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INCOMPLETE CONTRACTS IN A COMPLETE CONTRACT WORLD

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ESSAY

INCOMPLETE CONTRACTS IN A COMPLETE CONTRACT WORLD

*Scott Baker** & *Kimberly D. Krawiec***

Consider *Eastern Air lines v. Gulf Oil Corp.*¹ In that case, a supplier of air line fuel, Gulf Oil, entered into a requirements contract with Eastern Airlines. At certain airports, Gulf Oil was required to supply all of the fuel Eastern required. In turn, Eastern was obligated to buy fuel exclusively from Gulf Oil. As with all requirements contracts, the parties did not specify a fixed contractual quantity. After the government instituted price controls, Eastern began “fuel freighting.” Under this practice, Eastern jets would carry excess fuel if the price at the Gulf station was higher than the price at the plane’s prior location. In essence, Eastern manipulated its requirements for Gulf Oil. One issue before the court was whether fuel freighting violated the “good faith” standard implicit in requirements contracts.

The *Eastern* court had no good way to determine “good faith.” And, in fact, in most cases, the articulation of the good faith standard turns on opportunism – a concept courts rarely define.² Legal commentators have spilled a lot of ink debating good faith.³ They offer a host of

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¹ 415 F. Supp. 429 (1975).

² See, for example, *Kham & Nate's Shoes No. 2, Inc. v. First Bank of Whiting*, 908 F.2d 1351 (7th Cir.1990) (“‘Good faith’ is a compact reference to an implied undertaking not to take opportunistic advantage in a way that could not have been contemplated at the time of drafting, and which therefore was not resolved explicitly by the parties.”);

interesting and conflicting insights; some suggest there is no need for a good faith doctrine; others take the opposing view that good faith can and should be used to promote other important societal goals.⁴

Economists, on the other hand, have focused on the investment problems created by contracts of the sort in *Eastern*, what they call “incomplete” contracts. Economists worry that incomplete contracts lead to renegotiation; that renegotiation creates an opportunity for holdup; and that the fear of the holdup makes contracting parties reluctant to invest in the relationship. To combat this problem, economists suggest complex contractual arrangements, rarely observed in practice.⁵ Other times, they argue that asset ownership – the firm, so to speak-- is the natural and inevitable response to the problems of incompleteness.⁶

Jordan v. Duff and Phelps, Inc., 815 F.2d 429, 438 (7th Cir. 1987) (“The element of good faith dealing implied in a contract is . . . not a version of the Golden Rule, to regard the interests of one’s contracting partner the same way you regard your own. An employer may be thoughtless, nasty, and mistaken. Avowedly opportunistic conduct has been treated differently, however.”); *Lo Bosco v. Kure Engineering Ltd.*, 891 F.Supp. 1020, 1028 (D.N.J. 1995) (“[the good faith] cases are based on the policy of giving a contract legal effect where the parties have evidenced an intent to be bound or protecting a reliance interest against a promisor’s opportunism.”). The same difficulties arise in the corporate context. See Deborah A. DeMott, *Puzzles and Parables: Defining Good Faith in the MBO Context*, 25 WAKE FOREST L. REV. 15 (1990) (“A key component of business judgment analysis – good faith – has always been a concept arguably unequalled for its malleability and formlessness.”).

³ See, for example, Steven J. Burton, *Breach of Contract and Common Law Duty to Perform in Good Faith*, 94 HARV. L. REV. 369 (1980); Robert S. Summers, *The General Duty of Good Faith – Its Recognition and Conceptualization*, 67 CORNELL L. REV. 810 (1981); Robert S. Summers, “Good Faith” in *General Contract Law and the Sales Provisions of the Uniform Commercial Code*, 54 VA. L. REV. 195 (1968)

⁴ Compare Victor P. Goldberg, *Discretion in Long-Term Open Quantity Contracts: Reining in Good Faith*, 35 U.C. DAVIS L. REV. 319 (2002) (suggesting that courts do more harm than good when applying good faith to requirement and output contracts) with Emily M.S. Houh, *Critical Interventions: Toward an Expansive Equality Approach to the Doctrine of Good Faith in Contract Law*, 88 CORNELL L.REV. 1025 (2003) (arguing that courts should use good faith to rectify discrimination in contracting).

⁵ Phillip Aghion et al., *Renegotiation Design with Unverifiable Information*, 62 ECONOMETRICA 257 (1994) [hereinafter, Aghion et al., *Renegotiation*]; Edlin & Reichelstein, *supra* note __; Aaron S. Edlin, *Cadillac Contracts and Up-Front Payments: Efficient Investment Under Expectation Damages*, 12 J. L. ECON & ORG. 98 (1996) [hereinafter *Cadillac Contracts*]; Tai-Yeong Chung, *Incomplete Contracts, Specific Investments, and Risk Sharing*, 58 REV. ECON. STUD. 1031 (1991) [hereinafter, Chung, *Incomplete Contracts*]. But see Eric Posner, *Economic Analysis of Contract Law After Three Decades: Success or Failure?*, 112 YALE L.J. 829, 859 (2003) (“The contracts that the models predict do not exist in the world.”).

⁶ OLIVER HART, FIRMS, CONTRACTS AND FINANCIAL STRUCTURE 29-33 (1995)[hereinafter HART, CONTRACTS]; Benjamin Klein, Robert G. Crawford, & Armen Alchian, *Vertical Integration, Appropriable Rents and the Competitive Contracting Process*, 21 J. L. & ECON. 297 (1978) [hereinafter Klein et al., *Vertical Integration*]; 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); But see R.H. Coase, *The Nature of the Firm: Origin, Meaning, Influence*, 4 J.L. ECON. & ORG. 3 (1988) (expressing skepticism regarding the importance of vertical integration in addressing

This paper calls for a return to contract doctrine as a solution to the investment problems created by incomplete contracts.⁷ Contract law provides the backdrop for any renegotiation of a contract because it specifies the parties' rights and obligations if they fail to do so. In this sense, contracts are never truly "incomplete." Put another way, contract default rules set the stage against which the parties reorder their contractual obligations when faced with circumstances not anticipated by the original agreement. Our argument is that in filling gaps, interpreting terms, and making the good faith inquiry, the court must be keenly aware of the underlying, ex post, renegotiation bargaining positions of the parties and the impact of these bargaining positions on investments.

To make this happen, we propose that courts adopt a default rule of contractual gap filling and interpretation (a "RSI Default") that relates to a relationship specific investment, or "RSI". Subject to important qualifications, the RSI default fills gaps and resolves ambiguities in the contract in favor of the party making the relationship specific investment.⁸ As a result, the RSI changes the relative positions of the parties during renegotiation of the contract to favor the investing party. By allocating renegotiation power to the contracting party most likely to fall victim to holdup (that is, the relationship specific investor), the RSI default encourages contracting parties to make such investments.

problems of asset specificity and arguing that satisfactory contractual solutions exist to the holdup problem) [hereinafter Coase, *Nature of the Firm*]; R.H. Coase, *The Acquisition of Fisher Body by General Motors*, 43 J. L. & ECON. 15 (2000) (same).

⁷ In this way, the paper extends recent work by Alan Schwartz and Joel Watson, who also consider the relationship between contract doctrine and the problems of incomplete contracts. Alan Schwartz & Joel Watson, *The Law and Economics of Costly Contracting*, 20 J. L. ECON. & ORG. 2 (2004). Their paper focuses on how the parties' contracting behavior will respond to the court's interpretative practices. The focus here, in contrast, is on how courts can use default rules to mitigate investment problems.

⁸ We deal with the informational burden on courts of this inquiry *infra* section III. As shown in the model in the appendix, the court doesn't have to perfectly observe or verify investment levels for the RSI default to increase contractual surplus.

To see how the RSI default works, consider the *Eastern* case again. According to the court, Gulf found the requirement contract initially advantageous because it provided “a long term outlet for a capacity of jet fuel coming on stream from a newly completed refinery.”⁹ After the price of fuel skyrocketed, Gulf sought to renegotiate the price of fuel in the contract. The parties disputed the exact contours of the pricing arrangement.¹⁰ Eastern refused to renegotiate and continued to freight fuel. Eastern balked because it knew that Gulf would have a tough time finding an alternative long-term source for fuel produced by its refinery. The refinery investment locked Gulf into the relationship.

Rather than allowing Eastern to exercise this holdup power, the court, using a RSI default, would construe the contract in favor of Gulf Oil, finding that Eastern acted in bad faith by fuel freighting. Knowing that the court would apply the RSI default, Eastern would be less likely to balk at Gulf’s attempts to renegotiate the contract. The default would thus alter the terms of the negotiation. In other words, the anticipated interpretation of “good faith” reallocates some of the bargaining power in the renegotiation of the contract to Gulf Oil. This reallocation, then, encourages Gulf Oil to invest in the relationship *ex ante*.¹¹ In essence, the RSI default forces the court to consider – directly -- whether Eastern had the power to act opportunistically; a power created by Gulf’s refinery investment. By ignoring the *ex post* bargaining positions of the two parties and focusing instead on Gulf’s implied consent to fuel freighting, the court missed an

⁹ *Eastern*, 415 F.Supp at 432.

¹⁰ Gulf claimed that the assumptions underlying the price mechanisms no longer held true. *Id.* at 437-38.

¹¹ The *Eastern* court did not consider Gulf’s investments in making its good faith determination. Instead, the court reasoned that fuel freighting was an established industry practice, as well as part of the Eastern/Gulf course of dealing and course of performance. Essentially, the court found that Gulf Oil knew about the practice and didn’t protest. The court’s view penalized Gulf for not placing limitation on fuel freighting at the time of the contract. The reasoning is based on Gulf’s implied consent. Gulf could have contracted to limit fuel freighting by Eastern and didn’t. The court effectively placed the burden on Gulf to clarify terms upfront. But such a burden can be costly because some conditions are hard to foresee and/or unlikely to occur. The RSI default provides a way for parties to commit to not act opportunistically. Such an abstract and broad commitment has value. This is especially true because opportunism can take on many forms, any one of which is hard to predict and draft around during contract formation.

under-appreciated use of the good faith standard and contract interpretation more generally: the ability to induce relationship-specific investment.¹²

The RSI default advances both the economic and legal literatures by melding the two approaches to the same problem. First, for the economists, the insight shows that contract law itself, through a careful application of good faith and interpretation, can mitigate the investment obstacles inherent in incomplete contracts. And, in many cases, this might be a cheaper mechanism than either asset ownership or complicated contractual arrangements. Second, as noted in the *Eastern* case, courts struggle with opportunism. What is it? How is it defined? Fortunately, economists have studied the conditions under which threats are credible and opportunistic behavior likely to occur. The dominant solution proposed to control such behavior is asset ownership, the firm. Our approach uses the insights from this “theory of the firm” literature to inform the legal doctrine.¹³

To understand the economists’ concept of an “incomplete” contract, one has to first understand its inverse, the “complete” contract. In a complete contract, the parties would specify – optimally -- their rights and obligations in every future state of the world. The cost of drafting,

¹² Note the analog between the change in bargaining power by contractual interpretation and the allocation of bargaining position by ownership. To ensure that Eastern did not holdup Gulf Oil, Gulf Oil could have purchased the assets of Eastern – integrating the two firms. Then, when the practice of fuel freighting came up, Gulf would be in a different bargaining posture. It could threaten to fire and replace the management of its now-subsiidiary, Eastern, if it manipulated fuel requirements. In terms of bargaining power, the RSI default does the same thing; hence, it reduces the need for integration.

¹³ The “theory of the firm” has been a focal point of the corporate law scholarly community. See, for example, FRANK H. EASTERBROOK & DANIEL R. FISCHER, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991); William W. Bratton, Jr., *The New Economic Theory of the Firm: Critical Perspectives from History*, 41 STAN. L. REV. 1471 (1989). In helping courts police and uncover contractual opportunism, we show how the theory of the firm informs more than just corporate law. Another contract scholar, Gillian Hadfield, has noted the role that good faith can and should play in maintaining investments in one specific contractual context: franchisor/franchisee contracts. See Gillian Hadfield, *Problematic Relations: Franchising and the Law of Incomplete Contracts*, 42 STAN. L. REV. 927 (1990). She finds that that the implied good faith standard encourages relationship specific investment by the franchisee. Our argument is broader. We show that, under certain condition, investments and resulting renegotiation bargaining power are critical to *all* interpretation, gap-filling, and good faith, no matter the long-term contractual context. We urge courts to focus, explicitly, on the renegotiation positions of the parties. In addition, we provide a mechanism to control over-investment and strategic gaming of the default rule.

bargaining over, and thinking about future contingencies prevent the parties from writing such a contract. Indeed, sometimes, parties explicitly “agree to agree” later – leaving wholly undefined many of the obligations and contractual duties.

With a complete contract, parties never renegotiate. The original contract lays out the optimal set of obligations and rights in every future contingency. As such, the parties never need to alter obligations in light of new information or the resolution of uncertainty. Nonetheless, since transaction costs makes completeness unobtainable, renegotiation remains the norm, both in theory and in practice. The anticipation of renegotiation, then, creates two types of investment problems: under-investment and over-investment. Both these investment problems are measured against the efficient investment level -- that is, the investment level that maximizes the gains from the contractual arrangement.

Incompleteness leads to underinvestment when, in some future contingency, it is in the parties’ interest to continue to trade, but the contract does not specify that they do so. During renegotiation, any specific investment creates a bargaining disadvantage. The investment does not have value elsewhere since it is “relationship-specific.” Rather than lose the investment, the party has an incentive to cave during the renegotiation, accepting a smaller share of the surplus from continuing to trade. Not wanting to put themselves in this precarious holdup situation, parties may resist investing in the relationship.

On the other hand, coupled with a damage remedy, incompleteness also can create overinvestment. In some future contingencies, the parties are better off not trading, even though the contract requires them to do so. In this state, the damage remedy guarantees the investing, non-breaching party a certain return, even though the investment has no social value (the parties

will not be trading and the investment only has value if the relationship continues). Anticipated this guaranteed return, the contracting party may invest too heavily in the relationship.

As noted, the RSI default favors the investing party, countering the holdup problem and underinvestment. A limitation on the rule, however, cabins overinvestment. We propose that, in order to gain the benefit of the RSI default, the relationship specific investor must provide notice of such investment to the non-investing party. The notice requirement reduces the incentive to over-invest or behave strategically. If the investment is inefficient – i.e., the investment is unlikely to create a surplus that the parties can divide up through side payments -- the non-investing party can object.¹⁴ The notice requirement also encourages contracting parties on notice of a contractual gap or ambiguity to share that information with their contracting partners. As such, the rule encourages contracting parties to address significant contractual incompleteness at an early stage and to address the incompleteness on their own through renegotiation. Even in cases where this renegotiation fails, the RSI default and notice requirement serve to reduce the level of wasted relationship specific investment, by forcing renegotiation, contract language clarification, and/or litigation at an earlier stage than might otherwise occur. The notice requirement also controls strategic behavior, where a party invests in the relationship simply to trigger the RSI default. As noted, if the investment does not create a surplus, the non-investing party has an incentive to object to the investment. Once there is objection, the investing party loses the benefit of the default rule.

¹⁴ Note that, with the notice requirement, the parties do not contract directly on investments (which, if they could would render the whole investment problem moot). Instead, one party proposes a broad (and perhaps non-quantifiable) investment plan. The other party wants to induce the investment but can't make a contractual commitment directly on that investment. So, instead, by not objecting to the plan, the non-investing invokes the RSI default. This is a credible commitment to refrain from the holdup. The commitment arises because, under the default, all interpretation disputes go in favor of the investing party. With this commitment in hand, the investing party proceeds with the investment plan and splits the gains from trade with the non-investing party. Notice can occur any time during the performance of the contract, or even at contract formation.

The RSI default with a notice requirement is good, but not perfect. The claim is not that this rule exactly balances the incentives to over and under-invest. For most long-term contracts, however, we assume that the holdup effect outweighs the overinvestment effect. That is to say, we assume that, in most future contingencies for most long-term arrangements, the parties prefer continuing to trade. Given this assumption, the RSI default places a thumb on the side of the investing party. But this is just a default. If the parties anticipate that overinvestment is likely to be a bigger problem, they can (1) clarify their obligations at the notice stage or (2) write a contract with a large upfront deposit.¹⁵ The point is that contract doctrine can alter the parties' renegotiation bargaining positions. They need not alter investment incentives by complicated contractual arrangements or through ownership of assets.

The economic justifications of the RSI default are the same as for any contract default rules: saving transaction costs and forcing information. For parties who don't anticipate that under-investment will be an issue, they can opt out and, in fact, the notice requirement encourages them to do so.

After discussing the reasons for contractual incompleteness, Part I of this Article places the RSI default in the context of the broader economic and legal literatures. Part IA briefly reviews the holdup problem. Part IB describes the dominant solution to holdups – ownership -- and demonstrates that contractual default rules play a similar role in allocating *ex post* bargaining power. Part IC considers the overinvestment associated with standard damage remedies, and illustrates how the RSI default guards against this problem. Part II illustrates the application of the RSI default as compared to alternative defaults through a discussion of cases and doctrines. Part II starts with the “agreement to agree” – a classic case of contractual incompleteness. We

¹⁵ See Edlin, *Cadillac Contracts*, *supra* note __ (discussing how parties can use up-front deposits to counter over-investment).

demonstrate the superiority of the RSI default as compared to alternative defaults in addressing the issues posed by the much talked about case of *Krantz v. BT Visual Images*.¹⁶ Part II goes on to apply the RSI default to (1) the meaning of “good faith”; (2) the interpretation of requirement and output contracts; and (3) general contract interpretation. Part III explores the informational burdens placed on the courts by the RSI default, arguing that the informational requirements are manageable. Part IV concludes. The appendix provides a formal model of the results.

I. OPTIMAL RELATIONSHIP SPECIFIC INVESTMENT AND THE HOLDUP PROBLEM

A. *The Inevitability of Incomplete Contracts*

In the economic model, contracts are “contingently incomplete” because, under the contractual language, the parties do not maximize the gains from trade in every future contingency.¹⁷ In the legal model, contracts are “obligationally incomplete” because, whether deliberately or by accident, contracting parties fail to fully specify at the outset of their relationship all of their rights and obligations under the contract.¹⁸ Because obligationally incomplete contracts are also contingently incomplete, the result of an obligationally incomplete contract is that, in some contingencies, the parties will want to reallocate their contractual commitments in light of new situations or circumstances not considered in the initial contract.¹⁹

¹⁶ *Krantz v. BT Visual Images, L.L.C.*, 107 Cal.Rptr.2d 209 (Cal.App. 1 Dist., 2001). A Westlaw search on March 4, 2005, revealed over 200 citations to *Krantz*. See also Robert E. Scott, *A Theory of Self-Enforcing Indefinite Agreements*, 103 COLUM. L. REV. 1641, 1655-56 (2003) (discussing *Krantz*) [hereinafter Scott, *Self-Enforcing*].

¹⁷ Ian Ayres & Robert Gertner, *Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules*, 101 YALE L.J. 729, 730 (1992) [hereinafter Ayres & Gertner, *Strategic Contractual Inefficiency*].

¹⁸ *Id.* at 730.

¹⁹ In theory at least, contingently incomplete contracts need not be obligationally incomplete. However, because most contracts do not have liquidated damages clauses, most contracts – including contingently incomplete contracts – are obligationally incomplete. As demonstrated by Ian Ayres and Robert Gertner, courts can use damages for breach of contract to address both types of contractual incompleteness, and excuse doctrines such as impossibility and impracticability perform precisely this function. *Id.* at 730-31. Because our focus in this Article is on gap-filling default rules, we address mechanisms for addressing contingently incomplete contracts only when such contracts are also obligationally incomplete. As noted, however, this will be the case in most instances.

When neither party has made investments that are specific to the relationship, they will either renegotiate to reach a mutually beneficial outcome or will walk away from the relationship. However, when one or both parties have invested in assets that are relationship specific and it is in both parties interest to continue to trade, the potential for holdup arises.

By definition, relationship specific investments lose significant value if the relationship between the parties does not continue and, as a result, create an opportunity for exploitation. At the time of renegotiation, a contracting party may attempt to holdup her partner who has made a relationship specific investment, trying to garner a higher fraction of the gains from future trade. Knowing this, contracting parties will be reluctant to make relationship specific investments, even if those investments would increase the surplus generated by the contractual relationship. As a result, inefficient investment may result.

B. The Ownership Solution

Before turning to main point of the paper -- how the RSI default informs the cases and doctrine -- we start here with a brief discussion of the dominant solution offered to the hold-up problem: ownership. The reason to briefly review this mechanism here is to show how leverage in contract renegotiation reduces the investment problems. Then, section IC shows how contractual default rules play the same exact role as ownership does in creating renegotiation leverage.

Economists have analyzed at length the holdup problem caused by contingently incomplete contracts and the ownership solution.²⁰ For example, Oliver Hart approaches the problem by noting that, because contracts are incomplete, the *ex post* allocation of power – that

²⁰ See generally Klein et al., *Vertical Integration*, *supra* note __; HART, *CONTRACTS*, *supra* note __, at ____. See also Coase, *Nature of the Firm*, *supra* note __ (disputing this view).

is, the outside options available to a party if the other party does not perform— affects the outcome of any renegotiation.²¹ He notes that, although a complete contract would perfectly eliminate the holdup problem, because complete contracts do not exist, ownership of assets is an important source of power that enhances one’s relative position during renegotiation.

To see how the power of residual control rights can mitigate the holdup problem, consider the example of GM and Fisher Body.²² In 1919, Fisher Body signed a ten-year contract under which it agreed to supply car bodies to GM, which GM then turned into final automobiles.²³

According to the traditional account, unexpected increases in the demand for GM cars during 1925-1926 provided an opportunity for Fisher Body to hold up GM over the price that Fisher could charge GM on sales exceeding the number covered in the original contract and by a refusal of Fisher Body to locate its production facilities closer to GM in order to keep costs down.²⁴ As a result, the GM-Fisher Body contractual relationship broke down during 1925-26, culminating with GM’s acquisition of Fisher Body in 1926.

Hart demonstrates that various potential ownership structures present different *ex post* allocations of power. When GM owns Fisher, GM is the party with power during

²¹ HART, CONTRACTS, *supra* note __, at 3-4.

²² There is a great deal of debate over whether the Fisher Body-GM incomplete contract is really an example of attempted holdup. Compare Klein et al., *Vertical Integration*, *supra* note __, at __ (using GM-Fisher Body to illustrate the vertical integration solution to the holdup problem), and Benjamin Klein, *Fisher-General Motors and the Nature of the Firm*, 43 J. L. & ECON. 105 (2000) (defending the GM-Fisher Body example against critics), with R.H. Coase, *The Acquisition of Fisher Body by General Motors*, 43 J. L. & ECON. 15 (2000) (contending that holdup problems associated with relationship-specific investment can be addressed through long-term contracts without the necessity of vertical integration and contending that Klein errs in his description of the facts of the GM-Fisher Body case), and Robert F. Freeland, *Creating Holdup Through Vertical Integration: Fisher Body Revisited*, 43 J.L. & ECON. 33 (2000) (arguing that Fisher Body-GM is not an example of the holdup problem), and Ramon Casadesus-Masanell & Daniel F. Spulber, *The Fable of Fisher Body*, 43 J.L. & ECON. 67 (2000) (same).

²³ Klein et al., *Vertical Integration*, *supra* note __, at 107.

²⁴ Klein et al., *Vertical Integration*, *supra* note __, at 115-118. As noted *supra* note __, the traditional account is disputed.

renegotiation.²⁵ As a result, Fisher's threat of holdup is substantially reduced and GM will be more inclined to invest in the relationship. In contrast, Fisher's renegotiation power is substantially reduced. As a result, Fisher may be reluctant to make investments that pay off only if its relationship with GM continues.²⁶

To sum up, although the holdup problem may lead to under-investment, holdup problems can be mitigated if the party subject to the holdup has sufficient bargaining power during the renegotiation stage. Although ownership is one mechanism for allocating this power it is not the only mechanism. As will be shown, contractual default rules may also play this role.²⁷

C. The Impossibility of Incomplete Contracts – A Theory of Default Rules

Although contracting parties inevitably leave gaps and ambiguities in contractual language, contracts are never really incomplete. As discussed in this section, whenever contracting parties fail to sufficiently specify their rights and obligations under the contract, contract law does it for them -- either affirmatively by imposing obligations and filling gaps, or, negatively, by refusing to impose affirmative obligations and fill contractual gaps. As a

²⁵ To be precise, Hart's model focuses on relationship-specific investments in human capital. These investments are made by the management of Fisher or GM. If GM owns Fisher, it can replace the management and run the car-body factory itself. If GM and Fisher are independent, GM does not have this option because it lacks access to the physical capital of Fisher. Ownership increases GM's outside options because it can continue to produce car bodies (with a new management team at Fisher), even if the contract with Fisher fails. Without ownership, in the event the contract between GM and Fisher fails, GM has to build a new car body factory to fulfill its needs.

²⁶ Since ownership by one party precludes ownership by the other party, Hart demonstrates that only the second best amount of relationship-specific investment is possible. Further, Hart shows that integration is optimal when the physical assets are complementary, and non-integration is optimal when the physical assets are independent.

²⁷ We do not imply that ownership and court enforcement are the only mechanisms for dealing with holdup problems. The role of extra-legal enforcement mechanisms, such as reputational constraints, reciprocity concerns, and repeated interactions, in reducing holdup are well noted in the literature. See, e.g. Scott, *Self-Enforcing*, *supra* note __, at __ (discussing self-enforcing contracts), HART, CONTRACTS, *supra* note __, at __ (noting that long-term contracts are self-enforcing until unexpected changes in market conditions cause one party to turn to the courts). Indeed, scholars have shown that extra-legal sanctions can sometimes allow parties to completely opt out of the legal enforcement of contracts. Lisa Bernstein, *Opting out of the Legal System: Extra-Legal Contractual Relations in the Diamond Industry*, 21 J. LEG. STUD. 115 (1992).

consequence, contract law default rules allocate bargaining power during renegotiation in much the same way that ownership does.

To illustrate, consider the example of a contract for the sale of goods in which the parties specify the quantity of goods to be delivered, the date of delivery, and all other terms other than the price. If the seller's cost of performing under the contract increases, she may seek to avoid delivering under the contract. By charging the court to fill in a "reasonable price," U.C.C. § 2-305 completes the contract for the parties. Because of the gap-filler, the buyer can demand delivery at a reasonable price and sue the seller for breach of contract if she fails to deliver.

The default rule in this case allocates some power to the buyer during the renegotiation of the price term and, in so doing, sets the starting point for new talks and discussions. Although the parties may end up agreeing to a higher price than the default price, especially if the buyer has made relationship specific investments or the damage remedy for breach by the seller fails to make the buyer whole, the "reasonable price" default rule sets the parameters of the renegotiation, providing the buyer with some leverage.

The extent of that leverage will depend on a variety of factors, including the parties' expectation about how the court will define the term "reasonable price." In this manner, the set of default rules allocate bargaining power among the parties, dictating how much power each has during renegotiation. For example, a definition of "reasonable price" that accounts for the seller's increased costs provides the buyer with less leverage than a rule that defines "reasonable price" in a manner that fails to account for the seller's altered cost of performance.

Alternatively, assume that the same buyer and seller fail to specify the quantity of the good to be delivered but do specify a sale price. Again, if the seller's cost of performing under the contract increases, she may seek to avoid delivering under the contract. By setting the default for

unspecified quantity terms at zero, the UCC essentially directs courts to find that there is no contract. Yet, this holding also completes the contract by allocating bargaining power during renegotiation to the seller. If the buyer still wants the seller to deliver the goods, she will have to pay the seller enough to compensate her for the increased cost of delivery. If suitable substitutes are available, the buyer may choose to purchase the goods from another seller instead, but if the buyer has made relationship specific investments, this option too may be unattractive. In short, the bargaining power of the parties will depend on: (1) the contractual default rule; (2) the parties' relative relationship specific investments, and (3) the ease of finding alternative contracting parties during the renegotiation stage.²⁸

²⁸ Although we believe that, as a general rule, courts and commentators have insufficiently explored the role of relationship specific investment and holdup problems when struggling with theories of contractual default rules, we do not write on an entirely clean slate. For example, writing in 1992, Ian Ayres and Robert Gertner lamented the lack of connection between the legal approach to contractual incompleteness and the economic approach. Ayres & Gertner, *Strategic Contractual Inefficiency*, *supra* note __, at 729-30. They attributed the independence of the two strands of research, at least in part, to the differing definitions of contractual incompleteness adopted by economists and legal scholars. They explained that legal scholars use the term “‘incomplete contracting’ to refer to contracts in which the obligations are not fully specified,” (i.e., “obligationally incomplete” contracts) and that economists use the term to denote a contract that fails “to fully realize the potential gains from trade in all states of the world,” (i.e., “contingently incomplete” contracts). *Id.* at 730. Arguing that courts could use gap-filling default rules to address economists' concerns over contractual incompleteness, they demonstrated how the choice of default rule could impact contracting parties' strategic reluctance to enter into contingently complete contracts. Ayres and Gertner did not, however, analyze the broader implications of melding the economic and legal approaches to contractual incompleteness.

One exception to the Ayres and Gertner critique is the 1981 proposal by Scott and Goetz that courts should interpret best efforts clauses as an obligation to invest at the joint maximization volume – that is, at the level that would be attained in the integrated firm. Goetz & Scott, *Relational Contracts*, *supra* note __ at 1114. Such an interpretation, they argue, not only maximizes the net gains from the contractual relationship, but also closely approximates the gap-filling contractual terms that the parties would have chosen themselves if they had been able to cost-effectively do so.

Scott and Goetz specifically analogize the role of gap-filling default rules to the role of vertical integration and argue that, through appropriate default rules, courts can approximate or improve on the incentives, investments and output that would be achieved in the integrated firm. We build on that intuition in this Essay to suggest that courts should adopt gap-filling default rules with a view toward promoting efficient investment levels and reducing holdup problems. At the same time, however, we believe that this theory can be applied more broadly than was done by Scott and Goetz, who analyzed only three such terms – best efforts clauses, fiduciary duties, and termination clauses. In contrast, we urge courts, when applicable, to construe all incomplete contracts – not just those with best efforts or termination clauses, or those arising between parties who might be considered fiduciaries – in a manner that accounts for relationship specific investment and holdup problems.

Another exception to this critique is work by Aaron Edlin and Stefan Reichelstein. Edlin and Reichelstein bridge the gap between the economists and lawyers by showing how legal remedies and the holdup problem interact. Aaron Edlin & Stefan Reichelstein, *Holdups, Standard Breach Remedies, and Optimal Investment*, 86 AM. ECON.

D. The Over-Investment Problem

As discussed in Part I.B. of this Article, economists have long been concerned with problems of underinvestment and hold up. However, the economic and legal literature reveals a competing concern for overinvestment -- the idea that the damage remedy might encourage parties to invest too much in a contractual relationship.²⁹ As is the case with underinvestment, the overinvestment problem stems from the inability of parties to make complete contracts.

As noted in the introduction, the intuition behind the overinvestment problem is that, under some circumstances, it will be efficient for one party to the contract to breach, or, alternatively, renegotiate and buy her way out of the contract. This will be true for a seller, for example, if another buyer offers substantially more for a good than the good is worth to the original buyer. If the parties can renegotiate without cost, they will make the efficient breach decision no matter the legal remedy. However, the contractual remedy may distort the parties' investment decisions and lead to too much investment.

REV. 478 (1996) [hereinafter, Edlin & Reichelstein, *Holdups*]. For a full discussion of this paper, see notes ___ and accompanying text.

Most recently, Omri Ben-Shahar criticizes the traditional common law rule that agreements to agree are unenforceable by demonstrating that such partial agreements may induce parties to ultimately reach a better, more complete contract. Omri Ben-Shahar, "Agreeing to Disagree": *Filling Gaps in Deliberately Incomplete Contracts*, 2004 WIS. L. REV. 389, 390-92. Ben-Shahar proposes a pro-defendant default rule that protects partial agreements, arguing that such a default rule better reflects the intent of the parties; permits parties to break down big commitments into smaller, more palatable, commitments; and, most importantly for our purposes, promotes relationship specific investment. Although the pro-defendant default is superior to the traditional common law rule of non-enforcement in promoting relationship specific investment, as demonstrated in Part III below, it is not the best default to address problems of relationship specific investment and holdup. Of course, we recognize that the pro-defendant default is designed to serve other important purposes as well, and in the absence of a Relationship Specific Investment may be an appropriate means to address partial agreements. However, in cases in which one party has made a RSI, we urge courts to abandon both the traditional common law rule of non-enforcement, and the pro-defendant default rule in favor of the RSI Default.

²⁹ See Steven Shavell, *Damage Measures for Breach of Contract*, 11 BELL J. OF ECON. 466 (1980) (analyzing overinvestment and breach decisions, assuming parties cannot renegotiate); William P. Rogerson, *Efficient Reliance and Damage Measures for Breach of Contract*, 15 Rand. J. Econ. 39 (1984) (showing that expectation and reliance damages induce overinvestment, even if the parties can renegotiate the contract)[hereinafter Rogerson, *Reliance*]

Overinvestment occurs when it is efficient ex post for the parties to trade less than the contract specifies. If the contract is then enforced through a damage remedy, the investing party gets a return on his investment, even though the investment lacks social value. Trade with someone else is optimal; yet, the relationship specific investment only has value if the original two parties continue to trade.³⁰ In the complete contract, the investing party would account for the fact that the investment lacks value in some future contingencies and invest less.³¹ Indeed, in the complete contract, the buyer and seller would specify the buyer's investment level. Accordingly, if they are to encourage the optimal level of relationship specific investment, contractual default rules must not only address the underinvestment and hold up problems, but must be sensitive to problems of overinvestment as well.

The RSI Default performs both of these functions better than existing default rules. As noted, the RSI Default encourages relationship specific investment by construing incomplete contractual terms connected to that investment in favor of the Relationship Specific Investor. At the same time, three aspects of the rule avoid exacerbating the overinvestment problem.

First, the notice requirement of the RSI default provides the non-investing party with bargaining power in the relationship as well. This is because the investing party gains the benefit of the default only if she has advised the non-investing party of her plans to make such an investment and the non-investing party does not object. This notice condition provides the non-investing party with some leverage during renegotiation and should cause the investing party to

³⁰ Edlin and Reichelstein show that, when parties set price and quantity in a contract, the parties themselves can balance the overinvestment and underinvestment problems, even if they cannot contract on the investment levels. Edlin & Reichelstein, *Holdups*, *supra* note __, at ____. The authors demonstrate that, when only one party makes a relationship specific investment, the optimal quantity -- the quantity selected by the parties ex ante -- perfectly balances these two effects under either expectation damages or specific performance. When both contracting parties make relationship specific investments, specific performance (and the appropriately selected contract quantity) achieves the appropriate balancing, assuming certain conditions. Our concern is with contracts without a quantity term or contracts where the parties cannot figure out which quantity term perfectly balances the two effects.

³¹ For an example, see. A. MITCH POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 34-37 (2d ed. 1983).

hesitate before investing too much in the relationship. Indeed, only when the investment will create a surplus that the parties can share will the non-investing party sign off on the investment. Otherwise, the non-investing party has an incentive to object. What really happens when the non-investing party fails to object is that she binds herself not to holdup the investing party. She sells her right to holdup in return for some side payment. It is the non-investing party's ability to commit that creates the additional gains from trade.³²

This notice idea is not foreign to contract law. It mimics the waiver and estoppel doctrines.³³ In a loan contract, for example, if the lender repeatedly accepts late payment on the debt without objection, some courts will find that the lender has implicitly “waived” the payment condition. Alternatively, the court might find that the lender is “estopped” from using the late payment as grounds for acceleration of the debt.³⁴ Under either doctrine, the failure to object prevents the lender from strictly enforcing the condition. Similarly, under the RSI default, if a party fails to object to an investment, it forfeits the ability to use that investment to later holdup the other party.

Second, the overinvestment problem rests on an assumption that the damage remedy fully protects the non-breaching party's expectancy interest: that is to say, the theory assumes that damages make the non-breaching party indifferent between performance and breach. In reality, this assumption is rarely satisfied. Litigation costs, specifically attorney fees, make it expensive to pursue a contract claim. Under the American system, these costs are not recoverable. In addition, the proof requirements for damages – i.e., certainty and foreseeability -- reduce the

³² The notice decision and resulting investment can happen at any point in the relationship. If, for example, circumstances change three years in that make an investment profitable, the party can provide notice at that point in time. Notice can even occur at the time of contract formation.

³³ On the subtle differences between these two doctrines, see JEFFREY FERRIELL & MICHAEL NAVIN, UNDERSTANDING CONTRACTS 434-43 (2004).

³⁴ See, for example, *Mercedes-Benz Credit Corp. v. Morgan*, 850 S.w.2d 297 (Ark. 1993).

non-breaching party's recovery. Because of these aspects of the damage remedy, the non-breaching party is never fully compensated.³⁵ The lack of full compensation reduces the expected return on specific investment, cabining the incentive to invest too much.

Finally, as Aaron Edlin has demonstrated, parties can control overinvestment themselves through up-front deposits.³⁶ Such deposits ensure that the non-investing party sues for breach, and the investing party pays damages. These litigation positions impact the investment calculus. To see how this works, suppose that the non-investing party makes a large deposit on the contract. Completing performance, then, is cheap for the non-investing party: it only involves a small payment. As a result, the non-investing party has little incentive to breach. If it occurs at all, breach will be the result of the investing party's failure to perform. The investing party is then on the hook for compensatory damages. After paying these damages, any left over surplus – the residual – goes to the breaching party, the investor. Because the deposit makes the investing party the residual claimant, she refrains from excessive investment.

Edlin also shows that the parties can counter the underinvestment problem by specifying a contract for delivery of a high quality or large quantity of the good.³⁷ In this case, it is never efficient to trade less than the contract specifies; so, underinvestment ceases to be a problem. Note that such a contract might be hard to write. The parties have to set a quantity at a level where they will never want to trade less than the quantity initially specified. This quantity might be hard to figure out at the time of contract formation. The RSI default, in contrast, does not require the parties to even consider the under-investment problem at contract formation. The court provides the commitment device after the fact. Furthermore, Edlin's solution to

³⁵ Making this same point see George G. Triantis & Robert E. Scott, *Embedded Options and the Case Against Compensation in Contract Law*, 104 COLUM. L. REV. 1428, 1448-49 (2004).

³⁶ Edlin, *Cadillac Contracts*, *supra* note __, at __.

³⁷ *Id.* at __.

underinvestment doesn't work if the parties do not specify quantity. In many of the contractual contexts – such as agreements to agree and requirement and output contracts – the parties do not agree on quantity at contract formation.

We use Edlin's deposit insight another way: to show how parties can limit the impact of the RSI default. If, despite the notice requirement, the parties anticipate that overinvestment is still likely to be problem, they can use deposits to restrict its effect.

III. THE RSI DEFAULT IN PRACTICE – DOCTRINAL APPLICATIONS

We start this section with the most “incomplete” of all arrangements: the agreement to agree. The next subsections consider how the RSI default informs good faith. It does this in two steps. First, we examine the general good faith obligation. Second, the focus turns to good faith in requirements and output contracts. The section concludes with a discussion of general contract interpretation. The plan is to move from the most specific context where the RSI default applies – agreements to agree – to the most general case -- contract interpretation.

A. Agreements to Agree

This section considers, in detail, a case involving contractual incompleteness that has received much attention from courts and commentators -- *Krantz v. BT Visual Images*.³⁸ By examining the likely impact of the case holding on the problems of relationship specific investment and holdup, we demonstrate that *Krantz* was correctly decided. However, as in many

³⁸ *Krantz v. BT Visual Images, L.L.C.*, 107 Cal.Rptr.2d 209 (Cal.App. 1 Dist., 2001). A Westlaw search on March 4, 2005, revealed over 200 citations to *Krantz*. See also Scott, *Self-Enforcing*, *supra* note __, at 1655-56 (discussing *Krantz*).

cases of contractual incompleteness, the court's failure to analyze the case in a manner that accounts for relationship specific investment and hold up problems thwarts the development of a clear doctrine to account for the results in indefiniteness cases. As a result, courts are forced to rely on vague notions of whether or not the contract is sufficiently definite or the incomplete terms sufficiently material, undermining predictability in the law and leading to inconsistent rulings.

In *Krantz*, both the plaintiff, Krantz, and the defendants, BT, were marketers of telecommunications systems and components.³⁹ Beginning in 1993, plaintiff agreed to become a distributor for defendants, purchasing video conferencing equipment manufactured by BT for resale to customers. Sometime after October 1994, plaintiff established a sales account with Kaiser Permanente, recommending, selling, and installing telecommunications products to Kaiser that were manufactured by the defendants and other companies. Rather than supplying Kaiser with "off the shelf" products, however, plaintiff learned to customize video conferencing equipment for Kaiser, using a variety of component software and hardware supplied by defendants and other manufacturers. Eventually, plaintiff was able to design a custom video conferencing system specifically for Kaiser's use.

At plaintiff's suggestion, plaintiff and defendants agreed to submit a joint bid to supply twenty-four custom video conferencing systems for Kaiser's use in its Kansas City and Denver operations areas. The parties agreed that defendant would supply the BT components used in the Kaiser system with plaintiff providing any remaining components and assembling and installing the system. In order to increase their chances of winning the bid, plaintiff agreed to reduce its distributor's fees for the Kaiser bid, and the parties further agreed to share jointly in all subsequent business with Kaiser and its affiliates. Finally, plaintiff and defendant agreed that, in

³⁹ Id. At 211.

the event their joint Kaiser bid was successful, they would negotiate product margins and price terms.⁴⁰

Plaintiff thereafter shared with defendants his ideas, configurations, and designs developed for the Kaiser bid. However, after defendants obtained this information, they informed plaintiff that they would submit the bid to Kaiser on their own.⁴¹ Although the trial court ruled that this “agreement to agree” was too indefinite to enforce, the appellate court disagreed and reversed, reasoning that the parties had no choice but to draft an indefinite agreement because “it remained to be seen whether the joint proposal would be accepted.”⁴²

Analyzing *Krantz*, along with a sample of 89 other cases, Bob Scott argues that the factor driving these case outcomes is whether the contract is incomplete due to exogenous or endogenous factors. When the contract is incomplete due to exogenous events outside of the contracting parties’ control, Scott notes that courts typically enforce the incomplete contract.⁴³ By contrast, when contractual incompleteness is endogenous to the contract – because the parties inadvertently or purposely ignored verifiable information that could have been used to complete the contract at relatively low cost – courts refuse to fill in the resulting gaps and hold the contract unenforceable.⁴⁴

However, it is not clear why the information at issue in *Krantz* – margins and product prices – was unavailable to the parties simply because they did not yet know whether their bid

⁴⁰ *Id.* at 217.

⁴¹ Because of this threat, plaintiff agreed to onerous changes in the joint bid contract that substantially reduced his profits from the venture. *Id.* at 212-13. Although the trial court granted defendant’s motion for summary judgment on this point, the appellate court ruled that plaintiff had raised a genuine issue of material fact as to duress. *Id.* at 218.

⁴² *Id.* at 218.

⁴³ Scott, *Self-Enforcing*, *supra* note ___, at 1655-56.

⁴⁴ *Id.*

would be successful. Nor is it clear why *Krantz* is distinguishable on this point from cases of similarly indefinite contracts in which courts have refused to enforce the agreement.⁴⁵

However, the court's ruling can be defended on other grounds. The plaintiff in this case, by sharing his expertise relating to Kaiser and its custom video conference needs with the defendants, made a relationship specific investment. That investment increased the total value of the Kaiser bid to all concerned, including Kaiser (who presumably could receive a better customized end-product due to plaintiff's efforts) and defendants (whose possibility of submitting a winning bid was significantly enhanced through plaintiff's sharing of his expertise). When defendants tried to hold up the plaintiff, by threatening to use the information provided by the plaintiff to submit their own bid, they deprived the plaintiff of the value of his relationship specific investment.

The elements required for application of the RSI Default are all present in *Krantz*. First, by sharing his acquired expertise with the defendants, plaintiff made a Relationship Specific Investment. In other words, his investment was specific to the incomplete margin and price terms in the contract. Plaintiff would not have shared his expertise with defendants if he believed that defendant might later be free to submit a bid to Kaiser on its own, without compensating plaintiff in any way for his shared information. In addition, plaintiff provided defendant with the requisite notice. In fact, plaintiff informed the defendants at several different stages of their relationship of his efforts (and eventual success) in developing custom videoconferencing for Kaiser.⁴⁶ Later, by sharing his expertise relating to Kaiser's specific video conferencing needs with the defendant (a move that quite obviously would pay off only if

⁴⁵ Cite to similar cases where the K wasn't enforced.

⁴⁶ Cite to *Krantz*

the relationship between plaintiff and defendants continued), defendants were fully aware at the time they entered into the contract that plaintiff had made a Relationship Specific Investment.

The *Krantz* court correctly ruled that the contract was enforceable. Moreover, in determining which product margins and price terms to supply, the court should construe those indefinite terms in a manner that favors the plaintiff. Examining the results under the various potential default rules demonstrates the superiority of the RSI Default in this instance.

For the purposes of the following illustrations, assume that the plaintiff and the defendant each advocate two different credible interpretations of the price and margin terms, supported by testimony of expert witnesses.⁴⁷ The plaintiff's interpretation would award the plaintiff \$1000 under the contract, and the defendant's would award the plaintiff \$200 under the contract.

Under the traditional common law approach to indefiniteness, the court would refuse to enforce the contract, as, in fact, was the trial court's ruling in *Krantz*. In this situation, however, the traditional common law approach is the worst possible outcome, because it forces plaintiff to forgo all of the benefit of his relationship specific investment. Rather than encouraging relationship specific investment, the traditional common law default rule discourages such investment and encourages holdup.

Similarly, a court applying a penalty default rule because it believed that the parties had purposely attempted to shift the costs of completion onto the courts by leaving the product price and margin terms incomplete would refuse to enforce the contract.⁴⁸ As under the traditional

⁴⁷ Of course, the first best outcome for the defendants is a ruling that the contract is too indefinite to enforce. Such a ruling would allow the defendants to use the plaintiff's acquired expertise, submit an independent bid, and still avoid liability to plaintiff. However, defendants' second-best argument presumably would be to argue for price and margin terms that favor the defendants. Because the *Krantz* opinion addresses only the motions regarding enforcement, we do not know what price and margin terms (other than non-enforcement) were advocated by the defendants. However, we provide hypothetical arguments here regarding the preferred price and margin terms of each party in order to explore and distinguish the application of the various default rules.

⁴⁸ A court might also apply a penalty default rule if it believed one party to the contract possessed the information necessary to complete the product price and margin terms, but failed to supply it in the hopes of garnering a larger

common law rule, this result discourages relationship specific investment and encourages holdup problems.

Under a mimicking or traditional majoritarian default rule, the court would enforce the contract, filling in price and margin terms that the parties would have agreed to if they had been able to cost effectively do so. Because the court generally does not know what the parties would have agreed to, it is likely to apply terms of commercial reasonableness, trade usage, and the like. In this case, the court might look to similar contracts, to see what other parties in similar contracts might agree to. However, there may not be sufficient information about similar parties in similar contracts, especially when one considers plaintiff's relationship specific investment – the sharing of his information and expertise with defendants that permitted the successful joint bid.

Because both parties have credible claims and expert testimony, the court might simply average the two claims, awarding the plaintiff \$600 under the contract. However, although this award might reflect the amount that plaintiff demanded in order to be induced into ex ante relationship specific investment, it might also be too low. If so, then similar contracting parties will be reluctant to make such investments in the future. Given the uncertainty on this point, the court should apply the plaintiff's preferred terms, provided that they are credible and supported by evidence.

A court applying the pro-defendant default rule advocated by Omri Ben-Shahar would similarly enforce the contract, but would fill in the incomplete terms differently. Under a pro-defendant default rule, the court would allow the plaintiff to enforce the contract, but the best price term that he could get would be the price advocated by the defendant, in this case \$200. In

fraction of the gains from trade. However, there is no evidence of such information asymmetry in Krantz. In fact, the court explicitly found that the contract was an "agreement to agree," implying that both parties had consented to the incomplete contractual language. Cite to Krantz.

the present case, this outcome is even worse than the outcome under a majoritarian rule. The default rule favors the defendants, even where the plaintiff is the one who has made the relationship specific investment. As a result, the defendant is the party with the most ex post bargaining power and the party most apt to engage in holdup behavior, as occurred in *Krantz*. As a result, Krantz is the party most likely to be forced to sue in order to recoup his relationship specific investment. To construe the contract against him – while superior to the traditional common law approach of non-enforcement – actually reinforces the unequal ex-post bargaining position of these parties, rather than improving on it.

Finally, a court applying the RSI Default would adopt the plaintiff's price terms – here, \$1000. Because there is some ambiguity as to the benefit that plaintiff actually anticipated under the contract, it is possible that this awards the plaintiff too much.⁴⁹ However, by resolving this ambiguity in favor of the party who has made the relationship specific investment, the court encourages such investment. At the same time, the defendants, by knowingly entering into an incomplete contract with a counterparty who has informed them that he has made a Relationship Specific Investment, has already contemplated and agreed to bear the risk of incomplete contractual terms connected to plaintiff's investment.

Put another way, if the defendants wanted to avoid having the incomplete terms construed in the plaintiff's favor, the rule provided them with that option. At the time that the defendants entered into the contract (already aware of plaintiff's Relationship Specific Investment) they would have known that any incomplete terms would be construed in plaintiff's favor. As such, the RSI Default puts the burden of attempting to clarify the contract terms on the defendants, as the non-RSI party.

⁴⁹ As noted, the court should analyze only the range of credible interpretations asserted by both parties. It should not adopt any interpretation advocated by the Relationship Specific Investor, regardless of its absurdity.

B. The General Good Faith Obligation

The doctrine of “good faith” in contract law is the subject of numerous scholarly articles and much judicial hand-wringing.⁵⁰ The Restatement (Second) states that “every contract imposes on each party a duty of good faith and fair dealing in its performance and its enforcement.”⁵¹ The U.C.C. provides a bit more, defining good faith as “honesty in fact and the observance of reasonable commercial standards of fair dealing.”⁵²

These standards provide little traction for a court making a good faith inquiry. Courts inevitably face the thorny issue of whether certain actions constitute a violation of good faith.

The RSI default helps courts formulate and apply the good faith standard. The typical good faith case involves actions that are consistent with -- but arguably not in the spirit of -- the contract. While good faith applies more broadly, the focus here is on cases where a contract term grants discretion to one party. The exercise of discretion might be roughly consistent with the express terms but, at the same time, inconsistent with the spirit of the contract, that is, in bad faith. The use or abuse of this discretion is thus the subject of the good faith inquiry.

Take, as an example, the case of *Omni Group, Inc. v. Seattle-First National Bank*.⁵³ Omni Group signed an earnest money agreement for the purchase of a tract of land owned by Mr. and Mrs. Clark. Under the agreement, Omni agreed to purchase the land or pay a small fee. As a condition on the earnest money agreement, Omni required a “satisfactory” feasibility report. The

⁵⁰ See Steven J. Burton, *Breach of Contract and Common Law Duty to Perform in Good Faith*, 94 HARV. L. REV. 369 (1980); Robert S. Summers, *The General Duty of Good Faith – Its Recognition and Conceptualization*, 67 CORNELL L. REV. 810 (1981); Robert S. Summers, “*Good Faith*” in *General Contract Law and the Sales Provisions of the Uniform Commercial Code*, 54 VA. L. REV. 195 (1968); Emily M.S. Houh, *The Doctrine of Good Faith in Contract Law: A (Nearly) Empty Vessel?*, 2005 UTAH L. REV. 1.

⁵¹ Restatement (Second) of Contracts § 205 (1981).

⁵² U.C.C § 1-201(b)(20).

⁵³ 645 P.2d 727 (1982).

contract did not define “satisfactory.” The court held that the contract was not illusory because Omni had to use good faith in exercising its discretion under the “satisfactory” clause.⁵⁴ Other than restricting Omni in some way, what exactly good faith meant is unclear from the case. One can imagine Omni threatening to use its discretion to hold out for a price concession on the final sale.⁵⁵ The ambiguity, or contractual incompleteness, provides Omni with leverage in its negotiations for the land sale.

Given the appropriate notice, the RSI default would nudge the good faith inquiry in favor of the investing party. To see how this works, suppose that the Clarks had prepared the land for the report, clearing it to provide access to the engineers. In addition, the Clarks told Omni that they were going to spend money doing this. Suppose further that Omni threatened to not even send the engineers before canceling the contract. It is hard to tell whether this threatened activity falls in the good faith or bad faith bin. Applying the RSI default, a court would find that this threat, if carried out, amounted to “bad faith.” Omni knew that the Clarks had invested in reliance on the clause and made no attempt to clarify the language. The RSI default, in effect, prevents Omni from using the contractual ambiguity strategically to try to extract rents from the Clarks.

On the other hand, suppose that only Omni invested in preparation of the report -- hiring the engineers, for example. Omni made the Clarks aware of these investments. Despite this notice, the Clarks did not attempt to clarify the clause. Then, Omni takes the same action as before: it threatens not to send the engineers and waives the condition to try to get out of the contract. This same threat cannot be used to extract any surplus. The Clarks have not invested in the relationship; so they will not lose anything if the deal falls through. As such, Omni’s

⁵⁴ *Id.* at 730.

⁵⁵ In the actual case, the seller, not the buyer was attempting to get out of the contract. *Id.* at 728.

actions do not rise to the level of bad faith. Note that, under the RSI default rule, the distinction between good faith and bad faith does not depend on the underlying actions or threats of *Omni*. Instead, the definition turns on the relative investments and the chance of extraction created by ambiguity in the contractual language.

Consider now the good faith doctrine with respect to another common arrangement – commercial leases. These contracts often restrict the tenant’s ability to assign the lease. Take, as an example, the case of *Warner v. Konover*.⁵⁶ In *Warner*, the lease agreement provided that the landlord had to provide written consent before the tenant could assign the lease. The tenant sold his business. The sale was conditioned on the assignment of the lease. The landlord refused to give his consent, unless the tenant agreed to renegotiate the rental rate. The tenant sued, claiming this threat violated the implied covenant of good faith and fair dealing. Without much discussion, the court found for the tenant.⁵⁷

The RSI default provides a framework for the “good faith” analysis under this common fact pattern. Again, it turns on the investments of the parties and notice. Suppose that the tenant invested in numerous fixtures, enhancing the value of his business at that location. Before making these investments, the tenant approached the landlord and asked about the assignment provision. The landlord failed to clarify the conditions on assignment. Subsequently, the tenant decided to sell. Here, the landlord’s threat not to consent to the assignment would violate good faith. In trying to renegotiate the contract, the landlord is attempting to garner a share of the economic rents created by the tenant’s investments.

Suppose, to the contrary, that the tenant had not put any money into fixtures. Then, using the same logic as with the *Omni* case, the landlord’s threat to withhold consent to the assignment

⁵⁶ 553 A.2d 1138 (1989).

⁵⁷ *Id.* at 154-56.

would not violate good faith. The reason is that, without the tenant's investment, the landlord lacks any holdup power.⁵⁸

A counter argument to this application of good faith is this: The discretion afforded the landlord is substantial. In a competitive market, the landlord would have had to pay for this discretion. That is, through lower rents the tenant is compensated for granting the landlord the right to hold him up during renegotiation of the lease. While plausible, this argument ignores that the tenant's investments create additional gains from the transaction, which can then be divided up among the parties in the initial lease. These gains will never be created if the landlord is given the right to holdup. Stated differently, the landlord needs to be able to commit that he will not holdup the tenant. Informed by the RSI default, the good faith doctrine provides the commitment device.

As these examples show, the RSI default improves the application of the good faith doctrine. Before invoking the doctrine, the RSI default forces a court to consider, explicitly, whether conditions for the extraction of rents exist. If not, the doctrine does not apply. Holdouts only become a problem when the parties can't easily move assets into another relationship. As noted in section I, the investments create the leverage needed for opportunistic behavior. By improving the good faith doctrine with the RSI default, the court takes away the leverage in the subset of cases where opportunism is likely to occur.

C. Requirement and Output Contracts

⁵⁸ Note here that even without the investment, the landlord might withhold consent on the assignment to steal part of the gains from the sale to the third-party. But, without the upfront investment, this action has no efficiency consequences, only a distributional effect.

The good faith doctrine is also relevant in requirements and output contracts. In these contracts, the parties do not specify quantity. In a requirements contract, the seller promises to provide all the goods the buyer requires. The buyer promises to buy exclusively from the seller. In an output contract, the seller promises to sell exclusively to the buyer; the buyer promises to buy the entire seller's output. Despite the lack of a quantity term, the U.C.C. provides that these contracts are enforceable. Section 2-306(1) provides the framework:

A term which measures the quantity by the output of the seller or the requirements of the buyer means such actual output or requirements as may occur in good faith, except that no quantity unreasonably disproportionate to any stated estimate or in the absence of a stated estimate to any normal or otherwise comparable prior output or requirements may be tendered or demanded.

Both requirement and output contracts create the chance for opportunistic behavior. In a requirement contract, the buyer might demand zero, claiming that she has no requirements under the contract. The courts have held that such a demand passes the good faith test, if done for a valid business reason. Alternatively, the buyer might demand much more than the seller expected, hoping to buy the goods at the requirement contract price and resell them in the market. This over-demand move makes sense if the contract price is less than the market price. Section 2-306(1) limits this chance for exploitation by the buyer. The requirement demand cannot be unreasonably disproportionate to a stated estimate or a comparable requirement demanded.

Good faith and unreasonably disproportionate are not well defined concepts in these cases. Here, again, the RSI default provides a rubric for the court. Consider a buyer and seller in a requirements contract. After the contract is signed, the seller contemplates making a

substantial investment in targeting its production to the buyer's needs. The buyer does not object. Later the buyer claims that it "requires" very little and, as a result, he will buy from the seller only if the seller agrees to a lower price. The seller's investment creates leverage.

In applying the good faith standard, the court would take this into account. Under the RSI default, one way to do this is to flip the burden of proof. Normally, the seller would have to prove bad faith on the part of buyer. In applying the RSI default, the burden might shift and require that the buyer prove there was a legitimate business justification for the decreased demand. If, alternatively, the seller does not invest, but the buyer does, the burden remains on the seller to prove bad faith.

The burden shifting provides a nudge in favor of the relationship specific investor. Hence, it alters the renegotiation position, fostering investment. At the same time, overinvestment is limited. The seller must provide notice at the time of the investment. At that moment, the buyer can clarify the terms of the requirements contract (establishing a floor and ceiling on its demand, perhaps) or simply tell the seller not to invest.⁵⁹ If he does not, he loses the benefit of the default rule in the application of good faith doctrine.

D. General Contract Interpretation

The goal of this subsection is to set forth a meta-theory of contract interpretation using the RSI default.⁶⁰ What should the court do when the doctrines or interpretative guides conflict?

⁵⁹ See Victor P. Goldberg, *Discretion in Long-Term Open Quantity Contracts: Reining in Good Faith*, 35 U.C. DAVIS L. REV. 319 (2002) (showing how parties can fine tune their obligations under requirement and output contracts). Goldberg argues that courts, in practice, have not done a very good job with good faith in requirement and output contracts. This part shows how courts can improve the inquiry.

⁶⁰ Note that good faith and contract interpretation go hand-in-hand in the cases. See *Resolution Trust Corp. v. Holtzman*, 248 Ill.App.3d 105, 112 (Ill.App. 1993) ("While this [good faith] obligation exists in every contract in

Specifically, when the parties both offer reasonable interpretations of the contract term, which one should the court pick?

Contract interpretation is a complex topic and the subject of much recent study by law and economics scholars.⁶¹ It involves many doctrines, including mistake, misunderstanding,⁶² the various maxims of interpretation,⁶³ the parol evidence rule,⁶⁴ and the incorporation and use of course of performance, course of dealing, and usage of trade to resolve ambiguities and fill in contractual gaps.⁶⁵ In addition, courts sometimes employ various rules of thumb to resolve interpretative disputes: rules such as construe against the drafter.

Like the other subsections, we illustrate how the RSI default informs contract interpretation with a case: *Raffles v. Wichelhaus* -- a chestnut of the first-year contracts course. In *Raffles*, the buyer and seller agreed to a sale of cotton traveling aboard a ship named “Peerless.” There were two ships named “Peerless” carrying cotton – one arriving from Bombay to England in October, the other in December. The seller shipped its cotton on the December

Illinois, it is essentially used as a construction aid in determining the intent of the parties where an instrument is susceptible of two conflicting constructions.”). So, this subsection is closely linked to the previous subsection.

⁶¹ See Richard A. Posner, *The Law and Economics of Contract Interpretation*, 83 TEX. L. REV. 1581 (2005); Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 YALE L. J. 541 (2003); Avery Katz, *The Economics of Form and Substance in Contract Interpretation*, 104 COLUM. L. REV. 496 (2004); Mitu Gulati & Stephen Choi, *Contracts as Statutes*, __ MICH.L. REV. __ (forthcoming 2006)

⁶² Restatement (Second) of Contracts § 20; *Raffles v. Wichelhaus*, 159 Eng.Rep. 375 (1864) (parties have a misunderstanding about the ship name, Peerless); *Konic International Corporation v. Spokane Computer Services, Inc.*, 708 P.2d 932 (1985) (parties have a misunderstanding about the meaning of “fifty-six twenty”). On misunderstanding generally, see Allan E. Farnsworth, *Contracts* § ____ .

⁶³ There are a large number of such maxims. *Ejusdem generis* means that the scope of the general terms will be limited to matters similar to the enumerated specific terms. *Expressio unius est exclusio alterius* means that the expression of one or more things means that anything not mentioned is excluded from the contract. Contracts will also be read as a whole, to the extent possible. That is, each part of the contract should be interpreted as consistent with the other parts of the contract. On these maxims generally, see JOHN EDWARD MURRAY, JR. MURRAY ON CONTRACTS § 87 (4th ed. 2001). For a look at the effect of these maxims on the burden of proof in contract suits, see George Triantis and Robert Scott, *Principles of Contract Design*, __YALE L. J.__ (forthcoming 2006).

⁶⁴ See U.C.C. § 2-202; Restatement (Second) of Contracts §§ 209-10. For a model of how to apply the parol evidence rule, see Eric A. Posner, *The Parol Evidence Rule, the Plain Meaning Rule, and the Principles of Contract Interpretation*, 146 U. PENN. L. REV. 533 (1998).

⁶⁵ See U.C.C. §§ 1-205, 2-208 (listing the interpretative hierarchy among course of performance, course of dealing, and usage of trade).

Peerless; the buyer refused delivery. The buyer's justification was that the contract called for delivery on the October "Peerless."

Concluding that the parties meant materially different things, the court found that there was no contract. Echoing the discussion in section I, this holding creates a complete contract. The court specified the rights and obligations of the parties (no delivery) under an unforeseen contingency (two boats named "Peerless"). Under the ruling, the buyer was not obligated to take delivery. And his refusal did not constitute breach. Note that it might still be efficient for the parties to trade the cotton aboard the December "Peerless." But the interpretation puts the seller in a weaker position during the renegotiation of contract. The seller, not the buyer, will have to cave on the price. In the alternative, the court could have found a contract on the seller's terms – the December "Peerless." This holding, or more aptly the anticipation of this holding, places the seller in a better bargaining position. So, what should the court have done in the Peerless case?

Under the RSI default, the court would have considered whether either party invested in the relationship and, if so, whether the other party had notice of that investment. Next, assuming only one party invested or only one party gave notice of its investment, the court should construe "Peerless" in favor of that party. Like the application of good faith, this interpretative move forces the court to confront and mitigate the underlying problems stemming from contractual incompleteness.⁶⁶

⁶⁶ The paper has focused on contracts where one party invests in the relationship. In many long-term contracts, however, both parties invest. While this is outside the scope of the project, we have some preliminary thoughts on how our approach might apply to this more complicated situation. To see how the doctrinal solution might work, one must know a little about how the economists approach this problem. In a series of papers, economic theorists have specified conditions under which optimal investment by both parties can be achieved. Chung, *Incomplete Contracts*, *supra* note __; Aghion et al., *Renegotiation*, *supra* note __. The argument is subtle and rests on some mistaken assumptions about the law. The argument, however, provides the building blocks for how contract doctrine might deal with long-term contracts with two-sided investments.

Consider a buyer and a seller. The buyer's investment increases its value from the seller's product. The seller's investment decreases the cost of producing the buyer's product. The contract specifies an allocation or starting point for any renegotiation – a price-quantity pair. The models assume the court will specifically enforce

III: INFORMATIONAL BURDENS OF THE RSI DEFAULT

To employ the RSI default, a court needs to know something about the parties' investments in the relationship. In the incomplete contracts literature, however, the common assumption is that the parties cannot contract on investments.⁶⁷ If, to the contrary, contracting is possible, then, the problem of inefficient investment goes away. The contract itself would specify

this starting point (the first law mistake). The contract also specifies that one party will get the entire surplus from any renegotiation of the contract. The economists call this second specification the allocation of bargaining power in the renegotiation. Chung, *Incomplete Contracts*, supra note ____, at 1030. They, then, assume that parties can commit not to renegotiate the bargaining power allocation. Such a commitment is not legally enforceable (the second law mistake).

Operating under these assumptions, the parties are able to solve the two-sided investment problem. The parties have two levers to play with (initial allocation and ex post allocation of surplus) and two parties to incentivize. Hence, it is not surprising that a contract can achieve first best. It works as follows: First, the contract assigns the entire surplus from the renegotiation to the buyer. Since the buyer is the residual claimant, he invests to make this surplus as big as possible. The parties, next, set the initial allocation or starting point of the renegotiations to motivate the seller. In general, the seller will have a tendency to invest too little, realizing that the entire surplus will go to the buyer. But if the initial allocation or starting point for renegotiation is a high enough quantity (which the seller can specifically enforce), she will invest the optimal amount.

Turning to the doctrine, the law can define both the starting point for the negotiation and the allocation of surplus, albeit imprecisely. What we have been calling the bargaining power is really the point of departure: the starting position from which the parties begin to renegotiate. The RSI default sets this point. What is needed, then, is way to assign the surplus from the renegotiation to one party or the other.

To do this, one needs to know the factors that affect how parties split surplus when bargaining. Economists have many models investigating this problem. Ariel Rubinstein, *Perfect Equilibrium in a Bargaining Model*, 50 *ECONOMETRICA* 97 (1982). The division of surplus usually hinges on the cost of disagreement and the parties' outside options. If either of these factors differs for the two parties, the split of the surplus will differ. One way, then, to change the allocation of the surplus from contract renegotiation is for the law to change the cost of disagreement by treating the party's claim differently (perhaps through different statute of limitations or different damage remedies).

Suppose that the seller could not get punitive damages for breach, but the buyer could. During renegotiation, the seller would be more apt to settle, hoping to get the renegotiation accomplished and avoid the threat of punitive damages. Knowing this, the buyer will offer (or only agree to accept) a larger share of the surplus from the renegotiation.

We are still working through this, but it might suggest a tentative doctrinal solution to the two-sided investment problem: Set the interpretative defaults to favor more trade, but place treat the remedy availability asymmetrically. Rarely, if ever, will the parties want to trade at the quantity suggested in the contract, especially when all the interpretative difficulties resolved in the favor of more trade. Instead, they will want to trade a different, lower amount. And, more important, the parties will bargain over the surplus gained by renegotiation. The asymmetric remedies ensure that the buyer receives the majority of the surplus from the renegotiation. Knowing this, the buyer will invest in making this surplus as big as possible. With the buyer's investment taking care of, the seller's investment remains a concern. But the interpretative default solves this problem. By interpreting all language to favor higher trade, the seller invests as if the quantity traded will be high.

⁶⁷ See HART, *CONTRACTS*, supra note ____, at ____, other authors

the level of investment. A failure to invest up to the level called for in the contract would constitute breach. Likewise, damages for investment above what the contract specified would be limited by the contractual terms.

Economists suggest that problems of verification render investments non-contractible. The typical model assumes that investments, while observable to the parties ex post, are not verifiable to the court. Stated differently, parties cannot prove breach of an investment commitment. Since parties cannot show breach, they cannot specify and then enforce promises about investments.

The RSI default seems to run counter to this verifiability assumption, because the court needs to observe investment or a signal of investment to apply the default.⁶⁸ And, the distinction between observability and verifiability is fine. As others have noted, with enough money spent on information collection, any action that is observable can be made verifiable.⁶⁹

If the court can observe and verify investments ex post, why are the parties unable to contract on the investments initially and have the court enforce those commitments? And, so the argument goes, in the exact subset of contracts where the RSI default applies, the parties could solve the investment problems themselves ex ante at the contracting stage. As a result, the RSI default is unnecessary, if not, harmful.

This argument proves too much, we think. In practice, there are many reasons why parties fail to contract on investment levels that have nothing to do with observability or verifiability. First, the parties might not want to specify investment levels because it is costly to

⁶⁸ Indeed, in the model we do not assume that investment is observable or verifiable. Instead, we suppose that the court observes some signal, which is correlated with investment. This is the same way that economists model “non-contractibility” in the moral hazard model. With moral hazard, the assumption is that the agent’s effort is unobservable or unverifiable, but profit is not -- it is contractible. Profit is then stochastically related to the agent’s effort. *See* ANDREA MAS-COLELL ET AL., MICROECONOMIC THEORY 178-199 (1995).

⁶⁹ Kaplow and Shavell, Triantis and Scott

write down the relevant investment levels, especially for deals done under a time constraint. This is even more true when investment is multiple-dimensional, requiring many different levels of investment.

Second, raising the issue of investments during contract formation might kill the deal. The issue of investments signals levels of commitment to the relationship. To avoid this signaling, parties might instead leave out the issue of investment. Related, “agreeing to agree” on investment levels lets parties work out the other details of the contract, fostering some good will during the negotiation.

Third, the use of the RSI default occurs ex post as an interpretative or gap filling device. The court need not decide whether the parties breached investment promises. Instead, the court uses the investment or proxies for investments to nudge the interpretation or gap fill in one way or another. This is a much looser requirement than finding a contractual obligation about investment levels or measuring them with certainty. As such, it requires less in the way of information about actual investment levels. At summary judgment, the parties can introduce evidence of investments undertaken and the amount of notice given. As in all legal disputes, the other party can challenge these findings. The court, then, decides whether to gap-fill or interpret using the RSI default.

Note, too, the rule has a modest scope. Not every contract will have investments or proxies for investments that are observable or verifiable ex post. For these contracts, the RSI default does not apply.

Finally, and perhaps most important, the RSI default does not preclude the parties from contracting on the investments if they want to. To the contrary, the notice requirement forces

parties to clarify the extent of their investment obligations early or lose the benefits of the default rule.

IV. CONCLUSION

The literature on relationship-specific investment spans decades. Our contribution is doctrinal. The idea is to push interpretations in favor of the relationship-specific investor, while, at the same time, cabining that party's incentive to over-invest. The latter is accomplished by requiring notice of the investment before the benefit of the default rule attaches. Our hope is to use the doctrine to facilitate optimal investments, giving courts something upon which to base the interpretations of contracts and good faith inquiries.

Appendix

A Model of the RSI Default Rule

The following model motivates and formalizes the arguments made in the paper. The model is purposely simple. It shows how a court, by using the RSI default rule for interpretation or as the basis for the good faith inquiry, can increase contractual surplus.

Consider a buyer and a seller. The buyer can make some relationship-specific investment at a cost, i . If the parties trade, the buyer's receives revenue, $R(i)$. Assume that the investment increases the buyer's revenue at a decreasing rate. Formally, let $R'(i) > 0$ and $R''(i) < 0$. The seller's cost of production is C .

In the spirit of Grossman and Hart⁷⁰ and Hart (1995)⁷¹, suppose that the parties cannot describe ex ante the quality and kind of widget to be traded.⁷² This uncertainty is resolved ex post. The parties, then, trade the good at a mutually agreed upon price. This is a reasonable model of either (1) a requirement/output contract or (2) a contract where the parties "agree to agree" later. In these contracts, the initial contract does not specify quantity.

⁷⁰ 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);

⁷¹ OLIVER D. HART, FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE (1995)

⁷² For a more formal model motivating this type of incomplete contract, see Ilya Segal, *Complexity and Renegotiation: A Foundation for Incomplete Contracts*, 66 REV. OF ECON. STUD. 57 (1999). Economists model in complete contracts two different ways. One way assumes, as is done here, that "incompleteness" goes to the description of the widget to be traded. The second way assumes that the parties agree on some initial quantity before the resolution of some uncertainty. The uncertainty impacts the seller's cost of production and the buyer's valuation of the product. In light of the realized cost and valuation, the parties have an incentive to renegotiate and alter the quantity set in the initial contract. For models of this sort see Again et al, supra note ____; Edwin & Reichelstein, supra note __, Chung, supra note ____; Georg Noldeke & Klaus m. Schmidt, *Option Contracts and Renegotiation: A Solution to the Hold-up Problem*, 26 RAND. J. ECON. 163 (1995). As noted in the section ____, the latter model generates too much investment when the efficient quantity traded ex post is less than the quantity set in the initial contract. There is debate in the economics literature over how to best model contractual incompleteness. Compare Eric Maskin & Jean Tirole, *Unforeseen Contingencies and Incomplete Contracts*, 66 REV. ECON. STUD. 83 (1999) with Oliver Hart & John Moore, *Foundations of Incomplete Contracts*, 66 REV. ECON. STUD. 115 (1999).

The initial contract gives the court the authority to transfer resources if the parties end up in litigation.⁷³ There are no restrictions on this transfer. The transfer can equal zero – a finding no contract. The transfer payment, T , depends on the default rules adopted by the court and the actions of the seller and the buyer. One can think of the default rule as an application of the good faith doctrine or an interpretative rule. If, at the notice stage, the parties invoke the RSI default, the court construes ambiguity in the contract in favor of the investing party. This inquiry, to be made more precise below, is the core of the innovation in the paper. We take the initial contract and transfer as given.⁷⁴

Suppose that the buyer's investment is verifiable at cost, K . In the literature, the standard assumption is that the parties cannot contract on the buyer's investment. We relax this assumption and let the parties write a contract on the investment if they are willing to incur the costs. As noted above, the parties have another option -- they can invoke the RSI default rule. Under this rule, the court nudges the transfer at litigation, T , in favor of the buyer through the application of contract doctrine.

We model the court's nudging interpretative inquiry as follows: The court observes some signal, $s \in [\underline{s}, \bar{s}]$. This signal depends, stochastically, on the buyer's investment. The greater the investment, the better the chance of observing a high signal.

Let $s \in [\underline{s}, \bar{s}]$ be the possible signals. Assume that the cumulative distribution of s , $F(\cdot)$, depends on the buyer's investment, i . Let $f(\cdot | i) > 0$ for all i and all s . That is to say, the court can possibly observe any signal, no matter the buyer's investment. First order stochastic

⁷³ For simplicity, we don't model settlement in the litigation stage.

⁷⁴ Taking the initial contract and transfer payment as given is a simplification. The parties, however, influence the interpretation of the contract by their actions at the notice stage. Also, at the notice stage, the parties can eliminate any incompleteness at a certain cost. The point of the model is not to derive the optimal amount of ambiguity in a long-term contract, but rather to show how the court can help induce relationship specific investment by construing contracts in a certain way.

dominance ensures that if $i_1 > i_2$ then $F(\cdot|i_1) < F(\cdot|i_2)$. For a continuous investment choice,

$$F_i(\cdot|i) < 0$$

Following the informal description in the paper, the model has four stages. In stage one, the parties sign an incomplete contract. At stage two, the buyer informs the seller that he is going to make an investment. At this point – the notice stage – the parties have a number of options. They can contract on the investment at a cost, K , split equally between the buyer and seller. The seller can approve of the buyer's investment, which invokes the RSI default. Finally, the seller can object to the buyer's investment, which means the court will ignore the buyer's investment when deciding on the transfer payment. At stage 3, the buyer invests. At stage 4, the parties either (1) renegotiate and trade or (2) litigate the contract dispute.

Note that the only inefficiency associated with the incomplete contract comes from the buyer's investment. As such, when the parties contract on the buyer's investment, they, in effect, “complete” the contract. All the court has to do is impose the penalty if the buyer fails to invest optimally. There is no role for default rules if the parties complete the contract; the parties have themselves eliminated any contractual ambiguity.

At stage 4, $R(i) - C$ represents the gains from trade.⁷⁵ The investment that maximizes these gains (less the cost of investment) satisfies the following condition:

$$(1) \quad R'(i) = 1$$

Let i^* represent this first-best investment level. Such investment generates a surplus, $S(i^*) = R(i^*) - C - i^*$. Before moving to the RSI default, consider the benchmark case where

⁷⁵ Assume $R(i) - C > 0$ for all values of i – that is, there are always gains from trade.

the parties do not sign a contract. Assume, at stage 4, the parties split the gains from trade. This means that the trading price, \tilde{p} , equals $\frac{1}{2}(R(i)+C)$. In making its investment decision, the buyer maximizes $R(i) - \tilde{p} - i$, which yields the following first-order condition.

$$(2) \quad \frac{1}{2}R'(i) = 1$$

Let the investment level that satisfies (2) equal \hat{i} . The corresponding surplus is $S(\hat{i})$. Because $R(i)$ is concave, $\hat{i} < i^*$. This is the classic formulation of the hold-up problem. The problem results in a loss of surplus, $S(i^*) - S(\hat{i})$.

Assume that the parties invoked the RSI default (i.e., the buyer proposed an investment and the seller did not object). In litigation, the buyer is entitled to a transfer payment, which depends on the signal. For a given investment, the expected transfer equals $\int_{\underline{s}}^{\bar{s}} T(s)f(s|i) ds$. For the buyer to agree to renegotiate the contract, its benefit from renegotiation must exceed the expected transfer. Hence, the maximum price the buyer is willing to pay is

$$\hat{p} = R(i) - \int_{\underline{s}}^{\bar{s}} T(s)f(s|i) ds$$

For the seller to renegotiate, the seller's benefit from renegotiation must exceed its expected cost in litigation. Hence, the minimum price the seller is willing to accept is:

$$\bar{p} = C - \int_{\underline{s}}^{\bar{s}} T(s)f(s|i) ds$$

Assume that the parties split the difference on the renegotiation price. As a result, the trading price, p^{RSI} , equals $\frac{1}{2}\hat{p} + \frac{1}{2}\bar{p}$. Then, the buyer ex ante maximization problem becomes:

$$\text{Max}_i R(i) - p^{\text{RSI}} - i$$

Maximization yields the following first-order condition:

$$(3) \quad \frac{1}{2}R'(i) + \int_{\underline{s}}^{\bar{s}} T(s)f_i(s|i) ds = 1$$

Let i^{RSI} represent the investment level that satisfies (3).⁷⁶ i^{RSI} can represent either under-investment or over-investment depending on the magnitude of the marginal expected transfer.⁷⁷ If the marginal expected transfer is between 0 than $\frac{1}{2}R'(i)$, then the RHS of (3) is greater than $\frac{1}{2}R'(i)$ and less than $R'(i)$. As a result, $\hat{i} < i^{\text{RSI}} < i^*$. Compared to no initial contract or a contract whose interpretation doesn't depend on the signal, the RSI default induces the buyer to invest closer to the first best investment level.

Assume, instead, that the parties incur the verification costs and contract directly on the buyer's investment. Such a move yields a total surplus, $S(i^*) - K$. Finally, consider that the parties do nothing at the notice stage. Fearing the hold-up, the buyer under-invests; the expected surplus is $S(\hat{i})$.

Lemma:

If the marginal expected transfer is less than $\frac{1}{2}R'(i)$, the parties always prefer the RSI default to no contract.

Proof:

⁷⁶ For technical convenience (to ensure that the choice of investment is a maximum), we assume that $F_{ii} > 0$ and that f_i/f increases with s .

⁷⁷ If the marginal expected transfer results in over-investment, in equilibrium, the parties will occasionally invoke the RSI default rule anyway. The reason: The loss of surplus from overinvestment is less than the loss of surplus from underinvestment or the cost of contract completion. The equilibrium behavior when the RSI default induces overinvestment closely mirrors the equilibrium behavior when the RSI default pushes the buyer toward first best investment. Hence, we focus on the latter in the remainder of the appendix.

The seller's payoff from not contracting is $\frac{1}{2}(R(\hat{i}) + C) - C$. The seller's payoff from the RSI default is $\frac{1}{2}(R(i^{RSI}) + C) - C$. Because $R(i^{RSI}) > R(\hat{i})$, the seller always prefers the RSI default to no contract. The seller is willing to make a side-payment or lump-sum transfer up to $\theta = \frac{1}{2}[R(i^{RSI}) - R(\hat{i})]$ to induce the buyer to accept the RSI default rule over not contracting at all.

The buyer's payoff without a contract is $R(\hat{i}) - \frac{1}{2}[R(\hat{i}) + C] - \hat{i}$. The buyer's payoff from a contract with the RSI default is $R(i^{RSI}) - \frac{1}{2}[R(i^{RSI}) + C] - i^{RSI}$. Simple algebra shows that the buyer prefers the RSI default without a side-payment if the following condition holds:

$$(4) \quad \frac{1}{2}[R(i^{RSI}) - R(\hat{i})] > i^{RSI} - \hat{i}.$$

If this condition holds, both parties always prefer the RSI default to no contract. No sidepayment is necessary. If, however, (4) doesn't hold, the buyer will only agree to the RSI if the seller pays him to. After all, under the RSI default, the buyer ends up making a larger investment. The sidepayment, θ , ensures that the buyer is better off under the RSI default than with no contract. To see this, note that the buyer's payoff with the sidepayment is

$$R(i^{RSI}) - \frac{1}{2}[R(i^{RSI}) + C] - i^{RSI} + \theta.$$

Comparison of this payoff with the buyer's payoff from no contract shows that the buyer is better off with the RSI default if $R(i^{RSI}) - i^{RSI} > R(\hat{i}) - \hat{i}$. This condition necessarily holds because i^{RSI} is closer to the first best than \hat{i} . After making the side payment, the seller is indifferent between no contract and the RSI default.

Since the RSI default makes the seller indifferent and the buyer better off, the parties will always agree to the RSI default over no contract when (4) doesn't hold.

Note that the side-payment occurs at the notice stage. As such, the buyer's subsequent investment decision doesn't influence the payment. In other words, the timing means that the side-payment plays no role in the buyer's investment choice: hold-up remains a problem. Instead of influencing investment, the payment ensures that the buyer is willing to agree to the RSI default. Without the payment, the buyer might not agree because the RSI default entails a larger investment by the buyer.

Proposition One:

If verification costs are sufficiently low, then the parties will contract directly on their investment at the notice stage.

Proof:

Suppose that the parties incur the costs needed to make investment verifiable. The following contract ensures first best investment. The buyer agrees to invest i^* and agrees to pay a large liquidated damage remedy if he fails to make this investment. The seller agrees to reimburse the buyer for half the cost of the investment and half the verification cost. The agreed upon price again splits the ex post gains from trade. Under this contract, the buyer maximizes:

$$(5) \quad R(i) - \frac{1}{2}(R(i) + C) - i + \frac{1}{2}i - \frac{1}{2}K$$

The resulting first order condition yields first best investment. Note that, because investment is verifiable, the seller can commit to reimburse the buyer for his investment. Unlike the sidepayment, this reimbursement is not a lump-sum; it's made ex post and, hence, depends on the buyer's investment.

A sufficient condition for the buyer to prefer to contract directly on investment is as follows:

$$(6) \quad K < R(i^*) - R(i^{RSI}) - i^* + 2\hat{i} - \theta$$

The seller's payoff from contracting on investment is $\frac{1}{2}(R(i^*) + C) - C - \frac{1}{2}i^* - \frac{1}{2}K$.

Compare this payoff to the maximum possible payoff payment for the seller under the RSI default. Such a comparison yields the following condition K, which ensures the seller strictly prefers to contract on investments:

$$(7) \quad K < R(i^*) - R(i^{RSI}) - i^*$$

If K is less than the minimum of (6) and (7), the buyer and seller prefer to contract directly on investments.

Proposition Two:

If the verification costs are sufficiently high and the marginal expected transfer is less than $\frac{1}{2}R'(i)$, the parties will not contract on investment; the buyer will propose an investment; the seller will accept; and the court will apply the RSI default rule.

Proof:

The lemma shows that the parties always prefer the RSI default to no contract. Now we must show that the parties prefer the RSI default to contracting directly on investments. A sufficient condition is that K is greater than the maximum of (6) or (7).

Proposition Three

The availability of the RSI default increases the contractual surplus.

Proof:

Proposition two shows that, under some parameter configurations, the parties prefer to invoke the RSI default, instead of contracting directly on investment. The lemma shows that the parties always prefer the RSI default to not contracting at all. Without the RSI default, the surplus is $S(\hat{i})$ if the parties do not contract directly on investments. With the availability of the

RSI default option, the maximum surplus is $S(i^{RSI})$ if the parties do not contract on investments.

Since $S(i^{RSI}) > S(\hat{i})$, the RSI default increases the available surplus.

This model demonstrates that contract doctrine can be used to induce relationship specific investment, even when the court cannot perfectly observe investment levels. A court can increase the contractual surplus by giving parties the RSI option, policing opportunism through interpretative rules and the good faith doctrine. The RSI default changes the outside option, allowing parties to commit to not holding one another up. Contract doctrine itself is renegotiation-proof. At stage four, any alteration of the litigation transfer must occur in light of expected interpretation by the courts. And the investing party (the buyer) has leverage in these negotiations because he gets the favorable default rule.