Robots, Markets, and the Value of Deal Lawyers

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Emerging forms of automation using artificial intelligence (AI) and distributed ledgers are raising transformative questions for the practice of law. Deal lawyers are well-situated to understand the convergence of various modes of automation and their implications for their clients and the markets they facilitate. This Article contends that digesting threats and leveraging opportunities associated with new technologies calls for granular, context-specific assessment. It presents one instance of automation in one predominant market—the market for asset-backed securities (ABS)—by comparing securitization to a blockchain-based analog, tokenization. It considers how lawyers support the ABS market and how automation of lawyers' functions could intersect with automated issuances. This context-specific inquiry yields broader questions surrounding deal lawyers' roles in the face of evolving technologies. Asset-backed issuances often create value with legal ambiguity. Lawyers facilitate these issuances by structuring legally complex assignments and then opining on the positions of investors. Automated platforms can alter the consequences of deliberate legal ambiguity, and as such can affect risks associated with asset-backed issuances. If established forms developed for non-automated deals serve as baselines to be digitized for automated transactions, then investors' choices about platform may adversely affect issuers and their stakeholders. Lawyers have the capacity to understand and explain these dynamics. If AI models trained on existing deal documentation generate work-products for automated transactions, what kinds of effects and concerns should lawyers identify? The value and function of business lawyers came under scrutiny after corporate scandals at the start of the millennium and after the 2007–08 financial crisis, but the scrutiny subsided when market activity re-trenched. Automation, now, revives questions around the responsibilities of deal lawyers.

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INTRODUCTION

"Robot lawyers," according to a Google Images search, are male humanoid machines in suits and ties, perhaps with briefcases (to carry papers that the humans will want to sign or see).[1] Machine hands shake human hands to close deals.[2] One may appear before a robot judge that is a robed body with a personal computer in a barrister's wig for a head.[3]

Meanwhile, "robot lawyers," in the literature on automation and law practice, refers to systems that use computer code, artificial intelligence (AI),[4] and automated platforms to

1. *See, e.g.*, Illustration of robot lawyers, *in* Nicole Black, *Beware the #RobotLawyer Invasion*, ABOVE L. (Oct. 17, 2019), https://abovethelaw.com/2019/10/beware-the-robotlawyer-invasion/ [https://perma.cc/NNN5-HBP3].

2. *See, e.g.*, Illustration of robot lawyer shaking human hand, *in* John Frank Weaver, *My Client, the A.I.*, SLATE (July 27, 2022), https://slate.com/technology/2022/07/could-an-a-i-hire-a-lawyer.html [https://perma.cc/5LWD-57N4].

3. *See, e.g.*, Illustration of robot barrister, *in Robots Are Lawyers' Friends Not Threat*, ONESTOPBROKERS (Mar. 22, 2017), https://www.onestopbrokers.com/2017/03/22/robots-lawyers-friends-not-threat/ [https://perma.cc/TP5E-L6TB]. For a more serious discussion of artistic renderings of technology and anthropomorphized robots, see Sue Halpern, *A New Generation of Robots Seems Increasingly Human*, NEW YORKER (July 26, 2023), https://www.newyorker.com/tech/annals-of-technology/a-new-generation-of-robots-seems-increasingly-human [https://perma.cc/K33H-48ML].

4. According to Merriam-Webster's dictionary, artificial intelligence is the capability of computer systems or algorithms to imitate intelligent human behavior. *Artificial intelligence*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/artificial%20intelligence [https://perma.cc/S4WT-ZFDX]. Generative AI is artificial intelligence that is "capable of generating new content (such as images or text) in response to a submitted prompt . . . by learning from a large reference database of examples." *Generative AI*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/generative%20AI [https://perma.cc/4M7X-4PAM]. ChatGPT is a generative AI model that is capable of conversation, including "answer[ing] followup questions, admit[ting] its mistakes, challeng[ing] incorrect premises, and reject[ing] inappropriate requests." Introducing

perform tasks typically undertaken by attorneys.[5] Some commentators contest the term, saying that these technologies as applied in the legal profession have created neither robots nor lawyers.[6] Others explore how automation of legal services can supplant attorneys.[7] Since the release of ChatGPT, lawyers have been innovating with AI and language learning models and grappling with both promises[8] and threats[9] that new technologies present. At the same time, market platforms utilizing distributive ledger or blockchain technology[10] are proliferating. This Article explores the implications of new technologies in the context

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ChatGPT, OPENAI, https://openai.com/blog/chatgpt [https://perma.cc/7ZCN-EY8C]. *See* Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*, 29 HARV. J.L. & TECH. 353, 359 (2016) (there is no comprehensive definition of AI); Robin Feldman & Kara Stein, *AI Governance in the Financial Industry*, 27 STAN. J.L. BUS. & FIN. 94, 101 (2022) (describing the ability of AI to engage in "deep learning" by making predictions and forming intelligent decisions based off of those predictions); Anat Lior, *Insuring AI: The Role of Insurance in Artificial Intelligence Regulation*, 35 HARV. J.L. & TECH. 467, 469 (2022) (quoting the definition of AI in the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, § 238, 132 Stat. 1695, 1697–98 (2018)) ("[T]he term 'artificial intelligence' includes the following: (1) Any artificial system that performs tasks under varying and unpredictable circumstances without significant human oversight, or that can learn from experience and improve performance when exposed to data sets. (2) An artificial system developed in computer software, physical hardware, or other context that solves tasks requiring human-like perception, cognition, planning, learning, communication, or physical action. (3) An artificial system designed to think or act like a human, including cognitive architectures and neural networks. (4) A set of techniques, including machine learning, that is designed to approximate a cognitive task. (5) An artificial system designed to act rationally, including an intelligent software agent or embodied robot that achieves goals using perception, planning, reasoning, learning, communicating, decision making, and acting.").

5. *See* Peter K. Yu, *Artificial Intelligence, the Law-Machine Interface, and Fair Use Automation*, 72 ALA. L. REV. 187, 189 n.8 (2020) (citing several sources that discuss artificial intelligence's impact on the legal profession).

6. Without question, emerging technologies are raising unprecedented issues for law and lawyers. While these technologies affect many areas of law, innovators first began channeling resources disproportionately into two sectors: law enforcement and finance. *See* HUGH LOGUE, AUTOMATING LEGAL SERVICES: JUSTICE THROUGH TECHNOLOGY (2019).

7. *See generally* RICHARD SUSSKIND, TOMORROW'S LAWYERS (3d ed. 2023). New websites and applications promising automated legal services seem to sprout up every day. For example, the smartphone app DoNotPay boldly claims to be "[y]our AI [c]onsumer [c]hampion." DONOTPAY, https://donotpay.com [https://perma.cc/SX3Y-J3PP]. The tech company Tome leverages AI to review contracts, validate common terms, and save lawyers' time. TOME, https://tome.com [https://perma.cc/FE7Q-J6X8].

8. Promises include expanded access to justice and increased efficiency in the provision of legal services. *See, e.g.*, Gillian K. Hadfield, *The Cost of Law: Promoting Access to Justice Through the (Un)Corporate Practice of Law*, 38 INT'L REV. L. & ECON. 43, 52 (2014).

9. Threats include, for example, atrophy of lawyers' skills leading to a deterioration of human judgment and discretion in the administration of law, and risk that platforms violate unauthorized practice rules designed to protect consumers of legal services. *See infra* notes 14, 61–64 and accompanying text.

10. The four essential components that comprise a blockchain are: "(i) a ledger, (ii) a network, and (iii) consensus, that is (iv) unalterable by feasible means." Heather Hughes, *Blockchain and the Future of Secured Transactions Law*, 3 STAN. J. BLOCKCHAIN L. & POL'Y 21, 31 (2020). The term "blockchain," in this Article, "refer[s] to any system comprised of a distributed ledger, a network, and consensus, regardless of whether it is open-access or permissioned." *Id.* at 33.

of financial markets and the law practices that enable them.[11] Automation, here, refers to any instance in which technology completes actions previously done by humans.

Market actors are welcoming the digitization of commerce.[12] Attorneys, often pressed towards superhuman stamina and expertise in competitive law practices,[13] evolve to serve their clients' needs with efficient and adaptive technologies including AI and blockchain-based smart contracts and compliance strategies.[14] Deal lawyers can affect and deploy emerging technologies in ways that advance the interests of their practices, their clients, markets, and society collectively. New technologies, though, present risks. For example, attorneys' professional skills and judgment potentially could atrophy as AI replaces human engagement with clients' matters and the markets that they constitute.[15]

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11. Ample dialogue engages issues that AI and robotics raise for other areas such as policing, criminal law, privacy, and adjudication. *See generally* Elizabeth E. Joh, *Artificial Intelligence and Policing: First Questions*, 41 SEATTLE U. L. REV. 1139 (2018); Chelsea Barabas, *Beyond Bias: Re-imagining the Terms of "Ethical AI" in Criminal Law*, 12 GEO. J.L. & MOD. CRITICAL RACE PERSP. 83 (2020); Sylvia Lu, Data Privacy, *Human Rights, and Algorithmic Opacity*, 110 CALIF. L. REV. 2087 (2022); Cary Coglianese & Lavi M. Ben-Dor, *AI in Adjudication and Administration*, 86 BROOK. L. REV. 791 (2021).

12. Lucy Colback, *The Rise of the Platform Economy*, FIN. TIMES (Mar. 13, 2023), https://www.ft.com/content/e5f5e5b9-3aec-439a-b917-7267a08d320f [https://perma.cc/4WB7-WN9Y].

13. Upon seeing an abstract of this project, a law school classmate who is a successful corporate attorney texted: "I AM ROBOT LAWYER," followed by the robot emoji, and the martini emoji.

14. *See, e.g.*, HARVEY AI, https://www.harvey.ai [https:perma.cc/WS3W-EE5B]; *CoCounsel*, CASETEXT, https://casetext.com/cocounsel/ [https://perma.cc/3Q96-RYFC]; *Lexis+ AI*, LEXISNEXIS, https://www.lexisnexis.com/en-us/products/lexis-plus-ai.page [https://perma.cc/9G5A-XMNC]; *A&O Announces Exclusive Launch Partnership with Harvey*, ALLEN & OVERY (Feb. 15, 2023), https://www.allenovery.com/en-gb/global/news-and-insights/news/ao-announces-exclusive-launch-partnership-with-harvey [https://perma.cc/7LEY-YF8D] (large law firm using generative AI Harvey tech); *see also* Chris Chambers Goodman, *AI/Esq.: Impacts of Artificial Intelligence in Lawyer-Client Relationships*, 72 OKLA. L. REV.149, 154 (2019) (explaining various ways lawyers use AI, including contract drafting, review, management, and due diligence); Amy B. Cyphert, *A Human Being Wrote This Law Review Article: GPT-3 and the Practice of Law*, 55 U.C. DAVIS L. REV. 401, 417 n.89 (2021) ("A machine-learning algorithm recently outperformed twenty lawyers in a nondisclosure agreement analysis."). Business lawyers and law practices deeply intertwine with the concept of technology. Many describe contracts as a legal technology. The concept of technology has been central to how law practices conceive of and market themselves for many decades.

15. The legal profession and legal educators are just beginning to grapple with these risks. Developments in generative AI amplify issues that scholars have been discussing in recent years. *See, e.g.*, Jamie J. Baker, *Beyond the Information Age: The Duty of Technology Competence in the Algorithmic Society*, 69 S.C. L. REV. 557, 558 (2018) (discussing how the "Google generation" of law students and lawyers is likely to rely on the algorithm when performing legal research); Steven R. Smith, *The Fourth Industrial Revolution and Legal Education*, 39 GA. ST. U. L. Rev. 337, 372 (2023) (stating that commitment to lifelong learning can help attorneys avoid competing against machines); Ian Rowlands et al., *The Google Generation: The Information Behaviour of the Researcher of the Future*, 60 ASLIB PROCS.: NEW INFO. PERSPS. 290, 297 (2008) ("Young scholars are using tools that require little skill: they appear satisfied with a very simple or basic form of searching."); *see generally* Lori D. Johnson, *Navigating Technology Competence in Transactional Practice*, 65 VILL. L. REV. 159 (2020) (examining the potential benefits and risks of technology competence in transactional lawyering, providing guidelines for compliance in legal technology and dealmaking, and recommending the ABA provide additional guidance); *see also* GALLUP, ASSESSING THE IMPACT OF NEW TECHNOLOGIES ON THE LABOR MARKET: KEY CONSTRUCTS, GAPS, AND DATA COLLECTION STRATEGIES FOR THE BUREAU OF LABOR STATISTICS 3 (2020),

This topic, and these assertions, are abstract and implicate distinct technologies (AI and blockchain) at the center of different conversations. Deal lawyers are well situated to understand the convergence and implications of various emerging modes of automation. This Article explores how this is so, and maintains that actual implications of actual instances of automation are best assessed on a granular, context-specific level. To ask larger questions about automation and the value of deal lawyers, this Article presents one mode of automation in one predominant market—the market for asset-backed securities (ABS)—by comparing securitization to a blockchain-based analog, tokenization.[16] It considers how lawyers facilitate the markets for ABS and how potential automation of lawyers' functions, along with automated, blockchain-based issuances, frames larger questions surrounding deal lawyers' roles.[17] Automation in markets and automation in business law services are symbiotic developments.[18] Technological advances warrant revisiting deal lawyers' relationship to the collective effects of the transactions that they structure.

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https://www.bls.gov/bls/congressional-reports/assessing-the-impact-of-new-technologies-on-the-labor-market.pdf [https://perma.cc/BWC6-HTWC] ("Having better data related to the labor market and automation technologies could go a long way in helping address the concerns raised by technology.").

16. This Article discusses the implications of automation, for markets and attorneys, in the realm of asset-backed issuances. Securitization and tokenization may be more or less similar, depending on the particularities of given transactions. Generally speaking, securitization typically (but not always) involves the creation of a bankruptcy-remote special purpose vehicle that acquires assets from an originator and then issues securities collateralized by those assets to investors. *See* Heather Hughes, *Property and the True-Sale Doctrine*, 19 U. PA. J. BUS. L. 870, 881 (2017). The resulting asset-backed securities are rights to payment backed by assets held by the issuer. The securitization transactions discussed in this article involve financial assets, such as receivables, that generate cash flow. The term "tokenization" is frequently used to describe deals that depart from typical cash-flow securitizations in several key regards. *See generally* Juliet Moringiello & Christopher K. Odinet, *The Property Law of Tokens*, 74 FLA. L. REV. 607 (2022). Tokenization may not involve a bankruptcy-remote special purpose vehicle that acquires rights to tokenized assets. *See id.* at 636 (discussing that the purchase of tokenized art assets grant "no intellectual property rights in the underlying creative work"). Tokenization often involves non-cash-flow generating assets. *See id.*at 631 (listing the various assets that token creation platforms can involve). Tokenization does not result, necessarily, in digital assets that confer property rights in the underlying asset or the thing that is tokenized. *Id.* at 636; *see also* Steven L. Schwarcz, *Next-Generation Securitization: NFTs, Tokenization, and the Monetization of "Things"*, 103 B.U. L. REV. 967 (2023); Christopher K. Odinet & Andrea Tosato, Response, *The Intersection of NFTs and Structured Finance*, 103 B.U. L. REV. 1005 (2023). This growing literature on tokenization discusses the extent to which tokenization is analogous to securitization. The tokenizations discussed in this Article are issuances of security tokens backed by real-world-assets using an automated transaction platform that can effectively transfer rights to the tokenized assets upon default. *See* discussion and sources cited *infra* Part III.

17. The form of tokenization that Part III discusses serves as an example to enable exploring lawyers' roles in the face of automation. This Article does not assert that securitization transactions generally are migrating to tokenization platforms or that they will do so in the future. The purpose, here, is to incite critical discussion of how automation can affect markets and the law practices that support them. The discussion of securitization and tokenization in Part III is about the unique position of deal lawyers to see and potentially address effects of automation (of various kinds) in their realms of expertise.

18. José Garrido et al., *Keeping Pace with Change: Fintech and the Evolution of Commercial Law*, FINTECH NOTES, Jan. 2022, at 1 ("There is a symbiotic relationship between technological revolutions, business practices, and changes in law.").

Chief Justice Harlan Fiske Stone remarked in 1934 that finance "made the learned profession of an earlier day the obsequious servant of business."[19] Developers of blockchains, AI, and computational contracts are creating logic-based systems that define rights and relationships that attorneys should mediate.[20] Technologists are converting contracts into code, making decisions about which aspects of contracts to automate and how to translate substantive legal provisions into computational forms.[21]

Business lawyers' practices vary so widely and can be so multi-faceted that the profession lacks a unifying conception of what business lawyers do and how they add value to transactions, firms, or markets.[22] The amorphous contours of business law practice underscore the need to assess the promises and threats of new technologies on a practice and market-specific level.[23]

Richard Susskind contends: "[w]hen machines today can make predictions, identify relevant documents, answer questions, and handle emotions at a higher standard than human beings, it is not just reasonable, it is vital that we ask whether people or systems will be doing our legal work in decades to come."[24] This sense of imminent, professional diminution is reminiscent of Anthony Kronman's "Lost Lawyer." In the 1990s, Kronman eulogized the lawyer-statesman: a professional steeped in values that put good judgment above technical competence and that prized a public-spirited devotion to the law.[25] Recent generations, the narrative goes, suffer from the lack of a shared ideal of professional excellence, making it difficult for individuals to know what it means for them to have chosen a life in the law.[26] Business lawyers, now, as both markets and law practices evolve towards automation, should reflect upon what it means to be a licensed, human practitioner representing market actors. They should also reflect on financial markets and the purposes they serve.[27]

The value and values of business lawyers briefly became a hot topic in the not-too-distant past. After corporate scandals at the start of the millennium, and through responses to the 2007–08 financial crisis, an angry public demanded to know how corporations and financial institutions, with the help of their lawyers, could inflict so much collective loss.

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19. Harlan F. Stone, *The Public Influence of the Bar*, 48 HARV. L. REV. 1, 7 (1934).

20. Kevin Werbach & Nicolas Cornell, *Contracts* Ex Machina, 67 DUKE L.J. 313, 331–36 (2017); Max Raskin, *The Law and Legality of Smart Contracts*, 1 GEO. L. TECH. REV. 305, 306 (2017).

21. Raskin, *supra* note 20, at 309.

22. *See* discussion and sources cited *infra* Part I.A.

23. Comment 8 to Model Rule of Professional Conduct 1.1 requires lawyers to "keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology." MODEL RULES OF PRO. CONDUCT r. 1.1 cmt. 8 (AM. BAR ASS'N 2024). Very few commentators have engaged with how this rule implicates transactional lawyers. *See* Johnson *supra* note 15, at 162 (stating that "nowhere does less clarity exist" than with the interaction between Comment 8 and transactional law).

24. RICHARD SUSSKIND, TOMORROW'S LAWYERS 187 (2d ed. 2017); *see also* SUSSKIND, *supra* note 7.

25. *See* ANTHONY T. KRONMAN, THE LOST LAWYER: FAILING IDEALS OF THE LEGAL PROFESSION 2–3 (1993) (using this "[o]ld-fashioned name to stress its roots in the past and the air of obsolescence that now surrounds it").

26. *Id.*

27. *See* Robert Hockett, *Preliberal Autonomy and Postliberal Finance*, 77 LAW & CONTEMP. PROBS. 105, 106–07 (2014) (claiming that "reflective project-consciousness" of financial markets is essential to aiding initiatives in financial markets).

The conversation that arose during that time involved rich questions about lawyers' duties surrounding the effects of transactions and the markets that they facilitate.[28] The conversation trailed off after market activity retrenched, with little to no change to lawyers' practices.[29]

Current trajectories in technology warrant a renewed focus on what deal lawyers can and should do when they counsel clients who are parties to commercial transactions. Blockchain technology can empower markets to defy legal norms that lawyers should administer. Specifically, blockchain-based, automated contracts enable self-executing claims that can detach market activity from established legal intervention points.[30] The simultaneous rise in automation in law practices and financial markets creates risks that lawyers understand and could potentially mitigate.[31]

This Article explores how automation implicates the value of deal lawyers by presenting, in detail, a predominant market and explaining how lawyers facilitate that market. Before delving into a context-specific analysis of automation and the value of deal lawyers, Part I offers a preliminary discussion of (i) why to undertake such an analysis, and (ii) how lawyers might approach asserting values and judgment in the process of structuring transactions that involve automation. There is an ample and growing literature on automated commercial activity.[32] Where, in that discourse, do we consider the legal services that support the markets being automated? What does it mean to be a deal lawyer?[33] Can robots be

28. *See* discussion and sources cited *infra* notes 157–60 (describing the investment bank "runs" that popped up during the 2007 financial crisis).

29. *See infra* Part IV.

30. *See* Heather Hughes, *Designing Effective Regulation for Blockchain-Based Markets*, 46 J. CORP. L. 899, 906 (2021) [hereinafter Hughes, *Designing*] (exploring different methods of regulation of blockchain markets); Heather Hughes, *The Complex Implications of FinTech for Financial Inclusion*, 84 LAW & CONTEMP. PROBS. 115, 118–19 (2021) [hereinafter Hughes, *Complex*] (arguing that private law concepts can play a role in regulating blockchain-based financial activity); Hughes, *supra* note 16, at 891 (defining the relationship between blockchain-based transactions and the established doctrine of secured transactions); Usha R. Rodrigues, *Law and the Blockchain*, 104 IOWA L. REV. 679, 679 (2019) (arguing that smart contracting on a blockchain departs in a fundamental way from contract law because it provides no place for the law to step in to supply default rules); Juliet M. Moringiello, *Automating Repossession*, 22 NEV. L.J. 563, 571 (2022) (noting that bankruptcy courts who have addressed the issue agree that automated payment interferes with the proper disposition of collateral); Carter D. Wietecha, Note, *The Impending Collision of Smart Contracts and the Automatic Stay*, 97 NOTRE DAME L. REV. 1351, 1360 (2022) (discussing the potential ways automated smart contracts interfere with the bankruptcy courts' established automatic stay powers).

31. This Article does not predict or assume the extent to which commercial transactions will migrate to blockchain-based platforms. The purpose, here, is to explore the role of deal lawyers surrounding the emergence of automation in markets and in law practice.

32. *See generally* HILARY J. ALLEN, DRIVERLESS FINANCE: FINTECH'S IMPACT ON FINANCIAL STABILITY 2 (2021); Saule T. Omarova, *New Tech v. New Deal: Fintech as a Systematic Phenomenon*, 36 YALE J. ON REGUL. 735 (2019); Robin Feldman & Kara Stein, *AI Governance in the Financial Industry*, 27 STAN. J.L. BUS. & FIN. 94 (2022); Christopher K. Odinet, *Securitizing Digital Debts*, 52 ARIZ. ST. L.J. 477 (2020); Gina-Gail S. Fletcher & Michelle M. Le, *The Future of AI Accountability in the Financial Markets*, 24 VAND. J. ENT. & TECH. L. 289 (2022); Felix Mormann, *Beyond Algorithms: Toward A Normative Theory of Automated Regulation*, 62 B.C. L. REV. 1 (2021); Farshad Ghodoosi, *Contracting in the Age of Smart Contracts*, 96 WASH. L. REV. 51 (2021).

33. *See* discussion and sources cited *infra* notes 52–63.

deal lawyers under existing ABA rules?[34] If markets are increasingly automated, and legal practice tools increasingly use technologies such as computational contracts and AI, who decides what tools are useful and in what contexts? How do lawyers decide when and why to utilize new technologies?[35]

After this threshold inquiry, Parts II and III discuss deal lawyering in commercial transactions and compare securitization to tokenization.[36] The kinds of asset-backed issuances discussed here create value with purposeful uses of legal ambiguity.[37] Lawyers facilitate asset-backed issuances by structuring legal ambiguity and opining on the legal positions of investors.[38] Automation in attorneys' work products and the market for asset-backed issuances can affect risks associated with this market.[39]

Entrenched legal ambiguity can become a fault line that threatens the stability of a market if events lead market actors or lawmakers to challenge investors' interpretations of their positions.[40] In such contexts, legal ambiguity can generate legal distortion: the adoption of rules that depart from or distort established legal doctrines for the sake of fortifying investors' positions.[41] The securitization market has incited legal distortion at several junctures in recent decades.[42] Legal ambiguity is a widely accepted strategy for generating wealth.[43] However, legal distortion—a consequence of legal ambiguity—can create unfair and inefficient outcomes.[44] Automated, blockchain-based issuances can entrench the risks of distortion by side-stepping the legal intervention points at which claimants and lawmakers assess ambiguity and allocate assets.[45] This Article describes how attorneys facilitate legal compliance in ABS markets and how they can ensure that markets are grounded in

34. *See* discussion and sources cited *infra* notes 63–71; Jordan Bigda, Note, *The Legal Profession: From Humans to Robots*, 18 J. HIGH TECH. L. 396, 399 (2018) (speculating on whether robots should be licensed to practice law and arguing that new law regarding artificial intelligence as lawyers should mimic the rules of paralegals).

35. *See* discussion and sources cited *infra* Part I.C; Carla L. Reyes, *A Unified Theory of Code-Connected Contracts*, 46 J. CORP. L. 981, 981 (2021) (introducing the idea that code-connected contracts require analysis on their implementation in legal practice).

36. *See* discussion and sources cited *infra* Parts II & III.

37. *See* discussion and sources cited *infra* Part II.A.

38. *See* discussion and sources cited *infra* notes 68–69 (discussing the benefits created by the attorney opinion letter).

39. *See* Hughes, *Complex*, *supra* note 30, at 121 (discussing the risks automated smart contracts can create for stakeholders and for market stability).

40. *See id.*; Kenneth C. Kettering, *Securitization and its Discontents: The Dynamics of Financial Product Development*, 29 CARDOZO L. REV. 1553, 1558, 1563 (2008) (highlighting instances in which securitization valuations were challenged).

41. *See* discussion and sources cited *infra* Part II.B; Steven L. Schwarcz, *Distorting Legal Principles*, 35 J. CORP. L. 697, 701 (2010).

42. *See* discussion and sources cited *infra* notes 139–50 (discussing a bankruptcy involving Lehman Brothers and American Home Mortgage Holdings, Inc., that incited legal distortion).

43. *See* Hughes, *Designing*, *supra* note 30, at 901.

44. *See infra* Part II.

45. *See* Hughes, *supra* note 16, at 23.

law—and not undermined by legal distortion[46]—as technology evolves. Generally speaking, lawyers ensure that legal constructs and market expectations cohere.[47]

Part II explains engineered legal ambiguity and how this ambiguity can yield legal distortion by lawmakers.[48] It explains how legal ambiguity and distortion of legal principles create market value but also generate risk.[49] Additionally, it describes how new technologies can amplify the effects of legal ambiguity and distortion.[50] Asset-backed issuances are one large category of commercial transaction that utilizes legal ambiguity, structured by lawyers, to generate wealth.[51] Deal lawyers working in specific markets, such as the ABS market, most intimately understand the contours of legal ambiguity and the extent of a given distortion affecting parties to commercial transactions. As such, lawyers are uniquely positioned to understand the legal effects of automation of various aspects of this deal type. Part III uses the examples of securitization and tokenization to show (i) how ambiguity and distortion shape markets, (ii) the function of deal lawyers, and (iii) risks associated with certain emerging technologies.

Part IV explores the capacities and potential of deal lawyers given the rise of automated market and law-practice platforms. It revisits the discourse about business lawyers' responsibilities that arose after the corporate scandals and financial crisis that marked the first decade of this century. It re-animates longstanding debates over deal lawyers' value in light of contemporary practice and financial-market technologies. It re-imagines closing opinions as an inflection point that the profession could leverage to prevent atrophy and preserve human engagement with the legal status of transactions and the legal infrastructure of the markets they constitute.

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46. *See infra* Part II.

47. *See* Gillian K. Hadfield, *Don't Forget the Lawyers: The Role of Lawyers in Promoting the Rule of Law in Emerging Market Democracies*, 56 DEPAUL L. REV. 401, 403 (2007) [hereinafter Hadfield, *Role of Lawyers*] (arguing that "lawyers are essential to the dynamic capacity of a legal system and the rule of law because they are the carriers of 'legal human capital'—the raw material on which a legal system draws in the process of interpreting, implementing, and adapting legality to local and changing conditions"); Dana A. Remus, *Reconstructing Professionalism*, 51 GA. L. REV. 807, 864–66 (2017) (discussing the particular importance of the role of the lawyer in transactional markets with no "impartial referee"); Liaquat Ali Khan, *Taking Ownership of Legal Outcomes: An Argument Against Dissociation Paradigm and Analytical Gaming*, 55 ST. LOUIS U. L.J. 887, 892–93 (2011) (explaining that increased legal human capital leads to increased competence); Gillian K. Hadfield, *Legal Barriers to Innovation: The Growing Economic Cost of Professional Control over Corporate Legal Markets*, 60 STAN. L. REV. 1689, 1709 (2008) [hereinafter Hadfield, *Barriers*] (suggesting that much of the law is created by lawyers, who bring disputes to courts and frame the issues). *Cf.* Wendy N. Duong, *Ghetto'ing Workers with Hi-Tech: Exploring Regulatory Solutions for the Effect of Artificial Intelligence on "Third World" Foreign Direct Investment*, 22 TEMP. INT'L & COMP. L.J. 63, 116 (2008) (discussing the essential role of lawyers in international economic law and the associated complex contractual relationships).

48. *See infra* Part II.

49. *Id.*

50. *See infra* Part III.

51. *See* Hughes, *supra* note 16, at 875.

I. "LOST LAWYERS" AND THE DIGITAL AGE

The question of what it means to be a lawyer,[52] and to be a deal lawyer,[53] informs any discussion of technological transformation and business lawyers' roles.[54] Since its publication in 1993, Anthony Kronman's *The Lost Lawyer: Failing Ideals of the Legal Profession*,[55] has touched a nerve in the profession.[56] Coupled with Harlan Fiske Stone's earlier criticism of business lawyers,[57] it is not a surprise if deal lawyers encounter the rise of automation with a specious relationship to stewardship and statesmanship. Kronman describes the "lawyer statesman," a professional ideal defined by values and public-spirited devotion to the law, lamenting that this ideal has waned.[58] In its absence, we are left with a lack of shared ideals for professional excellence and a crisis of professional identity.[59] While this Article references the "lost lawyer," it does so with a particular focus on deal lawyers and the stewardship of markets. One could take the step to assert that values-based stewardship of markets by deal lawyers is a type of statesman-like devotion to the law.

A. Robot Lawyers

Richard Susskind describes an exercise in which executives at a power tool company understand that what they are selling is not drills, but holes. They are in the business of providing a result or solving a problem for people by whatever is the best means. He then asks, what is the "hole in the wall in the delivery of legal services?"[60]

Ronald Gilson's seminal 1984 article *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*,[61] sparked a conversation that has been attempting to define deal lawyers' value for almost four decades.[62] Now, layered onto that discourse are questions

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52. *See* Mark A. Cohen, *Law is a Profession and an Industry - - It Should be Regulated that Way*, FORBES (Mar. 29, 2018), https://www.forbes.com/sites/markcohen1/2018/03/29/law-is-a-profession-and-an-industry-it-should-be-regulated-that-way [https://perma.cc/V9CJ-7CDA] (discussing the differences between the legal profession and the legal industry).

53. *See* Ronald J. Gilson, *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*, 94 YALE L.J. 239, 241–43 (1984) (discussing what a "business lawyer" *is*); George W. Dent, *Business Lawyers as Enterprise Architects*, 64 BUS. LAW. 279, 281 (2009) (arguing that business lawyers "perform a greater range of activities" in a broader context than what was originally thought).

54. *See* Hadfield, *supra* note 8, at 46.

55. KRONMAN, *supra* note 25.

56. Tanina Rostain, *The Company We Keep: Kronman's* The Lost Lawyer *and the Development of Moral Imagination in the Practice of Law*, 21 LAW & SOC. INQUIRY 1017, 1018–19 (1996) (book review).

57. *See* Stone, *supra* note 19, at 6–7 (arguing that the rise of the business lawyer has caused lawyers to shift away from the profession's tradition in public affairs).

58. *See* KRONMAN, *supra* note 25, at 3.

59. *Id.*

60. *See* SUSSKIND, *supra* note 24, at 188–90.

61. Gilson, *supra* note 53; *see also*, Dent, *supra* note 53, at 281 and accompanying text.

62. *See* Dent, *supra* note 53, at 281 (arguing that business lawyers are best characterized as "enterprise architects" and not as "transaction cost engineers"); Lori D. Johnson, *Redefining Roles and Duties of the Transactional Lawyer: A Narrative Approach*, 91 ST. JOHN'S L. REV. 845, 849 (2017) (arguing that transactional attorneys act as storytellers for the client's business); Praveen Kosuri, *Beyond Gilson: The Art of Business Lawyering*,

such as: What kinds of tasks should only a human licensed to practice law execute? What kinds of contractual obligations and commercial relationships warrant a pace and level of transparency incompatible with emerging "driverless finance"[63] platforms? It can be difficult to state what the "hole in the wall" is for deal lawyers' services. This difficulty can result in a fraught dynamic between transactional practice and automation in lawyering and markets.

Under ABA rules, only lawyers can practice law.[64] Lawyers, presumably, are natural persons. They must exhibit the character and fitness required for admittance to the bar.[65] They must uphold ethical standards.[66] The practice of law requires a license in every jurisdiction and attorneys may only practice in jurisdictions in which they are licensed.[67]

This ABA framework in which the lawyer is presumed to be human has already sparked litigation over the propriety of so-called robot lawyers.[68] Relatively low-tech legal services platforms like LegalZoom and Parsons Technology have been sued repeatedly for violating various states' unauthorized practice of law rules.[69] LegalZoom's fight against

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19 LEWIS & CLARK L. REV. 463, 474–81 (2015) (putting forth seven characteristics that give business lawyers their identity).

63. ALLEN, *supra* note 32, at 2.

64. MODEL RULES OF PRO. CONDUCT r. 5.5 (AM. BAR ASS'N 2019).

65. *See* MODEL RULES OF PRO. CONDUCT: PREAMBLE & SCOPE para. 6 (AM. BAR ASS'N 2019) ("As a public citizen, a lawyer should seek improvement of the law, access to the legal system, the administration of justice and the quality of service rendered by the legal profession. As a member of a learned profession, a lawyer should cultivate knowledge of the law beyond its use for clients, employ that knowledge in reform of the law and work to strengthen legal education. In addition, a lawyer should further the public's understanding of and confidence in the rule of law and the justice system . . . .").

66. *See id.* at para. 16 (describing how the professional rules of responsibility, that lawyers are professionally bound by, "provide a framework for the ethical practice of law").

67. *Id.*

68. *See, e.g.*, Unauthorized Prac. of L. Comm. v. Parsons Tech., Inc., No. CIV.A. 97CV-2859H, 1999 WL 47235 (N.D. Tex. Jan. 22, 1999), *vacated and remanded*, 179 F.3d 956 (5th Cir. 1999); Janson v. LegalZoom.com, Inc., 802 F. Supp. 2d 1053 (W.D. Mo. 2011); Lowry v. LegalZoom.com, Inc., No. 11CV02259, 2012 WL 2953109 (N.D. Ohio July 19, 2012); LegalZoom.com, Inc. v. N.C. State Bar, No. 11 CVS 15111, 2014 WL 1213242 (N.C. Super. Mar. 24, 2014); Bergenstock v. LegalZoom.com, Inc., No. 13 CVS 15686, 2015 WL 3866703 (N.C. Super. June 23, 2015); LegalZoom.com, Inc. v. McIllwain, 429 S.W.3d 261 (Ark. 2013); Litevich v. Legalzoom.com, Inc., No. X04HHDCV146055757S, 2015 WL 4570739 (Conn. Super. June 26, 2015), *on reargument in part*, No. X04HHDCV146055757S, 2015 WL 9595160 (Conn. Super. Dec. 1, 2015); *cf. In re* Peterson, No. 19-24045, 2022 WL 1800949, at *44 (Bankr. D. Md. June 1, 2022) (finding that software technologies selecting exemptions for bankruptcy creditors constituted the unauthorized practice of law). More recently, software technologies using artificial intelligence have also been the target of lawsuits. *See, e.g.*, MillerKing, LLC v. DoNotPay, Inc., No. 23-CV-863, 2023 WL 8108547 (S.D. Ill. Nov. 17, 2023).

69. *See* Caroline Shipman, *Unauthorized Practice of Law Claims Against LegalZoom—Who Do These Lawsuits Protect, and is the Rule Outdated?*, 32 GEO. J. LEGAL ETHICS 939 (2019); Carla L. Reyes, *Emerging Technology's Language Wars: Cryptocurrency*, 64 WM. & MARY L. REV. 1193, 1200 (2023) (discussing how much of the current scholarship regarding how lawyers borrow terminology from other disciplines lacks concrete data); Brooke K. Brimo, *How Should Legal Ethics Rules Apply When Artificial Intelligence Assists Pro Se Litigants?*, 35 GEO. J. LEGAL ETHICS 549, 553 (2022) (discussing accusations against LegalZoom for unauthorized practice of law); Cassandra Burke Robertson & Sharona Hoffman, *Professional Speech at Scale*, 55 U.C. DAVIS L. REV. 2063, 2077 (2022) (discussing LegalZoom and other platforms' unsuccessful anticompetitive behavior defense when accused of unauthorized practice of law).

unauthorized practice rules has become part of its very identity. This fight manifested itself on LegalZoom's company website, which previously, in its "About Us" section, had a statement about "How We Fight the Fight" against allegations of unauthorized practice.[70] More advanced, higher-tech legal services tools—including ChatGPT and devices like computational contracts and blockchain-based smart contracts—are unlikely to avoid allegations of unauthorized practice of law.[71] Developers of these technologies cite prohibitions on unauthorized practice as a hindrance to product development and expansion.[72]

Legal services platform developers, along with coders working on the creation of computational contracts, may have only a rudimentary understanding of the law. While ChatGPT and other AI systems may quickly learn the law, legal writing, and contract drafting, they lack human understanding of the consequences or external implications of what they generate.[73] The plain language of contracts in market-dominant areas of commercial finance exemplifies sophisticated legal technology with complex implications for allocation of rights, distribution of assets, and potential distortion of foundational legal principles.[74] Few professionals understand this, outside of deal lawyers well-versed in these transactions. Among deal lawyers, some have clients that would benefit through the automation of plain language.[75] Others have clients for whom automation increases risks at the firm level and, sometimes, at a collective or even systemic level.[76] Technologists working to implement automated versions of commercial financial activity can entrench consequences for market participants and affected parties in ways that lawyers and lawmakers should assess.

As approaches to regulating the unauthorized practice of law evolve, we must be mindful of when and why human judgment matters. This Article's analysis of one specific instance of automation, in ABS markets, along with automation in the law practices that facilitate them, contemplates the relevance of a lawyer's sophisticated capacity to understand social contexts and the multi-faceted implications of the work products they generate.

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70. *About Us*, LEGALZOOM, https://web.archive.org/web/20200626231645/https://www.legalzoom.com/about-us [https://perma.cc/TZ4E-JZWM].

71. "GPT" stands for generative pre-trained transformer. *See* Kevin Roose, *The Brilliance and Weirdness of ChatGPT*, N.Y. TIMES (Dec. 5, 2022), https://www.nytimes.com/2022/12/05/technology/chatgpt-ai-twitter.html (on file with the *Journal of Corporation Law*). ChatGPT's potential to write legal documents or provide lawyer work-products has emerged as a topic of much debate. Andrew Perlman, *The Implications of ChatGPT for Legal Services and Society*, HARV. L. SCH.: CTR. ON LEGAL PRO. (Mar./Apr. 2023), https://clp.law.harvard.edu/knowledge-hub/magazine/issues/generative-ai-in-the-legal-profession/the-implications-of-chatgpt-for-legal-services-and-society [https://perma.cc/CR8B-2LXX] (discussing the professional, ethical, and other risks—associated with ChatGPT). It remains to be seen how the profession will utilize technology and whether it, too, will be accused of unauthorized practice of law. *Id.*

72. In the transactional practice context, scholars such as Gillian Hadfield have long maintained that the ABA's rules on unauthorized practice are inefficient and self-serving. *See* GILLIAN HADFIELD, RULES FOR A FLAT WORLD 121–22 (2017).

73. *See* Ryan McCarl, *The Limits of Law and AI*, 90 U. CIN. L. REV 923, 938 (2022) (discussing how an AI system may not be able to fully comprehend the litigation strategy for challenging a driving violation and the potential consequences of every strategy).

74. *See infra* Part II.

75. *See infra* text accompanying notes 222–31.

76. *Id.*

This Article does not assert that AI could never replicate human levels of contextual assessment. Rather, it presents the relevance of lawyers' human understanding in one predominant market affected by automation.

B. Are "Driverless" Markets Lawyer-Less Markets?

Legal scholar Hilary Allen's book *Driverless Finance* uses the analogy of driverless cars to describe how technology enables financial activity that is transpiring with ever-increasing speed and complexity, without human direction.[77] Allen describes the regulatory challenges that financial technologies present and argues for a precautionary approach to regulation to avoid a financial crisis.[78] This Article accepts Allen's description of driverless markets, but leaves aside the question of financial regulation to ask: Where are the lawyers in this picture? Deal lawyers traditionally administer commercial activity on behalf of market actors. Is driverless finance also lawyer-less finance?

Allen describes business models that utilize sophisticated algorithms resulting in driverless financial activity, such as robo-investing, marketplace lending, and high-frequency trading.[79] In addition to these, she discusses token-related business models, such as initial coin offerings (ICOs).[80] Tokens exist on a distributed ledger or blockchain.[81] The ICO, or initial issuance of tokens native to a distributed ledger to investors, using blockchain-based smart contracts, is a token-related business model that is different from the tokenization transactions described in Part III. In an ICO, investors are buying the token itself. In a tokenization, rights to "off-chain" assets are embedded into or bundled with tokens and issued to investors.[82] In an ICO, investors are buying a new kind of digital asset.[83] In tokenization, investors seek participatory rights in underlying assets.[84]

Attorneys may be absent in the process of distributing assets in contexts where algorithmic transaction platforms settle claims automatically upon designated events.[85] This Article directs attention to the question of to what extent lawyers should take responsibility

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77. ALLEN, *supra* note 32, at 2; *see* Hilary J. Allen, *Driverless Finance*, 10 HARV. BUS. L. REV. 157, 176 ("[T]he more 'driverless' an algorithm purports to be, the more likely human beings—whether regulators or market participants—are to defer to its risk assessment without interrogating its underlying processes."); *id.* at 166–74 (discussing how certain algorithm-driven markets carry out transactions).

78. *See* ALLEN, *supra* note 32, at 3–5 (describing the regulatory challenges that exist in the fintech industry and why they matter).

79. *See* Allen, *supra* note 77, at Part II.

80. *Id.* at Part II.D.

81. Moringiello & Odinet, *supra* note 16, at 607.

82. *See id.*, at 612 (describing how industry proponents assert that tokenization "allows for the holder's 'rights and legal responsibilities [to be] embedded directly on the token' alongside 'an immutable record of ownership'").

83. *See* EVA SU, CONG. RSCH. SERV., IF1104, FINANCIAL INNOVATION: DIGITAL ASSETS AND INITIAL COIN OFFERINGS 1 (2018), https://crsreports.congress.gov/product/pdf/IF/IF11004 [https:perma.cc/Y9BK-3FM7] ("ICO investors receive digital assets in the form of virtual tokens or the promise of future tokens.").

84. *See* Moringiello & Odinet, *supra* note 16, at 631 ("[Tokenization] purports to give the holder of the token actual ownership rights in an underlying thing (and perhaps it even means specifically in an external/tangible sense).").

85. *See* discussion and sources cited *infra* notes 114–16.

for the structure and consequences of automated deals. Whether a given market begins to function apart from lawyers' attention and administration, and what the associated risks might be, requires context-specific analysis.

When and where are commercial transactions operating apart from lawyers' mediation and what are the consequences associated with such developments? Deal lawyers must have a sense of their value and function when they represent market actors in order to assess the potential effects of automation of the transactions they have structured or of their services. By beginning such an analysis surrounding issuances of asset-backed securities, this Article provides a framework for similar inquiries in other market contexts.

C. Decisions About Technologies

The adoption of new technologies in a particular market or industry, or by lawyers in various practice contexts, is not automatic or preordained. An industry group may collectively gravitate towards a new platform.[86] An individual market actor may decide to utilize AI, blockchain technology, or computational documentation. In commercial transactions, one party's choice of platform can affect their counterparty's position (in beneficial or harmful ways).[87] Attorneys, at the same time, are making choices about various products developed to support their practices.[88]

By raising questions about the role of deal lawyers in the context of emerging technologies, this Article implicitly asks how and why various technologies come into use and whether lawyers can be proactive around choices about technologies. This question may be largely empirical—a matter of investigating when and why various entities engage with particular technologies. What are the frameworks available for assessing when and why to adopt a given technology?

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86. For example, many companies in the finance industry have begun to explore distributed ledger technology. *See, e.g.*, *Corda*, R3, https://r3.com/products/corda/ [https://perma.cc/9JK3-AJCU; *What is Hyperledger Fabric?*, IBM, https://www.ibm.com/topics/hyperledger [https://perma.cc/J83U-TYQ2]; *Blockchain for Financial Services*, IBM, https://www.ibm.com/blockchain/industries/financial-services [https://perma.cc/2NKT-VMDU]; *The Blockchain Built for Business*, XRP LEDGER, https://xrpl.org/index.html [https://perma.cc/7LGR-TLYD]; *About Coin Systems*, ONYX, https://www.jpmorgan.com/onyx/coin-system [https://perma.cc/SC3T-8T84]; *Blockchain Technology*, ING WHOLESALE BANKING, https://www.ingwb.com/en/insights/distributed-ledger-technology/blockchain-technology [https://perma.cc/NK3U-DUAA]; *HSBC Delivers World's First Multi-Currency Digital Bond Offering*, HBSC (Feb. 15, 2024), https://www.gbm.hsbc.com/en-gb/insights/financing/first-multi-currency-digital-bond-offering [https://perma.cc/8BS4-Y2WA]; *Blockchain + The Capital Markets: Unlocking a New Era of Speed and Transparency*, GOLDMAN SACHS (June 1, 2021), https://www.goldmansachs.com/intelligence/pages/blockchain-and-the-capital-markets.html [https:perma.cc/MT8A-PKQR]; *see also* Wolfie Zhao, *Banking Giants Send $30 Million in Securities Over DLT*, COINDESK (Sept. 13, 2021), https://www.coindesk.com/markets/2018/03/01/banking-giants-send-30-million-in-securities-over-dlt/ [https://perma.cc/HG8K-NXU4] (explaining that Credit Suisse and ING completed a blockchain-based securities trade using R3's Corda trading platform); *ISDA Launches Standard Definitions for Digital Asset Derivatives*, INT'L SWAPS & DERIVATIVES ASSOC. (Jan. 26, 2023), https://www.isda.org/2023/01/26/isda-launches-standard-definitions-for-digital-asset-derivatives/ [https://perma.cc/MVL2-D829].

87. *See infra* Part III. *Cf.* Priya Baskaran, *Searching for Justice: Incorporating Critical Legal Research into Clinic Seminar*, 30 CLINICAL L. REV. 227 (2024) (discussing biases in technology platforms that affect clients' interests and legal representation) (on file with author).

88. *See supra* note 13 and accompanying text.

Legal scholar Carla Reyes, for example, has begun to theorize how to make decisions about when and why to use automation or computational forms of transaction.[89] Reyes presents "a unified theory of code-connected contracts" that can enable contracting parties and their lawyers to assess when and how to utilize code-based technologies.[90] Code-connected contracts take various forms, some that have existed for decades and others that employ more recent technologies.[91] Contracts themselves are a legal technology.[92] From the early days of computer science technologists have explored the ability to code legal systems and legal devices.[93]

The unified theory of code-connected contracts that Reyes presents turns on the observation that some code is better suited than other code to handle complex state transitions.[94] A "state," in computer science, is the content of program data that a computer stores in its memory at any given instance in the program's execution.[95] State transitions are more complex when the program operates in response to more inputs, and less complex when the program operates on fewer inputs. Applied to legal technologies for private ordering, "[c]ontracts negotiate the rights and responsibilities between parties based on anticipated state changes."[96] In instances where the possibilities for changes in the state of the world around a transaction and the positions of the parties are low, the potential variance in the outcome of the transaction is also low. Conversely, when parties foresee a high number of changes in the state of the world, there may be a high variance in the outcome of the transaction. Consider the potential for state changes and increase in possible outcomes, for example, in a relational contract to be performed over time by going-concern counterparties in accordance with numerous, complex covenants.

Reyes contends that "when plotted out along an axis of state transition complexity, design trade-offs between the various code-connected contracts become clear."[97] She aptly

89. *See* Reyes, *supra* note 35; Carla L. Reyes, *Autonomous Business Reality*, 21 NEV. L.J. 437, 446 (2021) (explaining how smart contracts work in connection with blockchain technology); Reyes, *supra* note 69, at 1200 (discussing how much of the current scholarship regarding how lawyers borrow terminology from other disciplines lacks concrete data).

90. *See* Reyes, *supra* note 35, at 981, 991–97 (describing the situations and circumstances that best create opportunities for automated transactions).

91. *Id.* at 984–91.

92. *See* Kevin E. Davis, *Contracts as Technology*, 88 N.Y.U. L. REV. 83, 83 (2013) ("If technology means 'useful knowledge about how to produce things at low cost,' then contracts should qualify.").

93. Reyes, *supra* note 35, at 985 n.14 (claiming that many scholars have historically been interested in leveraging computer science to enhance legal systems); Tammy Pettinato Oltz, *Educating Robot-Proof Attorneys*, 97 N.D. L. REV. 185, 194 (2022) (stating that lawyers have been resilient and adjusted with the times as technology has exploded); Daniel Martin Katz, *Quantitative Legal Prediction—or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry*, 62 EMORY L.J. 909, 945 (2013) (discussing "first generation" automation of the legal profession such as e-discovery).

94. Reyes, *supra* note 35, at 992.

95. *Id.*; *see also* DICTIONARY OF COMPUTER SCIENCE, ENGINEERING, AND TECHNOLOGY 467 (Philip Laplante ed., 2000) (defining state transition as "in a state machine, the event related to a change of state. Generally, the transition is performed when a certain condition becomes true while staying in the departing state of the transition").

96. Reyes, *supra* note 35, at 993.

97. *Id.* at 992.

observes that "[o]nly when parties can adequately anticipate the nature of potential disputes can they appropriately mitigate related risk."[98] To assist parties to a transaction, "the state transition complexity theory of code-connected contracts offers parties and lawyers a tool for building risk mitigation systems in an increasingly computable legal system."[99]

Reyes discourages the tendency to view blockchain-based smart contracts (i) chronologically (as the latest development in computational contracting), or (ii) primarily in terms of enforceability (as a matter of contract law).[100] Rather, lawyers should consider possibilities around code-connected contracts more broadly and focus on the social context in which various code-connected contracts reside.

The presentation of law and markets, and securitization and tokenization, in Parts II and III, contemplate Reyes's call to consider code-connected contracting as a technology animating a technology—contracts themselves—operating in a particular social context—the issuance of asset-backed securities by firms with potentially adverse contractual counterparties. The different, potential consequences that follow from an asset-backed issuance corroborate Reyes's concern for attention to social context[101] in choosing whether and how to use a code-connected contracting mechanism.

The analysis in Part III and the questioning of deal lawyers' value and values in Part IV are mindful of key points that Reyes makes. How will lawyers bring prudential attention to the context and consequences to automated markets and practices? For example, using her theory, who asses the complexity and number of potential state-transitions? Investor-side counterparties in the securitization and tokenization markets will likely point to plain language and simplicity: if default, then only investors reach assets. An issuer-side counterparty or a bankruptcy trustee will probably point to economic substance and complexity: if default, then we proceed to a complex and fact-specific legal analysis to determine the distribution of assets. Lawyers can mediate understanding among the parties of the level of state transition complexity that a given deal may involve. The potential for conflict or adversity under certain state changes affects the consequences and desirability of automating various aspects of contract performance and compliance.

This Article agrees wholeheartedly with Reyes's call to focus on legal and business risks of the actual usage of technology, along with her assertion that we must attend to social context and not let law lag or exacerbate risks.[102] She critiques excessive focus on enforceability.[103] This Article's discussion of asset-backed issuances supports Reyes's point. Distribution of assets automated with a blockchain-based smart contract may, in

98. *Id.*
99. *Id.*
100. *Id.* at 997–98.
101. Reyes, *supra* note 35, at 983.
102. *Id.* at 999.
103. *Id.* at 1001.

some deal contexts, violate an automatic stay (and therefore be unenforceable),[104] but unenforceability is less relevant than the consequences of the distribution itself.[105] Determining the legal enforceability of a given distribution of assets upon default in an asset-backed issuance can require years-long litigation. The disposition of assets in the meantime has real-world consequences.

II. LAWYERS AND MARKETS

This Part explores what is the "hole in the wall in the delivery of legal services,"[106] to borrow Susskind's metaphor, for deal lawyers working in commercial finance. It describes key legal features of, and the role of lawyers in, common commercial transactions that constitute financial markets. In several major markets, it is typical for transactions to contain some legal ambiguities designed to maximize the deal's value. Lawyers' understanding of purposeful ambiguity, and their capacity to assess the distance between legal rules and a client's behavior or position, enables them to think critically about adopting new technology for transactions and for the work-products they know intimately.

Attorneys harmonize legal constructs and market expectations. They do this in their representation of individual clients. They do it on a collective level through private, professional institutions such as the American Law Institute (ALI)[107] and the Uniform Law Commission (ULC).[108] Through private practice, the work of the ALI and the ULC, and coordination with lawmakers, lawyers provide essential functions for the legal infrastructure of markets.[109]

Attorneys working in these capacities may not describe their work as "regulatory." For example, lawyers organized by the ULC to draft new model Uniform Commercial Code (UCC) rules for digital assets[110] state: "Like the UCC in general, Article 12 is not a regulatory statute. The fact that an asset is or is not a controllable electronic record under the UCC would not necessarily affect the application of laws regulating . . . securities, commodities, or money transmission."[111] The drafters distinguish the rules codified in the

104. *See* Wietecha, *supra* note 30, at 1360 ("Bankruptcy courts have not yet addressed whether the unfettered operation of blockchain smart contracts may give rise to violations of the automatic stay . . . ."); Moringiello, *supra* note 30, at 571 and accompanying text; Danielle D'Onfro, *Smart Contracts and the Illusion of Automated Enforcement*, 61 WASH. U. J.L. & POL'Y 173, 186–87 (2020) (observing the risk that smart contracts pose to compliance with the automatic stay provision).

105. *See* discussion and sources cited *infra* notes 166, 221, 257.

106. SUSSKIND, *supra* note 24, at 188–90.

107. *See generally The Story of ALI*, AM. L INST., https://www.ali.org/about-ali/story-line/ [https://perma.cc/N6BJ-A43Q].

108. *See generally About Us*, UNI. L. COMM'N, https://www.uniformlaws.org/aboutulc/overview [https://perma.cc/BU3L-FHG3].

109. *See* Hadfield, *Role of Lawyers*, *supra* note 47, at 405 (discussing lawyers' role in influencing the rule of law in the private sphere).

110. The ULC—the private body of lawyers that formulates model statutes for states to enact—recently issued UCC Article 12, along with amendments to existing articles of the UCC, to better accommodate digital assets. *See* UCC AMENDS. (AM. L. INST. & UNIF. L. COMM'N 2022) (including the new Article 12 amendment and other amendments to existing articles in the UCC).

111. UNIF. COM. CODE & EMERGING TECHS. DRAFT 113 (UNIF. L. COMM'N Draft June 30, 2021).

UCC from statutes that regulate market activity for public welfare. The UCC, in contrast, codifies private law doctrines governing various transaction types.[112] It enacts the rules that define and govern classes of assets, the building blocks for markets. Public welfare regulators police market activity governed by the UCC to address negative externalities.

The UCC—enacted in every U.S. state and governing a massive swath of market activity, including securitizations[113]—may not be a "regulatory statute" in the sense that it is not a set of rules enforced by legislative delegation to address the negative effects of markets. It is understandable why the lawyers who draft model articles of the UCC tend to regard their service as non-regulatory. We can describe their work as regulatory, nonetheless, because the drafters perform the critical function of listening to industry participants and ensuring that commercial law comports with commercial practices. When attorneys attest to the legal status of a commercial transaction, or when they work collectively to ensure that what clients are seeking to do in the marketplace is consistent with statutory rules, they are serving a regulatory function.

Business attorneys will recognize immediately that creating and exploiting legal ambiguity creates value for clients. Market actors routinely exploit legal ambiguities that their lawyers create to side-step statutory rules surrounding notice, priorities, taxation, and bankruptcy—rules that affect people and express public policy choices.[114] Legal ambiguities, carefully structured by lawyers to meet clients' needs, drive major markets. Markets that rely upon legal ambiguities include securitization, equipment leasing, securities repurchase agreements (i.e., margin trading), and commercial consignments (i.e., inventory financing), for example.[115] Given the prevalence and value of legal ambiguity, (i) what can be problematic about it, and (ii) what makes it different in automated transactions?

Blockchain-based smart contracts are a device for transacting, not a type of deal. They are devices with legal consequences. The technology—because it enables self-executing transactions that automatically transfer assets on default—can undermine people's capacity to make characterization challenges.[116] Computational contract platforms may translate into digitized forms of existing documentation that were designed to create legal ambiguities that are efficient at closing but are potentially problematic and subject to re-characterization later. If this happens, investors may seize assets automatically in contexts where companies and their creditors would—but for the technology—retain control sufficient to support pursuing a claim to them. This reality can have controversial consequences for creditors such as a company's employees or trade suppliers.[117] Arguably, it also can have controversial systemic consequences, as it can create hidden leverage of the kind that aggravated the 2007–08 financial crisis.[118]

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112. *See* JAMES J. WHITE, G. ERIC BRUNSTAD JR. & HEATHER HUGHES, SECURED TRANSACTIONS: TEACHING MATERIALS 113 (5th ed. 2021) (explaining the general scope of Article 9).

113. *See* U.C.C. § 9–109 (AM. L. INST. & UNIF. L. COMM'N 2010) (explaining the general scope of Article 9).

114. *See* Hughes, *supra* note 10, at 22.

115. *Id.* at 23 n.3.

116. *Id.* at Part II.A.

117. *See* Hughes, *supra* note 16, at 871–72.

118. *See* Hughes, *Complex*, *supra* note 30, at 117.

In addition to legal ambiguity (and resulting characterization challenges), financial markets can demand distortion of legal principles.[119] Legal distortion occurs when lawmakers enact rules that circumvent established legal norms to bolster an industry practice or eliminate a type of liability.[120] Like deliberate legal ambiguity, legal distortion can be efficient and desirable, yet also can introduce fairness and efficiency risks. This Part explains both legal ambiguity and legal distortion and how recent technological developments magnify the risks surrounding both ambiguity and distortion.

A. The Value of Legal Ambiguity

Legal ambiguity arises when a transaction creates rights in assets, and it is difficult to tell what scope of legal rights a purchaser has without a detailed, fact-specific, legally complex analysis.[121] Consider the practice of equipment leasing, for example. When businesses need to acquire equipment—whether it be merchant marine vessels, aircraft, or office furniture—they can spend cash or issue debt to finance the acquisition. If they only need the use of the equipment for some time shorter than the equipment's full useful life, they may lease the equipment in a transaction that reflects a true lease—a present possessory interest for a price, after which the lessor takes the equipment back.[122] "Equipment leasing," in most instances, refers to a transaction involving an ostensible "lessor" and "lessee," but contains terms that reflect an extension of credit or loan by the "lessor" to the "lessee," who pays a purchase price over time, with interest, for the equipment.[123] The equipment becomes the property of the "lessee" after the end of the "lease." In other words, the deal calls itself a lease, but as a legal matter creates a secured loan.[124] A secured loan is governed by different laws, and creates different legal obligations, than a lease.[125]

The legal ambiguity—the use of terms that indicate both a lease and a loan—creates value for the parties.[126] They may treat the deal as a lease for accounting purposes, though it accomplishes accessing capital in the form of secured debt. The transaction may be truly ambiguous, meaning it may be a hybrid deal that contains terms that reflect the economic substance of both a lease and a loan. Determining the legal status of the deal, for purposes of bankruptcy or taxation, for example, would require a fact-specific legal analysis, referencing common-law precedents.[127]

Alternatively, the transaction may be ambiguous in the sense that it uses the terminology of a lease to create a secured loan.[128] To an attorney who reviews the lease, it is clear

119. *See* discussion *infra* Part II.B ("Legal distortion is distinct from, but related to, legal ambiguity.").

120. *See* discussion and sources cited *infra* notes 130–32.

121. *See* Hughes, *Designing*, *supra* note 30, at 901.

122. *See* WHITE, BRUNSTAD & HUGHES, *supra* note 112, at 96.

123. *Id.* at 95.

124. *Id.*

125. *Id.*

126. *See* Hughes, *Designing*, *supra* note 30, at 901.

127. *See, e.g.*, *In re* Pillowtex, Inc., 349 F.3d 711, 720 (3d Cir. 2003) (analyzing the legal status of a lease for lighting fixtures amid bankruptcy proceedings); *In re Lykes Bros. S.S. Co.*, 216 B.R. 856, 862 (Bankr. M.D. Fla. 1996) (analyzing security interests over a charter line's accounts receivable).

128. *See* Hughes, *supra* note 10, at 45.

that it creates a loan. The economic substance of the deal is not ambiguous. Rather, the language that the parties use creates ambiguity because it presents a "lease" the terms of which reflect a loan. This is the case, for example, whenever the term of an ostensible "lease" is as long as the useful life of the equipment. If the equipment has no value after the lease term, the lessee bought it.[129]

Legal ambiguity creates value because it enables the parties to treat the deal most advantageously thereby lowering capital costs.[130] If a financer can claim the legal status of an owner—a lessor rather than a lender with a lien on equipment—it can charge a better rate for the "lessee" because it can claim that the equipment is not reachable by a bankruptcy trustee or other creditor. The fact that a court may re-characterize the deal as a loan creates a relatively remote risk. The lower costs of capital that businesses have as a result of the legal ambiguity, in contrast, create immediate benefits. Many industries rely on this kind of legal ambiguity to create efficiencies. This type of deliberate legal ambiguity is integral to the securitization market and to lawyers' work in representing parties to securitizations. Many commercial finance lawyers are accustomed to structuring ambiguity into transactions to benefit their clients, knowing full well that they will turn around and argue that a deal is not what they said it was if the client later faces bankruptcy or default.[131]

B. The Risks of Legal Distortion

Legal distortion is distinct from, but related to, legal ambiguity. Legal distortion occurs when lawmakers create a rule that is at odds with fundamental legal concepts to achieve a certain objective.[132] Both judges and legislatures create legal distortions.

Some distortions are carefully designed to achieve widely established and longstanding policy objectives. For example, UCC Article 9, governing secured loans, contains provisions that override in particular instances the principle of *nemo dat*, the property concept that one cannot transfer more than one has.[133] These provisions are integral to expressing the statute's overall objective of facilitating access to credit.

Distortion becomes problematic when lawmakers distort fundamental legal concepts under pressure from market actors, in contexts where a market rests on legal ambiguities that an industry wants lawmakers to fix in its favor.[134] As discussed above, legal ambiguity is endemic to several kinds of market-dominant transactions. Industry participants in prominent markets may demand that lawmakers distort legal principles to resolve ambiguity for

129. *See* U.C.C. § 1-203 (AM. L. INST. & UNIF. L. COMM'N 2001).

130. *See* Hughes, *supra* note 16, at 917.

131. *See, e.g.*, *infra* text accompanying notes 193–99.

132. Schwarcz, *supra* note 41, at 722 (discussing how "lawmakers (such as legislators and agency administrators) will confront the problem [of distorting legal principles] when they consider enacting laws or promulgating rules").

133. *See, e.g.*, U.C.C. § 9-322(a)(1) (AM. L. INST. & UNIF. L. COMM'N 2010) (stating that "conflicting perfected security interests and agricultural liens rank according to priority in time of filing or perfection"); Schwarcz, *supra* note 41, at 698. *Cf.*, Thomas E. Plank, *Article 9 of the UCC: Reconciling Fundamental Property Principles and Plain Language*, 68 BUS. LAW. 439, 442 (2013) (describing the significance of *nemo dat* and explaining "other property principles [that] are appropriate exceptions to nemo dat").

134. *See* Hughes, *supra* note 16, at 888.

their benefit. They have done so, for example, in the securitization market and the securities repurchase or "repo" market.[135]

These instances of legal distortion are problematic. The legal ambiguities that these markets rest upon reflect a balancing of the transacting parties' interests. Again, attorneys carefully structure ambiguity to permit the greatest possible value for both parties, leaving any definitive statement of the parties' rights to an unlikely, default scenario.

Legal distortion occurs when—in that default scenario—a lawmaker refuses to characterize an ambiguous transaction based on its economic substance.[136] Lawmakers have done this when re-characterization of a market-dominant form of transaction would threaten the positions of large groups of investors—when a deal type or financial product becomes "too big to fail."[137] A financial product is too big to fail if it rests on a legal ambiguity that now cannot be resolved in accordance with legal principles without systemic consequences.[138]

In property law, it is a foundational principle that the intent of the parties determines the scope of property interest that any given conveyance creates.[139] If a conveyance is ambiguous, the grantor's intent controls how the law classifies the interest. The law infers the intent of the parties from economic substance.[140] It is objective intent, based on the terms of a transaction, that matters. (The subject intent of the parties, in creating a transaction with ambiguous terms can be to avoid application of some regulatory regime.)

Consider, for example, the market for repos and the collapse of Lehman Brothers Holdings, Inc. ("Lehman Brothers").[141] A securities repurchase agreement, or repo, is a financial transaction in which one party (a repo seller) transfers specified securities to a counterparty (a repo buyer), and at the same time enters into an agreement to re-acquire the securities at a future date at a designated price (the original price plus an additional amount).[142] If the securities depreciate before the repurchase date, the repo seller must provide additional securities to adequately protect the repo buyer. If the repo seller fails to repurchase the securities as specified, or defaults on any other provision of the agreement, the repo buyer may sell the securities. Repo agreements function much like margin trading agreements, except using sale and re-purchase terms instead of secured loan terms.[143]

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135. *See* Hughes, *Complex*, *supra* note 30, at 123–24; discussion and sources cited *infra* notes 140–41, 148–49.

136. *See* Schwarcz, *supra* note 41, at 719–20 (discussing the law's characterization of a repo transaction as a "secured loan" in some contexts and as a "sale" in others).

137. Kettering, *supra* note 40, at 1634.

138. *Id.*

139. *See* Hughes, *Complex*, *supra* note 30, at 127.

140. *Id.*

141. *See* WHITE, BRUNSTAD & HUGHES, *supra* note 112, at 606.

142. Jeffery Cheng & David Wessel, *What is the Repo Market, and Why Does it Matter?*, BROOKINGS (Jan. 28, 2020), https://www.brookings.edu/articles/what-is-the-repo-market-and-why-does-it-matter/ [https://perma.cc/8XMU-7TJ9].

143. *Id.*

Margin trading is the practice of leveraging securities in an account.[144] Brokers and their customers will enter into margin agreements. The brokers will then extend credit to the customer, to acquire securities on their behalf. The customer's portfolio secures the loan that the broker made by purchasing additional securities for the customer. This practice enables investors to reap larger gains but also subjects them to a greater risk than if they had to send cash or other assets to the broker every time they wanted to purchase more securities. If the value of the customer's portfolio falls below a certain amount, the broker can make "margin calls" and require the customer to contribute more capital.[145] If the customer does not meet the margin call, the broker can sell securities out of the customer's portfolio to repay itself for the loan.[146] A margin trading agreement is a type of secured loan.[147] The brokers must comply with the law governing secured loans, which requires that they sell securities in a commercially reasonable manner.[148] They must be able to justify the manner and pricing of sales because they are dispositions of collateral.[149]

Repos expand this market by elevating the brokers to the legal position to that of an owner of the securities acquired for the customer.[150] As an owner, the broker can sell the securities in any manner and at any price when the customer fails to meet a margin call. The objective of a repo is the same as of a margin trading agreement: to permit customers to leverage their accounts to increase their purchasing power (in exchange for higher risk). To distinguish between a margin trading agreement and a repo, lawmakers traditionally look at the economic content of the transaction, based on its terms.[151] Repos can be legally ambiguous transactions that present complex characterization questions.

Yet, in response to the sheer size and utility of the repo market by 2007, a prominent bankruptcy holding disregarded the private-law concept that property interests are determined by their economic substance rather than the form or the words that the parties use in any given transaction.[152] When faced with a challenge to the status of repos, the court in *In re American Home Mortgage Holdings, Inc.* held that the form of a securities repurchase agreement determines its characterization, not its economic substance.[153] The court created

144. 11 U.S.C. § 761 (defining the term under the heading "margin payment"); Dayana Yochim, *Margin Trading: What it is and What to Know*, NERDWALLET (May 24, 2022), https://www.nerdwallet.com/article/investing/what-is-a-margin-trading-account-and-how-does-it-work [https://perma.cc/GMJ7-GDPM].

145. 17 C.F.R. § 31.18 (2023).

146. *Id.;* Jean Folger, *What Happens If I Can't Pay a Margin Call?*, INVESTOPEDIA (Aug. 2, 2023), https://www.investopedia.com/ask/answers/12/what-happens-cannot-pay-margin-call.asp [https://perma.cc/8D44-HCTN].

147. *See* Folger, *supra* note 146 ("[J]ust as with any loan, [the borrower] must repay the money lent to [them through their margin account] by [their] brokerage.").

148. *See* WHITE, BRUNSTAD & HUGHES, *supra* note 112, at 116.

149. *Id.*

150. *Id.*

151. *See, e.g.*, Granite Partners, L.P. v. Bear Sterns & Co., 17 F. Supp. 2d 275, 298 (S.D.N.Y. 1998) (discussing how repo involve two distinct but connected transactions).

152. *Id.* at 301; *In re* Am. Home Mortg. Holdings, Inc., 388 B.R. 69, 90 (Bankr. D. Del. 2008); Paolo Saguato, *The Liquidity Dilemma and the Repo Market: A Two-Step Policy Option to Address the Regulatory Void*, 22 STAN. J.L. BUS. & FIN. 85, 94 (2017) (discussing how rehypothecation of collateral in conjunction with the automatic stay provision exacerbates the repo market's instability).

153. *In re Am. Home Mortg. Holdings, Inc.*, 388 B.R. at 90.

a legal distortion. The holding distorted the fundamental property-law concept that economic substance (the most useful evidence of intent) determines the legal status of the deal.

The case involved a repo transaction between Lehman Brothers (as repo buyer) and American Home Mortgage Investment Corp. (as repo seller).[154] The *In re American Home Mortgage* court reasoned that repos provide liquidity that financial institutions had come to depend upon.[155] The court refused to do an economic substance analysis to potentially re-characterize a repo. The court reasoned that such an exercise would undermine a market crucial to the economy.[156]

Legal distortion can aggravate systemic risk.[157] If the court in *In re American Home Mortgage* had abided by long-established private-law principles for characterizing transactions, when the haircuts on repos increased, the higher haircuts may have indicated secured loans in many instances. To the extent that the repos were secured loans, (i) the repo securities would be subject to an automatic stay if the repo seller filed for bankruptcy,[158] and (ii) the brokers would be subject to UCC Article 9's rules requiring commercially reasonable sales of collateral.[159] Because of this, it would not have been so easy for repo buyers to create a run on investment banks (causing the banking sector to become insolvent).[160]

III. DEALS, LAWYERS, AND AUTOMATION

Building on the discussion above, this Part turns to a granular discussion of one, major, market and the role of lawyers in that market. It explores the potential effects of automation in a common deal type. It identifies risks associated with migrating established lawyers' forms to digitized formats without critically assessing the consequences and desirability of automation in a particular context. It posits that particular attorney work-products, such as closing opinion letters, could be an inflection point that the bar could leverage to ensure human engagement with transactions that constitute markets central to collective economic strength.

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154. *Id.* at 75.

155. *Id.* at 78.

156. *Id.* at 77–78. Repos, like derivatives, enjoy special status under the U.S. Bankruptcy Code. They are exempt from the automatic stay, enabling the repo buyer unilaterally to terminate the repo and to sell the repo securities without regard for a repo seller's bankruptcy petition. *Id.* at 88. This bankruptcy safe harbor was an important factor driving the growth of the repo market. *In re Am. Home Mortg. Holdings, Inc.*, 388 B.R. at 78.

157. Economists Gary Gorton and Andrew Metrick have argued that the financial crisis in 2007–08 was largely a repo "run" on financial institutions. *See* Gary Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425, 425 (2012) (describing the 2007–08 financial crisis as a "system wide bank run"). A repo run on banks involves widespread, increasingly high "haircuts" or discounts that drove banks into insolvency. *See id.* at 427 (discussing how repo runs on banks happen).

158. *See* WHITE, BRUNSTAD & HUGHES, *supra* note 112, at 609.

159. *Id.*

160. *See* Gorton & Metrick, *supra* note 157, at 430.

Securitization—a tens-of-trillions-dollar market in the United States[161]—involves issuing securities backed by assets (such as mortgages or equipment leases).[162] "Tokenization," as discussed here, is a blockchain-based issuance of digitized rights to real-world assets (RWAs). Legal scholars have discussed the extent to which tokenization is analogous to securitization.[163] Securitization and tokenization may be more or less similar, depending on the particularities of given transactions. RWA tokenizations are proliferating and involve many different asset types.[164] The concerns surrounding automated disposition of assets would arise in deals that involve assets subject to dispositions on a distributed ledger. As such, the tokenizations under discussion, here, are RWA tokenizations that involve asset partitioning[165] (like in securitizations) and in which an automated, smart contract platform can effectively transfer ownership rights to the tokenized assets.

This use of "tokenization" supports the exercise of exploring lawyers' roles in the face of automation. This Article does not contend that securitization transactions generally are migrating to tokenization platforms or that they will do so in the future.[166] This Article

161. *See US Asset Backed Securities Statistics*, SIFMA, https://www.sifma.org/resources/research/us-asset-backed-securities-statistics [https://perma.cc/R9DD-TC9Y] (providing visualization of statistics regarding the total amount of securities backed by assets in the United States); Jenna Dagenhart & David Zhang, *Securitized Products: Recent Performance and 2022 Outlook*, MSCI (2021), https://www.msci.com/research-and-insights/securitized-products-recent-performance-and-2022-outlook [https://perma.cc/RL7k-7YH5].

162. The term "securitization" can refer to quite different transactions in different contexts. *See, e.g.*, Schwarcz, *supra* note 16, at 970 (defining securitization as the practice of monetizing assets); Hughes, *supra* note 16, at 876 n.20–23; Heather Hughes, *Understanding the Securitization of Worker Remittances* 1 (Am. U. Research Paper No. 2008-39), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1096700 (discussing remittance cash flow securitization). Here, the term refers to asset-backed issuances structured to isolate the assets from claims of originators' creditors.

163. *See* Schwarcz, *supra* note 16; Odinet & Tosato, *supra* note 16; Moringiello & Odinet, *supra* note 16.

164. *See* Taeheon Lee, *The Structure and Overview of RWA-based DeFi Protocols*, MEDIUM (July 3, 2023), https://medium.com/fourpillars/the-structure-and-overview-of-rwa-based-defi-protocols-63bf631cb866 [https://perma.cc/52SN-QE72] (discussing issuances of security tokens on blockchains, backed by various real-world assets and the protocols that support them).

165. *See id.* (describing platforms that hold tokenized assets of different types in separate, issuance-specific vaults). This Article does not discuss the extent to which such "vaults" are legally distinct entities, or achieve the same level of asset partitioning, as do business entities or security interests.

166. Tokenizations involve many different kinds of assets, including receivables. *See, e.g.*, José Luis Homem de Mello et al., *Brazilian Legal and Regulatory Framework on Virtual Asset Service Providers*, INT'L BAR ASSOC. (Apr. 12, 2023), https://www.ibanet.org/Brazilian-legal-and-regulatory-framework-on-virtual-asset-service-providers [https://perma.cc/J6QH-LTCV]; Luiz Felipe Maia, Flavio Augusto Picchi & André Napoli, *Blockchain & Cryptocurrency Laws and Regulations 2024 Brazil*, GLOB. LEGAL INSIGHTS, https://www.globallegalinsights.com/practice-areas/blockchain-laws-and-regulations/brazil#_edn37 [https://perma.cc/NC7T-K36K]; Cassio J. Krupinsk, *Why Does Tokenization of Receivables Represent the Future of Financial Transactions?*, BLOCKBR (Sept. 28, 2022), https://blockbr.com.br/why-does-tokenization-of-receivables-represent-the-future-of-financial-transactions/?lang=en [https://perma.cc/D3QN-N7FM]; *How Tokenization Can Bring Every Asset to the Digital World*, LCX (Aug. 18, 2020), https://www.lcx.com/how-tokenization-can-bring-every-asset-to-the-digital-world [https:perma.cc/KGP9-4T52]; Michael J. Casey, *Has Tokenization's Moment Finally Come?*, COINDESK (Mar. 5, 2023), https://www.coindesk.com/consensus-magazine/2023/03/03/has-tokenizations-moment-finally-come [https://perma.cc/N83B-WXLQ]; Smith et al., *Tokenization of Commodity Receivable*, TECH. DISCLOSURE COMMONS 1 (Feb. 19, 2024), https://www.tdcommons.org/cgi/viewcontent.cgi?article=7835&context=dpubs_series [https://perma.cc/CS9T-VGHH].

aims to incite critical discussion of how automation can affect markets and the law practices that support them. It is about what deal lawyers do—and hence what could be lost—in a world in which transactions take digitized and automated forms supported by legal advice rendered with digitized and automated work-products.

Securitizations can create risk for markets. They can generate hidden leverage, inefficiencies, and distributional unfairness.[167] Securitization was at the epicenter of the 2007–08 crisis.[168] Tokenization can magnify risks associated with securitization in instances where automated asset-disposition side-steps the intervention point at which parties contest the legal status of assets backing an issuance.[169] This Part describes the role of lawyers in the asset-backed issuances market. It discusses what lawyers already do—and what they might do differently—in emerging-technology-enabled financial markets.

A. Securitization

Attorneys add value to the securitization market in a variety of ways. They help to structure deals, they counsel clients on how to perform under the terms they are committing to, and they advise on regulatory compliance. Among the most important things that attorneys do for this market, however, is issue closing opinion letters. Attorneys' letters assure investors that they will have the legal rights that they expect and demand in securitized assets. Attorneys' opinion letters are a condition that investors place on their funding of an issuance. The opinion letters that support securitizations are reasoned opinions. They contain ample qualifications and exceptions that can drastically whittle down the scope of the opinion. Yet market actors, and rating agents, consider them central to the soundness of an issuance.[170] When lawyers certify investors' legal status, however qualified, they facilitate lower costs of capital for companies, and they fortify the value of asset-backed securities in the secondary market.[171]

While the transaction documents for asset securitization are sophisticated, attorneys working on such deals are often in a path-dependent environment. Clients' deals are similar, specific clients do repeat transactions, and the documentation attorneys prepare is derived from prior forms.[172] Lawyers facilitate funding at the most competitive costs by opining that investors have the requisite legal rights in securitized assets. Attorneys can be under pressure to close hundreds of millions, if not billions, of dollars' worth of asset-

167. *See* Hughes, *supra* note 16, at 883–84, 883 n.69.

168. *See* Hughes, *supra* note 16, at Part III.

169. *Id.* at 23.

170. *See generally* Jérôme Hubler et al., *How Do Rating Agencies' Decisions Impact Stock Markets? A Meta-Analysis*, 33 J. ECON. SURVS. 1173 (2019) (explaining how rating agencies make their decisions and how those decisions impact the market).

171. *See* Hughes, *supra* note 16, at 895.

172. *See Use Artificial Intelligence You Can Trust To Enhance Your Legal Drafting*, THOMSON REUTERS (Jan. 24, 2024), https://legal.thomsonreuters.com/blog/use-ai-you-can-trust-to-enhance-your-legal-drafting [https://perma.cc/Q92Y-SWSQ] (explaining how attorneys are beginning to use more AI and pre-drafted documents for their contracts).

backed issuances in any given quarter, using well-worn deal structures and law firm-developed forms. They have no incentive to consider the effects of the markets they are building, and the Model Rules of Professional Conduct do not require it.[173]

The prospect of contracts drafted by generative AI raises the potential for atrophy of deal-lawyers' skills.[174] If AI learns how to create documents traditionally drafted by lawyers, will lawyers continue to learn how to draft contracts? If lawyers do not take responsibility for the legal status of transactions, how do we know that claims are legally sound? Closing opinions are, in theory, the moment that atrophy leads to liability.[175] This is "in theory" because of the many qualifications and exceptions that lawyers include in closing opinions to avoid professional liability.[176]

"Securitization" is a broad and diverse category of transactions.[177] The purpose of securitization, generally, is to raise capital against the value of a company's assets, enhancing credit by separating assets from the liabilities associated with the company. Different types of securitization present different policy concerns.[178] The focus, for purposes of this Article, is on true sales of receivables[179] for the creation of asset-backed securities (ABS). The ABS market is a central source of capital for American businesses across a wide range of industries.[180] The function of securitizations of this type is to isolate assets from the liabilities of the going concern that generates them, to enable lower costs of capital.

In a receivables securitization, a company (i) forms a legally separate special purpose vehicle[181] (SPV); (ii) conveys receivables to the SPV; and (iii) raises capital by having the SPV issue securities backed by the receivables to investors.[182] The SPV is "bankruptcy remote" from the originator. It is a legally separate entity, and it is sufficiently independent

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173. *See generally* MODEL RULES OF PRO. CONDUCT (AM. BAR ASS'N 2024) (showing that there are no Model Rules that address the effects that attorneys have in the markets they are building).

174. Concerns about atrophy of human analytical capacities given the capabilities of AI pervade many fields, and law is no exception. *See e.g.*, Bill Tomlinson, Andrew W. Torrance & Rebecca W. Black, *ChatGPT and Works Scholarly: Best Practices and Legal Pitfalls in Writing with AI*, 76 SMU L. REV. F. 108, 125 (2023).

175. *Id.*

176. *See* Heather Hughes, *Non-Party Interests in Closing Opinion Letters*, 3 AM. U. BUS. L. REV. 183, 186 (2013).

177. James Chen, *Securitization: Definition, Pros, & Cons, Example*, INVESTOPEDIA (Sept. 29, 2023), https://www.investopedia.com/terms/s/securitization.asp [https:perma.cc/3LWK-P7AK].

178. *Id.*

179. "Receivables" refers to all monetary obligations owed to a company by its debtors or customers. These can include invoices for sales of goods, credit card payments, loan obligations, contracts for services, or the like. Receivables appear on a company's balance sheet; they include all debts owed to the company, even if they are not currently due. *Receivables*, INVESTINGANSWERS (Oct. 1, 2019), https://investinganswers.com/dictionary/r/receivables [https://perma.cc/9PWC-PL8R].

180. Mortgage loans are frequently pooled and securitized, creating "mortgage-backed securities" or "MBS." *See* Hughes, *supra* note 16, at 880. "Asset-backed securities" or "ABS" refers to securities collateralized by receivables or other financial assets other than mortgage loans. *Id.* In the wake of the 2007–08 crisis, mortgage securitization received much attention due to its relationship to the residential housing market. But by the early 2000s, receivables securitizations (involving various kinds of payment rights) had overtaken residential real property mortgages as a generator of new asset-backed issuances. *Id.* at 881.

181. *Special Purpose Vehicle (SPV)*, CFI, https://corporatefinanceinstitute.com/resources/management/special-purpose-vehicle-spv [https://perma.cc/Y739-F3JC].

182. *See* Hughes, *supra* note 16, at 881.

from its parent company that a bankruptcy court would not consolidate the SPV with the parent company. For the receivables themselves to be bankruptcy remote, the originator must sell them to the SPV. It must transfer to the SPV legal rights in the assets sufficient to put them out of reach of claims of the company's creditors. Securitizations may involve the issuance of shares, bonds, trust certificates, or other instruments, so long as they are recognizable to capital markets and have secondary market value.

While receivables financing is integral to capital markets, it raises important policy concerns. Companies that generate and securitize receivables can have many employees and retirees who are unsecured creditors in bankruptcy. Some commentators question the efficiency of receivables securitization, arguing that it permits companies and investors to extract a subsidy from, or artificially depress interest rates at the expense of, these unsecured creditors.[183] Others defend receivables securitization on efficiency terms, contending that lower costs of capital benefit all claimants in the aggregate, including workers.[184] Without the lower costs of capital from securitization, companies would not create as many jobs or fund as many retirement plans.

Some maintain that it is unfair to permit companies and investors to externalize costs onto third parties, such as employees or tort claimants, who lack the capacity to alter their rate of return in response to the presence of investors with a superior claim to assets.[185] Others disagree and do not find that securitization presents fairness concerns.[186] These deals, they maintain, involve assignments of assets that exclude third parties just like any other property conveyance. There is no fairness concern specific to this deal type that justifies questioning its structure. This debate has played out for decades among legal scholars, in the UCC drafting processes, and in Congress (in the context of bankruptcy law reform).[187]

When a company securitizes its assets, it works with the investors and its attorneys to strike a balance between assigning ownership rights to the SPV, while providing the investors recourse if assets underperform.[188] Also, because the SPV is a shell entity, the company often retains servicing and administration of the assets.[189] The details of the company's assignment to the SPV can create doubt about whether the assignment is a sale, at law, or a security interest (a contractual lien that secures a loan). In other words, securitization involves deliberate, structured legal ambiguity.

Whether a financial transaction involves an outright sale of assets, rather than an assignment of a security interest, has important consequences. Even though a powerful investor may have the first priority claim either way, pending resolution of bankruptcy proceedings the company can "(i) draw on the assets to service wage and benefit obligations,

183. *See* Hughes, *supra* note 16, at 882.
184. *See* Hughes, *supra* note 162, at 12.
185. *See* Hughes, *supra* note 16, at 882.
186. *Id.*
187. *Id.*
188. *Id.* at 890.
189. *Id.*

(ii) offer adequate protection to investors, and (iii) assign interests in the assets to continuation financers."[190] Assets sold, however, are no longer property of the company. The company no longer has any property interest in the assets to which a bankruptcy trustee's lien could attach.

The legal rules that lawyers and courts use to distinguish sales from loans comprise the "true-sale doctrine."[191] Legal scholars describe the true-sale doctrine as "the holy grail of the securitization market, a market in which hundreds of billions of dollars flow in transactions structured around constantly evolving ideas of what a true sale means."[192] Despite the economic importance of the securitization market, the laws governing securitization transactions are complex, inconsistent, and in some states incoherent.[193]

A typical lawyer's true-sale closing opinion letter is full of caveats and exceptions.[194] Yet, the fact that an attorney's opinion regarding investors' rights is qualified and uncertain does not hold up this market.[195] The parties defer to an improbable, default scenario—the question of what exactly would happen if investors attempt to liquidate the securitized assets.

In the unlikely event of bankruptcy, the bankruptcy process can test the legal status of an issuance.[196] Investors may or may not have outright ownership claims to securitized assets; companies may or may not get to continue using the assets to service their various obligations (such as payroll, supply contracts, and rent). The balance that attorneys' analyses strike between affording the investors enough recourse to offer capital on advantageous terms while opining that investors will not compete with the company's creditors if there is a default, supports the securitization market.

Consider the story of LTV Steel, Inc. (LTV), an Ohio manufacturer of steel products that had approximately 17,000 workers and 100,000 retirees when it entered bankruptcy in 2000.[197] LTV had securitized its receivables and inventory.[198] The company fought in

190. *See* Hughes, *supra* note 16, at 876.

191. *See generally* Peter V. Pantaleo et al., *Rethinking the Role of Recourse in the Sale of Financial Assets*, 52 BUS. LAW. 159 (1996) (discussing the role of the true-sale doctrine in the context of the securitization market).

192. *Id.* at 161 (elaborating on policy concerns with true-sale).

193. In most jurisdictions, the true-sale doctrine involves confusing and divergent case law. Some states override the doctrine with "Asset-Backed Securities Facilitation Acts," or "ABS statutes," that deem all assignments of receivables for purposes of securitization to be sales, regardless of economic substance. These statutes confer "sale" status on transactions the economic substance of which would not otherwise warrant that status. They are an example of legal distortion. In securitizations in which the originator is a bank subject to the Federal Deposit Insurance Act, the FDIC rules, which contain safe-harbor provisions and reference accounting standards, may determine the status of securitized assets. Hughes, *supra* note 16, at 876.

194. Hughes, *supra* note 176, at 186 (discussing instances where lawyers may provide input on true-sales).

195. *Id.* (discussing uncertainty in opinion letters and its value).

196. *See* WHITE, BRUNSTAD J & HUGHES, *supra* note 112, at 364*; see also Recovery by ICO Token Investors May Be Challenged in Bankruptcy*, CARLTON FIELDS (Aug. 12, 2020), https://www.carltonfields.com/insights/publications/2020/recovery-by-ico-token-investors-may-be-challenged [https://perma.cc/6YVU-4BJX] (analyzing the concerns about issuances and uncertainty around them after bankruptcy).

197. *See* WHITE, BRUNSTAD JR. & HUGHES, *supra* note 112, at 366 (describing the bankruptcy of LTV Steel).

198. *Id.*

bankruptcy with Abbey National, a U.K.-based investment group that purchased $270 million of the asset-backed securities LTV had issued.[199] LTV argued that it retained a property interest in the securitized assets sufficient to permit it to use the assets to support its workers during bankruptcy.[200]

LTV made this argument despite having accepted financing from Abbey National when it was reorganizing in a prior bankruptcy.[201] This case illustrates how legal ambiguity operates in commercial finance. Abbey National's willingness to contribute $270 million to LTV as it reorganized came with certain deal terms—that LTV would "sell" and the SPV would "purchase" the securitized assets in a true sale.[202] If LTV sells the assets to the SPV, the SPV can issue securities backed by the assets to Abbey National without Abbey National having to worry about LTV's creditors having any claim to them. Attorneys for LTV (in all likelihood) gave an opinion letter on LTV's behalf to Abbey National, as a condition to funding, opining that LTV assigned the assets in a sale and not as collateral for a loan.

Despite these terms and statements, however, the parties understand that LTV assigned the securitized assets on terms that may reflect the economic substance of a secured loan. They understand that the deal may present legal ambiguity. Legal ambiguity is part of the structure of the deal—the total package of rights and representations that an investor requires to offer capital at a specific price.

Parties will agree at closing that their deal reflects a certain legal status (a true sale) but later litigate when one party turns around and claims the deal is not the legal animal they said it was at closing. This kind of practice creates efficiencies. The investors offer more funds with better pricing in exchange for the legal status of an owner. They claim ownership even though the deal contains other terms that are inconsistent with ownership, such as legal rights to recourse or terms that allocate risk of underperformance to the "seller." The actual legal status of the deal (resolution of legal ambiguity) does not become relevant unless there is a default.[203]

Judge Bodoh, in LTV's (in)famous bankruptcy proceedings, stated that LTV retained a property interest in securitized assets pending the determination of the actual legal status of the company's assignment of assets to its off-balance-sheet subsidiaries, LTV Steel Products, and LTV Sales Finance.[204] Judge Bodoh stated: "there seems to be an element of sophistry to suggest that [LTV] does not retain at least an equitable interest in the property that is subject to the interim order."[205] Describing the basis for his finding, he writes: "To suggest that [LTV] lacks some ownership interest in products that it creates with its

199. *Id.*

200. *Id.*

201. *Id.*

202. *See* WHITE, BRUNSTAD JR. & HUGHES, *supra* note 112, at 366 (detailing the relationship between Abbey National and LTV).

203. Hughes, *Designing*, *supra* note 30, at 901.

204. *See* WHITE, BRUNSTAD JR. & HUGHES, *supra* note 112, at 371–72.

205. *In re* LTV Steel Co., 274 B.R. 278, 285 (Bankr. N.D. Ohio 2001); *see* Thomas E. Plank, *The Security of Securitization and the Future of Security*, 25 CARDOZO L. REV. 1655, 1686–98 (2004) (describing the LTV Steel, Inc. case and its implications).

own labor, as well as the proceeds to be derived from that labor, is difficult to accept."[206] Judge Bodoh's concern was for the workers and retirees that LTV Steel could potentially continue to support, at least through the bankruptcy proceedings, if it could access cash flows from receivables it assigned to an SPV.

LTV was certainly not the only steel company in financial distress at the turn of the century. Between the late 1990s and 2002, around forty U.S. steelmakers filed for bankruptcy to liquidate or reorganize.[207] The companies that liquidated cut off benefits that they owed to hundreds of thousands of retirees and dependents.[208] After filing for bankruptcy, LTV went out of business and sold its assets. A buyer reopened the operation under a new name, cutting off LTV's existing obligations to its workers and retirees.[209]

The Pension Benefit Guaranty Trust Corp. replaces some pension income for out-of-luck retirees of companies like LTV but does not cover expenses to the same extent as their bargained-for retirement benefits. For example, 64-year-old Donna Louise Wilson lost retirement benefits when LTV shut down.[210] Her husband, Walter, had died ten years earlier, after mining ore for LTV's steel for 30 years.[211] The Pension Benefit Guaranty Trust Corp. replaced 85% of Ms. Wilson's pension but did not cover prescription drug costs that LTV had paid for.[212] She, along with many thousands of others, had to absorb losses they were ill-equipped to weather, after decades of labor for a former employer.[213] Judge Bodoh's concern for this community, expressed from the bench in LTV's bankruptcy proceedings, sent shock waves through the securitization industry.

The Ohio state legislature subsequently passed a statute to override the true-sale doctrine and the complex questions that it presents.[214] They enacted a rule that contravenes a fundamental rule of property law—the rule that the [215]. This statute is the equivalent of declaring all cats in the state to be dogs as a matter of law. The legislature does not care if it meows and likes tuna—it is a legal dog. The legislature does not care if all substantive risk associated with securitized assets remains with the company or if the company received a below-market price for the assets. If the company and investors call an assignment a "sale," then it is a legal sale.

If LTV had securitized its assets by assigning them to the SPV in a true sale, then LTV would have received, in theory, fair market value pricing and terms for the assets. LTV's employees and retirees would have received the benefit of the sale proceeds that the company, in theory, would invest for the benefit of the company and its stakeholders. If, on the other hand, LTV assigned the assets in a transaction that called itself a sale, but

206. *In re LTV Steel Co.*, 274 B.R. at 285.

207. STEPHEN COONEY, THE AMERICAN STEEL INDUSTRY: A CHANGING PROFILE 1 (2003).

208. *Id.*

209. *Id.*

210. Robert Guy Matthews, '*Legacy' Costs Drive Big Changes in Steel, and Retirees Lose Out*, WALL ST. J. (Apr. 25, 2002), https://www.wsj.com/articles/SB1019680931527428640 (on file with the *Journal of Corporation Law*).

211. *Id.*

212. *Id.*

213. *Id.*

214. *See* Hughes, *supra* note 16, at 900; OHIO REV. CODE ANN. § 1109.75 (West).

215. Hughes, *supra* note 16, at 905.

contained terms that indicated a loan, then LTV's employees and retirees could have borne losses that were externalized onto them by the transaction between LTV and Abbey National. The deal would have the economic substance of a loan if LTV retained a high degree of liability or exposure for the assets. It would have assigned the assets to the SPV in an ostensible sale, in an attempt to put them out of reach, but without also assigning correlative risk associated with the assets.

Policy debates over asset securitization concern the issue that these deals can permit companies to extract subsidies from unsecured creditors such as employees and retirees.[216] The true-sale doctrine tempers concerns by ensuring that the level of recourse and pricing is consistent with a result in which the company and its beneficiaries no longer have any claim to securitized assets. Attorneys' closing opinions on whether a deal creates a true sale can be so highly convoluted and qualified that only a careful review of the opinion letter—and an understanding of the law—reveals whether the deal creates a sale or a loan. The state of the law itself may be convoluted; the deal's status may not be knowable without litigating in court.

Why should the employees of LTV *not* have a legally recognizable property interest in the inventory they produce? Again, it is possible that they do not have an interest because their employer sold the assets in exchange for cash that the company applied for collective benefit. But whether that actually happened is what a characterization challenge in bankruptcy can mete out.

B. Tokenization

"Tokenization," as used here, refers to an asset-backed issuance that mimics the basic purpose of securitization.[217] Tokenization serves different purposes in different contexts.[218] For example, it can refer to the use of a token to evidence rights to a particular

216. *Id.* at 882.

217. Digitization raises different issues for different asset classes. Issuing shares of a commercial building to multiple and diffuse purchasers of real estate-backed security tokens on blockchain could lead, for example, to maintenance issues if no investor has sufficient control or interest to make expenditures for upkeep. Tokenized accounts receivable, on the other hand, do not present such an issue. Concerns with tokenized pools of accounts involve ensuring the enforceable assignment of payment streams and collection rights given that the investors will not participate in the administration of the pool. For discussion of the term "tokenization" and the extent to which commentators consider tokenization and securitization to be analogous, see *supra* text accompanying note 84.

218. A digital security or token can reference any kind of asset, making interests in all kinds of things tradable on blockchain platforms. Though a token references an asset, it may not (at least at present) actually confer rights in the underlying asset. *See* Moringiello & Odinet, *supra* note 16, at 643 ("[T]here is reason to be skeptical that [NFT trends] will last when participants in the NFT market realize that their NFTs give them no rights in the underlying creative works."). Tokenization is taking hold in the market. Businesses and regulators, including the U.S. Securities and Exchange Commission (SEC), identify tokenization of off-chain assets as an important emerging practice. *See generally* SEC, REPORT OF INVESTIGATION PURSUANT TO SECTION 21(A) OF THE SECURITIES EXCHANGE ACT OF 1934: THE DAO, 1 (2017), https://www.sec.gov/litigation/investreport/34-81207.pdf [https://perma.cc/3CZ-5PENF]. Securities broker-dealers are expressing increased interest in tokenized assets. OECD, THE TOKENISATION OF ASSETS AND POTENTIAL IMPLICATIONS FOR FINANCIAL MARKETS 25 (2020),

digital asset, creating a non-fungible token or NFT, for purposes of custody and transferability (without implicating the issue of asset partitioning).[219] The particular context under discussion in this Article is tokenization as a form of distributed ledger-based finance that serves an asset partitioning function.[220] Platforms exist, and for RWA tokenization—issuances of digitized securities backed by rights to real-world assets—are growing.[221]

In some contexts, self-executing blockchain-based smart contracts can sidestep the legal intervention points at which people traditionally contest a distribution of assets backing a given issuance.[222] This effect of the technology aggravates concerns surrounding hidden leverage, efficiency, and fairness that asset-backed issuances can present. Commentators focused on financial regulation have observed that blockchain technology and automation can erase crucial junctures for government intervention when systems are in crisis.[223] In 2007, the insurance giant AIG had issued around $1.8 trillion in credit-default swaps; it was poised for disaster when the market for the underlying assets went south.[224] At various points during the crisis, AIG was able to secure re-negotiated positions with counterparties. Eventually, a bailout by the federal government saved AIG in 2008. If the transactions at issue during the financial crisis had been expressed as blockchain-based smart contracts, the disposition of assets upon default could have happened without the opportunity for government action.[225] We could have catastrophic systemic failure because the technology permits no point in time at which to intervene.[226]

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https://web-archive.oecd.org/2020-01-17/542779-The-Tokenisation-of-Assets-and-Potential-Implications-for-Financial-Markets.pdf [https://perma.cc/TG76-JZX3]; Leemon Baird, *The Tokenization of the World Starts Now*, NASDAQ (Feb. 24, 2022), https://www.nasdaq.com/articles/the-tokenization-of-the-world-starts-now [https://perma.cc/6256-P75L].

219. *See* discussion *supra* note 16.

220. Such transactions may, at present, involve unanswered legal questions. For example, if an SPV acquires assets collateralizing a blockchain-based issuance, do the resulting digital assets effectively convey an equity interest in the SPV (and claim to assets it owns)? *See* Odinet & Tosato, *supra* note 16, at 1020–21 (believing that a majority of NFT tokenizations are based on the NFT's association with its base material, and not for an investment that pays out issuances). If the SPV is a decentralized, ledger-based entity, how does it establish ownership of off-chain assets? *See* Moringiello & Odinet, *supra* note 16, at 641 (highlighting that NFT promoters claim they can "establish 'an *immutable* record of ownership'") (emphasis added). Legal scholars and lawmakers are currently considering these questions. Potential resolutions include the enactment of rules such as those in UCC Article 8 to establish transferability of property rights using digital assets, rules that formalize the tethering of property rights in an underlying asset to a digital asset or token. *See id.* at 620; Schwarcz, *supra* note 16, at 993 ("Another possible solution to [tokenization] risks would be to enact regulations providing that interests in non-cash-flow monetizations represent direct property rights in the underlying nonfinancial assets."); Odinet & Tosato, *supra* note 16, at 1013.

221. *See* Odinet & Tosato, *supra* note 16, at 1007.

222. *See* Hughes, *Complex*, *supra* note 30, at 126 (discussing how certain types of smart contracts can enable "entire markets [to] use fintech to side-step the UCC's notice requirements and commercial reasonableness standards").

223. *See* Hughes, *supra* note 16, at 40 (observing that the automatic nature of smart contracts in some contexts can undermine the function of gap-filling in contract law).

224. *See* ALLEN, *supra* note 32, at 37–38.

225. *Id.*

226. *Id.*

One advantage of security tokens is that they can be coded to ensure regulatory compliance.[227] For example, if a given issuance must not involve more than a certain number of investors to comply with securities laws, the platform can disallow the purchase of shares by additional investors beyond the limit.[228] So far, automated compliance addresses securities regulations, know-your-customer requirements, anti-money laundering, transfer controls, and the like. Deal lawyers could extend the concept of automated compliance to compliance with private law rules—the legal status of a deal as expressed in the lawyers' work products.

Legal ambiguity and legal distortion manipulate compliance with the private-law doctrines that govern commercial transactions.[229] It takes a lawyer's discretion and deal-specific analysis to know if any given transaction involves ambiguities that could create negative externalities if there is a default. If issuances of asset-backed securities migrate to blockchain platforms, attorneys structuring transactions are in the best position to know the risks that a deal presents.

Automated compliance, potentially, could evolve to include digitized lawyers' closing opinion letters[230] that speak to the level of ambiguity and re-characterization risk that a deal creates. For example, coding for compliance could include instructions to refrain from immediate distribution of assets upon default in contexts where an opinion is highly qualifies and an automatic stay may be forthcoming. The extent to which this is possible, and the shift in thinking about lawyers' duties to stakeholders that it would require, are complex issues. They are precisely the kinds of issues that lawyers should engage in to take responsibility for the legal soundness and effects of automated markets.

In an off-chain issuance, such as with LTV Steel, an originator filing a bankruptcy petition can seek an order for access to securitized assets pending resolution of the deal's legal ambiguity (the complex question of whether the originator assigned the assets to the SPV in a true sale).[231] LTV sought to continue servicing obligations to unsecured creditors (such as retirees) unless and until the court determines that the assets were in fact legally sold.[232]

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227. *See* Reyes, *supra* note 89, at 488 (identifying that the company Securitize automates compliance with securities regulations applicable to issuances on its platform).

228. *Id.*

229. *See* Hughes, *supra* note 16, at 899 (discussing the complexity of receivables securitization leading to difficulty in determining whether a "true sale" took place).

230. Some law firms are developing digitized opinions. What, exactly, are they digitizing? At least one legal technology company is advertising digitized opinion letters. London-based D2L Technology is advertising a marketplace for banks to buy digitized legal opinions for fin tech-enabled transactions. *See Legal Opinions on the Blockchain*, D2 LEGAL TECH., https://d2legaltech.com/legal-opinions-on-the-blockchain/ [https://perma.cc/QB4Y-A7HJ]; *D2 Legal Technology (D2LT) Announces US Expansion Through D2 Legal Change (D2LC) Amidst Increasing Requirements For Legal Data Management Consulting*, D2 LEGAL TECH., https://d2legaltech.com/d2-legal-technology-d2lt-announces-us-expansion-d2-legal-change-d2lc-amidst-increasing-requirements-legal-data-management-consulting [https://perma.cc/KS67-B69U]; Akber Datoo & Jeffrey Golden, *"Sailing Into the Rules of Smart Contracts…"*, 6 J. INT'L BANKING & FIN. L. 387 (2021).

231. *Id.* at 900.

232. *Id.*

Hypothetically, in an on-chain issuance, a smart contract governing the deal could instruct a sale or disposition of assets upon default, capturing their value for the investors immediately.[233] Such an event then puts the company and its creditors in a difficult, remedial posture. An automated disposition of assets may violate bankruptcy law's automatic stay by putting assets out of reach of the company's estate.[234] Regardless, the company and its creditors are now stuck with the costs and logistics of trying to undo such a disposition. Hypothetical deals that present this risk would be any RWA tokenization involving assets that do not require off-chain liquidation proceedings. The extent to which security tokens effectively convey property interests in underlying assets is variable and evolving.[235]

On one level, the technology accomplishes for investors the same thing that legal distortion accomplishes. It can make an automatic transfer to investors upon default without regard to underlying, substantive legal rights. One might wonder: Why continue to bother with attorneys' closing opinions at all if technology creates the outcomes that investors desire regardless of formal legality? Will blockchain-based markets become lawyer-less markets?

The posture and practices of lawyers representing parties to a securitization assume that, under appropriate conditions down the road, transacting parties may contest the effects of their deal. This is true as well in other markets that leverage the value of ambiguity.[236] If technologies increasingly digitize deal forms and automate asset dispositions, how should law practices around these deals evolve? Should the bar regard such issues as problems for legislators and courts to address? For example, lawmakers could reform bankruptcy rules to fortify the teeth of the automatic stay and to disincentivize using technology to sidestep its effects. How and why might we look to deal lawyers to consider the consequences of technological developments?

Perhaps the function of deal lawyers is to effectuate transactional counterparties' rights and assure regulatory compliance without regard for consequences beyond the interests of their clients. Perhaps, on the other hand, the function of deal lawyers is to both represent their clients and act as stewards of the collective value of the markets they support.[237] From this perspective, human lawyers' capacity to digest multi-faceted legal and ethical consequences that can surround a particular deal, a deal type, or a market as a whole, is a capacity that lawyers should cultivate as they make decisions about when and why to utilize new tools.

This question about deal lawyers' role relates to questions about the purpose and quality of the markets that lawyers facilitate.[238] Whether lawyers that support financial markets

233. *See* Hughes, *Designing*, *supra* note 30, at 2021.

234. *See supra* text accompanying notes 104–05.

235. *See* discussion and sources cited *supra* note 15.

236. *See* discussion and sources cited *supra* Part II.A.

237. *See* discussion and sources cited *supra* notes 230–33 (discussing the "discretion" and "deal-specific analysis" deal lawyers possess and can use in both representing their clients and working within the market).

238. *See* Hockett, *supra* note 27, at 106 (debating whether a market that is an aggregate of "private" individuals is better than a market with public intervention to ensure free choice).

are Harlan Fiske Stone's "obsequious servant[s] of business"[239] or Kronman's "lawyer states[men]"[240] is a question worth explicating as markets and law practice approach uncharted capacities.

IV. THE VALUE OF DEAL LAWYERS

> "[B]ar associations sometimes (and maybe often) behave as cartels seeking to protect their members' interests. But the irony is that these efforts may backfire over the long run and cause the loss of the bar's own reputational capital."[241]
>
> —John C. Coffee, Jr.

A global conversation has emerged, contending that new technologies warrant revisiting attorneys' ethical commitments. The non-profit Liquid Legal Institute, based in Europe, initiated a worldwide contest to formulate an "Oath of Justitia"—a lawyers' version of the doctors' Hippocratic Oath.[242] The premise of the Oath of Justitia project is that technology demands re-considering attorneys' standards.[243] For purposes of this Article, how might such an oath read for attorneys licensed in the United States working with technology-enabled financial transactions?

The value and values of business lawyers became a hot topic after the Enron[244] scandal in 2001, creating interest that lasted through reactions to the great financial collapse of 2007-08. An angry public sought accountability for the blatant privatization of gain and socialization of loss associated with financial transactions, wondering how corporate actors could be so deceptive with the help of their lawyers. Yet attorneys, collectively, warded off changes to their professional responsibilities in the fallout of these crises.

Markets have undergone significant transformations in the last fifty years.[245] The rules of conduct for lawyers, meanwhile, are essentially the same as for those practicing

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239. Stone, *supra* note 19, at 7.

240. KRONMAN, *supra* note 25, at 3.

241. John C. Coffee, Jr., Comment, *Can Lawyers Wear Blinders? Gatekeepers and Third-Party Opinions*, 84 TEX. L. REV. 59, 73 (2005).

242. Antonia Kendrick & Evgeny Ioffe, *The Oath of Justitia Competition*, LIQUID LEGAL INST., https://www.liquid-legal-institute.com/workinggroups/oath [https://perma.cc/4VMF-JC8M].

243. *See generally id.* (believing that the next generation of legal professionals needs to have a *modern* legal practice) (emphasis added).

244. The Enron Corporation manipulated accounting rules and special purpose entities to hide billions in debt, decimating the claims of its employees and shareholders. The company ended up in bankruptcy. Enron's employees and shareholders received very limited compensation, despite losing billions in pensions and stock value. Peter Bondarenko, *Enron Scandal*, BRITANNICA (Feb. 12, 2024), https://www.britannica.com/event/Enron-scandal [https://perma.cc/UL9N-KVRG].

245. *See* Omarova, *supra* note 32, at 740 ("[T]he United States, which, for the better part of the last hundred years or so, has been the world's leader in developing not only largescale capital markets but also the sophisticated legal and regulatory apparatus for a sustained and systematic oversight of financial markets and institutions.").

generations ago.[246] The Model Rules of Professional Conduct provide that a "lawyer shall not counsel a client to engage, or assist a client, in conduct that the lawyer knows is criminal or fraudulent."[247] This standard does little to address contexts in which, though there is no fraud per se, the structure of a deal presents risks to stakeholders or the public.[248]

When deal lawyers render closing opinion letters—such as in an asset-backed issuance—already their representation extends beyond their client. Closing opinion letters are issued not to the client, but on the client's behalf to third parties who will rely on the lawyer's opinion.[249] The lawyer, in this context, is acting as a gatekeeper on whom market actors may depend (whether or not formally authorized to do so) in rating, accounting for, or pricing a given issuance.[250]

This Article is not the first to question the duties of lawyers giving closing opinions for financial market actors. Legal scholar John C. Coffee, Jr., has observed that "letting bar associations prescribe the rules for opinions is equivalent to allowing the American Medical Association to specify the tort law principles applicable to medical malpractice actions."[251] The Committee on Legal Opinions of the ABA Section of Business Law publishes reviews of various kinds of opinion letters and the issues they present.[252] The ABA and various bar associations work to minimize lawyers' obligations surrounding opinions.[253] Given the implications of automation, perhaps it is time to revisit opinions practice. Closing opinions could serve as an inflection point at which human lawyers engage with the legal status of a deal. The concept, fielded above, of coding for compliance by linking the form of true-sale opinion in a given issuance to the instructions around asset disposition upon default in RWA tokenizations provides one, particular hypothetical with which to think through possibilities for deal lawyering and automation.

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246. *See* HADFIELD, *supra* note 72, at 119–20 ("[T]he ABA's efforts to raise and unify the standards for legal training and admission to the practice of law . . . ultimately imposed a fundamental structural constraint on modern American legal infrastructure . . . .").

247. MODEL RULES OF PRO. CONDUCT r. 1.2 (AM. BAR ASS'N 2019).

248. *See* discussion and sources cited *supra* notes 196–222. Risks to the public could arise in instances where a standardized type of deal constitutes a systemically significant market. *Id.*

249. The beneficiaries to whom lawyers issue opinions are the investors and their assignees. Other third parties may look to opinions, though they are not formally beneficiaries who may rely on an opinion. *See* Hughes, *supra* note 176, at 184.

250. *Id.* at 188. *Cf.*, Jeffrey Manns, *Rating Risk After the Subprime Mortgage Crisis: A User Fee Approach for Rating Agency Accountability*, 87 N.C. L. REV. 1011, 1080 (2009) (citing Steven L. Schwarcz, *The Limits of Lawyering: Legal Opinions in Structured Finance*, 84 TEX. L. REV. 1, 6–8 (2005)) ("[T]hird party opinions offered by lawyers are already notorious for being known more for their numerous caveats and thickness than for their substance.").

251. Coffee, Jr., *supra* note 240, at 62.

252. *See Legal Opinions Committee*, AM. BAR. ASS'N, https://www.americanbar.org/groups/business_law/about/committees/legal-opinions/ [https://perma.cc/SJ2E-C92W] (displaying a mission statement that states that the Legal Opinions Committee "[d]eals with legal opinion practice. The Committee seeks to foster national standards for legal opinions in business transactions through discussions, programs and reports on issues relevant to opinion practice").

253. *Id.*

John Coffee made his comment in the context of discourse about business attorneys' ethics that arose after the Texas-based Enron Corporation's demise.[254] Participating in that conversation, Steven Schwarcz asked "what it means for lawyers to issue legal opinions that create negative externalities,"[255] and whether "lawyers issuing legal opinions owe a duty to the public as well as to the opinion recipient."[256] Schwarcz answered his own question by reiterating the dominant approach to deal lawyers' ethical obligations: that lawyers' duties run exclusively to their clients, with narrow exceptions for situations in which the attorney witnesses crime or fraud.[257] In the market context presented in Part III, though a true-sale opinion for securitization may be full of caveats and complexity, so long as the lawyer does not have reason to know that the opinion will facilitate fraud, it is appropriate.

Schwarcz's conclusion may have been right for 2005—for non-automated, "off-chain" transactions. In such transactions, legal intervention points exist to mitigate negative externalities associated with deals that bill themselves as sales but have the economic substance of a loan. Attorneys for the company that securitized assets can make a characterization challenge and halt the distribution of assets pending its resolution.[258] Today, however, emerging technologies present the possibility of automation that may undermine a characterization challenge.[259]

Even when a company's practices are legal, the accounting treatment of a given deal may create hidden leverage. Accountants have relied on lawyers' closing opinion letters in determining accounting treatment.[260] Hidden leverage can mislead investors. It can contribute to systemic risk when a high volume of transactions in a market like securitization are not priced and accounted for in a way that is consistent with their actual economic substance and legal status.[261] Schwarcz calls this "financial information failure."[262] Attorneys' opinion letters are at the center of financial information failure. Still, the rules of professional conduct do not regulate opinions practice beyond the facilitation of fraud.[263]

Schwarcz observes: "[T]here is a strong public perception, corresponding to a norm, that lawyers should have some responsibility for preventing financial information failure.

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254. *See* Coffee, *supra* note 241. For a discussion on the Enron scandal, see Bondarenko, *supra* note 244 and accompanying text.

255. Steven L. Schwarcz, *The Limits of Lawyering: Legal Opinions in Structured Finance*, 84 TEX. L. REV. 1, 7 (2005).

256. *Id.*

257. *See generally id.*

258. Hughes, *Complex*, *supra* note 30, at 122.

259. *Id.* at 123.

260. Schwarcz, *supra* note 255, at 2.

261. *See id.* at 33 (discussing externalities that emerge from lawyers' actions in a market).

262. Steven L. Schwarcz, *Financial Information Failure and Lawyer Responsibility*, 31 J. CORP. L. 1097, 1103 (2006).

263. There are many different kinds of legal opinion letters. Some opinions attest to regulatory compliance, such that a deal satisfies any applicable SEC requirements, for example. Other opinions represent due diligence, such as an opinion that a company is in existence and in good standing in a given jurisdiction, for example. How broadly applicable should new ethical standards be? In how many different transactional contexts does technology compound risks that lawyers could mitigate?

Lawyers themselves should want to fulfill this perceived responsibility, if only out of concern for their integrity and reputation. The difficult question is what this responsibility should be."[264]

This public perception was acute both in the years following the Enron scandal and after the financial crisis. In Congressional testimony surrounding Enron, Senator Edwards stated that when "accountants are breaking the law, you can be sure that part of the problem is that the lawyers who are there and involved are not doing their jobs."[265] Yet lawyers are not responsible for questioning accountants or auditors if the lawyers do not have reason to know of fraud.[266] The commentary in Congress indicates that the general public might expect that lawyers have—or should have—more extensive responsibility than they do.

After 2008, people widely recognized that securitization transactions, and the complex financial products that they generate, were central to the financial collapse.[267] People also recognized that attorneys played a central role in the markets that produced the crisis: by issuing legal opinions, by preparing disclosures for securitized offerings, and by helping to design and structure financial transactions.[268] In the years that followed, neither the Model Rules of Professional Conduct nor the Dodd-Frank Act created new duties for attorneys. Observing this in 2011, commentary in the *Review of Banking and Financial Law* remarked that "now is a time of reflection, during which lawyers should reevaluate their role in business transactions."[269]

Emerging technologies warrant reviving this conversation and revisiting the roles of deal lawyers. Should potential problems that automation creates be left to regulators to contain? Should the bar be proactive in thinking critically about what lawyers do in different contexts, the value that they add, and the value that they could add, as law practice and markets evolve?

For example, in thinking through automation and lawyers' true-sale securitization closing opinions, different possibilities take shape. There is the potential for automated opinions practice itself. Literal robot lawyers could run legal analyses, comparing facts to precedents to generate an outcome.[270] The automation of drafting opinions is distinct from

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264. Schwarcz, *supra* note 262, at 1103.

265. *See* 148 Cong. Rec. S6551 (2002) (statement of Sen. Edwards).

266. *See* Schwarcz, *supra* note 262, at 1103 n.37 (comparing public perception of the legal profession to the prevailing norms for lawyers to avoid responsibility for financial statements).

267. *See* Hughes, *supra* note 16, at 26 (explaining how the dependency on repo transactions as the primary means of securing bank portfolios led to the financial crisis of 2007–08); Kettering, *supra* note 40, at 1633 (explaining that the legal system's reluctance to curb the use of a widely-used product that has grown "too big to fail" is a political problem).

268. *See* Hughes, *Designing*, supra note 30, at 901.

269. Brian E. Berger, *The Professional Responsibilities of Lawyers and the Financial Crisis*, 31 REV. BANKING & FIN. L. 3, 13 (2011) (explaining the significance of the Dodd-Frank Act imposing no new professional responsibilities on lawyers post-Enron).

270. Generative AI's capacity to execute such a task competently is rapidly developing and could become a reality in the near future. Technology-enabled tools for tax opinions are already generating reasoned opinions that go far beyond applying bright-line rules. *See, e.g.*, *About*, TAXROBOT, https://taxrobot.com/ [https://perma.cc/L7WW-5XCH] (presenting AI-powered tax software); *RPA for Tax*, DELOITTE,

the issue of rendering opinions for automated transactions. Automated opinion preparation is exactly the kind of practice that attorneys should not reflectively pursue without a critical examination of what they are digitizing and how the market they support is changing.

Lawyers sell expertise, such as informed analyses of the state of a doctrine that governs a deal. Schwarcz and others articulate the difficulty of determining how extensive a lawyer's duties beyond those to the client should be and how to formulate them.[271] As challenging as that task is, emerging technologies present to deal lawyers a unique opportunity to help markets serve human values. By looking at specific markets and specific attorney work products that facilitate those markets, we can reconsider the potential of deal lawyers. By considering the implications of specific instances of automation, we can think critically about the relationship between human judgment and the legal architecture of markets.

https://www.deloitte.com/global/en/services/tax/services/rpa-for-tax.html [https://perma.cc/V7RJ-E98L] (explaining the "Robotic Process Automation" software that can automate "submitting filings to tax authority web portals"). *See generally* Gary Drenik, *AI-Powered Tax System Is Creating a New Paradigm. Will Banks and Fintechs Adopt The Technology To Help Their Customers Save On Their Tax Bill?*, FORBES (Feb. 27, 2023), https://www.forbes.com/sites/garydrenik/2023/02/27/ai-powered-tax-system-is-creating-a-new-paradigm-will-banks-and-fintechs-adopt-the-technology-to-help-their-customers-save-on-their-tax-bill (on file with the *Journal of Corporation Law*).

271. *See* Schwarcz, *supra* note 16, at 968 ("The descriptive goal is to help regulators, investors, and other market participants understand non-cash flow monetization transactions, including their risks and benefits.").