Innovative Lending Platform Association

Pursuant to:
https://www.federalregister.gov/documents/2021/05/24/2021-10861/request-for-information-and-comment-on-financial-institutions-use-of-artificial-intelligence

Chief Counsel's Office
Attention: Comment Processing
Office of the Comptroller of the Currency
400 7th Street SW, Suite 3E-218
Washington, DC 20219

Ann Misback, Secretary
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue NW
Washington, DC 20551

James Sheesley, Assistant Executive Secretary
Attention: Comments – RIN 3064-ZA24
Federal Deposit Insurance Corporation
550 17th Street NW
Washington, DC 20429

Comment Intake
Bureau of Consumer Financial Protection
1700 G Street NW
Washington, DC 20552

Melane Conyers-Ausbrooks
Secretary of the Board
National Credit Union Administration
1775 Duke Street
Alexandria, VA 22314

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Re: Comments Regarding Use of Artificial Intelligence and Machine Learning – Docket ID OCC-2020-0049; FRB Docket No. OP-1743; FDIC RIN 3064-ZA24; Docket No. CFPB-2021-0004; Docket No. NCUA -2021-0023

Innovative Lending Platform Association

About ILPA

The Innovative Lending Platform Association (ILPA) is the leading trade organization for online lending and service companies serving small businesses. Our member companies[1] share a commitment to the health and success of our nation's small businesses and are dedicated to advancing best practices and standards that promote responsible innovation and access to capital.

Executive Summary

ILPA members strongly support responsible financial innovation and believe that artificial intelligence and machine learning ("AI/ML") augment business decision-making and risk management practices while enhancing services available to consumers and small business owners. AI/ML is employed by many online small business lenders/financial technology companies ("fintechs") as part of their operational structure and a key element in helping small businesses clients.

AI/ ML technology can enable fintechs to serve more small business owners, particularly businesses in low- and moderate-income ("LMI") areas. In many ways, AI/ML helps fintechs "expand the pie." This is most recently demonstrated by the performance of fintechs participating in the Paycheck Protection Program.

As part of the information-gathering process, federal agencies must recognize that the AI/ML technology continues to evolve to better serve more customers, particularly those in underserved and underrepresented communities. For example, cash-flow underwriting processes that use AI/ML technology have been shown to have the same general predictiveness as traditional models, improved ability to predict credit risk, more inclusiveness and positive fair lending effects.[2] AI/ML technology also continues to evolve, particularly in helping to fight fraud and detect inappropriate or illicit financial activity while more quickly onboarding qualified customers to applications.

ILPA believes that the benefits of continued AI/ML advancements in the coming years will address many of the concerns noted in the RFI, including the ability for financial institutions to assess risk internally and externally, combat fraud and cyber threats, while offering news products and services in a post-pandemic economy.

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[1] A10 Capital, BFS Capital/Nuula, Biz2Credit, BlueVine, Fundbox, Funding Circle, Kabbage/AMEX, Lendio, Mulligan Funding, OnDeck/Enova, Paynet/Equifax

[2] https://finreglab.org/wp-content/uploads/2019/08/FinRegLab-Cash-Flow-Evaluation-Fact-Sheet.pdf

RFI Comments

The U.S. small business sector was greatly impacted by restrictions imposed by governments to promote social distancing. As part of the economic response to the pandemic, policymakers passed the Coronavirus Aid, Relief, and Economic Security Act, Security Act ("CARES Act") which created the Paycheck Protection Program" ("PPP"). The PPP was intended to provide economic relief to small businesses nationwide adversely impacted by the Coronavirus Disease 2019 (COVID-19).

One of the unique features of PPP is that the program did not limit which financial institutions could participate in the program. Over 5,500 lenders — traditional banks, credit unions, financial technology (fintech) firms, community-based financial institutions, and their employees helped their clients overcome the pandemic's economic impact. Thankfully, policymakers chose to leverage financial technology firms as part of the small business relief efforts. Within the PPP, 41 fintechs were collectively the third largest facilitators of PPP based on the number of loans (18 percent) and loan dollars (8 percent) distributed by lender type.

The New York Federal Reserve recently published research notes[3] that financial technology firms served borrowers who would not have received PPP loans otherwise. These borrowers were more likely to lack banking relationships, be minority-owned and have fewer employees. Further research confirms that a higher share of applications by Black-owned businesses were approved by fintech lenders as compared to firms with white, Asian or Hispanic owners.[4]

The ease with which these online lenders can serve such customers, especially in a pandemic, mirrors a larger trend. According to the Federal Reserve's "Annual Small Business Credit Survey,"[5] the number of U.S. small businesses that applied for credit with an online lender increased from 8 percent to 33 percent from 2010 to 2019. In fact, online lenders now disproportionately provide more access to credit to underserved communities than traditional financial institutions.

Online lenders using fintech solutions have been improving the traditional financial services sector and have revolutionized many different markets, especially the online small business lending market. Fintech companies utilize emerging technologies, such as big data, artificial intelligence, blockchain and edge computing to make financial services more accessible and more efficient.[6] AI/ML is a core part of fintechs' operational structures and a key factor in helping small businesses access capital.

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[3] https://libertystreeteconomics.newyorkfed.org/2021/05/who-received-ppp-loans-by-fintech-lenders.html
[4] http://nebula.wsimg.com/c26ae478f12bf4a15666ac250c259240?AccessKeyId=1EB5B81197329425B7C4&disposition=0&alloworigin=1
[5] https://www.fedsmallbusiness.org/medialibrary/fedsmallbusiness/files/2019/sbcs-employer-firms-report.pdf
[6] https://www.uschamber.com/co/run/business-financing/what-is-fintech

The use of AI technology will have a positive economic impact in the coming years. Globally, the AI financial technology (fintech) market is forecast to reach $22.6 billion by the year 2025.[7] Further, according to a recent study, online lending products, which use AI/ML modeling techniques, have the potential to boost economic activity in the U.S. by approximately $698 billion or 3.98 percent of the country's GDP. These modeling techniques can be applied to small business lending to solve significant problems with obtaining traditional business loans.[8]

Before and after the pandemic, access to capital was and is one of the important issues facing most small businesses. Without adequate capital resources, small businesses may not be able to grow or succeed. As SBA's Office of Advocacy notes in a September 2020 report regarding small business lending:

> "Access to credit from lenders is vital for the survival and growth of small firms, an important source of economic growth to the U.S. economy. 99 percent of American firms are small businesses, which employ 47.1 percent of the private sector (SBA Advocacy, 2020a)."[9]

Small-business lending has been a challenge for traditional institutions for a variety of reasons. They have been hamstrung by their regulators and risk committees since the financial crisis and their manual underwriting processes make it difficult for them to effectively monetize very small dollar loans to very small businesses. This has led to a confusing, complex, and frustrating experience for small businesses, resulting in the traditional loan application process taking an average of 26 hours, according to a 2013 Federal Reserve survey.[10] A 2021 Federal Reserve small-business survey found that 23% of businesses that applied for financing did not receive the full amount they sought, while an additional 30% had unmet financing needs.[11]

Online small business lenders using AI/ML technology, unlike many traditional financial institutions, offer the ability to leverage data responsibly to provide a better customer experience and more flexibility. Traditional financial credit models often rely on credit history as part of the loan underwriting process. However, an estimated 45 million to 60 million consumers lack sufficient history to generate reliable credit scores that can be used to predict their repayment risk.[12] Concerns about the predictiveness of information available to underwrite small businesses

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[7] https://www.mordorintelligence.com/industry-reports/global-fintech-market
[8] Filling the Gap, Usman Ahmed, Thorsten Beck, Christine McDaniel, Simon Schropp, Innovations, Volume 10, number 3/4, p. 36 (2016).
[9] https://cdn.advocacy.sba.gov/wp-content/uploads/2020/09/10092858/Report-2019-Small-Business-Lending-Report.pdf
[10] https://www.newyorkfed.org/medialibrary/interactives/fall2013/fall2013/files/full-report.pdf#page=6
[11] https://www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2021/2021-sbcs-employer-firms-report#page=26
[12] Consumer Financial Protection Bureau Office of Research, Data Point: Credit Invisibles 4-6 (2015) (hereinafter CFPB Credit Invisibles); Peter Carroll & Saba Rehmani, Point of View: Alternative Data and the Unbanked 5, Oliver Wyman (2017)

also contributed to many traditional lenders' decisions to reduce their activities in that market in the wake of the 2008 financial crisis.[13]

According to a study of the use of alternative or non-traditional data by non-bank institutions, "cash-flow variables and scores can provide meaningful predictive power among populations and products similar to those studied where traditional credit history is not available or reliable. The cash-flow scores and attributes appeared to separate risk in somewhat different ways than traditional scores and attributes, such that the cash-flow data frequently improved the ability to predict credit risk among borrowers that are scored by traditional systems as presenting similar risk of default. These results occurred across traditional credit score bands. The participants appear to be serving substantial numbers of borrowers who may have historically faced constraints on their ability to access credit, although data limitations did not permit a consistent quantitative analysis to be applied across all companies. Among participants where such data was available, for example, the percentage of borrowers with traditional credit scores below about 650 was approximately 45 to 50 percent. When divided into subgroups based on likely race, ethnicity, and gender, the degree to which the cash-flow data predicted credit risk appeared to be relatively consistent across subpopulations. Moreover, when compared to traditional credit scores, the cash-flow based metrics appeared to predict creditworthiness within the subpopulations at least as well as the traditional scores, and better in selected cases. Overall, the cash-flow data appeared to provide independent predictive value across all groups rather than acting as proxies for demographic group."[14]

The use of cash-flow based underwriting is but one example of how the use of AI-based underwriting and ML can have positive results for small business customers who are denied access via traditional financial services institutions.

ILPA strongly believes that the continued emergence and adaptation of AI/ML technology will generate positive outcomes for small business borrowers and for consumers in general. Part of the emergence will include using AI to combat certain types of financial fraud, including identity, fraudulent transactions and cyberthreats. ILPA supports the responsible use of AI/ML technology because of the many benefits it provides.

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[13] Karen G. Mills, Fintech, Small Business and the American Dream: How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity Chapters 4, 6 [eBook] (2019); Peter Carroll & Ben Hoffman, Financing Small Businesses: How 'New-Form Lending' Will Reshape Banks' Small Business Strategies 3, Oliver Wyman (2013)

[14] https://finreglab.org/wp-content/uploads/2019/08/FinRegLab-Cash-Flow-Evaluation-Fact-Sheet.pdf

Specific questions:

Question 1: How do financial institutions identify and manage risks relating to AI explainability? What barriers or challenges for explainability exist for developing, adopting, and managing AI?

Question 2: How do financial institutions use post-hoc methods to assist in evaluating conceptual soundness? How common are these methods? Are there limitations of these methods (whether to explain an AI approach's overall operation or to explain a specific prediction or categorization)? If so, please provide details on such limitations.

Question 3: For which uses of AI is lack of explainability more of a challenge? Please describe those challenges in detail. How do financial institutions account for and manage the varied challenges and risks posed by different uses?

Answers for Questions 1- 3:

Deep learning ensemble models will continue to pose questions around explainability whilst the U.S. regulatory framework lacks some minimum standard for explainability by application or risk exposure. Federal regulators should closely consider and examine the feasibility of regulating true machine learning and deep learning explainability and contemplate the value of focusing more on outcomes (model outputs, for example credit decisions and credit lift) for consumers and small businesses owners relative to the explainability of model inputs and features, assuming some standard for ECOA compliance.

Thank you for the opportunity to comment on this important topic,

Scott Stewart
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