



REGULATORY APPROACHES TO FINANCIAL TECHNOLOGY



National Association of Federally-Insured Credit Unions

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The rapid evolution of financial technology (fintech) presents credit unions with challenges and opportunities across a variety of domains. To remain competitive and relevant in today's financial marketplace, credit unions must consider whether to invest in new technologies, partner with fintech companies, or focus on existing services to achieve member satisfaction and growth. As part of this strategic process, credit unions should be aware that regulatory expectations for financial technology are also in a state of flux. Federal banking agencies have already implemented policy changes and pursued rulemakings to accommodate the emergence of new technologies and business models. Recent actions include the introduction of specialized chartering options, regulatory sandboxes, and data sharing principles to promote innovation. While fintech may not fundamentally change the business of banking, it has the potential to influence regulatory expectations regarding how best to balance traditional supervisory approaches with the desire to foster experimentation and improved flexibility. In this context, NAFCU believes that both Congress and regulators must ensure that when fintechs compete with traditional financial institutions, they do so on a level playing field where smart regulations and consumer protections apply to all actors in the consumer marketplace.

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EXECUTIVE SUMMARY

NAFCU advocates for competitive equality between traditional financial institutions and fintech companies, which we generalize as non-chartered, nonbank institutions that reach consumers through digital channels. At the same time, we have sought to empower credit unions with the tools to innovate and serve their communities better and more efficiently. However, tension sometimes exists between these objectives because credit unions and fintech companies are frequently partners. To balance these objectives, NAFCU believes that regulators should not give preference to fintech as a new model of banking, but seek to modernize traditional supervisory frameworks to ensure that the promise of better, more efficient service, or expanded access to credit, is predicated on responsible innovation rather than regulatory arbitrage.

In letters to regulators and members of Congress, NAFCU has consistently sought to reinforce the importance of a level playing field. Fintech, however, is a complex and far reaching subject—and to fully understand the nuances of new business models, their systemic impact, and potential consumer compliance risks requires all financial regulators to work together. To realize this goal, NAFCU recommends the following:

1. The Federal Financial Institutions Examination Council (FFIEC) should form a subcommittee on emerging technology (the subcommittee) to monitor the risks posed by fintech companies and develop a joint approach for facilitating innovation within the financial sector.
2. The subcommittee should annually report to Congress its findings, including a determination of whether regulatory reforms are necessary to mitigate supervisory gaps resulting from fintech business models or entirely new applications of technology.
3. The subcommittee should define the parameters of responsible innovation to ensure consistent examination of emerging technologies. In doing so, the subcommittee should distinguish traditional banking activities from non-traditional activities.
4. The subcommittee should identify best practices for responsible innovation that reflect the constraints of different industry segments within the financial sector.

5. The subcommittee should formally recommend to Congress ways to improve financial laws to allow FFIEC regulated institutions to adopt new technologies more easily and with greater legal certainty.
6. NAFCU recognizes that financial regulators are already working together, sometimes informally, to share their experiences and perspectives on fintech. However, some regulators have clearly moved quicker than others in terms of embracing distinct goals for innovation. As new chartering options and regulatory sandboxes come into play, the competitive dynamics within the financial sector could change rapidly. As a result, the FFIEC agencies should work together to allow financial institutions of all types to leverage new technologies for the benefit of their customers, and the NCUA should ensure that credit unions are not left behind in efforts to facilitate partnerships and experimentation with fintech.

INTRODUCTION

The varied landscape of financial technology is not easily defined. As a catchall that encompasses thousands of interconnected technologies and services embedded within and grafted to the financial sector, “fintech” is everywhere: in smartphones, data aggregation services, underwriting algorithms and credit scoring systems, to name just a few examples. Despite growing interest in establishing a workable regulatory framework for what is deemed fintech, neither Congress nor federal banking agencies have supplied a concrete definition for the term, which in popular usage connotes virtually any financial product or service that is powered by software or delivered electronically. Furthermore, it is unlikely that any singular definition or framework for regulating fintech will be promulgated in the future. This is because fintech includes not only well-established technologies subject to specific rules—like credit cards and electronic signatures—but also cutting edge applications, such as cryptocurrencies and artificial intelligence (AI). Accordingly, regulations and laws will likely evolve in a piecemeal fashion as both traditional and non-traditional financial institutions transition to a world of faster payments, alternative data, and machine learning, whether or not there is consensus regarding the boundaries of fintech itself. In this environment, it is important for credit union leaders to understand not only how fintech might fundamentally change traditional business models but also prompt regulatory intervention along the way.

Federal financial regulators have approached fintech developments from different perspectives since the end of the financial crisis. While the Office of the Comptroller of the Currency (OCC) and the Consumer Financial Protection Bureau (CFPB or Bureau) have embraced innovation-focused policies aimed at facilitating speed to market, others, like the National Credit Union Administration (NCUA), have generally taken a more measured approach. Yet nearly all of the federal banking agencies face similar barriers in the context of modernizing rules and guidance to reflect changing uses of technology.

First, the formal rulemaking process used by federal financial regulators often lags the pace of technological evolution in the financial sector. As a result, individual agencies’ approaches to fintech tend to emerge as reactions to already mature products and services with established consumer markets. Another obstacle is that regulatory initiatives aimed at promoting innovation or reducing regulatory uncertainty must be consistent with statutory language—a constraint that does not always leave room for experimentation. In the field of consumer protection law, these limitations can pose

substantial barriers; however, this has not deterred some agencies from introducing sandbox programs, innovation offices or new charter options.

Both Congress' and regulators' attention to fintech could have far reaching consequences for credit unions, whether in the form of new regulatory burdens, competitive pressures or opportunities for product testing. As the business of banking becomes increasingly dependent on a host of integrated services provided by non-depository firms, concern regarding data security and the accessibility of consumer financial data could translate into greater supervisory scrutiny of fintech partnerships.

For example, a company like Equifax that collects vast amounts of consumer data is not subject to cybersecurity examinations in the same way that credit unions are under the Gramm–Leach–Bliley Act (GLBA).¹ Consumer data collected by credit reporting agencies may go far beyond social security numbers or transactional information—it might also contain behavioral indicators that could greatly magnify the risk of social engineering attacks on individual consumers. Various legislative proposals have sought to enhance supervision of credit reporting agencies but it has proven difficult to reach consensus on the exact parameters of what improved data security should entail.

The use of alternative data has also attracted scrutiny as a potentially problematic application of fintech. Consisting of non-traditional indicators of borrower creditworthiness, alternative data offers an avenue for improving access to credit for credit invisible consumers, who represent approximately 11 percent of adults in the United States according to the CFPB.² However, some members of Congress and individual regulators have expressed concern that the use of such data may present fair lending risks. The complexity and prevalence of alternative data usage has even influenced proposed reforms to the Department of Housing and Urban Development's (HUD) Disparate Impact Rule, which generally aims to prevent discrimination resulting from facially neutral policies.

Lastly, the emergence of new, fintech-powered business models has accelerated disaggregation of the universal banking model, which has not only increased competitive pressure, but also challenged depository-centric models of financial supervision. There are now branchless banks that only accept savings account deposits, student loan refinance companies, online small business lenders, and—for some time now—online mortgage lenders, often specializing in just a few products instead of providing a complete banking experience. Consumers' ability to split their financial activities

¹ U.S. Department of the Treasury, A Financial System That Creates Opportunities: Nonbank Financials, Fintech, and Innovation, 140 (July 2018).

² CFPB, Data Point: Becoming Credit Invisible, 4 (June 2017).

between multiple firms is nothing new—but financial technology has made it easier, particularly where account aggregation services permit streamlined control across different platforms.

The diversity of fintech companies and their role in the broader financial sector may necessitate reconsideration of our current, prudential model of regulation in the long run; however, an immediate focus for legislators and regulators must be to ensure that these companies are operating on a level playing field relative to credit unions and traditional financial institutions. NAFCU has defined this focus in terms of compliance with federal consumer financial law, but adequate supervision is an equally important consideration. Many fintech companies are required to comply with consumer protection laws but not all are comprehensively examined to ensure that deceptive or unfair practices are detected before consumers are harmed.

NAFCU also recognizes that innovation depends on a fair, but flexible, regulatory framework for financial technology. Many credit unions partner with fintech companies to improve member service and historically these partnerships have proven invaluable to the growth and competitiveness of the industry. Accordingly, NAFCU has advocated for expanding opportunities for credit unions to access pilot programs or regulatory sandboxes to test new products or services. At the same time, we have cautioned that the pursuit of innovative products or services should not become the de-facto standard for obtaining regulatory relief.

The largest financial companies will continue to benefit from economies of scale and greater in-house capabilities, which could potentially grant a significant advantage in a sandbox environment, where rules may be modified or suspended to accommodate new products, services or approaches to compliance. Current models of sandbox relief appear to favor applicants that can afford sophisticated monitoring tools and extensive data collections, which are used to improve regulatory oversight. While it may seem counterintuitive that additional investments in compliance and reporting systems would yield relief, certain technologies employed at scale could help eliminate long term costs that are attributable to manual compliance processes. To ensure that sandbox programs operate equitably, NAFCU has sought to ensure that application and participation requirements are tailored to financial institutions of all types and sizes, and do not favor the most sophisticated financial institutions or fintech companies.

While the disruption caused by fintech is a serious concern for credit unions, it should not overshadow the potential for new technology to enhance competitiveness. Credit unions have proven adept at navigating technological transformation in the past, and even the smallest have been pioneers in the early years of internet banking. Today,

credit unions are investing in AI, faster payments, and blockchain—to name just a few technologies. In this context, it is clear that credit unions are ready to embrace fintech, but how regulators adapt to increased complexity inside and outside of financial institutions remains an open question. NCUA Chairman Rodney Hood has remarked that “the fintech sector is growing and sending a clear message to the financial industry that “business as usual” may not always be a viable business model.”³ At the same time, Chairman Hood has advised credit unions that they should view fintech not as something to fear, but as an opportunity to serve members, employees and communities even more effectively.⁴

While new policies and initiatives have been introduced to facilitate innovation and manage the risk of fintech, many of these remain proposals or voluntary frameworks. As uncertainty pervades within Congress and among regulators as to what level of fintech oversight is desirable, NAFCU continues to monitor regulatory developments closely. Each new proposal, request for information, and policy announcement will likely shape whatever future legal framework becomes the favored response to fintech in the years ahead.

³ NCUA Chairman Rodney E. Hood Remarks - African-American Credit Union Coalition 21st Annual Conference (August 13, 2019) available at <https://www.ncua.gov/newsroom/speech/2019/ncua-chairman-rodney-e-hood-remarks-african-american-credit-union-coalition-21st-annual-conference>

⁴ See id.

TECHNOLOGIES AND TRENDS

Accelerated adoption of financial technology is not an isolated phenomenon. More gradual technological changes have altered consumer financial habits by making it easier to manage personal finances using entirely digital platforms. According to a 2018 study on mobile device ownership conducted by the Pew Research Center, only 35% of U.S. adults possessed smartphones in 2011—compared with 77 percent in 2018. In 2018, 92 percent of Millennials owned such devices. These longer term changes have paved the way for nonbank companies to enter the fintech space by linking financial services to mobile and online platforms that are easily accessible through any modern smartphone. For example, in 2011, Square introduced its first chip reader, which transformed smartphones into ad-hoc point-of-sale (POS) systems. Five years later, Square announced that it would become a full-service online lender focusing on small business loans.⁵

A similar progression can be seen in the space of near field communication technologies and contactless payments. In 2014, Apple launched Apple Pay, which encouraged certain financial institutions to support digital wallet payments as retailers began introducing contactless payment options.⁶ Five years later, on March 2019, Apple introduced its own credit card linked to its Apple Pay platform. Today, 78 of the top 100 U.S. retailers by transaction volume are contactless-enabled and the Federal Reserve Bank of Boston expects that 100 million contactless enabled cards will be in use by the end of 2019.⁷

The close link between fintech applications and broader, technological shifts—whether in terms of improved computing power, device adoption, or expanded internet access—can also be seen in the realm of AI and machine learning, technologies that were once out of reach for all but the most sophisticated and well-resourced firms.⁸ Even non-financial changes in technology have the capacity to impact credit unions. For example, the NCUA has observed that rideshare and on-demand vehicle rental services could impact the profitability of automobile lending, which constitutes roughly a third of federally insured credit unions' lending portfolio.

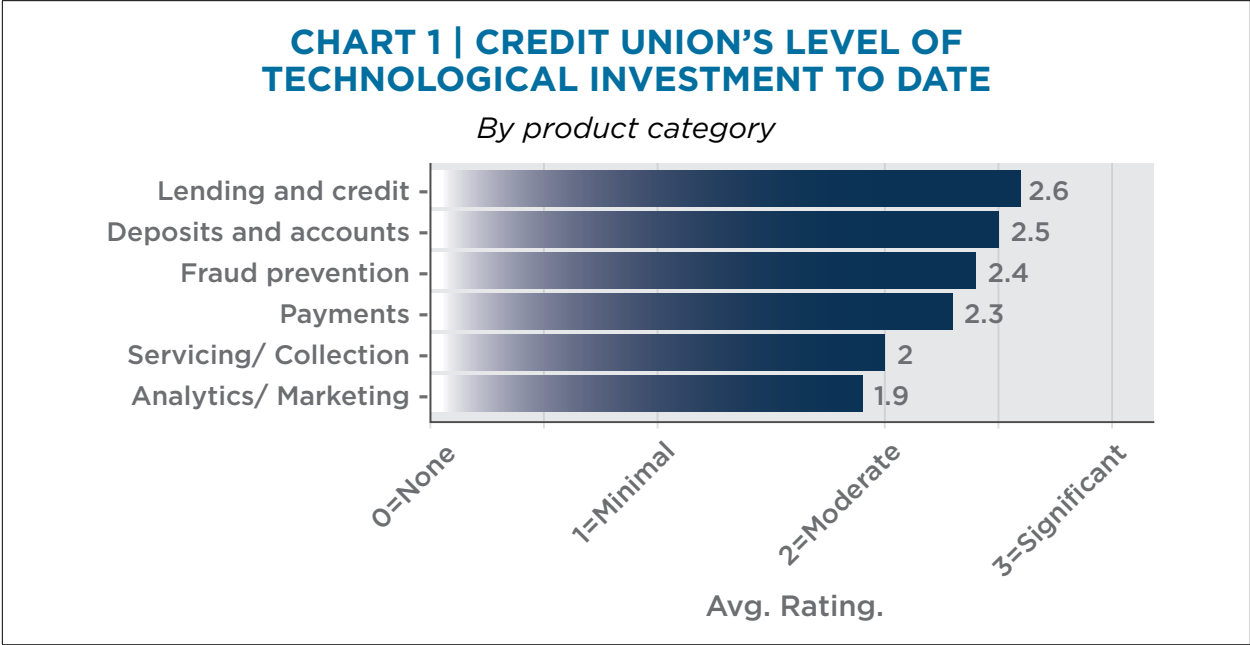
⁵ Rao, Leena, "Square Just Became an Online Lender," *Fortune*, March 25, 2016.

⁶ Federal Reserve Bank of Boston, *Tap to Pay: Will Contactless Cards Pave the Way for NFC Mobile Payments in the U.S.?*, 4 (April 22, 2019), available at <https://www.bostonfed.org/publications/payment-strategies/tap-to-pay-will-contactless-cards-pave-the-way-for-nfc-mobile-payments-in-the-us.aspx>.

⁷ *Id.*

⁸ House Financial Services Committee, FSC Majority Staff Memorandum, "Perspectives on Artificial Intelligence: Where We Are and the Next Frontier in Financial Services" (June 21, 2019), available at https://financialservices.house.gov/uploadedfiles/hrg-116-ba00-20190626-sd002_-_memo.pdf.

Recent surveys of NAFCU members suggest that credit union technological investments are diversified across a broad range of products and services (see Chart 1).⁹ Not all of these investments are consumer-facing, such as those directed towards data analytics and fraud prevention, but all contribute to a better member experience.



Source: NAFCU Economic & CU Monitor survey (Jul 2019)

Lending and credit

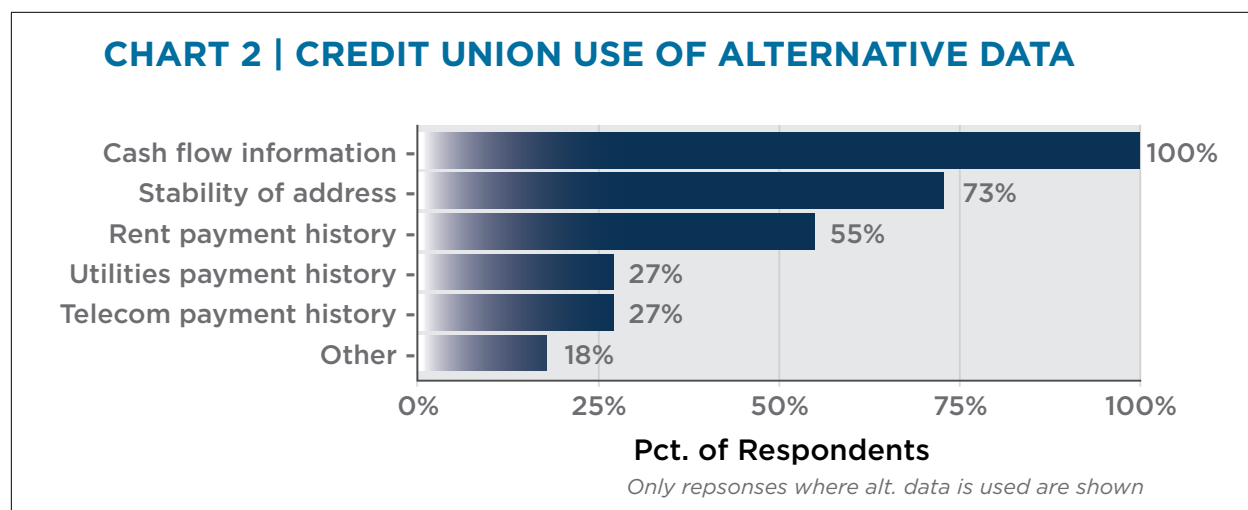
A majority of surveyed, NAFCU member credit unions indicate that their technology investments are being directed towards lending and credit functions. At the same time, half of those surveyed indicate they expect P2P lending to be the most susceptible to fintech disruption in the next 2-3 years, and to a lesser extent, mortgage lending and auto lending. The nature of lending-related technology investments can be highly specific, but common objectives include reducing the operational costs of loan production and streamlining member experiences.

For credit underwriting purposes, 48 percent of NAFCU-surveyed credit unions report that they utilize alternative data. In general, alternative data encompasses any data not traditionally included in a credit file and can be used to qualify credit-thin applicants or justify more favorable credit terms. Chart 2 shows the extent to which surveyed credit unions’ are using this data. It should be noted that use of alternative data is not a recent development or a technology dependent innovation in all cases. Many credit

⁹ NAFCU, Economic & CU Monitor Survey (June 2019).

unions have utilized alternative underwriting criteria based on their close relationship with members and the unique characteristics of their field of membership.

The vast majority of NAFCU members who reported using alternative data characterized their use as “mostly manual,” which suggests that the use of such data is not yet part of a fully-automated underwriting process. Given that no surveyed credit union reported using an “entirely automatic” process for considering alternative data, it is difficult to see merit in claims by certain consumer advocates that alternative data users lack control over their own algorithms.¹⁰



Source: NAFCU Economic & CU Monitor survey (Jul 2019)

Credit union investments in lending technology might also be viewed as a response to competition from online, nonbank lenders who have used automated underwriting systems to streamline application processes and capture a significant share of the mortgage market. The extent of credit union concern is likely significant given that a majority of surveyed NAFCU members have indicated that they view nonbank fintech companies as their greatest source of competition in the next 2-3 years.¹¹ More broadly, a majority of institutions (banks and credit unions included) surveyed in Fannie Mae’s Q2 2019 Mortgage Lender Sentiment Survey said that they considered “online business-to-consumer lenders” as their biggest competitor, citing these firms’ advantages in technology.¹²

¹⁰ See House Financial Services Committee, FSC Majority Staff Memorandum, “Perspectives on Artificial Intelligence: Where We Are and the Next Frontier in Financial Services”

¹¹ NAFCU, Economic & CU Monitor, June 2019.

¹² Fannie Mae, Q2 2019 Mortgage Lender Sentiment Survey, 3 (June 12, 2019), available at <https://www.fanniemae.com/resources/file/research/mlss/pdf/lender-business-priorities-mlss-q22019.pdf>.

Research published by The Federal Reserve Bank of New York suggests that in the mortgage lending context, superior technology can create significant advantages, and fintech companies are able to use automation to respond more fluidly to changes in mortgage demand. Specifically, this research found that “a doubling of [mortgage] application volume raises the loan processing time by 13.5 days (or 26%) for traditional lenders, compared to only 7.5 days for FinTech lenders.”¹³

Fintech lenders may also be benefiting from a business model that attracts less risky borrowers as a consequence of offering more refinance mortgages than home purchase mortgages.¹⁴ Analysis of nonbank mortgage lending patterns also suggests that the higher premiums charged by certain fintech companies for added convenience is not democratizing access to credit or reducing the cost of credit.¹⁵ Nevertheless, fintech mortgage lenders remain enormously popular. Quicken Loans, which transitioned to an online lending model in the late 1990s, accounted for 5.1% of the total mortgage market in 2018 and was the largest mortgage lender in the U.S. by volume in the second quarter of 2019.¹⁶

Fintech mortgage lenders may also have structural advantages as nonbanks; in essence, benefiting from reduced regulatory burden that corresponds with a lack of federal safety and soundness standards. Research presented at the Federal Deposit Insurance Corporation’s (FDIC) April 2019 Fintech Symposium suggests that 60-70 percent of “shadowbank” (i.e., nonbank lender) growth is likely due to regulatory arbitrage, and the rest due to advances in technology.¹⁷

Online lenders that offer small business loans have also become visible sources of credit. In June 2018, the Federal Reserve reported that among a limited sample of small business participants, nearly all were familiar with online lending for small businesses and found that nearly one-in-four (24 percent) small business credit applicants sought financing at an online lender in 2017.¹⁸ On the other hand, the same report concluded that the volume of online lending to small businesses is relatively small (roughly \$12 billion in 2017) based on a consensus among industry analysts.¹⁹

¹³ Federal Reserve Bank of New York, *The Role of Technology in Mortgage Lending*, 3 (February 2018), available at https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr836.pdf.

¹⁴ *Id.* at 18.

¹⁵ Urban Institute, “FinTech: Who Does It Serve? Who Can It Serve?” (February 8, 2018), available at <https://www.urban.org/events/fintech-who-does-it-serve-who-can-it-serve>.

¹⁶ Walsh, Dustin, “How Big Can Quicken Loans Get?” *Crain’s Detroit* (March 10, 2019), available at <https://www.crainsdetroit.com/finance/how-big-can-quicken-loans-get>.

¹⁷ Piskorski, Tomasz, *Fintech and Shadow Banking* (April 2019), available at <https://www.fdic.gov/bank/analytical/fintech/presentations/piskorski.pdf>.

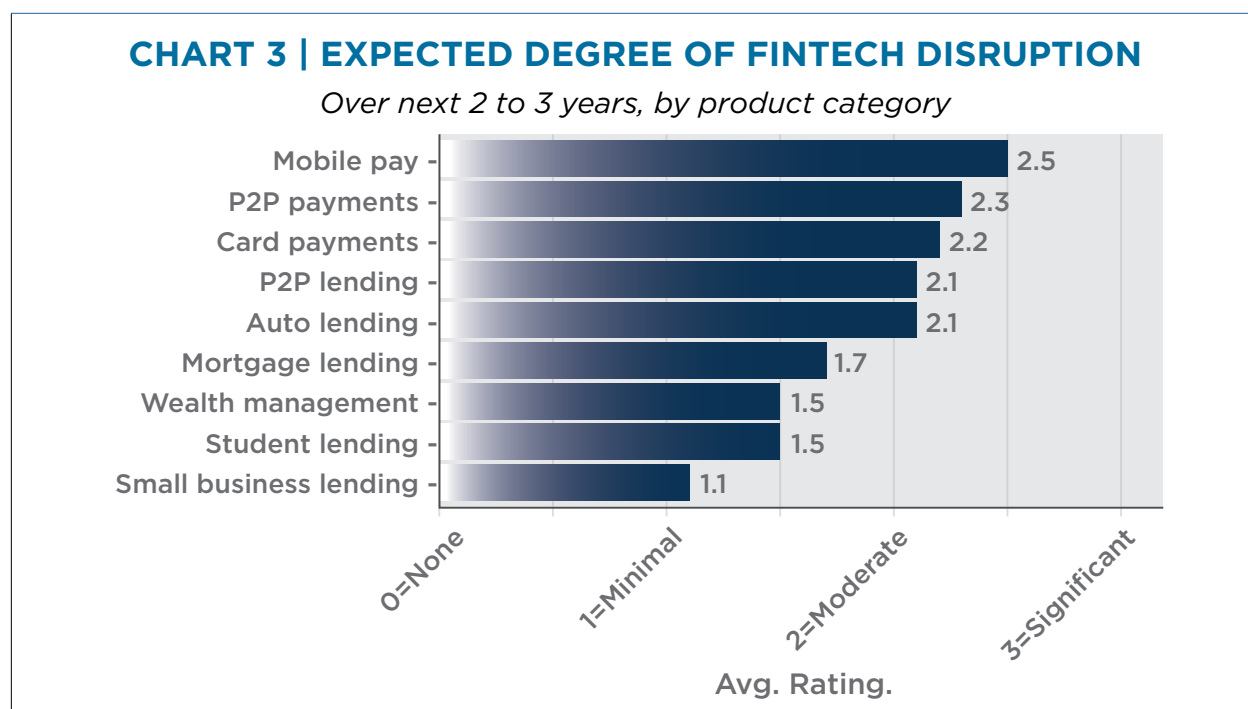
¹⁸ Board of Governors of the Federal Reserve System, *Browsing to Borrow: “Mom & Pop” Small Business Perspectives on Online Lenders*, 3 (June 2018), available at <https://www.federalreserve.gov/publications/files/2018-small-business-lending.pdf>.

¹⁹ *Id.*

Payments

Data collected by the Federal Reserve indicates that growth in both the value and volume of electronic payments has accelerated in recent years.²⁰ At the same time, surveys of the largest depository institutions from 2016 to 2017 reveals that ATM withdrawals by number and check volume has declined. These trends are consistent with what has been a decades-long shift towards digital payments—particularly remote and online payments—and has contributed to evolving consumer expectations regarding the speed and convenience of day-to-day transactions.²¹ For credit unions, these consumer expectations, have prompted strategic engagement with P2P, wallet services, and faster payments technologies.

NAFCU surveys indicate that many credit unions expect payments to be an area highly susceptible to fintech disruption in the next two to three years. (See Chart 3). A general expectation that mobile pay will be the focal point for future change and innovation is consistent with previous NAFCU surveys. NAFCU’s 2018 Annual Report on Credit Unions revealed that over half of credit unions intended to invest in mobile banking services in the next three years. NAFCU’s June 2019 Economic & CU Monitor Survey found that the majority of surveyed credit unions anticipate making moderate to significant technology investments in payments within the same timeframe.



Source: NAFCU Economic & CU Monitor survey (Jul 2019)

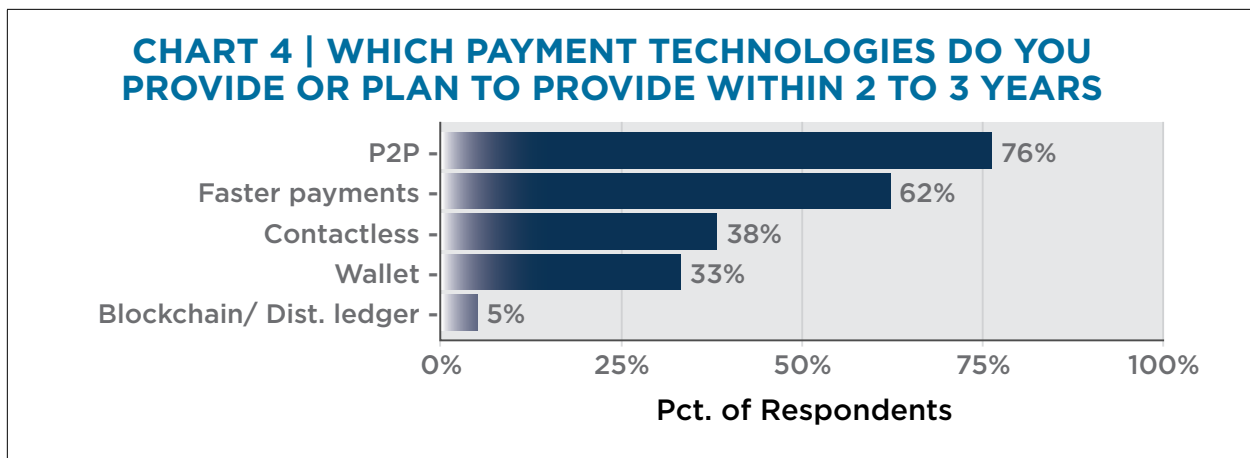
²⁰ Federal Reserve, The Federal Reserve Payments Study: 2018 Annual Supplement (December 2018), available at <https://www.federalreserve.gov/newsevents/pressreleases/files/2018-payment-systems-study-annual-supplement-20181220.pdf>.

²¹ See Governor Lael Brainard, Speech delivered at the Fed Payments Improvement Community Forum, Sponsored by the Federal Reserve Bank of Chicago, Chicago, Illinois (October 3, 2018), available at <https://www.federalreserve.gov/newsevents/speech/brainard20181003a.htm>.

Faster Payments

Changing patterns in consumer commerce, partially driven by same-day delivery options, on-demand services, and mobile app economies, have prompted both traditional financial institutions and payments companies to invest in faster payments capabilities. Some of these capabilities rely on traditional payments rails, such as ACH, whereas others are built on entirely new technologies, such as The Clearing House's Real Time Payments network. The Federal Reserve has also requested comment on how it should build and operate its own real time gross settlement (RTGS) service to enable 24x7x365 transfers of funds.

For credit unions, faster payments are becoming a priority. Over half of the participants in NAFCU's 2018 Fed Survey reported that they were considering a faster payments settlement option for their members. In addition, over two-thirds noted that they would have greater interest in a faster payments settlement option if it was developed under the direction of the Federal Reserve, an initiative that NAFCU supports. Additionally, there are a number of credit unions looking to partner with Venmo, which is owned by PayPal, or Zelle, owned by a consortium of large banks, to provide faster P2P payments.



Source: NAFCU Economic & CU Monitor survey (Jul 2019)

While a majority of NAFCU-surveyed credit unions indicate that they are planning to invest in faster payments options for their members, some are uncertain of member demand for real time payments, particularly in a retail environment that is already highly accommodating of deferred settlement systems. However, the success of faster payments in other countries such as the United Kingdom (which adopted real time payments over a decade ago) suggests that it may be inevitable that consumers will eventually come to expect real time or near real time capabilities in the future. Certain members of Congress have also proposed legislation that would require the Federal

Reserve to move ahead with developing its own RTGS service, citing the benefits of improved funds availability, greater competition and improved payment system access for small institutions.²² Others have questioned whether the Federal Reserve should pursue such a service given existing, private sector solutions and issues of cost recovery.²³ In August 2019, the Federal Reserve announced that it would move forward with plans to develop an RTGS serviced called FedNow.

Some consumer advocates have suggested that widespread adoption of real time payments could eliminate the risk of overdraft or allow certain workers—particularly those that are part of the “gig” economy—to receive their wages faster.²⁴ However, these benefits may be speculative or outside the control of individual financial institutions. Faster payments are not explicitly designed to replace overdraft services, which provide a source of short-term credit and an added layer of convenience when funds are unavailable. Furthermore, enhanced speed can only partly alleviate the underlying financial uncertainty that contributes to volatile household liquidity. A more certain outcome is that faster payments will improve financial confidence by allowing individuals to make time critical payments and avoid late fees with greater ease.

Peer-to-Peer and Mobile Wallet

Innovation in payments technology has ushered forth a host of P2P and wallet services that reside on smartphones and other mobile devices. While these services largely rely on a backbone of existing technologies, such as ACH and linked credit or debit cards, their added convenience and—in the case of digital wallets—integration with rewards programs has driven substantial investment from both traditional financial institutions and nonbanks alike. Credit unions have already sought to partner with established P2P platforms like Zelle and Venmo; however, in some cases, asset size and expected payments volume have been barriers to entry.

Zelle, a bank-owned platform, reported in 2019 that its customers included 5,100 banks and credit unions and had reached a volume of \$119 billion in payments on 433 million transactions in 2018.²⁵ Zelle’s research on consumer trends revealed that at the end of 2018, about 8 in 10 U.S. online consumers had tried P2P technology in their lifetimes.

²² Payment Modernization Act of 2019. S.2243, 116 Cong. (2019).

²³ Lang, Hannah, Senators press Fed’s Powell on real-time payments, American Banker (July 22, 2019), available at <https://www.americanbanker.com/news/senators-press-feds-powell-on-real-time-payments>.

²⁴ See e.g., CFPB, Consumer Advisory Board Minutes, 5 (March 14, 2019), available at https://files.consumerfinance.gov/f/documents/201903_cfpb_CAB-Meeting-Minutes.pdf.

²⁵ Zelle, Zelle Ends 2018 with its Strongest Quarter on Record (January 24, 2019).

By contrast, recent reports suggest that adoption of mobile wallets has been slower than expected. According to a 2018 Javelin study, 32 percent of consumers used a mobile device to pay in store between 2015 and 2017 and mobile wallet adoption remained below 20 percent across all major services, such as Apple Pay and Google Pay. Retailer wallets had the highest adoption rates, which suggests that loyalty reward programs may offer the best incentive for consumers to migrate to wallet platforms.²⁶

Mobile payments are not only becoming faster and more accessible, they are also challenging the well-established domain of branded credit cards and could disrupt existing sources of interchange revenue. While merchants and card issuers have often debated the economics, pricing and rationale behind interchange fees, the regulation of debit-interchange and retailer sensitivity to card network policies has prompted both sides to consider self-help strategies for optimizing routing costs.

Mobile wallets that exist as either standalone products or add-ons to existing applications offer both credit unions and merchants the chance to influence consumer payment preferences. For example, control over the customer enrollment process allows a credit union to offer rewards for linking a mobile wallet to a credit account, whereas a merchant might provide the same incentive for linking a retail wallet to a debit account. In both cases, the ability to design the user experience to optimize routing costs makes mobile wallets a battleground for fee revenue.

Retailers have been developing loyalty programs for many years; however, integration with app-based payment platforms to steer consumers to digital wallets or private label payment options is a more recent phenomenon that started in earnest a decade ago. In some cases, the goal is to bypass card networks altogether.

Merchant-based loyalty programs typically operate by rewarding customers for loading funds onto a prepaid account or by linking to a preferred source of funding, which can reduce or completely eliminate interchange fees. This is accomplished by reducing the number of individual swipe transactions at the point of sale or by linking the wallet directly to a bank account which is accessed through ACH rails. In 2011, Starbucks introduced a mobile payment option which captured 30 percent of the company's total transactions in 2017. Incredibly, Starbucks's reported to investors that over \$6 billion had been loaded on its prepaid cards at the end of 2016, making its prepaid loyalty program larger than the vast majority of federally-insured credit unions.²⁷

²⁶ Federal Reserve Bank of Boston - Mobile Payments Industry Workgroup, Innovation Across Mobile Payments: Alternative Checkout Models, Chinese Wallets, Fintechs, and Mobile Network Operators, (April 18, 2019).

²⁷ See Press Release, Starbucks Presents its Five-Year Plan for Strong Global Growth (December 7, 2016), available at <https://stories.starbucks.com/stories/2016/investor-day-2016-press-release/>.

Apple has pursued a hybrid strategy of pairing a branded credit card with its mobile payments platform. In August 2019, Apple launched the Apple Card in partnership with Goldman Sachs, and has touted the ability of its customers to apply for the card through the Apple Pay service and begin using it immediately. Similar to other merchant-branded cards, Apple incentivizes purchases on its own platforms by offering various reward options. Apple's movements in the financial space generally reflect a strategy that appeals to technology giants; that is, integration of platforms with bank-provided services to improve customer loyalty and reduce payments fees. Amazon's rumored interest in a co-branded checking account suggests that the largest companies would rather leverage their existing customer bases to secure favorable bank partnerships than negotiate the uncertain terrain of industrial loan company chartering.²⁸ On the other hand, some companies, such as Facebook and Wal-Mart, have sought to harness digital currency technologies that could facilitate transactions outside of the traditional card networks.²⁹

Blockchain and virtual currencies

Business interest in blockchain and distributed ledger technology (DLT) derives primarily from the promise of an improved framework for transaction authentication that is more efficient than traditional reliance on counterparties or intermediaries. While the popularity of virtual currencies, such as bitcoin, demonstrates how these technologies can be used to facilitate decentralized exchange in an environment with no trusted authorities, many financial institutions—including some credit unions—have begun to experiment with other, less extreme use-cases that are more closely aligned with retail banking activities or back-office support functions.

For transactions or services that require detailed documentation, blockchain technology could mitigate certain compliance burdens because blockchains are, in practical terms, immutable records. For regulators who perform auditing functions, this high level of data integrity may accommodate less burdensome compliance monitoring and minimize the use of manual processes to establish identities or verify transactions. Some technology firms have already developed proof of concept applications that utilize blockchain to address know your customer (KYC) and anti-money laundering (AML) requirements.

²⁸ See Glazer, Emily, "Next Up for Amazon: Checking Accounts," Wall Street Journal (March 5, 2018), available at <https://www.wsj.com/articles/are-you-ready-for-an-amazon-branded-checking-account-1520251200>.

²⁹ See Kharif, Olga, "Walmart Seeks to patent a Way for Using Digital Cryptocurrency," Bloomberg (August 2, 2019), available at <https://www.bloomberg.com/news/articles/2019-08-02/walmart-seeks-to-patent-a-way-for-using-digital-cryptocurrency>. See also Facebook, Coming in 2020: Calibra (June 18, 2019), available at <https://newsroom.fb.com/news/2019/06/coming-in-2020-calibra/>.

On the other hand, compliance with these same regulatory requirements has generated substantial concern in the context of cryptocurrencies.

In the 116th Congress, four separate bills have been introduced in the House and Senate that address regulatory treatment of blockchain, and several others have been introduced to address virtual currencies. Among these, one bill unequivocally titled “Keep Big Tech Out of Finance Act” aspires to block cryptocurrency platforms or exchanges from partnering with or becoming financial institutions.³⁰ In addition, the announcement by Facebook that it would launch its own digital currency—Libra—provoked a series of hearings in the House and Senate that sought to address potential money laundering risks associated with the proposal.³¹

While it is doubtful that the blockchain and virtual currency related legislation introduced in 2019 will advance beyond Committee, collectively these bills evince a tension between Congress’ desire to promote innovation and leadership in the virtual currency space and fear that our existing regulatory framework is inadequately prepared to address consumer and money laundering risks. The Board of Governors of the Federal System (Board of Governors) has remarked that despite the innovative nature of cryptocurrencies, “they also pose challenges associated with speculative dynamics, investor and consumer protections, money-laundering risks, and governance.”³² The Board of Governors has dismissed the idea of developing a Fed-issued digital currency.³³

The potential for cryptocurrencies to frustrate *Bank Secrecy Act* and AML compliance has prompted FinCEN to publish guidance related to the activities of certain cryptocurrency-related business. On May 9, 2019, FinCEN issued an advisory that clarified how its regulations applied to virtual currency and digital wallets.³⁴

The Securities and Exchange Commission (SEC) has also taken an interest in blockchain to the extent that it facilitates the exchange of digital assets. On April 3, 2019, the SEC released guidance titled “Framework for ‘Investment Contract’ Analysis

³⁰ H.R. _____, Keep Big Tech Out of Finance Act, 116th Cong. 1st Sess. (Discussion Draft), available at https://financialservices.house.gov/uploadedfiles/bills-116hr____ih-bigtech.pdf.

³¹ See Examining Facebook’s Proposed Cryptocurrency and Its Impact on Consumers, Investors, and the American Financial System, Hearing before the U.S. House Committee on Financial Services 116th Cong. 1-5 (July 17, 2019) (Staff Memorandum); see also Examining Regulatory Frameworks for Digital Currencies and Blockchain, Hearing before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, 116th Cong. (July 30, 2019) (statement of Chairman Mike Crapo, (R-ID)).

³² Board of Governors of the Federal Reserve System, Statement for the Record Submitted to the Task Force on Financial Technology of the Committee on Financial Services, 5 (June 25, 2019), available at <https://www.federalreserve.gov/foia/files/statement-for-the-record-20190703.pdf>.

³³ Id. at 6.

³⁴ FinCEN, Application of FinCEN’s Regulations to Certain Business Models Involving Convertible Virtual Currencies, FIN-2019-G001 (May 9, 2019).

of Digital Assets” (Framework). The Framework, while not offering a clear answer to the question of whether any particular type of virtual currency qualifies as a security, does supplement the longstanding guidance in *SEC v. W.J. Howey* by explaining how traditional investment contract analysis should be applied to digital assets—particularly those that are not clearly decentralized and derive their profitability from the efforts of active participants.³⁵

The SEC’s guidance is relevant to any company that wants to sell or purchase virtual currencies on behalf of customers because doing so could trigger requirements to register as a broker-dealer under the Section 3(5)(a) of the Securities Exchange Act of 1934. Credit unions are prohibited from engaging in activities that would require registration as a broker or dealer and none have arrangements to buy or sell virtual currencies. As a result, the SEC’s Framework will be most relevant to the NCUA’s own efforts to assess the legal and regulatory implications of transactions involving digital assets. Potentially CUSOs and credit unions with networking arrangements for brokerage services might indirectly benefit from the Framework insofar as it clarifies the scope of existing securities law, but the lack of credit union specific guidance on the topic of virtual currencies will likely discourage any meaningful experimentation in the near term.

Data Aggregation and Analytics

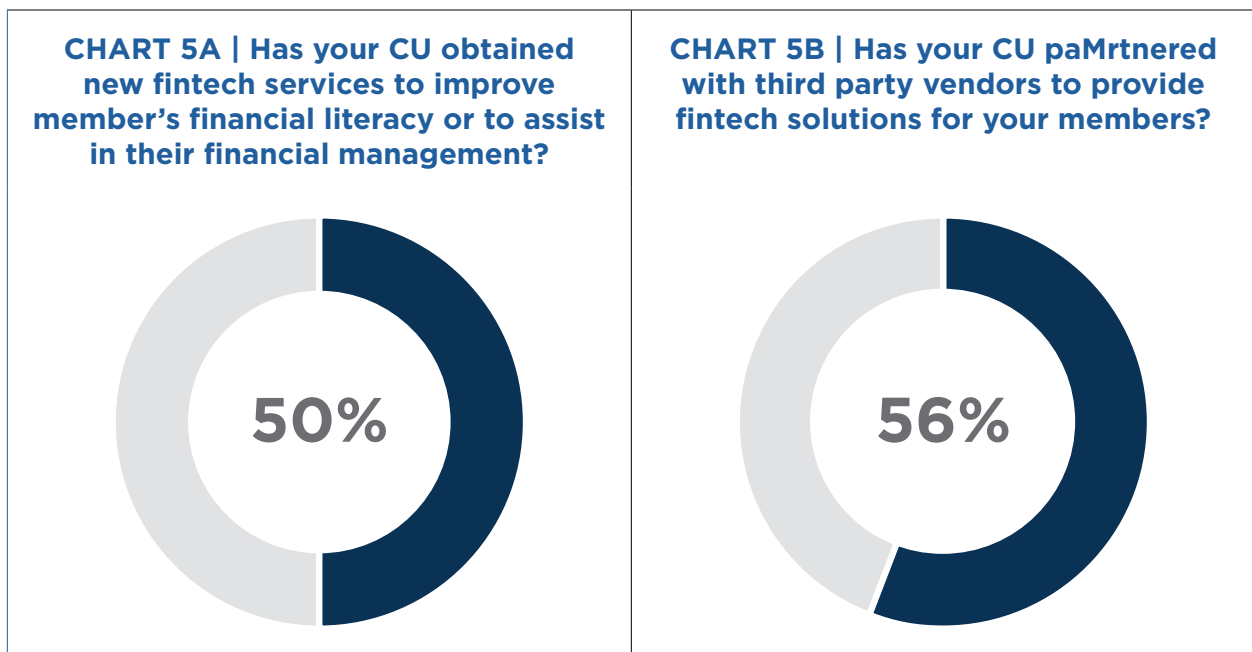
Data aggregation activities underlie a large variety of fintech technologies, such as new underwriting models, AI-powered financial management services, and analytic tools for marketing and business development.

Financial data aggregation generally refers to the collection of consumer information across different accounts at different institutions or companies, a service often performed by a third party. In general, there are two primary methods for aggregating consumer data: accessing account information directly through application program interfaces (APIs), which provide a standard specification for data exchange, or through screen scraping, which involves a machine accessing a consumer account with regular login credentials. Screen scraping is less favored among financial institutions because sharing user login and password information with a third party introduces serious security concerns. NAFCU’s September 2018 Economic & CU Monitor Survey found that approximately 21 percent of credit union respondents are already using APIs

³⁵ SEC, Framework for “Investment Contract” Analysis of Digital Assets (April 2019), available at <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>.

for data sharing purposes while 80 percent do not currently share data on member transactions with third parties.³⁶

While analytic capabilities have long been a component of credit unions' strategic toolset, the proliferation of large and well-maintained databases of transactional information has made it easier to draw insights about member financial behavior and optimize delivery channels for financial advice, such as through consolidation of account information. NAFCU surveys suggest that a significant share of credit unions are already utilizing member data to better understand cash flow patterns, improve collateral management, and tailor advertisements based on location and transactional histories.³⁷ In a March 2018 NAFCU survey, 50 percent of credit union respondents indicated that they had obtained new services or technology to improve members' financial literacy or ability to manage personal finances.



Source: NAFCU Economic & CU Monitor survey (Mar 2018)

Improved data analytic capabilities are also driving regulatory interest in fintech as a tool for supervisory and compliance purposes. This supervisory application of fintech—sometimes referred to as “suptech”—is already in use by the CFPB, which uses its Consumer Complaint Database data to flag spikes and trends in complaint volumes using defined windows of time.³⁸ Variations in complaint patterns can trigger alerts

³⁶ NAFCU, Economic & CU Monitor Survey (September 2018).

³⁷ NAFCU, Economic & CU Monitor Survey (March 2018).

³⁸ World Bank Group, From Spreadsheets to Suptech Technology Solutions for Market Conduct Supervision,14 (June 2018), <http://documents.worldbank.org/curated/en/612021529953613035/pdf/127577-REVISED-Suptech-Technology-Solutions-for-Market-Conduct-Supervision.pdf>.

to supervision and enforcement teams, who may then decide to adjust examination schedules based on perceived risks. Although little is known about the extent to which the CFPB automates supervisory assessments of complaint severity and magnitude, it clearly has the capability to do so. The NCUA is also adopting data analytics tools to improve its own examination process.

In 2018, the NCUA's Office of National Examinations and Supervision (ONES) indicated that it planned to invest in new analytic capabilities to facilitate a shift towards what it calls "continuous supervision." The NCUA describes the continuous supervision model as one that uses "data-driven analytics to monitor and identify risk in [ONES] institutions, and the program will support the transition to credit union-driven stress testing."³⁹ While the model is currently being developed for use at ONES-supervised, natural person credit unions, the NCUA has said that the model can be deployed more widely. Adapting the continuous supervision model for use in routine examinations already appears to be a component of the NCUA's exam modernization initiative based on updated descriptions of the agency's proposed virtual exam program.⁴⁰

³⁹ NCUA, The NCUA Report – Third Quarter 2018, NCUA's Examination Modernization Initiatives Will Produce Benefits for Credit Unions and the Agency.

⁴⁰ NCUA, Virtual Examination Program, <https://www.ncua.gov/regulation-supervision/examination-modernization-initiatives/virtual-examination-program>.

POLITICAL LANDSCAPE

Fintech's demonstrated capacity to disrupt traditional banking models and benefit from certain types of regulatory arbitrage has led a wide range of industry stakeholders to express competitive concerns. When considering the impact of fintech on financial services in recent years, 35 percent of credit unions reported a "significant" increase in competitive pressure from fintech firms.⁴¹ However, many credit unions also partner with fintech companies to provide valuable services to members, operate more efficiently, and manage the costs of digital growth. For credit unions—as well as other chartered financial institutions—there is acknowledgment that fintech can have a beneficial impact in terms of speed, choice, and convenience; however, those benefits should not come at the cost of an uneven playing field.

In general, NAFCU has urged Congress and regulators to maintain a level playing field for all companies that provide consumer financial services. In many cases, entities like online lenders or money service businesses are already subject to a range of federal consumer financial laws; however, the degree of oversight may vary.

Industry groups that represent fintech companies and marketplace lenders have characterized critiques of disparate regulatory treatment as unfounded given the equal application of consumer protection laws.⁴² However, these groups often fail to acknowledge that regulation encompasses both supervision and enforcement, and nonbank fintechs may not undergo the same type of regular examination that credit unions face. Fintech advocates have also urged legislative action to streamline compliance with overlapping state and federal regulations, as well as state-specific licensing requirements. Some fintech-focused trade associations have endorsed more flexible chartering options, which could convey the benefits of national preemption.

In the current Congress, a number of bills have been introduced to address fintech activities. These range from relatively modest directives oriented around regulatory coordination to radical new frameworks for things like machine learning. Although fintech specific legislation does not currently have strong bipartisan support, it does reflect substantially different perspectives on the role of financial technology in today's consumer marketplace.

⁴¹ NAFCU, 2018 Annual Report on Credit Unions.

⁴² Nathaniel Hoopes, "Smaller institutions should embrace, not oppose, fintechs," *American Banker* (March 22, 2019).

- › *H.R. 1491 – Fintech Act of 2019 (March 7, 2019)*
 - › Introduced by Reps. David Scott (D-GA) and Barry Loudermilk (R-GA).
 - › Would establish a “FinTech Council” to designate a single primary regulator for eligible fintech startups and create “Offices of Financial Innovation” to facilitate regulatory harmonization of federal law applicable to fintech startups.

- › *H.R. 56 – Financial Technology Protection Act (January 29, 2019)*
 - › Introduced by Rep. Ted Budd (R-NC).
 - › Would require certain federal regulators to investigate terrorist and illicit use of new financial technology, including digital currencies.

- › *S.1108 and H.R. 2231 – Algorithmic Accountability Act of 2019 (April 10, 2019)*
 - › Introduced by Sens. Ron Wyden (D-OR) and Cory Booker (D-NJ), and Rep. Yvette D. Clarke (D-NY)
 - › Would task the FTC with writing regulations to ascertain whether technology that makes or facilitates human decision making (e.g., AI and machine learning) is contributing to bias or discrimination. For technology that monitors or collects personal information, a data protection assessment requirement would measure the extent to which information systems protect the privacy and security of personal information.

- › *H.R. 3629 – Clarity in Credit Score Formation Act of 2019 (July 9, 2019)*
 - › Introduced by Rep. Steve Lynch (D-MA)
 - › Would amend the Fair Credit Reporting Act to establish CFPB oversight of the development of credit scoring models and require an impact study on the usage of alternative data and its potential discriminatory effects.

To more effectively address areas of emerging risk and also provide appropriate regulatory relief, the FFIEC should recommend to Congress reforms that are responsive to fintech activities. For example, an FFIEC subcommittee could identify specific financial laws that might be modernized to allow regulated institutions to use new technologies more easily and with greater legal certainty. At the same time, the subcommittee could also investigate supervisory gaps that fail to address particular fintech business models—particularly those that raise consumer compliance risks.

REGULATORY APPROACHES TO FINTECH

Much of what consumers would regard as fintech already fits within the existing scope of federal consumer financial law, which addresses the core banking activities of lending, payments, and deposit taking. For example, Venmo, which operates as a money transmitter, functions within the parameters of the Electronic Fund Transfer Act (EFTA). As a money transmitter, it is also subject to BSA requirements, must register with FinCEN, and is supervised and examined by each state in which it holds a license. Marketplace lenders also face a layer of federal regulation; they must follow the same mortgage lending rules as banks and credit unions, and are subject to the supervision and enforcement authority of the CFPB. However, important distinctions do exist.

Nonbank lenders are not subject to the same safety and soundness regulations as banks and credit unions.⁴³ This disparity could pose serious, systemic risks given that these firms accounted for 51% of all mortgages originated in 2017.⁴⁴ In March 2019, the total nonbank share of Ginnie Mae originations was 85 percent.⁴⁵ The extent of such risk has even drawn the attention of Ginnie Mae itself, which remarked in its 2018 Annual Report that “[a]s more nonbanks issue Ginnie Mae’s securities, the cost and complexity of monitoring increases as the majority of these institutions involve more third parties in their transactions, making oversight more complicated.”⁴⁶ An April 2019 GAO Report found that nonbanks may expose Ginnie Mae to greater liquidity, default, and other risks in comparison with banks.⁴⁷

Payment-focused companies also benefit from business models that are tailored to reduce regulatory friction. Customers of Venmo, once they have transferred money to the service’s digital wallet, do not enjoy the protection of federal deposit insurance on stored funds, allowing Venmo to avoid FDIC oversight despite having 40 million users. Furthermore, the CFPB has admitted that certain provisions of Regulation E are not clear with respect to digital wallet providers and P2P services, and has only recently created rules addressing the use of these services in connection with prepaid accounts.⁴⁸ Thus, divergent regulation of fintechs is sometimes rooted in

⁴³ GAO, Ginnie Mae: Risk Management and Staffing-Related Challenges Need to Be Addressed, GAO-19-191, 22 (April 2019), available at <https://www.gao.gov/assets/700/698926.pdf>.

⁴⁴ Tendayi Kapfudz, U.S. Mortgage Market Statistics: 2018, MagnifyMoney (December 21, 2018).

⁴⁵ Urban Institute, Housing Finance at a Glance, 5 (April 2019), available at https://www.urban.org/sites/default/files/publication/100162/april_chartbook_2019_1.pdf.

⁴⁶ Ginnie Mae, 2018 Annual Report, 107 (November 13, 2018), available at https://www.ginniemae.gov/about_us/what_we_do/Annual_Reports/annual_report18.pdf.

⁴⁷ GAO, Ginnie Mae: Risk Management and Staffing-Related Challenges Need to Be Addressed, 23.

⁴⁸ See CFPB, Prepaid Accounts Under the Electronic Fund Transfer Act (Regulation E) and the Truth in Lending Act (Regulation Z), 35, 120, available at http://files.consumerfinance.gov/f/documents/20161005_cfpb_Final_Rule_Prepaid_Accounts.pdf

the nonbank status of firms and other times results from the nuances of particular business models. Yet it is almost never the case that a fintech company serving consumers is completely unregulated.

More novel supervisory concerns have arisen in conjunction with radically new technologies, such as cryptocurrencies and AI-assisted underwriting algorithms, which could make enforcement of well-established rules more challenging. While existing regulatory frameworks may be sufficient to address variations of core banking activities that are incrementally faster or more efficient, it is less clear whether these frameworks will be able to support new paradigms for compliance or meaningfully address potential consumer harms when the underlying technology is a blackbox. As nonbank products and services become more prolific and complex, credit unions should be aware that regulators are actively considering new approaches to fintech that could change competitive dynamics, contribute to regulatory burden, or—in combination—provide much needed relief.

Regulatory interest in financial technology is not a new development. The emergence of critical technologies such as credit cards, remote payments, and online banking services has often prompted legislative responses, such as the *Gramm-Leach Bliley Act* (GLBA), the *Check Clearing for the 21st Century Act* (Check 21 Act), and even the *Dodd-Frank Wall Street Reform and Consumer Protection Act* (Dodd-Frank Act), as well as regulatory adaption based on an evolving understanding of activities that are “financial in nature” or closely tied to the business of banking. The OCC, for example, has occasionally justified expansion of national bank powers as necessary to accommodate technological change, which has enabled markets for financial products and service to become national and even global in scope.⁴⁹ In 1996, the FFIEC issued the first version of its Information Systems Examination Handbook.

The rapid modernization of the financial sector and transition to digital platforms over the past twenty years has also led many federal financial agencies to embrace innovation as a distinct policy objective. Regulatory sandboxes, for example, have recently gained acceptance within the United States as a mechanism for lowering barriers to entry for new or emerging applications of technology.⁵⁰ The creation of dedicated fintech policy offices within the functional banking regulators is also a new phenomenon. In 2018, the OCC, FDIC, SEC, Commodity Futures Trading Commission

⁴⁹ Roderick M. Hills, Jr., *Exorcising McCulloch: The Conflict-Ridden History of American Banking Nationalism and Dodd-Frank Preemption*, 161 U Pa. L Rev 1235 (2013), available at https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=1387&context=penn_law_review.

⁵⁰ See Paul Watkins, Evan Daniels, and Stuart Slaton, *First in the Nation: Arizona’s Regulatory Sandbox*, 29 Stan. L. & Pol’y Rev, 9 (December 14, 2018), available at <https://www-cdn.law.stanford.edu/wp-content/uploads/2018/12/Watkins-Daniels-Slaton%E2%80%94FIRST-IN-THE-NATION-ARIZONA%E2%80%99S-REGULATORY-SANDBOX.pdf>.

(CFTC), and CFPB all launched various offices or hubs to coordinate technology policy and promote innovation within their respective industries. FinCEN followed suit in 2019 by launching what it is calling an “Innovation Hours Program” which aims to provide fintech companies and financial institutions the opportunity to demonstrate how new technologies might be leveraged to solve AML compliance challenges.

States have also begun to develop their own approaches to fintech regulation, with Arizona being the first to launch a regulatory sandbox of its own. The CFPB and OCC have also launched regulatory sandbox and innovation pilot programs to help entities test new products and services with greater regulatory certainty.

Historically, regulatory approaches to financial technology have focused on risk management and appropriate cybersecurity more so than the need to promote flexibility and experimentation. This historical emphasis is partly explained by statutory constraints in consumer financial law, which is typically silent with respect to technology-specific issues, and by the security-centric portions of the GLBA, which was enacted at the height of a sweeping wave of bank digitization in the late 1990s.

The speed of the electronic banking revolution may also explain the reactive nature of the laws and regulations that immediately followed. In October 1994, Stanford Federal Credit Union became the first traditional financial institution to offer an online banking option for its members. By the end of 1999, 45 percent of all national banks had plans to offer online banking services—with 20 percent already providing online transactional accounts.⁵¹ In the context of this sweeping transition, it is not surprising that the GLBA’s Privacy and Safeguards Rules were strictly focused on making regulation responsive to potential consumer harms. However, the House Conference Report, if not the bill itself, acknowledged the accompanying need to “foster technological innovation.”⁵²

As digital banking matured throughout the 2000s, legislative modernization of consumer financial law continued to facilitate adoption of more efficient technology. In October 2003, the Check 21 Act paved the way for traditional check collection and settlement methods to become virtually all-electronic, and has since facilitated widespread industry adoption of remote deposit capture, which enables consumers to deposit checks on their phones. In 2009, the Dodd-Frank Act established the CFPB and made innovation a core part of its mission, although this facet of the Bureau’s role has

⁵¹ See Karen Furst, William W. Lang, and Daniel E. Nolle, Internet Banking: Development and Prospects, OCC Economics Working Paper 2000-9 (September 2000), available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.221.7001&rep=rep1&type=pdf>.

⁵² H. Rept 106-434 (106th Congress), available at <https://www.congress.gov/congressional-report/106th-congress/house-report/434>.

matured only recently. Other parts of Dodd-Frank related to promoting standardized exchange of consumer financial records currently lie dormant.

State regulators have taken their own approach to regulating fintech. For example, in 2015 a task force of the Conference of State Bank Supervisors (CSBS) issued proposed prudential rules for nonbank mortgage servicers upon finding inconsistent application of safety and soundness standards, but has not taken further action.⁵³ The proposal noted that these services' operations are data dependent. In February 2019, the CSBS approved a set of recommendations which taken together constitute a framework for regulating fintech companies, particularly those that are money service businesses.⁵⁴

Given the diversity and complexity of fintech business models, NAFCU believes that the FFIEC should establish a coordinated approach to identify supervisory gaps and consumer compliance risks that demand legislative or regulatory attention. Furthermore, because many fintech applications are often specific to particular industry segments, a future FFIEC subcommittee should also identify best practices for different types of financial institutions as partnerships with fintech companies become commonplace.

⁵³ CSBS, Proposed Regulatory Prudential Standards for Non-Bank Mortgage Servicers (March 25, 2015).

⁵⁴ CSBS, Overseeing the Fintech Revolution: Domestic and International Perspectives on Fintech Regulation (June 25, 2019).

AGENCY ACTIONS

In the last decade, federal financial regulators have increasingly embraced innovation and technological modernization as discrete policy objectives.⁵⁵ Among prudential regulators, the general desire to promote innovation is nothing new; but, the diverse and interconnected nature of fintech products and services has challenged efforts to produce a unified framework for addressing disruptive technologies and business models. A report issued by the Government Accountability Office (GAO) in March 2018 described regulation of fintech as currently “fragmented” both within and between federal and state jurisdictions.⁵⁶ While such fragmentation has prompted fintech advocates to seek new laws that afford national preemption, the benefit of a unified regulatory framework has always been available in the form of a federal bank or credit union charter. However, most fintech companies are not interested in becoming full service depository institutions or bank holding companies.

Regulatory initiatives aimed at accommodating technological innovation are not only capable of benefiting fintech companies. Sandbox and waiver programs can also reduce regulatory barriers for traditional financial institutions, such as by mitigating uncertainty when there is a desire to automate compliance or lending functions, experiment with new disclosures, or test products that may not easily fit within existing consumer protection law. Consequently, NAFCU does not oppose regulatory efforts that are nominally concerned with promoting fintech writ large. However, NAFCU believes that innovation-focused relief should not favor one type of institution over another. To achieve this balance, it is critical that the NCUA adopt an innovation policy that allows credit unions to take advantage of new technology and form fintech partnerships with the same ease as banks and other, nonbank financial institutions.

To help credit unions understand how federal banking regulators have started to approach regulatory modernization through the lens of financial technology, NAFCU has prepared a brief summary of relevant agency actions to date. While not all of these actions may be directly relevant to credit unions, they could shape the competitive landscape of the financial sector in broader terms.

⁵⁵ See e.g., NCUA, Agencies Issue Joint Statement to Encourage Innovative Approaches to BSA/AML Compliance (December 3, 2018); see also NCUA, Strategic Plan 2014-2017.

⁵⁶ GAO, Additional Steps by Regulators Could Better Protect Consumers and Aid Regulatory Oversight, GAO-18-254 (March 22, 2018).

Treasury

In July 2018, the Department of the Treasury provided a substantial and detailed list of fintech-related policy recommendations in its report titled “Nonbank Financials, Fintech, and Innovation” (Fintech Report).⁵⁷ Many of the Report’s recommendations referenced ongoing policy initiatives at other financial regulators as well as established rules and guidance, but in some instances Treasury adopted novel positions on new topics, such as digital legal identities and cloud computing. Some of the recommendations that impact credit unions are covered below.

Payments

The Fintech Report endorsed the Federal Reserve’s strategies for achieving faster and more secure payments, including through development of a real-time settlement service. The Fintech Report also emphasized that the development of such a service should take into account the ability for smaller institutions to access to innovative technologies and payment services. On the topic of payments security, Treasury advised that continued work in this area should ensure that new solutions aimed at reducing risk do not include specific tech mandates. NAFCU supported this recommendation.⁵⁸

Remittances

To address compliance challenges associated with disclosure and error resolution requirements for remittance transfers, Treasury recommended that the CFPB provide more flexibility regarding the issuance of Regulation E disclosures and raise the current 100 transfer per annum threshold which operates as a de minimis exemption from the remittance rule. In an RFI issued on April 25, 2019, the CFPB solicited comment on whether to increase the de minimis threshold, and NAFCU recommended adopting a 1000 transfer limit.

New Credit Models

Treasury has endorsed regulatory approaches that enable the testing of new credit models which incorporate alternative data sources. Treasury expects that development of such models, and improved regulatory clarity regarding their usage by financial institutions, will help expand access to credit and strengthen risk assessments.

⁵⁷ U.S. Department of the Treasury, A Financial System That Creates Economic Opportunities Nonbank Financials, Fintech, and Innovation (July 2018).

⁵⁸ Id. at 158.

Data sharing

Treasury has endorsed development of regulatory policies that embrace data sharing between consumers, financial institutions and aggregators. Treasury has suggested that development of an open banking framework—similar to what exists in the United Kingdom—could help streamline consumer access and control over financial information and records. A key premise of open banking is the existence of a common API, which is intended to guarantee minimum security and encryption standards. In the United States, the development of a standard API has attracted interest from a variety of financial sector participants. In October 2018, Financial Data Exchange, a U.S.-based consortium of banks, fintechs and trade associations (and a subsidiary of FS-ISAC), announced that it would develop unified standards for the secure exchange of consumer account information through its own API.

Treasury has also recommended that the CFPB affirm that third parties, properly authorized by consumers, including data aggregators and fintech companies, be permitted to obtain access to financial account and transaction data for the purposes of Section 1033 of the Dodd-Frank Act. In 2017, the CFPB decided not to pursue a formal rulemaking to implement Section 1033, which contemplates the exchange of “machine readable” account information when requested by consumers. If the Bureau ultimately pursues a Section 1033 rulemaking, it could also promulgate its own standards for data exchange between financial institutions, consumers and aggregators. In comments to the Bureau, NAFCU has emphasized that third parties should not have an unrestricted right of access to member data and that security responsibilities must be clearly defined in any structured data sharing environment.

Artificial Intelligence

Treasury has noted the positive benefits of AI for credit underwriting and risk mitigation purposes and has suggested that the effective use of machine learning or big data analysis will become a key source of competitive advantage, particularly for smaller firms.⁵⁹ At the same time, Treasury has observed that the advantages created by advances in AI could potentially impair consumers’ ability to make informed decisions if the market for AI solutions becomes concentrated among a few technology providers.⁶⁰ A recent NAFCU survey revealed the nearly half of credit union respondents are planning to invest in AI technologies over the next two years.

⁵⁹ See Fintech Report, 54-56.

⁶⁰ See *id.* at 57.

Like other regulators, Treasury has cautioned that while AI can help improve access to credit, when used irresponsibly AI could also compound existing biases. Furthermore, the detection of erroneous decision-making could be made more difficult by the complexity and opacity of machine learning-based models, a fact that has been recognized by HUD in its proposal to modernize its 2013 disparate impact regulation.⁶¹ In recognition of the challenges and opportunities presented by AI, Treasury has recommended that regulators not impose unnecessary barriers to the use of machine learning and should provide greater clarity regarding how to responsibly develop these technologies.

President Trump's Executive Order on Maintaining American Leadership in Artificial Intelligence could prompt further recommendations from Treasury.⁶² Section 2(d) of the E.O. directs federal agencies to ensure that technical standards for AI reflect federal priorities for innovation and security, among other objectives. The National Institute of Standards and Technology (NIST) has issued a draft plan for federal engagement in developing technical standards for AI, which could be used to validate and evaluate AI technologies for the purpose of comparing machine outcomes with human performance.⁶³ Standards used for comparability purposes could potentially aid in regulatory efforts to evaluate the use of AI for compliance with consumer protection rules and regulations.

Federal Reserve

The Federal Reserve's decades of experience overseeing check, wire, and ACH settlement systems make it centrally important to payments-focused innovation. In 2013, the Federal Reserve launched the Strategies for Improving the U.S. Payments System (SIPS) initiative, which called for a joint, public-private initiative to realize desired outcomes in a future, faster payments system. Since then, it has facilitated the efforts of two taskforces—the Faster Payments Task Force (FPTF) and Secure Payments Task Force (SPTF)—to improve the safety and speed of payments, and has proposed developing a real time gross settlement system (RTGS) branded the FedNow Service.

The FPTF, a 320-member group comprised of banks and credit unions of varying sizes, nonbank providers of payment services, business and government end users, consumer interest organizations, governmental organizations, and other industry participants,

⁶¹ See Department of Housing and Urban Development, HUD's Implementation of the Fair Housing Act's Disparate Impact Standard, 84 Fed. Reg. 42854 (August 19, 2019).

⁶² See Exec. Order No. 13,859, 84 Fed. Reg. 3967 (February 14, 2019).

⁶³ NIST, A Plan for Federal Engagement in AI Standards - Draft for Public Review, 9 (July 2, 2019), available at https://www.nist.gov/sites/default/files/documents/2019/07/02/plan_for_ai_standards_publicreview_2july2019.pdf.

produced a set of recommendations in 2017 regarding how to develop a ubiquitous faster payments service in the U.S. by 2020. These recommendations incorporated a set of effectiveness criteria that the FPTF determined were useful in terms of evaluating future faster payment solutions. The FPTF also requested the Federal Reserve to develop a 24x7x365 settlement service to support faster payments and to explore and assess the need for other Federal Reserve operational roles in faster payments—goals that NAFCU continues to support.

Acting upon the FPTF recommendations and the SIPS framework for improving the U.S. payments system, the Federal Reserve published a request for comments in October 2018 regarding the potential creation of a new service to facilitate real-time interbank settlement of faster payments. In general, the RFC sought input regarding the development of a 24x7x365 RTGS settlement service and a liquidity management tool. On August 5, 2019, the Federal Reserve announced that it would move forwards with plans to develop the FedNow Service, which represents the first entirely new payments rail made available through the Reserve Banks in over 30 years.

Separate from its role as a facilitator of faster payments innovation, the Federal Reserve has also published guidance related to fintech and consumer compliance, primarily in its capacity as a federal regulator of state member banks. In 2016 and 2017, the Federal Reserve issued various publications addressing the legal risks associated with adoption or integration of fintech technologies, such as alternative data, online lending, and digital wealth management. During this same timeframe, the Federal Reserve launched working groups to analyze emerging technology trends and identify opportunities for regulatory innovation.

On June 25, 2019, the Board of Governors submitted a statement of record to the House Committee on Financial Services in connection with a hearing entitled, “Overseeing the Fintech Revolution: Domestic and International Perspectives on Fintech Regulation.” With this statement, the Board made its policy intentions regarding fintech clear and expressed support for responsible private sector innovation. The statement goes on to explain that the Board envisions fintech as offering a way to increase access to banking and bring new financial products to underserved communities, including products and accounts that help the underbanked budget, save, and otherwise manage their finances more easily.⁶⁴ At the same time, and much like other regulators, the Board included the caveat that fintech is not immune from fair lending and other consumer protection risks.⁶⁵

⁶⁴ Board of Governors of the Federal Reserve System, Statement for the Record Submitted to the Task Force on Financial Technology of the Committee on Financial Services, 5 (June 25, 2019),

⁶⁵ Id.

Consumer Financial Protection Bureau

No agency has been more active in promoting its reputation as a vanguard of fintech policy than the CFPB. This is partly a consequence of the Bureau's expansive statutory mission, which includes an obligation to ensure that markets for consumer financial products and services operate transparently and efficiently to facilitate access and innovation.⁶⁶ The Bureau has also frequently regarded itself as a "21st century" regulator, a moniker concomitant with the agency's desire to stay abreast of developments in financial technology in order to effectively administer federal consumer financial law.

Consistent with the goal of promoting innovation, the Bureau launched an initiative called Project Catalyst in 2012 to encourage consumer-friendly innovation and entrepreneurship in markets for consumer financial products and services. One of the principal rationales behind Project Catalyst's creation was recognition that regulations may need to evolve in tandem with products and services, and that the Bureau should facilitate such modernization by allowing firms to consult directly with the agency to understand the relationship between emerging technologies and existing law.⁶⁷ In 2016, Project Catalyst was configured to serve as a gateway for financial companies to apply for No-Action Letters, which served as limited guarantees that the Bureau would not pursue supervisory action with respect to an approved product or service not already on the market; however, only a single company ever received such a letter. Towards the end of Richard Cordray's tenure as Director of the Bureau, Patrick McHenry, former Vice Chairman of the House Financial Services Committee Chair, wrote that Project Catalyst was a failure and that its conditional guarantees against future supervisory or enforcement action were insufficient to promote innovation.

In May 2018, under the tenure of Acting Director Mick Mulvaney, Project Catalyst's work was transferred to the newly created Office of Innovation. The new office proposed substantial revisions to the Bureau's No-Action Letter policy in order to clear some of the barriers that made Project Catalyst an unattractive option for companies seeking regulatory accommodations.

The Bureau also announced that it would be partnering with global regulators to address fintech policy through a new initiative called the Global Financial Innovation Network (GFIN). While the GFIN is intended primarily to facilitate regulatory coordination between countries, one goal is to provide firms with an environment in which to conduct

⁶⁶ See 12 U.S.C. §5511(b).

⁶⁷ CFPB, CFPB Launches Project Catalyst to Spur Consumer-Friendly Innovation (Nov. 14, 2012), available at <https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-launches-project-catalyst-to-spur-consumer-friendly-innovation/>.

trials of cross-border services or products. Already the GFIN is considering the cross-border implications of technologies like distributed ledger and other solutions related to know your customer and anti-money laundering requirements.⁶⁸

The Bureau has engaged in a variety of pre-rulemaking efforts that have the potential to facilitate adoption of fintech products and services. While some of these initiatives could introduce new challenges for credit unions, particularly in the realm of data security, others will permit experimentation through improved regulatory flexibility.

Alternative Data

In February 2017, the Bureau issued a request for information (RFI) related to the use of alternative data in credit scoring systems. The Bureau's decision to issue the RFI was prompted in part by the belief that alternative data and new credit modeling techniques could convey certain benefits to consumers, particularly credit-thin or credit invisible consumers. The Bureau has estimated that 26 million consumers in the U.S. are credit invisible, with almost 40 percent being younger than 25, and 90 percent transitioning out of credit invisibility by their mid-to-late 20s.⁶⁹ The Bureau has also acknowledged that use of alternative data might present risks, such as by generating discriminatory credit decisions or inaccurate predictions of creditworthiness.

According to the Bureau, most automated decisions in the credit process use traditional modeling techniques that rely upon standard data elements as inputs. Typically, a lender's underwriting includes an evaluation of a common set of data, including consumer-supplied data (such as income, assets, and collateral), and other traditional data supplied by one or more of the nationwide consumer reporting agencies (such as FICO or VantageScore). Most of these methods depend on multivariate regression analysis to correlate past credit history and current usage attributes to consumer credit outcomes to determine whether it is likely that the consumer will default or become seriously delinquent on the loan. These methods have also demonstrated compliance with the Fair Credit Reporting Act (FCRA), which generally requires credit scoring data to be displayable, disputable and correctable.

Based on the Bureau's analysis, advances in machine learning and artificial intelligence could yield new insights about consumer creditworthiness when coupled with non-traditional data sets and improved computational power. The Bureau has also acknowledged that while these insights might expand access to credit and the

⁶⁸ CFPB, Press Release, BCFP Collaborates With Regulators Around The World To Create Global Financial Innovation Network (August 7, 2018), available at <https://www.consumerfinance.gov/about-us/newsroom/bcfp-collaborates-regulators-around-world-create-global-financial-innovation-network/>.

⁶⁹ CFPB, Data Point: The Geography of Credit Invisibility (September 2018); CFPB, Data Point: Credit Invisibles (May 2015).

accuracy of credit scoring methods, they could also pose challenges in terms of risks to consumer privacy, bias, and reliance on opaque variables beyond the consumers' ability to control or correct. Security risks are also a consideration, especially after the 2018 Equifax data breach which exposed over 145 million consumer records.

Some companies have already begun to leverage alternative data to offer credit card products to consumers who lack traditional scores.⁷⁰ One of the most common types of alternative data used by credit unions to supplement credit decisions is cash flow data, which captures the volume of money being deposited and withdrawn from a member's account every month. Other common alternative data sources that are sometimes incorporated within enhanced credit scoring models include rent, utility or phone bill information. Rent can be a particularly useful credit score variable given that about two thirds of young adult households are rentals based on Experian data.⁷¹

NAFCU's response to the RFI acknowledged that alternative data could potentially improve access to credit, but advised the Bureau that what is most needed is additional clarity regarding the application of existing law rather than new rules regarding credit scoring. Since the RFI was published, the Bureau has not announced any subsequent rulemaking activity related to alternative data. As a consequence, existing enforcement of the Equal Credit Opportunity Act (ECOA), the FCRA, and the Bureau's evolving interpretations of unfair, deceptive, and abusive acts and practices (UDAAP), will inform the regulatory boundaries of alternative data usage.

In July 2019, the GAO issued a report that addressed agency actions that might be taken to improve lender utilization of alternative data. The central recommendation of the report substantially mirrored NAFCU's 2017 letter to the CFPB, which sought clarification regarding the appropriate use of alternative data to help credit unions achieve compliance with greater certainty while expanding access to credit—particularly for borrowers lacking traditional credit scores.⁷²

Artificial Intelligence

During the Bureau's December 2018 Consumer Advisory Board (CAB) meeting, agency staff discussed how artificial intelligence could impact the market for consumer financial services. For the purposes of the CAB meeting, artificial intelligence (AI) was defined as a system that exhibits humanlike intelligence and can sense, reason, act, and

⁷⁰ See New York Times, "New Credit Card Option for Those With Scant Credit Histories" (September 8, 2017), available at <https://www.nytimes.com/2017/09/08/your-money/new-credit-card-option-for-those-with-scant-credit-histories.html>.

⁷¹ Experian, the State of Alternative Credit Data (2018), available at <https://www.experian.com/assets/consumer-information/white-papers/alternative-credit-data-paper.pdf>.

⁷² GAO, Agencies Should Provide Clarification on Lenders' Use of Alternative Data, GAO-19-694T, 1 (July 25, 2019), available at <https://www.gao.gov/assets/710/700482.pdf>.

adapt. The Bureau regarded machine learning as a subset of artificial intelligence. This definition is consistent but less descriptive than with what has been suggested by the National Institute of Standards and Technology in its May 2019 RFI on AI standards.⁷³

The Bureau has expressed interest in how AI is embedded within a number of different services: chatbots; credit underwriting; roboadvisors; regulatory compliance; and fraud detection and risk management. During the CAB meeting, Bureau staff indicated that AI could raise issues with respect to biases in data training sets, use of AI marketing and microtargeting tools, privacy and data security, and general lack of transparency—sometimes described as a “black box” problem.⁷⁴ However, the Bureau was also aware of AI’s positive potential: improving access to credit for low-to-moderate income consumers and greater financial inclusion.

While the Bureau has not indicated whether it intends to develop rules or policies to address AI in the near term, such action may complement its plans regarding NALs.

Digital Identity

The CFPB is one of the few financial regulators that is actively exploring ways to facilitate adoption of digital legal identities, likely in response to recommendations made by Treasury. As described in Treasury’s Fintech Report, digital legal identity is characterized by portable credentials that can be used to establish a legal identity for new customer relationships at unrelated financial institutions such that individual collection and retention of personally identifiable information to satisfy regulatory requirements is no longer necessary.⁷⁵ To achieve portability and save customers the trouble of having to undergo multiple, redundant authentication procedures, Treasury has advocated for the development of interoperable digital identification products, systems, and processes. Although reliance on digital identity is not permitted under current customer identification regulations, Treasury has advised financial regulators to identify ways to accommodate such technology in order to reduce regulatory barriers and streamline customer authentication. Treasury has also recommended that future regulation in the legal identity space be flexible, risk and principles based, future-proofed, and technology-

⁷³ See <https://www.federalregister.gov/documents/2019/05/01/2019-08818/request-for-information-artificial-intelligence-standards>

⁷⁴ See CFPB, Advisory Committee Meeting Minutes, 4, (December 6, 2018), available at https://files.consumerfinance.gov/f/documents/cfpb_advisory-committee-meeting-minutes_122018.pdf.

⁷⁵ See Fintech Report, 41-44.

neutral. Some companies have already begun to develop blockchain-based solutions to create digital identities capable of satisfying know your customer requirements.⁷⁶

During the Bureau's March 2019 Consumer Advisory Board (CAB) meeting, agency staff reported on preliminary efforts to understand how digital identities might be used to streamline banking experiences. A number of studies have shown that consumers dislike lengthy or complicated security measures and enrollment processes. A 2018 report published by the Pew Research Center found that 25 percent of online adults use less secure passwords because of the difficulty of remembering more complex variations.⁷⁷ A 2018 survey conducted by FICO revealed that 71 percent of U.S. adults are frustrated with today's security measures, such as two-step verification, captcha codes, and security questionnaires, with 22 percent indicating that they would give up on opening a bank account if they were subject to excessive documentary barriers.⁷⁸

While the Bureau hasn't publicly revealed any concrete policy goals related to digital identity, it has heard from stakeholders that establishing a single, portable identity standard could have privacy implications, particularly where large volumes of personal information are consolidated into a single credential or identity profile. These risks could impair regulatory adoption of digital identities if the benefits of streamlined authentication are outweighed by increased risk of identity theft or synthetic identity fraud.

Payments

In 2015, the CFPB published principles for ensuring that faster payments are compatible with the agency's consumer protection objectives, emphasizing the need for transparency, consumer control, and fraud and error resolution protections.⁷⁹ The effectiveness criteria for faster payments endorsed by the Federal Reserve are generally responsive to the Bureau's recommendations.⁸⁰

At the March 2019 CAB Meeting, the Bureau indicated that it was in the preliminary stages of assessing consumer access issues associated with faster payments. Agency

⁷⁶ See IBM, IBM Blockchain Trusted Identity: Sovrin Steward closed beta offering (August 28, 2018), available at <https://www.ibm.com/blogs/blockchain/2018/08/ibm-blockchain-trusted-identity-sovrin-steward-closed-beta-offering/>; see also, R3, Case Study: How Gemalto's Trust ID Network is revolutionizing self-sovereign digital identities by leveraging R3's Corda blockchain platform (September 2018), available at <https://www.r3.com/wp-content/uploads/2018/09/Gemalto-Case-Study-Sept-2018.pdf>.

⁷⁷ Pew Research Center, Americans and Cybersecurity (January 26, 2017), available at <https://www.pewinternet.org/2017/01/26/americans-and-cybersecurity/>.

⁷⁸ FICO, Survey: Americans Are Frustrated by Security Measures (July 2018), available at <https://www.fico.com/blogs/fraud-security/survey-americans-are-frustrated-by-security-processes/>.

⁷⁹ CFPB, Consumer Protection Principles: CFPB's Vision of Consumer Protection in New Faster Payment Systems (July 9, 2015), available at https://files.consumerfinance.gov/f/201507_cfpb_consumer-protection-principles.pdf.

⁸⁰ Faster Payments Task Force, Faster Payments Effectiveness Criteria (January 26, 2016), available at <https://fedpaymentsimprovement.org/wp-content/uploads/fptf-payment-criteria.pdf>.

staff noted that the Bureau had reviewed the Federal Reserve’s effectiveness criteria for faster payments but no decision had been made regarding whether the introduction of faster payments would prompt amendments to Regulation E.

To the extent that real-time payments make funds available instantaneously, the Bureau could potentially take steps to promote consumer awareness of the difference between real-time versus deferred settlement systems and their relationship to overdraft fees. However, faster payments would not necessarily change overdraft dynamics, and even key proponents of the Federal Reserve’s involvement in a future faster payments system have noted that faster payments would not address the underlying causes of financial insecurity, although they could help mitigate it.⁸¹

Agency staff have also suggested that the Bureau is interested in understanding how error resolution would work in an environment where payments are irrevocable. While instantaneous settlement could improve consumer cash flow in some circumstances, it could also introduce new security risks. The window of opportunity to detect and stop a fraudulent transfer is vastly reduced in a real time environment and the existing error resolution framework in Regulation E may not adequately reflect the risks to either financial institutions or consumers in such circumstances. As regulatory initiatives to support faster payments advance in 2019, credit unions interested in real time payments capabilities should consider whether existing fraud liability frameworks need to be updated.

Third-Party Access to Consumer Financial Data

On November 17, 2016, the CFPB issued an RFI to solicit feedback on the challenges consumers may face in accessing and securely sharing their financial records. The RFI was closely aligned with the substantive provision of Section 1033 of the Dodd-Frank Act, which provides a framework for consumer-permissioned sharing of financial records, but requires implementing regulations to become effective. Section 1033 permits the Bureau to promulgate specifications for making consumer data “machine readable,” which could grant fintechs and data aggregators an entry point for collecting valuable information about the financial habits of credit union members.

Through the RFI, the CFPB sought to learn “how much choice consumers are being given about the use of their records, how secure it is for them to share their records, and to what extent consumers have control over their records.” NAFCU and other credit union stakeholders who responded to the RFI noted that the security of member

⁸¹ Governor Lael Brainard, Speech at the Fed Payments Improvement Community Forum, Sponsored by the Federal Reserve Bank of Chicago, Chicago, Illinois (October 3, 2018).

information was a paramount concern and that Section 1033 should not be interpreted as granting a third-party right of access to member information. Credit unions could also face reputational risk if member data is stolen from unaffiliated third parties that fail to adopt appropriate safeguards.

To protect credit unions and their members from potential privacy and security risks, NAFCU does not believe that financial data aggregators or other fintech companies should be able to directly access member data without the consent of the credit union and the member. NAFCU has advised the CFPB that it should hold prospective aggregators to heightened cybersecurity standards.

Trial Disclosure Program

The CFPB's Office of Innovation has proposed several updates to the agency's innovation focused policies to improve their accessibility and appeal to both traditional financial institutions and fintechs alike.

In September 2018, the CFPB published a notice regarding its "Policy to Encourage Trial Disclosure Programs" (TDP Policy) which was intended to simplify an underutilized program for testing experimental disclosure forms in a time-limited, sandbox-type environment. The TDP Policy is derived from the statutory authority in Section 1032(e) of the Dodd-Frank Act, which permits the CFPB to deem a covered person conducting a trial disclosure program to be in compliance with or exempt from a requirement of a Bureau rule or certain federal laws.⁸²

Under the proposed policy, the Bureau would grant or deny applications within 60 days of submission, which could be made by a trade association on behalf of its members. The new TDP Policy also reduces the list of factors the Bureau would consider when reviewing applications by focusing on the applicant's plan to improve existing disclosures and ability to mitigate risks during the testing process. The Bureau believes significant opportunities exist to enhance consumer protection by enabling companies to "research" informative, cost-effective disclosures. At the time the new policy was proposed, the original program had attracted no applicants.

No-Action Letters

The CFPB has recognized the need to develop a more streamlined no-action letter (NAL) policy to encourage innovation and reduce the risk of supervisory or enforcement action. To date only a single applicant has secured a NAL from the Bureau. In September 2017, Upstart Network (Upstart) was granted a three-year, provisional guarantee that its

⁸² See CFPB, Policy to Encourage Trial Disclosure Programs, 83 Fed. Reg. 44574 (September 10, 2018).

unique underwriting model (incorporating alternative data) would not be the subject of Bureau supervisory or enforcement action under the ECOA.⁸³

In December 2018, the CFPB published proposed changes to its NAL policy that would streamline application requirements and remove burdensome monitoring provisions. Applicants would no longer be forced to commit to data sharing arrangements with the Bureau as a precondition of receiving a NAL. Applicants would also enjoy a removal of temporal limits on the duration of the NAL and receive greater UDAAP-related assurances from Bureau officials. The NAL would still require an applicant to explain potential consumer risks associated with the proposed product or service offering and explain how these risks would be mitigated.

On August 6, 2019, the Bureau released an update on the sole NAL it had issued to Upstart, which revealed the extent of the Bureau's monitoring and oversight expectations. The Bureau explained that as a condition for receiving its NAL, Upstart had agreed to implement a model risk management and compliance plan. The plan allowed the Bureau to simulate and compare outcomes from Upstart's machine-learning underwriting model with a standard model relying on traditional credit file variables. The Bureau concluded that the alternative data based, machine-learning model improved access to credit compared to the traditional model and did not trigger fair lending risks.⁸⁴

Product Sandbox

The third policy the Office of Innovation has proposed is completely new but conceptually similar to the NAL process. Introduced in December 2018, the CFPB's "Product Sandbox," would provide another mechanism for obtaining limited exemptions or safe harbors to enable financial institutions to test innovative products and services with greater regulatory certainty. However, such relief would be limited to a specified timeframe, which the Bureau anticipates will be two to three years.

The Bureau has explained that when it provides exemptions or approvals to credit unions or other entities through the Product Sandbox, the general result would be immunity from enforcement actions by any Federal or State authorities, as well as from lawsuits brought by private parties. However, participants in the Product Sandbox would need to commit to sharing data with the Bureau and commit to reimbursing consumers for material harm.

⁸³ See CFPB, CFPB Announces First No-Action Letter to Upstart Network (September 14, 2017).

⁸⁴ See CFPB, An update on credit access and the Bureau's first No-Action Letter (August 6, 2019), available at <https://www.consumerfinance.gov/about-us/blog/update-credit-access-and-no-action-letter/>.

Collectively, the CFPB's innovation policies are designed to revitalize the agency's efforts to develop a collaborative process for making regulation responsive to technological change. Paul Watkins, Director of the CFPB's Office of Innovation, has characterized this commitment as supporting the Bureau's statutory purpose of increasing fairness, transparency, competition, and consumer access within financial services.⁸⁵

NAFCU has generally supported the Bureau's innovation-focused proposals but has cautioned the CFPB against adopting a new, higher bar for deregulation by conditioning exceptive relief on participation in programs that tend to favor larger, more sophisticated entrants.

National Credit Union Administration

To date, the NCUA has approached fintech from the same conceptual starting point as other federal financial regulators by acknowledging both competitive risks and opportunities.

Recent NCUA Board briefings indicate that the agency is devoting greater attention to technology issues. At the NCUA's December 2018 Board Meeting, agency staff revealed that an internal blockchain working group had been established in July 2018 to better understand the nature of distributed ledgers, cryptocurrencies, and the relationship of such technology to the credit union system. NCUA staff reported that they were aware of credit unions currently proposing projects that use "digital ledgers" and would seek to engage with the industry broadly to better understand how distributed ledger technologies might be implemented consistent with regulatory expectations.

At the same meeting, NCUA staff said that a separate fintech working group had been created to identify ways for NCUA to help credit unions adapt and embrace innovative financial technologies.⁸⁶ Chairman Hood has confirmed that both of these work groups are active and has described the Fintech Working Group as tasked with identifying "ways federally insured credit unions can adopt and embrace fintech so they can effectively compete in the changing financial services industry."⁸⁷

NCUA staff have also indicated that the agency plans to develop what has been described as "a place" for industry outreach and stakeholder input, and this could ultimately take the form of an office of innovation.⁸⁸

⁸⁵ Testimony of Paul Watkins, Before the House Committee on Financial Services Task Force on Financial Technology (June 25, 2019), available at <https://financialservices.house.gov/uploadedfiles/hhrg-116-ba00-wstate-watkinsp-20190625.pdf>.

⁸⁶ NCUA, Briefing on Blockchain and Distributed Ledger Technology (December 13, 2018), available at <https://www.ncua.gov/files/agenda-items/AG20181213Item2a.pdf>.

⁸⁷ Testimony of NCUA Chairman Rodney E. Hood, Hearing on Oversight of Financial Regulators before the Senate Committee on Banking, Housing, and Urban Development, 116th Cong. 1st Sess. (May 15, 2019).

⁸⁸ NCUA, Briefing on Blockchain and Distributed Ledger Technology.

The NCUA's Current Policy Approach

The NCUA's Strategic Plan for 2018-2022 includes several considerations related to fintech and presents the following conclusions:

1. Fintech's influence on consumer habits can disrupt traditional business models.
2. Competition from fintech companies and nonbanks could drive industry consolidation.
3. Increased reliance on technology makes credit unions more vulnerable to cybersecurity threats.

In the context of competitive disruption, the NCUA has drawn attention to fintech companies' ability to benefit from regulatory arbitrage. The Strategic Plan notes that fintech "underwriting and lending may be automated at a cost below levels associated with more traditional financial institutions, but may not be subject to the same regulations and safeguards that credit unions and other traditional financial institutions face." Such awareness could prompt not only heightened scrutiny of credit unions that choose to partner with fintech companies, but also recognition of the need for regulatory relief to accommodate changing consumer expectations and modern business practices. While the NCUA has not stated definitively whether it thinks certain fintech companies are operating without appropriate oversight, the agency has been vocal about the need to augment its supervisory authority to address such risk.

Operational Risk

As the NCUA enhances its supervision of credit union cybersecurity, it continues to work collaboratively with other regulators to address operational risks that are linked to increased technological dependency..

In May 2019, Chairman Hood told the Senate Banking Committee that the NCUA was committed to working with partners on the Financial Stability Oversight Council (FSOC) "to ensure that various threats to financial markets are properly monitored and mitigated."⁸⁹ These remarks referenced a proposal issued by the FSOC in March 2019 that would revise guidance regarding how the Council designates nonbank financial companies for enhanced supervision by the Federal Reserve. The proposed guidance incorporated a wider range of activities-based considerations, including operational

⁸⁹ Testimony of NCUA Chairman Rodney E. Hood, Hearing on Oversight of Financial Regulators before the Senate Committee on Banking, Housing, and Urban Development, 5.

and cybersecurity risks, and stated that the FSOC may consider risks arising from “new or evolving financial product activities, and practices.”⁹⁰

To address third party risks, the FFIEC agencies currently work together to monitor the most interconnected and critical service providers operating within the financial sector. As fintech drives further disruption, it may be desirable for the FFIEC to establish an emerging technology task force that considers not just the most interconnected services, but also those whose novel applications require new models of supervision.

In June 2019, Chairman Hood appointed Johnny E. Davis Jr. as Special Advisor to the Chairman on Cybersecurity. Davis currently serves as Division Director for Critical Infrastructure at NCUA, which oversees development of the NCUA’s new Automated Cybersecurity Examination Toolbox (ACET). Although not geared specifically towards fintech in the normative sense, the ACET does measure the extent to which a credit union maintains outside connections with third parties, shares data, or offers what might be considered “fintech” like services, such as P2P payments. Notably, the ACET consider “emerging payments technologies,” such as digital or mobile wallets, as relevant data points in a credit union’s inherent risk profile, which is a measure of initial cyber risk.

Chartering

Until relatively recently, fintech companies that wanted the benefits of national preemption, interest rate exportation, and access to the Federal Reserve’s payments system and discount window had to apply for either a full service charter with the appropriate bank regulator or become an industrial loan company (ILC). However, the OCC proposed in December 2016 to offer an intermediate option in the form of a special purpose national bank (SPNB) charter designed specifically for fintech companies, and in 2017 added supplemental guidance to its Licensing Manual.

A SPNB applicant currently faces many of the same licensing standards and requirements that currently apply to national banks with some important differences. A SPNB cannot accept deposits but must be engaged in a core banking activity, such as lending or payments.

For credit unions, specialized chartering options for fintechs or greater acceptance of non-traditional applicants could have direct competitive effects and potentially create an uneven regulatory environment, particularly if regulators adjust liquidity, capital and

⁹⁰ Financial Stability Oversight Council, Authority To Require Supervision and Regulation of Certain Nonbank Financial Companies, 84 Fed. Reg. 9028 (March 13, 2019).

financial inclusion requirements on a case-by-case basis to accommodate particular business models. Furthermore, in an era of sustained industry consolidation, de novo activity driven by fintech applicants could signal to consumers that the benefits of deposit insurance are not limited to traditional financial institutions. Consumer acceptance of digital banks could further exacerbate demographic gaps at certain credit unions that have traditionally relied on brick and mortar branches to establish a community presence.

On the other hand, encouraging fintech companies engaged in core banking activities to become chartered institutions may reinforce the expectation that all financial entities should generally follow the same rules as depositories. In addition, credit unions have largely adapted to today's world of digital banking and have grown despite pressure from large banks, which are financial technology giants in their own right. Accordingly, requiring fintech companies to conform to existing regulatory expectations could prove less disruptive than designing a new charter from scratch. Bringing fintech companies into the fold of chartered institutions could also reduce systemic risk from nonbanks, which are generally not subject to capital and liquidity requirements, and may not undergo regular cybersecurity examinations.

Whether new chartering options for fintech companies will have harmful or beneficial competitive effects is difficult to discern at present. Relatively few fintech companies have publicly indicated that they intend to pursue any type of bank charter and several have withdrawn their pending applications. In September 2018, a mobile-only bank called Varro Money received conditional approval to operate under a national bank charter; however, the OCC has yet to approve or even announce any SPNB applications of the purely fintech variety. In April 2019, the online and mobile brokerage company Robinhood announced it would seek a national bank charter after it mistakenly advertised Securities Protection Investor Corporation insurance on what it termed a traditional bank account. Collectively, these actions suggest that the OCC's SPNB charter is less attractive than the agency anticipated.

Lack of interest in the SPNB charter may also be attributed to uncertainty over the legality of the charter itself. In October 2018, the CSBS filed a lawsuit alleging that the OCC's SPNB charter was unlawful under the National Bank Act; however, the suit was dismissed for lack of ripeness because no institutions had submitted a charter application. A parallel action brought by the New York State Department of Financial Services is still ongoing in the U.S. District Court for the Southern District of New York.

The possibility that a newly granted charter could be revoked represents a significant legal risk that is likely to have a chilling effect until a future challenge is decided on the merits. Prior to the U.S. District Court of Columbia's decision to dismiss the CSBS suit in September 2019, Comptroller of the Currency, Joseph Otting, had cited ongoing litigation as responsible for an absence of application activity.⁹¹

Industrial Loan Companies

Some fintech companies have publicly indicated that they are interested in obtaining an ILC charter to expand their business model. ILCs have existed since the early 1900s and continue to serve as vehicles for nonbank entry into the financial system despite legislative attempts to limit their activities and chartering options.⁹²

ILCs are state-chartered institutions that operate similarly to commercial banks and are supervised by the FDIC. ILCs have proven attractive to fintech companies at a conceptual level because they can be owned by firms that operate beyond the reach of federal bank regulation. In a more technical sense, an entity that controls an ILC that is not a bank holding company under the Bank Holding Company Act (BHCA) does not need to register as a bank holding company with the Federal Reserve and avoids regulation as such. In most situations, an ILC will not be a BHCA bank as long as it satisfies at least one of the following conditions: (1) the institution does not accept demand deposits, (2) the institution's total assets are less than \$100,000,000, or (3) control of the institution has not been acquired by any company after August 10, 1987.⁹³ After Congress passed the Competitive Equality Banking Act of 1987, only those states that offered ILC charters prior to enactment could continue doing so. Of the seven states that currently offer ILC charters, Utah has the most favorable rules and is home to most ILCs today.

Loopholes in federal law that permit nonbank firms to own ILCs have prompted criticism of the charter in high profile cases. In 2006, shortly after Wal-Mart applied to create a new ILC and Home Depot attempted to acquire an existing bank, the FDIC imposed a moratorium on new commercial charters. At the time, the FDIC expressed concern that commercial ownership of ILCs posed safety and soundness risks that were better left to Congress to resolve. NAFCU and other banking trade associations expressed a similar view while also highlighting competitive concerns and the need for

⁹¹ Witkowski, Rachel, Fintech charter delayed following court ruling: Otting, American Banker (May 15, 2019).

⁹² See The Competitive Equality Banking Act of 1987, Pub. L. No. 100-86, § 101(a)(1), 101 Stat. 554, 562.

⁹³ FDIC, The FDIC's Supervision of Industrial Loan Companies: A Historical Perspective (June 25, 2004), available at https://www.fdic.gov/regulations/examinations/supervisory/insights/sisum04/industrial_loans.html#drop.

a fair playing field.⁹⁴ However, Congress has failed to take decisive action regarding ILC regulation, frustrating what has long been a core principle of prudential regulation: that a bank’s parent company should serve as a transparent source of strength rather than an opaque source of risk.

TABLE 1 - COMPARISON OF SELECTED COMMERCIAL BANK AND ILC POWERS⁹⁵		
Powers	State Commercial Bank That is a BHCA Bank	ILC That Is Not a BHCA Bank
Ability to accept demand deposits	Yes	Varies by state.
Ability to export interest rates	Yes	Yes
Examination, supervision, and regulation by federal banking agency.	Yes	Yes
Parent subject to umbrella federal oversight	Yes	No
Parent activities generally limited to banking and financial activities	Yes	No
Parent could be prohibited from commencing new activities if a subsidiary depository institution has a CRA rating that falls below satisfactory	Yes	No
Parent could be ordered by a federal banking agency to divest of a depository institution subsidiary if the subsidiary becomes less than well capitalized	Yes	No

Source: FDIC

⁹⁴ NAFCU Letter to FDIC, (October 10, 2006), available at <https://www.fdic.gov/regulations/laws/federal/2006/06c68ilc.pdf>.

⁹⁵ FDIC, The FDIC’s Supervision of Industrial Loan Companies: A Historical Perspective (June 25, 2004).

The financial crisis precipitated yet another moratorium on new ILC charters, this time imposed by the Dodd-Frank Act, but expired in July 2013. Since then, three established fintechs, SoFi, Square and Nelnet Bank, have applied for the ILC charter in the state of Utah, and like Wal-Mart and Home Depot previously, subsequently withdrew their applications in the wake of public criticism and Congressional scrutiny.⁹⁶ SoFi, a student loan company that now offers mortgages and other personal finance products, was the first to apply and drew the most attention from critics of the ILC charter. Not long after SoFi announced its chartering plans in June 2017, then-Ranking Member of the House Financial Services Committee (HFSC), Congresswoman Maxine Waters (D-CA), requested that the FDIC hold a public hearing and suggested that granting the application “would set a precedent that a wide variety of other fintech companies may choose to follow even though concerns related to financial inclusion, consumer benefits, supervision, and regulation of such entities are still unresolved.”⁹⁷ Given that Rep. Waters is now Chairman of the HFSC, it is likely that new ILC applicants will confront similar reservations in the future. On the other hand, the current Chairman of the FDIC, Jelena McWilliams, may be more forgiving when evaluating ILC applications for FDIC insurance. Chairman McWilliams has opined that in a drought of de-novo bank charters, the FDIC is willing to consider deposit insurance applications from fintech firms.⁹⁸

Although credit unions have faced competition from ILCs for many years, fintech applicants could potentially utilize the charter in ways that were never envisioned prior to financial crisis. Companies whose products and services are the foundation of an always online, on-demand consumer economy could potentially capture market share for consumer financial products merely by virtue of massive, pre-existing customer bases and control over key technology infrastructure. Already companies like Apple and Facebook have taken steps to enter the payments ecosystem, and an ILC charter could potentially allow these firms to obtain greater access to critical financial market utilities, like the Federal Reserve’s discount window. Furthermore, an ILC charter could allow technology companies to retain their core business models while still owning and controlling their bank subsidiaries, an arrangement that could introduce unique and hard to manage safety and soundness risks. Today, the BHCA prohibits bank holding companies from engaging in commercial activities that are not financial in nature or not closely related to the business of banking. Creative utilization of ILC charters could fundamentally change this paradigm of prudential regulation.

⁹⁶ Lalita Clozel, “SoFi withdraws bank application in wake of scandal,” American Banker (October 13, 2017); Luis Urbina, “Square Temporarily Withdraws ILC Application,” National Law Review (July 10, 2018).

⁹⁷ Maxine Waters, Letter to The Honorable Martin Gruenberg (August 25, 2017), available at https://financialservices.house.gov/uploadedfiles/2017.08.25_cmw_to_fdic_re_sofi_ilc_hearing.pdf.

⁹⁸ Jelena McWilliams, “We can do better on de novos,” American Banker (December 6, 2018), available at <https://www.americanbanker.com/opinion/fdic-chairman-jelena-mcwilliams-we-can-do-better-on-de-novos?tag=00000160-231b-d079-a7e9-2b5b85010000>.

NAFCU continues to oppose new ILC charters due to the unacceptable safety and soundness risks that accompany any intermingling commercial and banking activities, and also because fintech ILCs could obtain unfair advantages over consumer markets.

Postal Banking

While fintech companies look to develop streamlined business models that are optimized for an increasingly digital economy, the concept of postal banking represents the opposite strategy: take the nation's largest mail carrier and make it a full service bank. NAFCU has consistently advised Congress to avoid turning the United States Postal Service (USPS) into a bank given its inexperience, existing operating costs, and potential to inflict great competitive and consumer harm. In December 2018, these concerns were acknowledged in a report issued by Treasury which recommended that the USPS focus on other competencies to improve its long term sustainability. The report found that “[g]iven the USPS’s narrow expertise and capital limitations, expanding into sectors where the USPS does not have a comparative advantage or where balance sheet risk might arise, such as postal banking, should not be pursued.”⁹⁹

Not surprisingly, the USPS also opposes the idea of joining bank operations to its already burdened lines of business.¹⁰⁰ While the general spirit of improving access to banking services is commendable, credit unions are better equipped to serve rural consumers with their experience and track record as trusted community financial institutions. NAFCU has urged Congress to enhance credit unions’ authority to reach underserved communities, rather than embrace postal banking, as a solution for aiding the unbanked and expanding access to affordable financial services.

⁹⁹ U.S. Department of the Treasury, United States Postal Service: A Sustainable Path Forward, 61 (December, 2018)

¹⁰⁰ USPS, Press Statement - Postal Service responds to calls for postal banking (July 29, 2016), available at <https://about.usps.com/news/statements/072916.htm>.

CONCLUSION

Some policymakers have suggested that financial technology isn't designed to replace banking so much as to improve it; however, such a characterization tends to understate who will inherit the customer relationship: the traditional financial institution or the fintech company. Given that the business of banking has always been about cultivating trust, treating members fairly, and understanding the financial needs of current and potential customers, credit unions are well-positioned to negotiate an evolving technological landscape as long as they focus on their core mission of member service. While a certain degree of disruption is inevitable, credit unions have faced worse disadvantages in terms of their ability to expand, lend, and accumulate capital relative to the largest banks.

What credit unions should worry about are companies that can emulate the same type of relationship banking common among community financial institutions, but on a national scale, whether through mobile apps or other innovative forms of technology. To date, nonbanks with extraordinary reach like Amazon, Apple, and Square, have sought to introduce their financial products through intermediary chartered institutions, and others are beginning to consider the benefits of specialized charters. While it remains unlikely that future ILCs or SPNBs will escape the scrutiny of regulators or Congress anytime soon, credit unions should be prepared to take advantage of regulatory changes designed to reward innovation. NAFCU has advocated for a level regulatory playing field, but individual credit unions must decide how they will adapt to changing consumer expectations and business models that can evolve as quickly as new technology.

To provide credit unions with greater certainty in a time of rapid change, NAFCU believes that regulators should adopt a more coordinated approach for addressing the risks and opportunities that accompany fintech disruption. Specifically, the FFIEC should establish a subcommittee that is equipped to identify supervisory gaps, recommend reforms to Congress, and help institutions understand what it means to pursue responsible innovation. By encouraging such collaboration, NAFCU hopes that the NCUA will benefit from the perspectives of other regulators as it identifies ways credit unions can take advantage of fintech to better serve their members and expand access to affordable financial products and services.