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Commercial Boilerplate: A Review and Research Agenda

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Keywords

commercial boilerplate, consumer contracts, contracts, landmines, black holes

Abstract

Boilerplate contracts have long fascinated legal scholars. But the focus has been largely on consumer contracts, with the debate centered on the question of whether take-it-or-leave-it mass-produced forms imposed on consumers by large corporations should be treated as contracts or as a problem in regulation. By contrast, commercial boilerplate—the standard forms used in transactions for corporate or sovereign bonds or merger agreements—has traditionally received little attention. The assumption has been that form contracts among sophisticated parties may differ in form but not in substance from bespoke contracts between business entities. Yet a growing body of scholarship is questioning that assumption. This article reviews the complexities of contract production in these large markets and provides a window into an exciting new area of contracts research.

INTRODUCTION

Boilerplate contracts are ubiquitous. They show up in streaming subscriptions, Uber and Airbnb rentals, credit card agreements, Internet provider contracts, airline tickets, car rental provisions, and on and on. There have been many excellent discussions of the phenomenon of boilerplate, but most have focused on consumer boilerplate (Ayres & Schwartz 2014, Bebchuk & Posner 2006, Ben-Shahar 2014, Gillette 2011, Hillman & Rachlinski 2002, Kastner 2010, Kim 2013, Oman 2017, Radin 2014, Rakoff 1983).¹ Our focus in this article is different: It is on commercial boilerplate.

Relative to the boilerplate in consumer contracts, commercial boilerplate has received little academic attention. Commercial boilerplate encompasses the standard form provisions that are used in transactions among commercially sophisticated parties. This includes multibillion-dollar deals for mergers and acquisitions (M&A), corporate and sovereign bond issuances, and international trade agreements. Even in this environment, contract terms are frequently copy-pasted from prior deals: These are terms that no one reads, let alone bargains over. These features, of course, are aspects of standard form contracts that many of those writing critically about consumer boilerplate find deeply problematic. The dynamics underlying commercial boilerplate are quite different, however. Unlike the story often told about consumer boilerplate—where a large corporate entity with market power forces mass-produced and one-sided contracts on individual consumers—the parties in these sophisticated transactions do not face systematic power imbalances. Rather, they ignore the boilerplate terms because they need to conclude their deals promptly and, in many cases, because the assets underlying the contracts need to be readily tradeable. Small delays in multibillion-dollar transactions can result in millions of dollars lost if interest rates or stock prices move even slightly in the interim. Using standardized terms facilitates rapid pricing and trading in the underlying assets. Thus, transactors avoid reading the boilerplate, particularly when the terms are both lengthy and complex and the deal needs to get done quickly.

Commercial boilerplate lacks several of the problems that have long dominated discussions of consumer boilerplate, such as exploitation, lack of sophistication, disparities in bargaining power, market power, and undemocratic law making. The conventional wisdom is that these factors lead to certain aspects in boilerplate terms, such as terms that systematically disfavor consumers. Focusing on the commercial boilerplate setting allows us to determine whether we observe similar systemic aspects in boilerplate that are thought to emanate only from those factors—lack of sophistication, lack of bargaining, and more. But if we find these aspects in commercial boilerplate where these factors are absent, what is the causal explanation?

As we describe, the research on commercial boilerplate reveals that even sophisticated parties frequently fail to read, comprehend, or bargain over critical terms. And at least some of the time (perhaps generally), the markets do not price the boilerplate until the transaction disintegrates. Sophisticated corporate actors agreeing to boilerplate terms often have only a rough sense of what they have assented to in their contracts. Even in a setting of commercially sophisticated parties, we are a far distance from the paradigm of shared meaning that dominates contract doctrine (Radin & Kar 2019, Solum 2019). Among the problems that are created by the demand to conclude deals quickly while using imperfect standardized terms is the phenomenon of language being repeated many times over: Here, certain usage is repeated mindlessly by rote so that ultimately no

¹The interest in consumer boilerplate goes back much further in time than the cited works (e.g., Kessler 1943, Leff 1970, Lenhoff 1961–1962, Slawson 1971).

one understands what the language originally meant and why it was ever in the contract.² Similarly, circumstances can change such that words and concepts that had meaning initially become obsolete and no longer make sense in the contemporary context.

Unlike some of the literature on consumer boilerplate, no one is suggesting that commercial boilerplate be removed from the category we designate as “contract.”³ But even if we consider these instruments as contracts, should the rules of interpretation change if commercial boilerplate contracts fail to satisfy the assumptions underlying the standard interpretive rules? And if the answer to the question is yes, scholars must learn just how commercial boilerplate violates the standard assumptions about how commercial contracts are produced.

Answering the foregoing question requires us to also ask a threshold definitional question that is often glossed over: What do we mean by boilerplate? Do we mean provisions that are identical word for word across different users? Or do we include in this rubric provisions and contract terms that are largely the same (and perhaps are priced as if they are the same) but use different words? Once we fully develop the research on the contract production process, we can return to the basic interpretive question: Does what we have found justify different methods of interpretation?

COMMERCIAL BOILERPLATE SCHOLARSHIP

Although scholars have been interested in the phenomenon of consumer boilerplate for more than half a century, sustained academic attention to commercial boilerplate did not begin until approximately a quarter century ago. And even there, only in the past decade has there been a large enough body of research that we can begin to talk about a literature on the topic.

The starting point for the attention to commercial boilerplate in contracts scholarship came from scholars in the law and economics tradition who began to see in real-world contracts systematic deviations from the paradigm of the optimally designed contract that dominated the law and economics perspective on contracts.⁴ Coming at the issue from both theoretical and empirical perspectives, researchers on commercial boilerplate contracts began to identify flaws in the optimal design assumption. Researchers observed that even sophisticated commercial agreements seemed to have suboptimal terms; indeed, these terms seemed to persist despite widespread recognition of their inefficiencies (Bankman 1994, Bratton 1984, Kahan 1995, Klein et al. 1993). Theoretical work explored the trade-offs between optimal contract design and the considerable benefits of standardized language. Borrowing a standard form from a prior deal to realize the benefits of

²In the consumer boilerplate context, this problem has been identified in insurance contracts (see, e.g., French 2017a,b). David Hoffman, borrowing from an article on boilerplate interpretation by Greg Klass, flags an illustrative provision from a marine insurance contract used for several centuries by Lloyds:

Touching the Adventures and Perils which we the Assurers are contented to bear and do take upon us in this Voyage, they are, of the Seas, Men-of-War, Fire, Enemies, Pirates, Rovers, Thieves, Jettisons, Letters of Mart and Counter-mart, Suprisals, Takings at Sea, Arrests, Restraints and Detainments of all Kings, Princes, and People. . .

“Pirates,” “Rovers,” “Jettisons,” “Suprisals”? As Hoffman, points out, this appears to be a clause where words have been added over the years, but none removed (see Hoffman 2020, Klass 2019).

³The question of whether to treat boilerplate contracts as contract or some other legal entity has been the subject of much debate over the years (e.g., Leff 1970, Llewellyn 1970, Radin 2014). Yet the debate has not really translated into substantial changes in legal doctrine. Among the more recent innovative ideas for contract interpretation that might be applied are those of Hoffman (2023) and Arbel & Hoffman (2024).

⁴Among these papers were those of Goetz & Scott (1985), Kahan & Klausner (1996, 1997), Klausner (1995), and Choi & Gulati (2004). There have also been interventions from other disciplinary perspectives, e.g., Smith & King (2009).

standardization and scale can, in turn, impair the efficiency of the current transaction (Goetz & Scott 1985; Kahan & Klausner 1996, 1997).

The research that developed out of these insights built largely on the work of Marcel Kahan and Michael Klausner. In a series of articles in the 1990s, Kahan & Klausner set forth the foundations of the “Economics of Boilerplate” (Kahan & Klausner 1997). Kahan & Klausner focused on a puzzle: Why do suboptimal terms seem to persist in contracts among sophisticated commercial parties? They suggested that the answer lay in the trade-off between the positive externalities of using standard forms in thick or liquid markets where financial products needed to be tradeable and the efficiency benefits of tailored contract terms. When the positive value of the former outweighed the benefits of the latter (particularly when there might be the risk of sending a negative signal if one deviated from the standard form), the market could reach an equilibrium at which all parties were using suboptimal terms. In the patois of this body of scholarship, boilerplate contract terms could be sticky.

Since the work of Kahan & Klausner more than 25 years ago, a substantial literature has developed showing the stickiness of suboptimal terms across a range of areas, including sovereign debt contracts, bilateral investment treaties, venture capital agreements, M&A deals, insurance contracts, and trusts and estates documents (Choi & Gulati 2004, Choi et al. 2023b, Claussen 2018, Coyle 2022, Coyle & Green 2014, Nyarko 2021, Rutledge & Drahozal 2014, Scott et al. 2020, Smith 2004, Weisbord & Horton 2018). Scholars subsequently have explored the various factors that stimulate the revision of sticky terms, examining the types of parties that innovate, the types of innovations that tend to diffuse quickly and those that do not, and how the innovation and diffusion processes differ across different contracting settings and terms (Choi et al. 2013). One of the lessons of this research is that context matters: Different markets operate differently, and the degree of stickiness and suboptimality varies as a function of factors such as the mechanisms for innovation and coordination within that industry (Bartlett 2023, Buccola & Nini 2024, Gulati & Kahan 2021, Talley 2021).

The central insight from the original set of papers was based on the increasing returns to scale that resulted from standardization. The value of a contract form increased as a function of how similar it was to other contracts. This insight was particularly important in the context of loan transactions. The fact that the core legal terms in many lending transactions were identical meant that loans could be traded without the parties having to examine hundreds of pages of legal documentation. After all, all the deals were the same. All one needed to know were key financial terms such as yield, rating, and maturity. Moreover, provisions that had been used for long periods of time became well understood, and these terms were readily priced. Any problems with the precise language in these terms would be resolved with repeated use, and what survived should be optimal.

The logical extension of this story is that contracts in markets that value tradability and liquidity should evolve to near identity. To be sure, there will be some suboptimality because of the reluctance to depart from standard provisions that have worked well for long periods of time, but all parties in the market will have an identical level of suboptimality. And to the extent there is variation, it will be in newly introduced terms. Because these are terms that have not been fully developed, we would expect to see some experimentation until the market comes to rest on an agreed-upon standard version. That version will then be used by everyone, and it will be sticky.

To the extent some sticky terms are suboptimal in sophisticated markets seeking optimally designed contracts, over time the incentive to repair stickiness should generate institutions such as standard-setting organizations that can monitor contracts and revise terms (Coyle 2021). Or there might be incentives for particular players, such as market leaders, to undertake the initial work of innovating and fixing problems with the boilerplate (Choi & Gulati 2004, Kahan & Klausner

1997, Scott et al. 2020). We might also expect to see the use of design techniques, such as modular contract provisions or the separation of deals into separate modules, to enable fast and accurate revision of suboptimal provisions (Hwang 2016, Smith 2006).

Despite these theoretical predictions, the second generation of research on commercial boilerplate identified empirical phenomena that turned out to be inconsistent with ever-increasing standardization. Contrary to the predictions of the first generation of boilerplate theory—that boilerplate provisions will become better understood, more accurately priced, and more uniform over time—a second generation of scholars discovered provisions in the standard form that were not understood at all, were not priced, lacked modularity, and seemed to spread and be highly sticky despite the lack of comprehension (Anderson 2020, Coyle & Weidemaier 2018, Gulati & Scott 2013, Jennejohn 2018). Standard provisions could lose meaning through constant repetition, but they continued being used because they were part of the standard form. Indeed, this rote usage could prove dangerous: Opportunistic actors could seize upon the fact that some words did not have a well-understood meaning and argue for a new meaning for them in litigation (Choi et al. 2020). In sum, something more than the first generation of explanations for stickiness was needed (McClane 2020).

In more formal terms, a set of provisions that are perfectly identical, accurately priced, and fully understood by all parties turned out not to be the only possible equilibria. Other equilibria are also possible in a market where the great value of a standard form is that no one has to pay attention to it because, after all, it is the standard form. And that includes equilibria where the meaning of a term is forgotten over time because everyone assumes someone else knows its meaning. And then, when parties realize that the clause is a useless piece of historical debris, it cannot be removed easily because it has become part of the standard package of terms. To use the language of market actors, it has become “market.” Across a range of markets, including M&A, sovereign bonds, insurance contracts, trust agreements, and more, scholars began to identify these “black holes” in the standard boilerplate (Anderson & Manns 2019, Choi et al. 2017, French 2017b).

A complication in all these stories is their focus on the importance to market participants of having identical standardized forms. If the packages of terms the different parties in the market are using are identical, traders can price them without having to attend to variations in the boilerplate for different parties. Despite the occasional black hole, the assumption in the literature was that these anomalous terms were aberrations. The problem was that empirical work discovered that many of these so-called boilerplate terms did not use identical language.

Quantitative and qualitative work by several scholars began to show considerable variation in the boilerplate (Coyle 2018, 2022; Weidemaier 2009). Terms that one might think of as being among the most uniform examples of boilerplate, such as the governing law and forum selection provisions, had dozens of significant linguistic variations within terms that were perceived as being the same (Coyle 2018, 2019).

Our own recent research, and that of many other scholars studying commercial contracts, focuses on the variation or irregularity in what is viewed by the market as standard boilerplate. We explore this variation and find that the differences in wording can, if pushed far enough, change the meaning of a clause in contracts that the parties understood as a standard package of terms governing financial assets, potentially leading to unexpected reallocation of rights and obligations under the contract. The question, then, is how this state of affairs can exist within the world of contracts among sophisticated commercial parties. How do these potentially disastrous differences in wording arise, sometimes persist, and occasionally spread?

Scholars examining the variation across supposedly uniform boilerplate terms began to observe that there was not just rote usage at play in the copying of precedent. There was also encrustation and drift (Anderson 2020). Put differently, even though copying precedent was the key dynamic,

the process of copying seemed to generate errors and blunders (Hill 2001). In short, suboptimality resulting from rote copying was not the only problem. Even in the elite world of M&A contracting, an area one might think was as close as possible to the paradigm of optimal design, contracting seemed influenced by confounding factors. For example, the shape of any given deal seemed highly influenced by the most recent prior deal of that type (Anderson 2020, Anderson & Manns 2017). And even among elite law firms doing high-value deals (e.g., private equity M&A), there are systematic redundancies and inapt or obsolete terms in the contracts they produce (Choi et al. 2021). Further, contrary to what the optimal design of standard forms might predict, the provisions did not seem modular. Changes to one portion of the document could often impact other parts of the document in ways that inexpert drafters might not appreciate (Jennejohn 2018). All in all, the processes by which the contracts for complex financial transactions were being produced and reproduced were likely to result in errors, infelicities, and loopholes. And that in turn meant that there were going to be available opportunities for lawyers prepared to search out and exploit variations in the contract language that could give them an advantage (Ayotte & Badawi 2024, Pandya & Talley 2023).⁵

In summary, many terms we may have thought of as boilerplate, in the sense that they are part of the standard form contract expected by participants in the market, are not identical word for word across different users. Instead, boilerplate in practice encompasses terms that have similar purposes and in general are expected by the market as part of the standard form but display significant variations in the specific words used to implement these purposes.

THE SIGNIFICANCE OF CONTRACT PRODUCTION

To discover how irregularities and anomalies arise and spread in commercial boilerplate, the first step is to take the scholarly study of contract production seriously (Anderson 2020; Choi et al. 2021; Hill 2001, 2013; Richman 2011). Much of recent contract theory has focused on efficient contract design—the allocation of contingent rights and obligations among contracting parties. Contract design is a key economic objective that is thought to motivate contracting parties who seek to maximize the joint gains from their transactions. But commercial parties also confront another economic challenge: how best to produce the terms and conditions, including the specific wording, that implement their contract design. Moreover, this second objective—efficient contract production—appears to dominate the design efforts of many parties to commercial contracts. But scholars know little about the production process itself. This is unfortunate because the production process is the source of a fundamental trade-off: The factors that generate efficiencies in the production of contracts—standardization and economies of scale—are the same factors that produce significant errors in design—contract language that does not accurately embody the terms that the market participants believed were in the contract at the time it was executed.

Many adverse consequences follow from a production process that relies on boilerplate terms. Among them is the assumption common to parties in the market that boilerplate language is fixed and unchanging. But this assumption is false and leads to several pernicious effects. One of them is the practice, alluded to earlier, of contract drafters failing to read carefully the language in each document because the contract documentation appears to be the same over time. The paradox, then, is that standardization makes possible efficient transactions but at the cost of documentation

⁵Scholars have also found that there are first-mover advantages for initial drafters and that deals that are subject to time pressures are edited less (Badawi & de Fontenay 2019, Badawi et al. 2023). Neither feature should be relevant to how contracts are designed in an optimal design world.

that often contains puzzling mutations—additional words or phrases that change meaning in dramatic ways.

Multiple scholars have noted that better understanding why contracts look the way they do, and particularly so-called boilerplate terms, requires researchers to develop a better understanding of the production process (Goetz & Scott 1985; Hill 2001, 2013; Kahan & Klausner 1997; Richman 2011). But their exhortations have not yet translated into a robust body of scholarship. Our hope is that that will change.

We recently characterized these mutations found in the standard form as “landmines,” in that they can be (and are) subsequently used by one of the parties to gain a litigation advantage if and when the transaction disintegrates (Scott et al. 2024). Indeed, not until the transaction subsequently blows up do careful litigators read the language of the standardized terms and discover—to either their delight or horror—that the standard language has been modified and now contains words and phrases that dramatically alter the rights of the parties to the contract.

Some of these contractual anomalies appear to have been embedded when the standard form first originated; others seem to appear suddenly in a particular contract and then remain as part of the standard language in subsequent contracts. Determining how and to what extent a market’s standard contract also features embedded landmines requires studying how contracts are produced in different markets, ranging from contract production in large, liquid markets, such as sovereign debt, to more integrated markets, such as private equity M&A. In each of these markets, there are measurable differences in how contracts are designed and produced, and those differences appear to explain the number and persistence of landmines in the standardized terms. Current work thus focuses primarily on multilateral markets with many participants where standardized language reigns supreme, rather than on the classical bespoke contract that has been the exclusive paradigm for much of contract theory. This perspective is not only a worthy subject for theoretical inquiry but also a rich source of extensive empirical investigations.

Unfortunately, it has been widely assumed that the bespoke negotiated contract is the relevant paradigm for conceptual and empirical analysis. Indeed, an entire branch of economic and legal theory is devoted to a study of contract design that focuses almost exclusively on a single transaction in which terms are individually negotiated, agreed upon, and then drafted *ab initio* by the parties. These are contracts without a past or a future; they are the classic one-off transaction. But this idealization of the negotiated bespoke contract is a conceptualization with no foundation in reality. In nearly all markets, contract language is highly standardized and repeated in one form or another from contract to contract to contract. There will certainly be negotiations over price, and there may even be negotiations over certain terms. But the product of any negotiation over terms typically will be the substitution of one boilerplate term for another. Even when new language is introduced, it, too, follows this same process, becoming embedded in the standard form in subsequent contracts. Ultimately, this process of embedding standardized language in commercial contracts produces the form we have identified as boilerplate, language that is largely fixed and unchanging over many transactions. But beyond that, all commercial contracts are composed of strands of uniform language taken from firm precedents, other contracts, form books, “optimal” contract clauses sold by commercial firms, and the like. As a consequence, the language in virtually all commercial contracts becomes homogenized; it is adopted by parties off the rack rather than customized.

A second belief is that any mutations to the standard language in commercial boilerplate contracts will be scrubbed clean by successive generations of transactional lawyers who will remove errors, update language to accommodate changes in legal or economic conditions, fill gaps, and clean up ambiguities. As Smith & Warner (1979, p. 123) famously asserted, “harmful heuristics like harmful mutations will die out.” That belief is, unfortunately, false. Examination of current

sovereign bond contracts reveals numerous instances of harmful landmines that have persisted over many generations of deals (Scott et al. 2024). Moreover, these mutations to the standard form differ from each other in important respects: Apparently purposeful changes to standard language that sovereigns can use to cram down a restructuring are juxtaposed against errors in expression and inapt terms imported from unrelated transactions that activist creditors can use to hold up the same deal. The purposeful changes to the standard form reflect careful lawyering on behalf of sovereign clients, whereas mutations that benefit only subsequent activists reflect haste in adapting precedents to new transactions (Scott et al. 2024). How landmines are produced may matter—in particular, those that reflect careful lawyering may be more likely to persist and propagate compared with more random errors made in haste.

Realizing both that mutations can occur and that standardized contract terms are sticky and resistant to change, scholars can now examine more closely the ways that contracts are produced once the contract design has been agreed upon. Production considerations loom large when markets are thick and contract terms can be standardized across the market. Billions of dollars can be traded around the world using standard contract terms that are virtually identical in every contract. But as discussed above, the very factors that generate efficiencies in contract production can lead to these mutations that do not reflect the market's understanding of the transaction. Nevertheless, the parties in thick liquid markets, where more and more parties participate in the same or similar transactions, may still prefer standardization and the associated economies of scale even at the risk of documentation that does not align with the transaction (Scott et al. 2024).

OPTIMIZING BETWEEN DESIGN AND PRODUCTION

Recognizing that there is a trade-off between design and production is the first step toward answering a central question that should be key in any future research agenda: How can (and do) contracting parties optimize between the efficient production of contracts and efficient contract design? The contractual challenge is to exploit production efficiencies without simultaneously degrading the contract terms that motivate performance. In understanding how commercial parties respond to this trade-off, we might begin with a more precise identification of the production costs of contracting. Drafters that are faithful agents are motivated to optimize two principal costs of production: the cost of efforts and error costs. But efforts and error costs are substitutes: The more time and effort a drafter spends in producing a contract, *ceteris paribus*, the lower the risk of error. Conversely, the less time invested in production, the higher the risk of unwanted errors.

We can conceptualize the poles of a production continuum with, at one pole, thin or bilateral contracting and, at the other, contracting that takes place in thick markets with an active trading market in the financial products that are the subject of the contracts. At the one pole, parties in thin or bilateral contracting markets balance the trade-off between production and design to minimize the sum of production costs and design errors for each transaction in isolation. As an example, consider a one-time sale of a large office building in New York to a California-based developer. This is the prototypical bespoke transaction: The resulting contract has no past and no future. The lawyers for either side would expend substantial efforts to negotiate and then draft the terms necessary to resolve many issues relevant to that one deal, including the payment schedule for the purchase price, valuing existing leasehold income, estimating future maintenance costs, allocating tax advantages, etc. Because the transaction is one of a kind, the parties' cost considerations are limited to optimizing the costs of production for that contract only. Here, the per-contract costs of producing these terms are high. Such contracts may elect not to cover many contingencies (leaving the contract incomplete), but those terms that are covered (which could be many if the parties are sophisticated and the contract high in value) will be tailored, with resulting

design efficiencies. Such contracts will not suffer, at least in theory, from obsolete terms, mutated terms, or holdover terms that lack meaning—problems that plague standard boilerplate contract terms. Put another way, design efficiency is maximized but at a high production cost. But the completely isolated bilateral contract is more myth than reality. Even in this bespoke contracting environment, parties cannot escape the gravitational pull of standardization: Many of the terms in this customized contract will be adapted from standardized language that was used in other transactions. The parties will, therefore, need to avoid errors by updating precedents to respond to current legal or economic conditions. And, most significantly, the parties will be unconcerned about using language that coordinates with other transactors.

At the other pole, where markets are thick, traders will optimize the sum of production costs and design error costs, considering the economies of scale from standardizing the production of the contracts that govern the exchange transaction. Standardization through the use of boilerplate terms leads to lower production costs and the ability to, at a low cost, implement contracts that cover a wide range of possible contingencies (i.e., such contracts in theory are more complete than in the bespoke situation, all other things being equal). Here, the improvement in production efficiency is not just the transaction costs saved by not having to draft the terms for each contract individually. Boilerplate terms also bring to bear a collective wisdom and experience of ways to avoid mistakes in formulating terms. Over time, the consequences of standard formulations are observable over a wide range of transactions, permitting the removal of ambiguities and inconsistencies. In this way, mature boilerplate terms become validated by experience and are therefore safer than new, innovative formulations of terms. In addition, in thick markets, standardization will facilitate pricing and trades in the underlying assets covered by the contracts, imposing a high cost on those that do not use the standard form. However, there is a trade-off with design. Boilerplate eliminates the costs of producing new terms, but this standardization also causes inefficiencies in design—including mutations in boilerplate terms, terms that lose meaning over time, sneaky insertions of words that change meaning, and obsolete boilerplate terms that continue to be used—that are endemic to the process. Importantly, coordination among many diverse interests is essential if the parties in these large markets are to adapt to changing conditions. If parties in large markets cannot coordinate on necessary changes to the standard form, then the standard form risks becoming obsolete. Thus, although using boilerplate terms in any given contract requires only a minimal investment to produce, the terms themselves are sticky, contain inexplicable irregularities and anomalies, and are often resistant to attempts to adapt to changed conditions, leading to greater design error costs. In other words, production efficiency is maximized, but at the cost of high design costs.

We have described in some detail the poles of the continuum formed by efficient design at one end and efficient production at the other to frame the research project going forward. Scholars have examined one such market: M&A contracts that are transactions that fall between the poles of the continuum described above. The M&A market, particularly for private deals, involves large, sophisticated parties with the resources and, on occasion, the motivation to craft bespoke contracts. The market also includes repeat players, including private equity funds and their law firms, that benefit from employing standardized terms across deals that provide both greater certainty than bespoke terms and reduced transactional costs. In such a market, empirical research shows that parties value both the option to employ bespoke terms and the ability to draw upon a pool of standardized terms. With such a preference, we might expect a market structure that allows for some degree of coordination to develop standardized terms, as well as the freedom for individual actors to employ their own bespoke terms. Empirical evidence suggests that the features of the M&A market display such a structure (Choi et al. 2023b, Chowdhury et al. 2024).

THE REPRODUCTION OF ERRORS, MISCUES, AND LANDMINES

The story thus far confirms that real-world commercial contracts, examined across a wide range of high-end deals, are different from the conventional assumptions of contract law. Words that have no place being in the contract, and whose presence no one fully understands, periodically appear and then remain embedded in the standard form. Conversely, words that provide needed clarity to avoid ambiguities or unintended consequences are sometimes missing. Indeed, the same billion-dollar deal can contain more than a dozen discernable anomalies—glitches, gaps, and landmines. In a world where the theoretical paradigm is that every word or phrase is either present or absent because it was intended so to manifest a particular intention, the presence of even a single anomaly that is not promptly eliminated is jarring. But what should we make of a half dozen or more of these problems in literally every deal? That degree of deviation begs for a new understanding of how contract terms are produced by sophisticated parties in commercial contracts.

The existing model fails because it does not adequately account for the contract production process across the range of commercial contracts. As noted above, at one end of the spectrum is the thin, bilateral market in which parties have the luxury of designing bespoke contracts that perfectly embody the terms that are designed to implement their joint goals. Here, because sophisticated parties by assumption are starting from scratch with no prior precedents to rely upon, they must bargain over and then draft the specific language of the contract. It should be obvious that this conception of the bespoke negotiated contract is an idealization. Beyond this corner solution—the extreme end of the market—lies the wide range of typical commercial situations in which the contract-by-design model breaks down. This real world of commercial contracting consists of much thicker markets than the design perspective imagines. Here, many parties participate in the same or similar transactions.

The key feature of thick markets is that parties may prefer standardization and economies of scale even at the risk of an increase in design errors. For these contracts that dominate much of modern life—but particularly multitrillion-dollar markets, such as those for sovereign and corporate bonds—the design perspective on its own may be of limited utility. The contracts used here are not finely crafted bespoke works of art. In part because customers want fungible and tradable instruments that can be produced quickly, the instruments that are produced are necessarily a far cry from the model that underlies the design perspective. In a world of financial products in which the legalese detailing matters such as the jurisdiction or governing law is but an obscure and rarely relevant feature that no one wants to discuss when the deal is being negotiated, it might be optimal for all involved to have something that is good enough—that is roughly market standard. If the amount of effort that is exerted on drafting any particular contract is near zero (“three and a half minutes,” one senior big-firm law partner told us in the sovereign bond context), we end up with contract provisions that contain landmines that pressures from the competitive market for contract production do not eliminate. Put differently, the equilibrium number of landmines in a contract might be quite a distance from zero.

Alternate stories might explain the presence and persistence of a significant number of contractual landmines in thick markets with many participants. Where numerous ultimate contracting parties rely on an agent to bargain on their behalf, agency costs may exacerbate the lack of attention to contract design, reducing how much effort is put into drafting a contract and increasing the chance of error. There may be agency costs on the part of the lawyers drafting the contracts and agency costs on the part of the immediate clients of the lawyers—such as the underwriters who nominally represent the investors in a bond offering. The incentive for agents to repeat what was done in a prior deal with minimal additional consideration can lead to contract terms designed for a specific context being repeated and embedded in the standardized contract language, even if such terms were never intended to be used outside of their initial context.

THE SOVEREIGN BOND CONTRACT AND ITS LANDMINES

We began our own exploration of the contract production process with sovereign bond contracts, one of the thickest multilateral markets. These are multibillion-dollar financial contracts drafted by the largest law firms in the world under the watchful eyes of the fanciest investment banks. The core finding of our work is that these contracts routinely contain anomalies—what we can best describe as errors, miscues, or purposefully embedded landmines. In our research, we hope to explore, and hopefully explain, why conventional assumptions are false: These transactions are not self-correcting; they fail to eliminate in subsequent iterations of the standard form many anomalies that occasionally appear.

Commercial contracts in the sovereign bond market contain boilerplate terms that are slow to change in response to changes in the legal or economic environment (Choi et al. 2018, Gelpert et al. 2019, Gulati & Scott 2013). To be sure, parties can sometimes coordinate market-wide changes in these boilerplate terms, but these revisions occur slowly and only after considerable delay (Choi et al. 2017, 2018). Given this resistance to purposeful, coordinated revisions, it is puzzling that we have also observed that changes in sovereign debt boilerplate occur regularly, are apparently uncoordinated, and render previously clear contractual language ambiguous and susceptible to an interpretation that clearly favors the interests of only one of the contracting parties. These uncoordinated additions to the standard form create linguistic landmines: embedded language that lies dormant, sometimes for many years, until payment is resisted, default is declared, and the harmful mutation is used as leverage in a restructuring negotiation.⁶

In theory, a landmine can benefit either party to the contract, but the risk that a landmine will benefit debtors is acute in liquid markets like the market for sovereign bonds. In this market, the debtors' lawyers are primarily responsible for producing the contract language: When drafting the contract's terms, these lawyers are motivated to advance their clients' interests by shifting some of the default risk from the debtor to the creditors who purchase the bonds. At the same time, the investment bankers, who nominally represent the interests of the largely anonymous creditors, are interested primarily in efficiently marketing the bonds and not in evaluating the risks of a default that may come, if at all, in the distant future (Choi et al. 2017, Gelpert et al. 2019, Scott et al. 2024). Moreover, the stickiness of the standard language in boilerplate contracts increases the likelihood that once a landmine is introduced into the pool of boilerplate terms in the market it will persist and eventually become part of a new standard form.⁷ By simply opening a range of new interpretive possibilities, often years after a contract is executed, these modifications of standard language expose the contracting parties to unexpected litigation risk.⁸

⁶In designating a mutation to the standard form as a harmful landmine, we rely on a single criterion: Has the aberrant language been used by at least one party in a restructuring negotiation as leverage in their demand for a pricing concession? These landmines have been part of the discussions over sovereign restructurings in multiple recent debt crises, including in Greece, Cyprus, Venezuela, Ukraine, Zambia, Sri Lanka, and Russia (Scott et al. 2023).

⁷Commercial attorneys rarely draft contract clauses from scratch. Instead, contracts are drafted based on prior contract language. Problems arise when a commercial party uses prior language to draft a different type of contract from the precedents they are relying on. Shocks may occur—such as a court interpreting a particular term contrary to the intent of the contracting parties—that require a change in the contract language. Unfortunately, individual drafting attorneys are unlikely to respond to the shock by revising the standard terms unless they can coordinate with others. This creates a collective action problem: Contracting parties worry that any change they make unilaterally will be viewed negatively by the market if the rest of the market has not changed the boilerplate language (see, e.g., Schwartz & Scott 2021).

⁸Landmines are formulations that contracting parties would not typically agree to voluntarily, and they can have distributional and social welfare consequences. In the sovereign context, some landmines favor the

The most salient example of the cost of dangerously ambiguous language in standard form boilerplate is the *pari passu* clause found in virtually all sovereign bond contracts (Choi et al. 2018, Weidemaier et al. 2012).⁹ Senior practitioners had viewed that clause indulgently for many years. They did not understand its origins, but in the common understanding, *pari passu* was an inconsequential clause in the agreement simply specifying how much the creditor would be repaid. Drafters speculated that the clause may have been imported into sovereign bonds as a result of having been used as a precedent in secured sovereign lending instruments and corporate bonds (Gulati & Scott 2013). The meaning of the clause was unclear in the sovereign bond context, but it was seen as harmless and not worth the cost of deletion once it had become part of the standard form.

Then, in 2011, activist creditors successfully held out from a debt-restructuring offer by Argentina after asserting a novel—and widely condemned—interpretation of the clause (Gulati & Scott 2013). Relying on an expert opinion from a law professor and an earlier court opinion from a commercial court in Brussels, the holdout creditors successfully claimed that the clause was an agreement among the creditors that would be breached if some but not all of the creditors accepted the debtor's settlement offer (Gulati & Scott 2013). The creditors who objected thus could enjoin the consenting creditors from receiving any payment under the restructuring agreement. The ambiguous language in the clause thus permitted opportunistic creditors to force a multibillion-dollar settlement in their favor, even though the pro-creditor interpretation was wholly inconsistent with current market practice and understanding (Gulati & Scott 2013).

Contractual landmines such as the *pari passu* clause typically are not discovered until the debtor faces the prospect of a default. An example of the shift in perspective that a default provides occurred with Russia's sovereign bonds in the wake of the Ukrainian invasion in early 2022. Russian bonds at the time were trading at or above par—Russia was a strong credit. But the invasion and resulting Western sanctions, including constraints on Russia's ability to make payments to foreign creditors, meant that Russia was sure to default. There now was reason to focus on the contract terms in the Russian bonds that had previously been given little attention. To the shock of many, more than half a dozen landmines were discovered in the Russian bond contracts—many of which had the potential to damage the interests of either the creditors or the debtor (Scott et al. 2023; Weidemaier & Gulati 2022a,b).

So defined, landmines in sovereign bond contracts have two elements. First, the parties initially believe they have contracted for a standard market set of provisions—provisions that mirror the purposes of the underlying transaction. And second, when a debt crisis looms, litigation counsel for one side or the other searches for a linguistic irregularity allowing it to argue for a meaning that gives their client an unexpected advantage in the ongoing efforts to resolve the crisis or restructure the debt. But for this strategy to succeed, there must be landmines in the first place. Our preliminary study of the sovereign debt market suggests that there are a lot of these landmines, more than theory assumes.

Once we developed a set of contemporary landmines in sovereign bond contracts that we could analyze with data, it was helpful to develop categories of these landmines so that we could examine whether there are differences in the frequency and durability of the aberrant terms that map on to the categories. The landmines we have discovered to date, combined with interviews with experts

sovereign, and some favor activist creditors. The foregoing results in disputes that pit landmines against each other whenever the sovereign loan is in distress. Once distress hits, the search to find landmines, the disputes over the meaning of those landmines, and negotiation delays all negatively affect social welfare (while also having distributional consequences).

⁹The typical *pari passu* clause provides, *The Notes rank, and will rank, pari passu with all unsecured External Indebtedness of the Republic.*

in the industry, have given us some clues (Scott et al. 2024). And adding in background realities about the way sovereign debt contracts are generated in the real world helps us add content to those clues and construct categories. Beginning with our assumption that the landmines we had discovered were prototypes, below is a basic categorization of the types of landmines that appear and persist in instruments such as sovereign bonds.¹⁰

Historical Holdovers

Some terms in the standard sovereign bond contract have no contemporary purpose. Terms appear that seem to have been carried over from the templates for syndicated loans. The provision may have made sense in the syndicated loan context but does not in the bond context. But once embedded, the clause survives multiple iterations of bond issuances, until at some point someone realizes that the term creates a problem. Other terms might have migrated into the modern sovereign bond contract from corporate bond instruments that served as drafting templates. Again, these seem to survive across multiple years of issuances and, indeed, spread across issuers. These holdovers from prior documentation are empty vessels that function as landmines when experienced litigators assert an unexpected meaning for the term.

Random Errors

A different source of landmines occurs when additional words get added, perhaps because the drafter (who may be inexperienced in the nuances of the sovereign bond contract) adds clarifying language to a clause that seems underspecified to them. To the extent this drafter does not really understand the sovereign context and inserts language that might have made sense in a different context (e.g., corporate bonds) but is problematic in the sovereign bond environment, there is the potential for a costly error to emerge.

Subversive Accretions

A third category of landmine can arise when a standardized, and well-understood, term is changed by the intentional addition (or omission) of a new phrase or clause because of a conflict at the deal-making stage that must be overcome to get the transaction done. For example, a local sovereign attorney general may worry that a waiver of sovereign immunity violates the domestic constitution. The lawyers for both sides, the sovereign and the underwriter, know that the attorney general is mistaken, but getting a legal memo written would take an undue amount of time, and the bonds would not be issued within a favorable market window. As an end result, the waiver-of-sovereign-immunity clause is modified to state something like “the sovereign waives sovereign immunity to the fullest extent, *albeit subject to the dictates of applicable law.*” To the extent that this additional vague clause is reproduced in deal after deal and there is no clarification of what it actually means, this is a landmine if the sovereign ever defaults. And to the extent this particular type of landmine seems to consistently favor the sovereign side (consistent with the sovereign lawyers having control of the drafting and the underwriter lawyers being concerned primarily with getting the deals done), one might see these changes as having a subversive element.

Obsolescence

Obsolescence is a fourth landmine category. Here, a provision becomes obsolete because technology or new legislation changes the legal context, or the world just generally moves on. Imagine,

¹⁰Examples of each of the following categorizations are explained and analyzed by Scott et al. (2024).

for example, a clause that was designed primarily for a world of bearer bonds that becomes obsolete because no one uses bearer bonds anymore. That clause, if it is not removed, is a potential source of mischief for a party who asserts a meaning for the clause that was not contemplated originally. Obsolete terms are a cousin of the historical holdover: These terms become landmines when changes in the law or the economic environment cause the standard clause to no longer fit the current context. More troubling, an inapt clause may be susceptible to a new meaning that functions to impair the interests of the party the clause was initially designed to protect.

CONCLUSION

The current research on commercial boilerplate that focuses on understanding the processes of contract production and evolution is among the most exciting in the field of contract law. Contract law scholarship and doctrine have long assumed, and rarely questioned, an optimal design paradigm as a core foundation. This is particularly so for high-dollar value contracts among sophisticated parties. But this assumption of optimal design is at odds with the fact that these transactions often occur in thick markets and must be standardized and produced rapidly. Those latter factors—the production process, so to speak—cut against any transaction fitting the optimal design paradigm. That means, in turn, that it is imperative that we better understand the production process for contracts so that we can determine how contract law and theory should adjust to these new realities. Even as we write this, the increasing incorporation of artificial intelligence in the production of contracts is changing ground-level realities beyond what is discussed in much of the literature we cite and discuss here (for discussions, see, e.g., Arbel & Hoffman 2024, Casey & Niblett 2017).

For reasons of space, we have given short shrift to several emerging areas of research—many of which will likely characterize the next generation of research on boilerplate contracts. Among them are (a) the interpretive techniques courts should use in tackling boilerplate;¹¹ (b) how boilerplate evolves in markets as a function of levels of market power (Marotta-Wurgler 2008); (c) how boilerplate evolves as a function of court decisions (Schwarcz 2021); (d) the impact of the presence of standard setting in evaluating firms and organizations in certain sectors (Davis 2006, Drahozal 2017); (e) the psychology of boilerplate users (Wilkinson-Ryan 2014, 2017); (f) boilerplate pricing (Choi et al. 2011); (g) whether there are differences among boilerplate provisions, with some being more or less boilerplate than others (Choi et al. 2023a; Coyle 2018, 2019); and (h) the effects of network connections among lawyers across and within firms in the evolution and spread of boilerplate (Jennejohn et al. 2022). In addition, the phenomenon of boilerplate exists in areas outside of contracts, including most notably corporate disclosures in Securities and Exchange Commission annual and quarterly filings.¹²

¹¹Although courts, for the most part, treat boilerplate provisions like any other contracts, there has emerged a literature discussing alternatives to pretending that these contracts come anywhere close to the optimal bargain paradigm (see, e.g., Ben-Shahar & Strahilevitz 2017, Bernstein 2017, Boardman 2006, Choi & Gulati 2006, Choi et al. 2017, Coyle & Weidemaier 2018, Gulati & Kahan 2021, Hoffman 2023, Klass 2019).

¹²Risk factor disclosures, for example, in Form 10-K annual filings, contain a high degree of near-identical language across different companies (see Choi et al. 2024, Nelson & Pritchard 2016). For securities disclosures, there are similar trade-offs as in contract. Disclosure design focuses on providing investors value-increasing information, either because investors value such disclosures (and companies benefit when investors are provided disclosures) or because securities law compliance requires such disclosure. Disclosure production, in contrast, focuses on the cost of putting the value-increasing information into words. These costs include not only the direct drafting costs but also the cost to a company that deviates from the standard boilerplate disclosure, including the signal sent to investors and plaintiffs' attorneys that more scrutiny may be warranted

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for the company. Companies must balance design and production costs. This trade-off may lead companies to sometimes use outdated boilerplate disclosures about risks that a company faces, for example, failing to update risk disclosures about the likely effects of the COVID-19 pandemic on a business after the widespread availability of effective vaccines. Such behavior would be inconsistent with a paradigm that assumes that companies regularly provide public investors with material updates to risk disclosures.

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