 3.

Insert Table 3 about here

First, management is also concerned with aligning the goals of PE investors with their goals. Hence, PE investors will occasionally be bound by a *non-compete clause* (5% of the buyouts) or a *platform clause* (13% of the buyouts). A non-compete clause prohibits the PE investor to invest in other portfolio companies that are active in the same industry as the buyout. With a platform clause, the PE investor shall be obliged to inform the buyout prior to pursuing the investment in a company active in the same industry, thereby agreeing that the buyout shall have

a priority right in respect of such opportunity. While this aligns the interests of both parties, it is less common in the more recent transactions (8%).

Some contracts limit potential PE investors' hold-up problems through *restricting share transactions*. For example, 54% of the PE investors commit to a *lock-up period* during which the PE's shares cannot be sold. Further, 26% of the contracts contain a *good leaver provision* in favor of management. This gives the managers a put option, or the right to sell their shares to the PE investor and/or the company. This right is typically contingent on certain events to happen, including permanent disability, retirement age, death, or voluntary resignation of a manager after a predefined period.

Reverse agency problems may also arise at exit. Management has *tag-along rights* in 80% of the contracts. This gives them the right to sell all their shares together with the shareholders that initiated the sale under identical conditions and at the same price. This clause is mainly intended to protect minority shareholders, i.e., management, in case the majority shareholders, i.e., the PE investors, would sell their shares without giving minority shareholders the opportunity to follow. A next set of clauses determines what happens when some shareholders aim to sell their shares. A proportional (or pro rata) *tag along or co-sale right*, used in 62% of the contracts, gives management the right to transfer the proportional percentage of their shares as the party that initiated the sale. This again protects management against a situation in which the buyer would not be interested in acquiring all the shares, but only a fraction thereof. While pro-rata tag along rights are included more frequently in the recent transactions (69% versus 54% in the older transactions), *drag along rights*[10] were more prevalent in the older transactions (78%) than in the more recent

[10] Drag-along rights require certain shareholders (the minority shareholders such as the management or, in VC context, the entrepreneur) to sell their shares if the investor decides to sell its shares. Drag-along rights ensure that the investor can sell all the shares of the company by forcing the other shareholders to sell under the same price, terms and conditions. This clause is mostly provided for the benefit of the majority shareholders (e.g. the private equity investor).

transactions (42%). Finally, management has the *right to initiate the exit* in 36% of the transactions. This has become more prevalent in the recent transactions (46%).

Management is protected in its position as minority shareholder through clauses allocating *decision making*. For example, a special majority quorum is needed to decide on specific reserved matters in the shareholders' meeting in 42% of the buyouts, and in the Board of Directors in 50% of the contracts. Such majority quorum gives minority shareholders more power compared to their proportional ownership. At the level of the shareholders' meeting, such reserved matters typically include amendment to the bylaws, the alteration of the rights of the securities, the issuance, purchase, cancellation or sale of any securities, the distribution of a dividend, any decision about the members of the board as well as any decision with respect to the liquidation, dissolution, or initial public offering of the company. Board-reserved matters usually include the approval of the business plan, the subscription to, acquisition or disposal of shares of any other company, the introduction and approval of the allocation of a stock option plan, hiring managers with a remuneration above a certain threshold, incurring debt above a predefined level as well as any transactions with directors and/or shareholders. Veto rights allow management to prevent actions taken by the board or put to the shareholders for a vote. This is comparable to VC contracts, which almost all include negative covenants and protective provisions, albeit generally in favor of the minority VC investors (Bengtsson, 2011). Veto rights for management are again more prevalent in more recent transactions (54% versus 46% at the level of the Board, and 50% versus 33% at the level of the shareholders' meeting). Attendance quorums protecting management have become more popular in recent transactions (58% versus 29% at the level of the Board, and 35% versus 21% at the level of the shareholders' meeting).

Differences between VC and PE contracting

As our analysis reveals, PE firms structure buyout contracts in multiple dimensions such as, amongst others, the equity structuring with separate allocation of control and cash flow rights (classes of shares, right of first refusal, lock-up period, tag along, drag along), management-owner incentives (such as envy ratios, ratchets,..) and governance aspects such as the composition and the role of boards (monitoring, hiring and firing of key management) (Cumming & Johan, 2013). The separate allocation of control and cash flow rights and the governance structures used in buyout contracts are similar, but not identical, to VC contracts (Kaplan & Stromberg, 2003), as summarized in Table 4. The differences in contracting are driven by the nature of the targeted companies and by the type of transactions. VC targets are young high growth-oriented companies with limited or no debt capacity, as their free cash flows are often negative due to their low sales levels and their growth orientation (Manigart & Wright, 2013). In contrast, PE targets are mature companies with high levels of free cash flows and more limited growth options (Jensen, 1989). Next, companies raise VC to finance growth, hence new shares are issued, and VC investors typically acquire a minority stake in the target. In buyouts transactions, on the other hand, PE investors acquire almost all existing shares of selling shareholders (together with management) and thereby acquire a majority stake.

Insert Table 4 about here

As a buyout target has high levels of free cash flows, a PE investor will usually structure its investment through a combination of a financial instrument with a fixed return (loan or preferred shares) and ordinary shares with a variable return (Hale & Travers, 2015). Both the debt instrument and ordinary shares invested by the PE investor and management is considered as equity or quasi equity. The equity finance of the PE investor and management ranks behind all other liabilities

contracted by the company. This is impossible in a VC investment, as the VC target's negative free cash flows does not allow to issue fixed return financial instruments. A PE investor hence limits its risk through the fixed return instruments, while the combination of fixed and variable return instruments also allows to align the goals of management and investors.

Whereas VC financing is typically staged and contingent on performance milestones, PE financing is neither staged nor contingent. Stage financing implies that the VC retains the option to abandon the project if bad news is received. In such circumstances, the entrepreneur would have an incentive to engage in short-termism. VC contracts reduce this through the threat of conversion of convertible securities (Cornelli & Yosha, 2003). Staged financing is not possible in buyout transactions, however, as the full company is acquired at once. Such state-contingent contracts would also be less appropriate, as a buyout target is less risky.

Furthermore, it is a common practice in VC to include certain automatic conversion provisions, whereby the financial instruments held by the VC investors automatically convert into ordinary shares subject to the occurrence of certain events such as a qualifying IPO. Automatic conversion rights are performance-related control rights, since the VCs will be required to yield superior control rights, board rights and voting rights in order to only retain the rights associated with ordinary shares (Kaplan & Stromberg, 2003). In PE-backed buyouts, there is typically no automatic conversion of the shares owned by the PE investor, as IPOs are typically a less prevalent exit route for buyouts (Invest Europe, 2022[11]). Further, exit provisions are stronger in buyout contracts than in VC contracts, as there is less uncertainty about the shareholders in a buyout exit. As such, it is easier to contract exit provisions upfront between PE and managers. In contrast, the

[11] For more details, see www.investeurope.eu/research/activity-data/

shareholder structure changes after each investment round in a VC-backed company, making it impossible to contract specific cash flow and control rights at exit in VC contracts.

Finally, most VC contracts include anti-dilution rights to deal with new shareholders in subsequent investment rounds. Given the absence of staged financing including additional investment rounds with new shareholders, anti-dilution rights are not used in PE-backed buyouts. Liquidation rights are widely used in VC contracts. They determine the cash flow rights at exit and hence the return for VC investors, the return to the company's entrepreneur, management team and employees, and the incentives of all parties involved (Klausner & Venuto, 2012). As cash flow rights in PE-backed buyouts are structured much more precisely at entry, liquidation rights are not relevant in buyouts.

Future research directions

Our descriptive study provides fine-grained insights into which mechanisms PE investors use to address agency risk when contracting buyout transactions in which they take a majority stake. We have shown that buyout contracts are detailed, addressing many corporate and shareholder decisions. Specific control rights are allocated to either the PE investor or to management. The detailed contracts, together with the formal control of the PE investors through their majority stake in the company, limit the different states of the world that are not described at the time of the contract (Grossman & Hart, 1986; Hart & Moore, 1990) and hence limit the need for residual control rights.

However, not all contracts include the same set of clauses, with some being more detailed and complete than others. This raises the question as to when contracts are more complete. Incomplete contracting theory suggests that higher levels of uncertainty lead to stronger residual

control rights compared to specific control rights as it is harder to specify all future states of the world. Hence, VC contracts typically include more residual control rights compared with PE-backed buyout contracts. Nevertheless, buyout uncertainty may be higher in some transactions. For example, depending on the institutional environment in which the transaction occurs, issues like investor protection rights or law enforcement may widely differ (Bellavitis, Kamuriwo, & Hommel, 2019; Cao, Cumming, Goh, & Wang, 2019). Uncertainty may also be driven by transaction characteristics, such as the industry in which it operates, with some industries being more uncertain and dynamic than others. The source of the transaction may also matter: for example, unquoted targets or subsidiaries are opaquer and hence more uncertain compared with quoted targets (as in public-to-private transactions) (Mataigne, Manigart, & Luypaert, 2021). We hence advance the following proposition which future research could address:

Proposition 1: Buyout contracts written for transactions occurring in a situation with higher levels of uncertainty will have stronger residual control rights.

Additionally, incomplete contracting theory suggests that higher moral hazard risk would be addressed through enhancing specific control rights, thereby limiting the possible actions of the agent. Moral hazard risk is likely to be higher in situations with higher levels of information asymmetries, as in for example cross-border transactions (Devigne, Manigart, Vanacker, & Mulier, 2018).

Proposition 2: Contracts written for transactions occurring in a situation with higher levels of moral hazard will have stronger specific control rights.

We have shown that moral hazard risks may partially be mitigated through contractual features that align the goals of principals and agents, that limit holdup problems or that limit free

cash flows. As such, we expect that in contracts where moral hazard problems are strongly reduced through contractual features, there will be less need to have strong specific control rights:

Proposition 3: Contracts limiting moral hazard risks will have fewer specific control rights.

The allocation of specific control rights aims to reduce agency risks, induced by information asymmetries and divergence of goals between PE investors and managers. As PE investors obtain a majority stake in the company, agency risks mainly relate to management. Therefore, most contractual features will aim to curb the risk that management, and to a lesser extent the seller, would not behave in the best interest of the PE investor. Adverse selection issues are mainly addressed through reducing information asymmetries in the pre-investment due diligence process and during the lifetime of the PE investment, but also through shifting pre-investment residual information risks to the seller and management. Additionally, adverse selection risks are sometimes reduced through requiring sellers to retain a stake in the company after the buyout.

Proposition 4a: When adverse selection risks are higher, PE investors will require more extensive representations and warranties from sellers and management.

Proposition 4b: The seller will have a higher probability to retain a stake in the company when adverse selection risks are higher.

A major part of the contracts aims to reduce moral hazard risks, mainly pertaining to managerial actions after the transaction. As in VC contracts, a lot of attention is paid to aligning the goals of management with those of the PE investors, both through providing incentives for managerial overperformance and through discouragement for managerial underperformance. These high-powered outcome-based contracts hence shift risks to management (Eisenhardt, 1989).

As moral hazard risks (i) are not the same in all transactions and (ii) may be mitigated through other contractual features like limiting free cash flows or limiting hold-up problems, we propose:

Proposition 5: Contracts will be more outcome-based when managerial moral hazard risks are high.

Proposition 6: Outcome-based contractual features may be substituted by other contractual features limiting moral hazard risks.

Contracts also aim to reduce hold-up problems, limiting the possibility of management to take actions against the best interest of the PE investor or forcing them to take specific actions. In situations where moral hazard risks are likely to be higher, we expect more contractual clauses limiting moral hazard problems.

Proposition 7: Contracts will have more clauses limiting hold-up problems when managerial moral hazard risks are high.

Interestingly, contracts also pay attention to the reverse agency risk, i.e., the moral hazard risk that the PE investor will not behave in the best interest of the management. Nevertheless, PE investors are likely to aim to limit these clauses which might give power to management to go against their interests. We therefore expect that management will especially be able to negotiate reverse agency risk clauses when they have the power to do so (Bengtsson & Bernhardt, 2014; Heughebaert & Manigart, 2012), e.g., when there is a lot of competition for the transaction which might be solicited through an auction process or when the private equity markets are hot (Gompers, Kovner, Lerner, & Scharfstein, 2008).

Proposition 8: Clauses addressing the reverse agency problem will be more prevalent when management has more power in the transaction process.

Next to understanding how contracts are shaped, further research could consider the consequences of the inclusion of certain contractual provisions. Contractual provisions are designed to improve subsequent behavior of either investors or managers, and hence they should also impact the performance of the target. Corporate governance deals with "*the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment. How do the suppliers of finance get managers to return some of the profits to them? How do they make sure that managers do not steal the capital they supply or invest it in bad projects? How do suppliers of finance control managers*?" (Shleifer & Vishny, 1997, 737). Nevertheless, while some contractual features or combinations of contractual features might be beneficial for the target company, PE investor or management, others might not. It would hence be interesting to understand how contracts impact the future performance of the target company, of the PE investor and of management.

Additionally, while contracts address the relationship between shareholders in the buyout, multiple key stakeholders (e.g., employees, customers, or suppliers) are not included. Further, ESG considerations are increasingly important, although not yet covered in most buyout contracts. This calls into question as to how specific contractual features might impact stakeholders and the ESG orientation of the target, and whether these should not be considered as well when negotiating contracts.

Conclusion

This paper describes how buyout contracts shape corporate governance in PE-backed buyouts, with some rights and obligations being contingent on financial and non-financial performance. The allocation of control rights between the PE investor and management is crucial in the contract design of buyouts, in line with the theory of incomplete contracting. In line with agency theory,

all contracts aim to limit information asymmetries between management and PE investor through board representation and regular company updates. Further, cash flow rights are central in buyout contracts which, to a certain extent, are made contingent on predefined, observable, and verifiable indicators of financial and non-financial performance. Cash flow rights are more strongly structured in buyout contracts than in VC contracts, as a target's free cash flows are typically positive and less uncertain than in a VC setting, and the shareholder structure is completely defined at the time of the transactions given the absence of staged finance. Interestingly, more recent contracts employ more high-leveled outcome-based cash flow rights for management in case of overperformance. This is consistent with the observation that PE investors increasingly seek to grow their portfolio companies and unleash their entrepreneurial potential, rather than narrowly focusing on creating shareholder value through efficiency enhancements (Verbouw et al., 2021). Other core clauses mitigate potential agency and/or hold-up problems between management and the PE investor, for example those related to non-compete and leaver (vesting) provisions that make it expensive for management to leave the buyout.

A few clauses address the reverse agency problem, limiting the risk that PE investors might not act in the best interest of management. For example, recent contracts allocate more decision-making power to management through veto rights.

While this paper only provides a first, yet detailed description of buyout contracts, we hope that further theoretical and empirical research will examine the contractual provisions and the factors associated with their inclusion at a larger scale.

Disclosure statement

The authors report there are no competing interests to declare.

Table 1. Sample description

Buyout characteristics

	2004 - 2007	2008 - 2012	2013 - 2016	2017 - 2021	All
Number of buyouts in sample dataset	10	14	12	14	50
Percentage (%)	20%	28%	24%	28%	100%
Number of primary buyouts	10	10	9	11	40
Percentage (%)	25%	25%	23%	28%	100%
Number of secondary buyouts	0	4	3	3	10
Percentage (%)	0%	40%	30%	30%	100%

Shareholders' characteristics (in Keuro)		2004 - 2007	2008 - 2012	2013 - 2016	2017 - 2021	All
Total amount invested by the private equity investor(s) at initial date of the Shareholders' Agreement	Median	4.323	3.825	14.375	6.710	5.950
	Mean	4.440	6.450	64.814	23.425	31.877
Total amount invested by the CEO at initial date of the Shareholders' Agreement	Median	775	1.182	1.634	1.690	1.290
	Mean	1.396	1.862	3.814	3.529	2.558
Total amount invested by the management at initial date of the Shareholders' Agreement	Median	1.439	1.954	4.412	4.299	2.454
	Mean	1.944	2.395	6.598	7.321	4.548

Shareholders' characteristics (in percentages of Ordinary Shares)		2004 - 2007	2008 - 2012	2013 - 2016	2017 - 2021	All
Percentage Ordinary Shares of the private equity investor(s) at initial date of the Shareholders' Agreement	Median	66%	65%	65%	68%	65%
	Mean	65%	64%	68%	66%	67%
Percentage Ordinary Shares of the CEO at initial date of the Shareholders' Agreement	Median	14%	23%	15%	19%	19%
	Mean	19%	26%	20%	18%	20%
Percentage Ordinary Shares of the management at initial date of the Shareholders' Agreement	Median	30%	35%	31%	32%	31%
	Mean	31%	32%	32%	34%	31%

Table 2: Addressing PE's agency risk

Adverse selection risk		2004-2012	2013-2021	Total
Information asymmetry	*Information rights*			
	Representations about the company's state of affairs	100%	100%	100%
	Warranties given by management on the information provided	21%	37%	26%
	Due diligence	100%	100%	100%
Goal alignment	*Equity stake*			
	Management equity stake	100%	100%	100%
	Minority equity stake of sellers	21%	15%	18%
Moral hazard risk				
Information asymmetry	*Information rights*			
	Regular updates related to the financial performance	60%	80%	70%
	Obligation to inform PE when specific circumstances arise	12%	43%	28%
	Information exchange outside the board of directors	0%	11%	6%
Goal alignment	*Shift risk to management (PEs' cash flow rights)*			
	Ordinary shares for PE and management	100%	100%	100%
	Preferred shares (fixed return) for PE	4%	27%	16%
	Shareholder loan or subordinated bonds for PE	29%	12%	20%
	Board remuneration	31%	15%	22%
	Follow-up fee	17%	19%	18%
	Cash flow rights for management when overperforming			
	Envy ratio (ratio higher than 1,00)	15%	36%	32%
	Ratchets	21%	50%	36%
	Exit bonus	26%	0%	14%

Limit hold-up problems	*Leaver provisions*			
	Management needs to remain in place for a minimum period of time	52%	57%	56%
	Explicit good leaver provision	75%	78%	76%
	Explicit bad leaver provision	66%	84%	76%
	Covenant for managers to remain for a certain period after the exit	35%	47%	42%
	Share transaction restrictions, rights and obligations			
	Permitted transfer of shares	93%	92%	92%
	Standstill (lock-up period)	59%	77%	70%
	Right of first refusal and approval clause for PE	96%	96%	96%
	PE has the right to initiate the exit (IPO or sale)	45%	85%	66%
	Drag-along right obligation for management	100%	96%	98%
	Non-compete			
	Non-compete and non-solicitation provision during buyout	86%	96%	92%
	Non-compete and non-solicitation provision after exit	76%	92%	86%
	Decision making			
	Attendance quorum of PE at the board of directors for reserved matters	35%	67%	53%
	Delegation of day-to-day management to CEO	29%	12%	20%
	Covenants that (i) the company will be operated in a certain way, or (ii) certain actions will not be taken	76%	70%	76%
	Representation of the company when dealing with third parties	50%	47%	49%
	Emergency financing	17%	42%	37%
Residual rights				
Allocate residual risk	Representation and warranties of sellers	100%	100%	100%
	Data room and disclosure letter	100%	100%	100%
Allocate residual control rights	Voting rights for PE in the shareholders meetings	100%	100%	100%
	Right to appoint the majority of the board of directors	53%	60%	56%
	Right to appoint the chairperson	72%	55%	62%
	Decisive vote of the chairperson of the board of directors	44%	34%	41%
	Frequency of board of directors' meetings	84%	64%	74%

Table 3: Addressing management's reverse agency risk (moral hazard risk induced by the PE investor)

		2004-2012	2013-2021	Total
Goal alignment	Non-compete or platform clause for PE	20%	8%	13%
Hold-up problem	*Share transaction restrictions, rights and obligations*			
	Lock-up period for PE investor	56%	51%	54%
	Good leaver provision (put option for management)	21%	37%	26%
	Tag-along rights	83%	77%	80%
	Tag-along rights (pro rata)	54%	69%	62%
	Drag along right	78%	42%	58%
	Right to initiate the exit along with other shareholders	25%	46%	36%
	Decision making			
	Attendance quorum of management at the board of directors	29%	58%	44%
	Majority quorum of management at the board of directors	46%	54%	50%
	Attendance quorum of management at the shareholders' meeting	21%	35%	28%
	Majority quorum of management at the shareholders' meeting for reserved matters	33%	50%	42%

Table 4: Comparing contracts of PE-backed buyouts and VC investments

	Cluster of Contractual Provisions	VC	PE-backed buyouts
1.	Securities	Control oriented, and protected by strong anti-dilution rights	Cash flow oriented, and not protected by anti-dilution rights
2.	Cash flow rights	Uncertainty of cash flows with liquidation rights strong and multi-staged	Transparency of cash flows without liquidation rights
3.	Control rights	Contingent	Strong
4.	Incentive alignment	Weak (vesting based)	Strong (equity, envy ratio and ratchet)
5.	Contingent contractual arrangements	Strong (economic, financial and strategic milestones)	Rather limited with focus on leaver provisions (good leaver – bad leaver)
6.	Information rights	Strong	Strong
7.	Other obligations	Vesting and non-compete	Involvement of management (including after exit) and non-compete

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