

**PLAYING IN THE SANDBOX: LESSONS U.S.
REGULATORS CAN LEARN FROM THE SUCCESSES OF
FINTECH SANDBOXES IN THE UNITED KINGDOM AND
AUSTRALIA**

AMY HARRIMAN*

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INTRODUCTION

Since the 2008 financial crisis, consumers have lost confidence in traditional banks and financial services.¹ Consumers have begun to search

* The author is a member of the *Wisconsin International Law Journal* and third-year student at the University of Wisconsin Law School, J.D. Candidate 2020. I would like to sincerely thank everyone who helped me throughout the writing and publication process, in particular, Anne Smith with the Law & Entrepreneurship Clinic, and both Jonathan Turke and Michael Seemann with the Wisconsin Bankers Association. This Note would not have been possible without their support and encouragement.

¹ Serge Darolles, *The Rise of FinTechs and their Regulation*, 20 FIN. STABILITY REV. 85, 86 (2016).

for new options within the financial sector.² Financial Technologies, or FinTech, refers to companies that are introducing innovative, disruptive, and modern technologies in the financial services market.³ Some FinTech companies directly compete with banks, while others partner with them to provide new innovative services.⁴ FinTech improves the financial services marketplace by increasing competition for frustrated consumers and providing them with new options to transfer, borrow, increase, and manage their money.⁵

FinTech companies often operate within several overlapping regulatory spheres, such as regulations governing investments, deposits, transfers (whether in person or online), and insurance policies, creating compliance ambiguity for the companies.⁶ Moreover, the US financial regulations system is already a complex, overlapping, archaic, and dual regulatory system which creates further confusion for FinTech companies as to which laws or regulations apply.⁷ This environment often forces FinTech companies to ask a multitude of questions such as, which agencies govern FinTech innovation?⁸ Which rules and regulations apply to this innovation?⁹ Do pre-internet banking regulations even apply?¹⁰ Yet, there are very few answers to these questions. This complex regulatory

² *Id.*

³ BERNARDO NICOLETTI, THE FUTURE OF FINTECH—INTEGRATING FINANCE AND TECHNOLOGY IN FINANCIAL SERVICES 12 (2017) (“The word fintech derives from the coupling of two complementary areas: financial services and solutions based on advanced technology. The economic literature does not agree on a single definition of fintech due to the overall diversity of the business”); Kathryn Reed Edge, *Fintech: Fad or Future*, TBA LAW BLOG (March 16, 3:12PM), <http://www.tba.org/journal/fintech-fad-or-future> [<https://perma.cc/UGB2-MZ77>] (“Loosely defined, a ‘fintech’ company is a firm that uses new technology and innovation with available resources in order to compete in the marketplace of traditional financial institutions and intermediaries in the delivery of financial services”); *see also*, *Fintech*, Merriam-Webster (Online ed.), <https://www.merriam-webster.com/dictionary/fintech> [<https://perma.cc/EPW6-JMQD>] (“products and companies that employ newly developed digital and online technologies in the banking and financial services industries”).

⁴ *See infra* Section II.A.; *see also* Darolles, *supra* note 1, at 86–87.

⁵ *See infra* Section II.A.

⁶ *See infra* Section II.A.; *see also*, Richard Magrann-Wells, *Fintech Firms Hurt by Lack of Regulatory Clarity*, AMERICAN BANKER: BANKTHINK, (July 18, 2016) <https://www.americanbanker.com/opinion/fintech-firms-hurt-by-lack-of-regulatory-clarity> [<https://perma.cc/V5ZQ-D49Z>].

⁷ *See* Nicholas Elliott, *Where Fin-Tech is Struggling with Regulation*, WALL ST. J., (Nov. 24, 2015, 1:28 PM), <https://blogs.wsj.com/riskandcompliance/2015/11/24/where-fin-tech-is-struggling-with-regulation/> [<https://perma.cc/F2JA-J578>] (analyzing the major areas of concern amongst fintech companies in the United States).

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

landscape frequently leads to FinTech companies operating out of compliance with regulations, as they are uncertain which regulations apply.¹¹ Consequently, legislators around the globe are searching for solutions to support new FinTech companies, such as performance-based deregulations, while also protecting consumers from fraud and the global economy from another recession.

As a workaround to traditional regulations and licensure, the United Kingdom's Financial Conduct Authority (FCA) developed the concept of a "sandbox," whereby businesses test their products and services under the supervision of regulators.¹² FinTech sandboxes are becoming increasingly popular across the world,¹³ with at least thirteen countries adopting them.¹⁴ The United States can and should learn from the United Kingdom and Australia,¹⁵ who have successfully adopted FinTech sandboxes.

Part I of this article explores the development of the FinTech industry generally, providing examples of companies currently operating in the FinTech sphere. Part II provides background and analysis of two countries currently operating FinTech sandboxes, including the United Kingdom and Australia. Part of the analysis describes the benefits and drawbacks associated with each country's specific sandbox approach. Finally, Part III delves into the US-specific issues surrounding FinTech regulation. The United States regulates the financial services industry at both the federal and state levels, therefore this article provides background

¹¹ Nav Athwal, *Fintech Startups Navigate Legal Gray Areas to Build Billion-Dollar Companies*, TECHCRUNCH (Apr. 19, 2015), <https://techcrunch.com/2015/04/19/fintech-startups-navigate-legal-gray-areas-to-build-billion-dollar-companies/> [<https://perma.cc/UX9E-FT8F>]; see also Magee, *infra* note, 27 at 153; Bradford, *infra* note 40, at 7.

¹² See *Regulatory Sandbox*, FIN. CONDUCT AUTH. (Nov. 5, 2015), <https://www.fca.org.uk/firms/regulatory-sandbox> [<https://perma.cc/X9CN-HQC7>].

¹³ THE PEW CHARITABLE TRUST, HOW CAN REGULATORS PROMOTE FINANCIAL INNOVATION WHILE ALSO PROTECTING CONSUMERS? 13 (2018), available at http://www.pewtrusts.org/-/media/assets/2018/08/financial-innovation_report.pdf [<https://perma.cc/E926-JW3C>] ("An increasingly popular approach to regulating emerging business practices while enabling market access is to allow companies to experiment with products in a modified regulatory framework, either in a controlled testing environment or through regulatory relief whereby agencies suspend certain regulations for novel business practices").

¹⁴ Dirk A. Zetsche et. al, *Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation*, 23 FORDHAM J. CORP. & FIN. L. 31, 64-66 (2017). For further information on the global fintech landscape, see ALAN FALACH, THE INTERNATIONAL COMPARATIVE LEGAL GUIDE TO: FINTECH (2017), and BAKERMCKENZIE, INTERNATIONAL GUIDE TO REGULATORY FINTECH SANDBOXES (2018), available at https://www.bakermckenzie.com/en-/media/files/insight/publications/2018/12/guide_intlguideregulatorysandboxes_dec2018.pdf [<https://perma.cc/R4PM-FH3Z>].

¹⁵ See *infra* Section I.B.iii.

on both levels. This article also analyzes the benefits and drawbacks of a state-led FinTech sandbox approach, including Arizona's FinTech sandbox. To conclude, the article provides recommendations for Congress based on the successes and failures of international FinTech sandboxes.

I. FINTECH AND THE GLOBAL FINTECH LANDSCAPE

A. FINTECH 101

i. What is a FinTech Company?

FinTech companies are exploding globally and disrupting financial service “dinosaurs” such as banks, insurance, and lending companies. These FinTech companies are providing new loan options to small businesses that have been rejected by traditional banks or venture capitalists. They are providing new financial planning solutions to individuals through robo-investing and retirement planning. They are even innovating how friends pay for dinner out and how immigrants send money to their country of origin. There is no definitive list of products and services that do and do not qualify as a FinTech innovation.¹⁶ Generally, however, the following financial spheres are included: (1) payments and remittances; (2) individual lending such as peer-to-peer and consumer lending; (3) crowdfunding and crowd-investing; (4) internet payments such as point-of-sale (POS) innovation, (5) wealth management; (6) blockchain, cryptocurrencies, and distributed ledgers, and many more.¹⁷

Innovations in the payments and remittances sphere allow consumers to send and receive money using mobile applications without

¹⁶ For the purposes of this paper, the focus will be on FinTech within the banking industry. *See generally* PWC, GLOBAL FINTECH REPORT 2017 (2017), <https://www.pwc.com/jg/en/publications/pwc-global-fintech-report-17.3.17-final.pdf> [<https://perma.cc/FD7F-KKFC>]; Edward Robinson & Julie Verhage, *FinTech*, BLOOMBERG: QUICKTAKE (Nov. 26, 2018) <https://www.bloomberg.com/quicktake/financial-technology-companies-disrupt-comfy-banks-quicktake> [<https://perma.cc/P7E5-5CLJ>]; Miklos Dietz, ET. AL, MCKINSEY & COMPANY, CUTTING THROUGH THE FINTECH NOISE: MARKERS OF SUCCESS, IMPERATIVES FOR BANKS (2015), available at <https://www.mckinsey.com/industries/financial-services/our-insights/cutting-through-the-noise-around-financial-technology> [<https://perma.cc/DM83-9XAY>] (explaining that FinTech is surging in the banking industry and specifically in the payments sphere).

¹⁷ *See generally*, THE FINTECH BOOK: THE FINANCIAL TECHNOLOGY HANDBOOK FOR INVESTORS, ENTREPRENEURS AND VISIONARIES 152, 152–154 (Susanne Chishti & Janos Barberis eds., 2016); NICOLETTI, *supra* note 3.

costly fees.¹⁸ Traditionally, money transmitters such as Western Union charged large fees to transfer money.¹⁹ New FinTech companies, by contrast, offer these services at a lower cost.²⁰ For example, in the United States, Venmo is a popular peer-to-peer payment technology company that offers the service at zero cost when the transaction is funded by a Venmo balance, bank account, or debit card.²¹ TransferWise is a popular international remittance provider because it eliminates costly cross-border transfers, meaning the transfer is about twelve times cheaper than with traditional banks.²² Instead of transferring money across borders, TransferWise uses a network of country specific accounts to distribute money to a recipient based on the country they reside in.²³ For example, Customer 1 lives in the United Kingdom and wants to send “money” to Customer 2 who resides in France. Customer 1 sends pounds to the TransferWise account in the UK, while a separate TransferWise account in France sends the euros on to Customer 2. Practically speaking,

¹⁸ See generally, Alaina Gimbert & Jessie Cheng, *Remittance Transfers: Policy, Practicalities, and Innovation*, BANKING & FIN. SERVS. POL’Y REP., Aug. 2017, at 1, 3.

¹⁹ Western Union charges \$19.99 to send money, whereas TransferWise charges \$8.45. *Western Union Money Transfer Fees: A Full Overview*, TRANSFERWISE (Oct. 4, 2018), <https://transferwise.com/us/blog/western-union-fees> [<https://perma.cc/49NY-CCD3>]. Additionally, Western Union charges a currency exchange fee, whereas TransferWise does not. *Id.*

²⁰ See generally, Kevin V. Tu, *Regulating the New Cashless World*, 65 ALA. L. REV. 77 (2013) (highlighting the difference between historical money transmitter practices and modern ones); *Fintech takes Aim at the Steep Cost of International Money Transfers*, THE ECONOMIST, (Apr. 11, 2019), <https://www.economist.com/finance-and-economics/2019/04/11/fintech-takes-aim-at-the-steep-cost-of-international-money-transfers> [<https://perma.cc/BW6E-GQ87>].

²¹ *A Quick Look at our Fees*, VENMO, <https://venmo.com/about/fees> [<https://perma.cc/3GFT-SW6W>].

²² *TransferWise vs International Bank Transfers: Which one is better?*, TRANSFERWISE, (Oct. 6, 2017), <https://transferwise.com/us/blog/transferwise-vs-bank-transfers> [<https://perma.cc/3DBZ-5TRJ>]; *How does TransferWise compare to lending banks?*, TRANSFERWISE, <https://transferwise.com/help/11/getting-started/2974130/how-is-transferwise-cheaper-than-banks> [<https://perma.cc/WCM2-98A4?type=image>] (“In France, the research found that TransferWise is on average 6x cheaper than leading French banks. In Germany, the research found that TransferWise is on average 7x cheaper than leading German banks. In Spain, the research found that TransferWise is on average 13x cheaper than leading Spanish banks. In the UK, the research found that TransferWise is on average 9x cheaper than leading UK banks. In the Netherlands, the research found that TransferWise is on average 3x cheaper than leading Dutch banks. In Switzerland, the research found that TransferWise is on average 9x cheaper than leading Swiss banks”).

²³ TRANSFERWISE, <https://transferwise.com/us/> [<https://perma.cc/F8CK-D7GJ>].

Customer 1 is still transferring money to Customer 2, but is technically doing so in a way that eliminates costly cross-border transfer fees.²⁴

Individual lending—such as peer-to-peer and consumer lending—is a FinTech development with numerous applications including student and home loans. Traditionally, individuals applied for credit with a bank and, based on their creditworthiness, the bank would determine if it felt comfortable extending credit to an individual, and at what rate. This traditional method meant many individuals could not access credit they needed.²⁵ FinTech companies are taking depositor/borrower business away from banks by allowing individuals to lend their money for a fee, as a personal investment, while the FinTech company serves as the platform for the transaction.²⁶

In the United States, LendingClub is a popular peer-to-peer lending platform.²⁷ Individuals apply for a personal loan (up to \$40,000) and their applications are screened by LendingClub.²⁸ Investors then pick and choose the note or notes they wish to invest in.²⁹ This gives individual investors the option to spread their investment across several notes,

²⁴ *Id.*; TransferWise, *How TransferWise Works | Send Money Abroad*, YOUTUBE (Dec. 5, 2016), <https://youtu.be/MLKKzRvOsLQ> [<https://perma.cc/FTW3-KKUC>]; *See generally*, Gimbert & Cheng, *supra* note 18.

²⁵ Rajdeep Sengupta & Craig P. Aubuchon, *The Microfinance Revolution: An Overview*, FED. RES. BANK OF ST. LOUIS REV., Jan-Feb 2008, at 9, <http://research.stlouisfed.org/publications/review/08/01/JanFeb08Review.pdf> [<https://perma.cc/T2SA-Y7NH>].

²⁶ *See* Boris Vallee & Yao Zeng, *Marketplace Lending: A New Banking Paradigm?*, 32 REV. FIN. STUD. 1939, 1940, n. 1 (2019). “Lending marketplaces, also commonly referred to as peer-to-peer lending platforms, such as LendingClub and Prosper, have been rapidly gaining market share in consumer lending over the last decade.” In fact, “[l]oans issued by these platforms represent one third of unsecured consumer loans volume in the US in 2016, and their revenues are predicted to grow at a 20% yearly rate over the next five years.” *Id.*

²⁷ *How it Works*, LENDINGCLUB, <https://www.lendingclub.com/investing/alternative-assets/how-it-works> [<https://perma.cc/HX95-6YZF>]; Jack R. Magee, *Peer-to-Peer Lending in the United States: Surviving After Dodd-Frank*, 15 N.C. BANKING INST. 139, at 153 (2011).

²⁸ *How does an Online Credit Marketplace Work?*, LENDINGCLUB, <https://www.lendingclub.com/public/how-peer-lending-works.action> [<https://perma.cc/342M-YLPH>]; Income Verification, LENDINGCLUB., <https://www.lendingclub.com/investing/investor-education/income-verification> [<https://perma.cc/BV5G-2DTG>] (“Customers interested in a loan complete a simple application at LendingClub.com. We leverage innovative data and technology to screen borrowers, facilitate the transaction with appropriate interest rates, and service the loan. Qualified applicants receive loan offers in just minutes and can evaluate their options with no impact to their credit score. Investors select the loans they want to invest in based on their own risk tolerance, investment portfolio goals, and time horizon”)

²⁹ *How to Build Your LendingClub Portfolio*, LENDINGCLUB, <https://www.lendingclub.com/investing/investor-education/how-to-build-your-lendingclub-portfolio> [<https://perma.cc/R3EU-VHAX>].

thereby diversifying their portfolio and lowering risk.³⁰ Alternatively, investors can allow the platform to choose notes for them.³¹ Either way, investors receive a cash flow of principal and interest payments every month.³² However, the legality of LendingClub's operation was called into question in 2008 when a leading competitor was found in violation of Sections 5(a) and (c) of the Securities Act.³³ LendingClub suspended business operations for six months in order to bring itself into compliance with US securities laws.³⁴ This is not a unique situation. LendingClub is just one example of a FinTech business that struggles to stay compliant with banking and finance regulations that are not compatible with their business operations.

Another FinTech sector that has struggled with compliance of banking and finance regulations is the crowdfunding and crowd-investing sector. Crowdfunding and crowd-investing are arguably the most well-known FinTech sector. Traditionally, small businesses, entrepreneurs, and inventors struggled to raise the necessary capital to develop their business or idea. They pitched ideas to venture capitalists or angel investors whose primary focus was on the idea's return on investment (ROI). Crowdfunding and crowd-investing enabled individuals and entities that wouldn't normally invest or donate to projects or businesses to do so.

A well-known example of this type of FinTech business in the United States is Kickstarter.³⁵ Kickstarter launched in April of 2009 and has expanded globally to the United Kingdom, Canada, Australia, New Zealand, the Netherlands, Denmark, Ireland, Sweden, Germany, France, Spain, Italy, Austria, Belgium, Switzerland, Luxembourg, Hong Kong, Singapore, Mexico, and Japan.³⁶ Since 2009, seventeen million people have used the platform to invest \$4.8 billion in funding,³⁷ including for an

³⁰ *How it Works*, LENDINGCLUB, *supra* note 27.

³¹ *How to Build Your LendingClub Portfolio*, LENDINGCLUB, *supra* note 29.

³² *Seeking Investment Income? See how LendingClub Notes can Help*, LENDINGCLUB (Oct. 17, 2017), <https://blog.lendingclub.com/investment-income-how-lendingclub-notes-can-help> [<https://perma.cc/7DGJ-YBAQ>].

³³ Magee, *supra* note 27, at 153.

³⁴ *Id.*

³⁵ KICKSTARTER, <https://www.kickstarter.com> [<https://perma.cc/WE9Y-V7ZB>].

³⁶ *Our Mission is to Help Bring Creative Projects to Life*, KICKSTARTER, <https://www.kickstarter.com/about> [<https://perma.cc/UY54-CBG8>]; *Who can use Kickstarter?*, KICKSTARTER, <https://help.kickstarter.com/hc/en-us/articles/115005128594-Who-can-use-Kickstarter-> [<https://perma.cc/V6K6-3PL2>].

³⁷ *Stats*, KICKSTARTER, <https://www.kickstarter.com/help/stats?ref=hello> [<https://perma.cc/3AYQ-KY9B>].

Oscar-winning film³⁸ and for the card game Exploding Kittens.³⁹ However, the legality of Kickstarter's model was originally unclear because crowdfunding involves selling securities, as defined by the Securities Act of 1933.⁴⁰ Kickstarter, by facilitating these securities transfers, could be treated as a broker or investment advisor, with obligations under the same act.⁴¹ However, in 2012, President Obama signed the Jumpstart Our Business Startups (JOBS) Act which eliminated this issue.⁴² This is another example in which business innovation is leading legislation.

While many of the best-known FinTech companies are developing solutions for individuals relating to transferring and investing money, FinTech companies are also developing banking and finance solutions for businesses. The development of FinTech point-of-sale (POS) systems is changing the way people make purchases with small businesses. Traditionally, if a retail business wanted to accept credit or debit transactions, it had to contract with a POS system that would charge a percentage of each transaction. For example, a five-dollar latte would cost a coffee shop between 2.87 and 4.35 percent to process, reducing their revenue on the sale by as much as twenty-one cents.⁴³ This is yet another

³⁸ Sony Pictures Animation, *Hair Love | Oscar®-Winning Short Film (Full) | Sony Pictures Animation*, YOUTUBE (Dec. 5, 2019), https://youtu.be/kNw8V_Fkw28 [<https://perma.cc/PL6S-SUH9>]; Michael McGregor, *Kickstarter at the Oscars*, KICKSTARTER (Feb. 21, 2013), <https://www.kickstarter.com/blog/kickstarter-at-the-oscars> [<https://perma.cc/S4DG-WQWA>]; accord Elise McCave & Liz Cook Mowe, *'Hair Love' and 10 Years of Kickstarter-Funded Oscar Nominees*, KICKSTARTER (Feb. 7, 2020), <https://www.kickstarter.com/blog/hair-love-and-10-years-of-kickstarter-funded-oscar-nominees> [<https://perma.cc/XVT8-TW7E>]; Lisa Respers France, *'Hair Love' went from a KickStarter to an Oscar Winner*, CNN (Feb. 10, 2020), <https://www.cnn.com/2020/02/09/entertainment/hair-love-academy-award/index.html> [<https://perma.cc/W3NJ-ZDKF>]; Julia Jacobs, *'Hair Love' Receives a Lot of Love at the Oscars for Best Animated Short Film*, N.Y. TIMES (Feb. 9, 2020), <https://www.nytimes.com/2020/02/09/movies/hair-love-oscars-animated-short.html> [<https://perma.cc/245C-BRWG>].

³⁹ EXPLODING KITTENS, <https://explodingkittens.com> [<https://perma.cc/4S2M-MYW6>].

⁴⁰ See C. Steven Bradford, *Crowdfunding and the Federal Securities Laws*, 2012 COLUM. BUS. L. REV. 1, 7 (2012).

⁴¹ *Id.* at 7.

⁴² See Press Release, Office of the Press Secretary, Fact Sheet: The American Jobs Act (Sept. 8, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/09/08/fact-sheet-american-jobs-act> [<https://perma.cc/76H5-S5C2>] (“As part of the President’s Startup America initiative, the Administration will work with the SEC to conduct a comprehensive review of securities regulations from the perspective of these small companies to reduce the regulatory burdens on small business capital formation in ways that are consistent with investor protection, including expanding ‘crowdfunding’ opportunities and increasing mini-offerings”).

⁴³ See *Credit Card Processing Fees and Rates*, SQUARE, <https://squareup.com/guides/credit-card-processing-fees-and-rates> [<https://perma.cc/7DUA-D84F>].

expense for a small business operating near the edge of profitability. Moreover, POS systems are often not fully integrated with accounting, inventory, and tax systems, which decreases efficiency and increases labor and technology costs.⁴⁴

FinTech companies, by contrast, offer fully integrated systems at a lower price than traditional POS systems. In the United States, Square is a popular POS system that offers users a forty-nine dollar card reader that accepts online and offline credit and debit card payments on a mobile device, such as a phone or tablet.⁴⁵ The system is fully integrated for payroll processing, provides data to business owners including low inventory alerts, and provides this service at a low cost, 2.6 percent of sales, in addition to a ten cent per swipe fee.⁴⁶ Moreover, Square has built an e-commerce solution that allows retailers to accept payments using Square Online.⁴⁷ Retailers may sell on their own site using the Square technology, while still retaining the fully integrated reporting of the POS system.⁴⁸ This allows small businesses to compete with larger retailers both online and in person.

Finally, wealth management is a growing FinTech sector. Traditionally, high wage earners or privileged individuals hired financial advisors to increase their wealth through strategic investments. However, FinTech has changed the nature of financial advice through the use of robo-advisors, which primarily consist of low-cost algorithm-based wealth management.⁴⁹ This gives less privileged individuals access to wealth management services. In the United States, a prominent robo-advisor targeted towards women specifically is Ellevest.⁵⁰ Ellevest identified a well-known gender based problem—that women often live longer but are paid less—and factored that into its wealth management program.⁵¹ Ellevest also provides clients flexibility in contributions and delivers the

⁴⁴ *Square Register: The Turning Point for Point of Sale*. SQUARE, <https://squareup.com/us/en/hardware/register> [<https://perma.cc/LG9W-B49A>] (“Square Register is the first fully integrated point-of-sale terminal that lets you start selling right out of the box”).

⁴⁵ SQUARE, <https://squareup.com/us/en> [<https://perma.cc/JX37-C3SL>].

⁴⁶ *Square Point of Sale*, SQUARE, <https://squareup.com/us/en/software/point-of-sale> [<https://perma.cc/KFU8-WQF4>].

⁴⁷ *Sell Online the Way you Want*, SQUARE, <https://squareup.com/us/en/ecommerce> [<https://perma.cc/72H8-LUN4>].

⁴⁸ *Id.*

⁴⁹ Paolo Sironi, *My Robo Advisor was an iPod – Applying the Lessons from Other Sectors to FinTech Disruption*, in *THE FINTECH BOOK*, *supra* note 17, at 152–154.

⁵⁰ ELLEVEST, <https://www.ellevest.com> [<https://perma.cc/9JXW-WRBB>].

⁵¹ *Id.*

service at a lower fee than competitors, while providing a service designed for an underrepresented population in the wealth management domain.⁵²

The FinTech companies explained in detail above highlight the many regulatory spheres these businesses operate in and the potential pitfalls they have encountered due to the outdated regulations (pre-internet, pre-e-commerce) and the one-size-fits-all regulatory system in the US. A FinTech regulatory sandbox in the United States could potentially eliminate the compliance issues listed above⁵³ and spur additional innovation in the financial services sphere.

B. FINTECH SANDBOX REGULATORY SCHEME

i. What is a FinTech Sandbox?

A regulatory sandbox is a controlled testing environment for companies to experiment with new approaches involving the application of new financial technology.⁵⁴ The sandbox idea was meant to mirror clinical trials in the healthcare and pharmaceutical sectors.⁵⁵ A sandbox creates a controlled environment for businesses to test products and services with real customers, but at lower risk, as the regulator engages in and oversees the testing process.⁵⁶ In return, regulators require applicants to incorporate appropriate safeguards. They require transparency through disclosures. Regulators also limit the number of customers with whom the company can interact, as well as the size of the transactions in which the FinTech business can engage.⁵⁷

At least fourteen sandboxes are currently in operation around the world (United Kingdom, Hong Kong, Malaysia, Singapore, Abu Dhabi, Australia, Mauritius, Netherlands, Indonesia, Brunei-Darussalam, Canada, Thailand, Bahrain, and Switzerland), with at least two others

⁵² *Id.*

⁵³ See Athwal, *supra* note 11; Magee, *supra* note 27, at 153; Bradford, *supra* note 40, at 7.

⁵⁴ *Regulatory Sandbox*, FIN. CONDUCT AUTH. (May 11, 2015), <https://www.fca.org.uk/firms/regulatory-sandbox> [<https://perma.cc/2PS4-V3CX>].

⁵⁵ See SIR MARK WALPORT, GOV'T OFFICE FOR SCI., FINTECH FUTURES: THE UK AS A WORLD LEADER IN FINANCIAL TECHNOLOGIES 10–11, 52 (2015), available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/413095/gs-15-3-fintech-futures.pdf [<https://perma.cc/AT9A-8NXN>]; Thomas Curry & Jason Cabral, *Regulators can do more to Encourage Fintech Innovation*, AMERICAN BANKER: BANKTHINK, (Oct 12, 2018), <https://www.americanbanker.com/opinion/regulators-can-do-more-to-encourage-fintech-innovation> [<https://perma.cc/8E8W-8WEJ>].

⁵⁶ See *Regulatory Sandbox*, *supra* note 54.

⁵⁷ *Id.*

announced.⁵⁸ In creating these sandboxes, countries are signaling to FinTech entrepreneurs that they would like to promote their industry and potentially attract FinTech companies away from the United States.⁵⁹

ii. United Kingdom: Pioneering FinTech Sandboxes

The United Kingdom's Financial Conduct Authority (FCA)⁶⁰ launched Project Innovate in October of 2014 to "help firms tackle regulatory barriers to innovation"⁶¹ and "encourage innovation in the interests of consumers and promote competition through disruptive innovation."⁶² Project Innovate is the umbrella that encompasses the UK government's support for innovation.⁶³ Under this program, the UK has created multiple programs and offices to support its goal.⁶⁴ Project Innovate supports FinTech companies through the creation of a FinTech regulatory sandbox by providing individually tailored regulatory support to FinTech companies, and by surfacing feedback, tools, resources, and advice to FinTech companies generally.⁶⁵

In 2015, the FCA created the first-ever FinTech sandbox to promote competition and support disruptive innovation.⁶⁶ The sandbox provides an environment in which companies can test their products and

⁵⁸ Zetzsche et. al, *supra* note 14, at 64–66.

⁵⁹ Jerry Brito, *Is the US Losing Its Global Edge in Fintech?*, COINCENTER (Apr. 7, 2016), <https://coincenter.org/entry/is-the-us-losing-its-global-competitive-edge-in-fintech> [<https://perma.cc/8TCR-PZ72>].

⁶⁰ *FCA Innovation*, FIN. CONDUCT AUTH., <https://www.fca.org.uk/firms/innovation> [<https://perma.cc/QZ9M-53W2>]. The FCA is the agency primarily responsible for consumer protection, integrity and competition within the UK financial markets. *See* Financial Services and Markets Act 2000, § 1B(3) (UK).

⁶¹ Christopher Woolard, FCA Executive Director of Strategy and Competition, speech delivered at Innovate Finance 2018 (Mar. 19, 2018), <https://www.fca.org.uk/news/speeches/regulating-innovation-global-enterprise> [<https://perma.cc/W2RZ-2GAT>].

⁶² Press Release, Fin. Conduct Auth., Financial Conduct Authority's Regulatory Sandbox Opens to Applications (May 9, 2016), <https://www.fca.org.uk/news/press-releases/financial-conduct-authority-s-regulatory-sandbox-opens-applications> [<https://perma.cc/98HD-JW6L>].

⁶³ *FCA Innovate*, FIN. CONDUCT AUTH., <https://www.fca.org.uk/firms/fca-innovate> [<https://perma.cc/EPX4-EQAM>]. The FCA, through Project Innovate, is encouraging innovation in financial services through six sub-programs including a Regulatory Sandbox, engaging with FinTech internationally, tailoring regulatory relief for innovative firms, providing guidance to firms, collaborating on RegTech, and participating in the Global Financial Innovation Network. *Id.*; FIN. CONDUCT AUTH., *THE IMPACT AND EFFECTIVENESS OF INNOVATE*, 9 (2019), available at <https://www.fca.org.uk/publication/research/the-impact-and-effectiveness-of-innovate.pdf> [<https://perma.cc/S34S-Y3DU>].

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *See* Financial Services and Markets Act 2000, §§ 1B, 1E (UK).

services without complying with heavy regulations and red tape associated with financial services.⁶⁷ The FCA sandbox offers two six-month testing periods per year for FinTech businesses.⁶⁸ FinTech sandbox hopefuls must prove through the application process that they meet the five relevant eligibility criteria for testing:

- (1) carrying out or supporting a financial services business in the UK; which
- (2) is genuinely innovative;
- (3) provides an identifiable consumer benefit;
- (4) has a need for sandbox testing; and
- (5) is ready to test.⁶⁹

If accepted, the FinTech business is authorized to test products and services with a limited pool of customers over the six-month period of time.⁷⁰ The process has proven to be popular with FinTech businesses large and small, such as Barclays and smaller startups such as Bud.⁷¹ After the six-month testing period, the participating FinTech businesses are removed from the sandbox and regulated like any other financial services business in the UK.⁷²

⁶⁷ See *Regulatory Sandbox*, FIN. CONDUCT AUTH. *infra* note 90; Allen, *infra* note 90, at 597.

⁶⁸ FIN. CONDUCT AUTH., REGULATORY SANDBOX LESSONS LEARNED REPORT 4 (2017), <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf> [<https://perma.cc/A7VH-TFFQ>] [REGULATORY SANDBOX LESSONS LEARNED REPORT] (“The sandbox operates on a cohort basis with two six-month test periods per year. To test in the sandbox, firms must submit an application setting out how they meet our eligibility criteria for testing”).

⁶⁹ *Applying to the Regulatory Sandbox*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/prepare-application> [<https://perma.cc/PJA8-WTGL>].

⁷⁰ *Sandbox Tools*, FIN. CONDUCT AUTH. (Dec. 15, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/sandbox-tools> [<https://perma.cc/HW24-4BV9>]; REGULATORY SANDBOX LESSONS LEARNED REPORT, *supra* note 68, at 4; *Default Standards for Sandbox Testing Parameters*, FIN. CONDUCT AUTH., <https://www.fca.org.uk/publication/policy/default-standards-for-sandbox-testing-parameters.pdf> [<https://perma.cc/A86V-CE6W>] (“Sandbox is intended for small scale testing and we will set a strict limit to the size of the test”).

⁷¹ See *Regulatory Sandbox – Cohort 3*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-3> [<https://perma.cc/3HN3-6P3B>].

⁷² See *Regulatory Sandbox-Cohort 1*, FIN. CONDUCT AUTH. (June 15, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-1> [<https://perma.cc/5RP2-Y78K>]. In some cases, the FCA will provide sandbox participants with a waiver authorization that allows them to continue to work outside of the regulatory structure, while also outside of the FinTech sandbox. See generally, *Request Innovation Hub Support*, FIN. CONDUCT AUTH. (May 11, 2015), <https://www.fca.org.uk/firms/innovation/direct-support> [<https://perma.cc/R7LR-NYEX>]; *Firms that Need Authorization*, FIN. CONDUCT AUTH. (May 11, 2015), <https://www.fca.org.uk/firms/authorisation/when-required> [<https://perma.cc/P8JE-7Y77>].

Table 1. Summary of FCA Sandboxes⁷³

	Applications Received	Accepted Applications	Completed Sandbox Test
Cohort 1 (closed July 2016)	69	24	18
Cohort 2 (closed Jan 2017)	77	31	24
Cohort 3 (closed June 2017)	61	18	—
Cohort 4 (closed March 2018)	69	29	—
Cohort 5	99	29	—

The FinTech sandbox program has generally become more popular with each successive cohort, as the FCA receives more applications each year.⁷⁴ However, not all of those who are accepted in the a cohort have successfully tested.⁷⁵ As of April 2019, “47 firms have completed testing in the Sandbox, and a further 63 are either currently testing or preparing for their tests.”⁷⁶ The FCA found that “[a]round 90% of firms that have completed testing continued with their proposition immediately afterwards, and almost all are still in operation today.”⁷⁷ Moreover, many

⁷³ See *Regulatory Sandbox-Cohort 1*, FIN. CONDUCT AUTH. (June 15, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-1> [<https://perma.cc/5RP2-Y78K>]; *Regulatory Sandbox – Cohort 2*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-2> [<https://perma.cc/MJ7L-377P>]; See *Regulatory Sandbox – Cohort 3*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-3> [<https://perma.cc/3HN3-6P3B>]; *Regulatory Sandbox – Cohort 4*, FIN. CONDUCT AUTH. (March 7, 2018), <https://www.fca.org.uk/firms/regulatory-sandbox/regulatory-sandbox-cohort-4-businesses> [<https://perma.cc/SF3T-MK4E>]; *Regulatory Sandbox – Cohort 5*, FIN. CONDUCT AUTH. (April 29, 2019), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-5> [<https://perma.cc/F7LL-2YN6>].

⁷⁴ See *supra* Table 1.

⁷⁵ See *supra* Table 1.

⁷⁶ FIN. CONDUCT AUTH., THE IMPACT AND EFFECTIVENESS OF INNOVATE, 18 (2019), available at <https://www.fca.org.uk/publication/research/the-impact-and-effectiveness-of-innovate.pdf> [<https://perma.cc/S34S-Y3DU>].

⁷⁷ *Id.*

of these companies either received equity funding during or after testing, or have been acquired.⁷⁸

Bud is one of the eighteen companies that successfully tested a FinTech product.⁷⁹ Bud provides what is colloquially known as an “open banking” product to both banks and individuals, whereby customer data is aggregated from multiple sources into a single, easy-to-use dashboard.⁸⁰ By aggregating this data in one place, Bud, businesses, and banks are able to detect savings and intelligently offer products and services to consumers based on their spending habits.⁸¹ For example, Bud can identify when customers could save on their utility costs and provides the capability within the app to switch utility providers.⁸² Bud’s Head of Awareness, Jamie Campbell, described their company’s experience in the sandbox as a “mutual learning experience for us and for the regulator.”⁸³ Because companies are interfacing with the UK regulatory body at a legal and strategic level, the regulators are able to see firsthand how the governmental body can support, rather than hinder, FinTech innovation.

While the FCA was implementing the FinTech sandbox, the Competition and Markets Authority (CMA) was investigating the UK banking industry.⁸⁴ The CMA found that the banking industry purposefully stifled competition in the industry by making it difficult for consumers to change banks (only 3 percent of personal customers moved

⁷⁸ *Id.*

⁷⁹ BUD, <https://www.thisisbud.com> [<https://perma.cc/F3KU-WFEM>]; see *Regulatory Sandbox – Cohort 3*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/cohort-3> [<https://perma.cc/3HN3-6P3B>].

⁸⁰ BUD, *supra* note 79. According to the UK Competition and Markets Authority, open banking “will mean reliable, personalized financial advice, precisely tailored to your particular circumstances delivered securely and confidentially.” COMPETITION & MARKETS AUTHORITY, MAKING BANKS WORK HARDER FOR YOU 7 (2016), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/544942/overview-of-the-banking-retail-market.pdf [<https://perma.cc/7K84-LUAW>] [hereinafter CMA REPORT ON OPEN BANKING]. For more information on open banking issues, see Rowland Manthorpe, *What is Open Banking and PSD2*, WIRED (Apr. 17, 2018), <https://www.wired.co.uk/article/open-banking-cma-psd2-explained> [<https://perma.cc/AMQ9-FK6Z>]. An example of a product that is similar to open banking and offered in the United States is the personal finance management service provided by Mint. Mint pioneered the concept of financial apps that aggregate various banking and credit accounts, student loans, retirement, and mortgages into a single platform that allows users to better understand their finances. MINT, <https://www.mint.com> [<https://perma.cc/F47B-R3EY>].

⁸¹ See BUD, *supra* note 79.

⁸² *Id.*

⁸³ *I Participated in a ‘Regulatory Sandbox’*, BBVA (June 14, 2017), <https://www.bbva.com/en/participated-regulatory-sandbox/> [<https://perma.cc/S5Q3-UBN7>].

⁸⁴ See CMA REPORT ON OPEN BANKING, *supra* note 80.

their banking business to a different bank in any year).⁸⁵ The CMA further found that overdraft fees were staggeringly high and affected almost half of personal banking customers.⁸⁶ After concluding that there was too little competition in the UK banking market,⁸⁷ the CMA ordered the nine biggest UK banks to allow licensed startups direct access to their data.⁸⁸ This meant that if account holders approved of the data exchange, then FinTech companies could look at bank data such as an account holder's electricity bills, mortgages, rent, and weekly coffee expenses to provide options to individuals to save money, increase investment, or simply provide financial transparency. As of January 13, 2018, open banking has come into full force, allowing companies like Bud to interface with bank data to provide innovative financial services to individuals and banks alike.⁸⁹

The FCA was able to create a FinTech sandbox without new legislation.⁹⁰ Instead, the FCA provides individualized guidance on regulatory requirements, restricted authorization for sandbox testing, and

⁸⁵ *Id.* at 3.

⁸⁶ *See id.* at 3–4, 9–10; *see also*, Press Release, Competition & Markets Authority, CMA Paves Way for Open Banking (Aug. 9, 2016), <https://www.gov.uk/government/news/cma-paves-the-way-for-open-banking-revolution> [<https://perma.cc/A457-Z32W>] [hereinafter CMA Press Release on Open Banking].

⁸⁷ The CMA found that older and larger banks do not have to compete hard enough for customers' business and smaller and newer banks find it difficult to grow. CMA Press Release on Open Banking, *supra* note 86. This means that many people are paying more than they should and are not benefiting from new services. *Id.*

⁸⁸ CMA REPORT ON OPEN BANKING, *supra* note 80, at 1–2; Manthorpe, *supra* note 80. (“Open Banking forces the UK’s nine biggest banks—HSBC, Barclays, RBS, Santander, Bank of Ireland, Allied Irish Bank, Danske, Lloyds, and Nationwide—to release their data in a secure, standardized form so that it can be shared more easily between authorized organizations online”).

⁸⁹ Competition & Markets Authority, *Retail banking market investigation*, COMPETITION & MKTS. AUTH. 441 (Aug. 9, 2016) <https://assets.publishing.service.gov.uk/media/57ac9667e5274a0f6c00007a/retail-banking-market-investigation-full-final-report.pdf> [<https://perma.cc/GK98-4K9R>]; Deloitte, *How to Flourish in an uncertain future*, 8, <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-open-banking-how-to-flourish-in-an-uncertain-future.pdf> [<https://perma.cc/V4S9-ENZG>]; *see also* Manthorpe, *supra* note 80.

⁹⁰ The FCA has a pre-existing power under Section 138A of Financial Services and Markets to waive or modify the application of its own rules, Financial Services and Markets Act 2000, c. 138A, <http://www.legislation.gov.uk/ukpga/2000/8/section/138A> [<https://perma.cc/56CS-JL25>]; *see also* *Waivers and Modifications*, FIN. CONDUCT AUTH. (Aug. 5, 2015), <https://www.fca.org.uk/firms/waivers-modifications> [<https://perma.cc/MLE7-RZJH>] (a waiver provides that a business does not have to comply with a rule, whereas a modification allows the business to comply with a rule amended to fit its circumstances); Hilary J. Allen, *Regulatory Sandboxes*, 87 GEO. WASH. L.J. 579, 596 (2019).

no enforcement letters action (also known as waivers) in some cases.⁹¹ The no enforcement letters notify entities that although they are not fully compliant with existing regulations, the FCA will not seek disciplinary action.⁹² The FCA has concluded that because consumers have relatively high confidence in the current financial regulatory framework, there is no need for additional or stronger consumer protections.⁹³ As the pioneer of FinTech sandboxes, the United Kingdom has provided significant data and examples of both financial and regulatory innovation for other countries to build upon.

iii. Australia: Second Generation FinTech Sandbox

Australia started down its path towards a FinTech sandbox in 2015, when the Australian Securities & Investment Commission (ASIC) launched the “Innovation Hub.”⁹⁴ The Innovation Hub is similar to the UK’s Project Innovate in that the program is designed to broadly support

⁹¹ *Regulatory Sandbox*, FIN. CONDUCT AUTH. (June 11, 2015), [<https://perma.cc/L8MC-LQ9H>]; Allen, *supra* note 90, at 597 (“Under the umbrella of the regulatory sandbox, there are three mechanisms utilized by the FCA to provide regulatory relief for fintech startups. First, restricted authorizations can be granted for new firms who wish to test their financial products and services without the full cost and delay that would accompany an application for full authorization . . . Second, the FCA provides individual guidance to sandbox firms as to how it will interpret the application of regulatory requirements to new technology . . . Finally, the FCA can grant waivers or ‘no enforcement action’ letters in some circumstances”).

⁹² *Id.*

⁹³ Because the FCA was able to use its pre-existing powers under Section 138A of Financial Services and Markets Act of 2000, the FCA believes that consumers are more likely to have confidence in the current regulatory framework. See Christopher Woodard, FCA Dir. of Strategy & Competition, Speech at the Innovate Finance Global Summit (Apr. 11, 2016) (draft available at: <https://www.fca.org.uk/news/speeches/innovate-finance-global-summit>) [<https://perma.cc/62CL-AX66>] (“[W]e concluded that sandbox firms undertaking regulated activities should sit within our regulatory perimeter so we can ensure that consumers are protected. Moreover, for the firms in the sandbox, our approach also means they should be ready to operate in the regulatory framework after the sandbox. And as we have seen with many markets, consumers are more likely to have confidence in a new product if it is within the regulatory framework”).

⁹⁴ ASIC is Australia’s corporate, markets, financial services, and consumer credit agency. *Our Role*, AUSTL. SEC. & INV. COMM’N, <https://asic.gov.au/about-asic/what-we-do/our-role/> [<https://perma.cc/5RBH-H7GB>]; *Innovation Hub*, AUSTL. SEC. & INV. COMM’N, <https://asic.gov.au/for-business/your-business/innovation-hub/> [<https://perma.cc/5T4X-SF8B>] (The Innovation Hub is a government program run by the Australian Securities & Investment Commission [ASIC] that was developed to foster innovation and support FinTech startup companies by helping them navigate the Australian regulatory system); Co-operation Agreement, (Mar. 23, 2016), at § 2.3 <https://download.asic.gov.au/media/3797602/fca-asicagreementsigned230316-1.pdf> (“In March of 2015, ASIC announced that it would establish an online Innovation Hub to assist innovative Fintech businesses navigate ASIC’s regulatory system”).

FinTech startups in navigating the Australian financial regulatory system, while also overseeing the Australian FinTech sandbox.⁹⁵ Like the UK sandbox, the Australian sandbox has the power to reduce the regulatory burdens on FinTech businesses.⁹⁶

Australia's overarching innovation program, the Innovation Hub, has similar priorities to the UK's Project Innovate.⁹⁷ The Innovation Hub has five priorities: first, to provide physical co-working spaces for startups; second, to provide informal and individualized guidance on regulatory issues; third, to provide an information hub for FinTech businesses to stay engaged; fourth, to create a task force that coordinates new FinTech business models; and finally, to create an advisory committee of academics and FinTech business leaders to provide feedback to the ASIC.⁹⁸ The Innovation Hub program did not explicitly require the creation of a FinTech sandbox. Instead, the Australian government relied on the second priority in which the government would provide informal and individual guidance on regulatory issues as a springboard for a FinTech sandbox.⁹⁹

In 2016, Australia created its FinTech sandbox¹⁰⁰ which allows eligible FinTech businesses to test certain services for up to twelve months without an Australian financial services credit license.¹⁰¹ In order to qualify, the business must:

- (1) Have no more than 100 retail clients (unlimited wholesale clients).

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ See *supra* note 65.

⁹⁸ Australian Regulators Engagement with the FinTech Industry, AUSTL. SEC. & INV. COMM'N, <http://fintech.treasury.gov.au/australian-regulators-engagement-with-the-fintech-industry/> [<https://web.archive.org/web/20190305102233/http://fintech.treasury.gov.au/australian-regulators-engagement-with-the-fintech-industry/>]

⁹⁹ *Id.*

¹⁰⁰ Press Release, AUSTL. SEC. & INV. COMM'N, ASIC Releases World-first Licensing Exemption for Fintech Businesses, (Dec. 15, 2016), <https://asic.gov.au/about-asic/news-centre/find-a-media-release/2016-releases/16-440mr-asic-releases-world-first-licensing-exemption-for-fintech-businesses/> [<https://perma.cc/7SS7-AYWQ>]; *Fintech Regulatory Sandbox*, ASIC, <https://asic.gov.au/for-business/your-business/innovation-hub/regulatory-sandbox/> [<https://perma.cc/X4E8-6PZ3>]; see generally Zetzsche, *supra* note 14, at 82 (arguing that the Australian approach of granting class waivers to FinTech businesses if certain eligibility criteria are met is unique and unlike other sandbox programs).

¹⁰¹ *Fintech Regulatory Sandbox*, AUSTL. SEC. & INV. COMM'N, <https://asic.gov.au/for-business/your-business/innovation-hub/regulatory-sandbox/> [<https://perma.cc/X4E8-6PZ3>]; see generally Allen, *supra* note 90, at 597 (ASIC's FinTech license program allows startups to forgo applying for an applicable license for a twelve-month period. However, ASIC may consider extending the license exemption beyond the twelve months).

- (2) Plan to test for no more than 12 months.
- (3) Have total customer exposure of no more than \$5 million.
- (4) Have adequate compensation arrangements such as indemnity insurance.
- (5) Have dispute resolution processes in place.
- (6) Meet disclosure and conduct requirements.¹⁰²

Similar to the UK, Australia provides regulatory relief to FinTech businesses in the form of a “FinTech license exemption” authorized under the current Corporation Act of 2001 and the National Consumer Credit Protection Act of 2009.¹⁰³ However, unlike in the UK, FinTech businesses in Australia need not apply to obtain the FinTech license exemption or participate in a testing cohort.¹⁰⁴ Businesses that meet the eligibility requirements and follow the conditions of the exemption are automatically entitled to rely on the exemption for twelve months.¹⁰⁵ Qualified companies do not have to submit an application to ASIC, and ASIC does not review the applications to determine eligibility.¹⁰⁶ The FinTech

¹⁰² *Corporations Regulations 2001* (Cth) regs 257.71, 257.45, 257.82, 257.84, 257.96–100, 257.103 (Austl.).

¹⁰³ *Corporations Act 2001* (Cth) s 911(B) (Austl.); *National Consumer Credit Protection Act 2009* (Cth) s 29(3) (Austl.); see generally Reg. Guide 257 (Austl.).

¹⁰⁴ *Corporations Regulations 2001* (Cth) regs 257.41, 257.117; see also *License exemption for fintech testing*, AUSTL. SEC. & INV. COMM’N, <https://asic.gov.au/for-business/your-business/innovation-hub/licensing-and-regulation/licensing-exemption-for-fintech-testing/> [<https://perma.cc/AQ49-KVE4>]; AUSTL. SEC. & INV. COMM’N, REGULATORY GUIDE 257: TESTING FINTECH PRODUCTS AND SERVICES WITHOUT HOLDING AN AFS OR CREDIT LICENSE, <https://download.asic.gov.au/media/4420907/rg257-published-23-august-2017.pdf>, [<https://perma.cc/AQC7-H9SX>].

¹⁰⁵ *Corporations Regulations 2001* (Cth) regs 257.41, 257.117; Reg. Guide 257 (Austl.). (Businesses that meet the eligibility requirement must email innovationhub@asic.gov.au with the following information: (a) the name of the legal person seeking to rely on the exemption; (b) the business’s Australian Business Number (ABN), Australian Company Number (ACN) or Australian Registered Body Number (ARBN) (if applicable); (c) whether the business is a foreign company carrying on a business in Australia and whether the business has registered under Pt 5B.2 of the Corporations Act; (d) a key contact person and contact number for the business; (e) the principal business address; (f) details of the website (if applicable); (g) the names and dates of birth of all directors and controllers; (h) whether or not there are any experts assisting the business (e.g. consultants) and, if so, who they are; and (i) a short description of the business’s innovation and business model, with a focus on the services that are provided to clients and the process for providing those services. In addition, business must provide: (a) a certified copy of a bankruptcy check for each director and controller in the business; (b) a certified copy of a national criminal history for each director and controller in the business; (c) confirmation of EDR membership; and (d) confirmation of adequate compensation arrangements (e.g. PI insurance arrangements)). *Id.*

¹⁰⁶ *Corporations Regulations 2001* (Cth) regs 257.45–257.55 (Austl.); Reg. Guide 257 (Austl.). (The testing period commences 14 days after the FinTech business advises ASIC that it intends to rely on the exemption. However, ASIC may give notice of to the FinTech business that they may not rely on this exemption if there are concerns about poor conduct, if the business fails to meet one or more of the conditions, or if there was previous misconduct).

businesses simply email the required information and are presumed to be in accordance with the regulations.¹⁰⁷ After the twelve-month testing period ends, the FinTech businesses must do one of four things: (1) cease operations, (2) arrange for individual regulatory relief, (3) request the testing period be extended, or (4) comply with the financial services regulations like other Australian businesses.¹⁰⁸ This twelve-month testing period is significantly longer than the UK sandbox, which caps testing at six months.¹⁰⁹

The UK and Australia sandboxes have similar parameters for participating but have distinctly different methods of accomplishing their goals. Both the UK and Australia use regulations that were already in place,¹¹⁰ which provides consumers safety and confidence in the program. The sandboxes also limit testing to a specific period of time (six and twelve months, respectively). They differ, however, in that the UK sandbox has broadly stated requirements whereas the Australian sandbox has specified ceilings that businesses cannot go beyond.¹¹¹ For example, the Australian sandbox caps transactions to one hundred customers and five million Australian dollars' worth of transactions, whereas the UK sandbox requires businesses be genuinely innovative and provide an identifiable consumer benefit.¹¹²

While the UK and Australian sandboxes are both providing FinTech business with an opportunity to test new products and services, neither has changed or eliminated the outdated nature of the regulations. They only address a symptom, rather than the root problem, which is that current banking and finance regulations are ill-suited to the modern context. That being said, these programs provide data and open a dialogue

¹⁰⁷ *Corporations Regulations 2001* (Cth) regs 257.41, 257.117 (Austl.); Reg. Guide 257 (Austl.).

¹⁰⁸ *Corporations Regulations 2001* (Cth) regs 257.73 (Austl.).

¹⁰⁹ REGULATORY SANDBOX LESSONS LEARNED REPORT, *supra* note 68, at 4; *Fintech Regulatory Sandbox*, *supra* note 101.

¹¹⁰ Compare *Financial Services and Markets Act 2000*, c. 138A (Eng.) with *Corporations Act 2001* (Cth) s 911(B) (Austl.); *National Consumer Credit Protection Act 2009* (Cth) s 29(3) (Austl.); See generally Reg. Guide 257 (Austl.).

¹¹¹ Compare *Applying to the Regulatory Sandbox*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/prepare-application> [https://perma.cc/PJA8-WTGL] with *Corporations Regulations 2001* (Cth) regs 257.71, 257.45, 257.82, 257.84, 257.96–100, 257.103 (Austl.).

¹¹² Compare *Applying to the Regulatory Sandbox*, FIN. CONDUCT AUTH. (June 16, 2017), <https://www.fca.org.uk/firms/regulatory-sandbox/prepare-application> [https://perma.cc/PJA8-WTGL] with *Corporations Regulations 2001* (Cth) regs 257.71, 257.45, 257.82, 257.84, 257.96–100, 257.103 (Austl.).

with regulators, which may enable legislators to resolve problems within the banking and finance system in the future.

II. RECOMMENDATIONS FOR THE UNITED STATES

A. CURRENT FINTECH REGULATION IN UNITED STATES

i. Dual Banking Regulations

In the United States, the banking industry is regulated at both the federal and state levels. At the federal level, pursuant to the National Bank Act, the Office of the Comptroller of the Currency (OCC) is responsible for fair access and treatment of bank customers and chartering national banks.¹¹³ States have historically regulated nonbanking financial services such as money transmitters, mortgage lending, consumer lending, and debt collecting.¹¹⁴ This dual banking system allows banks to choose between national and state charters, with the vast majority of banks choosing to receive their charter from a state regulator.¹¹⁵ Given that many banks are regulated by states, legislative action by the federal government would generally preempt state statutes,¹¹⁶ which creates tension within the FinTech community. Some businesses would prefer to be regulated at the federal level, whereas many would prefer state oversight.

ii. Federal Regulators

a. Office of the Comptroller of the Currency

As one of the primary regulators of the banking industry, the Office of Comptroller of the Currency (OCC) would seem like an obvious fit for a Fintech sandbox. The OCC has the authority to grant charters for national banks and federal savings associations under the National Bank

¹¹³ 12 U.S.C. § 1(a) (2018); 12 U.S.C. §§ 26–27 (2018); *See also* Elizabeth J. Upton, *Chartering Fintech: The OCC's Newest Nonbank Proposal*, 86 GEO. WASH. L. REV. 1392, 1393–94 (2018).

¹¹⁴ *Id.* at 1394.

¹¹⁵ *Id.* at 1396.

¹¹⁶ 12 C.F.R. §§ 7.4007–7.4009, 34.3–34.4; *see* Upton, *supra* note 113, at 1394; Arthur E. Wilmarth, Jr., *The OCC's Preemption Rules Exceed the Agency's Authority and Present a Serious Threat to the Dual Banking System and Consumer Protection*, 23 ANN. REV. BANKING & FIN. L. 225, 232, 356 (2004) (The Office of the Comptroller of the Currency has expanded its authority by issuing regulations that preempt a broad range of state laws from applying to national banks' activities, effectively barring all state laws, except those Congress has expressly allowed for).

Act and the Home Owners' Loan Act, respectively.¹¹⁷ However, there is a lack of consensus as to whether the OCC has the legal authority to regulate FinTech companies because they are non-depository organizations.¹¹⁸

In late 2016, the OCC asked for public comment on a policy paper titled "Exploring Special Purpose National Bank Charters for FinTech Companies" to help the OCC gauge public and business opinion.¹¹⁹ The policy paper reasoned that the OCC has the authority under the National Bank Act to create a Special Purpose National Bank (SPNB).¹²⁰ However, under the National Bank Act, Congress has only expressly authorized the OCC to charter two types of non-depository national banks: trust banks and bankers' banks.¹²¹ The OCC has taken this authority under the National Bank Act to promulgate much broader regulations that relate to the chartering of SPNBs.¹²² The OCC relies on 12 C.F.R. § 5.20(e)(1) to regulate activities that fall within the scope of "business of banking."¹²³ The business of banking breaks down into three "core banking functions: [r]eceiving deposits; paying checks; or lending money."¹²⁴ Therefore, any company that does any one of the aforementioned financial transactions would need to register and be regulated by the OCC.¹²⁵ These companies would then be subject to the same laws, regulations, examination, reporting requirements, and ongoing supervision as other national banks.

The public comments to the OCC paper provided a mixed analysis of public policy issues and legal analysis, but no consistent message of

¹¹⁷ 12 U.S.C. §§ 26–27, 1461–1470 (2018).

¹¹⁸ Compare Letter from Bryan A. Schneider, Sec'y, Ill. Dept. of Fin. & Prof'l Regulations, to Thomas J. Curry, Comptroller of the Currency, Office of the Comptroller of the Currency (Jan. 17, 2017), <https://www.occ.treas.gov/topics/responsible-innovation/comments/comment-idfpr.pdf> [<https://perma.cc/8TMZ-VK4X>] [hereinafter IDFP Comment] (arguing that the OCC *does not* have the authority under 12 C.F.R. § 5.20(e)(1)(i) (2018)), with Letter from Rose Oswald Poels, President & CEO, Wis. Bankers Ass'n, to Thomas J. Curry, Comptroller of the Currency, Office of the Comptroller of the Currency (Jan. 13, 2017), <https://www.occ.treas.gov/topics/responsible-innovation/comments/comment-wba-special-purpose-national-bank-charters-FinTech.pdf> [<https://perma.cc/5FGX-NE2B>] [hereinafter WIB Comment] (arguing that the OCC *does* have the authority under 12 C.F.R. § 5.20(e)(1)(i)).

¹¹⁹ OFFICE OF THE COMPTROLLER OF THE CURRENCY, EXPLORING SPECIAL PURPOSE NATIONAL BANK CHARTERS FOR FINTECH COMPANIES, 3 (Dec. 2016), <https://www.occ.treas.gov/topics/responsible-innovation/comments/special-purpose-national-bank-charters-for-FinTech.pdf> [<https://perma.cc/JP4J-L3V3>].

¹²⁰ 12 U.S.C. §§ 26–27, 1461–1470 (2018).

¹²¹ 12 U.S.C. § 27(a)-(b); see also Upton, *supra* note 113, at 1415–16 (discussing the back-and-forth between Congress and the courts in defining the scope of the OCC's authority).

¹²² Upton, *supra* note 113, at 1416.

¹²³ 12 C.F.R. § 5.20(e)(1)(i); see Upton, *supra* note 113, at 1416.

¹²⁴ 12 C.F.R. § 5.20(e)(1)(i).

¹²⁵ 12 C.F.R. § 5.20(e)(1)(i).

authority rang through.¹²⁶ Some special interest groups argued the OCC certainly has the authority to regulate,¹²⁷ whereas state regulators argued the OCC does not have the authority because FinTech companies are non-depositories.¹²⁸ Alternatively, state regulators also argued that this type of federal regulation would stifle innovation and pick winners and losers in the financial services industry.¹²⁹ Many FinTech companies also provided comments to the OCC, but failed to provide an answer as to whether the OCC has the authority to regulate under the current regulatory scheme.¹³⁰

In July of 2018, the OCC announced it would begin accepting applications for an SPNB charter from non-depository FinTech companies engaged in the business of banking.¹³¹ Because FinTech companies are often innovating and changing their products to fit the needs of consumers, it is unclear if many—or any—of them are engaging in any of the three core banking functions. For example, in non-bank person-to-person (P2P) transfers, such as Venmo or PayPal, users can transfer money to other users using the same service, which merely requires the FinTech company to obtain money transmitter licenses in the states where they operate.¹³² Non-bank P2P transfers allow users to transfer money to other users of the same service, rather than from Bank A to Bank B. Traditionally, a transfer from Account 1 in Bank A to Account 2 in Bank B required a wire transfer

¹²⁶ For a list of comments received, see *Public Comments on Exploring Special Purpose National Bank Charters for Fintech Companies*, OFF. COMPTROLLER CURRENCY (Dec. 2016), <https://web.archive.org/web/20190221155316/https://www.occ.treas.gov/topics/responsible-innovation/FinTech-charter-comments.html> [<https://perma.cc/X6NT-VKAR>]; see WIB Comment, *supra* note 118; IDFPR Comment, *supra* note 118.

¹²⁷ See WIB Comment, *supra* note 118.

¹²⁸ See IDFPR Comment, *supra* note 118.

¹²⁹ *Id.*

¹³⁰ *E.g.*, Letter from Manuel P. Alvarez, General Counsel, Chief Compliance Officer, Affirm, to Office of the Comptroller of the Currency (Jan. 17, 2016), <https://www.occ.treas.gov/topics/supervision-and-examination/responsible-innovation/comments/comment-affirm.pdf> [<https://perma.cc/MD88-PT6P>]; TRANSFERWISE, EXPLORING SPECIAL PURPOSE NATIONAL BANK CHARTERS FOR FINTECH COMPANIES: REQUEST FOR COMMENT PROVIDED BY TRANSFERWISE, (Jan. 2017), <https://www.occ.treas.gov/topics/supervision-and-examination/responsible-innovation/comments/comment-transfer-wise.pdf> [<https://perma.cc/TLE9-GTMW>] (questioning whether the OCC's efforts will hamper growth in the FinTech sphere).

¹³¹ Press Release, Office of the Comptroller of the Currency, OCC Begins Accepting National Bank Charter Applications from Financial Technology Companies (July 31, 2018), <https://www.occ.gov/news-issuances/news-releases/2018/nr-occ-2018-74.html> [<https://perma.cc/947R-582U>] [hereinafter OCC News Release].

¹³² See, *e.g.*, *User Agreement*, VENMO, <https://venmo.com/legal/us-user-agreement/> [<https://perma.cc/49VC-UR65>]. Venmo, through its parent company, PayPal, is a licensed provider of money transfer services in all fifty states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

or Automated Clearing House (ACH) transfer to complete the transaction. With non-bank P2P transfers, the money is transferring from User 1 to User 2, rather than from Account 1 in Bank 1 to Account 2 in Bank 2. These non-bank transfers simply require a state money transmitter license, thereby avoiding the three core banking functions and federal regulatory oversight.¹³³

The OCC's SPNB charter decision was heavily criticized by consumer groups, banking and financial service industry associations, state government officials, and members of Congress.¹³⁴ In response to the OCC's decision to create an SPNB charter for FinTech companies, the Conference of State Bank Supervisors (CSBS) brought suit against the OCC.¹³⁵ CSBS, a nationwide association of state banking and financial institution regulators, challenged the preliminary decision of the OCC to move towards charter applications for special purpose banks that provided bank-like services but do not accept deposits.¹³⁶ During the time in which CSBS filed its complaint, the OCC had undergone two leadership changes along with a presidential election.¹³⁷ Thomas Curry, the Comptroller who instructed the department to regulate special purpose banks, resigned in May of 2017.¹³⁸ Curry was succeeded by Acting Comptroller Keith Noreika, who was himself succeeded by the current Senate-confirmed Comptroller, Joseph Otting.¹³⁹ Then-acting Comptroller Noreika had suggested that if a FinTech company attempted to apply, the OCC may not accept the application:

At this point the OCC has not determined whether it will actually accept or act upon applications from non-depository fintech companies

¹³³ See, *U.S. Licenses*, VENMO, <https://venmo.com/legal/us-licenses/> [<https://perma.cc/CD4Y-4TYC>].

¹³⁴ Complaint at 16–17, *Conference of State Bank Supervisors v. Office of Comptroller of Currency*, 313 F. Supp. 3d 285 (D.D.C. 2018); see IDFPR Comment, *supra* note 118; WIB Comment, *supra* note 118.

¹³⁵ *Conference of State Bank Supervisors v. Office of Comptroller of Currency*, 313 F. Supp. 3d 285 (D.D.C. 2018).

¹³⁶ *Id.* at 291.

¹³⁷ *Id.* at 293.

¹³⁸ Press Release, Office of the Comptroller of the Currency, Thomas J. Curry to Step Down May 5, Keith A. Noreika to Serve as Acting Comptroller of the Currency (May 3, 2017), <https://www.occ.gov/news-issuances/news-releases/2017/nr-occ-2017-52.html> [<https://perma.cc/UKC7-BZTX>].

¹³⁹ Press Release, Office of the Comptroller of the Currency, Joseph M. Otting Takes Office as the 31st Comptroller of the Currency (Nov. 27, 2017), <https://www.occ.treas.gov/news-issuances/news-releases/2017/nr-occ-2017-141.html> [<https://perma.cc/QH5K-82AZ>]. See also, Victoria Guida, *Trump nominee, once probed by bank regulator, now set to head the agency*, POLITICO (Nov. 16, 2017, 1:18 PM), <https://www.politico.com/story/2017/11/16/joseph-otting-trump-currency-comptroller-165001> [<https://perma.cc/ZP2C-EYJX>].

for special purpose national charters that rely upon [12 C.F.R. 5.20(e)(1)]. And, to be clear, we have not received, nor are we evaluating, any such applications from non-depository fintech companies. The OCC will continue to hold discussions with interested companies while we evaluate our options. These meetings have been very informative and provide insight into the financial landscape and the companies providing traditional banking services as they continue to evolve.¹⁴⁰

The District Court for the District of Columbia held that the plaintiffs lacked standing because the injury claimed is contingent on whether the OCC charters a FinTech company.¹⁴¹ Thus, the court's ruling also highlighted a ripeness issue because the regulations were still in their preliminary stages rather than a final ruling.¹⁴² However, the OCC's authority to charter SPNBs is still actively being litigated.

In 2017, Maria Vullo, the acting Superintendent of the New York Department of Financial Services (DFS), brought suit alleging that the special purpose bank proposal would “invite risk of regulatory confusion and uncertainty, stifle small business innovation, create institutions that are too big to fail, threaten state consumer protection laws, and increase the risk presented by nonbank entities.”¹⁴³ Like *Conference of State Bank Supervisors*, the court in *Vullo I* held that DFS lacked Article III standing because DFS's potential injuries are “inchoate unless and until the OCC issues an SPNB charter to a FinTech company; and the absence of a final decision means this matter is not ripe for judicial review.”¹⁴⁴

In July of 2018, under the leadership of Comptroller Otting, the OCC announced a finalized licensing manual¹⁴⁵ and its decision to accept SPNB charter applications from FinTech companies.¹⁴⁶ Superintendent

¹⁴⁰ Keith A. Noreika, Acting Comptroller of the Currency, Remarks before the Exchequer Club 9 (July 19, 2017) (transcript available at <https://www.occ.gov/news-issuances/speeches/2017/pub-speech-2017-82.pdf> [<https://perma.cc/2TG2-DPUE>]).

¹⁴¹ *Conference of State Bank Supervisors v. Office of Comptroller of Currency*, 313 F. Supp. 3d 285, 299 (D.D.C. 2018).

¹⁴² *Id.* at 300.

¹⁴³ *Vullo v. Office of Comptroller of Currency (Vullo I)*, No. 17 Civ. 3574 (NRB), 2017 WL 6512245, at *2 (S.D.N.Y. Dec. 12, 2017).

¹⁴⁴ *Id.* at *5.

¹⁴⁵ OFFICE OF THE COMPTROLLER OF THE CURRENCY, COMPTROLLER'S LICENSING MANUAL SUPPLEMENT: CONSIDERING CHARTER APPLICATIONS FROM FINANCIAL TECHNOLOGY COMPANIES (2018), <https://www.occ.gov/publications-and-resources/publications/comptrollers-licensing-manual/files/pub-considering-charter-apps-from-fin-tech-co.pdf> [<https://perma.cc/F83B-CTBE>]; OCC News Release, *supra* note 131.

¹⁴⁶ OCC News Release, *supra* note 131.

Vullo again brought suit,¹⁴⁷ alleging that the OCC's publication of the final materials eliminated the ripeness concerns brought forth in *Vullo I*; and second, that the DFS will suffer economic harm as the OCC's SPNB charter will deprive the DFS of revenue and future assessments.¹⁴⁸ The court in *Vullo II* found for the plaintiff on the justiciability issues and on the merits.¹⁴⁹ The court reviewed the OCC's interpretation of the National Bank Act, finding the OCC had exceeded the Administrative Procedure Act by reinterpreting the National Banking Act to include the authority to regulate non-depository entities.¹⁵⁰ The OCC is pursuing an appeal in the Second Circuit¹⁵¹ to validate its FinTech SPNB charter plan.¹⁵² Given the ongoing litigation between state agencies and the OCC, it would benefit the FinTech business community if Congress took action in this sphere by either providing the OCC with explicit authority to act or denying it altogether, thereby allowing states the ability to regulate the burgeoning FinTech realm.

b. Other Federal Agencies

Other federal agencies have also begun to consider where FinTech companies fit within their regulatory framework. In July of 2018, the Consumer Financial Protection Bureau (CFPB) announced a new Office of Innovation which will “focus on creating policies to facilitate innovation, engaging with entrepreneurs and regulations, and reviewing

¹⁴⁷ *Vullo v. Office of Comptroller of Currency (Vullo II)*, 378 F. Supp. 3d 271, 288 (S.D.N.Y. 2019).

¹⁴⁸ *Id.* at 286.

¹⁴⁹ *Id.* at 282–98.

¹⁵⁰ *Id.* at 298 (“The Court concludes that the NBA’s ‘business of banking’ clause, read in the light of its plain language, history, and legislative context, unambiguously requires that, absent a statutory provision to the contrary, only depository institutions are eligible to receive national bank charters from OCC. The Court therefore finds that DFS states an APA claim, and denies OCC’s Motion to Dismiss with respect to Counts I and II”).

¹⁵¹ See *Lacewell v. Office of Comptroller of Currency*, No. 18 Civ. 8377 (VM), 2019 WL 6334895, at *1 (S.D.N.Y. Oct. 21, 2019) (Maria T. Vullo was succeeded as Superintendent by Linda A. Lacewell and the case caption changed accordingly; see docket numbers 32 and 35).

¹⁵² The parties disagree as to the scope of the final judgment:

[DFS] proposes that the Regulation be “set aside with respect to all fintech applicants seeking a national bank charter that do not accept deposits,” . . . [whereas the] OCC proposes that the Regulation be set aside more narrowly: only “with respect to all fintech applicants seeking a national bank charter that do not accept deposits, and that have a nexus to New York State, i.e., applicants that are chartered in New York or that intend to do business in New York (including through the Internet) in a manner that would subject them to regulation by DFS.”

Id. at 1.

outdated or unnecessary regulations.”¹⁵³ Additionally, the Commodity Futures Trading Commission (CFTC) announced the launch of LabCFTC, an initiative to encourage FinTech innovation in markets subject to CFTC oversight and to aid the CFTC’s engagement with, and the collection of information on, new FinTech innovations and solutions.¹⁵⁴

While these announcements are potentially politically driven, they are indicative of the duplicative nature of federal regulations and the reasons FinTech companies are often lost in the chaos. Entrepreneurs struggle to know which regulations affect their companies, and for good reason, as agencies continue to overlap their spheres of oversight, creating an opaque regulatory landscape. This haphazard approach to FinTech regulation could have potentially harmful implications for the US economy and its financial regulation system. It could also have reverberations that will be felt globally. The US should work to streamline and clarify the regulatory landscape to provide companies with a single regulatory authority. Additionally, these policy questions are best suited to be discussed in the open, with the public, under the direction of Congress.

c. Congressional Action

Congress took an interest in the creation of a regulatory sandbox when Congressman Patrick McHenry of North Carolina introduced H.R. 6118, the Financial Services Innovation Act of 2016.¹⁵⁵ The bill required twelve federal agencies to each create a Financial Services Innovation Office (FSIO) within their agency that would accept applications from FinTech companies to operate in a looser regulatory structure.¹⁵⁶ The agencies would have thirty days to approve or deny the applications from

¹⁵³ Press Release, Consumer Fin. Prot. Bureau, Bureau of Consumer Financial Protection Announces Director for the Office of Innovation (July 18, 2018), <https://www.consumerfinance.gov/about-us/newsroom/bureau-consumer-financial-protection-announces-director-office-innovation/> [<https://perma.cc/L6DM-222W>].

¹⁵⁴ Press Release, U.S. Commodity Futures Trading Comm’n, CFTC Launches LabCFTC as Major FinTech Initiative (May 17, 2017), <https://www.cftc.gov/PressRoom/PressReleases/pr7558-17> [<https://perma.cc/58F5-ABSL>].

¹⁵⁵ Financial Services Innovation Act, H.R. 6118, 114th Cong. (2016); *see also* Press Release, Patrick McHenry, Chief Deputy Whip, U.S. House of Representatives, McHenry Introduces Financial Services Innovation Act of 2016 (Sep. 22, 2016), <https://mchenry.house.gov/news/documentsingle.aspx?DocumentID=398355> [<https://perma.cc/PQ5T-WW7E>].

¹⁵⁶ H.R. 6118, *supra* note 155, at § 4.

FinTech companies.¹⁵⁷ If accepted, an “alternative compliance agreement” would be established to provide a company with a specific and individualized regulatory scheme, very similar to the approach taken by the UK and Australia.¹⁵⁸ H.R. 6118 was referred to both the House Financial Services Committee and the House Agriculture Committee, and the Subcommittee on Commodity Exchanges, Energy, and Credit, but was not given a public hearing.¹⁵⁹

Still, Congressman McHenry’s bill started a conversation about FinTech regulation and innovation generally and illustrates the distinction between the US and other countries. The US has a dual system in which the federal government and states regulate the FinTech and banking industry; this is distinctly different than the system in the UK and Australia. The UK does not have a federal system and therefore does not have a power struggle between the levels of government.¹⁶⁰ Australia, on the other hand, has a federal system, but the corporate and financial laws are all administered at the federal level.¹⁶¹ Thus, the UK and Australian sandboxes do not encounter similar federalism issues or the complicated and interwoven nature of the US financial services regulatory structure.¹⁶² The Australian government, for example, was able to create a FinTech regulatory licensing exemption without cooperating with any additional agencies or states.¹⁶³ For a federal US FinTech sandbox to be successful, Congress would likely need to preempt states in the FinTech sphere or provide more transparency as to the roles the states and federal government play in regulating the banking industry.

Ideally, FinTech businesses would go to a single regulatory authority that would have the expertise, perspective, and authority to act on behalf of the entire US government (including state governments), similar to the UK and Australia. McHenry’s bill would have required the OCC, the CFTC, the CFPB, and the Securities and Exchange Commission (SEC), as well as eight other agencies, to create FSIO offices within their agency, thereby replicating the efforts and cost to all of the participating agencies.¹⁶⁴ Moreover, each FinTech business would then be required to

¹⁵⁷ *Id.* at §6(e)(1).

¹⁵⁸ *Id.* at §7(b).

¹⁵⁹ *Id.*

¹⁶⁰ Allen, *supra* note 90, at 617.

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Corporations Act 2001* (Cth) s 911(B) (Austl.); *National Consumer Credit Protection Act 2009* (Cth) s 29(3) (Austl.); *See generally* Reg. Guide 257 (Austl.).

¹⁶⁴ Financial Services Innovation Act, H.R. 6118, at § 4.

apply to each appropriate agency.¹⁶⁵ This means a business may have to apply to both the OCC and the CFPB, for example, thereby creating a new complicated regulatory compliance scheme for FinTech businesses. The goal of a FinTech sandbox is to streamline the regulatory process to support innovation and give consumers more options. The McHenry bill would have done the opposite. Therefore, it seems likely that a new agency or department would need to be created, which has concurrent regulatory authority with agencies such as the SEC and the CFPB.

iii. State Regulators

States have historically regulated nonbanking companies, including financial service providers such as money transmitters and debt collectors.¹⁶⁶ However, as the OCC has put that assumption in question, states are starting to push back. A few states, including Arizona, Illinois, and a coalition of New England states, are attempting to create state-level FinTech sandboxes in order to encourage innovation.¹⁶⁷ The first and only state to successfully pass such legislation is Arizona, with House Bill 2434 (H.B. 2434).¹⁶⁸ Under this law, sandbox applicants will have twenty-four months¹⁶⁹ to test innovative products or services under the following parameters:

- (1) Each application is reviewed by the Arizona Attorney General, who has the authority to deny applications.¹⁷⁰ The application must prove the applicant's Arizona residency, describe the innovative product, the desired sandbox test, and

¹⁶⁵ *Id.*

¹⁶⁶ Upton, *supra* note 113, at 1394.

¹⁶⁷ Luke G. Thomas, *The Case for a Federal Regulatory Sandbox for Fintech Companies*, 22 N.C. BANKING INST. 257, 264 (2018). See also Paul Sweeney, *Fintech Sandbox? States, OCC Mull Regulatory Options*, DEBANKED (May 2, 2017), <http://debanked.com/2017/05/fintech-sandbox-states-occ-mull-regulatory-options/> [<https://perma.cc/KE76-7CA8>] (providing information on state discussions regarding the creation of a "New England Regulatory Fintech Sandbox").

¹⁶⁸ Ariz. Rev. Stat. §§ 41-5601–41-5621, 44.1531.01 (LexisNexis 2018); Aaron Stanley, *Arizona becomes First U.S. State to Launch Regulatory Sandbox for FinTech*, FORBES, (March 23, 2018), <https://www.forbes.com/sites/astanley/2018/03/23/arizona-becomes-first-u-s-state-to-launch-regulatory-sandbox-for-FinTech/#7fe72a911372> [<https://web.archive.org/web/20190223221917/https://www.forbes.com/sites/astanley/2018/03/23/arizona-becomes-first-u-s-state-to-launch-regulatory-sandbox-for-FinTech/>].

¹⁶⁹ Ariz. Rev. Stat. § 41-5605 (LexisNexis 2018).

¹⁷⁰ *Id.*

the protections the business has in place to protect consumers.¹⁷¹

- (2) The sandbox test is restricted to Arizona residents, and may not be tested with more than 10,000 consumers.¹⁷²
- (3) The FinTech business may not issue loans over \$15,000 and not more than \$50,000 in aggregate loans per consumer.¹⁷³
- (4) The FinTech business may transfer monies between consumers in amounts up to \$500 and not more than \$2,500 in the aggregate per consumer.¹⁷⁴
- (5) Businesses must comply with the current consumer fraud protections and regulations.¹⁷⁵

The Arizona FinTech sandbox draws from the success of the UK model, focusing its support towards businesses that are truly innovating in the FinTech sphere. Moreover, this legislation will not allow a high-risk check casher to launch an app or mobile website that would skirt the existing check cashing regulations and consumer protections.¹⁷⁶ It will, on the other hand, likely spur a dialogue with other regulators and states regarding the current geography of the FinTech regulatory atmosphere.

While the intent of this legislation is to create more opportunity for FinTech companies to test products without strict regulatory oversight, there are major drawbacks. First, this legislation only impacts companies that are solely interacting with Arizona's 7.2 million citizens, or about 2.2 percent of the US population.¹⁷⁷ Because this legislation potentially helps only a small population, its potential for economic impact is also quite small. Second, this statute is limited in scope. States have the power to regulate some areas of banking, including money transmittance licenses, but do not have the power to regulate outside their borders or on matters

¹⁷¹ *Id.*

¹⁷² *Id.* at subsection B, 1-2.

¹⁷³ *Id.* at subsection B, 3.

¹⁷⁴ *Id.* at subsection B, 4.

¹⁷⁵ Arizona House Bill 2434 (2018) did not amend current consumer protection statutes; moreover, the enacted bill cites to current banking and finance consumer protections statutes, providing that businesses testing under the sandbox must continue to follow other appropriate regulations. *See id.* at subsection B, 3, subsection B, 5.

¹⁷⁶ Jason Henrichs, *Fintech needs more Regulatory 'Sandboxes'*, AMERICAN BANKER: BANKTHINK, (April 26, 2018), <https://www.americanbanker.com/opinion/fintech-needs-more-regulatory-sandboxes> [<https://perma.cc/HR8G-8XE9>].

¹⁷⁷ Ariz. Rev. Stat. § 41-5605, subsection B, 1-2. (LexisNexis 2018); QuickFacts: Arizona, U.S. CENSUS BUREAU (July 1, 2019), <https://www.census.gov/quickfacts/AZ> [<https://perma.cc/664U-CB2E>]; QuickFacts: United States, U.S. CENSUS BUREAU (July 1, 2019), <https://www.census.gov/quickfacts/fact/table/US/PST045219> [<https://perma.cc/VCT4-TPZQ>].

that have been spoken on by the federal government. Third, state regulators lack incentive and authority to promote financial stability. Generally, the financial services sector is distributed in a manner that provides states with the power to protect consumers and the federal government with the power to regulate the high-level actions that could negatively impact the global economy. States simply do not have the same authority as the federal government. Finally, if each state creates its own regulatory sandbox that does not cooperate, communicate, or share the same values as the others, then these FinTech companies will continue to encounter regulatory compliance issues as they attempt to manage the requirements, disclosures, and filings of myriad state-run sandboxes. It is likely that their general hope is that a groundswell from states will force the federal government to act, as a federal sandbox is most appropriate.¹⁷⁸ A robust federal FinTech sandbox should preempt states from taking regulatory action in this sphere but provide citizens with an opportunity to redress consumer protection issues at the state level.

B. ADOPTING A FINTECH REGULATORY SCHEME

The framework set forth by the UK and Australian sandboxes differ greatly due to the distinct regulatory framework of each country.¹⁷⁹ Therefore, any US FinTech sandbox must be designed for the US. However, the US can and should learn from the countries who have successfully adopted this regulatory model including:

- (1) providing a floor and ceiling for how many transactions can occur or customers the business can interact with;
- (2) requiring transparency, disclosures and safeguards to protect consumers;
- (3) protecting financial stability on a national and global scale;
- (4) providing an international cooperating clause to allow the US government to negotiate reciprocity agreements; and
- (5) providing for specific FinTech regulatory sandbox legislation, rather than a statutory “no action” exemption.

First, by providing a ceiling and a floor, there are strict parameters for the size of business that may operate within the FinTech sandbox. This provides new opportunities to small start-up businesses and limits the

¹⁷⁸ Thomas, *supra* note 167, at 267.

¹⁷⁹ Allen, *supra* note 90; accord Thomas, *supra* note 167, at 272 (the “U.K. financial system is comprised of only five regulatory agencies, while the U.S. financial system incorporates twelve federal regulators working alongside myriad state bank, insurance, and securities regulators”).

participation of large actors that may be interested in crowding out small businesses.¹⁸⁰ Many FinTech businesses are being influenced by large banks, whether by outright acquiring or investing,¹⁸¹ and may potentially wish to abuse the system. These large actors are often more sophisticated than small start-ups, hence the sandbox regulators must be aware of these dangers and safeguard against them.

Second, a US FinTech sandbox should require transparency safeguards including: disclosure of algorithms, proof of data security, and privacy protections through cyber security.¹⁸² US regulators must also be aware of, and actively combat, the potential for algorithmic biases that cause discrimination in the financial industry. For example, in the mortgage context, consumers submit specific data points (e.g. credit score, income, debt-to-income ratio, loan-to-value ratio, property value) into the mortgage generation system, which then produces a decision based on the variables. In the past, the algorithms used in digital mortgages have resulted in higher prices for otherwise qualified people of color.¹⁸³ From 2009 to 2015, there has been a decline in digital mortgage discrimination due to the advent of FinTech startup lenders, as consumers can shop around for the best option from a multitude of lenders.¹⁸⁴ However, it is essential to maintain algorithms that are non-discriminatory. Thus, regulators must be vigilant and require confidential disclosures as a transparency protection for consumers.

With the proliferation of cybersecurity and privacy issues, data security is an issue for Americans both inside and outside of a FinTech

¹⁸⁰ See *Applying to the Regulatory Sandbox*, *supra* note 69; *Regulatory Sandbox – Cohort 3*, *supra* note 71.

¹⁸¹ Luisa Beltran, *Banks Might Be Ready To Join The Fintech Buyout Binge*, BARRON'S (Jan 2, 2020), <https://www.barrons.com/articles/banks-might-be-ready-to-join-the-fintech-buyout-binge-51578000872>, [https://perma.cc/2MWG-JYTR]; Letter from Jamie Dimon, Chairman and Chief Exec. Officer, JP Morgan Chase, to shareholders (Apr. 4, 2017), available at <https://www.jpmorganchase.com/corporate/investor-relations/document/ar2016-ceolettershareholders.pdf> [https://perma.cc/T6PM-JRFA] (explaining why JP Morgan Chase was moving into the FinTech sphere).

¹⁸² See NAT'L ECON. COUNCIL, FRAMEWORK FOR FINTECH at 9–10 (January 2017), https://obamawhitehouse.archives.gov/sites/obamawhitehouse.archives.gov/files/documents/A%20Framework%20for%20FinTech%20_FINAL.pdf [https://perma.cc/5ZD2-5R2T] [hereinafter FRAMEWORK FOR FINTECH] (suggesting that because algorithms have potential biases, it is important that that regulators review the algorithms to help guarantee a lack of unintended racial and gender biases that perpetuate inequality).

¹⁸³ Robert P. Bartlett et. al, *Consumer Lending Discrimination in the FinTech Era 1* (Nov. 2019) (unpublished manuscript), <https://faculty.haas.berkeley.edu/morse/research/papers/discrim.pdf> [https://perma.cc/E4KY-6AYA].

¹⁸⁴ *Id.* at 7.

sandbox. One of the largest areas for potential problems in a FinTech sandbox comes from the collection, use, disbursement, and third-party access to personal data.¹⁸⁵ To protect this vital and private information, federal regulators should require FinTech sandbox applicants to confirm that products or services are safe for consumers. FinTech businesses that are participating in the sandbox may be less sophisticated, therefore the sandbox regulators must protect consumers by requiring safeguards.

Third, the 2008 financial recession reverberated across the globe due to actions that occurred in the US financial sector. While FinTech companies are a small portion of the US and global economy, there are still potential risks that must be carefully watched and calculated. Therefore, US policymakers, regulators, agencies, and financial institutions should proactively work to protect US and global financial stability by requiring disclosures and audits of the FinTech market infiltration to determine the companies' impact on the US and global economy.

Next, it is critical that the FinTech sandbox legislation provide US regulators with the ability to cooperate with other FinTech sandboxes and international FinTech companies. If each country—or each state in the US—creates its own FinTech sandboxes that do not cooperate with one another, we will have created new hurdles for these start-ups to overcome.¹⁸⁶ FinTech companies would then need to apply for exemptions, applications, cooperative agreements, or licenses in each market in which the company seeks to operate. The US can learn from Australia and the UK in this respect, as Australia and the UK signed an agreement to create a “FinTech Bridge.”¹⁸⁷ The FinTech Bridge “sets out

¹⁸⁵ See FRAMEWORK FOR FINTECH, *supra* note 182, at 10; U.S. DEP'T. OF TREAS, A FINANCIAL SYSTEM THAT CREATES ECONOMIC OPPORTUNITIES- NONBANK FINANCIAL, FINTECH, AND INNOVATION 22–29. <https://home.treasury.gov/sites/default/files/2018-08/A-Financial-System-that-Creates-Economic-Opportunities---Nonbank-Financials-Fintech-and-Innovation.pdf> [<https://perma.cc/WM4D-ATHQ>].

¹⁸⁶ See Katie Suominen, *Building a U.S.-UK FinTech Sandbox?*, CTR. FOR STRATEGIC & INT'L STUD. (March 7, 2018), <https://www.csis.org/blogs/future-digital-trade-policy-and-role-us-and-uk/building-us-uk-FinTech-sandbox> [<https://perma.cc/BBF2-EWQS>].

¹⁸⁷ See Press Release, Fin. Conduct Authority, British and Australian Financial Regulators Sign Agreement to Support Innovative Businesses (March 23, 2016), <https://www.fca.org.uk/news/press-releases/british-and-australian-financial-regulators-sign-agreement-support-innovative> [<https://perma.cc/E372-USCP>] (stating that “[a]s a result of the agreement signed today, the UK’s Financial Conduct Authority (FCA) and the Australian Securities and Investments Commission (ASIC) will refer to one another those innovative businesses seeking to enter the others’ market. The regulators will provide support to innovative businesses before, during and after authorization to help reduce regulatory uncertainty and time to market”); Suominen, *supra* note 186.

the framework for the ongoing cooperation between the UK and Australia on FinTech issues.”¹⁸⁸ The three main functions of the FinTech Bridge are to provide a network for regulators to collaborate, provide a policy forum, and provide FinTech companies with a cross-border trial option to test products in multiple jurisdictions.¹⁸⁹ As US regulators and legislators tackle creating a US FinTech sandbox, they should be cognizant of providing an international cooperation provision that allows the regulatory authority the ability to negotiate and enter into FinTech Bridge agreements with other countries and/or establish a global FinTech bridge.¹⁹⁰

Finally, the US FinTech sandbox should be a program created by statute, rather than an agency exemption. As an exemption, it may be unclear if the exemption could be revoked based on a change in agency staff or of executive leadership. For example, when the OCC and Presidential leadership changed in 2017, the agency policy also fundamentally changed.¹⁹¹ Volatility and inconsistency make it difficult for FinTech businesses to court customers or investors. Therefore, if the US government is requiring transparency from FinTech businesses, then the government should provide that same level of transparency in the form of legislation. Providing corresponding transparency on both sides is a benefit to all.

American consumers and policymakers deserve an opportunity to become educated and engaged on the FinTech issue, as well as read and comment on any legislation before its passage to provide transparency in the process. Americans are often unsettled when unelected administrative regulators pass sweeping administrative rules that greatly impact their lives, primarily because engagement in the rulemaking process is more ambiguous than the legislative process.¹⁹² Therefore, it would be in the future interest of

¹⁸⁸ Understanding for the UK-Australia FinTech Bridge, U.K.-Austl., § 1.4, Mar. 2, 2018.

¹⁸⁹ *Id.* at § 3.2. (“Under the Enhanced Agreement, the Regulator-to-Regulator Implementing Authorities have committed to facilitating the entry of FinTech start-ups from the other jurisdiction into their respective regulatory sandboxes. In this way, the Regulator-to-Regulator Implementing Authorities will facilitate the testing of innovative ideas in multiple jurisdictions, which would provide increased integrity of sandbox test results and improve the efficiency of testing in multiple markets”).

¹⁹⁰ See FRAMEWORK FOR FINTECH, *supra* note 182, at 7 (suggesting that for the US to remain competitive in the global economy, regulators must be working to support FinTech companies in their effort to export their products and services).

¹⁹¹ See *Conference of State Bank Supervisors*, 313 F. Supp. 3d at 293.

¹⁹² See Sandra B. Zellmer, *The Devil, the Details, and the Dawn of the 21st Century Administrative State: Beyond the New Deal*, 32 ARIZ. ST. L.J. 941, 944-52 (2000) (providing a background on the rulemaking process under the Administrative Procedure Act, and the problems that arise from this unique quasi-executive, yet quasi-legislative and quasi-judicial authority agencies are given to promulgate administrative rules as agencies fill in all the gaps that Congress has, potentially on

American FinTech businesses to contact Congress to pass legislation on this matter, rather than working within the current regulatory structures to provide no enforcement letters (regulatory waivers) as was done in the UK and Australia.

III. CONCLUSION

For the United States to continue to be competitive on a global scale in the FinTech landscape, federal regulators should craft a FinTech sandbox. Federal regulators can learn from the successes of the UK and Australia by providing and ceiling and a floor, providing disclosures and transparency mechanisms to protect consumers, and providing an international cooperation provision similar to the FinTech Bridge, so that federal regulators may coordinate their efforts with countries across the globe.

While many US agencies have the ability to provide no action letters similar to the UK and Australia, congressional action is most appropriate to effectively eliminate the ambiguity in the FinTech regulatory sphere. The US federal system has created uncertainty and overlapping authority that makes it difficult for FinTech businesses to know which regulatory authority to follow. Actual legislation that the public and businesses could review and discuss would promote transparency in the process so that government does not pick winners and losers. Additionally, Congress could explicitly provide citizens with an opportunity to redress consumer protection issues at the state level, similar to the current system. Finally, Congress should create a single regulatory authority at the federal level that can cooperate with other international FinTech sandboxes. The US should learn from the successes of the Fintech sandboxes in UK and Australia to promote this innovative and disruptive industry.

purpose, left open within the statute); *See generally*, Darren Botello-Samson, *The Neoliberal Erosion of Rights in Administrative Law*, 19 TEX. TECH ADMIN. L.J. 247 (2018) (explaining that the rulemaking process is time-consuming and a complex web of procedural rules in which distant bureaucrats weigh private and public interests against each other in a manner that is distinctly different from congressional decision-making and potentially erodes the rights of citizens).