Christina E. Bannier, Corinna Ewelt-Knauer,
Mohamed Amin Khaled* and Jan-Philipp Kölling

The Symmetry and Asymmetry of Bidder and Target Termination Fees in Acquisitions

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Abstract: Termination fees have become a frequently employed non-price term in acquisition contracts. They allow the breaking party to walk-away from the transaction after paying a fee to the remaining party. While the inclusion of termination fees has been shown to increase contracting efficiency, the fee size has received only scant academic interest. This is surprising as termination fees are often asymmetric, i.e., of unequal magnitude for the bidder and the target. Based on an international dataset of 25,026 global acquisitions between 2012 and 2015, we find that bidder and target characteristics influence the structure of termination fees. More precisely, we show that target termination fees are higher if the target is insolvent. Bidder termination fees are higher, in contrast, if the bidder is an institutional investor. Our study thus contributes to understanding the influence of bargaining power on non-price terms by examining the structure of termination fees.

Keywords: acquisition, termination fee, bargaining power, institutional investor, insolvency, contract design

JEL Classification: D86, G32, G34

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***Corresponding author: Mohamed Amin Khaled**, Justus Liebig University Giessen, Giessen, Germany, E-mail: Mohamed.A.Khaled@wirtschaft.uni-giessen.de. <https://orcid.org/0000-0003-4442-203X>

Christina E. Bannier, Corinna Ewelt-Knauer and Jan-Philipp Kölling, Justus Liebig University Giessen, Giessen, Germany, E-mail: Christina.Bannier@wirtschaft.uni-giessen.de (C.E. Bannier), Corinna.Ewelt-Knauer@wirtschaft.uni-giessen.de (C. Ewelt-Knauer), Jan.P.Koelling@wirtschaft.uni-giessen.de (J.-P. Kölling)

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1 Introduction

Contracts in corporate acquisitions are shaped by a complex mixture of influencing factors that stem from the regulatory, economic, or corporate environment in which an agreement has been reached (Coates, 2015). The acquisition process can be divided into several separate steps that include the negotiation stage, the signing of the agreement, and the pre- and post-closing (Badawi & de Fontenay, 2019). The core design of a contract is largely determined during the negotiation stage where contract proposals are exchanged, evaluated, and – if accepted by both parties – will culminate in an acquisition agreement. However, how the respective parties end up with the final terms of a contract has long been a subject of interest for contract theorists that voice considerable disagreement regarding the determinants of contract design, i.e., the non-price terms¹ of contracts. In acquisition contracts, one key non-price term are termination fees. While still relatively uncommon in the late 1980s, termination fees have become a prominent contracting device over the past years (Jeon & Ligon, 2011; Officer, 2003). A termination fee ensures that the breaking party pays a predefined reimbursement to the other party for walking away from the negotiation.

Early research on termination fees predominantly focused on fees paid by the target. By ensuring a minimum return from the negotiation process to the bidder while decreasing the target's potential value to interested third parties at the same time, the provision of a target termination fee increases the likelihood

¹ In contract theory contract terms are categorized either as “price” or “non-price”. Non-price terms are for example collaterals, warranties or termination rights, while price terms constitute the payment within the transaction (Choi & Triantis, 2012).

of the acquisition and leads to higher deal completion rates (Bates & Lemmon, 2003; Gao, 2011; Officer, 2003). Bidder termination fees, also referred to as reverse termination fees, quite similarly protect the target against a potential bid failure, for instance, because of a lack of financial funds or legal constraints (Afsharipour, 2010).

While the literature has so far mostly considered the two types of termination fees in isolation, in practice, transactions such as the acquisition of the Shaw Group by the Chicago Bridge & Iron Company (CB&I) in 2012 show that bidder and target termination fees are often used in combination. Moreover, termination fee levels are not necessarily distributed equally between the deal partners. For instance, if CB&I had terminated the deal, it would have had to pay a \$64 million fee, whereas the Shaw Group would have been required to pay \$104 million.²

Based on the established law-and-economics scholarship of the last decades, deal parties will agree to the optimal size of termination fees (i.e., the “efficient” non-price terms) in order to be able to extract the most value via the price of the transaction (Choi & Triantis, 2012). The optimal fee size should therefore efficiently allocate the deal risk between bidder and target in the negotiation process. As targets face comparably high costs due to potential business disruptions, time-consuming due diligence, and the risk of being seen as “damaged goods” in case of deal failure, a higher bidder than target termination fee might be expected (Afsharipour, 2010; Coates, Palia, & Wu, 2018). On the other hand, as the bidding process is time- and resource-consuming, a bidder might seek a higher compensation if there is the risk that the due diligence reveals that the bidder’s initial valuation of the target has been too optimistic or if the target’s shareholders refuse approval (Jeon & Ligon, 2011). In this case, a higher target than bidder termination fee might be reasonable as the bidder is left with the expenses accumulated during the bidding process while the target can still elicit competing bids.

Practitioners and regulators, in contrast, often dispute the notion that contract terms, including termination fee sizes, will necessarily be efficiently determined and instead refer to the bargaining position of the respective parties to explain variations in contract terms and fee sizes (Choi & Triantis, 2012). In this context, some regulators have raised the concern that exceedingly high termination fee sizes might constitute a potential breach of the fiduciary duty by the directors of the respective deal parties to act in the shareholders’ best interest (Afsharipour, 2010). For example, before the ban on all deal protection

2 A case study of the acquisition of the Shaw Group by the Chicago Bridge & Iron Company (CB&I) that examines the situational characteristics that potentially influenced the asymmetric structure of the negotiated termination fees can be found in the Appendix.

devices in the UK in 2011, the size of target termination fees was specified to not exceed 1% of the deal value (Restrepo & Subramanian, 2017). The UK Takeover Panel justified the limit and subsequent ban of termination provisions by the potential of these deal protection devices to “deter competing offerors from making an offer, thereby denying offeree company shareholders the possibility of deciding on the merits of a competing offer” (Panel on Takeovers and Mergers, 2011).

To bridge this apparent gap between conventional theory and practice, the hypothesis of efficient contract design has been increasingly contested in the more recent law-and-economics literature. One key aspect targeted by these theoretical challenges is the postulated irrelevance of bargaining power in determining non-price terms, including the structure of termination fees. Choi and Triantis (2012) challenge this “irrelevance proposition” by identifying various situations in which bargaining power might considerably shift the structure of non-price terms.

By doing so, Choi and Triantis (2012) were the first to provide a theoretical framework that explains how bargaining power can potentially influence the non-price terms of a contract if the assumptions of the proposition are loosened to better reflect real-life conditions. Specifically, they present different bargaining game models that outline how different levels of relative bargaining power incentivize or mitigate inefficient contract design (i.e., the structure of non-price terms) if incomplete information of the respective deal parties and transaction costs are considered. Furthermore, the common partition of acquisition negotiations in two-stages – where the price terms are fixed in the first stage and the non-price terms are negotiated in the second stage – is identified as another potential avenue for bargaining power influence on non-price terms.³

Even though Choi and Triantis (2012), thus, present a theoretical challenge to the established “bargaining power irrelevance proposition”, they do not empirically investigate its validity. Indeed, despite its apparent practical relevance, the empirical evidence regarding the influence of bargaining power on non-price terms is still marginal and ambiguous.

This is where our paper contributes: we borrow from the theoretical challenges formulated by Choi and Triantis (2012) to establish testable hypotheses by relating firm and situational characteristics with the bargaining power of the respective

³ See Section 2 of this manuscript for a more detailed discussion of the theoretical work of Choi and Triantis (2012) regarding the situations that constitute potential avenues for bargaining power influence on non-price terms.

deal parties. This allows us to investigate the validity of the previous theoretical work by providing empirical evidence regarding the influence of the relative bargaining position on non-price terms. To do so, we relate the structure of a key non-price term provision in acquisition deals – bidder and target termination fees – with the relative bargaining power of the parties involved. Thus, we add to the understanding of determinants for non-price terms via (symmetric and asymmetric) termination fees by examining the interdependent relationship of bidder and target fees. We hypothesize – in line with Choi and Triantis (2012) – that the party with the higher bargaining power will be able to negotiate a more favorable termination fee structure, i.e., lower termination fees for itself and/or higher termination fees for the opposing side. To test this hypothesis, we identify situational characteristics of bidders and targets that proxy for bargaining power and examine how they are associated with the symmetry and asymmetry of termination fee structure. Similar to prior research (e.g., André, Khalil, & Magnan, 2007; Bates & Lemmon, 2003), we focus explicitly on bidder and target firms and not seller firms.⁴

Based on a global sample of 25,026 acquisitions from 2012 to 2015, we derive two sets of results. First, using a logistic regression, we find that the likelihood for evenly distributed (i.e., symmetric⁵) termination fees increases if the deal is a secondary buyout⁶ or if the bidder is located on the European continent. In contrast, asymmetric termination fees are more likely if the target is in insolvency proceedings, if shareholder approval is still pending, if the bidder is located in the United States, Canada, Great Britain, or Ireland or if the deal size is large. Second, using a multinomial logistic regression to split up asymmetric termination fees into higher target and higher bidder fees, respectively, we find that a higher bidder than target termination fee becomes more likely if the bidder is an

4 In certain M&A transactions the buyer acquires the target from another corporate entity – the seller. This is commonly found in cases where the target is a subsidiary of a parent firm. In that case, the bidder enters into negotiations with the seller firm to acquire the target. For example, in 2011 the International Airlines Group (IAG), the holding company of the British Airways, acquired the struggling British Midland International (BMI) from Lufthansa AG as the German Carrier became the majority owner of BMI two years prior. In this constellation, IAG acted as the bidder for the target BMI, while the seller was embodied by Lufthansa AG (Financial Times, 2011). On the other hand, in public mergers and acquisitions “seller” and “target” are often used synonymously if the target is not a subsidiary of another corporate entity.

5 We consider termination fees to be “symmetric” if both, target and bidder fees, have the exact same value. This includes for our main analysis deals with no termination fees.

6 A secondary buyout refers to a transaction where a private equity firm sells a target to another private equity firm (Wang, 2012).

institutional investor. In these cases, the bidder is at a higher risk of a failing transaction, reducing its bargaining power. If, on the other hand, the target is in insolvency proceedings, the target's bargaining power is eroded, thus making a higher target than bidder termination fee more likely and/or a higher bidder than target termination fee less likely. Following a series of robustness tests that includes restricting our sample to deals that explicitly negotiated termination fees, our results regarding the multinomial regression largely holds up. This finding emphasizes the importance of differentiating between the two possible types of asymmetric termination fees (*higher bidder than target fees* or *higher target than bidder fees*) when investigating the determinants of termination provisions.

Our findings contribute to the existing literature in three ways. First, we extend the general literature regarding termination rights in acquisitions by considering target and bidder termination fees conjointly (i.e., the combined structure of such fees). Prior literature focused either on target termination fees only (e.g., Coates & Subramanian, 2000; Levy, 2002) or considered bidder and target termination fees separately (Bates & Lemmon, 2003; Officer, 2003). Second, our results are derived from domestic and international cross-border acquisitions and thus not limited to specific regions. This contrasts with, e.g., Bates and Lemmon (2003), who focus on US targets only, or André, Khalil, and Magnan (2007), who consider solely Canadian public targets. Indeed, our findings give additional insights on cross-border, European, and Anglo-Saxon acquisitions. Third, prior research examined reasons for the inclusion of termination provisions and their effect on deal competition, deal completion, and deal premiums (Bates & Lemmon, 2003; Boone & Mulherin, 2007; Jeon & Lee, 2014; Jeon & Ligon, 2011; Officer, 2003). In contrast, our study examines how bidder and target characteristics support symmetric and asymmetric termination fee structures. In this respect, we regard the bidder's and target's situational characteristics as proxies for their bargaining position to stipulate symmetric or asymmetric termination fees. By doing so, we expand the law-and-economics literature on the effect of bargaining power on non-price terms and shed additional light on the validity of the "bargaining power irrelevance proposition" on contract design.

The remainder of the paper is structured as follows. Section 2 reviews the legal background and the theoretical and empirical works regarding the determinants of termination fee sizes. The section concludes with the derivation of our hypotheses. In Section 3, we describe our sample and explain our research design. Section 4 presents our results, and concluding remarks are provided in Section 5.

2 Theoretical Background and Hypotheses Development

2.1 Legal Background

Termination provisions outline both parties' rights and obligations involved in a merger or acquisition if the conditions necessary for closing the deal cannot be met or if the agreement is outright terminated by one side (Afsharipour, 2010). Such provisions regularly contain statements regarding termination or break-up fees. Termination fees serve as compensation for one side in case of premature cancellation of the agreement by the opposing side (Sneirson, 2002). They can be employed on both the bidder and the target side. The target pays target termination fees (alternatively: "termination fees") to the bidder if the target evokes the reasons for the termination of the agreement, while bidder termination fees (or: "reverse termination fees") oblige the bidder to pay a specified amount to the target if the bidder causes the termination of the deal.

Similar to a material adverse event or change clause that grant the right to terminate the deal in case of specified events (Denis & Macias, 2013), termination fees are generally employed in the period between the signing of the agreement and the closure of the deal (Afsharipour, 2010). Their primary motivation is to deter third-party bids by making alternative proposals costlier and the target firm less financially enticing (Sneirson, 2002). As the deterrence of third-party bidders may hinder the target from receiving more advantageous bids, the inclusion of such deal protection devices has been criticized and increasingly scrutinized in court as a potential violation of fiduciary duty (Choi, 2020).

Contractually, deal protection devices can be split into performance-related or damage-related provisions (Sneirson, 2002). In performance-related deal protection provisions, a party is required to engage or not engage in certain pre-specified actions. For example, during its acquisition by the Dutch-American Chicago Bridge & Iron Company (CB&I) the Shaw Group's board agreed to use "reasonable best efforts" to obtain shareholder approval for the acquisition agreement (SEC, 2012). Another performance-related provision required the Shaw Group, a construction company for nuclear power plants, to actively assist CB&I in receiving the necessary regulatory approval (SEC, 2012). The Shaw Group furthermore agreed to refrain from specific actions. For example, the Shaw Group's board was obligated

by the agreement to “conduct business in the ordinary course of business with past practice” (SEC, 2012), thus refraining the board from breaking up the business organization or selling the assets of the firm. The agreement also included a so-called “no-shop” provision that legally bound the board of the Shaw Group to “immediately cease any solicitation, knowing encouragement, discussions or negotiations with any person that may be ongoing with respect to a takeover proposal” (SEC, 2012).⁷

Deal protection devices that are damage-related effectively form contractual liquidated damage clauses (Sneirson, 2002). In mergers and acquisitions, liquidated damage provisions reimburse one party if the opposing party breaches an obligation in the agreement. In case of termination fees, this reimbursement constitutes a specified sum, and the breached duty are specific conditions that lead to premature termination of the deal.⁸ In the acquisition of the Shaw Group by CB&I, various conditions that could trigger the termination fees’ payment were outlined in the transaction agreement (SEC, 2012). For example, the Shaw Group had to reimburse CB&I if the target board withdrew its recommendation for shareholders to vote in favor of the proposed transaction, leading the bidder to terminate the transaction before the shareholder vote. Furthermore, CB&I was entitled to the termination fee if the Shaw Group terminated the transaction to solicit, negotiate, or accept alternative bids. Additionally, both CB&I and the Shaw Group had to reimburse the opposing side if approval from its respective shareholders could not be obtained, resulting in the non-consummation of the acquisition.

The example of the transaction agreement between CB&I and the Shaw Group shows how difficult it is to determine whether a given provision is performance-related or damage-related, as there may be considerable overlap. This distinction is nevertheless crucial because reimbursements for alleged non-performance of the opposing side are, in general, legally less enforceable than payments based on liquidated damages (Solórzano, 2009). Furthermore, there may be additional limitations concerning the size of termination fees. A high termination fee may, for instance, substantially limit the board’s ability to pursue outside opportunities,

⁷ It should be noted, however, that the restrictions outlined in “no-shop” provisions are not absolute. Usually, they include exceptions for financially superior proposals. Otherwise, a breach of fiduciary duty would leave the board of the target firm open to legal action (Sneirson, 2002).

⁸ For example, in small and medium sized enterprises (SME) termination fees are regularly used as a specific reimbursement for expenses incurred during due diligence if the bidder discovers potential discrepancies between the confidential information memorandum and the targets actual financial situation.

thus obstructing the director's fiduciary duty to act in the shareholders' best interest (Afsharipour, 2010). This is because the fee effectively reduces the target's value and hence makes the potential acquisition by alternative bidders comparatively costlier.

While there is no universally defined acceptable size of termination fees, their levels have increased steadily over the past years as they have gained popularity as a useful deal protection device (Choi & Wickelgren, 2019; Restrepo & Subramanian, 2017). Nevertheless, numerous legal challenges have forced the courts to consider what constitutes a "reasonable" size for termination fees. For example, before 2011, when the UK banned the use of all deal protection devices, the size of termination fees was limited to 1% of the deal value (Restrepo & Subramanian, 2017). Similarly, the Australian Takeovers Panel provides guidance that sets the generally acceptable size of termination fees at not exceeding 1%. Crucially, these limitations stipulated by the UK and the Australian Takeover regulations generally only apply to target termination fees (Restrepo & Subramanian, 2017). Bidder termination fees are, therefore, not affected by these restrictions limiting the use or size.

In contrast, there is no regulation in the United States and Canada as to the upper limit of termination fee sizes. However, based on the prevailing legal opinion and prior legal challenges, the acceptable range for termination fees can be estimated to be around 1–5% of the deal value (Jeon & Ligon, 2011).⁹ Comparably, in Chinese takeover regulations, there is also no upper limit for target or bidder termination fees. The rather intransparent regulatory and governmental transaction approval process by Chinese authorities seems to induce some Chinese firms to offer termination fees that exceed 10% of the deal value (Klingsberg, 2016). As these regulatory uncertainties threaten the consummation of the transaction, firms apparently use substantial termination fees to reallocate deal risk.

A similar effect can be observed in cross-border deals in which national security concerns constitute an additional and often significant barrier for deal consummation. For example, Chinese investments in the United States have been increasingly scrutinized by CFIUS (Committee on Foreign Investments in the US) that evaluates the effects of selected transactions involving a foreign

⁹ See for the leading case in Canada: *CW Shareholdings Inc. v. WIC Western International Communications Ltd. et al*, 1998 in which Ontario Superior Court affirmed the use of termination fees while simultaneously restricting the size of termination fees to an "appropriate amount" without defining a clear threshold.

party on US national security. This, in turn, led some Chinese bidders for US targets to offer substantially higher reverse termination fees than usually observed to alleviate the risks stemming from these additional regulatory uncertainties (Reuters, 2016).

2.2 Termination Fee Sizes

Termination fees as a deal protection device have been given considerable attention in the academic literature (Jeon & Lee, 2014). Researchers consent that termination fees can be an efficient device to overcome contracting problems between the bidder and the target (see, e.g., Bates & Lemmon, 2003; Chapple, Christensen, & Clarkson, 2007; Officer, 2003). Officer (2003) states that termination fees are an efficient compensation device incentivizing the disclosure of private information such as post-acquisition plans in the acquisition negotiation. This is because the bidder knows that a termination fee will be granted if an offer by a third party, who may free-ride on the information contained in the initial bid, is accepted instead. As the ensuing stronger information sharing between the initial bidder and the target may help convince the target's shareholders of the transaction's benefits, deal completion becomes more likely if such a target termination fee is offered (Officer, 2003). Bates and Lemmon (2003) further support this efficient contracting hypothesis by showing that target termination fees are more frequently used in complex deals with a high degree of information asymmetry between the bidder and target. They conclude that target termination fees insure against higher negotiation costs and higher risk of bid failure.

On the contrary, Rosenkranz & Weitzel, 2013 describe theoretically that termination fees may also result from the parties' relative bargaining positions in sequential negotiations with endogenous outside options. They explain that termination fees decrease in a party's bargaining power as there is less need for this party to signal a commitment to the acquisition. Thus, this bargaining power hypothesis assigns a role to both the bidder and the target in offering termination fees, depending on which party has most to lose from the acquisition failing. In this respect, the argument is related to Chapple et al. (2007), who explain that a bidder needs a strong negotiation position to request a target termination fee inclusion in the first place.

Traditionally, scholars in the law-and-economics field aligned more strongly with the efficient contracting hypothesis. The predominant position in the field postulates that while the distribution of the price terms in a given contract is influenced by the respective bargaining position of buyer and seller, the non-price

terms (i.e., the contract design) are efficiently determined by the involved parties independent of the relative bargaining position.¹⁰ In that view, one-sided non-price terms, e.g., termination fees, are not the result of inequality in bargaining power but indeed the “efficient” terms that both parties agreed to. This “irrelevance proposition”¹¹ (Choi & Triantis, 2012) of bargaining power on contract design argues that the involved parties will agree to non-price terms that maximize the joint net payoff of a transaction and use the price term instead to distribute this payoff (or “surplus”) proportionally to the bargaining position of both sides. Following this rationale, one-sided non-price terms are efficient and agreed to by both sides if the benefit of the addition of these terms for one side is larger than the cost for the opposing side. According to the irrelevancy proposition, bargaining power only determines the partition of the joint payoff and not the structure of the efficient terms that both sides agree to.¹²

However, during the last decade, the irrelevance proposition has come under increased scrutiny in the law-and-economics field. Practitioners have regularly noted the importance of bargaining power to explain variations in contract design and thus put the central assumption of the proposition in question. This practitioners’ perspective on the relationship between bargaining power and contract design is further corroborated by the model stock purchase agreement that the American Bar Association (ABA) published as a guideline for designing the first draft of a stock acquisition agreement. In its commentary, the ABA points out the substantial influence the bargaining power of the respective parties may wield on the specific contract terms. In detail, the ABA notes that with an increase in a target’s outside opportunities, the terms illustrated in the model agreement might be too bidder-friendly. In contrast, if the target’s bargaining position is weak, e.g., because of financial difficulties, the ABA acknowledges that the outlined terms could potentially shift even further in favor of the bidder in an actual acquisition agreement (American Bar Association, 2010). Consequently, this discrepancy

10 See for example Schwartz and Scott (2003).

11 “Irrelevance proposition” in this paper is referring exclusively to the proposition common in the law-and-economics scholarship that contract design is not influenced by bargaining power as described by Choi and Triantis (2012) and is not to be confused with the more common irrelevance proposition of capital structure by Modigliani and Miller (1958).

12 Choi and Triantis (2012) further distinguish the “bargaining power irrelevance proposition” into a strong version and weak version. In the strong version of the proposition the bargaining position exclusively effects the price term, while in the weak version bargaining power might influence non-price terms but this influence does not obstruct the parties from still reaching efficient terms. In the context of this paper “irrelevance proposition” refers to the strong version, i. e., the presumed non-influence of non-price terms by bargaining power, as this form constitutes the prevalent opinion in the law-and-economics field.

between theory and practice has led to an emerging stream of theoretical work that modifies or outright challenges the irrelevancy proposition.

Choi and Triantis (2012) show theoretically how bargaining power can potentially influence non-price terms in various situations when the implicit assumptions of the irrelevancy proposition are loosened to better reflect real-world conditions. These assumptions of the irrelevancy proposition include no transaction costs and perfect information of all parties involved. In deals with information asymmetries, the unequal distribution of bargaining power incentivizes non-price terms as tools of screening and signaling to mitigate the potential for adverse selection and moral hazard instead of maximizing the joint payoff. Choi and Triantis (2012) demonstrate this via the example of adverse selection in the credit market. In a credit market where the bargaining power is skewed towards the lender (e.g., because of market conditions that reduce the availability of loans – like a credit crunch) the interest rate, i.e., the price term of a loan contract, is expected to rise. In turn, the higher interest rate shrinks the pool of low-risk borrowers and incentivizes the remaining (higher risk) borrowers to take more risks to compensate for the higher interest burden. As the lender cannot determine the risk-level of all remaining borrowers in the absence of perfect information, the lender can reduce the risk-level of the pool of borrowers by reducing interest rates and thus enticing low-risk borrowers back into the credit market. Alternatively, however, the lender can also utilize non-price terms, like collateral, warrants or covenants, as screening devices to filter out high-risk borrowers and reduce the risk-level of the pool of potential borrowers in the process. Following this rationale, the bargaining positions of both parties influence not just the price terms, but also the structure of the non-price terms to reduce the risk of adverse selection.

Additionally, the typical negotiation structure of acquisitions constitutes another potential avenue for bargaining power influencing non-price terms (Choi & Triantis, 2012). Corporate acquisitions frequently follow a multiple-stage model of negotiations where the price is determined first. At the same time, various non-price terms, including termination provisions, are negotiated in the second stage (Freund, 1975). As the price is already settled and thus unchangeable¹³ in the second stage, the negotiations regarding the non-price terms become distributional. This is because there is little incentive for either party to agree to the “efficient” terms, i.e., the terms that maximize the joint value of the transaction, when the primary way of obtaining this value, i.e., the price, is not adjustable

¹³ At the very least, a renegotiation of the price in this stage of negotiation would be costly and could threaten the successful consummation of the transaction which in turn incentivizes the parties to accept the price as settled and instead use the second stage to negotiate the most favorable non-price terms (Choi & Triantis, 2012).

anymore. Consequently, both parties may try to utilize their respective bargaining positions in this second stage to negotiate non-price terms that create the most value for themselves instead of agreeing to the terms that would maximize the joint surplus of the transaction (Williams, 2017).

In summary, the proposition that bargaining power only influences the price term of a contract but not the non-price terms appears dubious if information asymmetries and transaction costs are included in the theoretical considerations. Furthermore, the two-stage negotiation structure typical in corporate acquisitions constitutes another challenge for this “irrelevance proposition”. This is because it incentivizes the involved parties to utilize their bargaining position to negotiate the most one-sided non-price terms possible that potentially differ from the value-maximizing “efficient” terms.

Even after the theoretical challenges to the irrelevance proposition posed by Choi and Triantis (2012), surprisingly few studies tried to examine the validity of the proposition empirically with overall ambiguous results.¹⁴ Williams (2017) examines the influence of bargaining power on venture financing contracts and provides empirical evidence against the irrelevance proposition. Specifically, Williams (2017) finds that the bargaining position the respective parties possess, as proxied by the total supply of venture capital in the U.S., influences price and non-price terms of venture financing contracts. Badawi and de Fontenay (2019) investigate a possible first-drafter advantage on merger contract design. They follow the practitioners’ view that the party that provides the first draft of a merger contract possesses an advantageous bargaining position. By doing so, they find evidence that a first-draft advantage exists for difficult to monetize non-price terms, like go-shop provisions, while finding no such relationship for both types of termination fees.

We expand these previous studies to examine the influence of bargaining power on the symmetric and asymmetric structure of termination fees in majority acquisitions. Following Choi & Triantis, 2012; Rosenkranz & Weitzel, 2013, we assign the better bargaining position to the party that has less to lose from the acquisition failing based on related firm and situational characteristics. We do so by identifying bidder and target characteristics that likely relate to the specific bargaining position of the respective deal parties instead of using broader market trends. We use termination fees to test the influence of bargaining power on contract design as they provide a prime example of a non-price term that, due to its clearly monetizable payoffs, will likely be subject of negotiations by the parties

¹⁴ See Choi and Triantis (2012) for a detailed discussion of the few empirical works regarding bargaining power and non-price terms done prior to 2012. Choi and Triantis conclude that empirical evidence with regards to the irrelevancy proposition is “thin but mixed” (p. 1669).

themselves and not referred to the legal counsel (Badawi & de Fontenay 2019). Furthermore, termination fees can amount to a substantial percentage of the deal value¹⁵ and are thus likely considered an important contract term and an area of extensive negotiations in corporate acquisitions.

We examine target and bidder termination fees conjointly, i.e., the symmetric or asymmetric structure of both fees, because there are also negotiated conjointly. Thus, the size of bidder termination fees may influence the size of target termination fees (and vice versa). Trying to evaluate the determinants (e.g., bargaining power) of bidder and target termination fees in isolation ignores a potential critical influence on the size of said termination fees. Examining the asymmetric structure does not just implicitly include the size of each termination fee but also takes the reciprocal effect of termination fee negotiations into account. Consequently, this approach provides a better reflection of the bargaining process both parties are engaged in to determine the size of the respective termination fees.

Based on the theoretical derivation outlined previously and building on the existing empirical evidence, we formulate the following research question for our empirical analysis:

RQ: Will the party with the greater bargaining power be able to negotiate a more favorable, i.e., a lower, termination fee relative to the opponent?

2.3 Bidder and Target Characteristics and their Association with Symmetric and Asymmetric Termination Fees

To answer our research question, we will derive immediately testable hypotheses that relate bidder and target characteristics and situational deal characteristics with the two parties' relative bargaining position. We postulate that any characteristic that reduces a party's bargaining position – i.e., that increases its commitment to the deal – raises the termination fee that this party offers in the negotiation process. Accordingly, if the bargaining power is evenly distributed, no side gains an advantage and termination provisions should be symmetric. These symmetric termination fees result either by both parties agreeing to termination fees of the same size or by no party being able to negotiate the inclusion of termination fees for the opposing side in the first place. By not including termination fees for the opposing side a deal party can disadvantageously affect its own

¹⁵ For example, in 2011 when regulatory concerns prevented the proposed takeover of T-Mobile USA, AT&T was obliged to pay a termination fee amounting to \$4 billion that represented 10.2% of the deal value (The Wall Street Journal, 2011).

position in a given deal. For example, the initial acquisition terms of the proposed takeover of Sun Microsystems by IBM in 2009 included no termination fees. This non-existence of bidder termination fees allowed IBM to terminate the deal after price renegotiations stalled without incurring a financial penalty. Just a month later, the withdrawal of IBM and, subsequently, the lack of competing bids prompted Sun Microsystems to accept a much lower takeover price offered by Oracle (Butler & Sauska, 2014). In this case, the inclusion of bidder termination fees could have increased the commitment of the initial bidder, IBM, to refrain from renegotiating price terms or, at the very least, compensated Sun Microsystems financially for the bidder induced termination of the deal. On the other hand, a lack of target termination fees in acquisitions can disadvantageously affect the bidder's position as it incentivizes the target – due to a lack of financial repercussions and in hope of a better offer – to encourage and consider competing bids. In conclusion, the side with the greater relative bargaining power in a deal will therefore likely use their advantageous bargaining position to negotiate the inclusion of termination fees for the opposing side and thus a more favorable termination fee structure for itself. Consequently, the non-inclusion of termination fees for the opposing deal party by either side may hint at a balanced distribution of bargaining power as both parties agree to relinquish a potentially advantageous deal position by not including termination fees. From this bargaining power perspective, we thus consider the situation where no side is able to negotiate the inclusion of termination fees for the opposing side to be an implicit symmetrical termination fee structure. We identify the following three situational characteristics that we associate with an uneven (even) distribution of bargaining power increasing the likelihood of asymmetric (symmetric) termination fees.

2.3.1 Institutional Investors

Institutional investors such as pension funds or mutual funds typically acquire a majority stake in an acquisition via a (leveraged) buyout. Institutional investors usually focus on specific sectors and devote a significant amount of time to select promising investment targets (Barber & Odean, 2008). Therefore, a belated retreat from an advanced acquisition plan reveals an inefficient usage of the firm's internal resources (Muehlfeld, Sahib, & van Witteloostuijn, 2007) and severely harms its reputation (Luo, 2005), which is particularly crucial since selling/acquiring targets is a repeated game. As institutional investors hold much larger stakes in companies than private investors, selling a target company can be difficult because the set of interested buyers tends to be limited (Schnatterly, Shaw, & Jennings, 2008). Furthermore, institutional investors are, in contrast to strategic buyers, generally not able to generate synergies from the acquisition of the

target (Gorbenko & Malenko, 2014), which puts them in a disadvantaged bargaining position compared to industrial bidders. For all these reasons, institutional investors need to be highly committed when acquiring a company, which reduces their likelihood of backing off from the planned transaction and diminishes their bargaining power in the acquisition process. Following Choi and Triantis (2012) an unequal bargaining position evokes an incentive to use the non-price terms of a contract as a signal or screening device. In this case, a higher bidder termination fee may be used to signal the institutional investor's perseverance and commitment to the deal to deter further competitors and increase the likelihood of deal completion. The signal is especially strong because the bidder's due diligence in the acquisition process frequently reveals more damaging information about the target than has been publicly available (Puranam et al., 2006). By accepting an unfavorable termination fee structure following the due diligence process, the institutional investor can send a strong signal of being committed to acquiring the target. Consequently, institutional investors should be willing to offer a higher bidder termination fee and accept lower target termination fees leading to asymmetrically higher bidder than target termination fees:

H1: If the bidder is an institutional investor, an asymmetric termination fee structure becomes more likely with a higher bidder than target termination fee.

2.3.2 Insolvency Proceedings

As a consequence of a considerable reduction in a firm's financial resources, insolvency leads to strong sales pressure for several reasons. First, banks tend to refrain from providing further liquidity to a firm close to or in default and favor a fast liquidation over a lengthy restructuring of the insolvent company (Bris, Welch, & Zhu, 2006). Second, insolvencies can result in court supervision or lengthy court trials, which hamper efficient management of the firm's operations (Pastena & Ruland, 1986). Third, by selling the company with continuing business operations, employees and suppliers benefit, and shareholders ensure that their stock retains at least some value. Fourth, Pastena and Ruland (1986) have shown that the interest in acquiring a financially distressed target decreases along with the target's debt levels so that an insolvent target is likely to receive only a limited number of competing bids. The sales pressure and the lack of outside opportunities erode the target's bargaining position that should be reflected in the contract design (i.e., the non-price terms), according to Choi and Triantis (2012). Specifically, the target in insolvency proceedings should be very likely to accept

a high target termination fee to establish its commitment to the successful consummation of the potential takeover as such a target has more to lose from the abandonment of the agreement and thus possesses an increased interest in the successful deal closure due to the increased sales pressure and the lack of outside opportunities.

Simultaneously, even though the bidder enjoys a strong bargaining position, in this case, acquiring an insolvent target is not without risk compared to outside investments. In-depth due diligence to understand the root causes for the target's financial distress will certainly be necessary and drive up the bidder's costs (Allred, Boal, & Holstein, 2005). To compensate the bidder for these costs, an insolvent target should be willing to agree to a lower bidder termination fee to increase the value of the bidder's walk-away option. In conclusion, we argue that the bidder is in a much more powerful bargaining position than the insolvent target with the corresponding effect on the termination fee structure:

H2: If the target is in insolvency proceedings, an asymmetric termination fee structure becomes more likely with a higher target than bidder termination fee.

2.3.3 Secondary Buyouts

Secondary buyouts refer to deals between two institutional investors. Specifically, it describes deals in which a private equity firm sells a previously acquired firm to another private equity firm¹⁶ (Wang, 2012). Avoiding lengthy negotiations about asymmetric termination fees might be necessary to both parties for several reasons. First, institutional investors might be pressured to find a timely exit via a secondary buyout once an initial public offering or trade sale has failed (Achleitner & Figge, 2014). Second, institutional investors' access to future

¹⁶ For example, in 2012 the private equity firm Carlyle Group LP acquired Getty Images Inc., a US-based provider of photographic assignment and digital asset management services, from another private equity firm – Hellman & Friedman LLC – for \$3.3 billion. Four years earlier Hellman & Friedman LLC acquired a majority stake in Getty Images Inc. via a leveraged buyout (LBO) for total of \$2.4 billion. A leveraged buyout is a largely debt-financed purchase of a target firm in which the acquired assets are used as a collateral for the outstanding loans. In case of a public target the LBO is often accomplished with the goal to privatize and restructure the acquired firm (Kaplan & Stromberg, 2009) as was the case with Getty Images Inc. that was taken private by Hellman & Friedman LLC in 2008. In a secondary buyout the acquired target is not retaken public after a restructuring period but instead sold to another private equity firm. Consequently, Getty Images Inc. was still a private firm after Carlyle Group LP acquired the firm in a second LBO from Hellman & Friedman LLC (Reuters, 2018).

funding depends on their investment track record and reputation. Private equity investors, in particular, face increasing sales pressure once a fund's life-time comes to an end, making a divestment necessary (Jelic & Wright, 2011). Thus, before a new fundraising round, the institutional investor needs to find a quick exit. Therefore, they may prefer to avoid lengthy negotiations about asymmetric termination fees in a secondary buyout. Even successful institutional investors are affected by the need to exit quickly as they tend to face a severe problem of unspent capital ("dry powder"), which may spoil their investment track record (Arcot, Fluck, Gaspar, & Hege, 2015). Finally, avoiding lengthy negotiation processes in a secondary buyout may be particularly important when liquidity needs are high, for instance, because of a large number of attractive investment opportunities arising (Wang, 2012).

Altogether, institutional investors will repeatedly be under pressure to act quickly on secondary buyout markets to balance their investment opportunities and liquidity needs. The growing importance of an efficient secondary buyout market is also reflected by the fact that two or more transactions of the same investor at the same time are no longer uncommon (Wright, Renneboog, Simons, & Scholes, 2006). Lengthy negotiations about asymmetric termination fees should be expected to hamper the efficiency of transactions. Instead, symmetric fee structures contribute to faster and leaner deal closures. Finally, it should be noted that institutional investors meet on equal footage, with similar objectives and similar expertise because acquiring and selling targets is part of their daily work routine. As there is a high likelihood that both parties will interact again concerning other deals, prolonging deals unnecessarily could reduce institutional investors' reputation in this market. These aspects should keep their relative bargaining powers on an equivalent level. According to Choi and Triantis (2012), the contract design should reflect this level playing field regarding the bargaining position of both parties and the likelihood for an asymmetrically skewed termination fee structure should consequently be reduced in favor of a more symmetrical termination fee structure.

In conclusion, we argue that institutional investors in secondary buyouts benefit from a "friendly" negotiation that allows quick transactions via symmetric termination fee structures.

H3: If the acquisition is a secondary buyout, an asymmetric termination fee structure becomes less likely than a symmetric fee structure.

3 Sample Description and Research Design

3.1 Data Source and Sample Selection

Our empirical analysis is based on a sample of secondary data from the Merger-market database. The sample selection process is displayed in Table 1. The final sample consists of 25,026 majority acquisitions from 2012 to 2015.¹⁷ We choose the time period to avoid interference with any late effects of the financial crisis. Indeed, a sharp drop in M&A activity was observed in the years following the financial crisis 2007/2008 (Grave, Vardiabasis, & Yavas, 2012). From the initial dataset of 32,402 M&A deals, we exclude 4276 minority deals, 68 mergers, and four deals with implausible information. We follow Officer (2003) and consider only those majority acquisitions in which the bidder aims to control at least 50% of the target. Implausible deals include one acquisition that was reported twice and two deals whose termination fees were reported at implausibly high levels (1.575 and 55%). As a reference, Officer (2003) reports the average target termination fee to be 3.80% of the total deal value and Bates and Lemmon (2003) indicate it to be between 2.70% and 3.20%. Further 3028 deals are excluded due to missing data for our

Table 1: Sample selection.

	Sample	No. of deals
	Initial sample from 2012 to 2015 (completed and withdrawn majority Mergers & Acquisitions)	32,402
–	Minority deals	4276
–	Missing data	3028
–	Mergers	68
–	Implausible deals	4
=	Final sample from 2012-2015	25,026

Derivation of final sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6227 trillion for the period of 2012–2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company. Implausible deals include one acquisition that was reported twice (closure date December 30, 2014). Consequently, we excluded both reported acquisitions (–2) from our sample. We further excluded one deal (–1) whose termination fee was reported at 1.575% of the deal value (closure date January 8, 2014) and one deal (–1) with an implausibly high termination fee of 55% of the deal value (closure date March 26, 2014). As a reference, Officer (2003) reports the average target termination fee to be 3.80% of the total deal value and Bates and Lemmon (2003) reports it to be between 2.70 and 3.20%.

¹⁷ The period after 2015 was not considered because of data availability reasons. In general M&A market activity remained relatively stable in the period between 2016 and 2019 but recorded a sharp downturn in number of deals and overall deal value in the first half of 2020 as a result of the COVID-19 induced general economic uncertainty (Bloomberg, 2020), which needs to be accounted for in any future empirical work of the same manner.

independent variables. We follow common research practice and include both completed and withdrawn deals in our sample (e.g., Bates & Lemmon, 2003; Boone & Mulherin, 2007; Officer, 2003).

3.2 Operationalization of Variables

The dependent variables in our analyses are based on the termination fee structure. We first create an indicator variable to distinguish between symmetric termination fees and asymmetric termination fees in a logistic regression analysis. We create a new dependent variable in a second step where we differentiate between cases where the target or bidder fee is higher in a multinomial regression approach. Accordingly, we assign a value of zero for a symmetric fee structure, i.e., if target and bidder termination fees are of equal size. For our logistic regression, a value of one in our dependent variable is assigned for all asymmetric termination fees (regardless of the target or the bidder fee being higher). For the multinomial logistic regression, a value of one characterizes an asymmetric fee structure where the target termination fee is higher, and a value of two is assigned for an asymmetric fee structure where the bidder termination fee is higher. Categories 1 and 2 hence refer to the two types of asymmetric termination fees.

To test hypothesis H1, we focus on the independent dichotomous variable *INVESTOR*, which takes the value one for all deals where the bidder is an institutional investor on a primary market and zero otherwise. To compute this variable, we build on the Mergermarket's deal classification and identify all deals in which an institutional bidder either acquires a majority stake in the target company (Institutional Buy-In) or fully acquires the target (Institutional Buy-Out). H2 relates the termination fee structure to a target being insolvent. To compute the dichotomous variable *INSOLVENCY*, we identify all deals marked as a sale under insolvency by Mergermarket. H3 refers to buyouts in the secondary market. Based on the Mergermarket classification, we identify all secondary buy-out deals and code the dichotomous variable *SECONDARY* accordingly.

Our model includes several control variables: deal characteristics and target/bidder characteristics, time, and industry effects. First, we control for deal size, following prior studies that investigated the effect of either the target's equity value (e.g., Bates & Lemmon, 2003; Officer, 2003) or the deal value (e.g., Boone & Mulherin, 2007; Coates & Subramanian, 2000) on termination fees. Except for Boone and Mulherin (2007), who find no relationship between deal size and termination fees, all other studies find a positive relationship (Boone & Mulherin, 2007). We define *LN_DEAL VALUE* as the acquired equity stake plus 100% of the target's net

debt. Including 100% of the net debt is reasonable as the sample includes only majority stake acquisitions.

Second, prior studies provide evidence that cross-border deals can affect the usage of termination fees. Very and Schweiger (2001) argue that cultural and language differences might place an additional burden on collecting the necessary information to evaluate the benefits and risks of acquisition in cross-border deals. Further, country-specific tax and governance systems can cause additional problems in an acquisition process (Erel, Liao, & Weisbach, 2012). Rossi and Volpin (2004) indicate that cross-border deals heighten information asymmetries and therefore influence the use of deal protection devices such as termination fees. Additionally, as abnormal returns are higher in cross-border than in domestic deals (Danbolt & Maciver, 2012), increasing the likelihood of deal closure via termination fees becomes even more critical. Consequently, we add *CROSS BORDER* equaling one for cross-border and zero for domestic deals.

Third, we include the dummy variable *AUCTION* as a proxy for takeover competition (yes = 1, no = 0) to control for potential effects on the termination fee structure. The variable *AUCTION* is restricted to public auctions, which describes an auction process triggered by the announcement of the seller or target that the firm is for sale. The following auction process generates the takeover competition, and the firm is usually sold to the highest bidder. Whereas Coates and Subramanian (2000) and Officer (2003) find a negative effect of takeover competition on the usage of termination fees, Boone and Mulherin (2007) find a positive effect.

Fourth, the dichotomous variable *PUBLIC* is included to control for pending shareholder approval that potentially reduces the bidder's or target's bargaining power and thus results in deals where asymmetric termination fees are more likely. The variable *PUBLIC* is coded as one if shareholder approval from any acquisition party is needed and zero otherwise.

Fifth, we control for management buyouts (*MBO*), where the acquiring management is likely to possess superior information compared to other bidders. To benefit from this, the management needs to make sure that the deal is successful. To protect its special bidder status, the management is likely to include deal protection devices such as termination fees in MBOs (Povel & Singh, 2006). We therefore add the dummy variable *MBO* to our list of controls.

Sixth, academic literature has shown that higher deal completion rates can be associated with termination fees (Bates & Lemmon, 2003). Officer (2003) finds that deals with target termination fees are 20% more likely to be completed. Therefore, we also control for the effect of terminated or withdrawn deals on symmetric and asymmetric termination fees. Consequently, we control for variable *COMPLETE*, which equals one for completed acquisitions and zero for withdrawn acquisitions.

Seventh, we control for differences between the Anglo-Saxon common law and continental European civil law system, which appear to be most relevant

concerning aspects of investor protection (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000) and regarding other capital market characteristics (Cernat, 2004). Furthermore, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) show that cross-border acquisitions' efficiency increases when the bidder is located in a common-law country. Accordingly, we use the variable *EUROPE* that indicates whether a bidder is located in Europe (1 = yes, 0 = no), where we consider all continental European nations: *Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, and Ukraine*. The indicator variable *ANGLO*, in contrast, refers to a bidder location in Anglo-Saxon countries consisting of the *USA, Canada, Great Britain, and Ireland* (1 = yes, 0 = no). Here, we follow Gugler and Yurtoglu (2004) and include Great Britain and Ireland in the Anglo-Saxon dummy variable.

Eighth, we control for the payment method and deal premium paid by the bidder as these constitute important deal characteristics (Che & Lewis, 2007) that could potentially influence the structure of termination fees. The variable *CASH* equals one if the deal is financed entirely in cash (i.e., without an equity component) and zero otherwise. Correspondingly, the variable *EQUITY* equals one if the deal is financed entirely with equity (i.e., without a cash component) and zero otherwise. *DEAL PREMIUM* is calculated as a percentage difference between the price paid for the target and the target stock price one-day and one-month before the announcement.

Ninth, we include several deal characteristics that capture the deal's competitive situation as third-party bidders offer outside opportunities for targets that in turn provide them with more leverage in the bargaining process. In detail, *CONTESTED HOSTILE* equals one if there is more than one bidder and the transaction bid is hostile and zero otherwise. *CONTESTED RECOMMEND*, on the other hand, equals one, if there is more than one bidder and the board of the target has recommended the transaction bid. Lastly, *UNSOLICITED HOSTILE* equals one if the board of the target has not recommended the deal at the announcement, and there is only one bidder and zero otherwise.

We also control for industry effects as the industry can influence the bargaining power if industries are dependent on each other (Ahern, 2012) and follow common practice by controlling for time effects (André et al., 2007; Bates & Lemmon, 2003).

Finally, to accommodate our international sample's economic, regulatory, and institutional variety, we include numerous macroeconomic and governance-related variables to control for these differences between countries. A detailed list and description of these variables is provided in the Appendix.

3.3 Sample Description

Table 2 Panel A shows the annual distribution of the number of transactions and the deal values and the employment of target and bidder termination fees. The sample contains a total number of 1184 target termination fees and 734 bidder termination fees. On average, 4.73% of all transactions in our sample use a target termination fee, whereas 2.93% employ a bidder termination fee. Furthermore, 601 deals (or 2.40% of all transactions) employ both, target and bidder termination fees, at the same time. Similarly to Bates and Lemmon (2003), we find that the deal value of acquisitions with termination fees is higher than the value of those without. On average, 22.77% of the total deal value is tied to a target termination fee, while 15.59% of the deal value makes use of a bidder termination fee.¹⁸ In accordance with Officer (2003) and Bates and Lemmon (2003), target termination fees are hence employed more frequently and in larger deals than bidder termination fees in our sample. Interestingly, bidder termination fees appear to have become more common over time as the ratio of employment of bidder to target termination fees is 0.62 in our sample while it was 0.26 in the study by Officer (2003) which covered the earlier time period from 1988 to 2000.

Table 2 Panel B shows the annual distribution of symmetric and asymmetric termination fees in our sample. 96.37% ($n = 25,026$) of the acquisitions in our sample show implicit or explicit symmetric bidder and target termination fees.¹⁹ Symmetric termination fees account for only 80.60% of the total deal value, however. Asymmetric fee structures are hence predominantly employed in comparatively larger acquisitions. Deals with higher target than bidder termination fees are more than twice as often stipulated (2.52% of all deals, $n = 631$) than deals featuring higher bidder than target termination fees (1.11% of all deals, $n = 277$). Concerning transaction sizes, the former account for 11.40%, the latter for 8.00% of the total deal value in the sample. Though target termination fees hence

18 For a regional breakdown of the relative size of termination fees on deal value see Table 2 Panel F in the Supplementary Material. In brief, relative bidder and target termination fees are the highest for bidders and targets outside of Europe and North America. On the other hand, relative bidder and target termination fees are the lowest for bidders and targets from Europe.

19 Note that, as we are interested in the structure of termination fees, we include deals with no termination fees into our category for symmetrical termination fees. This follows the logic that, if both parties are not able to negotiate the inclusion of termination fees for the opposing side and thus agree on no termination fees (i.e., give up the potential financial advantage from including termination fees), then these are – from a bargaining power perspective – implicitly symmetrical termination fees. As a robustness test, we nevertheless exclude all deals where neither the target nor the bidder negotiated a termination fee and rerun all our analyses. The results can be found in the Supplementary Material.

Table 2: Sample distributions of termination fees.

Panel A: Yearly distribution of target and bidder termination fees						
Year	Total deals		Deals with target termination fees		Deals with bidder termination fees	
	Obs.	Value (EUR m)	Obs.	Value (EUR m)	Obs.	Value (EUR m)
2012	5646	1,116,647	271	244,477	153	111,643
%	22.56	17.93	22.89	17.24	20.84	11.50
2013	5816	1,352,752	276	270,763	179	201,455
%	23.24	21.72	23.31	19.10	24.39	20.75
2014	7243	1,586,424	310	315,447	219	313,083
%	28.94	25.48	26.18	22.25	29.84	32.26
2015	6321	2,171,185	327	587,237	183	344,455
%	25.26	34.87	27.62	41.42	24.93	35.49
Total	25,026	6,227,008	1184	1,417,924	734	970,636
%	100	100	100	100	100	100

Notes: Yearly distribution in number, value and percentage of total deals as well as deals with target and bidder termination fees. Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6,227 trillion for the period of 2012 to 2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company.

Panel B: Yearly distribution of total deals and deals with symmetric and asymmetric termination fees

	Deals without termination fees		Deals with symmetric termination fees		Deals with higher target than bidder termination fees		Deals with higher bidder than target termination fees	
	Obs.	Value (EUR m)	Obs.	Value (EUR m)	Obs.	Value (EUR m)	Obs.	Value (EUR m)
2012	5354	859,853	79	29,714	151	159,202	62	67,878
%	22.58	18.71	19.32	7.03	23.93	22.43	22.38	13.62
2013	5515	1,060,930	104	86,086	132	106,166	65	99,570
%	23.26	23.08	25.43	20.36	20.92	14.96	23.47	19.98
2014	6890	1,168,857	131	121,710	151	120,536	71	175,321
%	29.06	25.43	32.03	28.79	23.93	16.98	25.63	35.19
2015	5950	1,506,575	95	185,301	197	323,863	79	155,446
%	25.10	32.78	23.23	43.83	31.22	45.62	28.52	31.20
Total	23,709	4,596,215	409	422,811	631	709,767	277	498,235
%	100	100	100	100	100	100	100	100

Notes: Yearly distribution in number, value and percentage of deals with no termination fees and with symmetric and asymmetric termination fees. Symmetric termination fees: Agreement on termination fees of equal magnitude. Asymmetric termination fees: Agreement of unequal termination fee magnitudes being the case if one party needs to pay more than the other if withdrawing from the deal. Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6,227 trillion for the period of 2012 to 2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company.

Table 2: (continued)

Panel C: Industry distribution of total deals and deals with symmetric and asymmetric termination fees

	Deals without termination fees		Deals with symmetric termination fees		Deals with asymmetrically higher target than bidder termination fees		Deals with asymmetrically higher bidder than target termination fees	
	Obs.	Value (EUR m)	Obs.	Value (EUR m)	Obs.	Value (EUR m)	Obs.	Value (EUR m)
Agriculture	267	31,677	4	923	4	6265	–	–
Automotive & transportation	1143	227,042	7	10,390	15	12,164	17	13,079
Construction & manufacturing	1304	166,381	11	10,523	11	6136	15	14,433
Consumer goods	3662	608,862	37	43,294	60	72,850	39	75,922
Financial industry	2448	647,908	69	64,611	142	65,739	32	70,754
Industrials	2520	367,215	32	5168	32	51,806	17	18,419
Knowledge industry	5220	846,368	78	117,054	168	249,275	75	195,617
Mining	502	123,117	46	8351	71	12,848	11	6946
Other	742	117,685	8	2950	11	10,351	11	9257
Power & utilities	2418	742,607	74	119,608	63	141,089	19	33,802
Services	2099	242,227	23	8935	21	15,818	17	15,261
Telco & media	1384	475,126	20	31,004	33	65,426	24	44,725
Total	23,709	4,596,215	409	422,811	631	709,767	277	498,215

Notes: Yearly distribution in number, value and percentage of deals with no termination fees and with symmetric and asymmetric termination fees. Symmetric termination fees: Agreement on termination fees of equal magnitude. Asymmetric termination fees: Agreement of unequal termination fee magnitudes being the case if one party needs to pay more than the other if withdrawing from the deal. Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6,227 trillion for the period of 2012 to 2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company.

Panel D: Termination fee structure by bidder countries

	No TF	Symmetric TF	Higher target than bidder TF	Higher bidder than target TF	Total
Australia	954	19	21	3	997
Belgium	105	0	1	1	107
Brazil	344	1	1	1	347
Canada	1171	76	99	22	1368
China	2182	76	31	17	2306
Denmark	155	0	1	0	156
France	615	4	9	0	628
Germany	498	6	10	2	516
Hong Kong	608	5	9	7	629
India	357	0	3	1	361

Table 2: (continued)

Panel D: Termination fee structure by bidder countries					
	No TF	Symmetric TF	Higher target than bidder TF	Higher bidder than target TF	Total
Ireland (Republic)	227	3	4	4	238
Israel	160	0	3	2	165
Italy	415	0	2	0	417
Japan	1021	7	13	1	1042
Malaysia	229	2	3	1	235
Mexico	102	3	2	0	107
Netherlands	227	1	8	3	239
New Zealand	110	0	0	0	110
Poland	163	3	4	0	170
Russia	304	1	2	0	307
Singapore	337	5	2	6	350
South Africa	256	0	5	1	262
South Korea	706	0	0	2	708
Spain	312	0	2	0	314
Sweden	331	2	3	1	337
Switzerland	249	3	5	0	257
Taiwan	121	3	0	1	125
Turkey	188	1	0	1	190
USA	8100	168	368	182	8818
United Kingdom	2131	15	16	17	2179
Other ^a	1031	5	4	1	1041
Total	23,709	409	631	277	25,026

^aOther includes countries with less than 100 total deals.

Panel E: Termination fee structure by target countries					
	No TF	Symmetric TF	Higher target than bidder TF	Higher bidder than target TF	Total
Australia	1155	26	35	3	1219
Belgium	142	0	1	0	143
Brazil	550	0	1	1	552
Canada	1103	80	121	27	1331
China	2300	68	23	20	2411
Denmark	225	0	0	0	225
Finland	123	0	0	2	125
France	566	2	3	0	571
Germany	640	1	1	2	644
Hong Kong	324	1	6	2	333
India	448	0	0	0	448

Table 2: (continued)

Panel E: Termination fee structure by target countries					
	No TF	Symmetric TF	Higher target than bidder TF	Higher bidder than target TF	Total
Ireland (Republic)	179	0	0	2	181
Israel	213	2	5	1	221
Italy	558	2	1	0	561
Japan	677	0	0	0	677
Malaysia	240	1	2	0	243
Mexico	134	1	2	1	138
Netherlands	279	6	6	3	294
New Zealand	181	0	3	0	184
Poland	217	3	0	1	221
Russia	305	2	1	0	308
Singapore	278	7	0	3	288
South Africa	249	4	5	1	259
South Korea	710	0	0	1	711
Spain	448	1	0	1	450
Sweden	253	0	1	1	255
Switzerland	154	1	1	1	157
Taiwan	109	2	0	0	111
Turkey	261	1	0	0	262
USA	7292	191	403	192	8078
United Kingdom	2154	4	9	10	2177
Other ^a	1242	3	1	2	1248
Total	23,709	409	631	277	25,026

^aOther includes countries with less than 100 total deals.

still seem to dominate, our data show that asymmetric fee structures with higher bidder termination fees do not lag much behind in the larger acquisitions. This clearly corroborates the importance of studying the determinants of asymmetric termination fee structures.

Table 2 Panel C displays the distribution of termination fees by target industry. Symmetric termination fees are most common in the agriculture sector and the service industry. In contrast, asymmetric termination fees are most prevalent in the mining sector and tie to the high-tech sector's largest deal values. More precisely, contracts with higher target termination fees account for 17.70% of the total deal value in the high-tech industry, whereas contracts with higher bidder termination fees account for 13.89% of the total deal value in this industry. Taken together, asymmetric termination fee structures appear to be important contracting devices in this industry.

Table 2 Panel D displays a breakdown of termination fee structures by the bidder's country. Most bidders in our sample are located in the United States, followed by China, the United Kingdom, and Canada. Interestingly, 6.23% of deals with a US bidder possess asymmetric termination fees, while the same is only observed in 2.13% of deals with a Chinese bidder. There is a relatively even distribution of asymmetric termination fee structures for deals with a UK bidder. In contrast, the most common asymmetric termination fee structures in the United States feature higher target than bidder termination fees. A similar observation can be made for Canada and China.

Table 2 Panel E shows the breakdown of symmetric and asymmetric termination fees by the target's country. Most targets are located in the United States, followed by China, the United Kingdom, and Canada. There are relatively few deals with asymmetric termination fees with targets in the United Kingdom. This is not surprising as termination provisions have been prohibited as deal protection devices in the UK since 2011 (Restrepo & Subramanian, 2017). As might have been expected, we observe that deals involving US targets show higher target than bidder termination fees commonly, as most deals with a US target also involve a US bidder. The same can be said for Canada, while symmetric termination fees again dominate deals involving a Chinese target.

Table 3 gives a brief overview of our dataset. Panel A shows descriptive statistics for the independent variables to be used in our analyses. We observe that in 5.27% of the deals, the bidder is an institutional investor (*INVESTOR*) whereas sales under insolvency (*INSOLVENCY*) have a prevalence of 2.41%. Secondary buyouts (*SECONDARY*) amount to 2.64% of all transactions. We find the average logarithmic deal value (*LN_DEAL VALUE*) to be 3.78 million EUR regarding continuously distributed control variables.²⁰ In 19.38% of all deals, shareholder approval (*PUBLIC*) was required from at least one deal party. The data shows furthermore that just under half (49.41%) of all bidders are located in Anglo-Saxon (*ANGLO*) countries, whereas only 23.35% of bidders come from Europe (*EUROPE*). Altogether 40.33% of the deals are cross-border (*CROSS BORDER*) transactions. With 96.75%, the clear majority of deals have been completed (*COMPLETE*), while 2.53% of the deals are Management Buyouts (*MBO*), and 3.34% of the targets are sold in a public auction (*AUCTION*).

Table 3 Panel B shows the pairwise correlation matrix for our independent variables for our full sample that includes deals without termination fees. The findings in the correlation matrix suggest that multicollinearity does not affect our multivariate analysis. We find only one case with a significant positive correlation higher than 0.4 as *MBO* and *INSOLVENCY* show a significant correlation of 0.409. This correlation appears

20 In absolute terms the deal values in our sample have a mean of 248 million EUR, with a maximum absolute deal value of 50.5 billion EUR.

Table 3: (continued)

Panel B: Pairwise correlation matrix of selected variables ($n = 25,026$)														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) INVESTOR	1.000													
(2) SECONDARY	0.049	1.000												
(3) INSOLVENCY	-0.040	-0.023	1.000											
(4) LN_DEAL VALUE	0.090	-0.057	0.149	1.000										
(5) CROSS BORDER	0.024	-0.029	0.038	0.080	1.000									
(6) AUCTION	0.060	0.280	0.096	0.082	-0.011	1.000								
(7) SHAREHOLDER	-0.010	-0.060	-0.058	0.234	-0.076	-0.060	1.000							
(8) MBO	-0.038	-0.020	0.409	0.065	-0.007	0.040	-0.033	1.000						
(9) COMPLETE	0.001	-0.012	0.027	-0.068	0.009	-0.001	-0.194	0.025	1.000					
(10) EUROPE	0.026	0.018	0.090	-0.045	0.183	0.008	-0.093	0.135	0.035	1.000				
(11) ANGLO	0.042	0.002	0.064	0.089	-0.102	-0.025	-0.113	0.053	0.075	-0.134	1.000			
(12) CASH	0.090	0.047	0.065	-0.075	0.127	0.070	-0.331	0.059	0.106	0.091	-0.038	1.000		
(13) EQUITY	-0.054	-0.033	-0.040	0.054	-0.089	-0.042	0.305	-0.038	-0.100	-0.055	-0.043	-0.593	1.000	
(14) DEAL PREMIUM	-0.052	0.042	0.033	0.033	-0.014	0.011	-0.024	0.032	0.013	0.011	0.154	-0.043	0.014	1.000

Notes: Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6,227 trillion for the period of 2012 to 2015 obtained from the Mergersmarket database by Mergersmarket Limited, an Acuris company. INVESTOR: Equal to 1 if marked by Mergersmarket as an institutional buyout (bidder fully acquires the target company) or institutional buyin (bidder acquires a majority stake of the target company) and 0 otherwise; INSOLVENCY: Equal to 1 if the target faces insolvency and 0 otherwise; SECONDARY: Equal to 1 if the acquisition is a secondary buyout and 0 otherwise; LN_DEAL VALUE: Deal value, calculated as the natural logarithm of the acquired equity stake plus 100% of the target's net debt, since only majority acquisitions are considered in the data sample; CROSS BORDER: Equal to 1 if the acquisition is not domestic but cross-border and 0 otherwise; AUCTION: Equal to 1 if the acquisition follows an auction process and the target is sold in a public sale at a specific date to the highest bidder and 0 otherwise; PUBLIC: Equal to 1 if shareholder approval from any acquisition party is needed and 0 otherwise; MBO: Equal to 1 if the company is acquired by a management team frequently backed by a venture capitalist and 0 otherwise; COMPLETE: Equal to 1 if the deal has been completed and 0 otherwise; EUROPE: Equal to 1 if the bidder's headquarters are in a continental European nation, namely, Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, or Ukraine and 0 otherwise; ANGLO: Equal to 1 if the bidder's headquarters is located in the United States, Canada, Great Britain, or Ireland and 0 otherwise; CASH: Equal to 1 if the deal is financed in cash and 0 otherwise; EQUITY: Equal to 1 if the deal is financed with equity and 0 otherwise; DEAL PREMIUM: Deal premium, calculated as a percentage difference between the price paid for the target and the target stock price prior to the announcement.

Table 3: (continued)

Panel C: Comparative table of the methodologies in previous studies		
Study	Methodology	Sample size/ Country/ region
Officer (2003)	Probit regression to examine the determinants of target termination fees.	2,511 USA
Bates and Lemmon (2003)	Logistic regression to estimate the inclusion of target and bidder termination fees in deal agreements.	3,533 USA
André et al. (2007)	Ordinary least squares regression to examine the determinants of termination fee sizes (relative to deal value).	262 Canada
Boone and Mulherin (2007)	Logistic regression to examine the determinants of target termination.	400 USA
Jeon and Ligon (2011)	Tobit regression to examine determinants of fee size; Multinomial logit regression to examine the determinants of a target's choice of fee size.	1,702 USA
Badawi and de Fontenay (2019)	Ordinary least squares regression examining the effect of the first-drafter advantage on the size of target and bidder termination fees.	14,388 USA

Notes: Comparative table of selected studies and the used main methodology to examine the determinants of target and/or bidder termination fees.

reasonable as Peel (1995) indicates that MBOs can be an effective method to sustain insolvent targets that would otherwise face liquidation. Unsurprisingly, an additional negative correlation of -0.593 between both dummy variables that capture the payment method (*CASH* and *EQUITY*) is observable, pointing to the fact that a number of deals are financed entirely in cash or entirely in equity.

Furthermore, there is a positive correlation of 0.183 between *EUROPE* and *CROSS BORDER* and a weaker negative correlation of -0.102 between *ANGLO* and *CROSS BORDER*. Deals that include a bidder from continental Europe are thus more likely to be cross-border deals than deals where the bidder is set in the Anglosphere. This is likely explained by the strong economic integration of the countries that are part of the European Union which includes in most cases a common currency, making cross-border transactions less complex and therefore more appealing for both sides. Finally, there is a positive correlation between *EQUITY* and shareholder approval (*PUBLIC*) and a negative correlation between *CASH* and *PUBLIC* (0.305 and -0.331 , respectively). This is reasonable as, for example, in the US, deals that are fully financed in cash are considered a board issue and thus generally do not require shareholder approval.

3.4 Research Methodology

We test our hypotheses in multivariate analyses where the dependent variable enters in categorical form. We estimate a logistic regression and a multinomial logit regression model to test our hypotheses. By doing so, we are largely in line with previous studies.²¹ Officer (2003), Bates and Lemmon (2003), Boone and Mulherin (2007), and Jeon and Ligon (2011) use logistic, multinomial logit, or the related probit model²² to examine the determinants of target and/or bidder termination fees. André et al. (2007) and Badawi and de Fontenay (2019) apply a multivariate linear regression using ordinary least squares (OLS) which would not be appropriate for our setup, as we are less interested in the absolute size of termination fees but the relative structure of such fees measured by our categorical dependent variable with a maximum of three outcomes. For the logit regression, our dependent variable can take on one of two categories: symmetric termination fees (SYM) and asymmetric termination fees (ASYM). The multinomial logit regression, in contrast, allows us to consider more than two categories

²¹ See for a comparison of the methodologies in the related previous literature Table 3 Panel C.

²² Both, logit and probit models, are used for dependent variables that are dichotomous (i.e., possess two different outcomes) but differ in the form of the link function: while logit models use a function of the logistic distribution, probit models follow a normal cumulative distribution function. Nevertheless, the results of both models will generally differ only marginally (Wooldridge, 2020).

(Wooldridge, 2010). As a reference category for each of the logits, we employ deals with a symmetric termination fee structure. We hence compare the reference category SYM to asymmetric deals with a higher target than bidder termination fee (ASYM1) and asymmetric deals with a higher bidder than target termination fee (ASYM2). The variable coefficients thus display the likelihood of both types of termination fees compared to our base outcome – i.e., symmetrically structured termination fees. We use the maximum likelihood procedure to estimate both the classical logit regression and the multinomial logit regression:

$$\ln\left(\frac{\pi_{ASYM}}{\pi_{SYM}}\right) = \beta_{0, \frac{ASYM}{SYM}} + \beta_{1, \frac{ASYM}{SYM}} INVESTOR + \beta_{2, \frac{ASYM}{SYM}} INSOLVENCY + \beta_{3, \frac{ASYM}{SYM}} SECONDARY + \sum y_{j, \frac{ASYM}{SYM}} CONTROLS + \varepsilon_{\frac{ASYM}{SYM}} \quad (1)$$

$$\ln\left(\frac{\pi_{ASYM1}}{\pi_{SYM}}\right) = \beta_{0, \frac{ASYM1}{SYM}} + \beta_{1, \frac{ASYM1}{SYM}} INVESTOR + \beta_{2, \frac{ASYM1}{SYM}} INSOLVENCY + \beta_{3, \frac{ASYM1}{SYM}} SECONDARY + \sum y_{j, \frac{ASYM1}{SYM}} CONTROLS + \varepsilon_{\frac{ASYM1}{SYM}} \quad (2)$$

$$\ln\left(\frac{\pi_{ASYM2}}{\pi_{SYM}}\right) = \beta_{0, \frac{ASYM2}{SYM}} + \beta_{1, \frac{ASYM2}{SYM}} INVESTOR + \beta_{2, \frac{ASYM2}{SYM}} INSOLVENCY + \beta_{3, \frac{ASYM2}{SYM}} SECONDARY + \sum y_{j, \frac{ASYM2}{SYM}} CONTROLS + \varepsilon_{\frac{ASYM2}{SYM}} \quad (3)$$

where $\left(\frac{\pi_i}{\pi_{SYM}}\right)$ is the coefficient of the i th category of the dependent variable in comparison to symmetric termination fees as the reference category.

4 Results

4.1 Multivariate Results

The logistic regression results from a test of the likelihood of asymmetric versus symmetric termination fees are presented in Table 4 Panel A. Examining our control variables, we first find that higher deal values (*LN_DEAL VALUE*) are positively associated with asymmetric termination fees. Furthermore, the positive and highly significant coefficient of *PUBLIC* points to shareholder approval being an important positive factor of asymmetric termination fees. This is reasonable as pending shareholder approval puts the consummation of a transaction agreement in doubt and thus erodes the party's bargaining position that still requires its shareholders' approval to proceed with the deal. Finally, we also find regional determinants for the likelihood of symmetric and asymmetric termination fees.

Deals that involve a bidder located on the European continent (*EUROPE*) are more likely to exhibit symmetric termination fees. In contrast, the structure of termination fees is more likely to be asymmetric in deals with a bidder from the United States, Canada, Great Britain, or Ireland (*ANGLO*).

Our theoretical outline postulates that differences in bargaining power influences contract design by make asymmetric termination fee structures in acquisitions more likely. According to our hypotheses, differences in bargaining power can arise from bidder characteristics, such as the bidder being an institutional investor (*INVESTOR*), from target characteristics, such as the target facing insolvency (*INSOLVENCY*), or from situational deal characteristics as in the case of secondary buyouts (*SECONDARY*). For *INSOLVENCY*, we find a highly significant positive coefficient, which supports H2: for deals that involve an insolvent target, the bargaining power is unevenly distributed, leading to asymmetrically structured termination fees. The opposite result can be observed for *SECONDARY*, namely a highly significant negative coefficient. Thus, secondary buyouts are more likely to employ symmetric termination fees supporting H3 that more evenly distributed bargaining power also increases the likelihood of evenly distributed termination fees. For our *INVESTOR* variable, we find a positive but not significant coefficient. Thus, we cannot claim that an institutional bidder makes symmetric or asymmetric termination fees more likely. This result may be caused by the fact that we combine both types of asymmetric termination fee structures, i.e., *higher target than bidder termination fees* and *higher bidder than target termination fees*, in the logit regression. If the bidder is an institutional investor, we would only expect a higher likelihood for *higher bidder than target termination fees*, as we outline in our hypothesis H1. To investigate this further, we employ a multinomial logistic regression next, which allows us to differentiate between the two asymmetric fee structures.

Table 4 Panel B presents our multinomial logistic model's regression results as laid out in Equations (2) and (3). We again control for the full list of variables as before. Entirely consistent with H1, the highly significant ($p < 0.01$) and positive coefficient of *INVESTOR* in the regression on ASYM2 shows that deals where the bidder is an institutional investor indeed are more likely to use an asymmetric, rather than a symmetric, termination fee structure with a higher bidder than target fee. This supports our conjecture that an institutional investor has a weaker bargaining position in the acquisition and accepts a disadvantageous termination fee structure to signal deal commitment. Simultaneously, we also find a significant ($p < 0.05$) and negative coefficient for *INVESTOR* in our ASYM1 model. This finding could explain why we do not see a significant effect in our logistic regression. The likelihood for higher target than bidder termination fees is significantly lower than for our base outcome of symmetric termination fees. This further supports the

Table 4: Multivariate analysis.

Panel A: Logistic regression of symmetric versus asymmetric termination fees ($n = 25,026$)						
Variables	Coef.	St.Err.	z-value	p-value	[95% Interval]	Sig
INVESTOR	0.070	0.153	0.46	0.649	-0.231	0.370
INSOLVENCY	0.954	0.304	3.14	0.002	0.358	1.550 ^c
SECONDARY	-1.201	0.382	-3.15	0.002	-1.949	-0.453 ^c
LN_DEAL VALUE	0.329	0.024	13.72	0.000	0.282	0.376 ^c
CROSS BORDER	-0.051	0.100	-0.50	0.614	-0.247	0.146
AUCTION	0.247	0.298	0.83	0.408	-0.337	0.830
PUBLIC	3.219	0.113	28.59	0.000	2.998	3.439 ^c
MBO	0.408	0.340	1.20	0.230	-0.258	1.074
COMPLETE	-0.265	0.178	-1.49	0.137	-0.615	0.084
EUROPE	-1.264	0.240	-5.26	0.000	-1.735	-0.794 ^c
ANGLO	0.911	0.193	4.72	0.000	0.533	1.290 ^c
CASH	0.129	0.115	1.12	0.262	-0.097	0.355
EQUITY	-0.28	0.144	-1.94	0.052	-0.562	0.002 ^a
DEAL PREMIUM	0.135	0.108	1.24	0.214	-0.078	0.347
CONTESTED HOSTILE	-1.418	0.836	-1.70	0.090	-3.057	0.222 ^a
UNSOLICITED HOSTILE	-2.032	0.572	-3.55	0.000	-3.153	-0.911 ^c
CONTESTED RECOMMEND	-0.256	0.406	-0.63	0.528	-1.052	0.540
YEAR 2012	0.260	0.173	1.50	0.134	-0.080	0.600
YEAR 2013	0.010	0.151	0.06	0.949	-0.286	0.306
YEAR 2014	0.041	0.151	0.27	0.784	-0.254	0.337
KNOWLEDGE INDUSTRY	0.293	0.207	1.41	0.157	-0.113	0.699
AGRICULTURE	-0.636	0.628	-1.01	0.310	-1.866	0.593
AUTOMOTIVE & TRANSPORTATION	0.452	0.293	1.54	0.123	-0.122	1.027
CONSUMER GOODS	0.060	0.235	0.25	0.799	-0.401	0.521
INDUSTRIALS	-0.075	0.251	-0.30	0.763	-0.566	0.416
CONSTRUCTION & MANUFACTURING	0.077	0.301	0.26	0.798	-0.513	0.666
POWER & UTILITIES	-0.236	0.247	-0.96	0.339	-0.721	0.248
TELECOMMUNICATION & MEDIA	0.159	0.258	0.62	0.537	-0.347	0.665
MINING	0.993	0.257	3.86	0.000	0.489	1.497 ^c
FINANCIAL INDUSTRY	0.167	0.229	0.73	0.466	-0.282	0.615
CHEMICALS	-0.160	0.251	-0.64	0.524	-0.652	0.332
SERVICES	-0.028	0.215	-0.13	0.896	-0.450	0.393
SAME SECTOR	-0.018	0.090	-0.20	0.844	-0.194	0.159
GDP NOMINAL BID	0.000	0.000	-1.66	0.097	0.000	0.000 ^a
GDP NOMINAL TAR	0.000	0.000	2.77	0.006	0.000	0.000 ^c
GDP CAPITA BID	0.000	0.000	-2.07	0.038	0.000	0.000 ^b
GDP CAPITA TAR	0.000	0.000	2.39	0.017	0.000	0.000 ^b
GDP GROWTH BID	0.022	0.014	1.60	0.109	-0.005	0.050
GDP GROWTH TAR	-0.028	0.015	-1.84	0.065	-0.057	0.002 ^a

Table 4: (continued)

Panel A: Logistic regression of symmetric versus asymmetric termination fees ($n = 25,026$)							
Variables	Coef.	St.Err.	z-value	p-value	[95% Interval]		Sig
					Conf		
EX RATE BID	0.000	0.000	0.05	0.957	-0.001	0.001	
EX RATE TAR	-0.001	0.001	-1.80	0.072	-0.003	0.000	^a
INFLATION CPI BID	-0.079	0.063	-1.26	0.208	-0.201	0.044	
INFLATION CPI TAR	-0.118	0.065	-1.82	0.069	-0.246	0.009	^a
SOV CREDIT BID	0.255	0.126	2.03	0.042	0.009	0.502	^b
SOV CREDIT TAR	0.780	0.173	4.52	0.000	0.441	1.118	^c
REG QUALITY BID	-1.526	0.768	-1.99	0.047	-3.032	-0.021	^b
REG QUALITY TAR	0.506	0.624	0.81	0.417	-0.717	1.728	
LAW RISK BID	0.790	0.507	1.56	0.119	-0.203	1.784	
LAW RISK TAR	-0.596	0.549	-1.09	0.278	-1.673	0.480	
COMP SCORE BID	-0.147	0.146	-1.01	0.314	-0.434	0.140	
COMP SCORE TAR	-0.636	0.116	-5.49	0.000	-0.863	-0.409	^c
INVESTMENT FREEDOM BID	0.051	0.017	2.95	0.003	0.017	0.085	^c
INVESTMENT FREEDOM TAR	-0.020	0.013	-1.54	0.124	-0.046	0.006	
INVESTOR PROT BID	-0.027	0.009	-3.13	0.002	-0.045	-0.010	^c
INVESTOR PROT TAR	0.037	0.009	4.31	0.000	0.020	0.054	^c
CONSTANT	-10.637	1.904	-5.59	0.000	-14.368	-6.906	^c
Mean dependent var	0.036		SD dependent var			0.187	
Pseudo r-squared	0.396		Number of obs			25,026.000	
Chi-square	1759.862		Prob > chi2			0.000	
Akaike crit. (AIC)	4824.284		Bayesian crit. (BIC)			5279.433	

Notes: The dependent variable is a binary variable that equals one for asymmetric termination fees and zero for symmetric termination fees. Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6227 trillion for the period of 2012–2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company. Includes deals with and without termination fees. Deals with no termination fees are included in the category for symmetrical termination fees. *INVESTOR*: Equal to one if marked by Mergermarket as an institutional buyout (bidder fully acquires the target company) or institutional buyin (bidder acquires a majority stake of the target company) and zero otherwise; *INSOLVENCY*: Equal to one if the target faces insolvency and zero otherwise; *SECONDARY*: Equal to one if the acquisition is a secondary buyout and zero otherwise; *LN_DEAL VALUE*: Deal value, calculated as the natural logarithm of the acquired equity stake plus 100% of the target's net debt, since only majority acquisitions are considered in the data sample; *CROSS BORDER*: Equal to one if the acquisition is not domestic but cross-border and zero otherwise; *AUCTION*: Equal to one if the acquisition follows an auction process and the target is sold in a public sale at a specific date to the highest bidder and zero otherwise; *PUBLIC*: Equal to one if shareholder approval from any acquisition party is needed and zero otherwise; *MBO*: Equal to one if the company is acquired by a management team frequently backed by a venture capitalist and zero otherwise; *COMPLETE*: Equal to one if the deal has been completed and zero otherwise; *EUROPE*: Equal to one if the bidder's headquarters are in a continental European nation, namely, Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, or Ukraine and zero otherwise; *ANGLO*: Equal to one if the bidder's headquarter is located in the United States, Canada, Great Britain, or Ireland and zero otherwise; *CASH*: Equal to one if the deal is financed in cash and zero otherwise; *EQUITY*: Equal to one if the deal is financed with equity and zero otherwise; *DEAL PREMIUM*: Deal premium, calculated as a percentage difference between the price paid for the target and the target stock price prior to the announcement;

CONTESTED HOSTILE: Equals to one if there is more than one bidder and the transaction bid is hostile and zero otherwise; *UNSOLICITED HOSTILE*: Equals one if at announcement the board of the target has not recommended the deal and zero otherwise; *CONTESTED RECOMMEND*: Equals to one if there is more than one bidder and the transaction bid has been recommended by the board of the target. Results reported from the logistic regression using the maximum likelihood estimation procedure. Values in Column *Sig*^{a, b, c} represent statistical significance at the 10, 5, and 1% levels, respectively, using two-tailed tests.

Panel B: Multinomial (polytomous) logistic regression of asymmetric termination fees
(*n* = 25,026)

<i>Variables</i>	Higher target than bidder termination fees (1)			Higher bidder than target termination fees (2)		
	Coef.	z-value	Sig	Coef.	z-value	Sig
INVESTOR	-0.506	-2.26	^b	0.818	4.32	^c
INSOLVENCY	1.469	4.28	^c	-13.791	-56.50	^c
SECONDARY	-1.251	-2.53	^b	-1.167	-1.72	^a
LN_DEAL VALUE	0.246	9.15	^c	0.534	13.44	^c
CROSS BORDER	-0.175	-1.47		0.140	0.85	
AUCTION	0.408	1.17		-0.284	-0.50	
PUBLIC	3.604	25.26	^c	2.460	14.34	^c
MBO	0.545	1.35		0.202	0.35	
COMPLETE	-0.191	-0.99		-0.431	-1.43	
EUROPA	-1.234	-4.50	^c	-1.217	-2.66	^c
ANGLO	0.911	4.04	^c	1.101	2.89	^c
CASH	0.201	1.54		0.014	0.07	
EQUITY	-0.196	-1.23		-0.613	-2.24	^b
DEAL PREMIUM	0.127	1.08		0.174	1.30	
CONTESTED HOSTILE	-1.884	-1.59		-1.145	-1.04	
UNSOLICITED HOSTILE	-2.312	-3.02	^c	-1.604	-1.97	^b
CONTESTED RECOMMEND	0.032	0.07		-1.100	-1.35	
YEAR 2012	0.279	1.28		0.127	0.48	
YEAR 2013	-0.023	-0.13		-0.034	-0.14	
YEAR 2014	-0.007	-0.04		0.107	0.44	
KNOWLEDGE INDUSTRY	0.645	2.46	^b	-0.277	-0.86	
AGRICULTURE	-0.037	-0.05		-14.463	-36.33	^c
AUTOMOTIVE & TRANSPORTATION	0.380	0.97		0.503	1.25	
CONSUMER GOODS	0.307	1.02		-0.311	-0.88	
INDUSTRIALS	0.192	0.60		-0.466	-1.18	
CONSTRUCTION & MANUFACTURING	-0.058	-0.14		0.168	0.40	
POWER & UTILITIES	0.245	0.81		-1.158	-2.81	^c
TELECOMMUNICATION & MEDIA	0.319	0.97		-0.069	-0.18	
MINING	1.360	4.36	^c	0.114	0.24	
FINANCIAL INDUSTRY	0.605	2.12	^b	-0.729	-1.94	^a
CHEMICALS	-0.154	-0.51		-0.096	-0.25	
SERVICES	0.065	0.25		-0.140	-0.42	
SAME SECTOR	-0.094	-0.88		0.154	1.03	
GDP NOMINAL BID	0.000	-1.76	^a	0.000	-0.88	

Table 4: (continued)

Panel B: Multinomial (polytomous) logistic regression of asymmetric termination fees (<i>n</i> = 25,026)						
<i>Variables</i>	Higher target than bidder termination fees (1)			Higher bidder than target termination fees (2)		
	Coef.	z-value	Sig	Coef.	z-value	Sig
GDP NOMINAL TAR	0.000	2.26	^b	0.000	1.91	^a
GDP CAPITA BID	0.000	−2.44	^b	0.000	0.11	
GDP CAPITA TAR	0.000	2.91	^c	0.000	0.61	
GDP GROWTH BID	0.018	1.07		0.036	1.51	
GDP GROWTH TAR	−0.042	−2.18	^b	0.005	0.22	
EX RATE BID	0.000	−0.09		0.000	0.25	
EX RATE TAR	−0.001	−1.12		−0.002	−1.63	
INFLATION CPI BID	−0.163	−2.25	^b	0.060	0.66	
INFLATION CPI TAR	−0.013	−0.18		−0.247	−3.67	^c
SOV CREDIT BID	0.282	2.05	^b	0.084	0.38	
SOV CREDIT TAR	0.993	4.66	^c	0.565	2.73	^c
REG QUALITY BID	−1.938	−2.35	^b	−1.007	−0.72	
REG QUALITY TAR	0.663	0.90		0.489	0.45	
LAW RISK BID	1.461	2.46	^b	−0.740	−0.84	
LAW RISK TAR	−1.000	−1.36		−0.362	−0.48	
COMP SCORE BID	−0.270	−1.85	^a	0.329	0.83	
COMP SCORE TAR	−0.638	−4.58	^c	−0.631	−3.79	^c
INVESTMENT FREEDOM BID	0.045	2.28	^b	0.060	1.90	^a
INVESTMENT FREEDOM TAR	−0.019	−1.13		−0.019	−0.86	
INVESTOR PROT BID	−0.040	−3.95	^c	0.006	0.39	
INVESTOR PROT TAR	0.043	4.15	^c	0.030	2.03	^b
CONSTANT	−11.546	−5.35	^c	−15.035	−3.64	^c
Mean dependent var	0.047			SD dependent var	0.259	
Pseudo r-squared	0.373			Number of obs	25,026.000	
Chi-square	15,702.235			Prob > chi2	0.000	
Akaike crit. (AIC)	5819.651			Bayesian crit. (BIC)	6729.950	

Notes: Asymmetric termination fees represent the dependent variable, with symmetric termination fees as the reference category. Sample of 25,026 deals involving global acquisitions with a total deal value over EUR 6227 trillion for the period of 2012–2015 obtained from the Mergermarket database by Mergermarket Limited, an Acuris company. Includes deals with and without termination fees. Deals with no termination fees are included in the category for symmetrical termination fees. *INVESTOR*: Equal to one if marked by Mergermarket as an institutional buyout (bidder fully acquires the target company) or institutional buyin (bidder acquires a majority stake of the target company) and zero otherwise; *INSOLVENCY*: Equal to one if the target faces insolvency and zero otherwise; *SECONDARY*: Equal to one if the acquisition is a secondary buyout and zero otherwise; *LN_DEAL VALUE*: Deal value, calculated as the natural logarithm of the acquired equity stake plus 100% of the target's net debt, since only majority acquisitions are considered in the data sample; *CROSS BORDER*: Equal to one if the acquisition is not domestic but cross-border and zero otherwise; *AUCTION*: Equal to one if the acquisition follows an auction process and the target is sold in a public sale at a specific date to the

highest bidder and zero otherwise; *PUBLIC*: Equal to one if shareholder approval from any acquisition party is needed and zero otherwise; *MBO*: Equal to one if the company is acquired by a management team frequently backed by a venture capitalist and zero otherwise; *COMPLETE*: Equal to one if the deal has been completed and zero otherwise; *EUROPE*: Equal to one if the bidder's headquarters are in a continental European nation, namely, Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, or Ukraine and zero otherwise; *ANGLO*: Equal to one if the bidder's headquarter is located in the United States, Canada, Great Britain, or Ireland and zero otherwise; *CASH*: Equal to one if the deal is financed in cash and zero otherwise; *EQUITY*: Equal to one if the deal is financed with equity and zero otherwise; *DEAL PREMIUM*: Deal premium, calculated as a percentage difference between the price paid for the target and the target stock price prior to the announcement; *CONTESTED HOSTILE*: Equals to one if there is more than one bidder and the transaction bid is hostile and zero otherwise; *UNSOLICITED HOSTILE*: Equals one if at announcement the board of the target has not recommended the deal and zero otherwise; *CONTESTED RECOMMEND*: Equals to one if there is more than one bidder and the transaction bid has been recommended by the board of the target. Results reported from the multinomial logistic regression using the maximum likelihood estimation procedure. Signs in Column *Sig*^{a, b, c} and ^c represent statistical significance at the 10, 5, and 1% levels, respectively, using two-tailed tests.

notion that the bargaining position is skewed towards the target if the bidder is an institutional investor.

Regarding H2, we again find supportive evidence: deals where the target is in insolvency proceedings (*INSOLVENCY*) are highly significantly ($p < 0.01$) positively associated with asymmetric termination fees where the target fee is higher than the bidder fee. Simultaneously, we observe that insolvency is significantly negatively associated with an asymmetrically higher bidder than target termination fee compared to a symmetric fee structure. Interestingly, the negative coefficient for asymmetrically higher bidder termination fees is much larger in absolute size than the positive coefficient for asymmetrically higher target termination fees. This may suggest that targets under insolvency are under increased pressure and therefore have very little bargaining power to help them realize a more favorable termination fee structure than the bidder.

Our last hypothesis (H3) posits that acquisition partners in secondary buyouts meet on an equal footage and are therefore less likely to agree to asymmetric termination fees. The multivariate regression results again support this argument. We find negative coefficients for both equations, and the observed associations between secondary buyouts and both types of asymmetric termination fee structures are significant at the 5 and 10% level, respectively. Consequently, we observe that both parties are more likely to accept symmetric termination fees in secondary buyouts than both, higher target than bidder termination fees and higher bidder than target termination fees.

Our control variables are mostly in line with expected effects. Interestingly, we find that *LN_DEAL VALUE* and *PUBLIC* are significantly positively associated with both asymmetric higher bidder than target termination fees and higher target than bidder termination fees as compared to symmetric termination fees. This

corroborates our findings from the logistic regression that deals of higher value are, in general, more likely to employ asymmetric termination fees of any kind. We again find for *EUROPE* highly significant negative coefficients and for *ANGLO* highly significant positive coefficients for both models. This confirms our previous results that deals with bidders from the European continent are less likely to employ asymmetric termination fees of any kind. In contrast, bidders from the United States, Canada, Great Britain, or Ireland are more likely to be involved in deals with asymmetric termination fees. Lastly, for deals that are financed with equity (*EQUITY*) and for deals that did not receive a target's board recommendation (*UNSOLICITED HOSTILE*), we find a higher likelihood for symmetric termination fees compared to higher bidder than target termination fees. No significant coefficients are observed for the control variables *CROSS BORDER*, *AUCTION*, *MBO*, *COMPLETE*, *CASH*, *DEAL PREMIUM*, *CONTESTED HOSTILE* and *CONTESTED RECOMMEND*.

To further validate our results, we conduct several robustness tests. From a bargaining power perspective, we so far assumed that contracts without termination fees for either parties are implicitly the same as contracts with symmetric termination fees. Nevertheless, deals that include no termination fees may be more fundamentally different from deals that do include termination provisions.²³ To test the robustness of our results against this concern, we reduce our sample by excluding all deals (23,709) where neither the target nor the bidder negotiated a termination fee and rerun our analyses again. From the logistic regression with the aforementioned criteria for our subsample, we find no significant results for our variables of interest (Table 5 Panel A in the Supplementary Material). For *INVESTOR* and *INSOLVENCY* this again is explained by the fact that the logistic regression includes both types of asymmetric termination fee structures when we indeed would only expect one type of asymmetric termination fee to be significant. Consequently, this is supported by our multinomial logit model that runs with the same subsample (Table 5 Panel B in the Supplementary Material). in which we find highly significant results for both variables which emphasizes the importance to differentiate between the two types of asymmetric termination fee structures. In detail, even though this approach reduces our sample by a substantial amount, we still find for our *INVESTOR* variable a highly significant ($p < 0.01$) positive coefficient for higher

23 We used Heckman two-step selection model to adjust for said potential bias. Specifically, we obtained the inverse Mills' ratio of a probit model (selection equation) that captures the likelihood of firms to negotiate termination provisions in the first place and included it as an independent variable in our reduced base model of 1317 observations (performance equation). The coefficient for the inverse Mills' ratio in our base model is insignificant and thus indicates that there is no evidence for a selection effect.

bidder than target termination fees. Similarly, our results for *INSOLVENCY* remain robust, as we find again a significantly ($p < 0.05$) positive coefficient in ASYM1 (higher target than bidder termination fees) and a highly significant ($p < 0.01$) negative coefficient in ASYM2 (higher bidder than target termination fees). However, we do not observe significant results for our variable capturing secondary buyouts (*SECONDARY*). This result may be explained by the fact that by excluding deals with no (i.e., implicit symmetric) termination fees, we lose tremendous explanatory power in determining the likelihood of symmetric termination fees.

As a second robustness test, we exclude deals that fall into the sectors Telecommunication & Media, Financial Industry, and Utilities. These are highly regulated industries that might provide an additional obstruction to consummate a transaction for bidders and targets. For example, in the utilities sector, the regulatory approval process often includes public interest considerations that introduce additional risks for both transaction partners. To rule out that these regulatory considerations drive our results, we rerun our full multinomial model (i.e., with our sample that includes deals with and without termination fees) but exclude firms from these three industries (Table 5 Panel C in the Supplementary Material).²⁴ Even though we lose 7726 observations ($n = 18,300$), our results remain mostly intact with two exceptions. We lose significance on our *SECONDARY* variable in ASYM2 ($p = 0.203$) and marginally on our *INVESTOR* variable in ASYM1 ($p = 0.105$) while all other effects exhibit an even stronger significance than in our base model. Crucially, this includes *INVESTOR* in ASYM2 ($p = 0.000$), which means that we maintain support for H1, positing that institutional investors as bidders are more likely to exhibit higher bidder than target termination fees.

In an additional step, we again excluded all deals without the explicit inclusion of termination provisions and rerun the previous robustness test that only considers deals in highly regulated industries (Table 5 Panel D in the Supplementary Material). Even though we again lose substantial statistical power by reducing the number of observations ($n = 841$), the results are largely in line with

²⁴ In an additional analysis, we only include deals from these three highly regulated industries (Telecommunication & Media, Financial Industry, and Utilities) and run our multinomial logistic regression again (Table 5 Panel E in our Supplementary Material). We again lose some significance in our *SECONDARY* variable in ASYM2 and additionally for our *INVESTOR* variable in ASYM2 and *INSOLVENCY* in ASYM1, while simultaneously gain significance for *INVESTOR* in ASYM1. Using our reduced sample with only deals that explicitly include termination provisions (Table 5 Panel F in our Supplementary Material), we lose significance for our variables *SECONDARY*, *INVESTOR*, and *INSOLVENCY* in ASYM2, while keeping our results regarding *INSOLVENCY* for our ASYM1 specification. In conclusion, this points to the fact, that the effects of *INVESTOR* are partly driven by industries with less regulatory interference that could potentially hinder the exercise of an advantageous bargaining position of a deal party.

the preceding analyses. In detail, we lose significance for our *SECONDARY* variable in ASYM1 and ASYM2 and for our *INVESTOR* variable in ASYM1, while again finding significant effects for *INSOLVENCY* in both models (ASYM1 and ASYM2) and for *INVESTOR* in ASYM2. We therefore conclude that asymmetric termination fees are not exclusively a consequence of heightened regulations in specific industries.

Additionally, even though we tried to control for country-specific differences in our sample through various macroeconomic and governance-related controls, we cannot completely rule out that our results are affected by economic, regulatory, or institutional differences between countries. To address such concerns, we rerun our model with only domestic deals from the United States, as US bidders and US targets constitute the most considerable portion in our sample (Table 5 Panel G in the Supplementary Material). By doing so, our sample size is reduced to 6623 observations, and we lose some significance for our *SECONDARY* variable in ASYM1 ($p = 0.224$) and ASYM2 ($p = 0.204$) while all other effects remain unchanged.²⁵

In the next step, we again employ our reduced sample that only consists of deals that explicitly include termination fee provisions for our robustness test that excludes all non-US deals (Table 5 Panel H in the Supplementary Material). By doing so, we lose more than half of our sample size ($n = 641$) and again significance for our *SECONDARY* variable in both model specifications (ASYM1 and ASYM2), while also losing some significance for *INSOLVENCY* in ASYM1. The effects of *INVESTOR* and *INSOLVENCY* are nevertheless still present in ASYM2 when applying the substantially reduced sample. For US deals that explicitly include termination fee provisions a bidder being an institutional investor is, thus, associated with a significantly higher likelihood of higher bidder than target termination fees, while the target being insolvent is associated with a significant lower likelihood for higher bidder than target termination fees.

Another aspect of country-specific differences is the cultural variation between countries that might influence the acceptance and propensity of termination provisions. Chakrabarti, Gupta-Mukherjee, & Jayaraman (2009), for instance, find that specific cultural traits and the cultural distance (or

²⁵ In a second step, we restricted our sample to bidders and targets from the United States, China, and Canada, as these three countries make up a substantial portion of our sample. Next, we run our base model again while including country fixed effects to control for unobserved country-specific differences. We again lose on significance regarding our *SECONDARY* variable in ASYM1 and ASYM2 ($p = 0.083$ and $p = 0.141$) and regarding our *INVESTOR* variable in the less critical model ASYM1 ($p = 0.149$). All other effects remain unchanged and detailed results are available upon request.

proximity) between two parties influence deal outcomes. Based on Hofstede's (2001) original four dimensions, we therefore include the cultural distance between bidder and target in terms of power distance (PDI BID TAR), individualism/collectivism (IDV BID TAR), masculinity/femininity (MAS BID TAR), and uncertainty avoidance (UAI BID TAR) in our base model (Table 5 Panel I in the Supplementary Material). Interestingly, two of our cultural control variables show some explanatory power. We find a significantly higher likelihood for higher target than bidder termination fees and a lower likelihood for higher bidder than target termination fees compared to a symmetrical structure if the difference in power distance (i.e., inequality of power distribution) between the bidder and target country is more pronounced. On the other hand, if the cultural distance regarding the perceived value of individualism between bidder and target society is larger, we find a significantly higher likelihood for higher bidder than target termination fees. These results may be related to the larger literature regarding cross-border acquisitions and show that cultural distance may not just affect deal outcome and long-term performance (Chakrabarti, Gupta-Mukherjee, & Jayaraman, 2009) but also deal negotiations by influencing contract design. Nevertheless, our results for all three hypotheses remain unchanged.

In an additional analysis, we included the cultural control variables in the multinomial logit model with our subsample that excludes all deals with no termination fee on either side, resulting in 1302 observations (Table 5 Panel J in the Supplementary Material). Again, our results remain unchanged compared to our base model in Table 5 Panel B. Specifically, we find a significant higher likelihood for higher bidder than target termination fees for deals that involve an institutional bidder and a significant higher (lower) likelihood for higher target than bidder (higher bidder than target) termination fees for deals with insolvent targets.

In conclusion, our results are mainly robust, except for our variable that captures secondary buyouts. Concerning this specific variable, the effect from our main logistic regression loses some strength in our multinomial model and is only partially robust when applying our additional tests. This result could potentially point to the fact that the situational differences between two institutional investors that govern the resulting bargaining power in a deal supersede the presumed interest by both parties in quick negotiations and in an existence of an efficient secondary buy-out market.

5 Conclusion

The validity of the “bargaining power irrelevance proposition” is an open question in the contemporary law-and-economics scholarship. Based on the theoretical challenges formulated by Choi and Triantis (2012), our paper tests the influence of bargaining power on non-price terms by examining different determinants for the symmetry or asymmetry of termination fee structures in acquisition deals. We thus examine the target’s and bidder’s situational characteristics concerning their impact on termination fees and rely on a sample of 25,026 international majority acquisitions between 2012 and 2015.

Our findings suggest that the relative bargaining positions of bidder and target indeed strongly affect the symmetry or asymmetry of termination fees. More precisely, we find that if the bidder is an institutional investor, the much higher pressure to succeed and the risk of reputational loss in case of deal failure induce a weakened bargaining position which is associated with a higher likelihood of an asymmetric termination fee structure with higher bidder than target termination fees. On the other hand, if the target is in insolvency proceedings, this reduces its bargaining power as it invokes a heightened sales pressure and additional information asymmetries that increase the deal risk for potential bidders. The resulting erosion of the target’s bargaining position makes it more likely that the target firm will accept a disadvantageously skewed termination fee structure, i.e., a higher likelihood for higher target than bidder termination fees and/or a lower likelihood for higher bidder than target termination fees, to show its commitment to the successful completion of the deal.

Our work extends the existing literature by providing valuable insights regarding the influence of bargaining power on non-price terms and the usage of termination fees in acquisitions. While previous research has focused on the effect of bidder and target termination fees on various deal characteristics, no study has focused yet on the determinants of symmetric and asymmetric termination fee agreements conjointly. As our data shows, this is important, particularly for larger deals that frequently employ both types of termination fees. Since our data is not limited to a specific region, our results are also meaningful for both domestic and international acquisitions.

Based on our analysis, we can derive several practical conclusions. First, our results suggest that both the bidder’s and the target’s characteristics influence the structure of termination fees in acquisitions. Being aware of these characteristics may help a deal party predict the counterparty’s negotiation strategy and thus enhance its own strategy. Furthermore, understanding the determinants of termination fee structures allows analysts and other observers

to deduce information regarding both parties’ bargaining positions. Policy-makers and courts might further use the information to determine if the negotiated size of a given termination fee is appropriate and reflective of the economic reality (or a breach of the fiduciary duty). Second, deal parties should consider that termination fees can be used to send valuable signals to remedy potential information asymmetries or shift deal risks in the negotiation. In particular, institutional investors can employ bidder termination fees as a signal of commitment to the target. Third, an agreement on symmetric termination fees may be a helpful instrument to build up trust among deal partners in recurring deal negotiations. As such, institutional investors with a record of fair and symmetric termination fee negotiations might have a better chance of realizing a timely secondary buyout deal than investors favoring lengthy and challenging negotiations about termination fees.

Despite the rigorous focus, our study is subject to several limitations. First, the validity of our results certainly depends on the quality of the Mergermarket database. We cannot exclude that the smaller deals among private companies in this database do not display all deal-relevant information. This may also concern information on termination fees. Second, the accuracy of our variables’ operationalization also depends on Mergermarket classifications. There should also be ample scope for future research. For example, future research could examine the effect of asymmetric termination fee structure on target shareholders’ wealth. As past research (Bates & Lemmon, 2003; Officer, 2003; Jeon & Ligon, 2011) indicated that the existence and size of termination fee provisions in acquisition deals affect target shareholders’ wealth, this could be expanded by including both target and bidder termination fees, and investigating whether the symmetric or asymmetric structure of termination fees influence target shareholders’ wealth.

Appendix

Variable definitions	
<i>INVESTOR</i>	Equal to one if the deal was marked by Mergermarket as an institutional buyout (the financial institution as the bidder operates without a trade partner and usually fully acquires the target company) or institutional buyin (the financial institution as the bidder often operates with a trade partner and acquires a majority stake of the target company) and zero otherwise.
<i>INSOLVENCY</i>	Equal to one if the target faces insolvency and zero otherwise. This is either the case when a company files for bankruptcy or when it sells some or all assets to generate sufficient liquidity to satisfy creditors.

(continued)

Variable definitions

<i>SECONDARY</i>	Equal to one if the acquisition is a secondary buyout and zero otherwise.
<i>LN_DEAL VALUE</i>	Deal value, calculated as the natural logarithm of the acquired equity stake plus 100% of the target's net debt, since only majority acquisitions are considered in the data sample.
<i>CROSS BORDER</i>	Equal to one if the acquisition is not domestic but cross-border and thus across countries or among companies of different nationalities and zero otherwise.
<i>AUCTION</i>	Equal to one if the acquisition follows an auction process and the target is sold in a public sale at a specific date to the highest bidder and 0 otherwise.
<i>PUBLIC</i>	Equal to one if shareholder approval from any acquisition party is needed and zero otherwise.
<i>MBO</i>	Equal to one if the company is acquired by a management team frequently backed by a venture capitalist and zero otherwise.
<i>COMPLETE</i>	Equal to one if the deal has been completed and zero otherwise.
<i>EUROPE</i>	Equal to one if the bidder's headquarters are in a continental European nation, namely, Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, or Ukraine and zero otherwise.
<i>ANGLO</i>	Equal to one if the bidders headquarter is located in the United States, Canada, Great Britain, or Ireland and zero otherwise.
<i>CASH</i>	Equal to one if the deal is financed in cash and zero otherwise.
<i>EQUITY</i>	Equal to one if the deal is financed with equity and zero otherwise.
<i>DEAL PREMIUM</i>	Deal premium, calculated as a percentage difference between the price paid for the target and the target stock price one-day and one-month prior to the announcement.
<i>CONTESTED HOSTILE</i>	Equals to one if there is more than one bidder and the transaction bid is hostile and zero otherwise.
<i>UNSOLICITED HOSTILE</i>	Equals one if at announcement the board of the target has not recommended the deal and there is only one bidder and zero otherwise
<i>CONTESTED RECOMMEND</i>	Equals to one if there is more than one bidder and the transaction bid has been recommended by the board of the target.
<i>YEAR 2012</i>	Equal to one if the deal was completed or withdrawn in 2012 and zero otherwise.
<i>YEAR 2013</i>	Equal to one if the deal was completed or withdrawn in 2013 and zero otherwise.

(continued)

Variable definitions

<i>YEAR 2014</i>	Equal to one if the deal was completed or withdrawn in 2014 and zero otherwise.
<i>KNOWLEDGE INDUSTRY</i>	Equal to one if the target operates in either the biotech, pharma, medical, chemical, or computer industry and zero otherwise.
<i>AGRICULTURE</i>	Equal to one if the target's sector was marked by Mergermarket as agricultural and zero otherwise.
<i>AUTOMOTIVE & TRANSPORTATION</i>	Equal to one if the target's sector was marked by Mergermarket as automotive or transportation and zero otherwise.
<i>CONSUMER GOODS</i>	Equal to one if the target's sector was marked by Mergermarket as consumer foods, retail, other consumer goods, or leisure and zero otherwise.
<i>INDUSTRIALS</i>	Equal to one if the target's sector was marked by Mergermarket as industrial automation, industrial products, industrial services, or industrial electronics and zero otherwise.
<i>CONSTRUCTION & MANUFACTURING</i>	Equal to one if the target's sector was marked by Mergermarket as construction or manufacturing and zero otherwise.
<i>POWER & UTILITIES</i>	Equal to one if the target's sector was marked by Mergermarket as energy or utilities and zero otherwise.
<i>TELECOMMUNICATION & MEDIA</i>	Equal to one if the target's sector was marked by Mergermarket as telecommunications or media and zero otherwise.
<i>MINING</i>	Equal to one if the target's sector was marked by Mergermarket as mining and zero otherwise.
<i>FINANCIAL INDUSTRY</i>	Equal to one if the target's sector was marked by Mergermarket as financial services and zero otherwise.
<i>CHEMICALS</i>	Equal to one if the target's sector was marked by Mergermarket as chemicals and zero otherwise.
<i>SERVICES</i>	Equal to one if the target's sector was marked by Mergermarket as PC services or other services and zero otherwise.
<i>SAME SECTOR</i>	Equal to one if the bidder's sector and the target's sector are identical and zero otherwise.
<i>GDP NOMINAL BID</i>	Absolute value (in EUR billion) of the gross domestic product of the country where the bidder is headquartered.
<i>GDP NOMINAL TAR</i>	Absolute value (in EUR billion) of the gross domestic product of the country where the target is headquartered.
<i>GDP CAPITA BID</i>	Absolute value (in EUR) of the gross domestic product per capita of the country where the bidder is headquartered.
<i>GDP CAPITA TAR</i>	Absolute value (in EUR) of the gross domestic product per capita of the country where the target is headquartered.
<i>GDP GROWTH BID</i>	Gross domestic product growth rate (in percent) of the country where the bidder is headquartered in.
<i>GDP GROWTH TAR</i>	Gross domestic product growth rate (in percent) of the country where the target is headquartered in.

(continued)

Variable definitions	
<i>EX RATE BID</i>	Conversion rate of the local currency of the country where the bidder is headquartered to Euro.
<i>EX RATE TAR</i>	Conversion rate of the local currency of the country where the target is headquartered to Euro.
<i>INFLATION CPI BID</i>	Inflation rate, measured by the consumer price index, of the country where the bidder is headquartered.
<i>INFLATION CPI TAR</i>	Inflation rate, measured by the consumer price index, of the country where the target is headquartered.
<i>SOV CREDIT BID</i>	Sovereign credit risk, measured by sovereign credit ratings provided by Refinitiv, of the country where the bidder is headquartered.
<i>SOV CREDIT TAR</i>	Sovereign credit risk, measured by sovereign credit ratings provided by Refinitiv, of the country where the target is headquartered.
<i>REG QUALITY BID</i>	Aggregate indicator, based on the Worldwide Governance Indicators (WGI) by the World Bank, that captures the perception of regulatory quality in the country the bidder is headquartered.
<i>REG QUALITY TAR</i>	Aggregate indicator, based on the Worldwide Governance Indicators (WGI) by the World Bank, that captures the perception of regulatory quality in the country the target is headquartered.
<i>LAW RISK BID</i>	Aggregate indicator, based on the Worldwide Governance Indicators (WGI) by the World Bank, that captures the perception of confidence in the judiciary and the quality of contract enforcement in the country where the bidder is headquartered.
<i>LAW RISK TAR</i>	Aggregate indicator, based on the Worldwide Governance Indicators (WGI) by the World Bank, that captures the perception of confidence in the judiciary and the quality of contract enforcement in the country where the target is headquartered.
<i>COMP SCORE BID</i>	Score from 0 (lowest) to 10 (highest) that measures the competitiveness of the economy where the bidder is headquartered. The score is based on the Global Competitiveness Index (GCI) that was developed by the World Economic Forum.
<i>COMP SCORE TAR</i>	Score from 0 (lowest) to 10 (highest) that measures the competitiveness of the economy where the target is headquartered. The score is based on the Global Competitiveness Index (GCI) that was developed by the World Economic Forum.
<i>INVESTMENT FREEDOM BID</i>	Score from 0 (most restrictions) to 100 (least restrictions) that measures the ease of investing in the country the bidder is headquartered. The score is obtained from the Heritage Foundation and is based on official government publications of each country.

(continued)

Variable definitions	
<i>INVESTMENT FREEDOM TAR</i>	Score from 0 (most restrictions) to 100 (least restrictions) that measures the ease of investing in the country the target is headquartered. The score is obtained from the Heritage Foundation and is based on official government publications of each country.
<i>INVESTOR PROT BID</i>	Aggregate Indicator, obtained from the “ <i>Doing Business</i> ”-Database by the World Bank, that measures the protection of (minority) investors from conflicts of interest and through the rights of shareholders in the country the bidder is headquartered.
<i>INVESTOR PROT TAR</i>	Aggregate Indicator, obtained from the “ <i>Doing Business</i> ”-Database by the World Bank, that measures the protection of (minority) investors from conflicts of interest and through the rights of shareholders in the country the target is headquartered.
<i>PDI BID TAR</i>	Cultural distance in terms of Hofstede’s measure for power distance between the country of the bidder and the country of the target.
<i>IDV BID TAR</i>	Cultural distance in terms of Hofstede’s measure for individualism versus collectivism between the country of the bidder and the country of the target.
<i>MAS BID TAR</i>	Cultural distance in terms of Hofstede’s measure for masculinity versus femininity between the country of the bidder and the country of the target.
<i>UAI BID TAR</i>	Cultural distance in terms of Hofstede’s measure for uncertainty avoidance between the country of the bidder and the country of the target.

Case Study: The Acquisition of THE Shaw Group by the Chicago Bridge & Iron Company

By the year 2012 the Dutch-American Chicago Bridge & Iron Company (CB&I) established itself as a technology and infrastructure provider primarily in the oil and gas business (The Wall Street Journal, 2012). The engineering company based in The Hague, Netherlands – and listed on the New York Stock Exchange – concentrated, through various acquisitions (Business Wire, 2011), one of the largest portfolios for petrochemical process licenses.

In 2012 CB&I announced that it expanded its acquisition efforts further by entering into a definitive agreement to acquire the Shaw Group, a Fortune 500 engineering and construction company primarily focused on the energy sector, for \$3 billion (Business Wire, 2012). The Shaw Group previously acquired a 20% stake

in the nuclear power company Westinghouse Electric to mark an increased involvement in the business of constructing and maintaining nuclear power plants (Reuters, 2011a). Soon after, the Shaw Group and Westinghouse were rewarded contracts to design, construct and operate the first nuclear power plants approved in the United States since 1978 (Scientific American, 2012).

CB&I acquired the Shaw Group for \$46 per share in cash and \$5 in equity, which marked a premium of 72% to the Shaw Group's stock price at closing (SEC, 2012). As a result, the Shaw Group's shares jumped 54.7% while CB&I shares recorded a drop of 14.6% in immediate trading (Reuters, 2012). CB&I financed the deal by using cash of both companies and additionally by issuing \$1.9 billion in new debt (SEC, 2012). The management of CB&I reasoned that the transaction "will create one of the most complete energy focused technology, engineering, procurement, fabrication, construction, maintenance, and associated services companies in the world" (SEC, 2012) and allows CB&I to further diversify and expand their portfolio across the energy sector. Analysts on the other hand were more skeptical. Questions regarding the CB&I's increased debt burden and a potential loss of focus on the core activities by acquiring a company that is increasingly involved in nuclear power creation were raised. The deal was described as a "transformational acquisition" that resulted in a "higher-risk profile company" (Reuters, 2012a).

The criticism was not without merit. The Shaw Group's increased involvement into the nuclear power business and its subsequent acquisition of the Westinghouse shares exposed the company to a sector that is characterized by long, cost-intensive and complex projects with a large degree of uncertainty based on political and regulatory risks. This uncertainty intensified when in 2011 an earthquake and a subsequent tsunami overwhelmed the seaside facility of the Fukushima-Daiichi nuclear power plant in Japan that resulted in a meltdown of fuel rods and a leakage of radioactive water into the Pacific (Reuters, 2011b). Even though the Shaw Group's CEO Jim Bernhard dismissed reports that the nuclear crisis in Japan could have widespread repercussions on the nuclear industry as a whole and thus also on current projects of the Shaw Group, shares of the company dropped by nearly 20%, driven by a rising uncertainty about the viability of nuclear power as a safe alternative to fossil fuels. Several months after the start of the nuclear crisis in Japan, the Shaw Group also disentangled from its Westinghouse stake by selling its shares in the nuclear operator to alleviate its debt burden by \$1.7 billion (Reuters, 2011a).

The large debt that the Shaw Group accumulated was also driven by existing contracts to construct and maintain nuclear power plants. Delays and miscalculations led to cost overruns and slow progress on these projects that the Shaw Group was obliged to fulfill even after the sale of the stake in Westinghouse

(Reuters, 2017). By mid-2012, the operational setbacks regarding the current projects (BloombergNEF, 2017) and the general uncertainty regarding the future demand for nuclear power plants prevented a recovery of the company stock prices, additionally to accumulating a backlog of approximately \$18 billion (Reuters, 2012b). These persistent low prices for shares of the Shaw Group were an added incentive for CB&I to enter the bidding process, in which the Shaw Group found itself in a difficult bargaining position that consequently were reflected in the structure of the termination fees that resulted from the negotiations.

Based on firm and situational characteristics of the deal symmetric termination fees were unlikely as the Shaw Group found itself in a disadvantageous financial position and the possibility of attracting alternative bidders was doubtful. In fact, a potential strategic investor approached the Shaw Group in early 2012 but later backed out of a potential deal (SEC, 2012) and thus negated the Shaw Group any outside opportunity bar the bid of CB&I. Furthermore, there was no increased pressure for a faster deal closure (e.g., like in secondary buyouts) that would incentivize both sides to agree to symmetric termination fees as this would avoid potentially lengthy negotiations regarding the break-up fees. On the contrary, the complex contractual and regulatory situation the Shaw Group was entangled with would unavoidably lengthen the negotiation process. Asymmetric termination fees were thus an expected outcome in the deal between CB&I and the Shaw Group. Higher bidder than target termination fees were unlikely though, as the negotiation power was clearly skewed towards the bidder (CB&I) based on the aforementioned lack of outside opportunities for the target. Additionally, the deteriorating financial position as a result of the operational difficulties that the Shaw Group was experiencing and the fallout of the nuclear crisis in Japan that raised renewed questions regarding the safety of nuclear power – and put the construction of future nuclear power plants in doubt – increased the sales pressure on the target. The bidder was also not an institutional investor which could potentially lead to higher bidder termination fees. Institutional investors are generally more highly committed in completing a deal once entering negotiations as a belated retreat would signal an inept use the firm's internal resources and casts doubt regarding the firm's ability to identify suitable targets. This in turn reduces the likelihood of an institutional investor to back out of a deal and thus leads to higher bidder termination fees. On the contrary, CB&I – in its pursuit to expand its portfolio across the energy sector – was faced with a difficult due diligence attributable to the complex regulatory and contractual situation of the Shaw Group's nuclear projects (SEC, 2012). Consequently, CB&I had a clear interest to minimize its own termination fees to allow for a less costly retreat should the due diligence and broader negotiation process uncover deal breakers. In conclusion,

the stronger bargaining position by the bidder compared to the target made higher target than bidder termination fees more likely.

Even though the negotiation position was heavily skewed towards the CB&I as the bidder, the Shaw Group's bargaining position had not deteriorated to the point where CB&I could successfully negotiate an exclusion of bidder termination fees. Such a situation would have been more likely in case of a targets insolvency where the sales pressure that arises out of the demand for a fast liquidation (Bris et al., 2006) potentially erodes any position in a negotiation that would allow a target to demand the inclusion of bidder termination fees (i.e., preventing the bidder from negotiation the exclusion of bidder termination fees). When in early 2013 CB&I announced the acquisition of the Shaw Group, the termination fees unsurprisingly reflected the distribution of bargaining power between both parties. While the Shaw Group had to pay \$104 million in case it backed out from the deal, the bidder termination fees for CB&I were substantially lower and amounted to \$64 million.

References

- Achleitner, A., & Figge, C. (2014). Private equity lemons?: Evidence on value creation in secondary buyouts. *European Financial Management*, 20(2), 406–433.
- Afsharipour, A. (2010). Transforming the allocation of deal risk through reverse termination fees. *Vanderbilt Law Review*, 63(5), 1161–1240.
- Ahern, K. R. (2012). Bargaining power and industry dependence in mergers. *Journal of Financial Economics*, 103(3), 530–550.
- Allred, B. B., Boal, K. B., & Holstein, W. K. (2005). Corporations as stepfamilies: A new metaphor for explaining the fate of merged and acquired companies. *The Academy of Management Executive*, 19(3), 23–37.
- American Bar Association. (2010). *Model stock purchase agreement with commentary* (2nd ed.). Chicago: ABA Book Publishing.
- André, P., Khalil, S., & Magnan, M. (2007). Termination fees in mergers and acquisitions: Protecting investors or managers? *Journal of Business Finance & Accounting*, 34(3–4), 541–566.
- Arcot, S., Fluck, Z., Gaspar, J.-M., & Hege, U. (2015). Fund managers under pressure: Rationale and determinants of secondary buyouts. *Journal of Financial Economics*, 115(1), 102–135.
- Badawi, A. B., & de Fontenay, E. (2019). Is there a first-drafter advantage in M&A. *California Law Review*, 107, 1119–1170.
- Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21(2), 785–818.
- Bates, T. W., & Lemmon, M. L. (2003). Breaking up is hard to do?: An analysis of termination fee provisions and merger outcomes. *Journal of Financial Economics*, 69(3), 469–504.
- Bloomberg. (2020). Coronavirus pandemic drags global M&A to lowest level since 2012. Retrieved from <https://www.bloomberg.com/news/articles/2020-06-30/coronavirus-pandemic-drags-global-m-a-to-lowest-level-since-2012>, New York City.

- BloombergNEF. (2017). *How Toshiba lost \$6 billion*. Retrieved from <https://about.bnef.com/blog/how-toshiba-lost-6-billion/>, New York City.
- Boone, A. L., & Mulherin, J. H. (2007). Do termination provisions truncate the takeover bidding process? *Review of Financial Studies*, 20(2), 461–489.
- Bris, A., Welch, I., & Zhu, N. (2006). The costs of bankruptcy: Chapter 7 liquidation versus chapter 11 reorganization. *The Journal of Finance*, 61(3), 1253–1303.
- Business Wire. (2011). CB&I acquires 100% interest in CDTECH. Retrieved from <https://www.businesswire.com/news/home/20110103005262/en/CBI-Acquires-100-Interest-in-CDTECH>, San Francisco.
- Business Wire. (2012). CB&I announces agreement to acquire the Shaw Group. Retrieved from <https://www.businesswire.com/news/home/20120730005581/en/CBI-Announces-Agreement-to-Acquire-the-Shaw-Group>, San Francisco.
- Butler, F. C., & Sauska, P. (2014). Mergers and acquisitions: Termination fees and acquisition deal completion. *Journal of Managerial Issues*, 26(1), 44–54.
- Cernat, L. (2004). The emerging European corporate governance model: Anglo-Saxon, Continental, or still the century of diversity? *Journal of European Public Policy*, 11(1), 147–166.
- Chakrabarti, R., Gupta-Mukherjee, S., & Jayaraman, N. (2009). Mars–Venus marriages: Culture and cross-border M&A. *Journal of International Business Studies*, 40(2), 216–236.
- Chapple, L., Christensen, B., & Clarkson, P. M. (2007). Termination fees in a ‘bright line’ jurisdiction. *Accounting and Finance*, 47(4), 643–665.
- Che, Y.-K., & Lewis, T. R. (2007). The role of lockups in takeover contests. *The RAND Journal of Economics*, 38(3), 648–669.
- Choi, A. H. (2020). Deal protection devices. *University of Chicago Law Review*, *Forthcoming*.
- Choi, A. H., & Triantis, G. (2012). The effect of bargaining power on contract design. *Virginia Law Review*, 98, 1665–1743.
- Choi, A. H., & Wickelgren, A. L. (2019). Reverse break-up fees and antitrust approval, *Working Paper*.
- Coates, J. C. (2015). M&A contracts: Purposes, types, regulation, and patterns of practice, *Harvard John M. Olin Discussion Paper Series Paper*, (825).
- Coates, J. C., & Subramanian, G. (2000). A buy-side model of M&A lockups: Theory and evidence. *Stanford Law Review*, 53(2), 307–396.
- Coates, J. C., Palia, D., & Wu, G. (2018). Reverse termination fees in M&A. *mimeo*. Harvard Law School.
- Danbolt, J., & Maciver, G. (2012). Cross-border versus domestic acquisitions and the impact on shareholder wealth. *Journal of Business Finance & Accounting*, 39(7–8), 1028–1067.
- Denis, D. J., & Macias, A. J. (2013). Material adverse change clauses and acquisition dynamics. *Journal of Financial and Quantitative Analysis*, 48(3), 819–847.
- Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of cross-border mergers and acquisitions. *The Journal of Finance*, 67(3), 1045–1082.
- Financial Times. (2011). IAG wins BMI with £172.5m cash deal. Retrieved from <https://www.ft.com/content/df3ef7f2-2c74-11e1-aaf5-00144feabdc0>, London.
- Freund, J. C. (1975). *Anatomy of a merger: Strategies and techniques for negotiating corporate acquisitions*. New York: Law Journal Press.
- Gao, N. (2011). The adverse selection effect of corporate cash reserve: Evidence from acquisitions solely financed by stock. *Journal of Corporate Finance*, 17(4), 789–808.
- Horbenko, A. S., & Malenko, A. (2014). Strategic and financial bidders in takeover auctions. *The Journal of Finance*, 69(6), 2513–2555.

- Grave, K., Vardiabasis, D., & Yavas, B. (2012). The global financial crisis and M&A. *International Journal of Business and Management*, 7(11), 56.
- Gugler, K., & Yurtoglu, B. (2004). The effects of mergers on company employment in the USA and Europe. *International Journal of Industrial Organization*, 22(4), 481–502.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks: Sage.
- Jelic, R., & Wright, M. (2011). Exits, performance, and late stage private equity: The case of UK Management buy-outs. *European Financial Management*, 17(3), 560–593.
- Jeon, J. Q., & Lee, C. (2014). Effective post-signing market check or window dressing?: The role of go-shop provisions in M&A transactions. *Journal of Business Finance & Accounting*, 41(1–2), 210–241.
- Jeon, J. Q., & Ligon, J. A. (2011). How much is reasonable?: The size of termination fees in mergers and acquisitions. *Journal of Corporate Finance*, 17(4), 959–981.
- Kaplan, S. N., & Stromberg, P. (2009). Leveraged buyouts and private equity. *The Journal of Economic Perspectives*, 23(1), 121–146.
- Klingsberg, E. A. (2016). M&A agreements and the challenges of PRC acquirors. Retrieved from <https://corpgov.law.harvard.edu/2016/04/18/ma-agreements-and-the-challenges-of-prc-acquirors/>, Cambridge.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1–2), 3–27.
- Levy, E. R. (2002). Corporate courtship gone sour: Applying a bankruptcy approach to termination fee provisions in Merger and Acquisition agreements. *Hofstra Law Review*, 30, 1361–1402.
- Luo, Y. (2005). Do insiders learn from outsiders?: Evidence from mergers and acquisitions. *The Journal of Finance*, 60(4), 1951–1982.
- Modigliani F., & Miller M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261–297.
- Muehlfeld, K., Sahib, P. R., & van Witteloostuijn, A. (2007). Completion or abandonment of mergers and acquisitions: Evidence from the newspaper industry, 1981–2000. *The Journal of Media Economics*, 20(2), 107–137.
- Officer, M. S. (2003). Termination fees in mergers and acquisitions. *Journal of Financial Economics*, 69(3), 431–467.
- Panel on Takeovers and Mergers. (2011). Proposed amendments to the takeover code. Retrieved from <https://www.thetakeoverpanel.org.uk/wp-content/uploads/2008/11/PCP201101.pdf>, London.
- Pastena, V., & Ruland, W. (1986). The merger/bankruptcy alternative. *The Accounting Review*, 61(2), 288–301.
- Peel, M. J. (1995). The impact of corporate restructuring: Mergers, divestments and MBOs. *Long Range Planning*, 28(2), 92–101.
- Povel, P., & Singh, R. (2006). Takeover contests with asymmetric bidders. *Review of Financial Studies*, 19(4), 1399–1431.
- Puranam, P., Powell, B. C., & Singh, H. (2006). Due diligence failure as a signal detection problem. *Strategic Organization*, 4(4), 319–348.
- Restrepo, F., & Subramanian, G. (2017). The effect of prohibiting deal protection in M&A: Evidence from the United Kingdom. *The Journal of Law and Economics*, 60, 75–113.
- Reuters. (2011a). Shaw to sell Westinghouse stake to Toshiba. Retrieved from <https://www.reuters.com/article/us-utilities-westinghouse-idUSTRE7844HZ20110906>, London.

- Reuters. (2011b). Fukushima reactor has a hole, leading to leakage. Retrieved from <https://www.reuters.com/article/us-japan-nuclear-reactor-idUSTRE74B1H520110512>, London.
- Reuters. (2012a). Chicago Bridge to buy Shaw Group for \$3 billion. Retrieved from <https://www.reuters.com/article/us-shawgroup-offer/chicago-bridge-to-buy-shaw-group-for-3-billion-idUSBRE86TOFH20120730>, London.
- Reuters. (2012b). Shaw Group expects fewer orders this year. Retrieved from <https://www.reuters.com/article/us-shawgroup-results-idUSBRE8690KB20120710>, London.
- Reuters. (2016). Chinese pitch big M&A break-up fees, small stakes to allay U.S. regulatory fears. Retrieved from <https://www.reuters.com/article/china-tech-deals-idUKL3N1612JT>, London.
- Reuters. (2017). How two cutting edge U.S. nuclear projects bankrupted Westinghouse. Retrieved from <https://www.reuters.com/article/us-toshiba-accounting-westinghouse-nucle-idUSKBN17Y0CQ>, London.
- Reuters. (2018). Carlyle Group to buy Getty Images for \$3.3 billion. Retrieved from <https://www.reuters.com/article/us-getty-carlyle-idUSBRE87E0FE20120815>, London.
- Rosenkranz, S., & Weitzel, U. (2013). Breaking and entering' of contracts as a matter of bargaining power and exclusivity clauses, *Working Paper*.
- Rossi, S., & Volpin, P. F. (2004). Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), 277–304.
- Schnatterly, K., Shaw, K. W., & Jennings, W. W. (2008). Information advantages of large institutional owners. *Strategic Management Journal*, 29(2), 219–227.
- Schwartz, A., & Scott, R. E. (2003). Contract theory and the limits of contract law. *The Yale Law Journal*, 113, 541–619.
- Scientific American. (2012). Nuclear reactor approved in U.S. for first time since 1978. Retrieved from <https://www.scientificamerican.com/article/first-new-nuclear-reactor-in-us-since-1978-approved/>, New York.
- Securities and Exchange Commission. (2012). Form 424B3: Definitive Prospectus of the transaction between Chicago Bridge & Iron Company N.V. and the Board of Directors of The Shaw Group Inc., Washington.
- Sneirson, J. F. (2002). Merger agreements, termination fees, and the contract-corporate tension. *Columbia Business Law Review*, 2002(3), 573–628.
- Solórzano, J. S. (2009). An uncertain penalty: A look at the international community's inability to harmonize the law of liquidated damages and penalty. *Clauses', Law and Business Review of the Americas*, 15(4), 779–818.
- The Wall Street Journal. (2011). AT&T is paying the biggest breakup fee ever. Retrieved from <https://www.wsj.com/articles/BL-DLB-35948>, New York City.
- The Wall Street Journal. (2012). A \$3 billion deal forms new power plant player. Retrieved from <https://www.wsj.com/articles/SB10000872396390444130304577558881887695616>, New York City.
- Very, P., & Schweiger, D. M. (2001). The acquisition process as a learning process: Evidence from a study of critical problems and solutions in domestic and cross-border deals. *Journal of World Business*, 36(1), 11–31.
- Wang, Y. (2012). Secondary buyouts: Why buy and at what price? *Journal of Corporate Finance*, 18(5), 1306–1325.
- Williams, S. (2017). Venture capital contract design: An empirical analysis of the connection between bargaining power and venture financing contract terms. *Fordham Journal of Corporate and Financial Law*, 23(1), 105–172.

- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data* (2nd ed.). Cambridge, Mass: MIT Press.
- Wooldridge, J. M. (2020). *Introductory econometrics: A modern approach*. Mason: South-Western Cengage Learning.
- Wright, M., Renneboog, L., Simons, T., & Scholes, L. (2006). Leveraged buyouts in the U.K. And continental Europe: Retrospect and prospect. *The Journal of Applied Corporate Finance*, 18(3), 38–55.

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