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March 21, 2019

Alfred M. Pollard, General Counsel
Attention: Comments/RIN 2590-AA98
Federal Housing Finance Agency
400 7th Street SW, 8th Floor
Washington, D.C. 20219

RE: Proposed Rule on Process for Validation and Approval of Credit Score Models

Dear Mr. Pollard:

Fair Isaac Corporation ("FICO"[1]) submits this letter in response to the Federal Housing Finance Agency's ("FHFA") proposed rule published December 21, 2018 on the process for validation and approval of credit score models by Fannie Mae and Freddie Mac (together, the "Enterprises").

FICO appreciates the opportunity to offer input on this important topic. FHFA is responsible for ensuring that the Enterprises operate in a safe and sound manner and continue to serve as a reliable source of funding for housing finance. FICO applauds FHFA for continuing its multiyear efforts to solicit and consider input on this subject from stakeholders across the mortgage industry.

Since 1995, FICO has been the trusted provider of the FICO® Score for the Enterprises. It has earned this position based on its independence and success in predicting consumer credit behavior since the Enterprises adopted the FICO Score nearly 25 years ago. FICO is neither a credit bureau nor owned or controlled by the credit bureaus. Rather, it is an independent analytics provider that uses data obtained from the credit bureaus, and from other sources, to develop predictive credit score models. Because of this independence, FICO's predictive scores are free from conflicting incentives that could exist were they provided directly by the credit bureaus or by an entity owned or controlled by a credit bureau, and the predictive performance of its scores has solidified its place as a trusted partner throughout the credit markets, including the mortgage market.

FICO strongly supports the proposed rule's rigorous process for the Enterprises' assessment of credit score models. Pairing testing and validation with a comprehensive evaluation of costs and benefits of adopting new credit score models will promote credit availability, ensure the Enterprises' safety and soundness, and foster a liquid and resilient mortgage market. Below, FICO provides input on that process and the questions FHFA raised in its proposed rule. FICO

[1] Founded in 1956 and based in Silicon Valley, FICO is a pioneer in the use of predictive analytics and data science and helps organizations around the world make better business decisions. FICO is best known for pioneering credit scoring systems in the 1950s, which led to the development of the FICO® Score and the democratization of access to credit.

strongly supports conducting pilot programs, where prudent, to test a prospective new credit score model's accuracy and establish its historical record of measuring and predicting mortgage outcomes, as required by statute. This is where innovation and competition will flourish, as new modeling techniques and the use of data other than traditional credit report data can be tested to determine its predictive value, and will allow the Enterprises to expand access to credit in a safe and sound manner.

Ultimately, the Enterprises are responsible for selecting a credit score model that preserves safety, soundness, and market liquidity. FICO has been the credit score standard-bearer in the mortgage market for nearly a quarter century, and outside the mortgage market for even longer. FICO's credit score models are tested and proven by thousands of lenders. It continuously explores innovative modeling techniques and datasets to improve the ability to score potential borrowers more accurately, reliably and broadly. The Enterprises can adopt more recent FICO® Score versions knowing that they have been rigorously scrutinized and accepted by lenders, rating agencies, investors, regulators and other important stakeholders. Any credit score models the Enterprises decide to use should reflect the same high market acceptance standards.

FICO previously provided input to FHFA's extensive information-gathering process, including in response to its Credit Score Request for Input ("RFI") issued December 20, 2017. FICO attaches its response to the RFI, and requests that it be incorporated by reference into this comment.

I. Executive Summary

FICO supports a thorough assessment process that ensures the Enterprises are relying on the credit score that best meets their risk management requirements. As explained in greater detail below, FHFA's final rule should address the following:

- Alignment of Process and Approvals. The Enterprises should align their assessment processes and decisions on approved credit score models to decrease operational burden, ensure greater consistency in ranking outcomes, prevent adverse selection, and foster liquidity and efficiency in the secondary mortgage markets.

- Demonstrated Use. The Enterprises should require a model developer to show that its credit score model meets a specified standard of substantial use in originating and securitizing consumer credit products of the same credit quality as the conventional, conforming mortgage loans that the Enterprises purchase and securitize.

- Pilot Programs and Promotion of Competition. The Enterprises should conduct pilot programs for credit score models that cannot meet that specified standard of substantial use in the industry. Pilot programs should also be used for assessing credit score models that leverage non-traditional data sources, or that lack demonstrated historical performance across all the segments that are claimed to be scored. The pilot programs should include model testing across the populations and market conditions they are intended to address. Such programs support innovation and competition, and ultimately expand access to credit.

- Conflicts of Interest. To foster true competition and innovation, model developers must be independent of the influence of owners of the data used to develop and test the scores.

- Subgroup Testing. The Enterprises must test a credit score model's accuracy on distinct subgroups of loans, including, when scored by the model, consumers new to credit, those who are involuntarily inactive, and those who are credit retired.

- Transitional/Champion-Challenger. In order to avoid severe disruptions initially, and then to ensure approval of a sufficiently accurate and reliable model, the final rule should initially allow for the approval of the FICO® Score versions currently in use by the Enterprises, and then transition to a champion-challenger approach.

- Comprehensive Enterprise Business Assessment. After a thorough credit score assessment, the final rule must include a consideration of all costs of adopting a new credit score for all of the purposes used by the Enterprises and throughout industry, including not only a new credit score's effects on Enterprise product parameters and guarantee fees, but also on Enterprise capital requirements, liquidity in the secondary mortgage market, investors, borrowers, and other industry participants.

II. Required Use of a Credit Score

As the proposed rule notes, the Enterprises are not required to use a credit score at all or for any purpose.[2] To the extent the Enterprises condition the purchase of mortgages on the provision of a credit score, they now are legally-bound to assess the accuracy, reliability, and integrity of the score. FICO has always supported a competitive review of credit scores by FHFA and the Enterprises. Certainly, the Enterprises have been free to replace FICO at any time since they owe no obligation – contractual, legal, or otherwise – to FICO or the FICO Score. If a new credit score better meets the Enterprises' risk management requirements, the Enterprises are free to adopt that score. This threat of replacement is the very essence of competition.

III. Alignment of the Enterprises

FHFA proposes a solicitation, validation, and approval process that will occur simultaneously at both Enterprises, but could allow them separately to assess and make determinations about credit score models. The Enterprises could, if the proposed rule were finalized as written, adopt separate processes, conduct separate assessments, and reach different decisions about which credit score model or models is or are validated and approved for use. However, FHFA indicates that it may direct the Enterprises to align their assessment processes and decisions on approved credit score models. FICO strongly urges FHFA to revise the final rule so that the Enterprises are required to align their assessment processes and to adopt the same credit score model.

During FHFA's RFI process, industry stakeholders "universally" agreed on the need for alignment between the Enterprises.[3] For all the operational burdens the RFI described in

[2] Validation and Approval of Credit Score Models, 83 Fed. Reg. 65,590 (proposed Dec. 21, 2018) (to be codified at 12 C.F.R. § 1254).

[3] *See* RFI at p. 16, *available at* https://www.fhfa.gov/Media/PublicAffairs/PublicAffairsDocuments/CreditScore_RFI-2017.pdf.

adopting a new credit score model[4], those burdens would be multiplied if the Enterprises take divergent approaches to assess and approve different models. As a result, the associated costs may outweigh any benefits that new credit score models could provide.

Aside from operational burdens and costs, the Enterprises' adoption of different credit score models raises significant risks. Different credit score models have different odds-to-score relationships and model construction, making it impossible to effectively map them against each other (to determine whether, for example, the same consumer would be ranked as the same relative risk from model to model, and from Enterprise to Enterprise). FHFA recognized this inability in its RFI, noting that the differences may not be correctible.[5]

Approving different credit score models also would likely lead to adverse selection. Market participants could arbitrage between Enterprises through score-shopping, leading to the possibility that a swap set of loans with low scores that are rejected by one Enterprise are instead approved by the other. Should this happen, the portfolio of purchased loans could unexpectedly reflect proportionately higher risk and lower scores than would otherwise be the case if the Enterprises were using the same credit score.

Finally, lack of alignment would significantly hamper efficiency and liquidity in the secondary mortgage market. One of the main purposes of the Enterprises is to "foster liquid, efficient, competitive, and resilient national housing finance markets."[6] To that end, FHFA has been working with the Enterprises for years on a uniform mortgage-backed security, with broad support from the industry, recognizing that alignment of certain distinct policies and procedures will promote efficiency and lower costs. That pursuit of uniformity would be seriously hampered unless the final rule directs the Enterprises to align the approval of their credit scores.

IV. Solicitation of and Applications for Credit Score Models

A. Periodic Solicitation of Applications

The proposed rule would call for FHFA to cause the Enterprises to solicit applications from model developers generally every seven years.[7] FHFA believes that "[r]equiring a solicitation any more frequently would lessen the likelihood that the benefits of transitioning to a new score would outweigh its costs..."[8]

Requiring the Enterprises to solicit new credit score models every seven years provides a reasonable timeframe for the Enterprises to test and validate new credit score models. In FICO's experience, large financial institutions do not frequently update their credit score models. Instead, models are updated every five to seven years in order to capture new data assets or

[4] *See* RFI at p. 16-17.
[5] "While FICO and VantageScore use the same score range, their credit scores are not interchangeable because of the minimum scoring criteria . . ., which leads to a different universe of 'scorable consumers' and a different credit score distribution for each model. The score difference between FICO 9 and VantageScore 3.0 cannot be addressed or corrected by simply adding or subtracting a fixed number of points from either score because each model rank orders borrowers somewhat differently." RFI at p. 14.
[6] 12 U.S.C. § 4513.
[7] 83 Fed. Reg. 65,590.
[8] *Id.* at 65,580.

changes in consumer behavior. More frequent updates would impose large implementation costs on industry along with requiring significant model governance review, which, taken together, may outweigh the benefits associated with a credit score model that is likely only marginally more predictive. On this basis, FICO supports the proposed rule's seven-year timeframe for solicitations, although more frequent solicitations may be appropriate where there are large-scale changes in technology or consumer behavior that newer credit score models or version may capture.

B. Application Fees – "Reasonable Costs"

The proposed rule provides that the Enterprises may assess each model developer for the cost of any historical consumer credit data necessary for testing its credit score model, which would be included in the application fee or in addition to such fee.[9] FICO generally agrees with this approach. However, as an independent analytics provider, FICO does not control access to or the price of credit bureau archive data or other data necessary to test and validate score models. This is undoubtedly true of other model developers that may respond to Enterprise solicitations. As a result, FICO and other model developers may have no way to compel the credit bureaus or other data owners to provide the data at reasonable fees or at all. Accordingly, FHFA should clarify that the Enterprises may assess applicants for "reasonable costs" associated with the acquisition of third-party data and credit scores by explicitly citing it within the text of the final rule (as mentioned in the rule's preamble with respect to the costs intended to be recovered by the application fee).[10]

C. Fair Lending Certification

The proposed rule would require that each application "address compliance of the credit score model and the credit scores produced by it with federal fair lending requirements, including information on any fair lending testing and evaluation of the model conducted."[11] The proposed rule also would require that each application include a certification that no characteristic that is based directly on or is highly correlated solely with a classification prohibited under the Equal Credit Opportunity Act, Fair Housing Act, or Safety and Soundness Act (the "fair lending laws") was used in the development of the credit score model or is used as a factor in the credit score model to produce credit scores.[12]

FICO strongly supports measures designed to ensure that proposed credit score models comply with fair lending laws and, therefore, supports FHFA's proposed certification. Further, in the preamble to the proposed rule, FHFA states that "an Enterprise would not necessarily have access to the factors used in the development of the credit score model or used by the credit score model to produce credit scores..."[13] To provide the Enterprises with insight into the factors used in credit score model development, FICO recommends that FHFA require model developers to submit the score factors or reason codes associated with the credit score model under

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[9] *Id.* at 65,591.
[10] *Id.* at 65,582.
[11] *Id.* at 65,590.
[12] *Id.*
[13] *Id.* at 65,582.

consideration. FICO makes publicly available the list of reason codes currently used by the FICO® Score.[14]

D. Demonstrated Use

As part of the application process, the proposed rule would require the model developer to demonstrate use of its credit score to make credit underwriting decisions. FICO strongly agrees that the final rule must, consistent with the statute, require a robust demonstration that creditors have used a proposed credit score model in underwriting credit decisions. The final rule also should require the model developer to demonstrate use of the credit score in the secondary credit markets. In both cases, the model developer should be required to demonstrate an objective degree of substantial use. The final rule should ensure that credit score models that cannot demonstrate substantial use are only considered for a pilot program.

While the rule as proposed would require each model developer to demonstrate use of the credit score, it would not establish any minimum standards for that showing. The proposed rule states only that the Enterprises may permit demonstration of use through the submission of creditor testimonials. However, a testimonial by a single credit-granting organization (or perhaps even a very limited number of organizations) should not constitute sufficient use of the credit score to satisfy the purpose of (and statutory requirement for) this demonstrated use factor. While FHFA may see reason to provide the Enterprises some flexibility to determine the type and extent of use they require in approving a credit score model, FICO urges FHFA to include in the final rule an objective and quantifiable standard of substantial use.

For example, the final rule could require a model developer to show that its credit score has been used in a specified minimum percentage of originations of consumer credit products (e.g., residential mortgage loans, auto loans, and credit cards) over a 12-month period. Those credit product originations in which the credit score was used should be of the same credit quality (i.e., consumers with a similar credit profile) as the conventional, conforming mortgage loans that the Enterprises purchase. In addition, the rule could require a model developer to show that its credit score has been used in securitizations for at least a specified minimum percentage of the scores disclosed to investors in the pooling and securitization of consumer products that are, again, of the same credit quality as Enterprise loans. Regardless of the actual percentage the final rule adopts, it is important that the "demonstrated use" standard rely upon an objective measure of substantial use across the markets for the underwriting and securitization of consumer credit products made to individuals with similar credit profiles as those who obtain conventional conforming residential mortgage loans.

E. Test-and-Learn Pilot Programs

As FHFA recognizes, requiring demonstrated use – while critical and mandated by Congress – may be difficult for newly-developed credit score models. Accordingly, as mentioned above, FICO strongly supports the Enterprises' participation in "test and learn" pilot programs. These pilot programs will allow innovative developers to market-test their models and demonstrate the accuracy, reliability, and integrity that the mortgage finance system requires. This is particularly

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[14] *US FICO® Score Reason Codes*, FICO (2013), https://www.fico.com/en/resource-download-file/3425.

important when testing credit score models that leverage non-traditional data sources, or that lack demonstrated historical performance across all of the segments that are claimed to be scored.

Such pilots will benefit the Enterprises by protecting them from new credit score models that might appear to function well in validation but that do not perform well in actual market situations. Pilot programs will also enhance innovation and further competition by allowing the Enterprises to better assess a broader array of credit score models. Many federal regulatory agencies, state governments, and municipalities are developing regulatory "sandboxes" and innovation labs to foster creative problem-solving and to allow them to keep pace with regulatory and marketplace changes. Similarly, by allowing testing in a controlled and time-bound environment through a test-and-learn pilot program, the Enterprises can ensure that any assessment of and reliance on a new, innovative credit score model will be consistent with their safe-and-sound operation and the fulfillment of their public mission. Once a model successfully completes a pilot program, it would then be eligible to undergo a Credit Risk Score Assessment under the final rule.

F. Certification Regarding Conflicts of Interest

FICO strongly supports the proposed rule's requirement that a model developer certify that no owner of consumer data necessary to construct its credit score model is related to the developer through any degree of common ownership or control.[15] While the question of credit score models in housing finance is often depicted as one of competition, in reality, the choice is independence or consolidation. As FHFA is aware, VantageScore is a credit score model owned by the three large credit bureaus: Equifax, Experian, and TransUnion. Selecting a credit score model developed by the owners of necessary consumer credit data would, as FHFA has recognized, be a move toward further consolidation. A strong conflicts-of-interest standard would ensure independence and foster competition so that the approved model is accurate and reliable, and available to the industry at a reasonable price.

Competition in the mortgage industry for credit data is impacted by the tri-merge credit report requirement. Due to the tri-merge requirement, the credit bureaus do not compete in the conforming mortgage market the way they do in other consumer credit markets. That provides the credit bureaus, and any score they develop, whether individually or jointly, broad economic power, with control over the pricing and distribution of both credit reports and scores. It may also provide little incentive for innovation or improvement. If FHFA does not prevent such barriers and disincentives, data owners like the credit bureaus could use that power in favor of the score they own and control.

The prohibition in FHFA's proposed rule against any "owner of consumer data necessary to construct the credit score model [that] is related to the credit score model developer" would be more likely to foster, and not eliminate, needed competition. Every model developer should be able to compete on the merits of its product, free to the greatest extent possible from the structural unfairness of the current tri-merge system. The Enterprises must be required and allowed to judge competing scoring approaches and their effects on reliability and performance based solely on the merits, without the inevitable distortions brought about by data owners'

[15] 83 Fed. Reg. 65,590.

simultaneous control of the data, the credit score model, and the means of credit score distribution. Accordingly, FICO strongly supports the proposed rule's requirement that a developer provide a certification with respect to conflicts of interest.

The proposed rule provides that common ownership or control (or specifically, the lack thereof) would be determined without regard to type or amount of control. FHFA, according to the proposed rule's preamble, has not identified a degree of common ownership or control that would clearly mitigate its concerns, but it has asked for comments regarding whether there are examples of common ownership or control by type or amount that would not reasonably give rise to anti-competitive concerns. As strongly as FICO supports a standard of independence in determining an eligible credit score model developer, it is concerned about unintended consequences. As a public company, FICO cannot control the purchase of its publicly-traded shares. Managers of open-end mutual funds, for example, might decide to take a position in a public company on behalf of the holders of the various mutual funds it manages. Pension funds, as well as individual investors, may purchase publicly traded shares. In those cases, it is possible that the individual or institutional investor may simultaneously hold shares in a publicly-traded credit score model developer and a publicly-traded data owner, now existing or formed in the future, even though the amount of the holdings generally would be perceived as immaterial and insufficient to enable the holder to exercise influence over the companies in question. For this reason, FHFA should consider a definition of control that avoids unintended consequences that may be caused by *de minimis* ownership interests in publicly-traded companies.

At the same time, the concept of control should apply to owners individually and collectively. While a given data owner may own only a limited percentage of a model developer, the ownership and power of two or more such data owners may collectively rise to an inappropriate level of control under the final rule's threshold. Finally, FHFA should consider including a requirement in the final rule that a model developer notify the Enterprises and FHFA if, at any time during the assessment process or following the Enterprises' approval of the developer's credit score model, the developer's ownership meets or exceeds that minimum control threshold. The final rule also then should provide for a review and transition process in connection with an approved credit score model under those circumstances.

G. Model Developer Qualifications

The proposed rule also would require an applicant to include any information required by an Enterprise to evaluate the model developer, such as relevant experience and financial capacity. That information must include, at a minimum, a description of the model developer's corporate structure (including any business relationship to any other person through any degree of common ownership or control); governance structure; and past financial performance, including audited financial statements for the preceding three years.[16] Obtaining audited financial statements and information about corporate structure and ownership is a standard practice in assessing counterparty risk, and it supports the model developer's required certification regarding the lack of conflicts of interest, as discussed above. FICO is transparent with respect to its corporate

[16] *Id.* at 65,591.

governance and financial performance[17], and all model developers should be held to that same standard.

H. Notices

The proposed rule would require the Enterprises to provide certain notices to applicants regarding the status of their applications.[18] For instance, the Enterprises would be required to provide applicants with notice of any missing application details and a status notice within 60 days after submission.[19] This timeframe for an initial notice is generally adequate, but additional progress notices during the assessment process would be helpful. For instance, since independent model developers like FICO do not directly own or maintain the credit data necessary to complete their applications, it would be helpful for the model developer to know when the Enterprises have requested and received the data necessary for testing and validation from the credit bureaus. At a minimum, FICO suggests that the final rule require the Enterprises to provide an anticipated schedule of assessment milestones, designed to meet the statutory assessment deadlines, and a notification when the Enterprises have received all information required and that the model developer's application is complete.

V. Assessment of Applications

FICO generally supports the testing strategy within the proposed rule, although certain improvements, as suggested below, would better align testing with the needs of the Enterprises and industry stakeholders.

A. General Testing Criteria

As an initial matter, FHFA requested comment on whether the Enterprises should conduct testing for each application jointly.[20] Joint testing would be preferable, but at a minimum the Enterprises should be required to be aligned on a common methodology and performance metrics. For example, an important testing issue relates to the importance of the definition of "default" in properly calibrating accuracy testing. That definition includes two parts: the occurrence of an event of default and a time horizon during which the default has occurred.[21] FHFA notes that the generally accepted definition of default is a 90-day delinquency during the initial two year period following loan origination, and that it generally expects the Enterprises to use this definition of default.[22] FICO supports the use of this standard definition. This will ensure that the Enterprises are aligned with industry when conducting accuracy testing.

With respect to the use of third parties for testing, while reliance on outside parties to test credit score models may be practical and efficient, it is vitally important that FHFA establish minimum standards for those testing entities – for their qualifications, independence, and methodology. The Enterprises should be allowed to use third-party testing entities only to the extent those third

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[17] *Investors,* FICO, https://www.fico.com/en/investor-relations.
[18] 83 Fed. Reg. 65,591.
[19] *Id*.
[20] *Id*. at 65,583.
[21] *Id*.
[22] *Id*.

parties have sufficient experience testing credit score models in the United States. Further, similar to the model developers themselves, any third-party testers on which the Enterprises rely should certify and establish that they have no ownership or control relationship with the applicants or other interested parties, or other potential conflict of interest that would affect their ability or incentive to provide impartial and objective results. Moreover, FHFA should ensure that the Enterprises enter into appropriate agreements with any such third-party firms to protect the valuable intellectual property to which such firms may be exposed during the testing process. This is particularly important if the party conducting the tests is affiliated with other credit score model providers (although, as mentioned above, the rule should prohibit such affiliations); it remains important even with fully independent testers, given the valuable intellectual property involved in these evaluations.

B. Testing Must Include Loan Subgroups

The proposed rule also requires that an Enterprise test a credit score model's accuracy on subgroups of loans.[23] For instance, FHFA has suggested that subgroup testing could include testing of the model on loan-to-value groups, credit score groups, thin credit file loans at origination, new credit files, and files with a past delinquency.[24]

FICO fully supports FHFA's emphasis on ensuring that the Enterprises test the credit score model's accuracy on a loan subgroup level. As FHFA has noted, this is particularly important with regard to the historically nonscorable population of consumers with limited to no credit files. However, based on FICO's experience, that population consists of a variety of distinct subgroups that must be evaluated separately in order to determine whether credit scores obtained from a model for these populations meet the Enterprises' standards of accuracy. Specifically, these distinct subgroups must include the following:

- <u>Consumers New to Credit</u>: Credit files with no accounts that have been opened for six or more months.

- <u>Consumers Who May Be Involuntarily Credit Inactive</u>: Borrowers who are currently inactive in the credit market and who have derogatory information (such as a past delinquency) on file.

- <u>Credit Retired Consumers</u>: Borrowers who are currently credit inactive and who do not have derogatory information on file.

It is easy to claim that a new model can score currently nonscorable consumers, but it is much harder to score those consumers accurately in practice. The purpose of well-constructed minimum scoring criteria is to ensure that a credit score is not returned in cases where there is insufficient credit data available to generate a reliable and accurate assessment of credit risk. Requiring an Enterprise to test models based on key subgroups of consumers that the credit score model claims it is able to score will better protect the Enterprises from credit risk related to difficult to score populations.

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[23] *Id*.
[24] *Id*. at 65,584.

As emphasized above, the Enterprises can and should rely on pilot programs for new models that go beyond conventional minimum scoring criteria to score consumers in the subgroups above so that those models can prove they can accurately score those consumers in practice, under actual market conditions rather than just in theory. A credit score model's ability to accurately score these subgroups cannot be validated effectively because there is insufficient historical performance data available, and the performance data that is available is biased (i.e., not granted based on data in the credit file). All pilot applicant scores that assess segments not typically scored by conventional models should be assessed and compared against each other (particularly considering that there would be no incumbent credit score model to use in a champion-challenger approach). Rigorous use of pilot programs will ensure that traditionally nonscorable consumers gain greater access to credit, while also promoting the safety of the Enterprises and the stability of mortgage credit markets.

C. Assessment Approaches

1. Transitional, then Champion-Challenger Approach

The proposed rule describes a number of different approaches for evaluating the results of credit score model testing. FHFA has requested comments on all of the approaches mentioned in the proposed rule and on whether one should be preferred to the others.[25] FICO recommends that FHFA's final rule should implement its transitional approach, allowing the Enterprises to approve the credit scores on which they currently rely. That approach complies with the statute and permits the Enterprises to continue to operate with the existing FICO Score versions while they quickly move to evaluate new credit scores submitted in response to the initial solicitation—an evaluation process FICO fully supports. For those subsequent credit score evaluations, whether in response to the initial solicitation or a future solicitation, FHFA should adopt the champion-challenger approach, to ensure the Enterprises continue to rely on the highest standard of accuracy, reliability, and integrity.

FHFA correctly points out that it is important that the assessment criteria ultimately result in the validation of at least one credit score, including in the immediate term.[26] In light of the harm that would occur were the Enterprises' existing model not to be approved, the transitional approach is preferable. This approach would allow for the validation of the existing FICO Score in the short term, which would limit uncertainty that could disrupt markets. It also would not sacrifice FHFA's desire to consider new credit score models, as it would allow the Enterprises to adopt new testing criteria on a going-forward basis.

Any new credit score should perform at least as well as the FICO Score currently in use in order to be considered for potential use by the Enterprises. It is in the Enterprises' (and consumers') best interest to ensure that they use credit score models that are at least as accurate as the current champion score being used.

[25] *Id*. at 65,585.
[26] *See id* at 65,584-65,585.

2. Addressing Truncation Bias

Regardless of the accuracy testing approach selected by FHFA, it is important that the assessment address the issue of truncation bias in the validation data. This bias is present when validating credit scores solely on the population of borrowers who were granted credit, rather than the full through-the-door applicant population. Choosing to focus accuracy testing solely on the population who were granted credit results in a sample that is heavily truncated with respect to the champion score: there will be no records in the sample with a champion score value below the minimum required score threshold for approval. This form of truncation places the champion score (and any scores that are highly correlated to the champion score) at a disadvantage in accuracy testing, and can lead to inaccurate conclusions about the relative strength of the models being compared. There are a number of options for addressing truncation bias to ensure a more apples-to-apples comparison of the credit scores being assessed.[27]

3. Deficiencies of Other Approaches

FHFA is also considering a benchmark-based approach, which would set an absolute statistical standard that all credit score models must meet in order to be considered.[28] However, it would be difficult under that approach to set a robust benchmark measure for use across different sets of loans from different time periods. Model performance metrics fluctuate with changing economic conditions, so setting fixed performance targets would likely not enable a robust assessment of whether the model(s) demonstrated 'sufficient' accuracy across all credit cycles examined. The benchmark approach could also be gamed by model developers, as they could target a particular level of accuracy by focusing on scoring specific easy-to-predict populations rather than developing a model to work well across the full spectrum of prospective borrowers.

As mentioned above, FHFA also proposed a comparison-based approach. However, the criteria used to make decisions on credit score models under such an approach appear too ambiguous. First, inherent differences in models may make it difficult to compare them on an apples-to-apples basis. Second, the Enterprises could select a credit score model that does not at least meet the incumbent model's demonstrated performance. In fact, the comparison-based approach "would allow flexibility for an Enterprise to make any determination based on the results of the comparison,"[29] including selecting a credit score model that was not as accurate and that did not otherwise provide notable benefits to consumers or industry stakeholders. That approach would thus thwart the very purpose of the statute and rulemaking. Accordingly, as indicated above, the champion-challenger approach (after an initial transition) would be the superior approach.

D. Reliability Standard

Under FHFA's proposed rule, the Enterprises would determine that a credit score model is reliable if it produces credit scores that remain accurate through the economic cycle.[30] The rule would require credit score models being evaluated to produce credit scores that are at least as

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[27] Ethan Dornhelm, Paul Panichelli, & Tom Parrent, *Homecourt Disadvantage: Truncation Bias and the Art of Comparing Consumer Credit Scoring Models*, FICO (2019), https://www.fico.com/en/resource-download-file/6825.
[28] 83 Fed. Reg. 65,585.
[29] *Id.* at 65,584.
[30] *Id.* at 65,591.

reliable as the scores produced by a model one of the Enterprises is currently using, as demonstrated through testing.[31] Under the proposed rule, testing is "appropriate" if it uses one or more industry standard statistical tests to demonstrate accuracy using the "industry standard definition of default" at a minimum of two points in the economic cycle when applied to loans acquired by the Enterprises.[32] FICO supports FHFA's requirement that the Enterprises test multiple sets of loans over different time periods in order to fully assess credit score model reliability.

E. Integrity Standard

The proposed rule would provide that the Enterprises would evaluate the integrity of a proposed credit score model, with the goal of "ensur[ing] that the credit score model developer utilized available data elements that are relevant and legally permissible."[33] This data integrity criterion is critically important – the model developer must have and demonstrate a framework through which it relies on data to address traditionally unscorable populations, and the Enterprises must test that framework.

FICO has developed a framework for considering and testing the reliability of additional data that resides outside the traditional credit bureau databases. That framework analyzes each potential new data source across six key vectors: (i) regulatory compliance (data elements must comply with applicable law concerning consumer credit evaluation); (ii) depth of information (data sources that are deeper and contain greater detail are often of greater value); (iii) scope and consistency of coverage (a stable database covering a broad percentage of consumers can be favorable); (iv) accuracy (reliability, reporting mechanisms, dispute procedures and the presence of verification processes are all important factors); (v) predictiveness (the data should predict future consumer repayment behavior); and (vi) orthogonality (useful data sources should be supplemental or complementary to other existing data sources).

Through the use of this analysis framework, FICO has developed two consumer credit models that leverage data outside the traditional credit bureau databases: FICO® Score XD, which uses cable, telecommunications, and utility bill payment data not captured in the traditional credit bureau file, and another credit score, which leverages consumer-permissioned DDA cash-flow information. Both of these models increase access to credit through safe and responsible use of additional new data sources.

VI. Enterprise Business Assessment

In addition to a Credit Risk Score Assessment, FHFA proposes that the Enterprises conduct an Enterprise Business Assessment to evaluate the impact a credit score model would have on the Enterprise and across the industry. FICO supports FHFA's proposal and stresses that this assessment must be rigorous and address all the ways the Enterprises and other market participants use credit scores. In that vein, FICO suggests below additional measures for consideration, to protect the Enterprises, markets, and American consumers.

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[31] *Id*.
[32] *Id*.
[33] *Id*. at 65,586.

A. Assessment of Impact on Enterprise Operations and Risk Management and on Industry

The Enterprise Business Assessment should weigh the marginal benefits of a new model against the operational costs, the effects on liquidity and availability of credit, and the potential for borrower confusion in adopting a new credit score model. As FHFA's prior RFI and its current proposed rule emphasize, the Enterprises' reliance on credit scores runs through many aspects of their operations. A new credit score that is marginally more accurate will nonetheless require full recalibration related to all those uses, and implementation of systems and processes changes. In this regard, the Enterprises presently use credit scores in multiple ways, including: (i) to guide their purchase, pricing, and management of individual loans (or, put differently, on a loan-level basis in the primary market); (ii) for investors of Enterprise securities and for Credit Risk Transfer investors on a sample or aggregate basis in the secondary or capital markets; and (iii) to provide critical insights and important metrics for oversight by FHFA.

For instance, with respect to the third purpose mentioned above, the rule should consider the effects of a new credit score model on assessing capital levels. As reflected in FHFA's proposed Enterprise Capital Requirements Rule,[34] the Enterprises' exposure to credit risk for single-family whole loans and guarantees in the new originations loan segment is measured primarily with regard to the loans' original loan-to-value ratio and original credit score (currently, the existing FICO Score). If the Enterprises were to begin using a different credit score model, the credit risk measurements and corresponding capital requirements would need to be recalculated. FHFA's final rule should expressly require the Enterprises to consider the impact of a new credit score model (and its different odds-to-score ratio, if applicable) on all their operations, including the measurement and costs of their capital retention requirements.

Mortgage lenders, insurers, and investors will endure a similar process of testing, recalibration, and implementation of systems changes. In addition, risk premiums may be imposed due to uncertainty associated with the adoption of less widely-accepted credit scores and credit score model developers. FHFA has considered many of those impacts and heard from many of those participants during its multiyear credit score project. The final rule should expressly include a requirement to consider these effects on each of those types of stakeholders during the Enterprise Business Assessment.

FHFA also recognizes that the Enterprises' adoption of a new credit score model will affect consumers. Many consumers shopping for mortgage credit are aware of their FICO Score and its effect on their ability to obtain an affordable loan. If the Enterprises adopt a new model or models, lenders will need to retrain personnel and be prepared to relate changes to borrowers. The final rule should require the Enterprises to consider and report on the costs to mortgage lenders of any additional and/or revised customer disclosures and increased personnel training to address potential credit score confusion.

FICO supports the Enterprises' full assessment of these efforts and costs related to the operational adoption of a new credit score, as well as the impact on market participants and

[34] *Enterprise Capital Requirements*, 83 Fed. Reg. 33,312 (July 17, 2018).

liquidity, and borrower confusion/education. The final rule should require the Enterprises to conduct, and disclose the results of, that full assessment.

B. Fair Lending Considerations

The proposed rule would also require the Enterprise Business Assessment to evaluate the fair lending risk and fair lending impact of the credit score model. FHFA requests comment on whether the fair lending assessment should go beyond traditional fair lending risk and compliance testing to consider whether the credit score model has the potential to promote access to mortgage credit for creditworthy applicants across all protected classifications.

FICO strongly supports efforts to promote access to mortgage credit for currently underserved, creditworthy applicants, including those who are members of protected classes. However, in promoting such access, a model developer needs to do more than just lower minimum scoring criteria so that more scores are calculated on the same traditional credit bureau data. In fact, scoring inactive credit files, where no new data is being reported, could trap consumers, especially disadvantaged groups, in artificially low scores. Returning no score in these situations can push lenders to look for other approaches where up-to-date alternative data that resides outside the traditional credit bureau databases can demonstrate current creditworthiness rather than a long-ago moment of financial distress. These types of scenarios require not just an assessment of discrete evaluations of fair lending, but determining which approach can have the largest positive impact on disadvantaged groups from the available alternatives. The extensive efforts FICO has made with products like FICO® Score XD, mentioned above, prove that expanding access to currently underserved consumers involves the hard work of identifying additional sources of alternative data. Further, credit scoring innovations are evolving rapidly, making it likely that there will be multiple credit score models competing to serve what currently is a largely untapped market. Given these considerations, FICO suggests that FHFA use the proposed pilot program to evaluate credit score models for their potential to expand access to credit.

VII. Conclusion

Trusted and proven credit scores are foundational in the U.S. residential mortgage markets, providing the Enterprises and other investors with the confidence that supports the efficiency and liquidity of the mortgage finance system. In turn, those scores support the Enterprises' safety and soundness, as well as the availability of responsible credit. FICO supports and welcomes the rigorous validation and approval approach reflected in the proposed rule, consistent with the comments provided above, along with active use of pilot programs to foster competition and innovation. FICO appreciates the opportunity to contribute to FHFA's thoughtful process and is available to answer any additional questions on this matter.

Sincerely,

James M. Wehmann

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March 30, 2018

Federal Housing Finance Agency
Office of Housing and Regulatory Policy
400 7th Street SW, 9th floor
Washington, D.C. 20219

RE: Credit Score Request For Input ("RFI")

Dear Sir or Madam:

Fair Isaac Corporation ("FICO"[1]) provides this letter in response to the Federal Housing Finance Agency's ("FHFA") RFI issued on December 20, 2017. Since 1995, we have been the trusted provider of the FICO® Score for Fannie Mae and Freddie Mac (the "Enterprises"). We appreciate the opportunity to offer input on this important topic, as the FHFA continues to ensure that the Enterprises operate in a safe and sound manner, serving as a reliable source of funding for housing finance and community investment. We applaud the FHFA for conducting a thoughtful and transparent process that provides notice to, and solicits and considers comments from, stakeholders across the mortgage industry on this important initiative.

FICO is not a credit bureau, like Equifax, TransUnion, or Experian, nor is it owned by the credit bureaus, like VantageScore. We are an independent analytics provider, and our longstanding role in the conforming mortgage market is to provide predictive credit scores based on the credit bureaus' data, free from the conflicting incentives that come with owning the credit bureau databases. We have fulfilled that role with the highest degree of integrity since the Enterprises first adopted the FICO Score more than 20 years ago, and we remain trusted by all industry stakeholders.

We briefly outline below our thoughts on the options under consideration in the RFI. As we explain, FICO strongly views Option 1 (Single Score) as the best option for lenders, consumers, investors, taxpayers, and the overall health of the conforming mortgage market. We also briefly discuss why FICO® Score 9 should be selected by the FHFA as the designated score for Option 1.

[1] Founded in 1956 and based in Silicon Valley, FICO is a pioneer in the use of predictive analytics and data science and helps organizations around the world make better business decisions. FICO is best known for pioneering credit scoring systems in the 1950s, which led to the development of the FICO® Score and the democratization of access to credit.

FICO Score Remains The Most Trusted Measure Of Consumer Creditworthiness

FICO first introduced the FICO® Score to consumer credit markets in 1989. The Enterprises voluntarily adopted the FICO Score years later because it was the score that lenders were already widely using when making credit decisions for their own portfolios (inside and outside the mortgage market). That same widespread use continues today, as FICO Scores are used in over 90 percent of all U.S. consumer credit lending decisions[2] with, notably, the vast majority of those scores being used to make decisions in credit markets outside the Enterprise conforming mortgage market.[3] For decades, thousands of lenders, from credit unions and community banks to the nation's largest lenders, have trusted the FICO Score as the independent, predictive, and reliable measure of consumer creditworthiness in the United States. Investors have trusted the FICO Score for the same reasons. In addition to their use in the Enterprise securities markets, FICO Scores have been the credit risk measure used by investors in over 98% of total dollars in U.S. automobile and credit card securitizations.[4]

FICO Score 9 Is The Most Robust And Predictive Analytic

Since the original introduction of the FICO Score, FICO has consistently improved its predictive power by creating new versions that employ innovative analytic techniques to extract additional insights out of the data residing at the credit bureaus. The latest version, FICO Score 9, is the most predictive FICO Score ever developed, providing lenders, consumers, investors, and other stakeholders with a myriad of benefits not available elsewhere. FICO Score 9 was built with the latest scoring technology, including our leading edge multi-faceted modeling technique to enhance risk prediction in mortgage originations, and has incorporated a more consumer friendly, predictive, and differentiated approach to the treatment of medical collections. Paid collections are not considered by FICO Score 9.

Importantly, each subsequent FICO Score version is designed to maintain the same odds-to-score alignment as the prior version. This means that a Classic FICO Score of 620 has the same meaning as a FICO Score 9 of 620. This consistency facilitates ease of transition and adoption, especially for investors and other stakeholders far removed from the credit score validation and risk management process who have come to understand and depend on the risk associated with a given FICO Score. FICO Score 9 also maintains the same rigorous FICO minimum scoring criteria as prior versions. Through these rigorous standards, its continuity of design, and advancements in FICO's trusted analytic techniques, FICO Score 9 supports sound credit policy and model governance, and is, we

[2] *See* FICO Scores Used in Over 90% of Lending Decisions According to New Study, *available at* https://www.mercatoradvisorygroup.com/Press_Releases/FICO®_Scores_Usedin_Over_90__of_Lending_Decisions_According_to_New_Study/.

[3] We estimate that credit markets outside the Enterprise conforming mortgage market comprise at least 96% of the annual number of loan originations. *See* Origination activity from the Market dashboards (for mortgages, credit cards, auto loans, and student loans markets) of the Consumer Credit Trends tool, published by the Consumer Financial Protection Bureau, March 2018, *available at* https://www.consumerfinance.gov/data-research/consumer-credit-trends, with mortgage originations adjusted for the Enterprises' share of mortgage origination volumes as estimated by the Urban Institute, *available at* https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-january-2018/view/full_report.

[4] *See supra* note 2.

believe, the most prudent choice to enable sound lending and investment decisions in the conforming mortgage market. Further, we believe FICO® Score 9 is the best choice to allow lenders to *safely* expand access to credit (to the extent possible on traditional credit bureau data) so that more consumers qualify, or qualify for better credit terms.

Lowering Credit Score Standards Will Not Increase Homeownership

As the FHFA notes in the RFI, both VantageScore 3.0 and FICO Score 9 leverage the same credit bureau data. VantageScore can claim to score 30 million more people because it uses lower scoring standards (i.e., minimum scoring criteria) to generate scores on credit files that contain limited and/or stale data. Our extensive research has concluded that these sparse credit files do not contain sufficient information to generate a reliable FICO Score.[5] Using such data may result in more consumers being scored (and more revenues to those involved), but it won't help Americans gain increased access to homeownership because the vast majority of those being scored either have a score too low to qualify or are no longer seeking credit (i.e., they are "credit retired"). For these reasons, the FHFA's careful consideration of the benefits and consequences of scoring standards is more important than ever.

"Lender Choice" Will Render The Market Less Competitive

It has been suggested that "lender choice" (Option 3) could generate more competition among credit score providers. FICO has always supported a competitive review of credit scoring by the FHFA and the Enterprises, and the Enterprises have remained free to replace FICO at any time. They owe no duty to the FICO Score, contractual or otherwise. Should a new credit score better meet the risk management requirements of the Enterprises, they are free to adopt that score. This threat of replacement *is the very essence of competition* and belies the speculation that a formalized "lender choice" program is the only or best way to ensure competition.

We believe that adopting a "lender choice" approach in the existing tri-bureau market will not lead to a more competitive market among credit score providers, *since the credit bureaus themselves are the owners of one of the scores*. The credit bureaus are the single point of sale and distribution for credit reports and scores, and face no competition among themselves for the sale of data in tri-bureau reports. Any independent credit score provider (including FICO) could be excluded from the market at the hands of the credit bureaus under a regime where the credit bureaus have the power to price and sell both credit scores (with no competition among them) but have a direct financial interest in one of the scores through their ownership and control of VantageScore.[6] As a result, we believe that "lender choice" is likely to result in market consolidation.

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[5] Can Alternative Data Expand Credit Access?, *available at* http://www.fico.com/en/latest-thinking/white-papers/can-alternative-data-expand-credit-access.

[6] *See also* William Stallings, Mayer Brown LLP, Competition Considerations in Changing Mortgage Finance Credit Score Requirements, commissioned by FICO, *available at* https://www.fhfa.gov//AboutUs/Contact/Pages/input-submission-detail.aspx?RFIId=926.

It is equally important to consider that credit risk is transferred to the Enterprises and, ultimately, to taxpayers and others in the conforming mortgage market. This means that, in the ordinary course, mortgage lenders that sell loans to the Enterprises do not retain the credit risk of loss, creating a dynamic that could lead to many lenders choosing credit scores without regard to their central purpose – their ability to predict and manage risk. In other markets, when lenders retain the risk (or manage the risk through single-lender securitization programs), credit score providers compete on predictability, reliability, trust, integrity, ease and cost of implementation, consumer-friendly explainability, and total cost of ownership. However, for many lenders in the conforming mortgage market, where the risks and costs are borne by others, the ability to score more consumers *will become the key factor*. "Lender choice" will not drive innovation in credit scoring; it will lead to competition based on the number of consumers scored, encouraging a potential "race to the bottom" among credit score providers.

A Multiple Credit Score Approach Adds Costs Without Benefits To Consumers

FICO also respectfully submits that a multiple credit score approach would introduce significant costs to market participants, and could have unintended adverse consequences, all with no corresponding benefit to consumers. In the fall of 2017, FHFA Director Melvin Watt confirmed the absence of such a benefit in testimony before the U.S. House of Representatives Financial Services Committee, noting: "we just didn't find that there was significant difference in these credit scores from an access perspective."[7]

As the FHFA itself has noted in the RFI, "credit scores are not interchangeable". VantageScore replicates the well understood FICO® Score range, but the scores do not share the same odds-to-score relationship, meaning the risk at a given score is different, and that difference can fluctuate over time. Further, due to differences in model construction, attempts to map the two via a fixed spread across the score range would not be reliable or accurate. For example, a study by the CFPB found that 27% of consumers had "economically meaningful" differences between their FICO Scores and VantageScores, even after adjusting for distributional differences.[8] Such large differences will not only impact segments around the minimum score cut-off for approval, but throughout the entire population for pricing. They also introduce adverse selection problems under the "lender choice" option through "score shopping".[9] Restrictions on lenders to prevent score shopping are easily circumvented by consumers and other market participants engaging in score shopping *across lenders*. In sum, adopting a multiple score approach will introduce adverse selection risks and create significant operational costs for industry participants.

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[7] U.S. House of Representatives Financial Services Committee Hearing, *Sustainable Housing Finance: An Update from the Director of the Federal Housing Finance Agency*, October 3, 2017, *video recording available at* https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=402338.

[8] Analysis of Differences between Consumer- and Creditor-Purchased Credit Scores, September 2012, *available at* https://files.consumerfinance.gov/f/201209_Analysis_Differences_Consumer_Credit.pdf.

[9] The RFI itself refers to the risk of adverse selection, which merits the close attention of the FHFA. *See* RFI, page 17.

Adopting a multiple score option would also undoubtedly increase consumer confusion and would certainly add to the complexity of the mortgage application process. The mortgage market today enjoys an efficiency in having a single, consistent, well understood, and trusted credit score. Adoption of any multiple score approach would be inefficient and would introduce further complexity for consumers in what is already frequently the most important and complex financial transaction they experience.

Alternative Data Holds The Key To Unlocking Credit Access

We believe that the real promise for expanding access to credit is not by lowering standards, but by responsibly drawing on reliable data outside the credit bureaus. FICO has made a significant, years-long investment in developing a sound and innovative approach to using alternative data to expand access to credit. For example, through FICO® Score XD, we are leveraging Fair Credit Reporting Act ("FCRA")-compliant alternative data sources to generate reliable FICO Scores for consumers who cannot be scored using credit bureau data alone. The introduction of FICO Score XD is novel, as it considers bill payment data (from a database of telecommunication, cable and other payments covering over 210 million consumers) and select public records data, in addition to whatever traditional credit bureau data exists, to score more than 26.5 million previously unscored consumers—more than 50 percent of those previously unscored.[10]

Financial inclusion strategies that attempt to rely solely on traditional credit bureau data will, by definition, leave behind the 25 million consumers who have no credit bureau file at all. By looking outside the traditional credit bureau file, FICO Score XD scores 11.8 million of these consumers with no credit bureau file. VantageScore scores none of these consumers. FICO encourages the FHFA to continue examining how the scoring of data not traditionally found in credit bureau files can be leveraged toward fair and responsible financial inclusion in the conforming mortgage market.

Conclusion

FICO Score 9 is not only the most advanced score currently in the market, it is also the most trusted choice to support sound credit policy and model governance. Considering the implications of lower credit scoring standards, the anti-competitive risks of the tri-bureau market, and the moral hazard associated with risk transfer, the FHFA's decision could have far reaching consequences. Given the importance of this decision, we provide comprehensive answers to the specific questions raised in the RFI as an attachment to this letter. For some of the questions, we believe other stakeholders are in the best position to respond, and we, therefore, have provided no response. For other questions not directed at credit score providers specifically, we have provided information for the

[10] *See* FICO Continues to Expand Access to Credit with New FICO Score XD 2, *available at* http://www.fico.com/en/newsroom/fico-continues-to-expand-access-to-credit-with-new-fico-score-xd-2.

FHFA to consider based on our experience in the industry and our frequent interactions with stakeholders.

As you are aware, legislation (supported by VantageScore) that has been passed by the Senate and is under consideration by the House of Representatives risks delaying or interfering with the FHFA's current review process, which has allowed for input from all stakeholders, including consumer advocates and industry participants. As long as any credit score validation, review and selection process by the Enterprises is fair and based on the merits, we remain confident in FICO's ability to compete. As demonstrated by the extent to which FICO® Scores are used by lenders and investors outside of the Enterprise market (markets representing 96% of annual loan originations), FICO continues to be the best choice for independence, reliability, accuracy, innovation, and responsible credit access expansion.

We thank the FHFA again for the opportunity to contribute to this thoughtful process and are available to answer any additional questions you might have on this matter.

Sincerely,

Jim Wehmann

James M. Wehmann
Executive Vice President, Scores
FICO

ATTACHMENT TO FICO LETTER – FHFA RFI SUBMISSION

General Questions on Credit Scores

A1.1 When and how do you use credit scores during the mortgage life cycle to support your business?

Ninety percent of all U.S. consumer lending decisions rely on the FICO® Score, and it is widely used across the mortgage lending life cycle.[11] Key industry stakeholders including lenders, insurers, and investors rely on FICO Scores in the following areas:

1. *Marketing/Pre-screening:* To help identify creditworthy consumers.
2. *Origination:* To help determine the types of mortgages and associated terms offered to applicants.
3. *Account Review:* To facilitate targeted loss mitigation strategies and other account-level treatments.
4. *Valuations of Loan Portfolios:* To predict future cash flows and assess portfolio values.
5. *Additional Uses:* FICO Scores also are used, for example, in loan loss forecasting and reserve establishment, and in capital adequacy measurements.

A1.3 Is it necessary for any new credit score policy from the Enterprises on credit score models to be applicable in all aspects of the loan life cycle, or could there be differences, such as in servicing?

A policy in which different credit scores are used across the loan life cycle would be cumbersome and costly to implement, and presents disadvantages, including:

1. *Uniform Risk Management Tool:* Many lenders strive to keep a common risk management framework within a line of business, if not enterprise-wide. Different scoring models will make reaching this compliance objective more difficult, particularly where the models incorporate different characteristics, a different score distribution, and/or a different odds-to-score relationship.
2. *Model Governance:* Model governance work would substantially increase. Models require ongoing updates and testing as detailed by the Board of Governors of the Federal Reserve System (SR 11-7), the Office of the Comptroller of the Currency (OCC Bulletin 2011-12), and the Federal Deposit Insurance Corporation (FIL-22-2017).
3. *Alignment and Translation:* Using multiple models would create the need for calibration to reconcile different scores between the frameworks. As loan products, underwriting practices, and economic conditions vary over time, so too would the calibration between the probability of default and a given credit score.[12] This variation will differ from one

[11] *See supra* note 2.
[12] *See* Are Today's Market Pressures Reshaping Credit Risk?, *available at* http://www.fico.com/en/latest-thinking/white-papers/are-todays-market-pressures-reshaping-credit-risk.

vendor score to another.[13] This reconciliation process would be expensive, ongoing, and challenging to maintain given that scores are designed to rank order risk, rather than having a specified probability of default.

A1.4 How would mortgage lenders and investors manage different credit score requirements from primary and secondary mortgage market participants? Is it important for your business processes that government guarantee programs in the primary mortgage market (e.g., FHA, VA, USDA-Rural Development) have the same credit score requirements as the Enterprises?

The mortgage market today enjoys an efficiency in having a consistent, well understood and trusted credit score used across the primary and secondary market, and across various government guarantee programs in the primary market. Lenders often evaluate borrowers for different loan programs before determining the program that is the best fit for the consumer. Comparing the benefits and detriments of conventional, conforming loans with government-insured or –guaranteed loans would be impaired by the use of different credit score models, because of the inability to do an "apples-to-apples" comparison. Adoption of any multiple score approach would add substantial cost to both primary and secondary market participants, and would, in certain circumstances, create adverse selection problems among the various government guarantee programs and the Enterprises.

A1.5 How would updating credit score requirements impact other industry-wide initiatives that affect your organization? What is the relative priority of this initiative compared to other industry-wide initiatives?

Virtually all residential mortgage lenders, regardless whether they are depository institutions or state chartered, non-depository institutions, have tremendous demands on their technology departments. Whether it is integrating disparate systems, updating to new systems, incorporating new compliance requirements, or supporting new business initiatives, among other reasons, the technology departments are squeezed for resources. Indeed, the post-financial crisis demands on the technology departments over the last ten years have been profound, and companies are looking forward to using their technology budgets to foster innovation, increase productivity and support new business initiatives. Lenders, we believe, would not embrace with enthusiasm new requirements to upgrade their systems to adapt to a completely new approach to credit scoring models without significant benefits. Adding new credit scoring models simply to add more models without materially advancing any business or policy priorities is not an effective use of scarce technology resources.

As we detail in our response to the next question, an upgrade to FICO® Score 9 would result in the highest industry benefit with the lowest implementation costs, and we think would justify the investment.

[13] *See* Truth Squad: Is FICO Score 700 the Same as VantageScore 700?, *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-is-a-fico-score-700-the-same-as-a-vantagescore-700/.

A1.6 Do you have a recommendation on which option FHFA should adopt?

FICO strongly believes that FHFA should adopt Option 1 (Single Score) with FICO® Score 9 as the designated score, for the following reasons:

1. FICO Scores are trusted and serve as the industry standard consumer credit risk benchmark, with over 20 years of readily available actual market performance data for lender and investor modeling.
2. FICO Scores were selected by the Enterprises more than twenty years ago because their lenders used FICO when making credit decisions for their own portfolios. That remains the case today: FICO Scores are used in over 90% of U.S. consumer credit lending decisions as detailed in a January 2018 study conducted by Mercator Advisory Group.[14]
3. FICO is the independent standard in credit scoring. Selecting VantageScore, which is owned and controlled by the credit bureaus, would be a move toward the consolidation of credit bureau power over the entire mortgage credit reporting process.
4. FICO maintains rigorous standards protecting the integrity of its score, which is relied upon for making credit and investment decisions across the entire consumer credit market ($12+ trillion outstanding). Introducing lower minimum scoring criteria could result in riskier loans, while doing little to expand mortgage access, and could restrict access for consumers who would have benefited from Enterprise programs for consumers with no credit scores.[15]
5. FICO Score 9 is the most predictive FICO Score ever developed and gives lenders, investors, and other mortgage stakeholders a myriad of benefits. FICO Score 9 was built with the latest scoring technology, including our leading edge multi-faceted modeling technique to enhance risk prediction in mortgage originations.
6. FICO Score 9 allows lenders to safely expand access to credit (to the extent possible on traditional credit data) so that more consumers qualify, or qualify for better credit terms.[16]
7. FICO Score 9 incorporates a more consumer friendly, predictive, and differentiated approach to the treatment of medical collections. Paid collections are not considered by FICO Score 9.
8. Updating to FICO Score 9 supports sound credit policy and model governance.[17]
9. FICO develops each subsequent FICO Score to maintain the same odds-to-score alignment as the prior version and does not introduce new reason codes that would require compliance review and coding work. FICO Score 9 is no exception, facilitating ease of adoption.
10. FICO offers model governance, validation testing and strategy implementation support services to assist lenders with upgrading to FICO Score 9.

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[14] *See supra* note 2.
[15] *See* Figure 2, page 14 of the RFI for minimum scoring criteria.
[16] *See* Scoring Innovation Means More Consumer Home Loans, *available at* http://www.fico.com/en/blogs/risk-compliance/scoring-innovation-means-consumer-home-loans/.
[17] *See also* FICO Score and Model Risk Management Methodology, *available at* http://www.fico.com/en/node/8140?file=5552.

A1.7 Do you have additional concerns with or insights to share on the Enterprises updating their credit score requirements?

We want to reiterate the comment above that the time, energy, effort, and cost to adopt a new paradigm for the Enterprises to accept multiple credit scoring models should not be taken lightly and, in our view, only can be potentially justified if there are compelling business or policy reasons that support such an investment. Even assuming multiple, reliable credit scoring models exist, that does not mean that the Enterprises should adopt all such models. The considerable impact on both the Enterprises and their seller-servicers, as well as secondary market investors, is a relevant factor that should be given appropriate consideration.

We do not accept, however, that the reliability and validity of the FICO and VantageScore credit scoring models are comparable or that the use of the VantageScore model would materially increase the universe of bona fide, eligible borrowers. The RFI details the differences between the FICO® Score and VantageScore minimum scoring criteria. Both FICO Score and VantageScore have access to the same credit bureau data, but FICO believes that certain older data or limited credit files are unreliable for identifying potential homebuyers who are ready to be approved for credit.

FICO's own research[18] and an independent analytics research firm[19] have examined the impact of lower minimum scoring criteria on broader access to credit, and ultimately homeownership. Scoring the sparse and outdated data relied upon by VantageScore may help generate additional scores (and increase revenues for those involved), but the research shows that it will not help Americans deserving of credit to actually receive it.[20] We also believe lower minimum scoring criteria would mean less accurate assessments of borrower creditworthiness, leading lenders to decline some applicants they should accept and vice-versa. For lenders, the result could be higher levels of delinquency and lower lending volumes. For consumers, it could mean receiving less credit than needed and deserved, or receiving more credit than a consumer can responsibly handle. And the millions of consumers without current credit access who have negative items in their credit files could remain effectively locked-out of homeownership because the score produced is static, reflecting only a time of financial hardship, and does not account for new and positive changes in the consumer's financial circumstances. The lower score would disqualify these consumers from manual underwriting procedures for which they otherwise would be eligible.

It is true that there are analyses put forth purporting to justify a dramatically lowered minimum scoring criteria. We believe these analyses are flawed, however, because they are based on historical and biased data, which focused solely on files where credit was obtained. Such credit likely was obtained through the more demanding manual underwriting verification procedures,

[18] Truth Squad: Will Looser Scoring Standards Help Millions More Americans Get Mortgages? *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-will-looser-scoring-standards-help-millions-more-americans-get-mortgages/, and Truth Squad: Will Weaker Scoring Criteria Create a Mortgage Surge? *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-will-weaker-scoring-criteria-create-a-mortgage-surge/.

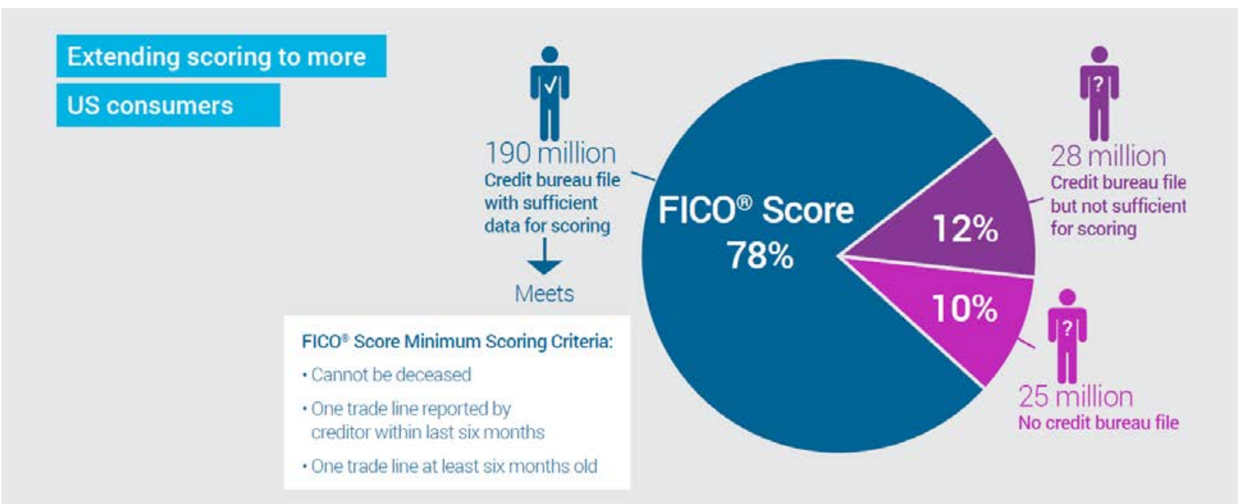
[19] Updated Credit Scoring and the Mortgage Market, Risks and Opportunities in Expanding Mortgage Credit Availability Through New Credit Scores, December 2017, commissioned by FICO, *available at* http://www.progressivepolicy.org/publications/updated-credit-scoring-mortgage-market/, page 4.

[20] *See also* response to A3.4, below.

meaning the population approved for mainstream credit from these files is likely to have been heavily cherry-picked on data not found in the traditional credit file.

Attempting to expand credit access using sparse credit files is ultimately a data problem, not a scoring technology problem. Lowering minimum scoring criteria is not innovative nor is it a sound analytic approach. The responsible way to address the challenge of access and financial inclusion is through the study and use of additional data that currently resides outside the three credit bureau databases.

As the graphic below depicts, approximately 190 million consumers can currently receive a FICO® Score calculated on traditional credit bureau data, resulting in 91% of credit applicants being scored. Another 53 million individuals are unscorable. This latter group consists of 28 million consumers who have no active/updated trade lines in their credit files or have less than six months of credit history, and another 25 million consumers who have no data at all at the three credit bureaus.



To address this access to credit challenge for 53 million consumers, FICO has made a significant, years-long investment in developing a sound and innovative approach to using data that resides outside the three credit bureau databases. For example, through FICO Score XD, FICO is currently leveraging FCRA-compliant alternative data sources to deliver reliable FICO Scores to consumers who cannot be scored using only credit bureau data. FICO Score XD is novel, as it considers bill payment data (from a database of telecommunication, cable and other payments covering over 210 million consumers) and select public records data, in addition to whatever traditional credit bureau data exists, *scoring more than 26.5 million previously unscored consumers*—more than 50% of previously unscored consumers. *The result is that while the traditional FICO Score is able to score 91% of applicants, the inclusion of FICO Score XD augments the percent of applicants eligible for a FICO-branded score to nearly 98%.* This approach is focused on fair and responsible financial inclusion for underserved populations.

The reason to turn to alternative FCRA-compliant data sets is that the credit files maintained by the three credit bureaus contain only small amounts of data that may be referred to as alternative data. It is worth noting that FICO Score 9, as well as previous FICO Score versions, considers all telecommunication and utility information when present in a consumer's credit file. *Notably, this means that the existing Classic FICO Scores in use by the Enterprises have considered this information since those models were originally adopted by the Enterprises.* However, only 2.5% of credit bureau files contain telecommunication data, only 2.4% of credit bureau files contain utility (non-telecommunications) data, and only 4% of credit bureau files contain at least one of these two types of data.[21] Due to changes in the nature of rental data in the traditional credit bureau files, FICO was able to include rental data in FICO Score 9 for the first time. However, its impact is negligible for FICO Score 9 (and any score built solely on traditional credit bureau data) since rental data is found in less than 1% of all credit bureau files.[22]

In short, in order to realize the benefits of alternative data, it was necessary for FICO to leverage data sources found outside the traditional credit bureau files. While FICO® Score XD is being used today in the unsecured credit market (e.g., credit cards), we believe the use of these types of alternative data represent an opportunity to responsibly expand access to credit in the mortgage market, and we encourage the FHFA to explore further and conduct additional research in this area.

Operational Questions on Credit Scores

A2.1 What benefits and disadvantages would you envision for your business, your business partners, and/or borrowers under each of the options?

Option 1: Single Score

We believe the most beneficial option for the entire industry, including lenders, consumers, and investors, is adoption of FICO Score 9, because it will provide the greatest industry benefit at the lowest implementation cost.

FICO Score 9 improves on the Classic FICO Score through:

- Multi-faceted modeling to enhance risk prediction in mortgage originations;
- Differentiated treatment of medical vs. non-medical collections;
- Bypassing paid third-party collection accounts; and
- Specialized authorized user treatment.

Any transition between FICO Score versions is eased as each FICO Score version is designed to yield the same odds-to-score relationship as the prior version. This means that a Classic FICO Score of 620 has the same meaning as a FICO Score 9 of 620. FICO Score 9 also maintains the same reason codes that are used for communicating adverse action and risk-based pricing notices to consumers, thus easing the transition for both compliance oversight and operational implementation.

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[21] *See* Truth Squad: Does VantageScore Use Alternative Data? *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-does-vantagescore-use-alternative-data/.

[22] *See* Truth Squad: Can Scoring Rental Data Vastly Improve Credit Access? *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-can-scoring-rental-data-vastly-improve-credit-access/.

If VantageScore 3.0 is selected, we believe industry stakeholders will face significant additional costs related to large-scale system adjustments and model management oversight. While VantageScore replicated the FICO® Score 300-850 score range with the release of VantageScore 3.0, it is important to note that the scores do not have the same odds-to-score relationship, meaning a FICO Score of 620 does not equate to a VantageScore of 620. In order for the industry to accept a different score, it will require pricing and actuarial model changes, forward/backward compatibility testing, and reporting and disclosure changes. This type of investment could lead to a higher cost of mortgage credit for consumers. In light of these substantial additional implementation costs, shifting to VantageScore 3.0 should also require evidence of added predictive value that outweighs the costs. We don't believe that evidence is present.

Option 2: Require Both

Requiring both scores will require a fundamental system change that will likely more than double implementation costs when compared to Option 1, with no corresponding benefit to the lending system or to consumers. All mortgage participants, including lenders, private mortgage insurers, investors, loan origination system providers, and tri-merge resellers, would be forced to adjust their systems to accommodate additional scores. Participants in the mortgage origination process would have to record, monitor, and report on two scores simultaneously.

Market participants will likely then push to use the score that would approve mortgages for the most consumers, not the score that most accurately predicts risk—i.e., the moral hazard referred to in the RFI and discussed above. That risk is ultimately borne by taxpayers, not by market participants.

As with the election of VantageScore 3.0 under Option 1, in order to support Option 2, evidence of added predictive value that outweighs the substantial additional costs should be provided. Again, we don't believe such evidence is present.

Option 3: Lender Choice

In recent testimony before the House Financial Service Committee, Director Watt highlighted the following key concern: "*How do you ensure, in the long run, that one of the credit scoring companies - which is owned by the credit repositories - doesn't have an advantage over the credit scoring company that is not owned by the credit repositories?*"[23]

The question highlights an important flaw connected with this option. Rather than introducing competition, lender choice would create a competitive imbalance in the credit scoring market, without adding any new value to consumers. Lender choice will be no choice at all if the credit bureaus' ownership and control of VantageScore leads to market consolidation. Moreover, as noted in our response to A3.1 below, while the mantra of "lender choice" has a nice rhetorical ring to it, the fact is that the Enterprises (as well as the taxpayers, securities holders, and credit risk transferees) are the ones that bear the credit risk of loss for which FICO acts as an important risk

[23] *See supra* note 7.

management tool. What is the importance of so called "lender-choice" for lenders that may have no "skin-in-the-game" for the risk of credit loss?

This raises another important question asked by Director Watt at the National Association of Real Estate Brokers 70th Annual Convention: "*[H]ow would we ensure that competing credit scores lead to improvements in accuracy and not to a race to the bottom with competitors competing for more and more customers?*"[24]

Arbitrage and adverse selection for the Enterprises are likely outcomes under Option 3. A study by the CFPB found that 27% of consumers had "economically meaningful" differences between their FICO Scores and VantageScores, even after adjusting for distributional differences.[25] Such large differences will not only impact segments around the minimum score cut-off for approval, but throughout the entire population for pricing. Market participants who do not hold any of the credit risk, including at the mortgage broker and correspondent lender level, will be incented to exploit such differences and game the system in pursuit of better pricing and more approvals. This gaming could also present itself at the consumer level.

On the implementation side, Option 3 would create significant costs and complexity in what today is an efficient process. Systems and models will have to accommodate multiple scores and be flexible enough to change on a regular basis. This will occupy resources that could be better utilized.

Option 4: Waterfall

We believe that the waterfall option has all the disadvantages noted above for a two score market. While a waterfall approach could be utilized to obtain new alternative data scores, using a waterfall approach with two scores that make use of the same credit bureau data will likely result in no material industry benefits.

Instead of using a scoring model in the second position in the waterfall that leverages the same credit bureau data set as the primary score, the FHFA could consider the use of alternative data referenced above to identify additional creditworthy consumers not scored by the primary credit scoring model. Alternative data that resides outside of the credit bureaus deserves testing. FHFA notes in the RFI that FICO introduced FICO® Score XD, which leverages alternative data.

[24] PREPARED REMARKS OF MELVIN L. WATT, DIRECTOR OF FHFA AT THE NATIONAL ASSOCIATION OF REAL ESTATE BROKERS' 70TH ANNUAL CONVENTION, August 1, 2017, *available at* https://www.fhfa.gov/Media/PublicAffairs/Pages/Prepared-Remarks-of-Melvin-L-Watt-Director-of-FHFA-at-the-NAREB-70th-Annual-Convention.aspx.

[25] Analysis of Differences between Consumer- and Creditor-Purchased Credit Scores, September 2012, *available at* https://files.consumerfinance.gov/f/201209_Analysis_Differences_Consumer_Credit.pdf.

A2.2 How significant are the operational considerations for a single score update? Please discuss any comparison of operational considerations between a single score (option 1) and multiple score options (options 2-4).

Option 1 (Single Score)

As explained above, the easiest implementation is from one FICO® Score model to another because FICO Scores are designed to have the same odds-to-score relationship, introduce no new reason codes, and are accompanied by model management compliance support.

Options 2 – 4 (Multiple Scores)

Require Both: The required purchase of two scores will result in a higher cost to both the originator and consumer, but with questionable additional value to the underwriting decision. We believe that significant research would be necessary to validate whether additional analytic insight would be achieved by pulling two credit scores with differing methodologies, but built on the same underlying credit bureau data.

Lender Choice: VantageScore replicates the well understood FICO® Score 300-850 range, but the scores do not share the same odds-to-score relationship, so the risk at a given score is different, and that difference can fluctuate over time. Due to differences in model construction, attempts to map the two via a fixed spread across the score range would not be reliable or accurate.[26] Also, as discussed above, the use of lower minimum scoring criteria can increase the risk exposure to lenders without materially increasing access to credit. The lender choice option also would increase costs by requiring industry participants to rigorously test and attempt to update systems, models and credit risk policies accordingly, since no such market information is currently available.

We believe there are many other issues raised by the lender choice option that caution against its selection. For example, how would the FHFA control and audit third parties? How would the Enterprises and other market participants be assured that the score being passed along is properly labeled? How would the process avoid "credit score shopping" by market participants if multiple models are accepted? How would the Enterprises assure investors which credit score is being shared and the underlying credit bureau data for the score? There is no existing infrastructure in place to effectively handle such issues today, making the use of the lender choice regime a risky investment proposition.

[26] See Truth Squad: Is FICO Score 700 the Same as VantageScore 700, *available at* http://www.fico.com/en/blogs/risk-compliance/truth-squad-is-a-fico-score-700-the-same-as-a-vantagescore-700/; *see also supra* note 21, page 44; John Gibbons, RFI submission, *available at* https://www.fhfa.gov//AboutUs/Contact/Pages/input-submission-detail.aspx?RFIId=914.

A2.5 Could using any of the multiple credit score options affect the way investors view, and therefore price, Enterprise securities? Could any of the multiple credit score options reduce liquidity in the TBA market and/or increase the volume to the specified market? Are there any unique considerations among the multiple score options (options 2-4) in evaluating their impact on MBS liquidity and/or demand for credit risk transfer transactions?

The secondary market has trusted FICO Scores as the independent standard for over 25 years, and, in addition to their use in the Enterprise securities markets, FICO Scores have been the credit risk measure in over 98% of total dollars in U.S. automobile and credit card securitizations.[27] Investors are accustomed to a consistent odds-to-score ratio across FICO Score versions, and as such, we believe no disruption to the to-be-announced ("TBA") or credit risk transfer ("CRT") markets should be expected if FICO Score 9 is selected by the FHFA.

On the other hand, we believe that the adoption of VantageScore, whether under a single or multiple score option, could have adverse effects on the way investors view Enterprise securities, negatively impacting price and volume. Industry experts have already shared insights on these investor considerations.

- In a study conducted by an independent analytics firm, Tom Parrent states: "[t]o be clear, investors hold the credit risk on the deals they purchase. They do not have the policy objectives that regulators promote. Investors will require excess return in order to bear the risk associated with unproven or poorly fit models and that cost will be passed on to consumers."[28]

- In a separate response to the RFI, John Gibbons states: "[t]here is one worrisome risk within the TBA market that deserves FHFA's careful attention. What is distinctive about VantageScore is that it assigns a credit score to individuals with sparse, scarce or stale credit history. If the credit scores of these individuals were to prove unusually volatile and if the Enterprises were to continue their current practice of tying LLPAs or Delivery Fees to credit scores, this volatility could easily translate into volatility of the refinancing incentive that borrowers face…If it should prove to be the case that the credit scores of the currently unscorable population are unusually volatile, the reaction in the TBA market could be both significant and adverse."[29]

FICO has conducted a simulation analysis to quantify the score volatility of consumers in the six months following obtaining a new mortgage. This research was conducted on two similar but distinct credit profiles: a FICO scorable but "thin file" population, and a new-to-credit population that lacked sufficient traditional credit data to receive a FICO® Score. To conduct the analysis, FICO developed a research score for this new-to-credit population to act as a proxy for a credit score with lowered minimum scoring criteria and then compared it to the FICO scorable "thin file" cohort.

[27] *See supra* note 2.
[28] *See supra* note 19, page 22.
[29] John Gibbons, RFI submission, *available at* https://www.fhfa.gov//AboutUs/Contact/Pages/input-submission-detail.aspx?RFIId=914, pages 3-4.

When compared to the FICO scorable cohort, our study found that the unscorable new-to-credit segment exhibits *significantly more score volatility*. Only 5% of FICO scorable "thin files" had a simulated score difference of 40 or more points over the six-month period following obtaining a new mortgage. However, for the new-to-credit files, 42% experienced a 40+ point score change, *an 8-fold increase in volatility*. Further details of this FICO study are included in Exhibit A to this Attachment.

A2.7 What impact would any of the credit score options have on a need for consumer education? What impact would the multiple credit score options (options 2-4) have on consumers? Are there steps that FHFA, the Enterprises, or stakeholders could take that would mitigate any confusion about multiple credit score options?

Single Score

FICO long ago recognized the importance of providing transparent consumer credit education, formally launching its FICO Score Open Access program in November 2013. The program allows lenders to share the FICO Score used in managing their customer accounts directly with those customers *with no fees* from FICO.

The program has experienced tremendous growth and spans a variety of product lines – credit cards, auto finance, student loans, mortgage and online lending. FICO® Scores are now available to over 250 million consumer accounts through over 100 financial institutions.[30] This program has been instrumental in improving consumer access to critical credit information and creating more informed consumers.

- In September 2015, the Federal Reserve Bank of Philadelphia published an article that detailed the initial observations of one of the lenders participating in the FICO Score Open Access program. The lender found that FICO Score Open Access "program participation is correlated with increased card spending, decreased credit utilization and delinquency, increased digital engagement and lower cardholder attrition."[31]

- In February 2018, Sallie Mae announced that customers who check their FICO Scores regularly make better financial decisions and manage finances more responsibly, according to a study conducted by leading university researchers.[32] The study also found that consumers receiving quarterly emails about the availability of free FICO Scores were 65 percent more likely to view their FICO Scores, more likely to have increased their credit scores, and had fewer past-due accounts.

In April 2015, FICO broadened the reach of the program through the launch of the FICO Score Open Access for Credit and Financial Counseling, making FICO Scores available to even more consumers,

[30] *See* FICO Score Open Access program Reaches 250 million Consumer Financial Credit Accounts, *available at* http://www.fico.com/en/newsroom/fico-score-open-access-reaches-250-million-consumer-financial-credit-accounts.

[31] Can Credit Cards with Access to Complimentary Credit Score Information Benefit Consumers and Lenders? *available at* https://www.philadelphiafed.org/-/media/consumer-finance-institute/payment-cards-center/publications/discussion-papers/2015/d%202015_can-credit-cards-with-access.pdf, page 3.

[32] New Research Finds Sallie Mae Customers Who Track Their FICO Scores Manage Credit More Responsibly, *available at* http://news.salliemae.com/press-release/featured/new-research-finds-sallie-mae-customers-who-track-their-fico-scores-manage-cr.

many of whom were in need of assistance and education.[33] Then in April 2017, FICO partnered with Operation Hope to support the HOPE 700 FICO® Credit Score Communities initiative, whose mandate is to help raise client credit scores to 700, bringing financial uplift to communities.

In any single score regime that utilizes a score other than the FICO Score, new and substantial efforts would need to be undertaken to reeducate consumers on new scoring that is different than the FICO Score. This would be counterproductive, create the risk of further consumer confusion, and adversely impact the efforts already undertaken to educate consumers and reduce confusion in the credit score marketplace.

Multiple Scores

Any of the multiple score options would undoubtedly contribute to more consumer confusion and would certainly make applying for a mortgage -- typically the most important and often also the most confusing financial transaction consumers experience -- even more confusing. We don't believe mortgage applicants should be expected, in the midst of a complex mortgage application and underwriting process, to understand and appreciate the differences between multiple credit scores (in a tri-bureau environment) with varying score distributions, odds-to-score alignments, reason codes, de-duplication periods and other technical features. Regardless of score alignment practices or education, there will often be wide variances among multiple scores for any individual consumer, resulting in greater uncertainty, less transparency and confusion.

A2.8 Under option 3 (lender choice with constraints), how would the Enterprises protect against adverse selection and ensure that a lender is not selecting a credit score at the loan level that results in preferential pricing or eligibility? Instead of attempting to reduce adverse selection through setting certain selling requirements for lenders, should the Enterprises instead adopt underwriting and pricing policies that account for any increased risk of adverse selection between the two credit score models? Are there ways to control this risk?

It would be exceedingly difficult for the Enterprises to protect against adverse selection. There would be significant incentives in place for lenders to select the credit score that provides the result they desire based upon pricing and eligibility. Since lenders do not hold the credit risk in the conforming mortgage market, they are incented to pick the score that produces the highest credit score and optimal pricing for the largest number of consumers. While the Enterprises could attempt to implement policies to control for this risk, consumers will bear the additional costs in terms of higher cost of credit due to likely loan-level pricing adjustments that would be made by the Enterprises.

The adverse selection risk for the Enterprises is not contained by oversight of the lender delivering the loan for acceptance, but also extends to the consumer, broker and correspondent lender. This is because incentives are not aligned: the Enterprises are seeking to manage credit risk while other participants are seeking optimal pricing and eligibility for a government-backed mortgage.

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[33] *See* FICO Partners with Operation Hope to Improve Consumer Financial Health, *available at* http://www.fico.com/en/newsroom/fico-partners-with-operation-hope--to-improve-consumer-financial-health-04-11-2017.

Proposed lender-level controls, such as “lock-in periods” that require a lender’s use of a single credit score model for a specified period of time, will not completely mitigate the adverse selection risk since other market participants, including consumers and brokers, will still have the ability to shop for different scores and game the system *across* lenders.

A2.9 Because credit score models are not interchangeable, what issues or challenges would you face if the Enterprises were to have different eligibility or pricing based on the credit score version? What implementation hurdles might exist? How would the differences in pricing be perceived by borrowers?

The use of multiple scores will not materially impact credit access. In the fall of 2017, Director Watt confirmed this fact in testimony before the U.S. House of Representatives Financial Services Committee where he noted: *“*[W]e just didn’t find that there was significant difference in these credit scores from an access perspective.*”*[34] The creation of multiple underwriting and pricing policies would appear to only increase operating costs for all participants in the mortgage origination process with no benefit to borrowers. The result would be borrower confusion and increased costs for all industry participants. See also our responses to A2.1 and A2.2 above for further details about the challenges that would be faced by adopting a multiple credit score model.

These differences in pricing also could lead to fair lending issues, in terms of both steering to one provider over another based on likelihood of approval, and analyzing why similarly situated borrowers are paying differences in price. For lenders who have sought to wring discretion out of the origination process to ensure that similarly situated borrowers are treated similarly, delegating the discretion to lenders to select the credit scoring model would reintroduce a level of discretion resulting in differences in pricing without regard to any differences in the underlying borrower characteristics.

Questions on Credit Score Competition

A3.1 Given that the CRAs own VantageScore Solutions, LLC and set the price for both FICO and VantageScore credit scores, and own the data used to generate both scores, do you have concerns about competition? If so, please explain your [concerns].

FICO is an independent analytics provider. In contrast, VantageScore is owned and operated by the three much larger credit bureaus: Equifax, Experian and TransUnion.[35] While the question of credit scoring models in housing finance is often depicted as one of competition, in reality, the choice is independence or consolidation. Selecting VantageScore would be a move toward consolidation of the markets for credit reports and credit scores under the credit bureaus, while selecting FICO would be a choice of the only independent provider in the system.

Due to the tri-bureau requirement, the credit bureaus do not compete in the conforming mortgage market the way they do in other consumer credit markets. In fact, the requirement for originators

[34] *See supra* note 7.
[35] Each credit bureau is substantially larger than FICO, and, on a collective basis through their joint venture VantageScore, they dwarf FICO. According to published financial data available on March 15, 2018, respective market capitalizations are as follows: Experian = $20.7 billion, Equifax = $14.9 billion, TransUnion = $10.8 billion, and FICO = $5.2 billion.

to obtain a credit report from all three credit bureaus eliminates the competition that exists in other credit markets. Lack of competition gives the credit bureaus broad power in a system where they have control over the pricing and distribution of both credit reports and scores. If the credit bureaus were permitted to offer VantageScore in the Enterprise market, they could each use this power in favor of the score they own and control. In a market where the credit bureaus price and sell both options but have a direct financial interest in one of them, attempts to create competition at the lender level will, we believe, actually lead to competitive harm.

As an independent credit score provider, FICO relies on the credit bureaus for critical components of its product development (e.g., credit data for FICO® Score development) and its product distribution (e.g., sale, licensing and distribution of the FICO Score). Although FICO uses depersonalized credit data samples from the credit bureaus to develop each FICO Score version, FICO itself does not possess the credit bureau data to calculate, distribute and sell personalized FICO Scores to lenders for risk management. Instead, FICO grants each credit bureau a license to use the FICO scoring software to calculate FICO Scores on its data and to license those FICO Scores to resellers and lenders. Only the credit bureaus have both the data required to calculate FICO Scores and a license to FICO's scoring software.

The credit bureaus also have a great degree of control with respect to the pricing of credit scores. While FICO has sought to obtain contractual protections to mitigate distribution risks, for any given credit score opportunity in which the credit bureaus participate, they control the pricing of the FICO Score. This means that for both the VantageScore and the FICO Score, the credit bureaus set the resale price. This market structure affords the credit bureaus substantial distribution and pricing power over credit scores.

In credit information markets outside the mortgage market, where lenders, securitization investors and other market participants have all demanded FICO® Scores for their reliability, superior performance, and independence, market structures have so far allowed the FICO Score demand to overcome the distribution and pricing power described above. In contrast, in the mortgage market, the "Lender Choice" option would negatively impact competition and disadvantage any independent credit score provider if the credit bureaus, who price and distribute both scores, used their market power to influence the selection of one score over the other.

FICO, and any other independent score provider for that matter, should be able to compete on the merits of its product, free from such structural unfairness. Likewise, stakeholders should be able to judge competing scoring approaches and their impacts on reliability and performance based solely on the merits, without the inevitable distortions brought about by the credit bureaus simultaneous ownership of VantageScore and the data and means of credit score distribution.

A3.2 Would allowing multiple credit scores in the mortgage underwriting process encourage new entrants into the scoring marketplace? If the requirement remains to keep a single credit score in the mortgage underwriting process what impact would this have on whether new entrants join the credit scoring marketplace?

FICO fully supports fair competition between scoring models in credit markets. But it is important to remember that the mortgage underwriting process is only a fraction of the marketplace for scoring models in which we compete every day. Lenders have the ability to select the credit score of their choice for all other credit products being originated, including auto, credit card, personal loans, home equity, and mortgages to be held in portfolio. We estimate that these credit markets outside the Enterprise conforming mortgage market comprise at least 96% of annual loan originations[36] and represent a substantial market opportunity for new entrants joining the credit score marketplace, even if Option 1 (Single Score) is selected by the FHFA. Further, it is in these markets, where lenders are the risk takers, where the bulk of credit scoring innovation has occurred. When lenders hold credit risk, they are naturally incented to choose the most predictive and reliable credit score. FICO has thrived in these competitive markets.

As discussed in our response to A3.1, the Enterprise market is unique, as lenders do not hold the credit risk. As a result, the Enterprises should choose the score that best protects their respective portfolios and ensures that scoring models are not used to "game" the system and burden the taxpayer with unnecessary risk. FICO is eager to compete, on a fair basis, for the Enterprises' business, and we encourage the FHFA to regularly assess its endorsed credit scoring model. This threat of replacement subjects FICO and any other Option 1 (Single Score) endorsed score provider to the same competitive market forces that prevail outside the mortgage market.

A potential constraint on innovation and new market entrants is not the lack of lender choice but rather the ownership structure of the credit bureau data and the credit bureaus' joint ownership of VantageScore. The credit bureaus have little financial incentive to provide data to another competing market entrant at a reasonable price or at all. Any credit score participant, new or existing, that directly competes with VantageScore faces the very real threat of losing access to the credit bureau data needed to produce its score.

A3.3 What would be the benefits of lender choice if the number of qualified borrowers remained unchanged or changed only modestly from the credit score you are using today to underwrite borrowers for loans sold to the Enterprises?

As discussed previously, there is no benefit derived from lender choice because risk management incentives are not aligned. There would also be significant operational and compliance costs that would ultimately be borne by consumers who are already negatively impacted by the increased and unchecked costs in the mortgage origination process. Lender choice will also result in consumer confusion as discussed in our response to A2.7.

[36] *See supra* note 3.

A3.4 If FHFA allowed the Enterprises to use multiple credit score models by adopting options 2, 3, or 4, would this competition translate into far-superior credit scoring models available to the housing finance markets? Would competition in the mortgage origination process create an incentive to incorporate more credit data for consumers with "thin files" or no credit history? How should FHFA balance these considerations with accuracy and mortgage credit risk?

FICO Score 9 is a seventh-generation credit score, designed to maximize the predictive power of the data available at the credit bureaus. Over these successive generations, we have refined everything from the variables included in the model, to the model segmentation, to the underlying technique used to optimize the model weights. FICO has spent over 25 years mining credit bureau data, and our research and experience consistently indicate that there isn't a far-superior credit bureau model that can be created. This will not change if the FHFA selects Option 2, 3 or 4.

As stated above, we don't believe the VantageScore approach of reducing minimum scoring criteria to score sparse and outdated credit bureau data represents analytic innovation. According to VantageScore, the result is that over two-thirds of consumers scored with this approach are assigned a score below 600. Receiving such a score, which may not represent the true creditworthiness of those consumers, effectively eliminates any possibility that they will gain access to an Enterprise-backed mortgage. Given the choice between no score and a score below 600 based on sparse and outdated data, we believe this traditionally unscorable population would be better served by receiving no score in order to participate in existing alternative offerings from the Enterprises for the unscorable population.

With regard to the incorporation of more credit data, it is important to note that the two scores under consideration today, VantageScore 3 and FICO® Score 9, utilize the same existing credit bureau data. This includes, as referenced above, any telecommunications, utility and rental data that is present in the credit bureau files. Since the U.S. credit reporting system is voluntary, for additional credit data to be added, credit grantors need to have an incentive to contribute data and be free from hurdles to contribute. Consider rental data, where, for example, structural and regulatory hurdles hinder potential furnishers from contributing rental data to the credit bureaus. As a result, we find that only 1 in 300 renters have their rental data on credit reports, which is 0.3% of the estimated 80 million consumer rental population. We don't believe multiple credit scoring models will solve issues like this and thereby induce the flow of more credit data, nor do we believe that changing the dynamic regarding which credit score is selected or if multiple scores are selected will result in any change to the amount or type of data available at the credit bureaus. Sparse credit files that are traditionally unscorable can only be adequately addressed by the inclusion of new data sources found outside the credit bureau files. We believe it is unlikely that a score owned by the three credit bureaus will turn to alternative data not also owned or controlled by the bureaus to expand access to credit.

A3.5 Could competing credit scores in the mortgage underwriting process lead to a race to the bottom with different vendors competing for more and more customers? What steps could FHFA take to mitigate any race to the bottom?

Yes, if scoring demand shifts from a score that provides the most predictive value to a weaker score that allows more loans to be booked, scoring vendors would be incented to lower their standards, creating a race to the bottom. This would be particularly true if the score in question was not already being widely used in the marketplace or was developed specifically for conforming mortgage underwriting. One might suggest that the race to bottom has already started with the release of VantageScore 3, which significantly lowered its minimum scoring criteria in order to score more consumers.

There is unfortunate prior experience with a race to the bottom in the mortgage market. In the years building up to the housing bubble and crisis, deal arrangers shopped the rating agencies to obtain a much coveted AAA rating. This rate shopping became the norm, resulting in rating agencies getting caught-up in a competitive race for market share and revenues with less focus on identifying potential risks.

To protect against a race to the bottom, we believe a score endorsed by the Enterprises should be used by actual risk takers in the mortgage market with demonstrated performance over multiple market cycles.

Questions on Merged Reports

Part II (Questions B1-B7): Modifying the Required Number of Merged Credit Reports

FICO does not have an analytic point of view of the necessity of the tri-merge report from a mortgage underwriting perspective. We would defer to the Enterprises to conduct studies on a matched data set across each of the credit bureaus to determine if the tri-merge requirement is necessary. The necessity would depend on any delta or divergence in data captured across the three credit bureaus.

In our experience, the tri-merge requirement has shaped the credit reporting dynamic in the conforming mortgage market differently than other consumer credit markets in which we participate. In particular, the requirement for originators to obtain a credit report from all three credit bureaus eliminates competition for credit data.

It is for this reason that the FHFA's decisions on credit scoring models and the tri-merge requirement are closely related. While FICO does not maintain a position on whether the tri-merge report requirement should be amended in general, should the FHFA decide to implement Option 3 (lender choice) for credit scores, FICO believes such a decision would necessitate the elimination of the tri-merge requirement for credit reports. This change in the tri-merge requirement would be necessary so that the credit bureaus, as the single point of sale and distribution for credit reports and scores, would be forced to compete among themselves for the sale of scores and data in the conforming mortgage market. Under such a competitive scenario, the credit bureaus would be forced to respond to the price and bundling demands of lenders who prefer a particular credit score—or risk losing the data and credit score sale. Without a change to the tri-merge requirement, the credit bureaus would have no reason to be responsive to the demands of lenders because they would be guaranteed a data sale in each tri-merge report. Under that tri-merge scenario, the credit bureaus would be free to price and bundle as they see fit—and, as owners of VantageScore, would be obviously incented to favor VantageScore over any other score. In other words, "lender choice" would be no choice at all. Finally, if the tri-merge requirement is amended, the Enterprises should specify whether one or two reports must be pulled from the credit bureaus in order to prevent a de-facto tri-merge practice from continuing.

EXHIBIT A

FICO Score Volatility Study

FICO conducted a simulation analysis to quantify the score volatility of consumers in the six months following the obtaining of a new mortgage. This research was conducted on two similar but distinct credit profiles: a FICO scorable but “thin file” population, and a new to credit population that lacked sufficient traditional credit data to receive a valid FICO® Score. To examine score volatility, FICO developed a research score for this new-to-credit population to act as a proxy for a credit score with lowered minimum scoring criteria.

In the analysis, the following two groups were analyzed:

1) FICO scorable “thin file” consumers: 3 or fewer credit accounts or less than 3 years of credit history

2) FICO unscorable new-to-credit files: no credit accounts opened for at least 6 months

For both of these groups, we simulated the 6 month score impact of adding a new mortgage to their credit file. The simulated new mortgage was a 30 year fixed loan for $300,000, at an annual percentage rate of 5.5%. It was assumed that the consumer paid the mortgage as agreed over the six month period evaluated.

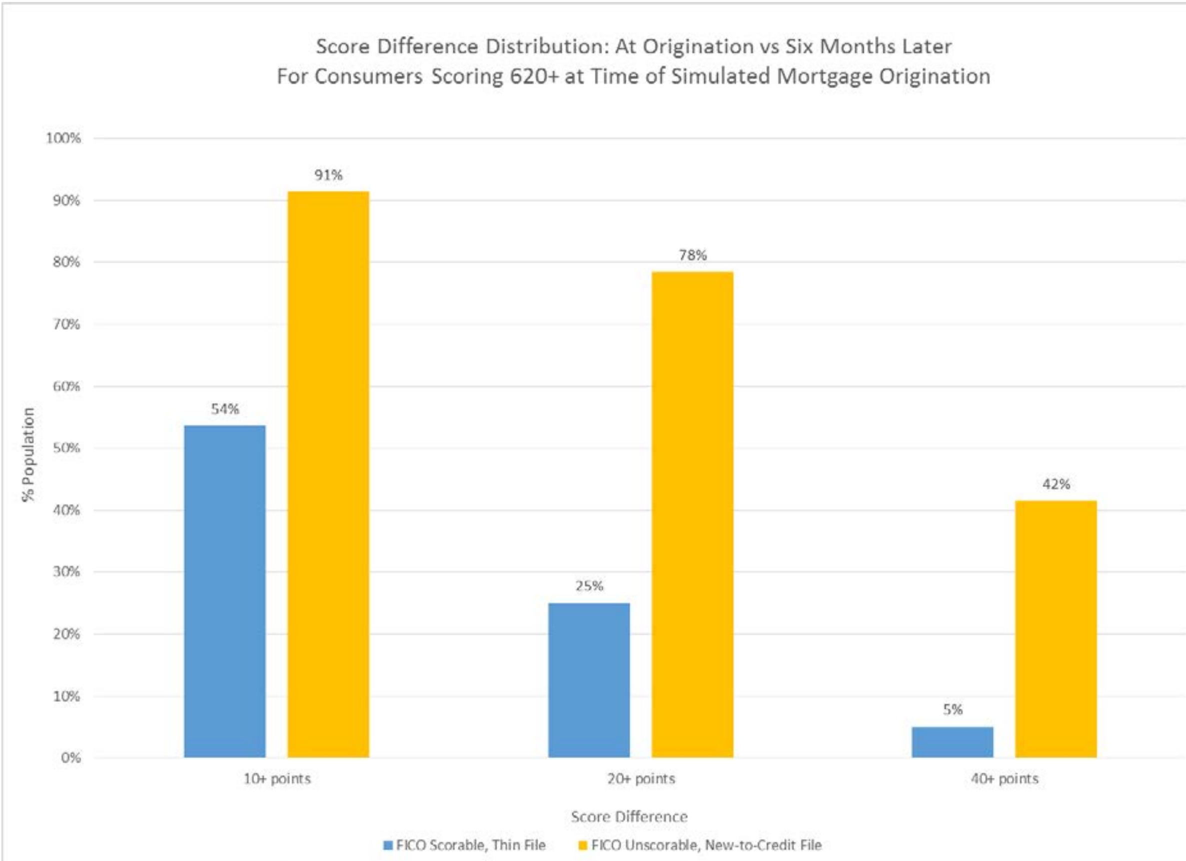
For group 1 (“thin file” consumers), we compared FICO Score 9 at time of origination to a simulated FICO Score 9 calculated 6 months later.

For group 2 (new-to-credit files), we compared the research score at time of origination to a simulated FICO Score 9 calculated 6 months later.

Our analysis focused on the population with a score of 620+, as a proxy for those consumers more likely to apply and qualify for a mortgage. We did not include ‘credit retired’ (aka stale) unscorable files in this analysis, as we wanted to focus on a population that would realistically have interest in applying for credit.

When compared to the FICO scorable cohort, our study found that the unscorable new-to-credit segment exhibits significantly more score volatility. As shown in figure 1 below, only 5% of FICO scorable “thin files” had a simulated score difference of 40 or more points over the six month period following the obtaining of a new mortgage. For the new-to-credit files, 42% experienced a 40+ point score change, an 8-fold increase in volatility.

Figure 1



Score Difference Distribution: At Origination vs Six Months Later
For Consumers Scoring 620+ at Time of Simulated Mortgage Origination
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
% Population
54%
91%
25%
78%
5%
42%
10+ points
20+ points
40+ points
Score Difference
FICO Scorable, Thin File
FICO Unscorable, New-to-Credit File