

FinRegLab Report and Webinar Examine the Policy Implications of AI in Financial Services as Adoption Continues to Accelerate in Credit Underwriting and Other Use Cases

WASHINGTON, D.C., December 7, 2023—FinRegLab is extending its exploration of the adoption of artificial intelligence in financial services through a policy analysis focused on the growing use of machine learning models for underwriting credit and a January 17 webinar with senior federal financial regulators to discuss generative AI and other recent developments.

The [policy analysis](#) expands upon an [overview](#) of FinRegLab’s research findings released earlier this year about new data science tools for understanding and managing machine learning models that are being used to underwrite applications for credit by millions of consumers and small businesses. ML models have the potential to increase accuracy and to expand credit access to populations who have historically been excluded, particularly when combined with new and more representative data sources, but the complexity of some models raises concerns about diagnosing and mitigating performance and fairness issues and determining compliance with regulatory requirements.

Building on interviews and working group discussions with more than 75 subject matter experts, the new report details key policy issues and initial steps that regulators can take to begin updating federal regulatory frameworks that apply to credit underwriting models. For example, articulating what qualities are important for explainability techniques and regulators’ expectations on how and when lenders should search for fairer alternative models could help to encourage responsible use of new technologies.

The [live webinar](#) on January 17 will focus on both policy implications and recent market developments, bridging from the credit context to how financial institutions are approaching generative AI applications that can produce new content in response to queries. While generative AI can potentially be used for chatbots and a range of other functions, initial applications trained on large portions of the internet have raised substantial concerns about reliability, complexity, and data governance.

“As the pace of AI adoption increases, engagement between policymakers and other stakeholders is becoming increasingly urgent,” said FinRegLab CEO Melissa Koide. “Using advanced analytics and new data sources to increase access to responsible financial services could be compelling examples of AI for good, but it’s critical to get the details right.”

Explainability and Fairness Considerations for Machine Learning Underwriting Models

The new policy analysis builds on empirical research conducted by FinRegLab and Professors Laura Blattner and Jann Spiess of the Stanford Graduate School of Business to evaluate explainability and fairness techniques to help lenders understand and manage machine learning models as required by law. Seven technology providers—Arthur, H2O.ai, Fiddler, RelationalAI, SolasAI, Stratyfy, and Zest AI—participated in the empirical study.

The new report considers the implications of machine learning underwriting models and new data science tools for compliance with federal laws governing consumer disclosures, fair lending

analyses, and risk management. It stresses the importance of rigorous research, thoughtful deployment, and proactive regulatory engagement to ensure that any new technology must ultimately benefit borrowers and financial service providers alike. While technologies and market practices are evolving rapidly, the paper notes that defining basic concepts and expectations could be a useful first step toward updating regulatory frameworks for the new era.

Regulators Webinar

Advanced [registration](#) is required for the January 17 webinar, “Getting Ahead of the Curve: Emerging Issues in the Use of AI and Machine Learning in Financial Services.” Discussion will focus on recent developments, consumer protection and safety and soundness concerns with regard to different technology applications, and regulatory tools and initiatives.

FinRegLab CEO Melissa Koide will moderate the panel, which includes:

- Patrice Alexander Ficklin, Director of the Office of Fair Lending & Equal Opportunity, Consumer Financial Protection Bureau;
- Grovetta Gardineer, Senior Deputy Comptroller for Bank Supervision Policy, Office of the Comptroller of the Currency;
- David Palmer, Lead Supervisory Financial Analyst in the Division of Banking Supervision and Regulation, Federal Reserve Board; and
- Keith Ernst, Associate Director, Division of Depositor and Consumer Protection, Federal Deposit Insurance Corporation.

About FinRegLab

FinRegLab is an independent, nonprofit research organization that conducts research and experiments with new technologies and data to drive the financial sector toward a responsible and inclusive marketplace. We also facilitate discourse across the financial ecosystem to inform public policy and market practices.

For media and other inquiries about FinRegLab’s research, email contact@finreglab.org. To receive periodic updates, please subscribe to FinRegLab’s newsletter [here](#).

Support for the Research

The new report is part of a larger project on explainability and fairness in machine learning for credit underwriting that FinRegLab has undertaken with support from JPMorgan Chase, the Mastercard Center for Inclusive Growth, and Flourish. Findings from this project and FinRegLab’s other work focusing on the implications of artificial intelligence for financial inclusion are [available on the organization’s website](#).