

ARTICLES

OBSOLESCENCE: THE INTRACTABLE PRODUCTION PROBLEM IN CONTRACT LAW

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Contract law has long suffered from an institutional problem: Which legal institution can best create an efficient law for commercial contracts that can overcome “obsolescence”—the persistence of rules that only solve yesterday’s contracting problems? Until the early twentieth century, contract law was largely created by common law courts. The law’s default rules were efficient when created, and courts updated them as commerce changed. But there were few rules, and the common law process was slow. In response, the twentieth century saw public and private law-making bodies enact commercial statutes in discrete legal areas such as secured credit, commercial paper, and bankruptcy. Cohesive interest groups rapidly updated these discrete rules, but the rules, both original and as changed, served only the creating groups’ interests. Private law-making efforts also assumed a generalist portfolio. In the Uniform Commercial Code, they reached beyond specialized fields to the law of sales and then, in the Restatements, to all contracting behavior. But because these generalist bodies lack the institutional capacity to update, many of their rules have not changed with changing commercial practice. Obsolescence is not innocuous: It can induce inefficient contracting practices and encourage parties to behave strategically. The need for a modern general law of commercial contracts remains. Specialized lawmakers are subject to interest group capture, and the generalist lawmaking bodies cannot update. Courts have responded better to the obsolescence concern, but they are slow and limited. Hence, we suggest a public/private regulatory response to the vexing production problem in contract law.

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INTRODUCTION

Contract law has a production problem. Commercial parties require a contract law that is both efficient when it is created and also adapts efficiently when commercial circumstances change. But currently no legal institution exists that can satisfy both of these criteria. Three legal institutions produce commercial contract law today: courts, statutes that regulate discrete areas, and private lawmaking bodies that create general contract law rules.¹ As we will show, each has limitations. Common law courts develop default rules that are efficient when they are created and are updated as economic conditions change. But lawmaking through the judicial process only produces a restricted set of general contract law rules, and updating is slow: These constraints reflect the limited capacity of

1. The American Law Institute (ALI) and the Uniform Law Commission (ULC) (also known as the National Conference of Commissioners on Uniform State Laws) are the private legislative bodies that create general commercial contract law. The ALI and ULC jointly created the law of sales in Article 2 of the Uniform Commercial Code (UCC) and the ALI created the two contracts Restatements. Henry Gabriel, *Uniform Commercial Code Article Two Revisions: The View of the Trenches*, 23 *Barry L. Rev.* 129, 132 (2018).

courts to address more particular commercial practices adequately.² In response, both public and private lawmaking institutions have created specialized statutes that specify rules for discrete legal areas such as secured debt, commercial paper, financial transactions, and bankruptcy.³ These specialized statutes are useful complements to the general law of contracts. Yet, the rules were enacted at the instance of cohesive interest groups: The public interest was poorly represented in the enactment process.⁴ The felt need for more and better rules governing the general law of contracts led the private lawmaking groups to produce the law of sales in Article 2 of the Uniform Commercial Code (UCC) and the two Restatements of Contracts. These private lawmaking efforts developed new default rules that covered a wider range of contract law issues than the common law, but history has shown that the rules do not adapt to changing circumstances.

The source of the difficulties that plague the commercial law production process is the singular fact of obsolescence.⁵ A commercial law rule, whether a default rule or a mandatory rule, is obsolete when it is no longer “apt.” An apt rule efficiently solves a “contracting problem” in the current state of the world and also solves the problem in future states of the world

2. See Alan Schwartz & Robert E. Scott, *The Common Law of Contract and the Default Rule Project*, 102 Va. L. Rev. 1523, 1585 (2016) [hereinafter Schwartz & Scott, *The Default Rule Project*] (describing the mechanism for producing default rules at common law and the twentieth-century push by drafters to develop more default rules tailored to the complex, modern commercial context).

3. The ALI and ULC have jointly created a number of specialized commercial statutes that are incorporated into the UCC, including Article 9 (secured credit), Article 3 (negotiable instruments), Article 4 (bank deposits and collection), and Article 5 (letters of credit). Gabriel, *supra* note 1, at 132–33. Prior to the UCC project, the ULC produced several predecessor statutes, including the Trust Receipts Act and the Negotiable Instruments Law (NIL), which were adopted by many state legislatures. Uniform Commercial Code, Unif. L. Comm’n, <https://www.uniformlaws.org/acts/ucc> [<https://perma.cc/RL2R-8WFE>] (last visited Aug. 23, 2021). Congress, on the other hand, is responsible for the various Bankruptcy Acts, including the most recent regulation of business bankruptcies, the Bankruptcy Code of 1978. 11 U.S.C. §§ 101–112 (2018). In addition, administrative regulators, acting under congressional statutory authority, impose contractual requirements in the banking and financial regulatory context. An example is the Federal Reserve Board regulation of Systemically Important Financial Market Utilities, which imposes standardization requirements for derivatives contracting. See Designations, Dep’t of the Treasury, <https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations> [<https://perma.cc/8T7T-NQAS>] (last visited Aug. 23, 2021) (discussing the designation of certain Financial Market Utilities as “systematically important” and their regulation under Title VIII of Dodd–Frank). Regulatory standardization of derivatives contracts was a major factor in mitigating the 2008 financial crisis. See, e.g., *infra* Part IV (discussing the increasing role of administrative regulation of contract terms); see also *infra* note 261 and accompanying text.

4. Robert E. Scott, *The Rise and Fall of Article 2*, 62 La. L. Rev. 1009, 1031 (2002) [hereinafter Scott, *The Rise and Fall*].

5. See Grant Gilmore, *On Statutory Obsolescence*, 39 U. Colo. L. Rev. 461, 467–77 (1967) [hereinafter Gilmore, *Statutory Obsolescence*] (introducing the concept of obsolete commercial statutes).

that are “relevantly similar” to the current state.⁶ But if in a future state the contracting problem takes a different form, the apt solution to the problem can change as well. An obsolescence concern exists, therefore, when a legal rule becomes inapt: That is, the rule does not solve the contracting problem in its current form.⁷

Obsolescence is a significant concern because the commercial world of today is dissimilar in significant ways from the world that existed when our leading commercial laws were created.⁸ UCC Article 2 took its current form by 1952, and the Restatement (Second) of Contracts was completed

6. A contracting problem is an obstacle to the creation of a surplus-maximizing contract. As examples, parties may want to create an incentive for the seller to invest efficiently in increasing the value of the traded product for the buyer; or, in a long-term contract, to ensure that neither party defects prematurely to an outside option.

7. The UCC Article 2 warranty provisions illustrate the obsolescence problem. Article 2 primarily regulates quality issues with the implied warranty of merchantability: Goods must be “fit for the ordinary purposes for which such goods are used” and “pass without objection in the trade.” U.C.C. § 2-314(2) (Am. L. Inst. & Unif. L. Comm’n 2002). This regulation was once efficient when sellers traded homogenous standard goods to large numbers of similarly situated buyers. However, because many sellers now trade heterogeneous—that is, customized—goods to buyers with particular needs, sellers commonly disclaim the warranty. Robert E. Scott, *The Paradox of Contracting in Markets*, 83 *Law & Contemp. Probs.* 71, 98 (2020) [hereinafter Scott, *The Paradox*]. The UCC solution thus is no longer “apt.” Because the UCC is a statute, however, it necessarily continues to supply the original solution until it is amended. Though the UCC solution does not fit very many parties’ contracting problem of how best to allocate between them the risk that the goods will be nonconforming, parties still face these quality issues and the need for a term to regulate them. For further discussion of obsolete warranty terms, see *infra* section II.A.2.

8. See, e.g., Lisa Bernstein & Brad Peterson, *Managerial Contracting: A Preliminary Study 2–3* (2020) (on file with the *Columbia Law Review*) (unpublished manuscript) (footnotes omitted). Bernstein and Peterson show:

Over the past four decades a number of technological and other changes have strongly affected American manufacturing—among them: firms outsourcing all but core competencies, shorter product cycle times, the increased pace of technological change, the widespread adoption of just-in-time inventory methods, the outsourcing of design and innovation not just production, and the need to meet a variety of competitive challenges including those created by the introduction of high quality Japanese products in the early 1980s. These changes, in turn, have led to new problems that procurement contracts have to solve and have fundamentally changed the nature of contractual relationships in manufacturing.

Id. (footnotes omitted); see also John L. Pence & P. Saacke, *A Survey of Companies That Demand Supply Quality*, in *42nd Annual Quality Congress Transactions* (1988) (documenting that companies decreasingly relied on warranties to ensure quality and instead used other quality control measures). For additional discussion of the many ways that contracting practices have changed over recent years, see *infra* section I.A.

by 1979.⁹ Neither body of law has been materially amended since then.¹⁰ The obsolescence concern is also present in discrete legal areas like bankruptcy that enact specific statutory solutions. The reorganization chapters of the Bankruptcy Code were last comprehensively redone in 1978.¹¹ But today many insolvent firms are directly sold to the market through an ill-defined process rather than reorganized under the Code's elaborate rules.¹²

An obsolete term in a restatement, statute, or even a private contract is not innocuous.¹³ There are two concerns. First, suppose that a UCC sales law default rule efficiently solved a contracting problem when enacted, but the world has evolved to a different state in which the problem takes a different form. The private lawmaking groups created the UCC default rule because it was too costly for contracting parties to solve the problem themselves.¹⁴ If it remains too costly for private agents to solve the problem

9. See Restatement (Second) of Confs., at vii (Am. L. Inst. & Unif. L. Comm'n 1981) (Foreword); Scott, *The Rise and Fall*, supra note 4, at 1031.

10. For discussion, see Scott, *The Rise and Fall*, supra note 4. An institution called "The Permanent Editorial Board" is supposed to keep the UCC current, but the Board's recommendations must be approved by the ALI and ULC before being recommended to the states for adoption. The Board has made few significant recommendations and fewer have been adopted. See id. at 1049; Permanent Editorial Board for Uniform Commercial Code, Unif. L. Comm'n, <https://www.uniformlaws.org/committees/community-home?CommunityKey=ffaa1a04-3d69-40f5-95bd-7adac186ef28/> (on file with the *Columbia Law Review*) (last visited Aug. 23, 2021) (documenting the activities of the Permanent Editorial Board). Similarly, the ALI has no institution for updating Restatements. For discussion on the failed efforts to revise Article 2 and the Restatement, see infra sections III.B.1–2.

11. See David A. Skeel, Jr., *Debt's Dominion: A History of Bankruptcy Law in America* 176 (2001) [hereinafter Skeel, *Debt's Dominion*].

12. A bankruptcy specialist recently explained:

The market-sale process arose although it was not the means of restructuring that the 1978 Code favored or even anticipated. Even today, the sale derives its authority from two broad, open-ended sentences in the Code that lack texture, standards, specifics, and instructions. Nevertheless, the market sale has become a prime system of industrial restructuring in the United States. Market conditions prevailed over statutory structure and, one can probably say, over congressional intent.

Mark J. Roe, *Three Ages of Bankruptcy*, 7 *Harv. Bus. L. Rev.* 187, 189 (2017). For a discussion of the political economy issues that prevent updating of bankruptcy law, see infra section III.C.

13. Even with the help of market institutions, commercial parties are often unable to update their contracts themselves. The causes and consequences of commercial parties' inability to revise obsolete terms are discussed infra Parts III–IV.

14. Three reasons explain why the private sector underproduces contract innovation: (1) A contracting dyad would bear the full costs of innovation but could appropriate only a fraction of the gains; (2) Parties who develop innovative solutions bear significant legal risks. Because the legal system retains the power over interpretation and enforcement, parties cannot be certain what effect will be given to any solution to a contracting problem until it is tested in litigation; (3) Accumulated experiences are important in creating solutions to contracting problems. Individual parties may lack this experience, but the state can aggregate the experiences of numerous parties. In sum, the common justification for state-supplied default rules is that the state can create an apt rule more cheaply and skillfully than

efficiently in its current form, obsolescence causes parties to treat the problem with second-best solutions.¹⁵ The second concern with obsolescence is that a vestigial default could transition from being harmless but unhelpful to being dangerous. Such transitions can occur when a default *applies linguistically*, but not substantively, to the current version of the parties' contracting problem. A party behaving strategically may then attempt to exploit the linguistic fit to generate an unfair or inefficient judicial interpretation in its favor.¹⁶

The persistence and significant costs of obsolescence demand a critical reexamination of the institutional features of the commercial law production process. This Article focuses specifically on the comparative institutional question: How have private markets and the three legal institutions governing commercial contract law—courts, public and private rules for managing specialized areas, and general contract law codifications—fared in their responses to the obsolescence concern?

We begin that inquiry by briefly reviewing how the developments over the past one hundred years have produced our modern commercial law. For around 700 years, from 1200 to 1900, *only one* institution—common law courts—functioned in England and America to produce commercial law.¹⁷ Courts could function unaided for so many years because intrinsic to common law adjudication is a mechanism for generating a particular subset of efficient contract law rules. Consider, for example, a case of first

individual parties can. It was this logic that led to the adoption of the many default rules in the UCC. For more discussion on the role of the state in filling contractual gaps, see Charles J. Goetz & Robert E. Scott, *The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms*, 73 *Calif. L. Rev.* 261, 273–76 (1985) [hereinafter Goetz & Scott, *The Limits of Expanded Choice*].

15. For a discussion of the problem of second-best solutions, see *infra* section I.B.

16. Standard form contracts in the sovereign debt market illustrate this danger of obsolescence. In 2016, activist creditors successfully held out from a debt restructuring offer by Argentina after asserting a novel—and widely condemned—interpretation of the historic *pari passu* clause found in almost all sovereign debt contracts. See Stephen J. Choi, Mitu Gulati & Robert E. Scott, *The Black Hole Problem in Commercial Boilerplate*, 67 *Duke L.J.* 1, 19–21 (2017) [hereinafter Choi, Gulati & Scott, *The Black Hole Problem*]. In the common understanding, the obsolete *pari passu* clause was an inconsequential clause in the agreement between the lender and each borrower, specifying how much the creditor would be repaid. The holdout creditors, however, claimed that the clause instead was an agreement among the creditors. As such, the agreement would be breached if some but not all of the creditors accepted the debtor's settlement offer. The creditors who objected thus could enjoin the other creditors from receiving any payment. The bonds' ancient language permitted strategic creditors to force a billion-dollar settlement, though the result was inconsistent with current practice and probably inefficient. And the *pari passu* clause has been difficult to update: Bonds worth many billions of dollars were sold under the clause for years after the holdouts initially mounted a challenge. See *id.* For a discussion of the costs and persistence of obsolete boilerplate terms in large interdependent markets, see *infra* section II.C.

17. See generally A.W.B. Simpson, *Innovation in Nineteenth Century Contract Law*, 91 *Law Q. Rev.* 247 (1975) (describing the role of early common law courts). This situation changed in England in 1898 with the Sale of Goods Act and changed in America in 1906 with the Uniform Sales Act. These statutes, however, largely replicated the common law.

impression in which the parties' contract lacks a term to resolve their dispute, so the court has to fill the gap.¹⁸ The court's decision may become a rule when future parties recognize that the initial court's resolution of the case faces them with a choice: to respond to the first case with an express term that regulates the same dispute or to leave a gap in the contract. If a subsequent contracting dyad leaves a gap, the first case becomes a precedent in the sense that the court will resolve the later dyad's dispute with the rule that it used to resolve the initial dispute. Rules in cases thus become default terms in contracts that are written later unless parties contract out.¹⁹

A court's decision can function as an efficient precedent, however, only if four conditions are satisfied: (1) Parties in other commercial contexts face the same contracting problem as the parties in the first case; (2) The solution to the problem conditions on verifiable information;²⁰ (3) The later parties left a contract gap: Their agreements did not otherwise regulate the problem, thereby creating the opportunity for later courts to rule on the issue; and (4) The initial court's ruling solved the problem as the parties would have solved it had they contracted over it. But condition (4) implies condition (3): The future parties will have left a contract gap only because the rule in the first case efficiently solved their problem.

This sketch of the common law adjudication mechanism shows that a common law contract rule has two key properties. First, the rule is "trans-contextual": The rule efficiently solves a contracting problem for parties functioning in diverse contexts.²¹ If the rule in the first case lacked this property, the rule would be a historical curiosity only. Future parties in

18. For an earlier description of how the common law functions, see Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1546–51.

19. *Id.* To further illustrate this process, suppose that in the first case a retail store rejects a tire shipment but does not notify the seller in time for the seller to cure the defect or to substitute a conforming tender. The parties' contract did not cover the notification issue, but the initial court holds that buyers have a duty to notify their sellers promptly of defective deliveries. Now consider claims of late notice by sellers in a dispute between a farmer and a grain elevator, a battery maker and an auto company, and a fiber optic maker and a telecom company. In each of these cases, suppose the parties' contract did not contain a term dealing with the time for rejection of defective goods. And in each case the court, citing the first case, holds that buyers have a duty to give timely notification of breach. In this way, the initial court's decision became a precedent in three cases in three different industries: It has become the law.

20. Information is verifiable if (a) parties can observe it, and (b) it would be cost justified for parties to prove its existence in court. For example, market prices are verifiable because they are easy for both parties to observe and cheap to prove. In contrast, buyers usually cannot observe their seller's costs, and production functions are costly to prove. Hence, a good remedy default would condition on market prices but seldom on seller costs. See Robert E. Scott & George G. Triantis, *Incomplete Contracts and the Theory of Contract Design*, 56 *Case W. Rsrv. L. Rev.* 187, 191–92, 195 (2005).

21. The process by which common law courts develop transcontextual default rules that apply across many disparate industries is developed formally in Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1546–51.

other areas would not have left a contract gap, but rather would have contracted about the problem for themselves.²² The second property is that the rule roughly tracks changing commercial patterns. When commerce materially changes, parties do different deals under new contracts. If the future parties' contracts nevertheless also leave a gap where a solution to the problem could be found, the rule in the first case continues to function as a precedent: The rule has been "updated." But if parties functioning in new commercial situations create contracts that expressly govern the issue, the rule in the first case becomes vestigial: It has no current function. However, the common law mechanism, triggered by current disputes, will then create new rules when the four conditions specified above are satisfied.²³

The updating feature of the common law mechanism has an inherent limitation, however. Parties in different commercial contexts often require solutions that are specific to their circumstances. But generalist courts are ill-equipped to supply specific solutions to particular industries. The solution they suggest for a specific problem will likely not be the outcome that the parties would have specified had they contracted over the issue. That failure, in turn, implies that future parties in the industry would not leave a gap in their contract, and no default rule would be formed. Private law-makers responded to this regulatory gap by creating discrete bodies of commercial law, including secured credit to regulate transactions between creditors and their debtors, and commercial paper and bank deposits to regulate short-term financing transactions.²⁴ Many of these discrete law-making efforts have been regularly updated as focused interest group pressures stimulate reform proposals.²⁵ Yet, this focused response to the risk of obsolescence raises a further concern: Interest group pressure produces

22. See *id.* at 1550.

23. This explanation for how contract law is made complements the standard narrative. In that narrative, great judges—Mansfield, Cardozo, Hand—created rules that last. The mechanism explanation is consistent with this view: The more commercially sophisticated and competent the judge is in the first case, the more likely the judge is to solve the parties' contracting problem efficiently. And then later parties are more likely to leave a gap into which the first court's rule can fit. But the mechanism explanation does not rely on unusual judicial creativity. The rule in the first case, whether artfully or poorly conceived, will stick if the rule satisfies the four conditions; otherwise, it will not. Put another way, we do not claim that the common law in general is efficient or that courts have a particular expertise in creating efficient common law rules. Rather, we argue that an efficient contract law rule is the joint product of a plausible judicial solution to a contracting problem together with the uncoordinated decisions of heterogeneous contracting parties to accept that solution.

24. See, e.g., U.C.C. art. 9 (Am. L. Inst. & Unif. L. Comm'n amended 2010); *id.* arts. 3, 4 (Am. L. Inst. & Unif. L. Comm'n amended 2002).

25. Article 9 of the UCC regulating secured credit has been updated twice—in 1978 and again in 1999. It was subsequently amended in 2010. Article 3 on negotiable instruments and Article 4 regulating bank deposits and collections were revised in 1990 and amended in 2002. For discussion of the interest group pressures that stimulate updating of specialized commercial fields, see generally Alan Schwartz & Robert E. Scott, *The Political Economy of Private Legislatures*, 143 *U. Pa. L. Rev.* 595 (1995) [hereinafter Schwartz & Scott, *The Political Economy*] (applying structure-induced equilibrium theory to show that interest group pressures in the ALI and ULC produce current rules that advance the groups' goals).

specialized commercial rules that are privately efficient but not necessarily socially efficient.²⁶ This disregard for the public interest justifies a continuing role for general contract law rules that take broader social interests into account.²⁷

The American legal establishment long recognized, therefore, that a modern economy benefits from a law that applies to contracts generally, but for several reasons, American lawyers were unsatisfied with the common law mechanism. The first reason follows from our earlier analysis: Default rules are slow to form.²⁸ Litigation must proceed over time in different contexts before a default rule is fully formed. Consequently, most of the common law default rules were developed in the nineteenth century following the Industrial Revolution, and the process of rule development slowed considerably thereafter.²⁹ Because the process of developing default rules had slowed, courts had relatively few general rules with which to fill gaps in incomplete contracts.³⁰ This stasis in common law rule development followed from the second reason: Courts are poor regulators of a modern economy. Courts cannot find facts, apart from case records, and so they cannot hold accurate views of the context in which a possible rule will function and the effects of current rules. In addition, judges are generalist lawyers. The typical judge has little commercial expertise and cannot effectively resolve the economic issues that a possible rule may pose. Another rule-generating mechanism was required.

Widespread dissatisfaction with the common law process produced the two major interventions that sought to change contract law itself. The first effort at a codification of contract law occurred at the turn of the twentieth century when the Uniform Law Commission (ULC) produced the

26. Article 9 of the UCC is an apt example of the potential divergence between private and public interests. Article 9 rationalized numerous pre-Code statutes governing the priority of secured creditors' claims and in the process simplified and reduced the costs of issuing secured debt. But critics have long argued that the priority Article 9 gives to secured creditors functions to redistribute wealth away from unsophisticated creditors, particularly tort claimants, employees, and small suppliers. See, e.g., Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 *Va. L. Rev.* 1887, 1941–47 (1994). For a discussion of the political economy of the recent revisions to Article 9, see *infra* section IV.B.1.

27. The supplementary role of contract law as the backstop to specific statutory regulation is made explicit, for example, in U.C.C. § 1-103(b) (Am. L. Inst. & Unif. L. Comm'n 2020), which states: "Unless displaced by the particular provisions of [the Uniform Commercial Code], the principles of law and equity, including the law merchant and the law relative to capacity to contract, principal and agent, estoppel, fraud, misrepresentation, duress, coercion, mistake, bankruptcy, and other validating or invalidating cause supplement its provisions."

28. See Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1531 (noting how the creation of default rules through the common law courts slowed after the merger of law and equity).

29. See *id.* at 1534–37 ("[A]s the Industrial Revolution took hold first in England and then the United States, courts continued to imply terms by default in order to interpret disputed commercial contracts.").

30. *Id.* at 1535, 1542, 1550.

Uniform Sales Act.³¹ That effort soon proved obsolete, however, and throughout the interwar period only the courts were able to keep sales law current with changing commercial practice.³² This led to the second effort by the American Law Institute (ALI) and the ULC in the mid-twentieth century to codify the general law of contracts.³³ Article 2 of the UCC governing sales transactions has since been enacted in every state (except Louisiana), and it was followed by the Restatement (Second) of Contracts, which usefully summarized important contract doctrines for common law courts.³⁴ The Restatement also had a distinct policy focus, identifying some contract rules as better solutions to a given contracting problem than others.³⁵

The justification for the codification of general contract law rules follows from the dissatisfaction with the common law process. UCC drafters and the ALI members responsible for particular restatements are thought to be more expert and to have more real-world knowledge than the typical common law judge.³⁶ Moreover, the felt need for more default rules is genuine: Private parties will not solve every contracting problem that they face.³⁷ Contracting parties seldom can internalize the full gain from creating a useful solution to a common contracting problem—others can copy their innovation—but nonetheless they bear the full cost.³⁸ When the cost exceeds a contracting dyad's share of the gain, the problem will not be solved efficiently without outside help. Private lawmakers can use their expertise and knowledge to solve these common problems and supply contracting parties with the solutions in the form of UCC or Restatement sections. In prior work we have criticized the rationale for this method of supplying contract terms on the ground that the ALI and ULC are also

31. The Uniform Sales Act was promulgated in 1906 and ultimately adopted in thirty-four states. Robert Braucher, *The Uniform Commercial Code—Documents of Title*, 102 U. Pa. L. Rev. 831, 831 n.4 (1954).

32. See Gilmore, *Statutory Obsolescence*, *supra* note 5, at 469–71.

33. The first Restatement was adopted in 1932, followed by the UCC project which was completed in 1952. The Second Restatement followed in 1979. See *The Story of ALI*, Am. L. Inst., <https://www.ali.org/about-ali/story-line/> [<https://perma.cc/6MC4-SQFD>] (last visited July 22, 2021).

34. Robert E. Scott & Jody S. Kraus, *Contract Law and Theory* 39–40 (5th ed. 2013).

35. For example, the Restatement adopted a contextual approach to problems of parol evidence and interpretation in lieu of the textualist rules that had emerged from the common law. See Restatement (Second) of Confs. §§ 209–223 (Am. L. Inst. & Unif. L. Comm'n 1981).

36. Schwartz & Scott, *The Political Economy*, *supra* note 25, at 603–04.

37. See Goetz & Scott, *The Limits of Expanded Choice*, *supra* note 14, at 292–93 (explaining the bargaining difficulties private parties face in contract disputes).

38. See *id.* at 292 (“The limits of copyright law create an initial barrier to innovation by denying contractors substantial property rights in their formulations. An inherent free-rider problem thus retards the production of innovative formulations for emerging relationships.”).

institutionally limited.³⁹ The focus here, however, is on the deeper institutional problem. As discussed above, a public program of supplying contract law rules must satisfy two conditions: The rules must first solve contracting problems as the parties would have solved them; and second, the rules must update promptly as economic conditions change. In this Article, we show that even if the ALI and ULC once supplied rules that parties themselves would have chosen, these private groups no longer do so: Their rules remain but the problems have changed.

This Article proceeds as follows. Part I describes the dramatic changes in contemporary contracting practices that have rendered state-supplied default rules, as well as those we designate as “quasi-mandatory” rules, obsolete.⁴⁰ We develop an economic theory that shows parties will reject an obsolete state-supplied default because the term cannot solve the current version of their contracting problem and bad faith parties could exploit the term strategically.⁴¹ But parties are unlikely to create a new term equivalent to an apt state-supplied default because of its excessive cost.⁴² The theory predicts that parties instead will replace the obsolete default term with second-best solutions.⁴³ Yet, the obsolete default lives on. Similarly, parties can only escape the constraints imposed by an obsolete quasi-mandatory rule by costly contracting around the rule. Finally, Part I analyzes the coordination problems that may prevent private parties from revising obsolete terms in standardized interdependent contracts.⁴⁴

Part II provides evidence of the persistence and costs of obsolete terms.⁴⁵ Here we show how the theory developed in Part I explains many of the contracting patterns we observe as parties attempt to adjust to the constraints imposed by obsolete default and quasi-mandatory rules.⁴⁶ Consistent with the theory, parties avoid obsolete terms by settling on less efficient alternatives.⁴⁷ This Part also presents evidence that parties in large, multilateral markets often fail to revise standardized obsolete terms notwithstanding the heightened level of litigation risk that they face as a result.⁴⁸

Part III considers the several systemic reasons that explain why UCC Article 2, the Restatement, and the Bankruptcy Code remain rocks in the

39. See Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1526, 1528; Schwartz & Scott, *The Political Economy*, *supra* note 25, at 597–98, 624.

40. See *infra* section I.B.

41. See *infra* section I.B.

42. See *infra* section I.B.

43. See *infra* section I.B.

44. See *infra* section I.C.

45. See *infra* Part II.

46. See *infra* Part II.

47. See *infra* Part II.

48. See *infra* Part II.

river of changing commercial practice.⁴⁹ Obsolescence persists when coordination on an efficient replacement fails because individual parties would bear too much of the cost and internalize too few of the gains to reward efforts to initiate legal change.⁵⁰ The private lawmaking bodies that created today's obsolete contract law rules also are poorly equipped institutionally to create current ones.⁵¹ These institutions meet episodically: They have little incentive to update the rules by adopting controversial reforms, and interest group competition can instantiate a status quo bias.⁵² And when the rulemaking process is captured by insiders, as in the case of bankruptcy, specialized rules also can become "sticky."⁵³

Part IV revisits commercial law's production problem by asking how other institutions that supply commercial law rules have responded to the obsolescence concern. Some private interests have created specialized contract terms that parties are then invited to adopt in their contracts,⁵⁴ but this solution to updating is still underproduced.⁵⁵ The two public institutions that are largely free from persistent obsolescence are specialized lawmaking bodies and common law courts. Organized interest groups that supply rules for specialized fields can update their rules but at the cost of promoting private interests over the public interest.⁵⁶ What remains are common law courts, the institution with which we began. Courts' rules are efficient and update over time, but at first blush do not appear to cover much of the ground. We show, however, that once artificial institutional boundaries are set aside, the activity of common law courts is more vibrant than is commonly assumed.

Part V concludes that the splintering of our general contract law into contract laws for specialized fields—such as corporate, bankruptcy, and financial contracting—points to an emerging institutional response to the externalities that the specialized laws create.

We have two closing observations. First, the common view is that general contract law is created by two institutions: common law courts and "private legislatures" such as the ALI and the ULC that produce UCC Article 2 and the Restatements. This view is incorrect because the contract

49. See *infra* section III.A.

50. See *infra* section III.A.

51. See *infra* section III.A.

52. See Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1529 n.17 ("The drafters sometimes create standards to avoid deciding difficult political questions . . ."); Schwartz & Scott, *The Political Economy*, *supra* note 25, at 650–51 ("In particular, theory suggests that a private legislature with a membership similar to that of the ALI and NCCUSL and procedures similar to theirs will have a strong status quo bias and sometimes will be captured by powerful interests.").

53. See *infra* note 76; see also *infra* section I.B.1.

54. See *infra* section IV.B.

55. See *infra* section IV.C.

56. See *infra* section IV.C.

law products of the ALI and the ULC are largely obsolete.⁵⁷ Today, there are courts and episodic, specialized interventions. The question we raise is whether this is the best American law can do.

Second, we note the novelty of our analysis. There are two significant prior contributions. Grant Gilmore observed that early twentieth-century codification efforts became obsolete, but for reasons that differ from ours. According to Gilmore, these uniform law codifications were intended to “embalm[] the past”—that is, to solve yesterday’s doctrinal problems and enact the solutions into law.⁵⁸ A codification that does this will inevitably become obsolete because the future poses different doctrinal problems.⁵⁹ But the UCC and Restatement were not so much meant to solve old legal problems as to solve, in the form of default and quasi-mandatory rules, *current* economic problems. In contrast to Gilmore, we show that such laws become obsolete only when the economic problems either disappear or take new forms.

Guido Calabresi wrote an important book about obsolete statutes and judicial responses.⁶⁰ Calabresi’s subject was the statute that had outlived its animating purpose but that continued to affect behavior because it was a statute.⁶¹ He then asked how *courts* respond to an obsolete law by analyzing the strengths courts exhibit and the constraints they function under when attempting to make such laws current.⁶² We also observe that obsolescence occurs for statutes that are difficult to update. But, in contrast to Calabresi, we analyze the case of an obsolete commercial law that no longer affects behavior because parties contract out of the law’s terms. As a consequence,

57. There is an important distinction between the UCC and the Restatement. The UCC is an enacted statute and thus when parties escape an obsolete UCC rule, the obsolete rule lives on and imposes costs on subsequent parties. The Restatement is directed to courts. An obsolete Restatement rule thus becomes law once it is used strategically in litigation to advance a client’s claim and a court is persuaded to adopt the rule, even though it is not, in fact, an apt solution to the contracting problem in question. In assessing the cost of obsolescence, the UCC statute imposes greater costs than the obsolete Restatement rule, because a court may never be persuaded to adopt the Restatement rule, and if a court does so, the rule ultimately will disappear as parties choose not to leave a gap that can be filled by the obsolete rule. However, once an obsolete Restatement rule is adopted by a court, it cannot be readily discarded and replaced by a more current default. The Restatement occupies a much different status in judicial interpretation than an emerging common law default rule that is found in some but not all states. The Restatement presents itself as the “uniform approach” that other courts have (or should have) adopted. Indeed, that is the whole point of the imprimatur of the ALI: to promote uniformity in rule formation. Thus, once adopted, a Restatement default takes on a quasi-statutory status. So long as contracting parties perceive the obsolete Restatement rule as having a special status, just as with an obsolete UCC provision, they will turn to second best options rather than attempting to formulate the efficient default. See *infra* section I.B.2.

58. Gilmore, *Statutory Obsolescence*, *supra* note 5, at 467–68.

59. See *id.*

60. Guido Calabresi, *A Common Law for the Age of Statutes* (1982).

61. See *id.* at 6.

62. See *id.* at 7.

our subject concerns how *parties* respond when a law that was supposed to solve the parties' contracting problems no longer does so. Thus, the comparative question this Article asks—which legal institution can best create an efficient law to regulate commercial contracting—is entirely novel. Nor has any prior work analyzed contract obsolescence as a discrete problem to ask why and where such obsolescence exists and how it can persist. We recognize, however, that our more important contribution may be to introduce the subject of comparative institutional analysis to private law fields.

I. A THEORY OF OBSOLESCENCE

It is commonly accepted that some statutes and restatements were written long ago and that commerce has changed over the succeeding decades.⁶³ The questions are how much, and does it matter? Section I.A answers those questions by summarizing the evidence that contracting practices have changed significantly and demonstrating that many of the default rules in the UCC and the Restatement are no longer apt responses to current contracting practices. Section I.B seeks to answer two questions: (1) Is obsolescence, in any of its forms, costly to current parties? And (2) why does it persist? We set out a formal example that illustrates how obsolete rules impose substantial costs on private parties and yet persist over time. Section I.C then clarifies the coordination problem that prevents parties to certain standardized interdependent contracts from replacing obsolete terms with apt alternatives.

A. *The Changing World of Contracting Practices*

The UCC sales law and the Restatement presuppose the following pattern of commerce: Merchants trade finished goods to each other or to retailers in discrete short-term transactions. The merchant seller either imports goods that it resells or buys goods from another merchant and resells them. This pattern continues to exist in some parts of the economy, but there are four legally relevant and economically significant differences between much of today's commercial world and the world that the UCC and the Restatement presupposed. Each of these differences point to the absence of apt default rules to solve current commercial problems.

1. *Providing Remedies for Long-Term Contracts.* — Parties today make long-term contracts, particularly to sell raw materials such as coal, oil, gas, and metals.⁶⁴ The UCC and Restatement damages sections, however, presuppose discrete short-term transactions and thus cannot facilitate these

63. See Gilmore, *Statutory Obsolescence*, *supra* note 5, at 462–66 (discussing the linked evolution of commercial law and codification over the last two centuries).

64. A party requiring a continuous supply of a particular material for its business operations (such as an airline company for jet fuel or an automobile manufacturer for metals) benefits from entering into long-term contracts with suppliers. This ensures the buyer a reliable supply of the essential material at an agreeable price point, thereby protecting

long-term contracts.⁶⁵ For example, if the seller breaches in year three of a seven-year contract, the buyer cannot recover UCC market damages because these measure the difference between the contract and market prices: Although thick markets for commodities and metals exist, a court could not find this difference for later years.⁶⁶ The buyer also could not recover UCC consequential damages because they could not establish the future lost profits from the seller's current breach.⁶⁷

Because the standard remedies are not apt, courts specifically enforce many long-term contracts.⁶⁸ Specific performance is a compensatory remedy in the case of short-term, discrete transactions: The court simply orders the seller to transfer the goods. But the remedy is less satisfactory in long-term contracts because courts are reluctant to police complex, long-term economic arrangements, thereby creating opportunities for strategic behavior by both parties. Moreover, it is costly for a party to make periodic court appearances to ensure that its counterparty is complying with the court's order. Parties thus attempt to avoid the need for contract remedies altogether by indexing contract prices to the prices in markets for inputs, outputs, or both (e.g., electricity costs, raw materials, producer, or consumer price indices).⁶⁹ These attempts sometimes fail, however, and when they do, the UCC again is unhelpful. How far must the prices generated

against extreme market fluctuations. Long-term contracts also encourage mutual investment in the contractual relationship, which over time makes the relationship more valuable vis-à-vis the rest of the market by increasing the expected returns for both parties. As trust and cooperation grow, problems of hidden information and actions are reduced, as is the need for formal sanctions. This ultimately reduces transaction costs and further increases the value of the contract. For an expanded discussion of these ideas, see Oliver Hart & Bengt Holmström, *The Theory of Contracts*, in *Advances in Economic Theory: Fifth World Congress 71*, 128–47 (Truman F. Bewley ed., 1987).

65. The UCC does endorse output and requirements terms as well as open price terms. See U.C.C. §§ 2-305, 2-306 (Am. L. Inst. & Unif. L. Comm'n 1952). These terms are key features of many long-term contracts, but the damages provisions were not adapted to that new reality.

66. See, e.g., *id.* § 2-713 (stating that the measure of damages for repudiation by the seller is “the difference between the market price at the time the buyer learned of the breach and the contract price”).

67. See *id.* § 2-715 cmt. 4 (“The burden of proving the extent of loss incurred by way of consequential damage is on the buyer . . .”).

68. See, e.g., *Laclede Gas Co. v. Amoco Oil Co.*, 522 F.2d 33, 40 (8th Cir. 1975) (enforcing a propane supply contract); *Iowa Elec. Light & Power Co. v. Atlas Corp.*, 467 F. Supp. 129, 132 (N.D. Iowa 1978) (ordering specific performance of uranium yellowcake supply contract), *rev'd and remanded for lack of personal jurisdiction*, 603 F.2d 1301 (8th Cir. 1979); *E. Air Lines, Inc. v. Gulf Oil Corp.*, 415 F. Supp. 429, 442 (S.D. Fla. 1975) (ordering specific performance of a jet fuel supply contract despite substantial increases in crude oil prices); see also Theresa Arnold, Amanda Dixon, Hadar Tanne, Madison Whalen Sherrill & Mitu Gulati, “Lipstick on a Pig”: Specific Performance Clauses in Action, 2021 *Wis. L. Rev.* 359, 362 (documenting the increase in parties contracting for specific performance in mergers and acquisitions transactions).

69. See Scott & Kraus, *supra* note 34, at 113–15, 336–41.

by the index depart from the prices produced by current economic conditions to justify a court in not enforcing the index prices? And, if a court does not enforce, which party should bear the risk of a failed index? Neither the UCC nor the Restatement helps courts to make specific performance more effective or help in answering these questions.⁷⁰

2. *Interpreting Governance Agreements.* — The litigation over index clauses highlights the second major difference between the commercial world today and the world that prevailed fifty to seventy-five years ago: Current contracts often are not contracts in the traditional sense. Rather, they are governing documents that create structures to guide parties in producing complex goods. These documents present an interpretive challenge that the UCC did not foresee. Under the Code, interpretive issues are assumed to involve attributing meaning to contested terms. The UCC thus directs courts to ask if there is a custom in the trade or a course of dealing or course of performance that would provide courts with context when reading the contract's words.⁷¹ These interpretive aids were sometimes helpful for contracts made in earlier times, but in today's complex governance arrangements there is likely no relevant custom or course of dealing to inform a court's interpretive judgment, nor is there a trade in the traditional sense.⁷² To interpret today's long lasting governance contracts, courts have to understand complex economic arrangements that do much more than specify price and quantity and describe "the goods." Indeed, in

70. A celebrated example of the failure of the UCC and the Restatement rules in helping courts make the specific performance versus excuse question more salient is Judge Hubert Irving Teitelbaum's tortured opinion ordering reformation of the contract's complex and heavily negotiated index clause in *Aluminum Co. of America v. Essex Grp., Inc.*, 499 F. Supp. 53 (W.D. Pa. 1980).

71. See U.C.C. § 2-202(a) ("[W]riting intended by parties as a final expression of their agreement . . . may be explained or supplemented by course of dealing or usage of trade . . . or by course of performance . . ."). Comment 2 explains that "[s]uch writings are to be read on the assumption that the course of prior dealings between the parties and the usages of trade were taken for granted when the document was phrased. Unless carefully negated they have become an element of the meaning of the words used." *Id.* cmt. 2.

72. There is virtually no evidence that courts, even those operating under the UCC's invitation to broadly examine context, ever conduct serious empirical investigations, and hence there is little reason to imagine they could succeed if they did. In fact, recent research suggests that ongoing, "traditional" dealings never crystalized into well-defined, customary rules at all. See, e.g., Emily Kadens, *The Myth of the Customary Law Merchant*, 90 *Tex. L. Rev.* 1153, 1156–59, 1177–81 (2012) (arguing that customs lack the definiteness and articulation that is displayed in lawmaking and that is necessary to be universal). See generally Lisa Bernstein, *Merchant Law in a Modern Economy*, in *Philosophical Foundations of Contract Law* 238 (Gregory Klass, George Letsas & Prince Saprai eds., 2014) [hereinafter Bernstein, *Merchant Law in a Modern Economy*] (presenting empirical evidence rebutting the UCC's assumptions that trade usages exist and can be reliably taken into account); Lisa Bernstein, *Custom in the Courts*, 110 *Nw. U. L. Rev.* 63, 88 (2015) (presenting empirical evidence showing that courts typically rely on unreliable party testimony rather than expert testimony or statistical evidence to establish usages).

some of these contracts there is no quantity term at all,⁷³ prices change as a function of current conditions, and the goods are designed and produced thereafter. Hence, there is nothing to describe at the time of contracting. The contracts instead often prescribe behavior: A seller invites buyer representatives into its factory to participate in creating a product; a buyer invites sellers into its factory to facilitate installation and to remedy initial defects. Disputes involve a party's premature withdrawal from an arrangement or behavior that is allegedly inconsistent with the arrangement's purpose.⁷⁴ No UCC or Restatement section provides courts with interpretive resources to adjudicate such disputes.

3. *Motivating Investment.* — Simple sales contracts do not attempt to induce one or both parties to invest in the transaction: Classic contracts govern only trade. Modern contracts govern both trade and investment. As an example, consider a multi-stage arrangement in which two agents plan to develop a new product if one would turn out to be feasible for them. Each agent has tasks to perform—research technical issues, research marketing issues, etc. At each stage, the agents report their results to each other. When the results are favorable, the agents move to the next stage. The arrangement ends positively when there is a product, but then the agents must develop a protocol for how to trade the product between them or how to exploit it jointly. Because the agents cannot observe each other's ongoing actions, the arrangement poses challenges: how to ensure that the agents will report truthfully to each other; invest efficiently; continue with the arrangement when continuation would increase value rather than accept an outside option; and trade the product to the highest valuing party.⁷⁵ It is almost otiose to say that the UCC and Restatement give courts no guidance on how to resolve disputes that arise under such modern arrangements. Instead, as Part IV explains, common law courts have led the way in developing new default rules governing the legal effects of

73. In the mid-twentieth century, courts often held that the absence of a quantity term in a contract to trade discrete goods would make the contract too indefinite to enforce. See, e.g., *R. A. Weaver & Assocs., Inc. v. Asphalt Const., Inc.* 587 F.2d 1315, 1316 (D.C. Cir. 1978) (declining to enforce a requirements contract that failed to specify a quantity term); *Fort Wayne Corrugated Paper Co. v. Anchor Hocking Glass Corp.*, 130 F.2d 471, 473 (3d Cir. 1942) (holding that “the buyer in a requirements contract has no duty to have any requirements and a seller under an output contract has no duty to have any output”).

74. See Bernstein & Peterson, *supra* note 8, at 38–40.

75. The complex contracts that parties use to induce efficient investment and truth telling between them are described in Tracy R. Lewis & Alan Schwartz, *Pay for Play: A Theory of Hybrid Relationships*, 17 *Am. L. & Econ. Rev.* 462, 465 (2015).

the preliminary agreements that initially structure such arrangements,⁷⁶ as well as the legal effects that attend innovative collaborative contracts.⁷⁷

4. *Enforcing Collaborative Agreements.* — This discussion introduces a fourth difference—a profound transformation of contracting practice and contract law is occurring today. This transformation coincides with an increased rate of change in the business environment that is generally attributed to the information revolution. There is a rapid spread of new forms of collaborative innovation among independent firms at the pioneering and most productive frontier of nearly every area of the economy.⁷⁸ Large pharmaceutical companies now routinely develop new drugs in concert with specialized biotech firms.⁷⁹ Automobile producers and spe-

76. For discussion of the innovative default rules that are emerging from common law courts dealing with these new governance arrangements, see Alan Schwartz & Robert E. Scott, *Precontractual Liability and Preliminary Agreements*, 120 *Harv. L. Rev.* 661, 691–702 (2007) [hereinafter Schwartz & Scott, *Preliminary Agreements*]. The modern framework for determining the legal status of these preliminary agreements was first proposed by Judge Pierre Leval in *Teachers Insurance & Annuity Ass'n of America v. Tribune Co.*, 670 F. Supp. 491 (1987). The framework sets out a new default rule for cases in which the parties contemplate further negotiations. This rule binds the parties to negotiate further in good faith in seeking to achieve a final agreement. *Id.* at 498–99. Thus, it relaxes the knife-edge character of the common law, under which agreements were either fully enforceable or not enforceable at all. The Leval framework is now followed in at least thirteen states, sixteen federal district courts, and seven federal circuits. Schwartz & Scott, *Preliminary Agreements*, *supra*, at 664 n.7; see also *Brown v. Cara*, 420 F.3d 148, 151 (2d Cir. 2005) (holding that a preliminary agreement to develop real estate imposed a duty to negotiate in good faith to reach a deal); *infra* section IV.B.

77. See, e.g., *Eli Lilly & Co. v. Emisphere Techs., Inc.*, 408 F. Supp. 2d 668, 694–96 (S.D. Ind. 2006) (holding that a collaborative agreement for drug development was violated when one party conducted secret research); *Medinol Ltd. v. Bos. Sci. Corp.*, 346 F. Supp. 2d 575, 627 (S.D.N.Y. 2004) (addressing breach of contract claims involving an extensive collaboration for the development, marketing, and distribution of medical stents); see also *infra* section IV.B.

78. For an extended discussion of the new forms of collaborative contracting and their role in adapting to an uncertain world, see generally Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 *Colum. L. Rev.* 431 (2009) [hereinafter Gilson, Sabel & Scott, *Contracting for Innovation*].

79. The development of new drugs based on biotechnology often entails contracting across organizational boundaries. Large pharmaceutical companies frequently lack the depth of scientific knowledge and experience that provide the foundation for biotech research. Smaller biotech firms typically lack the experience and capital needed to take drugs through the arduous process of obtaining FDA approval and then to commercially market them. See Leslie Gladstone Restaino, *BioPharma Collaborative Agreements: Choosing the Right Deal Structure*, *Corp. Couns. Bus. J.* (Nov. 1, 2007), <https://ccbjournal.com/articles/biopharma-collaborative-agreements-choosing-right-deal-structure/> [https://perma.cc/M437-QARB]. A prototypical exemplar of this form of collaborative contracting is the research, development, and license agreement between Warner-Lambert, a large pharmaceutical company, and Ligand Pharmaceutical, a much smaller biotech company, to discover and/or design small-molecule compounds that act on estrogen receptors, to develop pharmaceutical products from such compounds, and to take such

cialist suppliers routinely co-develop key components, ranging from sophisticated fuel injection systems to transmissions.⁸⁰ Today, in every sector of the economy, vertical integration has been replaced by supply chains linked together by collaborative contracts. Here, formal and informal contractual networks function as mechanisms for coordination and cooperation in response to increases in uncertainty. Nothing in the UCC or the Restatement helps courts to adjudicate contractual disputes in these contexts.⁸¹

In short, it is beyond dispute that commercial arrangements in the United States today differ substantially from the arrangements that obtained when our leading commercial laws were created. The private law-makers who produce the UCC and the Restatement have not solved their production problem: how to keep the law current and useful.

The reasons demonstrating that the UCC's "machinery" for adapting to change is broken, and that argue for an entirely new approach to the content and theory of sales law, curiously parallel Karl Llewellyn's reasons for advocating in 1940 for the adoption of an entirely new commercial code, rather than proposing extensive amendments to the Uniform Sales Act.⁸² As Llewellyn explained, the Sales Act was based on "concepts that took shape on the basis of a face-to-face dealing with present goods."⁸³ In

products through the FDA approval process and commercialization. The agreement is available at Warner-Lambert Co. & Ligand Pharms. Inc., Research, Development and License Agreement (Sept. 1, 1999), <https://contracts.onecle.com/ligand/warner.rd.1999.09.01.shtml> [<https://perma.cc/X2H5-9KHR>]. For a discussion of these collaborative biotech agreements, see generally Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and Doctrine, 110 Colum. L. Rev. 1377 (2010) [hereinafter Gilson, Sabel & Scott, Braiding].

80. See, e.g., Airbus A320 Purchase Agreement Between AVSA S.A.R.L. and New Air Corp. (Apr. 20, 1999), <https://contracts.onecle.com/jetblue/airbus.a320.1999.04.20.shtml> [<https://perma.cc/BRS6-M2BE>] (aircraft purchase agreement between JetBlue and Airbus); Component Supply Agreement Between American Axle & Manufacturing, Inc. and General Motors Corp. (Feb. 28, 1994), <https://www.lawinsider.com/contracts/2D4Uilv2CvO> [<https://perma.cc/ET96-ZWME>] (requirements contract for American Axle to supply vehicle components to General Motors); Development Agreement Between Nanosys, Inc. and Matsushita Electric Works, Ltd. (Nov. 18, 2002), <https://contracts.onecle.com/nanosys/matsushita.rd.2002.11.18.shtml> [<https://perma.cc/K6KQ-ZSAV>] (collaboration agreement to develop photovoltaic devices with nanoscale components); Long Term Agreement Between Deere & Co. and Stanadyne Corp. (Dec. 14, 2001), <https://www.sec.gov/Archives/edgar/data/1053439/000119312507182449/dex1011.htm> [<https://perma.cc/4US6-4QLQ>] (five-year supply contract for the purchase of fuel filtration systems, injection nozzles, and related products by Deere from Stanadyne).

81. See Alan Schwartz & Robert E. Scott, Third-Party Beneficiaries and Contractual Networks, 7 J. Legal Analysis 325, 331–34 (2015) (discussing the failure of the Restatement rules governing third-party beneficiaries to deal adequately with contemporary contractual networks).

82. See generally Karl Llewellyn, The Needed Federal Sales Act, 26 Va. L. Rev. 558 (1940) (outlining the case for a comprehensive Federal Sales Act to cover international and interstate transactions).

83. Bernstein, *Merchant Law in a Modern Economy*, *supra* note 72, at 270.

contrast, the American economy in the 1920s and 1930s was increasingly dominated by the emergence of a “nationwide indirect marketing structure,” in which most contracts were executory and a large portion of trade was mediated by brokers and factors of various sorts.⁸⁴ Were Llewellyn here today, he would doubtless agree that the resistance to change that doomed the Sales Act has now undermined his commercial code.

B. *The Persistence and Effects of Obsolete Default and Mandatory Rules*

1. *A Taxonomy of Default and Quasi-Mandatory Rules.* — Commercial law rules commonly are grouped in three categories: (1) defaults, which attempt to solve a contracting problem as parties would have solved had they addressed it; (2) sticky defaults, which attempt to solve a contracting problem as the regulator believes it should be solved and include barriers to contracting out;⁸⁵ and (3) mandatory rules, which require the solution to a contracting problem as the regulator believes it should be solved and prevent particular private solutions.⁸⁶ The distinction between sticky defaults and mandatory rules is more fluid than is commonly supposed, however, because parties often can realize the solution they prefer by costly contracting around a mandatory rule.⁸⁷ Thus, classifying commercial law rules as either defaults, which supply parties with low-cost solutions to their contracting problems, or as “quasi-mandatory” (Q/M) rules, which erect high-cost barriers that parties must overcome in order to create their preferred solutions, provides greater clarity. State-supplied terms thus can be arrayed along a continuum of increasing costs to contract out until a default formally becomes a mandatory rule. Because raising contracting cost reduces the net gain from a transaction, the Q/M default differs from the standard default in important ways. A standard default expands parties’ contractual space by *increasing* the set of contractual tools parties can use

84. *Id.*

85. The most common sticky default is the “nudge,” which is an intervention that “alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives.” Richard H. Thaler & Cass R. Sunstein, *Nudge: Improving Decisions About Health, Wealth, and Happiness* 6 (2009). As an example, the regulator chooses a default retirement savings option for employees and requires employees to take affirmative steps to choose a different option. See *id.* at 129–30.

86. Schwartz & Scott, *The Default Rule Project*, *supra* note 2, at 1551–53.

87. An apt example of the ability to work around mandatory rules is the effort parties undertake to escape the ancient common law penalty doctrine. One method of escaping the penalty rule is to frame remedial provisions as substantive terms of the contract rather than as the consequences of a contract breach. Termination provisions, for example, grant the promisor the option to terminate the contract by incurring a cost that is unrelated to compensation. Similarly, parties may frame remedial provisions as substantive terms such as the right to cancel upon payment of a fee or loss of a deposit. For discussion, see Robert E. Scott & George G. Triantis, *Embedded Options and the Case Against Compensation in Contract Law*, 104 *Colum. L. Rev.* 1428, 1453–56 (2004).

to achieve their contracting goals; the Q/M default constricts parties' contractual space by *reducing* the set of contractual tools the parties can use.⁸⁸ However, Q/M rules do not, as is commonly thought, restrict the contracting space altogether.

A Q/M rule can become obsolete if one of two factors changes. First, the defective contracting conditions that justified making the state-supplied rule mandatory may improve so that there no longer is a need for cost barriers to contracting out. The regulator then could demote the Q/M rule to a default. Second, the defective contracting conditions that justified the rule may resolve, but other justifying conditions may emerge. In this case, there may be a need for a different mandatory rule.⁸⁹ As we show below, party responses to obsolete Q/M defaults will be similar to their predicted responses to standard defaults: When there is either an obsolete default or an obsolete Q/M rule, the parties can either make a "substitute contract" (that attempts, only sometimes successfully, to achieve the objective the obsolete term sought) or a "simple contract" that abandons the objective but is much less costly to write.

2. *An Example of Parties' Responses to an Obsolete Default Rule.* — This section's analysis of the effect of obsolete default and Q/M rules is in the form of an extended example.⁹⁰ We begin with two clarifying points. First,

88. To get the idea, assume the state creates a traditional default that would cost typical parties X to contract away from. The state could make the same default sticky by erecting a higher barrier to contracting out; now it would cost the typical party $2X$ to avoid. Next consider the mandatory rule against penalties. Parties would still like to write a penalty term at a cost of X to draft. But parties can only use other contractual methods to achieve the same goal; now it would cost the parties $3X$ to achieve their objective. On this view, the difference between a default, a sticky default, and a mandatory rule is one of degree (that is, cost). And the same criticism of sticky defaults applies to mandatory rules in heightened form. Parties with a sophisticated contracting technology—lawyers, other experts, etc.—sometimes can avoid the ban on penalty terms, but others cannot.

89. Q/M rules commonly implement a soft paternalism: The regulator chooses the contractual solution that, it believes, parties would choose under ideal contracting conditions. On this view of regulation, there are three types of rules: (1) A standard default that supplies parties with the maximizing solution to their contracting problem but permits free contracting out because the regulator believes that the ideal conditions obtain. Hence, parties either choose to accept the default or contract to a solution that would be better for them; (2) A weak quasi-mandatory rule—the sticky default—that supplies parties with the maximizing solution but erects cost barriers to contracting out because the regulator believes that the ideal conditions are only approximated. Parties thus should be discouraged from mistakenly choosing inefficient solutions; and (3) a strong quasi-mandatory rule that supplies parties with the efficient solution but erects very high-cost barriers to contracting out because the regulator believes that one or more of the ideal conditions do not obtain. In this case, a nontrivial fraction of parties, the regulator supposes, would choose a contracting solution that would be wrong for them if left free to do so.

90. The example is drawn from a formal model that explains how the costs of writing contracts and the costs of renegotiating them constrain parties' ability to create contracts that induce parties to invest efficiently in their transactions. See Alan Schwartz & Joel Watson, *The Law and Economics of Costly Contracting*, 20 *J.L. Econ. & Org.* 2, 10–17 (2004).

we make the heuristic assumption that the UCC and Restatement defaults were efficient when created. This is because our question is how contracting parties respond to obsolescence, and a law that is useless at the start cannot become obsolete. Second, the example shows that parties most likely will not respond to an obsolete default by creating a currently efficient solution to their contracting problem. While we consider this possibility, we unsurprisingly find that creating an efficient replacement is the least probable outcome. The relative values of parties' contracting options will dictate parties' responses to an obsolete default. If a statutory default was created initially because the cost of solving the problem exceeded the benefits accruing to any individual dyad, and the problem persists, the cost of contracting to achieve the first-best option likely will remain too high. Thus, the example's contribution is to suggest that parties' likely responses to contract obsolescence are either (1) to give up—to write a contract that is inexpensive to create but that cannot solve the current problem; or (2) to write a second-best contract that attempts to solve the problem but may fail to do so in many circumstances. The example thus makes a normative point: Contract obsolescence is a costly problem that markets seldom will solve unaided.

a. *The Contracting Problem: Parties Attempt to Motivate a Seller to Invest Efficiently in Producing Value for the Buyer.* — The parties in the example are risk neutral and agree to trade a good that is used in the buyer's business. The seller's investment in producing the good affects the value the buyer would derive from it, and the parties' contracting problem is to induce the seller to invest efficiently in creating value for the buyer. In the example, the world has changed so that the initial statutory default no longer is an apt solution.⁹¹ The example asks how parties respond to the lack of outside help.

In the example, the good's value to the buyer is a function of the level of the seller's investment (i.e., the greater the investment, the greater the good's value) and a stochastic-state variable (i.e., the world could turn out to be good for the buyer, such as demand for the final product being high, or bad for the buyer, such as demand being low). The seller invests efficiently when it optimally trades off increases in value against increases in investment cost.

Let $k\beta$ be the parties' equally shared cost of creating a contractual response to the obsolete UCC section. The variable β represents the minimum positive contracting cost, and k can vary from zero to infinity. Hence, contracting is costless when $k = 0$ and low when $k = 1$. We assume that the

91. The parties' problem in the example is to provide a price for the seller's good that motivates the seller to invest in enhancing the buyer's value. In this case, the obsolete default that would apply if the parties left the price term open is U.C.C. § 2-305(1) (Am. L. Inst. & Unif. L. Comm'n 1952) (specifying a "reasonable price at the time for delivery"). See *supra* text accompanying note 85.

state created a default because an efficient contractual solution to the pricing problem was too costly for particular contracting parties to reach on their own. This assumption implies that the more effective a private contractual response is in inducing the seller to invest efficiently, the higher k is: More efficient incentives are more costly to create.

b. *The Effects of Renegotiation.* — Because it would be prohibitively costly to write a contract term that is efficient in the infinite number of future states that can occur, every feasible contract could sometimes turn out to be inapt. In these cases, parties renegotiate to a contract that induces them to trade when trade would be efficient but not to trade otherwise. Renegotiation is costly for parties because it includes the time spent (and foregone) in developing the currently efficient solution and the cost of creating a modified contract. These costs will exhaust $(1 - x)$ percent of the renegotiation gain: $0 \leq x \leq 1$. When $x = 1$, renegotiation is costless; and when $x = 0$, renegotiation costs erase the full gain.⁹²

c. *The Seller Chooses Either High or Low Investment Level.* — The seller can choose a high investment level— e_H —or a low investment level— e_L . Because the buyer's value is a joint function of the seller's investment level and the state of the world, either level could be efficient in the circumstances.⁹³ If the seller chooses the high investment level, it incurs a cost of 25. This cost, together with the realized state of the world, generates a value of 100 for the buyer with $\frac{1}{2}$ probability; a value of 30 with $\frac{1}{4}$ probability; and a value of 0 with $\frac{1}{4}$ probability. If the seller chooses the low investment level, at a cost normalized to 0, the buyer's value is 30 with $\frac{3}{4}$ probability and 0 with $\frac{1}{4}$ probability. High investment therefore makes higher values more likely to occur and it turns out to be efficient in this example:

e_H : Net contractual gain (expected buyer value produced less seller's cost): $\frac{1}{2}(100) + \frac{1}{4}(30) + \frac{1}{4}(0) - 25 = 32.5$

e_L : Net contractual gain: $\frac{3}{4}(30) + \frac{1}{4}(0) = 22.5$

3. *The Three Possible Responses to the Obsolete State-Supplied Term.* — In the absence of an apt default rule that would solve the investment problem, parties would choose among three alternative contracts: (1) a simple contract that fails to motivate investment; (2) a more costly "substitute contract" that motivates investment in some states but not others; and (3) a first-best contract that efficiently solves the current version of the contracting problem but is even more costly to develop.

92. As an example, assume the parties' contract directs a result that would yield them a gain of fifty, but ex post the parties realize that there is a contract to which they could renegotiate that would produce a gain of eighty. If $x = .6$, renegotiation costs exhaust 40% of the renegotiation gain so the parties would net $(.6)30 = 18$.

93. This example excludes a contract that provides that if the seller fails to make the efficient choice, it is fined \$10 million for two reasons: First, contractual penalties are unenforceable. Second, we assume that the buyer can observe the finished product but not the seller's behavior, so the buyer could not enforce a penalty term were one even enforceable.

a. *The Simple Contract.* — The “simple contract” is the least costly contract the parties can make.⁹⁴ We normalize the cost to create the simple contract to zero. Under this contract, the buyer pays a base price p in return for the good, and the parties share equally in whatever value the seller’s investment produces.⁹⁵ This contract does not attempt to affect the seller’s behavior and so, unsurprisingly, would not induce the seller to choose the efficient high investment level.

$$e_H: \text{Seller's net gain: } \frac{1}{2}(p + 100/2) + \frac{1}{4}(p + 30/2) + \frac{1}{4}(p) - 25 = p + 3.75$$

$$e_L: \text{Seller's net gain: } \frac{3}{4}(p + 30/2) + \frac{1}{4}(p) - 0 = p + 11.25^{96}$$

The seller’s net gain is higher when it invests inefficiently.

This simple story illustrates two points. First, the seller will not invest efficiently unless the contract attempts directly to influence its behavior. Second, any contract that does will be more costly to create than the simple contract.

b. *The Second-Best “Substitute” Contract.* — We next illustrate a second response—the “substitute contract”—under which the parties attempt to design at least a partial solution to the problem by specifying that the price the buyer pays will be a function of the value the seller produces. The question under the substitute contract is whether the seller will always choose the efficient high investment level in order to receive the higher price.

The substitute contract provides that the parties trade the good and the buyer pays the price p if value is high (100); otherwise, the parties agree not to trade, and the buyer pays a lower base price p' (perhaps in the form of a nonrefundable deposit). When value turns out to be 30, however, the parties will renegotiate to permit them to trade in order to capture this positive value, but when value is 0, they allow the no trade agreement to stand. The contracting cost β is positive but low (i.e., $k = 1$), and the renegotiation cost also is positive and so reduces the renegotiation gain by $(1 - x)$ percent. Under this contract:

94. We now are interested in whether the seller can be induced to invest efficiently, so we calculate the seller’s gain under the various contracts we consider.

95. The seller’s investment creates value for the buyer, but the seller will not invest unless the buyer shares. We assume an equal split for convenience.

96. When the seller chooses the high investment level—the first expression—there is a $\frac{1}{2}$ probability that the buyer pays p and the parties split the high value (the first term); a $\frac{1}{4}$ probability that the buyer pays p and the parties split the low value (the second term); and a final $\frac{1}{4}$ probability that the buyer pays p but no value is produced (the third term). The last term (25) is the seller’s investment cost. Thus, the expected return to the seller is price plus 3.75. When the seller chooses the low investment level—the second expression—there is a $\frac{3}{4}$ probability that the buyer pays p with the parties splitting the low value (the first term), and a $\frac{1}{4}$ probability that the buyer pays p but there is no value created (the second term). Thus, the expected return to the seller is price plus 11.25.

$$e_H: \text{Seller's net gain: } \frac{1}{2}(p) + \frac{1}{4}(p' + x(30/2)) + \frac{1}{4}(p') - 25 = \frac{1}{2}(p + p') + x(3.75) - 25$$

$$e_L: \text{Seller's net gain: } \frac{3}{4}(p' + x(30/2)) + \frac{1}{4}(p') = p' + x(11.25)$$

When the seller chooses the high investment level, with $\frac{1}{2}$ probability the value is high and the buyer pays the price p , capturing the value of 100. With $\frac{1}{4}$ probability, the value is low, so the parties renegotiate to trade at the base price p' , and the seller retains the share of the renegotiation gain $(30/2)$ that renegotiation costs do not exhaust. Finally, with $\frac{1}{4}$ probability there is no trade, but the buyer pays p' . When the seller chooses the low investment level, the parties let the no trade directive stand when value is 0 but renegotiate to trade when value is 30. The seller then receives the low price and realizes half the 30 renegotiation gain, again reduced by renegotiation costs.

Comparing the gains from high and low investments, the seller chooses the high investment level if $\frac{1}{2}(p - p') - x(7.5) > 25$.⁹⁷ The left-hand side of this expression is the seller's marginal gain from a high investment. The right-hand side of the expression is the marginal cost of choosing the high investment level.

Regarding the first left-hand side term, the greater the difference between the high price p and the low price p' , the stronger the seller's incentive to choose the high investment level. Regarding the negative second term, when the seller chooses the high investment level, the parties renegotiate with a $\frac{1}{4}$ probability and the seller's expected share of the 30 renegotiation gain— $\frac{1}{4}(30/2)$ —is $x(3.75)$. In contrast, when the seller chooses the low investment level, the parties renegotiate with a $\frac{3}{4}$ probability so the seller's share of the 30 renegotiation gain is $x(11.25)$. Thus, when the seller invests high, it forgoes $x(7.5)$ from renegotiation—the difference between the renegotiation returns under the two investment levels. This opportunity cost must be deducted from the seller's gain in the price term to calculate the seller's net return from high investment. Note that as the renegotiation cost increases (i.e., x becomes smaller), renegotiation becomes less attractive: That is, the marginally higher return from renegotiation when the seller invests low becomes attenuated. Indeed, when $x = 0$, there would be no renegotiation gain so the seller's incentive to invest high would be maximized.

97. This expression is derived by comparing the seller's net gain in the high investment (e_H) scenario with its net gain in the low investment (e_L) scenario. The seller will choose the high investment scenario if *seller's net gain* (e_H) > *seller's net gain* (e_L). Expressed arithmetically, this is represented as: $\frac{1}{2}(p + p') + x(3.75) - 25 > p' + x(11.25)$. By rearranging the variables on the two sides of the expression, we get:

$$\begin{aligned} &= \frac{1}{2}(p + p') + x(3.75) - 25 + 25 > p' + x(11.25) + 25 \text{ (add 25 on both sides)} \\ &= \frac{1}{2}(p + p') + x(3.75) - x(11.25) - p' > p' - p' + x(11.25) - x(11.25) + 25 \\ &\text{(subtract } x(11.25) \text{ and } p' \text{ from both sides)} \\ &= \frac{1}{2}p - \frac{1}{2}p' - x(7.5) > 25 \text{ (factor out the } \frac{1}{2} \text{ on the right side)} \\ &= \frac{1}{2}(p - p') - x(7.5) > 25 \end{aligned}$$

The parties' contract design task, then, is to choose the two prices such that the buyer prefers to trade at the higher price p *only when* value is high, but otherwise prefers to trade at the lower price p' . This preference creates an incentive for the seller to invest high. Saving the reader a little arithmetic, the optimal difference between the two prices is $100(1 - x/2)$.⁹⁸ Substituting this value for $p - p'$ in the inequality above, the seller will choose the high investment level if the renegotiation cost parameter $x < .77$. If the seller chooses the high investment level, there is a possibility that value will be high, and the seller then receives the high price reduced by the investment cost. If the seller chooses the low investment level, value cannot be high but could be positive. If so, the seller would receive the low price plus a share of the low value reduced by the renegotiation cost. The greater the renegotiation cost, the less attractive the low investment choice becomes. In the example, if the renegotiation cost would exhaust less than 23% of any renegotiation gain, the seller would do better choosing the low investment level.⁹⁹ The substitute contract is thus a second-best solution to the contracting problem because in many states of the world it could not motivate the seller to choose the efficient high investment level.

c. *The First Best: An Efficient Contract.* — The parties' third contracting choice is to attempt to motivate the seller to always choose the high investment level by creating the first best—an efficient contract term to replace the obsolete default. The first-best term solves the current version of the parties' contracting problem as it exists today. This term, however, is the most expensive to create because it must replace the term that the state supplied when it was too costly for private parties to create their own solution. The contracting cost to design the efficient contract now is $k\beta$, with $k > 1$.¹⁰⁰ The parties' joint gain under the first-best contract is:

$$\frac{1}{2}(100) + \frac{1}{4}(30) + \frac{1}{4}(0) - 25 - k\beta = 32.5 - k\beta$$

The last two left-hand-side terms are the seller's investment cost and the parties' contracting cost.

In contrast, the parties' joint gain under the substitute contract, with $x < .77$, is:

$$\frac{1}{2}(100) + \frac{1}{4}(.77)(30) + \frac{1}{4}(0) - 25 - \beta = 30.8 - \beta$$

98. For technical readers, in order to induce the buyer to prefer to pay p rather than reject trade, pay p' and renegotiate to share surplus when value turns out to be high, the prices must satisfy the constraint $100 - p \geq -p' + 100x/2$. To induce the buyer to renegotiate when $v = 30$ and let the no-trade result stand when $v = 0$, the prices also must satisfy $30 - p \leq -p' + 30x/2$ and $0 - p + 30x/2 \leq p'$. Rearranging these inequalities yields $30(1 - x/2) \leq p - p' \leq 100(1 - x/2)$.

99. Parties sometimes would like to raise renegotiation costs but there are legal constraints. For example, banning renegotiation effectively makes renegotiation costs infinite, but courts will not enforce "no renegotiation" clauses. See *infra* section II.B.1.

100. Note that k includes both the cost of writing a contract and the cost of devising a solution to the contracting problem. Because it is more difficult to create more efficient solutions, we suppose that k is highest when parties attempt to achieve the first-best term.

Comparing the parties' returns under the first-best, the efficient contract, and under the second-best, the substitute contract, the parties will choose the efficient contract if $1.7 > k\beta - \beta$.¹⁰¹ The term on the left-hand side is the marginal gain (above the gain from the substitute contract) from the first-best solution; the right-hand side is the marginal contracting cost. To get a feel for how the parties will choose between these two alternatives, let $\beta = 1$, the lowest possible basic contracting cost. Then, if k is greater than 2.7, the parties would not create the efficient solution to their contracting problem. But if k —the private multiplier—is less than 2.7, solving the contracting problem would be relatively cheap: In that case, there likely would not have been a need for a publicly supplied default initially.¹⁰²

4. *The Effects of Obsolete State-Supplied Terms on Commercial Contracting.* — To see the effect on commercial contracting this example suggests, suppose that when creating the UCC (or Restatement), the drafters observed that private parties made contracts that left the price term open to be agreed upon at a later time. The drafters would infer that the contracting cost of specifying a solution to the problem of writing flexible price contracts was too high (i.e., the private multiplier k was greater than 2.7 in our example). The drafters, we assume, responded by creating the then-efficient default: Thus, UCC section 2-305(1) provides that if the price is not settled and parties subsequently fail to agree, the price is “a reasonable price at the time for delivery.”¹⁰³ Now turn to today, when the contracting problem persists in a new form, but the statutory solution no longer is apt. If the contracting technology is unchanged, it would continue to be too costly for private parties to create the first-best solution (i.e., k would continue to exceed 2.7). The costs of writing an efficient contract today are

101. The parties would choose to write the first-best contract if their joint gains are greater than the joint gains under the substitute contract. Expressed arithmetically, this is represented as $32.5 - k\beta > 30.8 - \beta$. Rearranging the variables on the two sides of the expression results in:

$$\begin{aligned} &= 32.5 - 30.8 - k\beta > 30.8 - 30.8 - \beta \text{ (subtract 30.8 from both sides)} \\ &= 1.7 - k\beta + k\beta > -\beta + k\beta \text{ (add } k\beta \text{ on both sides)} \\ &= 1.7 > k\beta - \beta \end{aligned}$$

102. For an illustration of why creating an apt solution to the contracting problem to replace an obsolete default rule is typically too costly for any individual dyad, consider the options available to the parties in the example. The simple contract pays the seller a fixed price, which fails to motivate the seller to invest in efforts that increase the value of the good to the buyer. The second-best substitute contract specifies a higher price if the value turns out to be high and a base price (perhaps in the form of a nonrefundable deposit) if value turns out to be low. But given different levels of renegotiation and contracting cost, the substitute contract will also fail to motivate efficient investment in many circumstances. The first-best solution requires the development of dynamic price terms that induce the seller to invest efficiently in all world states. Such a complex pricing term would create value for all parties, but individual dyads are nonetheless likely to opt instead for the simple or substitute contract because they would bear the development costs of solving the contracting problem but could not capture the gains from competitors' use of the innovative term.

103. U.C.C. § 2-305(1) (Am. L. Inst. & Unif. L. Comm'n 1952).

high because individual parties would bear the entire costs of promulgating a widely successful solution to the contracting problem but could reap only a fraction of the benefits from a first-best innovation.¹⁰⁴ Thus, had the drafters remained current, they would again observe parties apparently not contracting to replace the obsolete default with a first-best price term. Rather, parties would be adjusting by adopting second-best solutions: writing substitute contracts or simple contracts that avoided addressing the contractual problem directly. In short, if the drafters' role had not changed, they would now update the UCC or the Restatement accordingly.

Therefore, absent updating, the obsolete default persists: It will not be replaced by an apt term designed by private parties and yet parties also will not have access to an efficient state-supplied default rule. What are the likely costs of persistent obsolescence? Parties must now choose between their second-best responses. The substitute contract would be the parties' best choice if the net gain it produces would exceed the gain the simple contract would produce: that is, if $30.8 - \beta > 11.25$, or if $\beta < 19.55$. But if renegotiation costs fall or the minimum positive contracting cost increases, the simple contract would be the parties' best response, and under it the seller would certainly choose the less efficient investment level. In sum, the example suggests that when state-supplied default terms become obsolete, contracting parties would make either simple inefficient contracts or complex and possibly inefficient substitutes.¹⁰⁵

These would be the parties' actual responses if they reject two other possibilities. Initially, parties would not make a contract that accepted the obsolete default because the simple contract is less risky. The two contracts are identical in two respects. First, the contracting cost would be the same because accepting an obsolete default is costless, as is creating the simple contract. Second, neither contract can induce efficient investment: The simple contract does not try, and an inapt default cannot solve the parties' contracting problem in its current version. Accepting the default is riskier than switching to the simple contract, however, because an inapt default

104. There are several barriers to innovation that deter parties from devising a first-best solution to the contracting problem. The limits of copyright and patent law create an initial barrier to innovation by denying contracting parties substantial property rights in devising new terms to solve new problems. An inherent free rider problem thus retards the production of costly, innovative solutions to new problems. To be sure, there are incentives to innovate—repeat players can amortize costs over many transactions and drafting attorneys may enjoy reputational benefits—but ultimately these are unlikely to offset the high development costs. In addition, the difficulty in coordinating a move to new contractual language constitutes another barrier to party-designed default rules. And perhaps most importantly, the state's monopoly on the official recognition of the meaning of the new terms imposes a risk of error on any private efforts to innovate. Goetz & Scott, *The Limits of Expanded Choice*, *supra* note 14, at 292–93.

105. Observers have remarked that American contracts are becoming increasingly complex. See, e.g., Cathy Hwang & Matthew Jennejohn, *The New Research on Contractual Complexity*, 14 *Cap. Mkts. L.J.* 381, 382–92 (2019) (reviewing the literature on modular and integrated contract designs). The example's result—that obsolescence induces parties to write more complex contracts—is consistent with this phenomenon.

may be linguistically applicable to the current version of the problem. A party may attempt to exploit this applicability to capture wealth from its counterparty.¹⁰⁶ Because the simple contract does not raise a strategic behavior risk, parties would prefer the simple contract to a contract with the inapt default.

Contracting parties also would prefer the simple contract to a contract with the inapt default expressly disclaimed. Such a modified contract would contain a gap. This would have two disadvantages. Because there is a gap, a party dissatisfied with how a deal turns out would have an incentive to litigate in order to get a court to create a rule in its favor. In addition, parties could not predict what a judicial rule would be. The simple contract has no gap: Parties share equally whatever value the seller produces. Thus, there is litigation risk under either a contract that retains the obsolete default or a similar contract that deletes it, but no litigation risk under the simple contract.

This analysis reinforces the conclusion that, facing an obsolete default term, contracting parties would decide to make either the simple contract or the substitute contract. As a consequence, few if any UCC or Restatement defaults that became obsolete would be simply useless or vestigial. Parties would contract away from them to one of the two alternative contracts we analyzed, and the default would remain as a black letter rule, offering only an ostensible solution to the contracting problem.

Parties would respond similarly to an obsolete Q/M rule. Since, by hypothesis, the conditions that justified limiting parties' freedom to bargain directly for the Q/M term no longer obtain, the justification for imposing higher costs on parties seeking to solve their contracting problem indirectly would disappear. Parties would continue to write either simple or substitute contracts that offered indirect means of solving their contractual problem. But since the justification for erecting barriers to contracting out have disappeared, the cost of escaping the obsolete Q/M rule is a deadweight loss.

C. *Obsolescence in Interdependent Private Contracts*

It is widely assumed that contracts between private parties do not contain obsolete terms. If a term in a prior contract becomes inapt, parties will not include the term in their current contract. This view implicitly assumes, however, that parties' contracting choices are not affected by the choices of other market actors. This assumption does not hold, however, in certain large multilateral markets where parties trade using standardized contract terms. Here, contracting parties will retain obsolete terms in their current contract if the market would punish the supplier of a new or revised term. In such cases, innovation requires the potential innovator to

106. This, of course, is exactly what happened in the litigation over the meaning of the *pari passu* clause in sovereign bonds. See *supra* note 16; see also *infra* section II.C.

coordinate with other market actors on a new term. The following section illustrates this phenomenon with an analysis of sovereign bond contracts, where a state may continue to issue bonds that contain an obsolete term despite the danger of strategic behavior it presents.

1. *An Example: The Sovereign Bond Market.* — In this analysis, the agents are sovereign states $\{s_1, s_2, s_3, \dots, S\}$ that play a coordination game in connection with issuing bonds. The buyers are symmetric: They have the same incentive, which is to purchase bonds they can sell on the secondary market. A bond contract consists of a set of terms that define the relationship between the buyer and the issuing state. The terms regulate default, specify a payment schedule, and settle other matters. Because bond issuances are largely routine, a contract issued today will be similar to the contract issued yesterday. The interest rate is current, but many terms will have become boilerplate over time. Parties do not negotiate the non-payment terms.¹⁰⁷ Rather, bond contracts are offered to the market on a take-it-or-leave-it basis. However, states sometimes renegotiate with bondholders if circumstances materially change after issuance (e.g., the sovereign has difficulty paying). Importantly, we assume that boilerplate terms differ little across the bond issuances of different sovereign states.

A market for sovereign bonds is formed around the economic comparability of the issuing states. Consider, for example, two sovereign states: Panama and the United States. Both issue debt but otherwise are dissimilar. Bond buyers, we assume, consider Panama to be in a class with other small, risky countries. Thus, we model the bond issuing game as a set of moves by state S_i and a set of moves by “everyone else” in the same class, but because the set of comparable states is relatively small, we let $S \dots i$ stand in for the market (formally, the players are $S_i, S \dots i$). We assume that every country in the same class offers a bond at the beginning of a market period. Buyers enter the market to decide which country’s bond to purchase. But now a set of terms in the bond contracts that were issued in the last period have become obsolete.

Before analyzing the parties’ possible responses to obsolescence in boilerplate, we note two differences between the private contract context and the obsolete state-supplied default context. First, parties to sovereign bond contracts do not attempt to influence the state’s behavior (i.e., to be more fiscally prudent or to repay promptly). The bonds only regulate payment and default.¹⁰⁸ The possibility of renegotiation may influence behavior *ex post*, but this is apart from the terms of the bond contract. Second, in the example section I.B develops, we assumed that it was costly to create a contract but costless to read one. Here, we assume that bond contracts are sufficiently complex that mastering what the contract says is a capital

107. Mitu Gulati & Robert E. Scott, *The Three and a Half Minute Transaction: Boilerplate and the Limits of Contract Design* 24–30 (2013) [hereinafter Gulati & Scott, *The Three and a Half Minute Transaction*].

108. *Id.* at 24–28.

investment that is amortized over future bond purchases. A state that does not change the bond contract is thus offering a cheaper bond—one that costs less for borrowers to understand—than a bond with different terms: A different contract would require a new capital investment. Finally, we assume that, given the size of the bond market, there is no prior communication among the issuing states.

2. *A Coordination Game With Three Possible Strategies.* — The three strategies available to a sovereign—the three types of bond contracts a state can issue today—are to (1) use the previous contract again despite the obsolete terms (“*O*”); (2) substitute different but more efficient contract terms than the obsolete contract (“*S*”); and (3) innovate by creating a first-best contract (“*F*”). The market “coordinates” if states S_i and $S_{\dots i}$ issue the same contract: The market contract is the coordinated contract. Under coordination, each state’s payoff under any of the contracts is (assumed to be) positive. The lowest positive payoff is (O,O)—issuing debt under the previous obsolete contract. The payoff is positive because the contract is familiar to buyers despite the danger that the obsolete term may morph into a litigation risk (i.e., it does not require a capital investment to understand). The payoff is greater if S_i and $S_{\dots i}$ both issue debt under the substitute bond contract (*S/S*). As explained above, a substitute contract generates a higher return than the obsolete contract. The highest payoff is realized when states coordinate on the first-best innovative contract because it is the efficient contract and so should sell on the best terms.

It is costly, however, for a sovereign state to deviate from the market contract, whatever that contract may be. The buyers are reluctant to purchase a different contract because the buyers subsequently market bonds to individual investors, pension funds, and the like. Either these agents will not purchase the different contract because the contract is costly for them to understand (and the deviation may reflect relevant conditions in the issuing state that the buyers cannot access), or the buyers will purchase the deviant contract only if it came with an above-market interest rate.¹⁰⁹ In short, the more different a bond is from the market contract, the less liquid it is.

We represent the game as follows.

109. *Id.* at 34–35.

TABLE 1: COORDINATION GAME

		S . . . i		
		O	S	I
S _i	O	1, 1	1,-1	1,-2
	S	-1, 1	2, 2	-1,-2
	I	-2, 1	-2,-1	3, 3

The S . . . i player is the column player; its payoffs are after the commas. The S_i player—our illustrative issuing state—is the row player; its payoffs are before the commas. There are three equilibria in this game: The states play *O/O*; play *S/S*; or play *I/I*. Consider S . . . i: It can insure itself a positive payoff of 1 by choosing O no matter what S_i does. Similarly, S_i can insure itself a positive payoff of 1 no matter what S . . . i does. Next, notice that *I/I* is the Pareto superior equilibrium, generating the highest joint payoff of 6. If S_i believes that S . . . i is rational, wants to maximize its payoff, and understands the game, S_i will believe that S . . . i will play *I*. Similarly, if S . . . i has the same beliefs about S_i, it will believe that S_i also will play *I*. Thus, *I/I*—everyone uses the most innovative, efficient bond contract—seems the most reasonable equilibrium.

3. *The Equilibrium Strategy: Retain the Obsolete Term.* — The rationality and competence assumptions do not always hold, however. States that issue sovereign bonds, particularly developing states, sometimes exhibit pathologies of goal selection and financial and administrative abilities.¹¹⁰ For this reason, individual states may be reluctant to assume that other states will rationally and competently invest in costly innovation to create the most efficient contract.¹¹¹ Notice now that if S_i plays *I* (i.e., innovates), it receives the highest negative payoff (−2) if S . . . i chooses *O* or *S*. Doubt

110. Choi, Gulati & Scott, *The Black Hole Problem*, supra note 16, at 47–52.

111. The joint value-maximizing move is for the states collectively to coordinate on a new term that solves the contracting problem. But each individual state's belief in what others will do is influenced by the knowledge that a decision to innovate by itself means bearing all the risks of change (i.e., experiencing a negative payoff if others chose not to innovate), while not capturing all the benefits. This inertia is exacerbated in the sovereign debt context because of a substantial agency problem. The debt managers who issue the bonds on behalf of the sovereign state do not regard the contract terms as relevant to the initial pricing of their bonds because they know that the investment banks charged with marketing the bonds only care about having the standard terms. The debt managers are affirmatively discouraged from making innovative deviations from the standard terms because nonstandard terms make the initial issuance of the bonds more costly and difficult to market. Anna Gelpern, Mitu Gulati & Jeromin Zettelmeyer, *If Boilerplate Could Talk: The Work of Standard Terms in Sovereign Bond Contracts*, 44 *Law & Soc. Inquiry* 617, 644 (2019) (“The fact that a term is perceived to be standard . . . conveys stability, continuity, and conformity to market norms, which in turn are conducive to market liquidity.”); see also Choi, Gulati & Scott, *The Black Hole Problem*, supra note 16, at 52–54, 61–65 (describing how agency costs “pervade the sovereign bond market” and contribute to the persistence of obsolete standard terms).

among states about the capacities of other states to design and issue efficient bonds thus implies that *I/I* no longer is the most likely equilibrium: Both players will want to avoid the high negative payoff that would result from being the only state to issue the most costly, though efficient, contract to the market.¹¹²

The other possible equilibria are *S/S* or *O/O*. A player who rejects the assumptions of rationality and competence on the part of other players would assign a 50% probability to the other states playing either equilibrium. On this assumption, the illustrative state would choose *O* because it would have a higher expected payoff.¹¹³ Therefore, the reasonable equilibrium in this market is *O/O*. Every state will issue bonds under contracts that retain obsolete terms.

4. *Summary: Coordination Impediments Result in Inertia.* — To summarize, there is a plausible explanation for the persistence of obsolescence in sovereign bonds and other similar contracts. As we later show, our result for sovereign bonds also applies to some markets for corporate bonds. Continuing to use a contract with obsolete terms would be an inexplicable response when contracting parties are autarkic but may be a possible best response when parties are interdependent and unable to coordinate readily. Thus, when contracts are standardized across a large market, a party's best response to its strategic situation may be to choose not to amend the terms of a sovereign or corporate bond contract even though the obsolete terms may generate mistaken judicial interpretations.¹¹⁴

This explanation for the persistence of quasi-mandatory boilerplate in standardized, interdependent contracts points to a normative solution. Communication among the players may help avoid the doubts that players in the game may have about each other's responses to efforts to update obsolete terms. The policy implication, therefore, is that interventions to facilitate better communication among parties to interdependent contracts would be helpful.¹¹⁵ For example, in the case of sovereign debt contracting, an international agency that reviews bond contracts and

112. In game theory terms, *I/I* is not a trembling hand perfect equilibrium.

Trembling-hand perfectness is an equilibrium concept . . . according to which a strategy that is to be part of an equilibrium must continue to be optimal for the player even if there is a small chance that the other player will pick an out-of-equilibrium action (i.e., that the other player's hand will 'tremble').

Eric Rasmusen, *Games and Information: An Introduction to Game Theory* 145 (2d ed. 1994).

113. A state that did not know what other states would do would assign a 50% probability to others choosing *O* or *S*. In the assumed game, *O* would have a higher payoff.

$$E(S) = .5(2) + .5(-1) = 1/2; O = 1$$

114. For data in support of this explanation, see *infra* section II.C.

115. In some markets, coordination on updating contract terms is achieved through well-organized trade associations. See *infra* note 237 and accompanying text. But effective communication becomes increasingly more difficult as the size of the market under consideration expands. States need to contend with language barriers, cultural and institutional

announces efficient solutions would increase the ability of states and investors in the market to coordinate on an updated contract.¹¹⁶

II. EVIDENCE OF THE PERSISTENCE AND COSTS OF OBSOLETE CONTRACT TERMS

This Part examines the evidence that supports the predictions in Part I that both state-supplied and interdependent contract terms become obsolete as conditions change and that obsolescence persists despite individual parties' incentives to develop efficient solutions to contracting problems. Sections II.A and II.B marshal evidence showing how commercial parties reject the obsolete default and quasi-mandatory terms that law-making institutions produce in favor of less efficient simple or substitute contracts. Section II.C summarizes data from current empirical investigations of both the sovereign bond and corporate bond markets showing that parties fail to revise obsolete boilerplate terms in interdependent contracts notwithstanding the significant litigation risks the obsolete terms present.

A. *Obsolete State-Supplied Default Rules*

The theory developed in Part I predicts that parties will reject an obsolete default term because the term cannot solve the current version of their contracting problem and bad faith parties could exploit the term strategically. Moreover, parties are unlikely to create a first-best term equivalent to an apt state-supplied default.¹¹⁷ Instead, the theory predicts that parties will replace an obsolete term with one of two second-best alternatives: either a least-cost, simple contract or a complex substitute contract that may not induce an efficient outcome. Both likely contracting responses are suboptimal relative to a state-supplied default term that solves the current contracting problem. The examples below from UCC and Restatement rules support our theoretical claim that, when facing rules that have become obsolete, contemporary commercial parties reject the default and choose to substitute what appear to be second-best agreements.

discrepancies, and informational asymmetries. Poor communication in turn negatively affects coordination. See Timothy N. Cason, Roman M. Sheremeta & Jingjing Zhang, Communication and Efficiency in Competitive Coordination Games, 76 *Games & Econ. Behav.* 26, 27 (2012) (summarizing research that explains how increasing communication in coordination games can reduce uncertainty about other parties' strategic behavior and facilitate Pareto-enhancing outcomes).

116. For discussion of the parties' inability to communicate effectively in the sovereign bond market and the extended delay before parties were finally able to update the obsolete terms in their contracts, see section I.C.

117. The cost of developing an apt default solution to an industry-wide contracting problem is greater than the benefit of that solution for any individual dyad. Only by capturing rents from other parties' use of the default would the development costs be justified. While the other options produce smaller benefits, their lower costs create net value.

1. *Consequential Damages.* — The UCC and Restatement default rules governing recovery of consequential damages exemplify obsolete terms that commercial parties routinely disclaim. The terms require the seller to deliver conforming goods or pay the buyer damages, including consequential damages. These damages are measured as the difference between the value to the buyer of accepted goods and the value the buyer would have derived from conforming goods.¹¹⁸ Early common law cases held that a buyer could not recover consequential damages unless there existed a tacit agreement between the parties regarding the particular consequences that could affect the buyer's valuation.¹¹⁹ The Restatement and the UCC replaced the tacit agreement test with a softer standard: The seller is liable if they had "reason to know" what the buyer's consequential loss would be. Otherwise, the drafters believed, buyers would too readily be denied full compensation.¹²⁰ But with the advent of the technology revolution and just-in-time methods of procurement, actual and hypothetical valuations became very difficult to verify. Buyers today attempt to exploit this uncertainty by overstating their valuations.

The "reason to know" standard for recovering consequential damages thus is obsolete: It requires sellers to insure buyers' valuations when the sellers do not know how much insurance to sell. Because buyers know their valuations, they usually are better risk bearers. As a result, commercial parties today routinely opt out of the consequential damages default rule. In its place, parties create complex repair-and-replacement provisions, which allocate the risks of product defects in other ways.¹²¹ But the repair-and-replacement clause is less efficient than an apt risk allocation clause that the state could provide: Negotiating and drafting the substitute contract is costly, and yet, by shifting the entire burden of consequential damages to the buyer, the repair-and-replacement clause allocates some risks to buyers that an apt default would otherwise allocate to sellers.

2. *Implied Warranties.* — The UCC primarily regulates quality issues with the implied warranty of merchantability: Goods must be "fit for the

118. U.C.C. § 2-714 (2)–(3) (Am. L. Inst. & Unif. L. Comm'n 1952) ("The measure of damages for breach of warranty is the difference at the time and place of acceptance between the value of the good accepted and the value . . . if they had been as warranted In a proper case any incidental and consequential damages under [§ 2-715] may also be recovered."); see also Restatement (Second) of Confs. § 351 (Am. L. Inst. 1979).

119. *Hadley v. Baxendale*, 156 Eng. Rep. 145, 151 (1854) ("[I]f the special circumstances under which the contract was actually made were communicated by the plaintiffs to the defendants . . . the damages resulting from the breach . . . would be the amount of injury which would ordinarily follow from a breach of contract under these special circumstances so known and communicated.").

120. See, e.g., U.C.C. § 2-715(2)(a) cmt. 2 ("The 'tacit agreement' test . . . is rejected."); Restatement (Second) of Confs. § 351(2)(b).

121. For a discussion of repair-and-replacement provisions, see Schwartz & Scott, *The Default Rule Project*, supra note 2, at 1526–27. A repair-and-replacement clause obligates the seller, in contractually defined cases, to repair or replace defective parts of products within a contractually defined time. The seller otherwise does not bear any risk.

ordinary purposes for which [they] are used” or “pass without objection in the trade.”¹²² This regulation was once efficient when sellers traded homogeneous standard goods to large numbers of similarly situated buyers. In this context, the sellers were better informed about product quality than the buyers. Thus, it was efficient for the sellers to warrant that all the items in a lot were identical and did what goods of that type were supposed to do. However, the implied warranty term is a candidate for obsolescence because the commercial pattern within which the term was once efficient is no longer prevalent. Today, two firms sometimes jointly develop the specifications for a product, and then seller and buyer agents together install the product in the buyer’s plant.¹²³ Both parties thus are (approximately) equally informed about the product’s characteristics. The UCC warranty that a merchant seller guarantees that its goods “would pass without objection in the trade”¹²⁴ thus presupposes a commercial pattern into which the jointly created and installed product sale does not fit. If the buyer later raises a quality objection, it could not (or should not) prevail by attempting to show that “the trade” would reject the seller’s performance: The transaction is individuated so there is no trade.

The UCC implied warranty of quality reduces parties’ expected contractual surplus when parties create products jointly. Because the term is inapt, its presence as a default creates uncertainty; parties cannot easily predict how a court would apply the term to disputes in their case. Further, because the term could not be straightforwardly applied, litigation costs—deciding what evidence to introduce or contest and how to argue the “law”—would be high. In practice, therefore, parties commonly disclaim the UCC implied warranty. Its negative contribution is not limited to the costs of contracting out, however. As the theory of obsolescence developed in Part I predicts, parties do not engage the high-cost option of designing an apt replacement for the obsolete default. Rather, they write a lower-cost substitute contract by creating an express warranty that substitutes for the obsolete term.¹²⁵ Then, by disclaiming the implied warranty, sellers shift to the buyer the risk of product defects other than those that the seller expressly assumes. Writing an optimal express warranty term is costly, however, and thus sellers commonly offer a standard express warranty to all buyers. Because buyers today often have diverse procurement needs, the absence of individuation suggests that the warranty may create suboptimal incentives to invest or allocate risks optimally.¹²⁶

122. U.C.C. § 2-314(2).

123. For discussion on how firms work together to develop products, see Bernstein & Peterson, *supra* note 8, at 3–6; see also Gilson, Sabel & Scott, *Contracting for Innovation*, *supra* note 78, at 438–44 (describing the shift toward collaboration among several firms to produce a product).

124. U.C.C. § 2-314(2).

125. See U.C.C. § 2-213 (specifying the ways in which an express warranty is created).

126. To clarify, parties may face a perennial contracting problem—to define a seller’s quality obligation—in a new context, or they may face a new contracting problem. A term

3. *The Cure Rule.* — The seller's right to cure a defective tender is a further example of an obsolete UCC default rule. Under section 2-508(2), if a buyer properly rejects a non-conforming tender, but the seller "had reasonable grounds to believe [the tender] would be acceptable with or without money allowance," the seller has a "further reasonable time" to substitute conforming goods after the time for delivery specified in the contract has passed.¹²⁷

This rule might once have been an apt solution to the problems of inadvertent errors by sellers and surprise rejections by buyers, but the solution assumes that buyers often could accept late deliveries. Many buyers had this ability in a commercial era during which buyers accumulated an inventory of parts and thus could more readily accommodate the disruption caused by the late delivery of ultimately conforming goods. But the rule is obsolete in the current environment where commercial parties routinely rely on "just-in-time" production and collaborative problem solving.¹²⁸ Under contemporary production practices, when inventories are deliberately kept to a minimum, granting the seller the unilateral right to cure a defective tender is costly to a buyer who requires collaborative information exchange before delivery and a conforming delivery at the date specified in the contract.¹²⁹

The theory of obsolescence predicts that parties will not create an efficient solution to the late delivery problem. Instead, and unsurprisingly,

then is obsolete if it is an outmoded solution to the perennial problem or if parties (or a court) attempt to apply a term designed to solve a prior problem to the new problem. The implied warranty example above illustrates the former concern. The text for convenience primarily analyzes the outmoded, rather than the inapt, term, but both contribute negatively to expected surplus.

127. U.C.C. § 2-508(2).

128. In construction, contractually specified information exchange regimes are now often used to facilitate coordination between the buyer and the suppliers during complex projects, and especially to register emergent problems and respond effectively to them. See, e.g., *The West Side 18th and 19th Street Project Between Georgetown 19th Street Development, LLC and Turner Construction Company* (Apr. 1, 2003) (on file with the *Columbia Law Review*). The Agreement provides:

Throughout the Pre-Construction Services Phase and the Construction Services Phase of the Work, the Key Personnel, and the Construction Manager's Trade Contractors shall meet at least once a week . . . with Owner and the Architect for the purpose of (i) reviewing the Work, or any component thereof, in respect of design, construction, costs incurred and to be incurred, and progress, and (ii) preparing a list (to the extent reasonably foreseeable) of decisions or actions which Owner must make or take within the next sixty (60) Days to avoid delays in completion of the Work, or any component thereof.

Id. art. 5.2. For a detailed account of how such mechanisms function in practice, see Atul Gawande, *The Checklist Manifesto: How to Get Things Right* 54–71 (2009).

129. Gawande, *supra* note 128, at 54–71 (describing a construction firm's communication processes and "checklists" for handling defects).

parties today use a simple “no replacement” clause.¹³⁰ This opt out permits the buyer to insist on a perfect tender at the time for delivery.¹³¹ But this solution, too, is a blunt instrument, because it inhibits contractual flexibility that might otherwise generate efficient outcomes: It may sometimes be ex post efficient to permit the seller to make prompt adjustments to an initial defective tender. The problem with the obsolete default and the opt-out option that the Code invites the buyer to take is that both are almost as insensitive to the conditions of just-in-time production as was the original cure rule.

B. *Obsolete Quasi-Mandatory Rules*¹³²

Commercial law rules can be grouped into three categories: standard defaults, sticky defaults, and mandatory rules.¹³³ But as previously noted, the distinction between sticky defaults and mandatory rules is more fluid than many suppose. Parties often can realize the solution they prefer by costly contracting around the mandatory rule.¹³⁴ For that reason, we have characterized rules that erect cost barriers to contracting out of the state-supplied rules as quasi-mandatory (Q/M) rules. This section illustrates obsolescence in Q/M rules with an analysis of (1) the rule in contracts that “no renegotiation” clauses are unenforceable; (2) the absolute priority rule in bankruptcy, which makes a voluntary change of the priority order unenforceable; and (3) the reorganization rules in bankruptcy that prevent contractually mandated sales of an insolvent firm to the market. In each of these cases, commercial patterns have changed such that the features that justified the mandatory rule no longer apply.

1. *The Common Law Rule Denying Enforcement of “No Renegotiation” Clauses.* — To understand this rule, assume parties agree today to trade a quantity of goods tomorrow for a price. Their choice of quantity and price would yield an efficient trade under the circumstances the parties believed were most likely to occur. But if demand in the buyer’s resale market fell so that the buyer no longer needed the specified quantity of goods, the parties would be motivated to renegotiate to trade fewer goods, with a price adjustment or an adjustment in other aspects of their relationship. Suppose, however, that their contract contained a prohibition on renegotiation. The parties would then inefficiently have to trade the contractual

130. The option of opting out of the cure rule in favor of a “no replacement” clause is explicitly invited in U.C.C. § 2-508 cmt. 2.

131. See U.C.C. § 2-601 (outlining the buyer’s remedies when provided with non-conforming goods); *id.* § 2-508(2) cmt. 2 (“The seller is charged with commercial knowledge of any factors in a particular sales situation which require him to comply strictly with his obligations under the contract as, for example, strict conformity . . .”).

132. Mandatory rules are efficient when they require parties to internalize a negative externality. We assume that no externality exists.

133. See *supra* note 86.

134. See *supra* section I.B.1.

quantity of goods or attempt to make costly indirect adjustments to their deal.¹³⁵

The example shows that a no renegotiation clause would be inefficient for this simple procurement transaction. Because it would be too costly for parties to create a contract that specifies prices and quantities for every possible ex post state, parties contract for the average state. As a consequence, parties expect to renegotiate in a nontrivial fraction of possible future states to escape a contract that has become inapt. A party would agree to a no renegotiation clause, courts thus believe, *only if* the party failed to understand the transaction or was misinformed about the volatility of market conditions. Refusing to enforce no renegotiation clauses thus provides parties with the deal that parties contracting under ideal conditions would make.

But now consider a more contemporary case in which, as in the example in Part I, parties want to induce a seller to invest efficiently in the transaction. Because the buyer cannot observe the seller's behavior, an efficient contract would put risk on the seller in order to induce efficient investment: The seller's return is conditioned on the value it produces. The seller bears risk because that value is partly a function of its effort, but also a function of how the world turns out. In this variant of the investment example, suppose that the seller completes its investment before the state of the world is realized and is risk averse. There no longer is a need to motivate the seller but it bears risk nevertheless: The world may turn out to be unfavorable. Therefore, there is a possibly efficient renegotiation. If the buyer is risk neutral, the parties would agree to shift risk to the buyer in return for a fixed payment to the seller that would lie somewhere between its contractual return from the low-value outcome and the return from the high-value outcome. If, however, the seller *anticipates* that it will ultimately be paid a fixed sum that is independent of the actual outcome, the seller knows that it does not bear risk. Hence, it will not be motivated to invest efficiently.¹³⁶

In this example, renegotiation unravels the parties' incentive scheme. To make that scheme effective, the parties therefore must contract to ban renegotiation. The Q/M rule that makes no renegotiation clauses unenforceable thus forces parties to use more costly and likely less efficient substitutes. And to summarize, the ban on no renegotiation clauses is obsolete for much of the modern economy, in which contracts not only regulate trade but also regulate behavior.

2. *The Absolute Priority Rule.* — A firm creates a priority order in its contracts with investors. The debt contract gives the investor a senior claim

135. If a party would benefit from enforcing the original contract, it might attempt to exploit the no renegotiation term to extract rents.

136. This reasoning was originally developed in Christine Jolls, *Contracts as Bilateral Commitments: A New Perspective on Contractual Commitments*, 26 J. Legal Stud. 203 (1997).

on firm returns up to the face value of the debt and the right, bankruptcy aside, to control the firm when it cannot pay. The equity contract gives investors the upside *after* the debt is paid and governance rights in solvency states. Bankruptcy courts respect the contractual priority order when the firm is liquidated under Chapter 7 of the Bankruptcy Code: Creditors are paid first.¹³⁷

The absolute priority rule (AP) applies when a debtor attempts to reorganize under Chapter 11. For example, consider a firm that has senior secured debt, junior unsecured debt, and equity. Suppose that the senior debt agrees to yield a share of its bankruptcy payoff to the equity in order to induce the current managers to run the firm. Managerial continuity, in the senior's view, would enhance the prospects of a successful reorganization. The deal, however, would alter the contractual priority order because the equity would receive value before the junior debt is paid in full. But the deal also would be a Pareto gain for the juniors: The payment to the equity would reduce the seniors' monetary bankruptcy payoff but it would not reduce the junior's bankruptcy payoff. And if the senior is right, the deal would increase the value of the junior debt by increasing the chance that the debtor will survive. Nevertheless, numerous appellate cases, and the Supreme Court three times, have refused to enforce deals between seniors and the equity, insisting instead that the juniors must be paid in full.¹³⁸ AP thus is a Q/M rule that is the exact reverse of the no renegotiation rule in contracts: The contract rule permits parties to renegotiate in every case; AP prevents parties—the seniors and the equity—from renegotiating in any case.¹³⁹

The courts have not articulated a clear rationale for AP, but there is a probable reason. The rule received its strongest judicial endorsement in 1939 in an opinion by Justice William O. Douglas.¹⁴⁰ At the time, the junior debt usually was in the form of bonds held by individual investors. The Court apparently believed that senior/equity deals partly reflected efforts

137. See Chapter 7—Bankruptcy Basics, U.S. Courts, <https://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/chapter-7-bankruptcy-basics> [https://perma.cc/3ZRE-JE2Y] (last visited July 22, 2021) (explaining the process for distributing the proceeds from the sale of a debtor's non-exempt property to a creditor under the Bankruptcy Code).

138. See, e.g., *Norwest Bank Worthington v. Ahlers*, 485 U.S. 197, 197–98 (1988) (holding that the AP rule bars a defaulting party from retaining an equity interest in a reorganization plan despite promises by the party to contribute future “labor, experience, and expertise”); *Case v. L.A. Lumber Prods. Co.*, 308 U.S. 106, 122 (1939) (“[W]e believe that to accord ‘the creditor his full right of priority against the corporate assets’ where the debtor is insolvent, the stockholder’s participation must be based on a contribution . . . reasonably equivalent in view of all the circumstances to the participation of the stockholder.”); *N. Pacific Ry. Co. v. Boyd*, 228 U.S. 482, 502 (1913) (holding that agreements between bondholders and stockholders “cannot defeat the claim of a non-assenting creditor”).

139. See Kenneth M. Ayotte & Edward R. Morrison, *Creditor Control and Conflict in Chapter 11*, 1 J. Legal Analysis 511, 513 (2009) (“[F]ew reorganization plans (at most 12 percent) deviate from the absolute priority rule by distributing value to equity holders. . . . In at least 82 percent of the cases, equity holders received nothing.”).

140. *Case*, 308 U.S. at 122–23.

by banks to preserve the social status and economic prospects of the debtor's managers. The bondholders lacked the sophistication and the information to intervene when payments to the equity would not increase the odds of a successful reorganization. In addition, an individual bondholder probably could not internalize enough of the gain from such an intervention to contest an unfair senior/equity deal on behalf of the bondholders as a class. Hence, many deals would go unchallenged. AP thus was thought to protect the junior bondholders by preventing the equity from receiving anything until the juniors were fully paid.

The demographics of credit markets are different today. Individual investors hold stock, while bondholders usually are pension funds, insurance companies, and high net worth persons. Moreover, much junior debt in current bankruptcies is held by sophisticated investors, who buy out the trade debt and other small creditors and then attempt to influence the reorganization.¹⁴¹ While the ideal conditions that justify free contracting may not have existed when AP was created, those conditions do exist today. AP is thus an obsolete rule because modern bondholders are sophisticated and well-informed: Renegotiation in this context may produce more efficient outcomes.

3. *The Obsolete Reorganization Rules in Chapter 11.* — A liquidity-constrained firm that believes it can survive will file for reorganization under Chapter 11. In a traditional reorganization, the equity is eliminated and the firm is sold to its creditors. Because the payment a creditor must make is jointly determined by the debtor's value and the creditors' priority order, the bankruptcy court must value the debtor. The court also must find that the debtor's restructured business plan is feasible. During the course of reorganization, a firm sometimes will shed unproductive assets through the vehicle of a sale under section 363 of the Bankruptcy Code, which authorizes the debtor to sell assets out of "the ordinary course of business" with court approval.¹⁴² Traditional reorganizations are costly because valuation, business feasibility, and section 363 hearings take time and often require expert testimony.¹⁴³

Today, a significant fraction of Chapter 11 debtors are sold under section 363 as entire firms.¹⁴⁴ Whether to reorganize a particular debtor in

141. See Stuart C. Gilson, *Creating Value Through Corporate Restructuring: Case Studies in Bankruptcies, Buyouts, and Breakups 188–90, 192–96* (2001) (providing an overview of the distressed claims market and the various strategies employed by activist investors to generate value from reorganizations); Michelle M. Harner, *The Corporate Governance and Public Policy Implications of Activist Distressed Debt Investing*, 77 *Fordham L. Rev.* 703, 705–10 (2008) (describing how sophisticated investors can purchase large amounts of a company's debt and exert control over the reorganization process).

142. 11 U.S.C. § 363 (2018).

143. Melissa B. Jacoby & Edward J. Janger, *Bankruptcy Sales*, in *Research Handbook on Corporate Bankruptcy Law* 54, 54 (Barry E. Adler ed., 2020).

144. See Ayotte & Morrison, *supra* note 139, at 521, 538 (providing empirical data showing that roughly two-thirds of all large bankruptcies in 2009 resulted in the sale of an entire firm rather than a traditional reorganization); Stuart Gilson, Edith Hotchkiss & Matthew

the traditional way or to auction it off is a difficult and novel economic question.¹⁴⁵ The business sections of the Bankruptcy Code were created in 1978, when markets for entire firms were primitive. Lawyers and investment bankers, beginning in the early 1980s, developed innovative techniques for financing acquisitions and merging assets. A market sale for one billion dollars was nonexistent in the 1970s, but sales in the tens of billions are seen today.¹⁴⁶ The Code gives the court no guidance on how to conduct bankruptcy auctions. Section 363 requires the court, after a hearing, to approve a sale or not, but the section does not say what can be sold, when a sale can occur, or how a sale can be conducted.¹⁴⁷ The section was enacted to regulate unusual sales of parts of firms but is now used to regulate sales of entire firms in a capital market that the drafters of the Bankruptcy Code did not envision.¹⁴⁸

The section 363 sale of whole firms is an essential aspect of a major change in bankruptcy practice. Insolvent firms commonly renegotiate with the secured debt and other creditors. These deals have a common feature: In return for further credit, the firm agrees on how the Chapter 11 process will be conducted and sometimes consents in advance to a sale if the firm's

Osborn, *Cashing Out: The Rise of M&A in Bankruptcy* 5–6 (Harv. Bus. Sch., Working Paper No. 15-057, 2015), https://www.hbs.edu/ris/Publication%20Files/15-057_22238ffa-00d7-4637-bd63-265fdfe9ccc.pdf [<https://perma.cc/4SPF-EX9Y>] (finding that out of a sample of 350 bankruptcy cases, seventy-five firms—or 21.4% of the overall sample—were sold as entire firms under section 363).

145. For a discussion of some of risks and considerations involved in section 363 sales, see Ashley Suarez, Comment, *An Analysis of § 363(b) Sales: Justified Deviations or Just Deviations?*, 22 U. Pa. J. Bus. L. 988, 991 (2020) (discussing section 363 sales within the context of three case studies to determine whether these sales are justifiable).

146. Bengt Holmstrom and Steven Kaplan observed:

[T]he 1980s ushered in a large wave of merger, takeover and restructuring activity The use of leverage was so great that from 1984 to 1990, more than \$500 billion of equity was retired on net, as corporations repurchased their own shares, borrowed to finance takeovers, and were taken private in leveraged buyouts The 1980s also saw the emergence of the hostile takeover and the corporate raider In the 1990s, the pattern of corporate governance activity changed again. After a steep but brief drop in merger activity around 1990, takeovers rebounded to the levels of the 1980s.

Bengt Holmstrom & Steven N. Kaplan, *Corporate Governance and Merger Activity in the United States: Making Sense of the 1980s and 1990s*, 15 J. Econ. Persps. 121, 121–22 (2001).

147. 11 U.S.C. § 363.

148. Robert K. Rasmussen has discussed Chapter 11's transformation stating:

Chapter 11 had, in the main, ceased to be the collective forum where parties negotiated a plan of reorganization. Rather, it had become a vehicle to implement a deal struck before the petition was filed or a venue to sell the company to the highest bidder Currently, the Bankruptcy Code does not provide any guidance as to how a sale should be run.

Robert K. Rasmussen, *The End of Bankruptcy Revisited*, in *Research Handbook on Corporate Bankruptcy Law* 31, 41, 46 (Barry E. Adler ed., 2020).

prospects do not improve. Despite the Q/M reorganization rules, bankruptcy courts enforce these contracts.¹⁴⁹ As a consequence, the time a firm spends in Chapter 11 has fallen from approximately 300 days in 2002 to a little over 100 days today, *all* without any change in the putatively governing statute.¹⁵⁰ Rather, courts and senior creditors are creating a private bankruptcy law that renders the reorganization rules obsolete. Because the Bankruptcy Code did not foresee a future where market conditions and new financing techniques would render the sale of whole firms a desirable alternative to reorganization, it does not provide any guidance on a process that circumvents the reorganization rules. Whether this contemporary law adequately protects the public interest is thus an open question: Other parties are affected by the pre-Bankruptcy Code deals that are now being made, and there is no reason to believe that the parties to section 363 sales and the courts that permit them take the interests of nonparties into account.

C. *Obsolete Boilerplate in Private Contracts*

Continuing to use a contract with obsolete terms would be an inexplicable response when contracting parties are autarkic but, as we show in section I.C, it can be the best response when a party's payoff under its contract partly depends on the contracts other market actors make. When contracts are standardized across a market, a party's best response to its strategic situation may be to accept the terms of a bond contract even though its obsolete terms may generate costly judicial interpretations. In what follows, we offer examples of the persistence and significant costs of obsolete terms in commercial boilerplate and of the inability of private markets to readily update these terms.

1. *The Obsolete Pari Passu Clause.* — The fourteen-year battle over the meaning of the *pari passu* clause found in all sovereign debt contracts supports the prediction section I.C advances that parties trading in large interdependent markets would fail to revise an obsolete term in a standardized contract. In 2000, a U.S. hedge fund, holding out from a restructuring proposal, won a judgment in which a Brussels court interpreted the *pari passu* clause to provide that the debtor could not pay other creditors who had accepted a restructured offer without paying the hedge fund its

149. Jeffrey T. Ferriell & Edward J. Janger, *Understanding Bankruptcy* 709–32 (3d ed. 2013).

150. See Elizabeth Warren & Jay L. Westbrook, *The Success of Chapter 11: A Challenge to the Critics*, 107 *Mich. L. Rev.* 603, 629 & nn.92–93 (2009) (noting that the medium and mean resolution times for Chapter 11 cases in 2002 were 274 and 327 days respectively). As insolvent firms increasingly began to negotiate with creditors, the medium resolution time decreased. In 2017, the medium duration for a sample of thirty cases was approximately four months (120 days). Norman N. Kinel, *The Ever-Shrinking Chapter 11 Case*, *Squire Patton Boggs* (Aug. 20, 2018), <https://www.restructuring-globalview.com/2018/08/the-ever-shrinking-chapter-11-case/> [https://perma.cc/LZG6-HAVM].

full pro rata share.¹⁵¹ The clause had been a standard provision in sovereign debt contracts for 200 years, and it appears to have once fit the commercial pattern in the gunboat diplomacy era.¹⁵² But the term is inapplicable in the modern sovereign debt context in which a sovereign debtor's assets are not seized and distributed to creditors under an insolvency process. Still, the clause persisted into the present, while few, if any, market participants seemed to understand either its historic or its contemporary meaning.¹⁵³

The international finance community uniformly rejected the court's interpretation, even though the financial markets could not agree on what the obsolete term *did* mean.¹⁵⁴ Standard theory predicts that if a court endorsed the market-disfavored option, parties would promptly revise the language to preclude that interpretation in the future.¹⁵⁵ However, notwithstanding the litigation risk, the clause remained unrevised in all sovereign debt contracts for over a decade.¹⁵⁶ Then, in 2011, following extensive litigation instigated by activist creditors holding out from Argentina's restructuring offer, federal courts in New York adopted basically the same interpretation as the Brussels court.¹⁵⁷ This more authoritative ruling was also uniformly condemned; market participants feared that the ruling would put the multitrillion dollar bond market at real risk. Nonetheless, even though the market continued to reject the court's interpretation, revisions to the language of the *pari passu* term did not begin until late 2014, more than three years after the federal courts had ruled.¹⁵⁸ Meanwhile, the

151. Elliott Assocs., L.P., Cours d'Appel [CA] [Court of Appeal] Bruxelles (8th ch.), Sept. 26, 2000, General Docket No. 2000/QR/92 (Belg.).

152. Gulati & Scott, The Three and a Half Minute Transaction, *supra* note 107, at ch. 8–9 (arguing that the clause made sense in the gunboat diplomacy era where, for example, creditors could seize a debtor's port and recover by seizing and sharing the tax revenue).

153. *Id.* at 51–52, 109–18.

154. E.g., Lee C. Buchheit & Jeremiah S. Pam, The *Pari Passu* Clause in Sovereign Debt Instruments, 53 Emory L.J. 871, 876 (2004); Rodrigo Olivares-Caminal, To Rank *Pari Passu* or Not to Rank *Pari Passu*: That Is the Question in Sovereign Bonds After the Latest Episode of the Argentine Saga, 15 Law & Bus. Rev. Ams. 745, 769 (2009); Charles G. Berry, *Pari Passu* Clause Means What Now?, N.Y.L.J., Mar. 6, 2006, at 1, 1.

155. See, e.g., Merton H. Miller, Debt and Taxes, in 1 Selected Works of Merton H. Miller: A Celebration of Markets 91, 103 (Bruce D. Grundy ed., 2002) (“[H]armful heuristics, like harmful mutations in nature, will die out.”); Clifford W. Smith, Jr. & Jerold B. Warner, On Financial Contracting, 7 J. Fin. Econ. 117, 123 (1979) (noting Miller's writing that firms will shift away from harmful activities).

156. See Gulati & Scott, The Three and a Half Minute Transaction, *supra* note 107, at 53–119.

157. NML Capital, Ltd. v. Republic of Argentina, No. 08 Civ. 6978, 2011 WL 9522565, at *2–3 (S.D.N.Y. Dec. 7, 2011), *aff'd*, 699 F.3d 246 (2d Cir. 2012), *aff'd*, 727 F.3d 230 (2d Cir. 2013).

158. Choi, Gulati & Scott, The Black Hole Problem, *supra* note 16, at 6.

activist hedge funds recovered many times their initial investment by holding out from the restructuring agreement.¹⁵⁹ Obsolescence in these standard form commercial contracts thus creates the opportunity for contractual arbitrage: Parties argue, *ex post*, that the obsolete term means something that the contracting parties, *ex ante*, didn't contemplate. Contractual arbitrageurs have profited by seeking out obsolete terms as litigation opportunities in other bond transactions as well.¹⁶⁰ In all these instances, the lack of accepted meaning makes it difficult to rebut the arbitrageur's interpretation of the terms in question.¹⁶¹

The preceding story vividly demonstrates two things: First, the costs are very high when private parties contracting in large, interdependent markets fail to revise obsolete terms. The *pari passu* clause was obsolete, but parties still needed to address the problem of how to pay creditors, and retaining the clause rather than developing an apt alternative created an opportunity for strategic litigation.¹⁶² Second, despite the high costs, states can be trapped in inefficient contracting equilibria for long periods of time. As section I.C shows, doubts about the rationality and competence of other market actors could make retaining an obsolete term an individual state's best response. In addition to these doubts, a possible innovator may be deterred by the legal uncertainty that can attend a differently written bond issue: Until the *revised* term is tested in litigation, there is uncertainty over how it will be interpreted. Individual parties also may be reluctant to draft new contractual language out of fear that the change to the contract language might put unrevised clauses in prior bonds of that sovereign at greater risk of enabling the arbitrageurs.¹⁶³ Changing a term

159. See Matt Levine, Opinion, Lucrative Bonds and Animated Toes, Bloomberg (Mar. 2, 2016), <https://www.bloomberg.com/opinion/articles/2016-03-02/lucrative-bonds-and-animated-toes> (on file with the *Columbia Law Review*) (describing the lucrative returns made by holdout investors).

160. Contractual arbitrage has become a lucrative business in sovereign debt markets. When countries are near defaulting on their debts, financial firms look for linguistic uncertainties that have not been fully priced and thus can be exploited when the sovereign seeks to restructure its debt. Greece faced these holdouts when restructuring in 2012. Ukraine faced a large group of sophisticated creditors in its restructuring in 2015. In 2016, the notorious Argentine settlement ended up paying the most aggressive of the holdout creditors between 300% and 800% of the principal amount of their claims. And Puerto Rico and Venezuela are currently dealing with a subset of these same creditors. For a further discussion of the rise of this form of arbitrage, see Stephen J. Choi, Mitu Gulati & Robert E. Scott, Contractual Arbitrage, in *Oxford Handbook of International Governance* 3–4 (Eric Brousseau, Jean-Michel Glachant & Jérôme Sgard eds., 2016) (unpublished manuscript) (on file with the *Columbia Law Review*).

161. The problem is exacerbated when “encrustation” occurs as legal jargon and random variations are added to a term, thereby further corrupting its linguistic meaning. See Goetz & Scott, *The Limits of Expanded Choice*, *supra* note 14, at 289.

162. See Lucy McNulty, *The Future for Pari Passu*, 32 *Int'l Fin. L. Rev.* 6, 19–20 (2013) (explaining that the market agreed on the need for change but could not overcome the challenges of moving to a new standard).

163. Choi, Gulati & Scott, *The Black Hole Problem*, *supra* note 16, at 10.

thus poses the further risk that the bond contract will be viewed as idiosyncratic, thereby increasing buyer learning costs.¹⁶⁴ In sum, and as we predicted, even when faced with costly litigation, parties coordinated around the existing standard form instead of innovating to a solution that would better protect the buyers in the case of default.¹⁶⁵ In the absence of any institutional mechanism, whether state or other entity, the sovereign debt industry lacks the capacity to solve its coordination problem readily.

2. *The Obsolete “No Recourse” Clause: Comparing Corporate Bonds and Private Equity Transactions.* — In a recent study, Robert Scott, Stephen Choi, and Mitu Gulati analyzed the speed with which obsolete terms are revised in private equity driven M&A transactions and in large corporate bond issues.¹⁶⁶ Both types of contracts contain a standard no recourse clause that had become obsolete with the introduction of limited liability under state corporate law.¹⁶⁷ More recently, however, a series of prominent cases limited the protections of the standard no recourse provision to issues of contract liability.¹⁶⁸ This left shareholders vulnerable to liability claims based on tort and other equitable theories.¹⁶⁹ The emerging case law and

164. Learning costs include the costs that parties must expend in learning the meaning of the clause. The prediction from the learning cost literature is that the older and more widely used a term becomes, the better is the common understanding of what it means. Tina L. Stark, *Negotiating and Drafting Contract Boilerplate* § 1.02 (2003) (observing that provisions that have been used repeatedly develop a “hallowed status”; they have now been “blessed”); Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting* (or “The Economics of Boilerplate”), 83 Va. L. Rev. 713, 719–25, 731–33 (1997).

165. McNulty, *supra* note 162, at 44. The elite sovereign debt bar also had agency problems that contributed to the problem persisting. *Id.* at 51–52.

166. Robert E. Scott, Stephen J. Choi & Mitu Gulati, *Revising Boilerplate: A Comparison of Private and Public Company Transactions*, 2020 Wis. L. Rev. 629 [hereinafter Scott, Choi & Gulati, *Revising Boilerplate*].

167. The no recourse clause was recognized as obsolete: The American Bar Association (ABA) project on model bond indentures considered it as such. But as with many obsolete clauses, drafters retained it in the standard contract and the ABA even provided a standard version of the clause it had labeled as useless. Glenn D. West & Natalie A. Smeltzer, *Protecting the Integrity of the Entity-Specific Contract: The “No Recourse Against Others” Clause—Missing or Ineffective Boilerplate?*, 67 Bus. Law. 39, 56–57 (2011).

168. See, e.g., *LaSalle Nat’l Bank v. Perelman*, 141 F. Supp. 2d 451, 463 (D. Del. 2001) (noncontractual claims are not covered by no recourse provision); *Simons v. Cogan*, 549 A.2d 300, 305 (Del. 1988) (holding that the standard “no recourse provision . . . limits liability for breach of contract”); *U.S. Bank N.A. v. U.S. Timberlands Klamath Falls, L.L.C.*, 864 A.2d 930, 950–51 (Del. Ch. 2004) (noncontractual claims are not covered by no recourse provision); *Geyer v. Ingersoll Publ’ns Co.*, 621 A.2d 784, 793–94 (Del. Ch. 1992) (alter-ego claims are not barred by standard no recourse provision in indenture because they are equitable in nature); *Mabon, Nugent & Co. v. Tex. Am. Energy Corp.*, Civil Action No. 8578, 1988 WL 5492, at *3 (Del. Ch. Jan. 27, 1988) (same).

169. See David H. Barber, *Piercing the Corporate Veil*, 17 Willamette L. Rev. 371, 374–76 (1981) (reviewing the factors that courts consider in veil piercing cases); Peter B. Oh, *Veil-Piercing*, 89 Tex. L. Rev. 81, 107–10 (2010) (describing the rise in veil piercing cases). But see Robert B. Thompson, *Piercing the Corporate Veil: An Empirical Study*, 76 Cornell L. Rev. 1036, 1048 (1991) (failing to identify a trend of courts finding veil piercing).

calls for revision from prominent practitioners should have motivated firms in both markets to modify the obsolete clause to better protect against these noncontractual claims.¹⁷⁰

The theory developed in section I.C predicts that the obsolete version of the clause might be revised more rapidly in private equity deals than in corporate bond deals because of differences in the ability of parties in these two markets to coordinate on an apt solution to the contractual problem. Private equity firms involved in M&A deals have concentrated and motivated principals with the expertise and financial incentives to optimize contract terms.¹⁷¹ Investors are also concentrated. Corporate bond transactions, on the other hand, are similar to sovereign bond deals with dispersed investors and dispersed shareholders, who also face high coordination and agency costs.¹⁷² In political science terms, private equity is a small numbers case, in which parties can explicitly cooperate rather than have to play the simultaneous move game that seems to best characterize the sovereign debt and public company debt markets.

The data support the theory's predictions.¹⁷³ The vast majority of the corporate bond contracts continued to rely on the standard no recourse

170. Several exogenous shocks provided possible motivations for market participants to change the no recourse clause. First, as reported in *supra* note 168, a number of cases found that the clause only blocked contract law claims and not equitable or tort claims. Then, in 2011, Glenn West and Natalie Smeltzer published an article in a widely circulated business law publication on the need to revise the no recourse term and spoke about the term at meetings around the country. West & Smeltzer, *supra* note 167; see also Glenn D. West, *Protecting the Private Equity Firm and Its Deal Professionals From the Obligations of Its Acquisition Vehicles and Portfolio Companies*, Weil: Global Private Equity Watch (May 23, 2016), <https://privateequity.weil.com/features/protecting-private-equity-firm-deal-professionals-obligations-acquisition-vehicles-portfolio-companies> [<https://perma.cc/A8VU-ZHMG>] (“Knowing the means and manner through which individual or firm liability can be imposed for contractual obligations that were otherwise intended to be confined to an acquisition vehicle or portfolio company . . . should be top of mind for all private equity deal professionals and their lawyers.”).

171. John Coates's work on M&A contracts also suggests different results in the two settings. See John C. Coates IV, *Why Have M&A Contracts Grown? Evidence From Twenty Years of Deals 9* (Harv. L. Sch., John M. Olin Ctr., Discussion Paper No. 889, 2016), http://www.law.harvard.edu/programs/olin_center/papers/pdf/Coates_889.pdf [<https://perma.cc/A2DW-NQMG>].

172. Scott, Choi & Gulati, *Revising Boilerplate*, *supra* note 166, at 633. While the managers of corporate issuers may benefit from no recourse clauses, and thus be more aligned than in the sovereign debt context, what is important is the greater dispersion of interests relative to a private equity setting. For a discussion of superior drafting in the private equity setting, see Adam B. Badawi, Scott D. Dyreng, Elisabeth de Fontenay & Robert W. Hills, *Contractual Complexity in Debt Agreements: The Case of EBITDA 5–8* (Duke L. Sch. Pub. L. & Legal Theory Series, Working Paper No. 2019-67, 2019), <https://ssrn.com/abstract=3455497> [<https://perma.cc/3HKA-4KAJ>].

173. Scott, Choi, and Gulati studied over six hundred transactions to see whether the term was changed in private equity or public debt deals after the shocks described in *supra* notes 156, 158. In public company deals, the “old” clause continued to dominate through 2019, although some used a modified version of the clause. In contrast, private equity deals dramatically shifted towards new versions of the clause after 2012. This suggested that the

clause as it had emerged in the 1880s, confirming the difficulty of coordinating on a revision of obsolete terms in large, interdependent markets.¹⁷⁴ By contrast, over 50% of the private equity contracts were revised following a series of industry meetings in 2012 at which senior lawyers exhorted their colleagues to reform the clauses. Indeed, every contract created by the top five law firms in the industry after 2012 has been revised.¹⁷⁵

In the sovereign and corporate bond contexts, it is costly for parties to change standard clauses: They face a first-mover disadvantage if the market does not follow their lead, and any changes increase the risk of the old version of the clause being interpreted against their interests.¹⁷⁶ Because parties cannot coordinate on an apt solution to their contracting problems, the equilibrium contract reproduces the status quo. And here the market contract continues to retain the obsolete no recourse term, though the term today carries a significant litigation risk.¹⁷⁷

III. THE POLITICAL ECONOMY OF OBSOLESCENCE

In this Part, we attempt to explain why the private lawmaking bodies—the ALI and ULC—and sometimes even legislative bodies like Congress have been unable to produce a general and current commercial law. There are general reasons that explain this failure, but they apply in different degrees to different institutions. The common thread is the inability of the relevant actors to coordinate on necessary changes. Section III.A sets out in broad terms the sources of the coordination problem. Section III.B then

term was stickier and harder to change where coordination costs were higher. Scott, Choi & Gulati, *Revising Boilerplate*, supra note 166, at 652. This is not to suggest that there is no evidence of innovation in corporate bond contracts. See, e.g., Kenneth Lehn & Annette Poulsen, *Contractual Resolution of Bondholder-Stockholder Conflicts in Leveraged Buyouts*, 34 *J.L. & Econ.* 645, 648 (1991) (describing evidence that, following 1988 RJR Nabisco leveraged buyout, 32.1% of 327 nonconvertible debt issued in 1989 had event risk provisions as compared to only three issues in 1986). Perhaps the distinction rests on the inertia that impedes revisions to obsolete boilerplate language as compared to the greater incentive to introduce entirely new terms following an exogenous shock.

174. Scott, Choi & Gulati, *Revising Boilerplate*, supra note 166, at 644 n.58.

175. *Id.* at 639.

176. Choi, Gulati & Scott, *The Black Hole Problem*, supra note 16, at 59.

177. There is additional evidence that obsolete terms in corporate bond contracts are resistant to revision even after legal change creates significant litigation risk. Choi, Gulati, and Scott study whether and how lawyers across four different deal types—private equity M&A contracts, investment grade corporate bonds, sub-investment grade corporate bonds, and sovereign bonds—revise their contracts' governing law clauses in order to solve a problem that legal change had created. Their data show that lawyers who draft private equity M&A deals pay more attention to the deal terms than lawyers producing corporate and sovereign bond contracts. They observe significantly more innovation in private equity deals as compared to sovereign and corporate bond transactions where the agency problems of drafting lawyers are greater and obsolete variations in the governing law clause persist without revision. Stephen J. Choi, Mitu Gulati & Robert E. Scott, *Are M&A Lawyers Really Better?* (Duke L. Sch. Pub. L. & Legal Theory Series, No. 2020-57, 2020), <https://ssrn.com/abstract=3653463> [<https://perma.cc/YQ6W-CT9X>].

focuses specifically on the inability of the ALI and ULC to revise sales law and general contract law. Section III.C next studies Congress's failure to revise the business sections of the Bankruptcy Code despite fundamental changes in bankruptcy practice.

A. *Political Economy Reasons That Explain Persistent Obsolescence*

Several political economy reasons explain why general contract law has been impossible to update. The first and most obvious impediment to updating obsolete terms in sales law or contract law generally is the institutional structure of the lawmaking bodies. The ALI and ULC are the prime exemplars of this problem. The ALI and ULC are constituted only by their members, a majority of whom are practicing lawyers and active judges.¹⁷⁸ These members devote only a portion of their working time to the organizations because they are unpaid and have demanding jobs.¹⁷⁹ The ALI also has a number of academic members, who also are unpaid unless they serve as reporters on study groups, for which they receive honoraria.¹⁸⁰ While the academic members are legal experts, the ALI study groups lack the institutional capability to evaluate the likely welfare or other effects in the world of proposed reforms. Unlike a legislative committee or administrative agency, a study group cannot hold hearings in which witnesses from affected industries can be summoned (or would be permitted) to testify; nor can a study group fund research as to the possible effect of a proposed restatement section or uniform law.¹⁸¹ Also, study groups dissolve after a restatement is adopted and so a particular group could not exercise oversight over a restatement's performance and the continuing larger body is unable to make any investigations at all. In sum, the ALI is ill-equipped to evaluate the possible consequences of law reform proposals and not equipped at all to evaluate the actual consequences of those proposals once adopted. The ULC is similarly handicapped.

1. *The Public Goods Problem of Revising a General Law.* — The structural limitations that plague the ALI and the ULC help to explain why they do not proactively update obsolete general contract law. There also is a public goods reason why outside interests fail to lobby these lawmaking bodies for change. Contract law affects many heterogeneous parties. In contrast to a specialized field such as secured credit, the costs of an obsolete contract law thus fall on contracting parties generally, and the gains from updating contract law would accrue to contracting parties generally. Hence, an agent or even a cohesive interest group can be deterred from lobbying

178. Schwartz & Scott, *The Political Economy*, supra note 25, at 600.

179. *Id.* at 619, 630.

180. Study groups draft proposed Restatements, which they submit to the larger membership body. *Id.* at 600.

181. See *id.* at 651 (discussing the lack of institutional mechanism in private lawmaking groups).

because they would bear large coordination and persuasion costs but realize only a fraction of the gains. The political economy reasons that explain why the lawmaking bodies do not initiate, and are infrequently forcefully asked to initiate, legal change are exacerbated by the selection process for ALI and ULC membership. The members are chosen by the organizations themselves in low-visibility political environments. Therefore, an ALI member, say, does not have a public constituency to whom they owe favors or to whom they have to account. Rather, the ALI member, or a ULC commissioner, can serve for a long time without having to please anyone.¹⁸² The other side of this status is that the member does not gain much from pleasing anyone; that is, from initiating or supporting an efficient legal change.¹⁸³

Time and space consistency problems also contribute to the failure to update the general law of contract. A contract law that applies broadly seldom becomes obsolete at once or everywhere. Consider, for example, an industry that UCC Article 2 efficiently regulated in 1952. As the industry changed, various sales law rules could become obsolete. Parties' obsolescence costs increase in the number of obsolete UCC sections. Hence, if commercial change causes a large number of UCC terms to become obsolete at once, it could be cost justified for the affected industry to lobby for a statutory change. But if changing commercial patterns only adversely affect a few sales law rules at one time or affect the rules for one industry at a time, there may never be a profitable moment for any single industry to lobby. To be sure, if multiple industries could coordinate their efforts, they might be an effective lobbying force. But there is no national institution that coordinates industry lobbying efforts for contract law change across commercial areas. Thus, while "the economy" may benefit from lobbying for currently efficient contract law rules, there may be no group who could gain from doing so.

2. *The Role of Academic Reformers.* — Proposals to revise contract and sales law rules thus largely come from academics who are members of groups that monitor law reform efforts. Academics often have strong policy preferences, and their policy-based desire to see a proposal adopted is reinforced by their desire for the prestige and possible consulting opportunities that come from being associated with an enacted reform. Academics, therefore, are motivated to advance proposals to update obsolete contract law rules.¹⁸⁴

But the academics' preference for change runs into another reason why private lawmaking groups like the ALI and ULC or the Bankruptcy Conference do not keep contract law current with changing commercial practice. The members of these bodies have a strong status quo bias. An

182. See *id.* at 600–01 (“The ALI is a private law-reform group that chooses its own members.”).

183. *Id.* at 610–15.

184. *Id.*

implication of these groups' inability to find facts is that the typical member—a busy lawyer or judge—cannot conveniently predict how a suggested reform will work out.¹⁸⁵ The typical member also knows that their policy preferences usually are more conservative than those of the academic reformers.¹⁸⁶ The member thus is less willing to believe an academic's predictions than those of his more conservative business and lawyer friends.¹⁸⁷ To be sure, a member wants to do, and be seen to do, constructive law reform, which creates an impulse to implement projects. But the member also has a reputational stake in the products of any law reform effort. Because a member's payoff is largely reputational, the impulse to pass something thus can be overcome by the fear that an academic-sponsored proposal will come back to bite.¹⁸⁸ As a consequence, the academics' reform efforts may be blocked or, if not, the enacted revisions will consist of highly abstract rules that delegate substantial discretion to courts.¹⁸⁹

3. *The Effects of Interest Group Competition.* — This fear of a reform that causes economic harm to an affected group or industry is the final factor explaining why lawmaking bodies like the ALI and ULC cannot produce current revisions to sales and contract law. Their fear is heightened when *different* interest groups somehow overcome the obstacles to lobbying for change. Indeed, interest group competition is the one explanation for persistent obsolescence that generalizes across our examples. If the gains from

185. *Id.*

186. For a summary of the evidence that academics tend to hold different preferences than the general public, see Seymour M. Lipset, *The Sources of Political Correctness on American Campuses* 10–12 (Hoover Inst., Stanford Univ. Working Papers in Pol. Sci. P-92-1, 1992). In the case of the ALI, the ALI Council, composed of academics, practicing lawyers, and judges, reflects a wider range of opinions on the merits of any proposal. And there is anecdotal evidence that the Council does exercise influence on the voting patterns of the membership, but there is no reason to believe that the Council is otherwise immune from the structural factors we identify.

187. The more closely that another person's preferences resemble those held by a typical ALI or ULC member, the less incentive that person has to mislead the member. See Thomas W. Gilligan & Keith Krehbeil, *Organization of Informative Committees by a Rational Legislature*, 34 *Am. J. Pol. Sci.* 531, 548 (1990) (“As the disparity in the goals of rational actors increases, informed actors become less willing to share their expertise . . .”); see also Arthur Lupia & Mathew D. McCubbins, *Learning From Oversight: Fire Alarms and Police Patrols Reconstructed*, 10 *J.L. Econ. & Org.* 96, 106–09 (1994) (discussing whom legislators are likely to believe); Paul Milgrom & John Roberts, *Relying on the Information of Interested Parties*, 17 *Rand J. Econ.* 18, 19 (1986) (“When information is not verifiable, the reliability of any report depends in part on the degree of consonance between the objectives of the decisionmaker and those of the interested party or parties.”).

188. See Schwartz & Scott, *The Political Economy*, *supra* note 25, at 611–15 (discussing the significance of reputational effect).

189. *Id.* at 645–47 (discussing why Article 2 will have more vague rules than other Articles in the UCC); see also Clayton P. Gillette & Robert E. Scott, *The Political Economy of International Sales Law*, 25 *Int'l Rev. L. & Econ.* 446, 461–62 (2005) (“Vague language, for instance, may minimize objections because it permits representatives from different legal systems to resolve uncertainties in a manner consistent with their domestic legal principles.”).

a proposed reform are sufficiently concentrated to be worth seeking, the costs often are sufficiently concentrated to make opposing the proposal worth doing as well. Suppose then that two opposing interest groups appear before the ALI seeking to change a contract law rule. Supporters of a reform will predict nirvana from its adoption and disaster from retaining the status quo. The other group will defend the status quo and predict disaster from the new reform. The result typically is stalemate.¹⁹⁰ Private lawmaking groups are institutionally incapable of evaluating the status quo or finding out which group has the better-grounded case. Thus, individual members are left at sea and their best response often is to pass nothing. And as we show in the following sections, often nothing passes.¹⁹¹

B. *Evidence From UCC Sales Law and the Restatement of Contracts*

1. *The Twenty-Four-Year Saga of Attempts to Reform Sales Law.* — Article 2 sales law is obsolete and needs revision. This uncontested fact has been self-evident for many decades. The information revolution and other market developments threaten to leave Article 2 in an increasingly small backwater of commercial transactions. If the statute is to retain its primacy as a source of legal defaults that both facilitate and regulate commercial sales transactions, it must be adapted to technological and economic developments that have created entirely new markets in information technology.

In 1987, the Permanent Editorial Board for the UCC set out, under the auspices of a study committee, to consider modernizing the statute. Four years later, “acting upon the report and recommendation of the study

190. See Schwartz & Scott, *The Political Economy*, supra note 25, at 648–51 (providing examples for when private legislatures retained the status quo when interest groups competed).

191. The political economy barriers to the production of currently efficient contract terms by private lawmakers raise the question of how to explain the initial success of the UCC and the Second Restatement in overcoming these constraints. The short answer is that the political economy of today is quite different than that of the mid-twentieth century when the UCC and Restatement were adopted. The UCC project languished throughout the 1950s and early 1960s until the banking interests became committed to the adoption of Articles 3, 4, and 9 and lobbied strenuously in state legislatures for passage of the Code. Article 2, on this account, was simply carried along by the special interest groups who succeeded in passing legislation that they favored. Scott, *The Rise and Fall*, supra note 4, at 1030–32. By 1967, all the states had adopted the UCC, and the impetus grew to develop a new Restatement to harmonize general contract law with the new sales law. This led to the adoption of the Second Restatement that, in addition to adopting basic common law doctrines from the First Restatement, also proposed new default rules borrowed directly from Article 2. *Id.* These included new rules on interpretation, commercial impracticability, modification, indefiniteness, and open terms. See, e.g., Restatement (Second) of Confs. §§ 30, 33, 89, 213–223, 261 (Am. L. Inst. & Unif. L. Comm’n 1981). In the intervening years, the rise of globalization and new technology has not only changed contracting practices, but it has changed the political economy of private legislatures as well. Revisions to the UCC and the Restatement sometimes face intense interest group competition. See supra text accompanying note 190. For discussion of the competing forces, see Clayton P. Gillette, *Politics and Revision: A Comment on Scott*, 80 Va. L. Rev. 1853, 1867–74 (1994).

committee, the ALI and [ULC] appointed a drafting committee to begin work on a comprehensive revision of Article 2, that, among other things, would bring within the scope of Article 2 . . . provisions to address the unique characteristics of software licensing transactions.”¹⁹² The first public indication that the project was beginning to unravel surfaced when the ALI declined to approve proposed Article 2B for computer information contracts on the ground that the drafting process, dominated by the software and information industry, had produced a “seller-friendly” statute.¹⁹³ The ULC decided, however, to go forward with the project on its own, re-issuing the statute as the Uniform Computer Information Transactions Act (UCITA).¹⁹⁴

The split between the ALI and ULC broke into the open in 1999, when Revised Article 2 was brought forward for final approval. The revised Article was approved by the ALI, but after encountering severe opposition from industry interests the leadership of the ULC withdrew the draft from consideration two months later.¹⁹⁵ In an attempt to patch the tattered alliance together, “ALI and [ULC] agreed on a newly reconstituted drafting committee . . . which was directed to focus on ‘non-controversial,’ technical amendments to the existing statute.”¹⁹⁶ Two years later, the new committee brought forward proposed Amendments to Article 2, which were approved by the ALI only to be defeated on the floor of the ULC.¹⁹⁷ That deadlock was finally broken, and the Amendments were approved by ULC in August 2002 but only by virtue of a strategy that carefully preserved the status quo in the ongoing competition over the regulation of computer information transactions.¹⁹⁸

In the end, the story ended not with a bang but with a whimper. The 2003 Amendments immediately generated considerable controversy and faced interest group opposition in the various state legislatures. Over the

192. Scott, *The Rise and Fall*, supra note 4, at 1049.

193. *Id.*

194. See *id.* at 1049–50 (“Subsequently, UCITA has been adopted in Virginia and Maryland, but has encountered stiff opposition from consumer interests in other jurisdictions.”).

195. *Id.* at 1050–51.

196. *Id.* at 1051; see also Richard E. Speidel, *Revising UCC Article 2: A View From the Trenches*, 52 *Hastings L.J.* 607, 615–17 (2001) (describing some of the activities of the drafting committee tasked with revising Article 2).

197. Scott, *The Rise and Fall*, supra note 4, at 1051.

198. *Id.* at 1052. The issue that led to the defeat of the Amendments by the ULC in August 2002 and the subsequent compromise was the defined scope of Article 2: Did it apply to information technology? All attempts to draft a clearer and more definitive scope provision that drew lines between the coverage of Article 2 and the coverage of other laws dealing with information and software transactions fell victim to interest group competition. The drafting committee “forged a new compromise,” one that left the original scope provision unchanged, but amended the definition of “goods” in U.C.C. § 2-103 to exclude “information.” This version was approved by the ULC. By leaving “information” undefined, the compromise purported to leave to the courts the task of defining the line of demarcation between goods and computer information transactions. *Id.* at 1051–52.

next eight years, not a single state adopted the Amendments to Article 2. Recognizing the inevitable, the ALI withdrew the proposed Amendments in May 2011.¹⁹⁹

The open split between the ALI and ULC is merely a symptom of the intense interest group competition that emerged during the Article 2 revision process. Retail manufacturing interests . . . , opposed to provisions that extended warranty liability for economic loss to remote sellers, were able successfully to block the adoption of the initial revisions to Article 2. In turn, consumer interests (including large firm licensees), opposed to the 'seller-friendly' provisions in the proposed Article 2B, were able to separate the computer information article from the rest of the UCC project.²⁰⁰

The battleground then moved to rival efforts to either secure or block the further enactment of UCITA.²⁰¹ Thus, even in the effort to bring forward the seemingly uncontroversial Amendments to Article 2, each side was able to block approval of the other's proposals but was unable to secure approval of its own.

It is unlikely that Article 2 will ever be revised to deal directly with any of the unique contracting problems presented by new contracting practices. Whatever happens in the future, therefore, common law courts will be called upon to resolve the increasingly intense normative debate over the domain of free contract in computer information transactions, as well as to fill gaps in commercial disputes arising from the new technology. The law will be updated by the common law mechanism that creates contract law rules, but there will be few rules and they will develop slowly.

2. *Stalled Efforts to Promulgate the Restatement of Consumer Contracts.* — No comprehensive revision to the Second Restatement of Contracts has been attempted since 1978 and none appears imminent.²⁰² But the ALI has appointed reporters and an advisory committee to propose a restatement for consumer contracts. The academic reporters for the project conducted a careful empirical study of contemporary consumer transactions and, following the learning from that data, they attempted to shift the consumer paradigm away from the classic bilateral contract in which each

199. Scott & Kraus, *supra* note 34, at 40.

200. Scott, *The Rise and Fall*, *supra* note 4, at 1052.

201. *Id.* In the meantime, the ALI began a project to draft *Principles for the Law of Software Contracts*. The ALI published the Principles in 2010, and courts now look to the Principles to aid them in resolving disputes over computer information transactions. See Juliet M. Moringiello & William L. Reynolds, *What's Software Got to Do With It? The ALI Principles of the Law of Software Contracts*, 84 *Tul. L. Rev.* 1541, 1541 (2010). See generally Robert A. Hillman & Maureen A. O' Rourke, *Principles of the Law of Software Contract: Some Highlights*, 84 *Tul. L. Rev.* 1519 (2010) (discussing the nature of and most important content contained within the Principles).

202. E-mail from Richard L. Revesz, Exec. Dir., ALI, to Robert E. Scott, Alfred McCormack Professor of L., Colum. L. Sch. (Feb. 16, 2016) (on file with the *Columbia Law Review*).

party assents to terms presented by the other.²⁰³ The proposed Restatement of the Law of Consumer Contracts thus abandons what the drafters believe is the fiction of mutual assent in consumer contracting.²⁰⁴ The drafters proposed instead to substitute the ex post regulation of abusive terms under the unconscionability doctrine in place of the ex ante doctrine of assent.²⁰⁵ While the merits of the proposed reform are open to debate, earlier failures of such case-by-case adjudication to eliminate imperfections in consumer markets raised concerns that the proposed Restatement similarly may fail to provide adequate consumer protection.²⁰⁶

The recommendation to change the common law concept of assent as applied to consumer transactions thus provoked a sharp negative response: There has been a widespread adverse reaction to the proposed Restatement by consumer advocates, regulators, and some academics.²⁰⁷ Prior to the May 2019 meeting of the ALI to vote on approving the Draft

203. Scott, *The Paradox*, *supra* note 7, at 92.

204. See Restatement of Consumer Contrs. § 2 cmt. 13 (Am. L. Inst., Tentative Draft, 2019) (arguing that while classic contract law regarded the mutual assent doctrine as “a meaningful mechanism” to protect consumers, the ubiquity of standard form contracts has “diluted the effectiveness and plausibility of such front-end self-protection”). A different view of consent holds that consent does not require an individual person to have the ability to affect particular terms. Rather, a consumer consents to a contract if they know what the contract does, in the same sense that a person consents to the purchase of a toaster if they know how the commands work. See Ian Ayres & Alan Schwartz, *The No-Reading Problem in Consumer Contract Law*, 66 *Stan. L. Rev.* 545, 552, 605–06 (2014).

205. Restatement of Consumer Contrs. § 5 cmt. 1 (“Because consumers rarely read or review the non-core, standard contract terms . . . the doctrine of unconscionability is a primary tool against the inclusion of intolerable terms in the consumer contract . . .”).

206. A plaintiff faces a high burden of proof to recover on an unconscionability claim. See Susan Landrum, *Much Ado About Nothing?: What the Numbers Tell Us About How State Courts Apply the Unconscionability Doctrine to Arbitration Agreements*, 97 *Marq. L. Rev.* 751, 767 (2014) (“Most states’ unconscionability doctrines require both procedural unconscionability and substantive unconscionability before a court will refuse to enforce a contract.”). A further problem is that consumers must recognize that they have the legal right to seek redress for an unconscionable contract. Recent experimental evidence suggests that consumers may fail to pursue legitimate claims owing to a misplaced belief that unfair terms are legally permissible. Meirav Furth-Matzkin & Roseanna Sommers, *Consumer Psychology and the Problem of Fine Print Fraud*, 72 *Stan. L. Rev.* 503, 523 (2020).

207. See, e.g., Gregory Klass, *Empiricism and Privacy Policies in the Restatement of Consumer Contract Law*, 36 *Yale J. on Regul.* 45, 49–51 (2019) (challenging the proposed Restatement and the cases on which it relies for its privacy policy); Adam J. Levitin, Nancy S. Kim, Christina L. Kunz, Peter Linzer, Patricia A. McCoy, Juliet M. Moringiello, Elizabeth A. Renuart & Lauren E. Willis, *The Faulty Foundation of the Draft Restatement of Consumer Contracts*, 36 *Yale J. on Regul.* 447, 450–51 (2019) (same); Dee Pridgen, *ALI’s Restatement of the Law of Consumer Contracts: Perpetuating a Legal Fiction?*, 32 *Loy. Consumer L. Rev.* 540, 544–45 (2020) (“[O]nce common law judges can use the new Restatement (if adopted) to conclude there is ‘assent’ by the consumer, even though it is a legal fiction, they are not likely to deliver on the other part of the bargain by strengthening the unconscionability or deception doctrines.”).

Restatement, twenty-three Attorneys General sent a letter to the membership of the ALI urging the members to reject the proposed Restatement owing to its abandonment of the concept of assent.²⁰⁸ Following the widespread distribution of this letter, the May 2019 meeting on the proposed final draft of the Restatement did little to address these concerns. In sum, a focused effort to revise the Restatement of Contracts as it applies to consumer transactions has foundered over ongoing disputes between consumer protection advocates and commercial parties.²⁰⁹

C. *Evidence From Bankruptcy Law*

The political economy of bankruptcy obsolescence is different from the political economy of the ALI and ULC in important respects but similar in others. The principal difference is that members of Congress have constituencies, and Congress has committees that can exercise ongoing supervision of a commercial statute's performance. What is to be explained, then, is why a Congress that *can* update a statute *doesn't*.

We begin with an origin story. The 1978 Code was the product of a commission that Congress established to amend the Bankruptcy Act of 1938. The commission was composed of bankruptcy lawyers, legislators, federal judges, and bankruptcy professors.²¹⁰ The bankruptcy community then believed that four defects attended the conduct of business bankruptcies under Chapter 10, the chapter of the 1938 bankruptcy law that regulated large firm reorganizations. The Chapter had several costly formal requirements. Importantly, the SEC was a necessary participant in the proceedings for public companies.²¹¹ Its participation was intended to ensure that bankruptcies were fair to all and maximized the insolvent firm's value. The bankruptcy professionals believed, however, that any gains in fairness and value were outweighed by the consequent length and additional other costs that the SEC's participation added to reorganizations.²¹² In addition,

208. See Letter from Letitia James, Att'y Gen., N.Y., to the Membership of the Am. L. Inst. 1, 4 (May 14, 2019) (on file with the *Columbia Law Review*).

209. The commercial parties have had an advantage in this long-lived dispute. ALI members are likely to believe their colleagues and associates, and the members have more colleagues in the business community than in the consumer protection community. The business parties could not cash out this advantage in getting the consumer law they preferred, however. The ALI then attempted to elide the entire dispute by creating the new study group to produce the Restatement of Consumer Contract Law. As noted in the text, the study group attempted to actually restate the law, but their drafts were controversial nevertheless, and thus nothing has passed so far.

210. Report of the Commission on the Bankruptcy Laws of the United States, H.R. Doc. No. 93-137, pt. 1, at 75-76 (1973).

211. Skeel, *Debt's Dominion*, supra note 11, at 162.

212. Eric A. Posner, *The Political Economy of the Bankruptcy Reform Act of 1978*, 96 Mich. L. Rev. 47, 109 (1997) (noting that Chapter 10 proceedings took a long time and entailed numerous formal hearings and reports).

under Chapter 10 a trustee managed the firm during reorganization proceedings.²¹³ Creditors elected the trustee from a set of bankruptcy lawyers, who would then, with the approval of the bankruptcy referee, retain another lawyer from the set as its counsel.²¹⁴ The lawyer/trustees had little business expertise and no prior acquaintance with the insolvent firm. Debtors managed by trustees thus had difficulty raising capital in the credit market.²¹⁵ Finally, creditor consent to a plan had to be unanimous.²¹⁶ This rule gave small creditors hold-up power, which increased cost and delay.

The 1978 Code attempted to respond to these concerns in four major ways. First, the Code created the “debtor in possession”: The insolvent firm’s managers would continue to operate the firm during a reorganization under the new Chapter 11.²¹⁷ Management continuity was accurately expected to increase the insolvent firm’s access to credit.²¹⁸ Second, the Code eliminated the SEC’s required attendance.²¹⁹ Third, a majority of creditors in a class—e.g., bondholders—could consent to a reorganization.²²⁰ Fourth, the role of the bankruptcy referee was upgraded to that of a (non-Article III) court. But without a trustee or SEC participation, and with the insolvent firm itself in charge, there was a question of whether a reorganization would be run in the interest of all creditors. The Code attempted to protect the public interest by giving creditors and the debtor in possession the right to have every major (and some minor) bankruptcy decisions—e.g., whether the debtor could sell assets under section 363 or whether the debtor could assume a long-term contract—be made by the bankruptcy court *after a hearing* in which affected parties could participate.²²¹ The statute, however, seldom identifies the findings a court must make after these hearings, so whether any hearing result is in the public interest is up to the courts, not the statute.

Turning to political economy, the 1978 Code created large benefits for a sophisticated and cohesive group—the bankruptcy lawyers and referees, many of whom expected to become actual judges—and for supportive

213. See Skeel, *Debt’s Dominion*, *supra* note 11, at 161–62.

214. A referee was the official who oversaw the bankruptcy case. Referees had more limited powers than today’s bankruptcy judges and were not executive appointees. *Id.* at 41.

215. Cf. David C. Smith, *An Unnecessary Chapter 11 Overhaul*, *Wall St. J.* (Jan. 8, 2015), <https://www.wsj.com/articles/david-c-smith-an-unnecessary-chapter-11-overhaul-1420762078/> (on file with the *Columbia Law Review*) (“The 1978 law was adapted to allow for more innovative restructurings, including capital-raising during bankruptcy to fund operations (through so-called debtor-in-possession, or DIP, financing.)”).

216. See Posner, *supra* note 212, at 64–65.

217. Bankruptcy Reform Act of 1978, Pub. L. No. 95-598, § 1107, 92 Stat. 2549, 2628–29.

218. For discussion of absolute priority, see *supra* section II.B.2.

219. See Bankruptcy Reform Act of 1978 § 1109, 92 Stat. at 2629 (allowing the SEC only the right to raise and appear in cases but forbidding it from appealing any judgment, order, or decree in the case).

220. *Id.* § 1129, 92 Stat. at 2636.

221. *Id.* § 363(c)(2)(B), 92 Stat. at 2572.

academics. This group sought the new law because it would make bankruptcy a litigation-centered procedure under a statute whose vagueness would make litigation common.²²² Another cohesive group, secured creditors—the “asset-backed lenders”—supported the new Code because it protected security interests and so preserved the creditors’ business model.²²³ The gains to the lawyer group in the form of increased fees for participating in increased procedures were costs to borrowers and small lenders, neither of whom appeared in the congressional hearings.²²⁴ Finally, Congress itself supported the new law because the creation of a new class of judges increased Congress’s opportunities for patronage, which facilitated the repayment of “political debts” to supporters.²²⁵

This origin story is relevant for two reasons. First, the bankruptcy bar remains cohesive and has new friends—such as the M&A lawyers who help conduct section 363 sales of entire firms. Congress also continues to enjoy making judicial appointments. Second, changing patterns of finance have actually *increased* benefits for the coalition that helped to pass the Code. As the statute’s relation to commercial behavior becomes more attenuated, lawyers and courts must create a new common law of bankruptcy.²²⁶ The combination of a current, very large financial sector and judge-made law has thus converted bankruptcy practice from a small law firm specialty to a large law firm lucrative practice.²²⁷

This story illustrates the continuing power of a group that can get a statute passed because it creates gains for them. The group also has an incentive, and sometimes the ability, to block change when the gains persist or increase. The 1978 law stands because it has done for decades what the group that passed it intended it to do: to create rents for the coalition. In addition, bankruptcy resembles the UCC and ULC in an important respect: The presence of competing interest groups can induce legislative stasis. Efforts to amend the Code between 2000 and 2001 thus foundered

222. See David A. Skeel Jr., *Bankruptcy Lawyers and the Shape of American Bankruptcy Law*, 67 *Fordham L. Rev.* 497, 511–12 (1998) [hereinafter Skeel, *Bankruptcy Lawyers*] (“[B]ankruptcy lawyers have an obvious incentive to lobby for rules that encourage the use of bankruptcy, because more bankruptcy means more work.”).

223. See Posner, *supra* note 212, at 111 (describing how secured creditors can extract value from small creditors and nonmanagement shareholders); Skeel, *Bankruptcy Lawyers*, *supra* note 222, at 498 (noting that bankruptcy law’s development has tracked the interests of secured creditors who enjoy “priority status and [the] ability to adjust their interest rates in response to debtor-friendly bankruptcy laws”).

224. See Posner, *supra* note 212, at 111, 113 (noting that small creditors “were not organized [and] did not testify,” while commercial bankruptcy lawyers “want[ed] their clients—the managers [and large creditors]—to find reorganization attractive so that they would enter reorganization as much as possible” and thereby command more fees).

225. *Id.* at 77.

226. See *supra* text accompanying notes 143–151.

227. See Skeel, *Debt’s Dominion*, *supra* note 11, at 221–23 (describing the rise of large bankruptcy practices and noting that, according to a 1995 source, “forty-nine of the fifty largest New York law firms now claim to have a bankruptcy practice”).

over competition between industry groups for special privileges.²²⁸ The reasons for the failure to revise an obsolete law are similar to those for commercial law generally: Business bankruptcy is a technical field where legislators have difficulty evaluating the consequences of statutory change. Controversy thus can induce legislative paralysis.

Attempts to change bankruptcy law continue to flounder. Beginning in the early 1930s, and continuing in the 1973 Commission Report, interested parties have suggested that Congress create a bankruptcy agency.²²⁹ In the most recent incarnation of this proposal, the agency's jurisdiction would mainly be consumer insolvencies, but the agency would consider business issues as well.²³⁰ The justifications were standard: An agency would have expertise, its procedures would be cheap to access relative to adjudication, and it would exercise continuing oversight over the field.²³¹ The lawyer and judge coalition defeated the proposal. The judges objected because the agency's judicial role would reduce the judges' importance,²³² and the lawyers objected because the agency's counseling function would reduce the revenue of the consumer bankruptcy bar.²³³ There were

228. See, e.g., *Legislation to Overhaul Laws on Bankruptcy Dies as President Fails to Sign It*, N.Y. Times (Dec. 20, 2000), <https://www.nytimes.com/2000/12/20/us/legislation-to-overhaul-laws-on-bankruptcy-dies-as-president-fails-to-sign-it.html> (on file with the *Columbia Law Review*) (describing the failure to pass the Bankruptcy Reform Act of 2000 and some of the interest group conflicts implicated therein). For a discussion of how interest groups influence bankruptcy law, see Skeel, *Debt's Dominion*, *supra* note 11, at 80–86.

229. E.g., Report of the Commission on the Bankruptcy Laws of the United States, H.R. Doc. No. 93-137, pt. 1, at 117–53 (1973) (proposing a bankruptcy agency that would regulate the bankruptcy system); Strengthening of Procedure in the Judicial System: The Report of the Attorney General on Bankruptcy Law and Practice, S. Doc. No. 72-65, at 104–07 (1932) (arguing for the establishment of ten bankruptcy administrator positions to “give effective executive direction to the administration of the law and its improvement”); Skeel, *Debt's Dominion*, *supra* note 11, at 78–79 (describing the Thatcher Report's proposals to shift bankruptcy's administrative structure to a model more in line with the English approach which gave administrators greater independence); Rafael I. Pardo & Kathryn A. Watts, *The Structural Exceptionalism of Bankruptcy Administration*, 60 *UCLA L. Rev.* 384, 447 (2012) (describing William J. Donovan's proposal to create “a federal bankruptcy commissioner's office to help separate the judicial functions from the administrative functions in bankruptcy proceedings”); William J. Donovan, *The Proposed Revision of the National Bankruptcy Act*, *Credit Monthly*, Apr. 1930, at 18 (on file with the *Columbia Law Review*).

230. Report of the Commission on the Bankruptcy Laws of the United States, H.R. Doc. No. 93-137, pt. 1, at 117–53 (1973).

231. Cf. David T. Stanley & Marjorie Girth, *Brookings Inst., Bankruptcy: Problem, Process, Reform 196–218* (1971) (advocating for similar proposals for a bankruptcy agency); see also Skeel, *Debt's Dominion*, *supra* note 11, at 246 n.15 (“The Brookings study had an enormous influence on the debates that led to the 1978 Bankruptcy Code.”).

232. Posner, *supra* note 212, at 77 (“The federal judges opposed the creation of more independent bankruptcy courts, because (1) they would lose their appointment power over bankruptcy judges . . . , and (2) their status would be diluted through the vast increase in the number of federal judicial positions.”).

233. *Bankruptcy Act Revision: Hearings on H.R. 31 and H.R. 32 Before the Subcomm. on Civ. & Const. Rts. of the H. Comm. on the Judiciary*, 94th Cong. Rec. app. at 1269–70

claims—not necessarily consistent—that the agency would produce more bankruptcies because it was cheap to access, but the agency also would be costly and bureaucratic.²³⁴ Oversight also can be difficult to implement.

IV. THE PRODUCTION PROBLEM REDUX: INSTITUTIONAL RESPONSES TO OBSOLESCENCE

Part IV confronts directly the comparative institutional question: Which institutions respond to the commercial law production problem and how well do they do it?

A. *Default Rules Created by Common Law Courts*

Let's begin by returning to the conditions for an efficient default rule set out in the Introduction. A default rule is needed when many parties face a similar contracting problem that they cannot economically solve. This condition is satisfied when a typical contracting dyad could not internalize enough of the gain from an efficient solution to justify the costs of creating it. A state-supplied default would then be efficient if the solution would yield benefits to private parties that exceeded the sum of the state's creation costs and the possible externality costs that the use of the term creates. To be sure, the typical contract does not create large costs for third parties, but a successful default would be widely used, and so it could have substantial third-party effects. Thus, an efficient default would take both the private and the public interest into account. There is then a production problem when the private sector undersupplies efficient defaults but the state fails to fill the gap.

The Introduction argues that common law courts partially fill the production gap by supplying efficient default rules. But precisely how does the common law mechanism achieve this result? Four factors explain how common law adjudication works both to create and update contract law rules. First, litigation is costly, so parties choose to go to court only after they have been unable to resolve their problem through negotiation, mutual adjustment, or settlement. Consequently, contract disputes typically reach a court only when the relevant contract lacks a clear solution to the problem at issue. Second, courts create rules—solutions to problems—in

(1975–1976) [hereinafter *Bankruptcy Hearings*] (testimony of George Ritner, California attorney); see also Skeel, *Debt's Dominion*, supra note 11, at 143 (describing how bankruptcy lawyers would be one of the biggest losers from a potential bankruptcy agency); Posner, supra note 212, at 83 (“[Bankruptcy] lawyers argued that the agency would ‘destroy the private consumer bankruptcy bar’ and create a ‘monopoly of lay counselors.’”).

234. See, e.g., *Bankruptcy Hearings*, supra note 233, at 1028–29 (testimony of Walter W. Vaughan, Vice President, Am. Sec. Bank, and Chairman, Am. Bankers Ass'n & Consumer Bankers Ass'n Task Force on Bankr.); id. at 1044–45 (statement of Walter Ray Phillips, Household Finance Corporation); id. at 1361 (statement of Alvin O. Wiese, Jr., Chairman, Subcommittee on Bankruptcy, National Consumer Finance Association); Jeb Barnes, *Bankrupt Bargain?—Bankruptcy Reform and the Politics of Adversarial Legalism*, 13 *J.L. & Pol.* 893, 916 (1997).

the course of interpreting a contract or filling in a contract gap. If subsequent parties accept the rule by not contracting away from it, the rule becomes a default. But a court-created rule will not be accepted by very many parties unless it is transcontextual: The rule must solve a problem that parties face in highly disparate contexts and condition on public information. Third, while courts cannot calculate the magnitude of any third-party effects from a proposed rule, courts do commonly consider both fairness and public policy concerns when creating rules. Fourth, changing commercial patterns create new cases and so permit courts to revisit existing rules or create new ones. In this way, the common law updates.²³⁵

In sum, common law adjudication responds well to the production problem. But, as also noted, the common law response to the production problem is limited: Common law courts can only produce transcontextual rules, and cases arising from new commercial patterns come to appellate courts slowly, and so the common law updates slowly.

B. *Private Alternatives to Publicly Supplied Rules*

The limitations of common law courts raise the question whether other private institutions respond to the production problem. A few private institutions do supply parties with contract terms. The International Swaps and Derivatives Association (ISDA) updates derivative contract terms in light of changed conditions.²³⁶ The terms are voluntary, but the ISDA also makes binding determinations regarding what constitutes a credit or succession “event” (such as a merger), either of which may trigger obligations under a credit default swap contract.²³⁷ Parties can change their contracts in light of these definitions. The International Chamber of Commerce (ICC) has created a set of rules—the Uniform Customs & Practice for Documentary Credits (UCP 600)—that regulate most letters of credit.²³⁸ Parties must choose specifically to incorporate the UCP 600

235. See *supra* Part II.

236. Scott, *The Paradox*, *supra* note 7, at 84 n.51.

237. For discussion of the history of the formation of the derivatives association and the creation of its standard-setting structure, see Sean M. Flanagan, *The Rise of a Trade Association: Group Interactions Within the International Swaps and Derivatives Association*, 6 *Harv. Negot. L. Rev.* 211, 227–53 (2001) (detailing the formation, development, and functions of the International Swaps and Derivatives Association); Jeffery B. Golden, *Setting Standards in the Evolution of Swap Documentation*, 13 *Int'l Fin. L. Rev.*, May 1994, at 18, 18–19 (1994) (describing the formation of the derivatives association and the creation of its standard-setting structure).

238. Commercial letters of credit are a typical form of payment in sales across long distances. A letter of credit requires that the beneficiary, usually the seller, present certain documents to the issuer of the letter, usually a bank, in order for the bank to honor the letter. Letters are valuable for sellers because the bank must honor a letter even if the buyer has a colorable claim that the seller breached the contract between them. For an overview of the functions and characteristics of letters of credit, see generally Christopher Leon, *Letters of Credit: A Primer*, 45 *Md. L. Rev.* 432 (1986).

rules into their contracts. Industry experts created the UCP 600 and regularly update its rules.²³⁹ The ICC also created “Incoterms,” a set of eleven internationally recognized rules that regulate the conduct of international sales, such as shipment terms, insurance requirements, documentation, and other activities.²⁴⁰ Parties may elect to use the regularly updated Incoterms rather than the UCC sections that regulate similar transactions.²⁴¹

The defaults that these institutions supply are privately efficient for much the same reasons that common law defaults are efficient. Parties would not use the terms unless they solved contracting problems. There also is a feedback mechanism that the common law lacks: If parties, say, decline to use a UCP 600 rule because the rule does not solve the contracting problem that they face, the ICC will change the rule. Hence, UCP 600 rules are privately efficient and current. The rules may not be efficient for society as a whole, however, because the ICC does not have an incentive to consider the public interest. Nevertheless, the success of such rules raises the question of why more such groups have not formed.²⁴²

There is little question that more private updating institutions are needed. As the evidence reviewed above shows, while updating through private action does occur in some instances, such efforts are episodic and slow to take effect. This is clearly illustrated by the stasis that gripped the sovereign debt market even in the face of multi-billion-dollar payouts to activist hedge funds. To be sure, a group of state and quasi-state officials led by the International Monetary Fund (IMF) finally effected a widely used change to the *pari passu* term in sovereign debt contracts after more

239. Article 5 of the UCC governs letters of credit, but the UCP is the most important source of letter of credit law on an international level. UCC Article 5 allows parties to opt for the rules of the UCP 600, with a few exceptions for terms that cannot be changed. See U.C.C. § 5-116 (Am. L. Inst. & Unif. L. Comm’n 1995). UCP 600 was last updated in 2007.

240. Burghard Piltz, Incoterms 2010, 3 Eur. J. Com. Cont. L. 1, 1 (2011).

241. All contracts using Incoterms are valid if they are agreed upon by all parties to the transaction and the relevant Incoterms are correctly identified on the export-related documents. Although the ICC recommends using the latest version—Incoterms 2020—parties to a sales contract can agree to use any version of Incoterms. Incoterms supplant UCC sections 2-319 to 2-325. John Vogt & Jonathan Davis, The State of Incoterm® Research, 59 Transp. J. 304, 314–15 (2020) (explaining how “the frequent updates of terms by the ICC have allowed Incoterms® to stay current with industry practice and usage, whereas UCC terms have grown antiquated”).

242. Some industries, usually involving commodities such as cotton or grain, create trade associations that produce rules that govern contracting among the members, but disputes under the rules are resolved in arbitrations. As a consequence, the industries do not create contract law for society. For discussion, see Lisa Bernstein, Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions, 99 Mich. L. Rev. 1724, 1726–27 (2001) (describing the Southern Mills Rules—trade rules adopted by trade associations representing merchants and mills respectively); see also Lisa Bernstein, Merchant Law in a Merchant Court: Rethinking the Code’s Search for Immanent Business Norms, 144 U. Pa. L. Rev. 1765, 1771–77 (1996) (discussing rules of the National Grain and Feed Association, which require that all disputes among members must be submitted to the Association’s arbitration system).

than three years of trying.²⁴³ But the IMF did not (and does not) regard such coordination as a part of its mission.²⁴⁴ Moreover, parties to corporate debt contracts continue to use obsolete clauses even in the face of litigation risks.²⁴⁵ Again, there is no institution that monitors the corporate debt market to address these obsolescence concerns.

Private lawyers in discrete areas can sometimes effect change. For example, the top five private equity law firms recently revised the ubiquitous “no recourse” clause in every major deal contract even while the corporate bond market retained the same obsolete clause.²⁴⁶ Thus, circumstances exist in which lawyers and other insiders can function as a “spider in the web” to produce a coordinating equilibrium.²⁴⁷ In the case of the M&A example, the specialized bar was able to keep the law current. But the question remains whether the resulting contractual revisions reflect only lawyer and client interests.

C. *Public Interventions: The Problem With Specialized Commercial Statutes*

The lesson of these private efforts to keep contract rules current in particular fields suggests that state-supplied defaults remain an important element in maintaining an efficient contract law. But turning to public mechanisms and specialized commercial statutes, we find the same story repeating. The UCC ushered in a new moment for uniform specialized statutory rules, ranging from commercial paper and bank deposits, to letters of credit, to documents of title, and to secured credit.²⁴⁸ Unlike the failure to revise sales law, every one of these specialized commercial statutes has been revised, some more than once. But just as the private institutions that update specialized fields are subject to the concern about private interest supplanting the public interest, the history of the revisions to the UCC’s specialized commercial statutes reveals a similar pattern. Article 9 and Articles 3 and 4 of the UCC exemplify this problem.

1. *Revising Article 9: Protecting the Interests of Secured Creditors.* — There was extensive interest group participation, largely by asset-based financiers and banks, in the original drafting of Article 9. The principal reporter of the Article 9 project, Grant Gilmore, documented the events that led banks and finance companies to support the UCC project that they had

243. Choi, Gulati & Scott, *The Black Hole Problem*, supra note 16, at 120–21.

244. See supra notes 136–153 and accompanying text.

245. See supra notes 162–172 and accompanying text.

246. See supra notes 154–164 and accompanying text.

247. The “spider in the web” metaphor captures the observation that a controlling entity or hierarchy at the center of a network can function to facilitate coordination among network members. See Ariel Porat & Robert E. Scott, *Can Restitution Save Fragile Spiderless Networks?*, 8 *Harv. Bus. L. Rev.* 1, 3 (2018).

248. These specialized statutes, each of which has been recently revised, are found in UCC Articles 3 and 4, 5, 7, and 9, respectively. Article 6, covering Bulk Sales, proved to an impediment to current commerce and the 1989 revision recommended repeal. See U.C.C. § 6 prefatory note (Unif. L. Comm’n 1989).

earlier rejected as a radical reform.²⁴⁹ This support developed after Homer Kripke, then a legal counsel to CIT Financial Corporation, became one of the key advisors to Gilmore and the other drafters.²⁵⁰ Kripke subsequently described how, during their drafting deliberations, banking interests blocked proposed clauses that would have imposed on them the costs of various consumer-protection provisions.²⁵¹ He reported that avoiding arousing the opposition of banks and finance companies was necessary in order to ensure passage of the UCC project.²⁵² Thus, the original Article 9 was the creation of an interest-group-dominated process.²⁵³

The business lawyers who served on the Study Group revising Article 9 in the 1990s had similar preferences concerning the regulation of commercial practice. The Study Group was comprised of two academic reporters and sixteen members—three legal academics and thirteen practicing lawyers, the largest number of whom were in-house counsel for banks and finance companies or private attorneys representing secured financing interests.²⁵⁴ The Study Group revising Article 9 defined its task as the resolution of “technical” problems that were susceptible to legal expertise,

249. See Grant Gilmore, *The Ages of American Law* 77–78 (2d ed. 2014).

250. See Grant Gilmore, *Dedication to Professor Homer Kripke*, 56 *N.Y.U. L. Rev.* 1, 11–12 (1981).

251. See Homer Kripke, *The Principles Underlying the Drafting of the Uniform Commercial Code*, 1962 *U. Ill. L.F.* 321, 323–24 (describing how pushback from finance companies ultimately led to “one of the weakest compromises in the Code”).

252. For further information regarding the importance of a lack of opposition, see *id.* at 326–27:

The determined opposition of well-knit groups tends to induce the legislature to do nothing, which is a victory for the opposition. The Code would have been a sitting duck target for any determined special interest or combination of special interests who chose to attack one or more features of the bill persistently. Thus, it was important not to arouse the opposition of banks or finance companies

253. Donald Rapson, then Senior Vice President and Assistant General Counsel of the CIT Group, Inc., and a participant in the Article 9 revision process, provides further evidence of the role of interest groups at the level of the study group. In describing the general UCC revision process, he says:

The question, however, is whether the “environment” of the drafting committee process inhibits drafting fair and efficient statutory rules that advance the public interest. . . . I fear that the process makes that very difficult to do. . . . Although the individual members of the drafting committee are supposed . . . to vote their own consciences independently of their personal affiliations, the fact remains that their statements and votes are publicly made in the glare of the interest groups Drafting committee members whose practice, employment, or academic consulting is for or on behalf of an interest group may be hard pressed to take an action contrary to that group.

Donald J. Rapson, *Who Is Looking Out for the Public Interest? Thoughts About the UCC Revision Process in the Light (and Shadows) of Professor Rubin’s Observations*, 28 *Loy. L.A. L. Rev.* 249, 263–64 (1994).

254. See Robert E. Scott, *The Politics of Article 9*, 80 *Va. L. Rev.* 1783, 1807–09 (1994).

rather than the undertaking of possibly controversial reform.²⁵⁵ The privileged status of hands-on working knowledge of Article 9 rules thus gave the in-house counsel and the private commercial lawyers the power to determine the course of the revision.²⁵⁶ Efforts by the academic members to place significant reform proposals on the agenda were uniformly unsuccessful.²⁵⁷ Thereafter, the 1999 revisions to Article 9 were adopted in all 50 states.

2. *Revising Articles 3 and 4: “Bankers’ Legislation”*. — The same influences that affected the creation and revision of Article 9 affected Articles 3 and 4. These Articles affect banks—but no other cohesive interest group—and bank lawyers played a large role in the original drafting process. These lawyers’ preferences also were close to those of the business lawyers in the ULC and the ALI. Because the political situation had not changed since the original UCC, it is unsurprising that the recently revised Articles 3 and 4 would resemble the original rules in relevant respects. The consensus view of participants in the revisions to Articles 3 and 4 was that the successful efforts to revise Articles 3 and 4 produced “bankers’ legislation.”²⁵⁸

These reports from participants in the Article 3 and 4 revision process are consistent with the observation that these study groups were industry dominated.²⁵⁹ Both revisions passed the ALI and ULC, and both have been enacted into law in every state except New York and South Carolina.²⁶⁰ The new proposals are compatible with industry interests, but whether they serve the interests of other constituencies is hard to determine a priori. It is clear that Articles 3 and 4 are widely thought to be industry products, but that does not answer the question of whether the revisions are also in the public interest. There are, however, good reasons to believe that they are not.²⁶¹

255. See *id.* at 1805–09.

256. See *id.* at 1808–09.

257. *Id.* at 1807–09.

258. This history is described in Edward L. Rubin, *Thinking Like a Lawyer, Acting Like a Lobbyist: Some Notes on the Process of Revising UCC Articles 3 and 4*, 26 *Loy. L.A. L. Rev.* 743, 744–48 (1993), and in Kathleen Patchel, *Interest Group Politics, Federalism, and the Uniform Laws Process: Some Lessons from the Uniform Commercial Code*, 78 *Minn. L. Rev.* 83, 101–10 (1993).

259. See Rubin, *supra* note 258, at 746, 788 (detailing industry influence during the deliberations of the ABA committee reviewing the revisions to Articles 3 and 4).

260. *States Adopting the UCC*, U.S. Legal, <https://uniformcommercialcode.uslegal.com/states-adopting-the-ucc/> [<https://perma.cc/R2TD-CL5U>] (last visited Aug. 23, 2021).

261. See Rubin, *supra* note 258, at 750–52 (detailing how the committee withdrew a proposed consumer-friendly revision to the stop payment provision based on empirically unproven assumptions that many consumers who stop checks do so dishonestly, that banks already offer sufficient protection to consumers, and that the revision would strip banks of flexibility); *id.* at 754–57 (discussing how the committee favored rapid truncation, which reduced transaction costs for banks but decreased information for customers seeking to

The many successful revisions to the specialized commercial statutes in the UCC demonstrate that particular industries have been effective in creating and preserving law when the costs fall on diffuse groups. Banks and asset-backed lenders secured the adoption of UCC Articles 3, 4, and 9. These agents have secured updates that create gains for them and have prevented amendments that would reduce those gains. To the extent that there is a public interest independent of the financiers' interest, it has not been represented in the creation of these current statutes.

D. *The Many Faces of the Common Law*

That lawyers engage contract law within a specialized commercial practice (albeit in different ways) offers a fresh perspective on the operation of contract law in these nominally specialized fields. M&A, bankruptcy, and financial transactions are areas of law that courts create under statutes that authorize actions but do not direct results.²⁶² Thus, there is today a common law in each of these sub-fields—and, indeed, the M&A experience generalizes. The Delaware Corporate Code is a set of enabling provisions and standards.²⁶³ Delaware corporate law, which largely is American corporate law, thus is the creation of the Delaware Chancery and the other Delaware courts.²⁶⁴ It is commonplace that the common law of contracts has been superseded by more specific bodies of law. But if the common law is defined by *the mechanism that produces the rules*, there is, in fact, a general common law of contract, much of which travels under the names corporate law, bankruptcy law, M&A law, and the law of banking and finance. And because Article 2 of the UCC is obsolete today, there is also a common law of sales. Unlike the original common law, however,

detect bank errors or fraud); *id.* at 757–58 (discussing how the committee refused to approve a provision giving banks an extra day to process checks which would save customers substantial bounced-check fees). Patchel succinctly summed up the revisions as follows:

[T]he revised Articles 3 and 4 are even more pro-bank than were their predecessors. Not only do they lack “affirmative” consumer protection provisions, like disclosure requirements and bank services pricing controls, but in the course of resolving the conflicting interpretations of certain provisions, the interpretation favorable to the banks is almost always chosen, and, in the course of accommodating the Code to technological advances in the bank collection process, little regard is given to the impact of this accommodation on bank customers.

Patchel, *supra* note 258, at 110.

262. See, e.g., Adam J. Levitin, *Toward a Federal Common Law of Bankruptcy: Judicial Lawmaking in a Statutory Regime*, 80 *Am. Bankr. L.J.* 1, 2–5 (2006) (discussing the existence of federal common lawmaking within the statutory system of bankruptcy).

263. See Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Text and Context: Contract Interpretation as Contract Design*, 100 *Cornell L. Rev.* 23, 73 (2014) (“Delaware corporate law is enabling, that is, it gives corporations wide latitude to adopt specific rules governing their behavior . . .”).

264. See *id.* at 92–95 (discussing cases in which the Delaware Chancery Court has used contextual interpretation and protected the interests of legally unsophisticated commercial parties).

these new common laws are created *subject to* the constraint that the new rules must be consistent with (and do not explicitly contradict) the linguistically applicable, but obsolete, nondirective statutes. This constraint is an impediment to the full creation of currently efficient defaults. In addition, as with obsolescence generally, parties may strategically exploit a linguistic fit to create private benefits.

There is a lesson we believe in the comparative institutional analysis that our project has begun. The Uniform Sales Act, created in 1906, was the first effort to codify a large portion of American contract law.²⁶⁵ Since then, the United States has passed statutes and created restatements with the goal of creating current, efficient, and fair defaults and quasi-mandatory rules for contract and commercial law generally. These efforts have largely failed. A few industry and trade groups have created privately efficient contract rules, and the organized bar and a few industries have spearheaded the enactment of specialized statutes that sometimes are privately efficient though not necessarily socially efficient.²⁶⁶ The private interests have either blocked further legislative change or produced change that furthers only their own interests. The putatively obsolete institution that more than a century of statutory and private legislative interventions have sought to supersede—the common law court—remains the only institution whose structure continues to generate current, efficient, and sometimes fair defaults.²⁶⁷

It is noteworthy that as the technological revolution has ushered in significant changes in commercial practice and contract design, only the common law courts have responded with new and apt default rules to address the contracting problems presented by new forms of contracting. As

265. The Uniform Negotiable Instruments Law, approved in 1896, was the first uniform commercial law promulgated by the ULC, and it subsequently was enacted in every state. See *supra* note 3 and accompanying text. The Uniform Sales Act and Uniform Warehouse Receipts Act followed in 1906, the Uniform Bills of Lading Act and Uniform Stock Transfer Act in 1909, and the Uniform Conditional Sales Act in 1918. See *supra* note 3 and accompanying text.

266. See *supra* sections IV.C.1–.2 (discussing the role of interest groups in the revisions of UCC Articles 3, 9, and 4).

267. The common law court's opportunity to create defaults is sometimes thought to have been reduced by the growth of arbitration, which removes cases that courts could have used to create rules. This view has two difficulties. First, courts do see many contract cases today. Whether this number is sufficient to create the optimal number of good defaults is impossible to know without a theory of the relation between the size of the set of cases for a commercial area and the ability of courts to create rules for parties who function in that area. Second, parties use arbitrators not because they are expert at creating rules but because they are expert at inferring a dyad's contractual intentions from the performance the promisor tendered and at evaluating the evidence of whether a performance was compliant. The growth in arbitration thus should not affect the courts' ability to create rules. For discussion, see Alan Schwartz & Joel Watson, *Conceptualizing Contractual Interpretation*, 42 *J. Legal Stud.* 1, 29 app. B (2013) (concluding that there are benefits to multiple enforcers in a system because the use of arbitrators allows parties to more precisely convey context information).

one example, the common law historically had great difficulty with preliminary agreements that expressed a mutual commitment on agreed terms and a commitment to negotiate further over the remaining terms.²⁶⁸ These “agreements to agree” confronted the indefiniteness doctrine head on. Until recently, courts consistently held that agreements to agree were unenforceable so long as an essential term was open to further negotiation.²⁶⁹ But today, a new default rule is emerging. The contemporary framework for determining intent in agreements to agree was first proposed by Judge Pierre Leval in *Teachers Insurance & Annuity Ass’n of America v. Tribune Co.*²⁷⁰ At least thirteen states, sixteen federal district courts, and seven federal circuits now follow the Leval framework.²⁷¹ The framework sets out a new default rule for cases in which the parties contemplated further negotiations. This rule requires the parties to negotiate in good faith over remaining terms and thus relaxes the knife-edge character of the common law under which agreements were either fully enforceable or not enforceable at all.²⁷²

A new common law default rule is also emerging to answer the question whether new forms of collaborative agreements that respond to the growing uncertainties in commercial practice are legally enforceable. These new arrangements are explicit, formal agreements between separate firms that rely on collaboration and co-design to stimulate continuous improvement in product development and engineering.²⁷³ The open-ended agreements to collaborate pose a unique challenge for contract design: What consequences follow if one of the parties behaves strategically and attempts to appropriate for itself the fruits of the collaborative efforts? In *Eli Lilly & Co. v. Emisphere Technologies, Inc.*²⁷⁴ and *Medinol Ltd. v. Boston Scientific Corp.*,²⁷⁵ the courts found a breach of a commitment to collaborate and rejected the claim that these novel agreements were too indefinite to be legally enforceable. Thus, even though these collaborative agreements are “radically incomplete,” the emerging default rule is that the formal written agreement is legally enforceable, thereby justifying an appropriate sanction.²⁷⁶

268. See Scott & Kraus, *supra* note 34, at 30–42, 283–84 (discussing the problem that indefinite promises and “agreements to agree” pose).

269. *Id.* at 30–42 (presenting and analyzing cases in which courts struck down agreements to agree for being too indefinite).

270. 670 F. Supp. 491, 498–503 (S.D.N.Y. 1987).

271. Schwartz & Scott, *Preliminary Agreements*, *supra* note 76, at 664 n.7.

272. For discussion of the Leval framework, see *id.*

273. See *supra* text accompanying notes 77–81.

274. 408 F. Supp. 2d 668 (S.D. Ind. 2006).

275. 346 F. Supp. 2d 575 (S.D.N.Y. 2004).

276. *Tchrs. Ins. & Annuity Ass’n of Am. v. Tribune Co.*, 670 F. Supp. 491, 498 (S.D.N.Y. 1987). For further discussion of the Leval framework, see Schwartz & Scott, *Preliminary Agreements*, *supra* note 76, at 691–701 (studying a case sample focused on Leval’s analytical framework).

CONCLUSION

The question posed today *is the same question* the American bar posed at the beginning of the twentieth century: Can the state create institutions that are better than the common law court at producing general contract law rules? The answer, so far, is no. To date, the production problem in contract law remains intractable. The failures of the ALI and ULC seem irremediable. These institutions have been unable, after over five decades of trying, to create a current, efficient contract law. And because the reasons for failure are the necessary product of the groups' membership and structure, there is little hope for change. Moreover, the splintering of what once was the province of contract law generally into specialized common *laws* seems inevitable and highly likely to continue. From the perspective of the affected commercial parties, these specialized common laws are a great improvement over the classic common law. The mechanism that makes the common law efficient—that parties accept apt and reject inapt defaults—also makes the specialized laws efficient, and the specialized laws add the virtue of expertise to the creation of defaults and quasi-mandatory rules. The policy concern that the specialized contract laws raise is that they are privately created and take only private gains into account.

This failing suggests the need for an institutional response. We have seen how uniform contract law rules produce general default terms that become obsolete under circumstances that preclude subsequent revision. If updating is an essential element in maintaining current contract law rules, then it follows that nimble administrative agencies rather than legislative enactments (whether public or private) are the mode of state intervention best able to solve the production problem in contract law. An agency that reviews the specialized fields to identify any externalities their outputs create, that requires industry agents to internalize them, and that creates new general defaults would much improve the efficiency and fairness of our business law. And indeed, there is some evidence that just such an institutional response is underway. The leading edge of change is in the field of financial contracting and regulation.

Considerable authority to regulate the contract terms in consumer financial markets is currently embodied in the legislation creating the Consumer Financial Protection Bureau (CFPB) and its authority to regulate “unfair, deceptive or abusive act[s] and practice[s].”²⁷⁷ As the

277. This authority is granted by section 1031 of the Consumer Financial Protection Act. Consumer Financial Protection Act, Pub. L. 111-203, § 1031, 124 Stat. 1376, 2005 (2010) (codified at 12 U.S.C. § 5531(a) (2018)). An official report by the CFPB describes this project in the following terms:

The Consumer Financial Protection Bureau will aim to bring clarity to the marketplace. A fair, efficient, and transparent market depends upon consumers' ability to compare the costs, benefits, and risks of different products effectively and to use that information to choose the product that is best for them. Fine print and overly long agreements can make it difficult for consumers to understand and compare products, and that

preceding analysis suggests, the baseline for supplying current, efficient contract terms in financial markets requires a process that mimics the common law mechanism for developing apt default rules. A particularly salient example of just such a process is the recent action by the CFPB in issuing a model “plain language” form for residential real estate credit contracts.²⁷⁸ Importantly, use of the model form is not mandatory for banks and other entities that extend credit to home buyers. Rather, the use of a model form provides a safe harbor for creditors or lessors.²⁷⁹ Thus, it is conceived as a default from which the regulated entities may depart at their option. From the vantage point of the claim here—that standardized contract terms in large, interdependent consumer markets are inevitably obsolete—this safe harbor approach functions to eliminate obsolete terms in the course of formulating the model form. The objective, then, is to provide a continuously updated baseline of efficient contract terms against which existing practices can be measured.²⁸⁰

Highly specialized financial markets present a further opportunity to observe how administrative regulation and supervision have mitigated the externalities caused by privately created contract law. Regulators and supervisors in the banking and financial regulatory context routinely impose contractual requirements in many kinds of contracts. For example, regulatory and supervisory standardization of derivatives contracts was a major factor in mitigating the externality risks created by the unsupervised

obstacle to sound markets is not removed by disclosures that are too complicated or that do not focus on the key information consumers need. The principal role of consumer protection regulation in credit markets is to make it easy for consumers to see what they are getting and to compare one product with another, so that markets can function effectively.

Consumer Fin. Prot. Bureau, Building the CFPB: A Progress Report 10 (2011), https://files.consumerfinance.gov/f/2011/07/Report_BuildingTheCfpb1.pdf [<https://perma.cc/Q5TH-MPXF>].

278. 12 C.F.R. §§ 1024–1026 (2021).

279. 15 U.S.C § 1604(b) (2018) provides:

Nothing in this subchapter may be construed to require a creditor or lessor to use any such model form or clause prescribed by the Bureau under this section. A creditor or lessor shall be deemed to be in compliance with the disclosure provisions of this subchapter with respect to other than numerical disclosures if the creditor or lessor (1) uses any appropriate model form or clause as published by the Bureau, or (2) uses any such model form or clause and changes it by (A) deleting any information which is not required by this subchapter, or (B) rearranging the format, if in making such deletion or rearranging the format, the creditor or lessor does not affect the substance, clarity, or meaningful sequence of the disclosure.

280. To be sure, there is always the risk of agency capture in any regulatory initiative. This risk is particularly acute when the universal practice of mandatory arbitration clauses prevents judicial review of terms that fail to conform to the baseline.

derivatives trading that brought on the 2008 financial crisis.²⁸¹ Regulators are also engaging with commercial financing interests to update the obsolete terms in financial contracts.²⁸² The London Interbank Offered Rate (LIBOR) is the prime example of an obsolete term in international interbank financial contracts. LIBOR is a benchmark interest rate at which major global banks lend to one another; it serves as a globally accepted benchmark that discloses borrowing costs between banks.²⁸³ LIBOR is used pervasively but is structurally unsound and will be widely discontinued beyond 2021.²⁸⁴ In 2014, the Federal Reserve Board and the New York Federal Reserve Bank jointly convened a group of banks to form the Alternative Reference Rates Committee (ARRC) to first propose an alternative and then encourage migration to the new interest benchmark.²⁸⁵ In 2017, the ARRC identified a market-based index, the Secured Overnight Financing Rate, as the rate that represents best practice for use in new derivatives and other financial contracts.²⁸⁶ Since then, the ARRC has continued addressing risks in contract language in financial products.²⁸⁷ Their recommendations include draft contract language to be voluntarily incorporated in new contracts that reference LIBOR to ensure these contracts

281. Section 804 of the Dodd–Frank Wall Street Reform and Consumer Protection Act provides the Financial Stability Oversight Council (FSOC) the authority to designate a financial market utility (FMU) that it determines is, or is likely to become, systemically important. 12 U.S.C. § 5463. FMUs are “multilateral systems that provide the infrastructure for transferring, clearing, and settling payments, securities, and other financial transactions among financial institutions or between financial institutions and the system.” Designated Financial Market Utilities, Bd. Governors Fed. Rsv. Sys., https://www.federalreserve.gov/paymentsystems/designated_fmu_about.htm [<https://perma.cc/6VGC-D8R7>] (last updated Jan. 29, 2015). The FSOC has currently designated eight FMUs as systematically important because “a failure or a disruption to the[ir] functioning . . . could . . . threaten the stability of the U.S. financial system.” *Id.* Whether this regulatory effort adequately represents the public interest remains an open question. Some academic commentators believe that the FSOC’s federal regulators are unduly influenced by private banking interests. See, e.g., Saule T. Omarova, *Bankers, Bureaucrats, and Guardians: Toward Tripartism in Financial Services Regulation*, 37 *J. Corp. L.* 621, 629–32 (2012) (explaining how regulators of the financial services sector are particularly susceptible to regulatory capture).

282. We are grateful to Kathryn Judge for pointing us to this example.

283. LIBOR rates still serve as benchmarks for trillions of dollars in securities across the globe. LIBOR serves as a reference rate for many bond investments, like floating-rate notes, bank loans, and some preferred securities. It still serves as a benchmark for many consumer loans as well, including margin loans, pledged-asset lines, and variable-rate mortgages. See *A Primer on LIBOR’s Phase Out and Transition*, Fed. Home Loan Bank of Atlanta (Nov. 11, 2018), <http://corp.fhlbatl.com/resources/a-primer-on-libors-phase-out-and-transition> [<https://perma.cc/8FB4-VZY5>].

284. LIBOR is based on daily submissions of estimated borrowing rates by a panel of banks. Due to changes in the financial markets, the regulator of LIBOR will no longer compel these banks to continue submissions beyond 2021. *Id.*

285. About the ARRC, ARRC, <https://www.newyorkfed.org/arrc/about> [<https://perma.cc/42CV-P8YN>] (last visited Aug. 24, 2021).

286. *Id.*

287. *Fallback Contract Language*, ARRC, <https://www.newyorkfed.org/arrc/fallbacks-contract-language> [<https://perma.cc/X4C4-6SRG>] (last visited Aug. 24, 2021).

will continue to be effective in the event that LIBOR is no longer usable.²⁸⁸ The ARRC thus mimics the common law mechanism in attempting to produce updated terms that track changing commercial patterns.

As noted earlier, in some specialized markets, the parties themselves can coordinate on current, efficient contract terms.²⁸⁹ But in others, as with the ARRC, the state can serve as the partner in facilitating the coordination needed to update obsolete terms. The experience gained by observing the updating of these financial contracts suggests that a similar public/private regulatory response is the most promising solution to the vexing production problem in contract law. Such a response should adopt the best features of the common law rule-making mechanism—it must produce rules that not only adapt to changing commercial practices but that also take into account the public interest. The entities that we envisage would create two kinds of rules: mandatory rules that require parties to internalize externalities and default rules for contracting problems whose solutions would affect only the parties. The question of how such collaboration would function in other contexts and other markets is left for another day—but without this possibility, America’s contract law is limited to courts and private interests only.

288. *Id.*

289. See *supra* section IV.B.

