The Honorable Melvin L. Watt
Federal Housing Finance Agency
Office of Housing and Regulatory Policy
400 7th Street, SW, 9th floor
Washington, DC 20219

March 13, 2018

Re: December 20, 2017 Credit Score Request for Input.

Dear Director Watt,

On December 20, 2017 the FHFA requested input on which credit score option should be adopted as a replacement to the current Classic FICO standard. This comment letter responds to that request.

In particular, this letter addresses two central questions concerning the government-sponsored enterprises' (GSEs') requirements for credit scores used in mortgage underwriting: whether the GSEs should use newer, upgraded credit score model(s) and whether to allow multiple models.

As researchers at the Urban Institute's Housing Finance Policy Center, Karan Kaul and I support FHFA's efforts to upgrade the credit score requirements but we also believe that FHFA's thinking does not go far enough because it fails to encourage the use of additional data, such as that on rent and telecom payments. We urge you to take a view of competition within the credit scoring space broader than that contemplated by your questions – one that includes both credit score modeling firms and providers of additional data.

Included with this letter is an article we prepared on this topic, which contains our comments and summarizes our views on expanding competition in the credit scoring space.

I sincerely appreciate your consideration of our input on this issue, and would be happy to discuss this further at your convenience.

Sincerely,

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The FHFA's Evaluation of Credit Scores Misses the Mark

Karan Kaul and Laurie Goodman

March 2018

In December 2017, the Federal Housing Finance Agency (FHFA) released a request for input (RFI) on two central questions concerning the government-sponsored enterprises' (GSEs') requirements for credit scores used in mortgage underwriting: whether the GSEs should use newer and upgraded credit score model(s), and whether to allow multiple models to compete (DHMG 2017). The FHFA is also soliciting feedback on related issues, such as benefits and costs of competition in credit score modeling, the impact on consumers, and potential operational and implementation considerations that would arise if new credit scoring models were adopted.

We support FHFA's efforts to upgrade the GSEs' credit score requirements, as the current model is outdated. But updating to a newer model, while a step forward, does not go far enough because it does not encourage greater use of additional data, such as rent and utility payment data. We believe the mortgage market and consumers will benefit from competition between credit score modeling firms, and as such recommend option 3, lender choice with constraints. The crux of our RFI response is that the FHFA should take a broader view of competition with the credit scoring space—one that includes credit score modeling firms and providers of additional data.

The Housing Finance Policy Center has written about the advantages of upgrading how credit scores are used in mortgage underwriting.[1] In particular, additional consumers could be scored using innovative modeling techniques and incorporating such data as rent and utility payments that are not found in data traditionally maintained by the three national credit reporting agencies (CRAs): Equifax, Experian, and TransUnion. Adopting these two changes would improve the accuracy of scores for thin-file consumers and help make mortgage financing accessible to responsible households who are not well served by the current credit scoring regime. The question is whether these benefits are worth the cost of transition and implementation and what risks they create of industry consolidation and an underwriting "race to the bottom."

The GSEs currently require lenders to submit Classic FICO scores, which are generated solely using traditional credit bureau data. These data include payment history for most types of borrowing accounts, such as auto loans, credit cards, personal loans, and home mortgages. The FHFA is considering replacing this model with FICO 9 or VantageScore 3.0, both of which apply new and improved modeling methodologies.

Moving to better scoring models is a positive step, and introducing competition among model providers FICO and VantageScore is more positive still. But we do not view the future of credit scoring as a binary choice between two competing models. Instead, we see competition more broadly, as something that incorporates better models and better data.

There have been three innovations in credit scoring in recent years:

- Model advancements that have improved the predictive power of credit scores

- Model enhancements that have allowed existing models to score more borrowers

- Availability of additional data generally lacking from traditional credit bureau files

By limiting its evaluation to FICO 9 and VantageScore 3.0 models, the RFI focuses only on the benefits of the first two innovations, as neither of the models under the FHFA's consideration leverages the benefits of the third. The RFI thus misses an opportunity to safely expand credit availability for low- and moderate-income borrowers and people of color, whose full credit and payment history is likely to be underrepresented in credit bureau data. Furthermore, taking an expanded view of competition—one that includes additional data—can address concerns about the risk of industry consolidation and potential adverse effects of moving to multiple providers.

One such adverse incentive the RFI notes is the risk of a race to the bottom that could occur if score providers sacrifice score accuracy or drop scoring standards to gain market share. We do not see this as a reason to limit or restrict competition, as lenders and the GSEs would not adopt changes to scoring models without extensive study, review, testing, and regulatory approval. Also, the GSEs' automated underwriting systems make limited use of credit scores, making it unlikely that a drop in scoring standards would create major problems. Lastly, appropriate rules and restrictions can address risks and concerns. On balance, we believe the benefits of greater competition in credit scoring, with appropriate compensating factors, outweigh concerns about consolidation and a race to the bottom.

In this brief, we first explain why the use of additional data should be central to discussions about GSE credit score requirements. Next, we address consolidation risk, including ways to address it. Lastly, we discuss race-to-the-bottom concerns and explain how they can be mitigated.

The Case for Additional Data in Mortgage Underwriting

The three most common forms of additional payment data that can be used in credit scoring are telecommunications, utility, and TV bill payments. A fourth data source, rent payment history, can be obtained from most borrowers' bank statements. Although more work needs to be done with respect to

using bank statements for mortgage underwriting, huge advances have been made for using bank statements to approve credit cards.[2] There are several reasons more data should be used in mortgage underwriting.

- **New forms of data are largely missing from traditional credit bureau files.** It is widely believed that only a tiny fraction of utility, telecom, and rent payment data are reported to the three credit bureaus. Thus, even though FICO 9 and VantageScore 3.0 models are designed to incorporate additional payment data, the unavailability of such data in credit bureau files renders this feature of the models largely fruitless. In addition, the utility, telecom, and rent payment data found in credit bureau files is disproportionately negative—that is, it is generally not reported unless a consumer falls behind on a payment. Consumers get penalized for bad payment histories but do not get rewarded for good behavior.

- **High-quality payment data exist outside of credit bureaus.** As the RFI notes, telecom, utility, and TV payment data are reported to the National Consumer Telecom and Utilities Exchange (NCTUE). The NCTUE database is highly comprehensive and contains payment history for more than 300 million telecom, TV, and utility accounts and more than 200 million unique consumers.[3] Moreover, FICO already uses these data, to a limited extent, to score and underwrite consumers for credit cards.

- **Additional data would make mortgage underwriting more equitable.** The consumers who stand to benefit most from the use of new data are those who are underrepresented in traditional credit bureau files and scores. Many of these consumers may not have had a mainstream financial product or have had limited time to establish credit history. These are often millennials, first-time homebuyers, and minorities,[4] all groups that will be the main engine of household formation and homeownership in the coming decades (Goodman, Pendall, and Zhu 2015). By laying the groundwork for improved access to credit for these groups today, the FHFA can ensure that the mortgage industry is better prepared for tomorrow.

- **Rent payment data can be useful in mortgage underwriting.** Reporting and collecting rent payment data remains a work in progress because landlords are not required to report such data. In addition, much of the nation's rental housing stock is single-family homes and small multifamily buildings owned by mom-and-pop investors and is fragmented. Also, minorities and younger households are more likely to be renters than the general population, as they tend to have less wealth, smaller incomes, and less savings. Incorporating rental payment histories in mortgage underwriting could enable homeownership for these groups. Some services are already trying to crack this market.[5] The GSEs could work with their depository sellers to explore ways in which rental payment history might be gleaned from GSE mortgage applicants' bank statements.

- **Using additional data can improve enterprise safety and soundness.** The more data the GSEs, lenders, and credit score providers have at their fingertips, the more accurate their assessments of borrower creditworthiness will be. Additional accuracy might be of limited value to high-creditworthy borrowers, but it can be very valuable for assessing marginal

borrowers. This would make the mortgage market more efficient and the GSEs safer. We note that the race to the bottom leading up to the Great Recession was not the result of innovation and untested data, but rather failure to underwrite and fully document loans—that is, the use of less, not more data.

We are not advocating for basing mortgage underwriting decisions solely on these additional payment data. Rather, we envision a future where such data are *combined* with traditional credit bureau data to paint a more holistic and accurate financial picture of thin-file consumers, thus helping some of them qualify for mortgages. Upgrading to newer models without leveraging innovations in data would continue to paint an incomplete picture of credit risk, an incompleteness that disproportionately affects minority and younger households.

Addressing Concerns about Consolidation and Competition

The RFI raises concerns about the risk of consolidation in the credit scoring industry, given that the three CRAs jointly own VantageScore Solutions LLC. Specifically, the RFI notes the following:

> CRAs' ability to control the data and pricing of both VantageScore and FICO scores, while maintaining a financial interest in VantageScore, could create concerns about competition.

Competition between Data Providers versus Competition between Model Providers

The three CRAs provide all the data that are used to calculate credit scores used in mortgage underwriting. This status quo will persist regardless of whether the GSEs upgrade to FICO 9 or VantageScore 3.0, as both models rely solely on credit bureau data. To the extent the FHFA is concerned about the risk of consolidation given the CRAs' ownership of both data and VantageScore Solutions, encouraging greater competition between data providers would seem to be an effective way to address that. For instance, permitting the use of additional data from NCTUE or rent data from bank statements would diversify the pool of data providers beyond the three CRAs. By restricting its evaluation to FICO 9 and VantageScore 3.0, the RFI is effectively closing the door, for now, on the use of non–credit bureau data.

The GSEs' openness to additional data providers could provide incentives for new and innovative firms[6] to enter the market and compete with the three CRAs. One could envision a technology firm, that specializes in underwriting using bank statements or that has access to rent data, partnering with FICO or VantageScore to produce a more predictive score than either can do alone. Or a third-party data provider such as NCTUE might allow telecom and utility payment data to be used in conjunction with credit bureau data to improve score accuracy, score coverage, or both. Also, broader competition will facilitate quicker adoption of new innovations as firms seek a competitive edge.

The Use of the Tri-merge

A related recommendation to encourage greater competition is to move away from the standard practice of obtaining the "tri-merge credit report." This report combines borrower credit score and credit report information from the three CRAs, and mortgage lenders use it for underwriting and selling loans to the GSEs. Although the GSEs require lenders to obtain all three credit scores, they accept as few as one score when all three are not available.[7]

Notably, the GSEs use credit scores very little in their underwriting. Fannie Mae's automated underwriting system, the Desktop Underwriter, does not use credit scores in its underwriting but only to verify Fannie Mae's minimum score requirement of 620. The credit score is mainly a gateway. Freddie Mac's Loan Prospector does use credit scores to underwrite borrowers, but Freddie Mac uses several dozen other attributes. Both GSEs use the more comprehensive consumer credit data from CRAs, in conjunction with loan application data for underwriting. The only other place where credit scores are used is to set the loan-level pricing adjustments after the loan is approved for GSE purchase. In other words, when it comes to underwriting, the GSEs rely very little on the credit score in the case of Freddie Mac and not at all in the case of Fannie Mae.

This raises the question about whether the tri-merge report is necessary. In the past, the report was necessary because each CRA had a geographic specialty, leaving many borrowers with only one score. The credit bureau industry was fragmented, and each bureau collected data from a specific industry, such as banking or retail, or from a finance company. A bureau that collected data from banks, for instance, would not share the data with a finance company and vice versa, limiting creditors' ability to fully assess borrower creditworthiness. To perform more holistic borrower assessments, creditors found it necessary to obtain credit reports from multiple bureaus.[8]

But today's credit reporting industry is different. Over time, the industry consolidated from a dozen or more players to three today. All three CRAs have a national footprint with nearly identical data and borrower coverage. Some minor variations might exist, but they are unlikely to be material. Where lenders bear the credit risk, they generally opt for a score from one or two credit bureaus. One bureau is the norm for credit card lending, and auto lending often uses two scores. Moreover, requiring all three scores on every loan comes at a cost (to lenders, but ultimately to borrowers). Not only is there the cost of running three scores for every mortgage applicant, but more importantly, it reduces the incentive for score providers to compete for lender business. If the GSEs and the mortgage industry were to move toward a bi-merge or a single score regime, two immediate benefits could be realized. First, such a move would give score providers an incentive to compete for lender business—either through better pricing or superior products and services—and second, the cost of origination could be marginally reduced, as fewer scores would need to be purchased and paid for.

Eliminating the tri-merge could also mitigate the risk of consolidation the RFI highlights—that is, the risk that any of the three bureaus would make it more difficult for FICO to compete by making FICO models more costly relative to VantageScore models or through other actions. Eliminating the tri-merge

would reduce this likelihood, as more competition between the CRAs would facilitate continued participation of both VantageScore and FICO.

Which Score(s) Should the GSEs Adopt?

Among the four credit score options the FHFA is considering, we believe option 3—lender choice with constraints—is the optimal choice. Option 3 strikes a healthy balance among safely expanding consumer access to credit, encouraging competition between score providers, and minimizing the likelihood of consolidation. Unlike the other three options (i.e., single score, both scores, and waterfall), lender choice is the only one that would provide incentives for score providers to offer the best products and services at the lowest possible cost.

Under the "single score" option (option 1), the provider the FHFA chooses will have substantial market power and limited incentive to improve its products. The "both scores" option (option 2) will work largely in the same manner, as both providers will have a steady stream of almost guaranteed revenues and no motivation to improve. We understand that the FHFA and the GSEs might prefer a single score or both scores to minimize adverse selection, to avoid a race to the bottom, or for other reasons, but in our view, the benefits of lender choice outweigh these concerns. Moreover, such risks can be adequately managed, as discussed later.

Of the four options, we believe the "waterfall option" (option 4) is the least preferable.

- The waterfall option would create a primary and a secondary score provider. The secondary provider would be used only in the rare circumstance where the borrower does not have a primary score. Thus, demand for the secondary score could be limited and may not justify the steep fixed-cost investments needed to build and maintain highly sophisticated and regulated credit scoring models.

- Having a primary and a secondary provider could create a self-fulfilling prophecy. Lenders and other mortgage market shareholders might look unfavorably at the secondary score provider. In the end, the waterfall option could end up looking like the single score option.

- Lastly, the waterfall approach's main objective—to score borrowers without the primary score—could be achieved by tweaking the lender choice. The GSEs could give lenders limited flexibility to submit an alternate score for borrowers who do not have a score from the provider the lender opted for initially.

To mitigate adverse selection concerns associated with lender choice, lenders should commit to one score provider for a certain period . Table 1 summarizes the pros and cons of various options. Given our strong preference for competition among data providers, the last row summarizes the pros and cons of the lender choice option plus additional payment history data.

TABLE 1
Comparing the FHFA's Four Credit Score Options

	Competition between score modelers	Competition between data providers	Risk of consolidation within credit scoring industry	Risk of race to bottom
Option 1: Single score	None	None	High if FHFA selects VantageScore 3.0 Low if FHFA selects FICO Score 9	Lowest
Option 2: Both scores	Limited	None	Medium	Low
Option 3: Lender choice with constraints	High	None	Medium	Low, if adequately managed
Lender choice plus additional payment data	Highest	High	Lowest	Low, if adequately managed

Note: FHFA = Federal Housing Finance Agency.

Introducing competition should be accompanied by an approval process for testing and adopting new credit scoring models. This would make it easier to incorporate upgrades to existing models. VantageScore has already completed its work on VantageScore 4.0, which uses trended data, but the RFI evaluation does not include this latest version. Putting a well-defined model adoption process in place could allow future innovations to come to market quickly.

New scores must come with adequate data disclosure and notice to give investors and other stakeholders enough time for transition. This would be best done using Fannie Mae's and Freddie Mac's loan-level credit data, released in support of the Connecticut Avenue Securities and Structured Agency Credit Risk transactions. These data cover fixed-rate, fully amortizing loans made since 1999. Information on the original Classic FICO is included in the database. The data could be enhanced to include both original and current Classic FICO scores and original and current scores from the model the FHFA eventually approves (FICO 9 or VantageScore 3.0). Additional insight on borrower creditworthiness would promote greater transparency for mortgage market stakeholders, especially for mortgage-backed securities investors, by allowing them to better assess the relationship between scores and credit or prepayment risks.

Today, mortgage market stakeholders and investors associate a given Classic FICO score with a certain level of default or prepayment risk. The marketplace understands Classic FICO scores well and is accustomed to using them. Assume a borrower with a Classic FICO score of 700 and a 5 percent expected probability of default. Assume the same borrower has a VantageScore 3.0 score of 705 and a FICO 9 score of 710, all else equal. Stakeholders with access to both classic and new scores can easily map this borrower's risk characteristics to the newer score. For instance, the credit investors would quickly realize that a Classic FICO score of 700 presents the same credit risk as a VantageScore 3.0 score of 705 or a FICO 9 score of 710 and would price the mortgage pools accordingly. Prepayment risk would get mapped the same way, and mortgage-backed securities pricing would adjust accordingly.

Addressing the Race to the Bottom

The RFI suggests that competition in credit scoring could lead to adverse incentives. One discussed most frequently in media reports is the risk of deteriorating modeling standards if score providers compete for business by inflating credit scores. We understand the general concern, especially considering the last housing crisis, but we do not view it as a strong enough reason to discourage competition.

- **The GSEs' automated underwriting systems use several variables other than credit scores.** The GSEs use many data inputs and credit criteria before a loan is approved for purchase. Credit scores are important, but they are not the only variables. Moreover, as the RFI states, the GSEs' proprietary automated underwriting systems "more precisely predicted mortgage defaults than third-party credit scores alone." This suggests that even if a race to the bottom occurred and the quality of credit scores deteriorated, loans that do not pass GSE automated underwriting system requirements will continue to be rejected.

- **Any changes to credit scoring could be subject to FHFA and GSE approval.** To further mitigate the risk of deteriorating scoring standards, the FHFA and the GSEs could establish a rigorous evaluation and testing framework before adopting material changes to credit scoring criteria. This standard could be further enhanced by requiring credit score providers to adhere to baseline standards before they become GSE eligible, just as other counterparties such as private mortgage insurers and GSE loan servicers must adhere to certain minimum requirements.

- **Credit score performance should be tested.** To impose self-discipline, the FHFA and the GSEs should periodically test each credit score's predictive power against actual loan performance and release results publicly. This would impose market discipline by ensuring that score providers remain focused on predictive accuracy first and foremost. A good first step to this end would be for the FHFA to release the results of the empirical evaluation of Classic FICO scores, FICO 9 scores, and VantageScore 3.0 scores conducted by the GSEs.

Conclusion

We believe the credit score regime for mortgages needs to be updated, and we support the FHFA's efforts to explore opportunities for competition. But consumers and the market overall will benefit most from the use of additional payment data, which, in combination with traditional credit bureau data and newer models, can help obtain more accurate scores for a larger number of consumers.

For this to happen, the FHFA and the GSEs will need to encourage competition on a scale broader than the RFI contemplates. Competition can come with the risk of adverse incentives, but the way to address that is through appropriate rules, restrictions, and incentives, not by restricting competition. Opening up this space to greater competition will also attract new entrants, lead to better products and

services, and help reduce the risk of consolidation. We thank the FHFA for the thoughtful RFI and welcome any opportunity to discuss our comments in detail.

Notes

1. Karan Kaul, "Six Things That Might Surprise You about Alternative Credit Scores," *Urban Wire* (blog), Urban Institute, April 13, 2015, https://www.urban.org/urban-wire/six-things-might-surprise-you-about-alternative-credit-scores. See also Goodman (2017).

2. Plaid is a financial technology firm specializing in facilitating access to bank statement transactions. See its website at https://plaid.com/. Petal leverages bank transaction data for credit card underwriting. See its website at https://www.petalcard.com/.

3. See "About Us," National Consumer Telecom and Utilities Exchange, accessed March 5, 2018, https://www.nctue.com/about-us.

4. "Insights and Resources," LexisNexis Risk Solutions, accessed March 5, 2018, http://www.lexisnexis.com/risk/downloads/whitepaper/fair_lending.pdf.

5. See RentTrack's website at https://www.renttrack.com and the Rent Reporter website at https://www.rentreporters.com/.

6. For example, see the website for Nova at https://www.neednova.com. Nova enables immigrants to transport their credit history internationally so lenders can conduct more accurate credit assessments.

7. See "In-File Credit Reports," Fannie Mae, February 27, 2018, https://www.fanniemae.com/content/guide/selling/b3/5.2/02.html.

8. See Furletti (2002) for a brief history of US consumer credit reporting.

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About the Authors

Karan Kaul researches topical housing finance issues to highlight the market impact of ongoing regulatory, industry, and related developments. He is also responsible for monitoring and reporting on mortgage market trends and current events weekly. He brings a deep understanding of key reform issues, political landscape surrounding reform, and pros and cons of different approaches concerning their impact on mortgage rates, credit availability, private capital, and other factors. Kaul came to Urban after five years at Freddie Mac, where he worked on various housing policy issues primarily related to the future of housing finance and the reform of the government-sponsored enterprises. Before Freddie Mac, Kaul worked as a research analyst covering financial institutions. He holds a bachelor's degree in electrical engineering and an MBA from the University of Maryland, College Park.

Laurie Goodman is vice president of the Housing Finance Policy Center at the Urban Institute. The center provides policymakers with data-driven analyses of housing finance policy issues they can depend on for relevance, accuracy, and independence. Before joining Urban in 2013, Goodman spent 30 years as an analyst and research department manager at several Wall Street firms. From 2008 to 2013, she was a senior managing director at Amherst Securities Group LP, a boutique broker-dealer specializing in securitized products, where her strategy effort became known for its analysis of housing policy issues. From 1993 to 2008, Goodman was head of global fixed income research and manager of US securitized products research at UBS and predecessor firms, which were ranked first by *Institutional Investor* for 11 straight years. Before that, she was a senior fixed income analyst, a mortgage portfolio manager, and a senior economist at the Federal Reserve Bank of New York. Goodman was inducted into the Fixed Income Analysts Hall of Fame in 2009. Goodman serves on the board of directors of the real estate investment trust MFA Financial, is an adviser to Amherst Capital Management, and is a member of the Bipartisan Policy Center's Housing Commission, the Federal Reserve Bank of New York's Financial Advisory Roundtable, and Fannie Mae's Affordable Housing Advisory Council. She has published more than 200 journal articles and has coauthored and coedited five books. Goodman has a BA in mathematics from the University of Pennsylvania and an MA and PhD in economics from Stanford University.

Acknowledgments

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