PROMOTING INNOVATION IN FINANCIAL SERVICES

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I. INTRODUCTION

Introduction

The Treasury Secretary's pending report on innovation and financial technology, or fintech, is an important opportunity to assess the existing financial regulatory and supervisory framework with an eye towards reform that would promote responsible innovation, enhance the delivery of financial products and services to our communities and thus foster economic growth and development.

President Trump's Core Principles for Regulating the United States Financial System should guide the report. In our view, certain aspects of our current regulatory environment unnecessarily hinder the development and implementation of products and services that could "empower Americans to make independent financial decisions and informed choices in the marketplace, save for retirement, and build individual wealth," "foster economic growth and vibrant financial markets," and "enable American companies to be competitive with foreign firms in domestic and foreign markets." Addressing these regulatory frictions would further the principles to "make regulation efficient, effective, and appropriately tailored," and "rationalize the Federal financial regulatory framework."

This White Paper covers general principles and topic areas related to innovation and fintech where the Securities Industry and Financial Markets Association ("**SIFMA**") [1] membership has recommendations that it believes, if adopted, would promote innovation and consumer choice as well as spur job creation and economic growth while protecting both consumers and the integrity of the financial system.

[1] SIFMA is the voice of the U.S. securities industry. We represent the broker-dealers, banks and asset managers whose nearly 1 million employees provide access to the capital markets, raising over $2.5 trillion for businesses and municipalities in the U.S., serving clients with over $20 trillion in assets and managing more than $67 trillion in assets for individual and institutional clients including mutual funds and retirement plans. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit www.sifma.org.

II. General Principles and Executive Summary

General Principles and Executive Summary

The financial services industry is rapidly evolving in new and exciting ways, and financial institutions will use innovation to better serve and protect customers, improve the security of the fintech ecosystem, compete with other providers of financial services (both bank and non-bank), and enhance compliance with regulations. Regulators should encourage responsible innovation by financial institutions that protects consumers and guards against abusive or unsafe practices. To foster such innovation, regulators will need to rethink how existing concepts and principles apply to financial services delivered through new technologies and acknowledge that innovation does not pose a material risk to safety and soundness if properly managed and overseen.

While all innovation carries uncertainty and some risk, these risks are dwarfed by the broader threat to the competitiveness and stability of the U.S. financial system if financial institutions do not keep pace with international competition, changing technology, and customer demand. The strength of the U.S. financial system depends upon a regulatory system that balances the need to mitigate the risks of innovation with the tremendous opportunities that innovation can bring to the U.S. economy.

We believe that the following general principles should guide regulators in their efforts to reform financial regulation to promote innovation:

- Innovation in the financial industry is essential to its success and must be encouraged. Regulators should therefore ensure flexibility of the regulatory framework to encourage and support innovation without compromising consumer protection or the safety and soundness of the financial system.

- Regulations and supervisory practices should be principles-based and technology-agnostic to accommodate future innovation without requiring regulatory reforms each time that new technology is created. New regulations are not necessary in many cases.

- Innovation and customer protection are optimized when regulation is based on function or activity (rather than the type of entity or regulated status) and applied in a consistent manner. This requires a rethinking of our current entity-based regulatory framework in addition to coordination and commitment among regulators with different jurisdictional interests at both the federal and state levels.

- Regulatory policy should encourage collaboration among federal and state regulators, financial institutions, and technology companies—in each case both domestically and internationally—to maximize knowledge-sharing.

- Regulators should have advanced technological expertise to evaluate changing technologies.

With these general principles in mind, regulators should, through regulation as well as through supervisory practices,[1] encourage responsible innovation by financial institutions while at the same time ensuring consumer protection. To do so, regulators should use appropriate tools to protect consumers from abusive or unsafe practices while taking care not to frustrate responsible innovation through the misguided application of outmoded concepts and principles. When properly calibrated, regulation can better promote innovation and allow financial institutions to effectively and competitively implement technology that benefits and is embraced by consumers.

Accordingly, we make specific recommendations to Treasury as it formulates its pending report.

Recommendation One: The Financial Stability Oversight Council ("**FSOC**" or the "**Council**") should create a special subcommittee of appropriate members with the mandate to drive pro-innovation practices at the financial agencies (an "**FSOC Fintech Subcommittee**"). Once established, the FSOC Fintech Subcommittee should:

- Create a framework for activities-based fintech regulation and assist the agencies in adopting that framework.
- Develop a regulatory sandbox to help financial institutions and fintech companies engage in responsible innovation.
- Take steps to ensure that the agencies enhance their technical capacity and increase their understanding of new technologies
- Build on Treasury's existing efforts to harmonize federal and state regulatory standards with respect to vendor risk and collaborate with financial institutions to understand the risks that such relationships present and the ways in which financial institutions oversee those relationships.
- Identify outmoded regulations, make recommendations for the agencies to modify or rescind those regulations where appropriate and, if necessary, recommend legislative changes to current laws that inhibit responsible innovation.
- Create a framework for the agencies to issue appropriate and consistent no-action letters or interpretive relief.

[1] *See* Federal Financial Institutions Examination Council ("**FFIEC**"), Joint Report to Congress: Economic Growth and Regulatory Paperwork Reduction Act 82 Fed. Reg. 15900, 15903 (Mar. 30, 2017) (link) [hereinafter FFIEC Joint Report] ("The agencies are aware that regulatory burden does not emanate only from statutes and regulations, but often comes from processes and procedures related to examinations and supervisory oversight.").

- Encourage coordination between state regulators and facilitate the establishment of uniform, national data breach notification requirements.

- Facilitate international coordination on fintech issues and the adoption, with appropriate modifications, of international best practices in the fintech space.

Recommendation Two: Regulators should assure that all parties that have access to sensitive consumer information, including data aggregators adopt and follow appropriate minimum data access, data handling, and data security standards, and act in a safe and responsible way.

Recommendation Three: The federal banking agencies should revisit and modify as appropriate their current interpretations of certain banking statutes, including the meaning of control under the Bank Holding Company Act of 1956 ("**BHC Act**") and the business of banking under the National Bank Act in order to ensure that such interpretations do not impede investments in fintech innovation.

Recommendation Four: The Securities and Exchange Commission ("**SEC**") should reexamine rules that may unnecessarily inhibit the growth of both traditional and digital forms of advice and should revisit rules that govern how documents must be delivered.

Recommendation Five: To resolve the uncertainty created by the *Madden v. Midland Funding, LLC* decision and to assure the smooth functioning of our financial markets, the Administration should promote a legislative solution to the court challenges to the valid-when-made doctrine.

Recommendation Six: The agencies should foster the responsible adoption of distributed ledger technologies ("**DLT**") by updating regulations that impede their use.

Recommendation Seven: In the field of cloud computing, the agencies should draw upon the expertise of industry groups and look wherever possible to harmonize standards across jurisdictions.

Recommendation Eight: The Administration should work to discourage other jurisdictions from adopting unreasonable data localization requirements.

Recommendation Nine: The agencies should facilitate the implementation of artificial intelligence tools that could facilitate compliance and should also support wider adoption of machine learning technologies.

III. Discussion of Recommendations

Recommendation One

The FSOC should create an FSOC Fintech Subcommittee with the mandate to drive pro-innovation practices at the financial agencies.

As recognized by the Government Accountability Office ("**GAO**"), the current regulatory framework governing financial institutions is rigid and fragmented,[1] and this has particular implications for fintech.[2] The fragmented nature of our financial regulatory system has led to regulatory obstacles that have frustrated the adoption of new technologies which could provide greater convenience, lower costs, increased financial inclusion, faster services, and improved security.[3]

To avoid the regulatory fragmentation that pervades our financial system, to enhance collaboration[4] and to ensure consistency of application across financial regulators, the Administration should support and direct the creation of an FSOC Fintech Subcommittee with the mandate to drive pro-innovation practices at the financial agencies, including by developing a U.S. regulatory sandbox to help financial institutions and fintech companies engage in responsible innovation.

Once established, the FSOC Fintech Subcommittee should eliminate unnecessary regulatory barriers to fintech innovation, facilitate information sharing and coordination among its member agencies and among other federal and state agencies and thereby enhance the safety and soundness of the financial system in a number of areas[5] regarding policy development, rulemaking, examinations, and other matters. This would be entirely consistent with FSOC's

[1] GAO, Financial Regulation: Complex and Fragmented Structure Could Be Streamlined to Improve Effectiveness (Feb. 2016) (link).

[2] GAO, Financial Technology: Additional Steps by Regulators Could Better Protect Consumers and Aid Regulatory Oversight (Mar. 2018) (link) [hereinafter GAO Fintech Report] ("The U.S. regulatory structure poses challenges to fintech firms. With numerous regulators, fintech firms noted that identifying the applicable laws and how their activities will be regulated can be difficult.").

[3] Id. at 13.

[4] *See* GAO Fintech Report at 48 ("Although a few fintech market participants and observers we interviewed told us that they thought regulatory collaboration on fintech was sufficient, the majority of market participants and observers we interviewed who commented on interagency collaboration said that it could generally be improved.").

[5] The FSOC Fintech Subcommittee's role in encouraging the states to coordinate on the elimination of barriers to innovation imposed by state regulators, including state banking supervisors and state securities commissioners, could be of particular importance. As the GAO noted recently, "complying with fragmented state licensing and reporting requirements can be expensive and time-consuming . . . fintech firms may spend a lot of time on state examinations because state exam requirements vary and numerous states may examine a fintech firm in 1 year. For example, staff from a state regulatory association said that states may examine fintech firms subject to coordinated multistate exams 2 or 3 times per year, and as many as 30 different state regulators per year may examine firms that are subject to state-by-state exams." GAO Fintech Report at 45.

statutory mission.[6] At least one senior regulator has already signaled his support for FSOC playing this role.[7] We strongly support the goals noted by Commissioner Behnam, and agree that FSOC is best-placed to accomplish these goals, but we recognize that there may be other alternatives. For example, an interagency working group that includes relevant state regulatory representatives dedicated to fintech regulatory issues could undertake the FSOC Fintech Subcommittee work we have outlined in this White Paper.

An FSOC Fintech Subcommittee dedicated to creating a coordinated regulatory approach for fintech could leverage the United States' unique regulatory structure. The FSOC Fintech Subcommittee would bring together technically savvy staff from each agency and representatives from relevant state regulators in order to facilitate coordination between those agencies, financial institutions, and fintech companies to ensure a robust regulatory regime that encourages innovation, identifies risks and emerging threats, ascertains the overall impact of proposed regulatory recommendations and positions the United States as a global leader in fintech innovation. We offer the following specific recommendations to the FSOC Fintech Subcommittee.

A. The FSOC Fintech Subcommittee should create a framework for activities-based fintech regulation and assist the agencies in adopting that framework.

Banks, securities firms, and money transmitters all engage in the transmission of money at the request of consumers, yet banks must submit to the full panoply of capital, liquidity, and prudential standards applicable to banks, securities firms have their own regulatory requirements, and non-bank and non-securities firm money transmitters must comply with the multitude of state money transmitter statutes. There are differing costs and burdens associated with each regulatory structure. The same is true for lending services, advisory services, and a multitude of other activities that both financial services firms and other entities provide to their consumers.

[6] *See* 12 U.S.C. § 5322 (2)(D)-(E); (M). ("The Council shall . . . monitor domestic and international financial regulatory proposals and developments, including insurance and accounting issues, and to advise Congress and make recommendations in such areas that will enhance the integrity, efficiency, competitiveness, and stability of the U.S. financial markets . . . facilitate information sharing and coordination among the member agencies and other Federal and State agencies regarding domestic financial services policy development, rulemaking, examinations, reporting requirements, enforcement actions . . . provide a forum for—(i) discussion and analysis of emerging market developments and financial regulatory issues; and (ii) resolution of jurisdictional disputes among the members of the Council.").

[7] Rostin Behnam, Commissioner, Commodity Futures Trading Commission ("**CFTC**"), Remarks at the FIA Boca 2018 International Futures Industry 43rd Annual Conference, Boca Raton, Florida (Mar. 15, 2018) (link) [hereinafter Behnam Remarks] ("[T]he authority granted to the FSOC in Dodd-Frank is the perfect means to execute the following: (i) convening member bodies; (ii) foster extensive discussions regarding, among other things, oversight responsibility, jurisdiction, and general policy approach of each regulatory body; (iii) engaging stakeholders, market participants, public interest groups, and foreign regulators; and (iv) delivering a detailed roadmap of policy findings and possibly legislative proposals to the Congress.").

Consider, for example, the Federal Deposit Insurance Corporation ("**FDIC**") 2016 Examination Guidance for Third-Party Lending.[8] This guidance broadly states that FDIC-regulated institutions that "engage in new or significant lending activities through third parties will generally receive increased supervisory attention."[9] No explicit guidance has been provided by the FDIC, however, as to the standard of care required from banks when they partner with non-bank companies, such as fintech companies, to provide liquidity by purchasing loans, and, whatever the FDIC's expectations may be, they do not apply equally to institutions engaging in similar activities but not subject to regulation by the FDIC.[10]

Inconsistencies such as these can do real harm to consumers. By regulating firms based on charter and not by activities, some firms are, merely by virtue of their charter, subject to extensive requirements while others escape similar regulatory scrutiny, potentially to the detriment of consumers.

As noted recently by Counselor to the Treasury Secretary Craig Phillips, fintech company innovation should be encouraged but regulators should seek to reduce regulatory asymmetries between fintech companies and regulated financial institutions.[11] A reduction in these regulatory asymmetries would even the playing field and address consumer protection concerns. It would be entirely appropriate for the FSOC Fintech Subcommittee to focus on assuring that regulation appropriately addresses the real risks associated with any particular financial activity, and that all participants are subject to appropriate minimum standards that adequately address the risks of that activity.

For example, regulators should ensure that providers of a financial service that raises risks comparable to those that the Bank Secrecy Act ("**BSA**") and anti-money laundering ("**AML**") laws seek to combat should be subject to appropriate minimum BSA/AML requirements that are tailored to the provision of that service. Other, non-exclusive areas where appropriate, activity-based minimum standards should be required include know-your-customer ("**KYC**") rules, data privacy and security requirements, and restrictions on unfair trade practices. Further, these appropriate, activity-based minimum standards should also apply to international participants doing business in the United States.

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[8] FDIC, Examination Guidance for Third-Party Lending (July 29, 2016) (link).

[9] Id. at 1.

[10] As explained below, the core concern of our membership may be addressed by moving to a system of activities-based regulation. In the interim, however, the FDIC should provide explicit guidance on the standard of care that banks need to use when partnering with non-bank companies to provide liquidity by purchasing loans.

[11] John Heltman, Treasury report to weigh in on fintech regulation, American Banker (Mar. 5, 2018) (link).

B. The FSOC Fintech Subcommittee should develop a regulatory sandbox to help financial institutions and fintech companies engage in responsible innovation.

Banks may only engage in bank-permissible activities as determined by their regulators. Bank holding companies ("**BHCs**") are constrained by the limitations of the BHC Act. Other financial institutions face similar regulatory constraints. Moving past legacy activity parameters requires evaluation by the agencies, including a review of statutory guidelines, past precedents, potential safety and soundness concerns, and the precedential impact of any decision. This process can be slow and expensive, and, most importantly, it can frustrate a financial institution's ability to compete with less regulated entities by limiting that institution's ability to improve the customer experience and deliver innovative products and services. Nowhere are these limitations more apparent than in the rapidly changing world of technology.

The FSOC Fintech Subcommittee should foster the creation of a single U.S. regulatory "sandbox" — a space where a company may experiment by making its latest innovations available to a limited number of participants while providing regulators with appropriate visibility into the experiment. A sandbox should have clear rules, subject to notice and comment, that all participants must follow, and all relevant regulators should participate and coordinate to promote regulatory certainty, efficiency, and shared learning.

While certainly each agency could create its own sandbox, individual sandboxes are inefficient and run the risk of adverse or precipitous action by other agencies that may have jurisdiction over some aspect of the activity. Individual sandboxes would exacerbate the very fragmentation that we recommend that Treasury take steps to address. Further, many states are considering their own laws and regulations related to fintech innovations. Thus, we believe that the FSOC Fintech Subcommittee would play a critical role in the creation of a single sandbox cutting across federal and state regulatory jurisdictions.

The creation of such a sandbox would not require new or additional regulation; rather, it would require a single regulatory will to align and coordinate, in a controlled and regulated environment, the full array of regulations on experimental activities that pose no real dangers to the public or the financial system.

With the FSOC Fintech Subcommittee's sandbox granting relevant regulators appropriate visibility into their experiments, companies can test new ideas and products on a limited number of participants for a limited period of time, gain experience and feedback, and adapt the product or service accordingly. Consistent with the sandbox approach, the regulators should be in a position to give early and frequent feedback to the experimenter. The relevant regulators can assure safety, soundness, and consumer protection, and quickly halt activities that raise particular concerns. Where the normal regulatory evaluation of a project typically occurs when a pilot or

prototype has been completed or during the exam cycle, if the agencies are properly and actively involved in the sandbox, they can provide more real-time guidance as to issues, obstacles, and challenges. Such early feedback can allow all participants to tailor their activities in a way that optimizes the deployment of time, energy, and capital.

Indeed, conducting such activities within a framework where there is appropriate regulatory oversight would be a substantial improvement over our current system where some technology companies occasionally appear focused on gaining market share rather than worrying about compliance obligations. The FSOC Fintech Subcommittee should establish appropriate minimum standards that must be met for firms to participate in the sandbox. These appropriate minimum standards, if properly tailored, could extend the scope of the existing regulatory perimeter to encompass those organizations that are not currently adequately regulated and supervised to ensure the protection of consumers and the safety and soundness of the financial system according to consistently applied activities-based regulation discussed above.

The sandbox could, for example, be used to enable financial services companies to provide broader—yet still responsible—access to credit in a more efficient manner. Board of Governors of the Federal Reserve System ("**Federal Reserve**") Vice Chair for Supervision Quarles supported this notion when recently stating that "online origination platforms and more sophisticated algorithms may enable credit to be underwritten and delivered in a manner that is still prudent but with greater efficiency, convenience, and lower processing costs."[12] Currently, there is tremendous reliance on credit bureau variables, such as a consumer's FICO score, when determining whether to provide a consumer with credit. Allowing financial services companies to test whether alternate data sources could be used when determining to provide a consumer with credit, in addition to a consumer's FICO score, could be beneficial to growing the overall economy. Specifically, the use of alternative data could expand consumers' access to credit in order to better determine the risk profiles of potential consumers. New and innovative data sources would enable financial institutions to extend credit to a broader population (such as those with a "thin" credit file, i.e., those who are young or new to obtaining credit) and to offer better pricing for the existing population.

C. The FSOC Fintech Subcommittee should take steps to ensure that the agencies enhance their technical capacity and increase their understanding of new technologies.

We applaud the efforts of the financial regulators to encourage innovation. The Office of the Comptroller of the Currency ("**OCC**") has established an Office of Innovation, and has appointed a Chief Innovation Officer. It has invited banking and technology companies to visit

[12] Randal K. Quarles, Vice Chair for Supervision, Federal Reserve, The Roles of Consumer Protection and Small Business Access to Credit in Financial Inclusion (Mar. 26, 2018) (link).

and exchange information, with the hope of educating financial institutions, technology companies, and the OCC on developments and fostering responsible innovation. The Federal Reserve and various Federal Reserve Banks have likewise taken steps to encourage financial services and technology firms to bring ideas and explore how financial services companies might better use technology and how technology firms can navigate the regulatory environment.[13] The CFTC has established LabCFTC with the goals of promoting "responsible FinTech innovation to improve the quality, resiliency, and competitiveness of our markets;" and accelerating "CFTC engagement with FinTech and RegTech solutions that may enable the CFTC to carry out its mission responsibilities more effectively and efficiently."[14]

While these are useful steps, more should be done given our complex and fragmented regulatory environment. Bank chartering authority is dispersed among the OCC and the states, authority to provide deposit insurance is vested with the FDIC, and holding company regulation and access to essential parts of our payments system is under the control of the Federal Reserve. Thus, discussions with a single agency are insufficient to obtain useful insight and guidance. The SEC, the CFTC, and the Consumer Financial Protection Bureau ("**CFPB**") also have roles in various financial products, and, further still, state securities and insurance regulators have additional oversight over the asset management and insurance sectors which could create conflicts between federal and state regulations addressing financial services regulation. This additional regulatory fragmentation makes the need for a more coordinated and comprehensive approach to enhancing technical capacity even more apparent. The optimal outcome is a shared, consistent, activities-based approach across regulators.

The FSOC Fintech Subcommittee should insist that key representatives from applicable regulators participate in the workings of the FSOC Fintech Subcommittee. Knowledge gained and decisions reached by the FSOC Fintech Subcommittee should be shared with the individual agencies and used to drive consistency in policy across those agencies. As the Basel Committee on Banking Supervision has noted, supervisory staff at each agency must have sufficient familiarity with emerging fintech issues to be able to understand and implement the FSOC Fintech Subcommittee's recommendations.[15] For example, it would be useful for each agency to establish a central point of contact for fintech issues with sufficient authority and stature to ensure that the FSOC Fintech Subcommittee's recommendations are put into practice. The central point of contact should have sufficient technical knowledge to answer questions posed by

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[13] *See* GAO Fintech Report at 64 (providing an overview and comparison of fintech knowledge-building initiatives at the federal financial regulators).

[14] *See* U.S. Commodity Futures Trading Commission, LabCFTC Overview (link).

[15] *See* Basel Committee on Banking Supervision, Sound Practices: Implications of fintech developments for banks and bank supervisors at 34 (Feb. 2018) (link) ("Safety and soundness could be enhanced by bank supervisors assessing their current staffing and training programmes to ensure that the knowledge, skills and tools of their staff remain relevant and effective in supervising the risks of new technologies and innovative business models. Supervisors may need to consider the addition of staff with specialised skills to complement existing expertise.").

firms under the relevant agency's oversight. Furthermore, each agency should ensure that its onsite supervisory staff are aligned with its views and policies consistent with the views and policies expressed by the FSOC Fintech Subcommittee.

D. The FSOC Fintech Subcommittee should build on Treasury's existing efforts to harmonize federal and state regulatory standards with respect to vendor risk and should collaborate with financial institutions to understand the risks that such relationships present and the ways in which financial institutions oversee those relationships.

Financial regulators define and enforce requirements as to how financial institutions should manage the risks associated with third party relationships.[16] In order to protect their assets, employees, and clients, and to satisfy regulatory requirements, financial institutions have established internal programs to manage risks associated with third parties and assessment protocols to ensure that third parties can manage those risks.

Financial institutions commonly segment third parties into tiers, based on the complexity and risk levels associated with each relationship. Each third party carries a variety of potential risks (e.g., cybersecurity, operational, financial, performance). The depth and frequency by which financial institutions assess third parties is commensurate with the risk tier. In addition to established suppliers, there are always new companies seeking to offer new services, solutions, and technologies to the financial services industry.

Regulatory requirements related to third party risk management vary between agencies. Inconsistencies in how regulators interpret and enforce that guidance create a bureaucratic burden that distracts financial institutions from core risk management activities. Companies offering new services, solutions or technologies find it difficult to comprehend and comply with the complex oversight requirements of financial institutions. This lack of clarity creates a barrier to entry that could stifle innovation and reduce competitiveness.[17]

Building on processes that are already in place, including those recommendations that industry groups have already submitted to Treasury, the FSOC Fintech Subcommittee should work with financial institutions and their regulators to harmonize vendor risk oversight requirements. As

[16] For example, the OCC has issued guidance regarding third-party vendor engagement with national banks. *See* OCC Bulletin 2013-29, Third-Party Relationships: Risk Management Guidance (Oct. 30, 2013) (link); OCC Bulletin 2017-21, Frequently Asked Questions to Supplement OCC Bulletin 2013-29 (June 7, 2017) (link).

[17] *See* GAO Fintech Report at 59 ("Banks, fintech firms, and market observers we interviewed told us that bank due diligence can also lead to lengthy delays in establishing partnerships, which can put fintech firms at risk of going out of business if they do not have sufficient funding and are not able to access new customers through a bank partner.").

part of this effort, financial institutions and regulators should develop, through notice and comment, educational guidance that for companies that are positioning themselves to become suppliers to the financial sector. The FSOC Fintech Subcommittee should take in active role in promoting the guidance and in addressing the industry groups' recommendations.

E. The FSOC Fintech Subcommittee should identify outmoded regulations, make recommendations for the agencies to modify or rescind those regulations where appropriate and, if necessary, recommend legislative changes to current laws that inhibit responsible innovation.

Many existing regulations and supervisory practices were developed decades ago and these regulations and practices developed in a different era have not kept up with the evolution and pace of technological change. New technologies are unlikely to fit squarely into old rules. Regulatory reforms are necessary to foster innovation while maintaining financial stability and consumer protection.

The FSOC Fintech Subcommittee should encourage the agencies to comprehensively review their regulations and supervisory practices, provide a public report with the results of that review, and eliminate or modify regulations and practices that are outdated. Such a review and update would benefit the agencies by improving the supervisory process as well as the financial institutions that they regulate by encouraging innovation and reducing costs.

We believe that the agencies should issue public statements that emphasize that pursuing innovation and adapting new technologies is critical to a competitive and well-functioning financial institution, that innovation has risks but these risks can be appropriately managed and mitigated, and that examiners should in general provide institutions with the freedom to test and pilot new products.

The following subsections contain specific recommendations regarding regulations, guidance and supervisory practices that we believe can be eliminated or updated to foster innovation, reduce costs and improve efficiency without sacrificing financial stability or consumer protection.

(i) EGRPRA and Regulatory Review

Under the Economic Growth and Regulatory Paperwork Reduction Act of 1996 ("**EGRPRA**"), the FFIEC, OCC, FDIC, and Federal Reserve are directed to conduct a joint review of their regulations every ten years and consider whether any of those regulations are outdated,

unnecessary, or unduly burdensome.[18] Given the current pace of technology, a once-a-decade review is far from sufficient.

The FSOC Fintech Subcommittee should, even in the absence of Congressional revisions to EGRPRA,[19] encourage all of the agencies to conduct an assessment of existing regulations, guidance, and supervisory practices directly or indirectly affecting financial innovation—at a minimum, every three years, or more often as needed—and update or eliminate outdated regulations, guidance, and supervisory practices to foster innovation, reduce costs and improve efficiency.

(ii) New Product Guidance and Supervision

Currently, the agencies often hinder financial innovation by not providing any feedback until the end of the product or activity design process or by scrutinizing the details of an institution's new products or activities, requiring constant communication with the agency before the activity is tested or launched rather than relying on the institution's risk management function to identify and mitigate risks appropriately. For example, the OCC's guidance on new products focuses only on the risks of innovating (without considering the costs and risks of *not* innovating), suggests full-scale compliance management processes even for small pilot tests affecting few consumers, and adds an extra requirement not codified in law that national banks should discuss every new activity with examiners before launch, generating examiner scrutiny and significantly slowing down innovation.[20] Regulatory guidance and supervisory practices in other areas, such as vendor risk management,[21] should also take into account the benefits of innovation and encourage beneficial relationships with fintech companies.

We believe the establishment of an FSOC Fintech Subcommittee could alleviate many of these concerns by serving as a single, coordinated point of engagement for new product and services development. The FSOC Fintech Subcommittee should facilitate discussion between the agencies and companies that are exploring offering new products and should provide a forum for the relevant agencies to offer early feedback to that company. The FSOC Fintech Subcommittee should also recommend that the agencies' new product guidance and supervision focuses not only on the risks of innovating, but also on the potential benefits and should encourage the OCC

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[18] FFIEC Joint Report at 3.

[19] The House of Representatives recently passed a bill that would add the CFPB to the ranks of those regulators who must conduct the EGRPRA review. H.R. 4607, Comprehensive Regulatory Review Act, (115th Cong., 2d Sess., 2018) (link). H.R. 4607 would also require that such review be conducted every seven years, rather than every ten years.

[20] OCC Bulletin 2017-43, New, Modified, or Expanded Bank Products and Services (Oct. 20, 2017) (link) ("Management should discuss plans with its OCC portfolio manager, examiner-in-charge, or supervisory office before developing and implementing new activities…").

[21] *See* Recommendation One – F.

to revisit its guidance on new products. The agencies must also ensure that supervisory teams cease overly conservative practices as part of the examination process.

(iii) Laws Related to the Intersection of Technology and Consumer Protection

The Fair Debt Collection Practices Act ("**FDCPA**"), enacted in 1977, does not specifically bar forms of communication such as email and text messaging. Even so, continued uncertainty surrounding the use of electronic means to communicate with consumers constrains the current use of these technologies. Most problematic is the FDCPA requirement that debt collectors, in connection with the collection of any debt, do not communicate with any person other than the consumer or certain other limited third parties (e.g., the consumer's attorney).[22] Because consumers may share email addresses or may have their email monitored (e.g., by an employer), regulated firms may be deterred from sending email communications to consumers—even if consumers do most of their communicating by email and would likely prefer that method of communication.

Similarly, the Telephone Consumer Protection Act ("**TCPA**"), enacted in 1991, limits the use of modern communication technology often requested by consumers, such as text messages, by requiring consumer consent before communications may be sent to the consumer. Text messaging is a particularly important means of communication for low-income consumers, yet TCPA compliance costs and litigation risk have deterred some financial institutions from widespread use of text messages as a means of communication.

We strongly support the principle behind the FDCPA that consumers should be shielded from abusive, deceptive and unfair debt collection practices, but we just as strongly support an updated FDCPA rulemaking to clarify an older law for modern times. The CFPB should provide a reasonably tailored safe harbor under the FDCPA to permit communication with consumers by email or another digital means when the consumer has provided an email address or other means of contact for that purpose. This would by no means undermine or be inconsistent with the purpose of the FDCPA and would be consistent with how modern-day consumers communicate.

Similarly, the members of the FSOC Fintech Subcommittee should work with and assist the FCC to update and modernize the FCC's TCPA regulations to reflect consumer use of text messages and other electronic means of communication. The D.C. Circuit's recent decision in *ACA International v. FCC*[23] will require the FCC to revisit its TCPA regulations in any event, and presents an excellent opportunity for a broader reconsideration. Most importantly, such a reconsideration should provide clarity on which calling systems constitute automatic dialing

[22] 15 U.S.C. § 1692c.

[23] No. 15-1211 (D.C. Cir.) (Mar. 16, 2018) (link).

systems for purposes of the TCPA. Further, the FCC's revised regulations should establish clear standards for how to deal with calls to numbers that have been reassigned and should provide clear exemptions for push notifications and other messaging platforms like iMessage that do not use telephony rails.

(iv) E-SIGN Act and UETA

The Electronic Signatures in Global and National Commerce Act ("**E-SIGN Act**"), adopted in 2000, permits the use of electronic records to satisfy certain requirements that information be provided in writing and is broadly applicable to a wide range of financial products and services. While the E-SIGN Act was a significant step forward for its time, use of electronic records is subject to various potentially cumbersome requirements, particularly in the modern context.

The E-SIGN Act's most significant barrier to innovation is its requirement that a consumer must consent to receive disclosures electronically in a manner that reasonably demonstrates that he or she can access information in the electronic form that it will be provided. This reasonable demonstration requirement is straightforward when consent is given in an online or mobile device environment, but is less clear when the consent is given in person, by phone or by paper. This requirement may have made sense when the statute was enacted 18 years ago, but makes much less sense today. Given the ubiquity of access to electronic delivery methods, the consumer's consent should be sufficient without an accompanying demonstration. Alternatively, regulators should provide clarifying guidance that demonstration could also be satisfied by confirmation/statement by the consumer or requesting changes such as making the timing of when the demonstration could occur more flexible.

In addition, financial institutions seeking to comply with the E-SIGN Act must, prior to obtaining a consumer's consent to receive documents electronically, provide the consumer with a statement of the hardware and software requirements for access to and retention of electronic records. This provision no longer makes sense because so many different platforms work for accessing and storing information and the ubiquity and rapid obsolescence of the latest hardware and software undercut the usefulness of this disclosure.

The FSOC Fintech Subcommittee should review the requirements of the E-SIGN Act to determine how its provisions can be better tailored to the modern context. In particular, the FSOC Fintech Subcommittee should determine the best way to address and better tailor the E-SIGN Act's outdated "reasonable demonstration" requirement and should consider eliminating or modifying the E-SIGN Act's requirement to explain the hardware and software requirements to access and store information.

Following its review, the FSOC Fintech Subcommittee should recommend regulatory clarifications through guidance where possible, but Congressional action to make the above modifications may ultimately be required.

Relatedly, the FSOC Fintech Subcommittee should review and make recommendations for how the Uniform Electronic Transactions Act ("**UETA**"), first promulgated by the Uniform Law Commission in 1999, could be modified to better account for new technologies. UETA is meant to ensure that electronic signatures are not denied legal effect or enforceability solely because of their electronic form and has been adopted by nearly every state. Given that UETA is now nearly twenty years old, however, the various state laws that adopted the provisions of UETA no longer properly reflect modern technology. For example, UETA's definition of electronic signatures does not include blockchain-based records. UETA should be updated and modernized to reflect new technologies, and its revised form should be quickly adopted by the states. To the extent these state-level revisions to UETA would create tension with the E-SIGN Act,[24] the E-SIGN Act should be modified by Congress to avoid such a result.

(v) Digital Books and Records

Broker-dealers' digital books and records that are required to be stored by the SEC must be stored in a non-rewritable, non-erasable format such as the "write once, read many" ("**WORM**") format.[25] Compliance with the WORM requirement, which was adopted in 1997, is burdensome and outdated. For example:[26]

- Records stored in WORM cannot effectively be used for business continuity planning or cybersecurity defenses because the nature of these records makes such use of this technology impractical and, in some cases, impossible. Data stored in WORM is essentially a static snapshot of a record that is locked and secured from any manipulation or deletion, as opposed to a complete system that could be used to stand up a production system during or following a disaster event.

- In simple terms, archiving dynamic data in WORM storage requires firms to create static documents or reports that are comprised of data generated by and from dynamic and interconnected computer systems. This process of compilation—which occurs solely information for WORM storage purposes—is costly, time-consuming, and generates information with less utility. Further, the stored document comprises a snapshot of the

[24] The E-SIGN Act preempts certain state laws that modify, limit or supersede its provisions, with exceptions for, as relevant here, those state laws that constitute an enactment or adoption of UETA.

[25] 17 C.F.R. § 240.17a-4(f).

[26] For more detail on these burdens *see* SIFMA, Financial Services Roundtable, Futures Industry Association, International Swaps and Derivatives Association, and Financial Services Institute, Petition for Rulemaking to Amend Exchange Act Rule 17a-4(f) (Nov. 14, 2017) (link).

actual record at a specific point in time, and it is not intrinsically useful in recreating the record or demonstrating the dynamic nature of the communications in question.

- WORM storage requirements are hindering innovation in the brokerage industry due to the inordinate amount of resources allocated to the maintenance of these systems and the implementation challenges for new systems. Firms are required to allocate substantial capital to WORM storage technologies that serve a very narrow purpose. These WORM storage expenditures could otherwise be dedicated to solving practical technology issues facing the industry.

Because neither the banking regulators nor the CFTC require that records be stored in WORM format, the disparity between recordkeeping standards put in place by the SEC and those put in place by other regulators makes implementing new technology unnecessarily challenging.

The SEC should amend Rule 17a-4(f) to remove WORM storage requirements and implement electronic recordkeeping standards that employ principles-based and technology-agnostic requirements such as those applicable to investment advisers, investment companies, transfer agents, and now swap dealers and futures commission merchants.[27] As an example for the SEC to look to, the CFTC recently eliminated the WORM requirement from its rules, choosing to modernize its recordkeeping requirement by introducing a principles-based approach, rather than prescriptively requiring that digital books and records be stored in WORM format.

The FSOC Fintech Subcommittee should ensure that digital recordkeeping requirements are technology neutral and harmonized in order to increase efficiency and result in significant cost savings, particularly for smaller firms. Under a principles-based, non-prescriptive approach to recordkeeping, financial institutions could adopt DLT, such as blockchain, to fulfill regulatory requirements, thereby reducing costs. Having consistent recordkeeping standards across various types of financial institutions will further enhance broker-dealers' abilities to efficiently comply with recordkeeping rules by using the available technology that best fits their business models.

F. The FSOC Fintech Subcommittee should create a framework for the agencies to issue appropriate and consistent no-action letters or interpretive relief.

No-action and interpretive letters are appropriate and valuable tools for the agencies to use to address concerns from regulated entities and to take into account developments—including developments related to technology—that may not have been anticipated at the time that a given law was enacted or at the time that a rule was promulgated. The benefit of these no-action and interpretive letters is limited, however, because many financial institutions are regulated by more

[27] *See* id. at 9 for proposed rule text that our membership has suggested previously.

than one agency, and therefore have no assurance that a given agency will necessarily agree with another agency's no-action or interpretive position. For example, though the CFPB's no-action letter policy covers banks, a CFPB no-action determination is of little use if the bank that has requested the no-action letter cannot be sure that the OCC, Federal Reserve, FDIC, Federal Trade Commission or other applicable regulators will take a similar position.

The FSOC Fintech Subcommittee, drawing on its statutory authority to enhance coordination between the agencies, should take on a coordinating role with respect to innovation-related no-action applications and requests for other interpretive guidance. If the FSOC Fintech Subcommittee determines that no-action relief is warranted, the FSOC Fintech Subcommittee should encourage each agency to issue appropriate no-action relief or to take other necessary steps to ensure that the relief granted by a no-action letter issued by one agency is applied consistently by each other relevant agency.

G. The FSOC Fintech Subcommittee should encourage coordination between state regulators and facilitate the establishment of uniform, national data breach notification requirements.

Regulators should recognize that state-by-state data breach statutes often present inconsistent standards and obligations for financial institutions, requiring firms to devote already scarce resources to complying with these differing standards and obligations that could be better spent on innovation. With different standards for each state—for example, varying types of client notices based on a customer's residence—it remains difficult and costly for financial institutions to adapt to multiple and regularly changing standards while working to address these same issues in the face of emerging technologies and new products offered to clients. Treasury has previously recommended that states adopt a uniform regulation for insurers regarding data breach notification, and has further recommended that, if the states do not adopt a uniform standard, Congress should pass a law setting forth data breach notification requirements for insurers.[28]

Treasury's recommendation that states adopt a uniform data breach notification standard for insurers is sensible,[29] but it should be broadened and reissued to account for all institutions, not only insurers. Standardization for data incidents would allow the industry to focus resources on a single approach for communicating with clients. A single standard would also promote

[28] U.S. Department of the Treasury, A Financial System That Creates Economic Opportunities: Asset Management and Insurance at 117-18 (Oct. 2017) (link).

[29] While this White Paper strongly endorses a uniform standard, it does not explicitly support Treasury's specific recommendation for all states to adopt the NAIC cybersecurity model law. While the NAIC cybersecurity model law contains some appropriate security standards, other elements of the model law are uniquely burdensome. The model law also fails to provide an exclusive standard for any particular state.

awareness through a single set of rules with a common vocabulary. Customers would know what to expect to receive from their financial institution in the event of a data incident and how best to take self-help steps for additional protection.

H. The FSOC Fintech Subcommittee should facilitate international coordination on fintech issues and the adoption, with appropriate modifications, of international best practices in the fintech space.

President Trump's Core Principles for Regulating the United States Financial System embrace the idea that U.S. companies should be competitive with non-U.S. firms in domestic and foreign markets and recognize that properly tailored financial regulation plays a key role in fostering an environment in which U.S. companies can effectively compete. The United States is lagging behind its international peers in its approach to fintech regulation, due in part to the fragmented nature of the U.S. financial regulatory system.

Attached as Appendix A to this White Paper is a chart highlighting some of the international approaches to fintech regulation. We recognize that the United States is fundamentally different from these other countries, not only in the breadth and depth of our economy, but in the unique regulatory structure developed here. We do not advocate for the wholesale adoption of non-U.S. regulatory policies without in-depth review.[30] At the same time, however, examination and understanding of best practices could be a critical step forward in assuring that the United States remains a leader in the global financial system.

The FSOC Fintech Subcommittee should review practices adopted by non-U.S. regulators, consider which practices best align with the needs of U.S. institutions, and work to create new U.S. practices that are primarily focused on market needs and competitiveness. In this way, the FSOC Fintech Subcommittee could enable the United States to become a world leader in fintech innovation.

By reviewing methods used by international regimes and, where appropriate, adapting them to the U.S. context, Treasury and the FSOC Fintech Subcommittee can ensure that U.S. agencies allow U.S. financial institutions to remain competitive while ensuring that the goals of safety and soundness are adequately addressed.[31]

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[30] *See* GAO Fintech Report at 59 ("However, some [non-U.S.] initiatives may not be appropriate for the U.S. regulatory structure. For example, adopting certain initiatives could raise concerns about U.S. agencies picking winners, in which firms that participate in these programs may be better positioned to succeed than other firms. Further, particular initiatives may not align with agencies' legal authorities or missions.").

[31] For example, the FSOC Fintech Subcommittee could consider implementing a scorecard system similar to what the European Commission has done with their European Innovation Scoreboard that measures, among other things, the supervisory burden for an institution offering new financial products or engaging in new activities.

Recommendation Two

Regulators should assure that all parties that have access to sensitive consumer information, including data aggregators adopt and follow appropriate minimum data access, data handling, and data security standards, and act in a safe and responsible way.[32]

We strongly support the concept that consumers should have the right to access and use their personal financial data as they wish.[33] We believe, however, that any party that obtains, holds or uses that data must be held to appropriately tailored minimum data and security standards like those followed by regulated financial institutions that undertake the same activities. Any party that obtains, holds or uses data must also take full responsibility for any data they receive and provide to others. Consumers also deserve clear and conspicuous explanations of how third parties will access and use their financial account data,[34] and clients should be required to consent affirmatively to this activity before it begins. These minimum standards are necessary in order to protect consumer interests, and, ultimately, these should be specific obligations limiting the use of consumer data and safeguarding the privacy and integrity of such information. Importantly, the minimum standards must include clear regulatory oversight and accountability as well as liability for the failure to abide by those standards.

First and foremost, the agencies should, through notice and comment, provide specific guidance that third parties and others in the data-access chain are "financial institutions" subject to the well-established Gramm-Leach-Bliley Act ("**GLBA**") data security standards.[35] Without this guidance there is no mechanism to assure that the aggregators and other participants in the fintech ecosystem are in compliance with such requirements or, equally importantly, that they have the financial capacity to meet corresponding liabilities should they fail to do so.[36]

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[32] With respect to several of the recommendations that follow, the FSOC Fintech Subcommittee may be able to assist, but we discuss these issues separately from the FSOC Fintech Subcommittee-specific recommendations above due to the importance of these issues to our membership and to the financial system as a whole.

[33] In this respect, we view the release by the CFPB of non-binding principles for consumer-authorized financial data sharing and aggregation as a positive step. *See* Consumer Financial Protection Bureau, Consumer Protection Principles: Consumer-Authorized Financial Data Sharing and Aggregation (Oct. 18, 2017) (link).

[34] *See* GAO Fintech Report at 27 ("Some data aggregators may hold consumer data without disclosing what rights consumers have to delete the data or prevent the data from being shared with other parties. A leak of these or other data held by fintech firms may expose characteristics that people view as sensitive.").

[35] There should be no doubt that companies gathering and using customer financial data are "financial institutions" for the purposes of the privacy provisions found in Title V of GLBA. A financial institution is any person, the business of which is engaging in financial activities as defined in Section 4(k) of the BHC Act. Gathering and using such financial data is the essence of being a financial institution. Such guidance would not require Congressional action.

[36] As the CFPB's Consumer Protection Principles for Data Aggregation recognize, "[p]arties responsible for unauthorized access" should be "held accountable for the consequences of such access."

Next, the agencies should differentiate between the *use* of data, on the one hand, and the *aggregation* of data, on the other hand.

A. Use of Data

Because consumer and system protection is not technology dependent, it is appropriate for financial regulators, consistent with the principles set out in this White Paper, to regulate the use of data without delay. Whenever data is used to enable or provide banking services (e.g., gathering of funds, lending money, making payments, transferring money, allocating investments), this use of data should be subject to separate authorization and be regulated based on the underlying activity and should be subject to minimum requirements already in place for those underlying activities—for instance, authorization protocols, cybersecurity standards and AML and KYC rules.[37]

B. Data Aggregation

In contrast, when it comes to data aggregation, the financial services industry should be allowed to reach solutions without the imposition of formal regulations.[38] This does not mean, however, that Treasury and the financial regulators have no role to play. As the GAO noted recently, "until regulators coordinate and assist the industry in clarifying and balancing the valid interests on both sides, consumers could have to choose between facing potential losses or not using what they may find to be an otherwise valuable financial service, and fintech firms providing useful services to consumers will face barriers to providing their offerings more broadly."[39]

The FSOC Fintech Subcommittee should work with the industry to agree to a set of minimum standards (e.g., for access, disclosure, data handling, security and customer control) for any third party that aggregates or has access to a consumer's personal financial data, in addition to, as discussed above, GLBA data security standards applicable to financial institutions. Once these minimum standards have been developed and agreed upon, Treasury and the individual financial regulators should encourage the industry to implement the standards as quickly as possible but, given the rapid current pace of innovation, should refrain from imposing the minimum standards through regulation at this time. Instead, the role of regulators at this stage should be to provide

[37] As we note elsewhere, the FSOC Fintech Subcommittee should play a key role in fostering agreement on the appropriate minimum standards for each activity.

[38] *See* GAO Fintech Report at 56 (noting views from the Federal Reserve and the OCC that premature regulatory action with respect to data aggregation could be detrimental).

[39] Id. at 57. We note that SIFMA already is coordinating a broad-based industry effort to create a set of industry-wide principles for protecting, sharing and aggregating customer financial information in order to promote, transparency, efficiency and trust in the marketplace. *See* SIFMA, Issues: Personal Data Aggregation (link).

clarity on the threshold requirements and support and collaborate in the development of industry standards. The minimum standards should include the following:

- Because of the extensive damage that could result from data being compromised, all participants in the fintech chain should work with the industry to develop and implement a means to access consumer financial data that does not require sharing their confidential financial account credentials (e.g., personal IDs and passwords). Instead, all participants should work to maximize the availability and use of modern, safe and hygienic methods (e.g., OAuth), which triangulate authentication with the bank and protects consumer from having to share this sensitive information with third parties.

- Because data aggregators are often retained by third parties, such as fintech service providers, these aggregators are often invisible to consumers. Clear disclosure and explanation of this relationship, including the name and contact information of the aggregator, should also be included as part of the required notice and consent. Any aggregator that has a direct consumer relationship should already be clearly subject to GLBA and required to provide a Privacy Notice in connection with establishing the consumer relationship.

- Third parties that do not have direct consumer relationships and only facilitate access to data should only access the customer financial account data necessary to provide the product or service they are offering, and should not be permitted to access or use other non-public and confidential personal information.

- Third parties that do not have direct consumer relationships and only facilitate access to data must ensure that clear and conspicuous explanations of how they will access and use consumers' financial account data, including whether they will pass that data on to other parties, are provided to consumers. Consumers must be able to control that access both before it begins and on an ongoing basis.

- Consumers should be able to withdraw their consent easily and at any time with confidence that data aggregators with whom they have relationships, or behind-the-scenes third parties, will stop collecting their personal information and delete any access credentials or tokens within a reasonable time of withdrawal of their consent.

- Consumers deserve assurances that anyone accessing their personal information will keep it safe and secure, adopt the same data and security standards followed by regulated financial institutions, and share full responsibility for any personal information that they receive and provide to others while such data is in their custody or control. In addition, consistent standards should be applied across the aggregator community regarding notifying consumers and federal banking regulators about any personal data breach.

- Third parties that fail to maintain and adhere to appropriate data and security standards should bear financial responsibility for the losses incurred due to that failure.

Recommendation Three

The federal banking agencies should revisit and modify as appropriate their current interpretations of certain banking statutes, including with respect to the meaning of control under the BHC Act and the business of banking under the National Bank Act in order to ensure that such interpretations do not impede investments in fintech innovation.

Current federal banking statutes, many of which were enacted decades or even more than a century ago, have not kept pace with technological innovation. Laws and regulations designed to address what banking entailed many years ago are in some cases ill-suited to address banking as it actually exists today. These statutes and the agencies' interpretations of them have discouraged bank investments in fintech and exacerbated the fragmentation of our regulatory system due to a lack of consistency in the application of similar elements of different statutes.

The following subsections contain specific recommendations regarding bank regulatory statutes, regulations or guidance that should be updated to facilitate greater bank involvement in fintech activities without sacrificing financial stability or consumer protection.

A. "Control" Under the BHC Act

The definition of control under the BHC Act constrains the types of investments and relationships that a BHC and its subsidiaries may have in or with other companies. To the extent a BHC makes a "controlling" investment in another company, that company must be engaged only in a relatively narrow set of permissible activities. Control is defined as the ownership of 25% of a class of voting securities, the power to elect a majority of the board, or the power to exercise a controlling influence over management or policies as determined by the Federal Reserve after notice and hearing. While the first two tests are straightforward, the final test, to quote Federal Reserve Vice-Chairman for Supervision Quarles, is "now quite a bit more ornate than the basic standards set forth in the statute and in some cases cannot be discovered except through supplication to someone who has spent a long apprenticeship in the art of Fed interpretation."[40]

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[40] Randal K. Quarles, Vice Chair for Supervision, Federal Reserve, Early Observations on Improving the Effectiveness of Post-Crisis Regulation (Jan. 19, 2018) (link).

The impact of this expansion of the concept of control has serious and important ramifications in the fintech area. If control exists, the company becomes constrained by the activities limitations of the BHC Act. It becomes subject to supervision and regulation like any other BHC subsidiary, thus subject to regulatory costs and burdens. For startup companies generally, and fintech companies in particular, the limitations on flexibility and the compliance and regulatory costs can inhibit innovation. Thus, BHCs generally try to limit their initial investments and restrain their business relationships with the company so as to avoid the amorphous control standard, meaning that business models with substantial promise but with little capital miss out on an important source of financing.

We agree with Treasury's acknowledgment in its Asset Management Report that the BHC Act's definition of control may not be appropriate in the Volcker Rule context.[41] We believe that the Federal Reserve should more broadly update its "controlling influence" guidance, however, so that at a minimum the parameters of controlling influence go back to the statutory standard of actual power to exercise a controlling influence over management or policies rather than the mere possibility that some degree of controlling influence might be present under certain circumstances as viewed by the Federal Reserve staff.

Furthermore, the Federal Reserve's "controlling influence" guidance should be transparent, public, and subject to notice and comment. Once an investment is made in compliance with the Federal Reserve's control parameters, BHCs should be encouraged, rather than discouraged, to exert the appropriate oversight of their investments and leverage the established business relationship. These reforms would enable BHCs to devote more capital and effort to innovation, benefitting the fintech company, the financial institution, and consumers.

B. Permissible Incidental or Financial Activities Under the BHC Act

The BHC Act restricts the types of activities in which a BHC and its subsidiaries can engage. BHCs and their subsidiaries are generally prohibited from owning or controlling voting shares of any company that is not a bank and from engaging in activities other than banking or managing or controlling banks and other subsidiaries authorized under the BHC Act, subject to certain enumerated exemptions. These enumerated exemptions have essentially been frozen at a time well before the current explosion of technological innovations in the financial area. Because these exemptions are fixed, and because the fintech company must fit squarely within the parameters of the exemption, BHCs can be discouraged from making investments unless they are sure that the target will stay squarely within the range of permissible activities. Again, startup companies generally, and fintech companies specifically, are attempting to adapt rapidly to an ever-changing environment, and artificial parameters can discourage the innovation necessary to

[41] Treasury Asset Management Report at 54.

succeed. And while a BHC may always seek approval to engage in new activities, the approval process is slow and uncertain, and the Federal Reserve has been very reluctant to expand the area of permissibility.

BHCs that elect to be treated as financial holding companies ("**FHCs**") may also engage in a broader range of activities that are financial in nature or incidental to activities that are financial in nature. It also permits FHCs to engage in activities that are complementary to activities that are financial in nature or incidental to activities that are financial in nature. While we would have hoped that this flexibility would have led to additional expansion, the Federal Reserve has determined that a new activity is financial in nature or incidental to an activity financial in nature only two times in the almost two decades since the power was granted to the Federal Reserve in 1999.

The Federal Reserve should interpret the BHC Act in light of modern markets and technology, and should proactively expand the list of activities that are expressly permissible under the BHC Act where possible by, for example, determining that certain fintech activities are financial in nature. Similarly, Congress and the Federal Reserve should not seek to restrict activities currently permissible under the BHC Act. For example, Congress should not act on the Federal Reserve's 2016 request to limit merchant banking under the BHC Act.

C. The Business of Banking Under the National Bank Act

The National Bank Act allows national banks to engage in the business of banking as defined under the Act and grants them the power to engage in "all such incidental powers as shall be necessary" to carry out that business.[42] The OCC has over the years demonstrated great flexibility in adapting the traditional banking powers to our modern economy and financial system, as well as in interpreting the incidental powers provision. For instance, while the National Bank Act states that banks can carry on the business "by discounting and negotiating promissory notes, drafts, bills of exchange, and other evidences of debt; by receiving deposits; by buying and selling exchange, coin, and bullion; by loaning money on personal security; and by obtaining, issuing, and circulating notes,"[43] the OCC has found numerous activities to be the functional equivalent of such items. As it has expanded the core business of banking, it has found many activities "necessary, useful or convenient" in offering permissible banking products and services. State-chartered banks, by virtue of state "wild-card" statutes that grant state banks the powers enjoyed by national banks, have also benefitted from the OCC's efforts in this field.

This flexibility and adaptability to current conditions is essential and must be preserved. Even the OCC, however, has been relatively restrained in recent years and there is continued

[42] 12 U.S.C. § 24 (Seventh).

[43] Id.

ambiguity surrounding the scope of the business of banking that leaves national banks uncertain as to whether and to what extent they are allowed to innovate.

There is also an unfortunate interplay between the OCC's determinations of activities permissible for a national bank and the Federal Reserve's interpretation of the parameters of permissible investments by BHCs under Section 4(c)(5) of the BHC Act. Under Section 4(c)(5), a BHC may invest in "shares which are of the kinds and amounts eligible for investment by national banking associations under the provisions of section 24 of this title."[44] Logically, one would presume that if the OCC had determined an investment permissible for a national bank, it would be permissible for a BHC.[45] Unfortunately the Federal Reserve takes a very restrictive view of this exemption, and will not allow BHCs to invest in companies engaged in many of the activities the OCC has found permissible for national banks. Instead, the Federal Reserve should allow BHCs to make investments under Section 4(c)(5) of the BHC Act that the OCC has determined are permissible for a national bank.

The OCC should continue its long tradition of interpreting the National Bank Act in light of modern markets and technologies and should evaluate where additional expansion might be in order as it gains additional experience with fintech companies through its Office of Innovation and through its participation in the FSOC Fintech Subcommittee.

More generally, the agencies should publish decisions requested by institutions regarding permissibility matters related to specific innovations in redacted form and after sufficient delay to allow the requesting institution time to launch its new product or activity.

Whether by clarifying legislation or regulatory interpretation, allowing BHCs the same power afforded national banks would enhance investment opportunities and grant much needed flexibility.

D. Brokered Deposits

Brokered deposits allow banks to gain access to a larger pool of potential investment funds and improve liquidity by enabling them to efficiently source deposits in large denominations in fewer individual transactions. Only well-capitalized banks can solicit and accept brokered deposits, however. In addition, under the liquidity coverage ratio rule, the outflow rate is generally assumed to be higher for brokered deposits than for other deposits. These restrictions are based on the belief that deposit brokers will withdraw brokered deposits in times of stress with little or no warning.

[44] 12 U.S.C. § 1843(c)(5).

[45] Indeed, one would think that if an activity were permissible for a national bank, given that it is funded by insured deposits, the investment would be even more appropriate for a BHC where insured deposits are not at risk.

The FDIC defines brokered deposit as "any deposit that is obtained, directly or indirectly, from or through the mediation or assistance of a deposit broker."[46] Deposit broker is in turn defined as "[a]ny person engaged in the business of placing deposits, or facilitating the placement of deposits, of third parties with insured depository institutions or the business of placing deposits with insured depository institutions for the purpose of selling interests in those deposits to third parties."[47] The FDIC has interpreted the definition of deposit broker broadly, including in recent guidance that stated, "a brokered deposit may be any deposit accepted by an insured depository institution from or through a third party, such as a person or company or organization other than the owner of the deposit.[48]

This broad approach discourages banks from partnering with fintech companies. For example, certain fintech companies offer customers one-stop platforms for financial information and services and would like to include banks on their offering platforms. While a bank's inclusion on such a platform should be considered a standard marketing partnership, if the platform involves steps taken to optimize the customer experience (e.g., linking systems, enabling pre-population of fields), those steps could be seen as the fintech company "facilitating" the placement of deposits, potentially making them brokered deposits. That determination, and the negative regulatory consequences, makes little sense when applied to fintech marketing partnerships. Unlike traditional deposit brokers, these marketing partners typically have no authority whatsoever to direct withdrawal of funds once placed by consumers, so these deposits are at no greater risk of light in times of stress than are standard consumer deposits.

The FDIC's current view of brokered deposits discourages innovative and beneficial partnerships between banks and fintech companies with no apparent safety and soundness benefit. Therefore, to encourage innovative and beneficial partnerships between banks and fintech companies, the FDIC should clarify that these types of digital marketing relationships for the benefit of consumers will not be viewed as facilitating the placement of deposits.

Recommendation Four

The SEC should reexamine rules that may unnecessarily inhibit the growth of both traditional and digital forms of advice and should revisit rules that govern how documents must be delivered.

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[46] 12 C.F.R. § 337.6(a)(2).

[47] 12 U.S.C. § 1831f; 12 C.F.R. § 337.6(a)(5)(i)(A).

[48] FDIC, Guidance on Identifying, Accepting, and Reporting Brokered Deposits, Frequently Asked Questions (revised Jul. 14, 2016) (link).

A. Digital Investment Advice

Digital advisers are simply an evolution of traditional advisers and their activities fit within the existing regulatory framework for investment advisers under the Investment Advisers Act of 1940 (the "**Advisers Act**"). Innovation in the digital advisory space could be impeded if regulators were to consider implementing requirements applicable solely to digital advisers.

SIFMA supports the SEC's approach to digital advisers as set forth in its 2017 guidance, which stated that digital advisers are subject to the fiduciary obligations and provisions of the Advisers Act.[49] While acknowledging that digital advisers may face "unique considerations" in terms of satisfying their obligations under the Advisers Act (e.g., satisfying suitability obligations exclusively through questions on a digital platform), the SEC did not suggest that additional regulation was necessary.

Like traditional advisers, digital advisers provide advice to clients through a fiduciary relationship established by contract and collect information from those clients to establish a reasonable basis for such advice. The fundamental difference is that digital advisers interact with their clients primarily, and in some cases, exclusively, through electronic means. For example, a digital adviser and client may interact exclusively via a website or mobile application with no direct human interaction. A digital adviser may also use an algorithm that generates portfolio recommendations based solely on a client's answers to questions regarding their personal circumstances and investment objectives such that there is no human involvement in an individual recommendation beyond the development and maintenance of the algorithm. These developments in part have arisen out of client demand as certain consumers prefer a purely online experience or do not feel that the costs of additional services are justified by the value they provide.

Additional regulation could make the provision of digital advisory services more burdensome and costly, thus limiting the growth of digital advisers that expand consumer choice and that also provide previously underserved markets access to investment advice in an easier and more affordable manner. More can be done to better tailor existing rules to more effectively support innovation for both traditional and digital advisory services.

SEC Rule 3a-4, promulgated under the Investment Company Act of 1940, provides a nonexclusive safe harbor from the definition of investment company for programs that provide discretionary investments advisory services to clients. As currently constructed, the Rule 3a-4 safe harbor requires that the client have the ability to impose reasonable restrictions on the management of their account, including the ability to designate particular securities or types of securities that should not be purchased for that account. The safe harbor also requires annual or

[49] SEC, Division of Investment Management, IM Guidance Update No. 2017-02 (Feb. 2017) (link).

more frequent contact with the client to determine whether there has been a change in the client's financial situation or investment objectives. Because digital advisory programs tend to offer a more limited range of investment options and rely primarily on ETFs and mutual funds, the SEC should, through notice and comment, consider revisions to Rule 3a-4 to focus the safe harbor on a client's ability to customize the investment experiences offered by the digital adviser while moving away from the safe harbor's current focus on a client's ability to impose restrictions on his or her portfolio. The SEC should also consider ways in which required client contacts under the safe harbor can be better tailored to the context of digital investment advice.

Advisers Act Rule 206(4)-3 makes it unlawful, subject to certain exceptions, for any registered investment adviser to pay a cash fee, directly or indirectly, to someone who has solicited any client for or has referred any client to, an investment adviser. While the rule does not reach advertisements for impersonal advisory services that do not purport to meet the objectives or needs of a specific client, the risk of an impermissible solicitation could arise if, through use of data, advertising becomes more tailored. The SEC should therefore proactively clarify Rule 206(4)-3 to make clear that compensation arrangements for online advertisements of this nature are not cash payments for client solicitations as prohibited under that rule. When clarifying the rule, the SEC should, through notice and comment, seek input on the scope of online advertisements to which the revised rule would not apply.

The SEC should also support a disclosure approach for all investment advisers modeled on FINRA Rule 2210 that would allow the use of testimonials in certain cases, conditioned on a requirement that the investment advisor discloses that the testimonial may not be representative of the experiences of other consumers and that there is no guarantee of future performance or success. As an intermediate step, the SEC could consider limiting testimonials to non-investment performance-related matters, such as the client's experience with a particular advisor.

B. Required Deliveries of Fund Investment and Disclosure Documents

Current SEC rules, quite appropriately, seek to protect consumers by ensuring that they have access to fund documents that may contain important disclosures. These rules, however, have not necessarily kept pace with the times. For example, Advisers Act Rule 204-3[50] and Part 2 of Form ADV require that registered investment advisers deliver annually to their clients or prospective clients either a copy of their current brochure or a summary of material changes made to the brochure in the past year with an offer to provide a copy of the current brochure upon request. While delivery of the brochure may, in certain cases, be made electronically, all such deliveries must be made in accordance with the SEC's 1996 and 2000 guidance related to

[50] 17 C.F.R. § 275.204-3.

the use of electronic media.[51] These guidance documents require that, in order to deliver brochures electronically, investment advisers must either "(i) obtain the intended recipient's informed consent to delivery through a specific electronic medium; (ii) obtain evidence that the intended recipient actually received the electronic delivery or (iii) make the delivery through "certain facsimile methods."[52]

Separately, in May 2015, the SEC proposed Rule 30e-3 under the Investment Company Act of 1940.[53] This proposed rule would permit mutual funds and intermediaries, such as life insurers, to provide notice to shareholders of the internet availability of shareholder reports.[54] The SEC, however, has not yet finalized this proposed rule.

We fully agree with Treasury's prior recommendation that regulators consider "innovative uses of new technology to enhance the delivery of information to fund investors."[55] Consistent with this recommendation, the SEC should consider an updated model for electronic delivery of fund investment and disclosure documents.

As Treasury has previously recommended, the SEC should finalize its proposed Rule 30e-3. But modernization efforts can and should go further. The delivery of fund reports and other materials by electronic means, such as a website or via e-delivery, would, as Treasury noted, "enable a greater level of detail and information to reach investors through an online platform that would likely enhance the user experience and provide greater educational value for investors."[56]

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[51] SEC, Use of Electronic Media by Broker-Dealers, Transfer Agents, and Investment Advisers for Delivery of Information, Investment Advisers Act Release No. 1562, 61 Fed. Reg. 24644 (May 15, 1996) (link) [hereinafter 1996 Electronic Delivery Guidance]; SEC Interpretation: Use of Electronic Media, Release Nos. 33-7856, 34-42728, IC-24426 (May 4, 2000) (link).

[52] 1996 Electronic Delivery Guidance at 24647.

[53] Investment Company Reporting Modernization, 80 Fed. Reg. 33590 (June 12, 2015) (link).

[54] As Treasury has previously explained, "A fund relying on the proposed rule would be required to comply with certain conditions, including making the shareholder report and other information publicly accessible and free of charge on a website, providing notice to shareholders of the availability of the shareholder report online, and allowing shareholders to request paper copies by mail. The website materials must be presented in a format convenient for reading online and printing on paper and permit a person to retain an electronic version. Most notably, the proposed rule would permit the use of implied consent to delivery by website in the absence of further instruction from the shareholder." Treasury Asset Management Report at 49.

[55] Treasury Asset Management Report at 50.

[56] Id.

Recommendation Five

To resolve the uncertainty created by the *Madden v. Midland Funding, LLC* decision and to assure the smooth functioning of our financial markets, the Administration should promote a legislative solution to the court challenges to the valid-when-made doctrine.

The valid-when-made doctrine, established by Supreme Court precedent years ago, provides that a loan that is lawful when made will remain lawful even if transferred to a third party that could not have initially made the loan in question. The valid-when-made doctrine, although essential to the smooth functioning of our financial system, has been called into question on a number of fronts, including various court decisions, the most prominent of which is *Madden v. Midland Funding, LLC*.[57] In *Madden*, where a debt collector purchased a debt originally owed to a national bank, the U.S. Court of Appeals for the Second Circuit held that the debt collector was not entitled to protection from state-law usury claims under the National Bank Act and could not rely on the fact that the loans in question were valid and permissible when made by the originating bank.

Our financial markets depend on the continued validity of the valid-when-made doctrine. Banks routinely sell or securitize loans for balance sheet management purposes and will often sell written-down or charged-off loans to third parties who are in better positions to collect. More recently, banks have partnered with marketplace lenders to offer attractive and safe alternatives to abusive forms of consumer credit. By undermining basic assumptions as to the assignability of assets that banks have legally created, the *Madden* decision impairs liquidity and significantly interferes with the core powers afforded to banks under federal law.

Hand-in-hand with the valid-when-made doctrine is the true lender doctrine. In instances where multiple parties are involved in extending credit, some courts have begun to evaluate which of those parties is the true lender. Courts have taken a variety of approaches (and in many cases, it seems, a results-oriented approach, taking into account the nature of the loans in question)[58] to determine which of those parties is the true lender, with the concomitant responsibilities and compliance obligations under applicable law. Often a party other than the bank making the loan is deemed to be the true lender, bringing into play applicable state interest and usury laws and state lender licensing requirements, among other things.

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[57] 786 F.3d 246 (2d Cir. 2015), *cert. denied* 136 S. Ct. 2505 (June 27, 2016).

[58] *Compare CFPB v. CashCall, Inc.*, No. CV 15-cv-7522-JFW (RAOx), 2016 WL 4820635 (C.D. Cal. Aug. 31, 2016) (true lender challenge upheld) *with Beechum v. Navient Solutions, Inc.*, C.D. Cal., No. 2:15-cv- 08239-JGB-KK (Sept. 20, 2016) (true lender challenge denied, without discussion).

Because of the fact-specific nature of these judicial inquiries, and the high variability among courts in the rules that are applied, bank partnerships with responsible marketplace lenders are subject to uncertainty and potential challenges, regardless of whether or not the loan is safe, sound, consumer-friendly and appropriate.

In addition to harming consumers, the uncertainty that has been created by the true lender doctrine has interfered with the development of sound and appropriate innovation in delivering banking services and—like the uncertainty created by the *Madden* decision and its progeny—requires and deserves a solution.

We suggest that the FDIC and OCC take steps to put an end to the confusion surrounding the true lender doctrine that is not only harming consumers but interfering with the development of sound and appropriate innovation in delivering banking services by confirming the valid-when-made doctrine. While the concerns raised by *Madden* can be addressed through a relatively straightforward legislative affirmation of the valid-when-made doctrine,[59] establishing clear guidelines for determining when a national or state chartered bank is the true lender (in a manner that addresses the concerns of various constituencies, and that evolves with industry changes) is a more complex exercise which, we believe, may be accomplished through a combination of enabling legislation and joint agency rulemaking. The agencies and Congress should reject any definition of true lender that is based upon the "predominant economic interest" standard adopted by certain courts, as the differences among the courts' interpretations of such standard, as well as the unpredictability of the outcome of the application of such standard, are already contributing to the current market uncertainty. Instead, the agencies and Congress should look to standards emphasizing sound business practices and safety and soundness principles such as those included in the supplemental examination procedures recently adopted by the OCC.[60]

In addition to supporting current and future legislation, regulators could take a variety of steps to put an end to the confusion surrounding *Madden*. For example, the OCC, which submitted an *amicus* brief to the Supreme Court opposing the ruling in *Madden*, should follow up with an interpretive opinion on the interest rates preemption issue. Doing so would not only clear up some uncertainty surrounding this doctrine but may spark other regulators to issue their own opinions addressing *Madden*. Accumulated pressure by regulators could cause the courts to seriously reconsider the Second Circuit ruling.

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[59] The House of Representatives in February 2018 passed a bipartisan "Madden Fix" bill that would reaffirm the valid-when-made doctrine and add clarifying language to the National Bank Act to preempt state-law usury limits. *See* H.R. 3299, Protecting Consumers Access to Credit Act of 2017 (115th Cong. 2d Sess., 2018) (link). We strongly support the bipartisan Madden Fix.

[60] *See* OCC Bulletin 2017-7, Supplemental Examination Procedures for Risk Management of Third-Party Relationships (Jan. 24, 2017) (link).

Recommendation Six

The agencies should foster the responsible adoption of distributed ledger technologies by updating regulations that impede their use.

DLT, such as blockchain, offers a means to securely, accurately, and efficiently store information in a decentralized form, optimizing the means in which information is protected and distributed. DLT could have a major impact on the way financial institutions conduct business. At the same time, and as with other issues discussed in this White Paper, continued uncertainty related to the application of existing regulatory requirements has meant that DLT has not been fully utilized in areas where it could be most beneficial, improving controls and efficiency.

CFTC Commissioner Behnam recently stated, "Whether the meteoric rise of bitcoin or the equally swift development of [DLT], the general public and policy makers have taken notice across the globe. I hope that the U.S. will take a leading role in paving the way for a well-defined, fair, and balanced regulatory regime. In my view the best and most efficient manner to achieve this important and much needed goal involves [FSOC] … FSOC is perfectly suited to address the promise and risks posed by" fintech.[61]

We agree with Commissioner Behnam that FSOC, and an FSOC Fintech Subcommittee in particular, would be well-placed to encourage the continued responsible adoption of DLT. Even in the absence of an FSOC Fintech Subcommittee, however, the agencies should continue to encourage DLT innovation and should not hinder its growth through prohibitive, unnecessary or antiquated regulation or through narrow interpretations of existing regulations. DLT is a new, developing technology that could be used to modify existing market activities and operations. Therefore, we believe that, at least initially, the existing regulatory framework can be adapted for DLT. To ensure that DLT continues to grow and evolve, the agencies should be willing to make regulatory accommodations when DLT projects operate in ways not covered by current regulations, including in a joint or coordinated fashion, where warranted.

For example, if securities were issued on a distributed ledger or tracked on a ledger to facilitate trading and settlement, custody, control location, or transfer agents, regulations may need to be amended to reflect this new approach. Furthermore, if trading or settlement processes were done via DLT, information would be made available to counterparties directly through the ledger and rules regarding confirmations and trade and settlement notifications may need to be modified. As the use of DLT continues to mature, this technology's features of immutability and cryptographic security make it likely that it can be employed with strong cybersecurity to establish safe custody of virtual assets, and regulators will need to be prepared to potentially

[61] Behnam Remarks, *supra* note 7.

issue guidance regarding how to apply existing rules and, as needed, promulgate rule amendments to accommodate this. [62]

We believe tools we recommend earlier in this White Paper, such as the single regulatory sandbox and agency no-action or interpretive letters, would also do much to promote responsible DLT innovation in an efficient manner.

The FSOC Fintech Subcommittee should work with regulators, both on the federal and state level, to coordinate approaches to DLT across both regulated and non-regulated entities. A coordinated regulatory approach will result in a more competitive industry by facilitating adoption, acceptance and interoperability for all market participants. Finally, regulators should also consider the application of DLT to their own internal processes.

Recommendation Seven

In the field of cloud computing, the agencies should draw upon the expertise of industry groups and look wherever possible to harmonize standards across jurisdictions.

The availability of cloud technologies also provides key benefits to financial institutions of all sizes, and is playing an important part in the modernization of infrastructures and business models. The benefits offered by the cloud include economies of scale and cost efficiencies, the ability for firms of diverse sizes and business models to scale computing power to their needs, greater security, and greater ease of innovation and analytics.

At the same time, and as with DLT, continuing uncertainty related to the application of existing regulatory structures to the use of the cloud and cloud computing vendors makes realizing these benefits difficult. For instance, while many regulators have stated that the use of the cloud constitutes outsourcing, there are challenges and questions surrounding the blanket application of the outsourcing regulatory framework to the cloud services business model that have created uncertainty and delayed broader adoption of this technology. In the case of vendor audits, for example, regulators often require on-site due diligence reviews. In the cloud context, on-site access is often difficult for financial institutions to negotiate, particularly when a cloud service provider services many hundreds or thousands of clients.

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[62] Virtual assets may be treated as securities or currency, among others, for regulatory purposes. The SEC's Customer Protection Rule, Securities Exchange Act Rule 15c3-3, for example, requires a registered broker-dealer which carries customer securities to promptly obtain and maintain the physical possession or control of all fully paid and excess margin customer securities, and the rule specifies "good control locations" at which the broker-dealer may control the custody of such securities. The rule separately requires broker-dealers to calculate and deposit in a special reserve bank account for the benefit of customers the net amount of cash it owes to customers. The rule does not directly address the treatment of virtual assets and regulatory guidance or rulemaking may be required to prevent uncertainty or permit innovation.

While some institutions have successfully adopted cloud technologies, they have been forced to rely on their examination teams to navigate these issues, and that process has slowed adoption and innovation due to inconsistencies introduced by examiners at different institutions.

Further, certain European member states have imposed requirements that firms within their jurisdictions store their data only within their own country or only within Europe. These data localization requirements, which are described in greater detail in Recommendation Eight below, sometimes extend to a mandate to use only locally-based clouds and are yet another potential barrier to more widespread adoption of cloud technologies.

Consistent with the collaborative principles outlined above, regulators should draw on the expertise of industry groups and look wherever possible to harmonize standards across jurisdictions with a view toward providing greater regulatory certainty. Regulators must recognize the need for flexibility and should make use of industry-regulatory partnerships to develop guidance, rather than formal rules, where appropriate.[63] Dialogues in this area are ongoing. For example, the National Institute of Standards and Technology ("**NIST**") Cloud Computing Standards Roadmap Working Group has worked with over one thousand participants from industry, academia and government (including Treasury) to foster "voluntary consensus standards development and related conformity assessment activities, which can help to accelerate the [U.S. Government] agencies' secure adoption of cloud computing."[64] An FSOC Fintech Subcommittee could further facilitate such partnerships.

In addition to taking action to clarify the application of existing regulations, financial regulators have a key role to play in addressing concerns related to the risks that use of cloud technologies could pose to the financial system. Regulators should, in accordance with the collaboration principles outlined above, create working groups or other fora for discussion in which emerging security and financial stability issues related to the cloud could be addressed if they arise.

Recommendation Eight

The Administration should work to discourage other jurisdictions from adopting unreasonable data localization requirements.

Cross-border data transfer plays an important role in enabling digital trade and encouraging growth in the U.S. economy. The ability to transfer data and information freely across borders is essential for financial services firms that operate in a global environment and is an important aspect of data security. Data localization relates to a country's laws and regulations which

[63] As recommended elsewhere in this White Paper, any such guidance should be issued through notice and comment.

[64] NIST Special Publication 500-291, Version 2, NIST Cloud Computing Standards Roadmap (July 2013) (link).

require firms handling the data of their citizens (including personal data) to store, process or handle that data within that country's borders. Data localization requirements have serious implications for American firms in today's economy. Such policies erect barriers to competition and innovation without enhancing data security and privacy and have discriminated particularly against financial services firms in recent years without any credible policy justification for such action. Further, the resources required for compliance with data localization laws may deter firms from entering or expanding in a market, limiting job creation and investment. These costs are passed along to consumers, reducing their access to goods and services.

Data localization policies have other negative consequences. Limitations on cross-border data access inhibit firms' cybersecurity controls (and ability to monitor and prevent cyber-attacks), and hamper sharing of cyber threats within firms and with law enforcement. In addition, requirements to store data onshore create additional points of entry for bad actors to infiltrate networks. Further, restrictions on cross-border data flow introduce compliance risk for firms, as privacy laws and blocking statutes introduce conflicts of law for multinational firms subject to multiple regulatory reporting regimes. Accordingly, data localization policies can undermine firms' efforts to comply with regulatory requirements (including KYC and AML rules). Finally, data localization also affects firms' business continuity and disaster recovery plans. Local data back-ups are less robust and may create tangible challenges for seamless continuity of service for clients.

To its credit, the United States generally has adopted sensible policies on cross-border data flows in recognition of the fact that data localization measures are counterproductive, fragment the global operations of firms, increase cybersecurity risks, and inhibit cross-border trade and investment. U.S. financial regulators should, in their interactions with their non-U.S. counterparts, encourage their fellow regulators to pursue policy approaches that help deliver efficient and secure cross-border data flow without adversely harming trade and investment flows that support economic growth in the United States.

Recommendation Nine

Treasury and the agencies should facilitate the implementation of artificial intelligence tools that could facilitate compliance and should also support wider adoption of machine learning technologies.

There are two areas in which financial regulators can encourage the use of artificial intelligence and machine learning. First, financial regulators should themselves consider developing machine-readable regulations (i.e., regulations drafted in a structured format that are easier for machines to digest). UK's Financial Conduct Authority is currently considering the benefits and

implications of a move to machine-readable regulations in financial services.[65] As we note elsewhere in this White Paper, U.S. regulators should not adopt fintech regulatory practices from other jurisdictions in a wholesale manner and should in each case tailor any regulatory practice adopted from elsewhere to the unique contours of the U.S. financial system. Even so, to ensure that the U.S. does not miss out on any potential regulatory advancements that facilitate progress consistent with President Trump's Core Principles, U.S. regulators should analyze the potential benefits—and the potential downsides—of machine-readable regulations. As stated previously, the FSOC Fintech Subcommittee could play a key role in creating and overseeing a public-private task force to carry out this analysis.

Second, financial regulators should work with the financial services industry to better understand the benefits and risks of the industry's current and future use of artificial intelligence and machine learning. Machine learning and artificial intelligence offer significant opportunities for financial institutions to improve services and reduce costs. Processes that combine artificial intelligence and automation, such as cognitive automation, could be used to replace human labor for both simple and complex repetitive tasks in areas such as mortgage lending, improving both operational efficiency and customer service. Machine learning technologies are complex, however, so regulators should focus on developing technological expertise and establishing a dialogue with the industry, rather than issuing formal guidance.

A. Machine Readable Solutions

U.S. regulators should explore creating a machine readable format for various regulatory regimes to allow the integration of advanced technologies into existing compliance structures. By taking the lead in this regard, U.S. regulators would encourage the fintech industry to continue to build out compliance solutions that take advantage of machine reading formatted regulations.

An early area for exploration of this concept could be in routine supervisory reporting of numerical regulatory outcomes and data sets. Other, less numbers-based types of regulation would require more work to transpose into machine-readable code and could start to be tackled once more simple reporting has successfully been automated.

B. Industry's Use of Artificial Intelligence and Machine Learning

Because of the complex nature of machine learning, regulators should not at this time issue formal guidance on this topic. Instead, regulators should take steps to ensure regulatory staff at all levels are adequately informed about machine learning technology and how machine learning has affected and will affect various aspects of the financial services industry, including the

[65] Financial Conduct Authority, Call for Input: Using technology to achieve smarter regulatory reporting (last updated Mar. 30, 2018) (link).

integration of cognitive automation into existing compliance frameworks. To do so, regulators should collect and catalogue issues as they arise and should have an open dialogue with the industry regarding these issues. An FSOC Fintech Subcommittee could facilitate such interactions, recognizing that artificial intelligence is a prime area for exploration in the sandbox context.

Regulators should work with the industry, for example, to help financial institutions better understand how they can comply with fair lending requirements when using machine learning and alternative data, including how to measure disparities, demonstrate business need for—or financial inclusion benefits from—particular alternative data inputs or approaches. Although it may be possible to make credit available to more people through these methods, even small-scale experimentation is impeded by a lack of clarity.[66]

The FSOC Fintech Subcommittee should also work with industry and other stakeholders to develop alternatives for meeting adverse action notification requirements in a machine learning context that provide consumers sufficient information regarding their credit applications while recognizing that inflexible interpretations of current adverse action rules are inappropriate given that the rules may not have contemplated the more sophisticated (and often more tailored and accurate) analyses possible under machine learning.

Finally, regulators should work with the industry to provide clarity on the use of artificial intelligence and machine learning specific to firms that make available virtual assistants that communicate with the public, open accounts, respond to balance inquiries, make transfers, execute transactions, and make recommendations all based on a standardized set of investment objectives. In particular, rules related to retention of communications, suitability and sales practices should be clarified.

[66] *See* GAO Fintech Report at 48-49 ("Fintech lenders may face challenges because agencies with authorities related to consumer protection and fair lending have not issued guidance on the use of alternative data and modeling. . . . Staff we interviewed from two consulting firms that advise on fintech told us that lack of clarity or coordination on fair lending and use of alternative data and modeling creates uncertainty for fintech lenders. This has led some fintech lenders to forgo use of alternative data for underwriting purposes since they do not know if it will produce outcomes that violate fair lending laws and regulations.").

IV. Appendix A – International Approaches to FinTech Regulation

APPENDIX A – INTERNATIONAL APPROACHES TO FINTECH REGULATION

The chart below gives a brief synopsis of the current state of fintech regulation in key jurisdictions.[1]

Jurisdiction	Regulatory Approach	Licensing Regime
United States	Fintech is regulated at both the federal and state level, and this fragmented regulatory regime has caused the United States to fall behind. Current regulatory initiatives are rather limited compared to peers.	Currently fintech companies adhere to the same licensing requirements as more traditional businesses. No regulatory sandbox initiative in place. Unlicensed fintech companies do not have the opportunity to experiment or introduce new technologies into the market as fintech companies in other jurisdictions do.
United Kingdom	The UK has focused on creating a regulatory environment that encourages growth and competition between fintech companies and supports the development of new technologies that will innovate the financial services market. The UK was one of the first countries to embrace fintech and is widely seen as the gold-standard in the global fintech market. It was the first to propose and adopt the creation of a regulatory sandbox to allow fintech start-ups to experiment with new products and services subject to appropriate regulatory oversight. In 2014, the Financial Conduct Authority developed Project Innovate as a way to support the authorization of innovative fintech startups.	Fintech companies are subject to the same licensing requirements as other firms, but Project Innovate provides fintech companies with a platform to place products and services on the market and receive supervisory support during their first year of business.

[1] For a comparison focusing on prominent non-U.S. examples of regulatory sandboxes, see GAO Fintech Report at 90-93.

Jurisdiction	Regulatory Approach	Licensing Regime
Singapore	Singapore is an emerging fintech market and is the primary entryway into the Asian market. Singapore has sought to achieve balance by introducing fintech regulation at the rate that technologies improve so as to ensure that innovation is allowed to grow without the burden of a heavily regulated environment. The Monetary Authority of Singapore ("**MAS**") supports progressive fintech regulation and collaboration with the fintech community.	No fintech licensing regime, but the MAS has developed a fintech regulatory sandbox to provide fintech startups an opportunity to introduce new technologies on a smaller scale.
Japan	The Financial Services Agency is working to transform Japan into a fintech hub by reworking some of its existing financial regulations and introducing new regulations that include investments in fintech ventures, digital currencies, and crowdfunding.	Fintech companies are governed by the same licensing regimes as conventional financial services.
Hong Kong	Hong Kong subjects fintech companies to existing legal and regulatory frameworks.	Fintech companies are governed by the same licensing regimes as conventional financial services.