January 30, 2018

Testimony of

Brian Peters

On Behalf of

FINANCIAL INNOVATION NOW

before the

Financial Services Committee

Subcommittee on Financial Institutions and Consumer Credit

United States House of Representatives

"Examining Opportunities and Challenges in the Financial Technology ("Fintech") Marketplace"

Testimony of

Brian Peters

On Behalf of

FINANCIAL INNOVATION NOW

before the

Financial Services Committee

Subcommittee on Financial Institutions and Consumer Credit

United States House of Representatives

"Examining Opportunities and Challenges in the Financial Technology ("Fintech") Marketplace"

Thank you Chairman Luetkemeyer, Ranking Member Clay, and members of the Committee for the opportunity to testify. My name is Brian Peters, and I am the Executive Director of Financial Innovation Now (FIN), an alliance of leading innovators promoting policies that empower technology to make financial services more accessible, safe and affordable for everyone.[1] FIN member companies include Amazon, Apple, Google, Intuit, and PayPal.[2]

These companies are at the forefront of America's economic growth. They collectively employ over 700,000[3] people and spend more on R&D, over $40 billion annually, than any other companies in the United States.[4] Their technologies enable the creation of whole new businesses and industries, and they empower individual consumers with tools to live more productive, healthier lives.

Technology Transformation

Technology and the mobile internet are changing the way consumers and small businesses manage money, access capital, and grow commerce. As innovators, FIN members are driving

[1] For more information regarding FIN's policy priorities and principles, please visit https://financialinnovationnow.org
[2] Today's testimony represents the views of FIN, not any one of its members individually.
[3] FIN data collected from publicly available sources.
[4] *See* Rani Molla *Tech companies spend more on R&D than any other companies in the U.S.,* RECODE (Sept. 1 2017) https://www.recode.net/2017/9/1/16236506/tech-amazon-apple-gdp-spending-productivity

new financial products and services that help small businesses create jobs across the country and empower individuals to reach their financial goals. From real-time peer-to-peer payments to new lending services, we strive to meet customer demand for digital tools that solve many kinds of financial challenges. In many cases we do this in cooperative partnership with traditional financial services providers who likewise recognize our mutual strengths.

The combined result has been an increase in access to financial services, lower costs to consumers and small businesses, and an increase in healthy competition among firms. Technological change is now a fundamental, inseparable part of modern financial services. And this change is accelerating.

Financial Inclusion – Mobile Access to Money

Mobile financial technologies, such as digital wallets and peer-to-peer payments, help improve financial health because they enable instant access to finances and real-time movement of money. These technologies enhance financial capability directly, and they also enable traditional financial entities to make depository accounts more manageable, and help users to avoid high-cost alternatives.

The Federal Deposit Insurance Corporation (FDIC) found that in 2015 nearly twenty five percent of American households remain unbanked or underbanked, but also found that "use of smartphones to engage in banking activities continues to grow at a rapid pace…" and "this growth presents promising opportunities to use the mobile platform to increase economic inclusion."[5] The FDIC has also found that consumers agree that mobile banking services help "to address weaknesses in traditional banking," particularly by helping consumers "reduce fees, better track their finances, and improve on-the-spot decision making."[6]

For those consumers who still rely on cash, companies like PayPal and Amazon are enabling users to add cash to their accounts using an app, digitizing that money for online transactions.[7] [8] PayPal recently partnered with Acorns to allow PayPal users to take better control over their financial lives by saving and investing.[9]

---

[5] Federal Deposit Insurance Corporation, 2015 FDIC NATIONAL SURVEY OF UNBANKED AND UNDERBANKED HOUSEHOLDS (2016), https://www.fdic.gov/householdsurvey/2015/2015report.pdf

[6] Federal Deposit Insurance Corporation: OPPORTUNITIES FOR MOBILE FINANCIAL SERVICES TO ENGAGE UNDERSERVED CONSUMERS (2016), https://www.fdic.gov/consumers/ community/mobile/MFS_Qualitative_Research_Report.pdf at 3.

[7] *See* David Huen, PayPal's New Prepaid Card Upsells to the Underbanked, AMERICAN BANKER (Feb. 12, 2014), http://www.americanbanker.com/issues/177_31/paypal-prepaid-unbanked-underbanked-1046670-1.html.

[8] *See* Sarah Perez, *Amazon Cash, the service that lets you shop online, arrives at 7-Eleven*, TECH CRUNCH (Nov. 6, 2017) https://techcrunch.com/2017/11/06/amazon-cash-the-service-that-lets-you-use-cash-to-shop-online-arrives-at-7-eleven/.

[9] *See* Joanna Lambert, *You Can Now Use PayPal to Fund and Investment Account with Acorns*, PAYPAL STORIES, (Nov 20, 2017) https://www.paypal.com/stories/us/you-can-now-use-paypal-to-fund-an-investment-account-with-acorns?categoryId=company-news

While the mobile internet is improving *access* to money, the *speed* of money can also matter, particularly for the half of Americans who live paycheck to paycheck.[10] It does not make sense that, in our modern era of instant communications, it can still take up to five days for a payment to clear. This unnecessary delay causes many Americans to turn to high-cost alternatives. People should not have to choose to pay twenty dollars to access their money quickly rather than run the risk of late charges or overdraft fees.[11] Real-time payments clearing would help to alleviate these problems. Many other countries already have real time payment systems, including Mexico, the United Kingdom, India, and Singapore.[12]

In the United States, the Federal Reserve is shepherding a commendable industry-led effort to achieve faster payments ubiquity by 2020. FIN is participating in this effort and is very supportive of the Fed's work on this important goal.[13] It is FIN's hope that real-time payments can soon be widely available twenty-four hours a day, seven days a week.

Financial Inclusion - Small Business Empowerment and Access to Capital

Financial innovation has also begun to solve similar access problems for small businesses. The costs of payment systems, reputation building, and loans have often excluded small businesses from full participation in the financing market. But now, new technologies are allowing small businesses (and micro-businesses) and workers to more easily take instant digital payments from customers online and on Main Street. Amazon, for example, supports millions of third party sellers, many of which are small businesses. Moreover, services such as "AmazonPay" and "Pay with PayPal" are tools that help small businesses earn credibility, expand their customer base, and accept card payments safely and securely online. Small businesses are also using innovations in payroll technology, inventory management, sales and data analytics, shipping logistics, and rewards programs, all of which make basic elements of running a business faster and less expensive.

The integration of the above technologies into a small business operation can facilitate fast and convenient access to capital. For example, Intuit's QuickBooks Capital platform enables small businesses to share financial information from their QuickBooks accounting software with financing partners so the small businesses can easily and quickly apply for the financing they need to grow their businesses. Intuit recently announced that it is offering its own lending product – utilizing this QuickBooks information. PayPal utilizes merchant card payment information, in partnership with a commercial bank, to facilitate working capital loans for small businesses. The use of these alternative data sources is valuable when assessing the

---

[10] Nearly half of Americans could not cover an emergency expense costing $400. *See* Federal Reserve: REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2015 (2016), https://www.federalreserve.gov/2015-report-economic-well-being-us-households-201605.pdf

[11] *See* Aaron Klein, *How the Fed can help families living paycheck to paycheck*. BROOKINGS CENTER ON REGULATION AND MARKETS, SERIES ON FINANCIAL MARKETS AND REGULATION, (November 22, 2017) https://www.brookings.edu/research/how-the-fed-can-help-families-living-paycheck-to-paycheck/

[12] *See* Deloitte, REAL-TIME PAYMENTS ARE CHANGING THE REALITY OF PAYMENTS. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/strategy/us-cons-real-time-payments.pdf

[13] *See* Press Release, *U.S. Faster Payments Governance Framework Formation Team announced*, FEDERAL RESERVE BOARD OF GOVERNORS (October 13, 2017) https://www.federalreserve.gov/newsevents/pressreleases/other20171013a.htm

whole picture of the small business and has been a driving force in enabling access to credit for small businesses that may not have access through traditional sources.

Traditional small business lending processes are paper intensive, manual, and time consuming.[14] The technology integrations of FIN member companies, in contrast, enable small businesses to utilize their data in the application and underwriting process, enabling streamlined processing and typically more favorable outcomes for the small business (eg. lower rates, higher rate of approvals). Financing is made available to small businesses when it is most needed, and funds are made available immediately or within one business day. Intuit's QuickBooks Capital platform has helped over 10,000 small businesses gain access to over $700 million in capital, and its own loan product, in a limited rollout over the past 6 months, has already funded over $42 million for small businesses;[15] and, as of 2017, PayPal has loaned $3 billion to 115,000 small businesses.[16]

This access to capital has benefited small businesses that typically are not able to obtain financing from traditional lenders. QuickBooks Capital is able to successfully fund small businesses that have less annual revenue, slightly lower FICO scores and are younger in business than that of traditional lenders. Similarly, an analysis of PayPal's working capital loan program found that between October 2014 and March 2015 a significant percentage of PayPal's loans went to businesses in counties that had lost banks since the financial crisis, and nearly 35% of these loans went to low-and-moderate-income businesses, versus 21% of loans from traditional retail banks.[17]

The Federal Reserve Bank of Philadelphia and the Federal Reserve Bank of Chicago recently released a study examining the data of one financial technology lender and found that lending activities have penetrated areas that could benefit from additional credit supply, such as those that lose bank branches…" and that "the use of alternative information sources has allowed some borrowers who would be classified as subprime by traditional criteria to…get lower priced credit...."[18]

---

[14] *See* Karen Gordon Mills and Brayden McCarthy, *The State of Small Business Lending: Innovation and Technology and the Implications for Regulation, Working Paper 17-042*, HARVARD BUSINESS SCHOOL, (2016) http://www.hbs.edu/faculty/Publication%20Files/17-042_30393d52-3c61-41cb-a78a-ebbe3e040e55.pdf.

[15] *See* Rania Succar, *$500 Million Reasons to Use the Quickbooks Financing Platform*, https://quickbooks.intuit.com/blog/news/500-million-reasons-use-quickbooks-financing-platform/.

[16] *See* Usman Ahmed, Thorsten Beck, Christine McDaniel, and Simon Schropp, *Filling the Gap How Technology Enables Access to Finance for Small- and Medium-Sized Enterprises*, INNOVATIONS, Vol. 10/No.3/4, MIT Press, (2015), http://www.mitpressjournals.org/doi/pdf/10.1162/inov_a_00239. ("Filling the Gap Paper")

[17] *See Filling the Gap Paper,* "Online business loans seem to have stepped in to fill the SME funding gap left in the wake of the 2008 financial crisis. A high proportion of PPWC loans are disbursed in zip codes that have experienced a relatively steep decline in the number of traditional retail banks, nearly 25 percent of PPWC loans were disbursed in the 3 percent of counties that have lost ten or more banks since the 2008 financial crisis."

[18] *See* Julapa Jagtiani and Catharine Lemieux, *Fintech Lending: Financial Inclusion, Risk Pricing, and Alternative Information*, FEDERAL RESERVE BANK OF PHILADELPHIA AND FEDERAL RESERVE BANK OF CHICAGO, (July 6, 2017) https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2017/wp17-17.pdf

Financial Management Tools

Consumers are benefiting from a wide variety financial management software applications. For example, Intuit's Mint application, and its recently announced Turbo platform, gives consumers direct access to their financial information in one place, for free. These kinds of tools have helped millions of consumers and businesses create personal budgets, set savings goals, avoid unnecessary fees, find better offers and otherwise participate in the kind of simplified financial management that was previously available only to those who could afford a personal accountant.[19]

There are additional benefits. Open data can enable efficient and more reliable tools that provide verification of account ownership or loan application information. Broader permissioned data access permits more and varying data points to be used to verify identity, speed account onboarding, and reduce fraud. Account verification tools enable consumers to access other financial products and services, including peer-to-peer payment services, in real time rather than by delayed verification options, such as micro-transfers. Open data will be an important component of improving payment security – both in receipts and disbursements – as the U.S. moves closer to real-time payment and funds availability solutions on par with global adoption.

Consumers are accessing many of these digital tools in app marketplaces, such as Google Play and the Apple App Store,[20] and the vibrancy of these markets have dramatically lowered barriers to entry for thousands of entrepreneurs to innovate at scale and create new services and new jobs.[21]

The utility of these helpful tools depends on open data and a secure means whereby consumers can permission access to their financial accounts, ideally through secure open APIs (application programming interfaces).

The economic benefits of wide access to data to facilitate informed market choices are axiomatic. More information enables better choices. A McKinsey study estimates the potential value of wide access to data (or "open data") to the U.S. economy across seven sectors, including consumer finance, to be approximately $1.1 trillion.[22] This benefit ultimately accrues to consumers, but businesses also benefit as consumers make better-informed decisions and obtain lower costs for products and services. Today, the benefits of open data are manifesting themselves in many different aspects of consumers' lives, including with respect to consumer

---

[19] *See* Jason Zweig, *Inching Your Way Toward Wealth with Your Phone*, THE WALL STREET JOURNAL (Feb. 3, 2017), https://blogs.wsj.com/moneybeat/2017/02/03/inching-your-way-toward-wealth-with-your-phone/; *See also,* Geoffrey A. Fowler, *These Apps Can Finally Get You To Save Money*, THE WALL STREET JOURNAL (June 16, 2015), https://www.wsj.com/articles/these-apps-can-finally-get-you-to-save-money-1434477296

[20] See Mary Wisniewski, *Financial Apps Get Boost from Google,* FINANCIAL PLANNING (March 29, 2017), https://www.financial-planning.com/news/financial-apps-get-a-boost-from-google

[21] *See* The App Association, STATE OF THE APP ECONOMY 2 (4th Ed. 2016), https://actonline.org/wp-content/uploads/2016_State_of_App_Economy.pdf.

[22] *See* McKinsey & Company, OPEN DATA: UNLOCKING INNOVATION AND PERFORMANCE WITH LIQUID INFORMATION 6 (2013), http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/open-data-unlocking-innovation-and-performance-with-liquid-information.

transactions, travel, social networking, professional development, health care and education, allowing consumers to easily compare pricing for a wide variety of products and services.

Security

FIN's members share the Committee's interest in maximizing data security and protecting the privacy of user information. In fact, the key areas where regulators worry about financial technology—the security and protection of digitized data—are the very areas in which technology companies have demonstrated the expertise and initiative to innovate most effectively.

As pioneers in the technology and e-commerce space, technology companies had to develop security capabilities in an era when few to none existed. Technology companies generally have no business *other* than their digital business, and maintaining user trust in their data security practices is critical. The technology industry therefore has strong incentives to employ exceptional data security practices.

The privacy and security practices of technology companies reflect not only strong incentives to protect data, but also the singular position the broader technology sector occupies when it comes to cybersecurity. Technology companies are in the business of developing cutting-edge technology, and as security threats have become more sophisticated and ubiquitous, technology companies have worked tirelessly to ensure they are sufficiently nimble and able to respond quickly to and neutralize new kinds of threats. Technology companies have also been the first to develop and adopt new security practices, like tokenization of payment data (the practice by which sensitive data like credit card numbers and many other types of data are replaced for back-office purposes with randomized numbers), end-to-end encryption of data, two-factor authentication (for example, requiring a one-time code sent by SMS in addition to a password), mobile device ID, and biometric authentication. Indeed, organizations that have serious security needs—like Northrup Grumman and the United States government—come *to* innovators like Google and Amazon for data and cloud security, and choose these kinds of companies because they are the best in the industry.[23] Notably, it is the marketplace that is driving better fraud prevention and consumer protection, often times exceeding what may be required by regulators.[24]

These security innovations are perhaps nowhere more tangible in financial services than FIN member companies' payment technologies. When many hear "mobile payments" they think of Apple Pay, PayPal, or Android Pay. That technology—which generally involves using a smartphone to make payments rather than cash or plastic cards—is not only convenient and

---

[23] In 2013 the Central Intelligence Agency selected Amazon Web Services to build and run a secure cloud to be used by 17 intelligence-related agencies. *See Intelligence community loves its new Amazon cloud*, FORTUNE (Jun. 29, 2015), http://fortune.com/2015/06/29/intelligence-community-loves-its-new-amazon-cloud/; *see also* www.fidoalliance.org (describing the Fast IDentity Online Alliance, an open standard for stronger, simpler online authentication, pioneered by technology companies).

[24] For a detailed discussion of security requirements and oversight of financial technology providers, see Financial Innovation Now, WHITE PAPER: EXAMINING THE EXTENSIVE REGULATION OF FINANCIAL TECHNOLOGIES (July 2016), https://financialinnovationnow.org/wp-content/uploads/2016/07/Examining_the_Extensive_Regulation_of_Financial_Technologies.pdf

faster, but third parties have consistently found that it is also more secure than plastic cards.[25] And a more consequential trend has begun - the diffusion of these secure payment methods throughout multiple communication and retail channels. "Invisible payments" will become far more pervasive in the future and significantly change the nature of commerce and money. These forms of payment are likely to be seamlessly woven into a wide variety of consumer and business interactions, including through browsers, secure messaging apps, easy-to-integrate buy-buttons, available via all manner of screens and screenless devices, such as wearables, voice assistants, and other IoT technology.

Contrary to the mistakenly held view that convenience and security have an inverse relationship, evolving payment technologies are *both* more secure and more convenient, speeding commerce and lowering fraud, and removing friction from the economy.

-

Conclusion

Financial Innovation Now thanks the Committee for the opportunity to provide input on financial technology. We believe financial services are in a period of significant transformation and these changes give policymakers an excellent opportunity to try new approaches that enhance economic participation and improve access.

The benefits outlined above could be enhanced through a modernized financial regulatory structure that keeps pace with innovation and meets the needs of today's consumers and commerce. The current structure is needlessly fragmented and inconsistent among federal regulators, and varies widely across state jurisdictions.[26] FIN submits the attached policy proposals for the Committee's consideration.

Thank you for considering our views and we look forward to working with the Committee constructively towards a better financial services system.

---

[25] *See, e.g*, Joanna Stern, *Chip Card Nightmares? Help Is on the Way*, THE WALL STREET JOURNAL (Aug. 2, 2016), https://www.wsj.com/articles/chip-card-nightmares-help-is-on-the-way-1470163865

[26] *See* Brian R. Knight, *Federalism and Federalization on the Fintech Frontier*, VANDERBILT JOURNAL OF ENTERTAINMENT & TECHNOLOGY LAW, VOL. 20, ISSUE 1, 2017 (2017), http://www.jetlaw.org/journal-archives/volume-20/volume-20-issue-1/federalism-and-federalization-on-the-fintech-frontier/; *See also,* Financial Innovation Now, WHITE PAPER: EXAMINING THE EXTENSIVE REGULATION OF FINANCIAL TECHNOLOGIES (July 2016), https://financialinnovationnow.org/wp-content/uploads/2016/07/Examining_the_Extensive_Regulation_of_Financial_Technologies.pdf;

FIN Policy Recommendations

National Money Transmission License: Payment innovators currently must obtain and continually renew money transmission licenses in nearly every state. Each state has their own regulations, varying definitions for the same terms, and differing licensing, reporting and consumer protection requirements. Consumer protection is a critical part of payments regulation, but it does not make sense for different states to regulate digital transactions differently from one state to another, especially if that process significantly delays entry to market, creates differing regulatory expectations, and prevents consumers and businesses in many states from having equal and consistently safe access to cutting edge payments technologies.

> *FIN Recommendation: Establish an optional federal money transmission license, managed by the Treasury Department, that: 1) oversees application and licensing, safety and soundness, BSA/AML compliance; 2) incorporates a number of existing state money transmitter laws and Uniform Money Services Act requirements; 3) preserves the current state structure for those wishing state licenses; and 4) offers uniform federal law only for an applicant choosing a federal license.*

Assess Consumer Choice and Innovation in Card Payments and Security: Technology innovators are developing numerous online payment options for consumers and merchants, along with a variety of methods to ensure security and authenticate payments conveniently. This constant evolution is necessary to drive down fraud and stay ahead of hackers. In contrast, incumbent financial services companies are building closed and proprietary networks, which lock out innovation, decrease consumer choice, and diminish the greatest potential security and fraud reduction methods.

> *FIN Recommendation: Update reporting provisions of the Card Act to include regular assessment of 1) the impact of card network requirements on consumer choice and access to payment methods; 2) the process used to determine network requirements and standards, and its impact on market access and interoperability; 3) the alignment of network fees with actual security risk and fraud cost; 4) merchant barriers to consumer use of online and mobile payment options; and 5) the potential for risk-based network fees to incentivize better security, decrease fraud, and lower costs for consumers and businesses.*

Ensure Consumer Access to Financial Accounts and Data: Consumers are using new applications and technology to better manage their financial lives and leverage financial data to qualify for better rates and services. Consumers should have access to this data in whatever format they wish.

> *FIN Recommendation: Preserve the ability of consumers to permission access to consumer financial account data securely and easily, using whatever secure application or technology they wish, without charges or restrictions that unreasonably favor any one application or technology over another.*

Streamline Access to Capital via the Internet: America's consumers should have easy access to safe forms of credit. Antiquated state lending rules did not contemplate internet-based services, and the complexity and inconsistency of the state laws (without the added benefit of uniform consumer protection) may actually hold back the availability of capital in places where it is most needed, especially for small businesses. Further exacerbating these problems, recent court decisions have created uncertainty regarding some lenders ability to operate across certain state lines, running contrary to internet-based lending and the National Bank Act.

FIN Recommendations:

1. *Fix the "valid when made" doctrine. FIN supports the Protecting Consumers' Access to Credit Act of 2017 and thanks the Committee for passing this necessary legislation.*

2. *Monitor and regularly assess agency efforts to facilitate entry of new lending business models that offer better access and affordability for consumers and small businesses, and explore alternative federal approaches if such entry does not occur.*

Help Consumers and Businesses Manage Money with Real-time Payments: In the US, payments and check deposits can take days to clear through the legacy bank systems, whereas other countries already have real-time payments. American consumers cannot afford delays in accessing their own money. Unfortunately, these delays cause many Americans to instead turn to high-cost check cashing alternatives or pay-day loans to cover real expenses.

FIN Recommendation: Require the Federal Reserve to ensure the availability of real-time payment networks for all Americans by 2020 and ensure such networks are affordable and secure.

Centralize Technology Leadership and Promotion: As innovators, we believe strongly in a balanced regulatory environment that promotes market-based solutions. We are pleased that some federal financial regulators have recently recognized the tremendous benefit of new financial technologies, particularly its ability to grow commerce and help the underserved. These agencies have developed a number of initiatives and programs to enable innovation in financial services. For example, the Consumer Financial Protection Bureau, through Project Catalyst, encourages consumer-friendly innovation and actively engages with the innovator community. It has pioneered a nascent no-action letter program that may offer a valuable "testbed" for new technologies navigating regulatory obligations. Likewise, the Office of the Comptroller of the Currency's "Innovation Initiative" is seeking to improve the agency's understanding of technology trends and better facilitate responsible innovation for its chartered institutions and their partners. It is helpful that these agencies have embraced the benefit of technology-enabled competition in financial services and are exploring ways to foster this growing part of our economy. These efforts may benefit from greater coordination and technology leadership across the federal government for policy and government technology itself.

FIN Recommendation:

1. *Establish a Treasury Undersecretary of Technology, responsible for coordinating efforts across all federal financial regulators to foster technological innovation in financial services, government use of modern technology, and greater regulatory efficiency and consistency.*
2. *Urge financial regulators to embrace technology and enable innovation in financial services, including flexible approaches to licensing and chartering that can facilitate new entrants and greater competition.*
3. *Require IRS to provide a digital portal for consumers and 3rd parties on their behalf to quickly and securely verify tax return data. FIN supports the IRS Data Verification Modernization Act of 2017.*
4. *FIN supports the goals of the Financial Services Innovation Act of 2016 and greater efforts by regulators to facilitate introduction and testing of new technologies and services.*

Tech-Neutral Security: As financial regulators develop guidance on privacy and security, we strongly encourage the Committee to urge adoption of technology-neutral approaches, and *not* standards that require one specific technological solution for security. In recent years, security technology has advanced rapidly, at times changing dramatically in scope in short periods of time. Some of these changes might have been predicted, such as advancements in encryption algorithms and practices. But others would not have been, such as the use of two-factor authentication to add a human check on password theft, the rise of web-based APIs (secure interfaces for software to retrieve data from another source), or the advancement of smart email filters that minimize "social" or "phishing" attacks on data. And many changes have come as institutions migrate from traditional fortresses of data behind firewalls to more agile cloud-based systems. In all cases, technology-specific rules would minimize the benefit of these innovations. Moreover, single-technology security solutions are in fact antithetical to what today's security experts view as best practice, because they lock data into a single system of protection that attackers are then at leisure to learn how to exploit. Simply put, specific technology requirements will not keep pace with innovation.

FIN Recommendation: Encourage financial regulators to ensure that future guidance or regulation is principles-based and technology neutral. Doing so will continue to allow innovation to thrive and parties to adapt in response to ever-changing security threats. Such an approach should apply to both financial institutions and technology providers, freeing both to focus on the latest security approaches.