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FINTECH: ANTIDOTE TO RENT-SEEKING?

JEREMY KIDD, J.D., PH.D.*

"Innovations in Financial Technology (fintech) have the potential to fundamentally change the financial services industry and the wider economy." 1

I. INTRODUCTION

Fintech is a reality of our modern society,² and will likely become even more so in the future. Peer-to-peer lending,³ cybercurrencies,⁴ smart contracts,⁵ algorithmic lending,⁶ and more, have required adaptation by

- * Associate Professor, Mercer University School of Law. Thanks to participants at the #FutureLaw Workshop 2.0 for helpful comments and suggestions.
- 1. NAT'L ECON. COUNCIL, EXEC. OFFICE OF THE PRESIDENT, A FRAMEWORK FOR FINTECH 1 (2017).
- 2. "Taken at its broadest, FinTech is shorthand for 'innovation in financial services,' whether that means new products from new startups, or the adoption of new approaches by existing players where technology is the key enabler." Wayne M. Kennard, *IP Strategies in a Competitive Fintech Marketplace*, FINTECH L. REP., July/Aug. 2014, at 1. Of course, to be fair, there have been innovations in financial "technology"—understood broadly—for centuries, probably starting with letters of credit, negotiable instruments, and so on. This article will use the terms in its common parlance, denoting application of high-tech innovations to the financial sector.
- 3. Sometimes known as online social lending, peer-to-peer lending allows individuals to borrow and lend money without using a financial intermediary. For a description of the industry, including the ways that financial intermediaries are also participating, see Amy Cortese, *Loans that Avoid Banks? Maybe Not*, N.Y. TIMES, May 4, 2014, at BU1. Currently popular examples are prosper.com, lendingclub.com, peerform.com, and upstart.com.
- 4. Bitcoin is the most well-known cryptocurrency, e.g., Reuben Grinberg, Bitcoin: An Innovative Alternative Digital Currency, 4 HASTINGS SCI. & TECH. L.J. 159, 160-61 (2012), but other examples include Etherium, Ripple, and Litecoin. For a more extensive list, see Cryptocurrency Market Capitalizations. COINMARKETCAP (Sept. 2017. https://coinmarketcap.com/currencies/views/all/ [https://perma.cc/H9MY-WTUS]. Cryptocurrencies are defined by their virtual-only existence and lack of a central repository, limiting the ability of governments to control their use and movement. Paulo Tasca, Digital Currencies: Principles, Trends, Opportunities, and Risks 22-28 (Sept. 7, 2015) (ECUREX Research Working Paper), https://ssrn.com/abstract=2657598 [http://perma.cc/BZA7-3UNK]. Verification of ownership and transaction history occurs through blockchain technology. Id. at 5. The blockchain innovation is a complicated one to explain, but for a valiant attempt at simplifying, see Gerald P. Dwyer, Blockchain: A Primer (Dec. 30, 2016) (unpublished manuscript), https://ssrn.com/abstract=2900450 [http://perma.cc/Q8SH-VBQF].
- 5. Smart contracts are contracts converted to computer code that are self-executing upon the attainment of certain criteria. Maria Letizia Perugini & Paolo Dal Checco, Smart Contracts: A Prelimi-

consumers and producers of financial services. Our modes of doing business will continue to be challenged and changed by these and other Fintech innovations, almost certainly expanding beyond merely "promot[ing] financial inclusion, expand[ing] access to capital for individuals and small businesses, and more broadly reshap[ing] how society interacts with financial services."8 By reducing transaction costs,9 advancing technology opens the doors to innovations the likes of which we might not even be able to comprehend. 10 The natural opacity of the future precludes precise predictions, but not general forecasts regarding likely trends.

This essay proposes one such forecast—the rise and expansion of Fintech is going to make life difficult for two groups: (1) financial regulators; and (2) incumbents within the regulated industries. Regulators are likely to see their workload increase because the rate of innovation is speeding up, requiring them to do their job more rapidly but, ideally, without any loss of accuracy and efficacy. Many Fintech observers have argued that technological innovation is likely to increase beyond the capacity of regulation to keep pace. 11 If true, the task of regulation becomes even hard-

nary Evaluation, 10-11 (Dec. 8, 2015) (unpublished manuscript), https://ssrn.com/abstract=2729548 [http://perma.cc/X54A-DDMW].

- 6. Algorithmic lending is the use of machine learning to identify and eliminate inefficient criteria for judging creditworthiness of potential borrowers, allowing lenders to identify profitable lending opportunities that would have been missed in the past. See Matthew Adam Bruckner. The Promise and Perils of Algorithmic Lenders' Use of Big Data, 93 CHI.-KENT L. REV. 3, 5-6.
- 7. These innovations might be disruptive to existing institutions, e.g., Brian Wolfe & Woongsun Yoo, Crowding Out Banks: Credit Substitution by Peer-to-Peer Lending (July 11, 2017) (unpublished manuscript), https://ssrn.com/abstract=3000593 [http://perma.cc/G6W4-QUVK] (finding that smaller community banks experience reduced borrowing as Fintech firms increase); or they may be complementary, e.g., Calebe de Roure et al., How Does P2P Lending Fit into the Con-Market? (Deutsche Bundesbank, Discussion Paper https://www.econstor.eu/bitstream/10419/144836/1/865628904.pdf 2016), [https:// perma.cc/46JP-SUSN] (finding that loans issued by peer-to-peer lenders in Germany were riskier than those of traditional lenders, indicating that credit expands under peer-to-peer lending). For a more comprehensive descrip-tion of the various forms of Fintech and the ways in which they might change the financial services landscape in the short run, see ALAN MCQUINN ET AL., INFO. TECH. & INNOVATION FOUND., POLICY PRINCIPLES FOR FINTECH 2 (2016),https://itif.org/ publications/2016/10/18/policy-principles-fintech [https://perma.cc/HNY8-GW8A].
 - 8. NAT'L ECON. COUNCIL, *supra* note 1.
- 9. "Transaction costs" is the admittedly obscure name given to the many obstacles that can stand in the way of voluntary transactions. Jeremy Kidd, Kindergarten Coase, 17 GREEN BAG 2D 141, 144-45 (2014) [hereinafter Kidd, Coase].
- 10. See Karen Elliott et al., Unruly Innovation: Distributed Ledgers, Blockchains and the Protecof Transaction Rights 2 (Dec. 22, 2016) (unpublished https://ssrn.com/abstract=2888872 [https://perma.cc/S5LS-4WCQ] ("[T]echnologies that enable distributed electronic transmission of financial value (such as a cryptocurrency like bitcoin) are a different type of disruptive technologies that not only provide combinatorial innovation but also change the very rules of the market by self-writing them and thus by self-deregulating themselves." (emphasis added)).
- 11. See Matthew D. Cutts & Brandon C. Romain, The Future of FinTech: A Washington Perspective, FINTECH L. REP., Nov./Dec. 2016, at NL 1 ("FinTech firms . . . pose challenges for regulators since

er, perhaps impossible. Correspondingly, regulated incumbents will find their business model disrupted to the extent that it involves their using regulation as a way of crowding out competition in order to protect profit margins and market share.

Outside of the board rooms of large financial entities, the second effect will likely be cheered, since increased competition and lower profit margins mean consumers keep more of their hard-earned money. 12 The first effect will be far more controversial, due to the concerns that unregulated markets generate in all but the most devout proponents of free markets. 13 This article will articulate a general defense of free markets but, more importantly, will explain why the potential costs of deregulated markets would be at least partially offset by a reduction in the distortions and costs associated with cronyism and agency capture by large financial institutions. In other words, a deregulated market might not be as bad as it first appears if it reduces corruption and cronyism in the regulatory process.

Section II will offer a basic primer on rent-seeking, a concept from public choice economics that describes how the well-connected and/or well-funded seek special favors from government. Rent seeking is always harmful to consumers and, as a result, it is usually hidden or, worse, covered with grand pronouncements about how the political favors are actually necessary to promote some public good, such as safety, stability, avoidance of systemic risk, and so on. ¹⁴ Section II will also provide recent examples contained in the largest financial "reform" in our history, the Dodd–Frank Wall Street Reform and Consumer Protection Act. ¹⁵

FinTech companies are not subject to some of the same capital and community reinvestment standards applicable to traditional banks."); Erik Vermeulen et al., *Regulation Tomorrow: What Happens when Technology is Faster than the Law?* 5 (Tilburg Law & Econ. Ctr., Discussion Paper No. 2016-024, 2016), http://ssrn.com/abstract=2834531 [https://perma.cc/H4SF-8PYR] ("[W]here innovation is quicker and the global dissemination of that technology is much faster . . . regulators can often struggle to keep up.").

- 12. In economic terms, a decrease in profit—producer surplus—corresponds to an increase in consumer surplus, the amount of money a consumer has left to spend on other things once the transaction is completed.
- 13. For a defense of complete deregulation, see DAVID FRIEDMAN, THE MACHINERY OF FREEDOM: GUIDE TO A RADICAL CAPITALISM (2d ed. 1989), http://www.daviddfriedman.com/The_Machinery_of_Freedom_pdf [https://perma.cc/4A5W-NZHZ]. Even supporters of free markets, however, argue that regulation is a "necessary evil" in markets that have become increasingly complex over time. E.g., Aulana Peters, The Changing Structure of the Financial Services Industry and the Implications for International Securities Regulation, 46 WASH. & LEE L. REV. 525, 526 (1989).
- 14. Jeremy Kidd, *Quacks or Bootleggers: Who's Really Regulating Hedge Funds?*, 75 WASH & LEE L. REV. (forthcoming 2017) [hereinafter Kidd, *Hedge Funds*].
- 15. Pub. L. 111-203, 124 Stat. 1376 (2010) [hereinafter Dodd-Frank] (codified in scattered sections of 7, 12, 15, 18, 22, 31, 42 U.S.C.).

Section III will explain how Fintech has the potential to curb or even eliminate rent-seeking in the financial industry. If regulators cannot keep up with innovation, the alphabet-soup of regulatory agencies that are tasked with the financial sector¹⁶ will be unable to interfere in markets to protect incumbents. With no one able to bestow rents, the rent seeking will disappear, greatly benefitting consumers.

Section IV addresses the inevitable and, in many ways, understandable, concerns about unregulated markets. Beyond the concerns of financial regulators, ¹⁷ many in society will be concerned that regulation is needed to keep unprincipled swindlers from taking advantage of consumer ignorance and effectively ruining investor confidence in our financial markets. ¹⁸ Section IV will offer a brief defense of unregulated markets but will also argue that the same harms are inflicted on consumers by regulated—and protected—incumbents who need not fear competition. In many ways, Fintech reduces the need for financial intermediaries, empowering consumers to take control of their own financial health and forcing financial companies to compete for their money. Section IV will, therefore, argue that regardless of where the "optimal" level of regulation used to be, the rise of Fintech has shifted the ideal state in the direction of deregulation.

Section V will then offer some conclusions.

II. SPECIAL INTERESTS GET THEIR WAY, EVEN IN THE FINANCIAL SECTOR

When the government has the ability to hand out special favors, people will endeavor to be the ones who receive those favors, spending time

- 16. At the level of the federal government, there are: the Office of Thrift Supervision (OTS), which is part of the U.S. Department of the Treasury, tasked with regulating federal savings associations, or "thrifts"; the Office of the Comptroller of the Currency (OCC), the part of the U.S. Department of the Treasury tasked with overseeing all national banks; the Federal Deposit Insurance Corporation (FDIC), an independent agency that insures deposits and manages bank failures; the National Credit Union Administration (NCUA), an independent agency that oversees federal credit unions and insures savings in federal and state-chartered credit unions; the Commodities Futures Trading Commission (CFTC), an independent agency that regulates commodity futures and options markets; the Securities and Exchange Commission (SEC), an independent agency that regulates securities markets; the Financial Industry Regulatory Authority (FINRA), a private corporation that acts as a self-regulatory body, although all firms and brokers who do business in the U.S. are required by law to be licensed and registered by FINRA; and the United States Federal Reserve, the U.S. central bank, that is responsible for regulating the entire monetary system to promote price stability and economic growth. Add to that list a host of state-level regulatory bodies for banks, securities, and insurance companies.
- 17. Who may, after all, be motivated by a desire to continue gaining personal benefit in exchange for bestowing favors on regulated incumbents.
- 18. E.g., Mark Klock, Improving the Culture of Ethical Behavior in the Financial Sector: Time to Expressly Provide for Private Enforcement Against Aiders and Abettors of Securities Fraud, 116 PENN ST. L. REV. 437, 441–42 (2011).

and money in both honest and nefarious means to achieve that goal.¹⁹ To a public choice economist, the favors are "rents" and the process of lobbying for those favors is "rent-seeking."²⁰ When politicians of one stripe decry a "rigged system"²¹ and politicians of another stripe complain about "cronyism,"²² they are—perhaps without realizing it—making the very same argument about rent-seeking—that government processes have been subverted to benefit those who have managed to curry favor with the right legislators or regulators.

Rent-seeking is harmful in two primary ways. First, it distorts markets, creating barriers to the type of competition that benefits consumers and society. Second, all the time and money spent seeking government favors is wasted.²³ Whoever wins the competition for government favors will reap monopoly profits, so the contest will have a winner, but the contest itself uses up resources in pursuit of something that detracts from social well-being. The contest can yield any number of anticompetitive policies—most often, heavy regulations that only large, incumbent corporations can afford to comply with, but also subsidies, import restrictions, exclusive licenses,

- 19. "Innovations" in this sphere can come from the regulator or the regulated. For example, a savvy business owner might recognize a way in which the government can boost profits by harming competitors in some way. The business owner will begin trying to convince legislators, regulators, or others with relevant authority and power to make the changes necessary to generate those higher profits. Alternatively, an entrepreneurial regulator might imagine a rule that could benefit an individual business or an industry, if only it were implemented in a particular way. This enterprising regulator could then shop the idea around, either in the form of a sales-pitch or as an extortionary threat. *See generally* FRED S. MCCHESNEY, MONEY FOR NOTHING: POLITICIANS, RENT EXTRACTION, AND POLITICAL EXTORTION (1997).
- 20. The late economist Gordon Tullock pioneered the rent-seeking concept in the context of regulatory agencies, *see generally* Gordon Tullock, *The Welfare Costs of Tariffs, Monopolies, and Theft*, 5 W. ECON. J. 224 (1967), but the phrase "rent-seeking" was later coined by Anne Kreuger, *see generally* Anne O. Kreuger, *The Political Economy of the Rent-Seeking Society*, 64 AM. ECON. REV. 291 (1974).
- 21. See The Transcript of Bernie Sanders's Victory Speech, WASH. POST (Feb. 10, 2016), https://www.washingtonpost.com/news/post-politics/wp/2016/02/10/the-transcript-of-bernie-sanderss-victory-speech/ [https://perma.cc/C3V9-9LHK].
- 22. See Senator Mike Lee, Opportunity, Cronyism, and Conservative Reform, Remarks to the Heritage Foundation (Apr. 30, 2014), https://www.lee.senate.gov/public/index.cfm/speeches?ID=002a1917-732e-48b4-bd3d-f314b60a9338 [https://perma.cc/TH3D-QH6J].
- 23. DENNIS C. MUELLER, PUBLIC CHOICE II 229 (1989). Public choice economics began largely with discussions of rent-seeking in the context of monopolies and trade licenses. Businesses asked government to imposed barriers to entry, making sure that there was no competition—creating a monopoly—or to obtain one of only a few import licenses, guaranteeing the ability to charge a much higher premium than would be feasible in a competitive market. Tullock, *supra* note 20, at 228–31. Kreuger argues that rent-seeking diminishes social welfare beyond the reductions occurring anytime free trade is impeded. Kreuger, *supra* note 20, at 300–01. A less direct—but no less important—result of rent-seeking is a reduction in long-term economic growth, as innovators and entrepreneurs are diverted from efforts that will improve growth rates. Christopher Koopman et al., *The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change*, 8 J. Bus. Entrepreneurship & L. 529, 536 (2015).

and so on. What rent-seeking cannot do is add to worker productivity or lead to new, exciting innovations. Rent-seekers compete only for the right to wield the power of government to take from someone else and give to the rent-seeker;²⁴ the process leads to nothing of value,²⁵ only to a wasteful transfer of wealth.²⁶

What does this mean, in practical terms? As special interests engage in rent-seeking, they will attempt to defray those costs by increasing the prices they charge for their goods or services; even the process of seeking favors will harm consumers.²⁷ In the financial sector, that means lower rates of return or higher fees, and that's only the result of the seeking. When the rent-seeking has been completed and favors bestowed, the winners will have greater protection from competition. As the invisible hand of market competition is obstructed by government intervention, winners have far less reason to care what consumers want,²⁸ so consumers will have less variety and higher costs.²⁹

How can such a wasteful endeavor continue in a democracy, where the electorate should rebel against special benefits and privileges for small groups or individuals and the burdens those benefits and privileges impose on the rest of society?³⁰ The answer relies on another fundamental insight

- 24. Tullock, supra note 20, at 230.
- 25. This is not to say that legislative and regulatory processes cannot improve consumer or societal welfare, but any benefits thus derived are in spite of, rather than because of, the rent-seeking activities of those who want private benefits for themselves.
- 26. Transfers themselves cost society nothing, but multiple parties each spend large amounts of resources seeking to convince to make the transfer. Spending money just to convince government to take your neighbor's money is wasteful, and when your neighbor is doing it too, the harms are compounded.
- 27. Remember that rent-seekers haven't created anything new, haven't innovated, haven't improved their product in any way, so the increased cost to consumers is a pure reduction in consumer well-heing
- 28. 1 ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 16 (Edwin Caanan ed., Methuen & Co. 1904) (1776) ("[M]an has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour, and shew them that it is for their own advantage to do for him what he requires of them. . . . It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our diner, but from their regard to their own interest.").
- 29. For example, if government regulation limits the amount of housing that can be provided in an area—as with height or occupancy restrictions on buildings—there will be fewer apartments or houses to rent. Competitive pressures reduced, landlords can relax their efforts to compete on both prices quality margins. Rents will increase and amenities will decrease, because there will be a shortage of housing and renters will accept lower-quality apartments at higher rent as an alternative to being homeless. In the case of financial serves, the price is typically the interest rate, so borrowers will pay a higher interest rate and lenders will receive a lower interest rate. Likewise, consumers of financial services will find that they have worse customer service, fewer ways to access and manage their accounts, etc.
- 30. It is possible to view the Occupy Wall Street movement as precisely this type of revolt. The movement did not achieve any noticeable change in the way business is done in Washington and on

of public choice economics: the importance of concentrated benefits and dispersed costs.³¹ The costs of rent-seeking are hidden and/or spread across society as a whole, so most voters don't realize the costs or, if they do know, the burden they bear as an individual is small enough to make the results of rent-seeking, at worst, an annoyance.³² Similarly, the benefits of rent-seeking are concentrated, so those seeking the rents will be willing to expend large sums of money—possibly the entire amount of expected profits—in order to secure government favors.³³

Understanding public choice principles leads to a clash of ideas. Regulation—financial or otherwise—is often thought of as a way of correcting market failures,³⁴ and is justified on that basis.³⁵ However, regulation can

Wall Street, although some commentators argue that it is has simply refocused its attention. *E.g.*, Michael Levitin, *The Triumph of Occupy Wall Street*, ATLANTIC (June 10, 2015), https://www.theatlantic.com/politics/archive/2015/06/the-triumph-of-occupy-wall-street/395408/ [https://perma.cc/KF7D-WBMW].

- 31. Daniel A. Lyons, *Public Use, Public Choice and the Urban Growth Machine: Competing Political Economies of Takings Law*, 42 U. MICH. J.L. REFORM 265, 277 (2009). Mancur Olson discussed this phenomenon in terms of concentrated interests versus diffuse interests. *See generally* MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS (Harvard Univ. Press rev. ed. 1971).
 - 32. See generally OLSON, supra note 31.
- 33. Tullock, *supra* note 20, at 228. To see why this is so, imagine a company that expects \$1 million in additional profits from a government contract that will be awarded next week. In the coming week, the company might start out expending \$100,000 to convince policy-makers to choose it for the contract. However, it then learns that another company has expended \$250,000, making company 2 the likely winner. Company 1 realizes it can expend \$300,000 and still realize a hefty profit. Company 2 responds accordingly and, through typical processes, the winning bid will be somewhere around \$1 million. To stop anywhere below the full amount of expect profits would be to leave some money on the table.
- 34. See Bruce Yandle & Stuart Buck, Bootleggers, Baptists, and the Global Warming Battle, 26 HARV. ENVTL. L. REV. 177, 185-86 (2002) (describing the public interest theory of regulation). The term "market failure" has a reasonably precise definition: some circumstance that interferes with market mechanisms and precludes prices from adjusting to achieve efficient outcomes. See, e.g., HENRY N. BUTLER ET AL., ECONOMIC ANALYSIS FOR LAWYERS 125-26 (3d ed. 2014). The term is used colloquially in far less precise fashion, often referring to any market outcome that does not match the speaker's normative view of what the world should look like. As it turns out, those suboptimal outcomes can be the result of prior government action, making further government intervention unwise. E.g., Ronald Coase, The Problem of Social Cost, 8 J. L. & ECON. 1, 28 (1960) ("The kind of situation which economists are prone to consider as requiring corrective governmental action is, in fact, often the result of governmental action. Such action is not necessarily unwise. But there is a real danger that extensive government intervention in the economic system may lead to the protection of those responsible for harmful effects being carried too far."). See also Kidd, Coase, supra note 9, at 149; Jeremy Kidd & Joseph Padgett, Trucker Shortage as Government Failure, 1 LOY. U. CHI. J. REG. COMPLIANCE 7 (2016) (arguing that the U.S. trucker shortage is the result of unhelpful Department of Transportation safety regulations).
- 35. Kidd & Padgett, *supra* note 34. Other theories of regulation criticize this approach. In the capture theory, regulatory bodies become captive to the regulated industries, which use regulation to cartelize the industry and reduce competition. Yandle & Buck, *supra* note 34, at 186. In the economic theory of regulation, formulated by George Stigler, regulation is merely another tool by which producers maximize profits. *Id.* ("[A]s a rule, regulation is acquired by the industry and is designed and oper-

also be a tool by which powerful incumbents pursue private gain outside of a market context. A counter-intuitive result of legislative and regulatory processes is that those who bear the costs of regulation often lobby for its implementation.³⁶ The earliest recorded example of this outcome is the London weavers' insisting that the Magna Carta require that all cloth manufactured in the realm be of uniform standards.³⁷ Modern examples include biotech companies lobbying for government standards on their genespliced crops,³⁸ cigarette companies lobbying for regulation of their own ecigarette lines,³⁹ and industry lobbying for environmental regulations.⁴⁰ The most extreme example of this would be sellers of illegal products lobbying to maintain their illegal status, such as bootleggers during Prohibition.⁴¹

Regulated entities do this not because they feel guilty about supposed harms being inflicted on society, but because they know that new entrants into the market will not be able to afford the additional costs. ⁴² By raising barriers to entry, the regulations entrench incumbent businesses, their market power, and the resulting profits that come out of the pockets of consumers. ⁴³ Ideally, rent-seekers would like to inhibit competition without any cost to themselves, such as restrictions on logging in public forests when you own adjacent forests that can be harvested. ⁴⁴ If that option is not available, however, an outcome that imposes higher costs on competitors will be sufficient, so long as you are relatively better able to bear the costs.

ated for its benefit." (quoting George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 3 (1971))).

- 36. Bruce Yandle, Viewpoint: Bootleggers and Baptists: The Education of a Regulatory Economist, AM. ENTER. INST. (May 1, 1983), https://www.aei.org/publication/viewpoint-bootleggers-and-baptists-the-education-of-a-regulatory-economist/ [http://perma.cc/N928-2MCK]; Koopman et al., supra note 23, at 534 ("[P]owerful and politically well-connected incumbents have an incentive to 'capture' the regulatory system that is supposed to constrain them. This is because, by limiting entry or by raising rivals' costs, regulations can be useful to the regulated firms.").
 - 37. Of course, the standards implemented were those already in place in London. Id.
- 38. Henry I. Miller & Gregory Conko, *Bootleggers and Biotechs*, REGULATION, Summer 2003, at 12.
- 39. Jonathan H. Adler et al., *Baptists, Bootleggers & Electronic Cigarettes*, 33 YALE J. REG. 313, 348 (2016).
- 40. Todd J. Zywicki, Environmental Externalities and Political Externalities: The Political Economy of Environmental Regulation and Reform, 73 Tul. L. Rev. 845, 856–74 (1999). See also A.H. Barnett & Timothy D. Terrell, Economic Observations on Citizen-Suit Provisions of Environmental Legislation, 12 Duke Envil. L. & Pol'y 1, 25 (2001) (quoting an officer of WMX, the nation's largest waste management company, as supporting stricter environmental regulation because "[s]tricter legislation is environmentally good and it also helps our business").
- 41. Brenner M. Fissell, Abstract Risk and the Politics of the Criminal Law, 51 Am. CRIM. L. REV. 657, 674 (2014).
 - 42. Adler et al., supra note 39.
 - 43. Bruce Yandle, Bootleggers and Baptists in Retrospect, REGULATION, Fall 1999, at 5, 6.
 - 44. Id.

Rent-seeking in the financial industry often has an additional characteristic, that it is carefully hidden behind a screen of seemingly virtuous concerns over consumer protection. While not unique in this regard,⁴⁵ the financial sector has been at the epicenter of some spectacular rent-seeking in the past fifteen years,⁴⁶ all of which masked by moral outrage regarding the need to regulate to protect the consumer. After the scandals at Enron and Worldcom, populist anger led to the passage of the Sarbanes–Oxley Act of 2002,⁴⁷ a statute filled with provisions that had little-to-no hope of affecting any meaningful change,⁴⁸ and which pointedly ignored known solutions for the alleged problems the Act was intended to rectify.⁴⁹

Similarly, in the wake of the financial crisis of 2007–08, public outrage led to the passage of the Dodd–Frank Wall Street Reform and Consumer Protection Act, ⁵⁰ also filled with provisions that had little chance to reduce "systemic risk," the stated goal of the Act. ⁵¹ Dodd–Frank imposed sweeping regulations across the financial sector, from corporate governance to hedge funds, ⁵² yet appears to have done nothing to end "too big to fail." ⁵³ To the contrary, it appears to have led to rising costs to consumers of financial products, ⁵⁴ a tell-tale sign of increased market power and re-

- 45. For example, when President Barrack Obama announced new fuel economy standards on May 16, 2009, those standards were cheered by automobile executives, union leaders, and environmental groups, and Obama Press Secretary Robert Gibbs opined that the diverse coalition supporting the changes was evidence of the virtue of the standards. Bruce Yandle, America's New Fuel Economy Cartel, REGULATION Fall 2009, at 6, 6–7. The diversity of the coalition, however, could also be a sign that the rent-seekers have found themselves virtuous spokespeople to hide their activities. When the inevitable unintended consequences appear, see Paul D. Carrington, Virtual Civil Litigation: A Visit to John Bunyan's Celestial City, 98 COLUM. L. REV. 1516, 1517 (1998) ("The law of unintended consequences decrees that the resolution of current problems will create or reveal new ones."), it is worth considering that they weren't really unintended.
- 46. Professor Bainbridge and others have argued that shoddy policy making in aftermath of market turmoil enjoys a long tradition, going back as far as the late 1600s. Stephen M. Bainbridge, *Dodd–Frank: Quack Federal Corporate Governance Round II*, 95 MINN. L. REV. 1779, 1782 (2011); Larry Ribstein, *Bubble Laws*, 40 HOUS. L. REV. 77 (2003).
 - 47. Pub. L. No. 107-204,116 Stat. 745 (codified in scattered sections of 15, 18 U.S.C.).
- 48. See Roberta Romano, The Sarbanes—Oxley Act and the Making of Quack Corporate Governance, 114 YALE L.J. 1521, 1529–43 (2005).
- 49. At the time Sarbanes Oxley was passed, it was known that having an audit committee member with financial expertise had a positive impact on committee performance, but Congress did not include a mandate of that type. *Id.* at 1532.
 - 50. Dodd-Frank, supra note 15.
 - 51. See Bainbridge, supra note 46, at 1797–1815.
 - 52. See Kidd, Hedge Funds, supra note 14.
- 53. See Viral V. Acharya et al., The End of Market Discipline? Investor Expectations of Implicit Government Guarantees 6 (May 1, 2016) (unpublished manuscript), https://ssrn.com/abstract=1961656 [https://perma.cc/RVW5-RTA7].
- 54. See Todd Zywicki, George Mason Univ. Found. Professor of Law, The Dodd–Frank Act Five Years Later: Are We More Stable?, Testimony Before the U.S. House of Representatives Committee on Financial Services (July 9, 2015), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2651942 [https://perma.cc/95AP-FM5L] (describing the increased cost and reduced benefits to consumers).

duced competition.⁵⁵ Even when Congress ostensibly sets out to curb the power of large banks, those banks manage to leverage circumstances to their advantage.⁵⁶

Those pushing the meaningless-but-costly provisions in Sarbanes—Oxley were called "policy entrepreneurs" by Professors Romano,⁵⁷ a phrase adopted by Bainbridge in describing Dodd–Frank.⁵⁸ Carefully considered, that phrase aptly describes rent-seeking, the application of entrepreneurial ability in the public policy arena, rather than in the business arena.⁵⁹ The opportunities for rent-seeking may be more pronounced in the wake of financial crises,⁶⁰ due to politicians' needing to do *something*, but the ability to gain special favors from government will drive rent-seeking whenever the government assumes the power to grant special favors. Power draws rent-seeking, not the other way around, and as government has grown increasingly powerful, the level of rent-seeking has assuredly grown with it. Of vital importance, then, is the question of how we can curb the influence of special interests in government, a question that will be answered in the following section.

III. HOW INNOVATION (FINTECH) CAN HELP

One extreme way to eliminate regulatory rent-seeking in the financial sector would be to eliminate the financial regulatory apparatus. Take away regulators' ability to intervene in the market to bestow special favors and market actors would have to go back to the tried and true method of earning a profit by catering to consumer demand.⁶¹ That path is foreclosed by

- 55. As it turns out, Dodd–Frank managed to decimate small banks and increase the size of large, incumbent banks. Marshall Lux & Robert Greene, *The State and Fate of Community Banking* 3 (Harvard Kennedy Sch., M-RCBG Associate Working Paper No. 37, 2015) ("[M]any commentators, community bankers, and regulators have also expressed fear or produced research showing that Dodd–Frank has exacerbated the preexisting trend of banking consolidation by piling up regulatory costs on institutions that neither pose systemic risks nor have the diversified businesses to support such costs. . . . Our findings appear to validate concerns that an increasingly complex and uncoordinated regulatory system has created an uneven regulatory playing field that is accelerating consolidation for the wrong reasons"). Dodd–Frank also managed to hinder competition from non-traditional institutions, like hedge funds. Kidd, *Hedge Funds, supra* note 14.
- 56. *E.g.*, Lux & Greene, *supra* note 55, at 19 (describing empirical results showing small community bank's significant losses in lending volume and market share since Dodd–Frank).
 - 57. Romano, *supra* note 48, at 1568.
 - 58. Bainbridge, supra note 46, at 1815–16.
- 59. See Robert E. Litan & Ian Hemmingway, Is America Encouraging the Wrong Kind of Entre-preneurship?, HARV. BUS. REV. (June 13, 2017), https://hbr.org/2017/06/is-america-encouraging-the-wrong-kind-of-entrepreneurship [http://perma.cc/498K-AEZZ].
- 60. Ribstein and Bainbridge refer to these laws as "bubble laws." Bainbridge, *supra* note 46; Ribstein, *supra* note 46.
 - 61. SMITH, *supra* note 28, at 26–27.

political reality; there is simply no appetite among the U.S. electorate, politicians, and regulators for an entirely unregulated marketplace. Some would oppose deregulation because they believe it is necessary to protect consumers but, even if it offered no benefits to society, it would still benefit the legislators and regulators that are the recipients of rent-seeking expenditures. Those legislators and regulators would have even weaker incentives to pursue full deregulation.

Given the political realities, the answer to concerns over rent-seeking and its harmful effects might, at all prior times in history, have been: "we'll just watch them very closely and use the democratic process to police bad behavior." Of course, the nature of rent-seeking, as described above, is that the democratic process is unlikely to make any significant change. All hope is not lost, however, for the current age has one thing that could provide an antidote to rent-seeking—rapid technological innovation.

Technological innovation is nothing new, of course, and it has stymied prognosticators ever since Thomas Malthus incorrectly predicted, in 1798, that population would soon outstrip agricultural productivity and lead to mass starvation. Advances in agricultural technology led, of course, to dramatic increases in productivity, so that mass starvation was not only avoided but we find ourselves in a world where many more people face obesity, rather than starvation, as a more pressing problem. 4

As the pace of that innovation has increased in recent years, it has also begun to stymie regulators in their attempts to control economic activity. One of the foundational principles of economics is that people respond to incentives, ⁶⁵ so at least some entrepreneurial innovation will be aimed at finding a way to operate in a way not covered by existing or predicted regulations. ⁶⁶ Some consider this to be an illegitimate, unethical, or even illegal mode of business, ⁶⁷ but an entrepreneur faced with high regulatory

^{62.} It is, after all, the nature of the democratic process—complete with concentrated benefits and dispersed costs—that makes rent-seeking possible.

^{63.} See generally THOMAS MALTHUS, AN ESSAY ON THE PRINCIPLE OF POPULATION (1798).

^{64.} E.g., Understanding the American Obesity Epidemic, AM. HEART ASS'N http://www.heart.org/HEARTORG/HealthyLiving/WeightManagement/Obesity/ Understanding-the-American-Obesity-Epidemic_UCM_461650_Article.jsp#.WYyHTVGGMdU [http://perma.cc/SJ8X-22S5].

^{65.} Russell B. Korobkin & Thomas S. Ulen, Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics, 88 CAL. L. REV. 1051, 1054 (2000).

^{66.} While the precise form of a new rule is often not known until its final publication, preliminary rules give all those affected some idea of what they will have to face in the future. Prudence dictates that adaptation efforts begin prior to final publication in order to minimize the total cost of the regulations

^{67.} This mode of thinking appears to rest on the assumption that whatever is not expressly allowed by government is prohibited, rather than an alternative assumption that whatever is not prohibited

costs will seek to avoid those costs in order to lower costs and improve competitiveness. So, as regulators finalize a rule, entrepreneurs have already begun to find a way to operate outside existing regulations.

This type of avoidance-innovation can gain the innovator a short window in which to enjoy increased profits as it avoids regulatory costs and provides something previously unavailable in the market. Even if those profits are eventually competed away, the ability to capture them will drive innovation across the market. At some point, however, the regulator will step in, re-imposing regulatory oversight costs. The faster the regulator intervenes, the lower the profits captured by the innovator and the lower the incentives to innovate. A free regulator might wait for a period of time to ascertain exactly how the innovation will affect consumers and society. A captured regulator, on the other hand, will intervene much more rapidly because the incumbent will correctly view the innovation as a threat to market power and will push for regulatory intervention. This will require some additional rent-seeking but it will likely be less than the amount of profits lost if the innovation gains a foothold in the industry.

Of course, imposition of regulations rarely ends innovation, so the cycle merely begins anew, with more innovations that will have to be defended against by the incumbent, through the captured regulators. Three things should be clear from this analysis. First, so long as regulators move faster than innovators, an incumbent will be able to maintain control over the industry by way of the captured regulator. Second, a strong incumbent-regulator bond will significantly reduce innovation in the industry. ⁶⁸ Third, an incumbent who has captured a regulatory body must engage in rent-seeking proportional to the amount of innovation in the market, giving it an additional incentive to squash innovation.

Consider that, in a static system—without innovation—a successful rent-seeker enjoys competitive advantages that can persist indefinitely. Whether or not the winner has to continue paying rents depends on the actions of other participants. If new competitors believe they have a chance to dislodge the incumbent, they may begin lobbying regulators, which will re-open the contest. ⁶⁹ Otherwise, the incumbent has achieved an anticompetitive advantage for as long as it desires.

is allowed. As a counter-argument, it is possible to view the Constitutional prohibition on ex post facto laws, U.S. CONST., art. $I, \S 10$, as a rejection of that view.

^{68.} Innovations that come from the incumbent will not be squashed by the captured regulator, but greater progress would be made if innovation came from multiple sources.

^{69.} Importantly, a regulator who enjoys the rewards of rent-seeking will want the contest to continue indefinitely, and might engage in rent-extraction, threatening to re-open the contest unless the incumbent continues to make some baseline payments. MCCHESNEY, *supra* note 19, at 122 ("The

In a dynamic system, where innovation is ongoing, rent-seeking will be continuous, as well. Remember that the fruits of rent-seeking are regulations that impede competitors; if those competitors find a way to do business outside of the regulatory scheme, then they have avoided the anticompetitive costs of the regulations and the incumbent's advantage goes away. One prominent example would be ride sharing services, like Uber and Lyft, that have largely avoided the regulatory costs imposed on the taxi industry. As previously noted, a captured regulator will attempt to squash innovation with new or reformulated regulations, so the practical key to ending rent-seeking is rapid innovation, moving fast enough that the regulator loses the capacity to intervene.⁷⁰

To see why, imagine a world where innovation has just overtaken the speed of regulation. The incumbent sees a new innovation and pushes the regulator to squash it. The regulator obliges but, since the regulatory process took some time, the incumbent emerges from that rent-seeking endeavor to discover two new innovations that must be squashed to maintain market power. More rent-seeking by the incumbent squashes the second wave of innovation but, given the longer period of time to issue two new regulations, the incumbent emerges to discover that there are eight new innovations. Eventually, the incumbent will realize that the appeals to the regulator can no longer maintain market power, that upstart competitors will forever be one or more steps ahead of the regulators and that all rentseeking expenditures are wasted resources. Accelerated innovation in this example means that each successive wave of innovation is larger, making the incumbent's moment of realization come that much sooner. In other words, the more innovation outpaces regulation, the more rapidly rentseeking will end. The resources previously expended on rent-seeking will be diverted into market innovations by incumbents and smaller competitors, 71 resulting in lower prices and higher quality for consumers. 72

overriding lesson of the rent-extraction process is that politicians are interested in any stock of immobile capital or wealth from which they can extract a share.").

^{70.} It is too early to say whether Uber and Lyft have avoided regulatory intervention. In some larger cities, regulations have been imposed that curtail the availability of ride-sharing. Consumer safety is given as a justification, but there is little doubt that it also protects the incumbent taxi medallion owners. It is possible that ride-sharing technology cannot innovate fast enough to escape regulation, but that does not foreclose the possibility that future acceleration will reach that point.

^{71.} The only way to sell your product in a competitive market is to provide it at a price and quality that consumers want. There will always be some tradeoff between the two, with some consumers making their consumption decisions solely on the basis of price and others only on the basis of quality, but consumers generally fall along a spectrum and experimentation on those two margins is how businesses find out that their products are profitable.

^{72.} Of course, Fintech innovations bestow these same benefits on their own. See Greg Buchack et al., Fintech, Regulatory Arbitrage, and the Rise of Shadow Banks (Nat'l Bureau of Econ. Research,

In the realm of Fintech, it does not appear as though innovation has overtaken regulation, though that future is by no means impossible. The past three decades have seen technological innovation at a rate that would have been unthinkable prior to that time. If past acceleration continues, innovation must eventually overtake regulation, particularly since the speed of government is intentionally hobbled by the requirements of the Administrative Procedures Act.⁷³ What will be the response if, one day, regulators find their efforts to be largely irrelevant, that finalization of a rule occurs only after it is no longer a binding constraint because innovation has changed the nature of the regulated industry during the time necessary to implement the regulation?

If we reach that point, regulators will have lost their power to intervene in the market and we will have a market that is de facto unregulated. Existing regulations need not be repealed through formal deregulation efforts if innovation renders them obsolete, and the transition could be quite lumpy, as different regulations would cease to be constraining at different times. Whether we allow the transition to occur, at all, is the subject of the following section.

IV. WILD WEST OF FINANCIAL MARKETS: GOOD OR BAD?

A society that knows that the innovation-regulation relationship is about to change faces an important decision. If then-current regulatory mechanisms will soon be too slow to be effective in an innovative world, society faces three primary paths. The first is to maintain a high level of control over regulated industries, adopting a prohibited-unless-permitted policy towards innovation. The second is to allow innovation but adapt the regulatory process so that it can keep pace. The third is to accept innova-

Working Paper No. 23288, 2017), http://www.nber.org/papers/w23288 [http://perma.cc/4W7U-7HJH] (finding some evidence that Fintech lenders are better at determining appropriate interest rates and originate loans with greater convenience for borrowers). If innovations also reduce rent-seeking, the resulting benefits will be in addition to those arising directly from the innovation. Some market participants—including the incumbent—could find that their business model makes them less capable of adapting to the new competitive marketplace and they will exit the market. It is possible that a self-aware incumbent might engage in rent-seeking precisely because it knows that it cannot survive a competitive marketplace. Consumers should cheer that result, as consumers are the primary benefits of the lower prices and higher quality encouraged by competition.

73. The slow speed of required U.S. regulatory procedures is typically viewed as harmful, Michael Livermore, *Reviving Environmental Protection: Preference-Directed Regulation and Regulatory Ossification*, 25 VA. ENVTL. L.J. 311, 355–56 (2007) (arguing that ossification—the —"reduces the efficiency of regulatory regimes," "interferes with the ability of the government to pursue its chosen ends," "interfer[es] with learning and regime adaptation," is "a drag on economic efficiency" and, as a result, "is generally disfavored"), but there are also benefits, Aaron L. Nielsen, *In Defense of Formal Rulemaking*, 75 OHIO ST. L.J. 237, 260–62 (2014) [hereinafter Nielsen, *Rulemaking*] (describing how lengthy procedures are better at discovering truth).

tion as the controlling feature of previously regulated markets and allow a de-facto unregulated market to emerge. Each option has benefits and costs which make them appropriate for some situations but not others.

A. Prohibited Unless Permitted

The potential for market failures leads many policy makers to be wary of an unregulated future and the harms that could be caused by innovation. The fail in significant ways, the resulting efficiencies can potentially lead to consumer and societal harms. These concerns could lead society to choose a path that intentionally delays any innovation for as long as it takes for the regulatory regime to decide how to minimize costs. An extreme form would make all innovations illegal unless they had been specifically permitted by regulatory bodies. A less extreme form would simply withhold legal recognition from those innovations, forcing them into the grey market where enforcement of contracts and other property

- 74. Matthew T. Wansley, *Regulation of Emerging Risks*, 69 VAND. L. REV. 401, 404 ("[R]egulatory agencies should be granted a new set of powers to regulate emerging risks."). For a more lengthy treatment of the opposition to unregulated innovation, see generally Virginia Postrel, THE FUTURE AND ITS ENEMIES (1998). A particular concern that arises regarding peer-to-peer lending is that it might increase the amount of household debt to unhealthy levels. *See* Patrick Jenkins, *US Peer-to-Peer Lending Model Has Parallel with Subprime Crisis*, FIN. TIMES (May 30, 2016), https://www.ft.com/content/84f696ec-2436-11e6-9d4d-c11776a5124d [http://perma.cc/UXR5-MGTY].
- 75. See, e.g., Garrett Hardin, The Tragedy of the Commons, 162 SCIENCE 1243 (1968) (describing the complete degradation of a common resource when the resource is non-excludable). But see ROBERT ELLICKSON, ORDER WITHOUT LAW (1994) (describing ways in which informal rules arise to solve commons problems and other market imperfections). Many prominent commentators have argued that the financial crisis of 2007–08 was the direct result of deregulation. See generally, e.g., ALAN S. BLINDER, AFTER THE MUSIC STOPPED (2014); JOSEPH E. STIGLITZ, FREEFALL: AMERICA, FREE MARKETS, AND THE SINKING OF THE WORLD ECONOMY (2010); Joseph E. Stiglitz, The Anatomy of a Murder: Who Killed America's Economy?, 21 CRITICAL REV. 330, 329 (2009). But see Paul G. Mahoney, Deregulation and the Subprime Crisis, VA. L. REV. (forthcoming 2017), https://ssrn.com/abstract=2957801 [http://perma.cc/NTN8-RZ8Y] (arguing that deregulation did not contribute to the crisis because deregulation neither hindered regulatory bodies from adapting to changing circumstances nor substantially changed the landscape on what actions were permitted by financial institutions).
- 76. One area of regulation where this approach is the rule is pharmaceutical regulation by the Food and Drug Administration, where drugs cannot be marketed until they have been proven safe and effective. Howard L. Dorfman et al., Presumption of Innocence: FDA's Authority to Regulate the Specifics of Prescription Drug Labeling and the Preemption Debate, 61 FOOD & DRUG L.J. 585, 586–87 (2006). That mindset occasionally flows over into regulation of food products, as well. See Stephanie Strom, Impossible Burger's 'Secret Sauce' Highlights Challenges of Food Tech, N.Y. TIMES, Aug. 9, 2017, at B2 (describing the FDA's refusal to declare a genetically modified soy burger as "safe to eat" because it "has never been consumed by humans and may be an allergen"). In either case, it is fear of the downside risk—death—that justifies the use of this restrictive choice.
- 77. Black markets are those markets that arise in goods that are expressly prohibited. Grey market goods have not been prohibited but are also not expressly recognized, putting them in a form of legal limbo. E.g., Michael C. Barnes & Stacey L. Worthy, Applying Lessons from the Opioid Abuse Epidemic to Protect Consumers from Gray Market Biologics, 29 NOTRE DAME J.L. ETHICS & PUB. POL'Y 375, 378 (2015) ("In contrast to the black market, which deals in medications that start off as counterfeit,

rights is less certain.⁷⁸ In either case, the point is to defer the benefits of innovation until it is clear that the benefits outweigh the costs.

The costs of this approach should be self-evident. It deprives consumers of the benefits of innovation for an indefinite period, ⁷⁹ but the strong controls also provide a much more enticing rent-seeking opportunity. If the government has the power to prohibit that which has not been permitted, the winner of a rent-seeking contest will have a much stronger anticompetitive edge because competition-through-innovation will be effectively prohibited. Any incumbent will seek to make sure approval is permanently delayed—or at least delayed for as long as it takes for the incumbent to position itself to be the primary "innovator." Not only will consumers' lives be less rich and rewarding because they lack the new goods and services arising from innovation, ⁸¹ but the inevitable increase in rent-seeking will also lead to higher prices and lower quality on all existing goods and services. These are significant costs, and are only countered by a *possible* reduction in the risk of market failure, ⁸² a tradeoff that hardly seems profitable for society. ⁸³

the gray market supplies legitimate, legally compliant goods that are made by licensed manufacturers but are distributed by unauthorized dealers or to unauthorized purchasers.").

- 78. Without legal recognition for the goods, it will never be entirely clear whether the executive or judicial branches will enforce property rights or contractual obligations.
- 79. It does so on the premise, described *supra*, that doing so is essential to protect those consumers from greater harm. It is worth considering, however, that the fears of potential harms might be exaggerated. For example, although the lack of regulation makes some commentators fearful of another financial crisis, Jenkins, *supra* note 74, there is reason to believe that the advent of Fintech innovation could reduce systemic risk by "diversifying lending options," Mark Fenwick et al., *Fintech and the Financing of Entrepreneurs: From Crowdfunding to Marketplace Lending* 5 (Tilburg Law & Econ. Ctr., Discussion Paper No. 2017-025, 2017), http://ssrn.com/abstract=2967891 [http://perma.cc/SZ49-588R]. Those consumers might also be protected from individual errors, with automated systems being less prone to mistakes. *Id.*
- 80. In a non-competitive market, the incumbent will have minimal incentive to innovate, in any way, but if someone else comes up with the idea, the incumbent will find a way to make it profitable, then ask regulators to approve the innovation, subject to restrictions that guarantee the incumbent's continued dominance of the industry.
- 81. This argument obviously denies the Galbraithian critique of capitalism—that human beings are not made any better off due to new products and services, but are only manipulated into thinking they are by cunning advertising. JOHN KENNETH GALBRAITH, THE AFFLUENT SOCIETY 124–31 (4th ed. 1998). Because Galbraith's conclusions run so completely counter to both human intuition and data regarding improvements in the quality of life enjoyed by residents of first-world countries—improved life expectancy through medical innovations, just to name one—that nothing is lost by abandoning such an unserious claim.
- 82. See NAT'L ECON. COUNCIL, supra note 1, at 8 ("[T]here are also risks associated with new and untested technologies, as well as the use of existing technologies for new purposes. If left unmanaged, these risks could pose harm to the wider financial system." (emphasis added)).
- 83. The harms arising from this path are so severe that it seems unlikely that it could be maintained in the long run. Particularly in a world with robust communication, consumers would eventually revolt against the denial of benefits from innovation and innovations would shift to the grey and black market, notwithstanding the disadvantages of those markets. *See supra* note 71 and accompanying text.

Fortunately, the U.S. government appears to have rejected this approach, in the case of Fintech, at least for now. 84 The Obama Administration issued an official Fintech policy during its final days, in which it described some of the potential benefits of financial innovation: (1) "advancing discovery, learning, and economic growth"; 85 (2) "improv[ing] access to safe, affordable, and fair capital"; 86 (3) "bring[ing] efficiency and transparency to financing for development projects"; 87 and "reducing costs." While the Obama Framework does not entirely embrace Fintech as a positive development, it does encourage agencies to take steps to "maintain flexibility" in dealing with the financial sector. 89 Similarly, the Consumer Financial Protection Bureau has adopted a "Policy on No-Action Letters," in which it adopts a default rule of no action so long as there is "significant uncertainty" as to whether current regulations cover the innovation. 90

B. Accelerated Regulation

The second possible path we could take is the one apparently chosen by the Obama Framework and the CFPB No-Action policy—use the current regulatory regime.⁹¹ There are problems with this choice if, as this

In so doing, regulators might empower the grey and black markets to grow faster than the legal market, diminishing the impact of any regulation in the legal market.

- 84. One commentator has argued for a variation on the Precautionary model—where all new innovation would be prohibited until regulations could be implemented to assure minimization of risks—called the Experimentalist model, where regulatory agencies would prohibit immediate implementation of innovations that could "plausibly create[] a significant risk to health, safety, or the environment," but would also begin conducting randomized experiments to generate knowledge and understanding that would allow for regulation. Wansley, *supra* note 74, at 405. *But see* Vermeulen et al., *supra* note 11, at 10 ("[S]uch experimentation poses a problem for regulators. Too often, 'success' for regulators is defined in negative terms as the avoidance of catastrophe. Avoiding grounds for criticism inevitably results in an overly cautious approach (the "precautionary principle"). From the perspective of entrepreneurs and consumers, such caution can be a 'disaster' or at least less preferable.").
 - 85. NAT'L ECON. COUNCIL, supra note 1, at 3.
 - 86. Id. at 4.
 - 87. Id. at 5.
 - 88. Id. at 6.
 - 89. Id.
- 90. Policy on No-Action Letters; Information Collection, 81 Fed. Reg. 8686 (Feb. 22, 2016), http://files.consumerfinance.gov/f/201602_cfpb_no-action-letter-policy.pdf [http://perma.cc/WS8F-U4FS]. As is always the case with a transition of power from one party to the other, it is unclear how much of the CFPB's policy will be maintained by the Trump Administration. The United Kingdom Financial Conduct Authority ("FCA") has adopted a related "sandbox" policy for cryptocurrencies, where startups are allowed to experiment in a limited space, without being subjected to all UK financial regulations. *Regulatory Sandbox*, U.K. FIN. CONDUCT AUTH. (Nov. 5, 2015). https://www.fca.org.uk/firms/project-innovate-innovation-hub/regulatory-sandbox [https://perma.cc/EGV6-H9Z8].
- 91. Both documents are replete with references to safety, consumer protection, stability, and even fairness. While they reject the rigid, permission-first approach of the first path, they continue to empha-

essay argues, the speed of regulation is falling behind the speed of innovation. If current regulatory procedures are not keeping up, then we will need to speed up the process, 92 but it bears asking two important questions: (1) whether the benefits of speeding up the process are worth the costs; and (2) whether doing so is merely delaying the inevitable?

1. A Cost-Benefit Analysis of Accelerated Regulation

A prerequisite for advocating accelerated regulation is surely a belief that regulation, generally, is necessary to protect consumers and the integrity of the financial markets. 93 It is this belief that supports the "ossification" view of administrative law, or the view that existing procedural requirements are harmful because they keep agencies from moving quickly in the face of new risks. 95 If the primary concern is consumer protection, then delays resulting from a requirement to "check off procedural boxes" 96

size perceived failings in financial markets and the need for great care in determining which innovations will be helpful. It should come as no surprise that those possessing regulatory or legislative power look first to the existing regimes to solve the problem. *See* Cutts & Romain, *supra* note 11 (describing increasing concern about, and activity related to, Fintech in Congress and among regulators).

- 92. Some countries have already recognized that the speed of innovation is too much for their regulatory regimes, and have taken steps to grant "regulatory flexibilities" in dealing with Fintech innovation. INT'L ORG. OF SEC. COMM'NS, IOSCO RESEARCH REPORT ON FINANCIAL TECHNOLOGIES (FINTECH) 74 (2017), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD554.pdf [http://perma.cc/7PW9-444K].
- 93. NAT'L ECON. COUNCIL, supra note 1, at 4. See also Thomas Curry, Comptroller of the Currency, Remarks at Fintech and the Future of Finance Conference, Kellogg School of Management, University 28, 3 (Apr. 2017). https://www.occ.treas.gov/newsissuances/speeches/2017/pub-speech-2017-48.pdf [http://perma.cc/E2RW-24DD] ("Innovation can change everything, but it must fit within the company's business plan, the risks must be understood and managed, and consumers must be treated fairly. That's what I mean by responsible innovation and that's what innovation must achieve for it to live up to its potential."). To many observers, "regulation is necessary" and even "in the interests of fintech firms" in order to foster trust. Patrick T. Harker, President and Chief Exec. Officer, Fed. Reserve Bank of Phila., Remarks at the Global Interdependence Center's Payment Systems in the Internet Age Conference 4 (Feb. 6, 2017), https://www.philadelphiafed.org/-/media/publications/speeches/harker/2017/02-06-17-gic-paymentsystems-in-the-internet-age.pdf?la=en [http://perma.cc/8RPF-RGQV]. Of course, if true, there would be no need for accelerated regulation for the industry would never be successful until regulated, for who could trust an unregulated industry? McGinnis and Roche argue that digital currencies, at least, rely not on trust in government regulation but, instead, on computer logic, John O. McGinnis & Kyle Roche, Bitcoin: Order Without Law in the Digital Age 4 (Nw. Univ. Pritzker Sch. Of Law, Pub. Law Research Paper No. 17-06, 2017), https://ssrn.com/abstract=2929133 [http://perma.cc/EH5J-YY87]
- 94. See Charles W. Tyler & E. Donald Elliott, Administrative Severability Clauses, 124 YALE L.J. 2286, 2328 n.162 (2015) (collecting ossification literature).
- 95. Wansley, *supra* note 74, at 409 ("[N]otice and comment requirements are crippling when agencies seek to regulate emerging risks."); Michael A. Livermore & Richard L. Revesz, *Regulatory Review, Capture, and Agency Inaction*, 101 GEO. L.J. 1337, 1342, 1354 (2013) (warning of the dangers of "underregulation").
- 96. Aaron Nielsen, *Sticky Regulations*, U. CHI. L. REV. (forthcoming 2018) (manuscript at 1), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2950732 [https://perma.cc/CX9Q-TSBJ] [hereinafter Nielsen, *Regulations*].

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would certainly be frustrating. Those procedural boxes, however, are designed to improve the quality of agency decisions and to protect the due process rights of the regulated parties.⁹⁷ Even many who argue for accelerated regulation concede that procedural requirements can have the positive effect of encouraging "the rationality of agency policymaking."⁹⁸

A slower regulatory process, therefore, allows for greater deliberation and, ideally, better decisions. It also allows those who are the subjects of regulation an opportunity to have their voices heard and their perspectives considered before they are adversely impacted. These process and accuracy benefits must be balanced against the potential harms that proponents of the ossification view believe are inflicted on society because new regulation is delayed while procedural boxes are checked. 99 Society must choose among the various speeds that can be established for regulatory processes; the slower speed of the APA was chosen decades ago, and society has the right to change its mind as the world changes. In deciding how fast regulation should move, however, society should include considerations of rent-seeking, whether accelerating the speed of regulation would increase or decrease the power of special interests in the regulatory process. Will accelerating regulation increase the power of incumbents and further reduce consumer welfare through restrictions on competition?

The first thing to consider in answering that question is the type of changes that would need to be made in order to speed up regulation. Some improvements will be possible through the application of technology to regulatory compliance, or "RegTech." Other changes, however, will require relaxation of existing procedural protections, including lightening of notice and comment requirements, 101 abandonment of review by the White House's Office of Information and Regulatory Affairs, 102 and loos-

^{97.} *Id.* at 2. At least one prominent scholar rejects administrative power as unconstitutional because, by its very nature, it subverts Constitutional protections. *See generally PHILIP HAMBURGER*, THE ADMINISTRATIVE THREAT (2017).

^{98.} Adrian Vermeule, Our Schmittian Administrative Law, 122 HARV. L. REV. 1095, 1144 (2009).

^{99.} For an example of this type of reasoned balancing, see Nielsen, *Regulations*, *supra* note 96 (describing both the costs and benefits to slow processes).

^{100.} Douglas W. Arner et al., *The Evolution of Fintech: A New Post-Crisis Paradigm?*, 47 GEO. J. INT'L L. 1271, 1315–18 (2016).

^{101.} See, e.g., Maeve P. Carey, Cong. Research Serv., RL32240, The Federal Rulemaking Process: an Overview (2013).

^{102.} E.g., Emily Hammond Meazell, Presidential Control, Expertise, and the Deference Dilemma, 61 DUKE L.J. 1763, 1794 (2012).

ening of the "hard look" standard imposed by the courts when reviewing agency decisions ¹⁰³—if not eliminating ex post judicial review, altogether.

The form of regulation might also change. Formal rulemaking has been largely abandoned because it is too slow, ¹⁰⁴ but we might also see the abandonment of even informal rulemaking, adjudication, and the entire stable of current regulatory options. Regulators have already begun to experiment with new ways of achieving their goals, including regulation-by-litigation and regulation-by-negotiation. ¹⁰⁵ More recently, regulators have experimented with regulation-by-Dear-Colleague-Letter, ¹⁰⁶ where instructions were disseminated to regulated entities without the force of law but with the threat of liability if the instructions were not followed. Similarly, some regulatory goals have been pursued by pressuring financial intermediaries to cut off banking services to entities that were not in compliance with the regulatory goals. ¹⁰⁷

How would these and other potential changes affect the incentives of rent-seekers? As a preliminary matter, any acceleration in the speed of regulation would counter the negative impact innovation has on rent-seeking. Rapid innovation makes regulation less effective, reducing the incentives to compete for rents; increasing the speed of regulation dilutes that impact because regulators are better able to keep pace. In terms of the

^{103.} Merrick B. Garland, *Deregulation and Judicial Review*, 98 HARV. L. REV. 505, 526–27 (1985).

^{104.} Nielsen, Regulations, supra note 73, at 242-53.

^{105.} Andrew P. Morriss et al., *Choosing How to Regulate*, 29 HARV. ENVTL. L. REV. 179, 180–83 (2005).

^{106.} E.g., U.S. DEP'T OF EDUC., DEAR COLLEAGUE LETTER ON TITLE IX ENFORCEMENT (2011), https://www2.ed.gov/about/offices/list/ocr/letters/colleague-201104.pdf [https://perma.cc/ZVZ6-HGCV].

^{107.} See Michael J. Bresnickat, Exec. Dir., Fin. Fraud Enf't Task Force, Speech at the Exchequer Club of Washington, D.C. (Mar. 20, 2013), https://www.justice.gov/opa/speech/financial-fraudenforcement-task-force-executive-director-michael-j-bresnick-exchequer [https://perma.cc/K7W5-ETX4] (describing government efforts to foreclose access to financial institutions and payment processors "because they are the so-called bottlenecks, or choke-points, in the fraud committed by so many merchants"). Known originally as Operation Choke Point, it is defended with the same rationale as traditional regulation—consumer protection. Jeri Leigh McDowell, Insidious Design or Instrument of Progress: The Multi-Agency Initiative to Choke off Undesirable Businesses' Access to the Financial World, 47 TEX. TECH L. REV. 803, 807, 811-12 (2015) ("Operation Choke Point has led to an alarming number of account terminations 'based solely on politicized regulatory pressure and informal intimidation related to the products and services being offered by legal, licensed and regulated businesses."); see Staff of House Comm. on Oversight & Gov't Reform, 113th Cong., The Department of JUSTICE'S "OPERATION CHOKEPOINT": ILLEGALLY CHOKING OFF LEGITIMATE BUSINESS? 2 (2014); Todd Zywicki, The Dodd-Frank Act Five Years Later: Are We Freer? 8-9 (George Mason Univ. Law & Econ. Research Paper Series, No. 15-54, 2015), http://ssrn.com/abstract=2704076 [https://perma.cc/MC76-2ZYK].

power of regulators, then, increasing regulatory speed increases power¹⁰⁸ and should increase rent-seeking.

Accelerated regulation could also change the mode of rent-seeking. If regulators are making their decisions more rapidly, any attempt to tailor those decisions for private benefit would need to speed up, as well. Rent-seekers would begin to abandon any semblance of nuanced, subtle persuasion and would compete for rents more openly, in order to gain the attention and favor of regulators. As it becomes more difficult to conceal rent-seeking, the public will recognize more rent-seeking and resentment could grow. In the medium- to long-run, this would force both rent-seekers and regulators to be more cautious. The attention could force some rent-seekers out of the competition entirely, but notice that lower competition further empowers the incumbents who have already ingratiated themselves with the regulators. Those incumbents have already "captured" decisionmakers at the regulatory agency; lowering the level of competition makes it harder for any shift away from the incumbent to occur.

There is a possible scenario in which accelerated regulation could reduce rent-seeking. A more rapid regulatory process might prove impossible to control, at least in its current form, with many regulatory bodies holding overlapping authority. The procedural requirements that must be abandoned to achieve accelerated regulation are useful in avoiding contradictory regulation; with those safeguards gone, a rapid regulation regime might be unmanageable. In that case, it might be necessary to implement a much more simplified and uniform set of regulatory requirements. In that outcome were achieved, it would increase efficiency and could reduce regulatory discretion. Lower discretion would mean less power and, therefore, less rent-seeking. Similarly, such simplification could also marginally increase the transparency of the regulatory system, which should

^{108.} It does this by increasing the discretion of the regulator. If procedural requirements are abandoned, the regulator will have the ability to act quickly to respond to perceived threats. Granting the regulator greater discretion to identify threats and act to counter them is primarily how accelerated regulation is achieved, but that discretion means greater power in a smaller number of hands.

^{109.} Stigler, supra note 35 ("[R]egulation is acquired by the industry and is designed and operated for its benefit.").

^{110.} MCQUINN ET AL., *supra* note 7, at 32.

^{111.} At the extreme, it is possible to imagine regulatory decisions being made by complex, machine learning algorithms, so that individual regulatory decisions are a function of pre-determined criteria, not the discretion of a human regulator. Even that outcome would have its costs, *see* MICHAEL C. MUNGER, THE THING ITSELF: ESSAYS ON ACADEMICS AND THE STATE 25–26 (2015), but a reduction in discretionary power would diminish the incentives to rent-seek.

^{112.} *E.g.*, HAMBURGER, *supra* note 97, at 15–17 (arguing that greater discretion to regulatory agencies increases their power by giving them authority to "impos[e] legal obligation through acts other than those of the legislature and the courts").

also cause some rent-seekers to decline to compete. However, lowering the number of loci for rent-seeking expenditures might also facilitate coordination between rent-seekers, allowing more rent-seekers to be successful.¹¹³

Regardless of which of these forces dominate, the rent-seeking hypothesis argues that both the regulators and those regulated participate jointly in the competition, and that both sides benefit. As a result, it is unlikely that they would voluntarily agree to an accelerated structure that removed the opportunity to seek special favors, not to mention the ability of regulators to profit from doling out those benefits. To the extent that the rent-seeking story presented *supra* is correct, it is highly unlikely that such a streamlined, efficient, reduced-rent-seeking outcome would be achieved spontaneously. Instead, it would need to be imposed by Congress. Unfortunately, rent-seeking occurs just as frequently in the legislative setting, 114 so this best-case scenario is extremely unlikely.

Accelerated regulation does little to reduce the incentives to rent-seek. Instead, it appears to increase the power of regulators—which would increase rent-seeking—and enhances the dominance of incumbent firms, further harming the goal of having competitive markets. There is nothing surprising in this result; regulatory power draws rent-seeking, and there is little reason to suspect that increasing the speed at which regulatory decisions are made would change that foundational fact of regulation.

2. Is Accelerated Regulation Just Delaying the Invevitable?

One final question deserves to be asked with regard to accelerated regulation: whether accelerating the pace of regulation can ever be an effective long-run solution, even under ideal circumstances. Short of turning over regulation to machines, 115 is there any way to realistically match the

^{113.} The process would be akin to legislative logrolling, wherein legislators trade votes in favor of each other's pet projects. Michael D. Gilbert, *Single Subject Rules and the Legislative Process*, 67 U. PITT. L. REV. 803, 808–09 (2006). Log rolling almost certainly leads to greater successful rent-seeking. In the rent-seeking scenario, the rent-seekers themselves could coordinate, with powerful incumbents in different industries combining forces to increase the pressure for benefits to be granted to all members of the coalition

^{114.} Jason S. Oh, *The Social Cost of Tax Expenditure Reform*, 66 Tax L. REV. 63, 98 (2012) ("When drafting legislation, Congress is not immune to the pressures of rent-seeking—law making is a cooperative process between Congress and lobbyists.").

^{115.} A lesser form of this—RegTech—is already occurring, Arner, et al., *supra* note 100, and more advanced forms should be feasible in the future. Turning over compliance to machines might have the advantage of reducing the cost of compliance, *id.*, but more interesting is the question of whether machine learning could be used to determine the content of regulations. Were society to choose that path, of course, rent-seeking could still occur, but it would occur at a different point, in designing the machine algorithms that would determine what interests to weigh most heavily. All rent-seeking activity would be directed at that single point.

speed of innovation in a world where machine learning is an everyday reality? Once innovative forces have been released into a regulated industry, there is no way to know where it will end, but machine learning has the potential to increase the speed of innovation beyond what human intellect can achieve. ¹¹⁶ It is therefore possible that the accelerated-regulation path is illusory, that any potential societal gains will be short-lived, as innovation continues to accelerate in a way that regulation simply cannot. If so, then society will eventually face a choice between a rigid, permission-first regime and de facto deregulation, as described below.

C. De-Facto Deregulation

Whether or not we approve, our society may be heading towards a world in which financial services are able to avoid substantive regulation through continuous innovation. Government has the tools to slow or stop that innovation, but only by imposing significant costs on consumers, markets, and society. It may also be that the speed and power of innovation are stronger than regulatory power, so that government would retain only the pretense of power. There is hope that government agents would fairly balance the costs and benefits of the available regulatory paths and abandon futile paths, but the realities of rent-seeking make that hope a dim one.

What, then, do we do in the face of a future that many will find distressing? The right answer may be "nothing." This section proposes to offer both reassurance and consolation to those who find that answer distressing. Reassurance, in that an unregulated market may not be as horrible as imagined. Even the phrase "unregulated" isn't entirely accurate, since reputational factors continue to constrain market participants, even in the absence of government regulation, and private ex-post regulation—tort law, for example—would still remain and could be modified to adapt to a world without *government* regulation. Consolation, in that any costs arising from de-facto deregulation might be countered by a reduction in the ability of established financial firms to rig the system in their favor. 117

1. Don't Fear Markets

Fear of unregulated markets is quite common in all sectors of society, but it may be the result of long-standing misunderstandings of what mar-

^{116.} For a description of some of the ways machine learning algorithms can learn and, potentially, outpace human thought, see Bruckner, *supra* note 6; and Andrew Tutt, *An FDA for Algorithms*, 69 ADMIN. L. REV. 83, 84–88 (2017).

^{117.} Neither will fully assuage the concerns of those who distrust markets.

kets are and do, as well as a romanticization of government interventions. Most importantly, generations of economists have—intentionally or not—convinced millions of undergraduate students to think of "markets" as some sort of quasi-tangible thing that strives to achieve things like "economic efficiency." The obscure way in which economists describe markets makes it much easier to vilify markets as secretive, easily-corrupted organizations that look out only for the well-connected. 119

Consider how perspectives might change under an alternative description of markets as the aggregation of billions—possibly trillions—of voluntary interactions every day. 120 No formal structure, no organization, just everyone on earth making daily decisions in search of a better life, and success requires selling something people want in a way that allows potential buyers to trust you. These markets are far too complicated—billions or trillions of moving parts—to manipulate for the benefit of small groups. Similarly, there is no secrecy in markets, just diffusion of useful information across so many people that no one can know even a small fraction of the total. 121 None of this is to say that markets are perfect—far from it 122—but, in a free market, the overwhelming complexity of the system means that any imperfections cannot be the result of conscious efforts to manipulate. Those without an understanding of the nature of markets will try their hands at manipulation, inevitably without success.

If a market does not provide the optimal outcome, ¹²³ it may be that some natural obstacle has arisen and government can prove useful in removing that obstacle. However, it may instead be that the problem is not of

^{118.} While many economic analyses use efficiency as a criterion, it is often difficult to understand precisely what the term means, except in very general terms. For a helpful explanation of what the term often means and why it is helpful in the context of discussions regarding markets, *see* Kidd, *Coase*, *supra* note 9, at 145–46.

^{119.} Lee Goldman, *The Labor Exemption to the Antitrust Laws as Applied to Employers' Labor Market Restraints in Sports and Non-Sports Markets*, 1989 UTAH L. REV. 617, 623 (relating that the Sherman Act was intended to protect individuals "from the evils of accumulated corporate wealth and power in all markets").

^{120.} James Buchannan, The Limits of Liberty: Between Anarchy and Leviathan, in 7 The Collected Works of James M. Buchanan \P 7.2.4 (1999), http://www.econlib.org/library/Buchanan/buchCv7c2.html [https://perma.cc/KF8D-WP2L].

^{121.} See generally LEONARD READ, I, PENCIL (1958). For a more in-depth treatment of the question, see FRIEDRICH A. HAYEK, *The Use of Knowledge in Society, in* INDIVIDUALISM AND ECONOMIC ORDER 77–91 (1980).

^{122.} Common sources of market imperfections are spillover effects (positive and negative externalities), non-excludability alone (the commons problem) or paired with non-rivalry (under-provision of public goods), and barriers to entry (monopoly power). *See generally* Koopman et al., *supra* note 23 at 532.

^{123.} It is tempting to think of "optimal" in terms of "outcomes I personally prefer." However, it is not always the case that a distasteful outcome is evidence that markets have failed. Humility requires that we accept that some outcomes might be better, as a general matter, even if we disagree.

natural origin, but was created by government. An underappreciated contribution of Nobel Laureate Ronald Coase was the important reminder that market "failures" are often the logical-but-unforeseen results of a prior government action. ¹²⁴ If so, further government actions may be just as likely—or more likely—to generate additional problems instead of solving existing ones. Indeed, to the extent that prior rent-seeking is the culprit, further government endeavors on the relevant question may further entrench the incumbent's interests to the detriment of consumers. ¹²⁵

If, instead, government adopts a largely non-interventionist stance, ¹²⁶ individual transactions will only occur when both parties believe that they will be better off in the aftermath. ¹²⁷ In the absence of fraud, coercion, or other cases where the transaction is not really voluntary, a free market will make all parties better off, but what of those cases where the parties have bad information? In many cases, the lack of good information makes it harder ¹²⁸ to justify an argument in favor of perfectly free markets. As Coase made clear, when transaction costs ¹²⁹ are high, there may be a role for government to play in establishing correct rules. ¹³⁰

The difficulty of deriving correct, useful information can be a barrier to voluntary transactions, but one of the primary aims of Fintech is reduction in transaction costs.¹³¹ If potential customers think they that they are

- 124. Coase, *supra* note 34. *See also* Kidd, *Coase*, *supra* note 9, at 150–51. For example, occupational licensing requirements can result in a shortage of professionals in some occupation, but the shortage is the result of the government policies, not the inability of the market to adapt perfectly to the policy.
 - 125. *Id.* at 152–53.
- 126. Except for cases of fraud, coercion, and the like, where government enables parties to seek redress or invalidate contracts.
 - 127. See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 15 (6th ed. 2003).
- 128. Though not impossible. While perfect information is often cited as a necessary condition of well-functioning markets, e.g., Alexis Brown Stokes, An Apple a Day Keeps Shareholder Suits at Bay: An Examination of a Corporate Officer's Legal Duty to Disclose Health Problems to Shareholders, 17 TEX. WESLEYAN L. REV. 303, 315 (2011) ("Market efficiency only occurs when participants have access to perfect information."), no individual can possibly have perfect information, see generally Read, supra note 121, yet most markets function well even though each individual has only a small amount of information. HAYEK, supra note 121.
 - 129. For an explanation of the term "transactions costs," see Kidd, Coase, supra note 9.
 - 130. Coase, supra note 34, at 18.
- 131. Financial intermediaries exist to minimize a number of transactions costs, notably the cost of connecting those with excess funds and those who need additional funds, but also moral hazard and adverse selection, including the uncertainty regarding credit-worthiness of the borrower. Craig R. Everett, *Group Membership Relationship Banking and Loan Default Risk: The Case of Online Social Lending*, 7 BANKING & FIN. REV. 15, 22–25 (2015). Once a loan has been made and the borrower begins to pay, the lender develops better information about the borrower's actual risk of default; rather than sharing that information with the market, the lender keeps it so that the borrower cannot pursue lower interest rates from other lenders—a phenomenon known as the "holdout problem." *Id.* at 15. Peer-to-peer lending, a Fintech innovation, provides many more lenders—including microlenders not previously present in the market—with knowledge of borrowers' preferences and needs. By reducing

likely to be victims of financial fraud, or if they think that it is impossible to obtain good information, they will avoid financial markets, ¹³² reducing individual well-being and long-term growth. This is a potential market flaw, but that also means that it is an untapped profit opportunity, because each transaction avoided for this reason is a transaction that could have benefitted both parties. ¹³³ A third party who establishes a reputation for providing useful information could take a percentage of the benefits derived from new transactions.

In the Internet age, information has never been more available, and information technology innovations will make the task of information verification easier and cheaper, ¹³⁴ reducing transaction costs and making regulation in this area largely superfluous. Indeed, it is worth considering that private entities have better incentives than government to get information correct. A private firm that fails to provide accurate information will go out of business in a free market no one will voluntarily contract with it when more reliable options are available. ¹³⁵ Conversely, government regulators rarely face adverse consequences when things go badly, ¹³⁶ even when the poor outcomes are the result of the regulators' intervening to

the finding costs, peer-to-peer lending should drive down the interest rate paid by the borrower and raise the interest rate received by the actual owners of funds. *Id.* at 18; *see* Adair Morse, *Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending*, 7 ANN. REV. FIN. ECON. 463 (2015). Peer-to-peer lending also reduces default rates, indicating a reduction in adverse selection and/or moral hazard. Everett, *supra*, at 51. Importantly, however, peer-to-peer lending has apparently not yet solved the holdout problem, *id.* at 51–52, but an innovator who can do so will attract far more borrowers and earn a hefty profit by reducing that transaction cost.

- 132. This is a variation of the "lemons" problem, identified by economist George Akerlof in *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q. J. ECON. 488 (1970). The insight eventually garnered Akerlof a Nobel Prize. *See* Don Carmichael, Competition and Adverse Selection in An Online Lending Market (June 6, 2017) (unpublished manuscript) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2985908 [https://perma.cc/A2N2-N5C5].
- 133. Bad information, or bad computational use of that information, can also lead to lending that ends in default, which is also a missed opportunity for profit. Fintech innovations have improved default rates from those achieved with only credit scores, but there is still room for improvement. Atay Kizilaslan & Aziz Lookman, Can Economically Intuitive Factors Improve Ability of Proprietary Algorithms to Predict Defaults of Peer-to-Peer Loans? (July 21, 2017) (unpublished manuscript) (finding that characteristics of the borrower and macroeconomic indicators can add accuracy to default predictions). https://srn.com/abstract=2987613 [https://perma.cc/AMT2-47GG].
- 134. Koopman et al., *supra* note 23, at 540–41 ("[T]he Internet largely solves this problem by providing consumers with robust search and monitoring tools to find more and better choices. These tools lower both search costs and transaction costs associated with commercial interactions."). Even the dangers of information overload can be resolved through effective filters.
 - 135. *Id.* at 541–42.

136. See David S. Hilzenrath, Eight SEC Employees Disciplined Over Failures in Madoff Fraud Case; None Are Fired, WASH. POST (Nov. 11, 2011), https://www.washingtonpost.com/business/economy/seven-sec-employees-disciplined-on-failure-to-stop-madoff-fraud/2011/11/10/gIQA3kYYCN_story.html?utm_term=.013764e06656 [https://perma.cc/4H27-5E5P]. It is unclear whether anyone at the SEC was fired as a result of the failures leading up to the financial crisis.

protect favored rent-seeking firms.¹³⁷ A de-facto deregulated financial market could make financial transaction not only cheaper but safer, as well.

2. A Word of Comfort to the Unconvinced

For those who struggle to accept such an admittedly-optimistic view of free markets, ¹³⁸ it is worth considering that there may be no way to avoid an unregulated financial sector short of imposing strict—and costly—restrictions on innovation. If so, then it can be a source of comfort that, at the very least, the future of finance is one in which powerful players no longer have the option of asking government for special favors. There are certain to be some problems that arise in a market without effective regulation, ¹³⁹ but that will no longer include corruption and cronyism.

Large players in the industry, to the extent they are capable of adequately serving customers without the backing of government regulators, will survive. Hopefully, they will do more than survive, but put their resources to much better use than seeking anti-competitive favors from government, adding to the flow of useful innovations. Any company that cannot succeed except by harming competitors and consumers through collusion with government can and should fail, making room for new participants who can compete in the new, faster paced financial markets of the future.

V. CONCLUSION

Fintech is coming, and its approach is a source of concern for many. For regulators and incumbents, those concerns are valid, because innovation requires additional regulation and a corresponding increase in the amount of rent-seeking expenditures that the incumbent must make. If the most optimistic estimates are correct, the coming waves of innovation will

^{137.} See Kidd & Padgett, supra note 34 (arguing that current trucking shortages are the result of government regulations motivated, in part, by a desire to serve the interests of railroads, the primary competitors of the trucking industry).

^{138.} To be clear, while it is an optimistic view, it is not a utopian view of markets. After all, markets function not because individuals care for each other, but because it is in their self-interest to cater to the needs of others. SMITH, *supra* note 28, at 16. *But see* ADAM SMITH, THEORY OF MORAL SENTIMENTS 166 (Prometheus Books 2000) (1759) ("Man naturally desires, not only to be loved, but to be lovely; or to be that thing which is the natural and proper object of love.... He desires not only praise but praise-worthiness; or to be that thing which, though it should be praised by nobody, is, however, the natural and proper object of praise.").

^{139.} Markets are never perfect, after all, even if they outperform government regulation. Arnold Kling & Nick Schultz, Opinion, *Markets Fail. That's Why We Need Markets.*, CHRISTIAN SCI. MONITOR (Dec. 28, 2009), https://www.csmonitor.com/Commentary/Opinion/2009/1228/Markets-fail.-That-s-why-we-need-markets [https://perma.cc/46LK-92RX].

do more than just inconvenience regulators and incumbents, but could wipe away the complex structure of rent-seeking benefits that have been built up over time. If innovation begins to outpace regulation, incumbents will no longer be able to use government's monopoly on force to extract extra revenues from consumers. Regulators will no longer have the power and discretion to force small competitors with great ideas be forced to comply with unreasonable regulatory demands that are designed to delay innovation for the benefit of the large incumbents.

More than anything, these potential changes would dramatically impact consumers. By reducing the ability of incumbents to stack the deck in their favor, rapid innovation would raise consumer welfare through cheaper and safer financial products. Legitimate concerns exist regarding the ability of market players to engage in fraud in an unregulated market, but those concerns must be balanced against the reality that attempts to curb fraud and abuse will be used by incumbents to impede competition and harm the very consumers the regulators seek to protect. Innovations should be welcomed, especially when they take the form of market enhancements that reduce transaction costs and destroy the ability of powerful interests to rent-seek their way to wealth at the expense of consumers.