John C. Meyer
Consumers' Research
1801 F Street, NW
Washington, DC 20006
(202) 898-0542
jmeyer@consumersresearch.org

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By electronic delivery to:
www.fhfa.gov

Mr. Alfred M. Pollard
General Counsel
Federal Housing Finance Agency
400 Seventh Street SW, 8th Floor
Washington, DC 20219

RE: Consumers' Research comment on Federal Housing Finance Agency (FHFA) proposed rule on the process for validation and approval of credit score models by the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (together, the Enterprises); FHFA regulatory information number (RIN) 2590-AA98

Consumers' Research[1] is a 501(c)(3) educational non-profit advocating for the general interests of consumers. This comment does not represent the views of any affected party or special interest group and is intended to present a consumer-oriented discussion of the advantages and disadvantages of proposed changes in the criteria used in developing credit scores that are used by Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (together, the Enterprises) in determining whether a mortgage meets their acceptance criteria.

Introduction

This Proposed Rule is pursuant to the specific statutory mandate of Section 310 of the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) of 2018.[2] EGRRCPA directed the FHFA to establish models for the validation and approval of any third-party credit scores used by the Enterprises in evaluating mortgages, the soundness of mortgage loans, or the creditworthiness of applicants. EGRRCPA does not require that credit scores be used for any of these purposes. If they are used, however, credit scores must come from models that have been validated and approved through the process set forward in the Proposed Rule.

Section 310 contains two sequential mandates. First, the FHFA must issue regulations setting standards and criteria for these credit score models that take into consideration several factors.

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[1] Founded in 1929, Consumers' Research is the nation's oldest consumer affairs organization. Consumers' Research aims to increase the knowledge and understanding of issues, policies, products, and services of concern to consumers and to promote the freedom to act on that knowledge and understanding.

[2] Section 310 of the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 (Pub. L. 115-174, section 310) amended the Fannie Mae and Freddie Mac charter acts and the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (Safety and Soundness Act) to establish requirements for the validation and approval of third-party credit score models by Fannie Mae and Freddie Mac. See https://fas.org/sgp/crs/misc/R45073.pdf

These factors include the credit score model's historical accuracy in predicting default, reliability, and the consistency of any model in regard to the safety and soundness of the Enterprises.

Then, in accordance with the FHFA rule, the Enterprises must publish a description of their validation and approval processes for credit score model developers, consistent with FHFA standards. Each Enterprise will develop its own description separate from the other, although the FHFA may require their results be aligned.[3] The FHFA has published this Proposed Rule to fulfill its mandate to issue regulations setting the standards for credit scoring models.

Broad, National Significance of the Proposed Rule

This is a highly significant Proposed Rule because FHFA regulations for credit score models are likely to become the industry standards for all third-party credit scores. The Enterprises are so dominant in the market that any institution making mortgages aims to ensure its mortgages meet the requirements for Enterprise purchase and securitization. Accordingly, all such mortgage institutions will likely require any credit score used to approve a mortgage complies with Enterprise criteria. The mortgage market, in turn, is a sizable market for Enterprise-approved credit scoring. To access that market, companies providing alternative credit scores will have an overwhelming incentive to ensure that their models comply with FHFA criteria. While this Proposed Rule does not directly impose any requirements on third-party credit reporting agencies, it should effectively ensure third-party compliance. This change is even more likely considering there are only three nationwide credit reporting agencies currently competing in the current traditional credit scoring market: Trans Union, Equifax, and Experian. These three will quickly adjust their credit reports to meet new Enterprise criteria.

Thus, the Proposed Rule will significantly affect all consumers who apply for or use credit — that is, nearly all consumers. Therefore, it is important to approach this rule carefully and ensure it is not unduly disruptive. Overall, this Proposed Rule balances these objectives well.

Value of promoting the introduction of new credit scoring models

Through new financial technologies and innovations, known broadly as "fintech," firms have developed methods of evaluating creditworthiness using unconventional credit records and credit scoring. These methods are valuable in that they identify borrowers who may not score well on conventional credit models but who are still likely to repay their debts. A working paper released by the Federal Reserve Bank of Philadelphia in July 2017 lays out some of the evidence supporting this view of fintech,[4] citing the Lending Club model as a successful example of looking beyond normal credit models.[5] Lending Club, using its own system of credit evaluation, has grown rapidly and kept its defaults within acceptable bounds. The working paper also finds that Lending Club and similar new fintech enterprises have filled the gap for consumers

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[3] The FHFA may direct Fannie Mae and Freddie MAC to align part or all of their assessment processes and/or their decisions on approved credit score models. See Proposed Rule, Supplementary Information Section III C https://www.regulations.gov/document?D=FHFA-2018-0034-0001
[4] See Working Paper No. 17-17, Financial Inclusion, Risk Pricing, and Alternative Information, Research Department Federal Reserve Bank of Philadelphia, July 6, 2017 at
https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2017/wp17-17.pdf?la=en
[5] Ibid Pp 12-13.

underserved by banks and traditional lending institutions.[6] To determine creditworthiness, Lending Club looks at "consumers' payment history (utility, phone, PayPal, Amazon), their medical and insurance claims, their social network, and so forth. These are not factors that are reflected fully in the traditional credit scores."[7] Lending Club credit evaluation models had a good record in predicting the likelihood of significant default (defined as over 60 days overdue) in the period studied by the Philadelphia Federal Reserve.[8]

New credit scoring models may be able to incorporate some of the factors used in alternative credit evaluation models, though they clearly would not be able to replicate exactly the methods used by companies such as Lending Club. Expanding the scope of credit evaluation models would be beneficial to both lending institutions and consumers. It would help lenders identify a wider pool of reliable borrowers; consumers, meanwhile, would find credit when they might otherwise have been charged a higher interest rate or denied credit altogether. Additionally, these new models may make it possible in some instances to evaluate applicants who have little or no conventional credit history but are actually reasonably good credit risks under alternative credit models.

The Proposed Rule will encourage the development and evaluation of innovative credit scoring models. Beyond benefiting borrowers looking for mortgages, the adoption of new methods by the Enterprises would likely create a "spillover effect," catalyzing innovations in creditworthiness standards for other credit markets. Consumers stand to benefit from this development, though all these arguments remain theoretical until such credit scoring models are further developed and evaluated.

Timelines for solicitation and consideration of credit scoring applications

The Proposed Rule requires an "initial solicitation" for credit reporting models and does not require another for seven years. The FHFA has the discretion to require a new solicitation in less than seven years, or to extend the seven-year timeframe for a subsequent solicitation.[9] The solicitation process is likely to be lengthy and resource-intensive for both the Enterprises and the applicants; as the FHFA is allowed some discretion over the process, the seven-year time period for subsequent solicitations is reasonable.

The Enterprises are required to initiate the process for the initial solicitation within 60 days of the effective date of the Final Rule. Unless the Final Rule is significantly different from the Proposed Rule in its requirements for the solicitation, this is likely enough time. The initial solicitation period of 120 days is a reasonable time period for applicants to prepare and submit applications.

The Proposed Rule requires a two-part process. The first part is a Credit Score Assessment under a 180-day time limit with two 30-day extensions that can be granted by FHFA.[10] Essentially, it assesses the accuracy of a model in predicting the probability of borrower default. The second

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[6] Ibid Pp 21-24.
[7] Ibid Pages 24-25.
[8] Ibid Page 32.
[9] See Proposed Rule, Supplementary Information Section IV B 2.
[10] See Supplementary Information Section IV D 6.

part, which a credit score model reaches only if it passes the Credit Score Assessment, is an Enterprise Business Assessment under a 240-day time limit.[11] This assesses the utility of the credit score model in the context of the Enterprises' systems for loan evaluation, as well as its utility in controlling enterprise risk. The timelines for these two assessments (which can run concurrently if circumstances warrant) allow for the detail and complexity of these assessments. Such assessments may also include a limited-time pilot test of a scoring model,[12] an alternative which should be encouraged. Liberally granting extensions of time would be appropriate if such pilots are used in the evaluation process; thoroughness is more important than speed. Any accepted credit score model will be in use for more than five years. Because the model will be in use for such a long period of time, any additional time for review and approval could be justified.

Comment on § III D, Promotion of competition in the credit scoring industry

Section III D, discussing Credit Score Model Developer Independence, shows serious consideration for ensuring open and fair competition in the submission and evaluation of new credit scoring models that is welcome and needed. This section should be adopted, including its provisions barring an Enterprise from approving any credit score model developed by a company that is related to a consumer data provider (through any common ownership or control, of any type or amount).[13] This provision addresses an actual, current issue, as one of the leading developers of credit score models is jointly owned by the three nationwide credit reporting agencies.[14] The FHFA is the conservator of an oligopoly with only two entities (the Enterprises) that will use these models, and the number of likely competitors is limited. Therefore, the FHFA has good reason to impose the proposed detailed regulations laid out in Section III D, which is designed to promote competition and prevent any applicant from having an unfair advantage.

Comment on § IV D, Credit Score Assessment

The Proposed Rule establishes standards for the accuracy, reliability and integrity of each credit score model. The Credit Score Assessment assesses the Credit Score Model's ability to predict the likelihood of future borrower default. Passing the Credit Score Assessment would give that model credibility in the national market, even if it later fails the Enterprise Assessment.

The Accuracy Test and its evaluation – § IV B 2

The accuracy test measures how well a model predicts the likelihood of borrower default. More technically, the accuracy test is defined as measuring the separation between the credit score distribution of defaulted loans from the credit score distribution of non-defaulted loans. The FHFA suggests in the Proposed Rule that some statistical measuring methods — examples including the Kolmogorov-Smirnov statistic (K-S), divergence, and Gini coefficient — be used. Additionally, the proposed rule requires use of at least one generally used industry standard testing model and encourages the Enterprises to add other statistical measuring methods.[15] The Proposed Rule suggests the use of the generally accepted definition of "default," which, in this

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[11] See Supplementary Information Section IV E 8.
[12] See Supplementary Information Section IV G
[13] See Supplementary Information Section III D, first paragraph.
[14] Ibid paragraph 2.
[15] See Supplementary Information Section IV D 2 A.

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case, would be the likelihood of a 90-day delinquency occurring within a 2-year period after loan origination. However, it leaves open the addition of other considerations to that definition. It also requires separate testing of subgroups of loans — including loans with thin credit files, new credit files, and loans with past delinquency — as credit model performance is unlikely to vary uniformly over all types of loans.[16] These requirements are reasonable and complete, and this comment does not include suggestions for additional requirements.

FHFA has considered four approaches to evaluating the results of the accuracy test: a comparison-based approach, a champion-challenger approach, a benchmark-based approach, and a transitional approach. FHFA has chosen the comparison-based approach in the text of the Proposed Rule but is open to using any of these four approaches, or some combination of them, and welcomes comment on this critical choice.[17]

In general, the comparison-based approach in the current text has strong merit, especially as there are significant drawbacks to two of the other approaches. The champion-challenger approach, for instance, could potentially eliminate the currently used models and that would be too disruptive. The benchmark approach has all the difficulties of developing an accurate benchmark and the dangers of the adopted benchmark unduly favoring one type of model.

However, the proposed comparison-based approach should be amended to allow the use of any new Credit Score Model that *as well as* the models currently in use. The Proposed Rule makes the argument that new models should be required to *outperform* existing models, because they have been developed using more recent consumer information and technology. While these arguments have merit, the equivalency standard — of performing at least as well as models currently in use — has the advantage of opening the market to more new models and thereby increasing competition.

Another significant issue is whether the current models can be retained, even if new models score better. The actual regulatory language is § 1254.4 (b) which reads:

"Replacement of credit score model. An Enterprise may at its discretion continue to use or replace any credit score model then in use after a new credit score model has been approved in accordance with this part."

This language seems to mean that the Enterprises have the discretion to retain current models, absent serious failures. The interpretation of this language in the discussion of this issue in Supplementary Information Section IV D 1 also appears to say that models currently in use are not required to be replaced, but that the Enterprises may continue their use alongside newly approved models. The implication is that these models may be retained, even if the new models outscore them — presumably assuming that no serious deficiencies are found in the current models.

Because this is such an important issue, FHFA should consider using even more explicit language, either in the text of the Rule or in the Supplementary Information. Such language

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[16] Ibid.
[17] See Supplementary Information IV D 2 B, first paragraph and IV D 2 B V.

should make it absolutely clear that such existing models may be retained, even if new models outperform them, unless they are found to have serious deficiencies. With this language in place, the FHFA would still have plenty of discretion over transitioning between credit models. For instance, if the FHFA identifies a better model, it could require the Enterprises to phase out a current model in favor of the new one. **The Reliability Standard – § IV B 3**

The reliability test measures the accuracy of a model over time, as changing economic conditions may significantly change the performance of a model. It requires testing with a substantial sample of recent loans against its performance on a similar sample from at least one earlier period in a different phase of the economic cycle. Given that 90 percent of mortgages are for a 30-year term,[18] testing under this reliability standard is a valuable addition to the evaluation of a credit scoring model and should be retained in the Final Rule.

The Integrity Standard – § IV B 4

The FHFA's proposed Integrity Standard requires a credit score model to use data that reasonably encompasses the borrower's credit history and financial performance. Thus, overly narrow sets of data used in a model would disadvantage that model under this standard. The standard aims to incentivize the use of broader types of data and encourage the inclusion of more types of data not found in traditional credit reports (to the extent such data is legally available and usable in a model under practical conditions). Each Enterprise is expected to set out some minimum standards as to the extent of data that must be included.

This objective is desirable, but, as is conceded in FHFA's discussion of the issue, evaluation under the integrity standard is necessarily subjective (except if a model fails to meet minimum standards specified by the Enterprise as to the extent of data that must be included). Because there is no objective standard for this integrity element, the element should be included only as a secondary part of the Credit Score Assessment; the Integrity results should be counted as a positive or negative factor. They should not be used to disqualify a model, however, unless that model has failed to meet minimum standards for data inclusion as set out by the Enterprise.

To ensure that the subjective evaluation of this Integrity Standard is not weighed too heavily, language should be added to the actual proposed regulatory language of this subsection as follows (the additional language is underlined):

> § 1254.7 (b)(3) *Testing for integrity.* A credit score model has integrity if, when producing a credit score, it uses relevant data that reasonably encompasses the borrower's credit history and financial performance. The Credit Score Assessment must evaluate whether a credit score model applicant has demonstrated that the model has integrity, based on appropriate testing or requirements identified by the Enterprise (which may address, for example, the level of aggregation of data or whether observable data has been omitted or discounted when producing a credit score). <u>No credit score model may be eliminated from consideration based solely on the test for integrity, unless it clearly fails to meet the criteria set out by the Enterprise, but performance on this test may be considered as one factor in the overall Credit Score Assessment.</u>

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[18] http://www.freddiemac.com/perspectives/sean_becketti/20170410_homebuyers_communities_fixed_mortgage.page

Comment on § IV E, Enterprise Assessment

The Enterprise Assessment considers those credit score models that pass the Credit Score Assessment from the perspective of whether they meet the specific needs of the Enterprise. This broader assessment includes: consideration of how well such credit scores fit into and match with the Enterprise's own systems and how they perform with Enterprise-specific loan portfolios; how well they meet Fair Lending Standards; and what impact they may have on Enterprise operations and risk management, as well as the impact of their adoption on the credit industry. These are reasonable criteria. Some credit score models may produce good results, in general, but not fit with the Enterprise's structure and needs or not effectively meet its legal and operational requirements.

Assessment of credit scores with Enterprise proprietary systems -- § IV E 2

This assessment, similar to others in the proposed rule, would be conducted on samples of the Enterprise's loans, not on samples of general loans. and would be in the context of the Enterprise's actual use of credit scores as a part of its loan decision-making process. Using such a second assessment makes sense, as a credit score that performed well on a general sample might not perform as well on a sample of enterprise loans. Additionally, a credit score might not be as useful in tandem with the Enterprise's other proprietary methods of judging the soundness of loans.

Comment on § IV E 3 Fair Lending Assessment

As part of the Enterprise Business Assessment, the proposed rule requires each Enterprise to evaluate the fair lending risk and the fair lending impact of the credit score model in accordance with numerous relevant statutory standards, including comparison with existing credit score models, as the Enterprises usually do when making policy changes. The FHFA requests comment on whether this analysis should go beyond the usual fair lending analysis to consider whether each model has the potential to promote access to mortgage credit for all protected classifications.

The usual Fair Lending analyses are extensive and fully comply with all legal requirements. To mandate additional analyses in this context would add excessive and unnecessary complexity to the process. Accordingly, the Fair Lending Assessment should be conducted on the usual basis under existing practices and criteria.

Impact on Enterprise operations and risk management and impact on industry § IV E 3

This is a more systemic evaluation of whether a credit score model fits in with the operational structure and peculiarities of Enterprise systems and whether the model has characteristics that might tend to concentrate or increase risk in enterprise loans. These reasonable considerations would be helpful to an Enterprise in deciding whether to adopt a particular model. Specifically, they would assist the Enterprise in comparing a new model to its current one and in assessing whether a new model would improve its risk management. These are judgments that must be made within the Enterprise and it should have latitude to make them.

More broadly, this part of the Enterprise Assessment also requires an evaluation of the impact on the overall market through the benefits and costs of adopting or changing a credit score model affecting market participants, market liquidity, and the cost and availability of credit. Because of the extensive impact that the adoption of new credit models is likely to have on the broader market, it is especially welcome that these broader effects are explicitly considered in the Enterprise Business Assessment.

Comment on § IV G, Use of Pilot Programs for new credit score models

FHFA should strongly encourage the use of pilot programs for credit score models that are new to Fannie Mae and Freddie Mac, especially those with a relatively short history of usage in the market. Pilot testing is especially desirable because of the pervasive effects that the adoption of new credit score models are likely to have across the whole credit reporting industry and, consequently, on most consumers.

Accordingly, revision of the actual language of proposed § 1254.11(a) is recommended as follows with modified language stricken and additions underlined:

> § 1254.11 (a) *Pilots ~~permitted~~* <u>encouraged</u>. An Enterprise ~~may~~ <u>is encouraged to, but not required to</u>, undertake pilots or testing initiatives for a credit score model. If a pilot or testing initiative involves the use of a credit score model not in current use by the Enterprises, that credit score model is not required to be approved under this part.

A Note on the Proposed Consumer Financial Protection Bureau (CFPB) Policy on No-Action Letters and the CFPB Product Sandbox Docket ID CFPB-2018-0042-0001

The CFPB is currently in the process of finalizing a rule to expand its No Action Letter program and create a product sandbox for financial technology. It may be worthwhile for the FHFA to coordinate with the CFPB in an effort to streamline the approval process for alternative credit models. The CFPB has already approved one alternative credit model through Project Catalyst, the CFPB's original No Action Letter program.

Through Project Catalyst, the CFPB issued a no-action letter to Upstart, a lending platform that leverages "artificial intelligence and machine learning to price credit and automate the borrowing process." In its letter, the CFPB laid out the specific requirements for Upstart to obtain a three-year exemption from regulatory underwriting supervision, which can be an onerous process. The requirements are as follows: "Upstart will share certain information with the CFPB regarding the loan applications it receives, how it decides which loans to approve, and how it will mitigate risk to consumers, as well as information on how its model expands access to credit for traditionally underserved populations."

The CFPB recognized the potential of Upstart to the consumer credit market. Rather than taking an overly-cautious regulatory approach, the CFPB has paired reasonable oversight with a focus on consumer welfare. Rather than attempting to create alternative credit-model evaluation models from scratch, the FHFA should collaborate with the CFPB in order to streamline the process.

Conclusion

Modern technology is rapidly changing the way Americans are using financial products. A growing population is finding ways to purchase goods and services in ways that are not captured by traditional credit scoring models. As this trend increases, many Americans who are actually good credit risks may find themselves without favorable credit scores reflecting their actual risk profiles. The FHFA's Proposed Rule could lead to the development of credit models that are able to identify those Americans that have an appropriate mortgage risk profile but not an acceptable credit score under traditional metrics, to the benefit of both lenders and consumers.

Sincerely,

John Meyer
Senior Researcher