

**WORKING TOGETHER AND WORKING IT OUT:
Dispute Resolution in Repeated Vertical Exchange Relationships**

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ABSTRACT

In this paper we explore the impact of relational history on firms' willingness to "work things out" in subsequent agreements, by examining the way that contract disputes between partners in vertical exchange relationships are actually resolved. Counter to the received wisdom we find no evidence of an automatic preference for private dispute resolution (negotiation, mediation or arbitration) among repeat transactors, relative to those in new exchange relationships – the act of working together does not appear to increase exchange partners' ability to work things out in all instances. We do find, however, that when there is evidence of the existence of cooperative norms in previous dealings between the partners, the outcome of subsequent disputes is significantly less likely to be a court-rendered judgment. In cases when previous interactions are described in negative terms disputes are just as likely to end in litigation as if they were new partnerships. Indeed, there is some slight evidence here of a *higher* propensity to turn to the courts for compensation when continued conflict undermines familiarity-based trust. We discuss these findings and suggest implications for the theory and management of vertical exchange relationships.

1. Introduction

The recent popular focus on outsourcing as a vehicle for increasing organizational effectiveness has reinforced the practical and theoretical importance of research on the management of vertical exchange relationships. While many questions remain open, one of the things that we as academics believe we *know* is that relationships between repeat transactors are systematically different from those linking particular partners for the first time – in other words, history matters in the way that inter-firm relationships are managed. Whether due to the development of norms of cooperation and trust over time (Ring & Van de Ven, 1994; Gulati, 1995; Dyer & Chu, 2003) or the weeding out of untrustworthy suppliers when contracts are renewed (Heide & John, 1992; Klein, 1996), it is commonly believed that partners who have a history of working together are more willing and able to “work things out” in the event that circumstances change and conflicts arise. This belief has been bolstered by findings from qualitative and survey-based research that perceptions of expected opportunistic behaviour is lower for firms with a prior history of cooperation than for first-time exchange partners (e.g., Heide & John, 1992; Parkhe, 1993).

In this paper we provide a more direct analysis of the impact of relational history on firms’ willingness to “work things out” in subsequent agreements by examining the way that contract disputes between partners in vertical exchange relationships are actually resolved. If it is indeed true that repeat transactors are better able to work things out when conflicts arise, then we would expect to see fewer of these conflicts terminating in litigation and court-rendered judgments, and greater use of private dispute settlement processes such as negotiation, mediation, arbitration, etc. Because private dispute settlement procedures are less constrained by legal rules and determination of liability, they are more likely to uncover hidden zones of agreement and facilitate preservation of the exchange relationship. Thus, we would expect repeat transactors to exhibit a greater preference for private dispute settlement processes than do first-time transactors – even when quite serious disputes arise in the course of exchange.

Our theoretical arguments combine insights from the economics and organizations literatures on governance and cooperation in repeated inter-firm interactions with the literature on dispute resolution in law and economics. We develop hypotheses describing the impact of repeated interactions on the likelihood of litigated outcomes. We also examine how the *quality* of the prior relationship linking the two firms may affect this relationship. A key insight here is that even if a prior relationship has been marred by conflict, the build-up of relationship-specific investment may still increase incentives for

private dispute resolution, in order to preserve the value of those investments. However if prior conflicts undermine familiarity-based trust developed in repeated exchange then exchange partners' ability to effectively resolve subsequent conflicts via private dispute resolution procedures may be significantly reduced.

Our empirical analysis employs a unique dataset containing unusually detailed information on a sample of 102 disputes arising in vertical exchange relationships. Data collection took place over a period of 4 months during which time one of the authors was granted access to all legal files related to inter-firm contract disputes handled by a single European law firm during 1991-2005. The data encompass a variety of contractual and exchange characteristics, financial and other data on the contracting firms and the dispute in question, as well as on the final resolution of the dispute in each case. Our empirical analysis shows that, consistent with findings from the dispute settlement literature in law and economics, simple contracts are less likely to end in court-rendered judgments than are more complex transactions. Surprisingly, the mere existence of a prior trading relationship does not itself significantly change the likelihood of private settlement (versus litigated outcomes); it is only when the prior trading relationship is viewed in a positive light by both parties that they appear to be willing to eschew litigation and adopt a private dispute settlement procedure.

In addition to increasing practical understanding of how inter-organizational conflicts are managed – an important but under-researched area (Conlon & Sullivan, 1999) – our study also contributes to ongoing debates surrounding the logic underlying the evolution of vertical exchange relationships. Clearly the development of norms of trust and cooperation is not automatic in repeated exchange relationships; nor does it appear that non-cooperative partners are always weeded out during repeated rounds of contract renewal. Whether due to bounded rationality or the need to retain access to idiosyncratic resources unavailable elsewhere, firms in our sample continue to enter into new contracts with suppliers with whom they have had difficulties in the past. However, firms appear to treat subsequent contracts with such problematic partners much as they do contracts with new partners, frequently relying on the court to adjudicate disputes; only after establishing a positive working relationship with a particular partner does confidence grow in the robustness of cooperative norms, such that greater reliance can be placed on more flexible private dispute settlement processes. While the limitations of our data and empirical analysis do not allow us to decide definitively on this last point, our findings are nonetheless provocative, and we discuss their implications for future research, and for practice.

2. Theory and Hypotheses

Our aim in this section is to develop hypotheses regarding the impact of relational history on dispute resolution in inter-firm contracts. However, to provide context for this discussion, and to establish a base-line for evaluating the risk of a litigated outcome (versus settlement via a private dispute resolution process) we first discuss dispute resolution more generally and examine some previous findings from the relevant literature in law and economics on litigation and settlement via private dispute resolution procedures.

2.1. Dispute resolution in inter-firm exchange relationships

Some degree of conflict is a predictable feature of any inter-firm exchange relationship since both partners have “an inalienable *de facto* right to pursue their own interests at the expense of others” (Buckley & Casson, 1998: 34). Combine this with an inherent instability arising from uncertainty regarding a partner’s future behavior (Parkhe, 1993) and it is not surprising that, despite the best efforts of managers (and their lawyers) to foresee and guard against future contingencies that could threaten cooperation, many inter-firm relationships fall into dispute (Mohr & Spekman, 1994).

Many simple disputes that arise in the course of inter-firm relationships such as supply or distribution contracts can of course be handled through informal processes and discussions between the managers involved in executing and administering the exchange. When serious disputes arise however, senior management must step in, and will usually turn to the documents governing the relationship – most notably the contract – for clarification of the rights and responsibilities of each party to the agreement.¹ For example, one of the disputes in our dataset involves a manufacturing firm facing problems of timeliness of deliveries from its supplier. After informal communication and written exchanges failed to resolve the issue, managers at the manufacturing firm felt that the disagreement was growing and that there was a risk of significant loss. The firm thus engaged lawyers to assist in handling the dispute.

¹ Even those scholars who ascribe to Llewellyn’s (1931) view that a legal contract constitutes “...a framework highly adjustable, a framework which almost never accurately indicates working relations,” will accept the caveat, also expressed by Llewellyn, that the contract nonetheless becomes a “guide in case of doubt, and a norm of ultimate appeal when the relations cease in fact to work” (pp. 736-737).

With lawyers involved, one might think that litigation is almost inevitable. However, even for disputes that are sufficiently serious to be escalated to this level, there are strong incentives to avoid a litigated outcome. In the case of the manufacturing firm and its supplier, for example, the firms eventually reached a negotiated settlement and so avoided the potentially high costs and delays associated with litigation. Indeed a long research tradition in law and economics points to the fact that the large fixed costs associated with litigation create a “bargaining surplus” that can be shared by the parties if the dispute is terminated (Landes, 1971; Gould, 1973; Posner, 1973). In this view, non-settlement – i.e. litigation and a court-rendered judgment – occurs only when other considerations overwhelm these basic incentives to settle.

The most prominent barrier to private settlement identified in the law and economics literature is uncertainty, which can lead to divergent expectations among the parties regarding the likely result of litigation (e.g., Priest & Klein, 1984). Problems of uncertainty may be further exacerbated if managers exhibit self-serving biases (Babcock *et al*, 1995) or if firms engage in strategic signaling games to exploit information asymmetries (P’ng, 1983; Bebchuk, 1984). Evidence from prior studies on inter-firm governance and contracting indicate that uncertainty and information asymmetries are positively associated with the technical sophistication and other complexities of supply transactions (Monteverde & Teece, 1982; Kalnins & Mayer, 2004; Mayer & Argyres, 2004). This prior research thus suggests that settlement of disputes should be relatively easy to achieve for simple supply or distribution contracts, but will be more difficult as the complexity of the initial agreement increases.²

Saving on the fixed costs of litigation is not the only benefit of private dispute resolution, however, as has been recognized in more recent writing in law and economics.³ Courts are tightly bound by legal rules and the mandate to issue binary decisions of liability or no liability. Private dispute resolution – whether through direct negotiation between the firms or assisted by third parties in mediation or arbitration procedures – can render much more nuanced outcomes. Galanter (2001: 586),

² Note that we are not distinguishing between the complexity of the contract and the complexity of the transaction in this discussion, a clear simplification. However, extensive evidence from prior research in the law and economics and transaction cost traditions supports the assumption that more complex transactions will be governed by more complex (i.e. extensive) contracts (e.g., Kalnins & Mayer, 2004).

³ This line of reasoning also has strong roots in the transaction cost economics (TCE) view of private versus public ordering (Williamson, 1991). See also Lumineau & Oxley, 2008 for a more detailed examination of the relationship between the TCE and law and economics’ views on dispute resolution.

for example, describes mediation as “a non-judicial mode of conflict resolution in which a neutral third party employs non-adversarial techniques in order to reconcile the conflicting positions held by the parties,” and suggests that “the sole purpose of a mediator’s intervention is to facilitate and encourage an expeditious settlement actually forged by the parties themselves.” Similarly, Mattli (2001:920) notes, in a discussion of arbitration, that “unlike judges in public courts, who follow fixed rules of procedure and apply the laws of the land, arbitrators can dispense with legal formalities and may apply whatever procedural rules and substantive law best fit a case.”⁴

The flexibility inherent in private dispute resolution procedures may be particularly valuable in instances where the parties wish to preserve the relationship beyond the rendering of a judgment, something that courts are notably ill-equipped to do. Private dispute resolution procedures nonetheless are more demanding in terms of continuing cooperation and shared understanding among the parties, since mediators and arbitrators frequently look to the parties themselves to shape the proceedings and final outcomes.⁵ This again reinforces the notion that litigation is the more likely outcome of disputes involving high uncertainty and divergent expectations between the contracting parties – something that is most likely to occur in complex contracting situations. Some scholars, particularly in the management literature, have further argued that complex formal contracts, involving extensive contingency clauses, specification of rights and responsibilities, penalty clauses, etc., may themselves have a pernicious effect on cooperation (Macaulay, 1963; Ghoshal & Moran, 1996).⁶ In other words, the very contract features that are intended to facilitate implementation of a complex transaction undermine the partners’ ability to work things out when serious disputes arise. This line of argument thus suggests an additional barrier to private settlement when disputes involve complex contracts between the exchange partners.

⁴ Galanter (2001: 586) defines arbitration as “a non-judicial proceeding in which disputing parties submit their conflict to an impartial person or group of persons for a final and binding resolution instead of to a judicial tribunal and must be invoked by voluntary agreement of the parties.”

⁵ In describing arbitration, for example, Williamson (1991: 272) suggests that an arbitrator “will frequently interrupt the examination of witnesses with a request that the parties educate him to the point where he can understand the testimony being received.” In cases of severe divergence in the parties’ understanding of the issues at hand, this education process is likely to break down.

⁶ Macaulay, (1963: 64), for example, suggests that the use of an elaborate contract “indicates a lack of trust and blunts the demands of friendship, turning a cooperative venture into an antagonistic horsetrade” (quoted in Poppo & Zenger, 2002).

2.2. Repeated exchange and dispute resolution

We now turn to the question at the heart of our study, regarding the impact of relational history (and in particular repeated exchange) on the way in which disputes between the contracting parties get settled. Building on the arguments above, involvement by two firms in a sequence of vertical exchange contracts is likely to lead to a greater ability to “work things out” – and thus a greater reliance on private dispute resolution procedures – to the extent that repeated interactions reduce uncertainty, decrease information asymmetries and self-serving biases, and/or generally promote norms of cooperation and reciprocity.

Even a cursory examination of the prior literature on inter-firm relationships in the strategy, economics, and organizations literatures reveals strong convergence around the notion that indeed repeated exchange has all of the above-mentioned effects on partners’ attitudes and beliefs. In an early and influential paper in this area, Gulati (1995) asks why and how repeat alliances are likely to differ from one-time alliances, and suggests that: “An important cause and consequence of repeat alliances among firms is the emergence of interfirm trust, which obliges partners to behave loyally...” and adds that, in this context, trust is conceived of as “a type of expectation that alleviates the fear that one exchange partner will act opportunistically” (p. 91)⁷ Parkhe (1993) provides evidence consistent with this claim, observing that the presence of a prior history of cooperation between two firms limits their perception of expected opportunistic behaviour in new alliances. One view of why this may be the case is that norms of cooperation and “pressures for conformity to expectations” (Macaulay, 1963: 63) emerge spontaneously as repeated transactions increase personal ties between members of the organizations involved in the exchange relationship (Ring & Van de Ven, 1994). Such spontaneous emergence of “familiarity-based” trust is thought to be rooted in strong cognitive and emotional human traits (Lewis & Weigert, 1985). This view is also closely related to the notion of “embedded” exchange and the argument that as inter-firm ties become embedded over time they “perform unique functions and have three features: trust, fine-grained information transfer, and joint problem-solving arrangements” (Uzzi, 1996). However, as acknowledged by Gulati (1995), and discussed at greater length in the subsequent literature, there are other processes that could also explain the increasing confidence in partner cooperation over the course of repeated interactions.

⁷ Gulati cites Bradach and Eccles (1989: 104) as the source for this definition of trust.

Another view on the emergence of cooperative norms in repeated exchange focuses on the active selection of cooperative partners for subsequent transactions. Grounded in economics, this perspective has a more calculative orientation (Williamson, 1993), as does the closely-related argument, that the motivation for trustworthy cooperative behavior comes not from feelings of inter-personal affiliation and loyalty, but from a fear of costly sanctions (Klein, 1996). If indeed firms select repeat partners on the basis of cooperative behavior in prior interactions then, on average, we will observe a higher level of cooperation between repeat transactors than we will in first-time exchange partners – and a higher willingness to work things out in the event of serious disputes emerging.⁸

Finally, looking at the issue from a learning perspective also suggests that repeat transactors will be better able to work things out in the event of disputes. Here the mechanism invoked is less related to norms of cooperation, but rather knowledge and understanding of the partner’s capabilities and constraints, as well as better understanding of operational necessities in the technical and exchange domain in which the firms operate. As Argyres, Bercovitz and Mayer (2007: 8) suggest: “Partner-specific learning implies that as two parties work together, they gain valuable knowledge both about the features of their transactions and about each other’s idiosyncrasies more generally...[E]xperience can lead to a greater understanding of the partner’s capabilities and needs, and to the development of a common language to define process and to resolve key uncertainties.” Thus we should expect that information asymmetries are reduced among repeat exchange partners, and that the impact of uncertainty and self-serving biases are also reduced. At the same time, as firms work together and learn about each other they are effectively making investments and developing capabilities that, while transferrable to new uses or new projects with the same exchange partner, are nonetheless “relationship-specific” – i.e. their value would be lost or degraded should the relationship be terminated (Williamson, 1985; Dyer & Singh, 1998). This increases the incentives for repeat transactors to work things out and avoid litigation and court-rendered judgment, in the hopes that the exchange relationship may be preserved.

All of the above arguments thus converge on the following hypothesis:

⁸ In game-theoretic treatments of cooperation in repeated games, it is often assumed that non-cooperation *always* results in exclusion from future exchanges, such that one should not observe instances of non-cooperation even in the first “round of play.” However, the strong rationality assumptions embedded in these games are not compatible with an analysis of dispute resolution procedures, since it is also the case in game-theoretical models that conflicts would never escalate to that point.

H1: Disputes between partners in repeated exchange relationships are more likely to be settled through private dispute resolution processes (i.e., are less likely to terminate in a court-rendered judgment) than are disputes between first-time exchange partners.

2.3. Relationship quality

Given the variety of processes and behavioral underpinnings that can be invoked in support of this first hypothesis, it is interesting to explore further implications and to develop more nuanced predictions for dispute resolution in repeated exchange. We do this here by examining how the choice of dispute resolution process may be conditioned not only on the *existence* of a prior trading relationship but also on the *quality* of that relationship, by asking (a) whether non-cooperative or poor-performing partners are likely to be chosen for subsequent exchange contracts and (b) whether dispute resolution with such partners is still more likely to take place through private dispute resolution processes than is the case for first-time exchange partners.

On the first point, regarding the selection or “weeding out” of poor-performing or non-cooperative partners, there are a variety of reasons why selection may be incomplete. A strong-form version of the “familiarity-based trust” or “embeddedness” view could imply a very low level of selection, as individuals in the organization have a strong preference for maintaining inter-personal ties and so are willing to overlook poor performance or bad behavior when awarding new contracts (perhaps invoking the logic of “better the devil you know than the devil you don’t...”). Indeed this is the argument that underlies the so-called “paradox of embeddedness” (Uzzi, 1997) whereby overly-embedded ties limit a firm’s flexibility to pursue new opportunities (See also Lazzarini, Miller, & Zenger, 2008).

Even if a more calculated approach to partner selection is adopted not all non-cooperative relationships will be terminated: information asymmetries and bounded rationality are likely to mean that mistakes are made; the need to preserve investments in relationship-specific assets may also mean that even a delinquent partners is still preferable to available alternatives; similarly, if the current exchange partner has superior capabilities in an essential technological area then concerns for continued access to these capabilities may over-ride concerns about the supplier’s opportunism (Hoetker, 2002).

What is the likely impact on dispute resolution outcomes in cases where new contracts are awarded to a particular exchange partner despite negative ties in a prior contract? Here we begin to see

points of divergence between the economic and inter-personal perspectives on how exchange relationships evolve. If the accumulation of relationship-specific investments, or continued access to other valuable resources lies at the heart of the repeated exchange, then the ongoing interdependence of the exchange partners suggests a continued willingness to work things out, despite repeated difficulties with the relationship. In this case, even when partners have a relatively negative view of prior interactions they will still be more likely to settle disputes through private dispute resolution processes than would be the case for first-time transactors. However, to the extent that repeated conflict itself undermines the value of relationship specific assets – because value is dissipated through costly haggling and legal fees – then this will degrade the expected future value of the relationship, and will reduce incentives to work things out in private dispute resolution processes as compared with cases where prior interactions between the exchange partners have been generally positive. This leads us to the following hypothesis:

*H2a: Disputes between repeated exchange partners with a **negative** view of prior interactions are **less likely** to be settled through private dispute resolution processes than are disputes between partners with a **positive** view of prior interactions, but are **more likely** to be settled through private dispute resolution processes than are disputes between **first-time** exchange partners.*

If the main underpinning of a greater willingness to work things out in repeated exchange is familiarity-based trust in embedded ties then the emergence of significant conflicts in subsequent exchanges may have an even more dramatic effect on the likelihood of a litigated outcome. Embedded ties are in general characterized by joint problem-solving arrangements, which would suggest that fewer conflicts are ever elevated to a point where lawyers would be involved (and thus would not be observable in the type of data used in this study). However serious conflicts that do arise may completely undermine the parties' willingness to work things out within the relationship. In a discussion of the negative consequences of over-embeddedness, for example, Uzzi (1996: 684) quotes a CEO in the apparel industry, describing the potential for extreme retribution for perceived bad behavior by a close exchange partner: "But if you screw a guy like this (a close tie), he'll stay in business just long enough to get even." Thus the strong emotional and psychological inclinations that are at the root of familiarity-based trust in repeated exchange appear likely to significantly undermine the exchange partners' ability to effectively resolve conflicts via private dispute resolution procedures once they have escalated to the point where lawyers are involved. Thus we offer a competing hypothesis to hypothesis H2a:

*H2b: Disputes between repeated exchange partners with a **negative** view of prior interactions are **less** likely to be settled through private dispute resolution processes than are disputes between repeated exchange partners with a **positive view** of prior interactions or disputes between **first-time** exchange partners.*

3. Empirical Data

Our empirical study involves a sample of disputes arising in vertical relationships such as supply and distribution contracts. One of the authors was granted access by a European law firm to all legal files concerning such contract disputes handled by the firm between 2001 and 2005. A total of 102 disputes, involving 178 firms, were analyzed using data collected through the law firm.⁹ Data collection took place over a four-month period in 2005. This period of immersion enabled the researcher to gain insights into the legal regime relevant to the contracts under dispute, and to understand the practices and routines of the law firm, through daily informal conversations with lawyers and administrative staff. In addition, 17 interviews were conducted with lawyers and law professors specialized in contract law.

This data collection process yielded unusually detailed information on contractual characteristics, relational history of the contracting firms, and the final resolution of the dispute in each case. The legal files related to the disputes in our sample contain between 800 and 5,000 pages; each file includes all documents issued by each party to the contract and exchanged during the dispute resolution process. In addition to these legal documents, the lawyers in each case requested from the client all potentially relevant information that could further explain their situation and their perception of the conflict, including the initial context of the contracting relationship, the origin of the conflict, and its evolution. Due to the highly confidential character of the data the researchers were not able to speak directly to the contracting firms, nor is it possible to identify the companies in the sample by name.

From the data obtained from the legal files, along with supplementary data from archival sources, we construct the following operational variables for our empirical analysis:¹⁰

⁹ Cases involving more than two parties and contracts unrelated to vertical inter-firm relationships were excluded from consideration at the beginning of the data collection process. See Lumineau and Quélin (2007) for further details.

¹⁰ All variables are derived from the case files unless otherwise noted.

For our dependent variable we use an indicator variable, **Private Resolution** which takes the value of 1 if the dispute was settled by private negotiation, arbitration and/or mediation;¹¹ *Private Resolution* = 0 if the dispute resulted in litigation and a court-rendered judgement.

We also use a dummy variable for our key independent variable in tests of hypothesis H1. A value of 1 on the variable **Repeated Exchange** indicates the existence of a prior relationship between the contracting parties. Based on automated textual analysis using Concordance™ software, followed by an independent rating by two researchers, we evaluated prior ties by searching for any mention of a past relationship between the two firms (i.e., a relationship which pre-dated the beginning of the current contract).

In order to distinguish between positive and negative prior interactions to test hypotheses H2a and H2b, we further coded all mentions of a prior relationship in documents dating from the beginning of the focal dispute. Based on this recoding (described in detail in Appendix 1) we then developed two additional dummy variables, **Positive Prior** and **Negative Prior**.¹²

In addition to the independent variables related to our hypotheses, we include a range of important control variables in our analysis that prior research suggests may be related to dispute settlement mode. First among these are variables that capture the complexity of the exchange transaction and the contract used to govern the transaction since, as discussed at the beginning of the theory section, more complex exchanges are more likely to end in disputes that defy efforts to settle them privately and so end in court-rendered judgments.

First, we measure the technical complexity of the transaction by counting the number of contract pages devoted to laying out technical specifications. This is based on the common assumption

¹¹ These are combined into one category since examination of the data suggests that they are operationally equivalent in this setting – extensions to the research could nonetheless incorporate more fine-grained categories. Note that we are focusing on the outcome of dispute resolution procedures – in some cases the firms entered into litigation but then withdrew the case and settled the dispute privately (perhaps through mediation or arbitration).

¹² There were three cases where prior ties were mentioned but no further details were provided that indicated either a positive or negative experience. In the reported results these were aggregated with the firms having no prior ties. A robustness check included these cases in a separate category (*Neutral Prior*) but this in no way changed the results: the coefficient on Neutral Priors was insignificant, and all of the other coefficients were essentially identical to those reported in the table.

that transactions involving more complex technologies and technical specifications are inherently subject to greater uncertainty and difficulties in interpretation (see e.g., Monteverde & Teece, 1982). *Technical Complexity* is calculated as the log of the number of pages of technical detail in the contract.

Our measure of contractual complexity is based on the number of control clauses in the contract (Parkhe, 1993; Blumberg, 2001; Ryall & Sampson, 2006), as these have been shown to correlate well with the complexity of the underlying transaction (Lumineau & Quélin, 2007; Reuer & Ariño, 2007). Initial coding of the contracts was undertaken with input from three lawyers (with no connection to the disputes or to the law firm providing the data) and a law professor specializing in contract law. Operational measures resulting from this exercise were then validated by six other legal experts – again professors specializing in contract law.¹³ The relevant clauses incorporated into the measure are (1) right to audit/inspection (e.g., “Firm A maintains the right to audit Firm B manufacturing facility for conformance...”); (2) safeguard/hostage clause (e.g., “Upon termination of agreement, the Manufacturer shall repurchase the product stock from the Distributor...”); (3) control / inspection by a third party; (e.g., In a contract between Firm A and Firm B to supply product for final customer Firm C: “Firm C may at all reasonable times visit Firm A facilities and observe the work being performed.”); (4) penalty clause (e.g., “If Firm A fails to complete and deliver on the specified dates... Firm A shall pay Firm B liquidated damages at the rate of [X] euros per day of delay”); and (5) termination/resolution clause (e.g., “In the event the obligations of one of the Parties do not comply with the articles referred to hereunder, the contract shall be, if required by the creditor of the said obligations, cancelled, by giving notice of such termination...”). Our index variable, *Contractual Control* is then defined as: $\sum D_i$; where $D_i=1$ if provision i exists; $D_i=0$ otherwise, and the result is an integer variable ranging from zero to five.¹⁴

¹³ For both contractual control and contractual coordination (below), the following procedure was used in deriving the measures: following initial coding of the contracts by three independent lawyers, six additional experts were contacted, all of whom were professors in contract law. Each was asked to evaluate the level of contractual control and contractual coordination of five randomly selected contracts in the data set; i.e., each expert was asked to make 50 assessments (5 contracts * 2 functions * 5 criteria). Intra-class correlation coefficients for the ratings of the six experts were 0.988 for the control clauses and 0.980 for coordinating clauses, indicating significant inter-rater reliability.

¹⁴ The choice of clauses to include in the contractual control index follows practices validated in the prior research noted above. The unweighted summation of these clauses into a simple index also follows prior research: Barthélemy and Quélin (2006) show that weighted and unweighted measures of contract complexity are very highly correlated and, in a different context, Reuer and Ariño (2007) also show that weighting of clauses (in their case for “stringency”) does not provide new information when modeling alliance contracts.

Also following prior research (Blumberg, 2001; Argyres & Mayer, 2007) we separately assess contractual coordination mechanisms by examining whether or not the contract includes four key groups of clauses: (1) assignment of roles and responsibilities (e.g., “...All development work will be performed by Developer or its employees at Developer’s offices or by approved independent contractors who have executed confidentiality and assignment agreements that are acceptable to the Client.”); (2) indications of duration and conditions of renewal (e.g., “This Agreement is made for a term of three years. The Agreement shall be renewed automatically at the end of three years unless...”); (3) operational coordination related to reassignment of tasks among participants (e.g., “Upon completion of Phase 1, Parties agree to discuss the allocation of resources to the task.”); and (4) strategic coordination, (e.g., “The 2nd-stage specific objectives will be defined by the Parties through mutual consultations after completion of the 1st-stage objectives.”)¹⁵ *Contractual Coordination* is defined as: $\sum D_i$; $D_i=1$ if provision i exists; $D_i=0$ otherwise. The result is an integer variable ranging from zero to four.

Some contracts explicitly include a dispute resolution provision (e.g., “Any dispute arising out of or in connection with this Agreement shall be settled without recourse to the courts...”). Inclusion of such a provision may itself reflect an increased willingness to “work things out,” but is by no means determinative of dispute resolution outcomes.¹⁶ We nonetheless want to make sure that our results are not only driven by the inclusion of this clause. We therefore estimate models both with and without the dummy variable *Dispute Resolution Clause* indicating the presence of such a clause in the contract.

In addition we include information related to the size of the stakes of the two companies in the contract dispute. Given the substantial fixed costs of litigation it is possible that private settlement will be preferred for disputes involving small amounts of money, particularly in the case of simple transactions. We do not have a direct measure of the monetary value under dispute, but we have information on the total value of the contract and we therefore include *Contract Value* as a control variable, where the measure is defined as the logarithm of the total value in thousands of inflation-adjusted Euros.

¹⁵ Prior studies have included dispute resolution clauses amongst the coordination clauses. However, given our focus on dispute resolution outcomes, we naturally want to ensure that the effect of coordination clauses is independent of the dispute resolution provision. We therefore include the inclusion of a dispute resolution clause as a separate control.

¹⁶ As noted by Mattli (2001: 920), “Even if parties have contractually agreed to use one method, they may switch to another if they feel that the latter is more appropriate for a given dispute.”

We also make the distinction between exchanges specifically designed to operate for a pre-defined length of time and open-ended relationships (Reuer & Ariño, 2007: 323), to test for the possibility that dispute resolution via private settlement is more likely to preserve the relationship and thus may be preferred in the context of an open-ended transacting relationship. *Time Bound* is a dummy variable which takes a value of 1 if the contract indicates a pre-specified duration for the relationship. This also allows for the possibility of end-game strategies and lower willingness to work things out in situations where the endpoint of a relationship is known *ex ante* (Ness & Haugland, 2005).

In some settlement models in the law and economics literature, settlement is not possible because asymmetry in the stakes of the partners wipes out the bargaining surplus: one party has more to gain from winning a lawsuit than the other party has to lose, (e.g., Lanjouw & Lerner, 1998). Unfortunately we cannot directly address this argument in our empirical analysis as we do not have good measures of transacting parties' relative stakes in the suit. Instead, we include a measure of asymmetry in the total size of the two firms involved in the dispute: *Asymmetry* is defined as Firm A revenues divided by revenues of Firm B for the year in which the contract was signed, in thousands of inflation-adjusted euros, where Firm A is the larger of the two transacting firms. These data were obtained from the Bureau van Dijk's ORBIS database, which contains data for more than twenty million companies.

Finally, to control for the possibility of greater divergence in expectations in contractual disputes spanning national boundaries we include a dummy variable *International*, which takes a value of 0 for relationships between firms headquartered in the same country and 1 for international relationships.

4. Results

Table 1 shows descriptive statistics for all of the variables, for the overall sample and for the subsamples of first-time and repeated exchanges, and repeated exchanges with positive and negative priors. Correlations among all the variables (for the complete sample) are shown in Table 2. None of the variance inflation factor statistics estimated in conjunction with our models exceeded 3.13 – well below the accepted value of 10 indicating multicollinearity problems (Chatterjee, Hadi, & Price, 1999).

The first thing of note from these tables is that disputes involving firms with a prior relationship (Repeated exchange=1) represent about one third of the overall sample (33 out of 102). About one half (17) of these prior relationships were discussed in positive terms in documents dating from the beginning of the focal dispute, with references to attributes such as flexibility, participation, and

solidarity; 13 others were characterized in decidedly negative terms, with references to inflexibility, non-participation, and/or individualism of the exchange partner; 3 others gave only brief mention of prior contracts between the two firms with no normative evaluation of the relationship.¹⁷ This distribution of relational histories among the exchange partners in our sample of disputes suggests that if firms are selecting out non-cooperative exchange partners they are certainly doing so very imperfectly and are awarding new contracts to exchange partners with whom they have had a difficult relationship in the past in a non-trivial number of cases.

The second notable feature of these statistics is that we see no significant differences in the technical or contractual complexity of agreements involving first-time versus repeat exchange partners: sample means on contract features are similar across the various subsamples, and regression analysis (results not shown) confirms that Repeat Exchange is not a significant predictor of Technical Complexity, Contractual Control or Contractual Coordination, or the inclusion of a Dispute Resolution Clause.¹⁸ Thus in our sample there is no evidence of contracts becoming less fully-specified in repeat exchange relationships as partners substitute informal for formal governance (as in, e.g., Gulati, 1995), nor of contracts becoming more fully elaborated as a result of learning in the course of repeated exchange (Mayer & Argyres, 2004; Ryall & Sampson, 2006).

Turning to our core question, on the impact of prior relationships on dispute resolution, our first set of results (looking at the effect of repeated exchange irrespective of the quality of the prior relationship) are presented in Table 3. From these results we see that the simple existence of a prior relationship joining the exchange partners has no effect on the probability of private dispute resolution: Repeated Exchange does not carry a significant coefficient in any of the model specifications shown. Thus there is no support for hypothesis H1.

¹⁷ In the results reported in the paper these 3 cases are combined into the “no prior ties” category. Our results are not sensitive to this classification.

¹⁸ In addition, neither Positive nor Negative priors are significantly associated with these contract features with the exception of a positive relationship between Positive priors and Contractual control. As reflected in the correlation tables, the most significant predictors of Contractual control and coordination are Technical complexity, contract amount, both of which are positively related to greater control and coordination. Time bound is also significant in these regressions, having a positive relationship with Contractual control and a negative relationship with Contractual coordination.

Looking at the coefficients on the other variables in the model we see that private dispute resolution is, not surprisingly, more likely when a dispute resolution clause is included in the contract and when other coordination clauses are included (the coefficient on Contractual Coordination is positive and significant, with or without the inclusion of the variable indicating the presence of a dispute resolution clause). The results in Model 1 also suggest that larger contracts are more likely to end in a litigated outcome, but this effect is not significant in the alternative specifications in Models 2 and 3. Time bound contracts are, counter-intuitively, less likely to be litigated, although again this effect is not robust across specifications.

The lack of significance of technical and contractual complexity in Models 1 and 2 is somewhat puzzling. One possible explanation is multicollinearity – Technical Complexity is significantly correlated with Contractual Control as well as Contractual Complexity; and Contractual Control is also correlated with Time Bound and Contract Value. However, as noted above, variance inflation factors fall below levels conventionally taken to indicate problematic multicollinearity. Another possibility is that Contractual Control is not linearly related to the probability of private settlement. Williamson (1991) argues that courts are particularly ill-equipped to handle the most complex of disputes. If this is true then it may be that, in addition to simple contracts (where bargaining is straightforward), particularly complex contracts also tend to be resolved privately, for example in arbitration proceedings.¹⁹ The addition of a square term on the Contractual Control variable allows for such non-linearity and, as can be seen in the results for Model 3, inclusion of this term increases the explanatory power of the regression; it indeed appears that private dispute resolution is preferred both for the most simple and the most complex contracts, with litigation being more likely in the mid-range.

To further explore the impact of relational quality on dispute resolution we turn to our analysis of Positive and Negative Priors. Table 4 displays these results. The patterns here are quite striking. As implied by both H2a and H2b, disputes involving exchange partners with positive prior relationships (Positive priors = 1) are significantly more likely to be resolved via private dispute resolution procedures than are either disputes involving first-time partners or repeat exchange partners with negative prior relationships. Thus the development of cooperative norms over repeat transactions significantly tips the balance in favor of private dispute resolution, and helps the firms to avoid costly litigation and a court-rendered judgment.

¹⁹ See Lumineau and Oxley (2008) for more on this.

In addition, and contrary to hypothesis H2a (protection of relationship-specific assets), disputes involving repeat exchange partners with negative prior relationships are no more likely to resolve their dispute via private means than are first-time partners. Thus there is no evidence here that firms are avoiding litigation for these repeated exchanges in order to protect relationship-specific investments that have accumulated over the course of the relationship, or to maintain access to particularly valuable idiosyncratic resources. Building on our earlier speculation, one might infer that repeated conflict itself undermines the value of relationship specific assets, to the extent that there is no longer any added incentive to work things out in private dispute resolution processes.

The negative coefficient on Negative prior – albeit only statistically significant in one of the empirical specifications (Model 5) – could be more consistent with an interpersonal view of repeated exchange, displaying the kind of vengeful reaction Uzzi (1996) observed in his discussion of over-embedded ties: when firms in repeated exchange indicate that their exchange partner has been inflexible, obstructive or selfish in prior dealings they appear to be *less* willing and able to work things out in subsequent disputes, even when compared with disputes involving first-time partners.

5. Implications, Limitations and Extensions

The empirical analysis presented in this paper represents one of the first attempts to systematically analyze dispute resolution in repeated vertical exchange relationships. Counter to the received wisdom we find no evidence of an “automatic” preference for private dispute resolution (negotiation, mediation or arbitration) among repeat transactors, relative to those in new exchange relationships – the act of working together does not appear to increase exchange partners’ ability to “work things out” in all instances. We do find, however, that when there is evidence of the existence of cooperative norms in previous dealings between the partners (i.e. when exchange partners describe each others’ behavior using positive terms such as flexibility, participation and solidarity), the outcome of subsequent disputes is significantly less likely to be a court-rendered judgment. In cases when previous interactions are described in negative terms (using terms like inflexibility, obstruction and selfishness) disputes are just as likely to end in litigation as if they were new partnerships. Indeed, there is some slight evidence here of a *higher* propensity to turn to the courts for compensation when continued conflict undermines familiarity-based trust.

These results raise the possibility of some intriguing implications for the theory and practice of inter-firm relationship management. For example, one explanation of our mixed results on dispute

resolution in repeated exchanges could be that continuing conflict in these relationships significantly undermines the value of relationship-specific investments, thus potentially putting “relational rents” in jeopardy (Dyer & Singh, 1998). Our observation, that almost half of the repeated transactions in our sample involve some prior conflict, also suggests that the development of cooperative norms through repeated exchange is by no means automatic. There is also the possibility that, because of the strong emotional and psychological inclinations that are thought to be at the root of familiarity-based trust in repeated exchange, serious conflicts that develop in these relationships are particularly damaging. This further reinforces the importance of commitment in maintaining cooperation in repeated exchange relationships (Anderson, Ross, & Weitz, 1998; Bensaou & Anderson, 1999).

There are of course limitations inherent in the data available for our study, suggesting the need for caution in drawing conclusions at this point. Some of the more important limitations come from the selection bias inherent in the sample available from our data source, law firm case notes: we do not observe conflicts between exchange partners unless they escalate to the point where lawyers become involved. If, as the received wisdom suggests, repeat exchange partners are more able to work things out by themselves than are first-time transactors, we are likely to be observing a biased sample of disputes among repeat transactors, skewed towards the most serious disputes. Indeed this may be an alternative explanation for why disputes between repeat exchange partners with a history of prior conflict (i.e. with negative priors) are particularly likely to end up in litigation. This possible bias nonetheless works against our finding that repeat transactors with a positive relational history are indeed more able to work things out in private dispute resolution procedures and thus serves to strengthen the inferences we can draw from this core result.

There are also several measures and additional data items that one could wish for in order to refine and extend the findings in our study and allow for more definitive conclusions. Further details on the prior contracting history of repeat exchange partners and on the availability of alternative partners, for example, would allow us to more fully characterize and analyze the impact of the “shadow of the future” versus the “shadow of the past” on dispute resolution practices. Similarly, with more detailed measures on the scope and complexity of the supply and distribution transactions in the sample we could avoid what is admittedly a strong simplification in the arguments presented here, which essentially equate complex contracts with complex transactions: disentangling the effects of operational content versus contract terms on dispute resolution processes would represent an interesting extension of the study. Such an extension could, for example, put to the test Ghoshal and Moran’s (1996) claim,

that complex contracts and other formal control instruments undermine trust. Finally, from a practical point of view, we would like to know to what extent private versus court-ordered dispute resolution affects the longevity and profitability of these exchange relationships. Given what we know about the institutional characteristics of courts and alternative dispute resolution procedures it is certainly reasonable to assume that private dispute resolution is more likely to preserve the underlying exchange relationship, but we do not know for certain that this is the case as we are unable to follow our firms beyond the termination of the dispute.²⁰

These limitations and opportunities for extension notwithstanding, the research described in this paper sheds significant new light on the theory and practice of vertical exchange relationships and the ways in which repeated interactions matter for how firms resolve disputes as they arise.

²⁰ We do have some information on whether the parties had a *stated* intent to continue the exchange relationship, but there is no way to verify whether these intentions were implemented, or if the efforts were successful.

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Table 1 – Descriptive Statistics

	Overall sample N=102			Repeat exchange=0 N=69			Repeat exchange=1 N=33			Positive prior=1 N=17			Negative prior=1 N=13		
	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.	Range
Private resolution	0.402	0.494	0-1	0.420	0.497	0-1	0.363	0.489	0-1	0.588	0.507	0-1	0.077	0.277	0-1
Technical complexity	0.562	0.554	0-2.08	0.613	0.557	0-2.08	0.456	0.542	0-2.08	0.489	0.623	0-2.08	0.519	0.455	0-1.08
Contractual control	2.813	1.487	0-5	2.870	1.474	0-5	2.697	1.531	0-5	2.647	1.730	0-5	2.846	1.405	0-5
Contractual coordination	2.059	1.042	0-4	2.130	0.969	0-4	1.909	1.182	0-4	2.059	1.088	0-4	1.692	1.377	0-4
Dispute resolution clause	0.480	0.502	0-1	0.507	0.504	0-1	0.424	0.502	0-1	0.471	0.514	0-1	0.385	0.506	0-1
Contract value	2.422	0.669	0.7-4.34	2.385	0.641	0.7-3.92	2.499	0.731	0.7-4.34	2.463	0.748	0.7-3.71	2.397	0.618	1.1-3.42
Time bound	0.657	0.477	0-1	0.710	0.457	0-1	0.545	0.506	0-1	0.412	0.507	0-1	0.692	0.480	0-1
Asymmetry	86.50	344.4	0.0-2778	96.35	396.0	0.0-2778	65.92	201.4	0.03-978	74.54	236.4	0.12-978	86.506	177.2	0.03-643
International	0.461	0.501	0-1	0.507	0.504	0-1	0.364	0.488	0-1	0.235	0.437	0-1	0.462	0.518	0-1

Table 2 – Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11
1 Private resolution											
2 Repeated exchange	-.054										
3 Positive prior	.169	.647*									
4 Negative prior	-.253*	.553*	-.171								
5 Technical complexity	.064	-.134	-.060	-.030							
6 Contractual control	.009	-.055	-.050	.008	.301*						
7 Contractual coordination	.204*	-.099	.000	-.135	.397*	-.076					
8 Dispute resolution clause	.252*	-.078	-.009	-.073	.160	-.091	.475*				
9 Contract value	-.095	.081	.028	-.015	.116	.249*	.125	.151			
10 Time bound	.003	-.162	-.231*	.029	-.009	.676*	-.377*	-.297*	.107		
11 Asymmetry	.160	-.042	-.016	-.037	.097	.014	.163	.172	.104	-.189	
12 International	.085	-.135	-.202*	.001	.131	-.163	.042	-.062	-.171	-.119	-.120

Table 3 – Probability of Private Dispute Resolution with Repeated Exchange

Binomial probit regression

Dependent Variable: 1= Private dispute resolution; 0= Court-rendered judgment

	Model 1	Model 2	Model 3
Repeated exchange	0.199 (.305)	0.099 (.295)	0.226 (.312)
Technical complexity	-0.271 (.308)	-0.239 (.300)	-0.325 (.318)
Contractual control	-0.252 (0.146)	-0.162 (0.144)	-0.840 (0.419) **
(Contractual control) ²			0.149 (.071) **
Contractual coordination	0.320 * (.173)	0.411 ** (.163)	0.364 ** (.178)
Dispute resolution clause	0.736 ** (.314)		0.760 ** (.317)
Contract value	-0.468 ** (.235)	-0.359 (.223)	-0.291 (.251)
Time bound	0.846 * (.488)	0.601 (.457)	1.248 ** (.539)
Asymmetry	0.001 (.001)	0.001 (.001)	0.001 (.001)
International	0.386 (.286)	0.289 (.276)	0.351 (.296)
Constant	-0.818 (.658)	-0.700 (.638)	-0.781 (.669)
LR χ^2	17.79 **	12.16	22.29 **
Pseudo R2	0.130	0.088	0.162

* p < 0.10; ** p < 0.05; *** p < 0.01

N = 102

Table 4 – Relational Quality and the Probability of Private Dispute Resolution

Binomial probit regression

Dependent Variable: 1= Private dispute resolution; 0= Court-rendered judgment

	Model 4	Model 5	Model 6
Positive prior ties	1.05 ** (.422)	0.916 ** (.405)	1.111 ** (.442)
Negative prior ties	-0.848 (.531)	-0.943 * (.529)	-0.797 (.535)
Technical detail	-0.249 (.313)	-0.201 (.303)	-0.302 (.325)
Contractual control	-0.092 (0.155)	-0.086 (0.153)	-0.947 ** (0.452)
(Contractual control) ²			0.154 ** (.075)
Contractual coordination	0.287 (.181)	0.402 ** (.169)	0.342 * (.189)
Dispute resolution clause	0.792 ** (.326)		0.819 ** (.329)
Contract value	-0.463 ** (.243)	-0.358 (.231)	-0.301 (.258)
Time bound	1.225 ** (.542)	0.999 * (.512)	1.723 *** (.628)
Asymmetry	0.001 ** (.001)	0.001 * (.001)	0.001 (.001)
International	0.563 ** (.309)	0.436 (.296)	0.547 * (.322)
Constant	-0.990 (.718)	-0.89 (.691)	-0.969 (.737)
LR χ^2	29.17	23.13	33.47
Pseudo R2	0.212	0.168	0.243

* p < 0.10; ** p < 0.05; *** p < 0.01

N = 102

Appendix 1 – Distinguishing positive and negative prior interactions

To distinguish between positive and negative references to prior contracts / relationship between the transacting firms, we first developed a list of relevant concepts and preliminary response categories for use in coding. This involved reviewing relevant prior literature on attitudes or relational norms associated with general satisfaction with trading relationships. This literature suggests three relevant dimensions: flexibility, participation, and solidarity (Noordewier, John, & Nevin, 1990; Heide & John, 1992; Jap & Ganesan, 2000). Flexibility refers to the shared expectations that parties will make adjustments to accommodate changes in the environment; participation also facilitates adaptation and problem solving and refers to partners' willingness to make investments and share information, whether or not the party is contractually obliged to do so. Finally, solidarity refers to bilateral expectations that parties will generally act in a manner that increases mutual benefit, promoting a bilateral approach to problem solving, and creating a commitment to joint action through mutual adjustment.

To the best of our knowledge there has been little research specifically examining relational norms leading to dissatisfaction with trading relationships. Rather, negative or strained relationships tend to be associated with an absence of the positive norms identified above. Thus one may infer a negative experience with a trading relationship from references to inflexibility when a firm is rigid and unwilling to change its way of doing things; non-participation, reflecting obstructive or otherwise unhelpful behavior by the partner; and individualism involving perceptions of a selfish or unilateral approach to problem solving.

Armed with these general concepts, all documents in the legal files in the sample were examined and coded by two team members working independently to classify the data. This was followed by a discussion of item selection and classification, and systematic data analysis employing both manual search and automated textual analysis using Concordance™ software. All inter-rater reliabilities calculated as intra-class correlation coefficients were significant at the 0.001 level and thus support consistency of the ratings. We also found that in the overwhelming majority of files, the two firms involved were quite consistent in their statements regarding the existence and general quality of prior ties. The final step was therefore to re-code prior ties for each pair of transacting firms in the sample as follows:

Positive prior = 1 if the file contains explicit references to flexibility, participation, and/or solidarity in prior interactions between the partners; 0 otherwise. Based in these criteria, 17 of the 33 firm pairs with prior ties were re-coded as having positive prior ties.

Negative prior = 1 if the file contains explicit references to inflexibility, non-participation, and/or individualism in prior business interactions between the partners; 0 otherwise. Based in these criteria, 13 of the 33 firm pairs with prior ties were re-coded as having negative priors.

Files coded as zero on both of these measures were cases with no reference to any prior contracts or other business interactions between the firms pre-dating the start of the contract under dispute. 69 cases fit this description. In addition there were three cases with a very brief mention of prior ties but no elaboration. (For example, "Our teams worked together last year for the [ABC] contract").