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Making Innovation More Competitive: The Case of Fintech

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ABSTRACT

Finance startups are offering automated advice, touchless payments, and other products that could bring great societal benefits, including lower prices and expanded access to credit. Yet unlike in other digital arenas in which American companies are global leaders, such as search engines and ride hailing, the United States lags in consumer financial technology. This Article posits that the current competition policy framework is holding back consumer financial innovation. It then identifies a contributor missing from the literature: the institutional design of federal regulators. Competition authority—including antitrust and the extension of business licenses—is spread across at least five agencies. Each is focused on other missions or industries. The Department of Justice (DOJ), hindered by statutes and knowledge gaps, devotes significantly fewer resources to banking than to other industries in merger review because it leans heavily on prudential regulators. The Federal Reserve and other prudential regulators prioritize financial stability, which conflicts with their competition mandate. No agency has the right authority, motivation, and expertise to promote consumer financial competition.

Innovation has raised the stakes for fixing this structural flaw in finance, and potentially in other heavily regulated industries. If allowed to compete fully, financial technology challengers ("fintechs") could bring large consumer welfare advances and reduce the size of "Too Big to Fail" banks, thereby lessening the chances of a financial crisis. If allowed to grow unchecked, fintechs or the big banks acquiring them may reach the kind of digital market dominance seen in Google, Facebook, and Amazon, thereby increasing systemic risk. Whether the goal is to benefit consumers, strengthen markets, or prevent crises, a reallocation of competition authority would better position regulators to navigate the future of innovation.

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INTRODUCTION

Technology challengers are providing digital alternatives to traditional financial institutions. PayPal and related startups transfer funds with the press of a button. Automated assistants can, with access to consumers' personal data, recommend a tailored credit card, bank account, or loan with lower rates.[1] Other consumer industries, such as electronics, music, and books, have seen *Fortune 500* companies dissolve and profits fall in the face of innovation.[2] In contrast, the largest banks have steadily gained market share.[3] One explanation for this outcome is that banks are publicly subsidized and insulated from competition. Although legal scholars have recognized banking competition shortcomings,[4] they have yet to pay sustained attention to the intersection between competition policy and the recent wave of digital innovation, often known as "fintech." Nor have they, to my knowledge, analyzed how regulators' organizational design and mission conflict undermine financial competition.

This Article outlines how fintech alters the competition policy analysis and argues that existing agencies are inadequate to respond. The advent of fintech changes the analysis and raises the stakes for getting competition right in three main ways. First, digital innovation faces additional entry barriers. Unlike European authorities, U.S. regulators have declined to offer banking licenses to fintechs.[5] Additionally, big banks have blocked fintechs from accessing customers' account information even when customers approve—a potentially debilitating setback for a new service predicated on tailored advice.[6] These barriers extend recent scholarly calls for greater attention to exclusion in antitrust[7] and help explain why fintech startups—despite reinventing the customer interface—generally partner with rather than compete against banks.[8]

1. *See infra* Part I.A.
2. *See* CHARLES A. O'REILLY III & MICHAEL L. TUSHMAN, LEAD AND DISRUPT: HOW TO SOLVE THE INNOVATOR'S DILEMMA, at ix–x (2016).
3. *See* Jonathan R. Macey & James P. Holdcroft, Jr., *Failure Is an Option: An Ersatz-Antitrust Approach to Financial Regulation*, 120 YALE L.J. 1368, 1391 (2011).
4. *See, e.g.*, *id.* at 1391; *cf.* Lawrence G. Baxter, *Betting Big: Value, Caution and Accountability in an Era of Large Banks and Complex Finance*, 31 REV. BANKING & FIN. L. 765, 827 (2012) ("The public subsidies provided to big banks are substantial . . . .").
5. *See infra* Part IV.A.1.
6. *See infra* Part II.A.
7. *See* C. Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182, 1182 (2013).
8. *See, e.g.*, Philippe Gelis, *Why Fintech Banks Will Rule the World*, CHRIS SKINNER'S BLOG (Apr. 9, 2015), http://thefinanser.com/2015/04/why-fintech-banks-will-rule-the-world.html [http:// perma.cc/PEK7-9X28].

Second, fintech creates new connections between competition policy and systemic risk, defined as the chance that one financial institution's failure could cause a chain reaction of institutional failures and spark a financial crisis.[9] Scholars have argued that fintech increases systemic risk in securities trading, by creating new mechanisms for sudden and coordinated mass market movements.[10] Those inquiries have not focused on consumer products, but if advisory fintechs gave similar advice to large numbers of consumers, they could produce their own kind of unpredictable mass market movements.[11] More concentrated advisory fintech markets make coordinated conduct more likely, which implicates antitrust policy.[12]

Additionally, banks' size and interconnectedness can contribute to systemic risk. Yet the largest banks have been purchasing fintechs uninhibited by merger reviews.[13] Whereas even the biggest banks today have around 10 percent of the share of deposits, a single technology firm has captured 60 percent or more of the market in social networking (Facebook), searches (Google), and music downloads (Apple).[14] If banks' share in various markets were to approach those of leading technology companies, the confluence of finance and technology could create new systemic risks. In the alternative, if fintechs were to offer cheaper online banking products, fintechs might shrink the largest banks. Industry reports estimate that $4.7 trillion, or about one-third of bank revenues, are vulnerable to such fintech competition.[15] The downsizing of banks would reduce the chance that if one of them fails "the

9. *See, e.g.*, Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 204 (2008).
10. *See, e.g.*, Tom C.W. Lin, *Infinite Financial Intermediation*, 50 WAKE FOREST L. REV. 643, 661 (2015); William Magnuson, *Regulating Fintech*, 71 VAND. L. REV. (forthcoming 2018) (discussing increased systemic risk due to fintech securities investments, virtual currencies, and peer-to-peer lending).
11. *See infra* Part III.A.
12. *Cf.* Maurice E. Stucke & Ariel Ezrachi, *How Your Digital Helper May Undermine Your Welfare, and Our Democracy*, BERKELEY TECH. L.J. (forthcoming 2018) (covering network effects of virtual advisory assistants); Ariel Ezrachi & Maurice E. Stucke, *Artificial Intelligence & Collusion: When Computers Inhibit Competition* (Univ. of Tenn. Knoxville Coll. of Law Legal Studies Research Paper Series, Research Paper No. 267, 2015), http://ssrn.com/abstract=2591874 (discussing algorithmically coordinated business conduct and the relationship to antitrust law).
13. *See infra* Part III.A.
14. For the shares, see, for example, Nizan Geslevich Packin & Yafit Lev-Aretz, *Big Data and Social Netbanks: Are You Ready to Replace Your Bank?*, 53 HOUS. L. REV. 1211, 1233 (2016); Spencer Weber Waller, *Antitrust and Social Networking*, 90 N.C. L. REV. 1771, 1781 (2012); and Jamal Carnette, *The Music Industry Should Thank Apple—Again*, MOTLEY FOOL (Apr. 24, 2016, 2:44 PM), http://www.fool.com/investing/ general/2016/04/24/the-music-industry-should-thank-apple-again.aspx [http://perma.cc/CA9U-8J76].
15. *See The Fintech Revolution*, ECONOMIST, May 9, 2015, at 25.

world's financial system c[ould] collapse like a row of dominoes."[16] In sum, the right competition policy could provide a partial market solution to the problem of "Too Big To Fail" banks,[17] while an inept competition policy could create dangerous fintech-bank hybrids.

Finally, the U.S. economy may miss out on consumer welfare gains, and cede market share to international firms, if its competition policy fails to pivot for the fintech era. Fintech has the potential to lower prices, expand access to finance, and improve efficiency.[18] Yet U.S. consumer fintech products have advanced at a slow pace compared to those in countries as diverse as China, Kenya, Sweden, and the U.K.[19] Slower innovation is potentially problematic in its own right, and is additionally concerning given that blockchain and related technologies are threatening to break down borders. Borderless finance could in the future pit American financial firms made soft by years of protectionism against foreign counterparts made leaner and more innovative by their home markets.

Navigating this technological upheaval would be difficult for regulators even with a strong institutional framework, but the current one has considerable drawbacks. Competition authority for consumer financial products is scattered across at least five agencies. Two antitrust divisions, at the Department of Justice (DOJ) and the Federal Trade Commission (FTC), share general authority across diverse consumer financial and non-financial industries. Statutory design and a lack of in-house financial expertise limit their role.[20]

Three agencies, the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC), lead competition regulation for banks.[21] A tension arises because these regulators must simultaneously pursue a more pressing mission: preserving the stability of the financial system.[22] Bank regulators' main tool for stability is preventing banks from failing, among other means by making sure banks have adequate capital reserves and are not engaging in excessively risky behavior.[23]

16. Schwarcz, *supra* note 9, at 193; *see infra* Part II.A.
17. The term "too big to fail" is connected to systemic risk. *See*, *e.g.*, Adam J. Levitin, *In Defense of Bailouts*, 99 GEO. L.J. 435, 444 (2011).
18. *See infra* Part II.
19. *See infra* Part II.D.
20. *See infra* Part IV.A.2.
21. *See infra* Part IV.A.
22. *See infra* Part IV.A.
23. *See* Rosa M. Lastra, *The Governance Structure for Financial Regulation and Supervision in Europe*, 10 COLUM. J. EUR. L. 49, 56 (2003) ("Central bankers' duties towards the maintenance of 'financial stability' typically refer to maintenance of the safety and soundness

Regulators are not supposed to insulate banks from more innovative competitors. To the contrary, in analyzing new licenses, one of the OCC's official goals is to "foster healthy [market] competition."[24] But allowing new fintech startups to compete fully could weaken big banks,[25] and "politicians and bank regulators could not survive if they were to permit those institutions to fail."[26] As currently administered, banking regulators' dual mission subsumes competition under stability.

This Article proposes a regulatory reorganization analogous to what has been done many times before to remove mission conflict.[27] Most tellingly, prior to the 2008 financial crisis, banking regulators carried a dual mission of protecting consumers and ensuring financial stability. This pairing subordinated consumer protection to stability.[28] To solve this problem in the wake of the subprime mortgage crisis,[29] Congress launched a new agency, the Consumer Financial Protection Bureau (CFPB).[30] The CFPB took over most of stability regulators' consumer protection powers but has no stability mission.[31] Just as Congress revived consumer protection by separating it from stability duties, Congress should do the same for competition. Whether housed in a new or existing agency, an unconflicted entity would improve the chances that consumer credit products rise and fall based on market value rather than regulatory favoritism.

Part I of this Article gives an overview of fintech and explains why new technology entrants might be expected to pose a challenge to traditional financial institutions in open markets. Part II discusses the evidence that competition is failing in consumer finance, paying particular attention to the

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of the banking system."); Levitin, *supra* note 17, at 444 ("The existing literature has generally identified systemic risk as the risk of a single firm's failure having substantial negative effects on the broader economy."); Saule T. Omarova, *Bankers, Bureaucrats, and Guardians: Toward Tripartism in Financial Services Regulation*, 37 J. CORP. L. 621, 627 n.27 (2012) ("[T]he primary goal of the U.S. system of bank regulation and supervision is to ensure solvency of banking organizations and to protect the banking industry from failure.").

24. OFFICE OF THE COMPTROLLER OF THE CURRENCY, COMPTROLLER'S LICENSING MANUAL: CHARTERS 4 (2016), http://www.occ.treas.gov/publications/publications-by-type/licensing-manuals/charters.pdf [http://perma.cc/VU2S-43J7].
25. *See infra* Part IV.A.
26. Macey & Holdcroft, *supra* note 3, at 1395.
27. For several examples, see *infra* notes 238–241.
28. *See, e.g.*, Kathleen C. Engel & Patricia A. McCoy, *A Tale of Three Markets: The Law and Economics of Predatory Lending*, 80 TEX. L. REV. 1255, 1337 n.393 (2002).
29. *See* Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 90 (2008).
30. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act § 1061(a)(2)(A), 12 U.S.C. § 5581(b)(1)–(4), (6) (2012). I refer to this act elsewhere as the "Dodd-Frank Act."
31. *See id.*

intersection with fintech. Part III explains the stakes in calibrating competition policy, including the opportunity for consumer welfare gains, expanded access to credit for low-income households, and a safer banking system.

The heart of the Article, Part IV, outlines the institutional design flaws in the current regulatory framework, and examines new potential locations for competition leadership. One possibility, granting the CFPB competition authority, would produce a "twin peaks" model with prudential regulation separate from a single entity charged with both consumer protection and competition.[32] Another possibility, a new financial competition agency, would yield a triple peaks model with separate regulators for competition, consumer protection, and stability. Regardless of the model chosen, the Federal Stability Oversight Council (FSOC) should play a coordinating role to ensure that stability remains part of the competition analysis. The conclusion briefly considers other heavily regulated industries to which analogous institutional analyses might apply, such as securities, telecommunications, and energy.

I. THE FINTECH CHALLENGE TO BANKS

In 2015, Jamie Dimon, CEO of JP Morgan Chase, the largest U.S. bank, wrote a letter to shareholders warning that "Silicon Valley is coming."[33] Fintech brings together two of the most powerful industries, technology and finance, as potential competitors and collaborators. This Part surveys fintech, provides a definition, and assesses the evolving competitive dynamics between new and traditional financial firms.

A. Defining Fintech

From a product perspective, fintech services can be broken down into those offering credit, processing payments, giving advice, managing assets, issuing currencies, and helping with legal compliance. This Article focuses on consumer services such as bank accounts, payments, financial advice, and loans. These services are each worthy of separate sustained treatment beyond the

32. Hilary J. Allen, *Putting the "Financial Stability" in Financial Stability Oversight Council*, 76 OHIO ST. L.J. 1087, 1140 (2015) (explaining the twin peaks model used in some countries).

33. JAMIE DIMON, JPMORGAN CHASE & CO., DEAR FELLOW SHAREHOLDERS 29 (2015), http://www.jpmorganchase.com/corporate/investor-relations/document/JPMC-AR2014-LetterToShareholders.pdf [http://perma.cc/7KJS-KKYH].

distinctions drawn below, but my core thesis implicates all of them in important ways.

An important institutional distinction is that between fintechs and traditional financial firms. Fintech is used here to refer to the relatively new category of companies whose business models are based on digital products. The term leaves out legacy banks, like Citibank and Wells Fargo, which may now offer similar products but whose services originally lacked a digital component.

This definition does not preclude fintechs from operating as banks, but most in the United States are neither banks nor bank holding companies.[34] Since they do not have banking licenses, any money fintechs hold for consumers must not be for deposits, but instead for other purposes—such as transferring or lending. Fintechs are, however, clouding the very nature of what it means to be a bank. PayPal, the biggest fintech focused on financial products, holds enough money in its customers' accounts to be the twentieth largest bank. Yet in the United States, PayPal is not licensed as one. Consumers use legacy bank accounts and credit cards to get money into their PayPal accounts. Accountholders can then use PayPal to transfer money among individuals and businesses. PayPal also offers loans through partner institutions and gives financial advice. But PayPal's nonbank status and subsequent lack of FDIC deposit insurance means that if PayPal went bankrupt, consumers would likely not get their money back.[35]

Fintechs can be of any size. Four of the ten largest U.S. companies, Google, Apple, Amazon, and Facebook, all have built payment systems and made other inroads into finance.[36] Despite the participation of large technology companies, the main drivers of fintech innovation have been the thousands of startups attracting billions of dollars in investment each year. Startup business models are novel, diverse, and shifting. One of the earliest fintech areas was peer-to-peer lending, in which companies link individuals who have money to those who want it.[37] Most of the original peer-to-peer companies have already grown

34. This Article refers to banks and bank holding companies interchangeably, unless otherwise specified. A bank holding company is "any company [that] has control over [a] bank." *See* Bank Holding Company Act of 1956, 12 U.S.C. § 1841(a)(1).

35. *See* Telis Demos, *As Industry Evolves, PayPal, Peers Rise Up*, WALL STREET J., June 2, 2016, at C1.

36. *See* Packin & Lev-Aretz, *supra* note 14, at 1233–37; Alice Uribe, *ASIC's Greg Medcraft Predicts 'The Crowd' Will Destroy Banking Models*, AUSTRALIAN FIN. REV., Apr. 10, 2017, at 13.

37. *See* Andrew Verstein, *The Misregulation of Person-to-Person Lending*, 45 U.C. DAVIS L. REV. 445, 451 (2011).

beyond their origins and now engage in more familiar "marketplace lending."[38] They receive money from banks to lend to individuals, and their innovations have spread to other areas, such as sophisticated analytic tools for estimating borrowers' creditworthiness.[39]

Unlike the other categories of consumer fintechs, advisory fintechs do not need to directly receive any money from consumers to offer their basic product. The goal of Credit Karma, NerdWallet, Mint, and other advisory fintechs is to help people make all of their financial decisions through a single app.[40] These companies learn about users—with permission—by accessing personal bank accounts, credit scores, credit card records, tax returns, and other similar sources of financial information. Users then receive recommendations about credit cards or mortgages with lower fees, savings accounts that pay higher rates, and other products that better meet their needs.[41]

While the term "fintech" is used here to exclude traditional banks, all major financial institutions have become highly technological. The leading banks are each purchasing fintech startups, forming strategic partnerships, or internally building whiz teams to design new products.[42] JP Morgan Chase's Intelligent Solutions Group has over 200 analysts and data scientists and produced about fifty technologies in 2015 alone.[43] Goldman Sachs, which has more engineers than Facebook or Twitter, is launching an online lender.[44] In light of Wall Street's increasing launch of digital products and adoption of artificial intelligence,[45] regulating fintech amounts to regulating the future of finance.

B. Private Sector Institutional Dynamics

Fintechs could in theory pose a threat to traditional banks. Almost three-quarters of millennials say they would prefer to receive their financial services from technology companies such as Google and Amazon, rather than big

38. Kathryn Judge, *The Future of Direct Finance: The Diverging Paths of Peer-to-Peer Lending and Kickstarter*, 50 WAKE FOREST L. REV. 603, 613 (2015).
39. *See id.* at 610–13.
40. *See* Rory Van Loo, *Rise of the Digital Regulator*, 66 DUKE L.J. 1267, 1278 (2017).
41. *See id.* at 1286.
42. *See, e.g.*, *id.*; Kim S. Nash, *Big Banks Balance FinTech Startup Partnerships With Internal Innovation*, WALL STREET J., Mar. 22, 2016, at B1.
43. *See* Nash, *supra* note 42.
44. *See* Douglas W. Arner et al., *The Evolution of FinTech: A New Post-Crisis Paradigm?*, 47 GEO. J. INT'L L. 1271, 1291 (2016); John Gapper, *The Lenders of the Revolution Look Familiar*, FIN. TIMES, June 18, 2015, at 9.
45. *See* Tom C.W. Lin, *The New Financial Industry*, 65 ALA. L. REV. 567, 568 (2014).

banks.[46] Convenience, trust, and price all could play important roles in driving customer switching. Individual users, including small businesses, increasingly find dealing with big banks to be time-consuming and frustrating compared to the ease of tailored startup apps.[47] In recent years, consumers have grown distrustful of large financial institutions, whose reputations have been battered by subprime mortgage lending, the financial crisis, the LIBOR scandal, and Wells Fargo opening millions of fake accounts in customers' names.[48]

Innovation helps explain why publicly traded companies are disappearing at a faster rate today than ever before—six times as fast as forty years ago.[49] Online startups have even thrived in other heavily regulated industries, such as transportation and gambling.[50] Convenience and lower costs have driven some of this success, and many fintechs offer similar advantages.[51] Furthermore, unlike some industries that Silicon Valley has invaded, finance lacks a meaningful physical component. This makes the base products inherently vulnerable to digital competition. Traditional banks' infrastructures—including their legacy information systems and physical branches—inhibit their ability to rapidly respond to disruption.

Since Dimon's 2015 warning, however, the dynamics between fintech and traditional firms appear to have shifted. Entrepreneurs who started out wanting to do to banks what Amazon did to retail have wound up licensing their technology to banks.[52] As one industry observer puts it: "What was once perhaps an adversarial relationship has warmed . . . ."[53] Many no longer see

46. Christofer Trudeau & Carolan McLarney, *How Can Banks Enhance International Connectivity with Business Customers?: A Study of HBSC*, IUP J. BUS. STRATEGY, June 2017, at 20, 26.
47. *See* Demos, *supra* note 35; Roger Freeman, *For a New Business, Banks Aren't the First Stop*, WALL STREET J., June 3, 2016, at C4.
48. *See, e.g.*, Arthur E. Wilmarth, Jr., *Turning a Blind Eye: Why Washington Keeps Giving in to Wall Street*, 81 U. CIN. L. REV. 1283, 1323, 1332 (2013); Telis Demos, *Warburg Banks on Fintech*, WALL STREET J., May 2, 2016, at C1.
49. *See* Martin Reeves et al., *The Biology of Corporate Survival*, HARV. BUS. REV., Jan.–Feb. 2016, at 46, 46–47.
50. *See* Elizabeth Pollman & Jordan M. Barry, *Regulatory Entrepreneurship*, 90 S. CAL. L. REV. 383, 383 (2017).
51. *See infra* Part III.B.
52. Nathaniel Popper, *A Target Too Big to Nail*, N.Y. TIMES, Feb. 23, 2017, at B1.
53. Bryan Yurcan, *How Moven Went From 'Breaking Banks' to Breaking Bread With Them*, AM. BANKER (Sept. 2, 2016, 1:32 PM), http://www.americanbanker.com/news/how-moven-went-from-breaking-banks-to-breaking-bread-with-them [http://perma.cc/2QZP-6EFE].

an existential threat in fintech. Instead, they believe that "[i]t is most likely that the small fintech companies will be subsumed" by large financial institutions.[54]

II. THE COMPETITION SHORTCOMINGS

A given fintech's decision of whether to challenge or join banks will depend in part on whether regulations and market dynamics give it a real chance to compete. Competition is extremely difficult to measure, and economic models inadequately consider important factors, such as innovation.[55] To assess the hypothesis that a lack of competition inhibits fintech, this Part surveys the evidence related to entry barriers, customer switching, anticompetitive prices, and the relative pace of U.S. innovation.

A. Entry Barriers

When firms face excessive barriers to entering a market, competition can stagnate, raising prices and lowering innovation.[56] Although part of the problem is simply the large amount of regulation,[57] fintech has faced two further entry barriers: traditional firms' ability to block market access and the difficulty in obtaining a federal bank license.

Legacy financial institutions can limit some fintechs' operations through control of data. Most notably, advisory fintechs rely on access to both personal and general product data.[58] Some banks' response has been to block or limit fintechs' access to customer accounts, thereby making it harder for fintechs to provide tailored advice.[59] Legacy institutions can also block fintechs from collecting online product information by using laws never intended for such a

54. *See* Dennis K. Berman, *The Game: The Existential Crisis That's Stalking Banks*, WALL STREET J., May 31, 2016, at C1.

55. *See, e.g.*, Keith N. Hylton, *A Unified Framework for Competition Policy and Innovation Policy*, 22 TEX. INTELL. PROP. L.J. 163, 164 (2014) ("Innovation . . . remains a topic that is viewed as too speculative by the enforcement agencies to serve as a justification for moderating penalties."). Measuring harm has also become more difficult as online platforms have transformed markets. John M. Newman, *Complex Antitrust Harm in Platform Markets*, CPI ANTITRUST CHRON., May 2017, at 52.

56. *See, e.g.*, Hemphill & Wu, *supra* note 7, at 1185.

57. Internet startups originally shied away from finance because heavy banking regulations are "the antithesis of Silicon Valley's just-do-it culture." Marc Hochstein, *Innovator of the Year: CBW Bank's Suresh Ramamurthi*, AM. BANKER (Dec. 17, 2015, 2:54 PM), http://www.americanbanker.com/news/innovator-of-the-year-cbw-banks- suresh-ramamurthi.

58. *See supra* notes 40–41 and accompanying text.

59. *See, e.g.*, Van Loo, *supra* note 40, at 1278.

purpose, including trespass to chattel, the Digital Millennium Copyright Act,[60] and the Computer Fraud and Abuse Act.[61] As a result, advisory fintechs cannot on their own provide comprehensive financial advice to their users. In order to access crucial data, fintechs may need to prioritize big banks' interests over helping consumers switch.

Some legacy firms can also limit market access through their dominant market positions. Over 99 percent of all credit card transactions run through the Visa, American Express, Mastercard, and Discover networks.[62] Many commentators have documented credit card companies' ability to engage in exclusionary conduct, such as vertical restraint clauses that prevent merchants from using other payment methods.[63] Although credit card companies may not be able to use those same tactics against payment fintechs, their strong market positions could enable them to deploy other tactics. They have, for instance, instituted "Honor All Cards" rules requiring merchants to accept their contactless payments as a condition of accepting plastic cards. These rules arguably "foreclose entry to those digital wallets that . . . do not use the credit card networks for payments."[64]

The second major category of entry barriers comes not from business conduct, but from government gatekeepers that issue licenses. Federal banking licenses are important in part because they give banks preemption from many state laws. The burden of complying with fifty different states' laws and bank examination processes would be heavy. For example, to move funds on their own as nonbanks, fintechs would need to obtain money transfer licenses in each state.[65] Preemption is also becoming increasingly meaningful as some states—especially those with many traditional financial institutions, such as New York and Connecticut—erect licensing barriers

60. Pub. L. No. 105-304, 112 Stat. 2860 (codified as amended in scattered sections of 17 and 28 U.S.C.).

61. Pub. L. No. 99-474, 100 Stat. 1213 (codified as amended at 18 U.S.C. § 1030 (2012); *See* James Grimmelmann, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1 (2007); Maureen A. O'Rourke, *Shaping Competition on the Internet: Who Owns Product and Pricing Information?*, 53 VAND. L. REV. 1965, 1972–75 (2000).

62. *See* Felix B. Chang, *Financial Market Bottlenecks and the "Openness" Mandate*, 23 GEO. MASON L. REV. 69, 69 n.4 (2015).

63. *See, e.g.*, Benjamin Edelman & Julian Wright, *Price Coherence and Excessive Intermediation*, 130 Q.J. ECON. 1283, 1283, 1311 (2015); Hemphill & Wu, *supra* note 7; Levitin, *supra* note 83.

64. Adam Levitin, *Pandora's Digital Box: The Promise and Perils Of Digital Wallets*, 166 U. PENN. L. REV. (forthcoming, 2018) (manuscript at 1).

65. *See, e.g.*, 18 U.S.C. § 1960. Preemption from state laws is also valued because national bank loans are exempted from state usury laws. *See* Madden v. Midland Funding, LLC, 786 F.3d 246, 250 (2d Cir. 2015), *cert. denied*, 136 S. Ct. 2505 (2016).

targeted at blocking fintech startups.[66] Finally, bank licenses provide the ability to receive customer deposits, which can be used to originate a loan or other credit product at a lower cost.

Some fintechs surely decide not to seek bank licenses out of a strategic choice between bank and nonbank regulation.[67] Still, those wanting to compete head-on with banks have limited prospects because the extension of new banking licenses has slowed to a near halt.[68] A rare fintech entrepreneur who went through the license application process was rejected multiple times and endured a much lengthier timeline than would a traditional bank.[69] Although some regulatory caution is warranted for new business models, a freeze in licensing is counter to market interests and may ultimately increase systemic risk.[70]

Amazon did not need help from Walmart, Target, and other retailers to sell directly to consumers. Uber did not need existing taxi companies, nor did Airbnb need existing hotels, to operate.[71] In contrast, entry barriers have so far largely meant that fintechs "are not going to get anywhere unless they find a federally chartered bank. . . . The banks are holding the cards."[72]

B. Limited Consumer Switching

Consumers' ability to find and switch to the best products is vital for competition. Fintechs promise to improve this process significantly,[73] but transaction costs are high for financial products such as credit cards and loans. Costs include the time needed to understand complex financial products, wait for the results of applications, and fill out lengthy forms to open and close accounts. Nearly half of home buyers consider only one mortgage quote, and are slow to refinance even when considerably lower rates are available.[74]

66. *See* Joseph Young, *Without Unified, Federal Regulations for Digital Currencies, the U.S. Risks Falling Behind*, BITCOIN MAG. (Aug. 1, 2016, 5:25 PM), http://bitcoinmagazine.com/articles/without-unified-federal-regulations-for-digital-currencies-the-u-s-risks-falling-behind-1470086728 [http://perma.cc/47GD-6LXM].
67. *Cf.* Lawrence G. Baxter, *Adaptive Financial Regulation and Regtech: A Concept Article on Realistic Protection for Victims of Bank Failures*, 66 DUKE L.J. 567, 578–79 (2016).
68. *See* Rachel Witkowski, *Lawmakers Demand FDIC Approve New Banks to Prevent Systemic Risk*, WALL STREET J., July 13, 2016, at B1. On recent developments, see *infra* Part IV.B.1.
69. *See* Hochstein, *supra* note 57.
70. *See* Witkowski, *supra* note 68; *infra* Part III.A.
71. *See* Pollman & Barry, *supra* note 50.
72. *See* Hochstein, *supra* note 57 (quoting fintech consultant Melissa Craig).
73. *See infra* Part III.B.
74. *See, e.g.*, Yoon-Ho Alex Lee & K. Jeremy Ko, *Consumer Mistakes in the Mortgage Market: Choosing Unwisely Versus Not Switching Wisely*, 14 U. PA. J. BUS. L. 417, 417 (2012); *see also,*

The credit card industry further illustrates financial products' stickiness. After consumers sign up for a credit card with a teaser rate, most never switch even when they would save money by doing so.[75] Even when consumers complete lengthy applications, about 70 percent are denied.[76] The need to wait for a new credit card in the mail, then cancel the old account, and then activate the new one by calling introduces further obstacles. Economists have found that substantial credit card switching costs enhance financial institutions' market power and contribute to "the failure of competition in the credit card market."[77]

C. Anticompetitive Prices

Perfect competition is a theoretical concept and not expected of actual markets. Instead, competitive markets should push firms to "price near a measure of their costs."[78] Prices above this level, though not illegal and extremely difficult to measure precisely,[79] can indicate markets are not "sufficiently competitive."[80] Numerous studies of consumer finance prices indicate insufficient competition.

The Credit Card Accountability, Responsibility, and Disclosure Act of 2009 (CARD Act)[81] set limits on practices, such as certain fees, that had brought credit card companies billions of dollars in revenues.[82] In a more competitive market, credit card companies would have been expected to respond to the elimination of those fees by increasing other fees, thereby passing the costs of the new regulations on to consumers.[83] Instead, the CARD Act is estimated to

e.g., Richard Cordray, *Foreword: Consumer Protection in the Financial Marketplace*, 9 HARV. L. & POL'Y REV 307, 323 (2015).

75. *See* Oren Bar-Gill & Ryan Bubb, *Credit Card Pricing: The Card Act and Beyond*, 97 CORNELL L. REV. 967, 999–1000, 1007 (2012) (summarizing research on switching credit cards).

76. *See Finish Rich & Credit Karma*, BREAKING BANKS (Dec. 31, 2015), http://www.breakingbanks.com/finish-rich-credit-karma [http://perma.cc/C6FW-4N86].

77. *See* Lawrence M. Ausubel, *The Failure of Competition in the Credit Card Market*, 81 AM. ECON. REV. 50, 68–72 (1991); Victor Stango, *Pricing With Consumer Switching Costs: Evidence From the Credit Card Market*, 50 J. INDUS. ECON. 475 (2002).

78. Maureen K. Ohlhausen, Acting Chairman, FTC, Address at the GCR Live 6th Annual Antitrust Law Leaders Forum: The FTC's Path Ahead 1 (Feb. 3, 2017), http://www.ftc.gov/system/files/documents/public_statements/1070123/gcr_the-ftc_path_ahead.pdf [http://perma .cc/3VDV-2LSB].

79. Baxter, *supra* note 4, at 787 ("[M]easuring both competitive performance and efficiencies is an exceptionally difficult empirical exercise in which there may never be clear answers . . . .").

80. *See, e.g.*, Bar-Gill & Bubb, *supra* note 75, at 978, 1000.

81. Pub. L. No. 111-24, 123 Stat. 1734 (2009) (codified as amended in scattered sections of 15 U.S.C. (2012)).

82. *See* Bar-Gill & Bubb, *supra* note 75, at 1000.

83. *See id.* at 967; Sumit Agarwal et al., *Regulating Consumer Financial Products: Evidence From Credit Cards*, 130 Q.J. ECON. 111, 111, 115 (2015). Legal scholars examining

have saved consumers $11.9 billion.[84] Related studies have found that banks were unable to pass on about $14 billion from the Durbin Amendment in the Dodd-Frank Act, which lowered banks' revenues from interchange fees.[85]

Other studies have looked at the price effects of concentrated ownership. Among the largest banks, the same three institutional investors own 16.7 percent of JP Morgan Chase, 15.9 percent of Bank of America, 16.4 percent of Citigroup, and 14.8 percent of Wells Fargo.[86] A recent study found a "causal link from [this horizontal ownership] to higher prices for banking products."[87] The precise anticompetitive mechanism requires further examination, but other empirical analyses have concluded that investors "might be able to exert forms of power over the companies held in their portfolios."[88]

Horizontal ownership concentration can be also found among fintech startups, which are typically funded by a small group of wealthy investors—often individuals, but also venture capitalists, private equity firms, and hedge funds.[89] Additionally, large banks hold ownership stakes in fintech. The largest U.S. bank by assets, JP Morgan Chase, has invested in many fintech startups that provide competing products.[90] Since big banks' purchases of small startups can provide crucial funding, economies of scale, and geographic reach to new products, it would be premature to conclude that horizontal

competition in the credit card industry have more found "significant evidence of . . . illegal activit[y]." Macey & Holdcroft, *supra* note 3, at 1391; *see also* Adam J. Levitin, *Priceless? The Economic Costs of Credit Card Merchant Restraints*, 55 UCLA L. REV. 1321, 1324 (2008).

84. Agarwal et al., *supra* note 83, at 111, 115.

85. *See* Benjamin Kay et al., *Bank Profitability and Debit Card Interchange Regulation: Bank Responses to the Durbin Amendment* 2, 11 (Fed. Reserve Bd., Fin. & Econ. Discussion Series Working Paper No. 77, 2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2503652.

86. *See* José Azar et al., *Anti-Competitive Effects of Common Ownership* 51 (IESE Bus. Sch. Pub.-Private Sector Research Ctr., Working Paper No. WP-1169-E, 2017), http://ssrn.com/abstract=2969751 (listing ownership by Vanguard, BlackRock, and State Street).

87. *See* José Azar et al., Ultimate Ownership and Bank Competition (July 23, 2016) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id= 2710252.

88. *See* Jan Fichtner et al., *Hidden Power of the Big Three? Passive Index Funds, Re-concentration of Corporate Ownership, and New Financial Risk*, 19 BUS. & POL. 298, 298–302, 323 (2017). When multiple firms in an industry have the same owners, those firms may have less incentive to take profits away from each other. *See* Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267, 1267–68 (2016).

89. *See, e.g.*, George Walker, *Financial Technology Law—A New Beginning and a New Future*, 50 INT'L LAW. 137, 176 (2017).

90. Melissa Mittelman, *JPMorgan to Adopt Fintech Startups With In-House Incubator*, BLOOMBERG (June 30, 2016, 11:07 AM), http://www.bloomberg.com/news/ articles/2016-06-30/jpmorgan-to-adopt-fintech-startups-with-in-house-incubator [http://perma.cc/6R7D-YMT8].

ownership of fintech startups harms markets. Nonetheless, it is an area of potential concern.

Other studies have estimated the pricing effects of industry consolidation. Between 2000 and 2010 alone, the largest five banks increased their share of U.S. financial assets from 30 percent to about 50 percent.[91] Economists have connected market consolidation to lower deposit rates received by consumers on their bank account balances,[92] as well as higher rates paid by consumers for personal loans[93] and mortgages.[94] Mergers drove much of this consolidation.[95]

A recent economics study provides additional perspective on prices. Technological advances in most other industries have significantly reduced the costs of products. But by some measures financial services cost the same today as in the Gilded Age, when banks had great market power and before computers existed.[96]

D. International Technology Gap

Adoption of consumer financial technologies has proceeded more slowly in the United States than in many other countries. Mobile banking in the United States is reportedly years behind global counterparts.[97] Almost one billion Chinese consumers deposit money, make payments, and transfer funds on their

91. Robert M. Adams, *Consolidation and Merger Activity in the United States Banking Industry From 2000 Through 2010*, at 10 (Fed. Reserve Bd., Fin. & Econ. Discussion Series Working Paper No. 2012-51, 2012), http://papers.ssrn.com/sol3/ papers.cfm?abstract_id=2193886; *see also* Charles W. Murdock, *The Big Banks: Background Deregulation, Financial Innovation, and "Too Big to Fail"*, 90 DENV. U. L. REV. 505, 541–42 (2012).

92. *See, e.g.*, Robin A. Prager & Timothy H. Hannan, *Do Substantial Horizontal Mergers Generate Significant Price Effects? Evidence From the Banking Industry*, 46 J. INDUS. ECON. 433, 433 (1998).

93. *See, e.g.*, Charles Kahn et al., *Bank Consolidation and the Dynamics of Consumer Loan Interest Rates*, 78 J. BUS. 99, 100 (2005).

94. *See, e.g.*, Allen N. Berger et al., *The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future*, 23 J. BANKING & FIN. 135, 145–48 (1999); David Scharfstein & Adi Sunderam, Market Power in Mortgage Lending and the Transmission of Monetary Policy 18 (Sept. 2014) (unpublished manuscript), http://www.people.hbs.edu/dscharfstein/Mortgage-Market-Power_20140907.pdf [http://perma.cc/V5LR-ZKMG]. Findings on concentration and financial service pricing are sometimes mixed. *See, e.g.*, Isil Erel, *The Effect of Bank Mergers on Loan Prices: Evidence From the United States*, 24 REV. FIN. STUD. 1068, 1070 (2011).

95. *See infra* Part IV.A.3.

96. Thomas Philippon, The FinTech Opportunity 6 (July 2016) (unpublished manuscript), http://pages.stern.nyu.edu/~tphilipp/papers/FinTech.pdf [https://perma.cc/AW74-PB8W].

97. *See, e.g.*, Hochstein, *supra* note 57.

phones, and Chinese fintechs have a comparable number of customers as do legacy banks.[98]

The gap between the United States and some countries may result from the United States having a basic financial infrastructure that is sufficiently functional, which makes improvements less necessary. That sufficiency does not explain the gap with European countries, such as Germany, with comparably functional infrastructures.[99] In Australia, contactless payments already account for almost 40 percent of the value of credit card transactions,[100] compared to a miniscule portion of the U.S. market.[101]

Cross-country comparisons are limited due to the many variables for which it is impossible to control. Still, U.S. companies have led global digital innovation in most industries, launching the first major search engines, social networks, and transportation platforms. Google, Facebook, Uber, and other technology companies leveraged their leadership with U.S. consumers to achieve similar success abroad.[102] The gap between the United States and global fintechs is especially striking because it is the inverse of how other digital markets have progressed.

III. THE STAKES

This Part focuses on the stakes of developing effective competition policy in light of the opportunities and challenges presented by fintech. Understanding the stakes is important because policymakers and regulators can contribute to competitive shortcomings in myriad ways. In addition to the outright blocking of fintechs discussed above,[103] "the current Too Big To Fail

98. *See* James T. Areddy & Alyssa Abkowitz, *What Is A Bank? The Future of Banks on Display in China*, WALL STREET J., June 2, 2016, at C1.

99. *Digital Bank or Digital Banking?*, BREAKING BANKS (June 18, 2015), http://www.breakingbanks.com/digital-bank-or-digital-banking [http://perma.cc/ DF26-VJHK] (quoting a German executive as saying, "Whenever I log in into the traditional banks' services [in the United States], I am traveling in time fifteen to twenty years backwards.").

100. *See* Madeleine Heffernan, *$110bn: Australia's Contactless Boom*, SYDNEY MORNING HERALD (Aug. 8, 2016), http://www.smh.com.au/business/retail/110bn-australias-contactless-boom-20160805-gqmg7j.html [http://perma.cc/4KR6-FHLY].

101. *Cf.* Tripp Mickle, *Apple Pay Struggles to Gain Traction*, WALL STREET J., Apr. 6, 2017, at B4 (detailing the "disappointing" usage of Apple's contactless payment system).

102. *See, e.g.*, Tom Fairless, *Europe vs. U.S. Tech Giants: Amazon, Google and Facebook in the Spotlight at Davos*, WALL STREET J. (Jan. 20, 2015, 1:19 PM), https://www.wsj.com/articles/europe-vs-u-s-tech-giants-amazon-google-and-facebook-still-in-the-spotlight-1421777989.

103. *See supra* Part II.A.

policy . . . convey[s] an inappropriate and inefficient competitive advantage to big banks; it provides them with artificially cheap funding . . . ."[104] Also, regulators' merger decisions have in part determined the size of big banks.[105]

These competition decisions are not made in isolation. The policy designer must decide how to allocate limited resources among different regulatory goals, and must consider the possibility that pursuing one mission will undermine others. The point here is not that competition should win out over other major financial regulatory goals that currently receive greater attention, such as consumer protection and stability. An understanding of the stakes of competition is crucial to informed decisions about whether and how to advance competition in light of those other goals. As this discussion will show, competition policy is important not only in its own right for the economy, but also for how it can advance consumer protection and stability.

A. Financial Stability

Competition policy can help lessen systemic risk. Consider, for instance, what would happen if fintechs were unable to truly compete with traditional banks, whether due to laws or anticompetitive conduct by businesses. A bank's main options are to develop fintech internally, establish strategic partnerships with a fintech, or purchase a fintech.

Each of these paths would be distorted by the fintechs' inability to operate independently. Internally developing technology becomes more feasible for the bank because any fintech must find an existing bank. After finding a bank, it would need to integrate operations with an outdated structure. This dependence on banks' legacy systems introduces a delay. Due to the delay, banks choosing to develop fintech internally would have more time to recruit talent and perhaps even reverse engineer a fintech app's interface.

Additionally, the market value of the fintech would be lower because its standalone growth potential would be limited. This would disincentivize entrepreneurs from launching fintechs. It also would make it easier for banks to hire top talent away from fintechs, which would have fewer resources to offer employees, including a lower upside for any employee stock options. Negotiations for strategic partnerships would similarly put fintechs in a weaker bargaining position than if they had a standalone option.

104. Macey & Holdcroft, *supra* note 3, at 1374; *see also* Thomas Philippon, *Has the US Finance Industry Become Less Efficient? On the Theory and Measurement of Financial Intermediation*, 105 AM. ECON. REV. 1408, 1434 (2015).

105. *See infra* Part IV.A.1.b

It would be difficult for an observer to know what precise effect competition policy was having. Banks would be competing with each other, rapidly developing innovative products or acquiring other firms, which could be seen as signs of vibrant competition. In reality, it could simply be that laws restricting licenses or access to data were enabling incumbents to free ride off of challengers' innovation. Or it could be that big banks' ownership stake in various fintechs was shaping product development in directions less likely to disrupt banks.

What would be the stability implications? Technology companies often obtain market shares over 60 percent, considerably higher than the leading banks today, which have closer to 10 percent of deposits.[106] Extreme concentration in digital products can result from network effects, which occur when a product is more valuable as more people use it, as is the case for Facebook or a telephone.[107] The extent of network effects in various fintech markets remains to be seen but some would be likely.[108]

In this scenario, the leading banks would likely benefit from any network effects generated by fintech. Even five or ten percentage points of additional market share would make what are already seen as systemically risky financial institutions more dangerous. Inept competition policy would thus compromise stability by failing to allow fintechs to compete in the first place, thereby ensuring that banks can grow significantly.

An alternative reality can be imagined in which fintechs gain success without depending on banks. They might, for instance, successfully lobby for a better licensing regime or rules that give them access to data. As banks lose customers and anticompetitive profits, they would become smaller. If banking agencies were doing their jobs, the loss of customers would unfold in an orderly manner. Fintech competition could thereby lessen systemic risk, which is no small feat

106. *See supra* note 14 and accompanying text.

107. *See* John M. Newman, *The Myth of Free*, 86 GEO. WASH. L. REV. (forthcoming 2018) (manuscript at 28–29); Packin & Lev-Aretz, *supra* note 14, at 1216, 1221; Christopher S. Yoo, *When Antitrust Met Facebook*, 19 GEO. MASON L. REV. 1147 (2012).

108. Hilary J. Allen, *$=€=Bitcoin?*, 76 MD. L. REV. 877, 932–33 (2017) (concluding that distributed ledger technologies could enhance the concentration of the largest banks through network effects). Network effects vary by industry and do not necessarily justify antitrust intervention. *See* Yoo, *supra* note 107, at 1161. In finance, having more data points has already enabled lenders to make better risk predictions. *See* Lauren E. Willis, *Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price*, 65 MD. L. REV. 707, 719–20, 807–08 (2006). Better predictions drive better pricing for low-risk individuals, which attracts more customers. More customers mean more data. This positive feedback loop could raise barriers to entry by affording incumbents potentially unreproducible advantages. *See* Howard A. Shelanski, *Information, Innovation, and Competition Policy for the Internet*, 161 U. PA. L. REV. 1663, 1686–87 (2013).

given the bipartisan concerns about big banks and the lack of consensus about how to shrink them.[109]

Independent fintechs create their own manner of threat to stability. Over time, an independent fintech could become so giant and interconnected that its failure could destabilize the financial system, particularly if it held a license allowing it to accept federally insured deposits. Or an advisory fintech with 60 percent of the market could give similar advice to large numbers of consumers, creating unpredictable movements. To be sure, great concentration is not necessary for innovation to destabilize. Financial institutions did not need to capture such high portions of credit default swaps for those instruments to contribute to the 2008 financial crisis.[110] Fragmented traders' automated algorithms combined in unexpected ways to wipe out a trillion dollars in stock market value in only a few seconds during the 2010 "Flash Crash."[111] Nonetheless, concentrated fintech markets could create additional dangers from coordinated mass financial movements or systemically important fintech institutions.

Future crises are unpredictable. The main point is that competition policy can be a valuable ally for financial stability in the fintech era. Ignoring competition policy can lead to missed opportunities for reducing familiar risks in the short term and can create new threats in the long term.

B. Consumer Welfare

The "excessive rents and poor overall efficiency" in finance can harm consumers and produce a deadweight loss for the economy.[112] The magnitude of loss from financial inefficiency is unknown, but finance accounts for about 7 percent of U.S. GDP[113] and 25 to 50 percent of all corporate profits.[114] Economists have recently found substantial innovation competition benefits in other heavily regulated industries. Recent studies concluded that new airline

109. On existing views of how to approach large banks, see, for example, Levitin, *supra* note 17, at 438; Michael C. Bender & Damian Paletta, *Trump Moves to Undo Dodd-Frank—White House Says Banks Burdened by Rules Added After Financial Crisis*, WALL STREET J., Feb. 3, 2017, at A1.

110. Jeremy C. Kress, *Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity*, 48 HARV. J. ON LEGIS. 49, 49 (2011).

111. Tom C.W. Lin, *Reasonable Investor(s)*, 95 B.U. L. REV. 461, 498 (2015).

112. Philippon, *supra* note 96, at 10.

113. *Financial Services Spotlight*, SELECTUSA, http://www.selectusa.gov/financial-services-industry-united-states [http://perma.cc/ML5N-C68V].

114. FIN. STABILITY OVERSIGHT COUNCIL, 2011 ANNUAL REPORT 110 (2011).

entrants' leaner business models lowered ticket costs by 28 percent and that Uber improved driver utilization by 50 percent.[115]

Fintech has the potential to do the same for various consumer credit products. Whereas traditional lenders' expenses are about 5 to 7 percent of outstanding loans, startups have reportedly gotten that number closer to 2 percent.[116] They also charge on average four times less for transferring more moderate sums of money than do banks.[117]

In assessing these reports, it would be ideal to factor in the differential costs of regulation, and it is possible that some startups are setting unprofitably low prices to gain market share. But lower fintech prices are at least partly driven by efficiency-improving factors. Digital intermediaries have begun to make it easier for borrowers to compare the price of mortgages, which the CFPB has recognized as advancing its consumer protection goals.[118] Others have increased the speed at which payment accounts can be opened to a matter of minutes, and the time to process a loan from a week to seventy-two hours.[119] If these innovations expand broadly, the reduction in switching costs could not only improve market efficiency, but also save individual consumers thousands of dollars annually on credit card and mortgage payments.[120]

Disintermediation is another potential driver of increased consumer welfare. Payment processing fintechs have successfully removed expensive banks as intermediaries in other countries.[121] One disintermediation innovation is blockchain, a distributed ledger technology that some believe will transform finance as fundamentally as the Internet transformed communications.[122] The technology's structure makes it usable by anyone sufficiently skilled, potentially enabling even transacting parties with limited

115. On airline entrants, see John Kwoka et al., *From the Fringe to the Forefront: Low Cost Carriers and Airline Price Determination*, 48 REV. INDUS. ORG. 247, 249 (2016). On Uber, see Judd Cramer & Alan B. Krueger, *Disruptive Change in the Taxi Business: The Case of Uber*, 106 AM. ECON. REV. 177, 177 (2016).

116. *See The Fintech Revolution*, *supra* note 15, at 25; *see also* Christopher K. Odinet, *Consumer Bitcredit and Marketplace Lending*, ALA. L. REV. (forthcoming 2018).

117. *See* Sofia, *FinTech Is Pushing Banks Out of the Remittance Business*, LET'S TALK PAYMENTS (Feb. 10, 2016), http://letstalkpayments.com/fintech-is-pushing-banks-out-of-the-remittance-business [http://perma.cc/WD2A-ZCU8].

118. *See* CONSUMER FIN. PROT. BUREAU, LEVERAGING TECHNOLOGY TO EMPOWER MORTGAGE CONSUMERS AT CLOSING 11 (2015), http://files.consumerfinance.gov/f/201508_cfpb_leveraging-technology-to-empower-mortgage-consumers-at-closing.pdf [http://perma.cc/2Z3W-PRUZ].

119. *See, e.g.*, Odinet, *supra* note 116.

120. *See supra* Part II.A.

121. *See A Penny Here, A Penny There*, ECONOMIST, May 9, 2015, at 14.

122. *See, e.g.*, Gilly Wright, *Will Blockchain Enable Better Banking?*, GLOBAL FINANCE, July 2015, at 40.

resources to bypass the traditional banking system to transfer funds.[123] There is reason to be skeptical of some of the claims about likely gains from blockchain.[124] Nonetheless, it presents a potential mechanism for removing inefficient intermediaries, assuming those intermediaries are protected neither by law nor by anticompetitive conduct.

C. International Competitiveness

Less efficient and innovative U.S. financial services are problematic not only in isolation, but also from an international perspective. Scholars and regulators have inconclusively debated whether banks need to be big to maintain their international competitiveness.[125] Less well-recognized is how a lack of domestic competition may undermine U.S. financial firms' global competitiveness. Foreign financial firms may gain an edge by being subject to greater competition in their home markets, thereby being forced to innovate more and operate leanly. This creates two potential problems. First, reduced domestic competitiveness may make the United States less able to enter foreign markets. The U.S. economy has benefited in recent years from billions of dollars in revenues earned abroad by Google and other leading digital companies.[126] Given the growing portion of the global economy taken up by finance, the fintech lag could constitute a large-scale missed opportunity for U.S. firms to strengthen the economy by bringing in revenues earned abroad.

Second, in the long term, American financial firms may become more vulnerable to international competition even in domestic markets. Although U.S. licenses can shield banks from foreign fintech challengers today, distributed ledger technologies may change this. Americans are already increasingly using Bitcoin, Ethereum, and other unregulated virtual currencies based on blockchain technology.[127] Much is unknown about how such technologies will develop, and the trust offered by a governmentally overseen financial system may prove difficult to replicate.[128] If, however, an era of wide-open global finance arrives, U.S. financial institutions could find themselves suddenly

123. *See* Adam J. Levitin, *Safe Banking: Finance and Democracy*, 83 U. CHI. L. REV. 357, 443 n.316 (2016); Magnuson, *supra* note 10.
124. For instance, the skills required to use it mean that intermediaries will still be needed. *See, e.g.*, Levitin, *supra* note 123, at 443 n.316.
125. *See* Baxter, *supra* note 4, at 816–17.
126. *See* Fairless, *supra* note 102.
127. *See* Nathaniel Popper, *In Digital Coins, Bypassing Rules as You Get Rich*, N.Y. TIMES, June 24, 2017, at A1.
128. *See* Catherine Martin Christopher, *The Bridging Model: Exploring the Roles of Trust and Enforcement in Banking, Bitcoin, and the Blockchain*, 17 NEV. L.J. 139 (2016).

exposed to international competition as never before. Without U.S. regulators to insulate them, U.S. financial institutions made soft by lesser competition would be more prone to lose significant market share to foreign financial institutions than they would be if domestic markets were more competitive.

D. Distributional Implications

About 7 percent of all U.S. households and 18 percent of African American and Latino households are unbanked, which means they lack access to a federally insured bank account.[129] The unbanked pay considerably more for financial services, such as four dollars to cash a twenty-dollar check.[130] Among many contributors,[131] it can be disproportionately expensive for banks to process smaller transactions. The time spent approving and processing a loan, for instance, is similar regardless of loan size.[132] Access is further impaired because payday lenders, pawn shops, and other fringe lenders serving the unbanked often do not give information to credit reporting agencies.[133] The lack of a credit history in turn diminishes access to low-cost credit alternatives, a problem "exacerbated by the strong interaction of race and class in the communities where fringe operators have a significant presence."[134]

In theory, fintechs' lower operating costs and automation offer a partial solution by making it cheaper to provide services for smaller value loans and bank accounts. Additionally, fintechs have developed new mechanisms for predicting the creditworthiness of low-income households, including those who lack credit records.[135] Some fintechs are even using their networks to help recently unemployed borrowers of various wealth levels find jobs, making borrowers more likely to pay back loans.[136]

129. *See* Yuka Hayashi, *Ranks of the 'Unbanked' Decline*, WALL STREET J., Sept. 8, 2016, at C1.
130. Nathaniel Popper, *Helping the Unbanked*, N.Y. TIMES, Apr. 7, 2016, at F10.
131. For broader treatments of inequality in financial services, see MEHRSA BARADARAN, THE COLOR OF MONEY: BLACK BANKS AND THE RACIAL WEALTH GAP (2017); Michael S. Barr, *Banking the Poor*, 21 YALE J. ON REG. 121 (2004); and Rory Van Loo, *Consumer Law as Tax Alternative*, 96 N.C. L. REV. (forthcoming 2018).
132. *See, e.g.*, Mehrsa Baradaran, *Banking and the Social Contract*, 89 NOTRE DAME L. REV. 1283, 1336 (2014).
133. Richard R.W. Brooks, *Credit Past Due*, 106 COLUM. L. REV. 994, 997 (2006).
134. *See id.*
135. *See* Mayank Jain, *Fintech Tracker: Your Phone and Facebook Account Can Help Improve Your Credit Score*, BLOOMBERGQUINT (Jan. 28, 2017, 3:34 AM), http://www.bloombergquint.com/business/2017/01/28/fintech-tracker-your-phone-and-facebook-account-can-help-improve-your-credit-score [http://perma.cc/XWX2-8VG2].
136. *See So Far, So Good*; *SoFi*, ECONOMIST, Jan. 16, 2016 at 83.

Outside of the United States, in areas with less developed financial infrastructures and higher fintech adoption rates, mobile banking has reportedly extended financial access to millions of previously unbanked persons.[137] In probably the most comprehensive study to date, the Federal Reserve concluded that online lenders extended access to credit where it was insufficiently available.[138] Account-level data also indicated that two fintechs, Lending Club and Y-14M, had used "alternative information sources [to allow] some borrowers who would be classified as subprime by traditional criteria to be slotted into 'better' loan grades and therefore get lower priced credit."[139] At a minimum, assuming appropriate consumer protection laws are in place, innovation has the potential to reduce financial inequality.

IV. THE ORGANIZATIONAL FRAMEWORK

The discussion so far has shown that the U.S. economy may be poised to miss out on significant gains, and incur new risks, without strong competition policy. Realizing the full benefits of innovation would mean preventing anticompetitive mergers, cracking down on exclusionary conduct, and extending appropriate licensing.

All branches of government have a role to play in competition regulation. Legislatures would ideally update outdated statutes, but they lack expertise and the ability to act quickly as markets develop.[140] Courts provide important checks,[141] but are less equipped to develop market-wide

137. *See, e.g.*, Catherine Martin Christopher, *Mobile Banking: The Answer for the Unbanked in America?*, 65 CATH. U. L. REV. 221, 233–40 (2015).

138. Julapa Jagtiani & Catharine Lemieux, *Fintech Lending: Financial Inclusion, Risk Pricing, And Alternative Information* (Research Dep't, Nat'l Res. Bank of Phila., Working Paper No. 17-17, 2017), https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2017/wp17-17.pdf.

139. *Id.* at 0.

140. *See* Bar-Gill & Warren, *supra* note 29, at 84–85.

141. In the wake of the subprime mortgage crisis, the U.S. Supreme Court struck down the Office of the Comptroller of the Currency's (OCC) broad rule that would have shielded banks from state enforcement of law. *See* Cuomo v. Clearing House Ass'n, 557 U.S. 519 (2009). The Court also intervened following the passage of the 1956 Bank Holding Company Act. Bank Holding Company Act of 1956, Pub. L. No. 84-511, 70 Stat. 133 (codified as amended at 12 U.S.C. §§ 1841–1852 (2012)). In that act, Congress "relegated the Department of Justice to an advisory role" in bank mergers. Macey & Holdcroft, *supra* note 3, at 1395 n.80. The Supreme Court, however, stepped in to declare that effort inconsistent with the Sherman Antitrust Act. United States v. Phila. Nat'l Bank, 374 U.S. 321, 355 (1963); Macey & Holdcroft, *supra* note 3, at 1395 n.80.

solutions or take preventative steps.[142] Consequently, an administrative agency should play a lead role in not only enforcing existing laws but also developing and advocating new competition policies.

A. Existing Agencies' Inadequacies

Congress designed significant parts of the financial regulatory framework in the wake of economic disasters such as the Great Depression of the 1930s and the Great Recession of the late 2000s. This context means that preventing the next crisis was at the top of legislators' minds. Major legislation emphasized financial stability and, to a lesser extent, consumer protection when it was a visible part of the preceding crisis. But reformers paid scant attention to competition because it was not a salient factor in the preceding economic turmoil.[143]

Despite greater attention in recent years to systemic risk, regulators still emphasize a narrower mechanism for stability—the safety and soundness of large financial institutions.[144] Bank failures during formative crises have caused great panic and been seen as presenting the risk of economic collapse. The connection between that institutional focus and competition is not well understood, and the literature is divided as to when and whether competition

142. *See* Bar-Gill & Warren, *supra* note 29, at 75 ("[I]n the field of regulation of consumer credit markets, there is substantial consensus that [single-plaintiff] litigation is ill suited to produce the most effective results."). The lack of empirical studies of public versus private antitrust enforcement hinders any debate about their optimal degree of substitutability and complementarity. *See* D. Daniel Sokol, *Antitrust, Institutions, and Merger Control*, 17 GEO. MASON L. REV. 1055, 1081–84 (2010). They are also highly deferential to agencies on banking matters. *See, e.g.*, Clarke v. Sec. Indus. Ass'n, 479 U.S. 388, 403 (1987) (ruling that the OCC's construction of the National Bank Act is entitled to "great weight"); Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Reserve Sys., 468 U.S. 207, 221 (1984) (holding that the Federal Reserve Board's determination that banks could acquire stock brokerage firms without violating Glass-Steagall "deserves the deference normally accorded the Board's construction of the banking laws"). Furthermore, private plaintiffs are regularly denied standing under major financial competition legislation. *See* Mitria Wilson, *Protecting the Public's Interests: A Consumer-Focused Reassessment of the Standard for Bank Mergers and Acquisitions*, 130 BANKING L.J. 350, 352 (2013) (summarizing the results from every published case in which a consumer plaintiff challenged a financial regulator under banking-competition statutes and concluding standing was always denied).

143. *See* Chang, *supra* note 62, at 70; Samuel N. Weinstein, *When Systemic Risk Meets Antitrust: Dodd-Frank's Impact on Competitive Markets in the Wake of an Economic Crisis*, 21 STAN. J.L. BUS. & FIN. 286, 292, 289 (2016).

144. *See infra* notes 190–191 and accompanying text; *see also* Hilary J. Allen, *The SEC as Financial Stability Regulator*, J. CORP. L. (forthcoming) (discussing recent shifts).

harms financial stability.[145] Regardless of the objective reality, however, regulators focused on bank safety and soundness may view competition as a threat to their primary mandate. These two themes—insufficient attention to competition and overemphasizing the survival of big banks—permeate the institutional design flaws that undercut financial innovation.

1. Banking Agencies: Limited Motivation

The Federal Reserve, FDIC, and OCC—known as "prudential regulators"—are the leading bank safety and soundness and competition regulators. Safety and soundness regulation is not intended to promote bank profits. Instead, regulators require banks to have enough capital to withstand a sudden market downturn and prohibit them from excessively risky behavior. Scholars writing on topics other than competition policy have nonetheless argued that the regulatory ethos of vigilantly making sure banks do not collapse drives regulators to seek ways to increase bank profits.[146] A profitable bank is, after all, less likely to fail than an unprofitable one. The resulting mission tension between competition and stability plays out in decisions regarding both licensing and antitrust.

a. Licensing

At the federal level, the OCC licenses banks.[147] Its responsibilities include deciding which banks can obtain new licenses and interpreting the scope of existing licenses. Officially, the OCC is supposed to consider how its granting of licenses can promote competition.[148] In reality, the agency has used its licensing authority mostly in ways that would increase the revenues of those banks that already have licenses.

145. *See* Ioannis Kokkoris, *Competition vs. Stability in the Aftermath of the Crisis in the UK*, 59 ANTITRUST BULL. 31, 32 (2014).

146. *See, e.g.*, Baradaran, *supra* note 132, at 1307 ("[R]egulators felt that in order to protect bank safety, they needed to assure their profitability."); Bar-Gill & Warren, *supra* note 29, at 90 (equating bank regulators' safety and soundness mission with bank profitability); Roberta S. Karmel, *An Orderly Liquidation Authority Is Not the Solution to Too-Big-to-Fail*, 6 BROOK. J. CORP. FIN. & COM. L. 1, 2, 12–13 (2011) ("[R]egulators . . . have been complicit facilitators of bank growth because they believe that size makes banks sounder.").

147. The Federal Deposit Insurance Corporation (FDIC) can essentially veto state and federal licenses by refusing to grant deposit insurance. *See, e.g.*, Bob Solomon, *The Fall (and Rise?) of Community Banking: The Continued Importance of Local Institutions*, 2 U.C. IRVINE L. REV. 945, 965–66 (2012).

148. *See supra* note 24 and accompanying text.

The OCC has many times expanded the scope of activities allowed by its licensed banks. It interpreted the National Bank Act[149] as allowing banks to offer discount brokerage services,[150] and Glass-Steagall[151] as not preventing banks from buying, selling, and dealing in mortgage-backed securities.[152] The OCC has in other ways prioritized banks' profits over other financial law goals, including an attempt to shield banks from state prosecution for racially discriminatory lending.[153]

The OCC's bank-oriented exercise of licensing authority can be seen in its approach to fintech. The OCC has been slow either to offer fintechs traditional bank licenses or to develop a new category.[154] As a result, the OCC indirectly made fintech startups depend on banks to provide many basic financial services.[155] The OCC's head until 2017, Thomas Curry, even made this policy explicit by initially instructing his employees to find ways "to think about how we can act as a bridge [between traditional banks and fintech firms] or a clearinghouse for information to both banks that are interested in expanding their reach through technology or potentially entering into partnerships with technology firms."[156]

One interpretation of this conduct could be that the OCC was doing Wall Street's bidding. It seems at first glance an unusual move for any administrative agency, let alone one charged with promoting competition, to seek ways of facilitating growth partnerships for the already too-big banks it regulates. Facilitating growth opportunities is more what a for-profit management consulting firm would do for lucrative multi-million dollar consulting fees.[157]

149. National Bank Act of 1864, ch. 106, 13 Stat. 99 (codified as amended at 12 U.S.C. § 38 (2012)).
150. *See, e.g.*, Clarke v. Sec. Indus. Ass'n, 479 U.S. 388, 401 (1987).
151. Glass-Steagall Act of 1933, Pub. L. No. 73-66, 48 Stat. 162 (1933) (codified in scattered sections of 12 & 18 U.S.C.).
152. *See, e.g.*, Sec. Indus. Ass'n v. Clarke, 885 F.2d 1034, 1036 (2d Cir. 1989); Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Reserve Sys., 847 F.2d 890, 893 (D.C. Cir. 1988).
153. *See* Cuomo v. Clearing House Ass'n, 557 U.S. 519 (2009); *see also* Victoria McGrane, *Treasury Assails OCC on Draft Rule— Officials Say Regulator Gives National Banks Too Broad a Shield From State Consumer-Financial Laws*, WALL STREET J., June 29, 2011, at C3.
154. *See* Hochstein, *supra* note 57.
155. *See supra* Part II.A.
156. *See* Jacob Schlesinger, *The Tricky Task of Regulating Fintech: Comptroller of the Currency Thomas Curry Talks About Balancing Safety and Innovation*, WALL STREET J., June 20, 2016, at R7 (alteration in original).
157. *See generally* DUFF MCDONALD, THE FIRM: THE STORY OF MCKINSEY AND ITS SECRET INFLUENCE ON AMERICAN BUSINESS (2013).

The OCC, unlike most other regulators, is dependent on banks' payments for funding, and many have argued that it has been captured as a result.[158]

The capture explanation, however, is at odds with Curry's reputation as one of the toughest comptrollers in overseeing banks' safety and soundness[159] and with his public praise for the value of fintech competition.[160] The OCC under Curry blocked large financial institutions from potentially profitable product lines such as short-term loans (a cousin of payday lending) that would be a threat to safety and soundness.[161]

My alternative explanation—albeit one not mutually exclusive from industry capture—is mission conflict. From an organizational ethos of safety and soundness, extending licenses to fintechs can be seen as a risk because it would support institutions that pose a threat to any particular bank's profitability. Even if the OCC does not consciously seek to protect banks from competition, it lacks the institutional incentive to divert its resources away from safety and soundness monitoring to developing fintech licenses.

By way of contrast, before Curry instructed his employees to study how to promote bank-fintech partnerships, the U.K.'s financial competition regulator had launched several programs to enable fintech startups to compete, and had authorized many fintechs to enter the market.[162] That U.K. financial regulator is less conflicted than its American counterparts because it is not charged with bank safety and soundness.[163] The U.K. is an instructive reference point because it is where one of the first major fintech innovations was born, peer-to-peer lending.[164] Also, London has rivaled New York as the world's financial capital.[165]

158. *See* Wilmarth, *supra* note 48, at 1404; *see also* Adam J. Levitin, *The Politics of Financial Regulation and the Regulation of Financial Politics: A Review Essay*, 127 HARV. L. REV. 1991, 1994 (2014) (book review).

159. *See* Ben Protess, *From London Whale to Wells Fargo, a Bank Regulator Looks Back*, N.Y. TIMES, May 6, 2017, at B5.

160. *See* Schlesinger, *supra* note 156 (noting Curry's support for fintech bringing competitive pressure to banks).

161. *See* Yuka Hayashi, *Banks Want a Piece of the Payday-Loan Pie*, WALL STREET J., May 22, 2017, at B8.

162. *See* John Thornhill, *Regulators Have a Chance to Loosen the Reins on Fintech*, FIN. TIMES, May 9, 2016, at 9 (mentioning also a regulatory sandbox).

163. *See About Us*, FIN. CONDUCT AUTHORITY, http://www.the-fca.org.uk/about [http://perma.cc/2R8Y-NKG2] (noting its goals of "[p]rotecting consumers," "[e]nhancing market agency," and "[p]romoting competition").

164. Zachary Adams Mason, *Online Loans Across State Lines: Protecting Peer-to-Peer Lending Through the Exportation Doctrine*, 105 GEO. L.J. 217, 218 (2016).

165. *See, e.g.*, Arthur Kimball-Stanley, *A Tale of Two Cities: Regulating Equity Derivatives in New York and London*, 32 B.C. INT'L & COMP. L. REV. 455, 455 (2009).

At a more delayed pace, the OCC has explored the possibility of considering applications for special-purpose fintech charters.[166] It remains to be seen whether this new license will address fintech entry barriers, but there are grounds for skepticism. The license has come under criticism for imposing excessively tough requirements on fintech applicants, particularly start-ups.[167] The goal of eliminating barriers to entry is also at odds with how the OCC announced the new licensing effort. The OCC emphasized that the new license would not "weaken the competitive position of existing banks" but, if anything, would "level the playing field" by ensuring regulations currently applied to national banks also applied to fintech.[168]

Even if the OCC eventually offers fintech licenses perfectly, the delay in taking that step may have insulated established banks long enough to enable them to develop their own technologies and partnerships. One year after JP Morgan Chase CEO Jamie Dimon warned shareholders that "Silicon Valley is coming," he triumphantly assured them, "We have built our own extraordinary in-house big data capabilities—we think as good as any in Silicon Valley."[169] Continued discretion by the OCC will be required in granting new licenses and in adapting licensing to changing financial markets. The OCC lacks the institutional structure to foster healthy competition in those future decisions.

As another perspective on the relationship between institutional motivation and mission, the CFPB has no stability mandate and instead focuses on consumers' interests.[170] Long before the OCC took any action to consider special-purpose licenses, the CFPB developed a program, Project Catalyst, to reduce fintech uncertainty and encourage innovation. The program lets innovative financial firms apply for "no-action letters." These letters would state the agency's intention not to bring an enforcement action against a company introducing a new financial product—if that product had the potential for "substantial consumer benefit."[171] This policy contrasts with the OCC's stated

166. *See* Lalita Clozel, *OCC Grants Fintech Request to Join the Banking System*, AM. BANKER, Jan. 2017, at 8.

167. *See, e.g.*, Lalita Clozel, *The Hurdle Is High, After All*, AM. BANKER, May 2017, at 8.

168. Thomas J. Curry, Comptroller of the Currency, Address at Georgetown University Law Center Regarding Special Purpose National Bank Charters for Fintech Companies (Dec. 2, 2016), http://online.wsj.com/public/resources/documents/CurrySpeech1202.pdf [http://perma.cc/ LDN7-GUXG].

169. *See* Alexander Eule, *Big Financials Take on Fintech; PayPal Caves With Visa Deal*, BARRON'S, July 25, 2016, at 23.

170. *See, e.g.*, CONSUMER FIN. PROT. BUREAU, *supra* note 118, at 1.

171. *See* Kelly Thompson Cochran, *The CFPB at Five Years: Beyond the Numbers*, 21 N.C. BANKING INST. 55, 82 (2017).

goal of promoting "collaboration"[172] and helping "banks that are interested in expanding their reach through technology or potentially entering into partnerships with technology firms."[173] The CFPB's focus was on innovation benefitting consumers; the OCC's on innovation benefitting banks.

b. Antitrust

Antitrust authority in finance lies with different agencies, depending on which financial institution is involved, which laws are implicated, and the type of deal.[174] Anticompetitive mergers or conduct can give a bank extra profits, making its financial position more immediately stable. The resulting organizational conflict with bank safety and soundness is relevant to banking regulators' broader role in antitrust, but the rest of this Part focuses on bank mergers because the FDIC, OCC, and Federal Reserve are the most important actors in that area.[175] Additionally, mergers increase industry concentration, one of the factors empirically linked to the competition shortcomings discussed above.[176]

Merger law did not traditionally accommodate financial stability considerations to any great extent.[177] But federal agencies arguably view consolidation as increasing stability, causing them to treat antitrust policy goals as "subordinate to stability concerns."[178] The 2010 Dodd-Frank Act leaves prioritization unclear but directs the responsible banking regulator to consider "risks to the stability of the United States banking or financial system" in approving or denying a merger.[179]

Even without a clear statutory mandate or explicit intent, financial regulators are susceptible to irrationally prioritizing stability over competition

172. *See* OFFICE OF THE COMPTROLLER OF THE CURRENCY, SUPPORTING RESPONSIBLE INNOVATION IN THE FEDERAL BANKING SYSTEM: AN OCC PERSPECTIVE 10 (2016), http://www.occ.gov/publications/publications-by-type/other-publications-reports/pub-responsible-innovation-banking-system-occ-perspective.pdf [http://perma.cc/FF47-K9VJ].
173. Schlesinger, *supra* note 156.
174. This discussion omits the international dimension of antitrust. *See* Sokol, *supra* note 142, at 1093.
175. When a deal is between two banks, the relevant prudential regulator shares jurisdiction with the Department of Justice (DOJ). *See* 12 U.S.C. § 1828(c)(2) (2012). For the DOJ's role, and reliance on prudential regulators, see *infra* Part IV.A.2.
176. *See supra* Part II.C.
177. *See* Macey & Holdcroft, *supra* note 3, at 1391, 1393.
178. *Id.* at 1394 (quoting David M. Kaden, The Next *Philadelphia National Bank*: Reclaiming Antitrust Law for Bank Competition Policy 6 (May 20, 2010) (unpublished manuscript)).
179. Dodd-Frank Wall Street Reform and Consumer Protection Act § 604(d), 12 U.S.C. § 1842(c)(7); *see id.* §§ 1843(j)(2)(A), 1828(c)(5).

because core parts of antitrust analyses are imprecise. Analyzing the tradeoff between procompetitive and anticompetitive effects can be "as much an exercise in judgment as mathematics."[180] For bank mergers, antitrust authorities consider "whether the parties have demonstrated that the merger will yield efficiencies sufficient to offset any anticompetitive effects."[181] Predicting anticompetitive effects, such as higher consumer prices, requires modeling a dynamic future economy with countless variables. That analysis is uncertain in any industry,[182] and it is particularly "difficult to demonstrate anticompetitive effects in the case of banking."[183]

In contrast, the cost savings from bank mergers are more concrete. Prior to the merger, cost cuts can be identified from overlapping bank branches closed or jobs eliminated. Thus, asking a prudential regulator to block a merger amounts to asking it to bet on an indeterminate, possible advancement of its secondary mission—competition—rather than the more concrete and likely advancement of its primary mission of making a bank more safe and sound.

Presumably, bank regulators would not consciously promote anticompetitive banks. From a psychological perspective, however, jobs and institutional affiliations influence how individuals process information and form conclusions.[184] Observers saw a similar mission focus leading up to the financial crisis of 2008. During that time, prudential regulators ignored concrete evidence of predatory lending and consumer protection violations that brought significant profits to banks.[185] Moreover, that predatory lending contributed to a mortgage crisis that helped trigger institutional failures and a

180. Rebecca Haw Allensworth, *The Commensurability Myth in Antitrust*, 69 VAND. L. REV. 1, 1 (2016).

181. Robert E. Litan, Deputy Assistant Attorney Gen, U.S. Dep't of Justice, Address at the Antitrust Section of the ABA: Antitrust Assessment of Bank Mergers (April 6, 1994), https://www.justice.gov/atr/speech/antitrust-assessment-bank-mergers [https://perma.cc/T8S3-T6LK].

182. Competition may force the firm to pass on its cost savings to consumers. Alternatively, the smaller number of remaining firms may settle on a higher pricing equilibrium.

183. Baxter, *supra* note 4, at 833. Once the government establishes a prima facie case, however, concrete efficiencies alone will not enable a defendant to prevail. *See* FTC v. Sysco Corp., 113 F. Supp. 3d 1, 82–83 (D.D.C. 2015).

184. *See* Christoph Engel & Elke U. Weber, *The Impact of Institutions on the Decision How to Decide*, 3 J. INSTITUTIONAL ECON. 323, 339–40 (2007) ("Institutions frequently have an impact on the execution of tasks.").

185. Yet prudential regulators' prioritization of safety and soundness endured in the face of clear evidence about consumer protection violations—such as loans that did not meet the letter of the law. *See* Engel & McCoy, *supra* note 28, at 1317–18; *see also* Bar-Gill & Warren, *supra* note 29, at 90.

recession.[186] Thus, prudential regulators paid insufficient attention to a subordinate mission—consumer protection—even though it in many ways turned out to support the broader purpose of their dominant safety and soundness mission.

A final consideration that may hinder regulatory action is visibility. If a bank fails, the prudential regulator would expose itself to intense public blame because the bank's collapse would be evident.[187] But if the regulator allows a merger that slightly increases credit product prices in a few years or even immediately, public backlash is far less likely.[188] Even in the face of great unpopularity, Wall Street has in recent years succeeded in obstructing reforms mandated by recent federal legislation.[189] There is little institutional reason to expect prudential regulators to take a strong position against potentially anticompetitive bank conduct or mergers based on uncertain, probabilistic analyses. Nor can they be expected to devote substantial resources to those causes.

The Dodd-Frank Act sought both to end "Too Big to Fail" banks and to improve financial stability. It did so largely by expanding prudential regulators' safety and soundness activities.[190] Dodd-Frank also empowered a new body, FSOC, to restrict the growth of a systemically important financial institution (most prominently, a large bank), by preventing it from merging or offering certain products.[191] But "[t]he twin goals of Dodd-Frank are to ensure the stability of the financial system and to protect consumers,"[192] a reflection of the immediately preceding mortgage and financial crisis. The Act's growth-limiting

186. *See* Steven L. Schwarcz, *Markets, Systemic Risk, and the Subprime Mortgage Crisis*, 61 SMU L. REV. 209, 209 (2008).

187. This would be especially true if a regulator blocked a deal that would have likely strengthened the bank.

188. Of course, failing to block a problematic merger could also have repercussions. *See, e.g.*, Sokol, *supra* note 142, at 1074. But prices in finance are very difficult to understand and compare even at the same point in time. *See* Bar-Gill & Warren, *supra* note 29, at 13. It would be especially difficult for the public to observe subtle price differences in credit products from mergers even over short time periods. Nor have economists' findings of such results attracted great attention. *See* Daniel A. Crane, *Technocracy and Antitrust*, 86 TEX. L. REV. 1159, 1160–66 (2008) (providing statistical evidence of a decline in "antitrust's national political salience").

189. *See* Wilmarth, *supra* note 48, at 1283.

190. The Act attempted to achieve this goal largely by supervising financial institutions more closely, requiring a firm to have more capital available, mandating resolution planning, and establishing a special resolution regime for financial institutions. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act § 171, 12 U.S.C. § 5371 (2012); *id.* § 5384; 15 U.S.C. § 8323.

191. *See* 12 U.S.C. §§ 1852(a), 5331(a).

192. Tanya D. Marsh, *Reforming the Regulation of Community Banks After Dodd-Frank*, 90 IND. L.J. 179, 224 (2015).

provisions were not designed to advance competition, and prudential regulators' approval is required for the exercise of these provisions.[193] Whereas prudential regulators have implemented the Dodd-Frank institutional safety and soundness mandates,[194] FSOC's growth-limiting authority has yet to be used. Prudential regulators' competition leadership reduces the weight of consumer welfare in the antitrust analysis.

2. The DOJ and FTC: Limited Expertise and Authority

The DOJ and FTC share antitrust authority over most industries. But to develop market-specific expertise, they have largely divided up responsibilities, with the DOJ taking the lead for finance.[195] The DOJ may have previously provided more of an independent perspective on banking antitrust enforcement. Many court battles through the early 1980s featured the DOJ and prudential regulators on opposite sides, sometimes in front of the U.S. Supreme Court.[196] Since 1985, however, the DOJ has developed a highly "cooperat[ive]" and "collegial" merger relationship with prudential regulators.[197] Institutional dynamics, statutes, and jurisprudence increase the likelihood that the DOJ will defer to prudential regulators for bank merger decisions, and possibly make the DOJ less active in other areas.

Growing DOJ reliance on prudential regulators was a natural result of the evolution of antitrust analyses and financial markets. Starting in the 1980s, financial institutions began to reach a size and complexity never seen before. As OCC Comptroller John Hawke recounted in 2004:

> Derivatives trading, hedging, securitization, credit scoring, and structured finance, which are all routine parts of banking today, were exotic or nonexistent 30 years ago. . . . In 1960, there were only three banks with real assets of $25 billion or more; in 2000 that number had

193. A two-thirds vote is required to restrict large financial institutions' growth, and prudential regulators make up more than one-third of voting members. *See* 12 U.S.C. §§ 5513(c)(3)(A), 5321, 5331.

194. Margaret Ryznar et al., *Implementing Dodd-Frank Act Stress Testing*, 14 DEPAUL BUS. & CO. 323, 325 (2016).

195. *See The Enforcers*, FTC, http://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/enforcers [http://perma.cc/3R8F-L6UD]. The division of industries is consistent with growing economic awareness of the importance of market-specific antitrust analyses. *See, e.g.*, Richard J. Sexton & Nathalie Lavoie, *Food Processing and Distribution: An Industrial Organization Approach*, *in* 1 HANDBOOK OF AGRICULTURAL ECONOMICS 863, 865–66 (Bruce L. Gardner & Gordon C. Rausser eds., 2001).

196. *See* J. Robert Kramer II, *Antitrust Review in Banking and Defense*, 11 GEO. MASON L. REV. 111, 116 (2002).

197. *See id.* at 117.

> risen to 34. . . . After the most recent mergers, the U.S. now has three banking companies with over one trillion in assets.[198]

Whereas a single OCC safety and soundness examiner could, until the 1980s, come in to a medium-sized bank and go through the books in a day,[199] examinations now take months or, at the largest banks, require scores of year-round "resident" examiners.[200]

The agency with greater market-specific expertise in any financial analysis is the prudential regulator. The DOJ has admitted that it leans so heavily on prudential regulators that it conducts banking merger reviews "with many fewer resources than in its merger reviews in other industries."[201] Even if the DOJ devoted the same amount of resources to each industry, it would mean about forty-four full-time equivalent employees for consumer financial matters.[202] In contrast, the FDIC has over 6000 employees and the OCC almost 4000 devoted solely to financial regulation,[203] in addition to the Federal Reserve's over 16,000 total employees focused on diverse financial goals.[204] Another way of conceptualizing the gap is that the OCC has more examiners devoted full-time, year-round to examining a single large bank today, such as Bank of America, than the DOJ devotes to competition issues for the entire banking system. This resource imbalance could make it more difficult for the DOJ to provide an independent and informed perspective whenever a banking agency is involved.

Limited resources devoted to financial markets, along with how those resources are organizationally structured, may undermine the DOJ's ability to

198. John D. Hawke, Jr., Comptroller of the Currency, Address at a Conference on Credit Rating and Scoring Models 6–8 (May 17, 2004), http://www.occ.gov/static/news-issuances/speeches/ 2004/pub-speech-2004-36.pdf [http://perma.cc/8F3N-6BPF].

199. *See id.* at 2–5.

200. Levitin, *supra* note 158, at 2044.

201. *See* Kramer, *supra* note 196, at 117.

202. This was calculated by 705 employees divided by 32 industries, then multiplied by two. The numbers were derived from E-mail from Jenna A. Simotes, U.S. Dep't of Justice Office of Pub. Affairs, to author (May 10, 2017) (on file with author) (stating that the DOJ Antitrust Division has 705 employees), and *Sections and Offices*, U.S. DEP'T JUST., https://www.justice.gov/atr/sections-and-offices [https://perma.cc/F9PB-RYED] (listing thirty-two different industries covered by the DOJ Civil sections, including credit cards and banking).

203. FDIC, 2016 ANNUAL REPORT 156 (2017) (listing 6096 employees); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2016 ANNUAL REPORT, at iii (2016) (listing 3955 employees).

204. BD. OF GOVERNORS OF THE FED. RES. SYS., 102ND ANNUAL REPORT 308 (2015). Only a fraction of these employees would be regularly involved in merger analyses, but the larger group can be consulted in forming the regulator's institutional conclusion.

execute duties even when financial regulators lack antitrust authority. The DOJ's Antitrust Division is split across eighteen sections and offices, with banking being one of seven industries in the "Litigation II Section," along with numerous others such as highway construction and waste.[205] Credit cards and other financial services would be handled in the "Networks and Technology Enforcement Section," along with various other industries such as hardware manufacturing and professional associations.[206] The criminal division would also handle financial matters. The co-location of non-bank financial services with technology offers some advantages for dealing with the technological side of fintech. But the dispersed location of limited financial competition resources across three sections, intermixed with unrelated industries, makes it organizationally challenging to keep up with market changes driven by financial innovation.

Additionally, the DOJ has a narrower mandate in merger analyses because it can only consider the competition implications of a deal. The DOJ must defer to prudential regulators' perspective on what the financial system needs, since they are statutorily charged with such considerations.[207] Prudential regulators are further allowed to approve a deal "whose effect . . . may be substantially to lessen competition, or to tend to create a monopoly" if "the anticompetitive effects of the proposed transaction are clearly outweighed in the public interest by the probable effect of the transaction in meeting the convenience and needs of the community to be served."[208] Putting financial competition expertise aside, the DOJ lacks the ability to speak to other considerations that could be determinative.

Finally, Supreme Court jurisprudence likely discourages the DOJ from taking action in fintech. In *Credit Suisse v. Billing*, the Court found that securities laws can give immunity from an antitrust claim.[209] Part of the reasoning was that there is a "fine, complex, detailed line separat[ing] activity that the [Securities Exchange Commission (SEC)] permits or encourages (for which respondents must concede antitrust immunity) from activity that the SEC must (and inevitably will) forbid."[210] As one of the factors in determining whether regulation supersedes antitrust, the Court

205. *See* E-mail from Jenna A. Simotes, *supra* note 202 (giving employee count); *Sections and Offices*, *supra* note 202.
206. *Sections and Offices*, *supra* note 202.
207. Dodd-Frank Wall Street Reform and Consumer Protection Act § 604(d), (e)(1), (f), 12 U.S.C. §§ 1842(c), 1843(j)(2)(A), 1828(c)(5) (2012).
208. Bank Merger Act, 12 U.S.C. §§ 1842(c)(2), 1828(c)(5)(B).
209. Credit Suisse Sec. (USA) LLC v. Billing, 551 U.S. 264, 276 (2007).
210. *Id.* at 279.

also considered "the existence of regulatory authority under the securities law to supervise the activities in question."[211] Commentators have interpreted this ruling, and the preceding *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*[212] decision, as curtailing the DOJ's ability to intervene in heavily regulated markets.[213] Even though not on point,[214] these rulings may provide additional reason for further DOJ deference to prudential regulators given their broad supervision of banking activities.

3. Summary of Mismatch

U.S. financial competition policy lacks agency leadership. The DOJ has no antitrust rulemaking ability,[215] and the FTC has used its antitrust rulemaking authority only once, in the 1960s.[216] Prudential regulators have not developed policies enabling fintechs to meaningfully compete.[217] Faced with banks blocking fintech advisers' access to customer data,[218] the U.K. was able to rely on an unconflicted financial competition regulator to write rules prohibiting such conduct so that consumers could better compare products.[219] Congress passed legislation in 2010 asking the CFPB to decide whether to write such rules.[220] Choosing the CFPB, an agency focused on consumer protection, to do what is arguably more of a competition task speaks to the lack of any true financial competition authority. The CFPB has written numerous consumer protection rules since 2010, but has yet to write a rule on data access.

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211. *Id.* at 275.
212. 540 U.S. 398 (2004).
213. *See, e.g.*, Howard A. Shelanski, *The Case for Rebalancing Antitrust and Regulation*, 109 MICH. L. REV. 683, 684, 713 (2011).
214. The Court has held that the Bank Merger Act did not immunize mergers from federal antitrust laws. United States v. Phila. Nat'l Bank, 374 U.S. 321, 350 (1963).
215. Hillary Greene, *Guideline Institutionalization: The Role of Merger Guidelines in Antitrust Discourse*, 48 WM. & MARY L. REV. 771, 841 (2006) ("The DOJ enjoys no express or implicit grant of rulemaking authority within the antitrust realm.").
216. *See* Royce Zeisler, Note, Chevron *Deference and the FTC: How and Why the FTC Should Use* Chevron *to Improve Antitrust Enforcement*, 2014 COLUM. BUS. L. REV. 266, 282 ("Excluding the single Clayton Act rule, the [Federal Trade Commission (FTC)] has not issued rules under its antitrust mandate."); *see also* C. Scott Hemphill, *An Aggregate Approach to Antitrust: Using New Data and Rulemaking to Preserve Drug Competition*, 109 COLUM. L. REV. 629, 677–81 (2009) (arguing for greater FTC exercise of its antitrust rulemaking authority).
217. *See supra* Part IV.A.1.
218. *See supra* Part II.A.
219. *See* James Eyers, *Banks Resist Fintech Push for Open Data Regime*, AUSTRALIAN FIN. REV. (Aug. 22, 2016, 9:01 AM), http://www.afr.com/technology/banks-resist-fintech-push-for-open-data-regime-20160816-gqthn0 [https://perma.cc/D68Q-KW2N].
220. *See infra* note 256 and accompanying text.

Outside of banking, the DOJ has shown some motivation to prosecute large financial institutions for conduct. It has compelled major credit card companies to abandon contract agreements limiting merchants' ability to offer discounts to customers for other forms of payment.[221] Those cases, however, lacked the same finance-specific expertise constraints, since the contracts at issue were with merchants ranging from restaurants to retail stores. In other contexts, observers have noted a lack of antitrust action, such as slowness to respond to exclusionary tactics preventing new entrants in credit card and derivative markets.[222] More study is needed of the extent to which the DOJ consults prudential regulators in conduct investigations, since statutes do not require such consultation in the same way as for ex ante blocking of mergers.[223]

In banking, mergers have for decades occurred largely unobstructed. Between 1980 and 2009 almost 11,000 banking mergers occurred, and "during this time, no regulator challenged a prospective merger involving an institution with more than $1 million in assets on antitrust grounds."[224] Banks have, however, been required at times to divest bank branches.[225] Mergers and high market concentration have increased banks' market power,[226] but studies are inconclusive as to whether mergers have brought efficiencies.[227] The three biggest bank holding companies, Citigroup, JP Morgan Chase, and Bank of America, are the result of numerous mergers approved, and at times encouraged, by financial regulators.[228] These banks also each received costly bailouts during the most recent financial crisis.[229]

Following the 2008 financial crisis, regulators are much more likely to block a mega-merger among the largest banks, and Dodd-Frank took steps

221. United States v. Am. Express Co., No. 10-CV-4496, 2011 WL 2974094, at *1 (E.D.N.Y. July 20, 2011).
222. *See* Felix B. Chang, *Second-Generation Monopolization: Parallel Exclusion in Derivatives Markets*, 2016 COLUM. BUS. L. REV. 657, 660; Hemphill & Wu, *supra* note 7, at 1202 (articulating the problem of parallel exclusion, including by credit card companies).
223. *See* 12 U.S.C. § 1828 (2012) (omitting any mention of joint jurisdiction for conduct).
224. *See* Macey & Holdcroft, *supra* note 3, at 1391.
225. *See, e.g.*, Society Corp. and Ameritrust Corp., 57 Fed. Reg. 10,371 (Dep't of Justice, Mar. 25, 1992) (notice of final judgment). Prudential regulators are generally required to consult the DOJ for a competitive report on proposed bank merger transactions, and the DOJ's ability to challenge transactions gives it "significant leverage in negotiating procompetitive divestitures." *See* Weinstein, *supra* note 143, at 331–32.
226. *See supra* notes 92–94.
227. *See* Erik Devos et al., *Efficiency and Market Power Gains in Bank Megamergers: Evidence From Value Line Forecasts*, 45 FIN. MGMT. 1011, 1011 (2016).
228. *See* Karmel, *supra* note 146, at 8; David Zaring, *Administration by Treasury*, 95 MINN. L. REV. 187, 208 (2010) (discussing the U.S. Treasury's role in facilitating mergers).
229. *See, e.g.*, Karmel, *supra* note 146, at 1, 8.

toward making sure that happens.[230] Nonetheless, in recent years, regulators have continued to allow a range of deals, including "large and unusual alliances among banks, software and hardware developers, and other non-bank entities."[231] Regulators presented no obstacles to big banks' wave of small-scale fintech strategic acquisitions,[232] which could serve as a tremendous source of growth.[233] Larger deals have also been recently allowed, such as the Federal Reserve's 2012 approval of Capital One's $6.3 billion purchase of one of the most popular online account providers, ING Direct, thereby making Capital One the sixth-largest depository institution.[234] The OCC has not denied any of the 455 merger applications it received between 2012 and 2016.[235]

A long history of inaction does not by itself mean ineffective policy.[236] The evidence overall indicates, however, substantial competitive shortcomings in financial markets and a flawed regulatory design. No single agency has the expertise, motivation, and authority to advance competition.

B. A New Proposal

Interdisciplinary research has underscored that in designing regulators, "a key danger to avoid is giving a single agency conflicting responsibilities."[237] Policymakers have in other spheres reallocated divergent mandates into

230. 12 U.S.C. § 1852(b) (2012) (prohibiting mergers that would create an entity beyond the concentration limit of 10 percent of aggregate financial sector liabilities). The restrictions are subject to recommendation and numerous exceptions, such as when the bank to be acquired is in "danger of default." *Id.* § 1852(b)–(c).

231. Marty Fisher-Haydis & Kara R. Yancey, Note, *Electronic Banking*, 16 ANN. REV. BANKING L. 76, 99 (1997).

232. *Cf. Antitrust Case Filings*, U.S. DEP'T JUST., http://www.justice.gov/atr/antitrust-case-filings [http://perma.cc/XDW2-XYHT]; *supra* Part I.A.

233. *See supra* Part III.A.

234. H. Rodgin Cohen, *Preventing the Fire Next Time: Too Big to Fail*, 90 TEX. L. REV. 1717, 1741 (2012); Press Release, Capital One, Capital One Completes Acquisition of ING Direct (Feb. 17, 2012), http://press.capitalone.com/phoenix.zhtml?c=251626&p=irol-newsArticle&ID=1858727 [http://perma.cc/S2GM-CEJU].

235. *See* OFFICE OF THE COMPTROLLER OF THE CURRENCY, *supra* note 203, at 30; OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2015 ANNUAL REPORT 26 (2015); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2014 ANNUAL REPORT 37 (2014); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2013 ANNUAL REPORT 37 (2013); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2012 ANNUAL REPORT 31 (2012). These figures include failure transactions.

236. It is impossible to know how many harmful mergers were never pursued because banks thought regulators would object. Also, inaction by itself cannot demonstrate ineffectiveness, as a correct decision not to intervene is valuable to society.

237. *See* Rachel E. Barkow, *Insulating Agencies: Avoiding Capture Through Institutional Design*, 89 TEX. L. REV. 15, 50 (2010); Young Han Chun & Hal G. Rainey, *Goal Ambiguity in U.S. Federal Agencies*, 15 J. PUB. ADMIN. RES. & THEORY 1 (2005).

separate bodies following high-stakes agency failures, such as those surrounding the BP Deepwater Horizon oil spill and the September 11, 2001 terrorist attacks. These organizational design changes have reached offshore oil production,[238] consumer protection,[239] atomic energy, federal labor, and emergency management.[240] Financial competition is less immediately identifiable as the cause of a disaster, but is too crucial in a rapidly evolving economy to be neglected due to co-location with stability regulation.

Generalist antitrust agencies could on their own initiative do more, but it would not be ideal to rely on them for leadership in a complex and idiosyncratic industry. Among other complicating factors, excess size in banking brings industry-specific considerations such as taxpayer bailouts and systemic risk.[241] Yet antitrust agencies continue to apply the same blanket cross-industry antitrust rules, such as not requiring pre-approval for mergers under about a $323 million threshold.[242] A finance-specific reevaluation is needed to determine the appropriate criteria for approving big banks' purchase of small fintechs, and more broadly to implement a tailored competition policy in the fintech era.

To address current regulatory shortcomings, Congress should task a different agency (or agencies)[243] with leadership of financial competition. Other agencies such as the DOJ's Antitrust Division and the OCC could retain secondary authority.[244] The following features would make an institutional home(s) for competition leadership more attractive: (1) minimal mission conflict; (2) relevant technological, institutional, and market expertise; and (3) a

238. *See* Hari M. Osofsky, *Multidimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 FLA. L. REV. 1077 (2011).

239. *See supra* note 30 and accompanying text.

240. HENRY B. HOGUE, CONG. RESEARCH SERV., R41485, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL 25–30 (2010).

241. *See* Macey & Holdcroft, *supra* note 3.

242. Smaller deals are more difficult for antitrust authorities, as only mergers above a certain threshold, about $323 million depending on deal type, would require pre-approval by the DOJ. Revised Jurisdictional Thresholds for Section 7A of the Clayton Act, 82 Fed. Reg. 8524 (Jan. 26, 2017).

243. For example, the same agency could, but need not, enforce both licensing and antitrust. Indeed, licensing duties might feasibly be separated into the licensing of depository institutions receiving FDIC insurance, and non-depository institutions.

244. The U.K.'s safety and soundness regulator has "a secondary objective to facilitate effective competition." *Prudential Regulation Authority*, BANK ENG., http://www.bankofengland.co.uk/pra/Pages/default.aspx [http://perma.cc/C68V-NUHR]. Partnerships between the proposed competition body and prudential regulators are also possible for licensing new entrants, as has happened in the U.K. Arner et al., *supra* note 44, at n.184.

culture conducive to both writing and enforcing laws. Three potential locations for such an entity are briefly considered here, before turning to the issue of interagency coordination.

1. The CFPB as Competition Enforcer

Among existing agencies, the CFPB is most immediately set up for success in writing competition rules, developing fintech startup licenses, and enforcing antitrust. Above all, competition law's goals are largely aligned with the CFPB's mission. The CFPB is the only federal agency focused on advancing the financial interests of consumers. The predominant view in the United States is that antitrust law aims to advance consumer welfare, with a particular focus on low consumer prices.[245] Consumer protection and competition policy are complementary because they both advance consumer welfare and resist anticompetitive pricing.[246] Due to their complementary missions, consumer protection and antitrust are in other countries commonly housed together separate from the primary financial stability regulator—a model known as "twin peaks."[247] U.S. lawmakers have, in industries other than finance, co-located authority for consumer protection and antitrust in a single agency.[248]

The CFPB's activities demonstrate the alignment of missions. The bureau has acted quickly to develop incubator policies supporting fintech innovation.[249] The CFPB would incur little, if any, mission conflict in prioritizing the needs of consumers and the communities that banks serve by enabling fintech startups to compete. Preventing deception and other consumer protection goals makes markets more competitive by ensuring consumers have the information they

245. *See* Macey & Holdcroft, *supra* note 3, at 1392 ("[The] U.S. approach to antitrust policy . . . generally embraces the idea that the only appropriate concern of antitrust law is to promote and protect competition so that the prices paid by consumers will be as low as possible."); *Guide to Antitrust Laws*, FTC, http://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws [http://perma.cc/KVG6-ZZDM] (explaining its enforcement of antitrust laws serves to "promote vigorous competition and protect consumers from anticompetitive mergers and business practices").

246. *See, e.g.*, Rory Van Loo, *The Corporation as Courthouse*, 33 YALE J. ON REG. 547, 582–83 (2016) (linking competition and consumer protection in the context of dispute resolution); *see also, e.g.*, Joshua D. Wright, *The Antitrust/Consumer Protection Paradox: Two Policies at War with Each Other*, 121 YALE L.J. 2216, 2216 (2012) (acknowledging complementarities between antitrust and consumer protection).

247. *See* Allen, *supra* note 32, at 1140.

248. The FTC has consumer protection and competition authority in many industries, including health care. *See, e.g.*, William E. Kovacic & David A. Hyman, *Consume or Invest: What Do/Should Agency Leaders Maximize?*, 91 WASH. L. REV. 295, 310 (2016).

249. *See supra* Part IV.A.1.a.

need to make effective decisions.[250] The importance of informed consumers for the CFPB's mission explains its support for advisory fintechs.[251]

The CFPB also has three areas of relevant expertise: technology, fintech business models, and consumer markets. Issuing effective fintech licenses requires adapting to fast-changing markets and innovative business models and products.[252] Because the CFPB was created in 2011 with a heavy technology orientation, it may be the most technologically sophisticated financial regulator. The agency has even launched its own suite of online tools for helping consumers to make better decisions, such as a mortgage calculator that gives home buyers tailored interest rate advice.[253]

The CFPB has various regulatory responsibilities that require the agency to gain expertise about consumer fintech business models that other financial regulators lack. It has already undertaken enforcement actions against fintechs for consumer protection violations.[254] The CFPB is unique among federal regulators in its ability to supervise both banks and nonbanks.[255] Because many fintech startups are nonbanks offering similar services as banks, and because many aspire to become banks, the CFPB is far more familiar than prudential regulators with the array of organizations needing licenses and seeking to merge with banks. The CFPB gained further fintech competition expertise due to the three-year study it recently undertook, by statutory mandate, to determine what data financial institutions should be required to share with fintechs.[256]

Finally, the CFPB has relevant consumer financial market expertise, especially relative to the two primary antitrust agencies, the DOJ and FTC. It has a markets and research group filled with economists who study consumer transactions. This research group analyzes the efficiency and competition implications of a given consumer finance rule.[257] Besides the fact that the DOJ presumably has about forty-four full-time employees devoted to finance, when the DOJ and FTC analyze banking mergers, they draw on a general pool

250. John Y. Campbell et al., *Consumer Financial Protection*, J. ECON. PERSP., Winter 2011, at 91, 107–08.
251. *See supra* note 118 and accompanying text.
252. *See supra* Part IV.A.1.a.
253. *See* Van Loo, *supra* note 40, at 1305–06.
254. *See* Erin J. Illman, *CFPB Focuses on Financial Technology in 2016—Expect More for 2017*, BANKING & FIN. SERV. POL'Y REP., Jan. 2017, at 1, 2.
255. Steven Antonakes, Deputy Dir., Consumer Fin. Prot. Bureau, Address at the Exchequer Club (Feb. 18, 2015), http://www.consumerfinance.gov/about-us/newsroom/ prepared-remarks-of-cfpb-deputy-director-steven-antonakes-at-the-exchequer-club [http://perma.cc/6YWQ-AVH6].
256. *See* 12 U.S.C. § 5511 (2012); CONSUMER FIN. PROT. BUREAU, *supra* note 118, at 2.
257. *See* CONSUMER FIN. PROT. BUREAU, *supra* note 118, at 2–4.

of economists and lawyers.[258] These agencies have valuable experience with antitrust analyses. But they lack the consumer finance expertise of an agency with 1600 employees dedicated to that area.[259]

Moving competition authority to the CFPB would have several downsides. Just as the prudential regulators developed a pro-bank ethos due to their core safety and soundness mission, the CFPB could be counterproductively hard on banks due to its core consumer protection mission. In theory, this ethos could lead it to block beneficial mergers. Such concerns are minimized by the fact that blocking beneficial mergers would hurt consumers, and thus the agency would be motivated to allow beneficial mergers, if it were acting rationally. But as discussed above, the indeterminacy of competition analyses open the possibility for irrational regulatory decisions.[260]

Another shortcoming is that competition and consumer protection are distinct missions, even if many of their goals align. The CFPB's intellectual founders and early leaders stressed the uniqueness and value of its "sole focus on consumer financial protection."[261] Consumer protection enforcement focuses mostly on what consumers need, while licensing requires also considering what businesses need. Consumer protection advocates might also worry that an efficiency-driven competition policy mission would drown out major consumer protection analyses that consider fairness and rights.

The mission conflict between consumer protection and competition is an important risk to consider, but is less worrisome in light of the intellectual foundations of consumer protection today. CFPB reports have repeatedly emphasized efficiency and market analyses as part of what the agency does.[262] The agency's authorizing statute allows it to declare an act substantially injuring consumers to be unfair only if the resulting "injury is not outweighed by countervailing benefits . . . to competition."[263] Then-Professor Elizabeth Warren and Professor Oren Bar-Gill concluded their case for the CFPB partly

258. *See Guide to Antitrust Laws*, *supra* note 245. Because those agencies handle mergers in many different industries, at any given time they will only be analyzing mergers in a subset of industries. This means they cannot dedicate economists full-time to consumer finance as can the Consumer Financial Protection Bureau. *See The Enforcers*, *supra* note 195.

259. Cochran, *supra* note 171, at 58.

260. *See supra* Part IV.A.1.b.

261. Antonakes, *supra* note 255; *see* Bar-Gill & Warren, *supra* note 29, at 98–100 (pointing out the drawbacks of subsuming consumer protection under safety and soundness).

262. In a recent fintech study, the CFPB mentioned efficiency fifty-two times in ninety-one pages. *See, e.g.*, CONSUMER FIN. PROT. BUREAU, *supra* note 118, at 2.

263. 12 U.S.C. § 5531 (2012).

by observing: "The market for consumer credit [was] not operating efficiently."[264]

Another institutional drawback is the agency's narrow area of expertise. The CFPB lacks knowledge about non-consumer markets, but banks serve institutions and investors as well as consumers. The CFPB would thus either need to build non-consumer expertise or share authority with another regulator. The CFPB also lacks knowledge about stability, creating the risk that it unleashes destabilizing business models on the financial system. This concern could be further mitigated by allowing the CFPB to issue licenses only to a particular subset of financial institutions, or by providing additional oversight of CFPB competition decisions.[265]

Given the strong political debates surrounding the CFPB, it is worth considering the political dimensions of authorizing the CFPB as competition enforcer. Consumer advocates would have reasons to oppose the potential dilution of the organizational focus on consumer protection. On the other hand, they could overall embrace the opportunity to ensure fintech development advances the interests of consumers.

The agency's critics might resist an expanded mission because they argue that the CFPB is too powerful.[266] The recent *PHH Corp. v. Consumer Financial Protection Bureau*[267] ruling and legislation in front of Congress,[268] if either survive, may lessen this concern by enabling the President to remove the CFPB director at will. In the alternative, critics of the CFPB may embrace the prospect of shifting the agency even more toward competition enforcement and market efficiency analyses. President Trump has indicated a desire to "redirect the mission of the Consumer Financial Protection Bureau."[269] His Core Principles for financial regulation emphasize the more competition-driven side of financial regulation, which include seeking to: (1) empower consumers to make "informed choices in the marketplace"; (2) prevent taxpayer-funded bailouts; and (3) "enable American companies to be competitive with foreign firms."[270] A revamped CFPB could empower fintech startups to help consumers make more "informed choices," using competition to achieve consumer protection goals.

264. *See* Bar-Gill & Warren, *supra* note 29, at 100.
265. *See infra* Part IV.B.4.
266. *See, e.g.*, Jackie Calmes, *What Romney Has Said Offers Clues If He Wins*, N.Y. TIMES, Nov. 3, 2012, at A12.
267. 839 F.3d 1, 11 (D.C. Cir. 2016).
268. *Legislative Highlights*, AM. BANKR. INST. J., Nov. 2017, at 10, 10.
269. Bender & Paletta, *supra* note 109.
270. *See* Exec. Order No. 13,772, Core Principles for Regulating the United States Financial System, 82 Fed. Reg. 9965 (Feb. 8, 2017).

More competition could also allow fintech startups to take business away from big banks, thereby reducing the need for bailouts. Finally, heightened competition would make U.S. financial firms more innovative and efficient, increasing the chance that they will catch up and ultimately compete with foreign firms. A similar vision is reflected in Republican-driven legislation emerging from the House Services Committee, which seeks a greater role for economists and efficiency analyses in the CFPB.[271]

A dual consumer protection and competition CFPB mandate may thus offer a political compromise in addition to a significant organizational design improvement to the regulatory framework.

2. A New Bureau in the DOJ or FTC

For minimal institutional change, lawmakers might reform the DOJ or the FTC with an expanded financial competition office. Since these agencies have no stability mandate, they have less mission conflict than prudential regulators. The DOJ and FTC also offer the advantage of considerable existing antitrust expertise. As markets become more intermediated and technological, they raise related anticompetitive concerns that might justify a coordinated antitrust approach across diverse markets.[272] Keeping financial competition within an existing competition authority facilitates such coordination. With additional funding, these agencies could develop greater financial expertise. A generalist regulator is more resistant to being captured, as the relevant interest groups are less concentrated.[273] The FTC would bring additional synergies because it enforces some laws outside of antitrust, such as privacy, against fintechs.[274]

The DOJ and FTC options have several shortcomings. Unlike the CFPB, they lack substantial financial expertise. Both entities cover many other industries. If a financial bureau were housed within the existing competition agencies, financial competition might receive inadequate internal independence. Cuts

271. *See* Financial CHOICE Act of 2017, HR. 10, 115th Cong. (2017–18) (as passed by House, June 8, 2017).

272. *See* D. Daniel Sokol & Roisin Comerford, *Antitrust and Regulating Big Data*, 23 GEO. MASON L. REV. 1129, 1131 (2016) (discussing the complementarity of antitrust and consumer protection in big data); Rory Van Loo, *Helping Buyers Beware: The Need for Supervision of Big Retail*, 163 U. PA. L. REV. 1311, 1387–88 (2015) (arguing that retail goods and finance increasingly demonstrate related market dynamics conducive to supracompetitive pricing); Van Loo, *supra* note 40, at 1328 (suggesting a technology meta-agency may be needed to meet the common challenges of cross-industry digital platforms).

273. *See* Sokol, *supra* note 142, at 1091.

274. *See, e.g.*, Gramm-Leach-Bliley Act of 1999, Pub. L. No. 106-102, 113 Stat. 1436 (codified as amended at 15 U.S.C. §§ 6801–6809 (2012)).

to antitrust resources, or shifts in policy, would affect financial competition. If other industries needed attention, financial competition resources could be redirected. In the alternative, if the financial competition bureau were completely independent of the current competition offices, the co-location synergies would be less, reducing the benefits of housing it in those agencies. Nor do either of these agencies have strong rulemaking cultures,[275] which could inhibit even a separate financial bureau's rulemaking activities.

These are not insurmountable obstacles, and a separate bureau or expanded office would improve the current configuration, which leaves financial markets divided among two sections, each of which focuses on non-financial matters.[276] But building FTC or DOJ financial competition is too close to the existing configuration and potentially retains similar defects.

3. A New Agency

A new independent agency could take the lead on enforcing antitrust, extending licenses, and developing a broader financial technology competition policy—including advocating for removing laws that harm consumer welfare. An independent financial competition regulator would avoid the potential mission rivalry with consumer protection and political obstacles that might result from co-location at the CFPB. A separate agency would also avoid the lack of rulemaking culture at the DOJ, and the chance of internal misallocation of resources by leaders who are not focused on finance. Finally, a new agency would bring greater transparency to the questions of who is responsible for enforcing financial competition and how many resources are devoted to that task.

One potential downside is that a new standalone agency would add to an already long list of financial regulators. The OCC, the Federal Reserve's regulatory arm, the National Credit Union Administration, and the FDIC currently focus on safety and soundness of depository institutions, in addition to the CFPB's consumer protection role. Arguably, fewer financial regulators are needed. Although this concern is understandable from an optical perspective, it is in many ways an analytically distinct consideration. The overall number of agencies could be reduced or maintained by consolidating or repurposing several of the agencies that currently have similar safety and soundness duties to

275. *See supra* note 216 and accompanying text.
276. *See supra* note 258 and accompanying text.

make space for one with a different purpose. The inefficiency of the existing design should not block a performance-improving change.

A more compelling drawback is that a separate agency would lessen operational efficiencies compared to a location inside an existing agency with an antitrust or financial mandate. A related critique is that a separate agency might pay insufficient attention to the consumer protection and stability implications of its decisions. Interagency coordination mechanisms could address these concerns, such as requiring safety and soundness examiners to provide input into competition decisions. Although coordination across independent agencies presents barriers, financial regulators work together to a great extent, and thus a system already exists for that purpose.

4. FSOC Coordination and Oversight

A recurrent theme above is that competition policy intersects with other financial regulatory goals. A strong competition authority must, therefore, operate in tandem with effective consumer protection and prudential regulation. Removing competition leadership from stability regulators would most directly sever the internal agency link between those two goals. A mechanism would thus be needed to ensure the innovation pendulum does not swing too far in the other direction, without regard for stability.[277] FSOC was designed for such an interagency oversight role, with voting representatives from diverse financial regulators—including the Federal Reserve, the SEC, and the CFPB. To guard against overenforcement by the new financial competition leader, FSOC might be tasked with vetoing financial competition actions with a two-thirds vote. It currently has similar authority for consumer protection rules.[278] It has yet to veto any of the CFPB's many rules, suggesting that FSOC oversight would not subvert competition.[279]

Additionally, FSOC could provide analytic support through its research office, which must "conduct, coordinate, and sponsor research to support and improve regulation of financial entities and markets."[280] FSOC might, for

277. On the problem of excess regulatory embrace of financial innovation, focusing on derivatives, see, for example, Dan Awrey, *Complexity, Innovation, and the Regulation of Modern Financial Markets*, 2 HARV. BUS. L. REV. 235 (2012).
278. 12 U.S.C. § 5513.
279. This assumes Federal Stability Oversight Council decision rules did not allow safety and soundness regulators to veto competition authority too easily.
280. 12 U.S.C. § 5344(c)(1).

instance, help bring a broader set of factors into the traditional competition analysis, including increased systemic risk and taxpayer bailouts.[281]

FSOC involvement creates a small risk of mission conflict because—like the prudential regulators—FSOC is primarily focused on stability. If a large institution were to collapse and thereby trigger a financial crisis, those at the FSOC helm "would face intense criticism for having failed in their basic mission."[282] But unlike prudential regulators, FSOC is not charged with day-to-day examination of financial institutions for safety and soundness. It can designate a financial institution as needing such examinations but would not conduct the examinations itself. Instead, FSOC's purpose is: (1) to "promote market discipline" by ending expectations of government bailouts; (2) to "identify" systemic risks; and (3) to "respond to emerging threats to the stability of the United States financial system."[283] It is also more specifically charged with studying how banking concentration affects stability, efficiency, and competitiveness.[284] That broader purview sets it up to more rationally weigh the longer term stability and bailout-reducing benefits of competition.

Currently, when FSOC meets quarterly to strategize about safeguarding the financial system, directors of agencies that prioritize stability and consumer protection attend.[285] No member of a body focused on competition is present, despite abundant awareness that competition is vital to the long-term health of the financial system. Nor is it clear today which competition representative from existing regulators would make sense to send. One advantage of a new agency would be institutionally aligning the three major financial goals of consumer protection, stability, and competition. A triple peaks model, with FSOC oversight, may provide the best chance of ensuring that the main areas of consumer financial law are enforced and coordinated.

CONCLUSION

The fast-evolving fintech landscape has raised the stakes and complexity of competition policy. Prudential regulators regularly move the competition needle through decisions to act or refrain from acting. Those decisions would be difficult with an optimal organizational structure. The current structure

281. *See* Chang, *supra* note 222, at 736 (advocating infusing financial risk considerations into antitrust exclusion analyses); Macey & Holdcroft, *supra* note 3, at 1396 ("By not factoring in the enormous costs of bailouts, traditional antitrust analysis leads to a flawed conclusion.").
282. Macey & Holdcroft, *supra* note 3, at 1390.
283. 12 U.S.C § 5322.
284. *Id.* § 1852.
285. *Id.* §§ 5321(e)(1)), 5322(a)(1).

debilitates competition decisionmaking under the weight of bank safety and soundness. Congress has regularly responded to evidence of broken regulation in other areas by removing mission conflicts. Similar intervention for financial competition may decide whether fintech produces inefficient and dangerous firms or helps build a more affordable, accessible, and stable financial system for all households.

Further study is needed of how agency design affects innovation competition in consumer finance and other markets. The SEC, as it wrestles with the proliferation of automated trading and licensing of peer-to-peer lenders as securities issuers, increasingly must balance systemic risk concerns.[286] In the past, oil, gas, and electricity could be treated as competitive commodities—refineries and utilities could purchase the cheapest barrel of oil or kilowatt-hour of electricity. Now, however, diverse state regulators are prescribing standards for how to produce "low carbon" or "renewable" power, such as solar, splintering undifferentiated nationwide markets, and creating new opportunities for energy companies to exercise market power in smaller market segments.[287] The Federal Communications Commission (FCC) has frequently been "markedly different" from the DOJ in merger reviews.[288] The FCC also is tasked with extending licenses and stabilizing ownership as Google Fiber challenges Comcast and Time Warner's Internet dominance.[289] These and other regulatory spheres have unique missions and structures, but they constitute battlegrounds for ushering in the full benefits of innovation. It is important to know whether those tasked with enforcing competition are instead organizationally inclined to broker monopoly power.

286. *See* Chris Brummer, *Disruptive Technology and Securities Regulation*, 84 FORDHAM L. REV. 977, 978–79, 999 1037–38 (2015) ("[T]he [Securities Exchange Commission (SEC)] has been tasked alongside other agencies with new responsibilities to ensure sound and stable markets . . . "); Verstein, *supra* note 37, at 488–92, 510–11 (describing how the SEC's decision to license peer-to-peer lenders as securities issuers imposed costly delays on those firms).

287. James W. Coleman, *Importing Energy, Exporting Regulation,* 83 FORDHAM L. REV. 1357, 1369–74, 1386–88 (2014).

288 Rachel E. Barkow & Peter W. Huber, *A Tale of Two Agencies: A Comparative Analysis of FCC and DOJ Review of Telecommunications Mergers*, 2000 U. CHI. LEGAL F. 29, 29.

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