

Questions About Contracts

D. Gordon Smith[†]

**The following is a very rough draft.
Please do not cite or quote from this draft
without prior permission of the author.**

[†] Professor of Law, University of Wisconsin Law School. Early versions of this paper were presented at the 2006 Law & Society Annual Meeting and in workshops at the University of Wisconsin Law School, the University of Arizona James E. Rogers College of Law, the University of Illinois College of Law, and the University of Texas School of Law. Thanks to Bill Bratton, Anuj Desai, Sanjay Jain, Stewart Macaulay, Ronald Mann, Anne Miner, Thomas Mitchell, John Ohnesorge, Rachelle Sampson, David Schwartz, Danny Sokol, Bill Whitford, and Josh Wright for useful comments, discussions, and suggestions. Britta Lindberg and Adam Holland provided research assistance.

Introduction

What are we to make of contracts? We know that most written contracts do not embody all of the expectations of the contracting parties.¹ Nevertheless, we believe that “serious scholarly consideration of contracts as *things*” may reveal new insights about contracting parties.² The purpose of this article is to describe what we are likely to find if we take the terms of contracts seriously.

Focusing on contract terms does not mean that we are ignoring other forces that determine the governance structure of the relationship (*i.e.*, markets, statutes, regulations, common law). One of the expected benefits of studying contracts more closely is that we will have a better understanding of the context in which contracts are negotiated, maintained, adapted, and enforced.

Empirical studies of contractual terms have become more common over the past decade,³ though most empirical studies appear in economics journals. As a result of this concentration of effort in one field, the range of questions addressed by empirical studies of contractual terms is narrow, focusing almost exclusively on transaction cost economization.

Part I offers a brief intellectual history of the empirical study of contractual relationships. Part II contains a survey of empirical work on contracts in the leading journals in economics, financial economics, law, management, sociology, and law, economics and organizations. Part III proposes a typology of contract provisions.

I. Empirical Study of Contractual Relationships

When Stewart Macaulay began teaching Contracts at Wisconsin in 1957, he was 26 years old.⁴ He had never practiced law, and he did the sensible thing by adopting the casebook used by his more experienced colleagues: LON FULLER, BASIC CONTRACT LAW. Macaulay’s father-in-law – Jack Ramsey, the retired General Manager of S.C. Johnson & Son – was not impressed

¹ See Stewart Macaulay, *The Real and the Paper Deal: Empirical Pictures of Relationships, Complexity and the Urge for Transparent Simple Rules*, 66 MODERN L. REV. 44 (2003):

Contracts are always more than the contract document. We have long known the many reasons for this: Words do not have a fixed meaning that every speaker of the language will translate in the same way. We create the meaning of written language by bringing the words some measure of context, background assumptions, our experiences, and, too often, our bias, ignorance, and stupidities.

² Mark C. Suchman, *The Contract as Social Artifact*, 37 LAW & SOC’Y REV. 91 (2003).

³ In a 1991 article, Glenn Hubbard and Robert Weiner observe, “The role of contractual arrangements – while important in many markets for commodities and industrial products – has not received much attention in empirical work.” R. Glenn Hubbard & Robert Weiner, *Efficient Contracting and Market Power: Evidence From the U.S. Natural Gas Industry*, 34 J. L. ECON. 25 (1991).

Also in 1991, the Journal of Law & Economics published papers presented at a conference organized by Ronald Coase on “Contracts and the Activities of Firms.” In his introduction to the conference, Coase wrote: “In organizing this conference, I was impelled by the belief (in which I am not alone) that theory is outrunning our knowledge of the facts in the study of industrial organization and that more empirical work is required if we are to make progress.” Ronald H. Coase, *Contracts and the Activities of Firms*, 34 J. L. ECON. 451 (1991).

⁴ Stewart Macaulay, *Crime and Custom in Business Society*, 22 J. L. SOC. 248, 248 (1995).

with the casebook. According to Macaulay, Ramsey “thought that much of it rested on a picture of the business world that was so distorted that it was silly.”⁵

To assist Macaulay in gaining real-world perspectives on contracts, Ramsey arranged for a series of meetings with corporate executives that became the basis of Macaulay’s seminal article, “Non-Contractual Relations in Business: A Preliminary Study.”⁶ As indicated by the title, Macaulay’s focus in this piece was on the extent to which parties regulated their behavior without the assistance of written contracts. During the course of his interviews, he found that “many, if not most, exchanges reflect no planning, or only a minimal amount of it, especially concerning legal sanctions and the effect of defective performances.”⁷ He also discovered that business people frequently adjusted their contractual obligations without dispute, and that “[d]isputes are frequently settled without reference to the contract or potential or actual legal sanctions.”⁸

Macaulay met Ian Macneil at a summer workshop for young contracts teachers held at New York University in 1962.⁹ Macaulay already had written “Non-Contractual Relations in Business,” and he presented the paper at a meeting of the American Sociological Association held in Washington D.C. immediately following the NYU workshop.¹⁰ At the time, Macneil was writing doctrinal pieces about contract law.¹¹ His work on “relational contracts” didn’t begin to emerge until the mid-1960s,¹² with the earliest pieces emanating from his work in Africa.¹³ Though his subsequent work on relational contracts was highly abstract and theoretical,¹⁴

⁵ Macaulay, *Crime and Custom*, *supra* note __, at 249.

⁶ Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 1 (1963).

⁷ *Id.* at 9.

⁸ *Id.* at 10.

⁹ Email from Stewart Macaulay to Gordon Smith (October 3, 2006).

¹⁰ *Id.*

¹¹ *See, e.g.*, Ian R. Macneil, *Power of Contract and Agreed Remedies*, 47 CORNELL L. Q. 495 (1962); Ian R. Macneil, *Exercise in Contract Damages: City of Memphis v. Ford Motor Company*, 4 B.C. IND. & COMM. L. REV. 331 (1963); Ian R. Macneil, *Time of Acceptance: Too Many Problems for a Single Rule*, 112 U. PENN. L. REV. 947 (1964).

¹² Ian R. Macneil, *Relational Contract Theory: Challenges and Queries*, 94 NW. U. L. REV. 877, 877 (2000).

¹³ IAN R. MACNEIL, *CONTRACTS: INSTRUMENTS OF SOCIAL CO-OPERATION – EAST AFRICA* (1968); Ian R. Macneil, *The Tanzania Hire-Purchase Act*, 2 E. AFRICAN L.J. 84 (1966). Macneil’s work in Africa, funded by the Ford Foundation and a Fulbright Fellowship, was part of a larger “law and development movement” that envisioned legal reform as the catalyst for economic development. This vision, coupled with the belief that developing nations were not producing lawyers equipped with the requisite skills, led to an emphasis on legal education, as described by Thomas Carothers:

Programs emphasized legal education, particularly the goal of trying to recast methods of teaching law in developing countries in the image of the American Socratic, case-oriented methods ... [and] encouraged lawyers and legal educators in developing countries to treat the law as an activist instrument of progressive social change.

THOMAS CAROTHERS, *AIDING DEMOCRACY ABROAD: THE LEARNING CURVE* 24 (1999).

¹⁴ IAN R. MACNEIL, *THE NEW SOCIAL CONTRACT* (1980); Ian R. Macneil, *The Many Futures of Contracts*, 47 S. CAL. L. REV. 691 (1974); Ian R. Macneil, *Contracts: Adjustment of Long-Term Economic Relations Under Classical, Neoclassical, and Relational Contract Law*, 72 NW. U. L. REV. 854 (1978); Ian R. Macneil, *Relational Contract: What We Do and Do Not Know*, 1985 WIS. L. REV. 483.

Macneil claims that he “was simply exploring and trying to make sense of reality, the reality of what people are actually doing in the real-life world of exchange.”¹⁵

Legal scholars were slow to embrace Macaulay and Macneil.¹⁶ When the derivative legal scholarship began to emerge,¹⁷ it focused primarily on the implications of relational contracting theory for legal doctrine,¹⁸ along with some interesting and important work on the subject that first caught Macaulay’s eye, the non-contractual dimensions of contractual relationships.¹⁹ Until recently, however, most legal scholars have avoided studying the content of contracts,²⁰ though two lines of research deserve some mention here as being *almost* empirical.

¹⁵ Ian R. Macneil, *Relational Contract Theory: Challenges and Queries*, 94 NW. U. L. REV. 877, 879 (2000).

¹⁶ Robert Gordon once referred to the work of Macaulay and Macneil as “remarkable, if up until now rather lonely, accomplishments.” Robert W. Gordon, *Macaulay, Macneil, and the Discovery of Solidarity and Power in Contract Law*, 1985 WIS. L. REV. 565, 578. As suggested by this comment, work on relational contract theory prior to 1985 was sparse, but Stewart Macaulay has observed, “It is my impression that writers in our field have paid much more attention to Ian’s work since Gordon wrote, and, in my view, people should not attempt to write about contracts until they have studied Macneil.” Stewart Macaulay, *Relational Contracts Floating On A Sea Of Custom? Thoughts About The Ideas Of Ian Macneil And Lisa Bernstein*, 94 NW. U. L. REV. 775, 776 (2000).

¹⁷ Papers published in the NORTHWESTERN UNIVERSITY LAW REVIEW connection with the excellent symposium entitled “Relational Contracting Theory: Unanswered Questions” reveal the dedicated interest in legal doctrine among those who write about relational contracts. *See, e.g.*, Jay M. Feinman, *Relational Contract Theory in Context*, 94 NW. U. L. REV. 737, 737 (2000) (“I want to situate Macneil’s relational contract theory within the story of the development of contract law”); Eric Posner, *A Theory of Contract Law Under Conditions of Radical Judicial Error*, 94 NW. U. L. REV. 749, 751 (2000) (“If Macneil is right, and courts cannot resolve contractual disputes by discovering initial contractual intentions on the basis of documents and other evidence, cannot use such intentions (even if they exist) to guide behavior late in the life of a relational contract, cannot enforce contracts in a way that maximizes their value *ex ante*, cannot fill in gaps by imagining the hypothetical bargain – then what should the courts do?”); Robert E. Scott, *A Case for Formalism in Relational Contract*, 94 NW. U. L. REV. 847, 847 (2000) (“the central task in developing a plausible normative theory of contract law is to specify the appropriate role of the state in regulating incomplete contracts”); and Richard E. Speidel, *The Characteristics and Challenges of Relational Contracts*, 94 NW. U. L. REV. 823, 838 (2000) (“a continuing challenge is for courts to recognize the special characteristics of relational contracts and to develop a set of default rules that are more responsive to the problems that those characteristics generate”).

¹⁸ The results were unimpressive. As noted by Melvin Eisenberg, “there is no law of relational contracts.” Melvin A. Eisenberg, *Why There is No Law of Relational Contracts*, 94 NW. U. L. REV. 805 (2000). Eisenberg makes more than a descriptive claim. He concludes: “What relational contract theory has not done, and cannot do, is to create a law of relational contracts.” *Id.* at 821.

¹⁹ *See, e.g.*, Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 MICH. L. REV. 1724, 1746-88 (2001); Pauline T. Kim, *Bargaining With Imperfect Information: A Study Of Worker Perceptions Of Legal Protection In An At-Will World*, 83 CORNELL L. REV. 105 (1997); Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEGAL STUD. 115 (1992); Keith J. Crocker & Scott E. Masten, *Pretia Ex Machina? Prices and Process in Long-Term Contracts*, 34 J. L. ECON. 69 (1991).

²⁰ For recent studies of contracts by legal scholars, see D. Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315 (2005); Stephen J. Choi & G. Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 EMORY L.J. 929 (2004); Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs*, 17 J. L. ECON. & ORG. 83 (2001); Lucian Arye Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence and Policy*, 54 STAN. L. REV. 887 (2002); Christopher R. Drahozal, “Unfair”

First, a large number of contract law scholars have focused on consumer contracts, particularly on arbitration provisions²¹ and other “boilerplate.”²² In most instances, this work does not focus on the content of specific contracts or variations in the terms of contracts – which are largely standardized – but rather the effect of such provisions on contract negotiations or legal doctrine.

Second, relying on incomplete contract theory, discussed in more detail below, a number of law professors are exploring various issues of contract design.²³

In the mid-1970s, economist Oliver Williamson noticed Ian Macneil’s work on relational contracts, which Williamson described as “much more expansive, nuanced, and interdisciplinary (mainly combining law and sociology) than any I had seen previously.”²⁴ Williamson had been thinking about “markets and hierarchies”²⁵ – terms that roughly parallel Macneil’s spectrum of discrete and relational contracts²⁶ – and over the course of a decade or so, Williamson used these thoughts as the foundation for “transaction cost economics” (TCE).

Though the “theory of the firm” often is treated as a “theory of the corporation,” it could just as well be called a “theory of relational contracts.”²⁷ After all, Coase launched the theory of the firm by using an employment relationship as the model “firm.”²⁸

Early work on TCE relied heavily on informal theoretical arguments.²⁹ Later contributions formalized and expanded the theory of TCE.³⁰ More recently, empirical work on TCE has blossomed.³¹

Arbitration Clauses, 2001 U. ILL. L. REV. 695; Florencia Marotta-Wurgler, *Are 'Pay Now, Terms Later' Contracts Worse for Buyers? Evidence from Software License Agreements* (working paper 2006); Florencia Marotta-Wurgler, *Competition and the Quality of Standard Form Contracts: An Empirical Analysis of Software License Agreements* (working paper 2006).

²¹ For recent examples, see Christopher R. Drahozal, *Arbitration Costs And Contingent Fee Contracts*, 59 VAND. L. REV. 729 (2006); Matthew T. Bodie, *Questions About The Efficiency Of Employment Arbitration Agreements*, 39 GA. L. REV. 1 (2004); Lewis L. Maltby, *Out Of The Frying Pan, Into The Fire: The Feasibility Of Post-Dispute Employment Arbitration Agreements*, 30 WM. MITCHELL L. REV. 313 (2003).

²² See e.g., “Boilerplate”: Foundations of Market Contracts Symposium, 104 Mich. L. Rev. 821-1246 (2004); Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (Or "The Economics of Boilerplate")*, 83 Va. L. Rev. 713 (1997).

²³ See, e.g., George S. Geis, *An Embedded Options Theory Of Indefinite Contracts*, 90 MINN. L. REV. 1664 (2006); Robert E. Scott & George G. Triantis, *Anticipating Litigation in Contract Design*, 115 YALE L.J. 814 (2006); Robert E. Scott & George G. Triantis, *Incomplete Contracts And The Theory Of Contract Design*, 56 CASE W. RES. L. REV. 187 (2005).

²⁴ Oliver Williamson, *MECHANISMS OF GOVERNANCE* 355 (1996) (referring to Macneil’s treatment of contracts in his article *The Many Futures of Contracts*, 47 S. CAL. L. REV. 691 (1974)).

²⁵ Oliver Williamson, *Hierarchical Control and Optimum Firm Size*, 75 J. POL. ECON. 123 (1967); Oliver Williamson, *The Vertical Integration of Production: Market Failure Considerations*, 61 AM. ECON. REV. 112 (1971); Oliver Williamson, *Markets and Hierarchies: Some Elementary Considerations*, 63 AM. ECON. REV. 316 (1973).

²⁶ Ian R. Macneil, *Contracts: Adjustment of Long-Term Economic Relations Under Classical, Neoclassical, and Relational Contract Law*, 72 NW. U. L. REV. 854, 862-65 (1978).

²⁷ *But see*, Claire Hill, *Law & Economics in the Personal Sphere*, 29 L. SOC. INQUIRY 219, 250 (2004) (“There are relational contracts, and there are firms.”).

²⁸ Ronald H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937).

II. Survey of Empirical Studies of Contracts

This section surveys empirical studies of contracts from 1990 through 2006. Of course, the empirical study of contracts did not begin in 1990,³² but the purpose of this survey is not to develop a comprehensive account of extant learning on contracts. Instead, this survey is intended merely to reveal the sorts of questions that researchers ask about contracts. As one would expect, given the intellectual history in the last section, the researchers who study contracts empirically tend to be economists, and they tend to ask the same questions time and again.

Most of the empirical studies in the survey focus on one aspect of the contract.³³ A smaller number of studies attempts to describe and analyze the entire system of rights

²⁹ In addition to Williamson, Benjamin Klein made important contributions to the early theoretical development of TCE. *See, e.g.*, Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297, 308-10 (1978); Benjamin Klein, *Transaction Cost Determinants of 'Unfair' Contractual Arrangements*, 70 AM. ECON. REV. 356 (1980); Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981); and Benjamin Klein, *Contracting Costs and Residual Claims: The Separation of Ownership and Control*, 26 J.L. & ECON. 367, 367-68 (1983). Klein has applied TCE in several specific contractual relationships. *See, e.g.*, Roy W. Kenney & Benjamin Klein, *The Economics of Block Booking*, 26 J.L. & ECON. 497 (1983); Benjamin Klein & Lester Saft, *The Law and Economics of Franchise Tying Contracts*, 28 J.L. & ECON. 345 (1985).

³⁰ *See* OLIVER HART, FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE 29-55 (1995); Bengt Holmstrom & Paul Milgrom, *Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design*, J. L. ECON. & ORG. 24 (1991); Bengt Holmstrom & Jean Tirole, *Transfer Pricing and Organizational Form*, 7 J. L. ECON. & ORG. 201 (1991); Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691 (1986); Oliver Hart & John Moore, *Incomplete Contracts and Renegotiation*, 56 ECONOMETRICA 755 (1988); Oliver Hart & John Moore, *Property Rights and the Nature of the Firm*, 98 J. POL. ECON. 1119 (1990).

³¹ For an excellent survey, see Jeffrey T. Macher & Barak D. Richman, *Transaction Cost Economics: An Assessment of Empirical Work in the Social Sciences* (working paper 2006).

³² Empirical studies of contracts prior to 1990 include Paul L. Joskow, *Price Adjustments in Long-Term Contracts: The Case of Coal*, 31 J. L. ECON. 47 (1988); Victor P. Goldberg & John R. Erickson, *Quantity and Price Adjustment in Long-Term Contracts: A Case Study of Petroleum Coke*, 30 J. L. ECON. 369 (1987); Paul L. Joskow, *Contract Duration and Relationship-Specific Investment: Empirical Evidence From the Coal Market*, 77 AM. ECON. REV. 168 (1987); Paul L. Joskow, *Vertical Integration and Long-term Contracts: The Case of Coal*, 1 J. L. ECON. & ORG. 33 (1985); Paul L. Joskow, *Contract Duration and Relation-specific Investments: Empirical Evidence from Coal Markets*, 77 AM. ECON. REV. 168 (1987); R. Glenn Hubbard & Robert J. Weiner, *Regulation and Long-Term Contracting in U.S. Natural Gas Markets*, 35 J. IND. ECON. 71 (1986); J. Harold Mulherin, *Complexity in Long-term Contracts: An Analysis of Natural Gas Contract Provisions*, 2 J. L. ECON. & ORG. 105 (1986); James M. Acheson, *The Maine Lobster Market: Between Market and Hierarchy*, 1 J. L. ECON. & ORG. 385 (1985); Scott E. Masten & Keith J. Crocker, *Efficient Adaptation in Long-Term Contracts: Take or Buy Provisions for Natural Gas*, 75 AM. ECON. REV. 1083 (1985); Thomas M. Palay, *Avoiding Regulatory Constraints: Contracting Safeguards and the Role of Informal Agreements*, 1 J. L. ECON. & ORG. 155 (1985); Lee J. Alston et al., *Tenancy Choice in a Competitive Framework with Transaction Costs*, 92 J. POL. ECON. 1121 (1984); Thomas M. Palay, *Comparative Institutional Economics: The Governance of Rail Freight Contracting*, 13 J. LEG. STUD. 265 (1984); James Wilson, *Adaptation to Uncertainty and Small Number Exchange: The New England Fresh Fish Market*, 11 BELL J. ECON. 491 (1980).

³³ *See, e.g.*, Keith B. Leffler & Randal R. Rucker, *Transaction Costs and the Efficient Organization of Production: A Study of Timber-Harvesting Contracts*, 99 J. POL. ECON. 1060 (1991) (explaining the choice between lump-sum and per-unit payment provisions in private timber-harvesting contracts).

allocation.³⁴ The survey does not include articles – found frequently in law journals – in which the authors used stylized contract terms,³⁵ illustrative contracts,³⁶ or contracts in judicial opinions.³⁷ Nor does the survey include studies that focus on the external effects of forming certain contractual relationships, rather than on the contracts themselves.³⁸ Dispute resolution in various contractual settings is a popular topic, but articles in this genre are excluded from the survey.³⁹ A few of the articles included in the survey aim primarily at methodological advances and secondarily at substantive insights, but they are included.⁴⁰

Many scholars are interested in contractual change.⁴¹ Many more are interested in governance structure. Almost no one analyzes contract terms using concepts like identity, branding, learning, or strategy – each of which is among the types of provisions described below.

[Expand the description of the survey.]

III. A Typology of Contract Provisions

After reading empirical studies by economists, you might be tempted to believe that the only purpose of contracts is to prevent opportunism. While TCE offers important insights about contractual choice, TCE does not purport to explain all contract provisions. In this section, I describe eight types of contract provisions, including TCE (“governance”) provisions. The motivation underlying this typology is my belief that the terms of contracts matter.

a. Governance Provisions

TCE frames the discussion of contracts around the concept of *opportunism*, which Williamson defined as “a condition of self-interest seeking with guile.”⁴² Under this view, the

³⁴ See, e.g., Benito Arruñada et al., *Contractual Allocation of Decision Rights and Incentives: The Case of Automobile Distribution*, 17 J. L. ECON. & ORG. 257 (2001).

³⁵ See, e.g., Jesse M. Fried & Mira Ganor, *Agency Costs Of Venture Capitalist Control In Startups*, 81 N.Y.U. L. REV. 967 (2006); Avery Wiener Katz, *The Option Element in Contracting*, 90 VA. L. REV. 2187 (2004); Mark P. Gergen, *The Use of Open Terms in Contract*, 92 COLUM. L. REV. 997 (1992).

³⁶ See, e.g., Alan Schwartz, *The Myth That Promisees Prefer Supercompensatory Remedies: An Analysis of Contracting for Damage Measures*, 100 YALE L. J. 369, 406 (1990).

³⁷ Robert E. Scott, *A Theory Of Self-Enforcing Indefinite Agreements*, 103 COLUM. L. REV. 1641, 1652-61 (2003); Judith L. Maute, *Peevyhouse V. Garland Coal & Mining Co. Revisited: The Ballad Of Willie And Lucille*, 89 NW. U. L. REV. 1341 (1995). Though such articles

³⁸ See, e.g., Gustavo E. Bamberger et al., *An Empirical Investigation of the Competitive Effects of Domestic Airline Alliances*, 47 J. L. ECON. 195 (2004); Allen N. Berger & Gregory F. Udell, *Some Evidence on the Empirical Significance of Credit Rationing*, 100 J. POL. ECON. 1047 (1992); David Card, *Unexpected Inflation, Real Wages, and Employment Determination in Union Contracts*, 80 AM. ECON. REV. 669 (1990).

³⁹ See, e.g., Amy Farmer, *The Causes of Bargaining Failure: Evidence From Major League Baseball*, 47 J. L. ECON. 543 (2004).

⁴⁰ See, e.g., Daniel A. Akerberg & Maristella Botticini, *Endogenous Matching and the Empirical Determinants of Contract Form*, 110 J. POL. ECON. 564 (2002).

⁴¹ See, e.g., Robert Rich & Joseph Tracy, *Uncertainty and Labor Contract Durations*, 86 Rev. Econ. & Stat. 270 (2004); Francine Lafontaine & Kathryn L. Shaw, *The Dynamics of Franchise Contracting: Evidence from Panel Data*, 107 J. POL. ECON. 1041 (1999).

⁴² WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 30 (1998). He also observed:

I do not insist that every individual is continuously or even largely given to opportunism. To the contrary, I merely assume that some individuals are opportunistic

potential for opportunism arises because contracting parties cannot foresee all future contingencies. They are constrained by *bounded rationality*.⁴³ Bounded rationality precludes the possibility of drafting complete contracts. When one of the contracting parties invests in an asset that cannot move from one use to another without losing productive value (what Williamson calls *asset specificity*⁴⁴), the other contracting party can engage in “holdup.”⁴⁵

Holdup occurs when one contracting party threatens another with economic harm unless concessions are granted by the threatened party.⁴⁶ The power of holdup exists only within contractual relationships, not in initial contract negotiations, and results from the investment of relationship-specific assets by the threatened party. Anticipation of holdup is said to motivate the structure of contractual relationships. In particular, the potential for holdup is said to encourage contracting parties to enter into long-term relationships or to vertically integrate.

Oliver Williamson has argued that contractual protections alone often are inadequate and that contracting parties must “exchange hostages” to protect themselves against opportunism.⁴⁷ Ronald Coase has eschewed opportunism as a meaningful motivation for contractual structure,

some of the time and that differential trustworthiness is rarely transparent *ex ante*. As a consequence, *ex ante* screening efforts are made and *ex post* safeguards are created. Otherwise, those who are least principled (most opportunistic) will be able to exploit egregiously those who are more principled.

Id. at 64.

⁴³ Actually, bounded rationality is more complex than being limited in cognitive competence. It might also include an inability to negotiate future plans because parties “have to find a common language to describe states of the world and actions with respect to which prior experience may not provide much of a guide.” Oliver Hart, *FIRMS, CONTRACTS & FINANCIAL STRUCTURE* 23 (1995). Finally, bounded rationality might include an inability to write contracts in such a way that they can be enforced by a third party. *Id.*

⁴⁴ WILLIAMSON, *MECHANISMS*, *supra* note 13, at 59.

⁴⁵ The literature on holdups is voluminous, and substantial activity revolves around the case of Fisher Body and General Motors, first discussed in Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297 (1978). The subsequent debate over Fisher Body has been spirited. See Ronald H. Coase, *The Acquisition of Fisher Body by General Motors*, 43 J.L. & ECON. 15 (2000) (no evidence of holdup in relationship between GM and Fisher Body); Robert F. Freeland, *Creating Holdup Through Vertical Integration: Fisher Body Revisited*, 43 J.L. & ECON. 33 (2000) (no evidence of holdup in relationship between GM and Fisher Body until *after* the acquisition); Ramon Casadesus-Masanell & Daniel F. Spulber, *The Fable of Fisher Body*, 43 J.L. & ECON. 67 (2000) (merger of GM and Fisher Body was not motivated by a desire to avoid holdup); and Benjamin Klein, *Fisher-General Motors and the Nature of the Firm*, 43 J.L. & ECON. 105 (2000) (evidence of holdup in relationship between GM and Fisher Body exists and fear of holdup motivated the acquisition). The latest contribution by Ronald Coase to that debate has descended into allegations of professional misconduct. Ronald Coase, *The Conduct of Economics: The Example of Fisher Body General Motors*, 15 J. ECON. & MGMT. STRATEGY 255 (2006) (wondering “what it is about the conduct of economics that led so many able economists to choose error rather than truth”).

⁴⁶ The term “holdup” is sometimes used synonymously with “opportunism.” Conrad S. Ciccotello et al., *Research and Development Alliances: Evidence From a Federal Contracts Repository*, 47 J. L. ECON. 123, 127 (2004).

⁴⁷ Oliver E. Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519 (1983).

suggesting that reputational constraints usually prevent opportunistic behavior.⁴⁸ Despite Coase's objections, empirical research weighs heavily in favor of TCE's core predictions.⁴⁹

b. Price & Quantity Provisions

Most contracts contain price and quantity provisions. Sale agreements contain a price to be paid by the buyer and a quantity of product to be provided by the seller. Investment agreements contain the amount to be invested and the number of securities to be issued. Land contracts contain a description of the property to be sold and a statement of the sales price. While some of these terms may be structured in a manner that has governance or other effects, the dollar and quantity values generally are determined by the relative bargaining power of the parties.

Price and quantity provisions fulfill one of the most basic functions of contracts: memorializing the agreement of the parties to avoid subsequent confusion.⁵⁰ Of course, parties who draft written contracts do not always achieve this ideal, and such contracts raise questions regarding the proper role of interpretation.⁵¹

c. Compliance Provisions

Many contractual relationships are heavily regulated and contain provisions that are driven less by governance concerns than by regulatory compliance. For example, tax implications affect the issuance of convertible preferred stock in venture capital financings,⁵² the use of limited liability companies rather than corporations,⁵³ the structure of executive compensation,⁵⁴ and many other corporate governance issues.⁵⁵

d. Branding Provisions

In his case studies of the Google and MasterCard initial public offerings,⁵⁶ Victor Fleischer found evidence of a "branding effect" of legal infrastructure. The branding effect is not aimed at reducing the potential for opportunism by a counterparty to a contract, but rather at

⁴⁸ Ronald H. Coase, *The Nature of the Firm: Influence*, 4 J. L. ECON. & ORG. 33, 44 (1988) ("the propensity for opportunistic behavior is usually effectively checked by the need to take account of the effect of the firm's actions on future business").

⁴⁹ Macher & Richman, *supra* note __.

⁵⁰ See Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799, 800-04 (1941) (describing the three functions of written contracts as evidentiary, cautionary, and channeling functions).

⁵¹ See, e.g., Steven Shavell, *On The Writing And The Interpretation Of Contracts*, 22 J.L. ECON. & Org. 289 (2006); Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 YALE L. J. 541 (2003); Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L. J. 87 (1989); Richard A. Posner, *The Law and Economics of Contract Interpretation*, __ Texas Law Review __ (forthcoming 2006).

⁵² Ronald J. Gilson & David M. Schizer, *Understanding Venture Capital Structure: A Tax Explanation For Convertible Preferred Stock*, 116 HARV. L. REV. 874 (2003).

⁵³ Larry E. Ribstein & Bruce H. Kobayashi, *Choice of Form and Network Externalities*, 43 WM. & MARY L. REV. 79, 121-24 (2001).

⁵⁴ David I. Walker, *The Manager's Share*, 47 WM. & MARY L. REV. 587 (2005).

⁵⁵ Steven A. Bank, *Tax, Corporate Governance, And Norms*, 61 WASH. & LEE L. REV. 1159 (2004).

⁵⁶ Victor Fleischer, *Brand New Deal: The Google IPO And The Branding Effect Of Corporate Deal Structures*, 104 MICH. L. REV. 1581 (2006); Victor Fleischer, *The MasterCard IPO: Protecting the Priceless Brand*, __ HARV. NEGOT. L. REV. __ (2006).

increasing the attractiveness of a product to present and future users or improving the image of a company in the eyes of regulators, judges, and juries.⁵⁷

Brands are not focused on the transmission of information, but instead on the creation of meaning.⁵⁸ Thus, commentators often describe branding through references to emotional⁵⁹ – or even religious⁶⁰ – concepts. Brand meanings are created through stories,⁶¹ and those stories have many authors.⁶² Fleischer justifiably adds “deal structures” to the list of stories that contribute to a brand’s identity.

⁵⁷ For my comments on Fleischer’s notion of “branding effects,” see D. Gordon Smith, *The “Branding Effect” of Contracts*, __ HARV. NEGOT. L. REV. __ (2006).

⁵⁸ See Bobby J. Calder & Steven J. Reagan, *Brand Design*, in KELLOGG ON MARKETING 58 (2001) (“To *market*, we have to go beyond the product. We must transcend whatever the product is as a physical or objective entity. We must create and convey the meaning of the product.”). The *meaning* of a brand is separate from the *markers* of that brand. Douglas Holt illustrates the distinction as follows:

Consider a new product that a company has just introduced. Although the product has a name, a trademarked logo, unique packaging, and perhaps other unique design features – all aspects that we intuitively think of as the brand – the brand does not yet truly exist. Names, logos, and design are the material markers of the brand. Because the product does not yet have a history, however, these markers are empty. They are devoid of meaning. Now, think of famous brands. They have markers, also: a name (McDonald’s, IBM), a logo (the Nike swoosh, the Travelers umbrella), a distinctive design feature (Harley’s engine sound), or any other design element that is uniquely associated with the product. The difference is that these markets have been filled with customer experiences. Advertisements, films, and sporting events use the brand as a prop. Magazines and news paper articles evaluate the brand, and people talk about the brand in conversation. Over time, ideas about the product accumulate and fill the brand markers with meaning. A brand is formed.

DOUGLAS B. HOLT, HOW BRANDS BECOME ICONS 2-3 (2004):

⁵⁹ See, e.g., JAMES B. TWITCHELL, BRANDED NATION: THE MARKETING OF MEGACHURCH, COLLEGE, INC., AND MUSEUMWORLD 12 (2004) (“The taste of Evian is not on the palate but in the imagination”); ROBERT B. SETTLE & PAMELA L. ALRECK, WHY THEY BUY: AMERICAN CONSUMERS INSIDE AND OUT 70 (1986) (“By pairing the brand name of the product with stimuli that naturally elicit positive emotional responses from people, over many repetitions, consumers learn to associate the brand with positive emotions. When they think of the brand they’ll have good feelings about it.”).

⁶⁰ PATRICK HANLON, PRIMAL BRANDING: CREATE ZEALOTS FOR YOUR BRAND, YOUR COMPANY, AND YOUR FUTURE 6-7 (2006) (“Brands are belief systems.... Believing is belonging.”); MARTIN LINDSTROM, BRAND SENSE: BUILD POWERFUL BRANDS THROUGH TOUCH, TASTE, SMELL, SIGHT, AND SOUND 175-92 (2005) (describing ten rules for “tak[ing] a brand beyond its traditional loyal base of customers toward a bonding that resembles a religious relationship”).

⁶¹ See SETH GODIN, ALL MARKETERS ARE LIARS: THE POWER OF TELLING AUTHENTIC STORIES IN A LOW-TRUST WORLD (2005). Godin explains the importance of storytelling, in part, by appealing to the same reasoning that underlies the use of signals: “Stories are shortcuts we use because we’re too overwhelmed by data to discover all the details.” *Id.* at 2. Ultimately, however, Godin’s message is that stories convey *meaning* rather than *information*. See, *id.* at 8 (“A great story is true. Not true because it’s factual, but true because it’s consistent and authentic.”).

⁶² HOLT, *supra* note 39, at 3 (“A brand emerges as various ‘authors’ tell stories that involve the brand. Four primary types of authors are involved: companies, the culture industries, intermediaries (such as critics and retail salespeople), and customers (particularly when they form communities).”).

e. Identity Provisions

Social identity theory was developed to explore issues of intergroup discrimination.⁶³ Though the literature speaks of “in groups” and “out groups,” the focus is predominantly on individuals. Organizational theorists have extended social identity theory to the organizational context,⁶⁴ suggesting that firms sometimes act according to the “logic of appropriateness” rather than the “logic of consequence.”⁶⁵

The notion of identity may explain why many innovative agricultural businesses elect to organize as cooperatives rather than as limited liability companies. Traditional cooperatives are member financed and member controlled. The distinctive feature of cooperatives is that they are organized to create benefits for their members other than financial returns on investment.⁶⁶

Within the past few years, several states have adopted new statutes allowing cooperatives to create two classes of members: patron members and investor members.⁶⁷ Businesses that have organized under these statutes tend to be small, innovative firms, often operating in the agricultural sector.⁶⁸ The cooperative form offers no tax, governance, or other regulatory advantages over the limited liability company, but the founders of these firms often feel that a cooperative is simply the *appropriate* form for their business. This is not a TCE story, but a story about identity. Or – to use a word common among business consultants – *authenticity*.

f. Learning Provisions

Organizational theorists have created an impressive literature on organizational learning,⁶⁹ which is related to, but distinct from, individual learning.⁷⁰ While learning by individuals does not necessarily lead to changes in individual behavior, many organizational theorists conceive of organizational learning as organizational change.⁷¹

⁶³ See Henri Tajfel & John Turner, “The Social Identity Theory of Inter-group Behavior,” in S. WORCHEL & W. G. AUSTIN, EDS., *PSYCHOLOGY OF INTERGROUP RELATIONS* (1986).

⁶⁴ See, e.g., Blake E. Ashforth & Fred Mael, *Social Identity Theory and the Organization*, 14 *ACAD. MGMT. REV.* 20 (1989).

⁶⁵ JAMES G. MARCH, *THE PURSUIT OF ORGANIZATIONAL INTELLIGENCE* 21 (1999).

⁶⁶ KIMBERLY A. ZEULI & ROBERT CROPP, *COOPERATIVES: PRINCIPLES AND PRACTICES IN THE 21ST CENTURY* 4 (2006). These traditional cooperatives benefited greatly from the antitrust exemptions created under the Capper-Volstead Act. 7 U.S.C.A. §§ 291-292.

⁶⁷ The National Conference of Commissioners on Uniform State Laws (NCCUSL) is drafting a Uniform Cooperative Association Act, which is scheduled to be approved in 2008.

⁶⁸ Tracey L. Kennedy and Donald A. Frederick, *Use Of LLC-Cooperative Statutes: Status Of New Business Formation In Wyoming, Minnesota, Tennessee, And Iowa Organized Through 2005* (working paper 2006) <<http://www.cooperatives.ucdavis.edu/news/Frederick%20LLC-Coops.pdf>>.

⁶⁹ For a useful description of the origins and development of research in organizational learning, see Anne S. Miner & Stephen Mezias, *Ugly Duckling No More: Pasts And Futures Of Organizational Learning Research*, 7 *ORGANIZATION SCIENCE* 88, 88 (1996).

⁷⁰ See Daniel H. Kim, *The Link Between Individual And Organizational Learning*, 35 *SLOAN MGMT. REV.* 37 (1993) (observing that “organizations ultimately learn via their individual members. Hence, theories of individual learning are crucial for understanding organizational learning.”).

⁷¹ See, e.g., CHRIS ARGYRIS & DONALD SCHÖN, *ORGANIZATIONAL LEARNING: A THEORY OF ACTION PERSPECTIVE* __ (1978).

In their seminal work in the field, Richard Cyert and James March describe firms as adaptive learning systems.⁷² Under this view, firms address uncertainty by developing standard operating procedures. The efficacy of these procedures is tested through experiences that lead to change: effective procedures are retained, and ineffective procedures are modified. Organizational change of this sort is incremental.

Subsequent writing in the field distinguished incremental and radical change.⁷³ Whereas incremental change focuses on local outcomes, radical change affects an organization's fundamental commitments. These concepts might prove especially useful to scholars interested in time-series analyses of contractual change,⁷⁴ but the mere recognition that organizations learn suggests an important avenue of inquiry in the present context: do contracts contain provisions that are designed to enhance or capture learning opportunities?

In the venture capital context, for example, an obvious candidate for such analysis is staged financing.⁷⁵ Venture capitalists often invest in contexts characterized by extreme uncertainty. In some instances, portfolio companies have clear goals but uncertain paths to attain those goals. In other instances, portfolio companies have unclear goals. In either circumstance, venture capitalists value opportunities to make midstream adjustments. Staged financing hardwires such opportunities into the structure of the venture capital investment relationship.

The traditional explanations for staged financing rely on principal-agent theory. According to Paul Gompers, venture capitalists improve monitoring of their portfolio companies through staged financing.⁷⁶ And I argued that entrepreneurs benefited from staged financing because they “would rather have the risk of dilution inherent in staged financing than the certainty of dilution that would follow from lump sum financing.”⁷⁷

Both of these explanations rest on the assumption that staged financing is an incentive device used to align the interests of venture capitalists and entrepreneurs. Learning theory

⁷² See RICHARD M. CYERT AND JAMES G. MARCH, *A BEHAVIORAL THEORY OF THE FIRM* (1963).

⁷³ This distinction travels under various labels. See, e.g., ARGYRIS & SCHÖN, *supra* note __, at 2-3 (1978) (distinguishing between single-loop learning, which “permits the organization to carry on its present policies or achieve its present objectives,” and double-loop learning, which “involve[s] the modification of an organization's underlying norms, policies and objectives”); C. Marlene Fiol & Marjorie A. Lyles, *Organizational Learning*, *ACAD. MGMT. REV.* 803, 807-08 (1985) (distinguishing lower-level learning, which “leads to the development of some rudimentary associations of behavior and outcomes,” and higher-level learning, which “aims at adjusting overall rules and norms rather than specific activities or behaviors”); Mark Dodgson, *Technology, Learning, Technology Strategy and Competitive Pressures*, 2 *BRITISH J. MGMT.* 132, 139-40 (1991) (distinguishing tactical learning, “which has an immediate problem-solving nature,” from strategic learning, which “extends beyond immediate issues and involves firms developing skills and competences which provide the basis for future, perhaps unforeseen, projects”).

⁷⁴ For an example of a study of contractual change, see Stephen J. Choi & G. Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 *EMORY L.J.* 929 (2004).

⁷⁵ The contractual provision that allows for staged financing is the “right of first refusal.” See D. Gordon Smith, *Team Production in Venture Capital Investing*, 24 *J. CORP. L.* 949, 966 (1999) (“At each stage, the Venture Capitalist typically has a right of first refusal, allowing the Venture Capitalist to participate in the financing by purchasing the number of new shares sufficient to ensure that the Venture Capitalist retains a steady level of ownership in the company”).

⁷⁶ Paul A. Gompers, *Optimal Investment, Monitoring, and the Staging of Venture Capital*, 50 *J. FIN.* 1461, 1462 (1995).

⁷⁷ Smith, *Team Production*, *supra* note __, at 968.

suggests, however, that staged financing would be valuable, even in a world without opportunism. By requiring periodic evaluations of the state of the relationship, staged financing encourages learning.

g. Strategic Provisions

When contracting parties enter into the same form of relationship repeatedly, they might find some provisions strategically advantageous. For example, Robert B. Ahdieh suggests that adherence to or deviation from “boilerplate” may provide signals to potential negotiating partners.⁷⁸

A second form of strategic provision arises from attempts by contracting parties to minimize the aggregate contracting costs. According to Robert Scott and George Triantis, vague terms like “best efforts” and “commercial reasonableness” clauses may be useful in helping parties to balance the front-end and back-end costs associated with contracting.⁷⁹

h. Legacy Provisions

Legacy provisions are holdovers from prior deal documents. They come in two varieties: (1) incongruous legacy provisions simply do not belong in the contract and their presence suggests inattention or incompetence on the part of the contract drafter, and (2) suboptimal legacy provisions have functional significance in the contract, but the content of these provisions would be different in the absence of inertia.⁸⁰

Conclusion

In his well-known article introducing the concept of the business lawyer as “transaction cost engineer,”⁸¹ Ron Gilson suggests that “the tie between legal skills and transaction value is the business lawyer's ability to create a transactional structure which reduces transaction costs and therefore results in more accurate asset pricing.”⁸² In the foregoing sections, I suggest that business lawyers may be doing much more than transaction cost economization.⁸³

⁷⁸ See, e.g., Robert B. Ahdieh, *The Strategy Of Boilerplate*, 104 MICH. L. REV. 1033 (2006).

⁷⁹ Robert E. Scott & George G. Triantis, *Anticipating Litigation in Contract Design*, 115 YALE L.J. 814 (2006).

⁸⁰ Stephen J. Choi & G. Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 EMORY L.J. 929 (2004) (“Change not only takes time, but also comes in stages – as we describe it, there is first an interpretive shock, then a lengthy period of adjustment, and only then a big shift in terms.”); Peyton H. Young & Mary A. Burke, *Competition and Custom in Economic Contracts: A Case Study of Illinois Agriculture*, 91 AM. ECON. REV. 559 (2001) (concluding that “regional customs form a compromise between completely uniform contracts on the one hand, and fully differentiated contracts on the other”).

⁸¹ Ronald J. Gilson, *Value Creation By Business Lawyers: Legal Skills And Asset Pricing*, 94 YALE L.J. 239 (1984).

⁸² *Id.* at 255. For an interesting test of the value added by lawyers, see C.N.V. Krishnan & Paul A. Laux, *Legal Advisors: Popularity Versus Economic Performance in Acquisitions*, (working paper 2003) (“The market for M&A advisory services does not exhibit evidence of Gilson’s conjecture, at least as reflected in stock returns.”).

⁸³ Gilson recognized that lawyers play a role in regulatory compliance, but argued:

[B]usiness lawyers frequently function in a world in which regulation has made few inroads. For these lawyers the critical rule of law is that a court will enforce whatever the

The purpose of this Article is to argue for a more complete study of contracts. TCE provides many potential insights, but it does not purport to offer an exhaustive account of contract terms. The typology presented here is a first step toward understanding contracts more fully.

lawyer writes. Thus the hard problem that remains, my principal focus here, is to determine whether these business lawyers can meet the value-creation standard. Can business lawyers create value even when there is virtually no law to apply? Is there a purely private ordering role for business lawyers?

Id. at 247.

Appendix I **Journals Reviewed**

Economics

Journal of Political Economy, vols. 98-114 (1990-2006)
Econometrica, vols. 58-74 (1990-2006)
American Economic Review, vols. 80-96 (1990-2006)
Quarterly Journal of Economics, vols. 105-121 (1990-2006)
Review of Economic Studies, vols. 57-73 (1990-2006)
Review of Economics & Statistics, vols. 72-88 (1990-2006)

Financial Economics

Journal of Finance, vols. 45-60 (1990-2006)
Journal of Financial Economics, vols. 26-81 (1990-2006)
Review of Financial Studies, vols. 3-19 (1990-2006)

Law, Economics, and Organizations

The Journal of Law & Economics, vols. 33-47 (1990-2004)
The Journal of Law, Economics & Organizations, vols. 15-20 (1999-2004)
Rand Journal of Economics

Sociology

Journal of Law & Society, vols. 22-31 (1995-2004)
American Journal of Sociology
American Sociological Review

Management

Academy of Management Journal
Academy of Management Review
Strategic Management Journal
Organization Science
Management Science
Administrative Sciences Quarterly

Law⁸⁴

Harvard Law Review, vols. 103-119 (1990-2006) (June 2006)
Yale Law Journal, vols. 99-115 (1990-2006) (May 2006)
Columbia Law Review, vols. 90-106 (1990-2006) (June 2006)
Stanford Law Review, vols. 42-58 (1990-2006) (February 2006)
New York University Law Review, vols. 65-81 (1990-2006) (April 2006)
Cornell Law Review, vols. 75-91 (1990-2006) (May 2006)
Virginia Law Review, vols. 76-92 (1990-2006) (May 2006)
California Law Review, vols. 78-94 (1990-2006) (March 2006)
University of Pennsylvania Law Review, vols. 138-154 (1990-2006) (May 2006)
University of Chicago Law Review, vols. 57-73 (1990-2006) (Spring 2006)
Vanderbilt Law Review, vols. 43-59 (1990-2006) (January 2006)
Minnesota Law Review, vols. 75-90 (1990/1991-2006) (May 2006)
UCLA Law Review, vols. 37-53 (1990-2006) (April 2006)
Texas Law Review, vols. 68-84 (1990-2006) (May 2006)
Duke Law Journal, vols. 39-55 (1990-2005) (December 2005)
Northwestern University Law Review, vols. 84-100 (1990-2006) (vol. 100 #1)
Michigan Law Review, vols. 88-104 (1990-2006) (May 2006)
Southern California Law Review, vols. 63-79 (1990-2006) (March 2006)
William and Mary Law Review, vols. 31-47 (1990-2006) (April 2006)
Georgetown Law Journal, vols. 78-94 (1990-2006) (March 2006)

⁸⁴ These 20 law reviews are taken from a recent ranking by Ronen Perry, *The Relative Value of American Law Reviews: Refinement and Implementation* (working paper 2006).

Appendix II
Empirical Studies of Contracts in Top Journals: 1990-2006

- Daniel A. Akerberg & Maristella Botticini, *Endogenous Matching and the Empirical Determinants of Contract Form*, 110 J. POL. ECON. 564 (2002).
- Douglas W. Allen & Dean Lueck, *The “Back Forty” on a Handshake: Specific Assets, Reputation, and the Structure of Farmland Contracts*, 8 J. L. ECON. & ORG. 366 (1992).
- Douglas W. Allen & Dean Lueck, *The Role of Risk in Contract Choice*, 15 J. L. ECON. & ORG. 704 (1999).
- Benito Arruñada et al., *Contractual Allocation of Decision Rights and Incentives: The Case of Automobile Distribution*, 17 J. L. ECON. & ORG. 257 (2001).
- Lucian Arye Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence and Policy*, 54 STAN. L. REV. 887 (2002).
- James A. Brickley, *Incentive Conflicts and Contractual Restraints: Evidence From Franchising*, 42 J. L. ECON. 745 (1999).
- Joseph F. Brodley & Ching-to Albert Ma, *Contract Penalties, Monopolizing Strategies, And Antitrust Policy*, 45 STAN. L. REV. 1161 (1993).
- Ramon Casadesus-Masanell & Daniel F. Spulber, *The Fable of Fisher Body*, 43 J. L. ECON. 67 (2000).
- Darlene C. Chisholm, *Profit-Sharing Versus Fixed-Payment Contracts: Evidence From the Motion Pictures Industry*, 13 J. L. ECON. & ORG. 169 (1997).
- Stephen J. Choi & G. Mitu Gulati, *When Sophisticated Parties Fail To Cure Ambiguities Caused by a Litigation Shock: The Puzzle of the Pari Passu Case* (Dec. 22, 2005).
- Conrad S. Ciccotello et al., *Research and Development Alliances: Evidence From a Federal Contracts Repository*, 47 J. L. ECON. 123 (2004).
- Ronald H. Coase, *The Acquisition of Fisher Body by General Motors*, 43 J. L. ECON. 15 (2000).
- Kenneth S. Corts & Jasjit Singh, *The Effect of Repeated Interaction on Contract Choice: Evidence from Offshore Drilling*, 20 J. L. ECON. & ORG. 230 (2004).
- Keith J. Crocker & Scott E. Masten, *Mitigating Contractual Hazards: Unilateral Options and Contract Length*, 19 RAND J. ECON. 327 (1988).
- Keith J. Crocker & Thomas P. Lyon, *What Do “Facilitating Practices” Facilitate? An Empirical Investigation of Most-Favored-Nation Clauses in Natural Gas Contracts*, 37 J. L. ECON. 297 (1994).
- Robert Daines and Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs*, 17 J. L. ECON. & ORG. 83 (2001).
- Srikant Datar et al., *Earnouts: The Effects of Adverse Selection and Agency Costs on Acquisition Techniques*, 17 J. L. ECON. & ORG. 201 (2001).
- Robert F. Freeland, *Creating Holdup Through Vertical Integration: Fisher Body Revisited*, 43 J. L. ECON. 33 (2000).
- Paul Gompers & Josh Lerner, *The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements*, 39 J. L. ECON. 463 (1996).

- Gillian K. Hadfield, *Problematic Relations: Franchising And The Law Of Incomplete Contracts*, 42 STAN. L. REV. 927 (1990).
- F. Andrew Hanssen, *The Block Booking of Films Reexamined*, 43 J. L. ECON. 395 (2000).
- R. Glenn Hubbard & Robert Weiner, *Efficient Contracting and Market Power: Evidence From the U.S. Natural Gas Industry*, 34 J. L. ECON. 25 (1991).
- Paul L. Joskow, *The Performance of Long-Term Contracts: Further Evidence From Coal Contracts*, 21 RAND J. ECON. 251 (1990).
- Arturs Kalnins & Kyle J. Mayer, *Relationships and Hybrid Contracts: An Analysis of Contract Choice in Information Technology*, 20 J. L. ECON. & ORG. 207 (2004).
- Roy W. Kenney & Benjamin Klein, *How Block Booking Facilitated Self-Enforcing Film Contracts*, 43 J. L. ECON. 427 (2000).
- Benjamin Klein, *Fisher-General Motors and the Nature of the Firm*, 43 J. L. ECON. 105 (2000).
- Patricia Koss, *Self-Enforcing Transactions: Reciprocal Exposure in Fisheries*, 15 J. L. ECON. & ORG. 737 (1999).
- Francine Lafontaine, *Contractual Arrangements as Signaling Devices: Evidence from Franchising*, 9 J. L. ECON. & ORG. 256 (1993).
- Francine Lafontaine & Kathryn L. Shaw, *The Dynamics of Franchise Contracting: Evidence from Panel Data*, 107 J. POL. ECON. 1041 (1999).
- Keith B. Leffler & Randal R. Rucker, *Transaction Costs and the Efficient Organization of Production: A Study of Timber-Harvesting Contracts*, 99 J. POL. ECON. 1060 (1991).
- Kenneth Lehn & Annette Poulsen, *Contractual Resolution of Bondholder-Stockholder Conflict in Leveraged Buyouts*, 34 J. L. ECON. 645 (1991).
- Michael L. Lemmon & James S. Schallheim, *Do Incentives Matter? Managerial Contracts for Dual-Purpose Funds*, 108 J. POL. ECON. 273 (2000).
- Gary D. Libecap & James L. Smith, *The Self-Enforcing Provisions of Oil and Gas Unit Operating Agreements: Theory and Evidence*, 15 J. L. ECON. & ORG. 526 (1999).
- Thomas P. Lyon & Steven C. Hackett, *Bottlenecks and Governance Structures: Open Access and Long-Term Contracts in Natural Gas*, 9 J. L. ECON. & ORG. 380 (1993).
- J. Harold Mulherin et al., *Prices are Property: The Organization of Financial Exchanges From the Transaction Cost Perspective*, 34 J. L. ECON. 591 (1991).
- Joanne E. Oxley, *Appropriability Hazards and Governance in Strategic Alliances: A Transaction Cost Approach*, 13 J. L. ECON. & ORG. 387 (1997).
- Stephen Craig Pirrong, *Contracting Practices in Bulk Shipping Markets: A Transaction Cost Explanation*, 36 J. L. ECON. 937 (1993).
- Russell Pittman, *Specific Investments, Contracts, and Opportunism: The Evolution of Railroad Sidetrack Agreements*, 34 J. L. ECON. 565 (1991).
- Priyanka Pandey, *Effects of Technology on Incentive Design of Share Contracts*, 94 AM. ECON. REV. 1152 (2004).
- Robert Rich & Joseph Tracy, *Uncertainty and Labor Contract Durations*, 86 REV. ECON. & STAT. 270 (2004).

Rachelle C. Sampson, *The Cost of Misaligned Governance in R&D Alliances*, 20 J. L. ECON. & ORG. 484 (2004).

Howard Shelanski & Peter G. Klein, *Empirical Research in Transaction Cost Economics: A Review and Assessment*, 11 J. L. ECON. & ORG. 335 (1995).

Mary M. Shirley and Lixin Colin Xu, *Information, Incentives, and Commitment: An Empirical Analysis of Contracts Between Government and State Enterprises*, 14 J. L. ECON. & ORG. 358 (1998).

Peyton H. Young & Mary A Burke, *Competition and Custom in Economic Contracts: A Case Study of Illinois Agriculture*, 91 AM. ECON. REV. 559 (2001)