LAWYER EXPERTISE AND CONTRACT DESIGN –

EVIDENCE FROM M&A NEGOTIATIONS*

(Short Title: LAWYER EXPERTISE AND CONTRACT DESIGN)

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We argue that the relative expertise of contracting parties strongly affects contractual outcomes. Using unique data on company acquisition contracts, we document that lawyers with higher expertise relative to their counterparties negotiate better risk allocation for their clients and more favourable target prices. The benefits of high expertise outweigh its costs, largely because high-expertise lawyers economize on transaction costs by shortening negotiation times. Our findings suggest a need for explicit modelling of contracting skills, and they help explain heterogeneity in legal fees across law firms and the role of league tables of law firms.

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The traditional economic analysis of contract design focuses on informational and economic determinants to predict contractual outcomes. This approach has provided important insights into real-world contracting. Much less attention has been paid to characteristics of the parties designing the contracts, even though negotiation skills, experience, and legal knowledge are highly prized, and intensely taught in business and law schools.[1] As Bolton and Dewatripont (2005, p. 7) state in their contract theory textbook 'In reality it is likely that most contracts that we see partly reflect prior negotiations and each party's negotiating skills'. Nevertheless, the standard paradigm of optimal contract design abstracts from the expertise of the parties designing the contracts.

In this paper, we use the context of private company acquisitions to show that the expertise of the negotiating parties is a first-order determinant of contractual outcomes. Our focus are M&A lawyers, who spend much time and effort negotiating the details of acquisition contracts on behalf of the buyer and the seller of a target company. We utilize a unique data set of 151 acquisition contracts for privately held targets provided by a major law firm from the Netherlands. Buyers and sellers include private equity firms, corporations, or families. Our proprietary data allow us to examine key contract clauses and bargaining details that prior studies were unable to explore.

We find that lawyers with more experience and better education negotiate contracts that benefit their clients by allocating more risks to their counterparties. It is *relative* expertise, compared to the other side, not the absolute level of expertise that matters for contractual outcomes. Relative expertise is also associated with better target prices, after controlling for the negotiated contract clauses. High-expertise lawyers do not cost more in total; they tend to negotiate faster, resulting in lower bills despite higher hourly fees. We argue that frictions in the assignment of lawyers appear to hinder the optimal allocation of lawyers to deals. Our findings highlight the

[1] There is a large legal literature that highlights these factors for explaining real-world contracts. Gilson and Mnookin (1995) argue that 'whether lawyers […] succeed in creating value depends importantly upon their negotiation skills'.

importance of modelling more formally the role and abilities of the parties that design contracts.[2]

Our analysis builds on a stylised theoretical model that guides the empirical tests and helps sharpen intuitions about causality when lawyer assignment might be endogenous. The model allows for heterogeneous client characteristics to influence the assignment of lawyers to clients. It shows that in case of exogenous lawyer assignment, only relative (not absolute) expertise matters for the distribution of surplus. With endogenous lawyer assignment, instead, surplus distribution also depends on absolute expertise. The model allows for different determinants of endogenous lawyer assignment, especially deal complexity, which we analyse empirically.

For our empirical analysis, we construct five novel measures of contract-related negotiation outcomes based on economic theory, legal textbooks, and interviews of M&A lawyers. The measures capture key outcomes that are economically important and unambiguously favourable for one party or the other. That is, rather than applying textual analysis to the entire contracts, we follow prior empirical contracting literature (Ackerberg and Botticini, 2002; Kaplan and Strömberg, 2003; Lerner and Malmendier, 2010) and use economic theory and legal principles to identify key contract clauses and bargaining features.

The first three outcomes are key risk-related clauses in M&A contracts: knowledge qualifiers, materiality qualifiers, and material adverse change (MAC) clauses. Knowledge and materiality qualifiers allocate risks related to warranties, i.e., to the guarantees of the seller about the quality of the target. The advice to seller lawyers is to 'add materiality and knowledge qualifiers wherever possible' (Miller, 2008, p.240) as both qualifiers reduce the enforceability of warranties. Knowledge qualifiers render a warranty unenforceable unless the buyer proves that the seller knew

[2] An anecdotal, but frequently cited, example for the importance of lawyer expertise in M&A is that of David A. Katz, from Wachtell, Lipton, Rosen & Katz. Katz is repeated ranked as one of the world's leading M&A lawyers (e.g., by *American Lawyer* or *Who's Who Legal*), and he is particularly known for combining legal expertise with strong negotiation skills (e.g., when advising El Paso Corp. during the $37 billion acquisition by Kinder Morgan).

of a warranty violation. Materiality qualifiers specify that warranty violations need to be 'material'. The third contract clause shifts the risk of adverse events between the signing and closing of a deal to the seller, allowing the buyer to cancel a deal if the target suffers a material adverse change. While the buyer prefers to exclude any qualifiers and to include a MAC clause, the seller prefers the opposite and favours not to carry these risks.

The next two outcomes concern bargaining strategies that lawyers employ to negotiate in their clients' favour. First, we identify which law firm provided the first contract draft, which creates a first-mover advantage and sets a reference point (Hart and Moore, 2008). As Freund (1975, p. 26) writes: 'The axiom is: If you have an opportunity to draft the documents, do so; you will jump into the lead, and your opponent will never catch up completely'.[3] Second, we consider the length of the closing time. Long closing times can be detrimental to a buyer as the seller keeps control of the target and may extract private benefits, and they increase the risk that news about a deal leaks to the market, which may attract additional bidders.

We measure the expertise of the lawyers, who are usually partners at their firms, using their experience and education. All five contracting outcomes are significantly related to the relative expertise of the involved lawyers. Higher-expertise buyer lawyers prevent sellers from introducing knowledge and materiality qualifiers, and are more likely to introduce MAC clauses. An interquartile-range (IQR) increase in relative buyer-lawyer expertise increases the likelihood of a MAC clause by 77%.[4] Further, an IQR increase in relative buyer-lawyer expertise implies a 68% higher likelihood of providing the first draft, and more buyer-lawyer expertise reduces closing times. The results become stronger when we aggregate all five outcomes into a negotiation index.

[3] Badawi and de Fonteney (2019) show that the party that provides a merger agreement draft receives more favourable contract outcomes for terms that are harder to monetize, more complex, and negotiated exclusively by lawyers.
[4] Relative lawyer expertise also predicts the strength of MAC clauses, which addresses the concern that unspecific MAC clauses may not be bargaining success as they are not easily enforceable in court.

One interpretation of our estimations is the one proposed in the model: higher-expertise lawyers are better able to negotiate for their clients. Alternatively, the relationship may reflect assortative matching: higher-expertise lawyers are assigned to negotiations that generate more favourable results for their clients due to unobserved reasons. Our baseline estimations address this concern to some extent, especially with the model-guided inclusion of controls. We address remaining concerns about confounds arising from endogenous lawyer assignment in four ways.

First, our detailed data allow us to include three sets of fixed effects that absorb various sources of unobserved heterogeneity: drafting-law-firm fixed effects, client fixed effects, and lawyer fixed-effects. Our results hold when re-estimating the regressions with each of the fixed effects individually and, for the negotiation index, with all three fixed effects jointly.

Second, we exploit the high propensity of clients to employ a previously used law firm for subsequent deals. This friction implies that, even if unobserved characteristics were to drive the initial lawyer assignment, the assignment is not optimized for subsequent cases. Our results continue to hold when we re-estimate only on the subsample of subsequent deals.

Third, we exploit clients' preference for nearby lawyers. Due to this friction, nearby lawyers have on average lower expertise than distant lawyers. Using client-lawyer distance as an instrument, (instrumented) relative expertise continues to predict negotiation outcomes.

Fourth, we leverage our model's prediction that negotiation outcomes are determined by *relative* expertise. As we show theoretically, estimations continue to generate unbiased estimators if we include absolute expertise on top of relative expertise, but absolute expertise should not be a predictor of our outcomes. If lawyer assignment is endogenously determined by an omitted variable, any such variable should be related to absolute expertise. This insight enables us to evaluate the role of omitted variables by introducing absolute expertise into the estimation. The

impact of relative expertise remains significant when we controlling for absolute expertise. Absolute expertise is insignificant, which is hard to reconcile with endogenous lawyer assignment.

In a last step, we demonstrate that more relative lawyer expertise is associated with lower acquisition prices. An IQR increase in relative buyer-lawyer expertise comes with a 0.58 decrease in the acquisition premium (more than 20% of the standard deviation). At the same time, the contract terms are unrelated to the acquisition premium. This implies that high-expertise lawyers not only negotiate better contract terms, but also that these terms do not lead to adjustments in the prices that are being paid. Better lawyers generally do not cost more in total, as they tend to negotiate faster, resulting in lower legal bills despite higher hourly fees. The positive net benefits of expertise suggest inefficiencies in the market for lawyers—more clients should seek out high-expertise lawyers. Hence, frictions in the assignment of lawyers, possibly from geographical preferences for nearby lawyers, appear to reduce efficiency in the market for legal advice.

Our findings help explain the importance of league tables and variation in legal fees in the M&A industry, and highlight the need to model more formally the role and abilities of parties that design contracts. A limitation is that our data are from one law firm, representing a buyer or seller in each transaction. Further, the majority of the targets (85%) that are being sold are located in the Netherlands, the country of this law firm, and in 91% of contracts the choice of law is Dutch law. Yet, in more than 50% of the deals the buyer or seller is from outside of the Netherlands.

We relate to a literature on empirical contracts that evaluates the relevance of contract-theoretical predictions. Ackerberg and Botticini (2002) show that the determinants of contract design considered in traditional models play less of a role than previously assumed and, similar to our work, establish the importance of characteristics of the negotiating parties in predicting contract design. While Ackerberg and Botticini (2002) show that characteristics affect contracts

via matching, we show that characteristics matter beyond matching. Other papers in this vein include Kaplan and Strömberg (2003) on VC contracts, and Lerner and Malmendier (2010) on strategic alliances. Differently from our work, these papers do not explore the role of lawyers.

A small set of papers explore lawyer assignment. Rosen (1992) documents that lawyers' earnings are increasing in experience, but at a decreasing rate, inconsistent with assignment models. Spurr (1987) investigates how legal expertise is related to promotions and firings in law firms. Haire *et al.* (1999) show that better attorneys achieve better litigation results, and Iverson *et al.* (2018) show that more experienced bankruptcy judges make better and quicker decisions. Agan *et al.* (2019) study lawyer quality in an assigned legal counsel system.

Very few papers study law firm characteristics and M&A outcomes. Coates (2012) relates law firm expertise to earnouts and price adjustments, and Coates (2016) reviews M&A contracts and data sources. Krishnan and Masulis (2013) and Krishnan and Laux (2008) relate law firm rankings and size to M&A outcomes. Schweizer and Wu (2019) connect law firm expertise with announcement returns and contract terms in public M&A deals. We complement these studies in pinning down the relative expertise of individual lawyers as an unexplored determinant of important contract outcomes, many of which have not been studied due to data limitations.

Only few papers study M&A bargaining. Boone and Mulherin (2007) examine whether firms are sold through auctions or negotiations, and Ahern (2012) examines the role of product markets for bargaining outcomes. We contribute to this literature by highlighting the role of characteristics of lawyers for contracting outcomes and bargaining dynamics.

1. Theoretical and Empirical Framework

We preface our tests with a model to pinpoints *relative* expertise as a determining factor for contract outcomes, and to derive a way to distinguish relative expertise from omitted variables.

1.1. *Stylized Model*

We employ Rubinstein's (1982) infinite-horizon bargaining game to model negotiations between a buyer *B* and a seller *S*. The surplus *Y* that the acquisition contract generates is normalized to 1. In each period, one party $i \in \{B, S\}$ is selected to make an offer, i.e., to propose shares Y_i and Y_j, with probability p_i ($p_i \geq 0$ and $p_B + p_S = 1$). The other side can accept or reject the offer. Both parties maximize expected discounted utility with the same discount factor (< 1).

In this setting, p_i captures i's bargaining strength: Both clients prefer to make, rather than receive, an offer since they can exhaust the counterparty. For instance, if only the buyer can make offers, the buyer receives the entire surplus under the unique Subgame Perfect Equilibrium (SPE). As a client's probability to make an offer increases, the client's payoff becomes larger. In fact, as prior literature has derived, player i's payoff Y_i^* equals p_i in the unique SPE.

Bargaining strength p_i might represent different determinants, and based on the M&A literature, we consider the size of the buyer/seller and deal complexity as key determinants. We introduce lawyer expertise as a novel determinant of bargaining strength. Client (i.e., buyer or seller) size is labelled as N_i, deal complexity as $C \in [0,1]$, and the expertise of client i's lawyer as L_i. We allow absolute values (L_i and N_i) and relative values (L_i/L_j and N_i/N_j) to affect bargaining strength. Further, we allow for interaction effects between deal complexity and expertise, which would result from endogenous assignment of higher-expertise lawyers to more complex deals (Gabaix and Landier, 2008). We assume that p_i is a separable function of these determinants:

$$p_i = \phi_l F\left(C, \frac{L_i}{L_j}, L_i\right) + \phi_n G\left(\frac{N_i}{N_j}, N_i\right) + \phi_i(C), \quad (1)$$

where $F(.)$ is non-decreasing in own-lawyer and relative lawyer expertise, and more so as complexity increases, and $G(.)$ is non-decreasing in a client's own size and in relative size.

PROPOSITION 1. *Conditional on the relative values of lawyer expertise and client size, bargaining strength p_i is independent of the absolute values of expertise L_i and client size N_i.*

Proof. See Online Appendix (OA) Section B.

Proposition 1 states that, while *relative* lawyer expertise affects the negotiation outcome, their *absolute* levels do not add predictive power above and beyond relative expertise. Intuitively, to predict the distribution of surplus, we want to know how the expertise levels on both sides stack up against each other, rather than the individual expertise.

If lawyers are matched exogenously to clients, then, as in Rubinstein (1982), the unique SPE payoff Y_i^* equals p_i. Proposition 1 in turn implies that relative lawyer expertise determines the surplus distribution, in addition to relative client size and deal complexity, which we allow for in the formulation of $F(.)$ and $G(.)$. Hence, relative lawyer expertise, relative client size, and deal complexity should be included in the empirical model. Absolute expertise levels, instead, do not need to be included, and if they are, they should *not* affect the surplus distribution unless lawyer assignment is endogenous to either size or expertise.

If lawyers are matched endogenously, e.g., based on deal complexity, returns to expertise should increase with complexity so that better lawyers are assigned to more complex deals. In that case, it is important to control for deal complexity, in levels and possibly interacted with expertise. Indeed, we show that better lawyers work on more complex deals, as measured by the cross-border nature of a deal. But we also show that the cross-derivative with relative lawyer expertise is insignificant, and the predictive power of relative expertise is orthogonal to deal complexity.

1.2. *Statistical Model*

To derive an estimating equation for the role of relative lawyer expertise, we translate (1) into a linear model, using Proposition 1 (no direct effects of L_i and N_i) and $F_i\left(C, \frac{L_i}{L_j}, L_i\right) = (1 + \rho C)\frac{L_i}{L_j} \equiv$

$(1+\rho C)l_{ij}$, $G_i\left(\frac{N_i}{N_j}, N_i\right) = \frac{N_i}{N_j} \equiv n_{ij}$, and $\phi_i(C) = \alpha_i + \delta_i C$. We can then express p_i as:

$$p_i = \alpha_i + \xi l_{ij} + \gamma C l_{ij} + \lambda n_i + \delta_i C \quad (2)$$

where $\xi = \phi_l$, $\gamma = \phi_l \rho$, and $\lambda = \phi_n$. To estimate the effect of relative expertise l_{ij} on the surplus share Y^*_{ijm} that *i* obtains in deal *m* with counterparty *j*, we need proxies for 'pie sharing'. While we do not perfectly observe the clients' shares, we have proxies for contractual clauses and the bargaining process. Rewriting (2), we can estimate the following reduced model:

$$Y^*_{ijm} = \beta_0 + \beta_l l_{ij} + \beta_{cl} C_m l_{ij} + \beta_n n_{ij} + \beta_c C_m + \epsilon_{ijm} \quad (3)$$

where ϵ_{ijm} represents omitted factors influencing the buyer's share in contract *m*. This error term might be an i.i.d. zero mean contract-specific shock, but in case of endogenous lawyer assignment it may reflect unobserved client heterogeneity. As explained, potentially unobserved client characteristics are a function of absolute expertise in case of endogenous assignment:

$$\epsilon_{ijm} = g(L_i, L_j) + \varepsilon_{ijm} \quad (4)$$

Hence, if only relative expertise l_{ij} determines bargaining strength, we can identify β_l by estimating (3). We are able to control for omitted client heterogeneity $g(L_i, L_j)$ by directly introducing expertise levels into the estimation. If lawyer assignment is endogenous, then there should be a correlation of surplus distribution also with absolute expertise.

2. Data and Variable Construction

2.1. *Sample*

Our sample consists of the files of 151 acquisitions of privately-held targets between 2005 and 2010. The files have been made available by one of the largest law firms in the Netherlands, which advised buyers (86 deals) or sellers (65 deals). The files contain the acquisition contracts, information on the lawyers involved, and details on the bargaining.

Lawyers usually negotiate in teams of a lead lawyer and several associates. Our files allow us identify a deal's lead lawyers, and we focus on their expertise in our tests. Lead lawyers are usually partners and we assume that they guide the negotiations.[5] Across our sample, 112 lead lawyers of 49 law firms are involved in the negotiations. Our sample includes eight of the world's top-10 law firms based on deal volume. Twenty lead lawyers are from the data-providing law firm.

Conversations with lawyers in our law firms suggest that client-partner relations are stable over time, and that partners typically cover a client relation over their partner careers, advising clients on the full M&A spectrum. To corroborate this conclusion, we conducted a survey among our firm's lawyers, in which 19 of the 20 in-sample lawyers participated.[6] Table A1 in the online appendix presents responses to the question 'How are deals allocated to partners within your law firm?' All responding lawyers listed an existing client-lawyer relation as the number one factor.

To measure lawyer expertise, we collect data from the webpages of the involved law firms, internet searches, and Mergermarket. We complement these data with information on the buyers, sellers, and targets from Amadeus, national trade registers, and financial statements. All financial variables are from the end of the year preceding the closing of a deal.

Table 1, panel A, shows that the mean target purchase price is €222m, and in the median deal the buyer buys 100% of the target (mean of 92%).[7] Asset deals, where a list of target assets (and liabilities) transfer to the buyer, constitute only 9% of deals; in all other deals shares are bought. A total of 44% of deals are international (target and buyer from different countries), auctions are used in 23% of cases, and negotiations take on average 170 days. Buyers and sellers have median

[5] There is anecdotal evidence that lead lawyers with higher expertise usually work with better associates. The conversations with our law firm do not indicate that more junior lawyers are acting as lead lawyers and then borrow the expertise of more senior partners, which are brought in on a consultative basis.
[6] The survey also contained questions about the lawyers' assessment of key contract clauses. These questions are not covered in this paper due to space constraints, but we have used the response when deciding which clauses to consider.
[7] Due to the proprietary nature of our data, we are limited in how much detail we can provide about the deals.

book values of €1.4bn and €2.1bn, respectively. Both sides have similar median deal experience (four deals over the past five years), and buyers (sellers) use the services of the in-house legal departments in 5% (11%) of deals.

Table 1, panel B, shows that our sample contains a variety of buyers and sellers. Among the sellers, 58% are strategic investors (corporations selling a business or subsidiary), 18% are families (selling a family business or investment of their family offices), 15% are private equity (PE) firms, 7% are financial institutions (banks or insurance firms), and 2% governments. On the buyer side, 64% are strategic investors, followed by PE firms (22%), financial institutions and governments (7% each), and families (1%). Thirty-eight percent of targets are transferred between corporations.

Table A2, panel A, displays that strategic investors most frequency rely on in-house counsel when buying targets, and strategic investors and families most often use in-house lawyers when they are on the sell side. Table A2, panel B, shows that buyers, sellers, and targets come from a range of industries, and more than half of all targets are in manufacturing or services.

Table 1, panel C, illustrates that, by virtue of our law firm's location, most parties are from the Netherlands. Nevertheless, in more than half of the cases, at least one party is from outside of this country, and in 15% of the deals the target is a non-Dutch company. Table 1, panel D, displays that in the vast majority of deals (91%), the choice of law stipulated in the contracts is Dutch law.

2.2. *Measuring Negotiation Outcomes*

2.2.1. *M&A Negotiation Process*

Contract negotiations usually start with a first contract draft provided by one of the parties, which combines a standard sample contract and deal specifics. Law firms have different sample contracts and the first draft is biased towards the own party. The counter-party lawyer then prepares a mark-up with preferred changes. The lawyers extensively discuss these changes and send mark-ups back

and forth. The target price is often not part of these negotiations and not mentioned in the draft until late in the negotiations. While there is no explicit interaction at this stage between pricing and contract design, the final price can be adjusted if issues appear that the contract does not mitigate. Unless the transfer of control (closing) occurs at the signing date, the contract stipulates conditions to be met before the closing.

2.2.2. *Contract Design*

Law textbooks and research papers identify two key clauses that allocate risks between contracting parties and are subject to extensive negotiations, the knowledge qualifier and the materiality qualifier (Freund, 1975; Miller, 2008). These clauses are attached to warranties, that is, to guarantee statements of the seller about the quality of the target. The first clause, the knowledge qualifier states that a warranty is only true 'so far as the seller is aware'. A qualified warranty cannot be enforced unless the buyer proves that the seller was aware of the breach at the time of signing (Freund, 1975). Warranties with knowledge qualifiers allocate risk to buyers, while those without them allocate risk to sellers. Our first measure is the fraction of warranties without knowledge qualifiers. We construct this proxy as a measure of exclusion ('*without*') so that it positively relates to the buyer's interest; we do the same for all measures. For any given price, the buyer prefers the inclusion of few qualifiers, while the sellers has the opposite incentive. Table 2, panel A, shows that the inclusion of knowledge qualifiers is an exceptional bargaining success for a seller, as 86% of warranties do not include such statements.

The second clause is a materiality qualifier, the statement that warranty violations can only be claimed if they are 'material'. This clause reduces the warranty risk of the seller, as the buyer needs to prove that a warranty is violated and that the damage is material. We construct an indicator equal to 1 if warranty breaches do *not* need to be material, which is in the interest of the buyer.

Eighty-one percent of contracts specify that warranty breaches do not need to be material.

The third clause concerns material adverse events occurring between signing and closing. As a default, this risk lies with the buyer, who contractually agrees to purchase the target at a given price. If adverse events substantially reduce the value of the target after signing, the buyer still has to honour the contract. MAC clauses shift this risk to the seller by stipulating that the buyer can refuse deal completion if the target suffers a material adverse change. While buyers prefer the inclusion of this clause, sellers favour not to carry this risk. Our measure is an indicator equal to 1 if the contract contains a MAC clause; 34% of our deals do so. For robustness, we consider an index that measures the strength of the MAC clause by accounting for MAC exceptions.

2.2.3. *Bargaining Process*

Drafting the first contract provides a first-mover advantage and sets a reference point. Law firms have buyer- and seller-friendly model contracts and, as the first mover, use the model that is friendly towards the own party. We can identify which law firm provided the first draft and construct an indicator equal to one if it was the buyer. The first draft comes in 44% of the deals from the buyer law firm. Table A3, panel A, shows that sellers who are able to provide the first drafts are also in a better position to include knowledge and materiality qualifiers.

A second aspect is the closing time, the time between the contract signing and the target transfer. While the duration largely depends on regulatory or shareholder approvals, lawyers can influence it by filing documents more quickly or pushing for fast responses.[8] Buyers prefer fast closings as sellers remain in control of the target until closing and, with the target price fixed, might act opportunistically. Buyers also benefit from short closing times as it reduces the risk that news about the deal leaks, which could attract more buyers. However, this view is not universal,

[8] This is particularly relevant in our setting, as Dutch law requires that the target's work council is consulted before a deal is closed, which can imply significant delays.

as the buyer may also have incentives to delay the closing with the goal to obtain price concessions or other deal adjustments.[9] Our data indicate considerable closing time, about 46 days on average.

2.2.4. *Negotiation Index*

We aggregate all five negotiation outcomes into a *Negotiation Index* to strengthen the power of our estimations and to address substitution effects. Specifically, when a lawyer reaches a favourable result with respect to one deal outcome, she might have to accommodate the other side with respect to another outcome. *Negotiation Index* is then the sum of the five deal-outcome variables; higher numbers reflect outcomes that are more favourable to the buyer.[10]

2.3. *Measuring Relative Lawyer Expertise*

We construct an index of *Relative Lawyer Expertise* based on six components. If the underlying data are continuous, the components are created by dividing the expertise value of the buyer lawyer by the value of the seller lawyer. Hence, higher ratios indicate higher relative buyer lawyer expertise. We standardize the ratios such that they range between zero and one. If the underlying data are binary, the components take three values: 0 if the seller lawyer has more expertise; 0.5 if both have the same expertise; and 1 if the buyer lawyer has more expertise.

Years as Partner is the years of experience of the buyer relative to the seller lawyer, measured since promotion to partner, and ranges between 0 (most seller lawyer experience) and 1 (most buyer lawyer experience). *Deal Experience* is the experience of the buyer relative to the seller lawyer, measured as the number of deals advised on, and ranges between 0 (most seller lawyer experience) and 1 (most buyer lawyer experience). *M&A Specialist* equals 0 if only the seller lawyer is an M&A specialist; 0.5 if both or neither are M&A specialists; and 1 if only the buyer

[9] To ensure our conclusions are no affected by the coding of this variable, we verify that our results are robust to excluding this variable from the analysis.

[10] To construct the index, we create two additional indicators specifying (i) whether the closing time equals zero (in 32% of deals); and (ii) whether *%Warranties w/o Knowledge Qualifier* is above the median.

lawyer is an M&A specialist. *Chambers Recommendation* utilizes the Chambers ranking on 'the world's leading lawyers' and it equals 0 if only the seller lawyer is recommended in the ranking; 0.5 if both or neither are recommended; and 1 if only the buyer lawyer is recommended. *Law School Ranking* captures the quality of a lawyer's law school and we use the ratio of the inverse of the rank (standardized between 0 and 1). Higher numbers indicate that the buyer lawyer studied at a relatively better university. *US Education* accounts for graduation from a US law school, as US programs tend to focus more on negotiation skills compared to European programs. It equals 0 if only the seller lawyer studied at a US law school; 0.5 if both or neither studied at a US law school; and 1 if only the buyer lawyer studied at a US law school.

Relative Lawyer Expertise averages these six components and ranges between 0 and 1. When the seller (buyer) did not hire a law firm, but relied on in-house lawyers, we assume low legal expertise and set the index value to 1 (to 0). (We show that results are unaffected by this assumption.) We also construct indices for the buyer and seller lawyer separately. They also range between 0 and 1, with higher values indicating more buyer or seller expertise.

Table 2, panel B, shows that the mean expertise ratio equals 0.41, indicating that sellers tend to have more high-expertise lawyers at their disposal. Table A3, panel B, reveals that the index components are positively but far from perfectly correlated.

2.4. *Determinants of Relative Lawyer Expertise*

Table 3 explores which observables drive the assignment of lawyer expertise to deals. Columns 1 and 2 relate *Relative Lawyer Expertise* to deal characteristics, and columns 3 to 6 consider *Buyer Lawyer Expertise* and *Seller Lawyer Expertise* separately. Two explanatory variables in these matching equations directly relate to our model, and we later use them as key controls when explaining negotiation outcomes: buyer relative to seller size, and a cross-border indicator as a

proxy for deal complexity. The use of relative client size follows the M&A literature, which establishes this variable as an important factor reflecting buyer versus seller bargaining power (Moeller *et al.,* 2004). We further consider target size, whether a deal is an asset deal, and the expertise of the financial advisors. Colum 2 additionally accounts for the nature of the deal parties by including indicators for whether a client is a PE firm or strategic investor.

Columns 1 and 2 show that relative lawyer expertise is largely unrelated to deal characteristics, with relative client size emerging as the only variable predicting relative expertise. The estimates imply that relatively larger buyers match with lawyers that exhibit relatively more expertise. Columns 5 and 6 show that the client-size effect primarily originates from the seller. Consistent with our model, we observe in columns 3 and 4 that buyer lawyers with more expertise work on more complex deals. There is no evidence in columns 4 and 6 that higher legal expertise on one side of the table predicts higher expertise on the other side.

3. Empirical Results

3.1. *Scatter Plots of Relative Lawyer Expertise and the Negotiation Index*

Figure 1, panel A, provides a scatter plot derived from OLS regressions relating *Relative Lawyer Expertise* to the *Negotiation Index* (after partialling out year effects). The plots provide some first indication for a positive, and highly statistically significant (1%-level), relation between the two variables. The slope estimate of 2.9 implies that an IQR increase in relative expertise is associated with a rise in the *Negotiation Index* by 0.84 (65% of its standard deviation).

Figure 1, panel B, provides the same scatter plot, but additionally controls for deal characteristics that may in part affect the strong relation. We control for the two variables that directly relate to our model, relative client size and the cross-border indicator, and further control for target size, asset deals, and for the financial advisor expertise. The estimation further controls

for the number of warranties as the negotiation index contains warranty-related components. The scatter plot shows we continue to find a strong positive relation between relative lawyer expertise and the *Negotiation Index*, but the slope estimate decreases to 1.96.

3.2. *Baseline Regressions of Relative Lawyer Expertise on Individual Negotiation Outcomes*

We next explore from which components of the negation index the effect of relative lawyer expertise in Figure 1 originate, and also address coefficient bias from unobserved heterogeneity.

Table 4, columns 1 to 3, relate relative expertise to the three contract clauses of interest.[11] The estimates indicate that lawyers with more expertise negotiate contracts with significantly better risk allocation for the side they represent. In column 1, more relative buyer-lawyer expertise is associated with fewer warranties that include knowledge qualifiers: an IQR increase in relative expertise (0.29) implies an increase in *%Warranties w/o Knowledge Qualifier* by 4pp or 1/3 of the variable's standard deviation. Column 2 shows that an IQR increase in relative expertise is further associated with a 12pp increase in the likelihood of a materiality exception, about 1/8 of the variable's average frequency. In column 3, more legal expertise is associated with a higher likelihood that a MAC clause is included (for deals where signing and closing were not on the same day, as MAC clauses are otherwise irrelevant). Here, an IQR increase in relative buyer-lawyer expertise comes with a large increase in the likelihood of inclusion, namely of 26pp relative to a frequency of 34% (increase by 77%).

Column 4 shows that an IQR increase in the relative buyer lawyer expertise implies an increase of 68% in providing the first draft (increase of 30pp relative to a baseline of 44%). In column 5, an IQR increase in relative expertise reduces closing times by 23 days. We control for any required regulatory approvals to ensure that regulatory hold-ups do not confound the result.

[11] O.A. Table A4 provides corresponding results without control variables (estimates are similar).

Columns 6 shows the effect for the *Negotiation Index*. The estimates differ from Figure 1, panel B, in that we now estimate an Ordered Probit model. Yet, we continue to find that higher *Relative Lawyer Expertise* comes with more overall negotiation outcomes favourable for the buyer.

We also re-estimate all regressions with the interaction term between relative expertise and the complexity proxy. As indicated in the model, including *Relative Lawyer Expertise* x *Cross-Country Deal* addresses the concern that estimates may be biased if we do not account for such effects. However, the interaction term is always insignificant (bottom of Table 4). Instead, when we calculate the joint significance of *Relative Lawyer Experience* and the interactions, we reject the null of no joint significance whenever relative expertise is significant without interactions.

Table A5 provides robustness checks. In column 1 results are similar if we replace *MAC Clause* with an index for the MAC clause strength.[12] In column 2 results are robust to controlling for the acquisition price, in column 3 they are robust if we exclude closing times from the *Negotiation Index*, and in column 4 they are unaffected if we exclude deals with in-house lawyers.

Table A7 shows that experience and education contribute to our Table 4 findings. US law school education is the characteristic most strongly related to negotiation outcomes: it significantly predicts five of the six outcomes, and it is the only characteristic related to the ability to provide the first draft.[13] The Chambers recommendation is least relevant overall.

3.3. *Addressing Coefficient Bias from Unobservable Variables*

3.3.1. *Fixed-Effects Regressions*

We use three sets of fixed effects to address bias from time-invariant unobserved heterogeneity.

First, we address the concern that law firms that employ contracts with the clauses we analyse

[12] Table A6 provides summary statistics on the number and type of exceptions to the MAC clauses in the sample.
[13] This finding is consistent with the argument that US law schools have a stronger focus on negotiation skills compared to European schools, which seems to provide lawyers with a benefit when it comes to M&A negotiations.

also have high-expertise lawyers. As mentioned before, law firms often have standardized 'off-the-shelf' model contracts, which they use as starting points when providing first drafts. This could generate a positive correlation between expertise and contract outcomes. It does not easily generate, however, the bargaining results. The reason is that the same law firms would need to be more adept at affecting closing times and at ensuring the right to provide the first draft, independent of their lawyers' expertise. Nevertheless, we address concerns about unobserved law-firm characteristics in Table 5, panel A, by adding fixed effects for the drafting law firms (to ensure convergence, we use a linear model). The results similar to those in Table 4.

Second, we address the concern that clients who seek out high-expertise lawyers might pursue deals where the inclusion of advantageous clauses is *ex ante* more likely, and they might also have better bargaining positions. Directionally, this story is not necessarily plausible as clients in such a bargaining position would not need to select higher-expertise (and more expensive) lawyers. Nevertheless, we address this concern by including fixed effects for our law firm's clients. In Table 5, panel B, estimates remain similar, especially when explaining the *Negotiation Index*. The increase in R^2 relative to the baseline regressions without fixed effects indicates that client characteristics play an important role (we explore these characteristics below).

Third, we address that that high-expertise lawyers might attract or select deals that are particularly likely to feature advantageous clauses, regardless of their input. Directionally, this type of selection seems again somewhat implausible, and inefficient, though one may imagine that it occurs in badly governed firms where high-expertise lawyers are entrenched. Table 5, panel C, includes fixed effects for our law firm's lawyers. As before, results remain similar.

We also explore whether we can include all fixed effects simultaneously. In that case, the negotiation outcomes are fully explained by at least one fixed effects for many observations.

However, a joint inclusion is feasible for the *Negotiation Index*, with client fixed effect restricted to those involved in more than two sample transactions. Table A8 shows that our finding holds when we restrict the estimation to identify lawyer-expertise effects within drafting law firms, within clients (clients with more than two deals; all law firms), and within our law firm's lawyers.

3.3.2. *Exploiting Frictions in Lawyer Switches*

Next, we consider time-*varying* unobserved factors that might determine lawyer assignment. Before turning to the analysis, we note that, if lawyers were assigned to deals based on time-varying unobservables, we should see frequent switches as the nature of deals shows large variation, even for a given client. Despite this variation, sellers change in only 18% of the deals to a new law firm and buyers in only four out of ten cases. Widespread repeated counsel in our sample is in line with legal practice more generally (Gilson *et al.*, 1985; Coates *et al.*, 2011), and it is inconsistent with time-varying endogenous assignment. Yet, the statistics raise the question which friction prevents clients from switching more frequently. Our data provide suggestive evidence that firms hire (and then stick to) lawyers in geographic proximity: Table 1, panel A, shows that the median client-law firm distance is less than 50km. While firms' preference for nearby lawyers might come with the advantage of lower information asymmetries, or might reflect (informational) constraints, we show that lawyers located more closely to a client tend to have lower expertise.

We exploit this friction by subsampling and by implementing an IV approach. For the first approach, we estimate our model on two subsamples of deals with prior client-law firm relations. Even if the initial client-lawyer assignments were driven by unobservables, these past determinants are less likely to bias estimates of expertise in future deals given the lack of switching. The first subsample in Table 5, panel D, is restricted to 101 deals where our law firm established a client relation prior to a deal. The second subsample in Table 5, panel E, includes 73 deals where neither

side changed law firm. Both panels continue to show effects of relative expertise.

3.3.3. *Instrumental-Variables Model*

The tendency to select nearby lawyers implies that some clients do not maximize expertise. Expertise should therefore be lower on average when clients use law firms located in closer proximity. Suppose that lawyers are distributed evenly across space and that skills are randomly assigned. Expected lawyer expertise is then higher if the geographical region within which a client searches for a lawyer is bigger. More generally, a client who considers a larger area with a larger set of law firms will on average select a better lawyer, which is further away. At the same time, we expect nonlinearities. In a large city with a strong legal community, the best law firm might be nearby with a high probability. Considering more law firms within the city should still lead to a higher expertise, but law firms within a city might have better lawyers on average.

In Table 6, column 1, we estimate a diagnostic first-stage regression relating relative lawyer expertise to the distance between the buyer and her lawyer, and the distance between the seller and her lawyer.[14] The results confirm our prediction for buyer lawyers: Lawyers in closer proximity to buyers have lower expertise after accounting for the expertise of the seller lawyer. These findings are consistent with the evidence in Table 2, panel A, that buyers on average have lower-expertise lawyers at their disposal. Column 2 estimates a first stage that adds the distance ratio and allows for nonlinearities by interacting the distance ratio with three distance bins. We stratify distance by buyer as the distance effects originate from local preferences of buyers. We select this regression as our first stage after exploring alternatives that include variants of the bin dummies and their

[14] We use a log-distance as the variable is highly skewed and we exclude cases with in-house lawyers. Alternatively, one could assign 0 distance to in-house lawyers. This would make the prediction for very close law firms and in-house lawyers almost indistinguishable, though, which is not obvious. As another alternative, one could use an in-house lawyer dummy. However, it is not clear that such an instrument would satisfy the exclusion restriction

interactions with the distance ratio, and that in- or exclude the distance-level effects.[15] Column 3 shows that instrumented relative expertise remains positively related to the *Negotiation Index*.

3.3.4. *Controlling for Expertise Levels*

Finally, we exploit the theoretical prediction that the effects of relative expertise are independent of absolute expertise in case of exogenous lawyer assignment. Hence, we predict a null effect for the expertise levels if lawyer assignment is exogenous. If, instead, we omit variables that determine endogenous assignment, such variables should be related to expertise levels according to our model. This insight enables us to evaluate the role of omitted variables that affect the lawyer assignment by introducing absolute expertise directly into the estimated model.

Table 7, column 1 adds both lawyers' absolute expertise, and column 2 expertise-quartile fixed effects to consider that endogenous matching might be driven by high or low expertise levels (or unobserved correlates). We find that the estimates for absolute expertise are insignificant, which supports our model and mitigates concerns about endogenous assignment. Further, the effects of relative lawyer expertise are robust, which implies that unobserved determinants of client-lawyer matching correlated with absolute expertise do not affect our estimations.

3.4. *Exploring Buyer and Seller Heterogeneity*

Table 8, panel A, considers whether the deal parties are PE firms or strategic (corporate) investors, and compares their effects against those of the other types (Table 1, panel B). Column 1 shows that PE buyers pay less emphasis on avoiding knowledge qualifiers, possibly as they are more confident in their due diligence (often in conjunction with top consulting firms). Column 4 further shows that PE buyers are involved in deals with generally longer closing times, possibly as the

[15] For these regressions, the sign and significance of the buyer-distance variable is present regardless of binning and of the other variables being in- or excluded. However, the first-stage R^2 and *F*-statistic is maximized when including the distance levels and ratio, and when allowing for nonlinearities in the distance effects. It is hard to conceive of a reason why the law firm-client distance directly affects our outcomes.

large debt components in their financing require longer to arrange. Both of these PE effects lead in column 6 to a negative relation between PE buyers and the *Negotiation Index*. Perhaps for the same reasons as with PE firms, strategic acquirers accept are more willing to accept knowledge qualifiers. However, these acquirers are successful in avoiding materiality qualifiers. Deal involvement of strategic buyers relates to a worse negotiation index, probably driven by the knowledge qualifier effect. PE sellers tend to be successful in avoiding MAC clauses (same effect for strategic sellers) and in providing the first drafts, but there is no effect for the negotiation index.

Table 8, panel B, considers relative client experience, the number of prior M&A deals by the buyer divided by those of the seller. More experience on the buyer side predicts more warranties without knowledge qualifiers, the ability to provide a first draft, and a better negotiation index. *Relative Lawyer Expertise* keeps predicting negotiation outcomes in both panels.

4. Evaluating Financial Benefits and Costs of Lawyer Expertise

Table 9, columns 1 to 3, studies whether more relative legal expertise on the buyer side is associated with a lower acquisition premium, which is the price for the target (including liabilities) divided by the book value (Masulis and Nahata, 2011).[16] Buyer lawyers with more expertise may identify 'skeletons in the closet' and in turn negotiate lower prices. Column 1 relates the premium to relative expertise, while column 2 and 3 additionally control for the contract clauses and client types. All columns shows that the premium is *lower* if the buyer lawyer has more expertise. In column 2, an IQR increase in relative buyer-lawyer expertise comes with a 0.58 reduction in the premium, more than 20% of the variable's mean. With the exception of the MAC clause, which has a *negative* effect, prices do not reflect the negotiated clauses. High-expertise lawyers hence

[16] The average acquisition premium in our sample equals 240%. This compares with a range of 131% to 146% for public takeovers (Moeller, 2005). For private takeovers, Masulis and Nahata (2011) report mean (median) premiums of 1073% (469%), but the targets in their analysis are much smaller.

negotiate better contracts *and* ensure that their clients do not have to pay for them. Results are robust to controlling for client types (PE and strategic buyers pay higher premiums on average).[17]

We also evaluate whether the cost of high-expertise lawyers neutralizes or even outweighs the benefits. We approximate legal fees by multiplying the negotiation time with the team size (number of associates and partners), an hourly rate, and ten billable hours per day. The duration of negotiations determines fees as lawyers are remunerated on a per-hour basis (Garoupa and Gomez-Pomar, 2008). We calculate the time on a deal as the days between the date when our firm opened the deal file and the signing date. Based on conversations with M&A lawyers, we apply an hourly fee of €400 for a top-10 law firm, €350 for law firms in the top-20 (outside of the top-10), and €300 for all others. The median buyer (seller) pays €2m (€1.1m) in legal fees.

Table 9, columns 4 to 7, show that more expertise does not comes with a higher bill. To understand this result, we investigate the time lawyers spend negotiating. In column 9, more buyer expertise comes with *shorter* negotiation times, which suggests that high-expertise lawyers not only negotiate beneficial outcomes, but also economize on transaction costs. These estimates only capture short-term cost implications, and we do not have longer-term data on renegotiations or other implications. Yet, it seems plausible that such data would strengthen the result. If high-expertise lawyers secure better contracts and economize on time, these qualities likely apply also to follow-up aspects, making it unlikely that legal costs outdo the benefits of expertise. It also leads us back to the question of a previous section: given the benefits of associating with higher-expertise lawyers, why do (some) clients fail to do so and choose lower-expertise local lawyers? A better

[17] Table A9 shows little evidence that PE and strategic parties are trading the inclusion or exclusion of warranty-related provisions for higher or lower prices, with the exception that PE buyers are willing to pay higher prices if warranty breaches do not need to be material. There is also some evidence that the negative relation between MAC clauses and prices is weaker for PE and strategic buyers (i.e., they are willing to pay relatively higher prices when MAC clauses allow them to terminate the deal in case of material adverse events).

understanding of these frictions and possible benefits are avenues for future research.

5. Generalization of Results

5.1. *Dutch Legal Environment*

Dutch law is stipulated in 91% of the contracts, raising the questions of whether our results are driven by peculiarities of the Dutch legal system. The Netherlands have a civil law system, such that Dutch law is largely codified, but Supreme Court rulings affect its interpretation and drive in turn other court rulings. While Dutch corporate law provides a broad set of default clauses, contracting parties have a large degree of freedom to deviate. The clauses in M&A contracts are not regulated by statutory law, which provides ample space for lawyer negotiations.

That said, some aspects related to Dutch law are important to consider in our context. First, in the Netherlands auctions tend to be more frequently used to sell private targets than in other countries (e.g., France) (Baker McKenzie, 2020). As 23% of our deals are auctions, this may induce somewhat higher seller bargaining power. Second, compared to the US, it is more difficult for a party to terminate ongoing contract negotiations under the Dutch principles of pre-contractual good faith, and a termination can lead to a liability for damages. While this may affect bargaining dynamics by changing outside options, in practice the constraint is often relieved through a letter of intent in which parties specify when negotiations can be terminated prior to signing. Third, Dutch law allocates relatively strong rights to employees, and a closing condition is often that the target's works council has been consulted. This may cause closing times to be longer than in other countries (though other EU countries have similar rules) (Clifford Chance, 2012).

There are no major particularities with respect to warranty-related clauses, and the contracting space is comparable to the US (Baker McKenzie, 2020). With respect to material adverse events, Dutch law has the concept of 'unforeseen circumstances', which allows the termination of a

contract under some exceptional circumstances. However, in practice it is difficult to successfully stop a deal under this condition, so buyers still have an incentive to include a MAC clause. Similar to Delaware and New York State, the US states in which major legal battles over MAC clauses are fought, Dutch courts are reluctant to accept claims under general MAC clauses. It is therefore important for buyers to be specific about conditions under which MAC clauses can be invoked.

5.2. *Private versus Public Deals*

Our sample consist of private M&A deals and insights into such deals are important as the vast majority of acquisitions target privately held firms (Capron and Shen, 2007; Erel *et al.* 2012). Nevertheless, it is useful to think about the implication of our results for public firms. To this end, two differences between private and public deals are important. First, the sellers in private deals are clearly identifiable, while in public deals they usually consists of dispersed shareholders. Second, in private deals, buyer lawyers typically negotiate with seller lawyers, while in public deals buyer lawyers usually negotiate with lawyers hired by the target. A consequence is that in public deals, there is usually no way to enforce warranties *after* the closing. Further, in public deals, there is more target information available, making warranties less important. This limit for warranty-related outcomes the role of lawyer negotiations (Miller, 2008).

Our results still have implications for public deals. Notably, MAC clause are highly relevant in private and public deals alike, as they relate to events *before* the closing. Prior work on public M&A shows that MAC clauses are an important element of negotiations. Denis and Macias (2013) find that, while 99% of US public M&A deals contain a MAC clause, there is large variation in terms of MAC exclusion events. Relative lawyer expertise in public deals should hence also affect the design of MAC exclusions (see the results for MAC exclusions in Table A5).

This conclusion is supported by evidence that law firm expertise affects various deal outcomes

in public M&A. Schweizer and Wu (2019) find that top-tier buyer law firms are associated with higher acquisition announcement returns (no corresponding effects for top-tier target law firms). They also demonstrate that top-tier buyer law firms negotiate better contract terms for their clients. Krishnan and Masulis (2013) show that top-tier law firms impact deal premiums and completion rates, and Coates (2012) also finds that relative lawyer expertise plays a role for public M&A deals.

6. Conclusions

The expertise of lawyers involved in M&A negotiations influence contract design in a predictable and measurable way. We document the role of lawyer expertise using private company acquisitions as an empirical laboratory. Lawyers with relatively more expertise yield better contract outcomes for their clients along several important dimensions. First, lawyers with more relative expertise negotiate contracts that allocate more risks to the counterparties. Second, more legal expertise is associated with a higher probability that a party can deliver the first contract draft, which provides a first-mover advantage. Buyer lawyers with more expertise also close faster. Third, more legal expertise is associated with better target prices, without any measurable concessions in terms of the contract clauses. Hence, lawyers with high expertise negotiate better contract clauses and ensure that their clients do not have to pay for them. More expertise also does not come with higher legal fees, as high-expertise lawyers shorten negotiation times.

Our results demonstrate how lawyer expertise affects the allocation of risk between parties. A conclusion might be that, if lawyers are largely engaged in zero-sum negotiations that mostly shift risks between parties, then perhaps there is a misallocation of talent. Lawyers in turn would be better employed in other, more productive sectors (Murphy *et al*., 1991). However, as pointed out by Gilson (1984), lawyers may not only affect the distribution of value between parties, but they may also increase total deal value. For example, they may help overcome information

asymmetries that otherwise lead to the abandoning of a deal that enhances value for both sides (Gilson and Mnookin, 1995). An avenue for future research would be to quantify the relative magnitude of value enhancing and value distributing effects of M&A lawyers. Our findings further suggests a need for a more explicit modelling of contracting expertise.

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Data Appendix

Variable	Description
Purchase Price	Price paid by the buyer to the seller for the equity in the target.
Target Book Value	Book value of target assets based on the last financial account prior to the acquisition.
Target Market Value	Price paid for the target, calculated as the price for the equity plus the book value of liabilities. If the buyer purchases less than 100% of the target's equity, we calculate the purchase price as (Purchase Price)/(Fraction of Target Shares Bought).
Target EBIT/Assets	EBIT of the target divided by the target's book value of assets. If EBIT is not available (42 observations), we replace missing values with the sample's mean value.
Asset Deal	Equals 1 if the transaction is an asset deal, and 0 if it is a share deal.
Target Percentage	Percentage of the shares of the target which are being bought.
Cross-Country Deal	Equals 1 if the target is in the same country as the buyer, and 0 otherwise.
Approvals Required	Number of approvals to be obtained between signing and closing. At closing control of the target transfers to the buyer through the legal transfer of shares/assets.
Controlled Auction	Equals 1 if the deal is organized as a controlled auction, and 0 otherwise.
Negotiation Time	Number of days between the start of negotiations and the signing date. The start of negotiations is the date at which the law firm that provided the data opened a deal file.
Buyer Book Value	Book value of the assets of the buyer. If there is more than one buyer, we calculate the weighted average of the assets of the different buyers using the percentage of the shares bought by the different buyers as weights.
Buyer Deal Experience	Number of deals that buyer has engaged in over the five years before the signing date.
Buyer In-house Lawyer	Equals 1 if the buyer did not use external legal advice, and 0 otherwise.
Buyer Law Firm Top 10	Equals 1 if the buyer's law firm ranks in the top-10 based on the number of deals advised on between 1995 and 2010, and 0 otherwise.
Buyer Bank Top 10	Takes the value 1 if the buyer's bank ranks in the top-10 based on the number of deals advised on between 1995 and 2010, and 0 otherwise.
Seller Book Value	Calculated as the corresponding buyer variable.
Seller Deal Experience	Calculated as the corresponding buyer variable.
Seller In-house Lawyer	Calculated as the corresponding buyer variable.
Seller Law Firm Top 10	Calculated as the corresponding buyer variable.
Seller Bank Top 10	Calculated as the corresponding buyer variable.
Relative Size	Size of the buyer relative to the seller. We calculate the ratio of the assets of the buyer to the assets of the seller, and then divide this ratio into deciles such that the resulting variable ranges between 1 (relatively small buyer) and 10 (relatively large buyer).
Relative Client Expertise	Deal experience of the buyer relative to the seller. The ratio is standardized such that it ranges between 0 (more seller expertise) and 1 (more buyer expertise). Variable takes the value 1 (0) if the seller (buyer) has not undertaken any past deals.
Buyer-Lawyer Fee	Legal fees paid by the seller to the buyer's law firm (in € million), estimated as the product of the negotiation time; the number of lawyers of the buyer's legal team; an hourly fee; and ten billable hours per day. We assume an average hourly fee of €400 per lawyer for a top-10 law firm, €350 for a top-20 law firm, and €300 for all other law firms. There are on average eight lawyers in the teams of the buyers.
Seller-Lawyer Fee	Calculated as the corresponding buyer variable. There are on average five lawyers in the teams of the sellers.
Buyer-Lawyer Fee	Buyer-lawyer fee scaled by the purchase price.
Seller-Lawyer Fee	Seller-lawyer fee scaled by the purchase price.
Distance Buyer Law Firm	Distance (in km) between the location of the buyer and the buyer's law firm.
Distance Seller Law Firm	Calculated as the corresponding buyer variable.
Warranties	Number of warranties in a contract. Warranties are statements about the target (or seller) quality. Each separate quality statement counts as a separate warranty.
%Warranties w/o Knowledge Qualifier	Percentage of warranties in a contract that do *not* have a knowledge qualifier attached, i.e., are without the statement '*so far as the seller is aware*' (or any equivalent).
Warranties Not Material	Equals 1 if a contract does *not* contain an overarching clause that states that warranty breaches need to be material, and 0 otherwise.

MAC Clause	Equals 1 if the contract stipulates that the deal does not have to be completed if a material adverse event occurs in the period between the signing date and the closing (transfer) date, and 0 otherwise.
First Draft By Buyer	Equals 1 if the first contract draft is provided by the buyer lawyer, and 0 otherwise.
Closing Time	Number of days between the signing and closing date. At closing control of the target transfers to the buyer through the legal transfer of shares/assets.
Negotiation Index	Index constructed as the sum of five indicators: *Warranties w/o Knowledge Qualifier Above Median, Warranties Not Material, MAC Clause, First Draft By Buyer, and Closing Time Equals Zero*.
Acquisition Premium	*Target Market Value* divided by *Target Book Value*. Winsorized at 2%.
Relative Lawyer Expertise	Index of the legal expertise of the buyer's lawyer relative to the legal expertise of the seller's lawyer. The variable averages six index components: (i) *Years as Partner*; (ii) *Deal Experience*; (iii) *M&A Specialist*; (iv) *Chambers Recommendation*; (v) *Law School Ranking*; and (vi) *US Education*. The index ranges between 0 (more seller lawyer expertise) and 1 (more buyer lawyer expertise).
Years as Partner	Years of experience of the buyer's lawyer relative to the seller's lawyer. Experience is the number of years between the year in which the lawyer was promoted to partner and the year in which the contract is signed. The ratio is standardized such that it ranges between 0 (more seller lawyer experience) and 1 (more buyer lawyer experience). Winsorized at 5% before the standardization.
Deal Experience	Deal experience of the buyer's lawyer relative to the seller's lawyer. Deal experience is the number of deals that a lawyer advised on between 1995 and the year in which the contract is signed. The ratio is standardized to range between 0 (more seller lawyer experience) and 1 (more buyer lawyer experience). Winsorized at 5% before the standardization.
M&A Specialist	Equals 0 if only the seller's lawyer is an M&A specialist; 0.5 if both or neither are M&A specialists; and 1 if only the buyer's lawyer is an M&A specialist. A lawyer is an M&A specialist if the corporate web-profile of the lawyer explicitly specifies M&A law as the specialization of the lawyer.
Chambers Recommendation	Equals 0 if only the seller's lawyer is recommended in the Chambers Expert Lawyer ranking; 0.5 if both or neither are recommended in the ranking; and 1 if only the buyer's lawyer is recommended in the ranking. The Chambers Expert Lawyer ranking provides information on 'the world's leading lawyers'.
Law School Ranking	Quality of the law school at which the buyer's lawyer studied relative to that of the seller's lawyer. We employ the 2012 law school ranking from www.topuniversities.com. We use the inverse of the rank so that higher values indicate higher quality. The ratio is standardized to range between 0 (seller lawyer from better university) and 1 (buyer lawyer from better university). Winsorized at 5% before the standardization.
US Education	Equals 0 if only the seller's lawyer studied at a US law school; 0.5 if both or neither studied at a US law school; and 1 if only the buyer's lawyer studied at a US law school.
Buyer Lawyer Expertise	Index that measures the legal expertise of the buyer lawyer by averaging: (i) *Years as Partner*; (ii) *Deal Experience*; (iii) *M&A Specialist*; (iv) *Chambers Recommendation*; (v) *Law School Ranking*; and (vi) *US Education*. The variable ranges between 0 (low buyer lawyer expertise) and 1 (high buyer lawyer expertise).
Seller Lawyer Expertise	Calculated as the corresponding buyer variable.
Private Equity Buyer	Equals 1 if the seller is a private equity firm, and 0 otherwise.
Private Equity Seller	Equals 1 if the buyer is a private equity firm, and 0 otherwise.
Strategic Buyer	Equals 1 if the seller is a corporation, and 0 otherwise.
Strategic Seller	Equals 1 if the buyer is a corporation, and 0 otherwise.
MAC Strength	Index variable which ranges between 0 and 1 and indicates the extent to which risks of adverse events between signing and closing are allocated to the buyer or seller. If no MAC clause is included, it equals 0; if a MAC is included and there are no exceptions to the MAC clause, it equals 1; if there are exceptions attached to the MAC clause, it equals [1-(1/13 x Number of exceptions)].
Modified Negotiation Index	Index constructed as the sum of four indicators: *Warranties w/o Knowledge Qualifier Above Median, Warranties Not Material, MAC Clause, and First Draft By Buyer.*