SHOULD I STAY OR SHOULD I GO?

HAZARD MODEL EVIDENCE ON THE DETERMINANTS OF PUBLIC-TO-PRIVATE TRANSACTIONS IN EUROPE

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Abstract

This thesis examines the determinants of Public-to-Private transactions ('PTPs') in Europe. Using the cost–benefit framework proposed by Bharath and Dittmar (2010), we analyze how information considerations, access to capital, liquidity, control considerations, and agency costs influence the going private decision. Our dataset consists of 345 European firms that went private between 2000–2025, benchmarked against a comparison sample of firms aligned in event time from IPO. A Cox proportional hazard model with time-varying covariates is employed to assess how evolving firm characteristics shape the hazard rate (likelihood) of going private, complemented by an IPO-stage logit regression to test whether inherent traits at listing already possess explanatory power. We find that information frictions are the most statistically significant predictor of European PTPs, with going private firms exhibiting weaker information environments already at IPO. Lower liquidity only emerges as a significant predictor during the public lifecycle, with IPO-stage liquidity not being significant. However, this effect disappears in our post-GFC subsample. Compared to the US, agency and control considerations play a weaker and more context-dependent role, likely reflecting Europe's blockholder-dominated ownership structures and differences in governance. Access to capital proxies show no significant association with going private activity, possibly reflecting the stronger presence of private capital markets during the period covered by our sample.

Keywords

Public-to-Private, Going Private, Going Public, Private Equity, Hazard Model, Europe

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1. Introduction

Public equity markets are undergoing a structural transformation: fewer firms choose to list, and an increasing share of those already listed are exiting the public markets through Public-to-Private transactions ('PTPs'). Recent evidence shows that the number of publicly traded firms in advanced economies has declined markedly over the past two decades, with delistings outpacing new listings by a substantial margin, creating a 'listing gap' (Doidge et al., 2025). At the same time, private capital markets have grown substantially, with global private equity assets under management reaching $4.7 trillion, growing at 11% per year over the past two decades (Bain, 2025).

Going private transactions lie at the intersection of expanding private markets and the waning appeal of public markets. In 2024, PTPs accounted for almost 50% of North American buyouts valued over $5 billion, representing a combined transaction volume of $250 billion (Bain, 2025). Against this backdrop, going private behavior has become a highly researched topic in the finance literature. Because PTPs are shaped by multiple economic forces, studying them also yields broader insights into IPO decisions, corporate governance mechanisms, and leveraged buyouts.

Starting with DeAngelo et al. (1984), there have been several studies examining the determinants of going private transactions, first in the United States and later in Europe. Over time, the research has developed into two subcategories: the study of the wealth effects for shareholders and the study of the determinants of the going private decision. We are focusing on the latter. Research on US take-privates is more comprehensive, and the findings are not necessarily applicable to Europe, due to significant differences in market structures, investor bases, and governance regimes (Schumacher, 2020). Within this literature, Bharath and Dittmar (2010) and Mehran and Peristiani (2010) introduced the use of survival models to the analysis of PTPs, showing how time-varying firm characteristics shape the likelihood of going private. Their results highlight the importance of the information environment, financial visibility, and stock liquidity. Although several European studies have replicated these findings using static logit models (e.g., Achleitner et al., 2010; Martinez & Serve, 2011), no research has analyzed the determinants of PTPs using a survival-analysis framework in the European context. Furthermore, the latest large-sample European study only considers transactions up to

2017 (Magni et al., 2022), failing to capture the significant rise of private capital markets in recent years and the post-COVID M&A transaction boom (Bain, 2025). In general, literature on the period following the 2008 global financial crisis ('GFC') is still sparse. This study aims to narrow this gap in research by applying a survival analysis approach to Europe and by including the recent surge in PTPs.

Our empirical approach builds directly on Bharath and Dittmar's (2010) framework for analyzing going private transactions in the United States. The authors view the going private decision through the lens of a cost–benefit trade-off. Their key insight is that the theories explaining why firms go public can be reversed: firms initially go public when the perceived benefits of being public exceed the costs, and later revert to private ownership when the balance has shifted. Following them, we examine going private decisions along five economic dimensions: information considerations, access to capital, liquidity, control considerations, and agency considerations. The influence of each dimension is assessed using proxy variables derived from firm-level financial and trading data. A dataset of 345 European firms that went private between 2000–2025 and 1,029 comparable companies was constructed. All firms were aligned in event time using their IPO date, allowing their first, second, third, and subsequent years as public companies to be compared on a like-for-like basis. This alignment enables two complementary perspectives: a cross-sectional analysis of firm characteristics at the IPO stage and a time-to-event analysis of how these characteristics evolve over the public lifecycle. Our empirical approach proceeds in several steps. We first compare summary statistics across samples to identify systematic differences at IPO and to document how going private firms develop over time. We then estimate a logit model using firm characteristics one year after the IPO to assess whether inherent traits at listing already influence the likelihood of a future going private transaction. Finally, we employ a Cox proportional hazard model to examine how the evolution of firm characteristics over the public lifecycle shapes the probability of going private. We further conduct subsample analyses for the United Kingdom and non-UK Europe, as well as for the period after the GFC, to investigate structural differences across regions and time.

Our findings show that information considerations are the most significant drivers of PTP activity in Europe. Firms operating in a weaker information environment are more likely to go private across model specifications, with the information environment at the

IPO already emerging as a meaningful predictor. Liquidity considerations follow a more nuanced pattern: firms that eventually delist tend to experience persistently low or deteriorating trading activity over their public life, yet we find no significant association between liquidity in the year after the IPO and the likelihood of a future PTP. Moreover, liquidity effects disappear entirely in the post-GFC subsample, indicating that liquidity was a determinant in earlier market environments but has become less informative in recent years. Control and agency considerations exhibit some influence on the likelihood of going private, but the evidence is considerably weaker and more context-dependent than in the US, likely reflecting Europe's distinct ownership and governance structures. Access to capital considerations are not estimated to have a statistically significant effect on going private activity in Europe, a clear contrast to the US evidence. This divergence is likely influenced by sample composition, as our dataset predominantly covers a later period in which private markets expanded substantially.

The remainder of this thesis is structured as follows: In Section 2, we illustrate the existing PTP literature and formulate our hypotheses. Subsequently, Section 3 presents the data collection process and methodology before Section 4 reports the results and discusses their interpretation. Finally, we conclude in Section 5 with a summary, an acknowledgement of the limitations of this study, and potential avenues for future research.

2. Literature Review

2.1. Overview of the Existing Literature

Early research on going private transactions emerged in the US during the first LBO wave in the 1980s, with DeAngelo et al. (1984) providing the first systematic large-sample analysis of firms exiting public markets. Since then, the going private literature has developed into two different strands of research: one examining the shareholder wealth gains around PTP announcements, and the other investigating the underlying motivations behind the decision to go private. Our study contributes to this latter strand. The foundational paper in this area of research is Jensen's (1986) free cash flow theory, which argues that dispersed ownership and excess internal funds can give managers too much discretion in the public setting. Buyout transactions, usually characterized by concentrated control and substantial leverage, were hypothesized to contain these inefficiencies more effectively. Other early studies during the late 1980s and early 1990s also highlighted the importance of tax considerations (Kaplan, 1989a and 1989b; Schipper & Smith, 1991) and financial distress costs (Opler & Titman, 1993) in the decision to go private. Although Jensen's theory has become highly influential, its empirical validity remains mixed, with some studies finding results consistent with his prediction (e.g., Lehn & Poulsen, 1989; Kaplan, 1991; Opler & Titman, 1993) and others reporting limited or conflicting evidence (e.g., Kieschnick, 1998; Halpern et al., 1999). The literature has since broadened substantially, with later studies proposing a range of additional explanations for going private transactions, such as poor stock market performance (Halpern et al., 1999) and, more recently, corporate governance variables (e.g., Achleitner et al., 2010; Dasilas & Grose, 2018).

Early work on PTPs focused almost exclusively on the US, whereas Europe only received academic attention later. The UK market was first investigated by Weir et al. (2005a, 2005b), who found evidence of corporate governance weaknesses and perceived undervaluation as drivers of PTPs. Research then gradually expanded to Continental Europe, where widespread PTP activity had only surged in the early 2000s (Geranio & Zanotti, 2012), reflecting the later emergence of private equity funds in that region (Achleitner et al., 2010). Subsequent studies highlighted that the Continental European context differs markedly from that of the US and UK, particularly due to more

concentrated and often family-based ownership structures (La Porta et al., 1999) and different corporate governance systems (Faccio & Lang, 2002). However, despite the growing interest, evidence from Europe, especially non-UK Europe, today still remains limited compared to the US.

With regard to empirical methodology, most studies examining the determinants of going private decisions rely on cross-sectional logit or probit models to estimate the likelihood of a PTP relative to remaining public. Survival-based approaches, such as Cox proportional hazard models, which offer several advantages over static models (see Section 3.2.3), have been used only sparingly. In the US, only a small number of papers have applied hazard models to study going private activity (Mehran & Peristiani, 2010; Bharath & Dittmar, 2010), and no comparable survival analyses exist for Europe. Moreover, the latest large-sample European study we are aware of covers transactions only up to 2017 (Magni et al., 2022), and, therefore, does not capture the substantial increase in PTP activity observed in the 2020s, particularly the pronounced post-COVID surge in M&A volume (Bain, 2025).

As a result, this study addresses two gaps in the existing literature. First, we provide, to the best of our knowledge, the first application of a survival model framework to European PTPs, allowing us to capture the time-varying nature of company fundamentals prior to going private. In doing so, we closely follow the design of Bharath and Dittmar's (2010) study of US deals to ensure comparability across regions. Second, by incorporating transactions through the early 2020s, our dataset extends substantially beyond the coverage of existing large-sample studies, most of which examine only transactions prior to the global financial crisis. Given that the GFC marked a structural shift in capital-market dynamics, we further conduct our analyses exclusively for post-GFC PTPs to see if we notice any changes in the observed relationships. We also estimated our models for a pre-GFC subsample, but the limited number of observations resulted in highly unstable coefficients; these results do not allow for meaningful inference and are, therefore, not reported. In addition, we perform separate analyses for the UK and non-UK Europe, acknowledging the fragmentation of the European literature and the structural differences across these two regions.

2.2. Theoretical Framework

Given the wide range of transactions that can be captured by the 'going private' umbrella, the academic literature is very fragmented, with strong heterogeneity in the way going private transactions are defined and categorized across studies (Martinez & Serve, 2016). The foundation for any going private analysis is the general delisting phenomenon, which encompasses all forms of exit from public markets. Central to this framework is the distinction between voluntary and involuntary delistings (Macey et al., 2008). Voluntary delistings comprise buyouts, mergers, and other transactions that culminate in a voluntary exit from public equity markets, while involuntary delistings include removals due to bankruptcy, liquidation, or regulatory actions. These differing pathways reflect distinct underlying drivers, prompting most empirical work to focus on a specific delisting type. Although researchers often employ the labels 'going private' or 'public-to-private' to refer to any form of voluntary delisting, many empirical studies define going private transactions more narrowly as those involving financial sponsors, such as leveraged buyouts, management buyouts or related structures (e.g., Weir et al., 2005a, 2005b; Renneboog et al., 2005). In line with this strand of the literature, our sample predominantly features sponsor-backed transactions. For the purposes of our analysis, we also treat all going private transactions alike, regardless of the specific legal mechanism through which the eventual delisting is achieved, which varies across jurisdictions due to differing minority-shareholder protection rules and squeeze-out thresholds (Martinez & Serve, 2011).

A consistent insight across the literature is that cost-related motives are ubiquitous in the decision to go private, with both direct costs (such as annual listing fees, trading costs, and other post-IPO expenses) and indirect costs (including compliance, disclosure, auditing, and agency costs) having been identified as key determinants (Martinez & Serve, 2016). Together, these direct and indirect costs represent a recurring burden for listed firms and provide a strong motive for a voluntary delisting. Building on this, Bharath and Dittmar (2010) developed a more formalized framework for understanding the going private decision, placing cost considerations within a dynamic trade-off between the costs and benefits of being public. Their central premise is that many of the theories explaining why firms go public, balancing the costs and benefits implied by different economic forces such as information, access to capital, liquidity, and control,

are reversible. In other words, the same forces that can explain why firms go public can also explain why they go private. Hence, when the benefits of being public no longer outweigh the associated costs, firms have an incentive to revert to private ownership. When they go public, some firms may only be marginally above this threshold and, therefore, particularly susceptible to go private again once conditions deteriorate even slightly. Consistent with this reasoning, the authors focus on the costs and benefits of *being* public, rather than the one-off costs of *going* public. Although the latter are relevant when firms initially list, they are sunk once incurred and should not influence the decision to go private years later.

Evidence from subsequent research supports this perspective. Martinez and Serve (2011) validate the theoretical incentives identified by a cost–benefit analysis in their study of French going private transactions. In a later review of the existing literature, Martinez and Serve (2016) similarly conclude that take-private decisions across both Anglo-Saxon and Continental European markets can mainly be explained through a cost–benefit lens. While Bharath and Dittmar (2010) draw primarily on theories of why firms go public, they also incorporate insights from the broader going private literature, such as the agency cost considerations proposed by Jensen (1986).

The authors organize these theories into five broad categories, each capturing a distinct dimension underlying the decision to go private: information considerations, access to capital, liquidity, control considerations, and agency considerations. We adopt this categorization for comparability and elaborate on each dimension and its empirical foundations in the section that follows, reflecting Europe-specific research where applicable. Drawing on the existing literature, we formulate hypotheses for each category regarding the expected effect on the likelihood of going private in our study.

2.2.1. Information Considerations

Bharath and Dittmar (2010) discuss four different perspectives on the impact of information in the going private decision: adverse selection, duplicative monitoring, serendipitous information production, and investor recognition.

Adverse Selection: Leland and Pyle (1977) argue that information asymmetries between company insiders and outside investors create a fundamental trust problem: because company insiders have an incentive to overstate the quality of their firm,

investors rationally discount their claims. This dynamic leads to adverse selection costs that make it more difficult and costly for firms to attract investors, both at the time of listing and throughout the public life. Adverse selection costs can be mitigated if insiders can credibly signal firm quality by investing a substantial share of their own wealth. For private firms, the issue of adverse selection is, therefore, less pronounced, as entrepreneurs typically hold large personal stakes in their ventures (Leland & Pyle, 1977). Adverse selection costs are particularly pronounced for young, small firms with low market visibility and high ownership concentration, and Bharath and Dittmar (2010) argue that such firms are more likely to go private. In accordance with the existing literature, the authors use analyst coverage (Ackert & Athanassakos, 2001) and institutional ownership (Falkenstein, 1996) as proxies for visibility. While we do not incorporate institutional ownership in our study due to data constraints, Bharath and Dittmar (2010) demonstrate that their findings are robust to the choice of visibility proxy. Mehran and Peristiani (2010) argue that stock turnover, which we address in Section 2.2.3, or the change in analyst following can also be used as proxies for market visibility.

Duplicative Monitoring: Chemmanur and Fulghieri (1999) show that the decision to go public hinges on a trade-off between duplication of information-production costs in public markets and higher risk premia demanded by concentrated investors in private markets. In public markets, many dispersed investors must independently assess firm quality, creating high duplication costs that ultimately depress firm value. These costs can be mitigated when the stock price is sufficiently informative, allowing only a subset of investors to produce information while others free-ride on the information communicated by the share price. In private markets, by contrast, ownership is concentrated in the hands of a small number of investors who internalize information production but demand a higher return for bearing an undiversified position. Beyond investors, suppliers, workers, and customers also benefit from the information transmitted through the share price (Röell, 1996). Bharath and Dittmar (2010) argue that when information-production costs rise or prices fail to aggregate information effectively due to low liquidity, public market valuations become less informative and can diverge from fundamentals. In such environments, the informational advantage of being public diminishes, making private ownership more attractive despite the higher cost of capital.

Serendipitous Information: Another explanation for the going public decision is offered by Subrahmanyam and Titman (1999), who distinguish between two types of information: costly information, which requires deliberate search and effort, and serendipitous information, which investors acquire incidentally through their day-to-day activities. Public firms face a trade-off between these two types of information. On the one hand, they have to bear the costs of duplication of costly information, as many investors independently analyze the same data. On the other hand, they benefit because public trading aggregates the costless, serendipitous signals that individual investors encounter into a more informative share price. Although serendipitous signals are noisy at the individual level, their diversity across market participants leads to a rich, aggregated information set when firms are publicly traded. The authors argue that firms will prefer to be public when the informational benefits of these aggregated serendipitous signals outweigh the duplication costs associated with costly information. Bharath and Dittmar (2010) reverse this logic in the context of going private decisions: as the costs of generating serendipitous information rise, or as such information becomes scarcer, the advantage of a public listing declines. Subrahmanyam and Titman (1999) suggest that serendipitous information is harder to obtain for high-tech firms, with research and development ('R&D') expenses serving as a proxy to identify such firms.

Investor Recognition: Merton (1987) highlights that, unlike in traditional asset pricing models such as the CAPM, real-world investors do not possess or process information on all available securities. He formalizes this idea by assuming that each investor recognizes only a subset of firms and faces a cost when expanding this set. In his model, expected returns are higher for firms with smaller investor bases, implying that the benefit of a public listing depends on a firm's visibility among investors. Accordingly, firms with limited recognition are said to gain less from being public and are, therefore, more likely to go private. Bharath and Dittmar (2010) test this mechanism using analyst coverage as a proxy for visibility. Weir et al. (2005a) suggest that institutional investors source information mainly through analyst coverage, providing support for this proxy. In another study, Weir et al. (2005b) expand on this argument and reason that reduced interest also leads to perceived undervaluation, which, in turn, also affects the going private decision (see Sections 2.2.2 and 2.2.4).

As argued by Bharath and Dittmar (2010), the theories in this section suggest that firms are more likely to go private the more expensive or harder it is to obtain information about them. Since we do not find any contradictory evidence in the European literature, we adopt the same hypothesis for our analysis:

H1: *Firms that have lower analyst coverage and higher R&D intensity are more likely to go private.*

2.2.2. Access to Capital

Using a sample of Italian companies, Pagano et al. (1998) argue that firms go public primarily to overcome borrowing constraints, with the primary goal of deleveraging rather than financing future growth. Similarly, Kim and Weisbach (2005) conclude, based on a global sample, that capital raising is a major motive for going public. This finding is supported by Pagano et al. (1998), who also found that public firms enjoy superior and cheaper access to capital. In general, new capital is the most important motive for pursuing an IPO, as confirmed by several studies (Röell, 1996). Consequently, firms with high demand for capital, expressed through their capital expenditures ('capex') and degree of financial constraint, are expected to gain the most from a public listing. Bharath and Dittmar (2010) measure the degree of financial constraint through a company's ability to pay dividends and the KZ index introduced by Kaplan and Zingales (1995)[1]. While public markets have historically provided superior access to capital, it should be acknowledged that the capital markets environment has changed significantly in recent years. Private markets have deepened and become much more sophisticated, raising the question of whether the traditional capital-raising advantage of public markets may have been eroded (de Fontenay & Rauterberg, 2022).

Bharath and Dittmar (2010) also argue that cost of capital plays a role in the decision to go private, reversing the argument by Modigliani and Miller (1963) and Scott (1976) that a lower cost of capital in public markets compared to private markets would prompt firms to go public. In their framework, when the cost of capital in public markets

[1] The KZ index has been the subject of intense academic debate, with Hadlock and Pierce (2009), for instance, contending that a simple size- and age-based measure (SA index) offers a more reliable proxy for financial constraint. However, due to the IPO-based alignment in our analysis, age is not a meaningful variable. As a result, we decided to also use the KZ index, creating comparability with Bharath and Dittmar (2010).

rises, e.g., due to higher information-production costs or reduced liquidity, firms would be incentivized to delist. Because companies facing a higher cost of capital are expected to have lower valuations, ceteris paribus, they argue that a lower market-to-book ratio is associated with a higher probability of a PTP.

While we acknowledge the emergence of private markets in recent years, historical evidence overwhelmingly shows that public markets have provided superior access to external financing. We therefore expect a negative association between financial constraints and the likelihood of going private, but we remain cautious in this expectation as our sample primarily consists of going private transactions announced after the GFC. Accordingly, we expect to find less support for our hypothesis in the dedicated post-GFC subsample. Because market-to-book is already included in our control considerations hypothesis in Section 2.2.4, we do not state it here. Based on these considerations, we test the following hypothesis regarding the probability of a PTP:

H2: *Firms that are dividend-paying, have lower capital expenditures, and exhibit a lower KZ index are more likely to go private.*

2.2.3. Liquidity

Early evidence from Amihud and Mendelson (1988) shows that investors require lower returns from more liquid firms, implying that companies can reduce their cost of capital by enhancing the liquidity of their shares. The most direct way to achieve liquidity is to go public. Building on this logic, Bharath and Dittmar (2010) argue that public firms with low stock liquidity are more inclined to go private, as they are unable to reap the cost of capital benefits that liquid public markets provide.

Bolton and von Thadden's (1998) theory on liquidity and control highlights a fundamental trade-off between the two. Broad ownership dispersion among shareholders enhances trading activity and liquidity, yet such ownership structures weaken incentives for any individual shareholder to monitor the firm closely. Conversely, the presence of large blockholders strengthens oversight but comes at the expense of liquidity, as blockholders cannot freely exit their positions in the open market and their limited trading reduces the depth of the market for the firm's shares. Another perspective on liquidity and control is offered by Boot et al. (2008), who argue that greater liquidity broadens

investor participation and thereby lowers a firm's cost of capital, but at the same time increases pressure on management as a wider range of views and expectations is expressed. By contrast, firms with lower liquidity, or those that are privately held, engage with a much narrower set of investors, granting managers greater control in decision-making. In such an environment, investors cannot easily enter or exit positions, allowing managers to exercise more autonomy without having to fear shareholder sell-offs.

Zingales (1995) introduced another angle based on Grossman and Hart's (1980) free-rider framework. According to his logic, when ownership becomes dispersed, as is typical after a firm goes public, free-riding minority shareholders can refuse to tender their shares in a control transaction and instead wait to benefit from any improvements implemented by the bidder. This idea implies that greater stock market liquidity, which is typically associated with broader and more dispersed ownership, weakens insiders' bargaining power and raises the cost of acquiring control for bidders. A complementary view is offered by Mello and Parsons (1998), who similarly show that dispersed ownership created through the IPO process not only makes it difficult to reassemble a controlling block but also dilutes monitoring incentives, as no single investor holds a stake large enough to justify costly oversight. In the context of going private decisions, this mechanism implies that firms with more concentrated ownership, usually expressed by lower turnover and higher illiquidity, face fewer free-riding frictions, making them less expensive and thereby more plausible take-private targets.

Overall, these theories highlight the role of liquidity at the center of the decision to go private. Liquidity is a key advantage of being public because it is found to lower the cost of capital, providing an incentive for firms to stay public. Liquidity also tends to be accompanied by dispersed ownership, which raises the cost of acquiring control and thereby decreases the likelihood of a takeover. In accordance with Bharath and Dittmar (2010), we expect firms with higher illiquidity to be more likely to go private:

H3: *Firms with higher illiquidity (lower share turnover) are more likely to go private.*

2.2.4. Control Considerations

Zingales' (1995) theory on the decision to go public places control considerations at the center, viewing an IPO as the first step toward a future control transaction. His framework

distinguishes between cash flow rights (individual common shares), which trade in a competitive public market, and control rights, which are transferred through bilateral negotiation in a far less competitive market. Going public, therefore, allows the initial owner to sell cash flow rights while preserving the ability to extract private benefits of control when negotiating a later sale. Because the value of cash flow rights fluctuates strongly with market conditions, whereas the value of control rights is comparatively stable, declines in market valuations, as proxied by a lower market-to-book ratio, increase the relative importance of private control benefits, making a going private transaction more attractive in downturns. Several studies in the US (Halpern et al., 1999) and the UK (Weir et al., 2005a) have also examined the link between going private decisions and market-to-book ratios, primarily using this measure as a proxy for undervaluation. As already discussed in Section 2.2.2, valuation levels are closely tied to the cost of capital, and firms may be incentivized to exit public markets when the latter increases.

The mechanism described by Zingales (1995) also implies that the benefit of being listed depends on a firm's activity in the market for corporate control. If a public firm does not use its shares as acquisition currency, one of the central advantages of being public disappears, raising the likelihood of a subsequent take-private transaction. Brau et al. (2003) analyze the choice of private companies between pursuing an IPO and selling to a public acquirer. They find that firms with high inside ownership have an increased probability of choosing an IPO over a takeover, as insiders can typically retain more influence in an IPO. However, they face a trade-off between retaining control and achieving sufficient liquidity. The authors argue that the specific attractiveness of both types of deals is influenced by market conditions and industry dynamics, reinforcing Zingales' (1995) insight on how market valuations and control considerations jointly shape going public decisions. Consistent with this logic, Brau et al. (2003) also find that firms pursue IPOs to become acquirers themselves and use their newly issued shares as currency in future transactions. If a public firm is not actively acquiring other companies, this motive weakens. Following Bharath and Dittmar (2010), we proxy for activeness in the market for corporate control using the number of acquisitions a firm undertakes, predicting that lower acquisition activity increases the likelihood of going private. In surveys on the decision to stay private or go public, Brau and Fawcett (2006) and Röell (1996) find that the primary motivation for going public is to pursue acquisitions. This

evidence reinforces the idea that firms may prefer to go private when the benefits of public status, particularly access to an active market for stock-financed corporate control, are limited. Based on the theories described above, we test the following hypothesis:

H4: *Firms that pursue fewer acquisitions and have lower valuations are more likely to go private.*

2.2.5. Agency Considerations

The agency-based view on the going private decision builds on the classic "Theory of the Firm" by Jensen and Meckling (1976). In their framework, separation of ownership and control creates agency costs, as managers do not fully absorb the wealth effects of their decisions on outside share- and debtholders. These costs comprise three components: monitoring costs, bonding costs, and the residual loss. Monitoring costs are incurred by the principal and include auditing and budget restrictions. Bonding costs are resources spent by managers to show that they won't harm the owner. The residual loss captures the monetary reduction in owners' wealth due to the divergence of decisions made by the manager and the decisions that would maximize owners' wealth. Ownership and capital structure are, therefore, not neutral. More outside equity and dispersed ownership increase monitoring issues, while higher leverage and more concentrated ownership discipline managers but create conflicts vis-à-vis creditors.

Jensen's (1986) free cash flow hypothesis applies this framework to public firms with limited growth opportunities and high internal cash flows. In these firms, managers are incentivized to retain and invest excess cash instead of distributing it to shareholders. This leads to overinvestment, empire building, and inefficient diversification. PTPs can, therefore, be seen as governance restructurings that mitigate these agency problems by, for example, increasing leverage and granting larger equity stakes to managers and sponsors to better align incentives (Jensen, 1989). Lehn and Poulsen (1989) find evidence supporting these mechanisms in the US, showing that going private firms have higher levels of free cash flow and that premiums paid to public shareholders in a takeover correlate with the degree of free cash flows. Later studies in the US provide mixed evidence, with some supporting the free cash flow hypothesis (e.g., Opler & Titman, 1993; Singh, 1990; Denis, 1992), while others find no evidence (e.g., Halpern et al.,

1999). Prior work in the UK and Continental Europe finds no significant link between free cash flows and the likelihood of going private (Weir et al., 2005a; Renneboog et al., 2007; Andres et al., 2007; Geranio & Zanotti, 2012), and Achleitner et al. (2010) show that both strong monitoring incentives (high cash flow rights) and substantial private benefits of control (wide vote–cash flow divergences) reduce the probability of a take-private transaction.

In the Continental European context, Jensen's framework does not capture the full extent of agency costs due to considerable differences in ownership structures. Unlike the typical US corporation, many European firms are controlled by large blockholders such as founding families, shifting the focus of agency problems from principal–agent conflicts between shareholders and managers to principal–principal conflicts between majority and minority shareholders (Geranio & Zanotti, 2012). For instance, Achleitner et al. (2010) find that family-controlled companies are less likely to be taken private by financial sponsors, but they do not find robust results for other types of blockholders. To ensure comparability, we nevertheless utilize the same proxy variables for agency costs as Bharath and Dittmar (2010): free cash flow, leverage, cash holdings, and asset tangibility. While these variables are very useful in examining the classic principal–agent conflicts, they do not necessarily absorb the diverse governance landscape in Europe. In particular, we do not observe managerial equity stakes, board independence, or detailed ownership concentrations across our multi-country sample. To compensate for these gaps, we include country fixed effects to capture systematic differences in governance requirements, ownership structures, and institutional environments. Still, our treatment of governance remains incomplete, and a future European hazard model study with access to extensive governance and ownership data could explicitly test the relationship between these variables and the likelihood of going private. Centered on the original principal–agent conflicts, we test the following hypothesis:

H5: *Firms with higher free cash flow, lower leverage, more cash, and fewer tangible assets are more likely to go private.*

3. Empirical Framework

The empirical framework closely follows the approach of Bharath and Dittmar (2010), who examine the determinants of going private decisions among US firms. This study applies their study design to a European context, replicating their methodology to the extent possible while making necessary adaptations to account for differences in data availability.

3.1. Data

3.1.1. Sample Selection

Our analysis is based on two samples: a sample of firms that were taken private ('going private sample') and a comparison sample of firms that have remained publicly listed ('comparison sample'), serving as a benchmark. We have limited the samples to firms incorporated in the following European countries based on data availability and the depth of their capital markets: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom. All firms were mapped to industries using the Fama–French 12-industry classifications (Fama & French, 2025). Following Bharath and Dittmar (2010), we exclude financial institutions (SIC codes 6000–6999) and utilities (SIC codes 4900–4949), as these sectors operate under fundamentally different regulatory, capital structure, and reporting environments that limit comparability.

The going private sample was assembled from S&P Capital IQ Pro ('Capital IQ') and LSEG Workspace ('Workspace'), which provide coverage of global M&A deals and capital markets listings. We identified transactions through Capital IQ's M&A feature type 'Going Private Transaction' and Workspace's 'Going Private' deal flag. The classifications are not exhaustive and may omit transactions relevant to this analysis. In addition, they rely partly on discretionary labelling by analysts, introducing further scope for inconsistency or omission (Thomsen & Vinten, 2013), as reflected in the fact that the datasets only partially overlap. While going private deals can be identified through standardized Schedule 13E-3 SEC filings in US studies (e.g., Bharath & Dittmar, 2010), an equivalent approach is difficult to apply in a European context, where no unified reporting framework for going private transactions exists. Therefore, database-based

sourcing constitutes the most practical and consistent method for constructing a comprehensive European sample.

Both databases define a going private deal as one in which a private acquirer, usually a financial sponsor, purchases a publicly listed company, with the target's shares ceasing to trade on public markets thereafter. In Capital IQ, the feature type is selected when a private equity or venture capital sponsor acquires a public company and delists it. Deals involving a strategic acquirer are excluded. In a similar manner, the 'Going Private' deal flag in Workspace labels transactions where a private entity or financial sponsor acquires a public firm with the intention of delisting its shares. The flag may still be applied even if the target remains publicly traded upon deal completion. While this should be acknowledged, it does not necessarily conflict with the study's objective of examining the trade-offs of being public. For our purpose, the intention to delist is more informative than the eventual outcome, which can be influenced by a range of deal-specific contingencies such as financing constraints or regulatory opposition. As Bharath and Dittmar (2010) retrieved their sample through SEC Schedule 13E-3 filings, which cover a wider range of delistings, sponsor-backed deals may be overrepresented in our study compared to theirs.

Several further screening criteria were applied to enhance sample quality and ensure comparability. Only completed transactions were retained, thereby excluding announced but uncompleted deals that may reflect firm-specific circumstances unrelated to the general going private decision. Moreover, only transactions announced prior to 30 June 2025 were included. A minimum transaction value of €100 million was also applied to exclude small deals that often exhibit atypical structures and limited data availability. Firms were also required to have an available ISIN to retrieve firm-level characteristics across multiple databases (see Section 3.1.2). Transactions appearing in both databases were identified manually by ISIN and target name and combined into a single entry.

The comparable sample was drawn from Capital IQ. Firms were included if they met the following criteria: 1) a successful IPO in one of the specified European countries, 2) an IPO issue size of at least €5 million, to remove small-cap listings with sparse disclosure and high noise, 3) a valid ISIN, and 4) continuous listing throughout the observation window.

Overlaps between the going private and comparison sample are excluded to maintain strict separation. Further, for subsequent event time alignment, firms must have a recorded IPO date. If an IPO date is unavailable in Capital IQ and Workspace, the first trading date is used as a proxy, following Bharath and Dittmar (2010). For some firms, neither the IPO date nor the first trading date was available, leading to exclusion from the dataset. We also note that Capital IQ reports 2 January 1992 as the first trading date for a disproportionately large number of firms, a pattern suggesting that database coverage for these firms likely began on that date. These firms were also excluded, as their actual listing dates almost certainly predate the recorded first trading dates. This issue was only present for going private firms; only comparable firms with a valid IPO date were initially drawn from Capital IQ. As also noted by Bharath and Dittmar (2010), for several firms, the reported IPO date occurred after the take-private announcement. These firms were also excluded from the final sample.

After constructing the going private and comparison samples, a unified set of covariate data availability filters was applied to ensure the models discussed in Section 3.2.3 can be estimated. Based on the ISIN, accounting and trading data are obtained for each company from IPO to PTP. The specific data points collected are discussed in the following section. At least one year of complete data across all covariates is required for companies to be included so that they contribute at least one data point to the Cox model. We end up with 345 going private firms and 1,029 comparable firms.

Both samples were then aligned in event time, measured from each firm's IPO. This anchoring establishes a consistent reference point across all observations, enabling firms – whether later taken private or remaining public – to be tracked from the time they first became listed. It enables two complementary analyses: a cross-sectional comparison of firm characteristics at the time of IPO (logistic regression) and a time-to-event analysis (Cox proportional hazard model) to examine how the evolution of these characteristics influences the likelihood of going private. A detailed illustration of these two analyses is provided in Section 3.2.3.

3.1.2. Firm Characteristics

Building on the two samples, this section outlines the firm-level characteristics used in the empirical analyses and details their sources. The characteristics capture both

accounting and market-based dimensions and were obtained from Capital IQ and Workspace, consistent with the sample selection. Retrieving data from Compustat would have allowed for higher consistency with Bharath and Dittmar (2010), but the database maintains low coverage of European companies. The ISIN served as a unified firm identifier to ensure matching across data sources.

From Capital IQ, the following variables were retrieved: total assets, total debt, book value of equity, net property, plant, and equipment ('PPE'), cash and cash equivalents, total sales, R&D expenses, operating cash flow, capex, market capitalization, and merger count. From Workspace, the following variables were collected: analyst coverage, shares outstanding, closing price, traded volume, and dividend per share. All observations were converted to million euros, if applicable. After retrieval, the raw data was processed to construct the independent variables used in the empirical analyses. This involved standard transformations such as calculating financial ratios, adjusting for inflation, taking logarithms of scale variables, and averaging measures over relevant time windows. Due to sparse data coverage, missing values for R&D expenses were replaced with zero, following Bharath and Dittmar (2010). The resulting covariates were subsequently organized into conceptual categories, as discussed in Section 3.2.2, and can be reviewed in **Table 1**.

Data was collected annually for each firm from the year after the IPO onward until the take-private or, for firms in the comparison sample, until 2024 (right-censoring). Starting the observation window one year after the IPO ensures data consistency and comparability across firms. Financial and market information for the IPO year is often incomplete, as firms transitioning from private to public status may follow different reporting requirements prior to listing. In addition, the IPO process can temporarily distort several firm-level measures – for example, through one-off listing costs or post-offering adjustments in ownership. Excluding the IPO year mitigates these transitory effects and ensures that the data more accurately reflects a firm's steady-state characteristics.

Since the dataset contains accounting and market data, including both stock and flow measures, different reference points were adopted to most accurately reflect the economic nature of each variable. Accounting variables were collected on a fiscal-year basis, beginning with the first fiscal year after the IPO year. Market-based flow variables, such as liquidity and turnover measures derived from trading data, were computed as 12-

month daily averages, beginning from the IPO date. For merger count, the calendar year after the IPO year and each subsequent year were used to maintain consistency with year fixed effects. Market-based stock variables, including analyst coverage and market capitalization, were measured 12 months after the IPO date (or on the next available trading day) and at 12-month intervals thereafter.

3.2. Study Design & Methodology

3.2.1. Conceptual Framework

This study draws on the framework of Bharath and Dittmar (2010), who model a firm's decision to go private as the outcome of a dynamic trade-off between the costs and benefits of being public. Building on this intuition, the study investigates how the underlying economic forces suggested by theory, and the costs and benefits they entail, affect a firm's probability of going private. To capture these effects empirically, we use proxies based on observable firm-level characteristics. Specifically, we assess the statistical significance of these characteristics as predictors of a firm's likelihood of going private, both at the IPO stage and over the course of its public life. This dual perspective allows us to separate factors that are predictive from the outset, reflecting inherent firm differences, from those that become more influential as firms evolve in the public market.

3.2.2. Proxy Variables

To empirically test the determinants of the likelihood of a PTP, we construct a set of proxy variables based on firm-level characteristics, covering the five economic dimensions defined in Section 2.2: information considerations, access to capital, liquidity, control considerations, and agency considerations. Each proxy is based on observable accounting or market data and serves to quantify the trade-off between the costs and benefits of being a public company. The construction of these variables is summarized in **Table 1**.

3.2.3. Empirical Methods

We combine three complementary methodologies to examine the role of the proxy variables in explaining a firm's decision to go private. Specifically, we employ (I) summary statistics comparing firm characteristics across time and between samples to

provide an initial overview of observable differences and sample representativeness, (II) a cross-sectional logistic regression at the time of IPO to test whether inherent firm characteristics are already systematically related to the likelihood of a future take-private transaction, and (III) a Cox proportional hazard model to analyze how time-varying firm characteristics influence the probability of going private as firms evolve in public markets. Finally, we also consider (IV) estimation controls and robustness.

To ensure comparability with Bharath and Dittmar (2010) and to capture potential heterogeneity across regions and time, we estimate five model specifications in both the logit and Cox analyses. Column (1) always represents our baseline specification, which directly follows the authors' core model. Column (2) incorporates Amihud's (2002) illiquidity measure and the KZ index dummy while omitting all covariates used in the construction of the latter, mirroring the alternative model used by the authors and providing a more focused test of the liquidity and access-to-capital hypotheses. Column (3) restricts the sample to UK firms, while column (4) includes firms from all countries except the UK to investigate the structural differences discussed earlier. Finally, column (5) isolates the post-GFC period (starting on 01 July 2009), which accounts for roughly 97% of our observations due to the later emergence of the private equity sector in Europe and the limited early-period coverage of our data sources. Given this distribution, a dedicated pre-GFC subsample is not constructed, as the number of observations prior to 2009 is too small to support meaningful statistical inference. Focusing on the post-GFC period removes the small set of earlier transactions and comparison firms in our sample that may reflect materially different market environments and could otherwise exert disproportionate influence on the base model estimates in ways not fully absorbed by the fixed effect dummies. This period is also marked by tighter capital markets regulation and the rapid deepening of private markets, both of which may have altered the relevance of the determinants of going private activity.

I. Summary Statistics

The summary statistics provide a first look at how firms that are eventually taken private differ from those that remain public. They are used to confirm that the samples are comparable and representative of the broader population of listed European firms and to identify preliminary patterns. Summary statistics are computed for all independent variables used in the subsequent regressions, as well as for other descriptive variables that

offer useful context. The independent variables include the previously computed proxy variables for information considerations, access to capital, liquidity, control considerations, and agency considerations.

Three comparative perspectives are being employed: First, early-stage comparisons are being undertaken. Firm characteristics are compared one year after the IPO between the going private and the comparison sample. This identifies whether systematic differences are already observable at the start of the companies' public lifecycles. Then, a lifecycle comparison within the deal sample is shown, comparing going private firm characteristics between the first year after the IPO and the year preceding the take-private announcement. This highlights which dimensions within firms that are eventually taken private change the most over the public lifecycle.

For each comparison, means and medians are shown, complemented by statistical tests of group differences. Mean differences are assessed using Welch's t-tests (Welch, 1947), which are robust to unequal variances, while median differences are tested using Mann-Whitney U-tests (Mann & Whitney, 1947), a non-parametric method that stays reliable under skewed distributions and in the presence of outliers. This stage of analysis offers an initial diagnostic of the data. Identifying consistent directional gaps helps validate the economic hypotheses before proceeding to multivariate testing.

II. Logit Model

To test whether firms that are eventually taken private already exhibit distinct characteristics at the beginning of their public life, we estimate a cross-sectional logit model using firm-level data from one year after the IPO year. Prior studies on going private activity predominantly rely on logistic regressions, which are mainly applied one year prior to PTP, limiting comparability with our specification (e.g., Opler & Titman, 1993; Halpern et al., 1999; Lehn & Poulsen, 1989; Achleitner et al., 2010).

In our logistic regression model, the dependent variable is a binary indicator equal to one if a firm is subsequently taken private and zero otherwise. The model estimates the probability of an eventual take-private as a function of observable firm characteristics at IPO:

$$\Pr(TakePrivate_i = 1|X_i) = \frac{\exp(X_i' \times \beta)}{1 + \exp(X_i' \times \beta)}$$

where β represents a vector of coefficients for the covariates and X_i denotates a vector of firm-specific characteristics for company i.

The logit model serves two complementary purposes. First, it tests whether the determinants of going private are already embedded in the firms' characteristics at IPO, supporting the view that certain companies are 'born to delist.' Second, it provides a baseline for the dynamic Cox model by identifying which variables remain relevant once the time dimension and evolving firm fundamentals are incorporated. The logit regressions were estimated using Python's statsmodels package.

III. Cox Proportional Hazard Model

While the cross-sectional logit regression analyzes inherent differences between firms at the time of their IPO, it does not account for the development of firm characteristics over time. To capture the dynamic nature of the going private decision, a Cox proportional hazard model is employed, which models both the likelihood and the timing of a take-private transaction conditional on time-varying firm-level covariates.

The approach of adopting hazard models for the analysis of a panel of firms over time became popular after Shumway's (2001) study on forecasting bankruptcy and was first employed by Bharath and Dittmar (2010) for the study of PTPs. The model emphasizes that the probability of delisting may change over time as firm fundamentals evolve. A static model estimated on one point in time would ignore this time-dependence and potentially yield biased estimators due to sample selection. The Cox model corrects for this by incorporating time-varying covariates, allowing the hazard rate of a firm to adjust annually based on its updated characteristics. Because several theoretical determinants of going private behavior change meaningfully across a firm's public life, the use of time-varying covariates is essential for capturing how these evolving characteristics shape the hazard of exit. The hazard function is specified as:

$$\lambda_{\mathrm{i}}(t|X_i(t-1)) = \lambda_0(t) \times exp(X_i(\mathrm{t}-1)' \times \beta)$$

where $\lambda_i(t)$ denotes the instantaneous hazard that firm i is taken private at time t, conditional on surviving (remaining public) up to that point. $\lambda_0(t)$ represents the baseline hazard, which is left unspecified, and $X_i(t-1)$ is the vector of the explanatory firm characteristics that may vary over time. All covariates have been lagged by one year to reduce regression endogeneity concerns. The coefficient vector β measures how changes in these covariates affect the hazard of going private, holding the baseline hazard constant.

The Cox model is estimated using Python's lifelines package and the survival package in R.

The time variable t is measured in years since IPO. Firms that remain listed by the end of 2024 are treated as right-censored observations, indicating that the event (take-private transaction) has not occurred within the observation window. This is a key advantage of the Cox model over logistic regression. Companies in the comparison sample that appear as non-events in a logit setup may be bought out in the future. A logit regression, however, treats these firms as permanent non-events, which biases the estimated coefficients. Survival models, in contrast, correctly handle these firms as right-censored, allowing for more robust inference.

The model is estimated using the partial likelihood method (Cox, 1972), which eliminates the need to specify the functional form of the baseline hazard $\lambda_0(t)$. This semi-parametric nature makes the Cox model particularly suitable for a panel with companies from numerous countries, where firms face heterogeneous market conditions and regulatory environments that are difficult to parameterize directly. We deliberately avoided parametric duration models, as their functional form assumptions may distort the implied hazard rate. In contrast, the Cox model places no restrictions on the shape of the baseline hazard. To ensure comparability in public lifecycle duration across the two samples, we limit the going private sample firms to those with IPO dates during or after 1987, matching the start of the comparison sample. This alignment is necessary because the hazard model predicts the time to PTP. The resulting coefficients are interpreted as hazard rates, which describe the multiplicative effect of the covariates on the probability of going private. A hazard rate greater than one indicates that higher values of a variable are associated with an increased likelihood of going private, while a rate below one suggests the opposite.

Taken together, this time-to-event perspective complements the cross-sectional logit analysis by recognizing that going private is not a static binary outcome but a process unfolding over a firm's public lifetime. By incorporating both static and evolving firm characteristics, the Cox model provides a more complete understanding of the forces driving European firms to exit public markets.

IV. Estimation Controls and Robustness

Ensuring the reliability of the empirical results is essential given the heterogeneity of European capital markets and the several data sources. Further, drawing implications from the analysis is only possible after investigating that findings are not driven by data treatment choices, sample composition, or model specification. Different methods have been employed to counteract these concerns.

We winsorized most covariates at the 1st and 99th percentiles in our regression models to reduce the impact of outliers. The chosen adjustment is reported in the output tables. By excluding PTPs valued below €100 million, we also aim to reduce noise in our sample. Further, a lower bound of €5 million on the amount of capital raised at IPO acts as a filter for disproportionately small comparison firms.

Our regression models include fixed effects for industry, country, and year, where applicable. Industry fixed effects control for structural differences in capital intensity, leverage norms, and ownership concentrations across sectors; country fixed effects absorb heterogeneity in governance requirements, ownership structures, and institutional environments across countries; and year fixed effects capture macroeconomic and market-wide shocks that may affect both the supply and demand for going private transactions. We also include the logarithm of sales (in real terms) as a covariate in our models to control for size-related effects. In particular, analyst coverage has been shown to be significantly positively associated with firm size (Mehran & Peristiani, 2010). For the logit regressions, standard errors are calculated using heteroskedasticity-robust (Huber-White) estimators to ensure the validity of statistical inference.

We evaluate the proportional hazards assumption using Schoenfeld residual tests. While the global test formally rejects proportionality, suggesting that the model is not perfectly proportional in a strict statistical sense, the variable-specific plots reveal only modest and non-systematic deviations over event time. The smoothed residual curves for the firm-level covariates remain broadly stable, indicating that any departures from proportionality are economically negligible. Further, the individual p-values confirm that most covariates satisfy the proportional hazard requirements. We, therefore, interpret the covariate effects as approximately proportional. Since our aim is to examine how firm characteristics relate to the likelihood of going private rather than to generate high-precision predictions, the Cox framework remains appropriate for our analysis. For

transparency, the individual Schoenfeld residual plots for all covariates, computed with the survival package in R, are provided in **Figure 1**. Several covariates show modest fluctuations toward the end of the observed time horizon, where the number of firms remaining at risk is very small. We attribute these patterns to reduced information at late event times rather than to persistent changes in the underlying covariate effects. Additionally, because Bharath and Dittmar (2010) do not discuss the proportional hazard assumptions underlying their Cox model, we assume these assumptions were satisfied in their study without affecting the comparability of our results to theirs.

4. Discussion of Results

4.1. Summary Statistics

We begin by conducting a sample comparison to outline key patterns in the data and identify early differences between going private firms and their counterparts that have remained listed. **Table 2** reports the time-series distribution of going private transactions by announcement year, the IPO years of the going private sample, and the IPO years of the comparison sample. Firms in the going private sample remain listed for an average of 11.5 years (median: 9 years). This implies that companies in our sample delist around two years earlier than US companies in Bharath and Dittmar's (2010) study.

Table 3 presents the number of companies by sample based on the country of incorporation. The geographic distribution shows a clear asymmetry. Most European countries contribute proportionally to both the going private and comparison groups, whereas the United Kingdom stands out: UK firms represent about 41% of going private transactions but only around 20% of the comparison sample. No other country exhibits a comparable divergence between its presence in the going private and comparison samples. This disproportionate concentration of UK deals further strengthens our rationale to analyze UK and non-UK subsamples separately.

Table 4 displays the sample split by industry using Fama–French's 12-industry classification (Fama & French, 2025). Most sectors show broadly similar shares between the going private and comparison sample, with Business Equipment and Other Industries constituting the largest segments in both groups. As noted, Utilities and Financials are excluded from the dataset and, therefore, have no observations.

We then compare going private firms at IPO with comparison firms at IPO to assess whether observable differences between the two groups already exist at the time of listing, allowing us to identify potential traits inherent to going private firms. Finally, we also compare going private firms at IPO and at the time of the take-private to examine how these companies evolve over their public life.

4.1.1. Firm Characteristics at IPO

Table 5 compares firm characteristics one year after the IPO (the first year observed) between the going private and comparison sample. Going private firms exhibit

substantially lower mean market values at IPO, with their operational scale, proxied by mean sales and assets, not being statistically significantly smaller.

Analyst coverage is not significantly different across the two groups, whereas R&D intensity is significantly lower for going private firms; this difference is partly influenced by several biotech firms in the comparison sample with extremely high R&D to sales ratios. Overall, the cross-sectional differences in proxies for information considerations are similar in sign and significance to Bharath and Dittmar (2010). Taken together, this suggests that going private firms do not face a worse information environment at IPO and may even enjoy slightly more favorable conditions.

Going private firms exhibit significantly lower mean capex, indicating a lower need for capital to finance their assets, although this result is partly driven by outliers in the comparison sample, notably oil and gas exploration firms with high initial capex levels. They also appear significantly less financially constrained, as indicated by the KZ index dummy and the dividend dummy. Median market-to-book ratios are likewise significantly lower for the going private group, implying that the comparison firms benefit more from the access to capital advantages associated with public equity markets at the time of IPO and that the going private firms may not go public out of immediate financing necessity. In Bharath and Dittmar's (2010) study, US comparison firms are also less financially constrained at IPO. In contrast, liquidity patterns slightly differ from those observed by Bharath and Dittmar (2010). In our data, mean turnover is similar, and going private firms have a higher median turnover at IPO, but we do not observe a significantly higher illiquidity measure for these firms. Hence, firms that ultimately go private appear to be able to reap the liquidity benefits of being public at the time of listing to the same degree as other firms. Consistent with Bharath and Dittmar (2010), we find no significant difference in acquisition activity across the two groups. Hence, at IPO, going private firms do not appear to face materially different control-related costs or benefits compared with firms that remain public. Finally, going private firms show significantly higher free cash flow, lower cash, and higher asset tangibility, which is broadly consistent with Bharath and Dittmar (2010), but these mixed patterns do not allow for a clear conclusion on the exposure to agency costs at IPO.

Overall, these summary statistics suggest that, at the time of IPO, firms that ultimately go private do not appear to benefit less or be exposed to higher costs from

being publicly listed, as measured by our proxies. This is counterintuitive given that, according to our framework, these firms eventually choose to go private because the costs of being public exceed the benefits. This pattern suggests that it is the evolution of firm characteristics over the public lifecycle, rather than initial conditions at IPO, that ultimately drives the decision to go private.

4.1.2. Firm Characteristics of Going Private Firms at IPO and Take-Private

Table 6 compares means and medians for going private firms one year after the IPO and one year prior to PTP. Using values from one year prior to the take-private transaction ensures that transaction-related effects are excluded. This comparison illustrates how firm characteristics evolve over the public lifetime of our going private sample. We find that going private firms generally grow during their time as public companies. Sales, assets, and market capitalization all increase in real terms, with statistically significant changes in the medians. Analyst coverage also rises significantly, while R&D intensity remains largely unchanged. These patterns broadly align with Bharath and Dittmar (2010) and indicate that the information environment improves between IPO and take-private. In principle, this should strengthen the case for remaining public rather than exiting. Financial constraints appear to ease slightly over the public life of these firms. Median capex declines, while the dividend dummy and KZ index dummy remain stable. Going private firms, thus, appear to become even less reliant on the capital-raising advantages typically associated with public markets. Moreover, market-to-book ratios fall significantly, suggesting a rising cost of capital, ceteris paribus. Since the benefits of being public diminish, our framework predicts a higher likelihood of going private. Bharath and Dittmar (2010) similarly document statistically significant reductions in all proxies for access to capital.

We observe a pronounced and statistically significant decline in turnover leading up to the going private transaction. Illiquidity also declines as measured by the median, though the change is only small. These results generally point to a deterioration in market liquidity, which further strengthens the rationale for these firms to exit public markets. While the number of acquisitions undertaken per year does not change materially over a firm's lifetime, the value of cash flow rights, proxied by the market-to-book ratio, drops significantly, consistent with Bharath and Dittmar (2010). As the value of cash flow rights

relative to control rights erodes, our hypothesis predicts an increased likelihood of going private. Contrary to Bharath and Dittmar (2010), free cash flow rises significantly over the public lifetime of our going private firms. Leverage also increases, and cash holdings fall slightly, while asset tangibility does not follow the upward trend found in their study. Overall, the evidence offers a mixed signal for agency conflicts: rising free cash flow may increase agency frictions, yet higher leverage tends to exert a disciplinary effect, and lower cash holdings reduce the potential for wasteful spending.

Collectively, these results indicate that, relative to the IPO year, firm characteristics generally evolve in a manner consistent with our hypotheses: the costs of remaining public increase while the benefits decline. Although the information environment improves over time and the changes with regard to agency costs are mixed, all other economic dimensions develop in the opposite direction, implying that the overall incentive to go private should strengthen. This supports the argument developed in the previous section that it is not inherent firm traits at IPO, but rather their unfavorable evolution over time, that drives the decision to go private. To confirm whether this intuition holds empirically, however, these changes must be benchmarked against the comparison sample in our logit and Cox models. Importantly, these statistical models also allow us to identify which of the observed patterns are actually statistically significant determinants of going private transactions, as the summary statistics offer only descriptive evidence and limited inferential validity.

4.2. Logit Model Results

A logistic regression model is employed to examine whether differences in firm characteristics at the time of IPO already act as significant determinants of a future going private transaction. The regression output is presented in **Table 7**. In our study, the logit model primarily serves as a point of reference for our Cox model. The results are not directly comparable to those of prior European studies using logit regressions, as these typically rely on firm characteristics measured at the time of the PTP. We also note that the pseudo-R^2 values for our logit models are substantially higher than those reported by Bharath and Dittmar (2010). This should not be interpreted as superior explanatory power. Rather, it reflects the extensive set of fixed effect dummies included in our models, which absorbs a considerable fraction of the variation in the data.

Information Considerations: We find a statistically significant negative association between analyst coverage and the likelihood of a subsequent take-private transaction. Firms with lower analyst coverage in the first year after going public are, consequently, estimated to be more likely to go private later on. Bharath and Dittmar (2010) document the same relationship. R&D intensity is not statistically significant in any of our model specifications. These findings imply that the information environment at IPO already possesses considerable predictive power for going private activity, a notable result given that the average firm in our going private sample remains public for approximately 11.5 years.

Access to Capital: Our proxies for access to capital are not estimated to be statistically significant determinants of future going private at the time of IPO, as both capex and the dividend dummy are not statistically significant. Both findings are consistent with Bharath and Dittmar (2010). In specification (2), where we test our access to capital hypothesis more directly, we likewise find no statistically significant association between financial constraints, as measured by the KZ index dummy, and the likelihood of a future going private transaction.

Liquidity: Turnover at the time of IPO is not a statistically significant determinant of going private activity in our European sample. By contrast, Bharath and Dittmar (2010) report a negative and significant coefficient for turnover, suggesting that low liquidity shortly after the IPO is associated with a higher probability of a subsequent going private transaction in their sample.

Control Considerations: We find no evidence that IPO-year characteristics linked to control considerations have explanatory power for future going private events. Neither the market-to-book ratio nor merger count is statistically significant, mirroring the findings of Bharath and Dittmar (2010).

Agency Costs: Free cash flow, asset tangibility, and leverage at the time of IPO are not significantly associated with going private activity in our study. Cash, however, has a negative and highly significant coefficient. Overall, our results do not support the hypothesis that higher agency costs at the time of IPO significantly influence the likelihood of a future PTP. This contrasts with Bharath and Dittmar (2010), who find that free cash flow is positively related to going private activity at the IPO stage in the US, although their findings regarding cash holdings align with ours.

Our subsample analyses reveal several notable differences. In the UK subsample, analyst coverage, otherwise the most consistent predictor, is not significant. This, however, may be attributable to a limited sample size that does not allow for statistical inference. The non-UK subsample shows that firms paying a dividend in the first year after the IPO are estimated to have a higher likelihood of subsequently going private, an association not observed in any other specification. The post-GFC subsample exhibits no substantive deviations from the base model.

Overall, the logit results suggest that certain firm characteristics at the time of IPO already serve as significant predictors of future going private activity. In particular, information considerations matter across model specifications: firms with lower analyst coverage in their first year as public companies are estimated to be more likely to go private later on. Contrary to our results, Bharath and Dittmar (2010) also identify significant relationships between the likelihood of going private and both turnover and agency-cost proxies at the IPO stage, and their findings align with the expectations derived from our hypotheses. The absence of these relationships in our setting suggests that, in Europe, the IPO-stage values of these factors do not appear to be significant predictors of subsequent going private activity. While logistic regressions provide important insights, they are inherently static and cannot capture the time-varying evolution of firm characteristics. As such, they cannot identify determinants of the going private decision that only become economically relevant over the course of a firm's public life. To account for this dynamic dimension, we use a Cox proportional hazard model, which forms the primary statistical model in our study.

4.3. Cox Proportional Hazard Model Results

Using a Cox proportional hazard model for the time to go private, we examine how the evolution of firm characteristics over the public lifecycle determines the likelihood of going private in Europe. The regression output can be reviewed in **Table 8**. To provide graphical context, we plot the hazard function we estimated for our base model in **Figure 2** Panel A, starting at the IPO and holding all variables at their mean. Additionally, Panels B–F illustrate the impact of the statistically significant covariates on the hazard function, holding all other covariates at their mean. For each variable of interest, the hazard function is shown for the 10th and 90th percentile values in the first year after the IPO.

Information Considerations: Our results indicate that information considerations play a material role in the hazard rate of going private. We find a statistically significant negative association between analyst coverage and the hazard rate of going private across all specifications, offering strong support for the described adverse selection and investor recognition mechanisms. R&D intensity shows no statistically significant association, providing no support for our theory on serendipitous information.

Access to Capital: Across all model specifications, we find no meaningful evidence that financial constraints influence the hazard rate of going private. The coefficients on capex and the dividend dummy are not statistically significant throughout, and model specification (2) likewise provides no support for an access to capital mechanism, as the KZ index dummy coefficient is also not significant, and its sign runs counter to our hypothesis. These findings stand in stark contrast to Bharath and Dittmar (2010), who report access to capital proxies as highly statistically significant predictors of going private activity in the United States. However, it is important to note that the significance of their covariates is subsumed once the authors control for the macroeconomic environment. Since our specification implicitly captures macro conditions through year fixed effects, the absence of significance in our results is not inconsistent with their findings. A further plausible explanation for the divergence is the composition of our sample, which is heavily tilted toward the post-GFC period, during which the rapid expansion of private capital markets may have reduced the importance of financing constraints in the decision to stay public. In our post-GFC subsample, the access to capital proxies are likewise not statistically significant.

Liquidity: Liquidity is a strong determinant of the hazard rate of going private in our full sample. The coefficient of turnover is negative and statistically significant, indicating that firms with less liquid shares face a higher probability of going private. This finding aligns with our hypothesis and is consistent with prior US evidence from Bharath and Dittmar (2010) and Mehran and Peristiani (2010). However, turnover is not significant in the post-GFC subsample. A plausible explanation is a structural shift in the liquidity environment of European equity markets in the 2010s. The exceptionally expansionary monetary policy following the GFC, coupled with more frequent and forceful market interventions, has been shown to raise overall stock market liquidity and increase liquidity commonality across firms (Fernández et al., 2011). When liquidity

becomes increasingly driven by macro-level forces rather than firm-specific trading activity, its statistical power in explaining going private behavior may be diminished. We also observe a divergence between our UK and non-UK subsamples, which both span the pre- and post-GFC period. While turnover remains a significant predictor of going private in the non-UK subsample, mirroring the full-sample result, it is not statistically significant for UK firms. As discussed, turnover is highly linked to ownership concentration, and the loss of significance in the UK subsample may reflect structural differences in ownership patterns between the UK and the other European countries in our dataset. In column (2), we additionally incorporate Amihud's (2002) illiquidity measure, which does not yield a significant coefficient. This is consistent with Bharath and Dittmar (2010), and we, therefore, do not regard it as materially affecting the interpretation of our liquidity results.

Control Considerations: The control-based proxy variables market-to-book ratio and merger count show no statistically significant association with the hazard rate of going private in our aggregated sample, in contrast to the results reported in Bharath and Dittmar's (2010) US study. It is worth noting, however, that merger count is no longer significant once macroeconomic variables are controlled for by the authors, reflecting the strongly cyclical and wave-like nature of merger activity (Gort, 1969). In our models, we implicitly control for the macroeconomic environment by including year fixed effects. These findings do not support the idea that the value of public status depends on a firm's ability to use its stock as acquisition currency. While market-to-book is not statistically significant at conventional levels in our aggregated sample, it becomes significantly negatively associated with the hazard rate of going private in both the UK and post-GFC subsample. The former difference is likely linked to variation in ownership structures across regions. As discussed in Section 2.2.4, Zingales (1995) distinguishes between cash flow rights and control rights. In much of Continental Europe, ownership is concentrated in the hands of large blockholders who attach high value to control. In such settings, the value of cash flow rights, proxied by the market-to-book ratio, plays a comparatively smaller role in the going private decision. A possible explanation for the significance we observe in the post-GFC period could be linked to the broader shift in the market valuation environment during this time. Expansionary monetary policy and the tendency of investors to overweight equities in this period (Lian et al., 2019) contributed to elevated

valuation levels, which may have changed the significance of market-to-book ratios in explaining going private behavior.

Agency Considerations: Agency cost-related proxies provide nuanced support for the classical free cash flow theory hypothesis in our European setting. Free cash flow is significantly positively associated with the hazard rate of going private in our full sample and again in the post-GFC subsample, consistent with predictions that firms with greater discretionary cash flows face stronger pressures for realignment. However, cash holdings have a statistically significant negative effect on the hazard rate in our full sample, implying that firms with larger cash balances are less likely to go private, an effect that runs counter to the classical view that higher cash reserves reflect managerial entrenchment and elevated agency costs (Opler et al., 1999). Leverage and asset tangibility are not statistically significant across all model specifications, and none of the agency-related proxies are significant in either the UK or non-UK subsample. In their US survival analyses, Mehran and Peristiani (2010) and Bharath and Dittmar (2010) find strong and consistent support for the free cash flow hypothesis, although the latter note that this relationship is concentrated in the pre-1990 period. In contrast, our results suggest that while agency considerations do play a role in European going private decisions, their influence is mixed and more context-dependent than in the US. As discussed in Section 2.2.5, the structural differences between European and US ownership and governance regimes are the most likely source of this divergence.

4.4. Comparison of Model Results

The results from our two models indicate that both inherent differences in firm characteristics at the time of IPO and their subsequent evolution over the firms' public lifecycles carry explanatory power for the going private decision. The general alignment between the logit and hazard model estimates shows that a firm's initial conditions are relevant, consistent with the idea that some of the factors shaping going private transactions are already visible at the time of IPO. At the same time, we also observe notable differences between the two models, indicating that the survival analysis captures additional forces that become more relevant as firms progress through their public life.

Information Considerations: With respect to information considerations, both models point in a consistent direction: analyst coverage is statistically significant and

negatively related to going private activity across model specifications, reinforcing the adverse selection and investor recognition mechanisms at the core of the hypothesis. This consistency suggests that both the initial differences in information frictions and their subsequent evolution shape going private outcomes over the public lifecycle. R&D intensity is not statistically significant in either framework.

Access to Capital: With respect to access to capital, neither model provides evidence supporting our hypothesis. Financing-constraint proxies are generally not statistically significant in the logit or the Cox framework, suggesting that capital access frictions play a limited role in explaining going private activity in our European sample. Please refer to Section 4.3 for possible explanations of these findings. Interestingly, non-UK firms that paid a dividend in the year after the IPO exhibit a weakly significant lower probability of eventually going private, while dividend payments in subsequent years have no predictive power.

Liquidity: The results for our liquidity proxies reveal a clear divergence between the two models. Turnover is not statistically significant at the IPO stage, yet it becomes a relevant predictor in the survival framework in our full sample. This pattern suggests that the trajectory of a firm's share liquidity matters more than its initial level in our European setting. In other words, low liquidity at listing does not meaningfully predict a future take-private event, whereas continuously low or deteriorating liquidity over the firm's public life does. This stands in contrast to Bharath and Dittmar (2010), who report that liquidity is already statistically significant at the IPO stage, implying that in the US, initial liquidity conditions play a more important role than they do in Europe. However, as noted before, turnover is not statistically significant in either of the models for the post-GFC subsample, suggesting a shift in the explanatory power of liquidity over time.

Control Considerations: Our hypothesis on control considerations does not receive statistical support in the full sample under either statistical model, as neither market-to-book nor merger count is significant. However, in the UK and post-GFC subsample of the hazard model, market-to-book becomes significantly negatively associated with the likelihood of PTP, indicating that control-related motives emerge as firms evolve in the public markets in these settings. This pattern, which is consistent with Bharath and Dittmar (2010), suggests that a low valuation at the time of IPO is not itself predictive of an eventual take-private transaction, but a valuation that remains depressed

or deteriorates over the public lifecycle is meaningfully associated with the hazard of going private.

Agency Considerations: Our two models offer context-dependent support for the free cash flow hypothesis in Europe. In the logit model, cash holdings are statistically significant and negatively associated with the likelihood of going private, indicating that firms with higher cash balances at the IPO stage are less likely to eventually delist. We observe the same negative relationship in the Cox model. In the Cox model, free cash flow is positively associated with the hazard of going private, suggesting that agency considerations gain relevance in the decision to go private as firms mature in the public market. However, this finding is limited to model specifications (1) and (5) and is only marginally statistically significant. By contrast, Bharath and Dittmar (2010) find positive evidence for our agency cost hypothesis in both the logit and the hazard model in their US study.

5. Conclusion

This thesis examines the determinants of going private transactions in Europe using a Cox proportional hazard model to analyze how the evolution of firm characteristics over the public lifecycle shapes the likelihood of going private. Survival analysis techniques have not previously been applied to European PTPs, as existing studies rely almost exclusively on static logit or probit models. In addition, the available large-sample evidence does not capture the substantial rise in going private activity in recent years, as roughly 40% of the transactions in our dataset were announced after 2019 and fall outside the coverage of earlier work.

We apply the economic framework developed by Bharath and Dittmar (2010), which places the going private decision within a dynamic trade-off between the costs and benefits of being public. Their central idea is that the same forces that motivate firms to go public, grouped into information considerations, access to capital, liquidity, control considerations, and agency considerations, are reversible. When these forces begin to shift unfavorably, the net benefits of public status can erode, prompting firms to revert to private ownership. Using this cost–benefit logic to structure our firm-level proxies, we examine how these dimensions shape the likelihood of going private in Europe. To complement the lifecycle perspective of the Cox model, we additionally estimate an IPO-stage logit regression that serves as a benchmark for identifying significant predictors already embedded at listing.

Our findings show that information considerations are the principal drivers of going private activity in Europe, whereas access to capital, liquidity, control motives, and agency costs exert no, weaker, or context-dependent influence. Across all model specifications, a consistently poor or deteriorating information environment, captured through analyst coverage as our proxy for firm visibility, emerges as the most robust predictor of a take-private transaction. The logit results show that this mechanism is already visible at the time of IPO, indicating that informational disadvantages are often embedded from the outset. Liquidity is a significant determinant of the likelihood of going private in our full sample, and the Cox model shows that it is the trajectory of liquidity rather than its initial level that matters. Only persistently low or deteriorating liquidity is positively associated with going private, underscoring the importance of viewing going

private decisions as a dynamic lifecycle process rather than a static event. However, this effect disappears in the post-GFC subsample, which comprises nearly all observations, indicating that liquidity was a relevant determinant under earlier market regimes but is no longer meaningfully associated with going private. Agency considerations matter as well, though their influence is less straightforward in Europe. By contrast, access to capital proxies, which are highly significant in Bharath and Dittmar's (2010) US study, show little explanatory power in our sample, and control considerations, likewise significant in the US, only appear to be context-dependent drivers of going private behavior in Europe. Several factors help explain these divergences: the stronger prevalence of large blockholders in Europe increases ownership concentration and alters governance dynamics, while the rapid expansion of private capital markets in recent years has given firms more attractive financing alternatives outside the public sphere.

This thesis contributes to the literature on going private transactions by demonstrating that both inherent IPO-stage characteristics and subsequent lifecycle developments jointly shape the decision to go private in Europe, consistent with evidence from the US. By highlighting which factors later influence a firm's decision to remain public or revert to private ownership, our study also carries important implications for the going public decision. Our results provide strong support for theoretical predictions that information frictions are central to going private behavior, extending the insights of Bharath and Dittmar (2010) to a European setting. At the same time, they underscore important differences between Europe and the United States. Moreover, our results also provide important insights into how the determinants of going private may have shifted over time, as our dataset captures a substantially later period of PTP activity due to the later emergence of the private equity sector in Europe.

Our study is subject to several limitations that should be acknowledged. The heterogeneity of European capital markets introduces structural differences that are only partially absorbed by country fixed effects. These differences are particularly pronounced in governance arrangements and ownership structures, which vary considerably across jurisdictions and may influence going private dynamics in ways our controls cannot fully capture. Therefore, our results might be potentially biased by omitted variables. Data-quality issues, especially relating to IPO dates, R&D reporting, and limited historical coverage, restrict the usable sample. Our reliance on commercial databases may also

create selection bias: well-documented firms and transactions are more likely to appear in our data, potentially affecting representativeness. These limitations point to several avenues for future research. Incorporating macro- and micro-level governance and ownership variables could deepen insight into control and agency mechanisms across Europe. As private capital markets continue to grow, examining their role as an increasingly viable alternative to public markets would also be valuable. Finally, integrating non-financial information such as ESG metrics or innovation indicators and evaluating the out-of-sample predictive performance of the survival model would further extend the framework developed in this thesis and test its validity.

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Appendix

Table 1: Proxy Variable Descriptions

This table provides descriptions for all the proxy variables used as covariates in the logit and Cox proportional hazard models. All figures are measured annually from the first year after the IPO.

Category	Metric name	Definition
Controls	Log (Sales)	Natural logarithm of base year 2015 real sales (in € million), adjusted for EU-inflation (World Bank, 2025)
Information Considerations	Analyst Coverage	Number of analysts covering a company
	R&D / Sales	Research & Development Expenses divided by Sales
Access to Capital	Capex / Sales	Capital Expenditure divided by Sales
	Dividend Dummy	Binary variable equal to 1 if a company paid a dividend
	KZ Index Dummy	$KZ_{it} = -1.001909\text{CF}_{it} + 3.139193\text{TD}_{\text{it}} - 39.36780\text{DIV}_{\text{it}} - 1.314759\text{C\&E}_{\text{it}} + 0.2826389\text{MB}_{\text{it}}$ CF = Free Cash Flow / Total Assets, TD = Total Debt / Total Assets, DIV = Total Dividends / Total Assets, C&E = Cash and Equivalents / Total Assets, MB = (Market Capitalization minus Book Value of Equity plus Total Assets) / Total Assets; Dummy = 1: KZ_{it} value in top tercile of all values at time t (as per Bharath and Dittmar (2010) and Lamont et al. (2001))
Liquidity	Illiquidity	Average of daily absolute return divided by € trading volume scaled by 10,000,000, following the definition of Amihud (2002)
	Turnover	Average of daily turnover volume divided by the number of shares outstanding, scaled by 100,000
Control Considerations	Merger Count	Number of acquisitions in which the company is the acquirer
	Market-to-Book	Market Capitalization minus Book Value of Equity plus Total Assets divided by Total Assets
Agency Considerations	Free Cash Flow / Assets	Operating Cash Flow minus Capex divided by Total Assets
	Leverage	Total Debt divided by Total Assets
	Cash / Assets	Cash & Cash Equivalents divided by Total Assets
	Net PPE / Assets	Net Property, Plant & Equipment divided by Total Assets

Table 2: Time-Series Distribution

This table reports the yearly distributions in our dataset. For each year, the number of going private transactions included in the going private sample, the number of IPOs associated with the going private firms, and the number of IPOs associated with the comparison firms are listed. 2025 shows the number of PTPs as per 30 June 2025.

Year	Going Private Transactions	IPOs: Going Private Sample	IPOs: Comparison Sample
Before 1987	0	9	0
1987	0	2	2
1988	0	0	3
1989	0	2	0
1990	0	1	0
1991	0	0	1
1992	0	6	1
1993	0	9	1
1994	0	10	0
1995	0	10	1
1996	0	10	4
1997	0	21	7
1998	0	19	3
1999	0	28	7
2000	1	32	16
2001	1	7	6
2002	0	8	2
2003	8	1	0
2004	2	12	10
2005	13	17	29
2006	21	20	62
2007	21	10	75
2008	14	2	11
2009	4	5	0
2010	12	7	21
2011	17	10	22
2012	8	3	10
2013	7	11	33
2014	19	18	80
2015	9	8	82
2016	13	10	54
2017	11	14	76
2018	8	3	75
2019	17	3	56
2020	16	4	57
2021	33	10	176
2022	18	3	31
2023	27	0	15
2024	36	0	0
2025	9	0	0
Total	**345**	**345**	**1,029**

Table 3: Country Distribution

This table reports the country distribution of the firms in our dataset. Each firm in the going private and comparison sample is assigned a country based on its place of incorporation.

Country	Going Private Firms	%	Comparison Firms	%	Total Firms
Austria	2	0.6%	12	1.2%	14
Belgium	12	3.5%	18	1.7%	30
Denmark	8	2.3%	14	1.4%	22
Finland	13	3.8%	47	4.6%	60
France	24	7.0%	156	15.2%	180
Germany	20	5.8%	109	10.6%	129
Ireland	6	1.7%	20	1.9%	26
Italy	25	7.2%	112	10.9%	137
Luxembourg	5	1.4%	16	1.6%	21
Netherlands	23	6.7%	28	2.7%	51
Norway	15	4.3%	78	7.6%	93
Spain	6	1.7%	30	2.9%	36
Sweden	34	9.9%	137	13.3%	171
Switzerland	9	2.6%	47	4.6%	56
United Kingdom	143	41.4%	205	19.9%	348
Total	**345**	**100.0%**	**1,029**	**100.0%**	**1374**

Table 4: Industry Distribution

This table reports the industry distribution of the firms in our dataset. Each firm in the going private and comparison sample is assigned an industry based on its SIC code and the Fama–French 12-industry classification. Companies in the Utilities and Finance industries have been excluded from the sample.

Industry	Going Private Firms	%	Comparison Firms	%	Total Firms
Nondurable Consumer Goods	27	7.8%	64	6.2%	91
Durable Consumer Goods	10	2.9%	39	3.8%	49
Manufacturing	39	11.3%	143	13.9%	182
Energy	9	2.6%	23	2.2%	32
Chemicals	6	1.7%	25	2.4%	31
Business Equipment	82	23.8%	224	21.8%	306
Telecommunications	18	5.2%	28	2.7%	46
Shops & Retail Trade	41	11.9%	117	11.4%	158
Healthcare	25	7.2%	169	16.4%	194
Utilities	0	0.0%	0	0.0%	0
Finance	0	0.0%	0	0.0%	0
Other Industries	88	25.5%	197	19.1%	285
Total	**345**	**100.0%**	**1,029**	**100.0%**	**1374**

Table 5: Firm Characteristics at IPO – Going Private Sample and Comparison Sample

This table summarizes firm characteristics observed in the first year after the IPO for the going private and comparison sample. For each variable, we present the mean and median values in both groups, the difference between the two samples, and the corresponding test statistics. Mean differences are evaluated using Welch's t-tests and median differences using Mann-Whitney U-tests (reported as z-statistics). *, **, and *** denote statistical significance at the $p < 0.10$, $p < 0.05$, and $p < 0.01$ level.

Firm Characteristics	Going Private Sample (A)	Comparison Sample (B)	Difference (B–A)	Test Stat (sig.)
Sales (2015 real)	744.86	1083.38	338.52	1.51
	186.02	87.88	-98.14	5.07***
Assets (2015 real)	1080.04	1339.82	259.79	0.85
	239.77	119.90	-119.86	4.09***
Market Value (2015 real)	834.61	1474.51	639.91	3.03***
	284.01	191.15	-92.86	3.68***
Information Considerations				
Analyst Coverage	4.10	4.03	-0.07	-0.22
	3.00	2.00	-1.00	0.63
R&D / Sales	0.04	1.62	1.58	2.37**
	0.00	0.00	0.00	1.88*
Access to Capital				
Capex / Sales	0.19	1.21	1.02	1.90*
	0.04	0.04	-0.00	0.75
Dividend Dummy	0.65	0.44	-0.21	-6.21***
	1.00	0.00	-1.00	5.99***
KZ Index Dummy	0.27	0.35	0.09	2.52**
	0.00	0.00	0.00	2.40**
Liquidity				
Illiquidity	1.24	0.65	-0.59	-0.98
	0.02	0.03	0.01	0.21
Turnover	6.26	5.24	-1.02	-0.38
	2.02	1.46	-0.57	4.03***
Control Considerations				
Merger Count	0.88	0.78	-0.10	-0.70
	0.00	0.00	0.00	0.09
Market-to-Book	2.55	2.76	0.21	0.98
	1.72	1.90	0.18	1.69*
Agency Considerations				
Free Cash Flow / Assets	-0.02	-0.06	-0.04	-2.98***
	0.02	0.00	-0.02	2.22**
Leverage	0.21	0.20	-0.02	-1.25
	0.18	0.16	-0.01	0.65
Cash / Assets	0.13	0.24	0.10	8.94***
	0.08	0.15	0.07	8.21***
Net PPE / Assets	0.25	0.18	-0.07	-4.69***
	0.17	0.10	-0.07	5.22***

Table 6: Firm Characteristics over Time – Going Private Sample

This table summarizes firm characteristics observed in the first year after the IPO and the year before the going private transaction for the firms in the going private sample. For each variable, the table reports the mean and median values at both points in time, the difference between them, and the corresponding test statistics. Only firms with available data in both years are included, leading to small differences in the values for the first year after the IPO compared to Table 5. Mean differences are evaluated using Welch's t-tests and median differences using Mann-Whitney U-tests (reported as z-statistics). *, **, and *** denote statistical significance at the $p < 0.10$, $p < 0.05$, and $p < 0.01$ level.

Firm Characteristics	IPO Year + 1 (A)	Going Private Year – 1 (B)	Difference (B – A)	Test Stat (sig.)
Sales (2015 real)	743.99	1106.50	362.52	2.12**
	184.53	366.56	182.03	5.73***
Assets (2015 real)	1070.89	1564.09	493.20	1.41
	239.56	468.83	229.28	6.10***
Market Value (2015 real)	822.62	1712.47	889.85	1.41
	283.80	391.06	107.26	2.83***
Information Considerations				
Analyst Coverage	4.07	6.00	1.93	4.96***
	3.00	5.00	2.00	6.56***
R&D / Sales	0.04	0.02	-0.02	-1.30
	0.00	0.00	0.00	1.30
Access to Capital				
Capex / Sales	0.19	0.10	-0.10	-1.56
	0.05	0.03	-0.01	3.62***
Dividend Dummy	0.65	0.66	0.01	0.22
	1.00	1.00	0.00	0.22
KZ Index Dummy	0.26	0.25	-0.01	-0.32
	0.00	0.00	0.00	0.32
Liquidity				
Illiquidity	1.25	0.53	-0.72	-1.16
	0.02	0.01	-0.02	4.54***
Turnover	6.27	2.28	-3.99	-2.53**
	2.02	1.70	-0.33	2.72***
Control Considerations				
Merger Count	0.88	0.76	-0.12	-0.80
	0.00	0.00	0.00	0.36
Market-to-Book	2.56	2.00	-0.55	-2.01**
	1.72	1.42	-0.31	4.71***
Agency Considerations				
Free Cash Flow / Assets	-0.02	0.05	0.07	5.48***
	0.02	0.05	0.03	6.47***
Leverage	0.21	0.26	0.05	3.02***
	0.18	0.24	0.07	3.95***
Cash / Assets	0.13	0.11	-0.02	-1.84*
	0.08	0.08	0.00	0.13
Net PPE / Assets	0.25	0.25	-0.00	-0.02
	0.17	0.16	-0.00	0.17

Table 7: Logistic Regression at IPO

This table reports the results of logistic regressions estimating the likelihood of a future going private transaction based on covariates observed in the first year after the IPO. The dependent variable takes the value of 1 if a firm eventually goes private and 0 if not. Columns (1) and (2) use the full sample in different specifications, column (3) restricts the analysis to UK firms, column (4) to non-UK firms, and column (5) to a post-GFC subsample. Coefficient estimates are reported alongside robust standard errors in parentheses. All variables except Analyst Coverage, Dividend Dummy, KZ Index Dummy, and Merger Count are winsorized at the 1st and 99th percentiles. Year, industry, and country fixed effects are included as indicated. *, **, and *** denote statistical significance at the $p < 0.10$, $p < 0.05$, and $p < 0.01$ level based on Wald z-statistics.

	(1)	(2)	(3)	(4)	(5)
Log (Sales)	0.261***	0.345***	0.147	0.314**	0.268***
	(0.094)	(0.086)	(0.148)	(0.131)	(0.099)
Information Considerations					
Analyst Coverage	-0.094***	-0.104***	-0.091	-0.102***	-0.093***
	(0.029)	(0.028)	(0.059)	(0.036)	(0.031)
R&D / Sales	-0.176	-0.174	-0.028	0.198	-0.162
	(0.191)	(0.224)	(0.404)	(0.337)	(0.184)
Access to Capital					
Capex / Sales	0.093	0.111	-0.099	-0.264	0.109
	(0.140)	(0.131)	(0.136)	(0.538)	(0.138)
Dividend Dummy	-0.299		0.518	-0.568*	-0.353
	(0.232)		(0.365)	(0.312)	(0.238)
KZ Index Dummy		0.285			
		(0.215)			
Liquidity Considerations					
Illiquidity		0.032			
		(0.063)			
Turnover	-0.010	-0.006	0.047	-0.009	0.000
	(0.021)	(0.020)	(0.051)	(0.025)	(0.021)
Control Considerations					
Merger Count	0.034	0.063	0.082	0.006	0.037
	(0.047)	(0.048)	(0.139)	(0.048)	(0.060)
Market-to-Book	0.007		-0.076	0.093	0.027
	(0.063)		(0.079)	(0.096)	(0.063)
Agency Considerations					
Free Cash Flow / Assets	0.072		-0.651	0.163	-0.128
	(0.904)		(1.174)	(1.262)	(0.917)
Debt / Assets	0.568		1.196	0.406	0.504
	(0.662)		(1.035)	(0.955)	(0.680)
Cash / Assets	-3.025***		-1.198	-4.007***	-2.640***
	(0.926)		(1.233)	(1.469)	(0.912)
Net PPE / Assets	-0.096	0.329	0.896	-0.610	-0.112
	(0.570)	(0.535)	(0.807)	(0.912)	(0.608)
Observations	996	993	269	727	955
Pseudo R^2	0.347	0.330	0.248	0.332	0.293
Year Dummies	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	No	Yes	Yes

Table 8: Cox Proportional Hazard Model

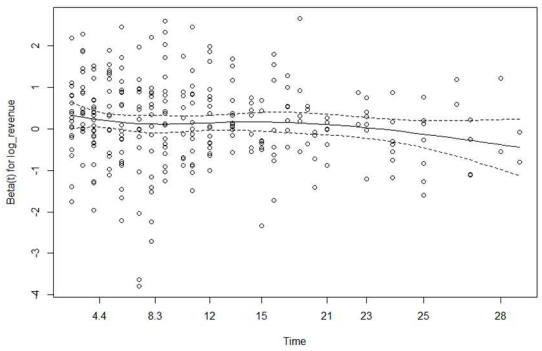
This table reports the results of Cox proportional hazard models for the time to go private based on time-varying covariates observed over the firms' public lifecycles. The dependent variable is the time a firm stays publicly listed, measured as the time between IPO and going private transaction or right-censoring. Columns (1) and (2) use the full sample in different specifications, column (3) restricts the analysis to UK firms, column (4) to non-UK firms, and column (5) to a post-GFC subsample. Coefficient estimates are reported alongside standard errors in parentheses. All variables except Analyst Coverage, Dividend Dummy, KZ Index Dummy, and Merger Count are winsorized at the 1st and 99th percentiles. Year, industry, and country fixed effects are included as indicated. *, **, and *** denote statistical significance at the $p < 0.10$, $p < 0.05$, and $p < 0.01$ level based on Wald z-statistics.

	(1)	(2)	(3)	(4)	(5)
Log (Sales)	0.139**	0.203***	0.160*	0.134	0.175**
	(0.060)	(0.056)	(0.090)	(0.083)	(0.068)
Information Considerations					
Analyst Coverage	-0.046***	-0.058***	-0.048*	-0.045**	-0.049***
	(0.015)	(0.015)	(0.026)	(0.020)	(0.018)
R&D / Sales	-0.144	-0.310	0.005	-0.132	-0.165
	(0.283)	(0.342)	(0.532)	(0.406)	(0.351)
Access to Capital					
Capex / Sales	0.122	-0.050	0.336	-0.389	-0.214
	(0.324)	(0.320)	(0.247)	(0.728)	(0.501)
Dividend Dummy	0.023		-0.142	0.051	-0.069
	(0.145)		(0.227)	(0.196)	(0.161)
KZ Index Dummy		-0.108			
		(0.144)			
Liquidity Considerations					
Illiquidity		-0.024			
		(0.028)			
Turnover	-0.057**	-0.063**	0.035	-0.146***	-0.042
	(0.026)	(0.026)	(0.033)	(0.046)	(0.032)
Control Considerations					
Merger Count	-0.029	-0.024	-0.129	0.002	-0.029
	(0.042)	(0.041)	(0.089)	(0.043)	(0.050)
Market-to-Book	-0.073		-0.141*	0.022	-0.113*
	(0.053)		(0.080)	(0.068)	(0.062)
Agency Considerations					
Free Cash Flow / Assets	1.220*		1.290	1.421	1.550*
	(0.699)		(0.926)	(0.984)	(0.820)
Debt / Assets	0.307		0.087	0.574	0.353
	(0.402)		(0.588)	(0.582)	(0.467)
Cash / Assets	-1.239*		-1.553	-1.173	-0.730
	(0.659)		(0.969)	(0.922)	(0.702)
Net PPE / Assets	0.046	0.326	0.221	-0.531	-0.280
	(0.334)	(0.314)	(0.463)	(0.548)	(0.421)
Observations	10060	10045	2519	7541	9748
Year Dummies	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	No	Yes	Yes

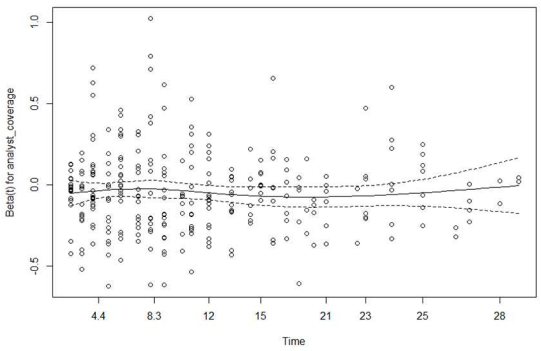
Figure 1: Schoenfeld Residuals

These panels present the Schoenfeld residuals used to assess the proportional hazard assumption for Cox model specification (1). Each panel plots the Schoenfeld residuals for a given covariate against event time, together with a locally smoothed trend. Deviations from proportionality would appear as systematic upward or downward trends in the smoothed line. The panels continue on the next page.

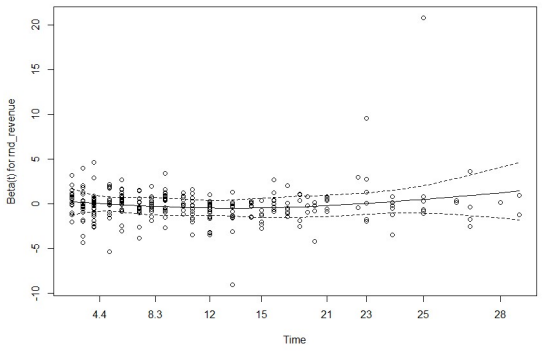
Panel A: Log (Sales)



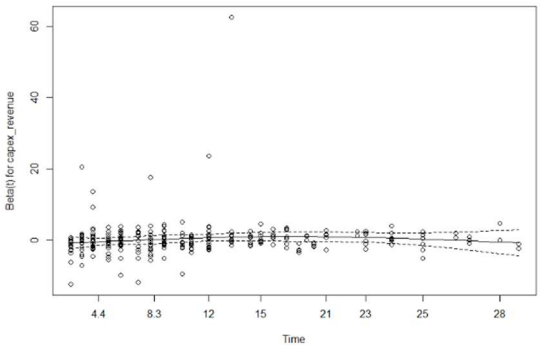
Panel B: Analyst Coverage



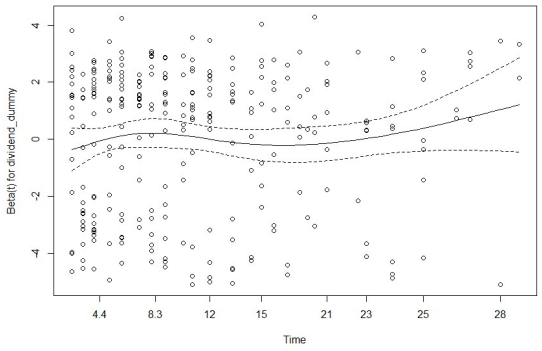
Panel C: R&D / Sales



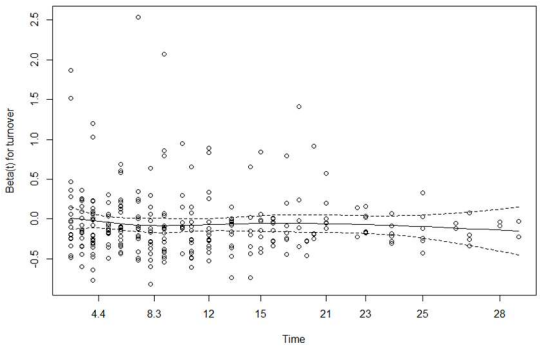
Panel D: Capex / Sales



Panel E: Dividend Dummy



Panel F: Turnover

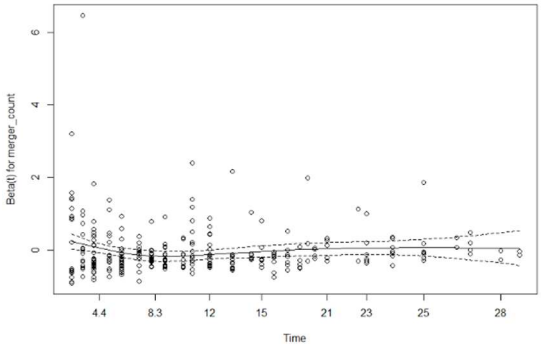


-- (Panels continue on the next page) --

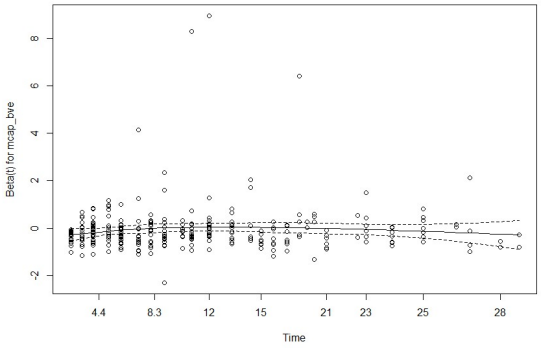
Figure 1 (cont'd): Schoenfeld Residuals

These panels present the Schoenfeld residuals used to assess the proportional hazard assumption for Cox model specification (1). Each panel plots the Schoenfeld residuals for a given covariate against event time, together with a locally smoothed trend. Deviations from proportionality would appear as systematic upward or downward trends in the smoothed line.

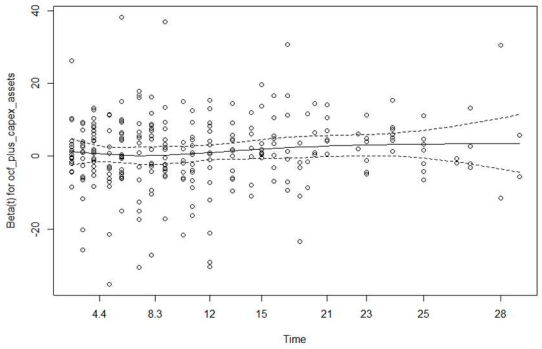
Panel G: Merger Count



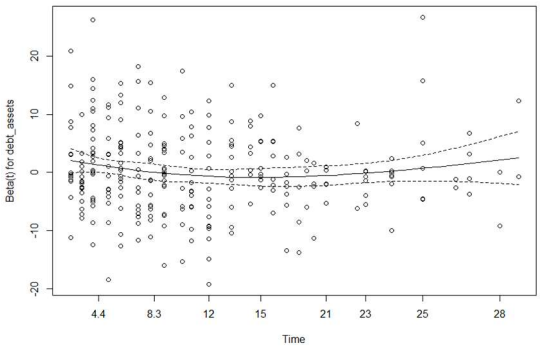
Panel H: Market-to-Book



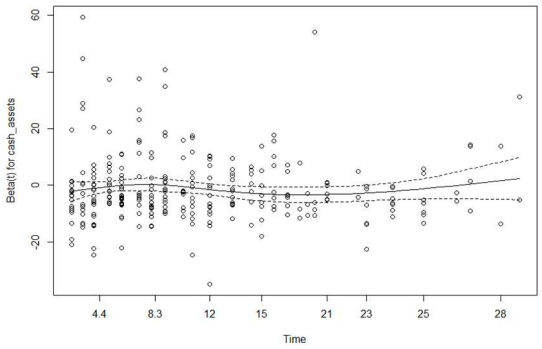
Panel I: Free Cash Flow / Assets



Panel J: Debt / Assets



Panel K: Cash / Assets



Panel L: Net PPE / Assets

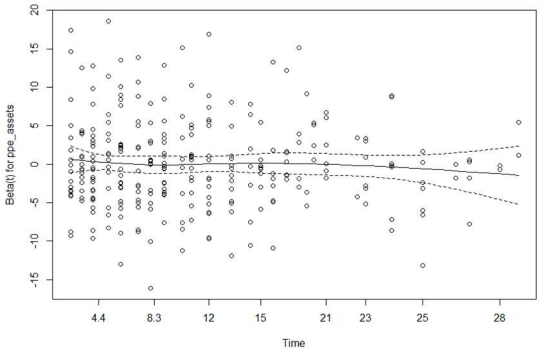
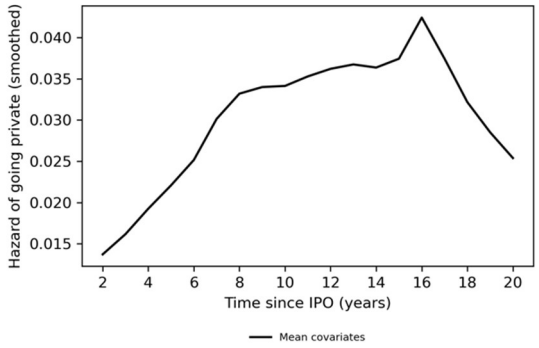


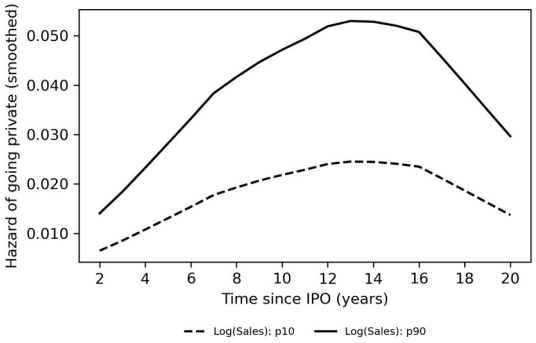
Figure 2: Hazard Functions

These figures present the hazard functions derived from Cox model specification (1). Panel A displays the hazard function when all covariates are fixed at their mean values. For each of the five covariates examined in Panel B–F, the hazard rate is shown at the 10th and 90th percentile values of that variable, while all remaining covariates are held at their means. The time axis measures years elapsed since IPO.

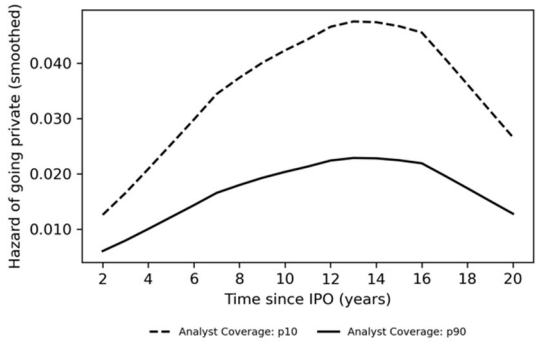
Panel A: All Covariates at Mean



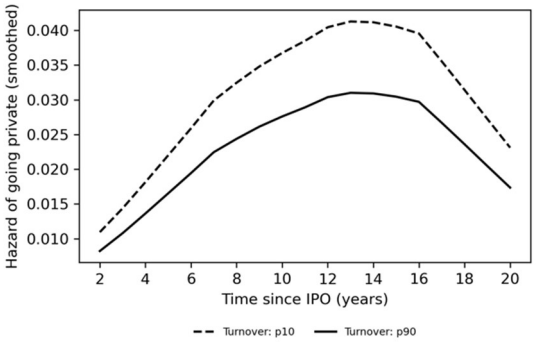
Panel B: Log (Sales)



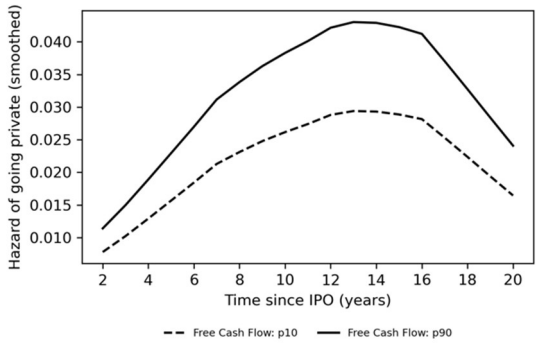
Panel C: Analyst Coverage



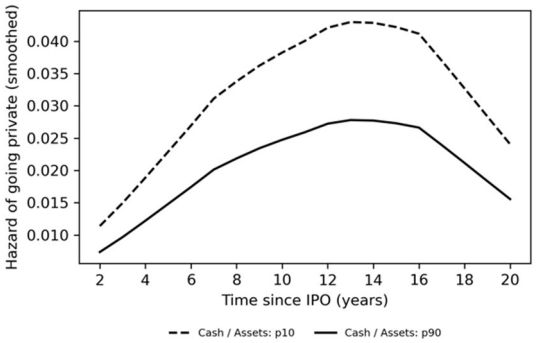
Panel D: Turnover



Panel E: Free Cash Flow / Assets



Panel F: Cash / Assets



AI Appendix

What AI tools have been used and how?

OpenAI ChatGPT 5.1 and Google Gemini 3 Pro have been used in the creation of this thesis. They improved the clarity of our text by rephrasing long, complicated sentences and by helping us with the structuring of arguments. Moreover, they also improved our code by fixing bugs and optimizing logic. No AI tools were used to generate data, empirical results, or draft full sections without human editing.

In what ways have these tools contributed to increasing the quality of the thesis?

Both tools helped us to improve the overall quality and readability of the text by suggesting easier sentence and argument structures. This way, the text is more easily understood by readers who may not have a deep understanding of our topic. Furthermore, they assisted in running the code with more stability and fewer errors, helping us to identify many edge cases.

What potential risks were found using AI and what measures were taken to reduce these risks?

The main risks identified when working with both AI tools were the hallucination of information, the obedience to the user, and their impreciseness. These three issues often went hand in hand. Both chatbots rarely challenged inputs and generally tried to be affirmative. Further, they often invented information and were not very precise.

To counteract these issues, we decided to challenge and understand exactly what they proposed and to counter-check all arguments based on our references and external sources. These issues were apparent when working both with text and code.

What are the insights gained from using AI tools in the writing process?

Often AI does not reach the level of precision required for academic research. Especially when working with academic articles, AI often hallucinates information to find arguments that fit with the rest of the content. A lot of manual cross-checking is required, eroding much of the time-saving that AI is supposed to bring. We found that AI enabled us to do our work better, but it did not do our work or thinking for us.