

ERROR-RESILIENT CONSUMER CONTRACTS

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ABSTRACT

When firms contracting with consumers make mistakes, people get hurt. Inaccurate billing, misapplied payments, and similar problems push lucky consumers into Kafkaesque customer service queues—and unlucky ones off the financial cliff. Despite significant regulatory interventions, firms contracting with consumers continue to struggle to accurately bill customers, update accounts, and process payments. Firms largely rely on technology, especially databases and software, to discharge these servicing obligations. This technology must accommodate firms' innovations in their contracts, shifting governmental regulations, and consumers' unpredictable behavior. Given the complexity of servicing, even when firms invest significantly in technology, it will inevitably produce mistakes. When firms skimp on their servicing technology, errors that harm consumers become even more likely. And even if it were possible to build perfect servicing technology, the costs that firms would pass on to consumers may outweigh the benefits. The challenge, then, is how to reduce customer harm, accepting that perfect servicing is neither possible nor desirable.

This Article argues that structural improvements to consumer contracts can make them more resilient to errors. Far from being new, these structural improvements have long been recognized in contract theory. But the resulting theoretical insights have not been applied to

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modern consumer financial contracts. Specifically, modularity and formalities improve resilience by mitigating the complexity of servicing, regulation, and consumer behavior. While mitigating complexity may reduce errors ex ante, the bigger payoff is in simplifying customer redress if and when errors occur. Intervening in the structure of consumer financial contracts is an underappreciated tool for achieving substantive consumer protection.

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INTRODUCTION

It is difficult to pick one instance of bad account data wreaking havoc on consumers' financial lives. There are too many. From the financial crisis of 2008 to the COVID-19 pandemic beginning in 2020, bad data flourishes in periods of upheaval. Over sixty days in the early spring of 2020—as cities, then counties, then states shut down their economies to control the spread of the novel coronavirus—the unemployment rate surged from 3.5 percent to 14.7 percent.¹ An astounding 23.1 million workers were out of a job.² Commentators quickly wondered how these people were going to pay their

1. BUREAU OF LAB. STAT., U.S. DEP'T OF LAB., THE EMPLOYMENT SITUATION—JUNE 2020 tbl.A-1 (2020), https://www.bls.gov/news.release/archives/empstat_07022020.pdf [<https://perma.cc/7GZ5-DJA7>].

2. *Id.* at tbl.A.

mortgages.³ The de facto regulators of the home mortgage market⁴—the Federal Housing Finance Agency (“FHFA”) along with government-sponsored enterprises (“GSEs”) Fannie Mae and Freddie Mac⁵—quickly announced borrowers impacted by the coronavirus were eligible for up to twelve months of forbearance.⁶ But while the FHFA and GSEs can announce changes in the mortgage market, they are not the entities to which borrowers make their monthly payments. Private for-profit firms called servicers are responsible for keeping records of borrowers’ accounts, sending statements, accepting payments, processing forbearance requests, and, when things go south, completing foreclosures. In other words, servicers are largely responsible for firm-side performance on the debt contract. Any

3. See, e.g., Conor Dougherty, Matthew Goldstein & Emily Flitter, *Racing To Head Off Evictions and Foreclosures*, N.Y. TIMES (Mar. 18, 2020), <https://www.nytimes.com/2020/03/18/business/economy/coronavirus-evictions.html> [<https://perma.cc/2WU5-23GQ>] (“The financial shock from the coronavirus pandemic threatens the housing security of millions of Americans, prompting federal, state and local officials—and even judges and the police—to move quickly to ward off foreclosures and evictions.”); Richard Cordray, Opinion, *How To Avert Another Foreclosure Crisis in the Covid-19 Economic Fallout*, WASH. POST (May 11, 2020, 6:00 AM), <https://www.washingtonpost.com/opinions/2020/05/11/how-avert-another-foreclosure-crisis-covid-19-economic-fallout> [<https://perma.cc/DY7M-JEHS>] (“With job losses on that shattering scale, recovery won’t happen anytime soon, regardless of the scope of federal stimulus. As people fall behind on their bills, including mortgage and rent payments, an important question looms: Can we avert another foreclosure crisis?”); Jacob Rosenzweig, *Utah Must Stop Evictions and Foreclosures Now*, SALT LAKE TRIB. (Mar. 25, 2020, 7:00 PM), <https://www.sltrib.com/opinion/commentary/2020/03/26/jacob-rosenzweig-utah> [<https://perma.cc/GU9S-3Q7U>] (“Recognizing that tenants and homeowners cannot make monthly payments while unable to work, many governments are taking measures to keep people inside for the sake of public safety.”). Several municipalities and states have tried to protect renters impacted by the coronavirus from eviction. See *COVID-19 and Changing Eviction Policies Around the Nation*, EVICTION LAB, <https://evictionlab.org/covid-eviction-policies> [<https://perma.cc/4TRS-XBR3>] (cataloging changes to eviction and foreclosure laws in the wake of the COVID-19 pandemic).

4. Housing and Economic Recovery Act of 2008, 12 U.S.C. § 4511. The relationship between the government-sponsored enterprises (“GSEs”) and the federal government remains complicated and disputed. See *Collins v. Yellen*, 141 S. Ct. 1761, 1770–75 (2021). Mercifully, the details are inessential for this Article.

5. Fannie Mae and Freddie Mac are federally chartered enterprises that create liquidity in the home mortgage market by purchasing mortgages meeting certain standards. *Fannie Mae and Freddie Mac*, FED. HOUS. FIN. AGENCY, <https://www.fhfa.gov/about-fannie-mae-freddie-mac> [<https://perma.cc/58CL-6POA>]. Although Fannie Mae and Freddie Mac purchase mortgages, other firms collect payments from borrowers and otherwise service the loans. See generally FANNIE MAE, *SERVICING GUIDE: FANNIE MAE SINGLE FAMILY* (2019) (outlining de facto regulations for firms doing business with Fannie Mae). Because the GSEs can direct servicers to take certain actions, they act as de facto regulators over servicers.

6. *About Fannie Mae’s COVID-19 Payment Deferral*, FANNIE MAE, <https://www.fanniemae.com/here-help-homeowners/introducing-covid-19-payment-deferral> [<https://perma.cc/W2B6-25S2>]; FANNIE MAE, LL-2020-02, LENDER LETTER 7 (2020), <https://singlefamily.fanniemae.com/media/22261/display> [<https://perma.cc/7LQH-W8Y5>].

forbearance program is meaningless unless and until these services are implemented.

Servicing typically involves four elements: customer payments, software, databases, and people who enter data into the databases. Each is imperfect in its own way and in ways that tend to amplify the imperfections in the other three. Servicers have largely automated their processes through a series of databases and software.⁷ Even paper notices are typically printed and mailed with minimal human intervention. More so than anything else, these automated systems are made of millions of lines of computer code. The code actually performs firms' contractual obligations and results in a significant, long-term capital expense. Any change in the process requires a change in the code and therefore in capital investment.

Fannie Mae's coronavirus relief instructions mandated servicers update their processes—fast.⁸ Not only did servicers need to train personnel to handle requests for relief, but they needed to code the new forbearance into their system so borrowers would see it in their online accounts, and on statements, all while ensuring borrowers in forbearance did not receive the dunning letters and collections calls that missing payments would normally trigger.

Servicers also needed processes for communicating with the GSEs. These new rules came down so fast that even Fannie Mae could not properly update the database that servicers use to communicate with it. Fannie Mae's system asked servicers to select the reason for the forbearance from a drop-down menu,⁹ but Fannie Mae could not program its new coronavirus relief program into that drop-down menu in time for the program's rollout. As a work-around, it instructed servicers to select "022, Energy – Environment Costs" if borrowers needed a coronavirus forbearance.¹⁰ Where servicers previously would have selected "022, Energy – Environment Costs," Fannie Mae

7. *See infra* Part I.B.4.

8. Emergency Economic Stabilization Act of 2008, 12 U.S.C. § 5201 (authorizing the Department of the Treasury to intervene in the home mortgage industry; it did so through the Home Affordable Modification Program, under which it and FHFA would set guidelines about how servicers were to modify borrowers' loans to reduce their payments and, hopefully, prevent foreclosure).

9. FANNIE MAE, REPORTING COVID-19 RELATED FORBEARANCE AS PART OF REPORTING A DELINQUENT MORTGAGE LOAN TO FANNIE MAE 1 (2020), <https://singlefamily.fanniemae.com/media/22366/display> [<https://perma.cc/NWT9-CL5H>].

10. FANNIE MAE, LL-2021-02, LENDER LETTER 4 (2021), <https://singlefamily.fanniemae.com/media/24891/display> [<https://perma.cc/CE6V-8X82>]. This workaround remained in place even a year into the COVID-19 pandemic. *See id.* at 1.

instructed them to select “007, Excessive Obligations.”¹¹ Going forward, all aspects of servicers’ processes—each individual customer service agent, their training materials, their own computer systems—would need to know “Energy – Environment Costs” meant “coronavirus” and energy issues now belonged under the generically named “excessive obligations.”¹²

Pause for a moment. Did you have to read the paragraph above twice? Did you skim it and hope for the best? Are you bored and tempted to stop reading altogether? That confusion, dread, and avoidance is now baked into millions of thirty-year mortgages.

While an extraordinary event triggered these system-wide updates, a multitude of little events that require updates to the code servicing consumer financial contracts occur every year. Federal regulations change, state regulations change, customers move, borrowers are called up for active military service,¹³ natural disasters strike,¹⁴ and there is an untold number of personal accommodations that borrowers seek on obligations.¹⁵ Over time and millions of accounts, seemingly extraordinary events are not rare.¹⁶ The Great Recession and the Foreclosure Crisis that followed occurred only a decade before the COVID-19 pandemic struck the world. Then as now, there were top-down relief efforts that required servicers to update their technology to modify loans.¹⁷ Few, if any, servicers made the necessary updates without significant delay and new harms to customers.¹⁸ Even when Treasury generously set the bar for servicer

11. *Id.* at 4.

12. *See id.*

13. *See* Servicemembers Civil Relief Act, 50 U.S.C. §§ 3951–3959 (providing some relief for servicemembers called up for active service regarding rent, mortgages and similar obligations).

14. *See* ALYS COHEN, MARGOT SAUNDERS, ODETTE WILLIAMSON & EMILY GREEN CAPLAN, NAT’L CONSUMER L. CTR., OBTAINING MORTGAGE RELIEF FOR VICTIMS OF NATURAL DISASTERS: A PRACTICE GUIDE FOR ADVOCATES 4 (2020), <https://www.nclc.org/images/pdf/pr-reports/report-mortgage-relief-for-victims-of-disasters.pdf> [<https://perma.cc/9U72-UK3L>].

15. *See generally* Danielle D’Onfro, *Smart Contracts and the Illusion of Automated Enforcement*, 61 WASH. U. J.L. & POL’Y 173 (2020) (discussing the reasons why servicers cannot expect business as usual over the life of a loan).

16. *See id.* at 182.

17. *E.g.*, Emergency Economic Stabilization Act of 2008, 12 U.S.C. §§ 5211–5241 (authorizing the creation of programs like the Home Affordable Mortgage Program (“HAMP”)).

18. *See* CAL. REINVESTMENT COAL., CHASM BETWEEN WORDS AND DEEDS VI: HAMP IS NOT WORKING 1, 4–5 (2010), https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0923-Stein-Exhibit2.pdf [<https://perma.cc/GE2R-J5ML>] (explaining servicers’ difficulty processing the documentation required by the HAMP program and delays in reaching decisions).

compliance at having errors in no more than 5 percent of all accounts,¹⁹ it found error rates over 20 percent in even the largest and most trusted names in the industry.²⁰ Technology problems had created compliance problems.

The takeaway from the past decade of servicing follies has to be that midstream adjustments to servicing software are difficult to get right. Although technology had made much of the world borderline magical, building software is hard. Consider Fannie Mae’s drop-down menus—building, never mind populating, even simple databases is laborious. Firms undertake this labor because the results are often worth it, but the process is far from painless.

The conflict between the terms of a contract and the software that runs it has been most visible in the home mortgage industry, but it likely exists across consumer finance. All postpaid contracts, whether from medical services providers, water companies, telecom companies, credit card issuers, auto lenders, or mortgagees, are consumer finance contracts. The consumer incurs an obligation at Time 1 and receives a bill at Time 2. This is debt. Some firms may not view their primary business as debt servicing, but it is part of their business nonetheless.²¹ And if firms are not investing in technology to service this debt as if it is a core feature of their businesses, servicing problems are all but guaranteed.

Because building new technology is so costly, many companies have significant technical debt.²² Technical debt is a metaphor from the

even after they received the required documentation); David Dayen, *The Government Program that Failed Homeowners*, GUARDIAN (Mar. 30, 2014, 10:00 AM), <https://www.theguardian.com/money/2014/mar/30/government-program-save-homes-mortgages-failure-banks> [https://perma.cc/TT3Z-52QB] (reporting that servicers “represented the single biggest obstacle to stopping a wave of foreclosures”); ALYS COHEN, ARIELLE COHEN & DIANE E. THOMPSON, NAT’L CONSUMER L. CTR., AT A CROSSROADS: LESSONS FROM THE HOME AFFORDABLE MODIFICATION PROGRAM (HAMP) 31 (2013), https://www.nclc.org/images/pdf/foreclosure_mortgage_loan_mod/hamp-report-2013.pdf [https://perma.cc/7FBD-RP2K] (“Under HAMP, we have learned—again and again—that servicers cannot process paperwork. Servicers fail to correctly deliver even basic, mandated form documents. Letters are mailed to the wrong address, or not sent at all . . . Servicers routinely misenter information and miscalculate information . . .”).

19. U.S. DEP’T OF TREAS., MAKING HOME AFFORDABLE: PROGRAM PERFORMANCE REPORT THROUGH APRIL 2011, at 37 (2011), https://fraser.stlouisfed.org/files/docs/historical/fct/treasury/treasury_hamp_report_201104.pdf [https://perma.cc/V68D-8627].

20. *Id.* at 19, 25 (finding Bank of America and Chase miscalculated borrowers’ incomes 22 percent and 31 percent of the time, respectively).

21. See D’Onfro, *supra* note 15, at 179.

22. Edith Tom, Aybüke Aurum & Richard Vidgen, *An Exploration of Technical Debt*, 86 J. SYS. & SOFTWARE 1498, 1498 (2013) (estimating global technical debt at \$500 billion in 2010, with the potential to double in five years).

financial industry to explain how the presence of a legacy software system slows overall technological development.²³ It is “the gap between the current state of a software system and some hypothesized ‘ideal’ state in which the system is optimally successful in a particular environment”²⁴ and refers to “a backlog of deferred technical problems.”²⁵ This technical debt makes firms’ software more difficult and more expensive to update over time.²⁶ Yet, firms’ abilities to update their software drives their abilities to meet their ongoing regulatory obligations.

Software also drives firms’ abilities to meet their contractual obligations.²⁷ In consumer finance, business innovation is contract innovation—changes to the terms of the contracts offered to consumers. Contract innovations require firms to update their software just as regulatory innovations do. Because the terms of many contracts are so interlocked, even small changes may require pervasive updates in servicing software. When contract innovation outpaces technology investments, errors follow.

The last decade has also shown many firms either cannot or will not align their technology with their contractual and regulatory obligations before customer harm occurs. Firms face neither legal nor market nor reputational pressure to do so.²⁸ As long as servicing

23. Ward Cunningham coined the term “technical debt” in 1992, explaining,

Shipping first time code is like going into debt. A little debt speeds development so long as it is paid back promptly with a rewrite. . . . The danger occurs when the debt is not repaid. Every minute spent on not-quite-right code counts as interest on that debt. Entire engineering organizations can be brought to a stand-still under the debt load of an unconsolidated implementation, object-oriented or otherwise.

Ward Cunningham, Address at the Seventh Annual Conference on Object-Oriented Programming Systems, Languages, and Applications: The WyCash Portfolio Management System (Mar. 26, 1992) (transcript available at <http://c2.com/doc/ooopsla92.html> [<https://perma.cc/P89D-WQAB>]).

24. Nanette Brown, Yuanfang Cai, Yuepu Guo, Rick Kazman, Miryung Kim, Philippe Kruchten, Erin Lim, Alan MacCormack, Robert Nord, Ipek Ozkaya, Raghvinder Sangwan, Carolyn Seaman, Kevin Sullivan & Nico Zazworka, *Managing Technical Debt in Software-Reliant Systems*, in FOSER '10: PROCEEDINGS OF THE FSE/SDP WORKSHOP ON FUTURE OF SOFTWARE ENGINEERING RESEARCH, at 47, 48 (ACM Press, 2010).

25. Richard Torkar, Pau Minoves & Janina Garrigós, *Adopting Free/Libre/Open Source Software Practices, Techniques and Methods for Industrial Use*, 12 J. ASS'N INFO. SYS. 88, 99 (2011).

26. Tom, Aurum & Vidgen, *supra* note 22, at 1499.

27. *But see* Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 YALE L.J. 541, 544 (2003) (disputing whether contract law governs contracts in which a firm sells to an individual on the grounds that these contracts “are primarily regulated by consumer protection law, real property law (most leases), and the securities laws”).

28. *See infra* Part II.

platforms remain hobbled by technical debt, subpar servicing will abound. Regulating servicing outcomes could theoretically create the necessary incentives for firms to maintain their servicing systems, but it has not yet done so despite years of opportunity.²⁹ The problems with ex post regulation of servicing outcomes are akin to the problem of technical debt: fixing a problem can be more difficult than preventing one.

Improving servicing must start with the contracts that create the relationships between firms and consumers.³⁰ These contracts need to account for technology as it exists. Focusing on the contract-technology interface is a fundamental shift in thinking about consumer protection. U.S. consumer protection law has hesitated to intervene directly in the bargains that consumers and firms strike. Instead, the law tends to prefer intervening in the contracting process, often with mandatory disclosures of problematic terms in lieu of limitations on those terms.³¹ With mixed success, disclosures attempt to protect consumers as they choose to enter into contracts.³² But helping consumers choose better contracts accomplishes little if firms fail to perform their obligations under the contracts. Improved firm performance will not happen without contracts that better interface with servicing technology and that create lifelines for when the inevitable errors occur.

Accepting that technical debt is not going anywhere and that contracts will sometimes get ahead of the technology that services them, this Article turns to the structure of the contract and explores whether it can be made more functional given these constraints. It finds two points of entry. The first is in the modularity of the contract. Modularity refers to the extent to which the terms of the contract are dependent on each other. In highly modular contracts, errors are

29. See *infra* Part II.B.1.

30. Despite their dependency on software, the contracts at the heart of this Article are not “smart contracts,” but their terms are nevertheless manifest in code.

31. See Jean Braucher, *Form and Substance in Consumer Financial Protection*, 7 *BROOK. J. COR. FIN. & COM. L.* 107, 108–10 (2012) (tracing the dominance of regulation through disclosure regimes).

32. See Florencia Marotta-Wurgler, *Will Increased Disclosure Help? Evaluating the Recommendations of the ALI’s “Principles of the Law of Software Contracts,”* 78 *U. CHI. L. REV.* 165, 168 (2011) [hereinafter Marotta-Wurgler, *Will Increased Disclosure Help?*]; Lauren E. Willis, *Performance-Based Consumer Law*, 82 *U. CHI. L. REV.* 1309, 1321–26 (2015). See generally Florencia Marotta-Wurgler, *Does Contract Disclosure Matter?*, 168 *J. INST. & THEORETICAL ECON.* 94 (2012) (studying the relationships between mandating disclosure and contract readership, understanding, and purchase decisions).

contained, whereas in highly interconnected contracts, errors metastasize quickly.

The second point of entry is in formalities: acts that contracting parties must perform to avoid a penalty set by the formality.³³ Formalities regulate the contract itself instead of the substance of the contract, although they may ultimately shape the substance of the contract. Modern formalities are often structured as disclosure and filing requirements. In intellectual property and secured transactions, the formalities historically required the filing of literal forms.³⁴ The Securities and Exchange Commission has an extensive list of forms that firms must use to access and provide disclosures to the capital markets.³⁵ There, the formality is not the information disclosed, but the act of disclosing particular categories of information in proscribed formats. The formality is the act of standardizing and publishing data.

Writing about copyright, Professor Christopher Sprigman describes these filing requirements as “procedural mechanisms . . . that helped to maintain copyright’s traditional balance between providing private incentives to authors and preserving a robust stock of public domain works from which future creators could draw.”³⁶ He further explains “these formalities created data about the existence and duration of copyright for the work in question, and about who owned the copyright.”³⁷ The formalities that follow real estate transfers and secured transactions are similar: they produce data about particular rights and, in so doing, help parties who interact with those rights in the future understand their scope. Indeed, in the commercial lending space, some commentators have argued the formalities shield some assets from encumbrances, thereby preserving their value for the benefit of noncreditors.³⁸ That is, these formalities serve the same functions in debt that Sprigman identifies in copyright.

33. See Eric A. Posner, *Norms, Formalities, and the Statute of Frauds: A Comment*, 144 U. PA. L. REV. 1971, 1981 (1996) (explaining that formalities “restrict[] freedom of action”); see also Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 124 (1989) (discussing how legal formalities can channel parties into certain behaviors).

34. Here, the form is the grown-up version of a worksheet.

35. See *Forms List*, SEC, <https://www.sec.gov/forms> [<https://perma.cc/H8AV-769L>] (listing and explaining the dozens of forms that firms must use as they interact with investors and report on their dealings to the Securities and Exchange Commission).

36. Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485, 487 (2004).

37. *Id.*

38. See Melissa B. Jacoby & Edward J. Janger, *Tracing Equity: Realizing and Allocating Value in Chapter 11*, 96 TEX. L. REV. 673, 696–706 (2018) (“The secured creditor is not . . . entitled

In contract, the formalities are things like the statute of frauds' requirements that agreements be in writing, signed, and, historically, sealed. Parties can and do form extensive agreements that fail to satisfy these formalities, but they cannot reliably enforce them at law.³⁹ Contract formalities such as the statute of frauds and the consideration doctrine are about preventing fraud⁴⁰ and its cousin, misunderstanding. Formalities help the parties, and courts, speak the same language. Although they cannot eliminate fraud, they can reduce it.⁴¹

The historical trend has been for states and courts to ease up on formalities in contract law.⁴² This is a mistake. The desirability of any particular formality may vary over time.⁴³ That changes in business norms make some formalities less desirable over time does not speak to the usefulness of formalities.⁴⁴

At the height of the Foreclosure Crisis, Professor David Dana argued it was wrong to dismiss the formalities that continue to accompany home mortgages as *mere* formalities.⁴⁵ In his view, mortgage formalities matter for three distinct reasons: First, they may help homeowners facing foreclosure to rightfully stay in their homes.⁴⁶ Second, “the formalities express[] the significant value that the home serves in people’s lives and the vitality of communities.”⁴⁷ That is, anything other than a strict application of formalities “communicates this message: the law will hold the ‘little people’ to strict compliance regarding their legal obligations under mortgages and notes, while it excludes large financial institutions like Chase and Citibank from their

to the value of proceeds unless the creditor can satisfy the state law and bankruptcy law tracing requirements.”).

39. Parties to agreements that fail to satisfy formalities sometimes find relief in equitable doctrines like *quantum meruit*, but other times have no remedy in law or equity. See Charles Silver, *Unloading the Lodestar: Toward a New Fee Award Procedure*, 70 TEX. L. REV. 865, 880 n.61 (1992).

40. Posner, *supra* note 33, at 1982.

41. See *id.* at 1977. Posner argues that “[t]he purpose of contract formalities such as the Statute of Frauds is to prevent people from defrauding victims with whom they do not necessarily have a contractual relationship.” *Id.* at 1971.

42. See David A. Dana, *Why Mortgage “Formalities” Matter*, 24 LOY. CONSUMER L. REV. 505, 506–07 (2012).

43. Posner, *supra* note 33, at 1983 (explaining that “formalities may be intrinsically unstable” as courts attempting substantive justice weaken formalities when courts perceive parties to be manipulating the formalities).

44. *Id.* at 1982.

45. Dana, *supra* note 42.

46. *Id.* at 507.

47. *Id.*

legal obligations when they are inconvenient.”⁴⁸ Dana argues we should all feel “normative discomfort” with this message⁴⁹—he is right. Third, and finally, he argues strict adherence to formalities, and perhaps even additional formalities, might “create an incentive for more care” in the processes that caused the most customer harm during the Foreclosure Crisis.⁵⁰

Dana’s three purposes partially overlap with Professor Lon Fuller’s 1941 theoretical framework in which he identified three functions of formalities: evidentiary, cautionary, and channeling.⁵¹ In their evidentiary function, as the name suggests, formalities evince that the agreement exists.⁵² In their cautionary function, which Fuller sometimes calls the deterrent function, formalities “induc[e] the circumspensive frame of mind appropriate” for parties, making a significant commitment.⁵³ Finally, in their channeling function, formalities nudge the parties’ intentions into objective manifestations upon which courts and others can rely.⁵⁴ Using an image from jurist Rudolf von Jhering, Fuller explains the channeling function is the stamp that turns a lump of metal into a coin.⁵⁵ Professors Ian Ayres and Robert Gertner adopt and expand on Fuller’s framework, updating a functional analysis of contract formalities with a more modern understanding of contracts.⁵⁶

Taking modularity and formalities together, this Article’s main contribution is to theorize how the structure of consumer contracts can make them more resilient to errors. As numerous commentators have noted, contracts between firms and consumers differ in many ways from contracts bargained between equally sophisticated parties.⁵⁷ Professors Alan Schwartz and Robert Scott go so far as to suggest these contracts were the subject of consumer protection law more than the

48. *Id.* at 508.

49. *Id.*

50. *Id.*

51. Lon L. Fuller, *Consideration and Form*, 41 COLUM. L. REV. 799, 800–01 (1941).

52. *Id.* at 800; *see also infra* Part III.B.1.

53. Fuller, *supra* note 51, at 800; *see also infra* Part III.B.2.

54. Fuller, *supra* note 51, at 801; *see also infra* Part III.B.3.

55. Fuller, *supra* note 51, at 801 (discussing Jhering).

56. Ayres & Gertner, *supra* note 33, at 123–25.

57. Ian Ayres & Alan Schwartz, *The No-Reading Problem in Consumer Contract Law*, 66 STAN. L. REV. 545, 558–60 (2014) (discussing how consumer contracts are procedurally different from bargained contracts); Arthur Allen Leff, *Contract as Thing*, 19 AM. U. L. REV. 139, 145–47 (1970) (same).

law of contract itself.⁵⁸ But using contract theory to interpret consumer contracts not only deepens our understanding of consumer contracts, it also enriches contract theory. While consumer financial contracts are the focus here, some of the insights apply to contracts broadly.

This Article's second contribution is to show formalities can be a bridge between the contract and the technology that interprets the contract. Where prior theory has focused on formalities' key role in judicial interpretation of contracts,⁵⁹ this Article uses contract theory to demonstrate they are useful in contract performance. Namely, for consumers, formalities may facilitate servicing.

The mechanism by which formalities can improve servicing is admittedly counterintuitive. After all, formalities are supposed to be quirky ceremonial appendages to contracts, whereas servicing is primarily an automated process of moving information among databases. But formalities are well suited for the marriage of contract and technology found in most consumer financial contracts. Almost by definition, formalities produce more standardized data. Formalities take complex contractual arrangements and simplify them into their most essential stakes. Just as formalities provide evidence for courts interpreting contracts in formats that make sense to the court, they do the same for the computer systems that perform the contracts. At the same time, formalities act on the parties drafting the contracts by incentivizing deliberation about how computers (or a court) will read the forms. They also facilitate enforcement if and when a party breaches its obligations.

This Article's third contribution is to show contract formalities are an essential regulatory tool in consumer contracts. Because consumers are ill-equipped to privately enforce consumer financial contracts against firms, regulatory enforcement is the game. Regulatory enforcement is impossible to disentangle from contract law because state and federal regulatory regimes look to the contracts struck between firms and consumers for much of their regulatory content. The focus tends to be on whether consumers received what they bargained for, rather than on setting price terms or prohibiting specific products. Formalities make the mutual obligation of consumer financial contracts obvious and in so doing, bolster their legitimacy.

This Article proceeds in four Parts. Part I explains servicing as firm-side performance of consumer financial contracts. Because this

58. See Schwartz & Scott, *supra* note 27.

59. Ayres & Gertner, *supra* note 33, at 125.

Article contemplates consumer financial contracts broadly, it will necessarily omit many of the details specific to particular kinds of consumer financial contracts. The goal of this Part is only to provide enough background information on consumer financial contracts to facilitate later discussion. Part II explains why standard market and regulatory tools have failed to promote accurate servicing of consumer financial contracts. This Part explains the urgency of experimenting with structural tools like modularity and formalities. Part III builds the central theoretical framework of the paper, laying out two structural improvements—modularity and formalities—that would make contracts more error resilient. In addition to potentially reducing the rate of servicing errors, these formalities would make the inevitable errors easier to resolve. Part IV then explores the implications and limitations of this theoretical framework.

I. SERVICING AS PERFORMANCE

This Part broadly describes consumer financial contracts and firms' postformation obligations to consumers under those contracts. Part I.A lays out the basic consumer financial contract. Part I.B then fills in the details that are common to most consumer financial contracts. Finally, Part I.C describes three additional complexities that occur regularly in consumer financial contracts but are not the same kind of core feature described in Part I.B. Taken together, they provide the first half of the story of how consumer financial contracts became a system of unilateral obligations.

A. *The Basic Consumer Financial Contract*

In the basic consumer financial contract, the consumer gets a good or a service at Time 1 in exchange for a promise to pay at Time 2. When there is a time lag between when consumers receive the good or service and when they pay for it, the contract creates a debt from the consumers to the company. In this way, all postpaid contracts are debt contracts.⁶⁰ Accordingly, all postpaid contracts are financial contracts.

60. Postpaid contracts as distinct from prepaid contracts are most visible in the mobile phone market. There, customers who can "pass" a credit check receive offers to enter into longer-term contracts with carriers that offer them flexible services that they pay for at the end of the month. Since consumers use services before paying for them, the consumer is effectively receiving credit from the carrier. This is in contrast to customers who cannot "pass" a credit check and therefore cannot qualify for a postpaid contract. Since firms view the risk that these consumers would use services that they could not then pay for at the end of the month as intolerably high, these consumers must prepay minutes or other services. In theory, consumers' abilities to

The financial part of a contract may be attached to sale and service terms that are more salient to consumers at the time of contract formation. For example, a consumer in need of mobile phone service is likely more focused on the terms of the phone service—minutes, data plan, coverage maps, and overall price—than on terms like how their phone company will apply their payments and what happens should they miss a payment. Nevertheless, the terms that govern the mechanics of the relationship between the consumer and the company—the servicing terms—are an integral part of contract performance. A phone company performs its contractual obligations to postpaid consumers both by providing phone service and by accepting and crediting ongoing payments from consumers. These obligations are contractual insofar as they arise from a relationship created by a contract,⁶¹ even if the contract leaves the details to the discretion of the firm or is silent about them altogether. Phone customers perform their contractual obligations by making payments to their phone companies and adhering to any applicable terms specific to the phone service.

Viewing servicing as outside the scope of the contract would render consumer contracts an anomaly within contracts. Servicing is performance. Consider its analog in a sales contract: A contracts to sell one widget per month to B for \$100 each. They agree A will deliver the widget on the first of the month, and B will pay by check at the time of delivery. If A delivers the first widget but refuses to accept B's payment, A cannot then send B a bill for \$125—the original sale price plus a late fee—and withhold future deliveries until B pays the additional fee. Here, A would be in breach for not accepting payment in the agreed form and for failing to deliver the widgets in later months. The terms dictating the method of payment are as much a part of the contract as the price terms. These terms impose obligations on the buyer to follow them and on the seller to accept them. Servicing consumer contracts is rarely this simple, but the idea is the same:

continue using the carriers' services stop when they use up their prepurchased credits. Such prepaid arrangements are effectively short-term loans from the customer to the firm.

There is a narrow category of consumer financial contracts that are not loans from a company to a consumer. In these, the consumer pays a company upfront, and then that company provides them with a financial service based on their upfront payment. Typically, these contracts convert consumers' money into transferrable electronic funds. Prepaid debit cards, electronic gift cards, and payments apps are examples of such. As this category matures, it may incur some of the same difficulties as do more traditional consumer financial contracts. For now, these contracts are beyond the scope of this Article.

61. See *supra* note 27 and accompanying text.

processing payments according to the contracts is performance of the contract.

B. Understanding the Basic Contract

Having described the most basic features of consumer financial contracts, it is time to talk about the details. These details are both descriptive and theoretical.

1. *Contract as Product.* The first feature is that consumers rarely have any opportunity to negotiate the terms of the contract.⁶² In lieu of negotiation, consumers may be selecting from a menu of contracts offered by a firm. The consumer must accept the terms of a particular contract as a condition of purchasing a good or using a service.⁶³ Consumers may have a menu of choices from a single firm, but they have no option to customize a consumer financial contract to their needs. The terms of the contract are functionally part of the product.⁶⁴ These are adhesion contracts.⁶⁵ Their departures from the norms of negotiated contracts are well covered in the literature⁶⁶; the literature

62. Friedrich Kessler, *Contracts of Adhesion—Some Thoughts About Freedom of Contract*, 43 COLUM. L. REV. 629, 632 (1943); Russell Korobkin, *Bounded Rationality, Standard Form Contracts, and Unconscionability*, 70 U. CHI. L. REV. 1203, 1204 (2003).

63. See Kessler, *supra* note 62 (explaining that when parties have a stronger negotiating position because either they have a monopoly or their competitors prefer to use the same terms, companies will offer standard contracts that the would-be purchaser must take or leave); Joshua Fairfield, *Smart Contracts, Bitcoin Bots, and Consumer Protection*, 71 WASH. & LEE L. REV. ONLINE 35, 42 (2014) (“Somewhere in the shift from dickered, black letter law-negotiated contracting to non-dickered, standardized, mass-market consumer contracting, the ability of consumers to negotiate their own contract terms vanished.”).

64. See Korobkin, *supra* note 62, at 1206 (“Terms that govern the contractual relationship between buyers and sellers are attributes of the product in question, just as are the product’s price and its physical and functional characteristics.”); James Gibson, *Vertical Boilerplate*, 70 WASH. & LEE L. REV. 161, 168 (2013) (“[A] boilerplate term is merely a product feature—no different from price . . .”).

65. Edwin W. Patterson, *The Delivery of a Life-Insurance Policy*, 33 HARV. L. REV. 198, 222 (1919) (introducing the concept of adhesion contracts to the literature and explaining that the party seeking the contract has “little choice as to its terms” and must adhere to them).

66. K. N. Llewellyn, *The Standardization of Commercial Contracts in English and Continental Law*. By O. Prausnitz, 52 HARV. L. REV. 700, 701 (1939) (book review) (“[W]hen contracts are produced by the printing press, with the fountain pen used not for recording thought but for authentication, the adequacy of the general law for filling gaps in the conscious bargain is flatly negated . . .”); Alfred W. Meyer, *Contracts of Adhesion and the Doctrine of Fundamental Breach*, 50 VA. L. REV. 1178, 1178 (1964) (“The vast majority of today’s ‘contracts’ are standardized forms, the counterpart of mass production and mass distribution of goods and services.”).

praising their efficiency is also thick.⁶⁷ For this Article, it matters that the product is the contract, even if the contract is barely visible to the consumer.

Even where companies offer consumers a menu of contract options, it is not obvious that firms would offer variation in the servicing terms because these are unlikely to be salient to consumers. As Professor Russell Korobkin observes, even rational consumers operate at best as “boundedly rational,” which limits the number of attributes that they can simultaneously weigh in decision-making.⁶⁸ Given these limitations, rational consumers ignore many attributes. Servicing terms live in the fine print, and it is almost a trope now to point out consumers do not read the fine print.⁶⁹ Indeed, it may be a stretch to assume consumers could understand these terms even if they wanted to do so.⁷⁰

2. *Standardization.* Consumer contracts’ second defining feature is that they are standardized or standardizable along two dimensions.⁷¹ First, firms may offer all consumers the same terms.⁷² Second, terms

67. See, e.g., Llewellyn, *supra* note 66, at 701 (“Nothing can approach in speed and sanity of readaptation the machinery of standard forms of a trade and for a line of trade, built to meet the particular needs of that trade.”); Kessler, *supra* note 62, at 631–32 (“Standardized contracts have thus become an important means of excluding or controlling the ‘irrational factor’ in litigation . . . [T]hey are a true reflection of the spirit of our time with its hostility to irrational factors in the judicial process, and they belong in the same category as codifications and restatements.”); Todd D. Rakoff, *Contracts of Adhesion: An Essay in Reconstruction*, 96 HARV. L. REV. 1173, 1223 (1983) (“Standardization is valuable; it reduces transaction costs. The possibilities transcend mere standardization, however, for firms can draft the terms so as to stabilize the incidents of doing business.”); Edith R. Warkentine, *Beyond Unconscionability: The Case for Using Knowing Assent as the Basis for Analyzing Unbargained-for Terms in Standard Form Contracts*, 31 SEATTLE U. L. REV. 469, 472 (2008) (“Courts seem to enforce most terms in standard form contracts because of judges’ underlying belief in the importance of such contracts in commerce.”).

68. Korobkin, *supra* note 62, at 1206.

69. See, e.g., Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, *Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts*, 43 J. LEGAL STUD. 1, 3 (2014) (finding only 1 to 2 of every 1,000 consumers shopping online even access the terms and conditions).

70. *Id.* at 9; see also Jeff Sovern, Elayne E. Greenberg, Paul F. Kirgis & Yuxiang Liu, *Whimsy Little Contracts with Unexpected Consequences: An Empirical Analysis of Consumer Understanding of Arbitration Agreements*, 75 MD. L. REV. 1, 4–5 (2015) (documenting low consumer comprehension of arbitration agreements in credit card contracts).

71. See Joshua A. T. Fairfield, *The Cost of Consent: Optimal Standardization in the Law of Contract*, 58 EMORY L.J. 1401, 1405 (2009) (explaining two kinds of standardization).

72. There are degrees of standardization here. Firms may offer all consumers within a particular group the same terms and offer other groups different terms. See Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429,

may be standardized across drafters.⁷³ For example, all software license agreements may contain functionally similar arbitration clauses even though different firms ostensibly draft the agreements.⁷⁴ These agreements may offer all consumers the same terms regardless of any individual consumer's preferences, even if customization may make that particular contract more efficient.⁷⁵ Both kinds of standardization tend to reduce information costs.⁷⁶

Problems arise when the level of standardization does not match expectations. For example, if a firm purchases servicing software expecting its contracts to have mostly standardized servicing terms, it may inadvertently breach the contracts whose idiosyncratic terms make the contract incompatible with the software. Similarly, consumers may breach financial contracts if the rules of those contracts require consumers to take unexpected steps to perform their obligations. For example, if consumers expect to be able to make payments by personal checks at no additional cost, they may be unpleasantly surprised if a single firm charges a check processing fee. The consumers' surprise may escalate if they incur late fees when the firm with idiosyncratic servicing terms rejects their otherwise timely payments for failure to include a check-processing fee.

Notwithstanding this tendency towards standardization, consumer financial contracts are fragmented because they occur across diverse industries subject to differing, and at times even incompatible, regulations, customs, and consumer expectations. This means any consumer must know and abide by different rules for economically similar transactions. Consider the bills. That pile of mail—or email—comes from diverse senders and may have equally diverse rules for payment and near-term consequences for nonpayment. Yet, at a higher level of generality, the bills are all requests for payment on little debt agreements. And if the consumer fails to make these payments, they

471 (2002) (explaining that the internet has facilitated tailoring business offers to particular groups of consumers).

73. See Fairfield, *supra* note 71, at 1403–04 n.5.

74. See Florencia Marotta-Wurgler & Robert Taylor, *Set in Stone: Change and Innovation in Consumer Standard-Form Contracts*, 88 N.Y.U. L. REV. 240, 244 (2013) (finding that between 2003 and 2010 arbitration clauses became standard in end-user license agreements).

75. See W. David Slawson, *Standard Form Contracts and Democratic Control of Lawmaking Power*, 84 HARV. L. REV. 529, 554 (1970) (“A buyer for whom the products on such a market are essential buys them at prices and with other terms of sale that are adhesive, since he has no reasonable choice but to buy and . . . to pay the prices and accept the other terms set by the market.”).

76. Fairfield, *supra* note 71, at 1403.

will land in collections—the great unifier of bills. Consumer contracts are often heterogenous, but both consumers and some firms may interact with them as if they were more standardized than they are. This mismatch creates opportunities for errors on both sides.

3. *Automation.* Companies have largely automated their performance of their financial obligations under consumer contracts. Consumers increasingly make their payments electronically.⁷⁷ Servicing software applies these payments to consumers' accounts according to the terms of the contract. Assuming the consumer continues to make right-sized, on-time payments, there is little need for human intervention. Companies' ability to comply with their contractual obligations then relies on the accuracy of their servicing software.⁷⁸

Two categories of consumers prevent companies from fully automating their servicing performance. The first are those that do not make electronic payments. These consumers may pay in cash, by check, by returning a coupon with credit or debit card information, or by calling the company. Although some automation via ATM machines and scanning technology is possible, it is not yet as smooth as electronic payments, and in some cases, it will require human intervention to translate the payment into data in the company's servicing software. Anywhere there is human intervention, there is some risk of error, whether from on-off, fat-fingered data entry or from training lags and other systemic problems.

The second are those whose payments interact with consumer protection laws. There are several layers of overlapping legal frameworks that can supersede companies' contractual relationship with consumers.⁷⁹ Some of these frameworks, notably consumer bankruptcy, functionally prevent companies from automating servicing by creating customer-specific obligations that contradict the standardized terms on which companies build their servicing software. For example, a company that normally does not accept checks from consumers may need to accept checks covering consumers' payments if that is how the consumers' bankruptcy trustee chooses to make

77. Zhai Yun Tan, *Is It Time To Write Off Checks?*, NPR (Mar. 3, 2016, 9:41 AM), <https://www.npr.org/2016/03/03/468890515/is-it-time-to-write-off-checks> [<https://perma.cc/NK8K-A5LF>].

78. See *infra* Part II.C.

79. See D'Onfro, *supra* note 15, at 186–89.

payments.⁸⁰ Similarly, the Servicemembers Civil Relief Act,⁸¹ which caps the interest rate on certain debt at 6 percent⁸² while blocking some repossessions,⁸³ nonjudicial foreclosures,⁸⁴ and lease terminations,⁸⁵ may require companies either to remove some consumers from its automated systems or to develop supplemental automation protocols to handle consumers entitled to these protections. Determining the more cost-effective path will depend on the company.

In sum, automation is increasingly the norm in consumer financial contracts, but it is not, nor can it be, pervasive.

4. *Data Management.* For any consumer financial contract, roughly five separate databases manage each customer's account. These are separate systems that sometimes work together smoothly and sometimes barely communicate with each other. The number of systems that perform the firm-side obligations of consumer financial contracts creates opportunities for discrepancies.

Once the firm applies the payment, it must update the customers' accounts in its main ledger, called the system of record ("SOR").⁸⁶ Historically, SORs contained data such as "payments, charge activity, and interest rates as well as the consumer's name, address, credit history and any other contact information the lender might have."⁸⁷ A customer's account in a SOR is supposed to be the official record of a customer's account with the firm.⁸⁸ SORs serve at least four additional purposes. First, they provide a baseline that determines how to bill and apply the customer's next payment. Second, they provide records that customer service representatives need should the customer call with questions. Third, they represent the firm's assets—both as assets that the firm might sell and for accounting purposes. And fourth, they are

80. *Id.* at 178.

81. 50 U.S.C. §§ 3901–4043.

82. *Id.* § 3937.

83. *Id.* § 3952.

84. *Id.* § 3953.

85. *Id.* § 3955.

86. Dalié Jiménez, *Dirty Debts Sold Dirt Cheap*, 52 HARV. J. ON LEGIS. 41, 49 (2015).

87. John Tonetti, Collections Program Manager, Consumer Fin. Prot. Bureau, Remarks at FTC & CFPB Roundtable on Data Integrity in Debt Collection: Life of a Debt 63–64 (June 6, 2013) (transcript available at https://www.ftc.gov/system/files/documents/public_events/71120/life-debt-roundtable-transcript.pdf [<https://perma.cc/LAE9-JL72>]).

88. Jiménez, *supra* note 86.

part of the documentation that firms must produce to demonstrate compliance with a web of state and federal regulations.⁸⁹

Many companies maintain a second database, the customer relationship management system (“CRM”), documenting additional details about consumers’ interactions with the firm.⁹⁰ For example, the CRM memorializes customer calls to the firm, complaints, and other interactions with customer service.⁹¹ Since SORs do not typically record this kind of color, one can only see the whole relationship between a firm and a consumer by reading the SOR and CRM together.⁹²

A third system handles internal collections activity. This system records data about customers who fail to make payments to the firm.⁹³ It memorializes firms’ efforts to collect the debt. While it has the same kinds of data as the SOR and CRM do, data does not usually flow from the collections system back into the SOR or CRM unless and until the customer brings the account current.⁹⁴ The logic of these systems means when the customer brings their account current, data recorded in the collections system is often lost or becomes difficult to access.⁹⁵

If the customer does not bring their account current, the firm usually charges off the account after several months.⁹⁶ After charge off, the customer’s account moves to a fourth system, a recovery system, which memorializes external collections efforts.⁹⁷ This system records bare-bones data about the customer, the account balance, activity by third-party debt collectors, and any communication between the firm and the customer.⁹⁸ Some firms include data from their internal collections system in their recovery systems, but others start fresh.⁹⁹ Third-party debt collectors typically rely on this system, not the SOR,

89. See, e.g., CFPB EXAMINATION PROCEDURES: REVERSE MORTGAGE SERVICING 11, 14 (2020), https://files.consumerfinance.gov/f/documents/cfpb_supervision-and-examination-manual.pdf [<https://perma.cc/FRC2-2V7T>] (directing examiners to look at “primary record system” of various debt servicers).

90. Tonetti, *supra* note 87, at 49–50.

91. *Id.*

92. *Id.*

93. *Id.* at 65.

94. *Id.* at 66.

95. *Id.*

96. *Id.*; see also Jiménez, *supra* note 86, at 52 (explaining that banking regulations set the timeline for firms to charge off certain products).

97. Jiménez, *supra* note 86, at 52; Tonetti, *supra* note 87, at 66–67.

98. Tonetti, *supra* note 87, at 66–67.

99. *Id.* at 66.

for their collections activities.¹⁰⁰ This system is also the source of data that appears on any regulatory notices that the customer receives during the collections process.¹⁰¹

Once a third-party debt collector takes over debts, a fifth system, the debt collector's own SOR, begins tracking the account.¹⁰² This fifth system tracks payments that the customer makes to the debt collector. Data from the first three systems do not reliably flow into this system.¹⁰³ At this point, the accuracy of any SOR will depend in part on how regularly it interfaces with the other SORs managing the account. Given the logistical complexities of keeping five systems across at least two separate companies up to date,¹⁰⁴ once an account is in collections, it is hard to say there is a definitive record of the customer's performance of their contractual obligations.¹⁰⁵

Between the coders needed to automate most of servicing and the segment that resists automation, there are many humans involved in servicing. No one is immune to making typos. As a result, everything these humans do is an opportunity for mistakes.¹⁰⁶

Moreover, because servicing is not necessarily a metric on which firms compete, we might expect firms to minimize their investments in the personnel working in servicing functions.¹⁰⁷ If these positions are not structured jobs that the firm values, firms may be less able to attract and retain talent, which in turn may increase the risk of errors. These errors may be direct mistakes that arise from inexpert coding, or they may be errors that arise as staffing shortages create maintenance backlogs.

100. *See id.* at 67–68.

101. *See id.*

102. *Id.* at 69. If the right to collect the debt is resold, additional SORs at each of the subsequent debt collectors may track the debt. Jiménez, *supra* note 86, at 50.

103. Tonetti, *supra* note 87, at 69.

104. *See id.* at 72.

105. *Id.* at 51–52.

106. One can imagine a coder at a tech start-up is *the talent* whereas a coder in the bowels of a bank is a transaction cost. This distinction does not reflect any meaningful difference in the skills involved in their jobs, but rather the focus of their companies. Pay, benefits, and stability may counteract some of these varying perceptions.

107. Adequate staffing has long been a problem in the mortgage servicing industry. *See* DIANE E. THOMPSON, NAT'L CONSUMER L. CTR., WHY SERVICERS FORECLOSE WHEN THEY SHOULD MODIFY AND OTHER PUZZLES OF SERVICER BEHAVIOR 28–29 (2009), <https://www.nclc.org/images/pdf/pr-reports/report-servicers-modify.pdf> [<https://perma.cc/6VSS-KZGL>] (describing historical staffing challenges and solutions that have been suggested).

The same dynamic may appear in the customer service departments of these institutions. By and large, the customer service representatives with whom consumers interact are entry-level employees working out of call centers.¹⁰⁸ Customer service jobs are functionally data entry jobs since call center employees have little, if any, discretion to assist consumers beyond what their computer systems direct them to do. This manual data entry, though, is itself an opportunity for errors in the SOR and other systems.¹⁰⁹

In the absence of employee discretion, there is an absence of people who can fix mistakes once they occur. This phenomenon is apparent in the stories of borrowers seeking mortgage modifications during the Great Recession. Unable to remedy even small data entry problems in the servicer's system, customer service employees instead requested borrowers resubmit their modification applications.¹¹⁰ In other words, constraints on servicing based on employees' discretion force those employees to function as extensions of the servicing software, rather than as autonomous agents searching for an optimal solution for their firm and their customer. In this way, even a small servicing error may be difficult for consumers to cure. Given the number of records systems in play, it is easy for errors to metastasize.

As the next subsection will show, firms have not drafted their contracts to mitigate the potential harm of these overlapping servicing systems. Instead, the terms of the contracts exacerbate the weaknesses of the technological systems.

5. Term Complexity. The servicing terms of consumer financial contracts are often highly interconnected.¹¹¹ That is, what happens

108. See *Customer Service Representatives*, BUREAU OF LAB. STAT., <https://www.bls.gov/ooh/office-and-administrative-support/customer-service-representatives.htm> [<https://perma.cc/7YSC-N2HX>] (last updated Apr. 9, 2021) (estimating customer service representatives earn on average \$35,830 per year and the position requires only a high school diploma and little on-the-job training).

109. See Raymond R. Panko, *What We Don't Know About Spreadsheet Errors Today: The Facts, Why We Don't Believe Them, and What We Need To Do 3* (Feb. 2, 2016) (unpublished manuscript), <https://arxiv.org/pdf/1602.02601.pdf> [<https://perma.cc/M96J-QXB4>] (studying the rate of data entry errors in spreadsheets).

110. See Paul Kiel & Olga Pierce, *Homeowner Questionnaire Shows Banks Violating Government Program Rules*, PROPUBLICA (Aug. 16, 2010, 8:02 AM), <https://www.propublica.org/article/homeowner-questionnaire-shows-banks-violating-govt-program-rules> [<https://perma.cc/VNZ7-P473>] (finding that applicants had to resubmit the same documents six times before they received the servicing solution to which they were entitled).

111. See Henry E. Smith, *Modularity in Contracts: Boilerplate and Information Flow*, 104 MICH. L. REV. 1175, 1176 (2006) (defining modularity as “a device to deal with complexity by

under one term of the contract impacts the operation of other terms of the contract. In data terms, changes on any one field of the SOR or other database may require changes across several fields.

Late fees illustrate this point: If a borrower who makes regular monthly payments makes a payment late and incurs a late fee, firms may not process any of the payment until the borrower also pays the late fee. If the borrower does not realize she has incurred a late fee, she will not pay it and will instead make a regular payment next month. A portion of this second payment will cover the late fee owed on the first payment, but then the second payment will be short. The firm would then hold the remainder of the second payment in suspense. Although the consumer continues to make payments, the account would remain delinquent,¹¹² potentially impacting the consumer's credit score. This solution is nominally easy, but in a world of automated payments, consumers may not notice the issue for quite some time. For consumers then, the cost of not reading statements or obsessively checking online accounts can be quite high. Automation poses risks for consumers and firms alike.

Terms sometimes become more complex once an account enters collections because the collections agency may, rightly or wrongly, impose additional fees or payment rules on the borrower. Depending on how the debt collector charges interest and fees, the amount that a customer "owes" may change with each transfer, notwithstanding any action by the consumer.¹¹³ Although any new rules should be communicated to consumers by mail,¹¹⁴ it may be difficult for consumers to track these changes.¹¹⁵ And even if consumers can figure out what they owe to whom, the delay between when any change on their account goes into effect and when a consumer becomes aware of

decomposing a complex system into pieces (modules), in which communications (or other interdependencies) are intense within the module but sparse and standardized across modules").

112. See John Rao, *What Every Homeowner Should Know About Mortgage Payments: Consumer Debt Advice from NCLC*, NCLC DIGIT. LIBR. (July 9, 2018), <https://library.nclc.org/what-every-homeowner-should-know-about-mortgage-payments-consumer-debt-advice-nclc> [<https://perma.cc/458G-9RRM>] (explaining what happens to delinquent accounts).

113. Jiménez, *supra* note 86, at 54.

114. Reaching consumers is itself a complex task since their addresses and phone numbers may change without the change being reflected in any SOR. Firms have little incentive to maintain accurate customer data on charged-off accounts because they often disclaim any warranty for the accuracy of their data when they sell the accounts. *Id.* at 62.

115. See *id.* at 54 (explaining that "a consumer may receive dunning letters requesting different amounts from different debt buyers about the same debt"); see also *id.* at 84 ("Consumers can find it difficult to identify the right person to pay.").

it may cause consumers to make payments to the wrong firm or in an unacceptable format. The potential complexity here lies both in whether or how any mistaken payment should be rerouted and in whether or how such a payment should impact customers' accounts at the correct payee.

6. *Opacity*. Most consumers are dependent on firms' systems to know their own obligations under their contracts. There are both substantive and structural reasons why any term may be opaque. Substantively, some terms are complicated. They may require inputs from several fluctuating sources or require multiple steps to calculate. The math might not be difficult, but there may be a lot of steps involved.

The structural barriers to understanding terms are twofold. First, as Professor Lauren Willis explains, most consumers cannot independently validate their mortgage company's payment calculations—their mortgage contracts are too complex relative to their financial literacy.¹¹⁶ That is, they may understand the payment amount and when it is due, but cannot explain how the firm calculated that number with sufficient specificity to check the firm's math. Consumer financial contracts tend to be facially simple but internally complex. So a consumer evaluating a credit card contract might receive and even understand a disclosed annual percentage rate (“APR”),¹¹⁷ but struggle to calculate that APR based on their own records.

Second, many consumer financial contracts leave some price terms to the discretion of the firm. For example, a provision that allows a mortgagee to mow the lawn if the borrower fails to do so may allow the mortgagee to pass the costs on to consumers.¹¹⁸

116. See Lauren E. Willis, *Against Financial-Literacy Education*, 94 IOWA L. REV. 197, 219–26 (2008) (explaining that even intensive financial education rarely helps consumers understand the core terms of their loans).

117. That said, there is considerable evidence that consumers struggle to understand regulated disclosures of financial terms. See James M. Lacko & Janis K. Pappalardo, *The Failure and Promise of Mandated Consumer Mortgage Disclosures: Evidence from Qualitative Interviews and a Controlled Experiment with Mortgage Borrowers*, 100 AM. ECON. REV. 516, 518–19 (2010) (finding that though consumers rarely understood the Truth in Lending Act disclosures required before 2010, they better understand simplified disclosures).

118. See *Making Payments to Your Mortgage Servicer*, FED. TRADE COMM'N: CONSUMER INFO. (June 2010), <https://www.consumer.ftc.gov/articles/0190-making-payments-your-mortgage-servicer> [https://perma.cc/BAD3-RYGT] (“If the property is not being properly maintained, the servicer may order ‘property preservation services,’ like lawn mowing, landscaping and repairing or boarding up broken windows and doors. The costs for these services, which can add up to hundreds or thousands of dollars, are charged to your loan account.”); see also Adam J. Levitin

In the financial sector, regulations attempt to provide consumers with the details they need to understand the status of their accounts,¹¹⁹ but there is little evidence this information is meaningful to the average consumer.¹²⁰ Moreover, as explained above, contracts between consumers and financial firms are only a small portion of consumer financial contracts. Regulators from other industries impose few such requirements.

Unable to validate their own data, consumers have little choice but to rely on their servicers' calculations as they appear on monthly statements, notices, or an online account portal. Mailed statements and notices can only present a snapshot of an account that may no longer be operative by the time the consumer digests the mailing. Online portals can theoretically present a more real-time picture of a customer's account, but they are subject to the same limits as the SOR—they can only ever be as accurate as the data they receive.¹²¹

If consumers have questions, their only recourse is to ask customer service agents.¹²² These customer service agents have the benefit of the SOR when answering questions, but are unlikely to be experts in the terms and regulations that animate the data therein. Given the limitations of their own financial literacy and that of the limitations of their contacts at firms, consumers have virtually no pathway to discover their real-time account balance and the logic for that balance. They may call the debt holder to discover what the SOR says at any one minute, but they have no guarantee the total will not change between when they call and when they make their payments.

Moreover, as described above, the SOR may be the official record of customers' accounts, but it is not the only record. The presence of

& Tara Twomey, *Mortgage Servicing*, 28 YALE J. ON REG. 1, 42–43 (2011) (explaining that servicers have broad power to preserve encumbered property at the expense of borrowers).

119. For example, Regulation Z details how firms need to present data about their residential mortgages to borrowers. 12 C.F.R. § 1026.41 (2021).

120. See Alycia Chin & Wändi Bruine de Bruin, *Helping Consumers To Evaluate Annual Percentage Rates (APR) on Credit Cards*, 25 J. EXPERIMENTAL PSYCH. 77, 77–78 (2019) (showing that absolute recall of APR following disclosure does not translate into better consumer decision-making).

121. See *supra* Part I.B.4 (describing limitations related to data accuracy).

122. When firms misbill consumers, consumers cannot correct the error by paying the correct amount instead of the billed amount. Many firms will not apply payments that are less than the billed amount, so the customer will face the same consequences that they would have faced had they made no payment at all. See Gretchen Morgenson, *Can These Mortgages Be Saved?*, N.Y. TIMES (Sept. 30, 2007), <https://www.nytimes.com/2007/09/30/business/30country.html?smid=https://perma.cc/8C68-2L3C> (reporting some of the most harrowing examples from early in the Foreclosure Crisis).

additional systems that may reconcile into the SOR in the future contributes to the opacity of the system. Even a diligent consumer who reads their statements and calls customer service to verify their account information at Time 1 may still be surprised at Time 2.

C. *Regular Complexities*

This Section describes three additional features of consumer financial contracts. These appear in only a subset of contracts, but they are not rare. Where they appear, they help explain how firms' obligations to their consumers have become so troublesome.

1. *Third-Party Servicers.* Another wrinkle in consumer financial contracts is the firm that contracts with the customer may assign the contract to a third party or sell the right to service the contract. This means the firm that performs much of the contract is often not the firm with which the consumer contracted.

Adding another firm to the relationship adds another layer of complexity. The firm that ultimately services a consumer contract, the servicer, must rely on data from the firm that originally contracted with the consumer. Evidence from the years following the Great Recession suggests that this data transfer is often where firm-side performance breaks down.¹²³ Recall a firm's SOR is but one of the official systems that might have data about a customer's account. If a servicer sets up its system relying on its predecessor's SOR, it may fail to capture the full agreement between the contracting firm and the consumer.¹²⁴

2. *Debt Collectors.* When consumers fail to satisfy their contractual obligations, the focus of servicing shifts from payment processing to payment collection.¹²⁵ If a firm has not already sold the

123. *E.g.*, Press Release, Consumer Fin. Prot. Bureau, CFPB Sues Ocwen for Failing Borrowers Throughout Mortgage Servicing Process (Apr. 20, 2017), <https://www.consumerfinance.gov/about-us/newsroom/cfpb-sues-ocwen-failing-borrowers-throughout-mortgage-servicing-process> [<https://perma.cc/LVL9-FGnk>] (“Ocwen . . . sold off the servicing rights to loans without fully disclosing the mistakes it made in borrowers’ records.”).

124. *E.g.*, Press Release, Consumer Fin. Prot. Bureau, CFPB and Federal Trade Commission Take Action Against Green Tree Servicing for Mistreating Borrowers Trying To Save Their Homes (Apr. 21, 2015), <https://www.consumerfinance.gov/about-us/newsroom/cfpb-and-federal-trade-commission-take-action-against-green-tree-servicing-for-mistreating-borrowers-trying-to-save-their-homes> [<https://perma.cc/4HWD-XS6X>] (explaining that Green Tree continued to attempt to collect payments from borrowers based on the original loan agreement even where the borrower had reached a modified agreement with the prior servicer).

125. *See generally* Jiménez, *supra* note 86 (explaining how debt collection works).

contract to a second company, it often writes it off and sells it to a specialized collections firm.¹²⁶ Unlike predefault or regular servicing, there is no relationship between customer and firm to be maintained: the customer has long since breached their obligations. The reputation of these specialized collections firms is low for good reason.¹²⁷

Collections, like predefault servicing, is a mostly automated process with pockets of significant human labor.¹²⁸ When a collections firm purchases accounts, it is purchasing contracts that have been mostly reduced to spreadsheets. Its ability to collect depends in part on the integrity of the data encoded on the spreadsheets.¹²⁹ Some of these firms have the bargaining power to negotiate for data-quality metrics in their contracts with the original creditors. But because it is a highly competitive industry populated by small firms, many other firms do not. Indeed, many firms selling charged-off accounts to debt collectors specifically disclaim any liability for the accuracy of the data.¹³⁰

Consumers' experience in collections depends in part on the integrity of the data encoded on the spreadsheets. In theory, federal law polices the integrity of this data¹³¹ or at least gives consumers the right to contest collections efforts.¹³² In practice, many consumers fail to contest collections efforts, regardless of the merits of those efforts.¹³³ Even for consumers who might contest the collections effort, it is easy to see how the burden of bringing suit under the Fair Debt Collection Practices Act ("FDCPA") for violations of collections law might not

126. The Congressional Research Service reported that "[a]s of 2020, there were nearly 7,000 collection agencies in the United States, and the industry's annual revenue was about \$13.4 billion." CHERYL R. COOPER, CONG. RSCH. SERV., R46477, *THE DEBT COLLECTION MARKET AND SELECTED POLICY ISSUES 1* (2021), <https://fas.org/sgp/crs/misc/R46477.pdf> [<https://perma.cc/ZWK9-8DAB>]. The Consumer Financial Protection Bureau ("CFPB") found "about one-third of consumers with a credit bureau file reported being contacted in the last year by at least one creditor or collector." *Id.* at 5.

127. See Jake Halpern, *Inside the Dark, Lucrative World of Consumer Debt Collection*, N.Y. TIMES (Aug. 14, 2014), <https://www.nytimes.com/interactive/2014/08/15/magazine/bad-paper-debt-collector.html> [<https://perma.cc/2J4Y-UVYS>].

128. Andrew Martin, *Automated Debt-Collection Lawsuits Engulf Courts*, N.Y. TIMES (July 12, 2010), <https://www.nytimes.com/2010/07/13/business/13collection.html> [<https://perma.cc/CS83-BVHZ>].

129. See Halpern, *supra* note 127.

130. Jiménez, *supra* note 86, at 61–63.

131. The exact rules policing data integrity depend in part on which entities police the underlying creditor.

132. See Fair Debt Collection Practices Act, 15 U.S.C. § 1692g(b).

133. See Martin, *supra* note 128.

be worth the effort. Given that many debt collectors are small firms,¹³⁴ it is unclear whether they would have sufficient assets to make lawsuits against them worth the time and expense.

Consumers' ability to satisfy the debt depends in part on their abilities to discover the amount owed from the collections servicer. Because collections firms often add their fees to the customers' bills, whether permissible or not, consumers can no longer rely on data from the original creditor about what they owe.¹³⁵ Unless and until the borrower discovers that sum and satisfies it before it changes again, the collections servicer will continue calling, mailing, and otherwise coaxing the consumer to make payments on the debt.

If and when consumers fail to satisfy the debt and fees owed to the collections servicer, that firm can sue the borrower—usually in small claims court—to reduce the outstanding bill to a judgment. It then has various options for enforcing the judgment, but garnishment orders are common.¹³⁶ Under a garnishment order, creditors receive a portion of a consumer's paycheck and government benefits directly. Since many consumers do not respond to the lawsuits requesting these orders—and when they do, they rarely have the wherewithal to properly defend themselves—collections firms are often able to get judgments for sums greater than what the consumer owes under their contract.¹³⁷

3. *Consumer Bankruptcy.* Consumer bankruptcy adds another wrinkle to consumer financial contracts. It is effectively another layer of regulation that requires a firm, no matter how it may structure its contracts with consumers, to be able to modify its servicing systems to accommodate however a bankruptcy court intends to handle that

134. Cooper, *supra* note 126, at 3 (estimating that 95% of all debt collectors are small businesses).

135. See CONSUMER FIN. PROT. BUREAU, FAIR DEBT COLLECTION PRACTICES ACT: CFPB ANNUAL REPORT 2013, at 18 (2013), https://files.consumerfinance.gov/f/201303_cfpb_March_FDCPA_Report1.pdf [<https://perma.cc/UP37-LDPJ>]. The CFPB received thousands of complaints about collections agencies charging unauthorized fees each year. *Id.* at 17–18.

136. ADP, the largest payroll services firm, found that “more than one in 10 employees in the prime working ages of 35 to 44 had their wages garnished.” Paul Kiel, *Unseen Toll: Wages of Millions Seized To Pay Past Debts*, PROPUBLICA (Sept. 15, 2014, 5:00 AM), <https://www.propublica.org/article/unseen-toll-wages-of-millions-seized-to-pay-past-debts> [<https://perma.cc/M6TZ-BU84>].

137. See generally Erika Rickard, *How Debt Collectors Are Transforming the Business of State Courts*, PEW (May 6, 2020), <https://www.pewtrusts.org/en/research-and-analysis/reports/2020/05/how-debt-collectors-are-transforming-the-business-of-state-courts> [<https://perma.cc/V8GV-DB4E>] (explaining the current state of collection actions in courts).

contract.¹³⁸ If the firm fails to do so, it risks violating provisions of the U.S. Bankruptcy Code as well as other consumer protection regulations.¹³⁹

For example, imagine a consumer who owes their water company \$300 in back payments, representing three months of unpaid bills. Under normal circumstances, three months of arrears might cause the water company to charge off the consumer's arrears, sell the account to a debt collector, or even shut off the consumer's water. If the consumer files for bankruptcy before the water company takes these steps, the automatic stay prevents the water company from proceeding. That is, even though the consumer still owes the water company for three months of service, the water company cannot take any additional steps to collect the debt. Instead, it must file a claim and wait. To make this work, the water company must have the technological capacity to adjust its systems to accommodate accounts in bankruptcy, an extremely heterogeneous category. Then, if the consumer successfully completes the bankruptcy process,¹⁴⁰ the company will need to adjust its servicing technology to respect the discharge injunction, which bars it from collecting any arrears that were discharged in the bankruptcy proceeding. The complexity of the consumer bankruptcy system all but invites servicing errors.

* * *

In sum, complex servicing processes support even the most basic consumer financial contracts. These processes regularly become still more complex if the consumer defaults on their obligations. This complexity creates ample opportunity for firms to default on their obligations as well. At the very least, many failures to properly service these contracts are also failures to comply with the state and federal regulations that govern servicing. Although the specific rules governing servicing vary, the gist is there are mandatory rules that govern servicing. The question then is why servicing errors persist.

138. See generally D'Onfro, *supra* note 15 (explaining the risks of rigid servicing systems).

139. See, e.g., CONSUMER FIN. PROT. BUREAU, SUPERVISORY HIGHLIGHTS: ISSUE 12, SUMMER 2016 6–8 (2016) (finding violations of the FDCA through violations of consumer bankruptcy provisions).

140. The consumer's specific obligations will vary depending on both the chapter of the Bankruptcy Code under which the consumer seeks relief and the local rules governing consumer bankruptcy in the court in which the consumer files for protection.

II. THE PERSISTENCE OF POOR SERVICING

This Part tells the second half of the story of how consumer financial contracts became a system of unilateral obligations. Where the first half was about how features of the contracts complicate servicing, this half is about how external factors further encourage poor servicing. In short, bad servicing begets bad servicing because bad servicing creates bad data. And bad data also complicates efforts to enforce consumer financial contracts in both private litigation and regulatory proceedings.

A. *Market Incentives*

If a firm is bad at servicing, why do customers continue doing business with that firm? There are at least five features of servicing that shield the firm from market-based correction. First, consumers often have no choice over which company services their contract because the party with whom they contract may sell the servicing rights to a third party.¹⁴¹ Consumer financial contracts rarely give consumers any say when they transfer servicing rights. Thus, even if a consumer has strong preferences for not doing business with a particular party, they may have few options for avoiding that party if they need debt. Because consumers rarely choose their servicer, servicers market their skills to underwriters or the sponsors of securitizations, not to consumers, and the cost metrics that underwriters value are not necessarily the care metrics that consumers value.¹⁴² Theoretically, poor servicing could impact the reputation of the originator if it was known to not vet the parties to whom it sold servicing rights,¹⁴³ but there is little evidence of this occurring.

Second, even when they have a choice about who services their financial contract, consumers may not know a firm is bad at servicing. Simply put, information about any firm's performance as a servicer may not make it into resources consumers consult before choosing their business partners. If a firm is persistently making small servicing

141. See *supra* Part I.C (explaining the complexities of servicing).

142. See Jack M. Guttentag, *Why Is Mortgage Servicing So Bad?*, MORTG. PROFESSOR, https://www.mtgprofessor.com/A%20-%20Servicing/why_is_servicing_so_bad.htm [https://perma.cc/PP7U-QAXU] (last updated Dec. 13, 2004) (arguing that servicing would be better if consumers could fire their servicers).

143. See OFF. OF THE COMPTROLLER OF THE CURRENCY, OCC BULLETIN 2014-37, CONSUMER DEBT SALES: RISK MANAGEMENT GUIDANCE 2-3 (2014) (detailing risks of selling debt to debt buyers).

errors but does not attract regulatory action or a well-publicized lawsuit, consumers are unlikely to know about the firm's servicing track record. Alternatively, a firm might generate significant news about its servicing failures, but the firm's target customers may not read the kinds of news sources that report on regulatory actions and lawsuits.

Firms might also take steps to prevent disgruntled consumers from publicly complaining, which in turn tends to deprive the market of information about the quality of firms' services. Firms have two touchpoints at which they can limit consumers' rights to broadcast derogatory information about the firm. Firms attempted to put nondisparagement clauses, also known as gag clauses, in their contracts before state and federal law outlawed doing so.¹⁴⁴ Of course, even if these clauses are unenforceable, they may still influence consumer behavior if consumers feel bound by them.¹⁴⁵ If a consumer does sue the firm over a servicing error, the firm may prefer to settle the lawsuit in exchange for a nondisclosure agreement. The nondisclosure agreement protects the firm from reputational damage, denying consumers information that might influence their shopping patterns.¹⁴⁶

Third, even if consumers could negotiate for better servicing, it is not obvious they would. Servicing is supposed to be invisible. Bad servicing implies one party is likely either in breach of the contract or engaged in unexpected opportunism. Presumably, consumers would not contract with parties whom they expected to breach the contract when they themselves do not prefer the contract be breached. But consumers cannot weigh every possible variable and outcome when

144. See, e.g., CAL. CIV. CODE § 1670.8 (West 2021); 15 U.S.C. § 45b(b) (voiding some contracts that limit consumer reviews).

145. See Meirav Furth-Matzkin & Roseanna Sommers, *Consumer Psychology and the Problem of Fine Print Fraud*, 72 STAN. L. REV. 503, 504 (2020); J.J. Prescott & Evan Starr, *Subjective Beliefs about Contract Enforceability 1–2* (Oct. 6, 2021) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3873638 [<https://perma.cc/GLW4-E7QX>].

146. See Christopher R. Drahozal & Laura J. Hines, *Secret Settlement Restrictions and Unintended Consequences*, 54 U. KAN. L. REV. 1457, 1458 (2006) (“Critics argue that secret settlements permit harmful practices—e.g., exploding tires and child molestation—to continue for longer than they would have continued were public access to information not restricted by the settlement agreement.”); see also Rhonda Wasserman, *Secret Class Action Settlements*, 31 REV. LITIG. 889, 914 (2012) (arguing secret settlements also undermine the legitimacy of the legal system by preventing citizens from seeing courts in action).

choosing their contracts.¹⁴⁷ Instead, they make choices based on terms more salient to them, like price. Such constrained decision-making is not irrational as long as the terms on which consumers do choose their contracts—when they have a choice—are terms that maximize the chance the contract will comport with their expectations.

As long as servicing quality has little impact on consumers' decisions about whether to enter into a contract, firms have little incentive to invest in servicing. Consumers and firms often have different priorities during contract performance. If the parties have made a commitment on price, rational consumers want the remainder of the relationship to comport with their preferences, particularly around quality and speed. The consumer need not care about cost of performance to the other party. But of course, the firm's business depends on cost of performance. Therefore, the firm may have limited incentives to invest in technological innovations that improve its performance on contracts, especially if those improvements are of limited use to the marketing that induces additional consumers to enter into additional contracts. Firms' incentive to innovate on servicing terms instead depends on whether these terms make their servicing more efficient and whether these terms increase the potential sale value of servicing rights.

Fourth, as described, the firms drafting consumer contracts are often not the same firms that service the contract.¹⁴⁸ The financial part of a consumer's contract is often severable from the rest of the contract, meaning the contracting firm can sell servicing rights to specialized firms. This gives contracting firms an exit once they have completed the part of the contract that is their core business, leaving them with little incentive to draft contracts with an eye to servicing. That is, contracts may not interface well with servicing technology.¹⁴⁹ This means the drafting firm may not bear the reputational or legal costs that come with contractual terms that are difficult to properly service.¹⁵⁰

147. See generally Korobkin, *supra* note 62 (arguing contracts have more attributes that consumers can weigh simultaneously, leading consumers to ignore some even when attempting to make rational decisions).

148. See *supra* Part I.C.

149. See *infra* Part II.C.

150. See Kevin E. Davis, *Contracts as Technology*, 88 N.Y.U. L. REV. 83, 105 (2013) (“Inability to appropriate the benefits of innovation, in contracting as well as other fields, is often seen as one of the leading obstacles to profit-oriented innovation.”).

Still, one might expect market pressure from specialized servicing and collections firms to be an independent source of innovation in consumer contracts. Theoretically, they should prefer more accurate data from original creditors, pay a premium for it, and in turn create consistent market pressure favoring accuracy. But that has mostly not happened. To be clear, firms are drafting servicing terms to their own advantage,¹⁵¹ which benefits specialized servicers or collections firms. But it appears servicers lack the power or the will to change contracting firm behavior.

Finally, many industries are no longer competitive, such that even if a consumer knows a firm stinks at servicing and the consumer prefers to work with a firm that is good at servicing, the consumer will nonetheless have to do business with the firm that stinks at servicing. Recent decades have brought unprecedented consolidation across industries.¹⁵² Although many industries appear competitive at first glance, that competition is often a mirage.¹⁵³ Despite the existence of several companies providing broadband internet, many U.S. residents have only one, if any, broadband provider in their area.¹⁵⁴ Just two credit card companies, Visa and Mastercard, dominate the market.¹⁵⁵ The risk of bad servicing in less competitive industries is consistent with the risk that the lack of competition will tend to reduce product quality in general. After all, what incentive does a firm have to invest in its product if its customers have no other option?

B. Liability Incentives

In theory, contractual and regulatory liability could promote accurate servicing even in the absence of market pressures doing the same. Liability is the classic tool for causing firms to internalize costs

151. See Korobkin, *supra* note 62, at 1207 (explaining that consumers' inability to consider all of a contract's terms at once incentivizes firms to draft nonsalient terms in their interest).

152. See generally BARRY C. LYNN, CORNERED: THE NEW MONOPOLY CAPITALISM AND THE ECONOMICS OF DESTRUCTION (2011) (cataloging consolidation across the U.S. economy).

153. *Id.*

154. See Emily Stewart, *America's Monopoly Problem, Explained by Your Internet Bill*, VOX (Feb. 18, 2020, 7:00 AM), <https://www.vox.com/the-goods/2020/2/18/21126347/antitrust-monopolies-internet-telecommunications-cheerleading> [<https://perma.cc/86NQ-H72A>].

155. While American Express and Discover do provide some additional competition, most consumers cannot rely solely on these brands because not enough points of sale accept them, and it is often not apparent which ones do before the consumer begins shopping. See Andrew Martin, *How Visa, Using Card Fees, Dominates a Market*, N.Y. TIMES (Jan. 4, 2010), <https://www.nytimes.com/2010/01/05/your-money/credit-and-debit-cards/05visa.html> [<https://perma.cc/DMG7-SG5E>].

that they are otherwise able to externalize onto other stakeholders.¹⁵⁶ With properly calibrated liability, the costs of not making these investments would exceed the cost of making them. Under the current system, consumers and the broader social safety net bear many of the costs of inaccurate servicing because the legal system has few effective tools for making firms liable for inaccurate servicing.

This Section briefly surveys the available tools for holding firms legally accountable for inaccurate servicing. It begins with the regulatory framework that aims to protect consumers from servicing mistakes. There it finds a system rich in rules but missing meaningful enforcement from regulators. It then turns to private litigation and finds even where clearly applicable causes of action offer remedies for inaccurate servicing, consumers face nearly insurmountable barriers to receiving remedies under these causes of action. It concludes with a few observations about the system of liability for inaccurate servicing.

1. *Public Regulation and Enforcement.* At first glance, the problems of servicing appear to be regulatory problems.¹⁵⁷ Clear rules, protective standards, and robust enforcement would theoretically protect consumers.¹⁵⁸ Regulation has surely enhanced servicing in the areas that it touches, but there is still ample room for improvement. Yet, there are several reasons to be skeptical that regulatory innovations are going to create lasting improvements in servicing.

Federal regulation of servicing has historically been thin,¹⁵⁹ but that is changing.¹⁶⁰ The Consumer Financial Protection Bureau

156. Richard A. Posner, *Some Uses and Abuses of Economics in Law*, 46 U. CHI. L. REV. 281, 305 (1979) (“Property rights and liability rules . . . are devices by which people are given incentives to internalize the costs and benefits of their actions so that an efficient allocation of resources is achieved.”).

157. See generally Prentiss Cox, *Public Enforcement Compensation and Private Rights*, 100 MINN. L. REV. 2313 (2016) (defining consumer protection as a core area of public enforcement notwithstanding contracts between firms and consumers that might give rise to claims in private law).

158. See generally MICHAEL S. BARR, SENDHIL MULLAINATHAN & ELДАР SHAFIR, *BEHAVIORALLY INFORMED FINANCIAL SERVICES REGULATION* (2008) (discussing financial service policy approaches to protect consumers).

159. States are ill-equipped to regulate servicing because firms can shop among the states for favorable rules and then export those rules to every state in which they do business. See, e.g., *Smiley v. Citibank*, 517 U.S. 735, 744 (1996) (holding the interest that a national bank may charge on debt is governed by the state in which the bank is chartered and not subject to the rules of states in which borrowers reside).

160. The CFPB has issued several new servicing rules for mortgages, but it shifted course after the election of former President Donald Trump and scaled back its plans to regulate servicing in other sectors. Kate Berry, *From Overdraft to HMDA, Rulemaking Has New Look at*

(“CFPB”) has the authority to regulate “extending credit and servicing loans,”¹⁶¹ and it has promulgated detailed rules for servicing certain kinds of debt, especially mortgages.¹⁶² These rules tend to focus on the processes that comprise servicing and leave price terms within the discretion of the market.¹⁶³

Meticulously regulating each step of the servicing process is an appealing response to some of the servicing failures of the last decade. With enforcement, these regulations may produce more accurate servicing. But regulating each step of the servicing process may not be the most efficient path to protecting consumers. Indeed, it might not lead there at all. Customer harm occurs when firm behavior does not match consumer expectations. For an individual on a budget, what matters is the total on the bill. The math of how to get to that amount seems less important than the payment amount itself. Therein lies the tension: our system rightly hesitates to regulate price terms, but consumers need predictable prices. Moreover, consumer protection depends on enforcement. The following subsection explains the barriers consumers face in privately enforcing their bargains.¹⁶⁴ For now, suffice it to say the structural barriers are great enough that public enforcement remains an essential component to consumer protection for the foreseeable future.

Public enforcement’s track record is abysmal. For example, in January 2019, the CFPB reached a \$3.2 million settlement with Enova, an online payday lender,¹⁶⁵ for various violations of the Consumer Financial Protection Act of 2010.¹⁶⁶ In addition to charging the civil

Mulvaney’s CFPB, AM. BANKER (May 16, 2018, 4:56 PM), <https://www.americanbanker.com/list/from-overdraft-to-hmda-rulemaking-has-new-look-at-mick-mulvaney-cfpb> [<https://perma.cc/QXY6-FVSD>].

161. 12 U.S.C. § 5481(15)(A)(i).

162. See, e.g., 12 C.F.R. § 1026 (2021) (prohibiting a creditor from offering higher-priced mortgages to consumers without considering their abilities to repay the debt—also known as Regulation Z or the “Ability-to-Repay” standard).

163. See Nakita Q. Cuttino, *The Rise of “FringeTech”: Regulatory Risks in Earned-Wage Access*, 115 NW. U. L. REV. 1505, 1532 (2021) (“Federal law rarely places limitations on the specific terms of credit services, such as pricing, principal amounts, or collection terms.”).

164. See *infra* Part II.B.2.

165. Enova describes itself as “a leading provider of online financial services to non-prime consumers and small businesses, providing access to credit powered by its advanced analytics, innovative technology, and world-class online platform and services.” Press Release, Enova, Enova Reaches Agreement with CFPB for Consumer Loan Payment Processing Errors (Jan. 25, 2019), <http://ir.enova.com/2019-01-25-Enova-Reaches-Agreement-with-CFPB-for-Consumer-Loan-Payment-Processing-Errors> [<https://perma.cc/5HUU-ZPBQ>].

166. *Id.*

money penalty, the CFPB stated Enova was “permanently restrained and enjoined from” both debiting customer accounts without prior authorization and “[f]ailing to honor loan extensions granted to consumers.”¹⁶⁷ This settlement is typical of settlements offered by the CFPB.¹⁶⁸

The \$3.2 million civil money penalty is probably peanuts. At the time of the settlement, Enova boasted it “provided more than 5 million customers around the globe with access to more than \$20 billion in loans and financing.”¹⁶⁹ The penalty is only effective if it is large enough, when combined with the other provisions of the settlement, to incentivize Enova to make the technology investments needed not only to ensure it does not commit this particular wrong again, but also to ensure it improves its servicing generally. Given the cost of these kinds of technology investments, it is not obvious a fine of this size will create the necessary incentives, even with the injunction against future violations of the law. After all, that injunction only matters to the extent it turns into future penalties. If penalties are reliably small, the injunction against future wrongdoing is also meaningless.

Similarly, in its largest enforcement action to date in 2016, the CFPB fined Wells Fargo \$100 million for the “widespread illegal practice of secretly opening unauthorized deposit and credit card accounts.”¹⁷⁰ Wells Fargo had created an incentive structure for its associates that rewarded new accounts at all costs.¹⁷¹ Thousands of associates then opened unauthorized and unwanted bank accounts and credit cards using fake email addresses that they made up for existing customers.¹⁷² In some cases, they moved the customers’ funds into these phony accounts, causing overdrafts and other losses to the customers.¹⁷³ In other words, Wells Fargo associates were pervasively stealing customers’ identities to goose their own sales. Wells Fargo, for

167. Enova International, LLC, CFPB No. 2019-BCFP-0003 (Jan. 25, 2019).

168. See generally Christopher L. Peterson, *Consumer Financial Protection Bureau Law Enforcement: An Empirical Review*, 90 TUL. L. REV. 1057 (2016) (describing the first four years of the CFPB’s enforcement activities).

169. Press Release, Enova, *supra* note 165.

170. Press Release, Consumer Fin. Prot. Bureau, Consumer Financial Protection Bureau Fines Wells Fargo \$100 Million for Widespread Illegal Practice of Secretly Opening Unauthorized Accounts (Sept. 8, 2016), <https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-fines-wells-fargo-100-million-widespread-illegal-practice-secretly-opening-unauthorized-accounts> [<https://perma.cc/CG88-62MV>].

171. *Id.*

172. *Id.*

173. *Id.*

its part, failed to account for the incentives its rules were creating or to monitor its associates even in the face of mounting evidence of wrongdoing. All of this is very bad, and if ever there was a case for a big penalty, this was it. But \$100 million is not a big penalty for a company the size of Wells Fargo. Indeed, it was not enough to cause Wells Fargo to get these practices under control. Just two years later, in April 2018, the CFPB fined Wells Fargo \$1 billion for similar practices in its auto and mortgage businesses.¹⁷⁴ That fine was less than 25 percent of its earnings in the first quarter of 2018.¹⁷⁵ Consumer advocates immediately questioned whether the billion-dollar fine would deter wrongdoing.¹⁷⁶

Stepping back even further, it is not clear that one-off enforcement, which even the former director of the CFPB compared to “that old game at the carnival, ‘Whack a Mole,’”¹⁷⁷ would incentivize industry change. Yet whack-a-mole enforcement is what the CFPB has historically done and what it continues to do. Even after the Wells Fargo scandal, no one expected the CFPB to perform an industry-wide investigation into similar practices at other institutions.¹⁷⁸ Across the federal government, appetite for hard-charging regulatory enforcement actions has withered.¹⁷⁹

There is no reason to think regulators are soon to take a more systemic approach to enforcing consumer protection laws. The regulatory landscape is too fragmented for any one regulator to

174. Emily Stewart, *Wells Fargo Just Got Fined \$1 Billion. Republicans Cut Its Taxes by \$3.7 Billion*, VOX (Apr. 21, 2018, 11:21 AM), <https://www.vox.com/policy-and-politics/2018/4/21/17265796/wells-fargo-fine-cfpb-tax-cut> [<https://perma.cc/94X9-CU3P>].

175. *Id.*

176. *Will a \$1 Billion Fine Change Wells Fargo?*, KNOWLEDGE@WHARTON (Apr. 26, 2018), <https://knowledge.wharton.upenn.edu/article/the-wells-fargo-fine> [<https://perma.cc/68LP-RQJ7>].

177. Richard Cordray, Dir., Consumer Fin. Prot. Bureau, Prepared Remarks Before the National Association of Attorneys General (Mar. 6, 2012), <https://www.consumerfinance.gov/about-us/newsroom/prepared-remarks-by-richard-cordray-before-the-national-association-of-attorneys-general> [<https://perma.cc/8JXN-G7BL>].

178. KNOWLEDGE@WHARTON, *supra* note 176.

179. See generally BRANDON GARRETT, TOO BIG TO JAIL: HOW PROSECUTORS COMPROMISE WITH CORPORATIONS (2014) (explaining how the importance of the nation's largest companies in the economy tends to put them above the law); JESSE EISINGER, THE CHICKENSHIT CLUB: WHY THE JUSTICE DEPARTMENT FAILS TO PROSECUTE EXECUTIVES (2017) (describing federal prosecutors as being afraid of going to trial against large corporations after the fallout from the Arthur Andersen prosecution in the early aughts).

oversee servicing across industries.¹⁸⁰ Even where they have jurisdiction, the federal consumer protection regulators are continually weakened by some combination of pettiness,¹⁸¹ careerism,¹⁸² industry capture,¹⁸³ and old-fashioned politics.¹⁸⁴ Thus, despite having powerful tools like unfair, deceptive and abusive acts and practices (“UDAAP”),¹⁸⁵ regulators are unlikely to focus their limited resources on the greatest harms. Although poor servicing may lend itself to regulatory solutions, history suggests regulators will be mercurial partners at best.¹⁸⁶

Weak regulatory oversight of consumer financial contracts may compound the market failures described above. Enforcement actions produce the kind of data about a firm’s trustworthiness that consumers need to make informed choices.¹⁸⁷

180. The one exception is debt in collections because these debts may come from any obligation, but regulators like the CFPB have jurisdiction to regulate some practices of debt collectors. See Fair Debt Collection Practices Act (Regulation F), 12 C.F.R. pt. 1006 (2021).

181. Hal Singer, *The Latest Facebook Scandal Is Also a Crisis for the FTC*, SLATE (Dec. 19, 2018, 4:42 PM), <https://slate.com/technology/2018/12/facebook-privacy-scandal-ftc-crisis.html> [<https://perma.cc/H8LY-JZBF>] (exploring the Federal Trade Commission’s (“FTC”) focus on alleged cartels among music teachers and ice skating instructors while ignoring similar problems in the much larger tech industry). The misplaced priorities of the CFPB were most on display in its fight over the terms of how it appoints its director, in particular the 2017 fight over whether Richard Cordray could appoint Leandra English as acting director upon his resignation. Tara Siegel Bernard, *Dueling Appointments Lead to Clash at Consumer Protection Bureau*, N.Y. TIMES (Nov. 24, 2017), <https://www.nytimes.com/2017/11/24/us/politics/consumer-financial-protection-bureau-cordray-leader-trump-mulvaney.html> [<https://perma.cc/5JJM-ZTXG>].

182. See EISINGER, *supra* note 179, at xiv (describing many prosecutors as more concerned with maintaining their win records than with zealously enforcing the law).

183. See Michael D. Donovan, *Has the Debt Collection Industry Captured the CFPB?*, A.B.A. LITIG. SECTION (Sept. 27, 2019), <https://www.americanbar.org/groups/litigation/committees/class-actions/articles/2019/summer2019-debt-collection-industry-captured-cfpb> [<https://perma.cc/5QSE-P798>].

184. Catherine Rampell, Opinion, *Why Do Republicans Hate Consumers?*, WASH. POST (July 16, 2018), https://www.washingtonpost.com/opinions/why-do-republicans-hate-consumers/2018/07/16/0398840c-8933-11e8-85ae-511bc1146b0b_story.html [<https://perma.cc/3ARA-BXX3>].

185. UDAAP refers to a more comprehensive formulation of unfair and deceptive acts and practices (“UDAP”), which has been a longstanding framework for consumer protection laws at both the state and federal levels. See OFF. OF THE COMPTROLLER OF THE CURRENCY, UNFAIR OR DECEPTIVE ACTS OR PRACTICES AND UNFAIR, DECEPTIVE, OR ABUSIVE ACTS OR PRACTICES 1 (2020), <https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/unfair-deceptive-act/pub-ch-udap-udaap.pdf> [<https://perma.cc/6PNV-FHD7>].

186. Even where the federal consumer protection regulators do intervene, they seem to lack a plan. See Singer, *supra* note 181 (criticizing the FTC’s lack of strategy in enforcement actions).

187. Making this kind of information available to consumers was one of the justifications for the CFPB’s consumer complaints database. The idea of a public complaints database as an adjunct for enforcement action belongs to Senator Elizabeth Warren’s early conceptions for the CFPB.

In sum, regulators lack the jurisdiction, vision, and institutional capacity to systemically improve servicing.¹⁸⁸ They can require certain kinds of companies take certain steps or avoid certain practices in the hope of producing better consumer protection. But they have no way to future-proof these rules as consumer financial products evolve.

2. *Private Enforcement.* Without private enforcement to fill gaps in public enforcement, firms have little incentive to invest in servicing. At present, consumers who encounter inaccurate servicing have a menu of private causes of action to bring, but few of those options are likely to create the kind of liability needed to improve servicing. As several commentators have argued,¹⁸⁹ consumers face nearly insurmountable barriers to pursuing these claims in court: arbitration agreements,¹⁹⁰ limitations on class actions,¹⁹¹ complex procedural

Ian Ayres, Jeff Lingwall & Sonia Steinway, *Skeletons in the Database: An Early Analysis of the CFPB's Consumer Complaints*, 19 FORDHAM J. CORP. & FIN. L. 343, 350 (2014). Unsurprisingly, industry has fought efforts to make this kind of data available to consumers. *See id.* at 355 (describing how the consumer finance industry fought the inclusion of firm names in the CFPB's public-facing customer complaint database). It is unlikely that many consumers will be able to parse the complaints database, but the media and advocacy groups may be able to digest the data into more useful consumer guidance. *See* Pamela Foohey, *Calling on the CFPB for Help: Telling Stories and Consumer Protection*, 80 LAW & CONTEMP. PROBS. 177, 185 (2017) (explaining that lower-income individuals are less likely to file complaints with public complaint databases).

188. This problem exists even in the Department of Justice's flagship enforcement divisions. *See generally* EISINGER, *supra* note 179 (tracing the rise of feckless enforcement of federal regulations).

189. *See, e.g.,* Amy J. Schmitz, *Remedy Realities in Business-to-Consumer Contracting*, 58 ARIZ. L. REV. 213, 217–29 (2016) (explaining that remedies for consumers are mostly illusory due to the difficulty of prosecuting disputes with firms); *see also* Jean Braucher, *Form and Substance in Consumer Financial Protection*, 7 BROOK. J. CORP. FIN. & COM. L. 107, 107–08 (2012) (arguing the law has historically struggled to provide adequate protection to consumers).

190. *See* CONSUMER FIN. PROT. BUREAU, ARBITRATION STUDY: REPORT TO CONGRESS, PURSUANT TO DODD–FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT § 1028(a), at 9–13 (2015) (finding arbitration clauses are pervasive in consumer contracts); Andrea Cann Chandrasekher & David Horton, *Arbitration Nation: Data from Four Providers*, 107 CALIF. L. REV. 1, 51 (2019) (arguing arbitration is “not currently picking up the slack left by the decline of the class action”); *see also* Judith Resnik, *Diffusing Disputes: The Public in the Private of Arbitration, the Private in Courts, and the Erasure of Rights*, 124 YALE L.J. 2804, 2804 (2015) (arguing developments in arbitration have eviscerated consumers' rights); Rory Van Loo, *The Corporation as Courthouse*, 33 YALE J. ON REG. 547, 547 (2016) (arguing most consumers settle their disputes with firms through customer dispute programs that have even fewer protections than does formal arbitration).

191. *See* Schmitz, *supra* note 189, at 226–30.

rules,¹⁹² and a lack of high-quality legal representation.¹⁹³ Even when consumers can bring substantive claims in court, these actions amount to little more than “case-to-case sniping,”¹⁹⁴ not broad incentives to change. Simply put, the chance that consumers receive facts-intensive, ex post adjudication of the contractual rights or regulatory protections is slim.

When consumer financial contracts do come before courts, it is almost always with the consumer as a defendant in a debt collection proceeding. Debt collectors, firms, and, occasionally, individuals who purchase collection rights on consumer financial contracts use courts to collect money from consumers.¹⁹⁵ These collection efforts often take the form of garnishment orders or other orders that gives creditors access to the consumer’s assets.¹⁹⁶ Evidence suggests many consumers are unable to contest these claims,¹⁹⁷ even when they might have meritorious claims.¹⁹⁸ These proceedings clog court dockets and arguably undermine the legitimacy of the legal system.¹⁹⁹

192. See SARAH STASZAK, *NO DAY IN COURT: ACCESS TO JUSTICE AND THE POLITICS OF JUDICIAL RETRENCHMENT* 79–85 (2014).

193. LEWIS CREEKMORE, RONKÉ HUGHES, LYNN JENNINGS, SARAH JOHN, JANET LABELLA, C. ARTURO MANJARREZ, MICHELLE OH, ZOE OSTERMAN & MARTA WOLDU, LEGAL SERVS. CORP., *THE JUSTICE GAP: MEASURING THE UNMET CIVIL LEGAL NEEDS OF LOW-INCOME AMERICANS* 9 (2017) (showing a vast “justice gap” — “the difference between the civil legal needs of low-income Americans and the resources available to meet those needs”).

194. Arthur Allen Leff, *Unconscionability and the Crowd—Consumers and the Common Law Tradition*, 31 U. PITT. L. REV. 349, 358 (1970). *But see* Anne Fleming, *The Rise and Fall of Unconscionability as the Law of the Poor*, 102 GEO. L.J. 1383, 1433–35 (2014) (explaining how *Williams v. Walker-Thomas Furniture* made predatory installment contracts salient to legislatures prompting new legislation).

195. See Richard M. Hynes, *Broke but Not Bankrupt: Consumer Debt Collection in State Courts*, 60 FLA. L. REV. 1, 1 (2008) (explaining that while Virginia only had roughly seven million residents, it has had “more than a million civil filings a year since the late 1980s. The overwhelming majority of these filings seek to collect debts from consumers”).

196. Richard M. Hynes, *Bankruptcy and State Collections: The Case of the Missing Garnishments*, 91 CORNELL L. REV. 603, 622–25 (2006).

197. See Mary Spector, *Debts, Defaults and Details: Exploring the Impact of Debt Collection Litigation on Consumers and Courts*, 6 VA. L. & BUS. REV. 257, 288 (2011) (finding that consumers appeared in less than a quarter of the debt collection cases in which they were served).

198. See *id.* at 287 (arguing that the finding that 12 percent of all cases that debt collectors file in Dallas, Texas, are dismissed for failure to accomplish service, especially when taken with widespread reporting of fraudulent service in other jurisdictions, shows a burden on courts that is not commensurate with the merits); see also *McCollough v. Johnson, Rodenburg & Lauinger, LLC*, 637 F.3d 939, 947 (9th Cir. 2011) (explaining that one strategy law firms use to collect debts is to take a “factory” approach” designed to “mass produc[e] default judgments” in lieu of pretrial investigation of the claims in the complaint).

199. See *infra* Part IV.B.

C. *Conflicting Innovation Timelines*

Accurate servicing depends on three innovation timelines remaining in sync: the contract, the regulations governing the contract, and the technology servicing the contract in light of the regulation. When these timelines fall out of sync, customer harm often follows.

1. *Contract Innovation.* If a firm wants to offer consumers a new contract—perhaps its A/B testing suggests a different way of calculating interest will be more profitable and noncontroversial among consumers, a competing firm is poaching customers with a new offer, or changing economic conditions require accommodation—the firm can draft a new contract. Lawyers, and perhaps other gatekeepers, must approve the changes. The updates might be a bureaucratic headache. Nevertheless, the process is technically doable by anybody with a word processor.²⁰⁰

Professor David Hoffman and others have noted contract innovation occurs “seismically rather than slowly.”²⁰¹ These commentators describe contract innovation as occurring over a multistep process similar to technological or product innovation.²⁰² In stage one, the status quo begins to erode, but only slightly. Factors such as high negotiation costs, concerns about enforceability,²⁰³ and managers’ fear of being the one who breaks something²⁰⁴ encourage established players to resist innovation until there is a “shock[]” that undermines established norms.²⁰⁵ In stage two, more firms experiment with innovation in response to additional shocks that make the status quo increasingly untenable. In this stage, the “top market participants”

200. *But see generally* Mitu Gulati & Robert E. Scott, *The Three and a Half Minute Transaction: Boilerplate and the Limits of Contract Design*, 40 HOFSTRA L. REV. 1 (2011) (explaining why lawyers hesitate to spend a few moments revising contracts even when their boilerplates are dubious).

201. David A. Hoffman, *Whither Bespoke Procedure?*, 2014 U. ILL. L. REV. 389, 425; Stephen J. Choi, Mitu Gulati & Eric A. Posner, *The Dynamics of Contract Evolution*, 88 N.Y.U. L. REV. 1, 3–4 (2013); Stephen J. Choi & G. Mitu Gulati, *Innovation in Boilerplate Contracts: An Empirical Examination of Sovereign Bonds*, 53 EMORY L.J. 929, 937–38 (2004); Clayton P. Gillette, *Lock-In Effects in Law and Norms*, 78 B.U. L. REV. 813, 819 (1998).

202. *See Hoffman, supra* note 201; Choi, Gulati & Posner, *supra* note 201; Choi & Gulati, *supra* note 201; Gillette, *supra* note 201; Davis, *supra* note 150, at 85, 98; Mark C. Suchman, *The Contract as Social Artifact*, 37 LAW & SOC’Y REV. 91, 103 (2003).

203. Hoffman, *supra* note 201; Davis, *supra* note 150, at 90.

204. Gillette, *supra* note 201.

205. Hoffman, *supra* note 201, at 425–26.

may attempt to differentiate themselves by innovating new terms.²⁰⁶ Once promulgated, innovative terms are more likely to be widely adopted if official actors, such as the Supreme Court²⁰⁷ or industry groups, accept them.²⁰⁸ Finally, in stage three, one or some of the innovations gain sufficiently widespread approval that the market begins to prefer the innovative term as the standard over the old status quo.²⁰⁹ After a “short period of intense innovation,” the system settles into a steady state again.²¹⁰

Though standardized contracts require some kind of “shock” to create change, the realities of modern consumer litigation mean consumers are in a poor position to create that shock in ways likely to benefit their interests. Consumer contracts are not so much negotiated as chosen.²¹¹ Some of these contracts are barely voluntary, particularly in the medical and utilities contexts where there is little, if any, competition among firms and the consequences of foregoing a contract are dire.

Today, courts adjudicating disputes arising under these contracts rarely see well-defended consumers challenging firms’ interpretations of their contracts. To the extent courts do create shocks in consumer financial contracts, they almost always favor firms over consumers, for example, by expanding the enforceability of arbitration agreements.²¹²

206. Choi, Gulati & Posner, *supra* note 201, at 29.

207. Hoffman, *supra* note 201, at 426.

208. Choi, Gulati & Posner, *supra* note 201, at 9.

209. Arbitration clauses are among the most successful examples of this innovation cycle. Firms experimented with them, and courts, especially the Supreme Court, subsequently endorsed their usage. As a result, that first experimentation became standard, and a new layer of experimentation began. See David Horton, *The Shadow Terms: Contract Procedure and Unilateral Amendments*, 57 UCLA L. REV. 605, 623–44 (2010) (providing a detailed history of the development and dissemination of arbitration clauses after Bank of America began the trend of unilateral, postformation contract amendment).

210. Choi & Gulati, *supra* note 201, at 938.

211. Margaret Jane Radin, *Boilerplate Today: The Rise of Modularity and the Waning of Consent*, 104 MICH. L. REV. 1223, 1230 (2006) (explaining that contract terms “become part of the product, which is a unified set of disparate features: a battery, a forum selection clause, a microprocessor”); Douglas G. Baird, *The Boilerplate Puzzle*, 104 MICH. L. REV. 933, 933 (2006) (“The warranty that comes with your laptop computer is one of its many product attributes.”); Arthur Allen Leff, *Contract as Thing*, 19 AM. U. L. REV. 131, 142 (1970); see also Oren Bar-Gill & Kevin Davis, *Empty Promises*, 84 S. CAL. L. REV. 1, 19 (2010) (explaining how unilateral modification rights tend to allow firms to propose changes that “increase their profits, regardless of the adverse consequences to consumers”).

212. See generally Florencia Marotta-Wurgler & Robert Taylor, *Set in Stone: Change and Innovation in Consumer Standard-Form Contracts*, 88 N.Y.U. L. REV. 240, 244 (2013) (finding that between 2003 and 2010 arbitration clauses became standard in end-user license agreements).

Unsurprisingly, consumer financial contracts have become less consumer friendly over time.²¹³

Although firms may hesitate to make changes to their contracts, they face few barriers when they decide to do so. Change is technologically easy, and the litigation and regulatory risks of making changes are low despite the myriad of consumer protection rules on the books.²¹⁴ Lawmakers could change these rules, but as the next Section explains, their timeline for doing so is slow.

2. Regulatory Innovation. Although there is no comprehensive servicing regulation or regulator, there is a myriad of regulations governing bits and pieces of the servicing landscape.²¹⁵ The most general of these regulations are state and federal prohibitions on fraud. The most specific of these regulations detail the format of disclosures that consumers must receive at various points in the contract. There are rules,²¹⁶ standards, and a lively debate about which form of regulation more efficiently improves social welfare.²¹⁷ There have also been a handful of proposals to intervene in the form of these consumer financial contracts more directly.²¹⁸

Despite these regulatory efforts, consumers regularly encounter inaccurate and sometimes illegal servicing.²¹⁹ Consumers know there is a contract—indeed they are often receiving frequent reminders of their own obligations under the contract—but in practice, those contracts appear only to bind the consumer. Regulations in the consumer finance

213. *Id.*

214. *See supra* Part II.B.

215. There is a long-running debate about the extent to which administrative supervision over the structure of contracts is appropriate and feasible. *Compare* OTTO PRAUSNITZ, *THE STANDARDIZATION OF COMMERCIAL CONTRACTS IN ENGLISH AND CONTINENTAL LAW passim* (1937) (advocating for administrative supervision), *with* Llewellyn, *supra* note 66, at 705 (expressing doubt that administrative supervision will be able to keep pace with “constantly emerging” new fields).

216. For example, Congress passed the FDCPA due to “abundant evidence of the use of abusive, deceptive, and unfair debt collection practices.” 15 U.S.C. § 1692(a).

217. *See generally* BARR, MULLAINATHAN & SHAFIR, *supra* note 158 (applying regulatory analysis to financial service policies).

218. *See, e.g.*, Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 98–99 (2008) (proposing to regulate consumer contracts like other consumer products).

219. Just at the CFPB is a steady drip of new enforcement actions and settlements pertaining to long-established rules and regulations. *See Enforcement Actions*, CONSUMER FIN. PROT. BUREAU, <https://www.consumerfinance.gov/policy-compliance/enforcement/actions/?page=2> [<https://perma.cc/LT8K-MD9D>] (last updated June 29, 2020) (cataloging enforcement actions). Of course, reported enforcement actions are only the tip of the iceberg. Many other firms receive nonpublic warning letters or have errors slip past regulators for years.

space may be little more than window dressings if they do not actually produce accurate, payable bills. A growing chorus of commentators has noted poor servicing harms the legitimacy of our court and regulatory systems, which fail to make consumer financial contracts binding on firms as well as consumers.²²⁰

Perhaps more common still is for regulatory obligations to get ahead of the realities of firm technology. For example, in 2011 the Federal Rules of Bankruptcy Procedure were amended to include Rule 3002.1, which at the time required mortgage lenders to consumers in bankruptcy to file a notice every time the amount of their monthly payment changed.²²¹ Lenders were supposed to file this notice twenty-one days before the new payment was due.²²² For some mortgage products, the amount owed each month depends on the number of days in the month. To comply with this obligation, a lender would need to process any payment received from the last month, generate a notice, verify the notice, and file it within a week if it was going to meet the twenty-one-day deadline.²²³ Technology has made many processes quicker, but this particular timeline was too tight for the available technology. After several years of trying to make it work, the rule was amended in 2018 to allow courts to set different procedures for providing notices on some accounts where the payment amount regularly changes.²²⁴

In sum, regulations proceed on their own innovation timelines. While they may strive to bend firm behavior towards compliance, technological limitations may make compliance impossible. In that case, the choice is to amend the regulation or remove the product from the market altogether. In some cases, amending the regulations to accommodate technological limitations will be the least bad option.

220. Hoffman, *supra* note 201, at 392; Daphna Kapeliuk & Alon Klement, Contractualizing Procedure 44 (Dec. 31, 2008) (unpublished manuscript), <http://papers.ssrn.com/sol3/papers.cfm?abstract-id=1323056> [<https://perma.cc/5VWN-Y72V>]; see also Katherine Porter, *Misbehavior and Mistake in Bankruptcy Mortgage Claims*, 87 TEX. L. REV. 121, 179 (2008) (“[M]ost defaults and pending foreclosures occur outside the bankruptcy system. Thus, most families in default on their mortgages lack the protections—albeit, the existing weak protections—of the bankruptcy claims process to shield them from impermissible or unreasonable default fees.”).

221. FED. R. BANKR. P. 3002.1(b) (2011).

222. *Id.*

223. Jerry D. Truitt, *Rule and Form Changes Effective Dec. 1, 2011*, 30 AM. BANKR. INST. J., Dec. 2011, at 14, 14.

224. FED. R. BANKR. P. 3002.1(b) (2018).

3. *Technology Innovation.* In servicing, contract and regulatory innovations require technology innovations. As explained above, servicing technology is what performs the contracts, and therefore, it must accommodate both the terms of the contracts and the regulations that govern them.²²⁵ Unfortunately, for many firms, technology innovations are challenging.

No matter how well planned, technology projects are risky endeavors. Research in other industries suggests technology projects often take more time and resources than originally budgeted, and they rarely deliver all of the anticipated benefits.²²⁶ Seemingly benign technology projects sometimes turn into black-swan loss events.²²⁷ There is no reason to think consumer financial contract servicing is immune to these risks. Any contractual or regulatory change must be coded into the SOR and however many adjacent records systems the firm maintains.²²⁸ Because servicing is a series of interdependent actions, small changes in the contracts with consumers can require extensive coding revisions. Each revision to code creates a risk that the calculations will go astray. Each revision is also a cost the company making the contract would prefer to minimize.

These are not glamorous jobs that attract top talent and that warrant layers of oversight. Basic coding is blue-collar work.²²⁹ Cynically, we might even expect very talented coders would prefer more exciting jobs than back-office positions at financial institutions.²³⁰ Moreover, because servicing is, as explained above, not necessarily a metric on which firms compete, we might expect them to minimize their investments in the personnel working in servicing functions. If information technology positions are perceived as being less prestigious, they may be less able to attract and retain talent. At the same time, underinvestment in technology staff can create maintenance backlogs and time pressures that are not conducive to

225. See *supra* Part I.B.

226. Michael Bloch, Sven Blumberg & Jürgen Laartz, *Delivering Large-Scale IT Projects on Time, on Budget, and on Value*, MCKINSEY DIGIT. (Oct. 1, 2012), <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/delivering-large-scale-it-projects-on-time-on-budget-and-on-value> [<https://perma.cc/Z589-VNNX>].

227. Bent Flyvbjerg & Alexander Budzier, *Why Your IT Project May Be Riskier Than You Think*, HARV. BUS. REV., Sept. 2011, at 23, 23.

228. See *supra* Part I.B.

229. Zohar Lazar, *The Next Big Blue-Collar Job Is Coding*, WIRED (Feb. 8, 2017, 12:30 PM), <https://www.wired.com/2017/02/programming-is-the-new-blue-collar-job> [<https://perma.cc/W7P2-DCXF>].

230. See *supra* note 106 and accompanying text.

meticulous work. Here, the details matter. Simple coding problems can lead to massive servicing errors.

To be sure, there will always be some amount of technical debt and bugginess in these systems. The cost of maintaining perfect servicing technology may raise the cost of consumer finance to unacceptable levels or even reduce competition in the market as smaller firms are unable to make necessary technology investments. That imperfections will persist is not an argument for accepting technology that consistently produces customer harm. Consumer finance firms need incentives to find the middle position in the maintenance of their software systems.

Many consumer finance firms rely on proprietary software systems to service their contracts. These proprietary systems have a steep learning curve for new IT hires. Further complicating ongoing technology maintenance and development, these systems typically include significant technological debt. For example, Ocwen, one of the largest mortgage servicers, relied on proprietary servicing software that “generated errors because of system failures and deficient programming.”²³¹ The CFPB found “Ocwen tried manual workarounds” where its software was deficient, but these workarounds “often failed to correct inaccuracies and produced still more errors.”²³² Ocwen knew this. In internal communications, its own Head of Servicing described its proprietary system as “[a]n absolute train wreck”: “I can’t tell you the number of hours I and others spend on basic servicing technology blocking and tackling. I’m not talking about differentiators here. I’m talking about getting [the] system to stay online . . . letters to print.”²³³ Years of consultant reports and internal risk analysis reached similar conclusions.²³⁴ Ocwen relied on “more than 10,000 comment codes and flags” to move loans through its system, but “did not have a data dictionary to define these codes and describe their impact on other activities.”²³⁵ Despite knowing about these technological deficiencies for years, Ocwen did not make the investment to revamp its technology from the ground up.

231. Press Release, Consumer Fin. Prot. Bureau, *supra* note 123.

232. *Id.*

233. Complaint at 14, CFPB v. Ocwen Fin. Corp., No. 9:17-CV-80495 (S.D. Fla. Apr. 20, 2017).

234. *Id.* at 14–16.

235. *Id.* at 16–17.

The data in any one proprietary system are not necessarily compatible with the data in a different proprietary system. This means as firms sell customer accounts, data easily become corrupted—inaccessible or riddled with inaccuracies—or dependent on manual processes to integrate with the new technology platform.²³⁶ This problem is well documented in the struggle to adopt electronic health records (“EHR”). In 2004, President George W. Bush signed an executive order establishing the Office of the National Coordinator “to provide leadership for the development and nationwide implementation of an interoperable health information technology infrastructure.”²³⁷ Since then, the federal government has spent billions of dollars²³⁸ to encourage providers to adopt EHR and passed regulations requiring EHR developers to provide Application Programming Interfaces (“APIs”) so different systems can communicate and transfer data smoothly.²³⁹ Despite these efforts, when providers using different EHR systems need to transfer patient data, they still cannot rely on their EHR—the systems cannot communicate with each other, or only do so at significant added cost.²⁴⁰ Instead, providers use fax machines.²⁴¹ These data standardization problems remain sufficiently acute that the *New York Times* recently called out the fax machine as a “choke point” in the fight against the coronavirus.²⁴² Transferring customer account files between different servicing platforms is similar and tends to require similar manual

236. See, e.g., *id.* at 10 (“In many instances, the systems of record that other servicers use contain data fields that are different from the data fields in [Ocwen’s proprietary systems].”).

237. Exec. Order No. 13,335, 69 Fed. Reg. 24,059 (Apr. 27, 2004), *reprinted in* 42 U.S.C. § 300u.

238. Dan Gorenstein, *The Government May Want a Refund for Its \$30 Billion Investment in Electronic Medical Records*, MARKETPLACE (Apr. 14, 2016), <https://www.marketplace.org/2016/04/14/government-may-want-back-its-30-billion-investment-electronic-medical-records> [https://perma.cc/XH6V-JDKF].

239. 45 C.F.R. §§ 170.215, 170.404 (2020).

240. See Cheryl Rathert, Tracy H. Porter, Jessica N. Mittler & Michelle Fleig-Palmer, *Seven Years After Meaningful Use: Physicians’ and Nurses’ Experiences with Electronic Health Records*, 44 HEALTH CARE MGMT. REV. 30, 31 (2019); Gorenstein, *supra* note 238.

241. Asia Friedman, Jenna Howard, Eric K. Shaw, Deborah J. Cohen, Laleh Shahidi & Jeanne M. Ferrante, *Facilitators and Barriers to Care Coordination in Patient-Centered Medical Homes (PCMHs) from Coordinators’ Perspectives*, 29 J. AM. BD. FAM. MED. 90, 97 (2016).

242. Sarah Kliff & Margot Sanger-Katz, *Bottleneck for U.S. Coronavirus Response: The Fax Machine*, N.Y. TIMES (July 13, 2020), <https://www.nytimes.com/2020/07/13/upshot/coronavirus-response-fax-machines.html> [https://perma.cc/E9ZM-E3BU]. See generally Rachel Sachs, *Integrating Health Innovation Policy*, 34 HARV. J.L. & TECH. 41 (2021) (explaining the harms caused by noninteroperable EHR).

processes.²⁴³ Without a national standard for maintaining interoperable databases or other incentives to do the same, each company's data remain in proprietary formats, customized for whatever conditions existed at the firm when it built its SOR.

More modern programming languages, notably Ruby on Rails, solve for many of the pathologies found in proprietary systems like servicing platforms and EHR. One programming philosophy stands out as a potential antidote to the problems described above: convention over configuration. Convention over configuration tells developers to stick with defaults unless they absolutely need to make a change.²⁴⁴ This philosophy maximizes productivity because it “reduce[s] the decisions for developers while preserving flexibility.”²⁴⁵ By reducing the number of decisions a developer must make and minimizing new code, it also reduces the risk of errors and unexpected behavior. Defaults set at the code level and used across organizations promote interoperability.

These coding defaults in some ways mirror contractual formalities. Contracting parties use formalities to ensure courts will interpret their agreement in certain ways. Formalities are conventions that help ensure enforceability. Coding conventions are similar, but the computer stands in the place of the judge.

This is not to say accuracy and interoperability problems would disappear if firms suddenly built new servicing platforms using this philosophy. Rather, it points to ways to make incremental but valuable progress towards better servicing.

III. ERROR-RESILIENT CONSUMER CONTRACTS

Formalities are a bit like coding conventions: they standardize how contracts and mortgages express essential data. Developers can and do code everything from scratch, but the consequence is future developers and adjacent systems may be less able to read the code. Similarly, transactions can and do proceed without formalities, but the

243. Press Release, Consumer Fin. Prot. Bureau, *supra* note 123.

244. The official Ruby on Rails documentation describes it as follows: “Convention Over Configuration: Rails has opinions about the best way to do many things in a web application, and defaults to this set of conventions, rather than require that you specify minutiae through endless configuration files.” *Getting Started with Rails*, RUBY ON RAILS GUIDES, https://guides.rubyonrails.org/getting_started.html [<https://perma.cc/T2UQ-KW53>].

245. Yijun Yu, Yu Lin, Zhenjiang Hu, Soichiro Hidaka, Hiroyuki Kato & Lionel Montrieux, *Maintaining Invariant Traceability Through Bidirectional Transformations*, 34TH INT'L CONF. ON SOFTWARE ENG'G (ICSE) 540, 540 (2012).

consequence is the parties will be less able to enforce their agreement in court—the court may decline to read the contract.

Where modern coding has moved towards forms as its uses diversify, the law has done the opposite. The seal, the wet signature, and possibly the entire doctrine of consideration have been relegated to the curio cabinet. We ask law students to include these forms in their mental inventories of the law, but their use case shrinks a little each year.

Despite this trend, a few corners of the law preserve their formalities, notably at the borders of property law: secured transactions, wills, copyright. The relative success of these formalities in dealing with the timeless problems of evidence, intent, and enforceability—even in the face of significant societal changes—suggests formalities may be useful yet. While any form may be ridiculous in some, or even many applications, as Fuller notes, the problem that the form attempts to solve nonetheless persists.²⁴⁶ Eliminating the form does not eliminate the problem.

Since secured transactions cover home loans, auto loans, and secured financing of many consumer goods, this field of law covers large classes of consumer financial contracts. Formalities have accompanied secured transactions since its earliest days.²⁴⁷ And while the stakes of lending formalities have decreased over time,²⁴⁸ they remain high stakes for most parties asserting a security interest in property.²⁴⁹ Writing about mortgages, Dana argues legislators “err in eliminating formalities from substantive law”²⁵⁰ in part because strict adherence to formalities prevents transactions from becoming complex to the detriment of consumers.²⁵¹ If this is true, then consumer financial contracts may well benefit from increased formalities.

More importantly, these formalities in secured transactions have produced pockets of relatively accurate data, even where whole

246. Fuller, *supra* note 51, at 824.

247. Grant Gilmore, *Security Law, Formalism and Article 9*, 47 NEB. L. REV. 659, 661 (1968).

248. *Id.* at 663, 668 (tracing secured transactions’ move away from strict rules such as those in *Benedict v. Rainer*, 268 U.S. 353 (1925)).

249. *See id.* at 675. Some security interests, notably purchase money security interests, are exempt from the filing formalities. *See, e.g., In re Motors Liquidation Co.*, 777 F.3d 100, 105 (2d Cir. 2015) (holding even a mistakenly filed UCC-3 termination statement was sufficient to terminate a lien).

250. Dana, *supra* note 42.

251. *Id.*

industries were otherwise mired in bad data.²⁵² There is one key exception, the Mortgage Electronic Registration Systems (“MERS”),²⁵³ but stricter interpretation of formalities could avoid a reprise. Used in this way, formalities—and structural improvements generally—present an opportunity for incremental progress towards accuracy in consumer financial contracts. On the front end, they may help the three timelines remain in sync. To the extent modularity and formalities promote standardization, they may act as an API for consumer accounts, helping them move smoothly across platforms.

But, as the COVID-19 forbearance example that opened this Article shows, there will be cases when rigid data systems themselves become the problem because one of the timelines races ahead—in that case, the regulatory timeline—or because an individual consumer has a situation that does not map cleanly onto the current data framework. When this happens, formalities can be a lifeline for realigning the timelines. Knitters working on lacey or otherwise complex patterns will leave lifelines as they work so if they lose their place in the pattern, there is a checkpoint back to which they can rip out their work. Ideally, this checkpoint is a place where all of the stitches have been confirmed as correct. Writers do a version of this when they save a new version of their manuscript before implementing significant changes. Because servicing involves so many databases, and sometimes even multiple firms, dropping lifelines can be challenging. There is room for a formality to produce the data that firms need for lifelines.

This Part explores how modularity and formalities can make consumer financial contracts more resilient to errors. That is, these structural improvements will reduce the number and complexity of errors and simplify redress when errors inevitably occur.

A. *Modularity*

For our purposes, modularity is a fancy word for a simple concept: discrete contractual terms. Professor Henry Smith defines modularity as a “device to deal with complexity by decomposing a complex system into pieces (modules), in which communications (or other interdependencies) are intense within the module but sparse and standardized across modules.”²⁵⁴ Given the complexity of servicing software, modularity is essential for accurate automated servicing.

252. See *supra* Parts I–II.

253. See *infra* Part IV.C.2.

254. Smith, *supra* note 111.

Modularity will improve servicing by reducing the complexity of automation by making more data discrete, or nondependent on other data. In other words, specific terms governing payment calculation and processing need to become more modular to simplify the calculations that servicers must make every month. Simplifying payment calculation and processing will reduce the complexity of both servicing software and human interactions with customer accounts. Both should encourage more accurate servicing.

This *ex ante* simplicity is essential to make the complexity of dealing with consumers manageable. That is, predictable firm-side behavior is more important when confronted with unpredictable consumer-side behavior or inherently variable inputs.²⁵⁵ The goal is to push unavoidable complexity into its own corner and minimize the sums of money it impacts. To the extent that these pockets require difficult-to-maintain software or human interaction, that risk would be sandboxed from the rest of the account. And if and where there are mistakes in the sandbox, account corrections should be small and, hopefully, more manageable for consumers.

Suspense accounts illustrate how increasing consumer contract modularity may improve servicing outcomes. Currently, many consumer financial contracts specify any money that a consumer pays will be held in a separate account, the so-called suspense account.²⁵⁶ The firm will only apply money from the suspense account to the balance owed on the customer's account when there is enough money in the suspense account to cover an entire payment. Suspense accounts enable firms to avoid accepting partial payments. Because applying any payment to a customer's account depends on receiving a complete payment, any calculation error in one input will create problems throughout the account.

For example, if a customer owes \$1,002 to their mortgage company on June 1 and makes a payment of \$1,000 on May 25, the firm will hold the \$1,000 in suspense until the customer adds another \$2 to the account and pays any late fee charged on June 1 when the borrower "missed" the payment. If the consumer does not notice the issue and next pays \$1,000 on June 25, that second payment will go to the suspense account. There will now be enough funds in the suspense

255. For example, impounded mortgage payments include payments for local taxes and insurance. Since local tax rates and insurance premia change, these payments must also change. 12 C.F.R. § 1024.17(b), (i) (2021).

256. See *supra* Part I.B.5.

account to cover the payment due on June 1 so the firm will apply those funds to the customer's account. The customer will then not have sufficient funds to cover the July 1 payment and, where allowed, may even incur additional fees.²⁵⁷ This process may repeat indefinitely until the consumer notices the problem.

This example shows how complex, nonmodular contracts are profitable to firms.²⁵⁸ If they were not, firms would not use them. This suggests any move towards modularity will require state intervention because, as discussed above, consumers lack the power to negotiate contracts to their preferences.

The choice between modularity and context dependency is itself a form of regulation, regardless of whether courts or legislatures make that choice. As regulation, it decreases the options available to firms as they develop new products. Achieving significant modularity will require substantive changes to many consumer financial contracts, including some that may reduce firms' profits.

B. A New Formalities Framework

Fuller theorized formalities have three functions: evidentiary, cautionary, and channeling.²⁵⁹ According to Fuller, these functions are not discrete: a seal may simultaneously serve evidentiary, cautionary, and channeling functions.²⁶⁰ Fuller argues a form serving one function will tend to serve others.²⁶¹ The most effective forms are those that serve multiple functions. Those that do not risk veering into mere performance and meaninglessness.

Keeping in mind the tendency of forms to have overlapping functions, consumer financial contracts reveal another function of forms: the benchmarking function. While Fuller's three functions are internally focused on the parties to a transaction and the judges who might hear disputes between the parties, the benchmarking function is primarily useful to third parties such as regulators or consumers shopping for a contract counterparty.

257. In addition to the FTC's prohibition on pyramiding late fees, several recent regulations prohibit creditors from charging late fees on late fees alone. For example, the Rental Housing Late Fee Fairness Amendment Act of 2016 prohibits landlords in the District of Columbia from taking a late fee out of the next month's rent payment. D.C. CODE § 42-3505.31 (2021).

258. See Porter, *supra* note 220, at 127 (explaining how keeping customers in default can be profitable to servicers).

259. Fuller, *supra* note 51.

260. *Id.* at 803.

261. *Id.*

Because the main problems in servicing are data problems at their core, forms that produce and simplify data may offer solutions. To be sure, no form is going to create perfect firm-side compliance overnight, but the test must be whether forms are an efficient tool for improving servicing.

1. *Evidentiary Formalities.* First, in their evidentiary function, formalities prove the existence of the contract “in case of controversy.”²⁶² The statute of frauds and state land recording acts are prime examples of this function. By requiring evidential formalities, parties and courts can resolve disputes by looking to the documents instead of probing the parties’ potentially competing recollections of their agreement. Knowing documentation will be the preferred evidence in a dispute should incentivize the parties to create documents that reflect their agreement.

Professors Ian Ayres and Robert Gertner expand on Fuller’s conception of the evidentiary function to argue formalities also inform “the parties within the contract.”²⁶³ The writing provides the parties with additional manifestations of the other party’s intent and thereby helps resolve any misunderstandings that may exist between the parties.

This evidentiary function also helps outsiders understand the scope and boundaries of others’ rights. Professor Christopher Sprigman argues copyright formalities facilitated licensing by making it easier for would-be licensees to identify which rights were subject to copyright and who, if anybody, held those rights.²⁶⁴ The same is true of land recording formalities which ostensibly provide notice to the world of who controls what space. These formalities first and foremost provide evidence parties use to avoid disputes that would otherwise end up in court. When that fails, these formalities provide evidence parties can use to informally settle their disputes. For example, the allegedly infringing party might, upon inspection of the formality, voluntarily cut a sample out of a song or move a fencepost. Finally, if voluntary conflict resolution fails, the formalities might be evidence in a formal case.

For consumers and other less sophisticated parties these misunderstandings may be more fundamental misconceptions of the

262. *Id.* at 800.

263. Ayres & Gertner, *supra* note 33.

264. Sprigman, *supra* note 36.

agreements into which they enter. The writing, and the opportunity to review it over the course of performance, is theoretically useful for helping consumers understand the bargain they struck. This theory is the basis for mandatory disclosure rules, such as the Truth in Lending Act (“*TILA*”), that add a layer of formalities onto certain kinds of contracts.²⁶⁵ Of course, this theory fails where consumers do not, and especially where they cannot, read their contracts and the formalities attached to them.

2. *Cautionary Formalities.* Second, in their cautionary function, formalities force parties to take deliberate action to deter “inconsiderate action.”²⁶⁶ Fuller describes the seal: “The affixing and impressing of a wax wafer—symbol in the popular mind of legalism and weightiness—was an excellent device for inducing the circumspective frame of mind appropriate in one pledging his future.”²⁶⁷ Although the seal is all but dead, waiting periods, boldface text, and mid-document requests for initials all perform the same function. These formalities are a call to stop and think about whether the obligation is truly desirable. These formalities may be particularly useful in consumer financial contracts beyond mortgages and credit cards where consumers may be less aware they are entering into an agreement that may obligate them to make periodic payments, such as phone or even medical bills.

There is one function the law often looks to formalities to perform but which they do not fill well: disclosure.²⁶⁸ Cautionary formalities might signal the significance of the agreement into which a party is about to enter, but they cannot convey specific information about that agreement to any party. The success of the older secured transactions formalities stands in contrast to the regulatory formalities more recently inserted into the consumer credit process. These new formalities are almost all disclosures. The problem they target is consumers allegedly making bad deals because they do not understand the terms of the obligations for which they sign up. Formalized disclosures, like those for credit cards and the *TILA* paperwork that accompanies new home loans, may succeed as cautionary formalities

265. See, e.g., 15 U.S.C. § 1604 (describing disclosure guidelines); *id.* § 1606(c) (describing allowable tolerances for disclosure compliance).

266. Fuller, *supra* note 51, at 800.

267. *Id.*

268. *But see* Ayres & Gertner, *supra* note 33 (arguing formalities may protect the “relatively uninformed” by forcing parties to transfer information).

in that they convey to consumers these agreements are a big deal. But there is little evidence they are changing consumer behavior. That is, these disclosures might convey an agreement is important, but might not achieve the desired reaction of causing the consumer to read the agreement carefully and ask questions. Knowing what to do in a situation is different from knowing the situation carries meaning and consequence. The formalities only indirectly target their purpose and therefore do not always get there.

Opportunistic parties may manipulate formalities to make enforceable agreements that judges might otherwise find void.²⁶⁹ This risk is especially high when the law relies on formalities to overcome the kinds of substantive safeguards, such as unconscionability, which have long given balance, and even legitimacy, to the law of contracts.

3. *Channeling Formalities.* And third, channeling formalities push the terms or attributes they govern into specific formats. Both transacting parties and courts then privilege those formats over others that do not align with the formality. By specifying certain formats for privileged treatment, the formality promotes standardization. Fuller explains that formalities “furnish[] a simple and external test of enforceability.”²⁷⁰ He continues, “One who wishes to communicate his thoughts to others must force the raw material of meaning into defined and recognizable channels.”²⁷¹ Professor Karl Llewellyn described these formalities as the “definite marks which shall at once include the promises which ought to be enforceable, exclude those which ought not to be, and signalize those which will be.”²⁷² Jhering’s example of these forms is the stamp on a coin, which “relieves us from the necessity of testing the metallic content and weight—in short, the value of the

269. See Fuller, *supra* note 51, at 823 (speculating that the Uniform Written Obligations Act will probably cause parties “to add a line or two to unread printed forms and increased embarrassment to the task of judges seeking a way to let a man off from an oppressive bargain without seeming to repudiate the prevailing philosophy of free contract”); Posner, *supra* note 33, at 1983 (arguing formalities are inherently unstable because judges will bend them to avoid opportunistic behavior).

270. Fuller, *supra* note 51, at 801.

271. *Id.* at 802.

272. Karl N. Llewellyn, *What Price Contract?—An Essay in Perspective*, 40 YALE L.J. 704, 738 (1931).

coin.”²⁷³ This external test of enforceability is essential to both parties to transactions and courts²⁷⁴—a manifestation of intent.²⁷⁵

The standardization channeling formalities promote creates a lingua franca for transacting parties, thereby reducing their transaction costs. For example, if a formality requires lenders to disclose APR calculated in a particular way in a box on the last page of a contract, then consumers can shop by simply comparing the boxes. Without channeling the data into that format, consumers would have to standardize the terms themselves to accurately compare competing APRs. Notice here the formality does not necessarily cause consumers to have a sophisticated understanding of APR. Instead, it reduces the more complex concept into a single number that can be compared with other numbers. The number in the box is a useful abstraction, almost like a star rating. The consumer can rely on that number much like they can trade coins at a store without knowing their actual metallic content and weight.

This function can seem opaque, but it should be familiar to students of property theory. The channeling function of formalities echoes the *numerus clausus* principle in property. In civil law, *numerus clausus* provides that rights must abide certain forms to be property rights; otherwise they must sound elsewhere in the private law.²⁷⁶ Professors Thomas Merrill and Henry Smith have argued the common law recognizes the same principle, even if it does not have an explicit name for it.²⁷⁷ Limiting property to certain forms reduces the measuring costs in transactions for both the parties to the transaction and potential successors in interest, as well as for other market participants.²⁷⁸ Returning to the example of the coin, if the stamp always indicates the value of the coin because no one may claim ownership of an increment of the coin less than the stamp, anyone receiving a coin can be more or less confident of the value received.

273. Fuller, *supra* note 51, at 801 (quoting RUDOLPH JHERING, *II² GEIST DES RÖMISCHEN RECHTS* (8th ed. 1923)).

274. *Id.*

275. *Id.*

276. Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 *YALE L.J.* 1, 4 (2000).

277. *Id.* at 20.

278. *Id.* at 27–28.

Although formalities have become less prominent in many areas of the law,²⁷⁹ they remain a feature of property. So formalities prevail in intellectual property, wills,²⁸⁰ and, of course, secured transactions. Formalities make sense for property-like claims because these claims are supposed to be “good against the world.”²⁸¹ For property claims to be uniformly recognized, they need some degree of uniformity. Indeed, Merrill and Smith claim “central difference between contract and property concerns the freedom to ‘customize’ legally enforceable interests.”²⁸² And so, property only exists in certain, predetermined forms.²⁸³ What does not fit into those forms is not property—in most cases, it is contract. The purpose of limiting property to certain forms is to protect future individuals who interact with the property from inefficient fragmentation,²⁸⁴ particularly over time.²⁸⁵

Returning to the idea of consumer contracts as products, a few examples show these contracts are as defeasible as most property, even if the vocabulary does not track. A firm selling a contract to a debt collector is not functionally different from the same firm selling an apartment building. If the same firm sells the servicing rights to its contracts, it is functionally hiring a building management company. The company purchasing the servicing rights can no more change the consumers’ contracts than the building management company can change the tenants’ leases.

Concerns about accurate servicing, then, are analogous to concerns about inefficient fragmentation in property. Where systems, whether legal regimes or software, expect inputs in one particular format but receive them in another, chaos abounds. In property, that chaos may result in inefficient uses of the property, particularly

279. See Francis E. Holahan, *Contract Formalities and the Uniform Commercial Code*, 3 VILL. L. REV. 1, 3 (1957) (“Other legal forms have been done away with.”).

280. John V. Orth, *Wills Act Formalities: How Much Compliance Is Enough?*, 43 REAL PROP. TR. & EST. L.J. 73, 74 (2008).

281. James Y. Stern, *Property’s Constitution*, 101 CALIF. L. REV. 277, 298 (2013).

282. Merrill & Smith, *supra* note 276, at 3.

283. *Id.*

284. *Id.* at 6; Michael A. Heller, *The Boundaries of Private Property*, 108 YALE L.J. 1163, 1176 (1999).

285. *Id.* at 1181–82.

underuse.²⁸⁶ In consumer contracts, that chaos results in undesirable servicing, particularly firm-side breach.²⁸⁷

Channeling formalities are, on first impression, an odd fit for consumer financial contracts. In the modern economy of adhesion contracts where the product is the contract, the contract *itself* is the channeling formality. Even if the contract is incomplete—leaving key terms to the discretion of one party—or has not been read, the pretense of a contract makes the agreement enforceable. In this way, the contract itself has become the seal.

Fuller warns opportunistic parties might manipulate channeling formalities to make some transactions legally enforceable that would not otherwise be so.²⁸⁸ This risk is especially acute if the contract—whether on paper or by click—becomes a form itself. That is, if the mere inclusion of a contract determines enforceability without regard to the usual contract doctrines that determine enforceability. Indeed, there is a rich literature documenting adhesion contracts generally and consumer finance contracts more specifically. These contracts manifest an agreement to be found but no specificity on the terms—no meeting of the minds. This lack of specificity is no barrier to enforcement because the written agreement is sufficient to make the transactional framework legally enforceable.

The contract-as-formality model tends to vitiate doctrines other than enforcement. This model is especially devastating to doctrines that police substantive fairness, but that would seem to be the point. Stranger still, this model undermines doctrines that police procedural fairness and with them, the integrity of contract law itself.

One way to rescue the content of contract doctrine from the oblivion of contract-as-form is to add additional channeling forms. The goal is to preserve most of the certainty surrounding enforcement that the current model provides, while reinserting substance into consumer financial contracts.

286. *See id.* at 1166 (explaining how the legal framework of property permits only certain forms to limit overfragmentation of property rights).

287. Firm-side noncompliance with applicable laws and/or contract terms is likely the most common undesirable outcome. That said, many consumer contracts now allow unilateral amendment or contain other provisions that obscure what might previously have been firm-side breach. Horton, *supra* note 209, at 608–09. Reliance on these provisions may nevertheless be undesirable because they may tend to move the contract away from the bargain that the consumers believe they struck. *See id.* at 645–51.

288. Fuller, *supra* note 51, at 803.

Regulations have already added channeling formalities to certain kinds of consumer finance contracts. For example, TILA requires lenders disclose information such as the interest rate of a loan.²⁸⁹ Lenders must use a particular form to make these disclosures.²⁹⁰ That is, TILA's formalities are literally forms. If the lender complies with the form, the loan is presumptively enforceable. Similarly, credit card agreements must contain the so-called "Schumer Box," which lists, among other things, the card's interest rate expressed as APR.²⁹¹ Failure to comply with these requirements does not make the loan agreements unenforceable in the sense that consumers get free money, but failure to comply can force firms into more fact-intensive adjudication in addition to facing liability for their regulatory failures.²⁹² The TILA disclosure and Schumer Box are like Jhering's stamp on the coin—they reveal certain characteristics about the documents and thereby relieve the parties to the transaction and courts from further investigation.

Beyond ensuring enforceability, formalities like the TILA disclosure and Schumer Box serve two additional goals as channeling formalities. First, like the weight stamped on the coin, they convey to the consumer the substantive value of the contract. The evidence of the effectiveness of this message remains mixed.²⁹³ But even if these formalities have little impact on consumer behavior, they may still impact firm behavior in ways that promote better contracts and perhaps even better compliance with the firms' contractual and regulatory obligations.

Channeling formalities will promote firm-side compliance with contracts if they channel firms' obligations into formats that better interface with servicing technology than current contracts. For example, the payment schedule proposed above might channel contractual obligations towards those that an ex ante schedule can efficiently capture. Making the schedule itself might be a useful

289. 12 C.F.R. § 1026.18 (2021).

290. See *Closing Disclosure with Truth in Lending Act Disclose Citations*, CONSUMER FIN. PROT. BUREAU (May 2016), https://files.consumerfinance.gov/f/documents/201605_cfpb_closing-disclosure-with-truth-in-lending-act-disclosure-citations.pdf [<https://perma.cc/9QKL-J97J>].

291. See Fair Credit and Charge Card Disclosure Act of 1988, Pub. L. No. 100-583, 102 Stat. 2960 (requiring the disclosure of information by credit card issuers in a bill sponsored by Senator Chuck Schumer).

292. See 15 U.S.C. § 1640.

293. Talia B. Gillis, *Putting Disclosure to the Test: Toward Better Evidence-Based Policy*, 28 LOY. CONSUMER L. REV. 31, 65–69 (2015); Lacko & Pappalardo, *supra* note 117.

calculation exercise—after all, any difficulty a firm faces in making the ex ante calculations is likely to reappear in monthly statements and other documents servicing software generates. A requirement that firms reproduce channeling formalities whenever they change or are forced to change the terms of a contract might insure contracts remain date friendly over time.

4. *Benchmarking Formalities.* Formalities allow parties to demonstrate their attention to detail over a standardized unit. Where infinite configuration may be the hallmark of contract,²⁹⁴ formalities offer a small-scale opportunity for an apples-to-apples comparison of the quality of the contracting party. Formalities reveal the quality of the party offering the contract, not of the goods or service that comprise the subject of the contract. So if there are a few fiddly formalities that are either public or findable with average diligence, parties can observe whether their potential counterparty is the kind of company that pays attention to details. Compliance with formalities might signal better compliance generally. The signal might be noise, but it is nonetheless meaningful.

Benchmarking formalities are abundant outside the law. The most pervasive is orthography, more commonly called spelling.²⁹⁵ Although the American English language is riddled with alternative spellings,²⁹⁶ most words have one or two “correct” spellings. Without a formal authority on spelling,²⁹⁷ the acceptable forms are subject to some degree of popular interpretation. Nonstandard forms may be recognizable and preferable in some instances, especially humor. But incorrect spellings of common words are obvious. As anyone who has read a stack of handwritten exams can attest, nonstandard spelling is not always an impediment to comprehension. But it is a signal nonetheless. One study has suggested some readers of online reviews view typographical errors—for example, “wsa” instead of “was”—as

294. Merrill & Smith, *supra* note 276, at 3.

295. See Fuller, *supra* note 51, at 803 (“If language sometimes loses valuable distinctions by being too tolerant, the law has lost valuable institutions, like the seal, by being too liberal in interpreting them.”).

296. RICHARD L. VENEZKY, *THE AMERICAN WAY OF SPELLING: THE STRUCTURE AND ORIGINS OF AMERICAN ENGLISH ORTHOGRAPHY* 6 (1999).

297. Other modern languages go through more formal spelling reforms. For example, the *Rat für deutsche Rechtschreibung* (Council for German Orthography) is an international body responsible for German spelling while the *Académie Française* (French Academy) governs the official spelling of French and adoption of new French words.

evidence of carelessness, causing them to trust the review less.²⁹⁸ These readers were more forgiving of orthographical errors that signal a lack of knowledge instead of a lack of care. Grammar works much in the same way as spelling. Compliance with spelling and grammar norms—or more precisely, avoidance of typos—is a signal for thoughtfulness beyond spelling and grammar.²⁹⁹

In this way, benchmarking formalities may assist parties in shopping among prospective counterparties. A formality need not be directly observable by shoppers—consumers or firms selling servicing rights to their contracts—to assist in their decision-making process as long as the media or regulators are able to observe adherence to these formalities and digest their observations into findings shoppers can use. Either way, adherence to benchmarking formalities can become part of a firm’s reputation. Given the weakness of both public and private enforcement regimes,³⁰⁰ reputational concerns may be a key motivator for compliance.³⁰¹

Compliance with formalities may also be a signal for regulators about which firms are most likely to be struggling with compliance. If a firm cannot reliably comply with formalities, perhaps its internal processes are overwhelmed more generally. After all, a firm is expected to prioritize compliance with obligations that are easiest for regulators to monitor. Comparing different firms’ approaches to formalities could provide regulators with information about an industry and allow them to intervene before quality standards erode industry-wide.

The “robosigning” scandals of the Foreclosure Crisis exemplify this function. Many states and courts require lenders or servicers to attest they have verified the information they are submitting to the court.³⁰² This verification usually takes the form of a signature

298. Dena Cox, Jeffrey G. Cox & Anthony D. Cox, *To Err Is Human? How Typographical and Orthographical Errors Affect Perceptions of Online Reviewers*, 75 *COMPUTS. HUM. BEHAV.* 245, 247 (2017).

299. See *id.* (noting that “typographical errors are often attributed to carelessness”).

300. See *supra* Part II.B.

301. Donald C. Langevoort, *Monitoring: The Behavioral Economics of Corporate Compliance with Law*, 2002 *COLUM. BUS. L. REV.* 71, 79 (describing reputational harm as a cost of noncompliance); Danielle D’Onfro, *Corporate Stewardship*, 44 *J. CORP. L.* 439, 447 & n.50 (2019) (same).

302. See, e.g., Edward J. Balleisen & Melissa B. Jacoby, *Consumer Protection After the Global Financial Crisis*, 107 *GEO. L.J.* 813, 832 (2019) (explaining attestation requirements); see also Jacob L. White, “Robo-Signing”: *A Symptom of the Shortcomings in Maryland’s Policy of*

following an attestation and sometimes requires notarization.³⁰³ The sworn statement and signature constitute a classic formality. The CFPB and other regulators have found several examples of a single person allegedly signing more documents than they could possibly sign if they were actually verifying the contents of the document as they attest to have done.³⁰⁴ Documents signed without such verification are called “robo-signed.”³⁰⁵ Upon further inspection, these regulators even noticed the signatures were inconsistent, suggesting several different people were signing one person’s name.³⁰⁶ Who signs what name on a document has no direct bearing on customer harm. Instead, the potential customer harm lies in what failure to adhere to the formality signals: no one was verifying the contents of the documents, and the firm did not take its compliance obligations seriously.³⁰⁷

C. *Implementation*

The success of reinvigorated formalities will depend, in part, on which institutions promulgate them. To the extent formalities are already on the books, the onus is on state supreme courts to recommit their jurisdictions to enforcement of those formalities. In many instances, case law has developed to permit something other than strict

Expediting Foreclosure Proceedings, 1 U. BALT. J. LAND & DEV. 81, 85–86 (2011) (explaining robo-signing).

303. *E.g.*, OFFICIAL FORM 410S1: NOTICE OF MORTGAGE PAYMENT CHANGE 2, https://www.uscourts.gov/sites/default/files/form_b410s1.pdf [<https://perma.cc/B9UD-2V3J>].

304. *See* Press Release, Consumer Fin. Prot. Bureau, Consumer Financial Protection Bureau Takes Action Against Payday Lender for Robo-Signing (Nov. 20, 2013), <https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-takes-action-against-payday-lender-for-robo-signing> [<https://perma.cc/4ZLN-T6UM>].

305. Balleisen & Jacoby, *supra* note 302, at 831 (defining robo-signing as “the systemic practice of signing mortgage documents that attest to the validity of a company’s ownership of a mortgage debt without actual knowledge or confirmation of the loan’s chain of title and status”).

306. Katy Stech, *J.P. Morgan, Justice Department Reach \$50 Million Robo-Signing Settlement*, WALL ST. J. (Mar. 3, 2015, 4:21 PM), <https://www.wsj.com/articles/j-p-morgan-justice-department-reach-50-million-robo-signing-settlement-1425399145> [<https://perma.cc/E373-366C>].

307. *See* Richard E. Gottlieb, James M. Golden & Brett J. Natarelli, *The Foreclosure Firestorm: “Robo-Signing” Allegations Have More Bark Than Bite*, 67 BUS. L. 649, 649 (2012) (recounting how a witness from GMAC Mortgage testified that employees were signing documents without verifying them); *see also* White, *supra* note 302, at 90–93 (arguing robo-signing was a symptom of larger industry issues).

compliance by firms.³⁰⁸ Alternatively, legislatures could act to overrule decisions that undermine strict compliance.³⁰⁹

New formalities will need coordination, likely at the national level, lest firms shop around them. Federal regulators could promulgate formalities, but their limited jurisdiction means there will be a patchwork of rules, with ostensibly similar companies facing different requirements based on who their regulator is. A better option is for a national organization like the Uniform Law Commission to promulgate rules that states can then adopt. Since contracts are primarily the creation of state law and dependent on state law for enforcement, state legislatures have the power to create rules that apply to contracts regardless of the identity of the firm in the contract. Standard formalities across industries are important in the consumer financial contract space because these contracts can all land in the same collections system if the consumer defaults.

Reinvigorating formalities and promulgating new ones will blur the line between public and private law. Formalities—especially those incorporated into contract law—may be rooted in the private law, but they necessarily constrain the law inside publicly-chosen boundaries. Still, they may be a more palatable interference in the private law insofar as they largely target the process of contracting rather than the substance of the contract. Indeed, regulation through formalities promotes private ordering by helping the enforcement process hew more closely to the bargain struck at origination, regardless of whether it is the consumer or the firm enforcing the contract.

New formalities would work like formalities of yore: failure to strictly adhere to them will limit the enforceability of agreements in court. Given the power imbalance between consumers and firms, it may be desirable to make noncompliant contracts wholly unenforceable. A middle position is to make noncompliant contracts ineligible for default judgments or subject to higher burdens of proof. Different consequences might make sense for different formalities.

308. See, e.g., *Colorow Health Care, LLC v. Fischer*, 420 P.3d 259, 264–65 (Colo. 2018) (holding that, although the Colorado legislature required arbitration agreements to be in bold font, agreements not in bold font were nonetheless enforceable, and explaining that “[w]e don’t believe that the General Assembly intended to elevate form over function”).

309. The process of rules becoming standards may then repeat itself. See Frederick Schauer, *The Tyranny of Choice and the Rulification of Standards*, 14 J. CONTEMP. LEGAL ISSUES 803, 804–05 (2005) (describing how rules “have their edges rounded upon application, interpretation, or enforcement”); Michael Coenen, *Rules Against Rulification*, 124 YALE L.J. 644, 656 (2014) (describing the “standard-ification” process).

D. Examples and Applications

This Section sketches out two new formalities that may improve servicing. These proposals are proofs of concepts intended to inspire policy experts to think about whether formalities are the tool they need to improve servicing.

1. *Precommitted Billing.* One formality inspired by the disclosure formalities discussed in the Introduction is for firms to calculate a schedule of payments due over the term of the agreement or, for open-ended agreements, over the next three years.³¹⁰ This schedule would then be a static reference point that consumers could access in print or through their electronic accounts. If a firm needs to change the payments it expects from consumers, then it must republish the schedule to consumers. An example of such a schedule would be a mortgage's amortization tables. If the agreement is long term, it could specify any fees the borrower should expect to owe if they pay thirty, sixty, or ninety days late. In a modular contract, the lateness of any one payment need not impact the calculation of future payments. The formality is the calculation and publication of the schedule. This formality is a precommitment to particular servicing outcomes.

It is admittedly odd to identify precommitment as a noteworthy attribute of contracts. After all, what are contracts if not precommitments to fulfill certain obligations? But consumer contracting has slipped far enough from the platonic ideal of contract as a promise that precommitment is newly noteworthy. In a world in which consumers do not read contracts, much less negotiate them,³¹¹ consumers' expected terms often do not align with the terms rational firms will provide.³¹² This may be all the more true when firms have unilateral modification rights,³¹³ especially the ability to add and change fees on a whim. In this environment, even the savviest consumers are unable to independently calculate what they owe on their bills each month. They simply lack the available information.

Precommitment to servicing outcomes is one possible antidote. On its face, a published schedule offers consumers notice of what to expect, and in turn, gives them a benchmark against which to verify

310. This kind of formality would not work for revolving debt.

311. See Marotta-Wurgler, *Will Increased Disclosure Help?*, *supra* note 32 (noting the overwhelming majority of consumers agree to terms without reading online contracts).

312. Ayres & Schwartz, *supra* note 57, at 553.

313. See Horton, *supra* note 209, at 623 (describing the practice of unilateral modification).

their current account status. Given how few consumers read their contracts,³¹⁴ it is possible only a limited number of customers would read and follow the schedule. Instead, the main benefit for consumers might come if and when they receive a new schedule, which would alert them something on their account has changed. Highly motivated consumers might investigate, and if there is a problem, catch it early so that firms can fix errors before they become too deeply embedded in accounts.³¹⁵ With data about what to expect on their accounts, those motivated customers would be less beholden to information provided only through customer service agents if and when their accounts require attention. Instead of an open-ended question about their payment, they would be able to ask why the bill does not match the schedule. Although potentially useful for a few motivated consumers, the published schedule's main potential for improving compliance lies in its role as a formality.

Such a publication would have three main functions. First, precommitted billing ensures an effective evidentiary formality. In a dispute between a consumer and a firm, it would be *prima facie* evidence of what the consumer owed. The law can incentivize firms to comply with the schedule by limiting default judgment and remedies like wage garnishment to the sums on the schedule. This data could be even more important at the collections phase, in which late fees and collection costs have often bloated balances owed.³¹⁶ Compliance with the formality would drive the enforceability of the contract. Firms that want to enforce something other than what the schedule provides would need to update the schedule, thereby creating a detailed record of activity on the account.

The formality would serve a limited cautionary function. As mentioned above, it may be useful for the few consumers who even attempt to read their contracts by causing them to contemplate the merits of the obligation before they commit. Better still, it would force firms to consider whether they can do the kinds of calculations that the contract requires. This formality would increase the cost of contracts with dynamic pricing and therefore marginally disincentivize them.

314. Marotta-Wurgler, *Will Increased Disclosure Help?*, *supra* note 32, at 179 (arguing that making disclosures more convenient does not increase the likelihood that consumers will read them).

315. See generally Yonathan A. Arbel & Roy Shapira, *Theory of the Nudnik: The Future of Consumer Activism and What We Can Do To Stop It*, 73 VAND. L. REV. 929 (2020) (theorizing that a few highly motivated consumers can police firm behavior and improve compliance).

316. Jiménez, *supra* note 86, at 68.

Finally, this kind of formality would be a benchmark for regulators supervising servicing. Regulators could first study whether firms were regularly producing the schedule and then, if need be, the substance of the schedule. In the latter, they would see whether the payment in the SOR matches the schedule. If it does not, regulators would have a strong signal they need to investigate further. At the same time, if a particular kind of contract persistently causes schedule issues, regulators would know they need to focus on those kinds of contracts.

The functionality of these schedules would be amplified if they were somehow publicly available, but that would raise insurmountable privacy concerns.³¹⁷ A less intrusive alternative would be to treat these schedules like tax records and make them available to a very limited number of private researchers who may in turn work with journalists.³¹⁸ The prospect of an apolitical party uncovering and publicizing their findings would incentivize better servicing. In the alternative, this kind of research could help regulators direct their limited resources to where they are most needed and help consumers shop between firms.

The challenge with any schedule system is accounting for the complex, and at times non-compliant, behavior of consumers. Too rigid a system could easily create another snafu like the “022, Energy – Environment Costs” drop-down in Fannie Mae’s system.

Firms will naturally oppose any requirement to publish payment tables or fee schedules to consumers for several reasons. Gathering and publishing this information will cost them money. This is especially true if they face litigation or uncertainty about what counts as publishing data to consumers. Publishing data may reveal their business practices to competitors or bring unwanted attention from journalists, researchers, and regulators. And in some cases, firms may prefer that consumers not know exactly what to expect over the life of their contract.

Certainty about what to expect over the life of a contract could impact the sale value of these contracts.³¹⁹ It is unclear which direction this cuts: If these innovations make enforcing these contracts more efficient, they should increase their sale value. On the other hand, if

317. See *infra* Part IV.D.

318. See Jeffrey Mervis, *How Two Economists Got Direct Access to IRS Tax Records*, SCIENCE (May 22, 2014), <https://www.science.org/content/article/how-two-economists-got-direct-access-irs-tax-records> [<https://perma.cc/7GUX-PLLT>].

319. Davis, *supra* note 150, at 99 (“The value of a contract to the parties who adopt it may also depend on the extent to which third parties are uncertain about its effects.”).

these innovations ultimately reduce what secondary servicers can capture, the sale value should fall. Of course, a decrease in sale price is not a bad thing if it reflects better enforcement of the bargain the consumer made at formation.

2. *Registration.* Another potential set of formalities would be filing requirements and a registration system for unsecured consumer debt that captures customer account information at contract formation and charge off, if not more often. At least two private companies, Convoke Systems and Global Debt Registry, have attempted to build databases of private, unsecured debt to help solve some of the persistent data problems in collections.³²⁰ The CFPB and several state attorneys general had previously expressed support for a consumer debt registry, but no proposal has been forthcoming.³²¹

Although setting up a national registry would be a herculean task, its functional potential almost certainly outweighs the cost. A public registry would be strong evidence both for parties to debt-purchase agreements and to courts hearing collections proceedings. The publicness of the registry would amplify its cautionary function—how a firm actually treats its consumers would finally be on display. Moreover, a registry would be a powerful benchmarking tool for regulators and consumers, much like the schedule of precommitted bills discussed above.

The most interesting function of a registry is its channeling function. A registry would channel data about contracts into the forms recorded in the registry. In doing so, the registry would standardize data about consumer debts. While this data is primarily useful within the recording system, it may provide standards that services can use in their own systems, and critically, as accounts move between servicers.³²² At the same time, the mere presence of the registry may simplify contracts, thereby reducing the likelihood of servicing errors *ex ante*.

320. Penny Crosman, *One Way To Fix the Hot Mess That Is Debt Collections*, AM. BANKER (Dec. 31, 2015, 2:30 PM), <https://www.americanbanker.com/news/one-way-to-fix-the-hot-mess-that-is-debt-collections> [<https://perma.cc/2AYM-4HK2>].

321. *Id.*

322. A light version of this already occurs with information reported to the credit bureaus under the Metro 2 standard promulgated by the Consumer Data Industry Association, a trade group representing the credit bureaus. *Metro 2® Format for Credit Reporting*, CDIA, <https://www.cdiaonline.org/resources/furnishers-of-data-overview/metro2-information> [<https://perma.cc/XB4W-4RMG>].

IV. IMPLICATIONS AND LIMITATIONS

This Part turns to the stakes of error-resilient contracts. Reducing errors, or at least making them easier to resolve, will bring compliance and legitimacy benefits, but there are limits and privacy concerns along the way.

A. Improving Compliance

The simplest goal of this framework of formalities is to reduce servicing errors. Reducing errors entails two things: adhering to the terms of the contract and meeting regulatory obligations. That is, reducing errors means improving compliance with both private law and public law obligations.

To the extent these public and private obligations reflect customer expectations, these compliance improvements should reduce customer harm. Customer harm is both the direct financial burdens that poor servicing imposes on consumers as well as the more amorphous time and emotional costs. Time spent pleading with customer service representatives or worrying about a bill is time not spent on other productive activities. In extreme cases, customer harm can bleed beyond the direct consumers to their families, their communities, and into public social safety nets more generally.³²³

Noncompliance, whether with contracts or regulatory obligations, would matter less if the resulting customer harm were easy to remediate. Unfortunately, on a personal level, many of the harms of poor servicing are incommensurable. As Professor Cass Sunstein explains, “Incommensurability occurs when the relevant goods cannot be aligned along a single metric without doing violence to our considered judgments about how these goods are best characterized.”³²⁴ Valuation of some harms, like an overcharge on the mortgage of a family home, might be comparatively easy.³²⁵ But what happens when poor servicing so dents a family’s finances that the

323. See G. THOMAS KINGSLEY, ROBIN SMITH & DAVID PRICE, *THE URB. INST., THE IMPACTS OF FORECLOSURES ON FAMILIES AND COMMUNITIES* 22 (2009) (discussing the impact of foreclosures on communities).

324. Cass R. Sunstein, *Incommensurability and Valuation in Law*, 92 MICH. L. REV. 779, 796 (1994).

325. Valuation of a house may be comparatively easy, but the value of any particular house to any particular family is a much more complex question. See Sunstein, *supra* note 324, at 797–99 (discussing the difficulties of valuing certain personal experiences and objects). See generally Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982) (discussing how a person’s personal connection to an object may affect that person’s valuation of that object).

family moves to a less prosperous neighborhood with a less resourced school system?

Today, customers alone bear these difficult-to-measure costs. Harms that are incompatible with easy valuation or are a few steps removed from the offending act are rarely factored into the damages consumers receive, if they are lucky enough to receive any compensation at all. Because so many of the harms associated with poor servicing are incommensurable, there is no clear path to make consumers more whole if and when these harms occur. In other words, it is far better to avoid servicing harms in the first place.

Instead, increases in consumer protection must occur at the front end with better compliance. Improved compliance, even imperfect compliance, reduces customer harm. Even if it is impossible to eliminate customer harm, reducing it is a noble goal unto itself.

Formalities, especially strict judicial enforcement of formalities, may improve *ex ante* compliance by slowing firms down and causing them to interact more carefully with the data in customer accounts.³²⁶ That is, the cautionary function of formalities should work on firms just as it works on consumers.³²⁷ Ideally, formalities can force firms to optimize their servicing technology for their contracts. To do this, the formalities must be tied to the data on which accurate servicing depends. And if the formality does fail to improve servicing *ex ante*, its evidentiary function should reduce enforcement costs *ex post*. This, in turn, should create a virtuous cycle of deterrence and compliance.

If formalities produce more useable data for regulators, they may make investigations more efficient and increase the likelihood any act of wrongdoing will be punished. The CFPB customer complaints database is an example of how this works. The Dodd-Frank Act requires the director of the CFPB to “establish a unit whose functions shall include establishing a single, toll-free telephone number, a website, and a database or utilizing an existing database to facilitate the centralized collection of, monitoring of, and response to consumer complaints regarding consumer financial products or services.”³²⁸ Each month, the CFPB publishes thousands of the complaints it receives on its website and semiannually provides a report to Congress analyzing

326. See Dana, *supra* note 42, at 517 (“Insistence on strict compliance of servicers with procedural requirements might give leverage to [consumers] . . .”).

327. See *supra* Part III.B.2.

328. 12 U.S.C. § 5493(b)(3)(A).

the complaints.³²⁹ The CFPB is statutorily required to provide a timely response to complaints, including bringing formal enforcement actions where necessary.³³⁰ Similarly, the Federal Reserve System has begun to use data from the Home Mortgage Disclosure Act to guide its fair lending actions.³³¹ If structured to produce standardized data, formalities can provide similar resources for a broader range of consumer financial contracts.

B. Legitimacy

The inability of regulators and courts to bend firm behavior towards compliance contributes to the perception of lawlessness. This, in turn, erodes the legitimacy of our system of laws. Consumer expectations and the norms of contracts have disappeared into the technological fray of servicing. Given the intensity of the structural barriers they face in holding firms accountable,³³² consumers are not wrong in feeling “the system” is rigged against them. As Dana explains, “One clear meaning of strict compliance would be that the legal system takes seriously not just the interests of wealthy corporations but also, and equally, those of struggling [consumers].”³³³ Our system of laws depends on firms and people being equal before the law and on people believing equality exists. The current reality in consumer law undermines that system.

Formalities will help consumers overcome the structural barriers they face in court. As Fuller notes, formalities can increase the efficiency of adjudication.³³⁴ In the narrow sliver of cases in which consumers do receive an adjudication of their claims based on the merits, the right formalities will prove more efficient to enforce than any current claim. For example, if firms had to produce at formation a table of expected bills based on typical consumer payment behavior, consumers would not have to reconstruct what they believe they owe; instead, they would merely have to show the bill they received does not match the table. Prioritizing the precommitted table would shift the burden onto firms to introduce evidence about the parties’ obligations

329. *Id.* § 5496(b), (c)(4).

330. *Id.* § 5534(a).

331. *Id.* §§ 2801–2811.

332. *See supra* Part II.B.2.

333. Dana, *supra* note 42, at 517.

334. Fuller, *supra* note 51, at 801.

if those obligations diverge from the precommitted table. This shift would better align information burdens with capacity.

Another step that would bolster the legitimacy of courts and make the formalities more meaningful is to reserve default judgment for cases in which the firms have strictly complied with all of the formalities. To the extent compliance with formalities is a signal for compliance generally,³³⁵ this rule will tend to reward accurate servicing. To the extent the formalities serve an evidentiary function, they may provide key evidence to both the firm and the consumer. The consumer may be partially freed from dependence on the firm to determine their obligations under the contract. In this way, evidentiary formalities will help smooth out some of the structural barriers that consumers face in private enforcement proceedings. Any step that mitigates these structural barriers increases the legitimacy of the court system.

Courts are in a better position to police compliance with formalities than other regulatory or contractual obligations for three reasons. First, courts can directly observe compliance without additional arguments from the parties. Second, compliance will often be a binary choice³³⁶: Is there a seal, or is the seal missing? Third, if a court withholds default judgment because it believes the required formalities have not been met, the firm can always introduce additional evidence proving they satisfied the formalities. For this reason, a robust system of formalities will help courts and other fact finders more accurately assess compliance even when the parties have unequal representation in court.³³⁷

C. *The Limitations of Formalities*

1. *Reputation-Immune Counterparties*. One way formalities might improve servicing is by providing a benchmark to measure firm behavior. Firms that are reputation sensitive are likely to worry about

335. See *supra* Part IV.A.

336. See Duncan Kennedy, *From the Will Theory to the Principle of Private Autonomy: Lon Fuller's "Consideration and Form,"* 100 COLUM. L. REV. 94, 102 (2000) (explaining that reducing legal questions into forms eliminates substantive consideration of the question; for example, if consideration is a form, there is no need to analyze the adequacy of consideration).

337. As Jhering and Kennedy observe, the cost of administrability is always under- and overinclusiveness. *Id.* at 113. The question then is whether the benefits of administrability outweigh the costs of accuracy. *Id.* In the context of consumer litigation, in which the consumer is often pro se, if they appear at all, the chance that consumers will be able to prove a complex factual case to the standards of the law is so slim that the benefits of prioritizing administrability seem obvious.

deviating from that benchmark because doing so could create unwanted attention, whether from regulators, investigative reporters, or even one-off stories in which the local media starts asking questions about a single contract.

Precommitment to certain servicing outcomes may not motivate firms that are less reputation sensitive. There are several reasons companies are reputation immune. Servicing and collections companies only become party to a contract on the secondary market, where consumers have no say.³³⁸ The party choosing among servicers may care more about the price they will pay for servicing rights than the firm's reputation for accurate servicing. These same companies are also often judgment proof, and the barriers for any owner or manager to start a new legal entity in the space are low.

Many servicing and debt collection companies are virtually anonymous.³³⁹ Unable to escape a servicer except by paying a debt, consumers have little leverage. Firm reputation matters little.

Other firms may be reputation immune because they have a monopoly or near monopoly. If only one firm provides internet service to a neighborhood, the residents of that neighborhood have little choice but to do business with that company. This is not to say all firms in low-competition environments will behave poorly, but rather their incentives for investing in better servicing is low.³⁴⁰ Large firms may struggle to offer any meaningful customization around consumer needs.

Providers of emergency healthcare services and many hospitals are similar to collections firms or utilities. Consumers may have little, if any, opportunity to choose different contract partners, regardless of the facility's reputation. At the same time, even when consumers do have a choice, the quality of the medical care provided is likely much more important to their decisions than the providers' billing practices. As a result, the provider has little incentive to cultivate its reputation with respect to billing.

338. Porter, *supra* note 220, at 126–27.

339. BD. OF GOVERNORS OF THE FED. RESRV. SYS., *THE U.S. HOUSING MARKET: CURRENT CONDITIONS AND POLICY CONSIDERATIONS* 24–25 (2012) (explaining that because servicer information is not recorded in land-use records, “parties with a legitimate interest in contacting the servicer have little to go on”).

340. *See generally* TIM WU, *THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE* (2018) (explaining how reductions in competition can lead to reductions in the quality of goods and services).

All of this is to say firms that exist outside the normal pressures of business and reputational risk are unlikely to change their behaviors because of any changes to the contracts they service. Formalities will increase the effectiveness of these levers only to the extent they reduce public and private enforcement costs and thereby increase legal risk.

2. *MERS as an Object Lesson.* Reducing consumer financial contracts to data is not without risk. If the data becomes disconnected from the whole, the relationship between the firm and the consumer can become more complex. And, as the Mortgage Electronic Registration Systems (“MERS”) proved during the recent foreclosure crisis, this complexity can irrevocably break the relationship.³⁴¹ MERS maintains a database of mortgages and records the stakeholders of those mortgages, much in the way the public land records do.³⁴² It facilitates mortgage assignments by becoming the nominee of lenders and providing “mailroom” services for lenders and servicers alike.³⁴³ As long as MERS is the mortgage in public land records, there is no need to make additional filings for subsequent transfers. At the height of the foreclosure crisis, it was the mortgagee on over half of all residential mortgages.³⁴⁴ But unlike the public land records, MERS does not make its data public. MERS effectively removed information from the public records system and, in so doing, reduced the information consumers had about their contracts.

MERS worked for firms because it complied with the formalities of the land use records, if not their spirit. Indeed, it arguably increased compliance with recordation laws because before its dominance, firms often ignored these laws.³⁴⁵ But it succeeded at the cost of actually making it more difficult to determine who owned a mortgage, especially as it became apparent MERS’ internal records were woefully incomplete.³⁴⁶

Compliance with formalities is not enough to ensure *good* servicing. Instead, it merely helps prevent particular kinds of errors, namely data-accuracy errors. Consumers should benefit from reducing

341. See RESTATEMENT (THIRD) OF PROPERTY: MORTGAGES § 5.4 (AM. L. INST. 1997) (explaining that the only the party holding the right to enforce a mortgage may do so).

342. Dale A. Whitman, *A Proposal for a National Mortgage Registry: MERS Done Right*, 78 MO. L. REV. 1, 14 (2013).

343. *Id.*

344. Dustin A. Zacks, *MERS Is Dead: Long Live MERS*, 44 CONN. L. REV. 62, 64 (2012).

345. Whitman, *supra* note 343, at 38.

346. See Zacks, *supra* note 344, at 72.

this one kind of bad servicing, but stakeholders will need to vigilantly watch for innovations around the formalities.³⁴⁷

D. Privacy

Moving to a system of formalities that values publicness compromises privacy. The question is whether the benefits of the formalities outweigh the privacy costs.

The exact privacy costs will depend on the details of any public formalities. In general, the more information exposed and the broader the exposure, the greater the risk of harm. Here, there are no easy solutions; even seemingly anonymous data may be re-identifiable.³⁴⁸ Harms are likely to fall into two main buckets: direct economic harms and subjective emotional harms.

Any time personal information is made public, there is a risk of identity theft and fraud. The more information available to criminals, the more likely they are to successfully open lines of credit in victims' names or to gain access to their financial accounts. Nevertheless, it is notable that some longstanding formalities that produce publicly available data about individuals have not resulted in privacy disasters. To date, there is no evidence of widespread use of data from land recording systems for identity theft purposes.³⁴⁹ But, one cannot rule it out. Moreover, each additional piece of personally identifiable data that is online increases the chance that a thief can successfully thwart financial institutions' identity theft detection systems and either steal money from customer accounts or acquire credit lines in their names. Already, these systems must regularly evolve to account for new kinds of data about individuals becoming available online.

The subjective harms are more difficult to quantify. Individuals have different preferences for revealing factual information about themselves, but many prefer to keep financial information private. This preference may be rooted in security concerns, but for many it is more emotional—they are embarrassed about their financial situation or feel

347. *See supra* Part II.A.

348. H. Yoshiura, *Re-Identifying People from Anonymous Histories of Their Activities*, 2019 IEEE 10TH INT'L CONF. ON AWARENESS SCI. & TECH. (ICAST), 2019, at 1, 3–4 (describing a mechanism for reidentifying anonymous data).

349. There are ample cases of fraudsters using the land recording system to fraudulently convey land. *See generally* Lynden Griggs & Rouhshi Low, *Identity Fraud and Land Registration Systems: An Australian Perspective*, 75 CONV. & PROP. LAW. 285 (2011) (explaining the many forms of fraud facilitated by Australia's land recording system).

less comfortable with neighbors and strangers knowing these details of their lives.

One remedy is to make any public disclosure of personally identifiable information optional for consumers. This option may reduce the effectiveness of the formality but would help ensure the price of the additional protection makes sense on an individual level. To preserve the effectiveness of any public-facing formalities, regulators would need to monitor firms to ensure they do not nudge consumers towards opting out of disclosure.³⁵⁰ Otherwise, over time, the data might become too spotty for its availability to regulators, the media, and researchers to be meaningful.

CONCLUSION

Although much of this Article catalogs how and why consumers experience consistently poor contract servicing, it is cautiously optimistic. Servicing—firm-side contract performance—will never be perfect, but it is possible to plan for errors both to reduce their frequency and the scope of their harm when they inevitably occur. This Article identifies modularity and formalities as two systemic interventions to make contracts more error resilient. There may be others.

In concluding, I want to spend a moment defending the choice to subject readers to dozens of pages of theory when a few lines of policy prescription could land this Article in more or less the same place. The answer is the theory is useful. It helps us think about contracts at a level of generality that accommodates change over time. Commentators have a good handle on the pathologies in consumer contracts today, but we do not know what pathologies will exist in the future. Regulations may remedy some pathologies at one point in time, but the consumer finance industry is creative. It will find a way around the regulation. This Article evinces a hope that searching for solutions to modern problems in longstanding theories of private law will provide more timeless solutions.

Here, looking at the structure of consumer financial contracts through the theoretical frameworks of modularity and formalities reveals these agreements are almost written to maximize errors. It also suggests a way forward. This is not to say the law of consumer finance

350. See generally Jamie Luguri & Lior Jacob Strahilevitz, *Shining a Light on Dark Patterns*, 13 J. LEGAL ANALYSIS 43 (2021) (demonstrating the efficacy of dark patterns).

will ever be set-it-and-forget-it. Rather, these theoretical frameworks reveal new the levers available for making policy improvements.