

September 22, 2020

Via Electronic Mail comments@fdic.gov

Robert E. Feldman Executive Secretary Attention: Comments Federal Deposit Insurance Corporation 550 17th Street, N.W. Washington, D.C. 20429

Re: Request for Information on Standard Setting and Voluntary Certification for Models and Third-Party Providers of Technology and Other Services, RIN 3064-ZA18

Dear Mr. Feldman:

Upstart Network, Inc. (Upstart) appreciates the opportunity to respond to the Request for Information on Standard Setting and Voluntary Certification for Models and Third-Party Providers of Technology and Other Services (the RFI) issued by the Federal Deposit Insurance Corporation (FDIC).¹

Upstart operates an online lending platform that enables lenders to offer loans to consumers. The platform includes access to a pricing model built by Upstart that uses both traditional and non-traditional credit variables and advanced modeling techniques, such as the use of artificial intelligence (AI) and machine learning (ML) algorithms, to more accurately price consumer credit. Our partnerships with banks supervised by the FDIC (as well as by other Federal and state banking regulators) enable us to observe opportunities for regulators to encourage banks' use of technology to expand and enhance the availability of credit in the United States. We believe that regulators' work in doing so is especially important -- and especially urgent -- now, as our country confronts and manages the economic consequences of the COVID-19 pandemic. In particular, and as described further in this letter, AI/ML credit underwriting models can contribute substantially to the recovery of our country's economy from the COVID-19 pandemic by enhancing credit availability, in a manner that is consistent with fair lending and other consumer protection requirements, and without undermining bank safety and soundness.

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⁸⁵ Fed. Reg. 44,890 (July 24, 2020).

This letter offers the FDIC our perspective as a provider to banks of a credit underwriting model that uses AI. AI enables substantial benefits, including greater efficiencies in the credit underwriting process for banks and, importantly, expanding credit availability for their customers. Despite these benefits, and as the FDIC has recognized by issuing the RFI,² banks' uncertainty about the specific model risk management and governance requirements that apply to AI models, particularly AI models used in credit underwriting, have impeded many of them from using the technology. Further, a significant challenge for many banks is that they lack the internal expertise to manage the oversight obligations which are required if they use complex AI/ML credit underwriting model. Thus, banks have been slow to incorporate AI/ML technology into their credit underwriting functions in part due to regulatory and supervisory uncertainties associated with this technology, especially for banks interested in sourcing of AI/ML credit underwriting models from third-party vendors.

Upstart believes that the FDIC is taking a crucial step by considering how it can promote banks' use of technology, including by removing impediments to banks' partnerships with model developers and other third-party technology service providers. Upstart generally supports the FDIC's approach as described in the RFI, although Upstart also believes there are other approaches that could improve on the status quo almost immediately that we will outline below. If implemented appropriately, the FDIC's approach could greatly improve banks' access to technology, including through partnerships with fintech companies, a result that would enhance credit availability, encourage innovation, and strengthen competition consistent with safety and soundness and with banks' fairness and consumer protection obligations.

Our letter is organized in two parts. In Part A, Upstart outlines several overarching considerations that we believe should inform the FDIC's decision making as it develops a more specific proposal related to a standard-setting and voluntary certification process. In Part B, Upstart responds to certain of the questions in the RFI. In particular, we respond to questions raising issues on which Upstart can add value based on our expertise and experience as a provider of an AI-driven credit underwriting model that is being successfully used by banks today.

A. Key Considerations in Developing a Standard-Setting and Voluntary Certification Process

As described in the RFI, the FDIC envisions a two-part process comprising, first, the establishment of standards by a "standard-setting organization (SSO) working with stakeholders, including government agencies," and, second, the "application of a conformity assessment process provid[ing] assurance that processes, products, or services meet the requirements identified in the standard."³ This certification process would evaluate a particular model's or third-party technology provider's compliance with the applicable standards. As part of this

² "Many financial institutions, particularly community banks, have indicated to the FDIC that sometimes the costs and other resources associated with deploying models or technologies from third parties can be prohibitive." 85 Fed. Reg. at 44,891.

³ *Id.* at 44,892.

process, in the case of a model, Upstart envisions that some or all of the model validation activities described in the model risk management guidance would be conducted by the certification organization (or alternatively, that the certification organization would evaluate validation reports prepared by third parties). If a model is certified by a certification organization, then the FDIC will deem certain of its supervisory expectations to be met with respect to that model.

The following are key considerations that Upstart believes should inform the FDIC's further work on a standard-setting and voluntary certification process.

- 1. For the voluntary certification process to be effective, the FDIC should be clear that, for any particular model and/or third-party technology service provider, a certification of compliance with the standards set by the SSO provided by a certification organization will be accepted by the agency as a conclusive determination that a bank's model risk management and/or third-party risk management satisfy regulatory standards.
 - The standard-setting and voluntary certification process that the FDIC envisions has the potential to increase efficiency and lower costs both for the FDIC and for the banks that use the process. These benefits will only be realized if the process is not duplicative of supervisory activity. Accordingly, it will be important for the FDIC to modify its current guidance, including its model risk management and third-party risk management guidance,⁴ so that it is clear that -- as to the model or service provider that has been certified -- the process is a substitute for, and not a supplement to, an FDIC examination of that model or third-party provider.
 - The FDIC also should make clear what the duration of a certification will be, and the time period should reflect the cost and difficulty of using the process. The certification resulting from a rigorous process should be valid for a period of not less than 3 years, potentially subject to the agency's receiving updates on an interim basis as necessary.
 - Finally, for a third-party provider, the FDIC should clarify the relationship between any voluntary certification process and the FDIC's exercise of its authority under the Bank Service Company Act,⁵ which permits the FDIC in certain circumstances to regulate and examine third-party providers. A thirdparty provider that has received a certification should not be subject to duplicative supervision of those aspects of its operation and condition covered by the certification.

⁴ "Supervisory Guidance on Model Risk Management," FIL-22-2017 (June 4, 2017); "Guidance for Managing Third-Party Risk," FIL-44-2008 (June 6, 2008).

⁵ See 12 U.S.C. § 1867(c).

2. The FDIC should actively promote a unified approach to standard-setting and voluntary certification of compliance by all of the Federal banking agencies and the Consumer Financial Protection Bureau (CFPB).

- The benefits of a standard-setting and voluntary certification process will be substantially diminished if the results are not recognized by all of a bank's Federal regulators. Moreover, perceived or actual competitive inequities may result if FDIC-supervised institutions can use, and potentially advertise that they use, a certified model or service provider but the certification is not available to banks supervised by other Federal regulators.
- A unified approach could still recognize differences among the agencies based on considerations such as institution size. For example, as the RFI suggests, a standard-setting and voluntary certification process may produce the most benefits for community banks. The FDIC could tailor the process accordingly.
- Coordination among the agencies should take account of the differences in focus or jurisdiction among them. For example, banks using credit underwriting models such as Upstart's will want to rely on assurances provided by the agencies not only for safety and soundness purposes but also for fair lending and other consumer protection considerations that lie primarily within the purview of the CFPB. Coordination between the FDIC and the CFPB is essential to avoid confusion about what a certification means -- i.e., what aspects of a model or service provider have been certified -- and uncertainty about why a model or service provider has been certified for one purpose but not another.
- 3. The FDIC should help establish the credibility of the standard-setting and voluntary certification process by ensuring that the SSO, the certification organization, and the agency itself deploy the technical expertise needed appropriately to evaluate both models and model providers.
 - The models banks use, especially AI models, are complex; evaluating them calls for substantial technical skill that is equivalent to the technical skill required for their development. Moreover, in modeling, as in other technology-driven financial activity, change is constant. At the same time, if the results of the process are to be accepted as commensurate with supervision conducted by the FDIC itself, the certification must be respected for its technical accuracy and the process for its fairness and integrity. The FDIC's participation as a primary stakeholder in the development of standards and the credentialing of one or more certification organizations should position it to ensure those results.

4. To facilitate innovation, the standard-setting and voluntary certification process should be implemented as expeditiously as possible, and the FDIC should provide interim relief while the process is being developed.

- The benefits resulting from a standard-setting and voluntary certification process like the RFI describes are significant; Upstart believes accordingly that the standards and the path to certification should be a high-priority project for the FDIC. We recognize that this undertaking is quite substantial, however, and will require time to complete. In our view, it is important that the FDIC address as soon as possible the need of the industry, especially community banks, its fintech partners, and its customers, especially those experiencing the economic consequences of COVID-19, for an approach that will encourage the use of technology that can enhance credit availability as AI-driven models can do.
- Upstart recognizes that the FDIC is not considering substantive revisions to its existing supervisory guidance, such as the model risk management guidance. However, while the guidance itself need not be revised, the creation of standards will necessarily involve clarifying how the guidance applies to particular technologies or in particular situations. We would therefore recommend that in the near term the FDIC issue examiner guidance that would address the gaps in the model risk and third-party risk management guidance documents.
- Alternatively, the FDIC, acting alone or jointly with the other banking regulators, could provide a limited certification to third-party audit firms with demonstrated expertise in AI model validation. The certification would be for the limited purpose of allowing banks to rely on a model the audit firm had validated as compliant with applicable standards. Both the FDIC's certification of the audit firm and the firm's validation of a particular AI model would have a limited duration intended only to bridge the gap in time between the FDIC's initiation of the standard-setting/voluntary certification process and its full implementation.

B. Responses to Select Questions from the RFI

Question 1: Are there currently operational, economic, marketplace, technological, regulatory, supervisory, or other factors that inhibit the adoption of technological innovations, or onboarding of third parties that provide technology and other services, by insured depository institutions (IDIs), particularly by community banks?

As a model developer that partners with banks, Upstart has experienced firsthand how some banks are unable to access the benefits of technology due to uncertainties over their regulatory compliance obligations, and/or inadequate resources to fulfill those obligations. We recognize that the FDIC has issued guidance that addresses both banks' model risk management and their oversight of the third-party technology services providers on which they rely. Current guidance is not targeted specifically to AI models, however, and thus has gaps with respect to the appropriate model risk management governance around those models and what oversight responsibilities banks have when they engage a vendor that uses AI models. These gaps, which

are evident both with respect to the application of model risk management principles to AI technology itself and with the supervisory application of these principles, can discourage banks from using AI-driven models, especially for critical banking activities such as credit underwriting. Development of a well-designed and well-executed standard-setting process and voluntary certification provides an opportunity for the FDIC to address these gaps and resolve the uncertainties related to existing guidance.

In addition, even if the scope of banks' model risk management obligations were clear, some banks – and especially community banks – may not have adequate resources to validate and test AI models developed by third-party technology providers. Upstart believes that centralizing certain model risk management and third-party relationship due diligence functions through a voluntary certification process could significantly reduce the barriers to adoption of a certified model by any individual bank, thereby increasing the adoption of innovative technology including through bank/fintech partnerships.

Question 2: What are the advantages and disadvantages of establishing standard-setting and voluntary certification processes for either models or third-party providers?

The primary *advantages* of the standard-setting and voluntary certification process discussed in the RFI are reduced regulatory costs and increased certainty about regulatory compliance. Individual banks likely would incur significantly lower costs in connection with the adoption of new technologies or the entry into new bank/fintech partnerships than they otherwise would. Affordable technology can therefore enhance an individual bank's ability to compete in an increasingly technology-dependent financial services marketplace. Moreover, the regulatory certainty provided by a voluntary certification should help banks make decisions about whether to use models and whether to rely on third-party technology services providers based on the quality of a given product or service and its merits relative to the bank's business model. The elimination of high cost and needless uncertainty from banks' decision making also should spur healthy competition among fintech companies. Upstart would welcome the opportunity to compete to partner with banks on that basis.

The certification process also could ensure more consistent application of supervisory requirements both within the FDIC and across regulators if a standard-setting and voluntary certification approach is recognized or adopted by other agencies. Taken together, these benefits could result in a significant increase in banks' adoption of new technologies including through entry into innovative partnerships.

There would be a significant *disadvantage* to the process for fintech companies if, in order to obtain a certification, fintechs are required to disclose information about the development or operation of a model, or other proprietary information (which could include trade secrets) without strict protections for confidentiality. The FDIC, which has extensive expertise in protecting highly sensitive information about banks, is well positioned to ensure that appropriate confidentiality safeguards are established for the process.

Fintech companies could also be disadvantaged if the process is difficult, expensive, or time-consuming. One important purpose of standard-setting and voluntary certification would

be to give banks access to innovative technology that they lack the resources to develop for themselves. An unnecessarily complex process that favors large, well established service providers will risk excluding the creative approaches to banking operations that younger firms can provide. Similarly, fintechs will be disadvantaged if the standards applied are rigid and hard to modify. Standards must be sufficiently flexible to accommodate AI/ML models that are constantly evolving as they "learn" from new data.

As we emphasized in our third Key Consideration above, it is essential that certification organizations have the requisite expertise to assess complicated, evolving models. A certification process could have the important advantage for fintech companies of ensuring that their models are evaluated by organizations that deploy the sophisticated technical expertise necessary for accurate results. On the other hand, a certification organization that lacks sufficient expertise would disadvantage fintechs that must then spend additional time educating the certification organization about its model before an assessment can be done.

*Question 3: What are the advantages and disadvantages to providers of models of participating in the standard-setting and voluntary certification process? What are the advantages and disadvantages to providers of technology and other services that support the IDI's financial and banking activities of participating in the standard-setting and voluntary certification process?*⁶

Upstart is both a model provider and a technology services provider. We see significant advantages to participating in the standard-setting and voluntary certification process. We have described the beneficial outcomes we envision in our answer to Question 2. We believe Upstart specifically will benefit because banks, including those that heretofore have been reluctant to consider partnering with us and using our credit risk underwriting model, will be able to assess the value we can add to their business without the burden of high regulatory costs, a need to develop in-house technical expertise sufficient to meet oversight requirements, and significant regulatory uncertainty.

Upstart also believes that it can add significant value in the development phases of creating SSO standards and establishing certification protocols. Upstart has developed and it maintains a credit underwriting model used successfully by banks. Upstart can therefore contribute to the project both sophisticated technical expertise and experience working with partners in the regulated industry. More generally, as we have indicated, it is critically important to the credibility of the process that technical experts have sufficient input into the standards to ensure their effectiveness for purposes of model validation. In addition, model developers must have a role in establishing the voluntary certification process to ensure that the process is no

⁶ Upstart understands Question 3 to be asking about the advantages and disadvantages to model developers of participating in the *initial creation* of the standards and the *initial development* of the certification process, as opposed to the advantages and disadvantages of model developers utilizing the certification process once established.

more invasive or burdensome than necessary to ease the compliance burdens on banks, and thereby to facilitate bank/fintech partnerships and technological innovation in banking.

*Question 4: What are the advantages and disadvantages to an IDI, particularly a community bank, of participating in the standard-setting and voluntary certification process?*⁷

Upstart believes that the participation of banks, and especially community banks, with appropriate technical expertise in the standard-setting process is essential to ensuring that the standards and voluntary certification process is as useful as possible to banks. For example, banks can identify the aspects of the model validation and third-party due diligence that are most troublesome and resource-intensive, and the standards and certification process can be developed so as to address these issues and ease the compliance burdens on banks. In addition, the participation by banks in the creation of the standards and the establishment of the voluntary certification will increase the likelihood that banks will make use of the certification process once it is implemented.

Question 5: Are there specific challenges related to an IDI's relationships with thirdparty providers of models or providers of technology and other services that could be addressed through standard-setting and voluntary certification processes for such third parties?

(1) Are there specific challenges related to due diligence and ongoing monitoring of such third-party providers?

(2) Are there specific challenges related to the review and validation of models provided by such third parties?

(3) Are there specific challenges related to information sharing or data protection?

Based on Upstart's experience, banks face significant regulatory and supervisory uncertainty when adopting AI/ML technology from third-party vendors, particularly with respect to model risk management and third-party relationship risk management principles. These uncertainties include:

- To what extent must a bank understand how a complex AI/ML credit underwriting model operates in order to meet its oversight obligations? The principles in the FDIC's existing Model Risk Management guidance can also be applied to AI model governance, but the existing methods used by the agency's examiners for validating and testing should be revised so they are effective for complex AI models. Validation activities should be conducted at the model level, not at the variable level.
- What level of detail is appropriate for model documentation provided by third-party vendors? Examiners expect banks to develop a "detailed knowledge" of vendor-provided models, but "detailed knowledge" should not require an understanding of the model at code level. Instead, the bank should be expected to have sufficient knowledge to confirm

⁷ Upstart understands Question 4 to be asking about the advantages and disadvantages of banks participating in the *initial creation* of the standards and the *initial development* of the certification process.

that the use of the model is consistent with its prudent operation and safety and soundness with an emphasis on using appropriate metrics and tests for model accuracy.

- To what extent may banks rely on third parties to audit and validate a vendor-provided AI/ML credit underwriting model, in lieu of the bank conducting its own validation or audit? The FDIC's approach to supervision should reflect that the practical application of model risk management principles to vendor-provided AI models will be different than to bank-developed models. Most banks will need to rely on external expertise because of constraints on their resources. The FDIC should confirm that such reliance on third parties is appropriate.
- How much oversight must a bank exercise over a third-party provider's change management with respect to a model? How much discretion should it have over whether to make model changes. It is impractical for a bank to have approval rights for the reasons this letter discusses, i.e., that banks (other than the largest and most sophisticated) do not have sufficient technical expertise in-house to exercise approval rights meaningfully. Banks' rights to receive notice and approve change management procedures should suffice to satisfy regulatory standards.
- How much detail must the documentation given to a bank by a third-party provider contain? The documentation should be sufficient to enable the bank to have a general understanding of the model's operation, but the level of detail should not be such that a bank could, for example, reverse engineer the model.

Question 7: What are the challenges, costs, and benefits of a voluntary certification program or other standardized approach to due diligence for third-party providers of technology and other services? How should the costs of operating the SSO and any associated COs be allocated (e.g., member fees for SSO participation, certification fees)?

Please refer to our answer to Question 2, above, which discusses the costs and benefits of a voluntary certification program from a qualitative standpoint. We are not able to provide a quantitative estimate of costs and benefits without a better understanding of the content of the standards to be applied and how the voluntary certification process would work. As we mention in response to Question 2, however, it will be important to fintech companies that the process be streamlines and not create barriers to entry because it is difficult, expensive, or time consuming.

It is difficult to comment on an appropriate allocation of the costs of operating the SSO and COs without a sense of how much that could be. Upstart is not averse to paying a fee associated with the certification of its model. In general, we think some form of cost sharing among model developers and providers, the banks who benefit from the use of a certified model or provider, and the government could be appropriate so long as it does not provide incentives for conflicts of interest among the participants.

Question 8: Would a voluntary certification process undermine innovation by effectively limiting an IDI's discretion regarding models or third-party providers of technology and other

services, even if the use of certified third parties or models was not required? Would IDIs feel constrained to enter into relationships for the provision of models or services with only those third parties that are certified, even if the IDIs retained the flexibility to use third parties or models that were not certified?

As we have described in previous answers, Upstart believes that innovation already is undermined because some banks are unwilling to bear the costs and regulatory uncertainties associated with the use of models, including models provided by third party partners such as Upstart. While we recognize that there is some risk that a voluntary certification program could be treated as functionally mandatory by banks seeking to adopt a new model or enter into a new partnership with a third-party technology provider, we believe that the benefits of the voluntary certification process outweigh this risk.

In addition, the FDIC could mitigate this risk to some extent by incorporating the standards and certification process into its supervisory program, while making it clear that the certification process is not the exclusive method of satisfying supervisory expectations. This latter approach would require the FDIC to explain the alternative, which could include issuing examiner guidance that addresses what Upstart has identified as gaps in the model risk management and third-party risk management guidance with respect to models that use AI/ML.

Upstart recognizes that the FDIC is not considering substantive revisions to its existing supervisory guidance, such as the model risk management guidance. However, while the guidance itself need not be revised, the creation of standards will necessarily involve clarifying how the guidance applies to particular technologies or in particular situations.

Question 9: What supervisory changes in the process of examining IDIs for safety and soundness or consumer protection would be necessary to encourage or facilitate the development of a certification program for models or third-party providers and an IDI's use of such a program? Are there alternative approaches that would encourage or facilitate IDIs to use such programs?

These benefits of a voluntary certification program will only be realized if the process is not duplicative of supervisory activity. Accordingly, it will be important for the FDIC to modify or supplement its current guidance, including its model risk management and third-party risk management guidance, so that it is clear that -- as to the model or service provider that has been certified -- the process is a substitute for, and not a supplement to, an FDIC examination of that model or third-party provider.

The FDIC also should make clear what the duration of a certification will be, and the time period should reflect the cost and difficulty of using the process. The certification resulting from a rigorous process should be valid for a period of not less than 3 years, potentially subject to the agency's receiving updates on an interim basis as necessary.

Question 10: What other supervisory, regulatory, or outreach efforts could the FDIC undertake to support the financial services industry's development and usage of a standardized

approach to the assessment of models or the due diligence of third-party providers of technology and other services?

The benefits of a standard-setting and voluntary certification process will be substantially diminished if the results are not recognized by all of a bank's Federal regulators. Moreover, perceived or actual competitive inequities may result if FDIC-supervised institutions can use, and potentially advertise that they use, a certified model or service provider but the certification is not available to banks supervised by other Federal regulators.

Coordination among the agencies should take account of the differences in focus or jurisdiction among them. For example, banks using credit underwriting models such as Upstart's will want to rely on assurances provided by the agencies not only for safety and soundness purposes but also for fair lending and other consumer protection considerations that lie primarily within the purview of the CFPB. Coordination between the FDIC and the CFPB is essential to avoid confusion about what a certification means -- i.e., what aspects of a model or service provider have been certified -- and uncertainty about why a model or service provider has been certified for one purpose but not another.

Question 11: For which types of models, if any, should standards be established and a voluntary certification process be developed? For example, is the greatest interest or need with respect to:

(1) Traditional quantitative models?
(2) anti-money laundering (AML) transaction monitoring models?
(3) customer service models?
(4) business development models?
(5) underwriting models?
(6) fraud models?
(7) other models?

It may be appropriate to adopt different sets of standards, tiered standards, or variations on a baseline set of standards, to account for different model types. For example, more rigorous standards may be required for credit underwriting models, which impact a bank's core lending function, versus business development models, which are used only for internal business planning purposes.

In addition to different standards for different model types, Upstart would welcome the development of standards specific to models that utilize AI/ML technology, and in particular, AI/ML-based credit underwriting models. AI/ML credit underwriting models pose a particular challenge to effective model validation because (i) the mechanics of an AI/ML credit underwriting model are likely to be substantially more complex than non-AI/ML credit underwriting models, and (ii) AI/ML credit underwriting models may rely on inputs or variables that are ill-suited to traditional validation activities, as these inputs or variables may be predictive only in the context of a specific model or combination of variables.

Question 12: Which technical and operational aspects of a model would be most appropriate for evaluation in a voluntary certification program?

In general, the most technically intensive activities and those that most heavily involve a third-party model developer's intellectual property are most appropriate for evaluation in a voluntary certification program.

Question 13: What are the potential challenges or benefits to a voluntary certification program with respect to models that rely on artificial intelligence, machine learning, or big data processing?

Please refer to our answer to Question 2.

Question 16: To what extent would a standards-based approach for models or third-party providers of technology and other services be effective in an environment with rapidly developing technology systems, products, and platforms, especially given the potential need to reassess and reevaluate such systems, products, and platforms as technologies or circumstances change?

Upstart believes that the standards contemplated in the RFI could be designed to account for the rapid pace of technological development. For example, the SSO could develop a core set of standards that are technology neutral and principles based, in order to remain adaptable and avoid becoming quickly outdated as available technologies change and improve. However, the SSO could also produce supplemental standards, or commentaries to the core standards, that apply to specific technologies and may be updated on a more frequent basis.

Question 18: Given that adherence to SSO standards would be voluntary for third parties and for IDIs, what is the likelihood that third-party providers of models or services would acknowledge, support, and cooperate with an SSO in developing the standards necessary for the program? What challenges would hinder participation in that process? What method or approaches could be used to address those challenges?

Notwithstanding the voluntary nature of the certification process, Upstart would be an enthusiastic participant in the development of the standards and the implementation of the certification process. The FDIC can ensure that the certification process remains voluntary, while at the same time encouraging banks, model developers, and third-party technology providers, to utilize the certification process by incorporating the certification process as a non-exclusive safe harbor into its supervisory program. In this context, "safe harbor" means that for any particular model and/or third-party technology service provider, a certification of compliance with the standards set by the SSO provided by a certification organization will be accepted by the FDIC as a conclusive determination that a bank's model risk management and/or third-party risk management satisfy regulatory standards.

Question 21: What benefits and risks would certification organizations provide to IDIs, third parties, and consumers?

Please refer to our answers to Questions 2 and 3.

Upstart believes that the primary advantage of the voluntary certification process contemplated in the RFI is that, by centralizing certain model risk management and third-party relationship due diligence activities at a certification organization, individual banks would incur significantly lower costs in connection with the adoption of new technologies or the entry into new bank/fintech partnerships than they otherwise would.

In addition, the certification of a model or third-party technology provider under welldefined standards that have been endorsed by the FDIC and adopted into the FDIC's supervisory framework would remove regulatory uncertainties that stand as an obstacle to bank/fintech partnerships and technological innovation in banking.

Upstart believes that a well-designed voluntary certification process could yield the benefits described in some of our previous answers. However, this process could actually impede bank/fintech partnership and technological innovation if the certification process is unduly burdensome. For this reason, the FDIC should ensure that the certification process is no more invasive or burdensome than necessary to size the compliance burdens on banks commensurate with their resources and expertise, and to facilitate their access to technology driven innovation in banking, including through responsible bank/fintech partnerships.

This is particularly the case with respect to updates of existing models, and the ongoing monitoring (as contrasted with the initial due diligence) of third-party technology providers. For example, Upstart envisions that where a newly developed model is seeking to be certified for the first time, the certification process will necessarily be more involved. However, where a model has already been certified, a less comprehensive process may be used to monitor the model on an ongoing basis, including model updates that do not fundamentally change the certified model. In addition, there is some risk that certification organizations could act as a rubber stamp without meaningfully assessing a model or a third-party technology provider's compliance with standards. To mitigate against this risk, the FDIC should maintain an active oversight role over the SSO and certification organizations.

Question 22: To what extent would COs be effective in assessing compliance with applicable standards in an environment with rapidly developing technology systems, products, and platforms, especially given the potential need to reassess and reevaluate such systems, products, and platforms as technologies or circumstances change?

Upstart believes that the standards contemplated in the RFI could be designed to account for the rapid pace of technological development. For example, the SSO could develop a core set of standard that are technology neutral and principles based, in order to remain adaptable and avoid becoming quickly outdated as available technologies change and improve. However, the

SSO could also produce supplemental standards, or commentaries to the core standards, that apply to specific technologies and may be updated on a more frequent basis.

Similarly, provided that certification organizations remain abreast of developments in the core standards and other guidance released by the SSO, Upstart believes that certification organizations could remain effective in assessing compliance with standards despite the rapid pace of technological development.

Question 23: For model validation and testing, would COs evaluate a model based solely on reports, testing results, and other data provided by the third-party provider of the model? Or would the COs need to test the model and generate their own test results? What steps would the COs need to take to protect the intellectual property or other sensitive business data of the third party that has submitted its model to the validation process?

It is essential that certification organizations (COs) recognize the need to protect the intellectual property of fintechs that develop models and provide them to banks. The precise nature of the protections could be tailored according to the CO's activities, if any, in addition to model or third-party provider validation. For example, if the CO is a private-sector company that conducts other business besides model and third-party provider certification, there could be a heightened risk that sensitive information obtained through validation exercises could be used for other purposes. At a minimum, Upstart would expect to enter into a robust confidentiality or non-disclosure agreement with a CO. The FDIC also should consider whether it could provide regulatory disincentives to COs' disclosure or misuse of proprietary or other sensitive information.

Question 24: If COs receives derogatory information indicating that a certified third party or certified model or technology no longer meets applicable standards, should the COs develop a process for withdrawing a certification or reassessing the certification?

(1) If so, what appeal rights should be available to the affected third party?

(2) What notification requirements should COs have for financial institutions that have relied on a certification that was subsequently withdrawn?

(3) Should the FDIC or Federal/state regulators enter information sharing agreements with COs to ensure that any derogatory information related to a certified third party or certified model or technology is appropriately shared with the COs?

Upstart believes that the procedures for when a certifying organization receives derogatory information regarding a certified model or certified third-party technology provider need not be "one size fits all," but rather should be risk-based and tailored to the type of model, the extent of the model's use, and the nature and significance of the derogatory information. COs should have a framework for risk rating the severity of a finding, with defined procedures for remediation of each level of severity. In general, the procedures should provide for notice to the model developer that describes the derogatory information, include recommendations for remediation of any deficiency identified by the CO, and allow the model developer to "cure" a deficiency within the certified model before the certification is revoked. Withdrawal of a

certification should be reserved for serious deficiencies. In unusual cases, such as where the derogatory information indicates that a widely used model may undermine the safety and soundness of banks that have adopted such model, it may be appropriate for the certifying organization to take immediate action, such as by alerting banks and/or the FDIC of the development.

In all events, Upstart believes that there should be an appeals process for model developers to challenge adverse determinations by the certifying organization. As a general matter, Upstart encourages the FDIC to look to existing standard-setting bodies for examples of how the standard-setting and voluntary certification process contemplated in the RFI might operate, particularly with respect to procedural matters.

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Upstart appreciates the FDIC's initiative in seeking information on a standard-setting and voluntary certification process for models and model providers and is pleased to have the opportunity to comment in response to the RFI. Should you have questions, please contact the undersigned by phone at (408) 596-6563 or by email at alison@upstart.com.

Sincerely,



Alison Nicoll General Counsel Upstart Network, Inc.