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Contract, Uncertainty and Innovation

Ronald J. Gilson

Columbia Law School, rgilson@law.columbia.edu

Charles F. Sabel

Columbia Law School, csabel@law.columbia.edu

Robert E. Scott

Columbia Law School, rscott@law.columbia.edu

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Contract, Uncertainty and Innovation

RONALD J. GILSON

Stanford Law School; Columbia Law School

CHARLES F. SABEL

Columbia University - Law School

ROBERT E. SCOTT

Columbia University - Law School

Contract, Uncertainty and Innovation

Ronald J. Gilson, Charles F. Sabel** & Robert E. Scott****

Abstract

Contract today increasingly links entrepreneurial innovations to the efforts and finance necessary to transform ideas into value. In this Chapter, we describe the match between a form of contract that “braids” formal and informal contractual elements in novel ways and the process by which innovation is pursued. It is hardly surprising that these innovative forms of contract have emerged first in markets, and that the common law, and the theory of contract, then play catch-up. Between the time contracting practice adapts to the demands of innovation and the time contract doctrine adapts to the demands of practice, law acts as a friction on the innovation process rather than a lubricant to it. Our goal here is to reduce that lag by providing a theory that can guide courts in developing case law that addresses current forms of innovation

This chapter provides an overview of our ongoing work. The starting point is the Knightian distinction between risk and uncertainty. In our view, traditional contracting techniques and traditional contract law address problems of risk. Braiding, or contracting for innovation, addresses conditions of uncertainty. We illustrate the relevance of this distinction by describing the shift in the organizational location of innovation—in particular a fundamental shift from vertical integration to contract as the organizing mechanism for cutting-edge innovation. We then describe the braiding of formal and informal contracting that has developed to organize collaboration across organizational boundaries where the desired outcome can, at best, be anticipated only very approximately. Next, we re-examine the interaction between formal and informal contracting to understand why braiding was not envisaged as a theoretical possibility before it became a salient reality, and to make theoretical sense of braiding now that it has. Finally, we look to recent case law, especially that considering preliminary agreements, to argue that the domain of braiding now includes contexts where uncertainty is not generated by technological development, and we examine the failure of courts to recognize the difference between and consequences of low-powered and high-powered enforcement in addressing braided contracts.

Contract today increasingly links entrepreneurial innovations to the efforts and finance necessary to transform ideas into value. In this Chapter, we describe the match between a form of

* Marc and Eva Stern Professor of Law and Business, Columbia University; Charles J. Meyers Professor of Law and Business, Stanford University; European Corporate Governance Institute.

** Maurice T. Moore Professor of Law, Columbia University.

*** Alfred McCormack Professor of Law and Director, Center for Contract and Economic Organization, Columbia University.

contract that “braids”¹ formal and informal contractual elements in novel ways and the process by which innovation is pursued.

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¹ 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) We draw here on this article, as well as on Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, Contracting for Innovation: Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration, 109 Colum. L.Rev. 431 (2009). We are grateful to the Kauffman Foundation for research support.

² Oliver Wendell Holmes, *The Common Law*, 3 (1881). When Holmes wrote that “The life of the law has not been logic: it has been experience,” he was not referring to passive process. Rather, the pattern was one in which experience driven litigation gave rise to logic – the predicative value of the court’s decision. This notion that law follows from, rather than developing internally independent of, experience reflected Holmes strongly held view, driven by his battlefield experience in the Civil War, that logic isolated from experience was ideology, from which came the carnage of the war. Louis Menand, *The Metaphysical Club* 3-4, 61 (2001).

³ Frank H. Knight, *Risk, Uncertainty and Profit* 197-232 (1921).

⁴ See Ronald J. Gilson, *Locating Innovation: Technology, Organizational Structure and Financial Contracting*, 109 Colum. L. Rev. 885 (2009).

We then describe the braiding of formal and informal contracting that has developed to organize collaboration across organizational boundaries where the desired outcome can, at best, be anticipated only very approximately. Next, we re-examine the interaction between formal and informal contracting to understand why braiding was not envisaged as a theoretical possibility before it became a salient reality, and to make theoretical sense of braiding now that it has. Finally, we look to recent case law, especially that considering preliminary agreements, to argue that the domain of braiding now includes contexts where uncertainty is not generated by technological development, and we examine the failure of courts to recognize the difference between and consequences of low-powered and high-powered enforcement in addressing braided contracts.

In particular, our analysis gives courts concrete guidance in the area of preliminary agreements, where courts for the first time are undertaking to enforce formal agreements—whether in the context of a preliminary agreement, letter of intent, or corporate acquisition agreement—that establish a process by which the parties will determine whether an innovation is possible, but do not obligate the parties to go forward with the substance of the innovation.⁵ In contrast to the unpredictability currently associated with judicial accounts of how these agreements will be enforced, our development of a theory of braided contracts gives the court clear guidance: enforce the process established by the formal element of the contract through low-powered reliance damages, but *never* enforce, through high-powered (expectation) damages, the informal substantive element of the braid. This rule prevents the formal element of the braided contract from “crowding out” the informal element, and thereby preventing the innovative activity from going forward at all.

⁵ For discussion, see Alan Schwartz & Robert E. Scott, Precontractual Liability and Preliminary Agreements, 120 Harv. L. Rev. 2007.

I. Innovation, Uncertainty and Industrial Organization

Knight's distinction between risk and uncertainty is central to understanding the role of contract in the innovative process. Risk exists when future states of the world can be estimated probabilistically. Given such estimates, a contract, through a series of "if X, then Y" clauses, can more or less specify what will occur in each realized state. Alternatively, markets can be used to hedge against particular realizations, such as the future prices of commodities, or interest or currency exchange rates.

Under uncertainty, in contrast, future states of the world cannot be expressed probabilistically. Ex ante, we cannot usefully specify the desired outcome(s), or assign an option providing protection to one or another party ex post. In our analysis, innovation is inherently uncertain: an innovation is defined in the same process that ultimately leads to its achievement. From this perspective, the term "linear innovation," sometimes used to describe the next step in a predictable sequence,⁶ is an oxymoron.

The increasing importance of innovation in this sense can be seen in the tendency to vertical disintegration of industry. Conventional industrial organization theory predicts that when parties in the supply chain must make transaction-specific investments, the risk of opportunism will drive them away from contracts and toward vertical integration.⁷ This pressure toward sole ownership will be especially powerful in innovative industries where rapid technological change produces high levels of uncertainty in supply relationships. Contemporary contract theory

⁶ Masahiko Aoki, *Toward an Economic Model of the Japanese Firm*, 28 *J. Econ. Lit.* 1 (1990) and Peter A. Hall & David Soskice, *An Introduction to Varieties of Capitalism*, in *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* 50--54 (Peter A. Hall & David Soskice eds., 2001), distinguish between forms of national capitalism that support linear innovation (for example, Germany and Japan) and those that support non-linear innovation (for example, the United States).

⁷ Much of this transactions cost literature is an extension of the work of Oliver Williamson. See e.g., OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985); OLIVER E. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS* (1975).

concurr. In the presence of uncertainty, it offers no general solution to the problem of assuring both efficient levels of transaction-specific investment ex ante and adjustment to an efficient outcome ex post after uncertainty is resolved. So from this perspective too, firms should dominate markets as a means to organize supply relationships.

For much of the twentieth century, the organization of large industry tracked this account. The dominant firms in industries such as steel, automobiles, electric machinery, and food processing—both in the United States and worldwide—used the technologies of the second industrial revolution⁸ to achieve dramatic economies of scale through the mass production of standard goods with single-purpose or dedicated machinery. The most conspicuous organizational feature of firms in these industries was vertical integration.

More recently, however, contemporary practice is moving away from this solution. Companies recognize that the escalating rate of change and resulting uncertainty means that they cannot themselves maintain cutting-edge technology in every field necessary for an innovative product. Accordingly, companies are increasingly electing to acquire by contract inputs that in the past they had made themselves. Instead of vertical integration, we observe vertical disintegration of firms, the expansion of collaborative research and development across firm boundaries, and at the intersection of these, the rise of platform production (where the “operating system” and the “applications” it integrates are co-developed by independent producers). In diverse industries ranging from contract manufacturing to pharmaceutical collaborations, these changes are accompanied by an increase in inter-firm relations with both parties expecting to innovate jointly.

⁸ MICHAEL J. PIORE & CHARLES F. SABEL, *THE SECOND INDUSTRIAL DIVIDE: POSSIBILITIES FOR PROSPERITY* (1984).

In previous work,⁹ we explored three exemplars of this pattern that ranged from contracts that imposed a formal governance structure but no formally enforceable substantive obligations,¹⁰ to collaborative research agreements that look to the development of a continuing stream of products,¹¹ to similar agreements limited to developing a particular product and a consequent end game.¹² None of the familiar mechanisms for coping with the problem of contractual incompleteness adequately respond to the challenge posed by structuring transactions in the face of continuous uncertainty. But these exemplars demonstrate that transactional lawyers in a number of industries apparently began responding to their clients' need to structure new relationships in light of the constraints imposed by uncertainty.

We term the novel result “contracting for innovation.” In the next section we describe the components of this form of contracting and provide a theoretical account of why the contractual innovations that work in practice also work in theory.

II. Contracting For Innovation

Taking innovation as we have defined it, the contracting problem is to craft a structure that a) induces efficient, transaction-specific investment by both parties, b) establishes a framework for iterative collaboration and adjustment of the parties' obligations under conditions of *continuing* uncertainty—circumstances when the resolution of one element of uncertainty merely gives rise to another, and c) limits the risk of opportunism that could undermine the incentive to make relation-specific investments in the first place.

The common challenges facing parties contracting for innovation across organizational boundaries give rise to solutions with common elements. In each case, a process of collaboration

⁹ Gilson, Sabel & Scott, Contracting for Innovation, supra note 1.

¹⁰ For an example, see the Deere-Standdyne agreement in *id.*,

¹¹ For an example, see the Apple-SCI agreement, *id.*

¹² For an example, see the Warner-Lambert – Ligand agreement, *id.*

substitutes functionally for ex ante specification of the desired product—the process defines the specification, not the other way around. In each case, the parties make relation-specific investments in learning about their collaborator’s capabilities that raise the costs of switching to new partners, and so restrain either party from taking advantage of their mutual dependency.

Review of actual efforts of contracting for innovation informs our understanding of how braiding is used to achieve these outcomes, by relying on formal contracting to establish processes that make behavior observable enough to support informal contracting over the substance of the (uncertain) collaboration.¹³ Braiding uses *formal* contracts to create governance processes that support iterative joint effort through low-powered enforcement techniques that specify only the commitment to collaborate, without controlling the course or the outcome of the collaboration. This formal governance arrangement has two closely-linked components.

The first is a commitment to an ongoing mutual exchange of information designed to determine if a project is feasible, and if so, how best to implement the parties’ joint objectives. The second component is a procedure for resolving disputes arising from the first. Its key feature—the “contract referee mechanism”¹⁴—is a requirement that the collaborators reach unanimous (or near unanimous) agreement on crucial decisions, with persistent disagreement resolved (or not) by unanimous agreement at higher levels of management from each firm. Together these two mechanisms render observable, and forestall misunderstandings about, the character traits and substantive capabilities that support the *informal* contracting upon which the parties rely as, working under uncertainty, they encounter unanticipated problems that can only be solved jointly. At the same time, the parties’ increasing knowledge of their counterparty’s capacities and

¹³ Gilson, Sabel & Scott, Contracting for Innovation, *supra* note 1, at 476-89.

¹⁴ *Id.* at 479-81.

problem-solving type, a direct result of the processes specified in the formal contract, creates switching costs—the costs to each party of replacing its counterparty with another—that constrain subsequent opportunistic behavior.

The formal element of a braided contract is thus sharply and distinctively limited in what it aims to accomplish. It functions to allow both parties to learn about each other's skills and capabilities for collaborative innovation and to develop jointly the routines necessary to working together. The formal contract does not, however, commit either party to develop, supply or purchase any product. That commitment emerges from the informal contract, where the barrier to ex post opportunism results not from formal enforcement of obligations created by explicit contract, but from increased switching costs generated by the collaboration process itself.¹⁵

III. Braiding and the Threat of Crowding Out

The conceptual difficulty at this point in the analysis is with our premise—that formal and informal contracting in fact can be combined. The academic literature has long recognized the two components making up a braided contract: one strand that is formal and legally enforceable and one strand that is informal and subject only to self-enforcement. However, the literature largely has either ignored the possibility of combining formal and informal contracting, or largely treated the two techniques as mutually inconsistent substitutes. Contemporary contract theory typically assumes that formal and informal methods are separate responses to the problem of motivating relation-specific investments in a collective enterprise. If the threat of opportunism can be addressed explicitly either by specifying state contingent outcomes or by assigning decision rights

¹⁵ Only where the subject of the braided contract is a discrete project, do we see formal contracting over the output of the process. In the discrete project setting, switching costs discourage opportunism during the collaborative period, but the parties have to fear opportunistic renegotiation once the cooperative stage of the project is completed and switching costs no longer provide protection. The only issue then remaining is division of the gains from prior cooperation. As a result, an explicit constraint on opportunism must be employed; but at this stage, the uncertainty having been resolved, the contract theory solution of allocating rights to decision-making is feasible.

among the parties, then we observe formal contracting; if not, we observe either self-enforcing informal contracts supported relationally or, when these cannot protect specific investment, vertical integration.¹⁶ Work in experimental economics does in contrast address the possibility of formal-informal interaction, but focuses mainly on circumstances when the introduction of formal contracting degrades the effectiveness of, or “crowds out,” informal contracting.

What is broadly lacking in both literatures is a theory of when and why the parties can make use of both techniques. In this section, we provide a first step toward developing a theory of the complementary interaction of formal and informal contracting that allows braiding.

A. The Limits of Formal and Informal Contracting

1. Formal Enforcement: The Verifiability Problem

The capacity to compel disclosure of private information is the defining feature of formal enforcement. When a formal contract breaks down due to the opacity of the interactions or the guile of one or more of the parties, courts (or arbitrators¹⁷) function by assessing responsibility. To do this, courts must have better information than was available to the parties. But a judge, unlike, say, a basketball referee, cannot directly observe complex interactions on the field of play and then declare fouls. A legal referee must obtain information indirectly, from the very parties who dispute the facts of their “play.” This requires that the court have the power to impose sanctions in order to force the disputants to provide essential information known only to them. The court can then *verify* outcomes through information each party may lack individually.

Without a judicial sanction both for non-production and for misleading production favorable to a

¹⁶ See e.g., Sanford J. Grossman & Oliver Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. Pol. Econ. 691, 697–700 (1986); Oliver Hart & John Moore, *Property Rights and the Nature of the Firm*, 98 J. Pol. Econ. 1119, 1151 (1990); Oliver Williamson, *Assessing Contract*, 1 J. L. Econ. & Org. 177 (1985); Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. Pol. Econ. 615 (1981); L.G. Telser, *A Theory of Self-Enforcing Agreements*, 53 J. Bus. 27 (1980).

¹⁷ Arbitration remains a formal enforcement strategy. While arbitration displaces some of the legal rules associated with litigation, it still requires the intervention of the state to enforce the arbitration award.

party's own position, a party would be motivated to conceal evidence known only to it: the court then would lack the ability to secure information even as good as the parties themselves possess. Breach by a party would not be verifiable.

Verification, however, is costly. As a result, formal enforcement can break down, particularly where the optimal actions for each party depend on the future state that materializes, but the future is uncertain. In that circumstance, it is prohibitively costly or impossible to specify most future states, let alone the appropriate action that is to be taken if they occur. Under these conditions, parties relying on formal enforcement are confronted with two choices: the Scylla of “hard” terms (precise rules) and the Charybdis of “soft” terms (vague standards). Rule-based contracts will require renegotiation after the uncertainty is resolved, because their ex ante allocation of rights will frequently turn out to be wrong ex post. This will allow the party favored by fate to renegotiate from strength, and thus undermine incentives to invest. Similarly, the costs of verifying standard-based contracts and the corresponding risk both of the court choosing the wrong proxy—the designation of what range of observable outcomes should dictate whether unobservable behavior would be “reasonable”—are high. **[In preceding, should “both” be deleted? It does not seem that two items are referenced. Also, should “standard” be “standards”?]To be sure, parties writing more complex contracts can ameliorate this problem by using combinations of standards and rules; but as uncertainty increases—precisely the circumstances of innovation—the performance of both standards and rules deteriorate.¹⁸**

2. Informal Enforcement: The Observability Problem

¹⁸ Robert E. Scott & George G. Triantis, *Anticipating Litigation in Contract Design*, 115 Yale l. J. 814 (2006).

Where formal enforcement depends on court verification, informal enforcement depends entirely on private behavior—one party’s ability to observe directly the other’s actions, and the capacity to sanction misbehavior when observed. For example, parties to an agreement often can observe whether one of them has exercised “best efforts” and can punish a slacker, even though it would be quite costly to convince a court to impose an equivalent punishment. The private, non-state sanctions that comprise informal enforcement are generally thought to take three forms, which are mutually supportive at low-to-intermediate levels of uncertainty, increasing the actors’ capacity to enforce contracts where behavior is directly observable to them, but outcomes are hard to verify. However, as we will see, informal enforcement also breaks down at high levels of uncertainty, making it no substitute for formal enforcement when the actors are in significant ways ignorant of the future they intend to create. Put differently, collaborative innovation confronts the barrier that both familiar contracting strategies break down in just the circumstance that defines the environment of innovation.

A first type of informal enforcement is the threat that one party to an informal contract will respond to its counterparty’s breach by reducing or terminating future dealings. This tit-for-tat strategy imposes losses on the defector that, in prospect, create disincentives to breach in the first place.¹⁹

A second type of informal enforcement is normative, supported either by the morality or tastes of the contracting parties rather than their calculations of individual gain. Much experimental evidence shows that approximately half of the test subjects do not behave opportunistically even

¹⁹ Even where the particular parties do not expect to deal with each other in the future, the tit-for-tat enforcement structure will still work if one party will trade with others in the future—that is, if trade will be multilateral rather than bilateral—so long as the repeat play party’s reputation, the collective experience of parties who have previously dealt with a person or firm, becomes known to future counterparties. The action of future counterparties then serves to discipline the misbehaving party.

when it is in their economic interest to do so and they are not under threat of punishment or retaliation.²⁰ Similarly, experimental evidence also indicates a widespread, but not universal, taste for reciprocity—an inclination to reward cooperators and punish opportunists even when the subjects derive no direct and particular benefits from doing so.²¹ Like character, a preference for reciprocity provides one explanation for how (and why) this informal sanctioning works. Absent a taste for reciprocity, it may be irrational for individuals to absorb the costs of shaming, boycotting, and ostracizing.

A third type of informal enforcement is normative or dispositional informal sanctions, which can operate at the level of social groups rather than among individuals. In compact and homogenous communities, for instance, the community as a whole can sanction the breach of one member's obligation to another by ostracizing the malefactor, cutting off not just business ties but all the benefits of belonging to the group.

The different supports for informal contracting generally complement each other, at least as the uncertainty—and with it the complexity—of transactions remains at low-to-moderate levels. But informal enforcement depends on clear observation of counterparty's actions: the simpler a party's action, the easier it is for the counterparty to observe and characterize. Thus increasing

²⁰ For a review of the literature, see Ernst Fehr & Klaus Schmidt, *Theories of Fairness and Reciprocity: Evidence and Economic Applications*, University of Zurich, Institute for Empirical Research in Economics, Working Paper No. 75, at 2-3 (2001).

²¹ The experimental evidence on individuals' propensity to reciprocate yields two key findings. First, many people respond cooperatively to generous acts and, conversely, punish non-cooperative behavior. Second, the observed preference for reciprocity is heterogeneous. Some people exhibit reciprocal behavior and others are selfish. Taking all the experiments together, the fraction of reciprocally fair subjects ranges from 40 to 60% as does the fraction of subjects who are selfish. For discussion, see e.g., Ernst Fehr et al., *Reciprocity as a Contract Enforcement Device: Experimental Evidence*, 65 *Econometrica* 833, 850 (1997) (finding roughly half of subjects punishing shirkers, and roughly half rewarding non-shirkers); Ernst Fehr & Simon Gächter, *Fairness and Retaliation: The Economics of Reciprocity*, 14 *J. Econ. Persp.* at 159, 162 (2000) ("Many studies have carried out detailed analyses of individual decisions and found that the fraction of subjects exhibiting reciprocal choices is between forty and sixty-six percent."). For applications of this experimental evidence to contract theory, see Robert E. Scott, *A Theory of Self-Enforcing Indefinite Agreements*, 103 *Colum. L. Rev.* 1641, 1661-75, (2003).

complexity interferes with all three types of informal enforcement. The probability of a mistake in playing tit-for-tat increases with the difficulty of assessing a counterparty's actions. And by the same token, the capacity to assess whether one's counterparty has a taste for reciprocity, or is of a character to forgo opportunism, or is observing community norms, also degrades in a complex environment: the match between a party's actual behavior and the character of that party becomes more difficult to assess.

In a mistake-prone, or "noisy" tit-for-tat, environment, misreading a counterparty's actions as opportunistic first leads to retaliation, which in turn leads to responsive retaliation and a cycle of opportunistic behavior that continues until another mistake resets the cooperative equilibrium. In such a setting, tit-for-tat is no longer the most effective strategy because it risks triggering a retaliatory cycle. The dominant strategy is more forgiving: it allows some percentage of the other party's defections to go unpunished.²² This is where the complementarity of the supports for informal contracting becomes relevant. A significant probability that a counterparty has a taste for reciprocity, or is of a character that dictates forgoing opportunism, makes it less threatening to be more forgiving of an apparent defection. An independent reason to trust the counterparty results in a corresponding higher probability that the apparent defection was really a misunderstanding.

Moreover, just as the normative modes of informal enforcement can support tit-for-tat calculations of the value of ongoing relations when counterparty's actual behavior becomes less observable, so too can the existence of ongoing relations increase the effectiveness of normative

²² The literature is well developed and uncontroversial: generous tit-for-tat strategies outperform simple tit-for-tat strategies in noisy environments. See e.g., M. Nowack & K. Sigmund, *Tit for Tat in Heterogeneous Populations*, 364 *Nature* 56-58 (1992); H.C.J. Godfray, *The Evolution of Forgiveness*, 255 *Nature* 206 (1992); J. Bendor, R.M. Kramer, & S. Stout, *When in Doubt ...: Cooperation in a Noisy Prisoner's Dilemma*, 35 *J. Conflict Res.* 691 (1991); Robert Axelrod & D. Dion, *The Further Evolution of Cooperation*, 242 *Science* 1385 (1988).

enforcement. The presence of an ongoing relationship that allows for retaliation in the event of counterparty opportunism makes it less risky for a party to act on the probability that the counterparty values reciprocity or forgoes opportunism. In this sense, the existence of the continuing relationship allows the parties to learn about each other's tastes and character. Thus we see a virtuous cycle, in which each of the mechanisms that support informal contracting reinforces the others by making the conduct of the counterparties more observable—less subject to mistaken assessment—to each other. Indeed, given the mutually supportive relation among the types of informal enforcement, we can think of them (at least at low-to-moderate levels of uncertainty) as aspects of a single informal enforcement mechanism, one rooted in ongoing relations among parties supported by a (normative) disposition to reciprocity.

The experimental evidence suggests, moreover, that informal enforcement, when it is effective, is both cheaper and better than formal enforcement. Informal enforcement is cheaper because a party only incurs the costs of observing the other's behavior, while formal enforcement requires the parties to expend additional resources (attorneys fees, court costs, etc.) in verifying that behavior to a court. Moreover, when informal enforcement works, it is also better. It permits parties to make credible promises regarding observable (and perhaps only observable with repetition) but non-verifiable measures of performance, thus allowing parties to avoid the risk of opportunism arising from formal enforcement of a precise rule or the moral hazard associated with the ex post application of a broad standard. These advantages explain why, in commercial contracting, parties often rely on informal enforcement even when formal sanctions are available.²³

²³ This insight was first explored in Stewart Macaulay's classic account of how commercial contractual relationships rely on informal enforcement even when the parties previously have entered into to a formal, legally enforceable contract. Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 *Am. Soc. Rev.* 55 (1963).

These mechanisms of informal enforcement, however, are subject to inherent limitations. Informal contracting, even that supported by taste and character, works best with repeat play in the narrowest sense: the same actors doing the same things with each other again and again, makes conduct more observable, an indispensable element of informal contracting. The more actors undertake novel things with strangers—precisely the conditions of collaborative innovation in the faceoff uncertainty—the greater their chances either of mischaracterizing each other’s acts and intentions, or lacking the ability to characterize what the others are doing at all. When changing sequences of novel performances among unfamiliar actors dissipate the transparency necessary for informal contracting, a switch to forgiving strategies no longer interrupts the vicious cycles of mistake, retaliation and counter-response, as can occur at lower levels of uncertainty. Instead, retaliations escalate and destroy the relation.

In sum, formal contracting has an advantage where performance is verifiable ex post but not necessarily observable ex ante. Informal contracting has an advantage where performance is observable but costly to verify. But both can break down in the highly uncertain environments that are the domain of innovation. Can contract planners address such circumstances by combining the two strategies in a fashion that is more effective than either standing alone?

B. Complements or Substitutes? Explaining the Rivalry between Formal and Informal Enforcement.

The preceding discussion suggests that contracting parties should be motivated to capture the benefits of both formal and informal enforcement, by relying on formal enforcement to solve complex problems with noisy interactions and on informal mechanisms to enforce contingencies that are difficult to verify but clear enough to be observable. A mixed strategy is feasible if formal

and informal enforcement mechanisms can be complements, but not if they are substitutes in that recourse to formal contracting “crowds out” the operation of informal contracting. Here the existing theory and evidence offer limited guidance. Predicting when the crowding out effect dominates requires an understanding of the mechanism through which formal enforcement degrades the operation of informal contracting.

Consistent with our analysis that informal contracting depends on the observability of a counterparty’s actions, we argue that crowding out occurs when the presence of a formal contract and the potential for high-powered legal sanctions *degrade* the information about the nature of the counterparties and the nature of their interactions.²⁴ In other words, we see crowding out when formal contracting makes the parties’ actions and performance less observable. This occurs because of the effects of two interrelated factors: a) formal enforcement changes the way a party *perceives* the observed behavior of the counterparty and b) formal enforcement reduces the number of observations of the very behavior that signals an intention to cooperate.

First, there is evidence that the parties’ behavior will change depending on whether they believe they are engaged in norm-based or arm’s-length arrangements.²⁵ The most familiar

²⁴ The distinction between high-powered legal sanctions that drive out informal enforcement and low-powered sanctions that, we argue below, do not result in crowding out is critical to our theory of how braiding works. High-powered enforcement consists of the imposition of standard breach of contract remedies for a failure to perform specified contractual obligations. High-powered enforcement, then, is tied to outcome variables and provides incentives that induce parties to take specified substantive actions designed to maximize expected surplus.

²⁵ We acknowledge that our argument could be cast entirely in terms of the conditions under which a more forgiving form of the self-interested strategy of tit-for-tat displaces a less forgiving one, without reference to the conditions under which intrinsic or moral motives are crowded out by extrinsic, gain-oriented ones. For two reasons, we choose instead to combine the two forms of argument, and, as in the preceding discussion, even to underscore their complementarity. First, we are convinced by the experimental evidence that intrinsic motivation—particularly a propensity to reciprocity—is a fact of (some) human behavior. To be sure, we are a long way from understanding the operation and implications of such intrinsic motivation; but it seems odd to transcribe what we do know of it into a rational-choice vocabulary that denies, or least questions its existence. Second, to acknowledge the existence of intrinsic motivation, is hardly to abandon the postulate of rational action in economic exchanges of the kind under consideration here. Rational actors are perfectly capable of making rational—calculating decisions—about when, and in relation to whom, to rely on intrinsic motivation. Indeed, a central claim in our braiding argument is that under uncertainty it is rational for actors to design institutions that allow them to develop a counterparty’s propensity to reciprocity, along with her capacities. For an earlier effort to reconcile rational-choice and intrinsic approaches to

example is the experiment of using formal sanctions to cause parents to be timely in picking up their children from nursery school. In an effort to improve punctuality, a fine was imposed to encourage compliance. But rather than increasing compliance, imposing a fine caused late pickups to increase. The formal fine “crowded out” the reputation-based norm by changing the parents’ perception of each others’ obligation from a commitment to the community to a price for additional day care.²⁶

Similar results are reported in more commercial settings.²⁷ Studies indicate that when offered a contract whose performance is based only on trust, a substantial number of individuals will both pay higher prices and extend higher levels of effort than narrow self-interest would dictate. But when offered the same choices *plus* the possibility of having a third party impose a monetary sanction if the promisor fails to perform, the average price offered and the average effort given declines significantly. The introduction of the formal enforcement option causes shirking to increase and trust vanishes almost completely.²⁸ In effect, the introduction of a formal sanction that governs all of the parties’ actions under the contract results in a “cognitive shift that crowds out norm-based social behavior and increases the likelihood of income maximizing behavior.”²⁹

trust, see See Charles Sabel, “Studied Trust: Building New Forms of Cooperation in a Volatile Economy,” in *Explorations in Economic Sociology*, ed. Richard Swedberg 104-44 (1993). For a review of the persistent tension between rational choice and intrinsic perspectives, see Christos J. Paraskevopoulos, Social Capital,” *Comparative Politics*, July 2010 at 475-494. We are grateful to Yochai Benckler for reminding us of just how far we are from a full understanding of intrinsic motivation and its relation to institutional rather than individual behavior..

²⁶ Uri Gneezy & Aldo Rustichini, *A Fine is a Price*, 29 *J. Legal Stud.* 1 (2000). An extensive literature in social psychology also considers the crowding out of intrinsic motivations. See Edward L. Deci, R. Koestner & Richard M. Ryan, *A Meta-Analytic Review of Experiments Examining the Effects of Extrinsic Rewards on Intrinsic Motivations*, 125 *Psych. Bull.* 627 (1999).

²⁷ See e.g., Iris Bohnet, Bruno S. Frey & Steffen Huck, *More Order with Less Law: On Contract Enforcement, Trust and Crowding*, 95 *Am. Pol. Sci. Rev.* 131 (2001).

²⁸ Ernst Fehr & Simon Gächter, *Do Incentive Contracts Crowd Out Voluntary Cooperation?* University of Zurich, Institute for Empirical Research in Economics, Working Paper No. 34, Apr. 2002) available at <http://ssrn.com/abstract=313028>. A similar result is reported by Daniel Houser, Erte Xiao, Kevin McCabe, & Vernon Smith, *When Punishment Fails: Research on Sanctions, Intentions and Non-Cooperation*, 62 *Games & Econ. Behav.* 509 (2008).

²⁹ Houser et al, *supra* note 28.

Moreover, when the introduction of formal penalties changes the parties' perception of their interaction, that change also may change the signal indicating the taste or character of the party who proposed the formal penalty. A party's willingness to expend resources to create a threat of significant damages for failure to perform the formal contract may indicate that the party is less likely to be a reciprocator. Once a counterparty's character becomes less observable and (correctly or not) the party is identified as potentially opportunistic, only fully formal contracts will be chosen

Second, "high-powered" formal enforcement contributes to crowding out by suppressing information that supports reciprocity. For example, one party's request for an adjustment of contractual duties subsequently may be found to justify the other party's declaring an anticipatory repudiation of the contract, thereby exposing the requesting party to substantial damages. A single misstep can transform a surplus-generating cooperative enterprise into a zero-sum game.³⁰ This threat, in turn, deters actions—such as requests for mid course adjustment of the contract—that invite a counterparty to reciprocate proportionally and informally and that can confirm a party's tastes or character. In short, high-powered penalties dramatically raise the stakes associated with observability-based informal contracting, leaving the parties to rely on verifiable formal rules.

IV. Braiding in the Courts: Preliminary Agreements

³⁰ In addition to the notion that only one party can breach and that material breach results in compensatory damages as well as loss of accrued contract rights, rules governing insecurity and anticipatory breach permit one party to threaten these consequences whenever the other discloses anticipated difficulties in performance. In addition, the mitigation doctrine only operates once a party forfeits all rights by breaching. Until there is a breach, the counterparty can ignore requests for adjustments that might reduce the consequences of non-performance. The threat of the ultimate sanction thus deters parties from voluntarily revealing the information needed for the counterparty to adjust informally. Goetz & Scott, *The Mitigation Principle: Toward a General Theory of Contractual Obligation*, 69 *Va. L.Rev.* 967, 1011 – 1018 (1983).

Ideally, courts would respond to the need for the parties to initially address a project's feasibility by enforcing the chosen methods of mutual cooperation on terms consistent with the arrangements themselves. Low-powered sanctions designed to encourage compliance with the information exchange regime (and the informal relations it supports) would be imposed while avoiding high-powered sanctions that crowd out informality, and destroy the braid, would be avoided. And indeed, this is what we are beginning to see: courts in leading cases are sanctioning overtly selfish abuse of information-exchange regimes. But because the sanction relates only to the commitment to collaborate, damages are limited in principle to the reliance costs incurred in the collaboration rather than lost profits from not going forward with the project. In this way, the collaboration commitment can achieve its intended purpose of generating information and trust precisely; low-powered formal enforcement does not drive out informal enforcement.³¹

As might be anticipated in an emergent area of law, the decisions of courts called on to enforce braided contracts are not uniformly consistent with the enforcement theory we have developed here. Some decisions invite the award of damages for parties who participate faithfully in the information exchange regime but then decide that it is not profitable for them to pursue the joint project. Other decisions contemplate (or at least invite the possibility of) the award of full expectation damages—that is, high-powered enforcement—for breach of the information-exchange obligation. In both instances, courts fail to appreciate the importance of limiting formal enforcement to low-powered sanctions focused on willful violations of the collaboration agreement itself and thereby create the kind of incentives that undo braiding by inducing strategic crowding out of informal enforcement.

³¹ See Gilson, Sabel & Scott, *Braiding*, supra note 1.

In this Part, we review judicial decisions that address the contract doctrine applicable to contracting for innovation. Although pertinent cases have arisen in the context of contractual and anti-trust disputes over joint development of technology,³² we extend the reach of our analysis by focusing on the area of preliminary agreements or letters of intent, as they are termed in the context of corporate acquisitions. In these settings as well, parties realize that the feasibility of many projects can only be established by joint investment in the production of information necessary to make that very determination, and consequently distinguish agreement on the process of disciplined co-evaluation from final agreement on the actual project.

We see cases in these domains in which courts get it right by applying low-powered enforcement to commitments to collaboratively determine the feasibility of a potential project, and declining to enforce at all claims that a party wrongfully refused to actually pursue the project. But we also see cases where the court gets it wrong by holding out the possibility either of imposing damages on parties who participate faithfully in the information exchange regime but then decide not to pursue the joint project, or the award of full expectation damages for breach of the information exchange obligation. The divergent approaches to formal enforcement reveal that the courts lack a sound theoretical construct that informs their treatment of braided contracts. We show here that a better understanding of theory can help courts to frame the proper contract doctrine, and thereby facilitate innovation.

A. Braiding in Preliminary Agreements.

Assume two commercial parties agree to collaborate in investigating the prospects for what they hope to be a profitable commercial project.³³ The parties agree on the nature of the

³² See Gilson, Sabel & Scott, *Braiding*, supra note 1.

³³ The discussion in this section draws on Alan Schwartz & Robert E. Scott, *Precontractual Liability and Preliminary Agreements*, 120 Harv. L. Rev. 661 (2007).

initial investment that each is to make to evaluate the project, but the terms of the ultimate project cannot be determined without that initial investment. Consequently, the parties agree to proceed with their initial investments and also agree to negotiate the remaining terms of the contract once they can observe the fruits of their efforts. These two parties have reached what the law now recognizes as a “preliminary agreement.” Only by each party investing and sharing the information that their investment reveals can they determine collaboratively whether their project can succeed. The increased knowledge about the project revealed by the initial investments will then permit the parties to determine whether to finalize the deal with a fully enforceable contract and on what terms.

The legal question is to what extent a preliminary agreement that looks to the future exchange of private information is formally enforceable? The question is important because the parties meet as strangers with no necessary prospect of an ongoing relationship (and so with no basis for trust). Thus the risk of opportunism is significant. This is particularly the case where the parties undertake to make preliminary investments concurrently and then to share the information that the investments yield. Suppose one party then elects instead to wait and see what comes of her counterparty’s investment—in effect reneging on the mutual commitment to collaborate. Delaying a promised investment under these conditions offers several strategic advantages. First, the passage of time and her partner’s investment is likely to reveal whether the project will be profitable. If so, the opportunistic party—having yet to make any investment in the project—can exploit the counterparty in a negotiation over the terms of the ultimate contract. Second, if the project proves unsuccessful, delay permits the opportunistic party to avoid what otherwise would have been sunk costs. Those savings will likely be larger than any offsetting losses from delay if the project instead proves profitable.

Historically, such preliminary agreements were unenforceable under the indefiniteness doctrine of the common law of contracts. Recently, however, courts have effected a major shift in doctrine by relaxing the common law rule under which parties are either fully bound or not bound at all. Instead, a new enforcement rule is emerging to govern cases where the parties contemplate further negotiations.³⁴ This new rule responds to the increasing importance to successful collaborations of the search for new partners in an uncertain environment. The new rule starts with the presumption that preliminary agreements typically do not create fully binding contracts.³⁵ This presumption rests on the traditional common law view that courts should not hold parties to contracts unless the parties intended to make them. The shift comes from courts now recognizing that welfare gains can result from attaching some level of formal enforcement to agreements to collaborate that were intended to bind despite the need for further negotiation. The new default rule thus enforces “a mutual commitment to negotiate together in good faith in an effort to reach final agreement.”³⁶ Neither party, however, has a right to demand performance of the contemplated transaction. If the parties cannot ultimately agree on a final contract, they may abandon the deal. Both parties thus enter into an option on the ultimate deal, which is exercisable

³⁴ The rule originated with the opinion of Judge Pierre Leval in *Teachers Insurance and Annuity Association of America v. Tribune Co.*, 670 F. Supp. 481, 488 (S.D.N.Y. 1987). Judge Leval identified two separate types of “preliminary agreements.” He labeled as “Type I” those cases where the parties have agreed on all material terms but have also agreed to memorialize their agreement in a more formal document. Disputes arise primarily because parties have failed to express clearly their intention as to *when* their arrangement would be legally enforceable. Here the question is solely one of timing—when have the parties manifested an intention to be legally bound? In contrast, “Type II” agreements concern binding preliminary commitments, the preliminary agreements we analyze here. In this latter case, the parties agree on certain terms but leave possibly important terms open to further negotiation. This requires courts to determine *whether* such an agreement had been made, *what* the duty to bargain in good faith entails, and *which* remedy should be awarded for breach of that duty. This framework has been followed in at least thirteen states, sixteen federal district courts and seven federal circuits. See Schwarz & Scott, *supra* note – at 76-80.

³⁵ See *R.G. Group Inc. v. Horn & Hardart Co.*, 751 F.2d 69, 74 (2d Cir. 1984).

³⁶ *TIAA v. Tribune*, 670 F. Supp. at 498.

after the parties learn the information produced through the preliminary investments and whose price is the cost of the preliminary investment.

This new rule governing preliminary agreements to collaborate—creating a legal duty to bargain in good faith but not requiring the parties to agree—is an appropriate first step in solving the parties’ contracting problem. As we argued above, it is helpful to attach some formal support to agreements that depend on initial learning to achieve innovation, particularly when the imposition of low-powered enforcement stimulates the mechanisms that build trust. The contemporary judicial approach to preliminary agreements of this sort appropriately opens the door to judicial support of mutual learning in contracts for innovation. Nevertheless, the courts’ experience so far provides little normative guidance concerning the breadth of the enforceable obligation, or the consequences of its breach. This is an important shortcoming when, as we have seen, the breadth of judicial enforcement is critical to whether crowding out is the unintended consequence of formal enforcement.

Our analysis of the function of the braiding mechanism suggests that the parties to this agreement should be legally required to comply with their initial commitments to pursue promised preliminary investments (typically investments in information) that are necessary to reveal whether or not the proposed project is feasible. But formal enforcement should play no role in determining whether or not the project should go forward and on what terms. After all, rational parties will pursue efficient projects and abandon inefficient projects. The parties already have strong incentives to negotiate faithfully over the conditions for achieving success. Rather, the challenge is to discourage parties from defecting early in the relationship before a robust pattern of cooperation has developed. The threat of a legal sanction, therefore, should only be

designed to give the parties sufficient opportunity to develop patterns of cooperation supported by switching costs.

How well then does the new legal framework governing preliminary agreements support the braiding mechanism? In our analysis, the complementary braiding of formal and informal enforcement will be successful if and only if the following condition is satisfied: The courts only deploy low-powered incentives; that is, courts only sanction cheating on the parties' mutual commitment to iterative collaboration but do not attempt to regulate the course or the outcome of the collaboration. Put differently, if the preliminary agreement is breached, the court should require a party to repay the price the counterparty paid for the option—the amount spent on the preliminary investment. It should not require even a breaching party to exercise the option, whether by completing the transaction or by imposing expectation damages. An examination of litigated preliminary agreements suggests that courts are divided in their understanding of the breadth of their role.³⁷ We illustrate the lack of clarity in two manifestations of the preliminary agreement issue. The first is its application in a general commercial setting. The second is its application in a specialized form of preliminary agreement – a letter of intent in a corporate acquisition.

1. The Commercial Setting

Consider first *In re Matterhorn Group, Inc.*³⁸ There, Swatch wanted to sell more watches in the United States by expanding its franchise operations. Matterhorn and Swatch agreed to collaborate on pursuing the possibility of a long-term relationship: the parties signed a letter of intent granting Matterhorn the exclusive franchise for thirty possible sites. Under the agreement,

³⁷ For an analysis of the litigated cases, see Schwartz & Scott, *supra* note 33, at 691-702.

³⁸ 2002 WL 31528396 (Bk. S.D.N.Y. 2002).

Matterhorn undertook to invest in finding appropriate locations for retailing Swatch watches from among the list of possible locations. Swatch undertook to process diligently the applications for franchises at potentially profitable locations as Matterhorn filed them, and then to seek financing and approval of franchises at chosen locations from its parent firm. Thus, in our framework the parties agreed to collaborate by making concurrent investments in pursuit of an entrepreneurial innovation: Swatch would incur opportunity costs (by granting exclusive rights to Matterhorn) and invest the human capital needed to evaluate Matterhorn's applications and to become familiar with the American business climate; Matterhorn would invest the search and information costs necessary to identifying profitable locations. The project contemplated an iterative exchange of information focused on finding profitable retail sites for selling Swatch watches in shopping malls, but precisely which locations, if any, would be mutually profitable could not be determined without the initial investments by both parties.

In this case, the parties had no prior history, they did not share membership in a homogeneous community, and they could not depend on the discipline of repeated exchange to constrain opportunism. As a consequence, informal sanctions were weak at the outset of the relationship and the parties were each at risk of exploitation. And, indeed, Swatch engaged in just the strategic behavior that our framework predicts: it delayed processing several applications and failed to secure the necessary approvals.³⁹ The court found Swatch to be in breach of a

³⁹ The court held:

The rejection of the Vail application violated the Letter of Intent. The Letter of Intent granted Matterhorn the exclusive right to negotiate a lease in Vail despite Vail's geographical distance from Matterhorn's base of operation in the Northeast. Furthermore, it required Swatch to review the Vail application in good faith, and in a manner consistent with the criteria discussed above.... [Swatch] unilaterally rescinded the exclusivity that the Letter of Intent had granted, and Swatch's [decision] to reject the Vail application was improper. In addition, Matterhorn sent the Vail letter of intent in late April 1996. Swatch took four months to complete its processing of the application.... Accordingly, Swatch breached the Letter of Intent by rejecting the Vail application for improper reasons.

preliminary agreement to bargain in good faith and awarded Matterhorn reliance damages based on its investment expenditures in investigating the locations in question. Importantly, however, the court denied Matterhorn's claim for expectation damages based on lost profits, holding that "there is no guarantee that it would have opened a store in [that location]."⁴⁰ Thus the court compensated Matterhorn for the price it paid for the option, but did not protect it from Swatch's decision not to exercise it.

The result in *Matterhorn* is consistent with the hypothesis that narrowly-defined duties of good faith will complement a regime that depends primarily on informal enforcement. A properly configured braiding mechanism, such as the one that appears to have been adopted by the court in *Matterhorn*, likely will not crowd out the informal mechanisms that build trust but rather will offer a low-powered complement during the early stages of collaboration, thereby giving reciprocity and trust the opportunity to evolve.

2. Preliminary Agreements in Corporate Acquisitions: Letters of Intent and the Duty to Negotiate in Good Faith

The pattern of preliminary agreements that contemplate concurrent preliminary investments can also be seen in the context of corporate acquisitions. We turn now to several cases that illustrate this pattern. They also illustrate the adverse consequences when courts fail to understand the interaction of formal and informal enforcement

a. Tan v. Allwaste, Inc.

Tan v. Allwaste, Inc., involved a claim by shareholders of Geotrack that Allwaste had breached an obligation to negotiate in good faith Geotrack's acquisition. Discussions between Allwaste and Geotrack had led to the parties executing a letter of intent that stated Allwaste's

Id. at 16-17.

⁴⁰ Id.

intention to make the acquisition subject to satisfactory due diligence. The letter of intent also stated that it “does not constitute a binding agreement among the parties” and further stated that, according to the court, “the parties do not have a deal until a formal agreement was executed.” However, the letter did contain some binding obligations. It bound the parties to pursue a deal in good faith and contained a “no shop” clause by which Geotrack promised not to shop Allwaste’s stock offer to other potential buyers. During the due diligence investigation, Allwaste discovered Geotrack had not remitted payroll and withholding taxes to the Internal Revenue Service for some time. Allwaste withdrew from further negotiations and was unwilling to buy Geotrack even after it offered to lower the price.

This preliminary acquisition agreement can be fairly characterized as an innovative effort to secure the synergies that might arise from combining the Allwaste and Geotrack businesses, whose assessment and ultimate success depends on both parties making preliminary investments in the proposed project concurrently. Here the buyer invests in information (due diligence) to determine the actual condition of Geotrack’s business and to develop the information necessary to assess the potential for synergy and the difficulty in actually achieving it. In turn, this investment is protected by a no-shop clause: the seller cannot use the fact of Allwaste’s interest to induce other buyers to enter a competing bid and thereby devalue Allwaste’s investment in information. Thus Geotrack makes an opportunity cost investment and incurs the potential costs of running the business without change and subject to its competitors’ actions while Allwaste undertakes its investigation.⁴¹ Concurrent investment and the passage of time together will show whether a profitable project exists, at which time the parties would be free to write a contract to complete the acquisition if the underlying innovation was feasible.

⁴¹ Sellers in these acquisition agreements may also invest in the synergies that result from integration. See Gilson & Schwartz, *Understanding MACs*, 33 J.L.Econ. & Org. 330 (2005).

In this case, the court correctly held that the letter agreement was a preliminary agreement obligating Allwaste to negotiate further in good faith with Geotrack: in our terms, this was a low-powered formal obligation that supported the concurrent investment that was necessary to get the parties to the point where they could assess whether synergy gains could be captured and then decide whether to complete a transaction. However, the court went a step further by also concluding that there was sufficient evidence for a reasonable jury to conclude that although the target had failed to disclose that it had not paid its payroll and withholding taxes for some time, Allwaste had declined to go forward with the deal for reasons that were unrelated to Geotrack's actions, omissions, or financial status.⁴² On this basis, the court concluded that the case would go to a jury to determine whether Allwaste had breached its obligation to negotiate in good faith because it may have declined to go forward with the transactions for reasons unrelated to the target's misbehavior.⁴³

Under these circumstances, exposing Allwaste to the threat of a jury finding a bad faith failure to negotiate transforms the preliminary agreement from a low-powered formal enforcement tool that supports the diligence process necessary to assessing the potential for innovation, to a high-powered sanction that exposes Allwaste to large damages from not making the acquisition.⁴⁴ There was no allegation that Allwaste had not made its preliminary investment in assessing the potential of the acquisition; it had paid the price for its option. Rather, Geotrack

⁴² In particular, plaintiffs noted the acquisition of Geotrack was to be debt free, so Geotrack's tax liability should not have affected Allwaste's analysis of the deal. Plaintiffs also provided evidence that Allwaste simply decided not to conduct any more acquisitions. 1997 WL 337207 at 4. However, Allwaste might well have concluded that a counterparty that lied about its liabilities may have been lying about other matters, such as the condition of its assets or the non-debt aspects of its financial condition that a debt free acquisition would not protect against.

⁴³ The court appears to have concluded that if Allwaste declined to go forward with the acquisition because it "simply decided not to conduct any more acquisitions", *id.* at 4, a jury could conclude that it breached its preliminary agreement. In other words, the court construed the obligation as prohibiting a change in one party's strategy.

⁴⁴ The court did not limit potential damages to Geotrack's reliance costs, thus leaving open the possibility that Allwaste could be held to benefit of the bargain damages.

alleged that Allwaste had merely concluded that the acquisition was no longer advantageous, which the court concluded would be a breach. So expansive an interpretation of the good faith obligation and the expansion of the role of formal enforcement goes much further than the low-powered enforcement associated with a braiding strategy, which contemplates only that each party is held to making the preliminary investments necessary to assess the acquisition, but neither is obligated to close the transaction. More concretely, a braiding strategy does not envision that a letter of intent shifts the risk of changes in general economic conditions or the potential buyer's circumstances or strategy to the buyer. Such an expansion of formal enforcement is precisely the shift in the relative importance of formal and informal enforcement that is associated with crowding out the development of informal patterns of cooperation necessary to exploit the potential for innovation in the first place. The court in *Tan v. Allwaste* unwisely departed from the kind of low-powered enforcement necessary to support effective braiding, and thereby restricted the range of contractual techniques available to parties seeking to innovate.

b. VS & A Communications and Venture Associates

The potentially-dysfunctional reasoning and result in *Tan v. Allwaste* is not simply an example of a single judge getting it wrong. The absence of a theoretically sound principle to guide judicial enforcement of a letter of intent can be seen by comparing the efforts of two distinguished jurists confronting this problem—then-Delaware Chancellor William T. Allen, and then-Chief Judge Richard Posner of the United States Court of Appeals for the Seventh Circuit. Both reach the right result in the end, but Chancellor Allen inflicted on the defendant a costly trial that he later

acknowledged was unnecessary,⁴⁵ and Judge Posner, albeit in dicta, held out the possibility that the damages for breach of an obligation to negotiate in good faith contained in a letter of intent might extend to expectation damages.⁴⁶

In *VS & A Communications*, Chancellor Allen considered the claim that an obligation to negotiate in good faith, contained in a letter of intent concerning an acquisition, in effect required the seller to close the transaction on terms that the buyer alleges the seller could not in good faith have rejected.⁴⁷ While the facts that give the buyer's position at least surface plausibility are complicated, Chancellor Allen's framing of the issue is not:

In my opinion [the letter of intent] does create an implied obligation to keep the Stations off the market and not to offer to sell or negotiate with others concerning the sale. In addition, [the buyer] was obligated to continue to assist the negotiation process in specific ways: to afford information, for example. These obligations are real and they would have value to one negotiating to buy the Stations. But the obligation ... does not go so far as to constitute a concession from the seller of its right as a property owner to change its mind ... prior to the time it agrees to bind itself legally to a sale. . . .

Markets change. Negotiating a complex transaction is always subject to the risk that a material change in a relevant market will suddenly make a proposed deal uneconomic from one side of the transaction or the other. That risk inevitably exists until a party is legally bound.⁴⁸

Thus Chancellor Allen reaches a conclusion that is consistent with low-powered formal enforcement of a braiding strategy and the avoidance of a crowding out. However, it is important to keep in mind that Chancellor Allen was writing a post-trial opinion. As he said, "It may be that, taking the view of this case that I now do, it would have been permissible to grant summary

⁴⁵ *VS & A Communications Partners, L.P. v. Palmer Broadcasting Limited Partnership*, 1992 WL 339377 (Del.Ch. 1992).

⁴⁶ *Venture Associates Corporation v. Zenith Data Systems Corporation*, 96 F. 3rd 275 (7th Cir. 1996).

⁴⁷ The case is unusual in that typically it is the buyer who elects not to go forward.

⁴⁸ 1992 W.L. 339377 at 8.

judgment of dismissal to defendants. That course would have saved the substantial effort and expense entailed in the trial that has now been completed.”⁴⁹

The risk of trial, especially trial to a jury as opposed to the bench trial found in the Delaware Chancery Court, becomes especially significant if the potential damage remedy extends not just to reliance damages (the amount of one party’s preliminary investment), but also to benefit of the bargain damages (the profits the party would have earned had the acquisition actually been completed). And here is where Judge Posner’s opinion in *Venture Associates Corporation*⁵⁰ becomes relevant.

Judge Posner correctly concludes, as did Chancellor Allen, that an obligation to negotiate in good faith contained in a letter of intent does not constrain a party from changing its view of the desirability of an acquisition in light of a change in conditions:

Since [the seller] had not agreed on the sale price, it remained free to demand a higher price in order to reflect the market value of the company at the time of the actual sale. ... [The seller] was free to demand as high a price as it thought the market would bear, provided that it was not trying to scuttle the deal... If the market value ... rose... say to \$25 million, [the seller] would not be acting in bad faith to demand that amount from [the buyer] even if it knew that [the buyer] would not go that high. [The seller] would be acting in bad faith only if its purpose in charging more than {the buyer} would pay was to induce [the buyer] to back out of the deal.⁵¹

Consistent with proper judicial enforcement of a braiding strategy, a party is not committed to exercising the option to close the transaction.

⁴⁹ Id. at 2.

⁵⁰ *Venture Associates Corporation v. Zenith Data Systems Corporation*, 96 F. 3rd 275 (7th Cir. 1996).

⁵¹ 96 F. 3rd at 279-80. Judge Posner does not address the broader point made by Chancellor Allen that the changed conditions that have affected the price would allow the seller in good faith simply to decline to complete the transaction.

However, the risk of trial becomes a serious threat to crowd out informal contracting, even if the charge to the jury is correct, if the potential damages are calculated in terms of a breach of an obligation to pursue the ultimate deal. And here Judge Posner expresses the view that the threat is real: “[d]amages for breach of an agreement to negotiate may be, although they are unlikely to be, the same as the damages for breach of the final contract that the parties would have signed had it not been for the defendant’s bad faith.”⁵² The difficulty with Judge Posner’s invitation to courts to award expectation damages is that it blurs the separation between the formal portion of the braided contract and the informal portion, thereby increasing the risk of crowding out.

The conclusion in *Tan v. Allwaste* that a party who has made the contemplated preliminary investment cannot simply decline to close the transaction, together with Chancellor Allen’s subjecting such a party to trial and Judge Posner’s holding out the possibility that the party might be subject to expectation damages premised on a breach of the final contract, illustrates the importance of a theory to explain the underlying commercial behavior and prescribe the appropriate facilitative role for courts. No matter how sharp the intuitions of experienced judges, courts unguided by a theoretical framework are prone to err. Thus in both cases, the court failed to embrace fully the notion that an enforceable preliminary agreement only requires a party to pay the option price by undertaking a promised investment in acquiring and sharing information. Framing the obligation in this way should permit a party to properly obtain a summary judgment even though it walks away from the transaction for reasons wholly unrelated to the actions of the counterparty. And even if the promised investment is not made, the defendant’s liability is

⁵² Id. at 278.

properly limited to the investment cost and not to the expectancy that might result from a concluded deal.

C. How Courts Can Know Braiding When They See It

An important theme emerges from the preceding discussion of some of the evolving case law governing braided contracts. It is clear that the duty to negotiate in good faith in preliminary agreements and letters of intent provides a useful doctrinal placeholder permitting courts to imply a governance structure to support agreements that rely principally on iterative investments in information. However, the new obligation to negotiate in good faith is unmoored because the cases do not indicate what the parties are supposed to bargain over, or when the refusal to agree constitutes bad faith, or just what should be the remedy for bad faith. Under contemporary legal doctrine, for example, the question of when preliminary agreements should be enforced requires a multi-factor analysis that invokes the language of the agreement, the existence and number of open terms, the extent of any reliance investments, and the customary practice regarding formalities. The court, in addition, is required to consider the context of the negotiations resulting in the preliminary agreement.⁵³ Such a laundry list of relevant factors leaves the decision process largely obscure. That is particularly the case when, as is typical, courts fail to attach weights to the factors or specify the relationship among them.⁵⁴ In the absence of a theory, the courts are left to interpret criteria for imposing liability that are unconnected to the operative facts that might justify formal enforcement.

Our theory of how courts can best support the braiding of formal and informal contracting provides a coherent way to think about the domain and limits of the obligation to negotiate in good faith: Courts best respond to the proliferation of preliminary agreements induced by

⁵³ See *TIAA v. Tribune*, 670 F. Supp. at 500-02.

⁵⁴ Schwartz & Scott, *supra* note 33, at 675-6.

innovation under uncertainty by imposing low-powered sanctions designed to encourage compliance with the information-exchange regime while avoiding high-powered sanctions that crowd out informal enforcement and destroys the braid. In short, the duty to negotiate in good faith means that parties should be held to their commitment to make initial investments in collaboration and nothing else.⁵⁵ Thereafter, each party faces a choice whether or not to proceed to a fully enforceable, formal obligation. The key to understanding the nature of low-powered sanctions, therefore, is to recognize that an obligation to collaborate is not an obligation to bargain. Whenever a court holds, to the contrary, that the dissenting party has an obligation to bargain in good faith, it follows that there must be a state of the world in which failing to reach agreement is a breach. It is precisely that trap that led the court in *Tan v. Allwaste* and Judge Posner in *Venture Associates* to err.

⁵⁵ Our principal concern has been the question of what it means to formally enforce these preliminary obligations. But, as noted above, the criteria for determining *when* parties have reached such an agreement are also needlessly vague. See note --supra. Since parties are always free to indicate their desire to be completely free from formal enforcement, courts should hold all commercial parties to an obligation to invest as promised whenever they agree to invest collaboratively in a letter of intent or other similar form of transaction.