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# Making Innovation More Competitive: The Case of Fintech

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## ABSTRACT

*This Article examines recent financial technology ("fintech") developments to diagnose the federal regulatory institutional framework surrounding innovation. Startups offer artificially intelligent financial assistants, touchless payments, and other potentially game-changing products for individuals. Yet unlike more lightly regulated industries such as retail goods, in consumer finance barriers to entry have insulated the largest businesses from competition. Regulatory insulation helps explain why "Too Big To Fail" banks have become bigger, U.S. innovation has lagged that of foreign countries, and consumers pay higher prices.*

*Taking an institutional lens to this problem reveals an overlooked shortcoming in financial regulation: the organizational design of the administrative agencies responsible for enforcing competition. The current framework was built in the wake of financial instability and consumer protection crises, and its organizational design reflects those priorities. Competition enforcement for consumer finance is spread across five entities, including the Department of Justice and the Federal Reserve, each of which focuses on other industries or missions. In particular, agencies whose primary goal is to prevent banks from failing have insufficient incentive to ensure those same banks face competition. As a result, no regulator is optimally structured either to develop licenses suitable for startups, or to address banks' anticompetitive conduct.*

*The stakes of getting innovation competition right are increasing. Effective competition enforcement could enable new entrants to reduce the size of the largest banks—providing a partial market solution to taxpayer bailouts and to a major economic stability threat. It would also force U.S. banks to prepare for an increasingly borderless financial world in which virtual currencies bypass regulators. Inept competition enforcement could bring opposite results. As Google, Microsoft, and Facebook have shown, technology firms tend to capture higher market shares than those in other industries, often well over 60%. If a large bank were to attain similar shares, it could destabilize the financial system. Reallocating competition authority to a motivated financial agency would better position regulators to safeguard the future of finance.*

## INTRODUCTION

Technology challengers are providing digital alternatives to traditional financial institutions. Instead of borrowers laboring to compare and fill out multi-page loan applications, a

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RocketMortgage app promises that they can "press a button, get a mortgage."[2] Automated assistants such as Credit Karma can, with access to consumers' personal data, recommend a tailored credit card, bank account, or loan with lower rates.[3]

Other consumer industries, such as electronics, music, and books, have seen *Fortune 500* companies dissolve and profits fall in the face of digital upstarts.[4] In contrast, banks have steadily gained customers in the midst of technological innovation.[5] There are many possible explanations for this outcome, but the most plausible is that banks are publicly subsidized and insulated from competition. Although scholars and regulators have criticized banking competition enforcement as insufficient,[6] there has been little attention paid to the intersection between competition enforcement and the recent wave of digital innovation, often known as "fintech." Nor has the literature analyzed in a sustained manner how regulators' organizational design shapes financial competition.

This Article outlines how fintech alters the competition equation and argues that the organizational ecosystem of financial agencies is inadequate to respond. Although the institutional inadequacy has existed for decades, the advent of fintech raises the stakes for getting competition right in three main ways. First, digital innovation faces additional entry barriers. Most prominently, major banks operate with national charters that authorities have been slow to make available and relevant to fintech businesses.[7] Additionally, legacy banks have blocked automated financial assistants from accessing customers' account information even when customers approve—a potentially debilitating setback for a new service predicated on tailored advice.[8] These barriers add new dimensions to recent scholarly calls for greater attention to

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2. *See RocketMortgage Super Bowl Ad: What We Were Thinking*, YOUTUBE, https://www.youtube.com/watch?v=Fd58KnonmMo.

3. For a broader exploration of robo-advisers across financial services, see Tom Baker, Regulating Robo Advice Across the Financial Services Industry, 103 IOWA L. REV. (forthcoming, 2017).

4. *See* Phil Wahba & John Kell, *These Are the 10 Biggest Retail Bankruptcies of the Last Decade*, FORTUNE (Mar. 2, 2016), http://fortune.com/2016/03/02/biggest-retail-bankruptcies [https://perma.cc/5FHZ-FAZJ].

5. *See* Trefis Team, *Q1 2015 U.S. Banking Review: Total Deposits*, FORBES (May 22, 2015, 8:38 AM) [https://perma.cc/2KPM-RX6X].

6. *See, e.g.*, 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 . . . ."); 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) (summarizing the history of inadequate antitrust enforcement); Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Keynote Address at the Independent Community Bankers of America Nat'l Convention: Preserving a Central Role for Community Banking (Mar. 20, 2010), *available at* http://www.federalreserve.gov/newsevents/speech/bernanke20100320a.htm ("Having institutions that are too big to fail . . . creates competitive inequities that may prevent our most productive and innovative firms from prospering.").

7. New special-purpose licenses have come too slowly and are inadequate. *See infra* Part IV.A.1.

8. *See infra* Part X.

exclusion in antitrust.[9] These barriers also help explain why fintech startups—despite reinventing the customer interface—generally "rent a bank" rather than compete with banks.[10]

Second, robust fintech competition may lessen the problem of Too Big To Fail[11] banks. Industry estimates have suggested that $4.7 trillion, or about a third of bank revenues, are vulnerable to fintech challengers.[12] This means that competition could downsize the largest banks, reducing (although not eliminating) the threat and costs of taxpayer-funded bank bailouts.[13] Moreover, "the five largest banks in the United States hold an astonishing forty-two percent of all deposits, up from twelve percent in 1980."[14] Despite concerns, these levels of concentration are much lower than those in technology markets.[15] A variety of technology firms have individually obtained higher shares, such as 63 percent for Facebook in social networking, 64 percent for Google in searches, and 60 percent for Apple in music downloads.[16] A single large bank with such dominance and interconnectedness could increase existing concerns that "the world's financial system can collapse like a row of dominoes."[17]

Finally, inadequate competition harms consumer welfare even more in a time of rapid innovation. Fintech challengers have the potential to lower prices closer to the competition level, expand access to finance, and improve efficiency.[18] Yet U.S. fintech services have advanced at a

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9 . *See* Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182, 1182 (2013).

10. *See, e.g.*, Philippe Gelis, *Why Fintech Banks Will Rule the World*, CHRIS SKINNER'S BLOG (June 7, 2016), http://thefinanser.com/2015/04/why-fintech-banks-will-rule-the-world.html [https://perma.cc/PEK7-9X28].

11. The term "too big to fail" is commonly used but is misleading, as size is only one of many factors contributing to an institution being systemically important. *See, e.g.*, Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 204 (2008). The more technical and accurate designation is "systemically important financial institution." *See id.* at 231.

12. *See* Stephen Gandel, *These Are the 5 Hottest Companies in Fintech*, FORTUNE (June 26, 2016), http://fortune.com/2016/06/27/five-hottest-fintechs [https://perma.cc/FF5Y-2Q9Z] (mentioning a Goldman Sachs estimate); *see also* Wayne Busch & Juan Pedro Moreno, *Banks' New Competitors: Starbucks, Google, and Alibaba*, HARV. BUS. REV. (Feb. 20, 2014), http://blogs.hbr.org/2014/02/banks-new-competitors-starbucks-googleand-alibaba [https://perma.cc/H5Y5-3DM5] (citing an Accenture study).

13 . Even if Congress were to take action to break up banks, fintech competition could minimize the extent of any such government intervention. Moreover, despite their opposition, regulators and legislators have consistently failed to address the problem of increasingly large banks. Thus, a partial market-driven solution could complement any other intervention and is better than no solution.

14. *See* Macey & Holdcroft, *supra* note 5, at 1391.

15. *See infra* Part X. (discussing concentrated markets).

16. *See* 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); Jamal Carnette, *The Music Industry Should Thank Apple—Again*, MOTLEY FOOL (Apr. 24, 2016), http://www.fool.com/investing/general/2016/04/24/the-music-industry-should-thank-apple-again.aspx [https://perma.cc/CA9U-8J76].

17. *See* Schwarcz, *supra* note 10, at 193; *infra* Part X.

18. *See* James T. Areddy & Alyssa Abkowitz, *What is a Bank? The Future of Banks on Display in China*, WALL ST. J., June 2, 2016, at C1; *How Australia Compares to the Rest of the World on Cashless Payments*, STARTUPSMART (Jan. 11, 2016),

slow pace compared to those in countries as diverse as China, Kenya, Sweden, and the U.K.[19] Moreover, virtual currencies and related technologies are threatening to break down borders, potentially pitting American financial firms against foreign counterparts made stronger by being forced to survive in more competitive foreign markets. The U.S. economy may miss out on tremendous consumer welfare gains, and lose ground to international firms, if its competition policy fails to pivot for the fintech era.

Navigating this technological upheaval would be difficult even with a strong institutional framework, but the current one has considerable drawbacks. Competition authority for consumer financial products is scattered across five agencies.[20] The Department of Justice (DOJ) and the Federal Trade Commission (FTC) have broad cross-industry antitrust authority, but for consumer financial firms they largely defer to banking agencies due to statutory design and lack of in-house financial expertise.[21] Three banking agencies lead licensing and antitrust decisions: the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC)). However, these banking agencies also play a lead role in another mission: preserving the stability of the financial system.[22] Among these two missions, stability is the dominant concern. Moreover, as currently administered, these missions are in deep tension. The tension results from the fact that prudential regulators' stability role, despite recent reforms, revolves around preventing large financial institutions from failing.[23] But allowing new fintech startups to compete fully could significantly increase the chances that traditional financial institutions fail.[24]

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http://www.startupsmart.com.au/advice/sales-and-marketing/around-the-world-in-80-payments-global-moves-to-a-cashless-economy [https://perma.cc/7XKR-3XAX].

19. *See infra* Part II.D.

20. A sixth, the Consumer Financial Protection Bureau, could arguably be added to this list if a broader concept of competition law is adopted. *See infra* Part IV.B.1. If a broader set of financial instruments is considered, the list of competition regulators could be expanded to include the Securities and Exchange Commission and the Commodity Future Trading Commission, among others, could also be added.

21. *See infra* Part IV.A.2.

22. *See infra* Part IV.A. The DOJ and FTC have some relevant antitrust authority as well. *See id.*

23. *See* Adam J. Levitin, *In Defense of Bailouts*, 99 GEO. L.J. 435, 444 (2011) ("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."); 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 of the banking system.").

24. The empirical literature on the relationship between competition and stability is ambiguous. *See* Organization for Economic Co-operation and Development, Competition, Concentration and Stability in the Banking Sector (2010), at 1, 9 ("Both the country experiences and the academic debate suggest that concentration and competition have ambiguous effects on financial stability."). However, this literature has not been able to study the effects of fintech startups on institutional safety and soundness.

Further complicating this tension, the mission of institutional stability is highly salient to voters and regulators because a large bank's failure might set off a chain reaction that collapses the economy.[25] In contrast, competition decisions—extending licenses, blocking mergers, and analyzing obstacles to data sharing—are less visible.[26] The effects of such decisions unfold over many years, and it is difficult enough to identify an anticompetitive outcome, let alone trace its causes. Public choice theory and behavioral economics would suggest that within a given administrative agency, the urgency surrounding bank failures overrides more subtle, longer term competition considerations.

To address these shortcomings, this Article proposes a financial regulatory reorganization analogous to one that Congress recently undertook. Prior to the 2010 Dodd-Frank Act, banking regulators carried a dual mission of protecting consumers and ensuring financial stability. This pairing subordinated consumer protection to stability.[27] To solve this problem,[28] Congress launched a new agency, the Consumer Financial Protection Bureau (CFPB).[29] The CFPB took over most of stability regulators' consumer protection powers but has no stability mission.[30] Just as Congress revived consumer protection by separating it from bank stability duties, Congress should do the same for competition. Whether housed in a new or existing agency, an unconflicted institution would improve the chances that consumer credit products rise and fall based not on regulatory favoritism but on market value.

Part I of this Article gives an overview of fintech and considers the level of competitive threat that the new technology challengers pose independent of legal barriers. Part II discusses the evidence that competition is failing in credit product markets, and how that literature intersects with fintech. Part III explains the stakes in effectively calibrating competition policy, including the opportunity for consumer welfare gains, expanded access to credit for low-income households, and a safer banking system. New risks may emerge from potentially larger fintech institutions.

The heart of the article, Part IV, outlines the institutional flaws in the current regulatory framework and considers three new locations for competition leadership: the CFPB, existing antitrust regulators, or a new agency. It also discusses the importance of coordination by the Federal Stability Oversight Council (FSOC). The conclusion briefly considers contexts outside of consumer finance to which analogous institutional analyses might apply.

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25. *See* Macey & Holdcroft, *supra* note 5, at 1395 ("Consolidation has led to lemming-like behavior and excessive risktaking in institutions that have been allowed to become so big that politicians and bank regulators could not survive if they were to permit those institutions to fail.").

26. *Cf.* Daniel A. Crane, *Technocracy and Antitrust*, 86 TEX. L. REV. 1159, 1165–66 (2008) (providing statistical evidence of a decline in "antitrust's national political salience.").

27. *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, n.393 (2002).

28. *See* Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 90 (2008).

29. *See* Dodd-Frank Act § 1061(a)(2)(A), 12 U.S.C. § 5581(b)(1)-(4), (6).

30. *See id.*

## I. THE FINTECH CHALLENGE TO BANKS

In 2015, Jamie Dimon, the CEO of J.P. Morgan, the largest U.S. bank, wrote a letter to shareholders warning, "Silicon Valley is coming."[31] Fintech brings together two of the most powerful industries, technology and finance, as potential competitors and collaborators. This Part first surveys fintech and provides a definition. It then assesses the evolving competitive dynamics between new and traditional financial firms.

### A. Defining Fintech

In terms of products, fintech covers a broad array of digital innovations, including those that serve institutions rather than individuals, such as automated commodity trading algorithms. The discussions below are relevant to that full array, but the focus is on consumer financial products such as credit cards, bank accounts, and loans. From an institutional perspective, perhaps the most important terminology distinction for purposes of this Article is that between "fintech challengers" and traditional financial institutions. Fintech challengers refer to the relatively new category of companies whose business models are based around innovative digital products. The term is defined as much by what it excludes as what it includes. Importantly, the term leaves out legacy depository institutions—those, such as Bank of America and Wells Fargo, that may now use fintech products but built their businesses on financial services lacking a heavy digital foundation.

Fintech challengers can have varying legal status. Although fintech challengers offer many services traditionally associated with banks, such as lending, most are not technically banks (or bank holding companies).[32] The vast majority do not have banking licenses, which means that any money they hold for consumers must not be for deposits, but instead for other purposes—such as transferring or lending. Indeed, fintech is clouding the very nature of what it means to be a bank. PayPal, the biggest fintech challenger focused on financial products, holds enough consumers' money in accounts to be about the twentieth largest bank. Yet in the U.S. it is not licensed as one. Consumers use legacy bank accounts and credit cards to get money into their PayPal accounts. Then they can use PayPal to transfer money among individuals and businesses. The company also offers loans through partner institutions, and gives financial advice. But PayPal's nonbank status means that if PayPal went bankrupt, consumers would not necessarily get their money back, as the firm does not have FDIC deposit insurance.[33]

Fintechs challengers can also 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

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31. *See* Jamie Dimon, *Dear Fellow Shareholders*, JP MORGAN CHASE (Apr. 8, 2015), https://www.jpmorganchase.com/corporate/investor-relations/document/JPMC-AR2014-LetterToShareholders.pdf.

32. 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)(2)(A)

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

into finance.[34] Such technology giants will likely leave their mark on finance, but the main drivers of fintech innovation are the thousands of startups attracting billions of dollars in investment each year. Their business models are novel, diverse, and shifting. One of the earliest and most prominent fintech areas was peer-to-peer lending, in which companies link individuals who have money with those who want it.[35] Most of the original peer-to-peer companies have already grown beyond their origins and now engage in more familiar "marketplace lending."[36] Peer-to-peer pioneer LendingClub, for example, now receives money from banks to lend to individuals. Like numerous other startups, its innovations are more about its superior analytics or data that it uses to estimate borrowers' creditworthiness.[37] SoFi, a startup in this space, got its start by targeting HENRYs—high earners not yet rich. It realized it could extend loans to that segment with reduced down payments, believing its carefully selected customers will continue paying even if the mortgage is worth more than the house.[38]

Similar innovative, targeted efforts are happening in payments processing, educational loans, insurance, investing, and almost every financial service. One fintech company, Acorn, enables shoppers to round up purchases to the whole dollar, placing the "spare change" in a robo-investor account. It has amassed $150 million under management in 850,000 accounts by mid-2016, up from 475,000 at the beginning of the year. This business takes aim at similar programs offered by many banks, such as the $8 billion Bank of America has collected through its Keep the Change program.[39]

The term "fintech" sometimes excludes traditional banks.[40] That approach is not used in this Article because all major financial institutions have become highly technological. One-third of Goldman Sachs employees are engineers, more than those at Facebook and Twitter.[41] National banks are rapidly going online, with Bank of America cutting more than 1,400 branches over the last seven years, or 23 percent of its total.

Moreover, the leading banks are each purchasing fintech startups, forming strategic partnerships, or internally building "whiz" teams to design new products.[42] J.P. Morgan Chase's Intelligent Solutions Group has over 200 analysts and data scientists that produced about 50

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34. *See* Packin & Lev-Aretz, *supra* note 15, at 1233–1235; *U.S. Commerce – Stock Market Capitalization of the 50 Largest American Companies*, WEBLISTS, http://www.iweblists.com/us/commerce/MarketCapitalization.html.

35 . *See* Andrew Verstein, *The Misregulation of Person-to-Person Lending*, 45 U.C. DAVIS L. REV. 445, 451 (2011) (providing an overview of person-to-person lending).

36. 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).

37. *See id.* at 610 to 613.

38. *See So Far, So Good; SoFi*, ECONOMIST, Jan. 16, 2016, at 83.

39. *See* Telis Demos, *Small Is Beautiful for This Fintech Upstart*, WALL ST. J., Apr. 25, 2016, at C1.

40. *See, e.g.*, Gandel, *supra* note 11

41. Dougles W. Amer et al, The Evolution of Fintech: A New Post-Crisis Paradigm?, 47 Geo. J. Int'l L. 1271, 1291 (2016).

42. *See, e.g.*, Gandel, *supra* note 11; Bryan Yurcan, *Key Tech Takeaways from Jamie Dimon's Annual Letter to Shareholders*, AMERICAN BANKER, April 7, 2016.

technologies in 2015 alone.[43] Goldman Sachs is launching an online lender.[44] Bank of America's fintech response group has a $3 billion annual budget for executing innovation strategies.[45]

Thus, large financial institutions are launching many apps indistinguishable from those of fintech startups. As such, most of the issues discussed in this Article surrounding fintech necessarily also apply to banks' "cyborg" conversion—Wall Street's broader adoption of artificial intelligence and mathematical algorithms.[46] The legal framework needed for fintech is that needed for finance.

## B. Private Institutional Dynamics

It is difficult to know how serious of a threat fintech challengers pose to traditional banks moving forward. Investors certainly have seen potential for fintech challengers to prosper, putting $22 billion into fintech startups in 2015.[47] Fintech valuations reflect expectations that customers will migrate to digital payment options and that some of these new entrants will benefit financially from that migration.[48]

These expectations are supported by marketing research. 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 banks.[49] 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.[50] 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 employees opening millions of fake accounts in customers' names.[51] Finally, fintechs operate at decreased costs, enabling them to offer lower prices.[52]

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43. *See* Kim S. Nash, *Big Banks Balance FinTech Startup Partnerships With Internal Innovation*, WALL ST. J., Mar. 21, 2016, at B1; Yurcan, *supra* note 41; Mary Wisniewski & Bailey Reutzel, *Wells Fargo Adopts Three Tech Startups from Outside Finance*, AM. BANKER, Apr. 22, 2015, at A1.

44. *See* John Gapper, *The Lenders of the Revolution Look Familiar*, FIN. TIMES, June 17, 2015.

45. *See, e.g.*, Gandel, *supra* note 11

46. *See* Tom C.W. Lin, *The New Financial Industry*, 65 ALA. L. REV. 567, 568 (2014).

47. *See* Nash, *supra* note 42.

48. *See, e.g.*, Aaron Back, *Fintech and Banks: What They Share*, WALL ST. J., Feb, 22 2016, at C6; John Carney, *Discovering the Cost of Disruption* WALL ST. J., Aug. 3, 2015, at C6.

49. *See The Millennial Disruption Index*, SCRATCH (2014), http://www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI_Final.pdf.

50. *See* Demos, *As Industry Evolves*, *supra* note 32; Roger Freeman, *For a New Business, Banks Aren't the First Stop*, WALL ST. J., June 3, 2016, at C4.

51. *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 ST. J., May 2, 2016, at C1.

52. *See infra* Part III.B.

Technology companies' success in other industries is also informative. Besides retail goods, online startups have entered heavily regulated industries such as transportation and gambling.[53] More generally, publicly traded companies are failing at a faster rate today than ever before—six times as fast as they were forty years ago.[54] At the current pace, one in three companies today would be expected to be delisted in the next five years. Technological change contributes to this turnover.[55]

Moreover, unlike some industries that Silicon Valley has invaded, finance lacks a meaningful physical component. This makes the base products inherently vulnerable to digital competition. Additionally, from their successes in other industries, fintechs' investors have deep pockets, reservoirs of talent, and millions of consumers accustomed to adopting new technologies. Traditional banks' infrastructure—including their legacy information systems and physical branches—provide obstacles to rapid organizational moves. Thus, viewed from a purely competitive standpoint, several significant structural factors and market features suggest technology challengers have a chance at taking business away from even the most established Wall Street firms.

Since Dimon's 2015 warning, however, the dynamics between fintech challengers and traditional firms have shifted. One of the most salient figures among fintech challengers is Brett King, who wrote a 2014 book about "breaking banks"[56] and hosts a podcast of the same name with two million listeners.[57] In 2011, he launched a fintech startup that he hoped would do to banks what Amazon did to retail.[58] Instead, his company now licenses its technology to banks.[59] Although the story is not yet over, as the leading publication for bankers has put it, "[w]hat was once perhaps an adversarial relationship has warmed."[60] Many no longer see 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.[61]

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53. *See* Elizabeth Pollman & Jordan M. Barry, *Regulatory Entrepreneurship*, 90 S. CALIF. L. REV.383 (Forthcoming, 2017), *available at* https://ssrn.com/abstract=2741987.

54. *See* Martin Reeves et al., *The Biology of Corporate Survival*, HARV. BUS. REV., Jan.-Feb., 2016, 46, 46–47. The delisting occurs regardless of a company's size. *See id.*

55. *See id.*

56. BRETT KING, BREAKING BANKS: THE INNOVATORS, ROGUES, AND STRATEGISTS REBOOTING BANKING (2014).

57. *About the Podcast*, BREAKING BANKS.COM, https://breakingbanks.com/about (last visited May 4, 2017) [https://perma.cc/S2H9-54PZ].

58. Nathaniel Popper, *A Target Too Big To Nail.*, N.Y. TIMES, Feb. 23, 2017, at B1.

59. *Id.*

60. Bryan Yurcan, *How Moven Went from 'Breaking Banks' to Breaking Bread with Them*. AM. BANKER, (Sept. 2, 2016, 1:32 PM), https://www.americanbanker.com/news/how-moven-went-from-breaking-banks-to-breaking-bread-with-them.

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

## II. Evidence of Competition Shortcomings

This Part briefly surveys consumer financial market literature most relevant to fintech competition. It indicates that consumer switching is limited; entry barriers are high; horizontal ownership and anticompetitive conduct may raise prices, and that the U.S. lags foreign markets. Several caveats are warranted. First, consumer financial markets do not completely lack competition. Large banks compete with one another, and to some extent with new fintech challengers. Nor is the point that these markets are imperfect, which is inevitable. The more relevant question is how much closer we can get to full competition by removing existing barriers.

Second, no one indicator can by itself determine the level of competition. Consider, for instance, market concentration. The steady increase in deposits held by the largest banks has caused concern, and between 2000 and 2010, the largest five banks increased their share of U.S. financial assets held from 30% to about 50%.[62] Visa, American Express, MasterCard, and Discover process over 99% of all credit card transactions.[63] In court, showing that a merger will lead to high levels of concentration may establish "a presumption that the transaction will substantially lessen competition."[64] But up to a point, mergers may benefit consumers and make markets more efficient even while increasing market concentration. Commentators have concluded that the credit card industry shows "significant evidence of illegal activity,"[65] but concentration alone cannot establish such activity. Indeed, credit card networks are seen as exhibiting qualities of natural monopolies, which can serve customers more efficiently than a larger number of competitors would.[66] Other "competitive effects" are more indicative, such as evidence of collusion, higher prices resulting solely from concentration, or signs of limited market entry.[67]

Third, empirical analyses of competition have limitations. They omit factors such as the costs of bank bailouts[68] and benefits of increased innovation motivated by a desire to attain monopoly profits.[69] Markets are in continual flux, and competition studies often capture only a

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62. *See, e.g.*, Robert M. Adams, *Consolidation and Merger Activity in the United States Banking Industry from 2000 through 2010*, (Bd. of Governors of the Fed. Reserve Sys., Fin. & Econ. Discussion Series Paper No. 2012-51, 2012); Jeff Cox, *5 Biggest Banks Now Own Almost Half the Industry*, CNBC (Apr. 15, 2015, 2:33 PM), http://www.cnbc.com/2015/04/15/5-biggest-banks-now-own-almost-half-the-industry.html [https://perma.cc/DZB9-L3YM].

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

64. *See, e.g.*, United States v. Baker Hughes Inc., 908 F.2d 981, 982 (D.C. Cir. 1990).

65. *See* Macey & Holdcroft, *supra* note 5, at 1391; see also Adam J. Levitin, *Priceless? The Economic Costs of Credit Card Merchant Restraints*, 55 UCLA L. REV. 1321, 1324 (2008).

66. *See* Chang, *supra* note 62, at 69-70.

67. *See* Sokol, *supra* note xx, at 1108.

68. *See, e.g.*, Macey & Holdcroft, *supra* note 5, at 1396.

69. *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

snapshot in time that may look very different from today. Overall, in banking "measuring both competitive performance and efficiencies is an exceptionally difficult empirical exercise in which there may never be clear answers."[70]

Despite shortcomings, policy makers and scholars must draw conclusions based on the best evidence that exists. The discussion below reviews the literature providing a number of reference points on the competitive dynamics in finance. It is unnecessary to pinpoint a precise level of competition to determine whether consumer financial markets are functioning effectively.

### A. Limited Consumer Switching

Consumers' ability to switch companies is crucial for competition. Historically, customers have faced high transaction costs in switching financial products such as credit cards and loans. These costs included the time needed to open and close accounts, and to search for better options among complex financial products. Nearly half of home buyers consider only one mortgage quote.[71] Part of the problem is that to get a mortgage quote, historically it was necessary to visit a bank in person to fill out lengthy applications.[72]

The credit card industry provides another example of financial products' opacity and 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.[73] Inertia is strong and it takes time to fill out lengthy credit applications, about 70 percent of which are denied.[74] The need to wait for a new credit card in the mail, then cancel the old account, 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."[75]

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as a justification for moderating penalties."). Big banks' purchases of small startups can provide crucial funding, economies of scale and geographic reach to innovative products.

70. *See* Baxter, *supra* note 5, at 787.

71. *See, e.g.*, CONSUMER FIN. PROTECTION BUREAU, CONSUMERS' MORTGAGE SHOPPING EXPERIENCES 10 (2015), http://files.consumerfinance.gov/f/201501_cfpb_consumers-mortgage-shopping-experience.pdf.

72. *See* Debra Pogrund Stark et al., *Complex Decision-Making and Cognitive Aging Call for Enhanced Protection of Seniors Contemplating Reverse Mortgages*, 46 ARIZ. ST. L.J. 299, 351 (2014) (describing the enduring preference for in-person mortgage lending).

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

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

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

B. Entry Barriers

When firms face difficulties in entering a market, competition can stagnate, raising prices and lowering innovation.[76] Internet startups originally shied away from finance because heavy banking regulations are "the antithesis of Silicon Valley's just-do-it culture."[77] Although part of the problem is simply the large amount of regulation, fintech challengers have faced two other types of entry barriers: incumbents' ability to block market access, and the difficulty in obtaining a federal bank license.

Credit card networks' ability to engage in exclusionary conduct, such as through vertical restraint clauses that prevent merchants from using other payment methods, has been prominently discussed.[78] At a more subtle level, legacy financial institutions can limit or shape entrants through control of data. One class of fintech challengers relies on data access to improve customer switching. The goal of automated financial assistants such as NerdWallet, Credit Karma, Mint, and MagnifyMoney is for people to make all of their financial decisions through a single app.[79] These companies learn about consumers—with permission—by accessing personal bank accounts, credit scores, credit card records, tax returns, and other similar sources of financial information. The users receive recommendations about credit cards or mortgages with lower fees, savings accounts that pay rates, and other products that better meet their needs.[80] These automated assistants can increase the speed at which accounts can be opened and compared, building on streamlining of firms selling the end product.[81] For instance, Credit Karma expects soon to be able to know with close to 100% accuracy beforehand whether the credit card company will accept an application from a given user.[82]

Established financial institutions' response has been to seek technological ways to block or limit automated adviser access to *customer* information.[83] Firms can also block collection of their general *product* information available on websites—commonly collected through an automated

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76. *See, e.g.*, Hemphill & Wu, *supra* note 8, at 1185.

77. *See* Marc Hochstein, *Innovator of the Year: CBW Bank's Suresh Ramamurthi*, AM. BANKER (Dec. 17, 2015, 2:54 PM), https://www.americanbanker.com/news/innovator-of-the-year-cbw-banks-suresh-ramamurthi. Relevant federal statutes include the Fair Credit Reporting Act, the Gramm-Leach-Bliley Act, the Truth in Lending Act, the Equal Credit Opportunity Act, and the Real Estate Settlement Procedures Act. 12 U.S.C. § 5481 (2012).

78. *See, e.g.*, Hemphill & Wu, *supra* note 8; Levitin, *supra* note x; Benjamin G. Edelman & Julian Wright, *Price Coherence and Excessive Intermediation*, 130 Q.J. ECON. 1283, 1283, 1311 (2015).

79. *See* Read & Wall, *supra* note 11.

80. *See Cracking the Vault*, *supra* note xx; Demos *supra* note 50. Of course, the possibility that these intermediaries will be co-opted is very real. *See* Rory Van Loo, *Rise of the Digital Regulator*, 66 DUKE L.J. 1267 (2017); John M. Newman, Complex Antitrust Harm In Platform Markets (forthcoming).

81. *See, e.g.*, Gandel, *supra* note 9 (explaining how payments startups Ripple and Stripe have made it possible to open a new payment processing account in a matter of minutes).

82. *See* King, *supra* note 73.

83. *See, e.g.*, *Cracking the Vault; Retail Banking*, ECONOMIST, Oct. 24, 2015, at 66–67; Yurcan, *supra* note 42. This is part of a broader tradition of incumbents blocking access to online challengers. *See, e.g.* Maureen A. O'Rourke, *Shaping Competition on the Internet: Who Owns Product and Pricing Information?*, 53 VAND. L. REV. 1965, 1972–75 (2000).

process called "scraping"—using laws never intended for such a purpose, including trespass to chattel, the Digital Millennium Copyright Act, and Computer Fraud and Abuse Act.[84] If fintech challengers are dependent on banks' cooperation to obtain vital information, they have less incentive and ability to inform customers of better alternatives. This makes it difficult for them to compete as full, independent service providers, and also may make it less likely they can redirect customers from established institutions to fintech challengers offering competing consumer financial products.

Another entry barrier comes from the difficulty in obtaining licensing or registration necessary to operate. The extension of new banking licenses has overall dried up in recent years, which may be due to caution regarding stability.[85] Federal banking licenses are important for entering a market 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.[86]

Preemption from state laws is becoming increasingly advantageous. For example, national bank loans are exempted from state usury laws. Some fintech startups attempted to bypass those laws by purchasing loans from national banks.[87] In *Madden v. Midland Funding, LLC*, the Second Circuit held that nonbank online lenders cannot escape state interest rate caps by adopting such an approach.[88] This ruling makes it more difficult for startup lenders to cut banks out of the equation, as it limits their ability to offer a range of credit products that are only profitable above the state-level rate caps. 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 targeted at blocking fintech startups.[89]

Greater caution following the 2008 financial crisis may have caused a federal bank licensing slowdown for all applicants, but fintech startups have had additional challenges due to their innovative business models. A rare fintech entrepreneur who went through the application process was rejected multiple times and endured a much lengthier timeline than would a

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84. *See* James Grimmelmann, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1 (2007); Jeffrey Kenneth Hirschey, *Symbiotic Relationships: Pragmatic Acceptance of Data Scraping*, 29 BERKELEY TECH. L.J. 897, 899, 918 (2014); O'Rourke, *supra* note 82.

85. *See* Rachel Witkowski, *Lawmakers Demand FDIC Approve New Banks to Prevent Systemic Risk*, WALL ST. J., July 13, 2016, at B1.

86. *See, e.g.*, 18 U.S.C. § 1960 (2012).

87. *See* Michael Corkery, *Justices Decline Case Limiting Debt Collectors*, N.Y. TIMES, June 28, 2016, at B9.

88. *Madden v. Midland Funding, LLC*, 786 F. 3d 246, 250 (2d Cir. 2015).

89. *See* Joseph Young, *Without Unified, Federal Regulations for Digital Currencies, the U.S. Risks Falling Behind*, BITCOIN (Aug. 01, 2016, 5:25 PM), https://bitcoinmagazine.com/articles/without-unified-federal-regulations-for-digital-currencies-the-u-s-risks-falling-behind-1470086728 [https://perma.cc/47GD-6LXM].

traditional bank. The CEO subsequently concluded that banking regulators view fintechs as "zoo animal[s]."[90]

The Securities and Exchange Commission (SEC) erected analogous, albeit far smaller, entry barriers to online person-to-person lenders. Although these peer-to-peer lenders were offering innovative products arguably different in important regards from securities, the SEC required them to register as security issuers.[91] This had the effect of imposing costly delays and mismatched restrictions.[92]

To be sure, caution may be warranted given potential harms to consumers, investors, and the financial system by new innovative financial products. Fintech startups also have some advantages under current laws. Teams of federal examiners take up residence at the nation's largest banks year-round to assess compliance with an abundance of laws such as the Community Reinvestment Act.[93] These examiners ensure banks have minimum capital requirements and risk management programs.[94] By operating as nonbanks, most fintechs avoid such supervision. Fintech challengers are still subject to consumer protection oversight mostly by the CFPB,[95] which has already undertaken enforcement actions against them.[96] Just as Silicon Valley "regulatory entrepreneurs" such as Uber have in other industries leveraged the law for competitive advantages,[97] some fintech innovators may benefit in limited contexts from flying under federal financial regulators' radar as small startups.

Also, in the coming years more fintech challengers may obtain licenses. Many are planning to pursue bank licenses once they reach a certain scale.[98] The OCC recently moved forward with a program to offer special purpose licenses for innovative fintech business models. Although the

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90. *See* Robert Barba @Barba_AB, TWITTER, (June 20, 2016, 2:41 PM) https://twitter.com/Barba_AB/status/745008644480184321; Hochstein, *supra* note 76.

91. *See* Verstein, *supra* note x, at 448.

92. *See* Verstein, *supra* note x, at 488-92, 510-11.

93. Community Reinvestment Act of 1977, Pub. L. No. 95-128, 91 Stat. 1147 (codified as amended at 12 U.S.C. §§ 2901–2907 (2000)); 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).

94. *See* Robert F. Weber, *An Alternative Story of the Law and Regulation of Risk Management*, 15 U. PA. J. BUS. L. 1005, 1007 (2013).

95. Though the CFPB primarily enforces consumer financial protection laws for nonbanks, it shares some enforcement authority in this area with the FTC. *See* Dodd-Frank Act § 1061(a)(2)(A), 12 U.S.C. § 5581(b)(4)(A) (2012). Moreover, the FTC would enforce other laws, such as for privacy under the Gramm-Leach-Bliley Act of 1999, against fintechs. *See* 15 U.S.C. §§ 6801–6809 (2012).

96. *See* ERIN J. ILLMAN, CFPB FOCUSES ON FINANCIAL TECHNOLOGY IN 2016—EXPECT MORE FOR 2017, BANKING & FIN. SERVICES POL'Y REP. 1, 2 (2017). The uncertainty surrounding such regulation can impose legal costs on startups straining to determine which laws will apply. J. Parker Murphy, *More Sense Than Money: National Charter Option for Fintech Firms is the Right Choice*, 18 N.C. J.L. & Tech. On. 359, 384 (2017).

97. *See* Pollman & Barry, *supra* note 52.

98. *See* Demos, *supra* note 50.

program is geared more for large institutions and has yet to prove helpful, it is possible that licensing and institutions will converge.[99] One of the largest fintech challengers, SoFi, recently pursued an alternative licensing path of purchasing a bank that already has one.[100]

Still, the legal framework overall has presented significant obstacles to new fintech entrants. 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.[101] In contrast, as one financial technology consultant observed, fintech challengers "are not going to get anywhere unless they find a federally chartered bank. . . . The banks are holding the cards."[102]

C. Horizontal Ownership

When multiple firms in an industry have the same owners, economic models predict that those firms have less incentive to take profits away from each other.[103] They may also have greater opportunity to collude. Empirical studies have recently provided evidence that ownership patterns "anticompetitively raise prices when the owned businesses compete in a concentrated market."[104] Further studies have found evidence that these owners "exert forms of power over the companies held in their portfolios."[105] Among the largest banks, the same three institutional investors own 16.7% of JP Morgan Chase, 15.9% of Bank of America, 16.4% of Citigroup, and 14.8% of Wells Fargo.[106] A recent study concluded that this horizontal ownership causes higher prices for banking products.[107] Although more study is needed to verify and understand the causal mechanisms, the theory and available empirics indicate that horizontal ownership undermines competition for some products offered by large banks.

Horizontal ownership concentration can also be found among fintech startups, which are typically funded by a small group of wealthy investors—often individuals, but also venture

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99. *See infra* Part IV.B.1.

100. *See* Peter Rudegeair, *Banking & Finance: SoFi Extends Reach in Buying Online Bank*, WALL ST. J., Feb. 2, 2017, at B6.

101. *See* Pollman & Barry, *supra* note 52.

102. *See* Hochstein, *supra* note 76.

103. *See* Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267, 1267–68 (2016).

104. *Id.* at 1267; Azar et al., *supra* note 104, at 1.

105. *See* Jan Fichtne, Eelke M. Heemskerk & Javier Garcia-Bernardo, *Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk*, 19 Bus. & Politics 298, 298-302 (2017) ("On balance, we find significant indications that the Big Three might be able to exert forms of power over the companies held in their portfolios that are hidden from direct inspection.").

106. *See* José Azar et al., *Anti-Competitive Effects of Common Ownership* (IESE Working Paper No. WP-1169-E, 2017), at Panel C, https://ssrn.com/abstract=2969751 (listing ownership by Vanguard, BlackRock, and State Street).

107. José Azar, Sahil Raina, and Martin Schmalz, Ultimate Ownership and Bank Competition, July 23, 2016.

capitalists, private equity firms, and hedge funds. Many of those funds specialize in fintech investments, meaning that the same investors often own competing startups.[108]

Large banks also have ownership stakes in fintech challengers. For instance, Square, which sells small plastic devices that any small merchant can insert into an iPad or iPhone to process a transaction, has positioned itself to displace traditional payments. How far Square tries to take its intrusion—such as whether it attempts to bypass credit cards systems or work within them—could be influenced by Visa's 12 percent ownership stake in the startup.[109] J.P. Morgan Chase has also invested in many fintech startups that provide similar products as the bank, including Prosper, a peer-to-peer loan company, and Square.[110]

Because the availability of capital is so vital for innovation and growth, it would be premature to conclude that this horizontal ownership of fintech startups undermines markets. Nonetheless, it is an area of potential competition concern worthy of attention—if horizontal ownership of fintech startups has the same effect as has been found in other industries, it would "caus[e] them to compete less vigorously with each other,"[111] and with the big banks that invest in them.

## D. Other Evidence of Supracompetitive Prices

Perfect competition is a theoretical concept and not expected of actual markets. Instead, in the words of FTC acting Chairwoman Maureen Ohlhausen, competitive markets should push firms to "price near a measure of their costs."[112] Though not illegal, prices above this level—supracompetitive prices—can indicate markets are not "sufficiently competitive."[113] This is particularly true when the higher prices are associated with potential measures of lesser competition. Several studies have found such links in finance.

When firms are pricing a financial product near a measure of costs, if one source of revenue (such as late fees) decrease on a product the firm would need to raise prices elsewhere on that product (such as on monthly payments). For example, the Credit Card Accountability, Responsibility, and Disclosure Act of 2009 (CARD Act)[114] sets limits on practices, such as

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108. *See, e.g.*, Crystal Huang, Posting to *Venture Capital: Who Are the Recent New VC Firms in Fintech?*, QUORA, Oct. 31, 2015, https://www.quora.com/Venture-Capital-Who-are-the-recent-new-VC-firms-in-fintech.

109. *See* Telis & Demos & Chelsey Dulaney, *Visa Details Square Stake—Mobile-Payment Startup's Shares Get Boost From Disclosure by Credit-Card Firm*, Feb 13, 2016, at B3; *A Penny Here, a Penny There*, ECONOMIST, May 9, 2015, http://www.economist.com/news/special-report/21650297-if-you-have-moneyand-even-if-you-dontyou-can-now-pay-your-purchases-myriad-ways.

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

111. *See* Elhauge, *supra* note 102, at 1267.

112. MAUREEN K. OHLHAUSEN, FED. TRADE COMM'N, THE FTC'S PATH AHEAD 1 (Feb. 3, 2017), https://www.ftc.gov/system/files/documents/public_statements/1070123/gcr_the-ftc_path_ahead.pdf.

113. *See, e.g.*, Bar-Gill & Bubb, *supra* note 72, at 978, 1000.

114. Pub. L. No. 111-24, 123 Stat. 1734 (2009).

certain fees, that had brought credit card companies billions of dollars in revenues.[115] Credit card companies did not respond to the elimination of those fees by increasing other fees.[116] Instead, the CARD Act saved consumers $11.9 billion, which in a more competitive environment would not have been expected, since the law's costs would have been passed on to consumers.[117] Related studies have found that banks were unable to pass on about $14 billion from the Durbin amendment in Dodd-Frank, which lowered interchange fees.[118]

Other studies have taken a broader look at a series of mergers or the overall change in market concentration over time. Economists have linked market consolidation to lower deposit rates received by consumers on their bank account balances,[119] as well as higher rates paid for personal loans[120] and real estate loans.[121] These prices are seen as resulting from anticompetitive factors.[122]

## E. International Technology Gap

As one international fintech executive observed, "Using [] bank accounts in the U.S. is like traveling 15 to 20 years backwards in time."[123] It takes longer for the U.S. payment system to process a comparable transaction than some foreign systems.[124] U.S. adoption of new technologies has also proceeded more slowly, with much of the world rapidly bypassing credit

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115. *See* Bar-Gill & Bubb, *supra* note 72, at 1000.

116. *See* Bar-Gill & Bubb, *supra* note 72, at 967.

117. Sumit Agarwal et al., *Regulating Consumer Financial Products: Evidence from Credit Cards*, 130 Q. J. ECON. 111, 111, 115 (2015).

118. *See* KAY ET AL., *supra* note xx, at 2, 11.

119. 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).

120. *See, e.g.*, Charles Kahn, George Pennacchi & Ben Sopranzetti, *Bank Consolidation and the Dynamics of Consumer Loan Interest Rates*, 78 J. BUS. 99, 100 (2005).

121. *See, e.g.*, Robert M. Adams et al., *Market Power in Outputs and Inputs: An Empirical Application to Banking* 16, 24 tbl. 1 (Bd. of Governors of the Fed. Reserve Sys., Working Paper No. 2002-52, 2002) (finding anticompetitive markups for real estate and installment loans); 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); Isil Erel, *The Effect of Bank Mergers on Loan Prices: Evidence from the United States*, 24 REV. FIN. STUD. 1068, 1070 (2011) (finding that loan spreads increased following nine bank mergers that significantly increase the Herfindahl-Hirschman Index but also finding other mergers decrease loan spreads); DAVID SCHARFSTEIN & ADI SUNDERAM, MARKET POWER IN MORTGAGE LENDING AND THE TRANSMISSION OF MONETARY POLICY 18 (Sept. 2014), http://www.people.hbs.edu/dscharfstein/Mortgage-Market-Power_20140907.pdf (estimating mortgage rates and refinancing were less responsive to market interest rate changes because of increased mortgage lender concentration from 1997 and 2011).

122. *See, e.g.*, Adams et al., *supra* note 122.

123. *Digital Banks or Digital Banking?*, BREAKING BANKS (June 18, 2015), http://www.breakingbanks.com/digital-bank-or-digital-banking (quoting Michal Panowitz of Nordea). *See also* Hochstein, *supra* note 76 (quoting a financial technology consultant as concluding that U.S. banks "are many years behind their global counterparts.").

124. Hochstein, *supra* note 76.

cards and moving toward contactless payments, including in Europe, Africa, and Asia.[125] Contactless payments already account for almost half of the value of credit card transactions in Australia.[126] In contrast, contactless payments are a miniscule portion of the U.S. market.[127]

The U.S. also is behind in mobile banking, with almost one billion Chinese consumers depositing money, making payments, and transferring funds on their phones with great ease.[128] Fintech challengers already have a comparable number of customers in China as do legacy banks.[129]

Cross-country comparisons are limited due to the many variables for which it is impossible to control. But the gulf between U.S. global digital leadership in other industries and fintech is particularly striking because it is a role reversal of how other digital markets have progressed. U.S. companies have so far led global digital innovation in most industries, launching the first major search engines, social networks, and transportation platforms. Moreover, many companies, such as Google, Facebook, and Uber, have obtained dominant market positions in foreign countries.[130]

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Again, to reiterate, no one category of studies proves a competitive shortfall in finance. Nonetheless, these focused studies are complemented by broader research concluding that finance overall exhibits evidence of "excessive rents and poor overall efficiency."[131] Technological advances in most other industries have significantly reduced the costs of products.[132] It is thus puzzling that financial services cost the same today as in the Gilded Age,

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125. *See, e.g.*, Alex Darling, *How Australia Compares to the Rest of the World on Cashless Payments*, SMART COMPANY (Jan. 11, 2016), http://www.smartcompany.com.au/technology/around-the-world-in-80-payments-global-moves-to-a-cashless-economy/ [https://perma.cc/7XKR-3XAX]. An example of a contactless payment would be a store scanner reading the bar code on a consumer's smart phone.

126. *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 [https://perma.cc/4KR6-FHLY].

127. *See* Heffernan, *supra* note 128.

128. *See* James T. Areddy & Alyssa Abkowitz, *The Future of Banking is in China*, WALL ST. J., June 2, 2016, at C1.

129. *See id.*

130. *See, e.g.*, Tom Fairless, *Europe vs. U.S. Tech Giants: Amazon, Google and Facebook in the Spotlight at Davos*, WALL ST. J., Jan. 20, 2015, at B1.

131. *See* Thomas Philippon, The FinTech Opportunity 10 (July 2016) (unpublished manuscript), http://pages.stern.nyu.edu/~tphilipp/papers/FinTech.pdf; *see also* Macey & Holdcroft, *supra* note 5, at 1374 ("[T]he current Too Big To Fail policy actually does convey an inappropriate and inefficient competitive advantage to big banks; it provides them with artificially cheap funding . . . ."); 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).

132. *See id.*

when banks had great market power and before computers existed.[133] Existing evidence gives reason to doubt that fintech will unfold as would be expected in competitive markets.

## III. THE STAKES

The American system of governance has long believed that "the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress."[134] Effective fintech competition enforcement not only implicates these more longstanding values, but also financial stability, international competitiveness, and access to credit.

### A. Financial Stability

The growing interconnectedness of financial institutions and possibility of cybersecurity breaches have by many accounts increased systemic risk.[135] Fintech market structures could develop in different ways under various regulatory scenarios. This Part explores two theoretical, simplified possibilities. The goal is to illustrate how competition policies might interact with financial stability.

#### 1. Scenario One: Weak Competition Policy

One possible scenario moving forward is that the regulatory infrastructure prevents technology challengers from truly competing with embedded financial institutions. Banks will block automated advisers from accessing customer records. Technology startups unable to obtain appropriate licenses will continue to rely on well-established firms to offer loans, payment processing, and deposit services.

In this scenario, a bank's strategic options are to develop fintech internally, establish strategic partnerships with a technology company, or purchase technological upstarts. Each of these paths would be distorted by the startup's inability to obtain a license. Internally developing fintech becomes more feasible, for example, because any technology challenger must find an existing bank, which must then adapt its systems to accommodate the startup. This dependence on banks' legacy systems introduces a delay. That delay allows other traditional banks choosing to develop fintech internally to have more time to recruit talent and perhaps even reverse engineer a startup app interface. Hiring top computer scientists away from fintech startups would be easier because regulatory entry barriers, such as licensing, limit growth potential, and

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133. *See id.*

134. N. Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958). In addition to the more tangible economic benefits of competition, there are a set of intangible benefits that come from greater responsiveness to customers, such as more effective dispute resolution. *See* Rory Van Loo, *The Corporation as Courthouse*, 33 YALE J. REG. 547, 582–83 (2016).

135. *See, e.g.*, FIN. STABILITY OVERSIGHT COUNCIL, 2016 ANNUAL REPORT 113 (2016), https://www.treasury.gov/initiatives/fsoc/studies-2016Report.pdf; Tom C.W. Lin, Infinite Financial Intermediation, 50 Wake Forest L. Rev. 643, 661 (2015).

thus lessen financial resources available to startups to pay their employees. In the strategic partnership alternative, startups' motivation to displace their partners is reduced or eliminated.

In this scenario, it would be difficult for an observer to know what precise effect financial competition law was having. Competitive forces would seem to be working well: banks would be competing with each other, rapidly developing innovative products, and acquiring other firms. These are marks of vibrant competition. In reality, if it is assumed that fintech startups constitute a legitimate competitive threat, under this scenario that outcome would be driven by laws enabling an incumbent to free ride off of a challenger's innovation. Indeed, even if the legal barriers are removed but in too slow of a manner, an anticompetitive outcome in favor of banks may result because the delay provides just enough time for established banks to adapt.

What would be the stability implications of this scenario? Banks would continue to have a lock on financial services, making their continued growth more likely. Perhaps most concerning of all, traditional banks' market shares could accelerate precipitously. Technology companies often obtain considerably higher market concentration than firms in most other markets, reaching the 60 percent to 80 percent range.[136] This hyper-concentration can result from a network effect, which occurs when a product is more valuable because more people are using it.[137]

Network effects vary by industry, and do not necessarily justify antitrust intervention.[138] In finance, having more data points has already enabled lenders to make better risk predictions.[139] More generally, better predictions drive better pricing for low-risk individuals, which attracts more customers. More customers mean more data. This positive feedback loop raises barriers to entry by affording incumbents potentially unreproducible advantages.[140] Many new fintech business models explicitly describe a network effect. The startup Lemonade, for example, has promised that it will use Facebook to eat up the insurance industry by pooling connected individuals, who will as a result be more careful and benefit from their friends' greater care.[141] Scholars have shown how distributed ledger technologies such as that underlying bitcoin could through network effects enhance the concentration of the largest banks.[142]

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136. *See supra* notes 14 to 15.

137. John M. Newman, The Myth of Free, 86 Geo. Wash. L. Rev. (forthcoming 2017) (manuscript at 28-29); Christopher S. Yoo, When Antitrust Met Facebook, 19 Geo. Mason L. Rev. 1147 (2012) (discussing the network effects of Facebook); Packin & Lev-Aretz, *supra* note 33, at 1216, 1221 (explaining Google's dominant position as resulting from its analysis of unusually large amount of data).

138. *See* Yoo, *supra* note xx, at 1161.

139. *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) (discussing how technological advances have enabled mortgage companies to leverage millions of data points for more accurate prediction models).

140. *See* Howard A. Shelanski, *Information, Innovation, and Competition Policy for the Internet*, 161 U. PA. L. REV. 1663, 1686-87 (2013).

141. *See* Daniel Schreiber, *Facebook Eats Insurance*, CB INSIGHTS, June 7, 2016, https://www.cbinsights.com/blog/facebook-eats-insurance.

142. *See* Hilary J. Allen, *$=€=Bitcoin?* (work in progress) (manuscript at 52-54), available at https://ssrn.com/abstract=2645001.

In this weak competition policy scenario, large financial institutions would likely benefit from any network effects generated by fintech. If today's Too Big To Fail banks' market share of about 10 percent were to double or triple, it would make those banks considerably larger and thus more dangerous in failure. More interconnected people would also potentially be implicated in any collapse.

Chain-reaction financial institution collapses are by no means inevitable in this scenario. Stability regulators and bank bailouts could prevent such a result, meaning that concentration would mostly matter for other interests, such as consumer welfare, discussed below. But history has shown that stability regulators cannot prevent failures, and government bailouts have limits. Fintech and a low-competition-enforcement regime could substantially increase systemic risk.

### 2. Scenario Two: Strong Competition Policy

An alternative scenario can be imagined in which fintech is governed by optimal competition policy regarding extension of licenses and prevention of anticompetitive conduct and mergers. In this scenario, it is possible that banks would still repel fintech challengers on the merits. But for the reasons discussed above, it is also quite possible that fintech challengers would succeed in offering superior products, such as loans and payment processing. As banks lost customers and anticompetitive profits, they would become smaller. Because banks are heavily regulated, this downsizing would unfold under regulatory oversight for safety and soundness. This hypothetical scenario would lessen the instability created by the largest banks' size but without government intervention.

This scenario is not without its own stability risks. Regardless of the institutional configuration, new innovations in an increasingly complex financial system can interact in unpredictably dangerous ways, as happened with credit default swaps in the 2008 financial crisis,[143] and when a high-speed trading "flash crash" wiped out a trillion dollars in stock market value in a few seconds in 2010.[144]

More concretely, although the typical fintech startup is focusing on a single financial product, over time a successful startup's leaders will seek to diversify. SoFi and other fintech startups that started out with loans have indicated their intention to expand to wealth management, insurance, and other products.[145] This is a familiar technological model. Google currently has imposing market positions in maps, email, and many other services. It used its position in one area—searches—to branch out and become the "web's emperor."[146] Thus, if fintech challengers thrive through competition, they could initially make traditional banks safer but ultimately create a new class of dangerous institutions.

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143. 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).

144. COMMODITY FUTURES TRADING COMM'N & SEC. AND EXCH. COMM'N, FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010 1–6 (2010).

145. *See, e.g.*, ECONOMIST, *supra* note 37 (explaining the intention of fintech startups to expand service offerings).

146. *See* Pamela Jones Harbour, *The Emperor of All Identities*, N.Y. TIMES, Dec. 19, 2012, at A35.

Two factors, however, may limit this concern. First, as mentioned above, fintech startups begin with a narrower focus than traditional technology challengers did. This means that establishing strong positions in narrow areas could take enough time to produce a configuration in which numerous firms each dominant in only a certain segment of the population or a given financial product line. Second, in this scenario, it is assumed that competition laws are effectively enforced. Thus, regulators would be better positioned to prevent successful fintech challengers from moving horizontally, such as by acquiring other fintech companies or anticompetitively using a dominant position in one financial service to take over another service.

Competition authorities are reluctant to break up companies after monopolies are established, preferring instead to focus on prevention. As such, it would be preferable to let fintech challengers compete but prevent them from becoming Too Big To Fail, rather than attempting to break up today's big banks.

## B. Consumer Welfare

Competition shortcomings can produce a deadweight loss for the economy and harm to consumers.[147] The level of deadweight loss from financial inefficiency is unknown, but several indirect reference points for the potential magnitude of savings follow. As a starting point, finance accounts for about 7 percent of United States GDP[148] and almost 30 percent of all corporate profits.[149] Fintech challengers' ability to compete may reduce this inefficiency.

Allowing new entrants into other regulated industries, such as airline and taxi transportation, has substantially lowered prices and improved efficiency.[150] Scholars have similarly identified fintech as a potential driver of lower costs.[151] Policymakers generally believe that the "snail's pace of U.S. bank transfers" impedes commerce.[152] Whereas traditional lenders' expenses are close to 5 to 7 percent of outstanding loans, startups have reportedly gotten that number closer to 2 percent.[153] The average price paid to transfer money abroad is around 7.7 percent.[154] Some

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147. *See, e.g.*, Azar et al., *supra* note xx, at 1.

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

149. Jordan Weissmann, *How Wall Street Devoured Corporate America*, ATLANTIC (Mar. 5, 2013), https://www.theatlantic.com/business/archive/2013/03/how-wall-street-devoured-corporate-america/273732 [https://perma.cc/7DV8-SWCT].

150. John Kwoka et al., *From the Fringe to the Forefront: Low Cost Carriers and Airline Price Determination*, 48 REV. INDUS. ORG. 247, 249 (2016) (finding that younger airline carriers such as Southwest and JetBlue brought in new business models collectively averaging almost 28 percent lower costs per seat per travel mile than legacy airlines.); Judd N. L. Cramer & Alan B. Krueger, *Disruptive Change in the Taxi Business: The Case of Uber*, AM. ECON. REV., May 2016, at 177, 177 (showing that Uber drivers spend 50 percent more of their miles driven with a passenger in the car.).

151. *See, e.g.*, Christopher K. Odinet, *Consumer Bitcredit And Marketplace Lending*, ALABAMA L. REV. (forthcoming, 2018); William Magnuson, *Regulating Fintech*, (work in progress, on file with author).

152. *See* Hochstein, *supra* note 76.

153. *See The Fintech Revolution*, ECONOMIST, May 9, 2015, at 25.

154. *See Costly Cash; Remittances*, ECONOMIST, Sept. 5, 201, at 20.

fintech startups' prices have been four times lower, purportedly based in part on innovative models that cut banks out of the transfer.[155] In some countries with higher fintech adoption rates, disintermediation startups have begun to erode banks' fees.[156]

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. Still, lower operating costs in finance can come from efficiency-improving factors such as greater automation and disintermediation. For instance, in payment processing, new fintechs aim to remove intermediaries involved in credit card processing and have successfully done so in other countries.[157] Peer-to-peer lending, which operates by cutting out banks, has generally fallen short of expectations but pockets of success indicate what is possible.[158]

One disintermediation innovation is blockchain, a distributed ledger technology that many believe will transform finance in the same way that prior technologies such as the Internet transformed communications and so many other industries.[159] Because the technology relies on dispersed, majoritarian governance and can be used by anyone sufficiently skilled, it might enable even transacting parties with limited resources to bypass the traditional banking system.[160] Some dispute the likely gains from blockchain. The skills required to use it mean that intermediaries will still be needed.[161] Indeed, traditional U.S. banks have already spent over a billion dollars to "co-opt" blockchain for their operations.[162] Nonetheless, it presents a potential mechanism for reducing the number of intermediaries and their ability to engage in anticompetitive behavior, if developed in the right way.

Digital intermediaries have also been found to improve pricing transparency, which is important for customer switching.[163] Although the "extreme profitability of finance is not yet

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

156. *See* Areddy & Abkowitz, *supra* note 127.

157. *See A Penny Here, a Penny There*, *supra* note 109 (explaining the payments ecosystem and China's reduced bank fees).

158. *See* Judge, *supra* note 35, at 604–06 (discussing shortcomings and pockets of success); Verstein, *supra* note x, at 457-59 (analyzing potential efficiencies).

159. *See, e.g.*, Irving Wladawsky-Berger, *Blockchain Reaches a Tipping Point*, WALL ST. J., Aug 5, 2016.

160. *See* Adam J. Levitin, *Safe Banking: Finance and Democracy*, 83 U. CHI. L. REV. 357, n. 316 (2016); Wladawsky-Berger, *supra* note x.

Deutsche Welle, *Fintech Regulation on G20 Agenda*, DAILY NEWS EGYPT (Jan. 26, 2017), https://dailynewsegypt.com/2017/01/26/fintech-regulation-on-g20-agenda/ [https://perma.cc/HGU9-SFHK] (quoting the chairman of the G20 Financial Stability Board as saying, "If you look ahead, it is possible that virtual currencies and payment service providers could begin to displace traditional banking services");

161. *See, e.g.*, Levitin, *supra* note 159, at n. 316.

162. *See* Telis Demos, *Banks Co-Opt Bitcoin Technology*, WALL ST. J., Jan. 10, 2017, at B7.

163. A CFPB study of over 3,000 loans concluded that the fintech startup eClosing helped increase consumer transparency in mortgages. *See* CONSUMER FIN. PROTECTION BUREAU, LEVERAGING TECHNOLOGY TO EMPOWER MORTGAGE

well-understood [and] is a puzzle for economists to work on,"[164] with finance representing such a large a part of the economy, it is possible that fintech competition could bring substantial savings to consumers, not to mention the broader welfare gains of a stronger, more efficient economy. These consumer welfare-enhancing dimensions will to some extent depend on effective competition enforcement and advocacy.

C. International Competitiveness

Less efficient and innovative U.S. financial services are not only economically harmful in isolation, but also from an international perspective. Scholars and regulators have debated whether banks need to be big to maintain their international competitiveness, and arguments can be made either way.[165] 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 leaner. This creates two potential problems. First, reduced domestic competitiveness may make U.S. less able to enter those foreign markets. The U.S. economy has benefited in recent years from billions of dollars in revenues earned abroad by its leading digital companies, such as Google.[166] 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 U.S. 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. Already, unregulated virtual currencies such as Bitcoin and Ethereum, are increasingly used by Americans.[167] Much is unknown about how such technologies will develop, and the trust offered by a governmentally overseen financial system may prove difficult to replicate.[168] If an era of wide-open global finance arrives, however, U.S. financial institutions could find themselves suddenly exposed to international competition as never before. Without U.S. regulators to insulate them, they would be forced to face off against foreign institutions made leaner and innovative by decades of higher levels of competition in some foreign markets. In such a scenario, foreign financial institutions could capture a significant share of U.S. financial services.

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CONSUMERS AT CLOSING 11 (2015), http://files.consumerfinance.gov/f/201508_cfpb_leveraging-technology-to-empower-mortgage-consumers-at-closing.pdf [hereinafter CFPB REPORT].

164. Noah Smith, *How Finance Took Over the Economy*, BLOOMBERG (April 20, 2016), https://www.bloomberg.com/view/articles/2016-04-20/how-finance-came-to-dominate-the-u-s-economy [https://perma.cc/MR94-PLFT].

165. Baxter, *supra* note 5, at 816–17.

166. *See* Fairless, *supra* note 129.

167. *See* Nathaniel Popper, *In Digital Coins, Bypassing Rules As You Get Rich*, N.Y. TIMES, June 24, 2017, at A1.

168. *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).

D. Distributional Implications

Fintech may expand the benefits of finance to a larger portion of the economic spectrum. About 7 percent of all U.S. households and 18 percent of African Americans are unbanked, which means they lack access to a federally insured bank account.[169] This portion of the population pays considerably more for financial services, such as $4 to cash a $20 check.[170] Part of the problem is that banks are conservative in lending to small businesses and low-income households, concentrating on larger loans because the time spent by the bank approving and processing the loan is similar regardless of loan size.[171]

Technology startups are bringing finance to underserved customers by helping them save, reduce debt, and manage expenses.[172] For example, Bee offers bare bones mobile bank accounts to "vulnerable" populations, including felons and those without social security numbers. The company estimates it saves customers about $250 annually in financial fees and increases participants' annual savings by hundreds of dollars. One of the analytic mechanisms driving this expansion is the use of new data to establish more accurate predictions about low-income households' likelihood of paying back loans. This enables entrepreneurs to extend credit to those who have been "off the grid" financially and thus lack official credit scores.[173] Also, lower operating costs and automation can make it profitable to provide services for smaller value loans and bank accounts.

Expanded access is not limited to low-income households. Some fintech startups are using their networks to help recently unemployed borrowers of various wealth levels find jobs, making the borrowers more likely to pay back loans.[174] With the help of tools such as artificially intelligent automated robo-advisers, startups are also providing middle-income households with access to financial services—such as those provided by hedge funds or private equity—historically reserved for only high-net-worth individuals.[175]

The idea that fintech can help the unbanked has its critics. One of the concerns is that new apps will find innovative ways to charge consumers hidden fees. Surely some will prove problematic and test consumer protection laws in new ways. But fintech has extended financial

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169. *See* Yuka Hayashi, *Ranks of the 'Unbanked' Decline*, WALL STREET J., Sept. 8, 2016, at C.1.

170. Nathaniel Popper, *Helping the Unbanked*, N.Y. TIMES, April 6, 2016, at F10.

171. *See, e.g.*, Mehrsa Baradaran, *Banking and the Social Contract*, 89 NOTRE DAME L. REV. 1283, 1336 (2014).

172. *See Fintech for Good*, CFED.ORG (Aug. 16, 2016), http://cfed.org/knowledge_center/events/upcoming/how_fintech_for_good_can_create_financial_health [https://perma.cc/3P8T-JSMM]; Elizabeth Harris *Is One Of These Companies The Next FinTech Unicorn?*, FORBES (June 20, 2016, 9:35 AM), http://www.forbes.com/sites/elizabethharris/2016/06/20/is-one-of-these-companies-the-next-fintech-unicorn/#7d9488807e2d [https://perma.cc/UN6L-Q5HT].

173. *See* Mayank Jain, *Your Phone and Facebook Account Can Help Improve Your Credit Score*, BLOOMBERG QUINT (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 [https://perma.cc/XWX2-8VG2].

174. *See* ECONOMIST, *supra* note 37.

175. *See* Emerson Dameron, *28 Fintech Startups in NYC That Are Shaking up Finance*, BUILTINNYC (July 16, 2016), http://www.builtinnyc.com/blog/fintech-startups-nyc [https://perma.cc/NZ35-Q42L].

access to millions of previously unbanked outside the U.S.,[176] and there is some evidence they have begun to do so in the U.S. Even if it is not a full solution, it may be part of a solution if allowed to flourish.

* * *

It is too soon to know how sustainable new fintech business models will prove to be and how competition authorities might adapt, but the U.S. economy appears poised to miss out on the full benefits. Big banks are only getting bigger instead of ceding market share to more cost-effective upstarts. As a result, American consumers likely pay higher prices and all segments of the population may benefit less from innovation.

Commentators have concluded that competition policy should be upgraded to take better account of factors such as exclusion,[177] vertical mergers,[178] innovation,[179] and algorithmic price coordination.[180] Finance has additional complicating factors that need to be considered for a robust analysis.[181] For instance, with respect to fintech, authorities might need to block big banks' acquisitions of small startups due to the potential costs of inefficient taxpayer subsidies and systemic risk.[182] The broader point, however, is that correctly calibrating such decisions has become more important and more difficult in the era of fintech.

## IV. THE ORGANIZATIONAL FRAMEWORK

For the financial system to thrive in the digital era, competitive markets will be essential. Definitive competition data for all markets at all times is unnecessary to conclude that the regulatory state should be optimally designed for success in one of its most challenging and high-stakes missions. Success will mean preventing both financial institutions from engaging in anticompetitive conduct and regulators from erecting unnecessary entry barriers.

All branches of government have a role to play. Legislatures would ideally participate in any substantial statutory updates, but lack expertise and the ability to act quickly as markets

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176. Catherine Martin Christopher, *Mobile Banking: The Answer for the Unbanked in America?*, 65 Cath. U. L. Rev. 221, 236-40 (2015).

177. *See, e.g.*, Hemphill & Wu, *supra* note x.

178. *See, e.g.*, Robert Pitofsky, *Past, Present, and Future of Antitrust Enforcement at the Federal Trade Commission,* 72 U. CHI. L. REV. 209, 215 (2005); Steven C. Salop & Daniel P. Culley, *Revising the US vertical merger guidelines: policy issues and an interim guide for practitioners*, 4 J. Antitrust Enforcement 1, 4 (2015).

179. *See, e.g.*, Johnathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 ANTITRUST L.J. 575 (2007); Shelanski, *supra* note xx.

180. Maurice E. Stucke & Ariel Ezrachi, *Artificial Intelligence & Collusion: When Computers Inhibit Competition* (Univ. of Tenn. Knoxville Coll. Of Law Legal Studies Research Paper Series, Research Paper No. 267, 2015), https://ssrn.com/abstract=2591874.

181. *See* Macey & Holdcroft, *supra* note 5.

182. These costs would need to be weighed against the benefit of incentives to entrepreneurs who may start companies with the goal of being bought.

develop.[183] Courts provide important checks[184] but are less well equipped to develop market-wide solutions or take preventative steps.[185] Moreover, courts are highly deferential to agencies on banking matters,[186] and private plaintiffs are regularly denied standing under major financial competition legislation.[187]

Consequently, administrative agencies must play a lead role. They need to enforce competition laws, including preventing incumbents from blocking data access and raising switching costs. They must extend licenses effectively as business models evolve. And they must advocate for policies—including new legal rules and the abandonment of excess regulation—that remove entry barriers.

## 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

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183. *See* Bar-Gill & Warren, *supra* note 27, at 84–85.

184. In the wake of the subprime mortgage crisis, the U.S. Supreme Court struck down the OCC's broad rule that would have shielded banks from state enforcement of law, thereby even blocking judicial review of banks' racially discriminatory lending. S*ee* 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, Pub. L No. 84-511, § 3(c), 70 Stat. 133, 135 (1956) (codified in scattered sections of 12 U.S.C.). In that act, Congress "relegated the Department of Justice to an advisory role" in bank mergers. The Supreme Court, however, stepped in to declare that effort inconsistent with the Sherman Antitrust Act. United States v. Philadelphia National Bank, 374 U.S. 321, 355 (1963); Macey & Holdcroft, *supra* note 5, at 1395, n. 80.

185. *See* Bar-Gill & Warren, *supra* note 27, 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."); Richard Craswell, *Taking Information Seriously: Misrepresentation and Nondisclosure in Contract Law and Elsewhere*, 92 VA. L. REV. 565, 592–93 (2006) (discussing the limits of case-by-case court decisions compared to market-wide administrative regulation). *But see* Stacey L. Dogan & Mark A. Lemley, Antitrust Law and Regulatory Gaming, 87 TEX. L. REV. 685, 696-97 (2009) ("Economic theory teaches that antitrust courts are better equipped than regulators to assure efficient outcomes in many circumstances."). The lack of empirical studies of public vs. private antitrust enforcement hinders any debate about their optimal degree of substitutability and complementarity. *See* Sokol, *supra* note xx, at 1081-84.

186. *See, e.g.*, Clarke v. Sec. Indus. Ass'n, 479 U.S. 388, 401 (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, 208 (1984) (holding that the Federal Reserve Board's determination under Glass-Steagall "deserves the deference normally accorded the Board's construction of the banking laws").

187. *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). When private parties have challenged regulators' pro-bank interpretations of financial statutes such as Glass-Steagall, courts have deferred to regulators. Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Reserve Sys., 468 U.S. 207, 208 (1984) (upholding the Federal Reserve Board's determination that banks could acquire stock brokerage firms without violating Glass-Steagall); Sec. Indus. Ass'n v. Clarke, 885 F.2d 1034, 1036 (2d. Cir. 1989) (upholding the OCC's interpretation of Glass-Steagall as not preventing banks from creating and selling mortgage-backed securities).

2000s. This context meant that preventing the next crisis was at the top of legislators' minds in designing the framework. Major financial legislation in such times consequently oriented financial institutions around financial stability and has paid scant attention to competition because it was not a salient factor in the preceding economic turmoil.[188]

Moreover, despite greater attention in recent years to systemic risk, authorities still emphasize a narrower mechanism for stability: the safety and soundness of large financial institutions.[189] Bank failures during formative crises have caused great panic, and were the most salient threat to economic collapse. The connection between that institutional focus and competition is not well understood. But a systemic lens would presumably elevate competition because there is no consensus that competition harms overall stability.[190] In contrast, an institutional preservation paradigm may cause regulators to view competition as a threat to their mission.

These two themes—insufficient attention to competition and overemphasizing short-term survival of financial institutions—permeate the institutional design flaws undermining fintech governance today. Stability regulators that were built with such an institutional focus devote most of their employees to examining large banks, studying potential risks of bank failure, and writing rules to minimize that risk. The legislative and regulatory dominance of bank safety and soundness has meant that no single institution has the combination of motivation, authority, and expertise for effective competition enforcement and advocacy.

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 risky behavior. If anything, faced with a clearly risky but potentially profitable activity, banking regulators should block that activity.

But the regulatory ethos of vigilantly making sure banks do not collapse has in many commentators' views historically led regulators to use their discretion to seek ways to increase bank profits.[191] Regardless, from a psychological perspective, advancing banks' revenues and

188. *See* Felix B. Chang, *Financial Market Bottlenecks and the "Openness" Mandate*, 23 GEO. MASON L. REV. 69, 70 (2015) ("Antitrust considerations occupy only a small corner of Dodd-Frank . . . ."); Bruce Lyons, *Competition Policy, Bailouts and the Economic Crisis*, COMPETITION POL'Y INT'L, Autumn 2009, at 25, 38 ("Anticompetitive agreements and mergers cause long-term harm which gets discounted heavily in a crisis.").

189. *See infra* notes xx to 235 and accompanying text; *see also* Hilary Allen, *The SEC As Financial Stability* Regulator (work in progress) (discussing the post-2008 shift to a more macroeconomic perspective); Schwarcz, *supra* note 10 (arguing that from solely a *stability* standpoint, the existing institutional focus is problematic because it ignores other forms of "systemic risk.").

190. *See* Organization for Economic Co-operation and Development, *supra* note xx, at 201.

191. *See, e.g.*, Baradaran, *supra* note 168, at 1307 ("[R]egulators felt that in order to protect bank safety, they needed to assure their profitability."); Bar-Gill & Warren, *supra* note 27, at 90 (equating bank regulators' safety and soundness mission with bank profitability); Alec C. Covington, *Fighting Yesterday's Battles: Proposed Changes to the Consumer Financial*

profits in some ways aligns with the mission of safety and soundness because a profitable bank is 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 charters banks.[192] Its responsibilities include deciding which banks can obtain new licenses and interpreting the scope of existing licenses. In analyzing new licenses, the OCC is expected to "foster healthy market competition."[193] The OCC's licensing discretion, however, has increased competition mostly by enabling its licensed banks to compete in nonbank markets, rather than encouraging new entrants into banking.

Consider, for instance, how the OCC has many times expanded the scope of activities allowed by national banks, thereby increasing their potential revenues. It interpreted the National Bank Act as allowing banks to offer discount brokerage services[194] and Glass-Steagall as not preventing banks from buying, selling, and dealing in mortgage-backed securities.[195] The OCC has also in other ways demonstrated its prioritization of protecting banks' profits over other financial law goals, such as by attempting to shield banks from state prosecution for racially discriminatory lending.[196]

The OCC's bank-oriented licensing can be seen in its approach to fintech. Despite a clear lack of fit between traditional bank licenses and innovative fintech models, the OCC initially kept its licensing unchanged.[197] By not offering a new fintech license enabling independent operations, the OCC arguably indirectly forced fintech startups to "rent a bank" to be able to provide basic services.[198] The OCC's leader until recently, Comptroller Thomas Curry, even made this policy explicit by initially instructing his employees to find ways "to think about how

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*Protection Bureau*, 16 N.C. BANKING INST. 299, 308 (2012) ("[F]ederal bank regulators have interpreted safety and soundness to mean protecting profitability for the financial institutions . . . ."); 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) ("Even when regulators have not been captured politically by the industries that they regulate, they have been complicit facilitators of bank growth because they believe that size makes banks sounder.").

192. States can also extend banking licenses. *See* Bar-Gill & Warren, *supra* note 27, at 81. The 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 UC IRVINE L. REV. 945, 966 (2012).

193. *See Comptroller's Licensing Manual: Charters 2*, OFFICE COMPTROLLER CURRENCY (Sept. 2016), http://www.occ.treas.gov/publications/publications-by-type/licensing-manuals/charters.pdf [https://perma.cc/VU2S-43J7].

194. *See, e.g.*, Clarke v. Sec. Indus. Ass'n, 479 U.S. 388, 401 (1987).

195. *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).

196. *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.

197. *See* Hochstein, *supra* note 76.

198. *See supra* Part X.

we can act as a bridge [between traditional banks and fintechs] 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."[199]

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.[200] 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.[201]

The capture explanation, however, is at odds with Curry's reputation as one of the toughest comptrollers in overseeing banks' safety and soundness[202] and with his public praise for the value of fintech competition.[203] Indeed, the OCC under Curry blocked large financial institutions from product lines such as short-term loans (a cousin of payday lending) that would be a threat to safety and soundness.[204]

My alternative explanation—albeit one not mutually exclusive from industry capture—is mission conflict. Viewed from an organizational ethos of safety and soundness, extending licenses to new fintechs is a risk because it creates an additional threat to any particular bank's profitability. Additionally, designing a new licensing scheme takes resources away from a higher priority mission and makes the OCC responsible for unfamiliar business models.[205] Even if the OCC does not consciously seek to protect banks from competition, it lacks the institutional incentive to devote its resources to developing fintech licenses.

In contrast, around the time Curry was instructing his employees to study how to promote partnerships between fintech startups and traditional banks, the U.K.'s financial competition regulator was developing a special category of fintech licenses.[206] That U.K. regulator is less

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199. *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.

200. *See generally* DUFF MCDONALD, THE FIRM: THE STORY OF MCKINSEY AND ITS SECRET INFLUENCE ON AMERICAN BUSINESS (2014).

201. *See* Wilmarth, Jr., *supra* note 50, 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, 2041.

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

203. *See* Schlesinger, *supra* note 198 (noting Curry's support for fintech bringing competitive pressure to banks).

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

205. *See* Hochstein, *supra* note 76.

206. *See* James F. Bauerle, *Regional Banking Outlook Embracing Differential Regulation*, 133 BANKING L.J. 397 (2016); *see also* John Thornhill, *An Innovative Yet Double-Edged Approach to Financial Regulation*, FIN. TIMES (May 9, 2016), https://www.ft.com/content/577944d8-15b5-11e6-b197-a4af20d5575e (describing the U.K. Financial Conduct Authority's lesser capital requirements and Project Innovate, which enables fintech startups to launch new products without first getting regulatory approval).

conflicted than its American counterparts because it is not charged with safety and soundness.[207] The U.K. is also an instructive reference point because London has rivaled—if not surpassed—New York as the world's financial capital.[208]

A year after the U.K. created its fintech-specific license, the OCC announced that it would begin considering applications for special-purpose fintech charters.[209] It remains to be seen whether this new license will address the regulatory barriers to entry faced by fintech challengers, but there are grounds for skepticism. The license has come under criticism for imposing "daunting challenges" on fintech applicants, particularly start-ups.[210] Moreover, the pro-competitive goal of eliminating barriers to entry is somewhat 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 challengers.[211]

Even if the OCC adjusts and structures the fintech special-purpose license 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 CEO Jamie Dimon warned that "Silicon Valley is coming," in his next letter to shareholders he triumphantly assured them, "We have built our own extraordinary in-house big data capabilities—we think as good as any in Silicon Valley."[212] More importantly, 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 set it up for success in those many 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.[213] 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

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207. *See About Us*, FIN. CONDUCT AUTH., https://www.the-fca.org.uk/about [https://perma.cc/2R8Y-NKG2] (last visited Aug. 1, 2016). A separate U.K. regulator, more the equivalent to the OCC, has primary responsibility for safety and soundness and "a secondary objective to facilitate effective competition." *See Prudential Regulation Authority*, BANK OF ENG., http://www.bankofengland.co.uk/pra/Pages/default.aspx [https://perma.cc/C68V-NUHR] (last visited June 18, 2017).

208. *See, e.g.*, John Glover, *New York Strips London of Mantle as World's Top Financial Center*, BLOOMBERG BUS. Mar. 16, 2014, http://www.bloomberg.com/news/articles/2014-03-15/new-york-steals-london-s-mantle-as-world-s-top-financial-center.

209. *See OCC To Consider Fintech Charter Applications, Seeks Comment*, OFF. COMPTROLLER CURRENCY (Dec. 2, 2016), https://www.occ.treas.gov/news-issuances/news-releases/2016/nr-occ-2016-152.html [https://perma.cc/CE35-G8CX].

210. *See, e.g.*, Gregory Roberts, *OCC Fintech Charter May Be a Poor Fit for Fintechs*, BUREAU NAT'L AFFAIRS (Feb. 2, 2017), https://www.bna.com/occ-fintech-charter-n57982083191 [https://perma.cc/6VSJ-GJW6].

211. *Remarks by Thomas J. Curry Comptroller of the Currency Regarding Special Purpose National Bank Charters for Fintech Companies*, WALL STREET J. 7 (Dec. 2, 2016), http://online.wsj.com/public/resources/documents/CurrySpeech1202.pdf [https://perma.cc/LDN7-GUXG].

212. *See* Yurcan, *supra* note 42.

213. *See, e.g.*, CONSUMER FINANCIAL PROTECTION BUREAU, *supra* note xx, at 1.

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 has the potential for "substantial consumer benefit."[214] This policy contrasts with the OCC's stated goal of promoting "collaboration"[215] and helping "banks that are interested in expanding their reach through technology or potentially entering into partnerships with technology firms."[216] The CFPB's focus was on innovation benefitting consumers; the OCC's on innovation benefitting banks.

#### b. Antitrust

U.S. antitrust enforcement in finance lies with different agencies, depending on which financial institution is involved and the type of deal.[217] Although the DOJ and FTC have shared authority for many decisions, the FDIC, OCC, and Federal Reserve are the most important actors in mergers involving banks.[218]

As with licensing, prudential regulators' mission conflict may affect their role in merger decisions. In a basic and oversimplified manner, a merger might give a bank monopoly profits while lowering its costs, making the bank more efficient, and insulating the bank from competition.[219] The bank would thereby be more immediately safe and sound. Thus, blocking anticompetitive mergers could, in the short term, be seen as making a bank less safe and sound.

Antitrust law did not traditionally accommodate financial stability considerations to any great extent.[220] But observers have argued that federal agencies have generally viewed consolidation as increasing stability.[221] As a result, regulators have treated antitrust policy goals as "subordinate to stability concerns."[222] The 2010 Dodd-Frank Act leaves prioritization unclear

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214. *See* POLICY ON NO-ACTION LETTERS, CONSUMER FIN. PROTECTION BUREAU 1–2 (Feb. 2, 2016), http://files.consumerfinance.gov/f/201602_cfpb_no-action-letter-policy.pdf [https://perma.cc/GMY6-YDN6].

215. *See Supporting Responsible Innovation in the Federal Banking System: An OCC Perspective,* OFF. COMPTROLLER CURRENCY (Mar. 2016), http://www.occ.gov/publications/publications-by-type/other-publications-reports/pub-responsible-innovationbanking-system-occ-perspective.pdf.

216. *See* Schlesinger, *supra* note 198.

217. This discussion omits the international dimension of antitrust. *See* Sokol, *supra* note xx, at 1093.

218. When a deal is between two banks, one of the prudential regulators shares jurisdiction with the DOJ. Bank Holding Company Act, 12 U.S.C. § 1828(c)(2) (2012). Prudential regulators essentially hold jurisdiction over the banks that they oversee. *See id.* Under the revised Dodd-Frank Act, bank holding companies acquiring any other company with over $10 billion in assets would require approval by the Federal Reserve. *See* Dodd-Frank Act § 604(e), 12 U.S.C. § 5301 (2012) (amending Bank Holding Company Act of 1956, 12 U.S.C. § 1842(c)(7)). For the DOJ and FTC's role, see *infra* Part IV.A.2.

219. *Cf.* Orley C. Ashenfelter et al., *Efficiencies Brewed: Pricing and Consolidation in the US Beer Industry*, 46 RAND J. ECON. 328, 328 (2015) (analyzing a merger with both cost savings and increased monopoly power).

220. *See* Macey & Holdcroft, *supra* note 5, at 1391, 1393.

221. *See id.* at 1394.

222. *Id.* (citation omitted).

but directs the responsible banking regulator to consider "risk to the stability of the United States banking or financial system" in approving or denying a merger.[223]

Even without clear statutory mandate or explicit intent, financial regulators are susceptible to irrationally prioritizing stability over competition because core parts of antitrust analyses are imprecise. There is a startling absence of consensus on many core antitrust issues,[224] including "the relevance of market power" for liability.[225] Merger analyses require predicting a dynamic future economy with countless variables. Whether the result ultimately raises or lowers consumer prices is difficult to know beforehand with any great certainty. 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.

Given this uncertainty, analyzing the tradeoff between procompetitive and anticompetitive effects is "as much an exercise in judgment as mathematics."[226] In many respects, the real decision to allow a merger comes down to risk tolerance of possible future scenarios. Prudential regulators' mission focus on safety and soundness means that they would be expected to prioritize risk factors related to bank profitability over the risk of consumers paying higher prices. Antitrust is particularly vulnerable to this prioritization. In a merger, the cost savings from economies of scale are more concrete. Prior to the merger, concrete savings can be identified from overlapping branches closed or jobs eliminated. In contrast, the likelihood of monopoly pricing is more uncertain, and the "traditional competitive analysis" makes it particularly "difficult to demonstrate anticompetitive effects in the case of banking."[227]

Presumably, bank regulators would not consciously promote anticompetitive banks. Psychologists have, however, established that individuals' jobs and institutional affiliations influence how they process information and form conclusions.[228] Observers saw a similar mission focus leading up to the financial crisis of 2008. During that time, prudential regulators ignored predatory lending and consumer protection violations that brought significant profits to banks. Moreover, that predatory lending contributed to a mortgage crisis that helped trigger institutional failures and a recession.[229] 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. If even that complementary subordinate mission was deprioritized, the potentially conflicting mission of competition would

223. Dodd-Frank § 604(d), § 1842(c)(7); *see* Dodd-Frank Act §604(e)(1), (f), 12 U.S.C. §§ 1843(j)(2)(A),1828(c)(5).

224. *See* Rebecca Haw Allensworth, *Adversarial Economics in Antitrust Litigation: Losing Academic Consensus in the Battle of the Experts*, 106 NW U. L. REV. 1261, 1263-64 (2012).

225. *See, e.g.*, Louis Kaplow, *On the Relevance of Market Power*, 130 HARV. L. REV. 1303, 1304 (2017) .

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

227. *See* Baxter, *supra* note 5, at 833. However, once the government establishes a prima facie case, concrete efficiencies alone will not enable a defendant to prevail. FTC v. Sysco Corp., 113 F. Supp. 3d 1, 82-83 (D.D.C. 2015).

228. Christoph Engel & Elke U. Weber, *The impact of institutions on how to decide*, 3 J. Institutional Econ. 323, 339-40 (2007) ("Institutions frequently have an impact on the execution of tasks…").

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

presumably face even more difficulty gaining traction within institutions focused on safety and soundness.

In analogizing the institutional fate of consumer protection to that of competition, it is instructive to consider the clarity of the harms involved for each because that informs the clarity of evidence that the law was broken. Whereas many competition analyses rely on complex analytics of indeterminate estimates of the likelihood of dispersed future market harm, evidence of consumer protection harms can be obtained through concrete instances of past harm to individuals. Thus, the clarity of the harm is greater for consumer protection. 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.[230] Moreover, commentators had years in advance argued that these concrete and widespread legal violations heightened institutional risks—the very mission that prudential regulators prioritized.[231] In other words, there were two reasons for prudential regulators to care about the violations in front of them: first, because it was their duty to enforce consumer protection laws, and second because those violations added institutional risk. But because regulators were instead focused on a different set of institutional risk analyses, they missed those consumer protection violations (or otherwise failed to act). If far clearer legal violations that turned out to undermine the predominant mission were deprioritized, competition would by comparison appear even less likely to escape a similar fate of being institutionally sidelined.

Thus, prudential regulators' competition leadership lessens the likelihood that a strong consumer welfare perspective drives the antitrust analysis. 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. Additionally, if a bank fails, the prudential regulator would expose itself to intense public blame because its failure would be evident.[232] But if the regulator allows a merger that slightly increases credit product prices in a few years or even immediately, such public backlash is far less likely.[233] Even in the face of great unpopularity, Wall Street has in recent years succeeded even in obstructing reforms mandated by recent federal legislation.[234] There is thus little institutional reason to expect prudential regulators to take a strong position against potentially anticompetitive bank conduct based on uncertain, probabilistic analyses. Nor can they be expected to devote substantial resources to policing anticompetitive behavior.

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230. *See* Engel & Patricia A. McCoy, *supra* note 26, at 1317-18; Bar-Gill & Warren, *supra* note 27, at 90.

231. *See* Engel & Patricia A. McCoy, *supra* note 26, at 1286.

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

233. Of course, failing to block a problematic merger could also have repercussions. *See, e.g.*, D. Daniel Sokol, Antitrust, Institutions, and Merger Control, 17 George Mason Law Review 1055, 1074 (2010). But prices in finance are very difficult to understand and compare even at the same point in time. *See* Bar-Gill & Warren, *supra* note 27, 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* Crane, *supra* note 25, at 1160.

234. *See* Wilmarth, Jr., *supra* note 50, at 1283.

The Dodd-Frank Act of 2010 sought both to end too-big-to-fail banks and to improve financial stability. It directed prudential regulators to expand their oversight of institutions,[235] which amounts to enhanced safety and soundness. Dodd-Frank also empowered a new body, FSOC, to restrict the growth of a systemically important financial institution (most prominently, a large bank), such as by preventing it from merging or offering certain products.[236] But "[t]he twin goals of Dodd-Frank are to ensure the stability of the financial system and to protect consumers,"[237] a reflection of the immediately preceding mortgage and fiscal crisis. The act's growth-limiting provisions were not designed to advance competition, and prudential regulators' approval is required for the exercise of these provisions.[238] Whereas prudential regulators have implemented the Dodd-Frank heightened institutional safety and soundness mandates,[239] FSOC growth-limiting authority has yet to be used. Financial reform has done little to change prudential regulators' dominance of competition-related decisions.

### 2. The DOJ and FTC: Limited Expertise and Authority

The DOJ and FTC share antitrust authority over almost every industry. But to develop market-specific expertise, they have largely divided up industries, with the DOJ taking the lead for finance.[240] 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 Supreme Court.[241] Since 1985, however, the DOJ has developed a highly "cooperative" and "collegial" merger relationship with prudential regulators, ending divergent antitrust treatment.[242] The current DOJ deference to banking agencies is rooted in institutional dynamics, statutes, and jurisprudence.

Growing DOJ reliance on prudential regulators was perhaps a natural result of the evolution of antitrust analyses and financial markets. Starting in the 1980s, financial institutions began to

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235. 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 Act § 171, 204, 804, 12 U.S.C. §§ 5371, 5384, 5463 (2012); Dodd-Frank Act §726, 15 U.S.C. § 8323 (2012)).

236. 12 U.S.C. §§ 1852(a), 5331(a) (2012).

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

238. A two-thirds vote is required to restrict large financial institutions' growth, and prudential regulators make up more than one-third of voting members. 12 U.S.C. § 5513(c)(3)(A), 5321, 5331 (2012).

239. BD. OF GOVERNORS OF THE FED. RESERVE SYS., DODD-FRANK ACT STRESS TEST 2016: SUPERVISORY STRESS TEST METHODOLOGY AND RESULTS 1 (2016), http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20160623a1.pdf.

240. *See The Enforcers*, FED. TRADE COMM., https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/enforcers [https://perma.cc/3R8F-L6UD] (last visited June 10, 2017). 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 (B. Gardner & G. Rausser, eds., 2001).

241. *See* J. Robert Kramer II, *Antitrust Review in Banking and Defense*, 11 GEO. MASON L. REV. 111, 116 (2002) (reviewing cases in which the DOJ opposed banking regulators).

242. *See id* at 117.

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 risen to 34. . . . After the most recent mergers, the U.S. now has three banking companies with over one trillion in assets."[243] 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,[244] examinations now take months or, at the largest banks, require scores of year-round "resident" examiners.[245]

The agency with greater market-specific expertise in any financial deal 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."[246] 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.[247] In contrast, the FDIC has over 6,000 employees and the OCC almost 4,000 devoted solely to financial regulation,[248] in addition to the Federal Reserve's over 16,000 total employees focused on diverse financial goals.[249] 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 financial system.[250] This resource imbalance alone makes it difficult for the DOJ to provide a truly independent perspective, given the highly technical nature of financial markets.

Additionally, the DOJ has a narrower mandate in antitrust 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.[251] Prudential regulators are further allowed to approve a deal "whose effect []

243. John D. Hawke, Jr., Comptroller of the Currency, Remarks at a Conference on Credit Rating and Scoring Models 6–8 (May 17, 2004), https://www.occ.gov/static/news-issuances/speeches/2004/pub-speech-2004-36.pdf.

244. *See id.*at 2–5.

245. Adam J. Levitin, *The Politics of Financial Regulation and the Regulation of Financial Politics: A Review Essay*, 127 HARV. L. REV. 1991, 2044 (2014).

246. *See* Kramer, *supra* note 240, at 117 (emphasis added).

247. Email from Jenna A. Simotes, DOJ Public Affairs to Rory Van Loo, Boston University (May 10, 2017) (on file with the author) (stating that the DOJ Antitrust Division has 705 employees); *Sections and Offices*, U.S. DEP'T OF JUSTICE, Sections and Offices, https://www.justice.gov/atr/sections-and-offices [https://perma.cc/F9PB-RYED] (last visited June 9, 2017) (listing thirty-one different industries covered by the DOJ Civil, including credit cards and banking). Calculated as (705/32)*2 = 44.

248. FED. DEPOSIT INSURANCE CORP., 2016 ANNUAL REPORT 5, 97, 156 (Feb. 15, 2017) (listing 6,096 employees); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2016 ANNUAL REPORT iii (2017).

249. BD. OF GOVERNORS OF THE FED. RES. SYS., 102ND ANNUAL REPORT 2015 308 (2015), https://www.federalreserve.gov/publications/annual-report/files/2015-annual-report.pdf.

250. *See, e.g.*, Baxter, *supra* note 92, at 579; *supra* note 246.

251. Dodd-Frank § 604(d), (e)(1), (f), 12 U.S.C. §§ 1842(c), 1843(j)(2)(A), 1828(c)(5) (2012).

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."[252] Thus, even 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. Most directly, in *Credit Suisse v. Billing*, the Court found that securities laws gave immunity from an antitrust claim.[253] Part of the reasoning was that there is a "fine, complex, detailed line separat[ing] activity that the SEC permits or encourages (for which respondents must concede antitrust immunity) . . . from activity that the SEC must (and inevitably will) forbid."[254] It also considered, as one of the factors in determining whether regulation supersedes antitrust, "the existence of regulatory authority under the securities law to supervise the activities in question."[255] Commentators have interpreted this ruling, and the preceding *Verizon v. Trinko*[256] decision, as more broadly curtailing the DOJ's ability to intervene in heavily regulated markets.[257] Even though not on point, these rulings may provide further 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,[258] and the FTC has used its antitrust rulemaking authority only once, in the 1960s.[259] Prudential regulators have not developed policies enabling fintech challengers to meaningfully compete.[260] Faced with banks' blocking of fintech startups' access to customer data, which as mentioned above makes customer switching more difficult,[261] the U.K.'s financial competition authority wrote rules prohibiting such conduct so that consumers could better

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252. *See* Bank Merger Act, 12 U.S.C. § 1842(c)(2), § 1828(c)(5)(B).

253. Credit Suisse Sec. (USA) L.L.C. v. Billing, 551 U.S. 264, 276 (2007).

254. Credit Suisse, 551 U.S. at 279-80.

255. *See id*. at 275.

256. Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398 (2004).

257. *See, e.g.*, Howard A. Shelanski, *The Case for Rebalancing Antitrust and Regulation*, 109 MICH. L. REV. 683, 684, 713 (2011)

258. 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.").

259. 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); 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 (2014) ("Excluding the single Clayton Act rule, the FTC has not issued rules under its antitrust mandate.").

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

261. *See supra* Part II.A.

compare products.[262] The U.S. Congress passed legislation requiring the CFPB—an entity without any licensing or antitrust mandate—with studying the feasibility of such rules.[263]

On the enforcement side, the DOJ has shown some motivation to prosecute large financial institutions. The DOJ has, for instance, compelled major credit card companies to abandon contract agreements limiting merchants' ability to offer discounts to customers for other forms of payment.[264] For that type of ex post antitrust action, the DOJ is not statutorily required to consult prudential regulators in the same way it is for ex ante blocking of mergers.[265] Additionally, such contracts were between retailers and banks, removing the same finance-specific expertise constraints. In finance-specific contexts, observers have noted a lack of antitrust intervention, such as to address exclusionary tactics preventing new entrants in credit card and derivative markets.[266]

Banking mergers have for decades occurred largely unobstructed by regulators. To be sure, it is impossible to know how many 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. Between 1980 and 2009, however, almost 11,000 banking mergers occurred. Not one of these was challenged by a regulator.[267] Although there is consensus that mergers and high market concentration have increased banks' market power,[268] there is disagreement as to whether mergers have brought efficiencies.[269] The three biggest bank holding companies, Citigroup, J.P. Morgan Chase, and Bank of America, are the

262. *See* Katie Morley, *Competition Watchdogs to Enforce Smartphone Banking Revolution*, TELEGRAPH (Aug. 9, 2016, 10:22 AM), http://www.telegraph.co.uk/news/2016/08/08/competion-watchdogs-to-enforce-smartphone-banking-revolution [https://perma.cc/BM2Q-FY6M] (last visited June 11, 2017).

263. *See infra* note 291 and accompanying text.

264. United States v. Am. Express Co., et al., 2011 WL 2974094, No. CV-4496 at *1 (E.D.N.Y., July 20, 2011).

265. *See id.*

266. *See* Hemphill & Wu, *supra* note 8, at 1202 (articulating the problem of parallel exclusion, including by credit card companies); Felix B. Chang, *Second-Generation Monopolization: Parallel Exclusion in Derivatives Markets*, 2016 COLUM. BUS. L. REV. 657, 660 (2016).

267. *See* Macey & Holdcroft, *supra* note 5, at 1391. The DOJ has, however, required divestitures. *See, e.g.*, *United States v. Society Corp.*, 57 Fed. Reg. 10, 371 (1992).

268. *See infra* notes 118 to 120.

269. *See* Benjamin Kay et al., *Bank Profitability and Debit Card Interchange Regulation: Bank Responses to the Durbin Amendment*, at 145-48 (Bd. of Governors of the Fed. Reserve Sys., Fin. & Econ. Discussion Series Paper, 2014) (reviewing over 250 bank mergers and concluding they did not overall bring efficiencies); Isil Erel, *The Effect of Bank Mergers on Loan Prices: Evidence from the United States*, 24 REV. FIN. STUD. 1068 (2011) (finding efficiency results from bank mergers). Possibly, up to a certain point consolidation brings efficiencies, but Too Big To Fail banks are possibly "Too-Big-To-Be-Efficient." *See* Erik Devos, Srinivasan Krishnamurthy & Rajesh Narayanan, *Efficiency and Market Power Gains in Bank Megamergers: Evidence from Value Line Forecasts*, 45 Fin. Management 1011, 1011 (2016) (finding efficiency improvements on average bank mergers but efficiency decreases in the largest mergers). These findings could be skewed by the rapid mergers occurring during the 2008 financial crisis.

result of numerous mergers approved, and sometimes encouraged, by financial regulators.[270] These banks also each received costly bailouts during the most recent financial crisis.[271] Moreover, regulators have long allowed "large and unusual alliances among banks, software and hardware developers, and other non-bank entities."[272]

Since the 2008 financial crisis, any mega-merger, such as between the second and third largest banks, would likely be blocked, and Dodd-Frank took steps toward making sure that happens.[273] But even in recent years, regulators have continued to allow a range of deals. They have presented no obstacles to the wave of small-scale fintech strategic acquisitions,[274] which also have the potential in the long run to greatly increase big banks' size.[275] Larger deals have also been allowed, with the Federal Reserve approving Capital One's 2012 purchase for over $6 billion of one of the most popular online account providers, ING Direct, thereby making Capital One the sixth-largest depository institution.[276] The OCC did not deny any of the 455 merger applications it received between 2012 and 2016.[277]

Regardless of the merits of any of these individual decisions, from an institutional design perspective, it is important to recognize that financial competition is driven by prudential regulators. Yet they are statutorily impeded by an overriding safety and soundness mission. No single agency has the expertise, motivation, and authority to optimally regulate financial competition.

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270. *See* Karmel, *supra* note 184, at 8; David Zaring, *Administration by Treasury*, 95 MINN. L. REV. 187, 208 (2010) (discussing the U.S. Treasury's role in facilitating mergers).

271. *See, e.g.*, Karmel, *supra* note 190, at 1, 8.

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

273. 12 U.S.C. § 1852(b) (2012). The restrictions are subject to numerous exceptions, however, such as when the bank-to-be-acquired is in "danger of default." § 1852(c) (2012).

274. *See supra* Part I.A. (discussing recent bank activity related to fintech, including purchases by the largest banks); DEP'T OF JUSTICE, *Antitrust Case Filings*, (last visited May 8, 2017), https://www.justice.gov/atr/antitrust-case-filings [https://perma.cc/XDW2-XYHT] (listing antitrust actions without any activity related to large banks' deals with fintech startups).

275. *See supra* Part III.C. 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, 92 Fed. Reg. 8524 (Jan. 26, 2017).

276. FED. RESERVE SYS., ORDER APPROVING THE ACQUISITION OF A SAVINGS ASSOCIATION AND NONBANKING SUBSIDIARIES 8–10 (2012), http://www.federalreserve.gov/newsevents/press/orders/order20120214.pdf [https://perma.cc/HQJ3-PRDR]; 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 [https://perma.cc/S2GM-CEJU]; Harlan Landes, *ING Direct Becoming Capital One 360*, FORBES, (Nov. 13, 2012, 11:52 AM), https://www.forbes.com/sites/moneybuilder/2012/11/13/ing-direct-becoming-capital-one-360/#7c9a6cc235b6 [https://perma.cc/B6JB-GPJJ].

277. *See* OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2016 ANNUAL REPORT 30 (2017); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2015 ANNUAL REPORT 26 (2016); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2014 ANNUAL REPORT 37 (2015); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2013 ANNUAL REPORT 37 (2014); OFFICE OF THE COMPTROLLER OF THE CURRENCY, 2012 ANNUAL REPORT 31 (2013). These figures include failure transactions. *See id.*

## B. A New Proposal

Financial competition is too crucial in a rapidly evolving economy to be subsumed, by institutional design, under the need to stabilize banks. A rich body of interdisciplinary research has underscored that in designing regulation to resist capture "a key danger to avoid is giving a single agency conflicting responsibilities."[278] In other high-stakes areas, policy makers have separated out conflicting functions into separate regulatory bodies in offshore oil production,[279] atomic energy, federal labor oversight, and emergency management, among others.[280]

To address current regulatory shortcomings, Congress should move consumer financial competition authority to a new agency (or agencies) with a less conflicted mission. The same agency could, but need not, enforce both licensing and antitrust. Among diverse criteria for consideration, the following features would make an institutional home more attractive: (1) a focus on competition, ideally as the sole mission or in an agency with minimal mission conflict; (2) relevant technological, institutional, and market expertise; and (3) the ability to coordinate with other financial regulators. Many different organizational configurations could be imagined that advance these goals. Three are briefly considered here.

### 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 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 U.S. is that antitrust law aims to advance consumer welfare, which includes bringing low prices—and appealing products—to consumers.[281] Due to their complementary missions, consumer protection and antitrust are commonly housed together around the world.[282] U.S.

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278. Rachel E. Barkow, *Insulating Agencies: Avoiding Capture Through Institutional Design*, 89 TEX. L. REV. 15, 50 (2010) (making the argument in the context of ensuring resistance to capture).

279. NAT'L COMMISSION ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 28–30, 78–79 (2011).

280. CONGRESSIONAL RESEARCH SERVICE, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE IN THE AFTERMATH OF THE DEEPWATER HORIZON OIL SPILL, CONGRESSIONAL RESEARCH SERVICE 25–28 (2010).

281. *See Guide to Antitrust Laws*, FED. TRADE COMM'N, https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws [https://perma.cc/KVG6-ZZDM] (last visited June 15, 2017) (explaining its enforcement of antitrust laws "promote vigorous competition and protect consumers from anticompetitive mergers and business practices"); Macey & Holdcroft, *supra* note 5, at 1392 (noting that "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").

282. ORG. FOR ECON. CO-OPERATION AND DEV., THE INTERFACE BETWEEN COMPETITION AND CONSUMER POLICIES 113, 137, 215 (2008) http://www.oecd.org/regreform/sectors/40898016.pdf.

lawmakers have, in other industries, co-located authority for these functions.[283] Recent scholarship has developed the complementary nature of consumer and competition policy, both of which can lead to "market manipulation"[284] and supracompetitive pricing.[285]

The CFPB's activities demonstrate the alignment of missions. The bureau has already acted quickly to develop incubator policies supporting fintech innovation.[286] The CFPB would incur no mission conflict in prioritizing the needs of consumers and the communities that banks serve by enabling fintech startups to compete. Its consumer protection goals, such as preventing deception, make markets more competitive by ensuring consumers have the information they need to make effective decisions.[287]

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.[288] Because the CFPB was created in 2011 with a heavy technology orientation, it is 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.[289]

Moreover, the CFPB has various regulatory responsibilities that require the agency to gain expertise specifically about newer fintech business models. The CFPB is the only federal regulator that supervises both banks and nonbanks.[290] 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 organizational structures

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283. 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).

284. *See, e.g.*, Shaun D. Ledgerwood & Jeremy A. Verlinda, *The Intersection of Antitrust and Market Manipulation Law*, (forthcoming), https://ssrn.com/abstract=2908878 (explaining how antitrust can be used to prosecute fraud-based market manipulation law); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420 (1999); Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995 (2014) (developing the concept of market manipulation in the context of digital platforms).

285. *See, e.g.*, Rory Van Loo, *Helping Buyers Beware: The Need for Supervision of Big Retail*, 163 U. PA. L. REV. 1311, 1387–88 (2015) (discussing supracompetitive pricing related to consumer protection); *supra* Part X. (discussing supracompetitive pricing related to antitrust).

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

287. John Y. Campbell, Howell Jackson, Brigitte Madrian, & Peter Tufano, *Consumer Financial Protection*, (2011) 25 J. ECON. PERSP. 91, 107–08 (2011).

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

289. *See Explore Interest Rates*, CONSUMER FIN. PROT. BUREAU, http://www.consumerfinance.gov/owning-a-home/check-rates [https://perma.cc/C5YV-H7LD]. (last visited June 12, 2017).

290. Steven Antonakes, Deputy Director, Consumer Financial Protection Bureau, Prepared Remarks of CFPB Deputy Director Steven Antonakes at The Exchequer Club (Feb. 18, 2015) (transcript available at http://perma.cc/6YWQ-AVH6) ("[O]ur . . . footprint in both the bank and nonbank space, makes the Bureau unique among federal regulators.").

needing licenses. In a similar vein, this expertise is helpful for mergers between banks and nonbanks. Additional CFPB fintech expertise comes from the CFPB's enforcement actions against an array of fintech startups.[291] The CFPB gained additional fintech competition expertise due to the three-year study it recently undertook, by statutory mandate, to determine what data financial institutions must share with automated assistants such as Credit Karma, NerdWallet, and Mint.[292]

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. Among other issues, this research group analyzes the efficiency and competition implications of a given consumer finance rule.[293] Besides the fact that the DOJ has presumably no more than forty full-time employees devoted to finance, when the DOJ and FTC analyze banking mergers, they draw on a general pool of economists and lawyers.[294] These agencies have deep experience with antitrust analyses, which is valuable. But they lack consumer-finance-specific expertise of an agency with 1,500 employees dedicated to that area.[295]

Moving competition authority to the CFPB would have several downsides. In theory, 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. This could, for instance, lead it to block beneficial mergers. This concern is minimized by the fact that blocking beneficial mergers would hurt consumers, and thus the agency would have the appropriate motivation to ensure that does not happen. But as discussed above, the indeterminacy of competition analyses open the possibility for irrational regulatory decisions.[296]

Another shortcoming is that competition and consumer protection are two distinct and important missions, even if many of their principles align. The CFPB's intellectual founders and early leaders stressed the uniqueness and value of having its "sole focus on consumer protection."[297] In a general sense, licensing requires consideration of what businesses need, while consumer protection traditionally asks what consumers need. Consumer protection advocates might also be concerned that an efficiency-driven competition policy mission would drown out major consumer protection analyses that consider fairness and rights.

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291. *See* Illman, *supra* note 95.

292. *See* 12 U.S.C. § 5511; CFPB REPORT, *supra* note xx, at 2.

293. *See* CFPB REPORT, *supra* note xx, at 2–4.

294. *See* FED. TRADE COMM'N, *supra* note 280. 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 CFPB. *See* FED. TRADE COMM'N, *supra* note 239.

295. CONSUMER FIN. PROT. BUREAU, SEMI-ANNUAL REPORT OF THE CONSUMER FINANCIAL PROTECTION BUREAU 14 (2016).

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

297. Antonakes, *supra* note 278; Bar-Gill & Warren, *supra* note 27, at 98–100 (pointing out the drawbacks of subsuming consumer protection under safety and soundness).

The mission conflict between consumer protection and competition is an important risk to consider, and it ultimately makes this configuration less than ideal. But concerns about efficiency and competition analyses refocusing the CFPB miss the overriding tenor of consumer protection today. CFPB reports have repeatedly emphasized efficiency and market analyses as part of what the agency does.[298] 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."[299] Indeed, Warren and Bar-Gill concluded their case for the CFPB partly by observing, "The market for consumer credit is not operating efficiently."[300]

Another institutional drawback is the agency's narrow area of expertise. The CFPB lacks knowledge about non-consumer financial markets. This means the CFPB would lack the expertise for many of banks' other business areas, including institutional services and investor protection. The CFPB would thus either need to build non-consumer expertise or share authority with another regulator. The CFPB also lacks knowledge about stability, and thus if it were to extend licenses it would need a coordination mechanism for ensuring that it did not unleash destabilizing business models on the financial system. This licensing concern could be further mitigated by only allowing the CFPB to issue licenses to a particular subset of nonbanks consumer financial institutions.

Ideally, financial regulation would be designed based on what is best for society. But given divergent views on that question, it is worth considering the political dimensions of the CFPB as competition enforcer. Consumer advocates would, as just discussed, have reasons to support and oppose the idea. The agency's critics might resist an expanded mission because they have long argued the agency is too powerful.[301] But the recent *PHH Corp. v. Consumer Fin. Prot. Bureau*[302] case and legislation currently in front of Congress,[303] if either survive, may remove this concern by enabling the President to remove the CFPB director at will.

Additionally, 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 CFPB."[304] In his Core Principles for financial

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298. In a recent fintech study, the CFPB mentioned efficiency sixty-five times in ninety pages. *See, e.g.*, CFPB REPORT, *supra* note xx, at 2.

299. 12 U.S.C. § 5531 (2012).

300. *See* Bar-Gill & Warren, *supra* note 27, at 100.

301. *See* Jackie Calmesnov, *What Romney Has Said Offers Clues if He Wins*, N.Y. TIMES, Nov. 3, 2012, at A12 (quoting Mitt Romney as calling the CFPB "perhaps the most powerful and unaccountable bureaucracy in the history of our nation").

302. 839 F.3d 1, 11 (D.C. Cir. 2016)

303. Financial Choice Act of 2017, H.R. ___, 115th Cong. (2017) (discussion draft), http://financialservices.house.gov/uploadedfiles/choice_2.0_discussion_draft.pdf (proposing to make the CFPB director removable at will).

304. Michael C. Bender & Damian Paletta, *Trump Moves to Undo Dodd-Frank -- White House Says Banks Burdened by Rules Added after Financial Crisis*, WALL ST. J., Feb. 3, 2017, at A.1.

regulation he emphasizes 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."[305] A revamped CFPB could empower fintech startups to help consumers make more "informed choices," which uses competition to achieve consumer protection goals. More competition could also allow fintech startups to remove bank revenues, 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.[306]

A dual consumer protection and competition CFPB mandate may thus offer an odd compromise. It has something for those who would like to see more independent competition regulation, and for those who would like to move the CFPB more toward market-driven analyses. Given that it also makes some notable improvements over the current institutional design, the idea merits being part of the ongoing dialogue on financial regulatory reform.

2. A 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 have considerable antitrust expertise. As markets all become more intermediated and technological, they raise related anticompetitive concerns that might justify a coordinated approach.[307] With additional funding, these agencies could develop greater financial expertise. Moreover, a generalist regulator is less vulnerable to being captured, as the relevant interest groups are less concentrated.[308]

The DOJ and FTC options have several shortcomings. Both entities cover many other industries, and the FTC also has another major mission: consumer protection. If a financial bureau were housed within the existing competition agencies, financial competition might receive inadequate internal independence. Cuts 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 was completely independent of the current competition offices, the co-location synergies would be less, lessening

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305. *See* Exec. Order No. 13,772, 82 Fed, Reg. 25 (2017). .

306. *See* Discussion Draft of the Financial Choice Act of 2017, *supra* note 302.

307. *See* Van Loo, *supra* note xx, at 1328 (suggesting a technology meta-agency may be needed to meet the common challenges of cross-industry digital platforms); Van Loo, *supra* note 284, at 1387–88 (arguing that retail goods and finance increasingly demonstrate related market dynamics conducive to supracompetitive pricing); *see also* 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).

308. *See* Sokol, *supra* note xx, at 1091.

the benefits of housing it in those agencies. Nor do either of these agencies have strong rulemaking cultures,[309] which could inhibit even a separate financial bureau's rulemaking activities.

These are not insurmountable obstacles, and a separate bureau would be a vast improvement over the current configuration, in which 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.[310] But building FTC or DOJ financial competition is too close to the existing configuration and potentially retains similar defects.

3. A New Agency Under FSOC Coordination

An alternative would be for a new agency to take the lead on enforcing antitrust, extending licenses, and developing a broader financial technology competition policy—including advocating for removing regulations 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 importantly avoid resource starvation, obscurity, and lack of rulemaking culture at the DOJ, leaving it clear how many resources were invested each year in financial competition.

One potential source of resistance is that a new stand-alone agency would add to an already long list of agencies regulating consumer financial institutions. Although this concern is understandable from an optical perspective, it is in many ways an analytically distinct consideration. 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. Thus, the overall number of agencies could be reduced or maintained by consolidating or repurposing agencies that currently have similar safety and soundness duties to 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 otherwise possible in a location inside an agency with an existing antitrust or financial mandate. To a lesser extent, a new agency might pay insufficient attention to consumer protection and stability implications of its decisions, particularly for licensing. These concerns could be addressed through inter-agency coordination mechanisms 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.

If competition leadership is to be removed from prudential regulators, a mechanism would be needed to infuse stability considerations into competition analyses. FSOC was designed for such an inter-agency financial oversight role, with voting representatives from diverse financial

309. *See supra* note 258, and accompanying text.

310. Email from Jenna A. Simotes, U.S. Dept. of Justice Public Affairs to author (May 10, 2017) (on file with the author) (giving employee count); *Sections and Offices*, *supra* note 246.

regulators—including the Federal Reserve, the SEC, and the CFPB. Thus, FSOC authority would ideally be expanded to accompany shifting competition enforcement.

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."[311] 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) "respond to emerging threats to the stability of the United States financial system."[312] It was also more specifically charged with studying how banking concentration affects stability, efficiency, and competitiveness.[313] That broader purview sets it up to more rationally weigh the longer term stability and bailout-reducing benefits of competition.

Thus, FSOC could play a valuable coordination and support role for whatever entity serves as the primary financial competition regulator. To guard against overenforcement, FSOC might be tasked with vetoing financial competition actions with a two-thirds vote. It currently has such a decision rule for vetoing consumer protection rules, which it has yet to exercise,[314] suggesting that such oversight would not prove too burdensome.[315] Moreover, scholars have identified the need to bring nontraditional and finance-specific considerations into the competition analysis, including increased systemic risk and taxpayer bailouts.[316] FSOC could provide such support through its research office, which must "conduct, coordinate, and sponsor research to support and improve regulation of financial entities and markets."[317]

Currently, when FSOC meets quarterly to strategize about safeguarding the financial system, directors of agencies that prioritize stability and consumer protection must attend.[318] 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 three important goals of finance law. This triple

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311. Macey & Holdcroft, Jr., *supra* note 5, at 1390.

312. 12 USC § 5322 (2012).

313. 12 U.S.C. § 1852 (2012) .

314. 12 U.S.C. § 5513 (2012).

315. This assumes FSOC decision rules did not allow safety and soundness regulators to veto competition authority too easily.

316. *See* Chang, *supra* note 265, at 736 (advocating infusing financial risk considerations into antitrust exclusion analyses); Macey & Holdcroft, Jr., *supra* note 5, at 1396 ("By not factoring in the enormous costs of bailouts, traditional antitrust analysis leads to a flawed conclusion.").

317. 12 U.S.C.A. § 5344(c)(1).

318. 12 U.S.C.A. § 5321(e)(1)), § 5322(a)(1).

peaks model, with FSOC oversight, would provide the best chances of ensuring that the main areas of consumer financial law are enforced and coordinated.

## V. CONCLUSION

The fast-evolving fintech landscape has altered the analysis and raised the stakes of financial competition. Financial competition studies have limits, but the evidence overall indicates that U.S. consumer financial markets are underperforming amidst the transformation. The competition shortcomings suggest that over the short term, more attention is needed to entry barriers and the ability of incumbents to lessen the competitive motivation of technology startups. Also, the problem of Too Big To Fail banks may have a partial market-driven solution if the entry barrier problem can be solved. Over the long term, it will become even more important for regulators to be positioned to rigorously assess how to regulate or prevent highly concentrated fintech markets.

Those substantive regulatory decisions are challenging even with optimal organizational design. But the current institutional framework undermines that task. Prudential regulators regularly move the competition needle through decisions to act or refrain from acting. But hanging over each choice is the overriding mission of keeping the largest financial institutions from collapsing. Scholars have established the risks of conflicted regulatory organizational designs, and Congress has repeatedly removed such conflicts following the subprime mortgage crisis, the BP oil spill, and other crises. Whether lawmakers deploy a similar organizational renovation for financial competition may determine whether fintech ushers in monopoly firms that destabilize the economy and increasingly rely on taxpayers to bail them out, or helps build a more affordable, accessible, and safer banking system for all households.

Further study is needed to determine how applicable the lessons of consumer finance are to other financial areas, such as in commodity futures and securities markets.[319] Similar non-financial applications may exist in other heavily regulated areas such as the Federal Communications Commission's oversight of cable and internet, where Google Fiber is attempting to shake up monopolies. These other areas lack the same systemic risk implications as finance, but nonetheless constitute regulatory battlegrounds for ushering in the full benefits of innovation competition.

319. In particular, the Commodities Futures Trading Commission and the SEC.