



Introduction

The Federal Housing Finance Agency (FHFA) was established by the Housing and Economic Recovery Act of 2008 (HERA) and is responsible for the effective supervision, regulation, and housing mission oversight of Fannie Mae and Freddie Mac (the Enterprises) and the Federal Home Loan Bank System. FHFA's mission is to ensure that the regulated entities operate in a safe and sound manner and that they serve as a reliable source of liquidity and funding for housing finance and community investment. Since 2008, FHFA has also served as conservator of the Enterprises.

Scope of FHFA and Enterprise Review of Credit Scores

As part of FHFA's 2015 and 2016 Scorecards for Fannie Mae, Freddie Mac, and Common Securitization Solutions, each Enterprise undertook an assessment of the potential impact of updating the Enterprise credit score requirement from Classic FICO to another score or scores. The assessment has been limited to commercial credit score models available at all three national consumer reporting agencies, also known as credit bureaus or credit reporting agencies (CRAs). The assessment was also limited to credit scores used for mortgage applications received from lenders and loans acquired by the Enterprises. The Enterprises independently analyzed credit scores produced by three models – Classic FICO, FICO 9, and VantageScore 3.0. ²

FHFA has reviewed the current Enterprise credit score requirements to consider if the Enterprises should update their requirements and, if so, what type of update should be required. This review has included evaluating the impact of a new credit score model on access to credit, on operations in the mortgage finance industry, and on competition in the credit score market. During the course of FHFA's work on this topic, the Enterprises and FHFA have sought individual feedback from stakeholders on the potential impacts associated with updating the current Enterprise credit score requirement.

While FHFA believes that it would be desirable to update the Enterprises' credit score requirement from the current Classic FICO standard, FHFA has not determined which credit score option should be adopted as a replacement. This Request for Input (RFI) is intended to gather feedback on the options from interested parties that could be impacted by a change in the

² The Enterprises use FICO 5 from Equifax, FICO 4 from TransUnion, and FICO Score 2 from Experian, which are collectively referred to as "Classic FICO."



¹ This Request for Input (RFI) does not address the activities of the Federal Home Loan Bank System.

Enterprises' credit score requirements, including industry and consumer group stakeholders. FHFA encourages all interested parties to provide their feedback in response to this RFI, including stakeholders that might have already provided input to FHFA.

FHFA's review of updated credit score models is only one aspect of FHFA's and the Enterprises' broader inquiry into the impact that credit scores have on access to credit. This review includes the Enterprises' ability to evaluate mortgage applications using their automated underwriting systems when a borrower does not have a credit score. Both Enterprises have developed and implemented this automated underwriting system capability – Fannie Mae in September 2016, and Freddie Mac in May 2017.³ Another aspect of this broader credit score project has been evaluating the current industry practice of using a borrower's credit report and credit score from each of the three national consumer reporting agencies (CRAs) (often referred to as a "tri-merge credit report"). FHFA is evaluating whether to change from the current requirement of obtaining a credit report and credit score from all three of the CRAs to a requirement to obtain only two or one report and score from the CRAs for each mortgage applicant.

Empirical Evaluation

As part of FHFA's review of the Enterprise credit score requirements, FHFA required each Enterprise to conduct an empirical evaluation of Classic FICO, FICO 9 and VantageScore 3.0. This analysis included assessing credit score accuracy, borrower coverage, and a simulated test of the Enterprises' automated underwriting system recommendations. The credit score coverage analysis was based on applications the Enterprises received from lenders, and the analysis of credit score accuracy was based on loans acquired by the Enterprises (excluding product types and terms that the Enterprises no longer purchase). The simulation of the Enterprises automated underwriting system sought to determine whether more loans would qualify for purchase if a FICO 9 or VantageScore 3.0 score was used to underwrite the loan instead of using Classic FICO. The simulated underwriting system recommendation test results are driven by the Enterprises' automated underwriting systems instead of the third-party credit score used in the underwriting process. Furthermore, the Enterprise empirical findings are only applicable to the Enterprises' testing of mortgage applications and loans and should not be extrapolated beyond this scope.

³ Fannie Mae Selling Guide B3-5.4-01: Eligibility Requirements for Loans with Nontraditional Credit (02/28/2017), available here; Fannie Mae Selling Guide B3-5.4-03: Documentation and Assessment of Nontraditional Credit History (8/30/2016), available here and Freddie Mac Bulletin 2017-2 (March 16, 2017), available here.



FHFA concluded that the Enterprises' empirical findings revealed only marginal benefits to requiring a different credit score than Classic FICO. These findings suggest that, regardless of the credit score used in the underwriting process, each Enterprise's automated underwriting systems more precisely predicted mortgage defaults than third-party credit scores alone. The Enterprises' automated underwriting systems incorporate additional information provided by the borrower and/or third parties during the mortgage application process (e.g. borrower income and assets) that is not reflected in the information used to generate a standalone third-party credit score such as Classic FICO, FICO 9, or VantageScore 3.0.

Request for Input

This RFI includes a list of specific questions to which FHFA is encouraging stakeholders to provide as much information and insight as possible. FHFA encourages stakeholders to provide meaningful and detailed responses to the RFI and to make those responses public whenever possible to inform broader public discourse on these issues. However, FHFA also encourages stakeholders to contact FHFA if a stakeholder seeks to provide confidential or proprietary information as part of its response and wishes to request that the information not be made public.

FHFA will consider all information that is provided in response to the RFI, along with supporting analysis and outreach, before reaching any conclusion. After FHFA has reached a decision, the Enterprises will work with stakeholders on an implementation plan that will take into account the potentially substantial effort needed to make necessary changes.

Background

This section provides background information about how credit scores are used by the Enterprises and the mortgage industry, about the credit score models that FHFA and the Enterprises are evaluating, and about the credit score model options under consideration by FHFA.

I. Industry Use of Credit Scores and Potential Impacts

Lenders use credit scores for underwriting and risk management across a number of consumer credit products – credit cards, auto loans, and mortgages – to rank-order borrowers by their



propensity to repay a loan.⁴ Consumer credit data (also referred to as a borrower's credit history) is used by companies, such as Fair Isaac Corporation (FICO) and VantageScore Solutions, LLC (VantageScore), to develop algorithms for credit scoring models that are then used to generate a consumer's credit score.⁵ A consumer's credit score depends on the consumer's credit history and the specific credit scoring model used to calculate the credit score. Even when using a single credit score model, a consumer typically has three different credit scores – one generated from the borrower's credit history available at each of the three CRAs: Equifax Inc., Experian PLC, and TransUnion.⁶

As described in their Selling Guides, neither Fannie Mae nor Freddie Mac currently allows delivery of loans with a credit score other than Classic FICO. Each Enterprise, however, recently implemented changes to their automated underwriting systems that allow borrowers without a Classic FICO score to be eligible for review and recommendation by their automated underwriting systems and for delivery of approved loan purchases.

Updating the Enterprises' credit score requirement would generate industry-wide effects among stakeholders, including impacts on mortgage applicants, mortgage lenders, mortgage insurance companies, CRAs, consumer credit reporting resellers, mortgage-backed security investors, credit risk transfer (CRT) investors, and other market participants (including the Federal Housing Administration, Veterans Administration, and Rural Development). The entire mortgage finance industry will incur operational and transition costs that could result in higher borrowing costs for consumers. In issuing this RFI, FHFA is seeking additional information from stakeholders about the impact a change to Enterprise credit score requirements would have on different parts of the mortgage industry.

Figure 1 below is a conceptual diagram that highlights typical uses of credit scores by different industry stakeholders. The following sections provide information on how the Enterprises use credit scores, followed by an overview of credit score usage by other segments of the mortgage industry, including CRAs, agencies, consumer credit resellers, mortgage lenders, mortgage insurers, and mortgage investors.

⁶ This does not include other types of credit scores that may be used outside of mortgage lending. Lenders typically use different types of scores for different product types (e.g., auto loans). An individual consumer may have many different scores depending on the loan product. This document focuses only on scores generated for mortgage loans by the three national consumer reporting companies (Equifax, Experian and TransUnion) and does not address any other types of scores or the activities of any specialty credit reporting company.



⁴ According to Experian Consumer Trends Report, the use of credit scores in the mortgage market represents 3-5% of the total usage of credit scores for financing products.

⁵ Consumer credit data refers to a consumer's credit tradelines, such as, credit card payments, loan information, and student loan payment history. The updated credit score models evaluate some non-traditional consumer credit data such as rental payments, if available, at the CRAs. However, in general the availability of non-traditional consumer credit data is very limited.

Figure 1: Summary of credit score uses by different industry stakeholders

MORTGAGE INDUSTRY USE OF CREDIT SCORES **CONSUMER REPORTING AGENCIES (CRAs)** The three CRAs collect, store, and sell data on consumers provided by furnishers. **EXPERIAN TRANSUNION EOUIFAX CONSUMER CREDIT** REPORT RESELLERS Assemble trimerge report from each CRA that includes applicant's FANNIE MAE AND FREDDIE MAC MORTGAGE LENDERS (ENTERPRISES) Originate loans for borrowers and sell them to the Enterprises. Purchase mortgages from lenders, pool them into securities, and sell those securities to Lenders purchase the trimerged credit report and credit scores and investors. The Enterprises use credit use them to underwrite the scores for mortgage product eligibility, loan, provide borrower loan pricing, and financial disclosures. education, and produce They also use credit report data for financial disclosures. automated underwriting eligibility and recommendations. **MORTGAGE INSURANCE** INVESTORS **COMPANIES (MIs)** Purchase credit risk (through credit Protect lenders and the Enterprises risk transfer) and interest rate risk against loss if borrowers default (through mortgage backed on loans that have mortgage securities) from the Enterprises. insurance. Mls quote rate premiums Investors rely on credit scores to by mortgage product, original evaluate the financial risk of loan-to-value (LTV) ratio, and the securities and transactions. borrower's credit score.



A. The Enterprises

The Enterprises use credit scores as described below:

Product Eligibility: The Enterprises use credit scores as a component of mortgage product eligibility for different loan products⁷. For example, some mortgage products such as cash out refinances or 97% Loan-To-Value programs have minimum credit score requirements that must be met before the loan may be reviewed.

Automated Underwriting Systems: Credit scores are one of multiple attributes used in the automated loan underwriting assessment process by the Enterprises, along with other credit attributes such as down payment, amount of debt, income, and assets.

- Freddie Mac uses a third-party credit score (currently Classic FICO if available) in conjunction with other credit attributes as part of its credit assessment within Loan Product Advisor® (LPA), its automated underwriting system. As previously noted, LPA can also assess borrowers who lack a credit score.
- Fannie Mae includes minimum credit score requirements within Desktop Underwriter ® (DU), its automated underwriting system, but it does not use a third-party credit score as an independent part of the risk assessment. DU uses the borrower's credit report in conjunction with other credit attributes. DU can also assess borrowers who lack a credit score.

The Enterprises use consumer credit data provided by the CRAs to build their internal credit risk models and as inputs into their models.

Loan Pricing: The Enterprises publish loan pricing grids that adjust guarantee fees based on certain risk attributes of the borrower or the loan, including by credit score.⁸ Fannie Mae refers to these grids as loan-level price adjustments (LLPAs), and Freddie Mac refers to these grids as post-settlement delivery fees or just delivery fees.

Securities and Credit Risk Transfer Disclosures: The Enterprises disclose credit score

⁸ As compensation for providing the guarantee on MBS, the Enterprises charge lenders guarantee fees. The Enterprises charge lenders a base, or ongoing, fee that is primarily based on the product type (e.g., 30-year fixed rate, 15-year fixed rate, 5/1 ARM). The Enterprises also charge upfront guarantee fees, also known as loan-level pricing adjustments (LLPAs) or delivery fees, that are based on certain risk attributes of the borrower or the loans (e.g., LTV/credit-score grid, cash-out refinance, investor properties, secondary financing at origination, jumbo conforming loan).



⁷ Credit scores referenced in this text are a "representative score" for a mortgage loan. The Enterprises provide guidance to lenders on calculating the representative loan score in their Selling Guides.

information to investors in their securities, including CRT transactions and mortgage-backed securities issuances.⁹ Information typically includes credit score at origination and updated credit scores on seasoned loans.

Financial Disclosures: The Enterprises report credit score information in their quarterly and annual reports filed with the SEC.

Business Purposes: Each Enterprise uses credit scores as one of many factors for internal business purposes such as risk management and counterparty risk management.

Adoption of a new credit score model(s) will require the Enterprises to update and modify systems to achieve each of the functions described above. Implementation of a new score(s) will take the Enterprises 12-18 months and would begin only after the Common Securitization Platform and Single Security Initiative are fully implemented in 2019.

B. Credit Reporting Agencies

The three national CRAs are Equifax, Experian, and TransUnion. They collect, store, and sell consumer credit data provided by "furnishers," which are companies that report credit data to the credit reporting agencies. ¹⁰ The three national CRAs are the sole source of the consumer data used to generate the credit scores under consideration by FHFA and the Enterprises. ¹¹

The types of information provided by the three CRAs include credit scores, credit reports that show debt accounts (including payment history and current outstanding debts), and public data such as court recorded liens and bankruptcies about each consumer. CRAs are limited to information provided to them and, therefore, may not have data like rental payments because such data is often not reported by landlords.

The CRAs sell consumer credit scores and consumer payment data through credit reports. The CRAs also provide consumer credit monitoring services. In addition, the CRAs sell credit scores for non-origination purposes, such as portfolio risk management, account review, and marketing.

¹¹ CFPB offers multiple documents with additional information on the CRAs and credit scores; for example, here or here.



⁹ The Enterprises disclose a variety of information about credit scores in their financial reports filed with the SEC, including Form 10-K, 10-Q, and the Credit Supplement, as well as in their disclosures to investors for MBS and CRT transactions.

¹⁰ A furnisher is generally any entity that provides information relating to consumers to one or more consumer reporting agencies for inclusion in a consumer report, including a creditor, credit card company, state or local government, or financial institution. *See* 12 CFR 1022.41.

Within the mortgage finance industry, the CRAs are the exclusive providers of consumer credit data and credit scores to the Enterprises.

C. Consumer Credit Resellers

While the CRAs gather, store, and sell credit information, the Consumer Credit Resellers (resellers) are separate entities that purchase information from the CRAs and merge the data into credit reports for third parties. 12 With the exception of Equifax, which has a business line function¹³ for assembling credit reports, resellers typically have no affiliation with the CRAs.¹⁴

In the context of mortgage lending, the resellers aggregate consumer credit data from the three CRAs and package it into a single mortgage credit report often referred to as "the tri-merge credit report." Outside the mortgage industry, resellers build consumer credit reports employment screenings, and rental applications. Resellers also act as an intermediary between the CRA and consumers in resolving discrepancies within a credit report. The reseller compiling the credit report is listed on the report and acts as the point of contact for the consumer applicant and lender.

The tri-merge credit report contains a standard set of borrower information, including accountlevel data and credit scores. The information in the tri-merge credit report is electronically transmitted to the lender and is used for a lender's proprietary underwriting and/or for an Enterprise's automated underwriting system.

It is FHFA's understanding from industry outreach that replacing Classic FICO with a new credit score version would require resellers to modify the software and processes that send the merged data to lenders and the Enterprises.



¹² CFPB, which enforces the Fair Credit Reporting Act, regulates the CRAs and resellers to ensure that CRAs maintain disclosure and certification requirements. CFPB also requires CRAs to ensure that the information in each individual's file is current and accurate.

¹³ Equifax Mortgage Services provides an integrated set of products throughout the mortgage loan lifecycle – including fraud and risk mitigation, employment verification, portfolio management, property valuation, and closing services. ¹⁴ *Equifax Mortgage Solutions* is the business line function assembling credit reports.

D.Mortgage Lenders

Mortgage lenders that intend to sell loans to the Enterprises follow the Enterprises' Seller guides. ¹⁵ This includes minimum credit score requirements and guidance on underwriting and delivering loans without credit scores or when manually underwriting such loans.

For borrowers with a traditional credit history, lenders must try to obtain a tri-merge credit report for each borrower on the loan application. ¹⁶

For loans delivered to the Enterprises, mortgage originators determine the representative credit score for each loan application based on requirements from the Enterprises. ¹⁷ The representative credit score is a single credit score selected based on certain factors from the multiple credit scores on the loan application. ¹⁸ It is used by lenders for loan program eligibility, loan pricing, and financial disclosures to investors. The representative credit score at origination is also used by lenders for their own underwriting policies (commonly referred to as credit overlays), proprietary underwriting systems, modeling, and financial disclosures.

Based on discussions with several lenders, FHFA expects that lenders would need to expend resources to incorporate new or updated credit score(s) in their policies and processes and, if applicable, in their proprietary underwriting systems. In addition, lenders that also originate loans not sold to Fannie Mae or Freddie Mac would have to maintain an alternate origination process if they use different credit scores across their mortgage lending business. Lenders may also use credit scores in their financial disclosures. The costs associated with a credit score(s) change may impact banks and non-banks differently. For example, federally insured banks would have to comply with prudential supervisory guidance on model risk management while non-banks do not face the same supervisory oversight.

E. Mortgage Insurers

Fannie Mae and Freddie Mac require one of several forms of credit enhancement for loans with LTV ratios above 80 percent. Mortgage insurance is the most commonly used way to meet this

¹⁸ Requirements for sellers on determining the Representative Credit Score is found in Fannie Mae's Single Family Selling Guide, Part B, Subpart 3, Chapter 5. Guidance for sellers on determining the Indicator Score is found in Freddie Mac's Single Family Seller/Servicer Guide, Chapter 5203, and pp. 5203-16.



¹⁵ The Enterprises publish revised guidance to their Selling Guides. Fannie Mae's Selling Guide is available <u>here</u>. Freddie Mac's Selling Guide is available here.

¹⁶ Fannie Mae refers to the tri-merge credit report as the "Three in-file Merged Credit Report" in its Selling Guide, and Freddie Mac refers to the tri-merge credit report as a "Three Repository Merged Credit Report" in its Selling Guide.

¹⁷ Fannie Mae uses the term "Representative Score" while Freddie Mac uses "Indicator Score." This RFI uses the Fannie Mae terminology.

requirement.¹⁹ Mortgage insurers protect lenders and the Enterprises against a portion of credit losses when borrowers default on loans that have mortgage insurance.

Mortgage insurers use credit scores in several ways. FHFA and the Enterprises have established private mortgage insurer eligibility requirements (PMIERs) which set financial and operational requirements for Enterprise mortgage insurance counterparties using, in part, the credit scores of borrowers. Mortgage insurers set premium rates that vary by product, original loan-to-value ratio, and the credit score of the loan. They also negotiate reinsurance agreements with reinsurance companies to limit their loss exposure, and these contracts often use credit scores and other loan characteristics to price the transactions.

Based on conversations with mortgage insurers, FHFA expects that implementation of a new credit score(s) would require mortgage insurers to rebuild their pricing models and update their insurance premium schedules. The new premiums would require mortgage insurers to submit rate change filings with each state insurance regulator.

Mortgage insurance holding companies may have to update SEC disclosures, and mortgage insurers may have to update their quarterly regulatory submissions to their state insurance regulator using the new credit score(s).

F. Mortgage Investors

The Enterprises sell credit and interest rate risk to investors, and investors use disclosed credit score data to inform their pricing decisions for these transactions. The majority of interest rate risk sold into the secondary mortgage market is transferred through the To-Be-Announced (TBA) market.

Purchasers of MBS in the TBA market do not know the particular loans that will be included in the pool at the time the securities are purchased. MBS sold into the TBA market are bound by the Securities Industry Financial Markets Association (SIFMA) "Good Delivery Guidelines" that broadly define the acceptable characteristics of MBS for delivery into the TBA market.²⁰ Investors perceive a high degree of similarity across MBS that fall within the Good Delivery Guidelines. Although investors do not know borrower credit score profiles in a particular TBA security at the time of issuance, investors use subsequent disclosures to inform pre-payment

²⁰ See SIFMA's Uniform Practices Manual, Chapter 8



¹⁹ See 12 U.S.C. 1717(b)(2) and 12 U.S.C. 1454(a)(2).

models that help determine the pricing for TBA securities. Investors also use subsequent disclosures to value any future trades of seasoned TBA securities.

Some loans purchased by the Enterprises are grouped into specified MBS pools instead of TBA securities. Generally speaking, if the model value of an MBS is greater than the TBA price, traders will market the bond outside of the TBA market (known as the "specified market"). For specified MBS pools, investors (and traders) evaluate the financial risk using loan level data and rely heavily on the credit score associated with each loan in the pool.

The Enterprises have also established programs to transfer credit risk to private sector investors, and these investors use loan-level data, including credit scores, to price the credit risk coverage provided to the Enterprises. Since the inception of Enterprise CRT transactions, the loan-level referenced pool data includes credit scores at origination. Since March 2016, Fannie Mae and Freddie Mac have also provided updated loan-level credit score data to CRT investors.

II. Discussion of Classic FICO, FICO 9, and VantageScore 3.0

Credit scores measure the relative likelihood of a borrower making their payments on time. There are multiple credit score versions in existence. Some credit scores are purely for educational purposes, others are used by lenders to make credit decisions. Outside of the consumer finance industry, for example, credit scores are used in the insurance industry. Within the consumer credit market, some credit scores are for industry-specific products, such as credit cards or auto loans.

FHFA has limited its analysis of updated credit score models to models that are available at the three national CRAs. The credit score models under consideration by FHFA are: Classic FICO, FICO 9, and VantageScore 3.0.

These models are developed by two companies – FICO and VantageScore Solutions, LLC. However, it is the CRAs, not FICO and Vantage, that sell and negotiate the price of these scores to lenders and other end-users.

The following sections provide additional information about the three credit score models under consideration as part of FHFA's analysis.

Classic FICO and FICO 9. FICO is a publicly traded company founded in 1956. FICO licenses its models or credit score algorithms to the CRAs and receives a royalty each time one of the CRAs generates a FICO score for a third party. Each CRA sets the price of the FICO score when it is sold as either a standalone score or bundled with a credit report.



The Enterprises have been using what is referred to as Classic FICO for more than 12 years. The "Classic FICO" score consists of FICO 5 from Equifax Beacon® 5.0; Experian®/Fair Isaac Risk Model V2SM; and TransUnion FICO® Risk Score, Classic 04. The additional FICO score being evaluated by FHFA and the Enterprises is FICO 9. As mentioned earlier, FICO 9 only uses data reported to the three CRAs to generate a credit score.

FICO also recently introduced a new score called the FICO XD score that uses alternative data reported to the National Consumer Telecom Utilities Exchange (NCTUE). ²¹ FICO markets this score as an entry point for individuals who have either no credit history or too little credit history to generate a traditional FICO score. FICO targets this score for use in credit card lending decisions. Because the FICO XD score is derived solely from alternative data that is generally not reported to the CRAs (such as utility, cable and cell phone bills), this score may not be suitable for use by mortgage applicants. As a result, FHFA is not including FICO XD as part of its evaluation.

VantageScore 3.0. The three CRAs formed a joint venture, VantageScore Solutions, LLC, in 2006 to develop a credit score model alternative in the market. VantageScore Solutions, LLC is equally co-owned by the CRAs. The VantageScore consumer credit scoring model started being offered in 2006. The CRAs also set the price of VantageScore 3.0 scores for a standalone score or a score bundled with a credit report. The VantageScore model being evaluated by FHFA and the Enterprises is VantageScore version 3.0. Like FICO 9, VantageScore 3.0 only uses data reported to the three CRAs to generate a credit score.

In 2017, VantageScore Solutions, LLC announced the intended release of VantageScore 4.0. FHFA will work with the Enterprises to conduct a review of new credit score versions, as appropriate, and to decide whether they should be included as part of the analysis for this project. To date, FHFA has not included VantageScore version 4.0 as one of the credit score models under consideration. Any consideration of an additional credit score, such as VantageScore 4.0, could further delay FHFA in reaching a final decision on the Enterprises' credit score requirements. ²²

²² VantageScore 4.0 press release (2017) https://your.vantagescore.com/news-story/226/vantagescore-solutions-debuts-vantagescore-40-credit-scoring



²¹ NCTUE is a company that maintains data such as payment and account history, reported by telecommunication, pay TV and utility service providers that are members of NCTUE. The Exchange Service Center is a third party contractor of NCTUE and provides services to consumers on behalf of NCTUE.

The release of this updated VantageScore model illustrates a broader challenge faced by FHFA, the Enterprises, and other market participants in determining how often to evaluate updated credit score models. While it is important to consider potential improvements taking place in newer credit scores, there are also cost and operational implications involved with continually evaluating the latest credit score versions.

Data Used by Both Vendors: All three credit score models under consideration by FHFA pull data from the three CRAs to generate their respective credit scores. None of the models consider data obtained from outside of the CRAs. However, there are differences between the credit score models in the data used or not used. The new models have been improved by excluding or reducing the weight of certain medical debts. The newer credit score models also capture some consumer data such as timely rental payments to the very limited extent that rental data is reported to the CRAs. Alternative credit data, such as data reported to the NCTUE, is not included in any of the models under consideration. Inclusion of alternative data could result in a higher or lower credit score for a consumer depending on a consumer's payment history.

Credit Score Ranges: All three credit score models use a score range of 300-850. However, the numerical credit scores themselves are not equivalent across the models. In other words, a FICO 9 score of 620 and a VantageScore 3.0 score of 620 do not necessarily represent the same relative likelihood of default for the same consumer.

Minimum Scoring Criteria: An important difference between the credit score models is the minimum scoring criteria which each score provider uses to determine if a borrower's credit file contains enough information to generate a score. Differences in the minimum scoring criteria are summarized in Figure 2 below.²³

²³ http://www.myfico.com/crediteducation/questions/requirement-for-fico-score.aspx (May 2015), and VantageScore White Paper, "Universe Expansion: Is the Way You Score Customers State of the Art or State of Denial," pp 5, (March 2014).



Figure 2: Comparison of Minimum Scoring Criteria

Requirement	FICO scores (Classic FICO and FICO 9)	VantageScore
Minimum Number of Tradelines	Requires at least one tradeline reported to a CRA within the last six months	Does not require any tradeline reported to a CRA if it can generate a score using other data such as unpaid collections or public records
Minimum Tradeline Age	One tradeline at least six months old	Does not require a minimum aging of an account or tradeline

Note: Creditors report open tradelines on a monthly basis to the CRAs, even when the open account is not used by the consumer.

Because of its less restrictive minimum requirements, VantageScore will score more consumers in the U.S. population than FICO. Two examples illustrate the difference in the minimum scoring requirements. First, a consumer with no credit activity but with an unpaid collection would receive a credit score under VantageScore 3.0 but would not receive a Classic FICO or FICO 9 credit score. Second, a consumer with a new credit card that had been active for three months (but no other tradelines) would receive a credit score under VantageScore 3.0 but would not under Classic FICO or FICO 9.

Credit Score Distribution: While FICO and VantageScore use the same score range, their credit scores are not interchangeable because of the minimum scoring criteria described above, which leads to a different universe of "scoreable consumers" and a different credit score distribution for each model.²⁴

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.

²⁴ While both credit score models use the same consumer data to generate their scores, the differences in the credit score algorithms may also contribute to the difference in the score distributions in addition to the minimum scoring criteria.



III. Credit Score Options under Consideration by FHFA

Although the Classic FICO credit score model is more than 12 years old, FHFA and the Enterprises believe that this score remains a reasonable predictor of default risk for the Enterprises' internal uses. However, FHFA recognizes that there are compelling reasons for the Enterprises to update their credit score requirement from Classic FICO. First, while Classic FICO adequately predicts risk, the new models provide a slight increase in accuracy, which would ultimately benefit borrowers and investors. Second, in building the models for FICO 9 and VantageScore 3.0, both companies have incorporated economic changes since the financial crisis. Third, third-party collections that have been paid no longer negatively impact applicants' credit scores in the new model(s). Fourth, medical collections are now treated differently than other types of debt resulting in medical debt having less of a negative impact than with Classic FICO. Finally, rental history, when reported to the CRAs, has been incorporated into the new models.

As a result of these considerations, FHFA is evaluating the following updated credit score model options. Each of these options would also need to analyze how best to incorporate the Enterprises' current capability to evaluate borrowers without a credit score.

- **Option 1 Single Score:** The Enterprises would require delivery of a single score either FICO 9 or VantageScore 3.0 if available on every loan.
- Option 2 Require Both: The Enterprises would require delivery of both scores, FICO 9 and VantageScore 3.0, if available, on every loan. This option would require policy decisions about how to treat borrowers with a credit score from one provider but not the other.
- Option 3 Lender Choice on which Score to Deliver, with Constraints: The Enterprises would allow lenders to deliver loans with either FICO 9 or VantageScore 3.0, when available. Lenders would have to choose one score or the other for a defined period of time (e.g., no less than 12 months). This option would require policy decisions on the length of time a lender or correspondent would need to commit to a certain credit score. Additionally, policy decisions would need to be made on whether to require mortgage aggregators and brokers to adopt a single score approach or whether to allow them to aggregate loans underwritten with FICO 9 or VantageScore 3.0 scores.
- **Option 4 Waterfall:** The Enterprises would allow delivery of multiple score(s) through a waterfall approach that would establish a primary credit score and secondary credit score. Where a borrower did not have a credit score under the primary credit score, a lender would have the *option* to provide the secondary credit score. FHFA and the



Enterprises would need to determine how a secondary credit score option would interact with each Enterprises' automated underwriting systems' ability to evaluate a loan application where the borrower(s) do not have a credit score and how to apply the policy for manually underwritten loans.

All of these options present challenges for implementation, operational costs, and competition in the marketplace. FHFA seeks to fully understand these challenges and their implications, as reflected in the questions in this RFI.

Other Considerations: Operational, Competition, Timing, and Tri-Merge Requirements

FHFA and the Enterprises have conducted extensive outreach about updated credit score options with stakeholders in the mortgage and housing finance market. Stakeholders included housing and consumer groups, mortgage lenders, insurers, investors, technology vendors, trade associations, and other government agencies. As a result of this outreach and FHFA's own deliberations, FHFA identified the following operational, competition, and implementation considerations related to a decision about updated credit score models.

I. Operational Considerations

Regardless of the option selected, industry stakeholders universally indicated that the Enterprises should align on a common credit score implementation and time table. Industry stakeholders also indicated that it would take them at least 12 to 24 months to implement a new credit score requirement. Stakeholders indicated that updating to a new score while maintaining a single score requirement would be less complex and take less time to implement than any of the multiple credit score options under consideration.

A. Single Score Operational Impacts (Option 1).

While less complex than using multiple scores, the Enterprises and other industry stakeholders would need time to update their systems to use either FICO 9 or VantageScore 3.0. In addition to updating software and systems, most stakeholders indicated that they would need to update their business processes that use credit scores, including pricing for lenders and mortgage insurers, pre-payment models for MBS investors, and estimates of CRT investor impacts.

Industry stakeholders would also need to understand how the new credit score model requirement compares to Classic FICO. Stakeholders requested that the Enterprises publish



loan-level data and historical data in advance of the credit score model change so companies could more efficiently update their models.

B. Multiple Score Operational Impacts (Options 2-4).

FHFA has identified the following operational factors in implementing any multiple score option:

Pricing Complexity and Adverse Selection: For any of the multiple score options, FHFA and the Enterprises would need to develop updated pricing grids.

- For option 2 (require both), FHFA and the Enterprises would need to determine what score to use for the pricing grids or whether to create separate pricing grids and, subsequently, which grid to use for different risk segments. Changes to the Uniform Loan Delivery Dataset (ULDD) may also be required to accommodate two scores.
- For option 3 (lender choice with constraints) and option 4 (waterfall), FHFA and the Enterprises would likely need to develop two sets of loan-level price adjustment and delivery fee grids one grid for FICO 9 and one grid for VantageScore 3.0.
- For option 3 (lender choice with constraints), FHFA and the Enterprises would need to take into consideration how best to protect against potential "gaming" or adverse selection under this option. Because there would be the ability to deliver a loan using either score, there is a possibility of entities using the higher of the two credit scores available for an individual borrower or application. This could increase risk to the Enterprises without having the intended price of that higher risk captured. To mitigate against this risk, option 3 would require that lenders and correspondents "lock-in" to a credit score model for a fixed period of time. FHFA would also consider other options to either prevent this adverse selection or to proactively address the risk of adverse selection in the Enterprises' underwriting and pricing guidelines.

MBS Liquidity and CRT Impacts: Investors in Enterprise MBS and participants in Enterprise CRT transactions would need to evaluate the default and prepayment risks of each of the multiple credit score options, which would potentially involve building specific models for both FICO 9 and VantageScore 3.0. For MBS investors, stakeholders raised questions about whether the different multiple score options would result in MBS containing a mix of FICO and VantageScore credit scores or whether some MBS pools would contain only VantageScore 3.0 loans and others would contain only FICO 9 loans. Any of the multiple score options would require an assessment of whether they could reduce liquidity across MBS within the TBA market.



Cost and System Complexity: FHFA recognizes that industry stakeholders would have a greater amount of system changes to implement under any option that involved multiple credit score models instead of just one. For example, many industry stakeholders, including the Enterprises, would need to change their systems to create a "label" field identifying the type of credit score being reported and/or would need to add fields so they could absorb more than one credit score.

Certain stakeholders also would have a more involved implementation process to understand two new credit score models rather than one. For example, mortgage insurers would need to calibrate two sets of premium schedules, one for each credit score. The implementation timeline for the multiple score options would likely extend longer for some stakeholders as a result of this added complexity.

Consumer Education: The proliferation of credit scores available in the marketplace may lead to borrower confusion and changing the Enterprises' requirements to allow for multiple credit score models could further confuse consumers and pose a challenge to broader mortgage industry efforts to provide effective consumer education.

- For option 2 (require both), borrowers would need to understand the difference between and the impact of having a FICO and VantageScore credit score, and consumers may view a requirement of both scores as increasing the difficulty and cost of qualifying for a mortgage.
- For option 3 (lender choice with constraints), borrowers shopping for a mortgage could find themselves evaluated, for example, by one lender using FICO 9 and a second lender using VantageScore 3.0. Borrowers would then need to understand and compare the differences in any underwriting and pricing decisions made as a result of this difference. The Enterprises and the broader mortgage industry would need to develop consumer education strategies to provide sufficient information to borrowers to understand the implications of these differences.
- **For option 4 (waterfall),** borrowers would need to understand what happens in the event they do not have a primary credit score available and what a second credit score model option or no credit score evaluation would mean in terms of underwriting and pricing.

II. Credit Score Competition Considerations

Another factor that could affect FHFA's decision on updated credit score models is the issue of credit score competition and consolidation in the credit score marketplace. Score competition



has been raised as a question of whether the current requirement to use a single credit score by one provider has created a monopoly in the mortgage industry. FHFA's objective is not to help any particular company sell more credit scores, but to determine how to appropriately balance the safety and soundness of the Enterprises while maintaining liquidity in the housing finance market. In balancing these objectives, FHFA believes that the question of score competition is complex. This complexity is discussed in further detail below.

Innovation: One aspect of competition that FHFA is considering is how multiple credit scores would impact innovation yet maintain accuracy of ranking credit risk. FHFA acknowledges that it is important for score providers to improve their methodologies over time. One example of recent innovation is updated treatment of medical debts in the newer models, and there is potential for even more innovation by increasing and expanding the types of credit data reported to and available through the CRAs.

Race to the Bottom Concerns: A second aspect of competition that FHFA is considering is whether multiple credit scores in the mortgage underwriting process could result in model providers engaging in a "race to the bottom" that would lead to the deterioration of credit score accuracy in the long term and whether there are measures to adequately control this risk.

A race to the bottom could possibly occur if competitors sought to gain market share by adjusting models to help lenders originate more loans that could be sold to Fannie Mae or Freddie Mac without adequate regard for score accuracy. Such an outcome would be of particular concern because the Enterprises acquire the credit risk for loans purchased from lenders. It is important for FHFA to consider the incentive structures at the credit scoring companies and the CRAs that price and sell credit reports and scores.

FHFA believes it is important to consider broader and longer-term questions about the potential negative impact that score competition could have on accuracy and mispricing of credit risk, as well as potential measures that could control this risk.

Ownership Structure of the Credit Score Provider Market: Another aspect of competition that FHFA is considering is whether the ownership structure of the credit score model providers could have a negative impact on competition in the future. As stated earlier, the three CRAs jointly and equally own VantageScore. Each CRA controls the data used to generate credit scores. The CRAs also control the price for end-users of VantageScore and FICO scores. The 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.

By discussing the unique ownership structure of VantageScore, FHFA is not suggesting any anticompetitive behavior. To the contrary, FHFA is interested in obtaining feedback from



stakeholders, including from the companies themselves, about these issues and whether there are ways to mitigate any risks or adverse incentives that might develop over the longer-term.

III. Changing the Tri-Merge Credit Report Requirement

In the non-mortgage lending market, (e.g., credit card, auto loans), it is common practice to use a single CRA source for credit scores and credit reports when underwriting credit risk. Because non-mortgage lenders are able to choose which CRA to pull credit data from, these lenders receive competitive pricing on credit scores and credit reports from the CRAs. Unlike non-mortgage lenders, the industry standard for mortgage lenders is to obtain credit reports and scores from all three CRAs for each mortgage applicant, if available from all three CRAs.

The price for a tri-merge report can be more than three times the cost of a single credit report typically used for credit cards or auto loans for consumers.

For this reason, FHFA is seeking input through this RFI on whether changes to the existing requirement of the tri-merge report would have an impact on consumer credit accuracy and the ability of lenders to negotiate the price set by the CRAs, and whether changes would reduce costs to the consumer.

IV. Decision and Implementation Timeline

After reviewing feedback from this RFI, FHFA plans to make a decision on updating the Enterprises' credit score requirements in 2018. As with other decisions that require industry implementation, FHFA will set an implementation date in the future that provides industry stakeholders with an appropriate amount of time to prepare for any new requirements.



Questions and Public Input Instructions

The following sections present a number of questions that FHFA considers important to improve its understanding of the implications of updating credit scoring requirements and reducing the required number of credit reports.

FHFA invites interested parties to provide written input on the questions listed below within 60 days of the publication of this document, no later than March 30, 2018. Please submit all responses to the Federal Housing Finance Agency, Office of Housing and Regulatory Policy, 400 7th Street SW, 9th floor, Washington, D.C., 20219. Input may also be submitted electronically using a response form at FHFA.gov. Generally, all input received will be made public and posted without changes to FHFA's website. However, if you wish for FHFA to consider any portion of your response exempt from disclosure, please put that portion in a separate attachment and clearly mark it "confidential commercial information." The procedures for identifying "confidential commercial information" can be found in FHFA regulations at 12 CFR 1202.8, available on FHFA's website.

I. Updating Credit Score Model Requirements

FHFA is requesting information on options for updating the Enterprises' credit score requirements. Please provide feedback and responses on as many questions as are appropriate for the responder.

General Questions on Credit Scores	
Question A1.1:	When and how do you use credit scores during the mortgage life cycle to support your business?
Question A1.2:	Do you use the same credit score version for all of your lending business lines, whether it is mortgage lending or non-mortgage lending (e.g., credit card and/or auto loans)? If so, why? If you use multiple credit scores (e.g., FICO and VantageScore) in making credit decisions for any one line of business, please identify which credit score you use for the type of lending and why? Are you considering updating credit scores that you use in your non-mortgage lending business lines?



Question 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?
Question 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?
Question 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?
Question A1.6:	Do you have a recommendation on which option FHFA should adopt?
Question A1.7:	Do you have additional concerns with or insights to share on the Enterprises updating their credit score requirements?

Operational Questions on Credit Scores	
Question A2.1:	What benefits and disadvantages would you envision for your business, your business partners, and/or borrowers under each of the options?
Question 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).



Question A2.3:	What operational considerations are there for preferring one of the multiple credit score options (options 2-4) over the others? For industry participants, are there unique operational considerations for your segment of the industry that FHFA should consider? If so, what are they? Are there unique operational considerations in a wholesale environment with mortgage brokers or correspondents under each of the multiple score options? If so, what are they?
Question A2.4:	Please provide an estimate of how much it would cost your organization to implement each option and how much time it would take to implement each option.
Question 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?
Question A2.6:	Under the multiple score options (options 2-4), if other mortgage market participants have different credit score requirements, such as requiring dual credit scores, what operational and resource issues would that present for you?
Question 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?



Question 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?
Question 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?
Question A2.10:	How would you approach evaluating when the benefits of new or multiple credit scores sufficiently exceed the costs and potential risks associated with making such a change?

Questions on Credit Score Competition	
Question 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
Question 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?
Question 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?



Question 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?
Question 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?

II. Modifying the Required Number of Merged Credit Reports

FHFA is seeking input on a potential change to the requirement of obtaining a credit report and credit score from all three of the CRAs to obtaining either two or one report and score from each mortgage applicant. FHFA is reviewing whether such a change would have a significant impact on consumer credit accuracy and/or would reduce costs to the consumer. Additionally, FHFA is reviewing what the anticipated impact would be on potential competition among the CRAs. FHFA also wants to understand the implementation challenges and operational costs for resellers and lenders of reducing the number of required merged credit reports.

Please provide feedback and responses on as many questions as are appropriate for the responder.



	Questions on Merged Credit Reports
Question B1:	If you have used a single credit report or two-file credit report in your business, please share any empirical information about how much incremental information/benefit is gained as a result of using a second or third credit report.
Question B2:	If the requirement to pull data from all three credit agencies were replaced with the flexibility to pull data from just two CRAs or one CRA, what could be the benefits or disadvantages to borrowers and your business? What could be the benefits or disadvantages to the credit reporting industry and the mortgage industry in general?
Question B3:	If presented with the flexibility to pull data from just two CRAs or one CRA, would your business likely take advantage of this flexibility? If not, why not? If so, what steps would you need to take to be comfortable with that change?
Question B4:	If presented with the flexibility to pull data from just two CRAs or one CRA, would you want the lender to choose the credit agency or would you want the Enterprises or some other market participant to mandate the agency?
Question B5:	If the option of using one repository were available, how would the Enterprises ensure that the lender is not electing to use the CRA with the highest credit score (best credit profile) at the loan level that results in preferential pricing and eligibility?
Question B6:	What issues would this flexibility create if other mortgage participants (investors, insurers, guarantors) continued to require credit data from all three CRAs?
Question B7:	If the Enterprises had to increase pricing for using less credit data from fewer than three credit agencies to account for the additional risk, would the flexibility still be attractive?

