“Why Infer”? What the New Institutional Economics Has to Say About Law-Supplied Default Rules

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A central question of contract law remains: when should the law supply a term not expressly agreed to? Many scholars have addressed that question, yet the justification for law-supplied terms often remains unconvincing. Because many proposals to supply terms do not incorporate a comparative framework for assessing the costs and benefits of legal interventions, they are incompletely justified. This Article proposes that a comparative net benefit approach (developed in institutional economics to explain private arrangements) be adapted and expanded to resolve fundamental issues of legal intervention. This Article uses that framework to critique the (1) hypothetical bargain and (2) Ayres/Gertner penalty default rule approaches to law-supplied terms. Finally, this Article illustrates the benefits of the comparative framework for resolving questions of law-supplied rules in the precontractual negotiation and subcontractor bidding contexts.

I. INTRODUCTION
II. THE FRAMEWORK: THE “COMPARATIVE NET BENEFIT” STANDARD
III. DEFAULT RULE METHODOLOGY: THE ABSENCE OF A COMPARATIVE METHODOLOGY
IV. PENALTY DEFAULT RULES: AN ALTERNATIVE APPROACH THAT STILL LACKS A JUSTIFICATIVE METHODOLOGY
V. LAW-SUPPLIED OBLIGATIONS IN THE PRECONTRACTUAL CONTEXT
   A. Craswell’s Approach
   B. Farber and Matheson on Precontractual Liability
VI. SUBCONTRACTING REVISITED: SUBCONTRACTOR BIDDING AND THE HIDDEN QUESTION OF LAW-SUPPLIED TERMS
VII. CONCLUSION

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I. INTRODUCTION

The great question confronting judges and legal scholars is, in the words of one of my colleagues, "Why infer?" When and why is it justifiable in contexts involving assent-based obligations for the law to supply a term or commitment to which the parties did not expressly agree?

The issue of justification for law-supplied terms and obligations is an important one. It underlies decisions as basic to law as: Should the law even provide a forum for a dispute? When should the law simply take a "hands off" attitude by refusing to supply terms, and when should it intervene either through default rules or by supplying a term by implication?

The question of legal intervention in assent-based relations crosses varied subject areas. Although these diverse areas often focus

1. See Conversations with Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law, and Juliet P. Kostritsky, Professor of Law, Case Western Reserve University School of Law in Cleveland, Ohio (1997).

2. Law-supplied assent-based obligations are meant to refer to legal interventions which follow negotiations between the parties even in cases where the negotiations did not result in the inclusion of a term which the law now proposes to include. Assent-based obligations are distinguishable from tort obligations imposed without "communication between the parties." E-mail from Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law, to Juliet P. Kostritsky, Professor of Law, Case Western Reserve University School of Law (Apr. 5, 1997) (on file with author) [hereinafter Coffey E-mail (Apr. 5, 1997)].

3. Supplying a commitment could take the form of a liability rule.


5. Sometimes courts refuse to provide a judicial forum for a dispute and in so doing decline to intervene. They refuse a judicial forum to illegal contracts to deter such transactions. See Juliet P. Kostritsky, Illegal Contracts and Efficient Deterrence: A Study in Modern Contract Theory, 74 IOWA L. REV. 115, 118-19 (1988).

6. The traditional justification for the courts' refusal to supply terms is that to do so would promote inefficiency. Had the terms been optimal, they would have been reflected in the contract, absent transaction costs. The failure to include the terms must reflect the parties' belief that the term was not optimal and should not be included. See Richard Craswell, Freedom of Contract, The Coase Lecture 3 (Univ. of Chicago Law & Econ. Working Paper No. 33, 1994) [hereinafter Craswell, Coase Lecture]; R.H. Coase, The Problem of Social Cost, 3 J. LAW & ECON. 1, 8 (1960) (describing tendency of parties to reach optimal result regardless of assignment of initial liability rule).

7. Professor Williamson alludes to the connection between institutional economics and gap filling when he states: "The study of structures that facilitate gapfilling, dispute settlement, adaptation, and the like thus become part of the problem of economic organization." OLIVER E. WILLIAMSON, THE MECHANISMS OF GOVERNANCE 56 (1996) [hereinafter WILLIAMSON, MECHANISMS OF GOVERNANCE].
on individual doctrinal issues, the real issue, which often remains hidden, is one of justifying the legal intervention itself. The court must confront the question of whether the law should supply a term or obligation to which the parties have not expressly agreed. It must do this whether it grapples with (1) why and in what circumstances the law should supply a fiduciary “performance obligation” in the principal/agent context, (2) why and when the law should supply a term of irrevocability in section 45 option contracts or in subcontractor bidding cases, or (3) why the law should imply a commitment in precontractual section 90 contexts.

Despite the centrality of the question of law-supplied obligation, the means of resolution remain elusive. The contractual default rule literature relied on to resolve the appropriateness of a variety of law-supplied terms is flawed. The literature often fails to utilize a framework with realistic behavioral assumptions that can fully resolve whether a legal intervention is justified. In addition, this literature confuses situations that are fundamentally different in terms of the nature of legal intervention involved and subjects them to a unified default rule analysis. Such literature confuses cases in which a court


10. See Avery Katz, When Should an Offer Stick? The Economics of Promissory Estoppel in Preliminary Negotiations, 105 YALE L.J. 1249, 1267-81 (1996). Katz discusses “whether treating early offers as binding options solves the problem of opportunism” in subcontractor bidding cases. Id. at 1280; see also Kostritsky, Bargaining with Uncertainty, supra note 9, at 690-92 (discussing precontractual commitment in subcontracting context).


"supplies terms in addition to or other than what the parties have expressly bargained for" with cases in which the legal decisionmaker refuses to add or subtract terms from the express bargain. 13 This confusion diverts commentators from clearly identifying a framework to justify legal intervention in the form of an implied term.

Second, because authors often focus on the substance of a particular default rule without a recognition that the default rule is law-supplied and therefore must be justified, 14 they attempt to resolve questions of implied obligation without reference to a well developed comparative benefit methodology that is standard in new institutional economics. 15 A comparative benefit methodology compares the costs and benefits of the proposed scheme with various other strategies for achieving common goals. 16 Such goals include maximizing the surplus from trade 17 by controlling problems such as opportunism. 18

13. E-mail from Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law, to Juliet P. Kostritsky, Professor of Law, Case Western Reserve University School of Law (May 23, 1996) (on file with author). Such approaches constitute a “default in the form of a refusal to engage in implication.” Id.

14. For a discussion of the Hadley default rule, see infra notes 124-125 and accompanying text. Professors Ayres and Gertner discuss the Hadley rule and its possible benefits. This rule could force disclosure of a party who would otherwise withhold information that might be socially useful. See Ayres & Gertner, supra note 4, at 103-04. But they fail to focus on the Hadley rule as a law-supplied default rule which must be justified on a comparative basis. See infra text accompanying notes 160-183.

15. “New Institutional Economics (1) holds that institutions matter and are susceptible to analysis, (2) is different from but not hostile to orthodoxy, and (3) is an interdisciplinary combination of law, economics and organization . . . .” WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 3 (citation omitted); see also Edward L. Rubin, The New Legal Process, the Synthesis of Discourse, and the Microanalysis of Institutions, 109 HARV. L. REV. 1393, 1413-16 (1996) (discussing new institutional economics).

Institutional economics focuses on “differential transaction costs,” and contends that the effort to minimize transaction costs explains a variety of institutional choices. WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 5. It views the control of opportunistic behavior and moral hazard as a core problem. See id. at 5. It uses a set of realistic behavioral assumptions to assess whether governance solutions to the hazard control problem are cost-effective. Most importantly, institutional economics urges a methodology or “remediableness” to assess and compare alternative approaches to solve problems and maximize trade surplus. See id. at 7.

16. Professor Williamson developed this comparative methodology in his remediableness approach. “The relevant criterion is thus that of remediableness, according to which an outcome for which no superior alternative can be described and implemented with net gains is presumed to be efficient.” Id.

17. “If we assume rationality, then it follows that, regardless of the risk attitudes of particular parties, the dominant strategy for contractual risk allocation is to maximize the expected value of the contract for both parties.” Robert E. Scott, A Relational Theory of Default Rules for Commercial Contracts, 19 J. LEGAL STUD. 597, 602 (1990).

18. Controlling opportunism in a cost-effective way is important “lest . . . gains be dissipated by costly subgoal pursuit.” OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING 63 (1985) [hereinafter,
Proposed default rules which lack a comparison of "feasible superior alternative[s]" remain incompletely justified.\(^\text{19}\)

Third, even when the default rule literature incorporates realistic behavioral assumptions affecting the bargaining process, such as strategic behavior,\(^\text{20}\) it fails to incorporate these assumptions into a model\(^\text{21}\) that can ultimately justify the conclusion that the benefits and costs of legal intervention outweigh the benefits and costs of other approaches the parties might use to achieve common goals, given the barriers to private contract solutions.\(^\text{22}\) While recognizing that strategizing may cause inefficiencies,\(^\text{23}\) default rule scholars do not explain fully why the presence of such inefficiencies cannot be solved by other cost-effective private methods which do not involve a law-supplied rule.\(^\text{24}\) Nor do such authors explain how the presence of strategizing in conjunction with asset specificity\(^\text{25}\) and bounded rationality\(^\text{26}\) may cause inefficiencies which cannot be readily solved

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\(^\text{19}\) Williamson, Economic Institutions]. "Because hazards are priced out, it is in the firm's interest to provide safeguards in cost-effective degree." Oliver E. Williamson & Janet Bercovitz, The Modern Corporation as an Efficiency Instrument: The Comparative Contracting Perspective, in The American Corporation Today 327, 339 (Carl Kaysen ed., 1996) [hereinafter Williamson & Bercovitz, The Modern Corporation]. Doing so will presumably maximize the surplus available. "[T]he mitigation of hazards can be the source of mutual gain." Williamson, Mechanisms of Governance, supra note 7, at 60.

\(^\text{20}\) See, e.g., Ayres & Gertner, supra note 4, at 100 (discussing the tendency of a party to act strategically by attempting to hide deficiencies in order to get a "cross-subsidized price").

\(^\text{21}\) See Williamson, Economic Institutions, supra note 18, at 67.

\(^\text{22}\) See id.

\(^\text{23}\) Ayres and Gertner posit that strategizing will cause the high-cost miller to conceal his type if there is no incentive in the legal rule to disclose his type, thus causing inefficiencies to occur when the shipper fails to take cost-effective precautions. See Ayres & Gertner, supra note 4, at 101.

\(^\text{24}\) Thus, while Ayres and Gertner addressed the loss in value caused by strategizing by parties concealing their types, they did not consider whether private strategies, such as screening for type, could solve the losses in a more cost-effective manner.

\(^\text{25}\) Asset specificity refers to investments that take the form of sunk costs, which "are specifically tailored to the transaction and cannot be fully salvaged outside the transaction." G. Richard Shell, Opportunism and Trust in the Negotiation of Commercial Contracts: Toward a New Cause of Action, 44 Vand. L. Rev. 221, 229 (1991).

\(^\text{26}\) Bounded rationality "is a semistrong form of rationality in which economic actors are assumed to be 'intendedly rational, but only limitedly so.'" Williamson, Economic Institutions, supra note 18, at 45 (quoting Herbert A. Simon, Administrative Behavior at xxiv (2d ed. 1961)).
by express contracting. 27 Moreover, they fail to devise a structure for determining how opportunistic hazards from strategizing can be mitigated to maximize joint gains from trade in the most cost-effective manner with the greatest net benefits. Thus they fail to invoke a well-known comparative methodology 28 for exploring and comparing a range of possible feasible solutions for persistent problems of uncertainty and sunk costs when express private contract solutions to rent-seeking behavior will be difficult or unattainable. 29 Without that methodology, the literature cannot explain why law-supplied default rules should be preferred over other approaches.

Finally, while the body of literature on transaction cost economics and the new institutional economics remains a potentially rich source of solutions to the problem of justifying an implied obligation, it remains partially inaccessible to the current students of contract default rules. This Article will offer a framework to guide decisionmakers in determining the appropriateness (efficiency) 30 of law-supplied implied obligations, 31 by highlighting the realistic behavioral assumptions 32 of transaction cost methodology as it is

27. See id. at 67.
28. See Williamson & Bercovitz, The Modern Corporation, supra note 18, at 332-33 (discussing the characteristics of a comparative “remediableness” methodology).
29. See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 67; see also William J. Baumol, Williamson’s The Economic Institutions of Capitalism, 17 RAND J. ECON. 279, 280 (1986). Baumol noted:

Williamson lists three necessary conditions that, in the absence of externalities, make it likely (if they are all satisfied) that efficiency problems will not automatically solve themselves optimally through a marriage of the market mechanism and contractual relationships. These three requirements . . . are asset specificity (sunk costs), . . . “bounded rationality,” . . . and . . . “opportunism.”

31. New institutional transaction costs economics is not concerned with law-supplied rules per se. Instead it “works out of a private ordering rather than legal centralism approach to contract law.” WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 42. Despite the reorientation of new institutional economics toward private ordering and away from law, this Article concludes that the new institutional economics can and should address questions of legal intervention, using the same framework developed to explain choices in private ordering.
32. Of crucial import is the view of transaction cost economics that “behavioral assumptions are important.” Id. at 55. The emphasis on realistic behavioral assumptions, with its recognition of such traits as bounded rationality, sunk costs, and moral hazard, must be part of any effort to understand man and his institutions, including legal ones. See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 44. Coase began this trend toward a realistic assessment of behavioral assumptions with his frank recognition of the presence of transaction costs. See Coase, supra note 6, at 16 (calling attention to the costs of market
reflected in new institutional economics, emphasizing the "hazard mitigation," and comparing and assessing the arrangements to determine which will yield the greatest net benefits.

Part II of this Article seeks to remedy defects in current approaches to law-supplied obligation by presenting a methodology derived from the new institutional economics that can be used to justify law-supplied obligations in a second-best world. It adopts a "framework" comparing "alternative feasible forms ... with each other" to determine whether the implementation of any law-supplied rule would be efficient in the sense of increasing net gains. In its current formulation, the comparative institutional approach is used primarily to explain why parties have adopted various organizational structures and thus to explain what actually exists. This Article suggests that the comparative net benefit approach of the new institutional economics should be extended to cases where the parties themselves have failed to adopt a term or resolve a matter by contract, and a legal decisionmaker must determine whether supplying terms or liability rules would maximize the joint gains from trade. Law,

transactions and their effects in hindering the "optimal arrangement of rights"). Oliver Williamson has heeded the Coasian injunction to formulate realistic behavioral assumptions. See Oliver E. Williamson, Revisiting Legal Realism: The Law, Economics, and Organization Perspective, 5 INDUS. & CORP. CHANGE 383, 388 (1996) [hereinafter Williamson, Revisiting Legal Realism] (explaining the Coasian approach of studying "[t]he process of contracting in a real-world setting" (quoting Coase)). Hazard mitigation figures prominently in the literature of new institutional economics. See, e.g., WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 5 (explaining how "the study of governance is concerned with the identification, explication, and mitigation of all forms of contractual hazards.")

33. Williamson & Bercovitz, The Modern Corporation, supra note 18, at 332.

34. See id. (discussing principle of comparing "alternative feasible forms" and rejecting approach based on comparing "feasible forms ... in relation to a hypothetical ideal").

35. Second-best refers to an imperfect world in which we cannot reach the first-best world which has no transaction costs. Second-best does not refer to the theory of second-best in which an "action that is proposed cannot be evaluated until we see whether unintended consequences make us worse off." Memorandum from Peter M. Gerhart, Professor of Law, Case Western Reserve University School of Law (Jan. 30, 1998) (on file with author).

36. Williamson & Bercovitz, The Modern Corporation, supra note 18, at 332 (emphasis omitted).

37. For this reason, as Oliver Williamson explains, "[s]ome might object that the remediableness standard exchanges utopian reasoning for Dr. Pangloss, and it is certainly true that the remediableness standards is more deferential to 'what is.'" Id. at 332-33.

38. Williamson explains that such maximization can occur through control of opportunism. "Harmonizing the contractual interface that joins the parties, thereby to effect adaptability and promote continuity, becomes the source of real economic value." WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 30.
Economics, and Organization theory should set the stage for a new approach to incomplete contracting.

Part III of the Article will examine and critique the current hypothetical bargain default rule literature. At present, it has failed to develop a comparative methodology to justify the presence of a law-supplied obligation. This Part will also suggest that the deficiencies in current theories of default rules, including hypothetical bargain theory, must be modified to include a comparative net benefit standard in order to provide a complete structure for determining what the parties would want.

Part IV will draw on the comparative analysis developed in the first two Parts of this Article to critique the penalty default rule methodology proposed by Ayres and Gertner. This Part suggests that while the penalty default rule methodology helpfully recognizes the importance of strategic behavior in deciding how to craft default rules, it still fails to provide a complete justification for a law-supplied rule because it fails to provide a means of determining whether a suggested law-supplied rule will achieve greater net benefits than other approaches in a second-best world. Moreover, because Ayres and Gertner fail to distinguish between default rules that supply terms and those that refuse to do so, they fail to provide an explanatory theory which can account for the variegated judicial approaches to contractual gaps.

Ayres and Gertner’s penalty default rule analysis cannot explain the full range of approaches taken to basic issues of gap filling. They argue that the courts’ refusal to fill quantity terms left incomplete stems from an underlying penalty default rule designed to force the parties to reveal information about the quantity ex ante, because doing so will efficiently save the courts the cost of filling in such quantity ex post. However, the penalty default rule does not explain the very different approaches taken to quantity terms in short- and long-term contracts. In long-term contracts the courts are often willing to permit the enforcement of requirements contracts in which the actual quantity is not specified. In such cases, courts recognize that

39. Law, Economics, and Organization theory is discussed in Williamson, Revisiting Legal Realism, supra note 32.
40. See generally Ayres & Gertner, supra note 4.
41. See infra note 54 (discussing meaning of second-best to refer to an imperfect world).
42. See supra text accompanying notes 12-13.
43. See Ayres & Gertner, supra note 4, at 96 (explaining that “it is systematically harder for the courts to figure out the quantity than the price ex post”).
persuasive barriers, such as the unforeseeability of the future, may prevent the achievement of ex ante specificity and permit the enforcement of what would otherwise be considered indefinite contracts.\footnote{See infra notes 172-183 and accompanying text.}

Part IV of the Article also challenges the Ayres and Gertner attack on the "soundness" of the hypothetical bargain rationale. This Article argues that the discrediting of the majoritarian hypothetical bargain depends on a falsely perceived judicial rejection of majority preferences. The results in these types of cases are better explained by the law's disinclination to intervene to implement majority preferences if no barriers prevent the private achievement of such goals. So conceptualized, the cases are still consistent with a hypothetical bargain rationale.\footnote{Hypothetical bargain methodology underlies much of current default rule scholarship. One recent scholar (and critic) explains the approach as follows: "To interpret contracts, lawyers ask: what would the parties have agreed to had they explicitly adverted to the issue? That is, the interpreter constructs a 'hypothetical bargain': he determines how the parties would have bargained to treat the situation that has arisen had it been directly presented to them ...." Charny, supra note 30, at 1815-16. For a discussion of how the Hadley case can be rationalized under a reformulated hypothetical bargain standard see infra notes 176-183 and accompanying text.}

The presence of an underlying hypothetical bargain rationale in these cases has been obscured by the failure of the legal decisionmaker to employ a realistic model of behavioral assumptions and a comparative approach. These failures have hampered the development of a framework for justifying legal interventions. With such a framework, courts could then determine whether a legal intervention is efficient in the sense that "some selected objective ... will be achieved at a higher level with the interjection (intervention) than without it, all things (benefits achieved and costs incurred, with the intervention as compared without the intervention) considered,"\footnote{E-mail from Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law, to Juliet P. Kostritsky, Professor of Law, Case Western Reserve University School of Law (July 16, 1996) (on file with author) [hereinafter Coffey E-mail (July 16, 1996)].} and is therefore hypothetically preferred. Under this suggested structure one can rationalize rules, such as the Hadley rule in hypothetical bargain terms, although Ayres and Gertner have viewed such rules as antimajoritarian, penalty default terms.

Part V will look at particular instances of law-supplied default rules in precontractual negotiation. It will illuminate the underlying frameworks and assumptions used to justify legal interventions in the form of suggested law-supplied liability rules or terms. This Part
suggests that current justifications for the particular default rules for precontractual negotiation are flawed because they (1) fail to identify relevant structural features necessary to resolve whether a given law-supplied rule will produce "a greater net benefit" and is therefore more efficient than other alternatives, 48 (2) obscure the law-supplied nature of the default rule, and (3) fail to develop a comparative framework.

Those analytical flaws are fundamental. They hamper the efforts of commentators to (1) justify liability rules which they propose, 49 (2) explain the variability in judicial treatment of vague or incomplete contracts, 50 or (3) explain whether and in what circumstances the law should intervene. 51

Part VI will use Williamsonian economics and the analytical framework developed in this Article to resolve questions about the nature and scope of law-supplied obligations in subcontracting. This Part will suggest that current approaches fail to grasp the behavioral realities of subcontractor bargaining, obscure the law-supplied nature of the implied terms, fail to provide a comparative analytical structure for resolving whether the law should interject an implied term, and therefore reach inappropriate conclusions on when the contractor's reliance should be protected. 52

II. THE FRAMEWORK: THE "COMPARATIVE NET BENEFIT" STANDARD

In determining whether the law should intervene through a "rearrangement of [legal] rights" 53 and supply terms or a liability rule not expressly agreed to, one must first determine whether we are in an ideal or a second-best world. 54 In a first-best frictionless world, the

48. See E-mail from Ronald J. Coffey, Professor of Law Case Western Reserve University School of Law, to Juliet P. Kostritsky, Professor of Law, Case Western Reserve University School of Law (July 11, 1995).
49. See infra Parts IV and V.
50. See infra text accompanying notes 172-183
51. See infra text accompanying notes 172-183.
52. See infra Part VI.
53. Coase, supra note 6, at 15.
54. By "second-best" this Article is not referring to the theory of second-best pioneered by Lipsey and Lancaster. It instead refers to an imperfect world in which persuasive barriers interfere with the achievement of a first-best contract achievable, by definition, only if such barriers did not exist. The Article rejects the nihilistic view of Lipsey and Lancaster that the acknowledgement of imperfections and the absence of a first-best world means that we cannot identify a hypothetically preferred bargain "because the functions of imperfections cannot be sufficiently specified to optimize the interdependence among them, and therefore the extent to which express or law-supplied terms can address them is hopelessly indeterminate." Coffey E-mail (Apr. 5, 1997), supra note 2. For a study
parties themselves can be expected to achieve completely contingent contracts that maximize gains from trade and improve joint welfare. In such a world, "the only thing then left to bargain over would be who gets what gain from trade," a matter about which contract law would presumably remain indifferent. The parties could be expected to rearrange "the initial legal delimitation of rights...if it would lead to an increase in the value of production." Without frictions the parties themselves could rearrange their rights and the "ultimate result (which maximises [sic] the value of production) is independent of the legal position if the pricing system is assumed to work without cost." Legal intervention would presumably be unnecessary in such a world.

Because natural barriers beset the parties, however, a frictionless world does not exist. A second-best world of positive transaction costs including bounded rationality, asset specificity, and opportunism exists and parties may therefore fail to achieve contracts that achieve the parties' assumed shared objectives. The confluence of these characteristics presents "serious contractual difficulties" for the parties. In this imperfect world, the legal decisionmaker must determine whether and in what circumstances the law should supply a term, given the inability of the contracting parties to achieve a first-best arrangement. The governing principle for judging the efficiency of legal interventions should be a comparative one. That determination would necessarily include a consideration of "the law and economics of private ordering."


55. See Coase, *supra* note 6, at 8. In such a frictionless world "[t]he moral of the story is that if the market is working perfectly, there should never be any inefficient contract terms, so efficiency can never be improved by forbidding certain terms." Craswell, Coase Lecture, * supra* note 6, at 3.

56. Coffey E-mail (July 16, 1996), *supra* note 47.


59. *Id.* at 8.

60. Williamson discusses the importance of these behavioral assumptions in transaction cost economics. See *WILLIAMSON, ECONOMIC INSTITUTIONS*, *supra* note 18, at 44-54.

61. Common objectives include the maximization of the "expected value of the contract for both parties. Only by allocating risks in order to maximize the joint expected benefits from their contractual relationship can the parties hope to maximize their individual utility." Scott, *supra* note 17, at 602.


63. *Id.* at 21.
To date, the "remediableness" or comparative net benefit standard has been used by transaction cost economists to explain that the parties choose organizational structures and institutions to minimize transaction costs.\(^{64}\) In some instances, minimizing transaction costs causes corporations to vertically integrate; "interfirm contracting may be supplanted by internal organization. Markets give way to hierarchies."\(^{65}\) Corporate decisions (such as whether to seek vertical integration or engage in market contracting) can thus be explained by a desire to minimize hazards of opportunism in the most cost-effective ways.\(^{66}\)

The principle of remediableness requiring a comparative assessment of net benefits has thus been used to explain a variety of other organizational choices made by firms. Williamson has used a comparative analysis of net benefits to explain "three structural features . . . : perpetuity, autonomous contracting, and limited liability," characteristic of corporations.\(^{67}\) He argues that those organizational modes are undertaken precisely because they solve certain hazards at a lesser cost than a range of alternatives.\(^{68}\) In other instances, transaction costs may explain the presence of "contractual safeguards [which] will be introduced in the degree to which that is cost-effective."\(^{69}\) These "include take-or-pay clauses, penalty clauses, reciprocal trading arrangements, and special information disclosure and dispute-settling arrangements, of which arbitration is an example."\(^{70}\)

While the usefulness of the comparative assessment principle has been evident as a means of explaining what exists (such as an organizational structure actually undertaken), there has been a failure to extend its structure beyond a rationalization of what exists to include a determination of whether or when certain law-supplied rules should be adopted to supplement private arrangements.

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64. "The discriminating alignment hypothesis to which transaction-cost economics owes much of its predictive content holds that transactions, which differ in their attributes, are aligned with governance structures, which differ in their costs and competencies, in a discriminating (mainly, transaction-cost-economizing) way." WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 101.

65. Williamson & Bercovitz, The Modern Corporation, supra note 18, at 341.

66. "The monopoly approaches ascribe departures from the classical norm to monopoly purpose. The efficiency approaches hold that the departures serve economizing purposes instead." WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 23.


68. See id. at 337.

69. Id. at 344.

70. Id. at 341.
This Article suggests that the remediableness net benefit comparison should be adapted to determine if and in what cases law-supplied terms with what content would be appropriate. Under this approach, if law-supplied terms would "move the parties closer to what they wanted (in a narrow sense of economic welfare improvement), minimizing the dead weight costs imposed by the natural barriers (uncertainty, opportunism, and sunk costs) and thereby increasing the gain from exchange," than other alternatives, then a legal intervention in the form of a default rule of implication is appropriate.

Of course, the parties may use private devices or express contracts to achieve their assumed welfare improvement goals. To determine whether a law-supplied rule will enhance joint welfare in the above described sense, the legal decisionmaker must first determine whether the parties themselves can overcome the barriers to maximizing the gain from exchange and if so, at what cost. Only after determining that the law-supplied rule will maximize gains from trade (and surplus) by overcoming barriers at a cheaper cost than the parties' private counterstrategies (thereby achieving greater net benefits) should the legal decisionmaker determine that a particular law-supplied rule would be preferred on a cost/benefit basis.

III. DEFAULT RULE METHODOLOGY: THE ABSENCE OF A COMPARATIVE METHODOLOGY

The failure to grasp the relevance of the underlying comparative benefit structure for justifying law-supplied interventions has obscured current scholarly efforts to guide courts filling gaps in incomplete contracts. It has led to the hypothetical bargain, a suggested method

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71. Coffey E-mail (July 16, 1996), supra note 47.
72. These private counterstrategies can take many different forms. In the agency context, the parties face the same bounded rationality problems, as well as problems of opportunism, which confront parties negotiating many types of contracts. Because of bounded rationality problems, principals would have difficulty devising an express fully contingent contract which could specify in advance all of the choices that an agent might face and devise specific contracts to control shirking. Consequently, the principal may employ a series of other counterstrategies including monitoring, bonding, screening and ex ante alignment schemes. See Kostritsky, Bargaining with Uncertainty, supra note 9, at 654-57.
73. See supra text accompanying note 71.
74. See Kostritsky, Bargaining with Uncertainty, supra note 9, at 651 ("This Article addresses whether the law should supply a default rule by conducting a further analysis—comparing the costs of possible private mechanisms for overcoming the barriers to contracting with those of a law-supplied rule.").
for filling in contractual gaps. In its current form, the hypothetical bargain fails to justify the default rules proposed under its aegis, because the theory on which it is based ignores the comparative framework, which is central to justifying legal interventions, in a number of ways.

First, some proponents of the hypothetical bargain seem to assume incorrectly that the parties would have bargained to include an express contract term, and thereby neglect the importance of other types of "private orderings," highlighted by Oliver Williamson and others. Second, because they are premised on rules for a frictionless world, hypothetical bargain rationales ignore the realistic behavioral assumptions that are central to transaction cost analysis and new institutional economics. Thus, they cannot provide solutions designed for a second-best world in which persuasive barriers interfere with the achievement of private contractual solutions. Third, the hypothetical bargain rationales sometimes assume incorrectly that transaction costs constitute the main or only barrier to private solutions, thereby neglecting the full range of other barriers that interfere with private solutions. Finally, the hypothetical bargain rationales tend to neglect the importance of a comparative assessment, central to a Williamsonian remediableness analysis. Without that comparative element, hypothetical bargain theory cannot determine whether a law-supplied rule would be preferred to other strategies, including "private orderings" undertaken by the parties.

In its traditional formulation, the hypothetical bargain purports to justify particular instances of law-supplied terms, by reference to a projected hypothetical bargain. The law acts as a "facilitator," specifying terms that the parties could formulate themselves if unrestrained by time and effort costs. A similar formulation provides that: "[o]n these simple assumptions, transactors would not

75. Hypothetical bargain methodology including "fundamental issues of method and justification" are discussed generally in Charny, supra note 30. For a discussion of hypothetical bargain methodology, see supra note 46.


77. See supra notes 24-29 and accompanying text.

78. Charles J. Goetz & Robert E. Scott, The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms, 73 Cal. L. Rev. 261, 266 (1985) (emphasis added) [hereinafter Goetz & Scott, Expanded Choices]; see also Douglas G. Baird & Thomas H. Jackson, Fraudulent Conveyance Law and Its Proper Domain, 38 Vand. L. Rev. 829, 835-36 (1985) (embracing default rules that "provide all the parties with the type of contracts that they would have agreed to if they had had the time and money to bargain over all aspects of their deal").
LAW-SUPPLIED DEFAULT RULES

have to write down any terms at all. Transactors would know that the law enforces whatever terms the transactors would specify; consequently, transactors need not actually incur these costs to get the benefits of the term." The role of the court in supplying default rules under hypothetical bargain theory is to minimize transaction costs for the parties by supplying a set of preformulated terms mimicking "arrangements ... most bargainers prefer." Idiosyncratic parties can easily opt out of these law-supplied default rules.

One major difficulty with the prior formulations of hypothetical bargain default rules is that they suggest that the courts should supply terms which the parties would have agreed on had the circumstances been brought to their attention and had the parties had adequate time to negotiate a relevant contract provision. Many of these formulations of default rule methodology seem to assume, at least implicitly, that the court ought to fill in gaps with what the parties would have bargained to. These formulations apparently assume that there is a contractual provision to which the parties would have bargained given sufficient time. As Easterbrook and Fischel explain, "[c]orporate law—and in particular the fiduciary principle enforced by courts—fills in the blanks and oversights with the terms that people would have bargained for had they anticipated the problems and been able to transact costlessly in advance." The formulation suggests the adoption of default rules with the contract provisions that the parties would have ultimately adopted, if they had the time and foresight to negotiate.

The hypothetical bargain approach seems flawed because it does not appear to admit that the parties might have opted for other solutions, given the barriers to express contractual solutions. Had an issue been directly presented to them, the parties might well have chosen not to adopt a contractual solution at all but rather to opt for a noncontractual private solution. Thus, at least some hypothetical

79. Chamy, supra note 30, at 1840.
80. Charles J. Goetz & Robert E. Scott, The Mitigation Principle: Toward a General Theory of Contractual Obligation, 69 VA. L. REV. 967, 971 (1983) (emphasis omitted) [hereinafter Goetz & Scott, Mitigation Principle]. There is some debate about the "extent to which the adjudicator [should] particularize[] her formulation to the particular transactors whose dispute is before her—adjusting the formulation for particular transactors' judgments, preferences, perceptions and so forth." Chamy, supra note 30, at 1820.
81. They can opt out because default rules are not immutable. See Ayres & Gertner, supra note 4, at 89 (contrasting default rules with immutable rules).
83. These private solutions figure prominently in new institutional economics which has placed an emphasis on "private ordering through ex post governance." WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 10 (emphasis added). Of course, there is still
bargain approaches to gap filling incorrectly assume that the parties would have bargained to an express contract term, and neglect to advert expressly to noncontractual private solutions. These approaches downplay the importance of noncontractual alternatives which should be considered as part of a comparative institutional assessment.

In addition, because some formulations attempt to derive hypothetically preferred terms by positing terms which the parties would have bargained toward in a frictionless world, they cannot provide solutions for a world in which frictions do exist in the form of uncertainty, opportunism, and sunk costs. In that frictionless scenario, "[t]he only thing left to ‘bargain’ over would be who gets what portion of the total gain from trade." Because a frictionless world is unattainable, and a second-best world of frictions inevitably exists, it is important to recognize the frictions that parties face and to assess default rules in terms of their ability “to solve the barriers problems that the parties would want, given a second-best world.”

Even hypothetical bargain formulations which recognize that some frictions exist are flawed because they seem to assume (incorrectly) that a particular barrier—that of bounded rationality—constitutes the only barrier to the parties adopting a contractual term. If, however, the transaction costs of bounded rationality constituted the parties’ only obstacle, then, as Professor Williamson argues, the parties themselves could presumably resort to “general clause contracting,” under which the parties would use general clauses which do not “require comprehensive preplanning,” there would be no need for law-supplied rules. Suggested gap filling in cases where the only assumed obstacle is transaction costs would therefore not justify a law-supplied gap filler because the parties might devise general clauses to make up for their lack of foresight. By postulating a world of low transaction costs as the basis for determining what provisions would have been adopted, certain default rule methodology ignores the complexity of the barriers (other than transaction costs) which prevent a role for contract law to play because “each generic mode of governance (market, hybrid, hierarchy, etc.) is supported by and in significant ways is defined by a distinctive form of contract law. The idea of contract laws (plural) rather than of a single, all purpose law of contract thus plays an active role in transaction cost economics.”

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84. See Coffey E-mail (July 16, 1996), supra note 47.
85. Id.
86. Id.; see also Kostritsky, Bargaining with Uncertainty, supra note 9, at 651.
87. WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 48, 67. “Unanticipated events could be dealt with by general rules, whereby parties agree to be bound by actions of a joint profit-maximizing kind.” Id.
the parties from achieving their goals. Again, only after having identified those barriers can a legal decisionmaker recognize the barriers which prevent a private contractual solution and inquire into whether parties could devise other private mechanisms to achieve shared goals, and if so, at what cost.

Another analytical difficulty with many default rule formulations is that they suggest the law should adopt a rule that the parties might hypothetically have wanted in order to lower transaction costs, without first determining whether intervention would achieve a certain objective better (at less cost) than any private strategies available to parties. Such methodology ignores the central issue of why/when a law-supplied rule is preferable to nonintervention, and thus avoids the injunction of Professor Williamson that "transaction costs are always assessed in a comparative institutional way." 88

The formulations seem to suggest that the law should adopt a default rule whenever doing so would lower the “absolute magnitude of transaction costs.” 89 The Expanded Choice Postulate, 90 for example, suggests “that implied terms expand contractors’ choices by providing standardized and widely suitable ‘preformulations,’ thus eliminating the cost of negotiating every detail of the proposed arrangement.” 91 Prior formulations of the hypothetical bargain rationale suggest that the law adopt, as default rules, terms that will save parties from incurring transaction costs. Without a comparative assessment, however, such formulations cannot determine which strategies will better achieve the parties’ goals, given the barriers which do exist.

Ayres and Gertner’s discussion of the origins of contractual incompleteness and the parties’ responses to the high transaction cost of providing for every contingency illustrates the absence of a comparative assessment. In that discussion, Ayres and Gertner posit that the parties weigh the costs and benefits of providing for a contingency. 92 The discussion, however, only incorporates a cost/benefit analysis in which parties weigh the actual costs of transacting with the “benefits of contractually addressing a particular contingency.” 93 Thus:

88. Id. at 22. A comparative assessment should include a consideration of private strategies.
89. Id. As Williamson points out, “it is the difference between rather than the absolute magnitude of transaction costs that matters.” Id.
90. See Goetz & Scott, Expanded Choices, supra note 78, at 262.
91. Id.
92. See Ayres & Gertner, supra note 4, at 93.
93. Id. at 93.
Contracts may be incomplete because the transaction costs of explicitly contracting for a given contingency are greater than the benefits. These transaction costs may include legal fees, negotiation costs, drafting and printing costs, the costs of researching the effects and probability of a contingency, and the costs to the parties and the courts of verifying whether a contingency occurred. Rational parties will weigh these costs against the benefits of contractually addressing a particular contingency. ⁹⁴

Ayres and Gertner then explain that under the “would have wanted approach,” courts will choose to fill gaps to “minimize the costs of contracting by choosing the default that most parties would have wanted.” ⁹⁵

The use of the “would have wanted approach” is bound to promote incorrect gap filling. The cost-benefit analysis fails to include a consideration of alternative private approaches which the parties might have used to overcome certain problems such as opportunism, given the presence of bounded rationality and sunk costs. ⁹⁶ Without that comparison, it is hard to discern whether a law-supplied rule would indeed be preferred as the one that could achieve the greatest “net benefits.”

Charny’s explication of several types of hypothetical bargain approaches to filling in contractual gaps also lacks a comparative approach. For example, Charny indicates that “[i]f the adjudicator readily can determine that all transactors would bargain to rule X, and would bargain around any other rule Y that differed from rule X, then she should adopt rule X.” ⁹⁷ That “would sharply reduce the cost of transacting.” ⁹⁸ This particular formulation of the hypothetical bargain

⁹⁴. Id. at 92-93 (footnote omitted).
⁹⁵. Id. at 93. My colleague, Andrew Morriss, points out that an unwanted side effect of default implication is that it may create an “incentive to save on transaction costs by leaving terms to the courts. This may inappropriately reduce the costs of contracts” in comparison to other choices. See Comments of Andrew P. Morriss, Professor of Law, Case Western Reserve University School of Law.
⁹⁶. Ayres and Gertner are themselves critical of the traditional approach to gap filling which attempts to save parties the transaction costs of negotiating for each contingency. They argue that default rule methodology is geared too much to solving problems of “contractual incompleteness,” which originate in transaction costs of drafting relevant provisions. They argue that it fails to account for “a second source of contractual incompleteness,”—namely strategizing. Ayres & Gertner, supra note 4, at 94. To address contractual gaps originating in such cause Ayres and Gertner propose an alternative rule to counteract such strategizing. This Article argues that though the recognition of this alternative “source of contractual incompleteness” is important, the proposed penalty default rule itself fails to justify the proposed law-supplied rule because it fails to engage in a complete comparison of alternative approaches.
⁹⁷. Charny, supra note 30, at 1847.
⁹⁸. Id. at 1841.
neglects the analysis which should precede any interjection of a law-supplied term. That analysis should consider (1) whether persuasive barriers prevented the achievement of an express bargain and the express adoption of a particular rule \((X, Y)\) and (2) whether the law-supplied rule \((X \text{ or } Y)\) or a private solution will achieve the parties' joint goals, such as maximizing surplus, in a more cost-effective way.

A second formulation of the hypothetical bargain by Charny also neglects the relevant comparison to private strategies. He states that:

If some transactors will bargain around rule \(X\), and other [sic] will not, then the relevant total cost of rule \(X\) is the costs of bargaining around plus the costs of ex post opportunistic behavior under the rule for those who stick with it. The adjudicator should aggregate the costs for each alternative rule and choose the rule with the lowest total cost.  

To justify intervention fully, the adjudicator should also consider whether the parties' private strategies for achieving their goals would be more costly than a law-supplied rule. Hence, the comparison must include not only alternative law-supplied rules, but also private strategies for achieving the parties' joint goals. The adjudicator should consider not only the costs of bargaining around Rule \(X\) and the inefficiencies resulting from not bargaining around Rule \(X\), but also should compare that aggregate cost to private strategies' costs that parties could use to achieve efficiencies.

Thus, the hypothetical bargain rationale, as it has often been interpreted, does not provide a complete structure for determining what the parties would have wanted, given existing frictions. It assumes that the determination of hypothetically preferred terms can be made without reference to a cost-benefit comparison to private strategies, in terms of their relative capacity to overcome a multiplicity of extant barriers.

Even criticisms of the hypothetical bargain rationale and suggested improvements in the application of the theory do not provide a decisionmaker with a complete model. These suggested improvements still lack a comparison of the costs of private and law-supplied strategies for achieving the parties' presumed joint goals,

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99. *Id.* at 1848.
100. An alternative formulation by Charny states that "[i]f transactors will not bargain around whatever rule that the adjudicator would adopt, the adjudicator should adopt the rule that minimizes ex post costs of opportunistic behavior to transactors taken as a group," *Id.* at 1847-48. What is obscured in this formulation is a direct inquiry into whether a law-supplied rule would be preferred as the means of reducing opportunistic behavior over private strategies for achieving that same goal.
101. See, e.g., *Id.* at 1840-48.
such as the maximization of the surplus from trade. Thus, even suggested changes to the hypothetical bargain still would not permit a court to justify a law-supplied rule as the least costly solution to any perceived problem hampering maximization of joint surplus.

Some criticism of hypothetical bargain theory suggests that the theory is unusable in its current form because of problems of method arising at the level of "generality" and "idealization." For example, the legal decisionmaker does not know whether, in crafting a legal rule to govern workers and firms, the court should look to individual workers and firms, or to all workers and firms. Nor does the decisionmaker know, in formulating a preferred default rule, how ideal he should assume transactors to be. The assumption is that resolution of the idealization and generality issues would eliminate the "confusion" in applications and allow one to apply the hypothetical bargain formula to reach correct results.

Attempts to correct the hypothetical bargain theory by resolving idealization and generality questions will not achieve the framework for justifying a law-supplied term and are therefore misplaced. To the extent approaches to hypothetical bargains even contemplate idealized bargainers, they will fail because they direct the decisionmaker away from realistic behavioral assumptions. Moreover, the focus on resolving "generality" issues suggests that there is some way to divine what the parties themselves would want if one could decide whether to look to the individual transactors or to some larger group to determine preferences. Generality issues divert the decisionmaker from key "factors responsible for differences among transactions," including bounded rationality, opportunism, and sunk costs. It is the identification of those factors, together with a model of the parties' assumed goals based on average preferences that would help the

102. See Goetz & Scott, Mitigation Principle, supra note 80, at 973.
103. See Charny, supra note 30, at 1816-17 (discussing both difficulties in how to apply the hypothetical bargain theory and more "fundamental problems of justification" in a theory which binds parties to obligations "to which we did not assent explicitly").
104. "Generality refers to the extent to which the adjudicator particularizes her formulation to the particular transactors whose dispute is before her . . ." Id. at 1820.
105. "By idealization, I mean the degree to which the interpreter constructs the bargain as it would be struck by idealized rather than real-world transactors." Id. at 1820-21.
106. Charny discusses this example in the context of examining "whether to imply a good faith term in an employment contract." Id. at 1816.
107. See id. at 1820-21.
108. See id.
109. See id. at 1817, 1820-21.
110. See id. at 1816-20.
111. WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 52.
decisionmaker to develop a better "predictive theory of economic organization." Identification of these factors would also assist the decisionmaker develop a framework to help determine whether a law-supplied gap filler term would better achieve the parties' goals (by overcoming the barriers at a lesser cost) than any private strategy. A focus on the individual worker versus all workers directs the decisionmaker from focusing on assumed joint goals such as the maximization of the surplus from trade. An assessment of what the parties hypothetically want cannot be made without a recognition of common goals. Furthermore, the assessment requires a comparison of private strategies devised to overcome obstacles to achieving the parties' assumed joint goals and law strategies for achieving such goals.

Traditional formulations of the hypothetical bargain standard, even in revised forms, improperly look exclusively within the contract to determine what the parties would bargain toward. These formulations neglect to emphasize the confluence of obstacles that the parties face in the achievement of mutual gains. These obstacles include: behavioral uncertainty or opportunism, bounded rationality, and sunk costs. Economists tell us that when those behavioral characteristics occur together, barriers may make it difficult for the parties to achieve their goal of maximizing mutual gains because of contractual difficulties. Once those characteristics are recognized, it becomes incumbent on a legal decisionmaker to compare the costs and benefits of private strategies for overcoming those barriers with those of law-supplied rules. By neglecting to emphasize the behavioral attributes which interfere with mutual gain achievement, the methodology fails to inquire as to "how a law-supplied rule could move the parties closer to what they wanted (in a narrow sense of economic welfare improvement), minimizing the deadweight costs of

112. Id.
113. See Charny, supra note 30, at 1816-17.
114. See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18.
115. See id. at 45, 47-49, 52-54, 56-59.
116. See id. at 67.
117. Thus a legal decisionmaker deciding whether to supply a just cause limit on an employer's right to discharge should consider whether "the commitment accords with the objectives likely to be sought, on average, by parties who deal in a less than fully explicit manner; . . . there are implicit social or other costs to not imposing the commitment . . . [and] the alternative private devices are more costly than the benefits they could achieve." Kostritsky, Bargaining with Uncertainty, supra note 9, at 674; see also Stewart J. Schwab, Life-Cycle Justice: Accommodating Just Cause and Employment at Will, 92 MICH. L. REV. 8 (1993) (discussing a "coherent framework for understanding the default rules for employment termination").
transacting imposed by the natural barriers (uncertainty, opportunism and sunk costs) and thereby increasing the gain from exchange.\textsuperscript{118}

The model should instead "make[] assumptions about what [the] objectives of parties are and why they did not get there,"\textsuperscript{119} and compare the costs and benefits of using law-supplied terms with the costs and benefits of private responses to overcome barriers interfering with mutual goal achievement.

IV. PENALTY DEFAULT RULES: AN ALTERNATIVE APPROACH THAT STILL LACKS A JUSTIFICATIVE METHODOLOGY

The failure of default rule literature to develop fully a methodology which can justify law-supplied rules helps to explain the dissatisfaction with the current default rules. Ayres and Gertner attack the default rule literature for its lack of "a detailed theory of how defaults should be set."\textsuperscript{120} Additionally, in cases involving "rent-seeking, strategic behavior,"\textsuperscript{121} they propose to substitute a penalty default rule "purposefully set at what the parties would not want—in order to encourage the parties to reveal information."\textsuperscript{122}

This Article challenges Ayres and Gertner's argument that the recognition of the reality of strategizing by the parties and the deficiencies in current default rules should be solved by replacing the hypothetical bargain with a "penalty default rule."\textsuperscript{123} While the penalty default rule offers an apparently plausible rationale of forcing the disclosure of strategically held information, ultimately the penalty default rule fails to guide decisionmakers on how to fill in contractual gaps for several reasons. In order to understand why the penalty default theory fails as a means for assessing when the law should intervene with a term not expressly negotiated, it is important to understand the nature of the Hadley and non-Hadley rules that Ayres and Gertner discuss in terms of the nature of legal intervention at issue.

In a sense, the court in Hadley v. Baxendale had to decide whether to intervene with a particular form of sanction—consequential damages—which was not expressly adopted by the two parties to the contract.\textsuperscript{124} In Hadley, the court held that (1) the law should intervene

\textsuperscript{118} Coffey E-mail (July 16, 1996), supra note 47.
\textsuperscript{119} Id.
\textsuperscript{120} Ayres & Gertner, supra note 4, at 91.
\textsuperscript{121} Id. at 94.
\textsuperscript{122} Id. at 91.
\textsuperscript{123} While Ayres and Gertner are correct in arguing that justifications for default rules will remain thin without an underlying theory of "how defaults should be set," id. at 91, the solution does not lie in the adoption of a penalty default rule.
\textsuperscript{124} 156 Eng. Rep. 145, 145 (Ex. 1854).
by supplying implied damages that are foreseeable, but (2) specifically declined to intervene with a law-supplied rule granting consequential damages unless the special circumstances have been previously disclosed.\textsuperscript{125} In that second prong of the \textit{Hadley} rule, the court actually \textit{declines to intervene} to supply a damage rule granting consequential damages without prior disclosure by the parties. At the same time, the court indicates a willingness to imply nonordinary consequential damages if the parties had previously disclosed the special circumstances.

Thus, the \textit{Hadley} case is a complicated example to use as a paradigm for judging the appropriateness and efficiency of law-supplied intervention in the form of a law-supplied term granting foreseeable losses, refusing to intervene to supply a sanction for consequential losses in the presence of active withholding of information, and suggesting an apparent hypothetical willingness to supply consequential damages with disclosure. Without an understanding of these interventionist and noninterventionist aspects of the \textit{Hadley} ruling, it becomes difficult to assess the importance of \textit{Hadley} for resolving the critical question of when and why it is ever appropriate for the law to intervene with a term or liability rule if the parties have failed to negotiate one.

Ayres and Gertner’s treatment of the \textit{Hadley} rule fails to distinguish between the first prong of \textit{Hadley}, which constituted a default rule supplying a damage term by implication, and the second prong of the \textit{Hadley} default rule, which refused to imply the omitted damage terms absent prior disclosure.\textsuperscript{126} That analytical failure obscures the circumstances which justify a legal intervention in the form of an implied term and hampers the ability of penalty default rule scholars to offer a rule which can explain and justify the full range of approaches taken by courts to solve contractual gaps. The real problems with current default rules cannot be improved without a methodology which (1) rigorously accounts for the behavioral attributes of transactions and (2) compares the costs and benefits of law-supplied rules with other private strategies to determine which approach would be preferred because it is capable of achieving greater net benefits. This Article concludes that the hypothetical bargain is still a persuasive explanatory theory at least if it is enhanced to include a realistic model of behavior and a comparative approach. If reformulated in the above described fashion, hypothetical bargain

\textsuperscript{125} See id. at 151.

\textsuperscript{126} See generally Ayres & Gertner, supra note 4.
theory can provide a useful methodology for justifying law-supplied rules.

Thus, although the suggested adoption of a penalty default rule has proved remarkably popular, it, like the traditional hypothetical bargain, still lacks a complete methodology for justifying intervention taking the form of a law-supplied term. Because an underlying framework for determining when it is appropriate for the law to intervene through a default rule is missing from Ayres and Gertner, their methodology remains obscure and some of their applications of the methodology are unconvincing.

The shift from a hypothetical bargain rationale to a penalty default rule approach remains as unsatisfying as current formulations of the current default rule, because it too lacks a methodology aimed at explaining why the parties did not achieve their goals on their own and what, if anything, the law should do about it. The analytical focus should be on whether a law-supplied default rule, of whatever character, can solve the goal of the “mitigation of all forms of contractual hazard”—the “source of mutual gain”—in such a way that “no feasible superior alternative can be described and implemented with net gains,” rather than on a terminological debate on whether we denominate default rules as hypothetical bargains or as penalty default rules for punishing “rent-seeking.”

To resolve issues of whether legal intervention in the form of a default rule of implied obligation is justified on a comparative “net benefit” basis, the methodology must include a complete model of realistic behavioral assumptions. Although Ayres and Gertner admit to the propensity to strategic opportunism which may affect the parties, and seek to craft a legal penalty default rule designed to penalize the strategic withholding of information, their analysis fails to justify adoption of the legal rule for two reasons. It fails to account for a full range of behavioral assumptions. Because they do not identify the full range of “factors responsible for differences among transactions,” they fail to focus on the behavioral attributes of bounded rationality and sunk costs. Without a recognition of all the factors and the full range of behaviors, Ayres and Gertner cannot

127. A recent Westlaw search revealed 149 citations to the Ayres and Gertner article.
128. See infra notes 137-160 and accompanying text.
129. WILLIAMSON, MECHANISMS OF GOVERNANCE, supra note 7, at 5 (emphasis omitted).
130. Id. at 60.
131. Williamson & Bercovitz, The Modern Corporation, supra note 18, at 333.
132. See id. at 328-30.
133. WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 52.
explain why a law-supplied rule would be needed. As Professor Williamson explains, even if opportunism were present and "assets are specific but economic agents have unrestricted cognitive competence . . . [A] comprehensive bargain is struck at the outset . . . Contract execution problems thus never arise." Thus, if opportunism were present, it would presumably still be feasible for the parties to devise a contract to control for such propensities, were it not for bounded rationality. Similarly, even with opportunism and bounded rationality, were it not for transaction-specific sunk costs, "[p]arties to such contracts have no continuing interests in the identity of one another." In such cases, parties could simply resort to the market for relief.

By focusing primarily on strategizing and not admitting to the reality of bounded rationality and sunk costs, Ayres and Gertner cannot explain why private contract solutions or market solutions are not feasible. Thus, Ayres and Gertner do not provide the foundation for exploring a range of solutions, whether in the form of private arrangements or law-supplied interventions, to the market and contract failures.

In the context of the Hadley fact pattern, a multitude of factors may interfere with contractual and market solutions to the problem of opportunism by the high-risk miller who wishes to conceal his type in order to secure a lower shipping cost. Bounded rationality could make it difficult and costly to design schemes to control the opportunistic nonrevelation by high-risk millers. These schemes might include a menu of contracts with different prices to ferret out different types of millers. Additionally, because the carrier invests sunk costs in hauling the miller’s product, the carrier could not seek market relief by simply selling the shipping services to another party because they are not salvageable in that fashion.

An examination of these behavioral attributes of sunk costs and bounded rationality would help to lay the foundation for a law-supplied rule by highlighting the difficulties and costs of private counterstrategies for combating opportunism. By failing to focus on all the behavioral attributes, Ayres and Gertner’s embrace of a law-supplied rule remains problematic.

Ayres and Gertner’s justification for the Hadley rule also remains problematic because it fails to examine whether the presence of identified strategic behavior, by itself, justifies legal intervention in the

134. Id. at 30-31.
135. Id. at 31.
136. See id.
form of a particular default rule. Their failure to address that fundamental inquiry can be explained by their failure to parse the Hadley rule in terms of legal intervention. Consequently, they have viewed the Hadley rule as a penalty default rule that is an example of a legal intervention or response to strategic behavior.137 Yet, they fail to break Hadley into its three parts: (1) the court’s law-supplied term of ordinary and foreseeable damages, (2) the court’s law-supplied term of consequential damages with prior disclosure, and (3) the court’s refusal to supply a term of consequential damages absent prior disclosure.

Because of that analytical failure they completely fail to focus at all on the aspect of Hadley which does intervene by supplying consequential damages if there has been prior disclosure. Therefore, they fail to ask whether the law-supplied aspect of the Hadley rule would operate to achieve the parties’ goals at a lesser cost than other private mechanisms. The justification for the legal intervention that does exist—in the form of the prong of the Hadley rule implying consequential damages with prior disclosure—remains incomplete. Ayres and Gertner appear to focus on the prong of the Hadley rule which is actually a failure by the law to intervene, a refusal to engage in implication. They regard the refusal to intervene as equivalent to a case of an intervention of a law-supplied term or liability rule. They never attempt to explain why the Hadley rule—judicial intervention implying consequential damages with prior disclosure—is the preferred means of curbing opportunism. They do not explore other possible solutions to opportunism, including private ones. Ayres and Gertner seem to assume that the presence of strategic propensities alone will “justify strategic contractual interpretations by courts” as a way of “reduc[ing] the opportunities for this rent-seeking behavior.”138 In assuming that courts should control rent-seeking behavior (to avoid inefficient gaps), Ayres and Gertner have assumed, perhaps incorrectly, that the role of law is to “reduce the opportunities for this rent-seeking behavior.”139

Oliver Williamson argues that given the inevitable presence of opportunistic behavior, with its consequent inefficiencies, the question becomes how the ill effects of such rent-seeking behavior can be minimized.140 Parties themselves might adopt certain governance

\[137. \text{See Ayres & Gertner, supra note 4, at 103.} \]
\[138. \text{Id. at 94.} \]
\[139. \text{Id.} \]
\[140. \text{See Williamson, Economic Institutions, supra note 18, at 48, 63; Williamson & Bercovitz, The Modern Corporation, supra note 18, at 332.} \]
structures (such as vertical integration) to minimize such opportunistic behavior. The questions become: (1) how the transaction costs can be minimized and (2) with what approach (governance structure, private counterstrategy or legal default rule) will the parties be able to achieve greater “net benefits.” Minimizing such transaction costs would not necessarily entail the adoption of a law-supplied rule and thus it is misguided for Ayres and Gertner to assume that it is for the law to “reduce the opportunities for this rent-seeking behavior.” Parties themselves may be able to control for opportunism in more cost-effective ways. Because they have focused exclusively on the declining to intervene aspects of Hadley, they have avoided the comparative analysis central to justifying law-supplied terms.

The failure to engage in a comparative approach assessing relative net benefits has also led Ayres and Gertner astray by focusing their inquiry on the benefits of a particular default rule in encouraging the disclosure of information. As they explain, “by setting the default rule in favor of the uninformed party, the courts induce the informed party to reveal information, and, consequently, the efficient contract results.”

Of course, once they point out the efficiency benefits of having the information disclosed, it seems incontestable that the law should encourage such revelation. In reality, however, this analysis obscures the question for the legal decisionmaker. The question is not whether there are any benefits to be gained from a law-supplied default rule, but whether the benefits from the law-supplied Hadley rule—intervening to grant consequential damages with prior disclosure and declining to do so absent disclosure—are greater than the benefits that could be obtained by private efforts, given the obstacles hindering efficiency that exist (including strategizing).

Resolving the question of which approach will achieve greater “net benefits” requires a recognition that the Hadley and Baxendale problem (identified by Ayres and Gertner) raises the well known problem encountered in the insurance context: that of adverse selection and of asymmetric information. The carrier cannot tell if

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141. Ayres & Gertner, supra note 4, at 94.
142. Id. at 99.
143. Adverse selection is an insurance term and “is a consequence of the inability of insurers to distinguish between risks and the unwillingness of poor risks candidly to disclose their true risk condition.” Williamson, Economic Institutions, supra note 18, at 47; see also Kenneth J. Arrow, The Economics of Agency, in Principals and Agents: The Structure of Business 37, 38-40 (John W. Pratt & Richard J. Zeckhauser eds., 1985) (discussing adverse selection as problem of “hidden information”).
he is dealing with a high-cost or low-cost miller.\textsuperscript{144} Based on the recognition of adverse selection and the propensity to conceal one's type, Ayres and Gertner argue that a default rule should be adopted which gives the high-cost miller consequential damages only if the information is disclosed. The \textit{Hadley} problem is like all situations in which there is adverse selection: because a less informed party may not be able to recognize the difference between two types, a pooling problem exists.

Once the adverse selection problem is accounted for, the central question is whether the law should intervene with a term implying consequential damages if information is disclosed, but at the same time refuse to supply such consequentials absent disclosure. Ayres and Gertner do not fully resolve that question. Ayres and Gertner's analysis of the \textit{Hadley} rule rests on a comparison of "two possible defaults: denying or awarding the high, unforeseeable damages."\textsuperscript{145} They conclude that intervening to supply consequentials with disclosure, but declining to do so absent disclosure will be preferable to the non-\textit{Hadley} rule. This is so because the \textit{Hadley} rule will encourage high-cost millers to contract around the rule and doing so will result in a "'separating' equilibrium,"\textsuperscript{146} in which high-cost millers reveal their type and thereby avoid the inefficiency and cost associated with the nonrevelation of the high-cost types. Ayres and Gertner argue that the \textit{Hadley} rule thus helps to avoid the inefficiencies and costs that would be generated under a non-\textit{Hadley} rule when the high-cost millers choose, for strategic reasons, "to remain undistinguished from their low-risk counterparts."\textsuperscript{147}

Ayres and Gertner compare the efficiencies that would be gained from the adoption of a legally supplied \textit{Hadley} rule with the inefficiencies that would arise under the adoption of a non-\textit{Hadley} high damage rule that gave consequential damages without regard to whether special circumstances were revealed. Inefficiencies would result under a non-\textit{Hadley} rule because the high damage millers would conceal their type, causing the carriers to take insufficient precautions.\textsuperscript{148} A non-\textit{Hadley} rule would provide no incentive for type revelation because "high-damage millers will not reveal their true

\textsuperscript{144} See Ayres & Gertner, \textit{supra} note 4, at 111 (detailing tendency of high-cost miller to conceal information about its status in order to "receive the subsidized shipping price" that will obtain when the shipper cannot distinguish between high- and low-cost millers).

\textsuperscript{145} \textit{Id.} at 108.

\textsuperscript{146} See \textit{id.} at 112.

\textsuperscript{147} \textit{Id.} at 111.

\textsuperscript{148} See \textit{id.} at 112.
status to the carriers because they would be forced to pay more ... but would gain no additional coverage."

What Ayres and Gertner do not resolve through their comparison is whether a law-supplied damage rule of a particular content granting consequential damages with prior disclosure would be preferred to both (1) a law-supplied rule granting consequential damages absent disclosure and (2) private strategies that the parties might employ on their own to induce separation. In choosing an appropriate default rule one must recognize that opportunism and self-concealment are pervasive and are likely to arise in situations where bounded rationality and sunk costs are present. To fully resolve whether a law-supplied damage rule of a particular content is justified and would maximize joint gains from trade better than other possibilities, including both private and law-supplied rules, one would have to compare other mechanisms that carriers could devise to overcome the pooling problem, such as screening devices to identify low- and high-cost millers and signaling by low-cost millers to identify their type. To determine whether there is any justification for the law supplying the Hadley damage rule, one would have to ask: would such a rule maximize joint gains from trade by

moving the parties closer to what they wanted in a narrow sense of welfare improvement, minimizing the deadweight costs of transacting imposed by the material barriers (uncertainty, sunk costs and opportunism) and thereby increasing the gain from exchange ... count[ing] all the benefits and costs of imposing a law-supplied term, as contrasted with the benefit and costs of not doing so?

A decisionmaker cannot decide, in the abstract, whether the Hadley rule is preferred without reference to a comparative net benefit assessment.

The legal decisionmaker cannot decide if the law-supplied Hadley rule is justified by comparing it to a law-supplied rule giving all consequential damages even if special circumstances are not disclosed. The question should be whether the law-supplied Hadley rule can better promote separation (and thereby the prevention or reduction of the loss and inefficiency that results from pooling) at a

149. Id. at 111.
150. See id. at 103 (alerting reader to menu concept and noting its complexities).
151. Coffey E-mail (July 16, 1996), supra note 47.
152. This is what Ayres and Gertner appear to do when they compare the costs and benefits of a Hadley rule with an alternative legal rule granting all consequential damages even if special circumstances are not disclosed by the affected party beforehand.
153. See Coffey E-mail (July 16, 1996), supra note 47.
lesser cost than any private strategies to contain such loss and thereby maximize joint gains from trade. Will the award of a sanction and remedies afforded by the Hadley rule achieve greater net benefits over private strategies designed to achieve the loss from non-separation that inevitably results from strategizing (and opportunistic behavior) by the parties. Assuming that the parties want to maximize efficiency gains, and that certain barriers, including adverse selection, interfere with the achievement of those efficiency gains, the law should seek to intervene with a law-supplied term only when there is a greater "net benefit" from doing so than the net benefits from alternative approaches, such as private mechanisms designed to curb opportunistic behavior and overcome adverse selection problems.

Revision of the methodology used to determine whether the law should supply the Hadley rule would lead to an expansion of the analysis used in judging whether a particular rule is efficient. Ayres and Gertner explain:

High-damage millers will contract around the Hadley, low-damage default when the cost of inefficient precaution . . . is larger than the cost of contracting around the default . . . . If the additional costs of contracting around the Hadley default are sufficiently small, all high-damage millers will contract for the efficient amount of insurance.154 Ayres and Gertner posit that the effect of the Hadley default is that high-damage millers will no longer withhold information and separation will occur.

The question should not be whether the Hadley rule will induce separation but rather whether the law-supplied Hadley rule or other law-supplied rules or private strategies (such as offering different rate contracts) will be able to achieve the greatest reductions in the loss from pooling and the greatest increase in joint gains from trade and net benefits. If that comparison is inquired into, then the Hadley rule may still be preferred, though it is not automatically the preferred rule.

Once the comparison of relative net benefits is extended to include private counterstrategies, it becomes easy to understand why the "comparison" must extend beyond a contrast of the Hadley-rule to the non-Hadley high-damage default rule so central to the Ayres and Gertner analysis. Comparison with a different law-supplied rule cannot resolve the ultimate question of whether private strategies or law-supplied rules will curb opportunistic behavior and maximize gains from trade.

154. Ayres & Gertner, supra note 4, at 110.
The methodology should be reformulated. In considering whether the law-supplied sanction ought to include consequentials when special circumstances are not disclosed, adoption of which has not been specifically negotiated by the parties, the legal decisionmaker should consider the likely inefficiencies from pooling that would apply if the court implied no damage rule at all unless expressly negotiated. The legal decisionmaker should also consider the results if the parties are left to negotiate private solutions to pooling, as well as the relative inefficiencies that would be attained under a law-supplied Hadley low-damage default and a non-Hadley high damage default.

Reformulation of the methodology for law-supplied interventions to include a comparative net benefit standard of the kind suggested in this Article would be advantageous. Not only would it provide the basis for fully justifying a law-supplied rule, but it could help to explain, with more robust explanatory power than the penalty default rule, a variety of other gap filling default rules. The methodology of this Article suggests that a court should intervene if it is convinced that persuasive barriers including opportunism, sunk costs, and uncertainty prevent the achievement of assumed goals and if it is convinced that legal intervention will “move the parties closer to what they wanted”\textsuperscript{155} in a second-best world than other private mechanisms would.

This comparative approach could enhance the analysis of a variety of default rules. One such rule examined by Ayres and Gertner is the default rule refusing to supply a quantity term where the parties fail to agree on one.\textsuperscript{156} Ayres and Gertner label this approach a penalty default rule because a court will ordinarily refuse to supply any quantity should the parties fail to select a quantity. This refusal stands in contrast to a variety of other default rules, in which courts supply a wide variety of terms by implication.\textsuperscript{157} Ayres and Gertner explain the “zero quantity” default rule as a penalty default rule (preferred by neither party) designed to force the disclosure of information ex ante by the parties.\textsuperscript{158} As Ayres and Gertner explain:

\textsuperscript{155} Coffey E-mail (July 16, 1996), supra note 47.
\textsuperscript{156} See Ayres & Gertner, supra note 4, at 95-97.
\textsuperscript{157} For example, “Another term that courts often supply is one imposing a duty of ‘best’ or ‘reasonable’ efforts.” E. Allan Farnsworth, Contracts § 7.17, at 509 (3d ed. 1999). Courts may supply terms which are missing “the terms of the contract are reasonably certain.” Restatement (Second) of Contracts § 33 (1981). Courts may also imply obligations of good faith which have not been expressly agreed to. See id. § 205. Courts have also implied obligations not to revoke offers which have been relied on. See id. §§ 45, 87. Courts have also supplied just cause limitations “protecting employees against opportunistic terminations.” Schwab, supra note 117, at 38.
\textsuperscript{158} See Ayres & Gertner, supra note 4, at 95-97.
We suggest that the zero-quantity default cannot be explained by a "what the parties would have wanted" principle. Instead, a rationale for the rule can be found by comparing the cost of ex ante contracting to the cost of ex post litigation. The zero-quantity rule can be justified because it is cheaper for the parties to establish the quantity term beforehand than for the courts to determine after the fact what the parties would have wanted.\(^\text{159}\)

The rationale suggested by Ayres and Gertner—that "it is cheaper for the parties to establish the quantity term beforehand than for the courts to determine after the fact what the parties would have wanted"\(^\text{160}\)—seems to explain the unwillingness of courts to supply the missing quantity term. However, the rationale is an incomplete explanation that does not fully explain the approach taken by the courts to contractual gaps. A complete explanation for the approach of courts' refusal to supply a term (such as quantity) cannot be developed without reference to the larger group of cases involving the issue of whether and under what circumstances the courts will supply a term regarding quantity if the parties have not agreed to it expressly.

The courts do not uniformly refuse to supply an implied term in a contract lacking a quantity term.\(^\text{161}\) Where courts do refuse, that refusal to intervene by supplying quantity should be cast as a rule in which courts refuse to supply a term by implication, thus refusing to add or delete terms agreed on by the parties. Because Ayres and Gertner treat the refusal of courts to supply a term (for instance, quantity) on the same terms as a legal intervention which takes the form of a law-supplied rule (for instance, the Hadley rule) and attempt to offer a unifying rationale of forced information disclosure for both, they fail to focus on the critical issue of when and why a court should refuse to supply a term and when and why it should intervene through a law-supplied term. When this distinction is drawn, it becomes clear that the refusal of courts to supply a quantity term is not a legal intervention of a default rule of implication requiring justification. If one draws careful distinctions between cases which warrant legal intervention in the form of an implied term from those that do not, then one can rationalize the full range of approaches taken in particular doctrinal areas and develop more persuasive explanations for the

\(^{159}\) Id. at 96.

\(^{160}\) Id.

\(^{161}\) An example in which courts may enforce a contract lacking a specific quantity term is the requirements contract in which "the buyer’s duty to purchase is determined by its requirements, as to which the buyer has some discretion." Farnsworth, supra note 157, § 7.17.
courts' variegated approaches than the penalty default information disclosure rationale.

Recognizing the distinction between default rules that supply implied terms and default rules that refuse to do so would help to explain the differing approaches to the issue of omitted quantity terms. In some instances, the courts refuse to intervene by supplying a quantity term. The true rationale for such refusal, however, does not lie within the penalty default/information forcing rationale. The true reason for courts refusing to supply quantity, at least in one-shot spot trades, is that there is no particular reason for courts to intervene with a law-supplied term when there are no persuasive barriers to the parties reaching a fully contingent contract by specifying quantity on their own. In other instances where the quantity is not specified, however, and the transaction is more complicated because it is a long-term contract and sunk costs are required by one or both parties, the court will imply a term of good faith to determine whether a particular quantity demanded should be honored. In such cases, courts are willing to allow parties to specify, only incompletely, the quantity term. The true explanation for the court's greater willingness to imply a term of good faith to supplement gaps in the quantity term is that in some contexts the parties can operate only in a second-best world beset by natural barriers to complete contractual specificity. Parties to a long-term contract, because of bounded rationality and uncertainty problems, may be unable to foresee the quantities required, which may be over a long term period of time, and thus be unable to commit ex ante to a completely contingent express quantity term in the contract.

162. See cases cited in Ayres & Gertner, supra note 4, at n.43.

163. Presumably, the problems of bounded rationality can limit the possibility of comprehensive contracting when there is uncertainty. The unforeseeability of the future would not be particularly burdensome when the transaction is discrete and not continuing. Nor would the characteristic of opportunism pose particular contracting difficulties in cases in which there is no opportunity for such behavior. See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 48. Finally, the absence of sunk costs would mean that the parties could simply arrange for "new trading relations." Id. at 59. Thus it would not be important to devise governance structures or contract terms to minimize the hazards and costs of opportunism.

164. Courts are thus willing to enforce indefinite quantity terms in the context of output and requirement contracts. Output and requirements contracts lack a definite quantity, specifying either that quantity shall be such as to meet a buyer's requirements or that the quantity shall be measured by the seller's output. These contracts are governed by section 2-306 of the U.C.C. That section provides for an implied term of good faith in order to determine whether a buyer's demands under a requirements contract or a seller's output under an output contract should be honored. See U.C.C. § 2-306 (1995). Thus, courts may be willing to allow the quantity to remain unspecified in contexts in which it is not feasible to achieve an express contract.
Problems of opportunism might interfere with a general clause under which "[u]nanticipated events could be dealt with by general rules, whereby the parties agree to be bound by actions of a joint profit-maximizing kind."¹⁶⁵ In such cases, because of the impediments to the parties specifying a fully contingent quantity term by express contract ex ante, and because of the costliness of obstacles to less burdensome alternatives, a court may be willing to imply a term of good faith to measure quantity. Because the implied term (of good faith) may be preferred to any other solutions¹⁶⁶ that the parties themselves could devise to achieve their goals while "minimizing the deadweight costs of transacting,"¹⁶⁷ the court may supply it. The rationale seems tied not so much to a desire of courts to force the disclosure of information, as it does to a desire to limit cases of judicial intervention to instances when the costs of parties specifying a term may be more costly than the court’s solution. Thus, the focus should not be on whether it is less costly as a general matter to force parties to agree on a term ex ante than to have the court supply it ex post. Rather, it should be on an identification of those circumstances in which the parties can adopt a term to achieve their purposes more cheaply than the court and to separate those circumstances from cases in which it may be cheaper for the court to intervene with an implied term, given the costliness of private efforts to achieve a goal such as maintaining flexibility and curtailing opportunism with regard to quantity demands in a long-term contract.

Calling the zero quantity default a penalty default rule does not have enough robust explanatory power to rationalize the full range of approaches taken by courts on the quantity issue. A recognition of the barriers which may interfere with the parties’ assumed goals allows one to rationalize both approaches. Thus, courts refuse to supply terms where barriers do not exist and at the same time willingly supply terms when barriers to greater contractual specificity do exist, by supplementing quantity terms with a good faith discretionary component.

Limitations in the explanatory power of the penalty default rule can also be seen in the discussion of corporate statutes. The full range of judicial approaches taken to contractual gaps and the greater explanatory power of this approach is tied to an analysis of the barriers to contracting and a comparative net benefits approach. Courts "refuse

¹⁶⁵. WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 48.
¹⁶⁶. These might include a general clause promising not to act opportunistically. Because of problems of opportunism, that solution may not be feasible.
¹⁶⁷. Coffey E-mail (July 16, 1996), supra note 47.
to enforce corporate charters" to make without information on "the number of authorized shares, the address . . . for legal process and, indeed, the state of incorporation." Ayres and Gertner analogize the corporate law approach to the common law's "refusal to enforce vague or indefinite contracts."

However, the courts are not uniformly opposed to filling in gaps in contracts; sometimes they are willing to enforce contracts with vague terms. Therefore, the central question is what explains the variability in the willingness of legislatures, and courts to supply terms or enforce otherwise vague contracts. The true explanation for the legislatures' unwillingness to enforce corporate charters made without the number of authorized shares may be that no persuasive barriers exist to prevent the parties from specifying that information on their own. In contrast, in cases where persuasive barriers might have interfered with the achievement ex ante of a complete contingent term, the court might be willing to enforce contracts that would otherwise fail for indefiniteness. In these cases, courts will consider the costs of mechanisms that the parties might themselves undertake to overcome barriers to specificity and consider the costs of such mechanisms along with the costs of legal intervention.

Open recognition of the remediableness methodology together with a clear understanding of the difference between a court refusing to supply a term and a court intervening with a law-supplied term will not only provide a better means of explaining the range of approaches taken, but it will also permit decisionmakers to understand and justify law-supplied rules in terms of the seemingly discredited hypothetical bargain rationale. The discrediting of the majoritarian hypothetical bargain basis for implied default rules depends on Ayres's and Gertner's suggestion that in some cases it may be preferable to choose a rule not preferred by the majority. They posit that "if the majority is more likely to contract around the minority's preferred default rule (than the minority is to contract around the majority's rule), then choosing the minority's default may lead to a larger set of efficient contracts."
Choosing the rule preferred by the minority seems to undermine the majoritarian premise for implied default rules. However, the seeming rejection of a majority’s default rule may be based not on its majoritarian character but on an analysis of whether significant contracting barriers prevented the adoption of the majority’s preferred rule. “[If] the majority is more likely to contract around the minority’s preferred default rule”\textsuperscript{174} than vice versa, it may well be that the majority can achieve its own goals by contract, and thus there would be no persuasive basis for the court to intervene by supplying a rule. However, if it is difficult for the minority to contract out of the majority’s preferred rule, that may well be because persuasive barriers to contracting exist which prevent the minority from achieving efficient contracts on its own.

Thus, the court’s reason for intervening would be that barriers to contracting exist and the law-supplied rule will achieve greater net benefits than either (1) nonintervention or (2) other private strategies. Thus, the rejection of the majority’s preferences in formulating a default rule may depend, implicitly, on an assessment of why the parties did not achieve their objectives by express contractual provision and whether the law should intervene by supplying a term. In cases where the majority could easily “contract around the minority’s preferred default rule”\textsuperscript{175} the court may conclude that barriers to achievement of the parties’ own goals did not exist. In such a case, the court is and should be disinclined to intervene because the parties can achieve their goals privately.

In contrast, where significant barriers exist, as might be the case where the minority has difficulty contracting out of the majority’s rule, there may be grounds for a law-supplied rule. This rule is most appropriate when the court is convinced on a comparative cost basis that the law-supplied rule will achieve the parties’ preferences better than any private counterstrategies the parties might implement to overcome barriers to private contracting. Thus, the basis for rejecting a majority’s preferences may be based not on a rejection of the preference because it is shared by a majority, but because there is no reason to intervene where barriers to achieving the parties’ own goals do not exist.

Once the realities of a second-best world beset by natural barriers is fully recognized and the decisionmaker accepts that it may not be possible to achieve what the parties would want in a first-best world, it

\textsuperscript{174} Id.
\textsuperscript{175} Id.
becomes possible to rationalize the Hadley rule itself in terms of a new and more robust version of the "would have wanted" hypothetical bargain standard. Under that standard, the court intervenes with a law-supplied damage rule in cases where the intervention best decreases the "deadweight loss" and does so more cheaply than any private strategies the parties might use.

To justify the Hadley rule—which implies consequential damages with prior disclosure—in hypothetical bargain terms, one begins with a world in which one must make certain assumptions about the parties' objectives. It must be assumed that the parties jointly want to maximize the gain from trade "irrespective of who ends up with what portion of the gain." At the same time it must be recognized that in the Hadley scenario, as in most contracting scenarios, the parties themselves must necessarily operate in a second-best world, which contains natural barriers that will interfere with the achievement of the parties' goals. In this second-best world, the parties will presumably choose rules which will "most reduce deadweight loss."

Under this second-best world, the Hadley rule may be justified in terms of what the parties would want. Arguably, the parties "who would be revealed as worthier than others by the imposition of a default rule that separates them from the inferior[,] actually 'want' ex ante such a rule." The Hadley rule, for example, "permits them [the worthier lower damage millers] to better separate themselves than would private strategies," and thus to save themselves the costs of signaling and separating. The law-supplied rule is thereby preferred at some point, namely when the benefits from separating are outweighed by the costs of signaling such information. The lower damage millers who do not opt out of the rule are automatically identified as lower damage millers and therefore "worthier." Even the inferior (the high-cost millers), who would arguably prefer to remain indistinguishable in order to receive a "cross-subsidized price" from the carrier, will not want to do so. An inferior party would not complain because "it is hard to see why he would complain, except to pine for a supernormal profit from a pooling equilibrium which as Akerlof points out, is

176. I am indebted to my colleague, Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law, for his valuable insights on this subject.
177. Coffey E-mail (July 16, 1996), supra note 47.
178. See Memorandum from Peter M. Gerhart, supra note 35.
179. Id.
180. See Coffey E-mail (July 16, 1996), supra note 47.
181. Id.
182. Ayres & Gertner, supra note 4, at 100.
transitory at best, because the worthies keep dropping out." Thus, even the high-cost millers would be no worse off under a Hadley rule permitting separation.

The Ayres and Gertner penalty default approach fails to separate out the strand of Hadley which represents a legal intervention from the strand of Hadley which represents a refusal to intervene by implication. By disguising the law-supplied aspect of Hadley, the authors hamper their ability to recognize the need for a justificative analysis for law-supplied terms. They also fail to develop or utilize comparative methodologies which examine the costs and benefits of private solutions, and fail to develop an explanatory theory to explain fully differences in the variability in the willingness of courts and legal decisionmakers to intervene with law-supplied terms.

V. LAW-SUPPLIED OBLIGATIONS IN THE PRECONTRACTUAL CONTEXT

Default rule methodology should be incorporated by legal decisionmakers who must decide in a variety of contexts whether to intervene with a law-supplied obligation when the parties have failed expressly to adopt the obligation. Because many "practical constraints" limit the parties' ability to achieve a fully contingent contract that resolves all matters ex ante, gaps in contracts are inevitable.

One context in which the parties may fail to resolve all issues by an express reciprocal agreement and in which the issue of law-supplied obligation will command central attention is that of preliminary precontractual negotiation. In this context, one party will seek to withdraw, claiming that free withdrawal is permitted because the parties did not achieve a contract with consideration; the other party will claim that its justifiable reliance ought to make the promise irrevocable and binding. The issue that arises is whether the law should imply any commitment to govern the precontractual negotiations.

Many of the current attempts to resolve questions of precontractual reliance protection are misguided: they suffer from a failure to develop an underlying framework which can resolve the question of legal intervention. First, they do not adequately identify

184. See Charny, supra note 30, at 1819.
185. See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 70 (discussing impossibility of completely contingent contracts in certain settings).
the relevant structural features of the transaction which are responsible for "differences among transactions"\textsuperscript{186} and which would help to resolve whether a law-supplied rule would be necessary or whether private contractual solutions or other private arrangements are possible. They obscure the law-supplied nature of the suggested default rule and thus fail to grapple with a well recognized comparative methodology useful in determining if legal intervention is justified. In determining if such intervention is justified, the rule proposers fail to compare the costs and benefits of a law-supplied rule of implied commitment with private mechanisms which could be employed by the parties to overcome the barriers to contractual solutions.

\textbf{A. Craswell's Approach}

Professor Craswell's scholarly treatment of precontractual reliance illustrates a recent attempt to resolve the question of implied commitment for precontractual negotiations\textsuperscript{187} Craswell's treatment of the topic ultimately fails to justify fully a law-supplied commitment in the precontractual context because it lacks crucial elements of a justificative framework. Craswell fails to identify all of the behavioral assumptions in his analysis of the transactions at issue. While the analysis adverts to a salient feature of precontractual negotiations—the presence of asset specific investments of one party—which may make the investing party choose "too little reliance, relative to the efficient level,"\textsuperscript{188} there is a failure to advert to the other crucial transactional features, namely bounded rationality and opportunism.

Without a full treatment of those transactional features, it is not clear why the parties themselves could not solve the suboptimal reliance problem by contractual devices. The failure to account for all of these differences makes it difficult for a decisionmaker to resolve the question of whether a law-supplied obligation is needed. As Oliver E. Williamson explains, when one or more, but not all, of these features are present, private contractual or market solutions are still possible.\textsuperscript{189} Thus, the presence of sunk costs, even in conjunction with opportunism, could presumably still be solved by contract if bounded

\textsuperscript{186} Id. at 52.

\textsuperscript{187} See Craswell, Efficient Reliance, supra note 9. Professor Craswell also treats a number of other "contract formation doctrines," and considers them all through the unifying theme of "the efficiency of . . . reliance" by the promisee. Id. at 507; see also Kostritsky, Bargaining with Uncertainty, supra note 9, at 342-62 (discussing Craswell's methodology).

\textsuperscript{188} Craswell, Efficient Reliance, supra note 9, at 492.

\textsuperscript{189} See WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 30-31.
rationality were not a problem and "economic agents have unrestricted cognitive competence." 190

Consider alternatively the situation where agents are subject to bounded rationality and transactions are supported by specific assets, but the condition of opportunism is assumed to be absent .... Although gaps will appear in these contracts, because of bounded rationality, they do not pose execution hazards if the parties take recourse to a self-enforcing general clause. 191

The failure to highlight the structural barriers to private solutions helps explain another defect in Craswell's approach to precontractual liability: the failure to compare the "benefits (including costs avoided) and costs (including benefits foregone) of imposing ... a law-supplied term or terms, as contrasted with the benefits and costs of not doing so." 193 Without a full account of the structural barriers, one cannot compare the costs and benefits of the private strategies which might be used to overcome the barriers to achieve certain goals, such as curbing opportunism, in order to maximize the available surplus with the costs and benefits of a law-supplied rule.

The failure to explore the reality of the structural defects of a second-best world helps to explain why Craswell is willing to suggest the presence of a law-supplied implied commitment without a comparative analysis. Instead, Craswell based his endorsement of an efficient reliance approach on the perceived benefits to both parties from such a commitment. He explains that "courts are entitled to consider the efficiency of Buyer's reliance." 193 In effect, Craswell justifies a rule of irrevocability and of enforceable obligation based on the perceived mutual benefits to the parties. 194 Craswell uses projected mutual benefits to the parties to explain why parties themselves might agree to such enforceable commitments 195 and thus as a reason why courts might or should imply an enforceable obligation to protect efficient reliance. The justification for the rule, however, seems incomplete. A proposal to justify a law-supplied commitment must rest on a foundation other than perceived mutual benefit. If the obligation is in the interest of both parties, then a legal decisionmaker deciding whether to imply a term not agreed to must face the question

190. Id. at 30.
191. Id. at 31.
192. Coffey E-mail (July 16, 1996), supra note 47.
193. Craswell, Efficient Reliance, supra note 9, at 507.
194. See id. at 495.
195. See id. (discussing mutual benefits to Buyer and Seller from an enforceable obligation).
of why the parties did not expressly adopt the term or obligation. Resolving that question requires the decisionmaker to advert to the structural barriers facing the parties and interfering with private solutions to handle perceived problems—such as opportunism—which interfere with agreed-on goals such as the maximization of gains from trade. Only by advertsing to those structural barriers and comparing private “noninterventionist ways of surmounting those barriers” with the law-supplied rules can legal intervention be justified fully.

The failure to advert to the structural barriers interfering with private solutions can also be seen in Craswell’s treatment of unilateral contracts. Traditionally, the unilateral contract rule permitted the offeror to revoke any time up until the offeree completed performance. Modern law is to the contrary: *Restatement (Second) of Contracts* section 45 protects the offeree who begins performance by making the offer irrevocable upon such commencement. In effect, courts are implying a term of irrevocability though the parties did not expressly bargain for one.

Because the offeror “will not have explicitly stated whether she wanted her commitment to become irrevocable once B [offeree] began to perform,” there is an important interpretive question (acknowledged by Craswell) for courts: should the court nevertheless supply a term of irrevocability. Craswell resolves that question of interpretation by reference to the offeror’s hypothetical intent: “it is easy to find cases where courts seem to interpret S[eller]’s offer as irrevocable when B[uyer] begins to perform precisely because B[uyer]’s reliance is the sort that S[eller] would have wanted to induce.”

The question that remains unanswered in Craswell’s projections for unilateral contract contexts is why the parties did not negotiate and bargain for protection of the Buyer’s reliance. For example, when addressing the question of whether brokers should be protected, Craswell points to the increased willingness to “treat commissions offered to real estate brokers as unilateral contracts that become

196. See Kostritsky, *Precontractual Liability*, *supra* note 11, at 359 (“[A]nalysts of precontractual reliance must still explain why the parties’ self-interest does not result in expressly agreed to commitments and what, if anything, the law should do when the parties fail to adopt express terms which would be hypothetically preferred.”).

197. Coffey E-mail (July 16, 1996), *supra* note 47.


199. See *Restatement (Second) of Contracts* § 45 (1979).


201. *Id*.

202. *Id*. 
irrevocable once the broker begins expending time and effort to find a buyer.\textsuperscript{203} Craswell explains that without such protection, the brokers would have diminished "incentives to invest time and resources in finding a buyer."\textsuperscript{204} He therefore concludes that a law-supplied rule of irrevocability would actually favor owners, because "owners may actually prefer to bind themselves in advance."\textsuperscript{205} Craswell's analysis and resolution of the question of law-supplied obligation seems incomplete because it lacks reference to the structural barriers that might inhibit private contract solutions to the problem of diminished incentives and pose costly obstacles to other private efforts to overcome such barriers.

A close analysis of the contexts in which courts imply a term of irrevocability based on partial performance reveals the barriers that may exist to hinder the negotiation of an enforceable contract with consideration. For example, in the reward context the owner of the lost item does not know ex ante who the finder of the lost item will be and thus does not know with whom she should negotiate a contract. Hence, a problem of bounded rationality (uncertainty) exists and it would be costly to expend resources to identify the most likely finders. Similarly, the potential finder of the lost item does not know in advance that he will be the ultimate finder of the item so he does not even contemplate the need for any contractual protection. Moreover, the potential finder of the item may be disinclined to negotiate contractual protection for any interim steps taken because he knows that the owner cares only about interim steps which prove successful and those interim steps are not readily discernible. Furthermore, the owner-offeree faces problems of bounded rationality; she does not know in advance which interim steps to bargain for because she does not know which steps will yield successful results.

Despite the obstacles to negotiating contractual provisions, finder-offerees all face the problem of the opportunistic expropriation of their sunk costs; once the lost item is found—the owner could renege. Once the offeree takes almost all steps toward completion, the owner-offeror could yell: "I revoke." Yet, the offeree would think that contractual protection ex ante would be unnecessary because the offeror would hardly be expected to renege if the offeree actually delivered the lost item or achieved virtual completion of the task.

\textsuperscript{203} Id.
\textsuperscript{204} Id.
\textsuperscript{205} Id. at 528.
Similar problems of bounded rationality might interfere with contractual protection in another context in which courts imply a term of irrevocability: namely in those contracts which take place over time. In such cases, the question posed by section 45, and resolved affirmatively by the Restatement (Second) of Contracts, is whether the law should imply a term of irrevocability based on a certain number of interim steps that constitute the beginning of performance. 206

Before the law should supply a term of irrevocability, it becomes important to determine why the offeror and offeree did not negotiate to make the offer irrevocable in return for a certain number of prespecified interim steps and why the offeror and offeree did not take other steps to control the possible opportunistic exploitation of the relying party's sunk costs.

An interesting example of a section 45 contract, which may help to illustrate the very real barriers that prevent express protection for a party's sunk costs, involves "a community pledge[] to pay part of a railroad's expenses if the railroad built a line to their community." 207 After commencement of construction, the community reneged. 208 In such a case, the community faced uncertainty because it may have been unsure as to whether the railroad would actually be built and thus the community may have wanted to retain the flexibility of not committing any funds until completion of the railroad. The community could thereby insure against the prospect of payment for a half-built (and useless) railroad. The railroad faced uncertainty too because it could not be certain that it could overcome all the hurdles to building a railroad. Because it might turn out to be too costly or difficult to build, the railroad might be reluctant to pledge ex ante to an unconditional commitment to completion.

Given these multiple uncertainties faced by both parties, it will be difficult for the parties to negotiate an enforceable contract in which the community pledged payment in return for the railroad's promise to complete. However, even if such a contract were not attainable, one must then focus on subsidiary arrangements, short of an express fully-contingent bilateral contract that might protect against opportunism. These arrangements could include fractionalizing performance into a series of divisible steps. Such fractionalization that might be the

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206. The beginning or tender of performance will serve to disable revocation of the offer. See Restatement (Second) of Contracts § 45 cmt. d (1979).
207. Craswell, Efficient Reliance, supra note 9, at 527 (discussing Los Angeles Traction Co. v. Wilshire, 67 P. 1086, 1088 (Cal. 1902)).
208. See id.
subject of an express bargain would be quite costly. It might be hard to foresee ex ante what interim steps the railroad could take that would be conjecturable as the consideration to keep the offer irrevocable.

In addition, it might be costly to design and implement private schemes to guard against the opportunistic exploitation of sunk costs invested by the railroad. These could include costs incurred by monitoring to determine ex ante whether the offeror, who would be paying on completion, was trustworthy. Efforts to learn enough about the offeror would be costly and would affect the amount that the offeree was willing to invest in sunk costs. The possibility of expropriation and the hazard risk would be priced out by the parties and could be costly.

Finally, it would be costly to design and implement payment schemes to prevent the community offeror from acting opportunistically once the sunk costs were invested by the railroad. For example, variable payment schemes may work well to deter shirking in cases where the payment can be adjusted to reward the amount of effort invested by an agent. In section 45 option contract cases, the party paying is the one who may be acting opportunistically. The vulnerable party who has invested sunk costs is not in a position to adjust the amount being paid to the offeror other than through reduced reliance. However, even the adjustment of effort and reliance that the railroad might make in response to the prospect of opportunism by the community would be a costly control mechanism. The railroad would not know in advance what the likelihood of the community's nonpayment might be; discerning such information could be costly. In such cases, given the assumption that parties prefer to maximize surplus, and given the cost of private contractual or other private control mechanism devices, the parties might prefer a generalized law-supplied rule of irrevocability that would “save them the costs of explicitly contracting over every change in the value of their respective positions.”

Craswell prematurely suggests a law-supplied rule. This rule is without an account of all the structural barriers and possible private counter-strategies parties might use to surmount those barriers and achieve their joint goals. It is not enough to suggest reasons why

209. See Discussions with Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law.


211. Koskritzky, Bargaining with Uncertainty, supra note 9, at 692.
parties might benefit from a law-supplied rule without also determining whether other private solutions will work. Furthermore, if contractual solutions are not feasible, it is necessary to determine if a law-supplied rule can handle a perceived problem at a lesser cost than any other private mechanisms.

B. Farber and Matheson on Precontractual Liability

The absence of a comparative approach and the reliance on the perceived benefits of “both to the promisor and to society as a whole”\(^{212}\) to justify promissory estoppel and law-supplied precontractual liability can be seen in the Daniel A. Farber and John H. Matheson article.\(^{213}\) Farber and Matheson urge the continued and expanded use of promissory estoppel as a means of fostering “a high level of trust.”\(^{214}\) They argue that courts should recognize promissory estoppel as an alternative to contracts with consideration because where, as in precontractual negotiation, “such relationships are highly interdependent, economic benefit is likely to be sought through informal understandings that reinforce the relationship, rather than through discrete bargains.”\(^{215}\) While Farber and Matheson are correct in arguing that parties “operate according to informal understandings,”\(^{216}\) their article still fails to justify fully the proposition that law-supplied intervention in the form of a liability rule should recognize such informal understandings.

Their article fails to engage in a full comparison of other alternatives that parties could use to achieve trust. It is also not clear whether the net benefits that would be achieved with a law-supplied rule would be greater than the net benefits that could be achieved by other private efforts to control precontractual opportunism. Thus, Farber and Matheson’s article cannot fully justify the legal rule it proposes—enforcing “[a] promise . . . when made in furtherance of an economic activity.”\(^{217}\)

VI. Subcontracting Revisited: Subcontractor Bidding and the Hidden Question of Law-Supplied Terms

The subcontractor bidding context presents still another arena in which courts must confront the issue of whether the law should imply

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212. Farber & Matheson, supra note 11, at 905.
213. See generally id.
214. Id. at 928.
215. Id. at 925-26.
216. Kostritsky, Bargaining with Uncertainty, supra note 9, at 648.
217. Farber & Matheson, supra note 11, at 930.
a term or commitment not expressly negotiated. Current legal approaches to the issue of protection for the general contractor’s reliance in the subcontracting context are hampered by some of the deficiencies in the prior analyses.218 These deficiencies include a failure to address all of the behavioral assumptions affecting a bidding transaction, a failure to analyze underlying uncertainty issues, a failure to develop a comparative methodology to examine alternative law-supplied rules beyond the current rule, a misplaced focus on bargaining power issues, a failure to focus on the central issue of how contractual hazards can be minimized so as to maximize surplus for the parties, and a failure to address the appropriateness of a law-supplied rule.

The failures of analysis help to explain the vacillation of courts deciding whether to imply, by law, a term of irrevocability for the subcontractor’s offer once it has been relied on by the general contractor if none has been agreed to expressly.219 Initially, in James Baird Co. v. Gimbel Bros., Judge Learned Hand refused to imply a term of irrevocability.220 Later, Justice Traynor overturned settled law by implying a term of irrevocability in Drennan v. Star Paving Co.221 The early Baird rule favored the subcontractor by denying all contractual protection to the general contractor who had relied on the subcontractor’s bid. The current Drennan rule favors the general contractor by creating an option contract and binding the subcontractor to his offer while still allowing the general contractor the freedom to reject the offer of the subcontractor.222

Efforts to grapple with the issue of the propriety of implying a term of irrevocability for the subcontractor’s offer have been hampered by the failure to grasp the underlying uncertainty problems and other barriers which interfere with the negotiation of an express fully contingent contract in the subcontractor context. Initially, that neglect prompted Judge Hand to refuse to extend any protection to the general contractor who had not bargained for full contract protection in the form of either an option contract or a fullblown bilateral contract.223

218. See Kostritsky, Precontractual Liability, supra note 11, at 399-400.
219. Compare James Baird Co. v. Gimbel Bros., 64 F.2d 344 (2d Cir. 1933) (rejecting law-supplied rule of irrevocability), with Drennan v. Star Paving Co., 333 P.2d 757 (Cal. 1958) (implying term of irrevocability for a reasonable period of time to give offeree-general contractor time to accept sub’s offer).
220. 64 F.2d at 346.
221. 333 P.2d at 760-61.
222. See Farnsworth, supra note 157, § 3.25.
223. See Baird, 64 F.2d at 346.
Absent such a contract, Judge Hand reasoned that reliance by the general contractor should not be protected.\textsuperscript{224}

Judge Hand's approach neglects the reality of the second-best world in which the subcontractor and contractor exist. He assumes that absent an express fully contingent contract or a fullblown express option, no protection should be offered for general contractors' precontractual reliance. In this reality of a second-best world, however, the general contractor does not know ex ante whether he will get the overall bid. Thus, the most he could offer the subcontractor would be a conditional commitment. Under these circumstances a bilateral contract of the type envisioned by Judge Hand is an unlikely scenario. In it, the subcontractor bargains for the use of the bid as an acceptance, with that acceptance functioning as a promise to use the subcontractor’s services conditional only on being awarded the prime bid. The subcontractor may be unwilling to furnish such an unconditional promise of his own in return for only a conditional commitment from the general contractor. Here the value of commitment might not furnish the subcontractor with enough value to offset the subcontractor's having to stand ready to perform. The subcontractor might be unwilling to be bound unconditionally through an option contract to his offer of a service (at a specified price) in exchange for only a conditional commitment by the general contractor for similar reasons.

Judge Hand's unwillingness to focus on problems of bounded rationality make him unable or unwilling to examine how a law-supplied rule might "provide an incentive for each party to furnish the sunk costs necessary to get a deal started without overprotecting the general contractor."\textsuperscript{225} Furthermore, the parties face barriers to an explicitly reciprocal exchange of unconditional commitments. This examination would seek to determine whether a law-supplied rule of a specified content would produce greater net benefits than would obtain through the individualized negotiation of such conditional commitments or other private solutions. Judge Hand assumes that the absence of traditional bargained-for commitments should result in no contract liability and no recovery for the general contractor.

The disinclination to face the realities of a second-best world affecting the parties and an unwillingness to examine law-supplied rules which might solve the problems of precontractual bargaining and provide incentives for parties to rely better than the current Drennan or

\textsuperscript{224} See id.

\textsuperscript{225} Kostritsky, Precontractual Liability, supra note 11, at 400.
Baird rules in subcontracting contexts is reflected in Professor Katz’s analysis of the problem.\(^{226}\) He grapples with whether the law-supplied option of section 87(2)\(^{227}\) granting irrevocability to offers when the general contractor has relied on the subcontractor’s bid is justifiable. Katz’s analysis assumes that the Drennan rule of a law-supplied option will make sense only where the general contractor is without bargaining power and the subcontractor has all the bargaining power. In such contexts, without the Drennan rule, “a rational contractor without any bargaining power would refuse to rely at all.”\(^{228}\) In other contexts, where the general contractor has the bargaining power, Katz suggests that the principle of free revocability should obtain because otherwise subcontractors will delay making offers until the point “when the uncertainty over their ability to perform will be resolved.”\(^{229}\) In such contexts, the Drennan rule would be inefficient and should not be supplied.\(^{230}\)

As I have explained elsewhere,\(^{231}\) Katz’s approach fails to confront the informational uncertainty problem.\(^{232}\) The problem for the general contractor is that bounded rationality limits his ability to offer an unconditional commitment to the subcontractor; the general contractor is not in a position ex ante to know whether it will be awarded the overall bid. Hence, it can only make predictions based on a probability distribution.\(^{233}\) Similarly, the subcontractor may itself be subject to intervening events between its offer and the award to the general contractor. Any significant added burden might make it difficult to stand by its bid.

In addition to the problems of bounded rationality which tend to preclude the ex ante exchange of unconditional commitments, there is the added problem of the general contractor’s sunk costs in taking steps to finalize a deal with the subcontractor. This makes the general contractor vulnerable to opportunistic behavior in the absence of any law-supplied commitment binding the subcontractor.

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227. RESTATEMENT (SECOND) OF CONTRACTS § 87(2) (1979) provides:
An offer which the offeror should reasonably expect to induce action or forbearance of a substantial character on the part of the offeree before acceptance and which does induce such action or forbearance is binding as an option contract to the extent necessary to avoid injustice.
228. Katz, supra note 10, at 1274.
229. Id. at 1276.
230. See id. at 1277.
231. See Kosritskiy, Precontractual Liability, supra note 11, at 382.
232. See id. at 399.
233. See Discussion with Ronald J. Coffey, Professor of Law, Case Western Reserve University School of Law.
Katz's analysis rejects a law-supplied Drennan rule in the case of the contractor having all the bargaining power. He concludes that the Drennan rule will cause "subcontractors [to] ... tend to avoid making offers until the last possible moment."\(^{234}\) He does not respond to the problem of uncertainty in the subcontracting context that would disable the general contractor from being able to issue an unconditional commitment. To deal with these realities, it is possible to imagine that the contractor and subcontractor might negotiate an exchange of conditional commitments. The projected exchange of such commitments might help to promote appropriate incentives to rely. Without a recognition of that aspect of bounded rationality, he does not examine whether the commitment of the subcontractor could be qualified in such a way as to maintain flexibility for the subcontractor, while at the same time providing protection for the general contractor's sunk costs in reliance on the subcontractor's bid. This solution could avoid the subcontractor delaying his offer too long.

Because Katz does not examine the complete behavioral characteristics of the transaction, he does not try to posit alternative obligations which might overcome some of the obstacles to an express exchange of unconditional commitments in the pre-award context. Nor does he attempt to analyze whether those alternative commitments might be better in the sense of generating greater net benefits than other private devices. That prevents Katz from resolving the question lurking behind the adoption of the Drennan rule (and behind any law-supplied rule implying a term)—namely whether the court should intervene with a law-supplied rule of irrevocability or leave the matter of irrevocability completely to the parties. Because the analysis does not employ a comparative net benefit framework necessary in resolving all questions of law-supplied terms or law-supplied performance obligations, it leaves unresolved the fundamental question confronting courts: when, if ever, is it justifiable for the law to supply a term not expressly agreed to?

Katz's treatment of the question of the appropriateness of a law-supplied rule of irrevocability of subcontractor offers incorrectly focuses on the bargaining power issue. He indicates that where the subcontractor/offeree has the bargaining power, "a rational contractor [offeree] without any bargaining power would refuse to rely at all, since he cannot capture any of the incremental gains from early reliance, but he bears all of the risk."\(^{235}\) Katz indicates that the solution

\(^{234}\) Katz, supra note 10, at 1276.  
\(^{235}\) Id. at 1274.
to the problem of suboptimal investment and the danger of expropriation of the sunk cost investment lies in the subcontractor's offering of a "binding option in Week 3 . . . . The contractor will be willing to accept this offer, because it affords him a small profit in the event of performance and insures him against lost reliance in the event of nonperformance." The inference seems to be that because the subcontractor himself would offer such an option, then the law's supply of such an option by inference would be efficient because it is the solution that the parties themselves would have reached to promote optimal reliance.

Katz's analysis of the subcontractor problem—with its focus on the bargaining power issue—does not explain what the law should do in the absence of an express agreement, nor provide an analytical structure for resolving that question. Katz cannot explain why the law should intervene because he has neither offered a framework for intervention that looks at obstacles to private solutions, nor compared such solutions to law-supplied rules to determine the greatest net benefits.

Should a legal decisionmaker imply a term of irrevocability if the offeror himself fails to offer a binding option in Week 3 as Katz predicted he would?

In order to determine what a court should do in the absence of a privately negotiated solution, it is necessary to examine the key factors "responsible for differences" amongst transactions: bounded rationality, asset specificity and opportunism. Using such factors, a court could analyze the subcontractor/contractor context to determine whether the parties would in fact encounter "contractual difficulties." Williamson explains that when these factors coalesce, the parties themselves may be unable to reach a completely contingent contractual solution. Given those barriers, it would then be necessary to examine possible alternative solutions to the problem of opportunism and suboptimal investment. Only when the decisionmaker is convinced that the law-supplied rule of irrevocability would achieve greater net benefits than private solutions would it be appropriate to intervene with a law-supplied rule.

Thus, although Katz was correct in identifying the danger of the appropriability of investments and the possible negative effect on contractor investments absent contractual protection, he fails to justify the adoption of a law-supplied default rule in the form of section 87(2)

236. Id. at 1274-75.
237. WILLIAMSON, ECONOMIC INSTITUTIONS, supra note 18, at 52.
238. See id. at 67.
of the *Restatement (Second) of Contracts*. Instead, he indicates that the parties themselves will proffer a private solution when it is efficient to do so. Katz therefore does not address the circumstances which might justify a law-supplied default rule of irrevocability in the *absence* of such private action. He does not invoke a framework that might be useful in explaining why the parties were not able to reach such a solution on their own and why a law-supplied rule should be adopted. "Could [it] move the parties closer to what they wanted ... and thereby increasing the gain from exchange, irrespective of who ends up with what portion of the gain?"239

Katz's ability to resolve the issue of whether any law-supplied rule is justified is also hampered by an overly restricted view of how to judge the efficiency of investments in preliminary negotiations. Katz attempts to pinpoint efficient investment as one geared to the "moment at which it is optimal to begin investing."240 Efficient investments are based on a comparison of the investing party's costs of waiting (more expensive reliance if late) to the benefits of waiting (reduced uncertainty). He explains that "[a]s time passes, the incremental costs of delay will begin to exceed the incremental benefits of waiting. From the standpoint of a planner concerned with maximizing social wealth, this is the moment when the parties should be directed to rely."241 However, he ignores the fact that the decision by one party to invest will necessarily prompt danger of the opportunistic appropriation of the investment and thus of a suboptimal investment. This danger will require efforts to control the bad effects of opportunism. The central question then becomes which strategies, public or private, will best control the opportunism at the least cost, preserve the surplus, and thereby achieve the greatest net benefits. Therefore, Katz is misguided in thinking that it is possible to "maximiz[e] social wealth"242 simply by comparing the costs and benefits of waiting without also considering the costs of opportunism and the costs of the efforts to control it. Only then can one really determine when the surplus from the trade will be maximized. Katz has removed consideration of the dissipation of the surplus through "costly subgoal pursuit,"243 which would follow a transaction specific investment. As a result, Katz does not consider the possible variety of responses to control expropriation hazards. Without a full

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239. Coffey E-mail (July 16, 1996), *supra* note 47.
241. *Id.*
242. *Id.*
243. WILLIAMSON, ECONOMIC INSTITUTIONS, *supra* note 18, at 63.
consideration of those hazards, a detailed analysis of the costs and benefits of legal rules, and private responses both contractual and otherwise, one cannot determine if social wealth could be maximized.

Katz is unwilling to examine alternatives to the Drennan rule, and he defends his bifurcated approach to the question of an implied term of irrevocability for the subcontractor’s offer. He reserves the Drennan rule for cases where the subcontractors have the bargaining power.244 His unwillingness depends on a misplaced focus on the relative bargaining power of the parties and on the split in surplus between subcontractor and contractor. That conceptual misfocus diverts Katz’s attention from the central problem of maximizing surplus by minimizing and controlling contractual hazards. Without an inquiry into how surplus can be maximized by the control of opportunism at the least cost, Katz cannot determine whether a law-supplied term would be appropriate.

Katz’s analysis of bargaining power leads him to posit that where the offeror has the bargaining power, it will make correct decisions because it will be able to capture the surplus.245 Where subcontractors have the bargaining power, Katz reasons that the subcontractor “can capture virtually all the gains from trade.”246 The general contractor “would refuse to rely at all, since he cannot capture any of the incremental gains from early reliance, but he bears all the risk.”247 To counteract that diminished incentive for reliance, Katz speculates that subcontractors will “offer a binding option in week 3”248 which will encourage the contractor “to rely immediately.”249 While “the contractor breaks even,”250 the subcontractor’s “expected profit is ... the total surplus from the transaction.”251

What is obscured in Katz’s analysis of bargaining power issues is a comparative analytical structure for resolving issues of legal intervention. The central analytical concern should be the minimization of transaction costs so as to mitigate contractual hazards and maximize the surplus. In a sense, contract law remains indifferent as to how the surplus between the parties is split, though, of course, bargaining power advantages will cause one party to garner a greater part of the surplus. The important goal of the parties ex ante is to

244. See Katz, supra note 10, at 1276.
245. See id. at 1273, 1275.
246. Id. at 1274.
247. Id.
248. Id.
249. Id. at 1275.
250. Id.
251. Id.
maximize the surplus by minimizing the transaction costs of controlling contractual hazard.

Once the paramount concern of reducing the costs of controlling contractual hazards is recognized, then the central question for the legal decisionmaker becomes whether a proposed legal rule will achieve the minimization of contractual hazard in precontractual negotiation with greater net benefits than those of other alternatives. The relative split of the surplus should be unimportant in crafting formation rules.

Katz's misplaced concern with the respective shares of the surplus that a party can be expected to garner stems from his incorporation of Oliver Hart's property model. In that model, Hart assumes that every contract will necessarily be incomplete and that ownership and control rights may affect incentives to make transaction-specific investments. The greater the possible control of the ex post surplus—which comes with ownership rights—the greater a party's willingness to make investment increases. Similarly, a party with a smaller fraction of the ex post surplus, due to lack of ownership, will have diminished incentive to invest. Thus, there is an arguable connection between the relative split of the surplus and the incentive to invest.

Hart illustrates that connection using an example in the automotive industry: the contract between GM and Fisher Body. If that contract is between two separate entities, then a question comes up about whether the contract should require additional deliveries from Fisher Body. For example, property rights will determine who has the right to make that determination by asking who is "the owner of the asset." If Fisher Body owns the assets, it may refuse to consent to GM's request for additional deliveries.

In the context of these types of contracts, the parties may face the need for making transaction specific investments. Such investments may, in turn, make the investing party vulnerable to opportunistic expropriation. In Hart's model, one response to this danger is

253. See id. at 31.
254. Thus, the "expected shares in turn determine [the parties'] incentives to make specific investments in stage two." Katz, supra note 10, at 1279.
255. See HART, supra note 252, at 29-33.
256. See id. at 31-32.
257. Id. at 30.
258. See id. at 31.
259. See id. at 32.
integration; if one entity acquires another entity, then the "acquiring firm's incentive to make relationship specific investments increases since, given that it has more residual control rights, it will receive a greater fraction of the ex post surplus created by such investments." 260 Of course, integration itself may diminish the acquired party incentives to invest "since, given that it has fewer residual control rights, it will receive a smaller fraction of the incremental ex post surplus created by its own investments." 261

Katz applies this property model of Oliver Hart to the precontractual bargaining context in a way that obscures important issues. First, Katz argues that in the context of precontractual bargaining, the person who has the bargaining power in precontractual negotiation can dictate the terms and capture the greatest portion of the surplus. This person is equivalent to the property owner with residual control. Katz argues that the party with bargaining power, whether offeree or offeror, will make optimal decisions because of the ability to capture the surplus. 262 Thus, if the subcontractor has the bargaining power, he will make correct choices "without any legal protection." 263 Thus, there is no need to imply a law-supplied term of irrevocability if the subcontractor has bargaining power because he will make the correct decisions. As the party with bargaining power, Katz argues, the subcontractor will capture the "benefits of reliance, which she can accomplish if she has all the bargaining power; she will have appropriate incentive to weigh costs against benefits." 264

However, I would argue that the focus on the party with bargaining power with the attendant ability to capture surplus is misplaced for several reasons. First, the attempt at identification of the party able to capture the greater fraction of the ex post surplus and thus with greater bargaining power separate and apart from the investment of sunk costs seems fruitless. It is the investment of sunk costs by one party which necessarily gives the power of expropriation of those sunk costs. That power to expropriate should be the focus rather than an abstract concern with bargaining power. The focus should be on which party has invested sunk costs and thereby stands to risk expropriation. If that becomes the focus, then it becomes anomalous to separate the discussion of bargaining power separate and apart from sunk costs. If the inquiry is refocused in that way, then the reliance on

260. Id. at 33.
261. Id.
262. See Katz, supra note 10, at 1273-74.
263. Id. at 1273 (emphasis added).
264. Id.
the subcontractor’s offer is a kind of sunk cost which subjects the
general contractor to expropriation and the relevant question becomes
how to mitigate the danger of opportunism and protect the general
contractor.

The bargaining power focus does not resolve what the law should
do about a diminished incentive to invest. This diminished incentive
may come from the other party having the power to expropriate sunk
costs. Katz’s analysis does recognize that if one does identify a party
with bargaining power, then the party who is without bargaining
power will experience a diminished incentive to invest. “[S]ince he
cannot capture any of the incremental gains from early reliance . . . he
bears all the risk.”

Although Katz supposes that in the case of subcontractor power,
the subcontractor will overcome the offeror’s reluctance to invest by
offering an option. However, there is nothing in the bargaining model
itself which suggests what the law should do in the absence of such an
arrangement. In part, the focus on bargaining power in Katz is a
surrogate for Hart’s model based on who has residual control. That
property based asset control focus of Hart’s was never intended to
resolve whether and in what circumstances the law should intervene.
Because Hart assumed that “the only way to influence investment
incentives is by allocating asset ownership,” he did not examine
alternatives to integration and asset allocation.

Focusing on bargaining power also leads Katz to analyze the
issue of the irrevocability of a subcontractor’s offer solely in terms of
what the greater bargaining power of the offeree general contractor
will allow the general to extract from the subcontractor. Under the
Katz analysis, the greater bargaining power of the general will
discourage early options by subcontractors, because contractors with
bargaining power will reject the options and “turn around and offer her
or one of her competitors a last-minute, take-it-or-leave-it offer to do
the job at just over cost.” It would be a mistake to imply
irrevocability for subcontractor bids where they lack bargaining power
because it would delay offers. That possibility will cause
subcontractors to delay offers “until the last possible moment.” To
avoid the risk and possibility of overly long delays in subcontractors
making offers, Katz would deny the possibility of protecting general
contractors.

265. Id. at 1274.
266. HART, supra note 252, at 85.
268. Id.
The focus on bargaining power diverts Katz from analyzing what impediments prevented a fully contingent contract exchanging unconditional commitments, and from whether the subcontractor could offer the general contractor a flexible commitment in return for a conditional commitment from the general contractor which could respond to those impediments and protect each party without offering too much protection to either party.

Katz's model neither focuses on what the problems each party faces in preliminary negotiation are, nor tries to propose solutions, whether law-supplied or private, which might solve those problems. This leads Katz to suggest no protection for general contractors with bargaining power because it will offer "too much protection." The question should be how can each party be encouraged to invest in the relationship by the minimization of opportunism, and if so, how can such mitigation be achieved with the greatest net benefits?

A misplaced focus on bargaining power also leads Katz to assume that the party with the bargaining power with the attendant ability to "capture virtually all gains from trade" will lead that party to make correct decisions. For example, if the subcontractor has the bargaining power, Katz thinks that "[s]he will want to bind herself just in time for optimal reliance." Here I think the difficulty lies in Katz's assumption that one can identify a party with the ability to capture the greater portion of the surplus apart from the issue of identifying the investment of sunk costs. Katz also mistakenly argues that identifying such party will lead to correct decisions by the party with such bargaining power. In fact, Hart makes a more limited claim for parties who have residual control rights. Such control will prompt the party with control to make more transaction specific investments, secure in the knowledge that the "threat of expropriation" of such investment is diminished. In the context of subcontracting, this might suggest that if the party that initially invests the sunk costs—the general contractor—remains subject to expropriation by the other party, then it is unlikely such party will make optimal decisions even if you argue that such party has greater initial bargaining power.

269. Id.
270. Id. at 1274.
271. Id. at 1275.
272. Id. at 1273.
273. HART, supra note 252, at 85.
274. Id. at 32.
Katz has used the Hart idea of residual control and imported it into the context of precontractual negotiation and identified the party with bargaining power as the surrogate for the one with residual ownership. Aside from the difficulty of separating bargaining power from the investment of sunk costs, the model is also difficult to import into the precontractual context because the model itself assumes that the contract is necessarily incomplete. Hart does not examine whether there are contractual devices, other private strategies or law-supplied rules which will ameliorate the danger of expropriation. Hart assumes "the only way to influence investment incentives is by allocating asset ownership." Hence, the usefulness in the context of a debate about whether the law should intervene with an implied term seems questionable. Thus, although there is some dissatisfaction with the one-sided protection for the general contractor (which has led some commentators and courts to suggest that the Drennan rule should perhaps be curtailed), that dissatisfaction with the Drennan rule of irrevocability or with the opposite early rule of revocability will not be resolved without the development of a new structure for resolving the important issue of a law-supplied term. That structure will require the recognition of the bounded rationality, sunk costs, and opportunism endemic to subcontractor settings. That structure also requires the development of a comparative analysis to determine how the hazards of opportunism can be minimized ex ante, given the presence of bounded rationality and sunk costs, so as to maximize surplus. Without such an analysis, courts and commentators will continue to vacillate on the issue of the protection of general contractors without a means of rationally resolving the issue.

VII. CONCLUSION

The question of when the law should imply terms or commitments not expressly agreed to by the parties is a fundamental one but its resolution remains unrealized. Scholars trying to resolve the question have made a number of analytical errors which have hampered a clear or fruitful analysis. They have failed to confront all of the relevant behavioral assumptions needed to resolve legal intervention questions. They have obscured the nature of law-supplied interventions. Their justification sometimes confuses instances in which the law refuses to add terms beyond those agreed to expressly

275. Id. at 85.
276. See Pavel Enters. v. A.S. Johnson Co., 674 A.2d 521, 523 (Md. 1996) (finding that detrimental reliance was "not applicable to the facts of this case").
with instances in which the law intervenes. This subjects those fundamentally different situations to a unified analysis and obscures the nature of a framework needed to justify legal intervention.

The most fundamental error in scholarship attempting to resolve law-supplied default rules is the consistent failure to incorporate a comparative net benefit comparative methodology for resolving when and how the law should intervene. Recognition of the importance of that comparative element of analysis furnishes the basis for a critique of the current penalty default rule developed by Professors Ayres and Gertner. That critique posits that the penalty default approach still lacks a framework for determining when it is appropriate to intervene with law-supplied rules. Moreover, the penalty default approach remains problematic because it assumes rather than justifies, intervention as a response to strategic behavior. The absence of a comparative net benefit framework has also hampered the commentators' approaches to resolving the fundamental question of whether a law-supplied rule is appropriate in the precontractual and subcontractor bidding contexts.