

PRIVATE ORDERING, SOCIAL CAPITAL, AND NETWORK GOVERNANCE
IN PROCUREMENT CONTRACTS: A PRELIMINARY EXPLORATION

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INTRODUCTION

Large industrial buyers have devised contractual structures to govern their relationships with their suppliers that while nominally contractual in the traditional sense are better thought of as private order institutions. Like diamond merchants,¹ cotton merchants,² and grain merchants³ – who have largely opted out of the public legal system by creating trade association-run private legal systems to resolve disputes and support trade among their members – these buyers have structured their relationships with their suppliers in ways that are designed to make the legal system

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¹ Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. Legal Stud. 115 (1992) (discussing private ordering in New York's 47th Street diamond markets).

² Lisa Bernstein, *Merchant Law in a Merchant Court: Rethinking the Code's Search for Immanent Business Norms*, 144 U Pa L Rev. 1765 (1996) (describing private ordering in the grain and feed business).

³ Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 Mich. L. Rev. 1724 (2001) (describing private ordering in the cash cotton markets).

largely irrelevant to their interactions.⁴ In place of contracts that are designed to create incentives for performance and investment primarily through the prospect of court-imposed monetary damages for breach, they have created contracts that are designed to keep the law (in the sense of legal enforcement of contractual obligations) largely out of their relationship with their suppliers. As one mid-western original equipment manufacturer (“OEM”) explained, “We have a Master Supply Agreement [with our suppliers yet i]t is not a contract to buy. It is an agreement as to how we are going to do business.”⁵

Conceptually, the Master Agreements that formally govern these transactions play a role in supply relationships that is similar to the role played by firm boundaries in the Coase-Williamson theory of the firm—they clear a space for other, extralegal, modes of contract governance to work.⁶ This Article explores the ways that the sophisticated transactors in these markets have combined governance techniques associated with both arm’s length contracting and intra-firm hierarchy to create relationships that are long-term, highly cooperative, and result in adequate levels of specific investment, all with only minimal reliance on the legal system.

The Article’s description of the highly relational contracts that emerge in the shadow of these detailed and formal contract administration mechanisms, reveals that modern relational contract-

⁴ Contracts, however, remain important to establishing and protecting intellectual property rights and the rights to physical assets (like tooling).

⁵ Unless otherwise explicitly noted, all of the quotes from interviews of Mid-Western OEMs and their suppliers were taken from over 700 pages of transcripts of interviews conducted by Josh Whitford and his collaborators that are described in, Josh Whitford, *THE NEW OLD ECONOMY: NETWORKS, INSTITUTIONS, AND THE ORGANIZATIONAL TRANSFORMATION OF AMERICAN MANUFACTURING*, at Appendix A1. References will be simply to NOE. Due to the restrictions placed on the original study by an institutional review board, identifying details about the interviewees have been replaced by general descriptions of the firm’s type and market position.

⁶ A similar argument has been made about the function of the legal doctrines of employment at will, see Richard Epstein, *In Defense of The Contract at Will*, 51 U. Chi. L. Rev. 947 (1984), and the business judgment rule. See Edward Rock and Michael Wachter, *Islands of Conscious Power: Law, Norms and the Self-Governing Corporation* 149 U. Pa. L. Rev. 1619 (2001).

ing in the industrial procurement context does not emerge in the shadow of a contract that is put in the drawer never to be seen again,⁷ as Stewart Macaulay and others have suggested. Rather, the highly relational contracts that are observed in this context are strongly supported and facilitated by both the contract's written terms and the highly formal (and often expensive) contract administration mechanisms that transactors have developed to support the creation and implementation of these agreements. Indeed, these formal structures not only provide the preconditions that enable cooperation to emerge, but also facilitate the creation of the types of relationship-specific social capital that in combination with the firms position in the relevant network of firms, make it more likely that these relationships will both endure over time and gradually expand to include more innovative and complex joint undertakings that cannot be adequately bonded even by relatively complete contingent state contracts.

Part I of this Article provides an overview of the master agreements that are commonly used in OEM-supplier relationships and discusses the limited damages they make available in a suit for breach of contract. It also explores other self-help and interior remedies that buyers have created to increase the likelihood that a supplier will perform as promised. Part II looks at the wide of variety contract administration mechanisms, such as supplier qualification programs, supplier scorecards, and supplier development programs, that together with certain terms in the master

⁸ Sometimes property provisions are found within Master Agreements. Other times the ownership of tooling and machining is set out in a supplier or vendor tooling agreement. See e.g. Polaris Industries Supplier Tooling Agreement, www.polarissuppliers.com/.../Supplier%20Tooling%20Agreement.pdf (last checked Feb 18, 2015). These agreements typically allocate ownership of the machines to the buyer, require that they be clearly marked on the factor floor as the buyer's property, and contain other provisions designed to ensure that the seller takes proper care of the assets such as requiring the supplier to insure the machines against damage and provide the buyer with maintenance records as well as inspection rights. These agreements are quite an important feature of these deals as they may mitigate (though not eliminate) the potential for the types of hold up problems identified by theorists of the firm like Oliver Hart; yet their most important function may be to reduce the risks and harms faced by a buyer in the event of a suppliers bankruptcy. See Douglas Baird and Anthony Casey, *No Exist? Withdrawal Rights and the Laws of Corporate Reorganization*, 113 Col. L. Rev. 39-42 (2013)

agreements (most notably audit provisions, root cause provisions, and plant inspection provisions) and careful attention to network position, create the conditions that enable cooperative contracting relationships for producing goods to a buyers' specifications to arise and endure.

Drawing on interview evidence from a study of OEM-supplier contracts in the upper mid-west, as well as empirical studies of procurement contracts, strategic alliances, and networks, Part III explores how these relationships evolve over time. It suggests that as transactors successfully get over the inevitable bumps in their initial contracts, they begin to exchange information and to develop relationship-specific social capital as a by-product of these interactions. This in turn, makes them better able to both identify and partially bond more complex undertakings (like the co-development of new products) for which it is much harder to write a nearly complete contingent state contract with objective metrics for determining breach or performance. Part III also suggests that in many contracting contexts, the network position of the collaborating firms (sometimes referred to as "structural social capital") can provide powerful governance constraints on misbehavior. Indeed, in contexts where the force of network governance is particularly strong, such as in biotech alliances, it may be able to support complex and fluid contractual arrangements between firms who had no prior direct dealings with one another. More broadly, the analysis suggests that the availability of network governance expands not merely the *amount* but also the *type* of information about misbehavior that can lead to nonlegal sanctions, and therefore must be taken into account in assessing the incentive of parties to breach or perform and structuring the formal governance safeguards to be included in outsourcing agreements.

Part IV concludes. It suggests that an appreciation of the ways that contract provisions and other contract governance mechanisms interact with social capital and network position, together with a clearer understanding of the true costs and benefits of relational contracting, will enable firms to make more informed make or buy decisions, and will enable commercial lawyers to construct more effective contract governance mechanisms when firms do decide to outsource production.

I. THE WEAK SHADOW OF THE LAW

Outsourcing relationships between OEMs and their suppliers are typically governed by Master Agreements that cover many of the core legal aspects of a supply contract—such as limitations on liability, warranty, confidentiality, modification, ownership of tooling and/or machines,⁸ and intellectual property. Many of these agreements, however, lack a quantity provision, making them legally unenforceable⁹ until a purchase order specifying a quantity is sent by the buyer and accepted by the supplier.¹⁰ These purchase orders typically include additional terms that are incorporated by reference into the Master Agreement so long as they do not conflict with it.¹¹ Additional details about the promised performance, the way conformity or non-conformity with the product and delivery parameters will be assessed, and penalties for non-performance are provided in appendices to the purchase order and/or (depending on whether services are also involved) by the terms of the Statements of Work and Service Level Agreements (“SLAs”) that are also incorporated by reference into the Master Agreement.

⁹ The Uniform Commercial Code, the statute that governs transactions in the sale of goods, provides that a contract must have a quantity provision to be legally enforceable.

¹⁰ See e.g., *Master Supply Agreement between Sun Microsystems Inc. and Mitac International Corporation* (May 1, 2007) section 3.1 (“The parties acknowledge that neither this Agreement nor any Award Letter or Blanket Purchase Order will constitute a commitment to purchase any particular quantity of Products. Sun shall only be committed to purchase Products and Supplier shall only be committed and authorized to ship Product to Sun when Sun has tendered a purchase order to Supplier in accordance with an Award Letter.”).

¹¹ See e.g., *Master Purchase Agreement between Entropic Communications and Tellabas Operations Inc.* (July 1, 2006) at Sec. 6.2 (giving the master agreement priority over conflicting terms in purchase orders); Ingersoll Rand, *Global Supplier Quality Manual* (March, 2014) Sec. 2.0 (“In the event of a conflict between the terms of this [Quality] manual and any buyer purchase order or other contract between the parties, unless the parties agree otherwise in writing, the various components of the agreements shall be given the following precedence (in descending Order of precedence): . . . the Supply Agreement. . . a purchase order . . . an applicable country/region supplement to the buyer’s terms and conditions of purchase . . . the buyer’s terms and conditions of purchase and . . . the Global Supplier Quality Manual”)

Other contract relevant specifications, whose binding or non-binding status is sometimes explicit¹² but often unclear, are set out in the Vendor (supplier) Handbooks, Suppliers' Codes of Conduct (or Ethics),¹³ and the various sets of quality specifications, quality control requirements and environmental, labor-practices and social responsibility-related standards that are created by many large buyers. Regardless of the legal status of these documents, buyers expect suppliers who wish to do business with them in the future to comply with their requirements. In addition, these agreements typically require suppliers to comply with or have been certified as complying with, quality and manufacturing standards set by external groups such as the International Standards Association.

In general, the monetary remedies available to the buyer in suits for breach of contract are limited. Many procurement contracts limit damages for ordinary breaches to the contract price or some low multiple of it, and/or exclude both incidental and consequential damages.¹⁴ Damages would therefore be highly under-compensatory in the event of a supplier's breach. However, many such contracts also provide for higher recoveries for breach of in-

¹² See, e.g., John Deere, SUPPLIER QUALITY MANUAL, JDS6223 [hereinafter "DQM"] ("[A]cceptance of a John Deere purchase order constitutes acceptance of the requirements of this manual"). See also John Deere, Terms and Conditions, Section 11 ("Seller also warrants that its processes shall comply with the John Deere Quality Manual"); Robert Bosch LLC, North American Terms and Conditions of Purchase (September 1, 2010) Sec 2.2 (explicitly incorporating all of the buyer's policies and the policies of its customers, into its master agreements with its suppliers); Carlisle Handbook, supra note __ at 9 ("Acceptance of a purchase order constitutes acceptance and understanding of this Supplier Handbook.")

¹³ See Asea, Brown, Bovari Ltd., ABB SUPPLIER CODE OF CONDUCT (2010) (setting out the "working standards and business ethics" required of its suppliers with respect to considerations such as "Human Rights . . . Fair Labor Conditions an Child Labor . . .[and] Environmental Responsibility.")

¹⁴ See e.g., *Supply Agreement between Dresser-Rand and Ingersoll-Rand* (October 31, 2004) at cl. 10 (" NEITHER PARTY HERETO SHALL IN ANY EVENT BELIEABLE TO THE OTHER OR ANY OTHER PERSON OR ENTITY FOR ANY INCIDENTAL, INDIRECT,PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOST PROFITS PURSUANT TO THISAGREEMENT, EVEN IF THE POSSIBILITY OF SUCH DAMAGES COULD HAVE BEEN FORESEEN.")

tellectual property and confidentiality provisions.¹⁵ In addition, some agreements permit more extensive recoveries in instances of so-called “epidemic breach.”¹⁶ An epidemic breach is a breach relating to an “epidemic failure” of a component or assembly that greatly impairs the value of the buyer’s final product to his customers, typically causing health or safety-related harms that have a damaging effect on the buyer’s reputation. In addition, many master agreements require suppliers to maintain insurance policies covering product defects that name the buyer as an insured.¹⁷

Even in contracts that do not specifically limit damages, court-awarded damages for breach would be under-compensatory. In addition to all of the usual difficulties of proving damages (espe-

¹⁵ See e.g., *Sun Microsystems Agreement*, supra note __ (limiting liability for ordinary breach, as follows: “EACH PARTY’S MAXIMUM AGGREGATE DIRECT LIABILITY, WHETHER FOR BREACH OF CONTRACT OR IN TORT, INCLUDING NEGLIGENCE, WILL BE LIMITED TO THE GREATER OF TWO MILLION US DOLLARS (US\$2,000,000) OR TWO TIMES (2X) THE TOTAL FEES PAID BY SUN FOR THE PRODUCT OVER THE LIFE OF THE AGREEMENT,” but providing a higher per se damage limit for breach of confidentiality, stating that, “TOTAL DAMAGES (WHETHER DIRECT, INDIRECT OR OTHERWISE)[for breach of confidentiality] SHALL NOT EXCEED \$20 MILLION ON A CUMULATIVE BASIS OVER THE LIFE OF THIS AGREEMENT.”)

¹⁶ Contracts typically define “epidemic failure,” and/or “epidemic breach.” See e.g., *Sun Microsystems Agreement*, supra note __ at Section 18.4.1 (“For purposes of this Agreement, “Epidemic Failure Event” shall mean the Product functional failures during the Warranty Period as set forth in this Agreement and (i) having the same or similar cause, verified by the Supplier and Sun, or an independent third party on behalf of Sun (ii) occurring within five (5) years after delivery of the Product; (iii) resulting from defects in materials, workmanship, manufacturing process or design or failure to conform with the Specifications, (iv) having a one month failure rate equal to or in excess of the rate calculation defined as two times (2x) the most current, consecutive five month (or any other mutually agreed upon, currently monitored duration) rolling average failure rate where the failure rate is calculated by dividing the number of unit fails by the unit population or installed base (Failure Rate = N unit failures / N unit population).”)

¹⁷ See e.g., *Supply Agreement between John Deere and Stanadyne*, (August 14, 2007) as Section XIX (“Insurance”) (requiring Stanadyne to maintain certain types of product liability insurance for at least ten years following production of the product and noting that the policies must name Deere as a beneficiary and be issued by a company meeting certain financial criteria)

cially lost profit),¹⁸ it is unlikely that courts would fully compensate buyers for switching costs associated with qualifying a new supplier¹⁹ or the potential damage to their reputation resulting from use of a defective component that causes downstream product malfunction. The judgment proof problem is also likely to be quite severe. Most suppliers are small relative to the size of the buyer; and given that many buyers operate on the basis of just-in-time inventory practices, consequential damages might lead all but the largest suppliers to file for bankruptcy.

The most meaningful contractually sanctioned remedy the buyer has is termination. Most master agreements give the buyer the right to terminate “for cause” without making any payments to the seller as well as the right to terminate “for convenience” so long as the buyer reimburses the supplier for his reliance expenses.²⁰ Although the buyer’s right to terminate is nominally very powerful, its exercise is tempered by both anticipated switching costs²² and the buyer’s concern that if it terminates too often or

¹⁸ Buyers may also be reluctant to sue for lost profit even when they would be likely to recover it because this would require them to reveal their profit margin on the final assembled good. This information could then be used by other suppliers to the buyer’s disadvantage in future pricing negotiations. See Lisa Bernstein and Omri Ben-Shahar, *The Secrecy Interest in Contract Law*, 109 *Yale L. J.* 1885 (2000).

¹⁹ Some of these switching costs, such as search costs and the costs of putting potential suppliers through their supplier qualification program until a suitable new partner is found, would be relatively easy to quantify. Other, potentially significant costs, would not. These include increased coordination and monitoring costs as well as the costs arising from the time it takes the buyer’s personnel to establish the types of connections and understandings with seller’s personnel that facilitate problem solving. Even more problematic from the perspective of a buyer, in contexts where a buyer’s immediate reaction to a termination would be to temporarily increase his purchases from an existing supplier, a court would likely conclude that switching costs are negligible. However, because buyers limit their buy from any one seller for good reasons, see *infra* discussion accompanying notes __-__, the buyer would still have to bear the costs of finding a new supplier at some point in the future.

²⁰ See e.g., [insert a typical terminate for convenience clause]

²² See e.g., Interview with OEM manager, NOE *supra* note __ (“A lot of times we are working with suppliers who have historical poor performance, or unacceptable performance. So why do we stay with them? Well a lot of times were are so engineered to that supplier . . . You can’t take this design, which was

at the first sign of trouble, its other suppliers and putative suppliers will be reluctant to make relationship-specific investments.²³ Perhaps this is why buyers often compensate their suppliers' for lost reliance expenses regardless of the reason for termination.²⁴

Buyers may also choose not to terminate underperforming suppliers because it is simply cheaper for them to help a supplier (particularly if the supplier is simply having production problems rather than acting opportunistically) than it is to switch suppliers.²⁵ As a mid-western OEM explained "It takes a lot for a supplier to get in a position where we are going to re-source their business. They almost have to make an effort . . . re-sourcing business . . . takes a lot of time, a lot of effort . . . if we are noticing problems, we will get some level of materials leadership involvement to see what the issues are."²⁶

Wholly apart from the damage limitation provisions found in these contracts there is another, more fundamental reason that the threat of court-imposed monetary damages is far weaker in long-term (or repeat dealing) relationships than it is in discrete transactions. It is not unusual for the filing of a lawsuit for breach of contract (particularly one based on quality defects)²⁷ to be a relation-

probably jointly developed, and go and take it to their competition . . . we have to redraw, re-text, re-everything . . . The cost of resourcing is huge. We recognized a long time ago that we have to stick with some of our conditional suppliers because of the cost of re-sourcing.")

²³ Interview with in-house Health Care Outsourcing Lawyer, *supra* note __

²⁴ Interview with VP of Supply Chain Management at a Health Care products company (December 2013); *id.* (noting that her firm pays these expenses regardless of the reason for termination to preserve their relationship for treating even their terminated suppliers fairly.)

²⁵ See e.g., Whitford, *supra* note __ at 65 ("The unwritten policy, seldom discussed publically by GM, acknowledges that the automaker is prepared to help some suppliers rather than risk part shortages . . . GM has hastened payments for parts, guaranteed future contract, postponed price cuts, offered consulting, and even raised the prices paid for components . . . The automakers do these things because they know it would be time consuming and costly to replace certain parts makers.")

²⁶ NOE, *supra* note __

²⁷ [Insert a note explaining the reasons why IP related disputes may not have the same effect on relationships, including the realization that reasonable

ship-ending event. A breached against buyer is therefore unlikely to sue (or have a credible threat to sue) unless the amount he can recover (net of litigation costs, switching costs and reputation costs) exceeds the present value of the marginal benefit of continuing to deal with this supplier, rather than the next best supplier, in the future. Given that the size of each purchase order tends to be small relative to the value of the long-term relationship, suppliers realize that buyers will rarely have a credible threat to sue them in the event of a substandard delivery that falls short of an epidemic breach—that is, unless the buyer has concluded (perhaps because of a pattern of breaches over time, or the availability of a better supplier) that it is worthwhile to end the relationship. This suggests that the shadow cast by the threat of court-imposed monetary sanctions on the work-a-day actions of suppliers is likely to be quite weak, even if there are no contractual limits on damages, because over an important range of purchase order values, buyers only have a credible threat to sue for breach of a *contracting relationship*, rather than a mere *breach of contract*. As a strategic sourcing manager at a large mid-western OEM explained when asked what contract provisions actually mattered, “contracts are not about lawsuits, they are about divorce. Sometimes we just want out, making termination provisions the most important part of the deal.”²⁸

In light of the limits on damages and buyers’ reluctance to terminate suppliers too quickly, it is not surprising that there are other provisions in these agreements that have the potential to at least partially restore the suppliers’ incentives to perform their work-a-day obligations. Master Agreements and/or the ancillary documents they incorporate, typically have what can be understood as “interior remedy” provisions—that is, provisions that permit a buyer to withhold (thus making it a self help remedy that can be imposed without a threat of a lawsuit) both payment and a small fine when a nonconforming or late tender is made. The fine falls far short of compensating the buyer for breach, perhaps as a way of insuring that the buyer has no incentive to impose the fine

minds might assess these issues differently so the mere fact of a dispute does not necessarily indicate opportunism].

²⁸ Interview with a high ranking strategic sourcing manager at a large mid-western OEM (conducted by Lisa Bernstein, May 5th, 2014)

unless performance is truly nonconforming. While some firms impose these fines whenever delivery is nonconforming, others only impose them when a problem occurs several times or the supplier ignores a request to provide a plan to eliminate a documented problem. As one procurement manager explained, her firm tended to impose these fines only when the relationship the supplier was deteriorating and/or she wanted to get the attention of managers higher up in the organization in the hope that they would correct the underlying problem.²⁹

In the procurement context, however, buyers are not content to rely on *mere promises to perform* or the shadow effects of potential monetary sanctions to induce the level performance they require. Rather, to augment these forces, they have developed a number of other ways--akin to direct regulation and/or the intra-firm management techniques associated with hierarchy³⁰-- to increase the likelihood of performance.

These hierarchy-type methods take a variety of forms some of which are costly to administer. They include specification of the types of manufacturing processes to be used (at the supplier's plants and, at some companies, the supplier's sub-suppliers plants as well);³² aspects of the suppliers' human resources policy (such

²⁹ Interview with Procurement VP, *supra* note __. See also, Ian Stuart, Paul Deckert, David Mcutcheon, Richard Kunst, *A Case Study: A Leveraged Learning Network*, Sloan Management Review (Summer 1998) at 85 (noting that while Allen Bradley, a manufacturer of factory automation parts, adopted a plan to penalize noncompliance with quality metrics by fining suppliers an amount equal to the cost of remedying the defect, it ultimately decide to report, but not collect, the amount of the would be fine in an effort, "to use the figures to foster awareness rather than to assess penalties.").

³⁰ Outsourcing lawyers used to recommend that buyers include provisions specifying bonus payments to particular supplier employees when performance metrics were met. See Interview with Outsourcing Lawyer (July 2014). However, this practice was discontinued when lawyers became concerned that such provisions might lead courts to conclude that the supplier's employees were also employees of the buyer and as such entitled to additional benefits. In some industries, however, it remains common for contracts to specify the identity of key personnel and to require buyer approval for any changes.

³² Some buyers confine their oversight to first tier suppliers, while other put restrictions on who the supplier may buy from, and require all sub-suppliers to comply with many of the same requirements they impose on their tier one suppliers, even when responsibility for overseeing the sub-supplier lies squarely

as requiring the supplier to both document the training needed for each job and keep records on the training each employee has);³³ specifying the supplier's records retention policy;³⁴ buyer approvals at many stages of the production process,³⁵ as well as intense monitoring, auditing, or participation by either buyer-employees³⁶ or third-party auditors, certifiers, or calibrators.³⁷ Many buyers augment these mechanisms with buyer-employee boots on the ground at the suppliers' production facilities.³⁸ In addition, buyers (at their own expense) regularly either on an ad

on the tier one supplier. See Ingersoll-Rand at 5. Some buyers require both suppliers and their sub-suppliers to agree to be audited by the buyer at any time. Ingersoll Rand.

³³ See Ingersoll Rand, QM at 2.1 (Training) (requiring their suppliers to describe the skill sets needed by their manufacturing personnel, and then to provide documentation that all employees working on the goods have been trained to these standards); John Deere QM, at 6.2 ("A supplier shall provide a system of ongoing monitoring of each employee's education, training and work experience and provide opportunities for training and continuing education to improve employee's skill level . . . The training shall provide employees with an awareness of the relevance and importance of their activities and how they contribute to the achievement of quality objectives in the business plan. John Deere classes for Supplier Quality Manual, John Deere Standards, and Enterprise Product Delivery Process Supply Chain Integration are available").

³⁴ Ingersoll Rand at p. 7

³⁵ Navistar at 3.1.3 ("Prototype parts must be inspected and validated to certify they meet the design intent.")

³⁶ Contracts tend to give buyers the right to enter supplier's (and their supplier's) plants to "access to quality system documentation, [and] quality records as well as the ability to conduct audits, verify product and processes." See, United Technologies, SUPPLIER QUALITY SYSTEM REQUIREMENTS (2012) at 1, and Ingersoll Rand 4.7 at 19 (describing the way the supplier should conduct its own inspections and "functional verification[s]"). See also Ingersoll-Rand, at 4.6 p. 19 ("[A]t any time, Ingersoll Rand, may request production samples to perform analysis and testing.")

³⁷ Navistar 2.3 (calibration measurement requirements)

³⁸ The decision to use "boots on the ground" measures is a complex calculus. It is not driven solely, or even primarily by the weakness of monetary remedies. Sometimes problems are cheaper or easier to detect and/or cheaper to fix when they are discovered during the production process rather than after the goods have been tendered to the buyer and/or used in the final assembly.

hoc basis or as part of structured programs,³⁹ send teams of consultants to the sellers plants to solve problems that arise and/or to find ways to help the seller cut costs.

At John Deere, for example, suppliers are required to produce products according to the John Deere Quality Manual.⁴⁰ This eighty-eight page manual consists of detailed manufacturing process-related requirements.⁴¹ It also specifies many points in the production process where Deere personnel must either be present and/or sign off on the completion of a stage of the production process before the supplier is permitted to move on to the next stage. For example, before a part is produced, a “Design, Process and Assembly Review” must be held. This review includes “a meeting which confirms all expectations of the product or services prior to a physical build. John Deere teams initiate this review as early as possible before tooling release.”⁴² Similar meetings must be held for every new product as well as when there are significant changes to existing products. In addition, when the product to be made “cannot be verified by subsequent monitoring or measurement,”⁴³ the supplier must submit a verification warrant validating the “qualification of processes, qualification of equipment and personnel, and use of defined methodologies and procedures, requests for records and re-validation,” after which John

³⁹ For a description of one such program see John R Stegner, Bill Butterfield, and Craig T. Evers, John Deere Supplier Development Program, www.ism.ws/files/Pubs/.../StegnerFA.pdf (last checked January 12, 2015) (describing the program at John Deere).

⁴⁰ See DQM *supra* note __. In addition, the manual itself in turn incorporates THE JOHN DEERE SUPPLIER CODE OF CONDUCT (covering topics like child labor, health, safety, human rights and more); John Deere Standards, and the John Deere Restricted Materials List. See also: Navistar, Navistar Integrated Supplier Quality Requirements (Nov.1, 2013) (a 29 page manual covering most of the same subjects as the Deere manual); Ingersoll Rand, Global Supplier Quality Manual (same); Kohler, Global Supplier Quality Manual (covering the same subjects as the Deere manual but in somewhat less detail).

⁴² DQM *supra* note __ at Section 7.2.1 at 11.

⁴³ DQM, *supra* note __ at 19

Deere reviews the submission and approves or reject the verification warrant.⁴⁴

Similarly, at Honda-US, the involvement in, and oversight of its core suppliers' operations includes many functions that are more closely associated with hierarchy than contract. Among other things, Honda "reviews the supplier's sales, overall financial situation, annual business plans, technology development, and investment plans, and . . . reviews measures such as employee turnover, working conditions, safety issues, absenteeism, management attitude and their use of temporary manpower."⁴⁵

OEMs, however, differ widely with respect to the extent of this oversight and intervention. Some firms do relatively little,⁴⁶ out of a concern that if they intervene too much, suppliers will attempt to blame them for any undesirable outcomes. Others engage in intense intervention and oversight either at the beginning of a contracting relationship or when a new product is introduced but lessen their engagement as the relationship develops.⁴⁷

The core point is that parties do not simply contract, wait for delivery, accept or reject, and then sue if cure is not forthcoming. Rather, they interact throughout the production, delivery, and quality assessment process to try and catch problems sooner rather than later and work together to solve problems rather than threatening one another with lawsuits. It is in this respect that many of the work-a-day practices in the manufacturing world today echo the findings of Stewart Macaulay's seminal study,⁴⁸ only

⁴⁴ DQM, *supra* note __ at 19

⁴⁵

⁴⁶ Interview with VP Supply Chain, *supra* note __

⁴⁷ See e.g., Osram Sylvania, GLOBAL AUTOMOTIVE LIGHTING: SUPPLIER HANDBOOK, at 15 (describing how firms move from "Material Inspection Depart Quarentine," status where incoming product is extensively tested to "ship to stock," status where it is not); National Instruments, NI SUPPLIER HANDBOOK, at 9 (describing their Dock-to-Stock Program and explaining that "The direct path to stock is our goal and we expect our suppliers' cooperation. Material is qualified as a result of successful incoming inspection lot history . . . Material that is dispositioned as 'nonconforming supplier fault' may require inspection for future receipts until qualified again").

⁴⁸ See Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 Am. Sociology Rev. 55 (1963) (quoting interviews that reflect the in-

with a subtle difference: the practices may look informal, but in reality they are shaped and supported by the provisions of highly formal written agreements, as well as a variety of formal contract administration mechanisms.

In sum, in the procurement context, the transactors' legally enforceable contract is of limited use to buyers in terms of going to court to obtain compensatory legal remedies for breach. The contracts are also of limited value to suppliers. As one midsize supplier to a large mid-western OEM aptly observed, "[t]he contract is just a formalized handshake that says that your intention is to put business in here . . . You get long term agreements, but [they are of limited value because] I can't outspend them in court."⁴⁹

Given the limited ability of contracts and the associated threat of court-imposed damages to create incentives for performance, it is important to explore the wide variety of other mechanisms used to govern these exchanges. These mechanisms, some of which are created or supported by the provisions in the transactors' formal contracts—despite the lack of a credible threat to enforce them in court—can best be understood by exploring the ways they affect the flow of information between firms (and between their employees) as well as the ways that they create or leverage the forces of repeat dealing, social capital, and the network position of the buyer and supplier in the relevant markets, largely, though not entirely, outside the shadow of the law.

II. FACILITATING THE EMERGENCE OF COOPERATIVE CONTRACTING RELATIONSHIPS

Large industrial buyers have created a variety of contract administrative mechanisms and other institutional structures that

formality and flexibility of day-to-day contracting behavior and the desire of businessmen to keep lawyers and references to "the contract" out of their transactions).

⁴⁹ NOE supra note __, And, another supplier noted that even when a long term contract of a specified duration was used, "most customers have come back in and violated those kind of agreements . . . [they] say, "we know we negotiated this deal, however, business conditions have changed and we need your help, partner, to help us out of this situation . . . so, long term contracts, they sound nice and are nice things to talk about, but we have found that there are problem in our customers adhering to those contracts." Id.

make it possible for cooperative contracting relationships – that is, relationships where shirking is minimized, relationship-specific investments are adequately bonded, and opportunistic behavior adequately controlled – to arise and endure largely outside of the shadow of the law. The most important such mechanisms, which are used in both make-to-spec contracts and contracts where the supplier participates in design, are described below.

1. Preconditions for Cooperation to Emerge

In order for cooperation to emerge in the OEM procurement context, both the buyer and the supplier must decide to cooperate at the outset of their contracting relationship, and each must also believe that that the other will do the same. Thereafter they must each respond to cooperation with cooperation, and defection, or a certain number of defections, with either defection or graduated defection.

A buyer and supplier's initial expectation that their contracting partner will cooperate is created in part by buyer-administered supplier qualification programs. These highly structured programs require potential suppliers to provide: detailed financial information, including, in many instances, cost and profit margins; information about the identity of their other contracting partners and the percentage of their output they sell to each;⁵⁰ contact information for references from both current and past buyers; and documentation that their quality control systems have been third-party verified⁵¹ (or in some firms self-verified) to comply with international or other standards. Suppliers are also required to commit to opening their plants for buyers' inspection both before and after a contract is entered into.⁵² Individual managers also investigate potential suppliers through their more in-

⁵⁰ See e.g., Questionnaire infra note __

⁵¹ See e.g. Doing Business with Harley-Davidson, Suppliers Quality Systems Requirements, (last checked 5/28/24) (requiring tier 1 suppliers to be ISO 9001 certified).

⁵² See infra text accompanying notes __-__ Some firms ask suppliers to permit them to take pictures during their site visits, See Quality Management System Supplier Information Form, from large healthcare company (provided to researcher December 2013).

formal business contracts as well as through the web and business press.⁵³

Supplier qualification programs are costly for a buyer to administer and expensive for a putative supplier to complete. Both parties are aware that if they do not find one another to be desirable contracting partners, this investment will be lost. They are also aware that when they do find the other to be qualified and begin to transact, they will both face significant switching-costs if either of them decides to exit the relationship. As a consequence of this and, perhaps other forces,⁵⁴ they are each likely to begin the relationship by cooperating and to assume that their contracting partner will do the same. Since these relationships begin with very small purchase order amounts that only increase with good performance, each party realizes that in the early purchase orders, the likelihood that the other would be able to obtain a large enough payoff from defecting to make it desirable to incur these switching costs, is small. Each party is therefore likely to begin early production rounds by cooperating. In addition, the fact that buyers will often have their own employees present at least during the initial production runs, further increases the likelihood that each party will enter the relationship with a reasonable belief that the other will cooperate.

⁵³ See e.g., Hewlett Packard, SUPPLY CHAIN RESPONSIBILITY: OUR APPROACH at 4 (“[I]nsight from . . . press articles . . . may affect our assessments of supplier risk.”)

⁵⁴ Mark Fichman and Daniel A. Levinthal, *Honeymoons and the Liability of Adolescence: A new Perspective on Duration Dependence in Social and Organizational Relationships*, 16 *Academy of Management Rev.* 442 (199_) (identifying factors including, but not limited to, “favorable prior beliefs, trust, goodwill, financial resources or psychological commitment,” that together give rise to an “initial stock of assets,” that in turn create a honeymoon period, defined as a “suspension of the threat of a relationship ending,” at the outset of commercial relationships, but providing limited empirical support from business settings, outside of one study that found such a period to exist at the outset of auditor-client relationships but that needs to be viewed with caution as the negative market signal sent by firms who change their auditors early in a relationship might well account for the effect).

2. *Conditions for Maintaining Cooperation*

The most important condition for the maintenance of commercial cooperation is that the transactors themselves must be able to agree on what constitutes cooperation and what constitutes defection and be able to distinguish acts of cooperation from acts of defection. The biggest threat to continued cooperation is the possibility that a transactor will misclassify an act of cooperation as an act of defection and thus set off a series of actions and reactions that lead to the disintegration of the contracting relationship.⁵⁵ Given the detail in these contracts and the fact that buyers expect strict compliance as regards quality, on time delivery, and a host of logistics-related metrics, the potential for relationships to unravel due to either a supplier's misunderstanding of a buyer's needs or a buyer's mistaken classification of operational outcomes is omnipresent; yet buyers have developed ways to reduce both of these risks and moderate their responses to bad outcomes in ways that are designed to facilitate continued cooperation without opening the door to opportunism.

Large buyers take many steps to reduce the likelihood that suppliers will misunderstand either their contract requirements, or their unwritten expectations (which may be as or more important to the prospect of long-term cooperation as the written re-

⁵⁵ Bernstein has explored the role played by clear contracts, institutional efforts to promote common knowledge, and the availability of formalist adjudicators whose decisions are predictable in sustaining cooperation in the shadow of the cotton industry's well developed private legal system, See Bernstein, *Cotton Industry*, supra note __. Similarly, Bozniak and Hadfield, supra note __ recognize that written contracts can support, or in their terms "scaffold," cooperation even when they are rarely (and are rarely expected to be) legally enforced. However, in their account (unlike the one presented here) both lawyers and the content of contract law play a central role in enabling the written agreement to scaffold cooperative exchange. As they explain, cooperation can be achieved because "a distinctive body of *contract law* and practice [that includes "formal legal doctrine" as well as the "norms and rules of contract analysis"] coordinates the interpretation of ambiguous and multi-dimensional events by the parties to a contractual relationship," thereby enabling "those events to be classified in a binary fashion as 'breach' or 'not breach,'" id. at 5, and reducing the "variance associated with the estimates of the likelihood that contracting events will be classified as breach or not." Id.

quirements).⁵⁶ Even the most highly detailed contracts routinely incorporate or are supplemented by numerous sets of supplier manuals that are available on the buyer's websites and are often accompanied by webinars, power point presentations, or summaries that explain them.⁵⁷ For example, John Deere's quality manual is supplemented by a Webinar that provides an overview of the manual's requirements and highlights those "critical requirements" that all suppliers are expected to strictly observe and whose violation will "put the supplier at the highest risk of violating the Purchase Order Terms and Conditions."⁵⁸

These large buyers also take additional steps to educate their suppliers. Caterpillar operates a "Supplier Development College," which offers both webinars and live classes. Some of these classes are designed to increase suppliers' understanding of Caterpillar's contract requirements while others are designed to educate them about the latest industrial techniques, regulatory requirements, and quality control methods.⁵⁹ Many OEMs also have supplier

⁵⁶ Navistar, NAVISTAR INTEGRATED SUPPLIER QUALITY REQUIREMENTS, at 3.3 ("Suppliers must ensure that Navistar requirements are defined and understood prior to acceptance of business . . . and return the Supplier Quotation Feasibility Commitment to confirm understanding of Navistar requirements. When an aspect of requirements is not understood or agreed, suppliers must provide a written request for explanation of the unclear points to the appropriate Navistar Engineer, the supporting Navistar Supplier Quality Representative, and Navistar Procurement Representative. If no questions are raised, Navistar assumes that suppliers understand the requirements and will adhere to them.")

⁵⁷ See e.g., GE ENERGY SUPPLIER QUALITY RESOURCE BOOK (March 2006) (providing an overview of quality requirements but warning that "[t]he information contained herein has been compiled for the convenience of the GE Energy supply base. The specific applicable requirements are defined in the purchase orders, contracts, terms and conditions, drawings, and specifications relevant to a purchase. As such, this document is not a substitute for a rigorous contract and document review by the supplier as part of the process to fulfill an order.")

⁵⁸ DQM at 3.

⁵⁹ See e.g., Supplier Development College, <https://supplierconnect.cat.com/wps/portal/catconnect/SDC> (describing onboarding classes for new suppliers that teach them how to do business with Caterpillar; courses on aspects of manufacturing ranging from asbestos control to lead to crane safety; and a class "Meeting Customer Expectations." Similarly, John Deere provides "classes for the Supplier Quality Manual, John Deere Standards, and Enterprise Product Delivery Process and Supply Chain Integration." See DEERE QUALITY MANUAL AT 6.2.9. See also, Navistar, Integrated Sup-

development programs where they send consultants into suppliers' plants to help them understand what improvements are needed and/or how improve their production methods to increase quality and/or reduce costs.⁶⁰ At companies of all sizes, regardless of the availability of these extraordinary resources, suppliers also come to understand their buyers' needs and expectations through the process of negotiating product specifications and the provisions of SLAs and or SOWs, including the key performance indicators that will be used to assess performance. The information learned in these negotiating sessions is viewed by many as being as or more important to the successful governance of these relationships as the final written agreements that reflect the understandings they reach.⁶¹

Buyers also use a formal contract administration mechanism, the Supplier Scorecard,⁶³ to rate each supplier in terms of their compliance with relatively objective performance metrics as well as the buyer's assessment quality of the contracting relationship more generally.⁶⁴ The core metrics that make up the bulk of most scorecards are on-time performance, cost, quality, and customer

plier Quality Requirements (2013) (noting that a training module is available online for each stage in the Supplier Quality Life Cycle Management requirements and that managers are required to complete them)

⁶⁰ See e.g., JD CROP: JOHN DEERE COST-REDUCTION OPPORTUNITIES PROCESS (describing Deere's supplier development programs).

⁶¹ See e.g., Naomi Karten, HOW TO ESTABLISH SERVICE LEVEL AGREEMENTS ("A properly established SLA fosters improved communication between the two parties. . .the very process of *establishing* an SLA helps to strengthen communication, so that the parties come to better understand each others' needs, priorities, and concerns"). See also International Association of Contract and Commercial Managers, [insert].

⁶³ This scorecard method was also used by some of the buyer's in Macaulay's 1963 study, see Macaulay, *supra* note __at 63 ("Some industrial buyers go so far as to formalize this sanction by issuing 'report cards' rating the performance of each supplier. The supplier rating goes to the top management of the seller organization, and those men can apply internal sanctions to salesmen, production supervisors or product designers if there are too many 'D's' or 'F's' on the report card.").

⁶⁴ See e.g., National Instruments' Supplier Scorecard Assessment Criteria (2011) (defining the allocation of points on the company supplier scorecard and indicating that only subjective element, the score for "customer service and support," was allocated only 10 out of 100 points.").

service. The buyer uses these metrics to create a quarterly composite score, which it then uses to determine the business opportunities (if any) that it will make available to the supplier in the next quarter. By rating on a quarterly rather than purchase order-by-purchase order basis, and creating a composite score for the quarter, buyers are less likely to overreact to isolated bad outcomes.

Under the scorecard system, the highest rated suppliers are eligible for new business. Those with adequate ratings can keep their existing levels of business, but are expected to improve. And suppliers with lower ratings are warned that their business will decrease if improvements are not quickly made. It is only after a few rounds of low ratings (accompanied, in transactions with the largest buyers, by consulting services designed to improve their operation) that suppliers are terminated.⁶⁵ This mechanism enables buyers to reward suppliers for their performance, and impose carefully graduated monetary sanctions on them for non-performance without having to end the contracting relationship to do so. Because these sanctions do not benefit the buyer, and are in fact costly for him to impose – as he has to secure other sources of supply to cover reduced quantities – he is unlikely to impose them unless the supplier has in fact underperformed.⁶⁶

Quarterly business review meetings are held to discuss the scorecard.⁶⁷ Buyers share their perspective on the scorecard and suppliers are encouraged to ask questions, dispute various ratings, and talk to buyers about their plans to improve in critical areas. As a consequence of these often extensive discussions, a supplier

⁶⁵ See Richard Menhorn, NCR: Supplier Scorecard Procedure (June 25, 2010) (describing the operation of the NCR company's scorecard).

⁶⁶ [on the benefits of decoupling]

⁶⁷ These metrics and the quarterly meetings held to discuss them may also be valuable because they provide a largely objective measure of the suppliers' performance that may help mitigate the familiarity and friendship effects of relationships between the buyers and suppliers employees on business decision making within each firm. As the buyer's employees responsible for the account share information within their firm, the "story" they tell about the supplier will have to be one that is consistent with the objective metrics which should reduce though not eliminate the effect of purely friendship-based (as opposed to performance-based based) loyalties See *infra* notes ___-___ and accompanying text.

is less likely to respond to even a buyer's mistaken judgment about the quality of its performance with defections of its own—that is, a supplier is much less likely to mistakenly conclude that its scorecard rating (and any associated reduction in business) is an independent defection on the part of the buyer. The scorecard together with the quarterly business review therefore serve as a useful, though far from foolproof, way of heading off a mistaken series of echoing defections that has the potential to end an otherwise beneficial contracting relationship.

To ensure that suppliers who reach the highest scorecard grade have an incentive to maintain high-level performance, firms have created supplier-of-the-year awards. These awards are covered in the business press,⁶⁸ and are sometimes considered a hallmark of quality by other buyers when they are selecting suppliers.⁶⁹ By announcing the award, the buyer confers a benefit on the supplier who can then use it to solicit other business, something that he might otherwise be prohibited from doing by the confidentiality provisions often found in master agreements.⁷⁰ Buyers also obtain a prospective benefit from the granting of these awards. One a

⁶⁸ Despite widespread coverage in the press, empirical evidence on the effect on suppliers' businesses of winning these awards is conflicting. Compare Kevin B Hendricks and Vinod R. Singhal, *Quality Awards and the Market Value of the Firm: An Empirical Investigation*, 43 *Management Science*, 415, 430. (1996) (looking solely at buyer quality focused awards given to public companies and finding no abnormal returns on the day after the announcement) and Kevin B Hendricks and Vinod R. Singhal, *Firm Characteristics, Total Quality Management, and Financial Performance*, 19 *J. Operations Management*, 269, 280 (2001) (using a different methodology and finding that winning a buyer granted quality award resulted in a 28.24% "mean percent change in operating income."). See also Arash Azadegan and Dinesh Pai, *Industrial Awards as Manifests of Business Performance: An Empirical Assessment*, *J. Purchasing & Supply Management* 14 (2008) (concluding, based on data from the semi-conductor sector, that buyer-given "awards are an indicator of long-term supplier performance," and that "operational awards show direct association with ROE, [while] product awards show direct association with sales growth.")

⁶⁹ Interview VP Supply Chain Heath Care supra note __ (explaining that while not determinative in the selection of a new supplier, she would sometimes give the receipt of these awards some weight); Interview with Deere Supply Chain Manager (same) .

⁷⁰ See e.g., infra note _ (noting the confidentiality provision in a contract between John Deere and one of its largest suppliers)

supplier's name is publically associated with the buyer, a supplier who fails to achieve the same public status with the buyer in subsequent years will suffer reputational harm, thus creating an incentive for him to continue to perform at a high level in the future.

The incentives created by the scorecard are reinforced by buyers' practice of granting status designations, like "partner-level"⁷¹ supplier or "certified" supplier to suppliers who continue to meet or exceed specified performance criteria. Some of these designations come with a valuable benefits, such as better or more extensive information sharing, more frequent contact, dock-to-stock status,⁷² and the award of business even when they are not the low bidder so long as they are within a specified range of the low bidder.⁷³ In addition, some buyer questionnaires for new suppliers ask if the supplier is a "certified" supplier to any of its customers,⁷⁴ thereby making such certification a valuable business asset.

The Master Agreements also have provisions designed to improve the accuracy of the buyer's assessment of the supplier's performance. They give buyers the right to: inspect the supplier's

⁷¹ See e.g. John Deere, *ACHIEVING EXCELLENCE: A STRATEGY FOR WORLD-CLASS SUPPLIER RELATIONSHIPS* at 4.

⁷² See *supra* note __, and SLOAN GLOBAL SUPPLIER QUALITY MANUAL (7-2013 Rev. 6, 2013) at 4 (noting that "certified" suppliers get 'dock-to-stock' status . . . [and are] exempt from the receiving inspection process at Sloan facilities"); CARLISLE HANDBOOK, *supra* at 20 (same).

⁷³ At the Ariens Corporation, for example, certified suppliers receive "preferential treatment from the OEM . . . While [they] are expected to come up with cost saving ideas, they enjoy partnership style relationships with Ariens, particularly in engineering. In bidding, if they can come within five percent of the lowest bid, they get the order." See Jeffrey Rickert, Jowel Rogers, Darya Vassina, Josh Whitford and Jonathan Zeitlin, *Common Problems and Collaborative Solutions: OEM-Supplier Relationships and the Wisconsin Manufacturing Partnership's Supplier Training Consortium*, (June 2000) at 17. See also, Aberdeen Group, *THE SUPPLIER PERFORMANCE MEASUREMENT BENCHMARKING REPORT* (December 2002) (noting that "enterprises often give new business proposals (i.e., "bids") from preferred suppliers additional weight, allowing preferred suppliers to win new business without necessarily being the lowest priced offer").

⁷⁴ See e.g., Supplier Questionnaire for Ceredyne Corp. at 4 (asking prospective suppliers "is your facility a certified supplier for any other customer . . . if yes please provide customer name if possible").

plant with⁷⁵ or without notice; review and audit its quality control systems⁷⁶ and quality control reports;⁷⁷ and audit its books and/or other records.⁷⁸ While books and records are always subject to manipulation, and suppliers do play games along these dimensions,⁷⁹ the provisions nevertheless give buyers important (if not perfect) information that they can use to more accurately determine if certain types of contract provisions are being violated.

⁷⁵ Carlisle Handbook, supra note __ at 8 (reserving a right of access with notice to the plants of all suppliers and their sub-contractors as well).

⁷⁶ See DQM supra note _ at 8.2.2 at 22 (“Deere reserves the right to conduct a quality system assessment at the supplies facility . . . Deere would expect access to a supplier’s personnel, documentation, . . .and test facilities.”); see also *Primary Contract Manufacturing Agreement between JDS Uniphase and Fabrinet* (January 1, 2008) Sec. 10.1 (setting out broad inspection and quality control rights as well as requiring “reasonable access to its staff including technical staff, to determine the identity and scope of Improvements and New Technology whether solely or jointly developed by Supplier, which JDSU reasonably believes Supplier has not adequately disclosed in accordance with this Agreement.”)

⁷⁷ See e.g., John Deere Quality Control Manual incorporated by reference into all John Deere Purchase Orders, at 4.2.4 at 5 (requiring “all quality records” including but not limited to twenty five enumerated types, to be “readily accessible upon request by a John Deere representative.”)

⁷⁸ See e.g., *Fuel Supply Agreement between Petro Truckstops and Petro Stopping Centers*, Sec. 3 (March 9, 2007)(“Each party shall . . . maintain and make . . . books and records available for at least two (2) years after the termination of this Agreement for possible inspection, copying, extracting and/or audit by the other party. Each party . . . shall have the right not more than once every six calendar months to review and, through an independent certified public accounting firm . . . to conduct audits with respect to the books, records, and all other documents and materials in the possession or under the control of the other party relating to this Agreement.”).

⁷⁹ See e.g., NOE 1 (explaining, when asked if they give up their costing information to their largest OEM buyers, “somewhat, we take our material . . . then we just have a dinosaur way of doing labor costs . . . we don’t break it down. The upshot is that [the OEM] cant see the margins.”); NOE 2 (explaining that when they were compelled to give their costing data to a large OEM, “we’ve done it to such an extent that they had an extremely hard time understanding it,” and noting this was a deliberate tactic.). NOE 3 (explaining that while the overall margins they reveal across all parts they make for a buyer are roughly accurate, the data related to a particular product are less accurate to avoid push back from buyers.)

In the procurement context, buyers also care deeply about the reasons for poor quality, late delivery, or any other type of subpar performance. The reason for a breach is likely to influence the buyer's response. Breaches due to one-off manufacturing glitches are largely ignored, unless they are frequent. Breaches due to systematic production problems (even large ones) that the buyer thinks can be remedied are initially met with offers of technical assistance,⁸⁰ sometimes at the buyer's expense. And opportunistic breaches or breaches caused by operational difficulties that cannot be remedied are typically met with the harshest responses, including termination for cause. To enable buyers to determine the causes of particular breach, most contracts give buyers the right to demand a "root cause analysis," when nonconforming goods are delivered or certain other problems arise. A root cause analysis is "a tool designed to help identify not only *what* and *how* an event occurred, but also *why* it happened."⁸¹ It makes it possible for a buyer to more accurately determine not only the reason for a particular breach but also whether the type of process problems that caused it are amenable "to specif[ic] workable corrective measures that [will] prevent future events of the type observed."⁸²

Together, these audit/oversight and root cause provisions reduce the likelihood that a buyer will mistakenly classify a one-off industrial mishap as defection and thus set off a chain of reactions that either terminate or severely damage the parties' relationship. They also make it possible for these contracts to condition on information that in their absence would not be observable and

⁸⁰ As one OEM explained, even when there are "big problems," the firms "philosophy is to work with them [the supplier] to fix the problem. Obviously if they can't fix it over some period of time or it continues to be one that comes back. Then the partnership we thought we had, we don't have anymore so we have to find another option." NOE OEM 1.

⁸¹ James J. Rooney and Lee N. Vanden Heuvel, *Root Cause Analysis for Beginners*.

⁸² Id. Supplier Qualification questionnaires used during the supplier qualification process sometimes ask whether the supplier has established root cause analysis procedures. See e.g., AFF International Supplier Questionnaire (asking whether the supplier has a structured process for conducting root cause analysis). In addition, some buyers reserve the right to be present during and/participate in the conduct of the root cause analysis. See e.g., SUPPLIER HANDBOOK: CARLISLE INTERCONNECT TECHNOLOGIES at 22

would only be verifiable through the filing of a lawsuit and the conduct of civil discovery. As a consequence, these provisions both expand the range of commitments that can be extra-legally enforced and significantly reduce the likelihood of a buyer mistakenly filing suit or terminating a supplier based only on his best guess of what civil discovery would reveal.⁸³ They therefore add a measure of stability to these contracting relationships.

3. Cooperation Reinforcing Practices

In the context of make-to-spec procurement contracts all of the basic pre-conditions for creating and maintaining cooperation are met. Buyer-supplier relationships, while not perfect, tend to last for a considerable length of time. Nevertheless, given the amount of information large buyers require their suppliers to disclose—not only formally as part of the supplier qualification process, but also informally as a condition of expanding the parties’ business relationship—there are many ways that buyers can take advantage of suppliers once contractual relationships have begun. Among other things, they can press for costly changes to production processes, demand price reductions (other than those that are required or contemplated as part of the contract),⁸⁴ and/or deviate from the expected order quantity. In addition, as discussed further below, as these relationships move from make-to-spec to more complex relationships where suppliers take responsibility for design, co-design or aspects of sub-assembly, numerous other risks (including the risk of hold up when relationship-specific investments are made) either emerge or become more salient, leaving suppliers (and in certain circumstances buyers) quite vulnerable.

⁸³ The provisions are necessary because even if it were in the suppliers’ interest to reveal this information, in the absence of these provisions the information would likely remain private--the individual employee who would have to release the information as well as the lawyer who would likely have to sign off on it would face tremendous personal “second guess risk” from authorizing the release of this information, and therefore would be unlikely to do so. However, when these provisions are included they remove the second guess risk and failure to comply with the provisions will therefore send a negative signal.

⁸⁴ In the procurement context it is understood that suppliers are supposed to cut costs each year-- some contracts set forth the percentage reduction expected, others are silent.

In this context, buyers cannot contractually bind themselves not to engage in opportunistic behaviors; yet they have found an effective (though imperfect) extralegal way more to make their promise to behave cooperatively more credible—namely, by encouraging or creating ties among their suppliers and giving them the opportunity to meet, spend time together, and exchange information. By creating these ties, buyers make it more likely that any opportunism on their part will become widely known through the supply base, thereby damaging their reputation and their existing contractual relationships. As a consequence, in contexts where these connections between suppliers exist, large buyers are able to post their reputation as at least a partial bond against their own misbehavior.

Harley-Davidson is one company that actively encouraged the creation of a network of interpersonal ties among its suppliers. In the mid-1980's Harley developed and funded a Supplier Council, consisting of "16 suppliers which, as a group, represent a cross section of Harley-Davidson's supply base of more than 400 OEM Suppliers . . . [that] meets 4 times a year in conferences that last 2-3 days," with each member contracting 9-12 other first tier suppliers to get their views about the company's actions.⁸⁵ Although the effort was motivated by the company's desire to diffuse best practices and to create "a very intimate relationship with [its] suppliers,"⁸⁶ it had the incidental effect of making it possible for the company to more credibly promise its suppliers that it would not behave opportunistically. Harley and its suppliers both knew that if Harley acted opportunistically to a supplier, word of its misdeeds was likely to quickly spread throughout this group.⁸⁷ By

⁸⁵ See Kevin R. Fitzgerald, "Harley's Supplier Council Helps Deliver Full Value," *Purchasing* vol. 121 No. 3 (September, 5 1996) at 5. .

⁸⁶ NOE, *supra* note __ For example, one Harley supplier when asked if he shared costing data and other information with Harley, he replied that he would explaining that "I think Harley Davidson is pretty easy to deal with, I don't have any issues, I think Harley is a good customer." NOE 4 And as another supplier noted, Harley was not as ruthless as the auto companies in demanding price cuts and that his firm is "in it for the long haul with Harley who is allowing them both to make profits and they are pretty happy with them." NOE__.

⁸⁷ See also, Bengt Holstrom and John Roberts, *The Boundaries of the Firm Revisited*, 12 *J. Econ. Perspectives*, 73 at 82 (1998) (suggesting that a similar func-

making any opportunistic actions it took towards any one supplier more visible to other suppliers, the existence of the Council enabled Harley to post its reputation as a bond to behave cooperatively, something that was particularly valuable to it as it attempted to compete with larger volume buyers for its suppliers' loyalty and attention.⁸⁸

The now defunct Digital Equipment Corporation (DEC) is another company that facilitated the creation of a network that incidentally enabled it to more credibly commit not to behave opportunistically towards its contract or alliance partners. DEC, which pursued a strategy of entering into strategic alliances with many small companies,⁸⁹ held an annual conference where all of its alliance partners could meet and learn about one another. During these meetings, DEC's partners often decided to enter into alliances with one another and used DEC managers as reference

tion is played by Toyota's Japanese supplier council and is one reason that Toyota organized such a council at its Kentucky plant).

[discuss the evidence that when buyer's take advantage of suppliers word gets out and suppliers become more reluctant to share innovations with those buyers, or share costing information, etc. For example, one supplier explained that when they come up with a cost-cutting innovation, they share it immediately with X Co., but "would never take it to [Y Co.], never . . . we know what happens there," the proprietary information will leak. NOE #__. And, as another supplier explained, while suppliers are very vulnerable to OEMs taking their ideas for product innovations and improvements and turning around an bidding out production, their ability to do this is tempered by the relationships the buyer and suppliers employees have formed, and "ultimately, you [the supplier] hope that you have the opportunity to call on those relationships to at least make sure that there's a level playing field when the purchasing decision is made. It doesn't always work that way. But for the time being, in my mind, it's the right way to do business." NOE gh

The auto supplier survey documents that suppliers view of the buyer along several dimensions, determines whether they send in the A or B team.

⁸⁸ Navistar, a large mid-western OEM also has a supplier council made up of its largest suppliers that meets with the company president four times a year.

⁸⁹ DEC's activities in creating this forum for its alliance partners to meet is described in, Ranjay Gulati, *Social Structure and Alliance Formation Patterns: A Longitudinal Analysis*, 40 Administrative Science Quarterly 619 (1995).

checks for capability and trustworthiness. These conferences increased business opportunities for DEC's partners and created two types of network governance benefits for DEC itself. First, as additional network connections were created among DEC's partners, the non-legal sanction each partner would suffer if they acted opportunistically toward DEC increased. If DEC were to retaliate by spreading negative gossip about the partner's behavior, it might well both destabilize the current alliances the partner had with other DEC affiliated partners and reduce the business opportunities the partner could potentially take advantage of at the next DEC convention. Second, by promoting the growth of a network among its suppliers (both a network of actual alliance transactions and an setting in which gossip could flow among its network of alliance partners) DEC bound itself to post more of its reputation as a bond against *its own misbehavior* in its relationships with its alliance partners—thus making it a more attractive alliance partner. By creating and strengthening the interpersonal and business ties among its alliance partners, DEC created an important network-aided governance structure for its many strategic alliances.⁹⁰

The examples of DEC and Harley suggest that firms can actively create networks that have the potential to provide governance benefits in their relationships with their suppliers.⁹¹ These networks better enable buyers to post their reputations as at least a partial bond against misbehavior, thereby reducing the extent of the governance problems created by the non-contractibility of various aspects of these deals.

The credibility of a buyer's commitment not to behave in ways that would jeopardize its suppliers' financial stability or continued operation is further strengthened by a common business practice among buyers—namely their refusal to contract if the

⁹⁰ The existence of this network suggests that a DEC lawyer who was trying to determine what types of formal governance mechanisms to include in an alliance agreement who did not pay attention to the network position of the particular partner might include governance provisions that were expensive and unnecessary, or fail to include governance mechanisms that while costly could nonetheless add value to the deal.

⁹¹ These examples are illustrations of the idea of network closure. See Ronald S. BROKERAGE AND CLOSURE, at Ch. 3 (providing an overview of the effects of network closure).

amount they anticipate wanting to purchase is more than 20%-30% of the supplier's output.⁹² As a purchasing manager of one such buyer explained, her firm sometimes experienced large changes in the downstream demand for its product and wanted to be able to vary its buy when this occurred or when one of their suppliers got a lower scorecard rating.⁹³ However, her firm wanted to be able to do this without causing its suppliers severe financial harm or pushing him into bankruptcy.⁹⁴ Doing either of these things would likely damage the buyer's reputation, make its other suppliers less likely to make relationship-specific investments, and force the buyer to bear the cost of switching to another supplier when demand picked up. Indeed, the ability to shift part of the cost of large downstream changes in demand for their products, is a major benefit to OEMs of outsourcing—suppliers are better able to bear this risk because their cost of redeploying manufacturing assets to another purpose is likely to be less than the cost of an internal division of a firm (used only to producing for intra-firm consumption) doing so, given that the internal divi-

⁹² For the twelve OEMs in the study of OEMs and their suppliers, information about the percentage of their suppliers revenue that their contracts amounted to was available for eight of them and only two of the top three supply relationships for the companies exceeded 20% of the suppliers revenue. For the companies that follow, the percentage of the three suppliers with the largest percentage of revenue related to the OEM contract is given in parenthesis: Navistar (33%, 16%, 6.2%); Arvin Meritor (99.11%, 16%, 1.2%); Ingersoll-Rand (10.5%, 5.1%, 3.1%); John Deere Horicon (14%, 13%, 6.2%); Harley Davidson (12%, 2.2%, 1.58%); Osh-Kosh (8%, 4.4%); Kohler (24.08, 10%); CNH (.15%, .10%). These measure look only at the percentage of output of tier one suppliers, and does not capture any larger dependency that a tier two approved supplier may have by virtue of supplying more than one of a particular buyer's tier one suppliers.

⁹³ VP of Healthcare Company, supra note ___.

⁹⁴ One large OEM confirmed that they wanted their suppliers to sell to many others so that "they will remain healthy," even when demand goes down, and noted that if a supplier offered to deal exclusively with them they would say "that is a bad idea. We would like to be a substantial customer to you, but we don't want you to be dependant on us." NOE OEM 2. Similarly, another OEM when asked whether he wanted his suppliers to diversity their customer base said, "Yes from a technology standpoint, from a supplier health standpoint . . . our goal is to be with the best suppliers in terms of quality and tech, we encourage our suppliers to work with others, we have suppliers that work with our competitors, but we manage it." NOE OEM_

sion would lack contacts with other purchasers and would not have a developed sales infra-structure.⁹⁵

There are additional governance benefits to buyers of keeping their buy under 20%. First, it strengthens the credibility of the buyer's threat to reduce its buy from a particular supplier due to low scorecard ratings, and also makes its threat to terminate more credible. Second, when buyers keep the buy percentage low, the supplier's threat to exit the relationship if the buyer behaves opportunistically is more credible, which in turn creates an incentive for the buyer not to misbehave.

In sum, as one procurement manager explained, she wanted to be able to give her "supplier a giant nudge or kick in the pants," but did not want the power to "be able to hit him with a hammer,"⁹⁶ since at the end of the day that would jeopardize her relationships with her other suppliers.

4. Conclusion

The analysis presented here has suggested that there are many contractual and informational structures built into buyer-supplier relationships that are likely to promote cooperative contracting relationships in make-to-spec procurement contracts. Nevertheless, the core conditions associated with successful cooperation suggest that it will be more easily achieved with respect to some types of obligations than it will be for others.

⁹⁵ Another benefit of outsourcing as compared to vertical integration that is likely to be influenced by the supplier's network position, is that when goods are produced in an internal division, the division may, over time, become less innovative as the type of group think that often arises when the same individuals interact with one another over time sets in, see Burt, *Brokerage*, supra note __ at __, whereas when design and production take place in a supplier firm that deals with buyers in many industries (or even many firms in the same industry) they will constantly be exposed to new people and new ideas, making innovation more likely.

⁹⁶ VP of Healthcare Company, supra note __. This company also asks its supplier to "give the names of your most important COMPANYS for reference, including percentage of your sales to them," and to opine on "what would be the mutual dependence that you perceive to be acceptable in a business relationship with Company." Quality Management System, Supplier Information Form from Heath care company (confidential).

More specifically, cooperation will be easiest to create in contexts where there is an objective metric for determining whether a particular act is an act of defection or an act of cooperation. And it will be easiest to maintain when the difficulties that are likely to arise in the relationship are ones where once identified, a solution (whose effectiveness can also be objectively measured) can be implemented that will eliminate the difficulty on a go forward basis. Conversely, cooperation will be most difficult to create and maintain in contexts where it is impossible to describe the good to be designed and produced and/ or to define what constitutes cooperation or defection at any given point of time. In the management literature, problems that can be documented with relatively objective metrics and solved on a go-forward basis in ways whose success can be objectively documented are referred to as “problems,” while those that involve difficulties that are likely to recur and require the exercise of judgment throughout a relationship are called “paradoxes.”⁹⁷ Generally speaking repeat dealing forces are quite effective in governing contracting relationships where the most serious issues will relate to “problems,” while they are far less effective in governing relationships where the core concerns relate to “paradoxes.”

Recognizing the fundamental differences between problems and paradoxes suggests that, standing alone, the governance mechanisms used in make-to-spec procurement contracts are unlikely, when used in transactions between new contracting partners, to be able to support the creation of more complex joint endeavors, such as those involving joint product development since these transactions will continually give rise to situations where one or both parties must make repeated judgment calls with respect to issues that involve tradeoffs with distributional impacts. However, as discussed further in Part III, the governance mechanisms discussed above do far more than merely provide governance benefits in the transactions in which they are used. When implemented over time, these mechanisms have the ability to create two distinct types of benefits for the contracting parties. First,

⁹⁷ For an accessible overview of the contrasts between managing “problems,” and managing “paradoxes,” see Doltich, Cairo, and Cowan, *THE UNFINISHED LEADER* (2014).

they create the conditions that can promote the emergence of trust-based relationship-specific social capital that can, in turn, improve contract governance in make-to-spec transactions and make it possible to govern more complex endeavors, like joint product development, where paradoxes abound.⁹⁸ Second, as

⁹⁸ Three leading contract theorists, however, have suggested that contracts *can* endogenously create trust-based social capital, even in contexts in which the *initial* transaction between the parties is one where paradoxes predominate. See Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting In Theory, Practice and Doctrine*, 110 Colum. L. Rev. 1377 (2010) [hereinafter "*Braiding*"]; Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contracting For Innovation: Vertical Disintegration and Inter firm Collaboration*, 109 Colum. L. Rev. 431 (2009) [hereinafter "*Vertical Integration*"]; and Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contract and Innovation: The limited Role of Generalist Courts in the Evolution of Novel Contractual Forms*, 88 NYU L. Rev. 17 (2012). These authors look with great care at the language of ten "prototype" agreements and conclude that "parties today often treat trust as endogenous, as an object of contracting rather than as a precondition . . . [and] write contracts in which they manifestly intend to establish a deeply collaborative relation, where *little or none* existed before." *Braiding* 1404. They identify two types of contract provisions that they view as providing the agreement's most important contract governance mechanisms. First, are provisions that are designed to operationalize a "commitment to an ongoing mutual exchange of information designed to determine if a project is feasible, and if so, how to best implement the parties joint objectives." *Braiding* at 1403. Second, are "contract referee mechanism[s]" that require unanimity for key decisions and requires that disputes be referred up the chain of command if they cannot be resolved at lower levels. *id.*

However, a closer look at the contracting relationships surrounding the ten prototype contracts reveals that that pre-existing relational social capital between the transactors and/or structural social capital (that is, the network position of the firms), was present in all but one of these contracting relationships and may therefore, as the theory discussed in the text suggests, also have played an under appreciated role the governance of these agreements and in transactors' willingness to have entered into them.

Three contracts involved companies who had been doing business with one another long before the studied transaction giving more than sufficient time for relationship-specific social capital to have developed. Prior to the *Phoenix Technologies Ltd. & Intel Corp, Supply Contract* (Dec. 18, 1995) the parties had been co-developing products since at least 1988, see, Ed Scannell, "Phoenix Ships MCA-Compatible BIOS" InfoWorld (Aug. 1, 1988). They also had strong connections to common customers as both supplied the same makers of generic personal computers, see Michael W. Miller, "IBM PC Clones Multiply Amid Price Battles," Wall St. Journal, June 17 1986. Moreover, on the day this agree-

ment was signed, Intel purchased 11 million dollars of Phoenix Stock, thereby introducing an additional and potentially important governance mechanism into the mix. See, *Phoenix Technologies Ltd. & Intel Corp., Common Stock and Warrant Purchase Agreement*, (Dec. 18, 1995). Similarly, the parties to the *Allstate Insurance Co. & Acxiom Corp., Data Management Outsourcing Agreement* (March 19, 1999), had been dealing with one another for at least six years prior to this contract. See Acxiom Corporation History at Funding Universe, <http://www.fundinguniverse.com/company-histories/acxiom-corporation-history/> (last checked July 5, 2014). And, prior to the *John Deere & Co. & Stanadyne Corp., Long Term Agreement* (Dec. 14, 2001), which these authors suggested “help[ed] to establish and maintain a long-term supply arrangement,” *Vertical Integration* at 458, it is important to note, especially for the purpose of understanding contract governance, that the transactors had been doing business for at least 50 years. See AMERICAN SOCIETY OF MECHANICAL ENGINEERS, *ROTARY DISTRIBUTOR FUEL INJECTION PUMP* (April 1998) at 3. Moreover, the extent to which innovation was contemplated as part of this particular contract as opposed to in the context of the parties’ contracting relationship writ large, is unclear given that the preamble to this contract stated that “[t]he scope of this agreement covers current products purchased from Stanadyne Corporation. The products in-scope are the current DB rotary mechanical products, fuel filtration products, standard and RSN pencil injection nozzles, DE10 pumps and the Series 250 Fuel Injection system.”

Another three contracts took place between a buyer and an entity it had recently spun off, again suggesting that pre-contractual relationship-specific social capital was present. For background on the *Apple Computer, Inc. & SCI Systems Inc., Fountain Manufacturing Agreement* (May 31 1996), see “Apple Agrees to Sell Big Manufacturing Plant,” *The New York Times* (April 5, 1996); For background on the *American Axle & Manufacturing Inc. & and General Motors Co., Component Supply Agreement* (June 5, 1998), see Joseph P. Ritz, “New Firm Offers to Buy GM Saginaw Plants Facilities in New Buffalo, Tonawanda, St. Catharine’s Affected UAW Officials Angry,” *The Buffalo News*, at A1 (Sept 10, 1993) (six former GM employee’s sat on the American Axle board of directors); and, finally for background on the *Boeing Co. & Spirit Aero Systems Inc., General Terms Agreement*, (June 30, 2006), See Boeing Company 2005 Annual Report at 28

Two of the contracts were biotech alliances. As discussed in the text, *infra text* accompanying notes __-__, the structure and governance of these types of agreements is strongly affected by another sort of social capital, namely structural social capital (that is the transacting firms position in a network of relevant firms). However, inter-personal social capital was also present in both of these transactions. In the *Pharmacoepia & Bristol-Myers Squib, Collaboration and Licensing Agreement* (Nov. 26, 1997) the Director of Biology at Pharmacoepia had spent the previous seven years at Bristol-Myers as a high-ranking scientist. See, Sue Rodney, “Pharmacoepia, Inc. Announces Senior Management Appointments.” *PR Newswire*, Nov. 01, 1996. <http://search.proquest.com/docview/450067348?accountid=14657>. In the

connections between buyer and seller personnel form in the shadow of these mechanisms, some employees in each firm are likely to begin to exchange both tacit and explicit information that they would not have been either willing or able to exchange in the absence of the contract between their firms and/or the personal contact between their employees. This exchange of information creates the conditions under which the individuals (known in the social capital literature as “brokers”)⁹⁹ who have information about the needs, internal language, and culture of *both* firms become more likely to identify additional opportunities for inter-firm value creating projects or exchanges—opportunities they would have been unlikely to identify had their firms structured their first exchange as an arm’s length transactions that eschewed relational governance.

The next section explores the ways relationship-specific social capital is created, provides evidence of its importance to transactors, and discusses its ability to enable transactors to both identify and support contracting relationships in contexts riddled by

Warner-Lambert Co. & Ligand Pharmaceuticals Inc., Research, Development and License Agreement (Sept 1, 1999) two members of Ligand’s board of directors, had previously held high-ranking executive positions at Parke-Davis, a Warner subsidiary and the division responsible for administering this agreement. See http://google.brand.edgaronline.com/EFX_dll/EDGARpro.dll?FetchFilingHtmlSection1?SectionID=710530-245119-257816&SessionID=Ykj5FFiwbT7-HA7 (last checked July 9, 2014). In addition, Ligand had done business in the past with Parke-Davis before it merged into Warner.

The remaining co-development contract, the *Nanosys, Inc. & Matsushita Electric Works, Ltd., Development Agreement* (Nov. 18, 2002) dealt with nanotechnology. It involved a business strategy on the part of the R&D centered company Nanosys that could not work without entering into a significant number of strategic alliances with large partners who could produce and market products using their technology. The need to partner with these large firms (some of whom transacted with one another and whose employees often moved from firm-to-firm) situated the transaction in a network of firms that further reduced the likelihood that Nanosys would intentionally breach the contract they entered into with their first large partner Matsushita Electric Works.

Finally, the remaining contract, did not involve any co-development, it was merely a sale of an airplane to an end user see *AVSA S.A.R.L. & New Air Corp., Airbus A320 Purchase Agreement* (Apr. 20, 1999).

⁹⁹ See Burt, Brokerage, *supra* note _

paradoxes. It also discusses empirical evidence demonstrating that another type of social capital, structural social capital, which arises from the network structure surrounding a pair of transactors,¹⁰⁰ can provide additional governance benefits that can support cooperative contracting even in contexts where the transactors are strangers, paradoxes abound, and credible threats to sue are absent.

III. SOCIAL CAPITAL AND NETWORK-BASED GOVERNANCE

A. *Social Capital*

The governance provisions described above do a good job in creating and maintaining cooperative contracting relationships; yet problems nevertheless arise as mistakes are made and buyers' needs change. These frictions, however, may have a positive side because the ways transactors deal with them has the potential to contribute to the development of their relationship.¹⁰⁴ The process of solving these problems brings the buyer and the supplier's employees together and they begin to form interpersonal ties and exchange both tacit¹⁰⁵ and explicit information about their respective organizations' needs, values, and routines. These interactions, if successful, have the potential to give rise to the formation of relationship-specific social capital, which in turn gives rise to trust, defined for these purposes as "the expectation that both actors

¹⁰⁰ For an in depth discussion of the connection between the structure of networks and exchange, see Ronald S. Burt, *STRUCTURAL HOLES* (1992)

¹⁰⁴ See e.g., Desiree Knoppen and Ellen Christiaanse, *Interorganizational Adaptation in Supply Chains: A Behavioral Perspective*, 18 *Int'l J. Logistics Mgt.* 217, 228-229 (2007) presenting case studies of supply relationships in which "Partners admitted that trust had grown over the years, by living through good and bad times together," and concluding that "the satisfactory resolution of negative themes or crises fostered trust," and illustrating it with an example in which the parties contracting relationship "substantially improve[d] through the occurrence of a severe quality problem.")

¹⁰⁵ See Ranjay Gulati, *Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances*, 38 *Academy of Management J.* 85, 90 nn. 3 (1995) (defining tacit knowledge as "knowledge that . . . typically resides in patters of relationships, norms, information flows, ways of making decisions, and other organizational factors.")

will behave in a mutually acceptable manner, including an expectation that neither party will exploit the other's vulnerabilities."¹⁰⁶

The theoretical literature on social capital identifies several ways this type of trust may emerge, most notably through: the exchange of information;¹⁰⁷ the formation of personal ties among the firms' employees (and their associated character assessments and loyalties);¹⁰⁸ the emergence and observance of norms of reciprocal flexibility;¹⁰⁹ the making of reciprocal relationship-specific investments;¹¹⁰ and the acquisition of experience in successful problem solving. Although social capital theorists differ in the emphasis they place on each of these potential sources of trust-based relationship-specific social capital, a recent overview of this literature concluded that despite the many different reasons advanced to explain its emergence, "a broad consensus across a wide range of literature argues that continued and repeated exchange generates a valuable asset that is both 'created and leveraged through relationships' that provides assurances against the

¹⁰⁶ Sinead Roden and Benn Lawson, *Developing Social Capital in Buyer-Supplier Relationships: The Contingent Effect of Relationship-specific Adaptations*, 151 *Ind. J. Production Economics* 89-99 (2014).

¹⁰⁷ Ranjay Gulati and Martin Gargiulo, *Where Do Interorganizational Networks Come From?* 104 *Am. J. Sociology* 1439, 1445 (1999) (concluding based on extensive interviews among participants in strategic alliances that "personal relationships among key individuals have played a crucial role in producing trust between organizations in Japanese industrial groups . . . and in contractual relationships.")

¹⁰⁸ See Gulati and Gargiulo *supra* note __ at 1455 ("Beneath the formalities of contractual agreements, multiple informal interpersonal relationships emerge across organizational boundaries, which facilitate the active exchange of information and the production of trust that foster inter-organization cooperation.")

¹⁰⁹ See e.g., Gulati 1995, *supra* note __ at __ (suggesting that through ongoing interactions firm learn about each other and develop trust "around norms of equity.")

¹¹⁰ Roden and Lawson, *supra* note 92 (drawing on a survey of UK firms to demonstrate that are buyer's and suppliers make bilateral relationship-specific investments (adaptations), they create relational capital); Delia Baldassarri, *Cooperative Networks: Altruism, Group Solidarity, and Sanctioning in Ugandan Producer Organizations* (June 2014) (documenting that "reciprocity emerging through communication is the mechanism most closely related to cooperation," in Ugandan Farmer cooperatives faced with collective action problems)

threat of ex-post opportunism, and that facilitates adaptation and problem solving.”¹¹¹

In practice it may be that all of these sources of trust matter.¹¹² Indeed, lawyers negotiating information technology outsourcing contracts have developed a carefully structured and iterated negotiating process that typically lasts sixth months to a year and artfully combines most of the elements identified by social capital theorists as contributing to the accumulation of trust. By the time the contract is ready for signature, the parties have learned about one another’s business culture and had an opportunity to see if their corporate cultures are compatible (a process sometimes referred to as mutual value discovery);¹¹³ have been faced with working through a series of increasingly difficult issues involving both problems and paradoxes; and have developed an ethos of transparency in their interactions, interactions that are structured to include not only lawyers and executives, but also, after the initial negotiating sessions, the members of the business teams that will implement the contract. At the conclusion of the negotiations, care is taken to emphasize that “trust” is central to the transaction, but that careful writings are also needed to memorialize understandings in case either party experiences a change in key personnel. Although such an approach might be used in procurement contracts to build the social capital needed for paradox laden joint development agreements between strangers, the lead time needed to implement it might be too long to be useful with respect to many types of components (like electronics).

Moreover, it is important to note that although the social capital literature is marked by a lack of both consensus and analytical clarity about precisely how and why previous dealings create trust and thereby influence both a buyer’s willingness to deal with

¹¹¹ Daniel W. Elfenbein and Todd R. Zenger, *What is a Relationship Worth? Repeated Exchange and the Development and Deployment of Relational Capital*, 25 *K. Org. Sci.*, 222, 224 (2014).

¹¹² For an integrated overview of the sociological/social capital approach to trust see Burt, *supra* note __ at Ch. 3.

¹¹³ For an example of an information technology outsourcing contract where a similar mutual negotiation/value discovery process was used to negotiate and structure a deal, see Information Services Group, *IT Infrastructure Outsourcing Helps Shell Lower Cost, Drive Increased Efficiency*.

a supplier and the terms on which it is willing to do so, the importance and impact of prior dealings on current decision making about who to deal with and on what terms has been empirically documented in the industrial procurement context.

1. *Industrial Procurement and the Effect of Prior Contracting Relationships*

One study examined the reverse auctions conducted by the procurement department of a large mid-western industrial firm.¹¹⁴ In advance of the bidding, all auction participants were prequalified as being able to supply the good in question at the desired quality level. The goods were primarily “commodity parts that can be well specified in a contract.”¹¹⁵ After bidding closed, the winning bid was chosen by corporate procurement managers in consultation with “officers and divisional staff” (who had in turn consulted plant managers). This process was designed to reduce “the scope for private benefits or friendship ties to influence these outcomes,” an institutional feature that the study’s authors viewed as providing “additional confidence that the results . . . [of the study] reflect the relationships’ true economic value to the firm.”¹¹⁶ As they explained the “collaborative nature of the selection process, transparency of alternatives and decisions and orga-

¹¹⁴ Daniel Elfenbein and Todd Zenger, *What is a Relationship Worth? Repeated Exchange and the Development of Relational Capital*, 25 *Organizational Science* 222 (2014).

¹¹⁶ Elfenbein and Zenger, *supra* note __ at 223. For a study that also found a large effect of prior transactions on willingness to transact again in the context of strategic alliances, see Gulatti and Gargiulo, *supra* note __ at (drawing on “longitudinal data on strategic alliances in a sample of American, European, and Japanese organizations in 3 industries over a 20 year period,” and demonstrating that “the probability of a new alliance between specific organizations increases with their prior mutual alliance, common third parties, and joint centrality in an alliance network.”)

nization norms requiring careful justification of supplier choice all worked together to limit the influence of private interests or personal affinity in supplier selection.”¹¹⁷

Even in this context where the goods were largely homogeneous and steps were taken to depersonalize exchange, the existence and length of prior dealings (if any) between the buyers and the bidding suppliers influenced which supplier was awarded the contract and the price premium the buyer willing to pay over the lowest bid.

The study found that “the value created by past exchange is economically meaningful.” In particular, the authors’ estimates indicate that increasing relationship length between buyer and supplier from the mean in the sample (roughly 7 months) to one-standard-deviation above the mean (roughly 30 months) “is associated with an increase in willingness to pay of 8.5% (95% confidence interval: 5.2-14.9%).”¹¹⁸ And consistent with the theories articulated above, the study also found that the greater the risk of ex-post exchange hazards, the greater was the effect of past dealing on premium the buyer was willing to pay.

2. Trust, Relational Capital, and Contract Governance

Many empirical studies from the management and organizational behavior literature explore the way trust is created in commercial relationships and attempt to measure the extent to which trust-based social capital can (or cannot) substitute for other, more formal contract governance mechanisms—such as taking an eq-

¹¹⁷ Elefenbein and Zenger, *supra* note __ at 228

¹¹⁸ *id.* Similarly, a European-Israeli Mechanical Engineer/businessman in the specialty machine business (that is a company that makes machines to solve other company’s engineering problems) a context where the functional abilities of the machine to be produced can be specified, but what is to be produced cannot be described, reported that the companies he has dealt with in the past are willing to pay him at least a 15% premium over the lowest bidder, due to the quality of his past performance. (Interview with Bernstein, September 2014). In addition, in some countries, defense contracting related requests for proposals only invite bids from companies that they have dealt with for a specified number of years.

uity stake in the strategic alliance¹¹⁹ context or using a fixed price rather than a flexible cost-plus pricing mechanism in an oil and gas transaction.¹²⁰ Yet even the most prominent of these studies are flawed in terms of their animating theoretical assumptions about contract¹²¹ and/or limited in their implications due to as-

¹¹⁹ A widely cited study that explores the connection between trust and the use of equity in strategic alliances is Gulati, 1995 supra note __ at __. Drawing on a study of strategic alliances “formed between 1970 and 1989 in the biopharmaceutical, new materials and automotive economic sectors by American, European and Japanese firms” the paper concludes that “there is . . . strong evidence that repeated alliances between two partners are less likely than other alliances to be organized using equity,” a finding that it attributes to the “role of inter-firm trust that emerges from repeat alliances between the same partners.” However, this conclusion should be viewed with caution. As the paper itself points out, while interview evidence supports the conclusion that trust explains the decreased likelihood of taking an equity stake in repeat transactions, the quantitative empirics presented cannot rule out the possibility that this is due simply to the fact that “two firms will prefer a non-equity alliance only when they already have an equity alliance . . . [because] once two firms share one hostage it obviates the need for additional hostages.” Id 94

¹²⁰ Kenneth S. Corts and Jasjit Singh, *The Effect of Repeated Interaction on Contract Choice: Evidence From Off-Shore Drilling*, 20 J. L. Econ. & Org. 230 (2004) (concluding that “repeat dealing decreases incentive problems (like moral hazard) more than it decreases contracting costs,” based on a study which found that in contracts between oil and gas companies and well drillers, “high-powered turnkey contracts govern 28% of projects between parties who have not worked together before, but only 15% of repeat contracts,” which tended to rely on cost-plus contracts)

¹²¹ As a leading social capital theorist explained in defining trust, “the two definitional qualities are that trust is a relationship with someone (or something if the object of trust is a group, organization, or social category) in which contractual terms are incompletely specified. The more unspecified, taken-for-granted the terms, the more that trust is involved.” Ronald S. Burt, *BROKERAGE AND CLOSURE* (2000) at 93. A similar conception runs through many of the leading empirical studies of trust and contract; yet there are reasons to seriously question the suggestion that a more complex or detailed contract is an indication of a less trusting relationship and the implicit assumption that the terms specified in a written agreement will necessarily be complied with through the force or shadow effect of the law.

First, as discussed in the text, supra notes _ to __ and accompanying text, a detailed contract may be the outcome of a negotiation process that was deliberately structured to build trust-based social capital. In these settings, a longer contract (if it results from these trust building activities) may indicate more rather than less trust. Second, when dealing with a trusted contracting partner,

you are more likely to be able to access the operational benefits of clarity and specificity (benefits that arise both within and across the contracting firms) without the downside inflexibility risk that is often associated with very detailed provisions—if you trust your partner to be flexible in contexts where implementing the precise provisions does not make business sense, you are more likely to use precise terms. Third, when lawyers draft contracts they rarely start from a blank slate. Rather, they begin with a template, and tinker with it to adapt it to the individual transaction. Detail that is not necessary, but also not harmful, tends to remain in these agreements, thereby weakening the connection between detail and trust that would be more likely to exist if contracts (as the sociological and organizational behavior literatures seem to assume) were drafted anew for each transaction and included only those provisions the parties themselves viewed as necessary. Moreover, even if the contracts were drafted anew, the lawyers would insist on the inclusion of provisions that would be unnecessary from the parties' private (and perhaps trust-based) calculus, simply because lawyers would likely want to avoid second guess risk. Fourth, clear contracts can also support trust-based relationalism by providing focal points that support norms of reciprocity. For reciprocity norms to function properly, the transactors need to have at least a rough mental account of who is the giver and who is the taker. See Oliver Hart, *Reference Points and The Theory of the Firm*, 75, *Economica*, 404 (2008) When these mental accounts become seriously unbalanced, or transactors' perceptions of their balance fall out of alignment, and transaction breakdown is more likely to occur—when this dynamic is recognized, there is no necessary connection between contract detail and trust. Fifth, transactors who dealt with one another on a repeat basis over a long period of time might also choose to include more detailed descriptions of the desired performance, even if their trust in one another were either increasing or remaining constant. The managers who negotiate the detailed provisions in scope of work and service level agreements might (if they are good agents) memorialize in writing the things they learned about one another's expectations, needs, and operations, for two reasons (1) to reduce the interruptions caused by changes in personnel—in which case the length of the contract might be an indication of the importance of their tacit understandings; (2) to ensure that accurate information about the deal flows through both their own and their partner's hierarchy of operations in a consistent way. Although at the outset of the relationship, the employee who set up the deal (the "broker" see note __supra) might want to keep terms vague, so that they remain indispensable to the administration of the deal and are better able to capture the individual returns associated with brokerage, over time, they will want to find new opportunities to broker so would be expected to be more willing to specify the operational aspects of the deals they created. See e.g., Nicholas S. Argyres, Janet Bercovitz, and Kyle J. Mayer, *Complementarity and evolution of Contractual Provisions: An Empirical Study of IT Services Contracts*, 18 *Org. Sci.* 3 (2007) (demonstrating in the context of a long term supply contract in the electronics industry that the SOWs became more detailed over time and came to reflect what the parties learned from one another). Finally, as for the assumption that specified

pects of their study design. Nevertheless, interview evidence from an extensive study of procurement contracting in the upper Midwest together with interview evidence from variety of other contracting and strategic alliance settings, while too anecdotal to be definitive, suggest that trust-based relationship-specific social capital plays an important role in work-a-day contractual behavior and influences firm decision making in ways that likely effect the value of these commercial relationships.

The interview-based study of Midwest OEMs¹²² and their suppliers revealed many consistent ways that these transactors perceived trust, interpersonal social capital, and reputation to be relevant to their contracting behavior. Among the most important and consistent viewpoints expressed were that: interpersonal relationships make it easier to solve problems;¹²³ trust led suppliers to reveal more accurate costing information to buyers,¹²⁴ buyers were more willing to share technological advances and do co-design with suppliers they trusted;¹²⁵ suppliers were more willing

provisions will be complied with due to the force of the law, it is simply false. The mere fact that something is specified in a contract, even completely specified, does not mean that it will be done, unless there is some other force motivating performance, like reputation, morality, or coercion of other sorts.

¹²² For a description of this data source see Whitford, *supra* note ____

¹²³ One supplier noted that upon entering into a contracting relationship, it tried to “spread like a virus” forming interpersonal relationships across all levels of the buyer’s operation,” because having strong relationships across a buyer’s operations, including “manufacturing, engineering, management to some extent, marketing . . . all over the place . . . helps us solve problems.” Romeo. And a buyer explained that it was sometimes worthwhile to buy from a long time partner even at a higher price because when you need a favor like a very fast turnaround “they do it” and are willing to “jump through hoops” because they know you will be back.

¹²⁴ NOE 5. One supplier noted that it was the sole source of a product to a trustworthy OEM that never bid out anything it designed to other suppliers and that as a consequence they shared costing data and worked harder to improve products. They attributed part of their relationships not only with buyer personnel but people throughout the buyers hierarchy from the president to the production line, but noted that they do not do the same for another OEM who dual sources the product and who they do not really trust. NOE 2.

¹²⁵ See *infra* text accompanying note ____.

to make specific investments when they trusted buyers;¹²⁶ and reputation information about buyers' contracting behavior was actively sought by suppliers.¹²⁷ These findings were reinforced by the widely held perception across numerous suppliers that turnover in buyer personnel was detrimental to the smooth functioning of relationships and made them less likely to share accurate costing information and participate in buyer-sponsored supplier development programs.¹²⁸

Although the governance forces created by interpersonal social capital are valuable in many contexts, they may also create some costs. Managers might favor certain suppliers out of feelings or friendship or loyalty, even when they are not the best supplier available. Friendship might also result in the toning down of the type of criticism that is often needed to improve production methods.¹²⁹ In contexts like the procurement of standardized goods where the forces of repeat dealing and the contract mechanisms discussed above are sufficient to result in contract compli-

¹²⁶ See WTMP, at 33-34 (discussing and quoting suppliers' views of the connection between OEM past behavior, trust, and their willingness to make relationship-specific investment). One firm noted that they were willing to make relationship-specific investments to get more business from John Deere but they were not willing to do the same when dealing with the auto companies, because while the auto companies "talk partnership . . . but they could be out [of the relationship] in a second, so we are very careful about the investments we make for their parts. We have learned anything can go." NOE 3.

¹²⁷ NOE 6 One supplier who was considering working with the John Deere supplier development program explained that before deciding whether to participate, he wanted to visit the plant of another local supplier that had been part of the program, noting that among other things he really wanted to know if Deere in fact shared cost savings 50-50 as they claimed.

¹²⁸ [insert marked quotes]

¹²⁹ Over time, long standing relationships may be effected by the same type of group think that can pervade an internal division of a firm, yet the risks are somewhat attenuated in the outsourcing context as the supplier continues to interact with other buyers and buyers who do not sole source will learn things from other suppliers of the same or similar goods thereby obviating the emergence of group-think across all of their supply relationships. Indeed, while individual firms have come up with internal structures that are designed to avoid group think—such as Steve Job's practice at Apple of having multiple teams working on the same general idea in isolated pods--the avoidance or mitigation of group think may be one of the major benefits of outsourcing.

ance, buyers might be best off partially depersonalizing exchange like the mid-western industrial firm did in the reverse auction discussed above and as some OEMs do by constantly rotating their buyers' assignments. In contrast, in contexts where paradoxes are more prevalent and contractual hazards are therefore less contractable, the increased security and flexibility generated by intense interpersonal loyalties among employees in the buyer and seller firm, may, on balance, be desirable from the perspective of contract governance despite the cost involved.

3. Brokerage

The contract governance mechanisms that enable relational contracts to flourish in industrial procurement markets are expensive to implement, and their use increases the risk that a buyer will stay with a supplier even when a better deal is available. Yet buyers and suppliers can and do encourage interpersonal connections between their employees even in transactions where arm's length contracts and contract governance structures could effectively govern the deal. The reason they do so is simple: when the right types of employees on both sides of the transaction develop personal relationships and exchange information, they may be able to identify opportunities to create value—both within the original transaction and in future transactions-- that would not have been visible to them prior to their first deal.¹³⁰

Under the umbrella of their first transaction both firms' employees are more likely than they would have been prior to the first transaction to exchange the type of information (and, over time, to appreciate its meaning against the background of the op-

¹³⁰ Sometimes firms enter into confidentiality agreements that permit them to exchange information prior to entering into their first contract. See e.g., OE/P&A SUPPLIER CONFIDENTIALITY AGREEMENT, between ATC lighting and Harley (April 2003) (reflecting the terms of Harley's standard modularized supplier agreements, and noting that "this confidentiality Agreement is to establish the confidentiality . . . during the supplier evaluation period and before, during and after the supply relationship, if any") In the language of social capital theorists, the contract (or some part of it) enables transactors on both sides of the relationship to engage in brokerage (defined as ' ') by bridging structural holes that would not have been visible to them prior to their initial contracting relationship. See Burt, [insert]. Before the first contract between two firms, many of the value creating opportunities between them will not be visible to their employees, because intra-firm information sharing constraints.

erations, culture, and specialized language of the other organization¹³¹) that will enable them to identify additional ways to create joint value— that is, to engage in what social capital theorists call “brokerage.” As these opportunities are identified, and the relational social capital needed to take advantage of them is created (though in some contexts less quickly than is desirable),¹³² the length of the perceived shadow of future dealing between the transactors lengthens, which, in turn, makes it less likely they will breach or behave opportunistically in their current dealings.

Recognizing that encouraging brokerage is a major benefit of relational governance, suggests that aspects of agreements and firms’ contract administration procedures that dictate how often buyer and supplier personnel at particular levels of the organization interact,¹³³ together with the breadth of the confidentiality constraints each firm imposes on its employees, may be quite important to both the value of future deals and the governance of

¹³¹ See Ronald S. Burt, *BROKERAGE AND CLOUSE: AN INTRODUCTION TO SOCIAL CAPITAL* (OXFORD PRESS, 2005) at 17 (“Opinions and behaviors within a group are often expressed in a local language, a dialect fraught with taken-for-granted assumptions shared within a group. The local language makes it possible for people in the group to exchange often-repeated data more quickly . . . [yet] the more specialized the language within groups . . . the greater the difficulty in moving ideas between groups.”); Harley Davidson produces a list of Harley acronyms to assist its suppliers in understanding their communications with the company. See *Harley-Davidson Acronyms* (1999). Of the 154 acronyms listed, 37 have Harley-specific meanings, 6 have more than one general meaning that can easily be confused with the Harley meaning and the rest are widely used and can be found in a simple Google search. (Cummins does this too).

¹³² See Burt, *Brokerage* supra note __ at 94-97 and 104-105 (suggesting that opportunities for brokerage are often identified before the trust needed to take advantage of them has developed). See also, Evelyne Vanpoucke, Ann Vereecke, and Kenneth K. Boyer, *Triggers and Patterns of Integration Initiatives in Successful Buyer-Supplier relationships*, 32 *J. Operations Management*, 15 (2014) at Table 2 (demonstrating through six longitudinal studies of contracting relationships that sufficient trust to support moving from the “exploratory” stage— that is, the make to spec stage where there is no expectation of long term dealings— to the “expansion” stage which is “triggered by a high level of trust,” and involves some degree of integration between the parties, took from about four to fifteen years, and that an additional five or more years were needed for full knowledge sharing).

¹³³ [Do a note here with examples of these clauses and provisions]

present deals.¹³⁴ It also helps explain why relational contract governance is widely used despite the significant costs associated with creating the contract and contract administration mechanisms that are needed to make relational governance effective.

B. NETWORK GOVERNANCE

Wholly apart from the type of relationship-specific social capital discussed above, which might build too slowly to be useful in many transactional contexts, there is another type of social capital—variously referred to as “network capital” or “structural social capital”¹³⁵—that derives from a firm or firms’ position in the relevant network of firms that may have profound effects on these contracting relationships. To understand the ways that structural social capital influences transactions, it is useful to look at its effect on contract compliance and governance writ large, and then to explore how it interacts with contract-related decision making and contract provisions at a more micro level so as to enable firms to harness its power to achieve a variety of ends that cannot be attained solely through explicit contracting.

1. *Biotech Alliances and Network Governance in a Market Context*

One context in which the power of network governance has been most carefully documented is in biotechnology alliances. One study looked at over “38000 alliance transactions between pharmaceutical firms and biotechnology research firms, ” a transaction type where “agreements are fraught with moral hazard, asymmetric information, and other contracting problems.”¹³⁶ It found that both firms’ positions in the relevant network of firms

¹³⁴ Discuss the detail in which these things are set out, while acknowledging that the interactions serve other goals as well.

¹³⁵ See Ronald S. Burt, Martin Kilduff and Stefano Tasselli, *Social Network Analysis: Foundations & Frontiers on Advantage*, 64 *Annual Rev. Psychology* 527,529 (2013) (“Network forms associated with advantage constitute social capital”). For a taxonomy of the ways that social capital is variously defined that provides an entry into the literature see Peter Moran, *Structural vs. Relational Embeddedness: Social Capital and Managerial Performance*, 26 *Strat. Mgmt J.* 1129 (2005).

¹³⁶ David T. Robinson and Toby E. Stuart, *Network Effects in the Governance of Strategic Alliances*, 23 *J. L. Econ. Org.*, 242 (1___) . For the mathematical definition of centrality used to quantify it in the study see id. at ___

significantly affected the size of the equity stake (which is generally regarded as alliance governance mechanism) that the large pharmaceutical company takes in its alliance partner.

There are two important dimensions of a firm's position in a network. The first is centrality, which is defined conceptually as "a large number of connections to firms, which, in turn, are each linked to many other firms."¹³⁷ In theory the more central a firm is, the more deeply embedded it is in the pattern of communication in the network, and the greater is its power to quickly and effectively spread the word if its alliance partner acts opportunistically. The study found that "when one of the counterparties is deeply embedded with [the network, that is, central to it] the deals they consummate are less likely to involve equity participation and typically entail lower amounts of equity when equity is used."¹³⁸

The second dimension of two firms position in a network is their proximity to one another. Two firms are said to be more proximate "when fewer intermediaries separate two counterparties."¹³⁹ In theory, proximity, should decrease the equity stake because "More proximate firms are closer to one another in the alliance network, which means that each firm can obtain information about the other through a small number of links in the network,"¹⁴⁰ and that the ability of the large pharmaceutical firm to sanction the biotech firm will in turn be stronger, since the biotech firms, "set of current and past collaborators are its more likely trading partners."¹⁴¹ Consistent with these predictions the study found that as "proximity increases, equity participation (measured by size and propensity) diminishes."¹⁴² However, the effect of centrality was five times as large as the effect on proximity.

The study also found that both proximity and centrality were more powerful predictors in alliances between privately held

¹³⁷ id. at 249

¹³⁸ id. at __

¹³⁹ id. at __

¹⁴⁰ id. at __

¹⁴¹ id. at 249

¹⁴² id. at __

firms, which suggests that the information carried by the network indeed influenced the structure of the alliance.

More broadly, the study documents the ability of structural social capital (network position) to function as a contract governance device with the potential to sanction and therefore to deter opportunism. It also suggests that network governance can and does work, even in contexts where detailed information about transactors' behavior is *not* widely available and the information that is available publically, namely outcomes, is too noisy (give the low probability of success in such ventures and the wide variety of reasons they fail) to convey useful information to putative contracting partners. Indeed, one of the main advantages of network-based governance and one of the key insights of the network literature, is that the information that flows through networks need not be either directly observable to, or verifiable by, the recipient to have an impact on the way the recipient views the subject of the information.¹⁴³

Interview evidence from studies of strategic alliances in a variety of industries and high-tech contracting contexts, is consistent with the biotech study's findings about the force of network gov-

¹⁴³ Several leading contract theorists, see note __supra, have largely dismissed the role network governance in the context of biotech alliances, noting that “[w]hile we recognize the role of reputation as one element of switching costs, we remain skeptical about the extent to which reputation can carry the weight [this study] assign[s] to it. Most important, it is extremely difficult for third parties, however well connected, to observe the conduct of the parties. Suppose a venture fails. Given the very low likelihood of finding a successful drug, the most reasonable inference is that the outcome is the result of bad luck, not poor skills or bad faith.” See *Vertical Integration*, supra note __at nn123. This criticism, however, assumes that the network can only transmit information about the success or failure of the project. It does not fully appreciate the breadth of the information networks can convey (including information that is neither observable nor verifiable) about the transactors and their behavior. See also Gulati and Gargiulo, *supra note*__ (concluding based on a interview evidence and a quantitative study of alliance transactions that “the information that flows through the alliance network is not only trustworthy, but also timely,” and noting that according to one manager “we and our prospective partner must know about each other’s needs and identify an opportunity for an alliance together in a timely manner . . . Our partners from past alliances are one of our most important sources of timely information about alliance opportunities out there, both with them and with other firms with whom they are acquainted.”)

ernance and the existence of the reputation transmission it channels identified. This evidence suggests that managers routinely rely on network-provided information (including, aggregate assessments of potential partners' business reputations) and their potential partner's position in the relevant network of firms when selecting alliance or contracting partners. As one manager explained, "In some cases . . . our [existing alliance] partner may refer us to another firm about whom we were unaware An important aspect of this referral business is of course about vouching for the reliability of that firm. Thus, if one of our longstanding partners suggests one of their own partners as a good fit for our needs, we usually consider it very seriously."¹⁴⁴ And, as a senior manager at Cadence Technologies explained emphasizing the interplay of reputation information and network position, "We had included ODI in our final list based on its technological competence. But then we were interested in knowing more about their business integrity and support structure. Once we realized that they had prior relationships with IBM and Ericksson, with whom we also had prior technology partnerships, we called managers within those two and had extensive conversations about ODI. It turned out that IBM had in fact earlier picked an ODI competitor, whom we were also considering, and subsequently reversed their decision and picked ODI. These factors were very important in our decision to pick ODI."¹⁴⁵ Interviews with managers also provide support for the idea that reputation information not only flows through networks, but also travels quickly. As one manager of a high tech firm explained, "If we were to have a major breakdown in our relationship with HiTech Computer, within thirty days that would be well known thorough the industry in New England."¹⁴⁶ Additional examples abound.

By making it possible for transactors to access the reputational assessment of other members of their network even when the information they conveyed is neither directly observable to nor fully

¹⁴⁴ Ranjay Gulati, *The Dynamics of Alliance Formation*. Unpublished doctoral dissertation, Harvard University, Cambridge, MA (1993)

¹⁴⁵ Gulati 1993, supra note _ at _.

¹⁴⁶ Andrea Larson, *Network Dyads in Entrepreneurial Setting: A Study of the Governance of Exchange Relationships*, 76 *Administrative Science Quarterly*, 76 (1992).

verifiable to the recipient, the network facilitates the imposition of non-legal sanctions for misbehavior on the basis of types of information that cannot be used by either the legal system or other types of adjudicatory fora to do so.¹⁴⁷ As a consequence, when the parties to a transaction are embedded in a strong network, the potential impact of the information that flows through the network on contract governance and future opportunities for trade must be taken into account by lawyers both when drafting contracts and when advising clients about the likely effects of various types of misbehavior.¹⁴⁸

A final important aspect of network governance is that its disciplining effect can extend to all of the commitments made in a contracting relationship, not just those whose violation would give the breached against party a credible threat to terminate the relationship and file a lawsuit. That is, even if the legal system worked well, damages were set at an optimal amount, and the judgment proof problem were taken out of the equation, as long as the filing of suit were considered a relationship ending event, the availability of network based governance would add value to contracting relationships by giving transactors improved (though perhaps not optimal) incentives to comply with more aspects of their agreement and refrain from taking opportunistic actions that

¹⁴⁷ Even if network members do not completely trust information that they cannot directly observe or verify, it may nonetheless have an effect on a firm's business prospects, as it is nonetheless apt to be taken as an indication that further inquiry is needed before dealing with the firm in question—thereby increasing the cost of dealing with it and making it a less attractive contracting partner at the early screening stage.

¹⁴⁸ The observation that information will be conveyed through networks does not necessarily mean that all of the information will be accurate from an objective point of view. As information passes through social networks its content is altered by peoples' propensity to filter what they say according to standard rules of etiquette that tend to slant opinions expressed by the speaker to those thought to be held by the listener. As a consequence of this, information tends to "echo" and move towards extreme poles of trust and distrust. Although the importance of echo has been demonstrated within firms, how it might work in reference checks between firms that are currently dealing with one another is less clear and is likely, in any particular case, to be influenced by the amount of trust between the speaker and the listener as well as the tone of their relationship. See Burt, *supra* note __ at Ch. 4.

while not serious enough to end the relationship, nevertheless impose harm on their contracting partner.

2. Industrial Procurement and Network Governance in a Local Context

Wholly apart from market wide network effects of the sort documented by the biotech study, industrial buyers appear to have a keen interest in knowing and understanding the more local network of contractual relationships surrounding their suppliers. Large firms frequently require suppliers, sometimes as a condition of doing business, and other times as part of a Request For Proposals or Request for Qualification, to disclose the identity of their most significant contracting partners and any partners who might be considered competitors of the buyer, along with the amount of their output they sell to each, together with the percent of their output the proposed deal would be.¹⁴⁹ The notion that knowledge of a suppliers' network connections has value to putative buyers is also suggested by the confidentiality provisions that large buyers often include provisions in their contracts—provisions that forbid their suppliers from disclosing even the mere existence of the supply relationship without the buyers express consent.¹⁵⁰

¹⁴⁹ For example, one company asks all potential suppliers, “Do you deliver to competitors of COMPANY . . . if so, please tell us. . . Please give the names of your most important COMPANYS [you deal with]. . .including percentage of your sales to them. . .[and] In your perception, what would be the mutual dependence that you perceive to be acceptable in a business relationship with COMPANY? (Expressed as percentage of sales, market position, relation to competitors, etc.” Large International OEM (name withheld on request) Over the past few years, however, this information has become more widely available. The Bloomberg Business database now has this information for all public companies and their public suppliers. For privately held suppliers, the database contains partial information on who they sell to, and some analyst generated estimates of the volume of trade. Another start up, Spiderbook.com which is currently in beta testing also trolls the web for public information from both the SEC and the trade press and compiles information about buyer and suppliers webs of commercial relationships.

¹⁵⁰ See, e.g., Supply Agreement between John Deere & Titan Tire Company, (April 15, 2011) at CI 22 (“Unless required by law or by government regulation, it is agreed that no press release, public announcement, confirmation, or other information regarding supply orders for the Products under this Agreement, or the fact that negotiations for new products or increased quantities for existing

There are a number of reasons that knowledge of network structure is valuable to buyers. First, it helps them assess the supplier's bankruptcy risk. If a supplier sells a large portion of its output to a buyer who is known to be opportunistic or who operates in an industry where there is highly variable and unpredictable downstream demand for its product, the buyer may well have the power to bankrupt or seriously jeopardize the supplier's business. Second, this information can sometimes help a buyer assess the cost of monitoring quality or overseeing the suppliers' production line. If, for example, the supplier is selling the good to a firm in a regulated industry where components must meet precise specifications (such as the production of a MRI machine) or to a buyer like John Deere who exercises detailed oversight of its suppliers' production lines, the monitoring costs of buying from that supplier will be far lower than if the firm were not selling to these types of buyers. Third, network information may also impact the value of particular contract provisions. For example, some large OEMs who sole source some parts are concerned about suppliers holding them up on price, so they include a most favored nation pricing provision in their contracts, giving them the right to buy the goods at the lowest price the supplier charges to any other buyer. The suppliers' local network can dramatically affect the value of this provision. If the supplier is selling the good to only four other firms who are all sole-sourced to it, the clause is of little value. On the other hand, if the supplier is selling the good to 50 buyers a significant number of whom multi-source the part, the most favored nations clause makes it far less likely that the supplier will be able hold the buyer up on price. Finally, as discussed further below, the structure of a supplier's local network may be of interest to the buyer because it influences the likelihood that that the supplier will be able to innovate on behalf of the buyer in the future.

3. Innovation

In the industrial procurement context, buyers are often interested in dealing with suppliers who can innovate on their behalf

order are occurring, will be made by Titan without the prior written approval of Deere or by Deere without the prior written approval of Titan.") See also Phoenix and Intel Contract *supra* note ___ at sect 8.2 (providing for similar confidentiality).

and provide not only the goods the buyers want today but also the goods (some known and some as yet unknown) that they will want in the future. As one OEM executive explained, “with the partners we’ve had, that we have developed . . . we not only look at what they have today, we think [about whether] we can develop a product in the future together.”¹⁵¹ Buyers tendency to look forward when choosing suppliers is also reflected in supplier qualification questionnaires that require putative suppliers to disclose their R & D expenditures¹⁵² as well as in their terms of their supplier handbooks which sometimes include special rules and processes for supplier designed parts.¹⁵³

Although a supplier’s dedication to R & D and its creation of governance frameworks for innovation are important to buyers, a buyer’s choice of supplier in a context where supplier lead or joint innovation is contemplated, may also be strongly influenced by whether the supplier sells the part (or even parts with related technologies) mostly to firms in the buyer’s industry or to buyers in multiple industries.

In contexts where the buyer’s goal is simply keep up with the industry norm with respect to the quality and characteristics of the part in question, the buyer may prefer to purchase from a supplier who sells the part primarily to others in its industry.¹⁵⁴ Such a supplier is in a good position to pool the non-intellectual property-based tacit knowledge from other industry members and is likely to produce a product that conforms to the industry norm.¹⁵⁵

In contrast, when a buyer wants a supplier to innovate on its behalf, the buyer may prefer to purchase from a supplier who

¹⁵¹ [Navistar]

¹⁵² Footnote to the R and D questionnaires

¹⁵³ See Cummins

¹⁵⁴ In such a situation a buyer is unlikely to be faced with the so-called “innovators delimita” (insert cite) which arises when a buyer wants to get the benefit of the tacit knowledge a seller obtains from other buyers but does not want the seller to share the tacit knowledge learned from him with his other buyers.

¹⁵⁵ Such a supplier may have an advantage in that if the industry norm is rather static, it will be in a better position to move down the learning curve of production.

sells to buyers in many industries.¹⁵⁶ Such a supplier will have access to more distinct sets of both explicit and tacit knowledge—it is therefore more likely to innovate with respect to the part in question than a supplier without access to diverse sets of information.¹⁵⁷ As a leading network sociologist explained, “[p]eople with . . . early access to diverse, often contradictory, information and interpretations . . . [have] a competitive advantage in seeing and developing good ideas,” and are at “higher risk [that is, likelihood] of having good ideas . . . [because] ways of thinking and behaving are more homogeneous within than between groups, so people connected to otherwise segregated groups are more likely to be familiar with alternative ways of thinking and behaving, which gives them the option of selecting and synthesizing alternatives.”¹⁵⁸ Indeed, the social capital literature is replete with examples demonstrating that individuals with access to more diverse sources of information are more likely to come up with new and innovative ideas than individuals who have access only or primarily to ideas from a relatively closed group—like a division of a large bureaucratic firm producing a good solely for intra-firm consumption—that interacts primarily with its own members.¹⁵⁹

4. Conclusion

In sum, recognizing the way that social and business networks transmit information (both tacit and explicit) suggests that the value of a contractual relationship cannot be properly understood

¹⁵⁶ Another advantage of this structure is that if the supplier “leaks” tacit or even explicit information to its other customers, at least it will not be to the buyers competitors.

¹⁵⁷ See Burt, *supra* note __ at Chapter __ and sources cited therein.

¹⁵⁸ For a discussion of the ways that good and innovative ideas originate and empirical evidence that see Ronald S. Burt, *BROKERAGE AND CLOSURE*, *supra* note __ at 63, 90, 69 esp. Ch 3 (reporting the results of a study of purchasing managers which found that “better ideas [for improving the company] came from the purchasing managers, whose work brought them into contact with other companies,” and more parts of their own companies); see also, Andrew Hargadon, *HOW BREAKTHROUGHS HAPPEN*, (Harvard Business School Press, 2003) (exploring the role of networks that bridge different markets or information sets in facilitating technological innovation).

¹⁵⁹ This is not to say that a firm cannot create intra-firm structures to attempt to capture some of these benefits. [insert the Steve Jobs at Apple example]

by looking only at the contracting parties (the transactional dyad). Rather, the network structure of the relevant market in which the transaction is embedded and the local (ego) networks around each of the transactors should effect the choice of a contracting partner, the scope of the discretion given to one's partner, the type and amount of information exchanged, the likelihood that the supplier will be able to innovate on the buyers behalf (along with whether effective contracts for innovation can be devised) and the types of governance provisions needed. The reason is simple: the network structure of a market, the firms' places in that structure, and the local network around each firm, all effect the self-enforcing range of the parties contractual commitments – potentially broadening it well beyond the bilaterally generated self-enforcing range as traditionally defined.¹⁶⁰

More broadly, once it is recognized that networks have the power to credibly (though not absolutely) transmit information that is neither observable nor verifiable, and to at least partially bond obligations whose violation is not serious enough to lead to termination of an otherwise valuable contracting relationships, it becomes clear that unless lawyers pay attention to the network contexts of the agreements they draft, they will not be able to properly evaluate the value of the transactions their contracts consummate nor will they be able structure those contracts to take advantage of the powerful social forces that can make them more effective contract governance instruments.

IV. CONCLUSION

In sum, understanding the formal and social-capital related forces that make these relational contracts work suggests that while relational governance is more expensive to implement than is generally recognized,¹⁶¹ it also creates valuable benefits for the

¹⁶⁰ (Klien and Leffler)

¹⁶¹ Even in the New York diamond industry--where the social capital underlying contractual relationships has an organic basis in the religious and community ties among its members--the Diamond Dealers Club, the bourse where most transactions are concluded, has adopted written rules and created costly contract adjudication and enforcement institutions to support these agreements, see Bernstein, *Diamonds*, supra note ____ Similarly, in the cash cotton industry

contracting parties that go far beyond the particular transactions in which it is used.¹⁶² Most importantly, as compared to more

which was deeply embedded in the culture of the old south, the industry created a variety of rules, information channels, and dispute resolution tribunals to support trade, see Bernstein, Cotton, *supra* note ____.

¹⁶² The arguments advanced in the text have implications for the management literature's perspective on when relational contracts should be used and how they create value in certain transactional contexts. Management scholars suggest that self-enforcing relational contracts create four types of benefits for the contracting parties: first, a decrease in contracting costs stemming from a reduced need for specification (and with it more effective deterrence since all possible sources of opportunism can rarely be specified in a contract); second, a decrease in monitoring costs "because self-enforcement relies on self monitoring rather than external or third party monitoring;" third, a reduction in "the costs associated with complex adaptation, thereby allowing exchange partners to adjust the agreement on 'on the fly' and to adjust to unforeseen market changes;" and forth that "self enforcing agreements are superior to contracts at minimizing transactions costs over the long run because they are not subject to the time limitations of contracts," which are assumed to be valid over only a specified period of time. See Jeffrey H. Dyer and Harbir Singh, *The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage*, 23 *Academy of Management Review* 660 (1998). However, as the description and analysis presented here suggests, in the early rounds of dealing between parties, trust is most likely to evolve when obligations are well specified, and accurate and transparent measurement tools are used to judge compliance. These measurement mechanisms are costly to create and administer yet are overlooked by theorists who tend to focus on the costs of governing a contract when the cost of developing the relationship-specific capital that supports it has already been borne. Furthermore, the monitoring costs involved in self-enforcing agreements are unlikely to be lower than in contracts designed to be enforced in court because in both contexts it is a contracting party not a third party who must detect any breach. As for the purported "adjustments on the fly," these are routinely made against the background of formal contracts sometimes informally and sometimes through the filing and acceptance of a change order or a contractual modification. Finally, once it is recognized that the use of Master Agreements followed by purchase orders is the dominant mode of doing business in these markets, the claim that contracts have built-in time limitations, ceases to be an important consideration. Moreover, even when contracting parties do use time limited contracts, many aspects of these agreements are determined by the buyers standard terms and conditions as well as the variety of handbooks and manuals, and it is routine for parties to simply enter into agreements extending former agreements, making re-contracting costs in these contexts far lower than these theorists implicitly assume. If these rather illusory benefits were the most important benefits created by relational governance, it would not be worth its cost in a great many transactional contexts once the

arm's length types of governance, it increases the likelihood that buyer and the supplier will exchange the type of information that may both enable their employees to identify additional value creating opportunities and facilitate joint or supplier-led innovation. And, by promoting the growth of relationship-specific social capital, which in turn creates trust, it broadens the range of the non-contractible commitments the parties can credibly make, particularly in contexts where network governance is a relevant force.

Taken together, the governance techniques used in these transactions fall somewhere between markets and hierarchy¹⁶³ and as such their availability in any particular market or transactional context is likely to influence firms' make-or-buy decisions. Indeed, in markets where innovation is important, the network structure of the relevant markets, the position of buyer and supplier within the relevant network/s,¹⁶⁴ and the extent to which the firms have succeeded (or think they could succeed) in recreating the governance benefits associated with hierarchy through relational contracts supported by carefully devised contract administration mechanisms, may have a greater influence on the buyers' make or

costs of the formal and other supports it requires to function among complex organizations are taken into account; yet recognizing that legally enforceable contracts cannot, no matter how well specified they are, meaningfully govern certain types of obligations—for example the interior promises in a complex agreement, or a paradox type of obligation—it becomes clear that there are contexts where relationalism may be worth even its cost, properly reckoned.

¹⁶³ See sources cited supra note __

¹⁶⁴ The Tadelis and Williamson articulation of the Williamson theory of the firm, assumes that in most instances innovation (bilateral adaption) can best be accomplished within the firm due to the combination of low powered incentives and administrative fiat made available by intra-firm hierarchy, see See Steven Tadelis and Oliver Williamson, Transaction Costs Economics, in Robert Gibbons and John Roberts ed, HANDBOOK OF ORGANIZATIONAL ECONOMICS (2012). However, sociological studies of the forces that drive successful innovation suggest that "when knowledge is broadly distributed and brings a competitive advantage, the locus of innovation is found in a network of interorganizational relationships," rather than within any single organizational entity, and the benefit any given firm reaps from innovation is closely tied to its position in the relevant network of firms. See Walter W. Powell and Kenneth W. Koput, *Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology*, 41 Admin. Sci. Quarterly, 116 (1996).

buy decisions than the relative transactions costs of different governance structures as traditionally defined.¹⁶⁵

¹⁶⁵ See Tadelis & Williamson, *supra* note 158.