SMALL BUSINESS ADVISORY REVIEW PANEL FOR AUTOMATED VALUATION MODEL (AVM) RULEMAKING

OUTLINE OF PROPOSALS AND ALTERNATIVES UNDER CONSIDERATION

February 23, 2022

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I. Introduction

In the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act),[1] Congress directed the Consumer Financial Protection Bureau (CFPB or we), along with the Board of Governors of the Federal Reserve System (Board), the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NCUA), and the Federal Housing Finance Agency (FHFA) (collectively, the agencies), to develop regulations for quality control standards for automated valuation models (AVMs),[2] which are "any computerized model used by mortgage originators and secondary market issuers to determine the collateral worth of a mortgage secured by a consumer's principal dwelling."[3] Specifically, the Dodd-Frank Act added section 1125 to the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA);[4] that section requires that AVMs meet quality control standards designed to: (1) ensure a high level of confidence in the estimates produced by automated valuation models; (2) protect against the manipulation of data; (3) seek to avoid conflicts of interest; (4) require random sample testing and reviews; and (5) account for any other such factor that the agencies determine to be appropriate.[5]

The statute provides that the eventual section 1125 rule will be enforced by the FDIC, Board, NCUA, and OCC (collectively, prudential agencies) with respect to insured banks, savings associations, and credit unions (collectively, financial institutions), as well as federally regulated subsidiaries that financial institutions own and control.[6] The statute gives the CFPB, as well as the Federal Trade Commission and State attorneys general, enforcement authority with respect to other non-depository participants in the market.[7]

AVMs are being used with increasing frequency. This trend is being driven in part by advances in database and modeling technology and the availability of larger property datasets. Research indicates that advances in AVM technology and data availability have the potential to contribute to lower costs and shorter turnaround times in the performance of property valuations.[8]

However, the use of AVMs may introduce risks, including issues with data integrity and accuracy. Moreover, like algorithmic systems generally, there are concerns that AVMs may reflect bias in design and function or through the use of biased data and may introduce potential fair lending risk.[9] We believe it is important to mitigate fair lending risk in AVMs and to encourage institutions to implement robust compliance management systems that prevent, identify, and correct violations of nondiscrimination laws. As described in part III.F.2, to address potential fair lending risk in models, we are considering proposing, pursuant to section 1125(a)(5), a requirement that covered institutions establish policies, practices, procedures, and control systems to ensure that their AVMs comply with applicable nondiscrimination laws (we refer to this as a "fifth factor").

FIRREA section 1125 applies to mortgages secured by a consumer's principal dwelling and focuses on the importance of ensuring AVM credibility and integrity. For consumers, obtaining a mortgage is one of the most important financial decisions they will ever make and it is a crucial component of access to homeownership, which can be a key building block of consumer wealth. Overvaluing a home potentially can lead the consumer to take on an increased amount of debt

that raises risk to the consumer's financial well-being. On the other hand, undervaluing a home can result in a consumer being denied access to credit for which the consumer is otherwise qualified or offered credit at less favorable terms.[10]

The agencies listed above are working together to develop a proposed rule to implement FIRREA section 1125. However, while agencies generally are required to consider whether the rules they propose will have a significant economic impact on a substantial number of small entities, pursuant to the Regulatory Flexibility Act (RFA),[11] an amendment to the RFA added by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) imposes additional requirements on the CFPB with respect to small entities.[12] Prior to issuing a proposed rule, the CFPB must comply with additional procedural requirements to assess the impact on small entities that are likely to be directly affected by the proposals under consideration. As explained below, these additional SBREFA requirements include collecting small entities' advice and recommendations on the potential impacts of the proposals under consideration and feedback on regulatory alternatives to minimize these impacts.

II. The SBREFA Process

SBREFA directs the CFPB to convene a Small Business Review Panel (Panel) when it is considering proposing a rule that could have a significant economic impact on a substantial number of small entities. The Panel includes representatives from the CFPB, the Office of Information and Regulatory Affairs in the Office of Management and Budget, and the Chief Counsel for Advocacy of the Small Business Administration (Advocacy). Advocacy is an independent office within the Small Business Administration (SBA).

The Panel is required to collect advice and recommendations from small entities or their representatives (referred to as small entity representatives, or SERs) that are likely to be subject to a regulation that the CFPB is considering proposing (in this case, development of the CFPB's proposal also will involve continuing work on an interagency basis with the Board, OCC, FDIC, NCUA, and FHFA). For this purpose, the RFA defines "small entities" as small businesses, small organizations, and small governmental jurisdictions. The term "small business" has the same meaning as "small business concern" under section 3 of the Small Business Act (SB Act); thus, to determine whether a business is a small entity the CFPB looks to the SBA's size standards.[13] The term "small organization" is defined as any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. The term "small governmental jurisdiction" is defined as the governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000.[14]

Small entities likely to be directly affected by some of the proposals under consideration within the meaning of SBREFA include real estate credit companies, secondary market financing companies, other non-depository credit intermediation companies that originate mortgages, mortgage loan brokers, and other non-depository institutions related to credit intermediation such as mortgage loan servicers. The maximum size standard for any of these non-depository institutions to be considered small is $41.5 million in average annual receipts, though several have lower thresholds.[15] In addition to non-depository institutions for which the statute gives the

CFPB enforcement authority, the CFPB has identified several categories of small depository institutions whose use of AVMs may be directly affected, including commercial banking institutions, savings institutions, credit unions, and other depository institutions related to credit intermediation with assets of $600 million or less.[16]

During the Panel outreach meeting, SERs will provide the Panel with important advice and recommendations on the potential impacts on small entities of the proposals under consideration. The SERs also may provide feedback on regulatory alternatives to minimize these impacts on small entities. In addition, the RFA directs the CFPB to collect the advice and recommendations of SERs concerning whether the proposals under consideration might increase the cost of credit for small entities and alternatives that accomplish the stated objectives of applicable statutes and which minimize any such increase.[17]

Within 60 days of convening, the Panel is required to complete a report on the input received from the SERs during the Panel process. The CFPB will consider the SERs' feedback and the Panel's report as the CFPB prepares the eventual proposed rule on an interagency basis with the Board, OCC, FDIC, NCUA, and FHFA. Once the proposed rule is published, the CFPB is required to place the Panel's final report in the public rulemaking record. The CFPB also welcomes further feedback from the SERs during the public comment period on the proposed rule.

This SBREFA Panel process is an opportunity to obtain input from the SERs on proposals under consideration for AVM quality control standards pursuant to FIRREA section 1125. The CFPB has prepared this Outline of Proposals and Alternatives Under Consideration (Outline) to provide background to the SERs and to facilitate the Panel process. However, the Panel process is only one step in this interagency rulemaking process where the CFPB, as well as the Board, OCC, FDIC, NCUA, and FHFA, have FIRREA section 1125 rulemaking authority. The Panel process should not be construed to represent the views or recommendations of the other agencies involved in the rulemaking. No institution will be required to comply with new regulatory requirements before a proposed rule is published, public comment is received and reviewed by the agencies, a final rule is issued, and the implementation period designated in the final rule concludes.

The CFPB welcomes written feedback from SERs and other stakeholders on this Outline. Please email any such comments to *2022-SBREFA-AVM@cfpb.gov*. The CFPB requests written feedback from SERs by April 8, 2022 in order to be considered and incorporated into the Panel Report. The CFPB requests that other stakeholders wanting to provide written feedback do so no later than May 13, 2022.

Please note that written feedback from SERs will be appended to the Panel Report. Feedback from other stakeholders also may be subject to public disclosure. Do not include personally identifiable information (PII), such as account numbers or Social Security numbers, or names of other individuals. SERs and other stakeholders considering submitting proprietary or confidential business information should contact *2022-SBREFA-AVM@cfpb.gov* in advance to discuss whether and how that information should be provided.

III. Proposals and Alternatives Under Consideration

The purpose of this Outline and the convening of the Panel is to obtain feedback from the selected SERs to inform the CFPB's next major step in implementing FIRREA section 1125, which is to issue a proposed rule together with the Board, OCC, FDIC, NCUA, and FHFA.

FIRREA section 1125 pertains to determining the collateral worth of a mortgage, which implicates important consumer protection and public policy interests and is the subject of other Federal laws and regulations. For example, title XI of FIRREA and the prudential agencies' implementing regulations require a licensed or certified appraiser for certain transactions.[18] Section 129H of the Truth in Lending Act (TILA)[19] and its implementing regulations require lenders to obtain an appraisal by a certified or licensed appraiser—and in some cases two appraisals—for certain higher-risk transactions (termed "higher-priced mortgage loans" or "HPMLs" in the regulations).[20]

In addition to these Federal laws and regulations requiring a licensed or certified appraiser for various transactions, other Federal laws and regulations broadly address determining the collateral worth of a mortgage, whether using an appraisal, AVM, or other method. For consumer credit transactions secured by a consumer's principal dwelling, TILA section 129E[21] and its implementing regulations require valuation independence by, for example, prohibiting material misrepresentation of property value and conflicts of interest for persons preparing valuations or performing valuation management functions.[22] Title XI of FIRREA, as amended by the Dodd-Frank Act, provides that, "[i]n conjunction with the purchase of a consumer's principal dwelling, broker price opinions may not be used as the primary basis to determine the value of a piece of property for the purpose of a loan origination of a residential mortgage loan secured by such piece of property."[23] Section 701(e) of the Equal Credit Opportunity Act (ECOA)[24] and its implementing regulation, Regulation B, generally require creditors to provide applicants for first-lien loans on a dwelling with copies of written valuations developed in connection with an application.[25] Moreover, in part III.F.2 below we discuss how valuations are subject to other provisions of ECOA and other Federal nondiscrimination laws.

Throughout this Outline, we list questions we would like SERs to answer regarding options under consideration. These questions are numbered sequentially throughout this Outline for ease of reference, and begin here:

> Q1. Are there any relevant Federal laws or rules which may duplicate, overlap, or conflict with the options under consideration beyond the FIRREA, TILA, and ECOA laws and implementing regulations discussed herein? How might the options under consideration for implementing FIRREA section 1125 impact other aspects of small entities' compliance with Federal law or rules?

In this part III, we first discuss key issues under the FIRREA section 1125 definition of "automated valuation model" which may determine the scope of transactions covered by an eventual proposed rule. Key definitional issues include: what AVM uses "determine the collateral worth," what are "mortgage originators" and "secondary market issuers," what is a "mortgage," and what constitutes a "consumer's principal dwelling."

Next, we discuss our views of general options for AVM quality control standards, including, on the one hand, a principles-based option that may increase regulated institutions' flexibility and, on the other hand, a prescriptive option with more detailed and specific requirements that may reduce potential compliance uncertainty. We also discuss a potential option for specifying an express nondiscrimination quality control factor for AVMs. Finally, we address options for an implementation period for the eventual final rule under FIRREA section 1125.

A. Defining AVMs used to "determine" the collateral worth

FIRREA section 1125 defines AVMs as computerized models "used by mortgage originators and secondary market issuers to determine the collateral worth" of certain mortgages.[26] Depending on how that phrase in the statute is implemented, the rule's quality control requirements might cover a variety of AVM uses by mortgage originators and secondary market issuers.

In part III.A.1 below, we first discuss the option of focusing on AVMs used for making underwriting decisions regarding the value of collateral. Then, in parts III.A.2 through 5, we discuss options regarding more specific types of AVM uses.

In addition to the options in part III.A, we note that several other key words in the statute will determine whether or not a particular AVM use is covered by the rule's quality control requirements. For example, a mortgage originator (as discussed in part III.B)—or a secondary market issuer (as discussed in part III.C)—along with a mortgage (as discussed in part III.D) secured by a consumer's principal dwelling (as discussed in part III.E) are all necessary to trigger coverage under FIRREA section 1125.

> Q2. Please provide feedback and information, including supporting data, on the options we are considering for implementation of the statutory phrase "to determine the collateral worth"? Besides the options discussed in parts III.A.1 through 5 below, are there any alternative approaches we should consider?

1. AVMs used for making underwriting decisions

We are considering proposing that AVMs are covered when used for making underwriting decisions regarding the value of collateral rather than broadly covering AVMs used to produce *any* valuation estimate. We preliminarily believe such an approach may better accomplish the objectives of FIRREA section 1125 to the extent that underwriting decisions entail a more official valuation than the estimates generated for other activities such as marketing or portfolio monitoring.

FIRREA section 1125 focuses on AVMs used to "determine" the collateral worth,[27] which we preliminarily believe refers to AVMs used to make decisions that affect the terms and conditions of consumer credit. The word "determine" is not defined in the statute but, for example, the first definition in *Black's Law Dictionary* under the entry "determination" is "[t]he act of deciding something officially."[28]

Q3. Does your small entity currently have quality control processes in place for AVMs? If so, please describe those processes, including how they function, what costs (one-time or fixed, and variable) are associated with their implementation and oversight, and whether they differ based on AVM use, *e.g.*, making underwriting decisions versus portfolio monitoring. Are there specific complexities or costs that are different for AVMs used in making underwriting decisions versus for other AVM uses?

Q4. How often does your small entity use AVMs in making underwriting decisions? Does your small entity use AVMs for other purposes, such as monitoring the quality or performance of mortgage loans or mortgage-backed securities? If so, how often are AVMs used for those other purposes?

Q5. Please provide feedback and information, including supporting data, on the option to potentially focus on AVMs used for making underwriting decisions. Besides making underwriting decisions, does your use of AVMs have a direct impact on consumers?

2. Reviews of already completed determinations

Where there is already a completed determination of collateral value (completed determination), we are considering proposing to expressly not cover AVMs used in subsequent reviews of that completed determination. A completed determination is often an appraisal.[29] In certain transactions not requiring a licensed or certified appraiser, a completed determination might entail, for example, an AVM supplemented with a report of the property's actual physical condition. We preliminarily believe an AVM used to develop a completed determination may be distinguishable from an AVM subsequently used to review a completed determination.

We preliminarily believe that expressly not covering AVMs used in reviews of completed determinations may accomplish the objectives of FIRREA section 1125 to the extent that the underlying completed determination is what the creditor relies on "to determine the collateral worth," with the *review* serving a separate and independent quality control function (*i.e.*, to assure the quality of the completed determination). For this reason, we are considering proposing that an AVM used for such review activities is not being used "to determine the collateral worth" and is not covered by the rule.

Moreover, we are considering whether mortgage originators and secondary market issuers, and in particular small entities, might reduce their use of AVMs to review completed determinations depending on compliance costs of an eventual rule implementing FIRREA section 1125. If such reduction occurred, the quality control of the underlying completed determinations might suffer, which could be contrary to the quality assurance objectives of the statute.

Q6. Please provide feedback and information, including supporting data, on the option of expressly not covering AVMs used in subsequent reviews of completed determinations.

Q7. How often does your small entity use AVMs to subsequently review completed determinations? Does your small entity have quality control processes for that type of

AVM use? If so, do they differ from AVM quality control processes when AVMs are used for other purposes?

Q8. What are the advantages and disadvantages for small entities of using AVMs to review completed determinations versus using other non-AVM methods of review?

Q9. What compliance costs would cause your small entity to stop or decrease your use of AVMs to perform quality control reviews of completed determinations?

3. Developing an appraisal by a certified or licensed appraiser

We are considering proposing that an AVM is not covered when used by a certified or licensed appraiser (appraiser) who is already subject to quality control standards under other Federal and State regulation and supervision. As discussed in parts III.B and C below, FIRREA section 1125 applies to AVMs used by "mortgage originators" and "secondary market issuers," respectively.[30] Appraisers generally would not be mortgage originators or secondary market issuers; thus, appraisers themselves generally would not be covered by the eventual rule. But to the extent that an appraiser is in an employment or third-party service provider relationship with a mortgage originator or secondary market issuer, an eventual rule implementing FIRREA section 1125 might require the mortgage originator itself (or the secondary market issuer itself) to ensure that AVMs used by the appraiser adhere to quality control standards.[31] However, we preliminarily believe a mortgage originator's (or secondary market issuer's) responsibility for an AVM used by an appraiser may be distinguishable from a mortgage originator's (or secondary market issuer's) responsibility for an AVM used by other types of employees or service providers. Thus, we are considering proposing that an AVM is not covered when a mortgage originator (or secondary market issuer) relies on an appraisal developed by a certified or licensed appraiser, notwithstanding that the appraiser used the AVM in developing an appraisal.

We preliminarily believe that not covering AVMs used by appraisers to develop an appraisal may be consistent with the objectives of title XI of FIRREA, which contains FIRREA section 1125.[32] This would reflect the fact that appraisals already are subject to quality control standards under Federal and State regulation and supervision as described below. In addition, an appraiser must make a valuation conclusion that is independently supportable and credible and does not rely solely on an AVM to determine the value of the underlying collateral under the Uniform Standards of Professional Appraisal Practice (USPAP).[33] The USPAP have been incorporated by reference into various Federal and State laws, including title XI of FIRREA.[34]

Title XI of FIRREA defines the term "written appraisal" as a written statement used in connection with a federally related transaction that is independently and impartially prepared by a licensed or certified appraiser setting forth an opinion of the defined value of an adequately described property as of a specific date, supported by presentation and analysis of relevant market information.[35] Most lenders require an appraisal before they will originate a mortgage, although the GSEs are increasingly offering appraisal waivers for certain qualifying loans, as discussed in part III.A.5.

FIRREA requires minimum criteria for real property appraisers to obtain a State license or certification.[36] At a minimum, appraisers must be licensed or certified in order to provide appraisals for federally related transactions, but many States require credentialing to provide other appraisals as well.[37] Appraisers must meet certain education, experience, and examination requirements to obtain a State license or certification. Section 1102 of FIRREA established the Appraisal Subcommittee of the Federal Financial Institutions Examination Council (the subcommittee).[38] The functions of the subcommittee include monitoring the requirements established by States for the certification and licensing of appraisers.[39]

USPAP standards and appraiser credentialing already provide a significant degree of quality control over the work of appraisers.[40] In light of these existing quality control measures, we preliminarily believe that excluding appraisals from the scope of the eventual rule might minimize the impacts on small entities while accomplishing the objectives of section 1125.

> Q10. From your experience, how often are AVMs used by certified or licensed appraisers to develop appraisal valuations? What would the impact of the rule be on small entities if it did not cover AVMs when used by certified or licensed appraisers to develop appraisal valuations?
>
> Q11. Would coverage of appraisers' use of AVMs potentially discourage use of AVMs by small entities as a valuation tool?

4. Post-origination

i. Loan modifications and other changes to existing loans

We are seeking advice and recommendations from small entities regarding cases where an AVM is used in deciding whether to change the terms of an existing loan. We currently are considering two alternatives. Under the first alternative, we are considering proposing that the rule cover AVMs used in transactions that result in the consumer receiving a new mortgage origination. Under this option, the rule would cover transactions like refinancings, but not transactions like loan modifications that do not result in a new mortgage origination. Under the second alternative, we are considering proposing that the rule cover any AVM used to decide whether to change the terms of an existing mortgage even if the change does not result in a new mortgage origination, so long as a "mortgage originator" or "secondary market issuer," or a service provider acting on behalf of a mortgage originator or a secondary market issuer, uses the AVM "to determine the collateral worth of a mortgage secured by a consumer's principal dwelling."[41]

We preliminarily believe that the first alternative may be consistent with options we are considering for the definition of the term "mortgage originator." As discussed below in part III.B, we are considering proposing a definition of "mortgage originator" that would include servicers only in certain transactions where the servicer engages in activities that result in a mortgage origination. Those transactions would include transactions that obligate a different consumer on an existing debt (given that from this consumer's perspective the existing debt is a new obligation)[42] as well as transactions that constitute "refinancings" under section

Regulation Z § 1026.20(a).[43] Under Regulation Z § 1026.20(a), a "refinancing" generally occurs "when an existing obligation that was subject to [subpart C of Regulation Z] is satisfied and replaced by a new obligation undertaken by the same consumer."[44]

For similar reasons, we also preliminarily believe that the first alternative also may be consistent with options we are considering for the definition of the term "secondary market issuer." As discussed in greater detail in part III.C, we are considering options for defining the term "secondary market issuer" to include entities that issue residential mortgage-backed securities (RMBS) or, alternatively, to include an issuer, guarantor, insurer, or underwriter of RMBS; but those options for defining "secondary market issuer" would not include a servicer. Because the definition of "secondary market issuers" would not include servicers, the first alternative in this part III.A.4.i would result in coverage of AVMs when the secondary market issuer is engaged in activity that results in a mortgage origination, such as a refinancing, rather than activity that is more typically that of a servicer.

Under the second alternative, we are considering proposing that the rule cover any AVM used to decide whether to change the terms of an existing mortgage even if the change does not result in a new mortgage origination, so long as a mortgage originator or secondary market issuer, or a service provider acting on behalf of a mortgage originator or a secondary market issuer, uses an AVM to determine the collateral worth of a mortgage secured by a consumer's principal dwelling. We preliminarily believe such an option may be consistent with the reference in section 1125 to "mortgage originators and secondary market issuers" because an institution that meets the definition of a "mortgage originator" at the time of mortgage origination, or the definition of "secondary market issuer" at the time of RMBS issuance, may, either directly or through a service provider, subsequently use AVMs in decisions to determine the collateral worth of a mortgage secured by a consumer's principal dwelling.

> Q12. What would be the advantages and disadvantages for small entities of the first alternative (*i.e.*, covering AVMs in transactions like refinancings but not in loan modifications that do not result in a new mortgage origination) versus the second alternative (*i.e.*, broadly covering changes to the terms of an existing mortgage so long as a covered institution or its service provider uses the AVM to determine the collateral worth)? Please also provide any alternatives for consideration.

ii. **Credit line reductions or suspensions**

We understand that creditors use AVMs to monitor home equity lines of credit (HELOCs), which are often held in portfolio, and AVM outputs can factor into a decision to reduce or suspend a borrower's credit line in accordance with the terms of an initial credit agreement (a reduction or suspension decision).[45] Such reduction or suspension decisions are distinct from decisions to change the terms of a credit agreement, which is discussed above in part III.A.4.i.

One potential option we are considering is to expressly not cover AVMs used to make reduction or suspension decisions for HELOCs. As discussed below in parts III.B and C, we are considering potential definitions of the terms "mortgage originator" and "secondary market issuer" that are focused on mortgage origination and securities issuance activities, rather than

activities relating to mortgage servicing. We likewise are considering proposing that reduction or suspension decisions would not be covered so long as they were made in accordance with *an initial agreement* and did not involve a new mortgage origination. Unlike reductions and suspensions, increases to a home equity credit line typically require a new mortgage origination and would therefore be covered as discussed above in part III.A.4.i.

In contrast with the first option, another potential option we are considering is to broadly cover reduction or suspension decisions whenever the institution making the reduction or suspension decision is a mortgage originator or secondary market issuer—or their service provider—and the AVM is used to determine the collateral worth of a mortgage secured by a consumer's principal dwelling. We preliminarily believe that this option may be consistent with the second alternative being considered in part III.A.4.i above, because an institution that meets the definition of a "mortgage originator" at the time of mortgage origination, or the definition of "secondary market issuer" at the time of RMBS issuance, may, either directly or through a service provider, subsequently use AVMs in reduction or suspension decisions to determine the collateral worth of a mortgage secured by a consumer's principal dwelling. We note that section 1125 references AVMs used by "mortgage originators and secondary market issuers," but does not expressly reference AVMs used by mortgage servicers. As a result, this option would cover mortgage originators and secondary market issuers when they—or a servicer acting on their behalf—service their mortgages, but would not cover entities that subsequently acquire the mortgage if such institution is not a mortgage originator or secondary market issuer. For example, under this option, in instances where a covered institution sold the mortgage and transferred the servicing to another entity that is not itself a mortgage originator or secondary market issuer, an AVM used by the subsequent institution would not be covered.

> Q13. What are the advantages and disadvantages for small entities of the option to exclude decisions to reduce or suspend a HELOC as provided in an initial credit agreement from the scope of section 1125 versus the alternative option that covers reduction or suspension decisions more broadly?

iii. **Securitization**

A potential option we are considering for the proposal to implement the statutory phrase "to determine the collateral worth" is excluding a secondary market issuer's use of an AVM in the offer and sale of residential mortgage-backed securities (securitization). This discussion is separate from a secondary market issuer's use of an AVM in a mortgage loan origination (as discussed in part III.A.5) to determine the collateral worth of a mortgage secured by a consumer's principal dwelling. For example, even if securitization were excluded, when a Government Sponsored Enterprise (GSE) has relied on a proprietary computer model to offer an appraisal waiver to a lender originating a mortgage loan, the GSEs' use of the model would be subject to the eventual AVM rule.

We are considering whether certain statutory and policy considerations weigh for or against excluding securitizations from the scope of the eventual rule, including whether doing so could potentially minimize the impacts on small entities while accomplishing the statutory objectives.

The definition of an AVM in FIRREA section 1125 does not expressly include or exclude AVMs used in securitization.

If securitization usually relies on the valuations provided by mortgage originators "to determine the collateral worth" rather than relying on any AVM use by secondary market issuers, it is possible that including securitization in the scope of the eventual rule might only cover a small amount of incremental AVM usage. In that case, we are considering whether the benefits of covering the few instances where secondary market issuers use AVMs "to determine the collateral worth" in securitization potentially do not warrant the potential costs or other compliance risks for those entities.

On the other hand, section 1125 expressly covers "secondary market issuers," and securitization is a substantial part of secondary market issuers' involvement with mortgage markets. We are considering whether ensuring quality control standards for AVMs used by secondary market issuers in connection with securitization could help prevent a distortion of demand for mortgages that may incentivize originators to over- or under-invest in certain segments in the market.

> Q14. What would be the impact of the rule on small entities if securitization was excluded from the scope of the eventual rule?
>
> Q15. Does your small entity offer and sell mortgage-backed securities? If so, does your small entity use AVMs to produce any estimates of the collateral worth of a mortgage secured by a consumer's principal dwelling in connection to the securitization process? What quality control standards does your small entity already have in place for AVMs used in securitization?

Excluding AVMs used in securitization is one of various, non-mutually exclusive options discussed in this Outline that could potentially minimize the impacts on small entities while accomplishing the statutory objectives. For example, as discussed in part III.A.2 above, we preliminarily believe that expressly not covering AVMs used in reviews of completed determinations would mitigate compliance burden for small secondary market issuers. As discussed in part III.F.1 below, in contrast to a prescriptive rule with more detailed and specific requirements, the option of a flexible, principles-based rule regarding AVM quality control standards may, among other things, mitigate compliance burden for small secondary market issuers because institutions could tailor their quality controls for AVMs as appropriate for the size and risk profile of the institution.

> Q16. How might coverage of AVMs used in securitization by the eventual rule change the secondary mortgage market for small entities? In particular, would covering AVMs used in securitization have the potential to affect the cost or availability of credit for small entity consumers?
>
> Q17. If the eventual rule covered AVMs used in securitization, how might the potential impacts on small entities be mitigated by one or more of the other options we are considering in this Outline? Besides the options discussed in this Outline, are there any alternative approaches we should consider for mitigating potential impacts on securitization for small entities?

5. Certain AVM use related to appraisal waiver loans

We are considering whether to implement the statutory phrase "to determine the collateral worth" to exclude a mortgage originator's use of certain AVMs for transactions where the secondary market issuer's use of an AVM is covered instead.

Appraisal waivers are offers to waive the appraisal requirement for originations.[46] In the current market, appraisal waivers are primarily issued by GSEs. To determine if a loan qualifies for a waiver, the mortgage originator provides a purchase price or estimated value of the property to the secondary market issuer along with loan characteristics.[47] The data is then processed through the secondary market issuer's internal AVM and compared with listed use and loan-to-value ratio requirements. The secondary market issuer then determines whether the estimated value satisfies the requirements for a waiver given the property characteristics and any other relevant factors.[48] When an appraisal waiver is exercised by a mortgage originator, the GSE accepts the estimate submitted as the market value and provides relief from enforcement of representations and warranties on the value of the property.[49]

The proportion of GSE loans using appraisal waivers increased from less than 10 percent prior to June 2019 to an average of 36 percent during 2020, in part due to the COVID-19 pandemic.[50] Appraisal waivers can shorten loan manufacture time,[51] remove an obstruction to refinancing,[52] and eliminate the cost of traditional appraisals.[53] A 2018 FHFA report on appraisal waivers concluded that due to their modest size and stringent eligibility standards the risks of the GSE appraisal waiver programs were small.[54] Despite an increasing proportion of GSE loans using appraisal waivers, in its 2020 Request For Information on Appraisal Related Policies, FHFA acknowledged that because the majority of appraisal waivers are offered on rate and term refinance loans already held by GSEs, the lower borrower payments can reduce credit risk.[55] However, in the same report, FHFA cited risks stemming from increased repayment speeds on mortgage securities, loss of ability to assess recent property condition, decline in accuracy of appraisal data, increased model error, erosion of loan quality, and potential gaming by lenders.[56]

We are considering proposing to exclude a mortgage originator's use of certain AVMs for transactions where the secondary market issuer's use of an AVM is covered instead. We are considering two potential options.

To the extent that a mortgage originator does not "determine the collateral worth" in appraisal waiver settings, one option is to exclude the mortgage originator's use of the secondary market issuer's AVM for appraisal waiver programs. We recognize that when a mortgage originator applies for an appraisal waiver, the mortgage originator typically does not have access to the secondary market issuer's underlying AVM. Under this option, the secondary market issuer, and not the mortgage originator, would be responsible for ensuring compliance with quality control standards.

To the extent that a mortgage originator does not "determine the collateral worth" in appraisal waiver settings, a second option is to exclude the mortgage originator's use of any AVM used exclusively to determine whether a loan qualifies for an appraisal waiver program or to generate a value estimate exclusively for an appraisal waiver program. If the mortgage originator's use of

an AVM in the appraisal waiver process is excluded from the scope of the rule, the secondary market issuer's use of an AVM would still be covered by the rule. As discussed in part III.C below, we are considering proposing a definition of "secondary market issuer" to include entities such as guarantors, insurers, or underwriters of RMBS that are not necessarily RMBS issuers.

> Q18. What would be the advantages and disadvantages for small entities of excluding a mortgage originator's use of an AVM for appraisal waiver purposes in transactions where the secondary market issuer's use of an AVM is covered instead?

B. Defining "mortgage originators"

FIRREA section 1125 covers AVMs used by "mortgage originators," but does not define the term.[57] We are considering options for a definition of "mortgage originator" that seek to minimize the potential impacts on small entities, while achieving the objectives of section 1125 and maintaining consistency with other defined terms in the eventual rule.[58] These include options that would be consistent with the Truth in Lending Act (TILA)[59] and Regulation Z.[60] We preliminarily believe that using a definition of "mortgage originator" that draws heavily from other consumer financial laws, such as TILA and Regulation Z, may provide participants in the mortgage lending market with a greater degree of clarity regarding whether they would be considered "mortgage originators" for purposes of a rule implementing section 1125.

1. General definition of mortgage originator

We are considering proposing a definition of "mortgage originator" under section 1125 that would cover persons[61] who are "loan originators" for purposes of Regulation Z § 1026.36. Regulation Z defines "loan originator" as a person who:

> in expectation of direct or indirect compensation or other monetary gain or for direct or indirect compensation or other monetary gain, performs any of the following activities: takes an application, offers, arranges, assists a consumer in obtaining or applying to obtain, negotiates, or otherwise obtains or makes an extension of consumer credit for another person; or through advertising or other means of communication represents to the public that such person can or will perform any of these activities.[62]

We further are considering proposing a definition of "mortgage originator" under section 1125 that would cover persons who are "creditors" for purposes of Regulation Z § 1026.2(a)(17).[63]

Regulation Z provides that "creditor" means, in part, "[a] person who regularly extends consumer credit that is subject to a finance charge or is payable by written agreement in more than four installments (not including a down payment), and to whom the obligation is initially payable, either on the face of the note or contract, or by agreement when there is no note or contract."

> Q19. Please provide feedback and information, including supporting data, on the advantages and disadvantages to small entities of defining the term "mortgage originator" in section 1125 to cover persons who are "loan originators" for purposes of Regulation Z

§ 1026.36(a)(1). Please also provide any alternatives for consideration and explain the advantages and disadvantages of such alternatives.

Q20. Please provide feedback and information, including supporting data, on the advantages and disadvantages to small entities of defining the term "mortgage originator" in section 1125 to cover persons who are "creditors" for purposes of Regulation Z § 1026.2(a)(17). Please also provide any alternatives for consideration and explain the advantages and disadvantages of such alternatives.

2. Defining mortgage originator to cover servicers under limited circumstances

We further are considering proposing a definition of "mortgage originator" under section 1125 that, under limited circumstances, would cover persons who are "servicers" for purposes of Regulation Z § 1026.36(c).

As explained in part III.B.1 above, we are considering proposing a definition of the term "mortgage originator" that covers persons who are "loan originators" under Regulation Z. Though the definition of "loan originator" under Regulation Z generally excludes servicers, it includes servicers and their employees, agents, or contractors when they perform loan origination activities with respect to any transactions that constitute "refinancings" under Regulation Z § 1026.20(a) or that change an obligor.[64] For example, under Regulation Z, a "refinancing" generally occurs "when an existing obligation that was subject to [subpart C of Regulation Z] is satisfied and replaced by a new obligation undertaken by the same consumer."[65] For purposes of section 1125, we likewise are considering proposing a definition of "mortgage originator" that would cover persons who are servicers for purposes of Regulation Z § 1026.36(c), but only to the extent that they perform loan origination activities for transactions (i) that constitute refinancings under Regulation Z § 1026.20(a) or (ii) that change an obligor on an existing debt.

Q21. Please provide feedback and information, including supporting data, on the advantages and disadvantages to small entities of defining the term "mortgage originator" in section 1125 to cover persons who are "servicers" for purposes of Regulation Z § 1026.36(c) to the extent that they perform loan origination activities for purposes of Regulation Z § 1026.36(a)(1) with respect to transactions (i) that constitute refinancings under Regulation Z § 1026.20(a) or (ii) that change an obligor on an existing debt. Please also provide any alternatives for consideration and explain the advantages and disadvantages of such alternatives.

C. Defining "secondary market issuers"

FIRREA Section 1125 does not define the term "secondary market issuer" and the term does not appear elsewhere in the Dodd-Frank Act or FIRREA.[66] We are considering options for a definition of "secondary market issuer" that are consistent with other relevant portions of the Dodd-Frank Act, and could potentially minimize the impacts on small entities while achieving the objectives of section 1125.

One option is to define the term "secondary market issuer" to include only entities that issue RMBS. A second option is to define the term more broadly to mean an issuer, guarantor, insurer, or underwriter of RMBS. We preliminarily believe that the appropriate definition of "secondary market issuer" may rely in part on whether AVMs used in securitization are covered by the eventual proposed rule, as discussed in part III.A.4.iii above.

The secondary market uses AVMs for multiple purposes. One main use of AVMs by the secondary market is in the offer and sale of RMBS (securitization) by RMBS issuers. A second main use of AVMs by the secondary market is determining whether a property satisfies the requirements for an appraisal waiver during mortgage origination, as discussed in part III.A.5. We understand that for some mortgages an appraisal waiver is issued by an RMBS issuer, who will incorporate those mortgages into a pool underlying the RMBS; but for other mortgages, an appraisal waiver may not be issued by an RMBS issuer but, rather, by a guarantor, insurer, or underwriter of RMBS.

We preliminarily believe that a broader definition of "secondary market issuers" could provide greater regulatory consistency among RMBS issuers, guarantors, insurers, and underwriters. A broader definition of the term may also be more consistent with other relevant provisions of the Dodd-Frank Act. Section 1473 of the Dodd-Frank Act,[67] which added section 1125 to title XI of FIRREA, also added section 1124, to establish minimum requirements for the registration and supervision of appraisal management companies (AMCs).[68] For purposes of section 1124, section 1121 defines an AMC with reference to an institution that performs services "[i]n connection with valuing properties collateralizing mortgage loans or mortgages incorporated into a securitization," when such services are authorized by, among others, a "principal in the secondary mortgage markets."[69] In implementing section 1124, the agencies published a final rule in 2015 that defines the term "secondary mortgage market participant" as "a guarantor or insurer of mortgage-backed securities, or an underwriter or issuer of mortgage-backed securities."[70] While the terms "secondary mortgage market participant" and "secondary market issuer" differ, both sections 1124 and 1125 address secondary mortgage markets. Both sections also provide rulemaking authority to the same agencies.[71] We are considering whether aligning the definition of "secondary market issuer" with the existing definition of "secondary mortgage market participant" could provide increased clarity and, as noted above, the appropriate definition may rely in part on whether AVMs used in securitization are covered by the eventual proposed rule, as discussed in part III.A.4.iii above.

> Q22. Please provide feedback and information, including supporting data, on whether one of the "secondary market issuer" definitions under consideration would be less burdensome for small entities to implement and to administer than the other?

D. Defining "mortgage"

In addition to covering AVMs used by "mortgage originators," section 1125(d) of FIRREA further limits coverage to AVMs used "to determine the collateral worth of a mortgage secured by a consumer's principal dwelling."[72] The word "mortgage" is not defined in the statute. To

clarify the type of transactions that this statutory language encompasses, we are considering proposing two alternative definitions of "mortgage."

The first alternative we are considering proposing would be to define "mortgage" as an extension of credit secured by a dwelling.[73] We preliminarily believe focusing on extensions of credit is consistent with other provisions in title XIV of the Dodd-Frank Act.[74]

The second alternative we are considering proposing would be to define the term "mortgage" as a transaction in which a mortgage, deed of trust, purchase money security interest arising under an installment sales contract, or equivalent consensual security interest is created or retained in a dwelling. This second definition may better implement the statutory objectives by including security interests arising under installment land contracts and any other security interests that may not be understood as credit. We note that terms such as "mortgage originator," discussed in part III.B above, may need to be adjusted to include these types of transactions if this definition of "mortgage" is used.

> Q23. Please provide feedback and information, including supporting data, on whether one of the "mortgage" definitions under consideration would be less burdensome for small entities to implement and to administer than the other? Please also provide any alternatives for consideration and explain the advantages and disadvantages of such alternatives.
>
> Q24. Are AVMs commonly used with installment sales contracts or similar transactions? How often are they used and in what way? On what are you basing your answer?

E. Defining "consumer's principal dwelling"

FIRREA section 1125(d) defines an AVM by reference to "a mortgage secured by a consumer's principal dwelling."[75] Neither FIRREA section 1125 nor title XI of FIRREA[76] defines "consumer's principal dwelling." We are considering whether using a definition that is derived from existing related regulatory requirements could minimize the potential impacts on small entities while achieving the objectives of FIRREA section 1125. Specifically, we are considering proposing to base a definition of "consumer's principal dwelling" generally on how the phrase is used in the CFPB's provisions on valuation independence codified in Regulation Z § 1026.42. The valuation independence regulation applies to certain credit transactions secured by the "consumer's principal dwelling" but also does not define the phrase. This part III.E discusses how Regulation Z's valuation independence regulation uses each component of the phrase "consumer's principal dwelling" and asks questions relating to their use in the AVM rulemaking.

1. Coverage of "consumers"

We are considering proposing a definition that would consider a consumer to be a natural person to whom credit is offered or extended.

Like FIRREA section 1125, the Regulation Z valuation independence regulation states that it applies only to transactions secured by the consumer's principal dwelling.[77] TILA defines "consumer," when used with reference to a credit transaction, as "characteriz[ing] the transaction as one in which the party to whom credit is offered or extended is a natural person, and the money, property, or services which are the subject of the transaction are primarily for personal, family, or household purposes."[78] Regulation Z defines "consumer" for general TILA purposes as a "natural person to whom consumer credit is offered or extended" and explains that for certain purposes the term includes "a natural person in whose principal dwelling a security interest is or will be retained or acquired, if that person's ownership interest in the dwelling is or will be subject to the security interest."[79]

Unlike TILA, however, FIRREA section 1125 does not generally limit its coverage to consumer transactions that are primarily for personal, family, or household purposes. In order to retain consistency with the broader scope of FIRREA section 1125, if we propose a TILA-based definition of "consumer's principal dwelling," we are also considering proposing language that clarifies that the definition does not exclude mortgages for which the proceeds are used for other purposes, as long as the mortgage is secured by a consumer's principal dwelling.[80]

> Q25. Please provide feedback and information, including supporting data, on whether the term "consumer" should extend to individuals who are not a party to whom credit is offered or extended, but who have an ownership interest in and use the secured property as their principal dwelling. Please also provide feedback and information, including supporting data, about additional costs or benefits, if any, that would result for small entities from a more inclusive designation of who is a "consumer."
>
> Q26. From your experience, is there a difference between consumer-purpose and business-purpose mortgage lending regarding the relative prevalence of AVMs and in-person appraisals used to determine the worth of the collateral? Do you expect this relative usage to change in the next five years and, if so, how? Please provide any supporting feedback and information, including supporting data.

2. Coverage of "dwelling"

FIRREA section 1125(c)(2) grants enforcement authority to certain agencies, including the CFPB, over "participants in the market for appraisals of 1- to 4-unit single-family residential real estate."[81] The focus on 1- to 4-residential units is also seen in several TILA mortgage-related provisions, such as the valuation independence requirements, that are subject to the general TILA definition of "dwelling." TILA defines "dwelling" as meaning a residential structure or mobile home which contains one to four family housing units, or individual units of condominiums or cooperatives."[82]

For purposes of defining "consumer's principal dwelling" in the AVM rule, we are considering proposing to treat "dwelling" as meaning a residential structure that contains one to four units, whether or not that structure is attached to real property, and including an individual condominium unit, a cooperative unit, a manufactured home, and any other structure used as a

residence, regardless of whether the structure is classified as personalty under State law. This treatment would be generally consistent with how the TILA term "dwelling" is implemented in Regulation Z.[83]

Alternatively, we are considering proposing to limit the treatment of "dwelling" to transactions in which the dwelling is secured by real property. This approach to coverage would be consistent with certain other mortgage-related authorities we exercise, such as Real Estate Settlement Procedures Act requirements applicable to federally related mortgage loans, which under Regulation X are defined to cover loans for residential structures or manufactured homes only if the loans will be secured by a lien on real property.[84]

> Q27. Please provide feedback and information, including supporting data, on the approach we are considering in defining "dwelling" along with an explanation and supporting data for any alternative approaches we should consider.

> Q28. Would limiting coverage of the AVM requirements to dwelling loans secured by real property be significantly less burdensome for small entities than extending coverage to all dwelling-secured loans? Please provide any feedback and information, including supporting data, to support your response.

3. Limiting coverage to "principal" dwelling

As discussed above, the requirements for both the AVM quality control standards in FIRREA section 1125 and the valuation independence requirements in TILA and Regulation Z reference a consumer's "principal" dwelling.[85]

i. "Principal" dwelling

We are considering proposing, as part of the definition of "consumer's principal dwelling" a clarification that the consumer can reside in only one principal dwelling at a time. This clarification would be consistent with the Regulation Z valuation independence regulation, which provides in commentary that the term has the same meaning as in several other Regulation Z provisions.[86] These provisions further explain that a vacation or other second home would not be a principal dwelling. We also are considering proposing a similar clarification about secondary residences in the definition of the general term "consumer's principal dwelling."

> Q29. Please provide feedback and information, including supporting data, on the approach we are considering in defining a "principal" dwelling. Please also provide any alternatives for consideration and explain, including supporting data, the advantages, and disadvantages for small entities of these alternatives.

ii. Treatment of new construction

Because of the nature of mortgage transactions involving the construction of new residential real estate, the CFPB is considering addressing coverage of these transactions in its AVM proposal. Specifically, we are considering proposing that, if a consumer seeks financing for a dwelling under construction or to be constructed and that will become the consumer's principal dwelling

upon or within a year following completion of construction, the transaction secured by the new dwelling would be considered a transaction secured by a "principal" dwelling, even before occupancy. This approach would be generally consistent with Regulation Z § 1026.42, which provides in commentary that the term "primary dwelling" has the same meaning as the term is used in several other Regulation Z provisions that adopt a similar approach to new construction.[87]

> Q30. Are there additional categories of dwellings or transactions that should be considered for addressing in a proposal on how to designate "principal" dwelling for the purposes of implementing the FIRREA section 1125 AVM quality control standards? If so, how should each of the additional categories be addressed? Please provide an explanation and any data available to support your suggestions.

F. Scope of eventual rule requirements

1. Quality control standards generally

As explained above, section 1125(a) of FIRREA requires that AVMs adhere to quality control standards designed to: (1) ensure a high level of confidence in the estimates produced; (2) protect against the manipulation of data; (3) seek to avoid conflicts of interest; (4) require random sample testing and reviews; and (5) account for any other such factor that the agencies determine to be appropriate. Section 1125(b) requires the agencies to promulgate regulations to implement these quality control standards. In regard to the first four factors, the CFPB is considering proposing two alternative methods for compliance.

In the first alternative for compliance with the quality control factors, the CFPB is considering proposing to require regulated institutions to adopt and maintain their own policies, practices, procedures, and control systems to ensure that AVMs used for covered transactions adhere to quality control standards designed to meet those factors, but not proposing specific requirements for those policies, practices, procedures, and control systems. For the second alternative regarding the quality control factors, the CFPB is considering proposing a prescriptive rule with more detailed and specific requirements in regard to the first four factors. (The CFPB is also considering proposing that the fifth factor listed above be specified to require compliance with applicable nondiscrimination laws; that issue will be discussed in the section immediately following this one.)

The CFPB notes that the first four statutory quality control factors appear to be consistent with several agencies' existing guidance regarding models. For example, the OCC, Board, FDIC, and NCUA issued the *Interagency Appraisal and Evaluation Guidelines* (Guidelines), which contain guidance for institutions seeking to establish policies, practices, procedures, and control systems to ensure the accuracy, reliability, and independence of AVMs.[88] In addition, the CFPB notes that the quality control factors required by the statute also appear to be consistent with the principles on model risk management issued by the OCC, Board, and FDIC (Model Risk Guidance), which outlines supervisory guidance on the validation and testing of computer-based financial models.[89] The CFPB also understands that, while not a party to the Model Risk

Guidance, the NCUA monitors the model risk and data validation efforts of credit unions through its supervisory approach based on the principles of the Guidelines and NCUA's expectations for effective risk management. The first four statutory quality control factors also appear to be consistent with the FHFA's model risk management guidance in the development, validation, and use of models.[90]

To increase regulated institutions' flexibility, and in light of agencies' existing guidance regarding models discussed above, the CFPB is considering proposing a principles-based rule that requires regulated institutions to adopt and maintain their own AVM policies, practices, procedures, and control systems to satisfy the statutory quality control factors. Subject to further consideration to ensure practicality, enforceability, and statutory consistency, the CFPB preliminarily believes that different policies, practices, procedures, and control systems may be appropriate for institutions with different business models and risk profiles, and a more prescriptive rule potentially could unduly restrict institutions' efforts to tailor their risk management practices accordingly. Similarly, as the technology underlying AVMs continues to evolve, a prescriptive rule that details specific quality control requirements could potentially become outdated in a relatively short time. In addition, a rule that includes prescriptive standards for AVM use may present significant burden for small entities in fulfilling these prescriptive requirements. This could lead to reduced use of AVMs by small entities. Furthermore, as noted earlier, several agencies have existing guidance regarding use of models already in place to assist regulated institutions in designing their own standards to meet the first four statutory factors, which the CFPB could adapt as guidance, rather than adopting specific requirements. Accordingly, a rule that requires institutions to develop and maintain their own policies, practices, procedures, and control systems designed to satisfy the statutory factors may more effectively carry out the objectives of section 1125 than a more detailed, prescriptive rule, while imposing less regulatory burden than a prescriptive rule.

Alternatively, although a flexible and principles-based rule may provide the advantages described above, the CFPB is also considering whether to propose a prescriptive rule, which would propose more detailed and specific requirements to aid compliance with the first four statutory factors for the institutions it regulates. A prescriptive rule may aid compliance by providing lenders and regulators with more certainty on how to fulfill the quality control standards.

The CFPB notes that it has not issued AVM-specific guidance similar to that issued by the other agencies. Because the other agencies may already have provided sufficient guidance to their regulated institutions to help ensure compliance, the CFPB is considering proposing that the more detailed and specific requirements under the second alternative apply only to those institutions that the statute places under the authority of the CFPB. The CFPB is further considering proposing to include such requirements in an appendix or official commentary appended to the CFPB's rule alone, which would allow for consistency in the main regulatory text proposed by all the agencies.

Q31. Would small entities be assisted by the CFPB adapting the Guidelines for use by CFPB-regulated institutions and adopting them as guidance rather than adopting specific requirements to implement the statutory quality control factors?

Q32. Would a more prescriptive rule be helpful to small entities? Would it present heightened regulatory burden? Why?

As explained above, under the second alternative the CFPB is considering proposing to include an appendix or official commentary presenting quality controls for AVMs to specify how CFPB-regulated institutions would address the statutory quality control factors (as restated in the main regulatory text proposed by all the agencies). Examples of potential requirements for each quality control factor are provided below. The CFPB and the other agencies recognize that model risk management practices will vary from institution to institution. Therefore, as the other agencies do with their guidance, the CFPB is considering whether to clarify that the practical application of the quality control requirements would be commensurate with an institution's risk exposures, size, business activities, and the extent and complexity of its use of AVMs. In addition, SERs should be aware that the examples below do not present the full requirements that the CFPB would consider proposing, which would be based on the agencies' existing valuation guidance.

Under the first statutory quality control factor, institutions must ensure a high level of confidence in the estimates produced by AVMs. For this factor, the CFPB is considering proposing specific requirements that would address, for example, risks that AVMs may suffer from fundamental errors and may produce inaccurate outputs when viewed against the design objective and intended business uses, as well as risks that AVMs may be used incorrectly or inappropriately.

Under the second quality control factor, institutions must protect against the manipulation of data in connection with AVMs. The CFPB is considering proposing specific requirements to ensure that institutions, for example, provide appropriate management oversight of the availability, usability, integrity, and security of the data used.

The third quality control factor requires that the use of AVMs must seek to avoid conflicts of interest. For this factor, the CFPB is considering proposing specific requirements to ensure that an institution's AVM model governance program, for example, provides certainty that the persons who develop, select, validate, or monitor an AVM are all independent of the loan origination or securitization process.

Under the fourth quality control factor, institutions must require random sample testing and reviews of AVMs. The CFPB is considering proposing specific requirements ensuring that an institution establishes ongoing AVM validation through random sample testing and reviews. These specific requirements would address, for example, the specifications for such testing and reviews to address whether a particular AVM is appropriate for a given transaction or lending activity, considering associated risks.

Q33. Do the examples of specific requirements described for the first four statutory factors appear likely to aid your small entity in implementation of those factors? Are

there specific requirements that you believe should be included, consistent with the statutory factors? Does your small entity anticipate facing any specific complexities or costs associated with specific requirements?

Q34. Should the CFPB allow each institution to tailor its methodology to the nature of its risk exposure, size, business activities, and the extent and complexity of its use of AVMs? Do you have suggestions on the best way to do so?

2. Specifying a nondiscrimination quality control factor

As explained above, section 1125(a)(5) of FIRREA provides the agencies the discretion to account for any other such factor that the agencies determine to be appropriate.[91] The CFPB is considering proposing that we specify that nondiscrimination quality control criteria are appropriate under this fifth statutory factor, for the reasons described in this section.

While compliance with applicable nondiscrimination laws with respect to AVMs may be encompassed within three of the first four statutory quality control factors, the first four statutory factors do not expressly address quality control standards designed to protect against unlawful discrimination. However, algorithmic systems such as AVMs are subject to Federal nondiscrimination laws,[92] including the Equal Credit Opportunity Act (ECOA)[93] and the Fair Housing Act (FHAct).[94]

ECOA and its implementing Regulation B bar discrimination on a prohibited basis in any aspect of a credit transaction.[95] This prohibition extends to using different standards to evaluate collateral,[96] which would include the design or use of an AVM in a way that would treat an applicant differently on a prohibited basis or result in unlawful discrimination against an applicant on a prohibited basis.

The CFPB has recognized the following methods of proving lending discrimination under ECOA and Regulation B: overt evidence of discrimination, evidence of disparate treatment, and evidence of disparate impact.[97] Overt evidence of discrimination exists when a creditor blatantly discriminates on a prohibited basis.[98] Disparate treatment occurs when a creditor treats an applicant differently based on a prohibited basis such as race or national origin.[99] Disparate impact occurs when a creditor employs facially neutral policies or practices that have an adverse effect or impact on a member of a protected class unless the facially neutral policies or practices meet a legitimate business need that cannot reasonably be achieved by means that are less disparate in their impact.[100]

A creditor that uses an AVM model in connection with any aspect of a credit transaction may violate ECOA and Regulation B if, for example, the model uses a prohibited basis (or proxy for a prohibited basis) as an input in the model, or the use of the model has an adverse impact on members of a protected class either that does not meet a legitimate business need or where that need could be reasonably achieved through alternative means that are less disparate in their impact, such as use of an alternative variable(s) within the model or an alternative model.

We are considering the potential positive and negative consumer and fair lending implications of the use of AVMs. AVMs leverage various types of data and modeling techniques, generating a

property value within seconds. The speed of AVMs offers advantages for borrowers, such as lower cost originations and faster closings. Additionally, because AVMs typically involve less human interaction than do appraisals, AVMs have the potential to reduce certain types of discrimination (*e.g.*, overt or intentional discrimination). Yet, like algorithmic systems generally, there are concerns that AVMs may reflect bias in design and function or through the use of biased data and may introduce fair lending risk.[101]

The "black box" nature of many algorithms, including those used in AVMs, introduces additional fair lending concern. The complex interactions that machine learning algorithms engage in to form a decision can be so opaque that they are not easily audited or understood.[102] This makes it challenging to prevent, identify, and correct discrimination.

Moreover, algorithmic systems—including AVMs—can replicate historical patterns of discrimination or introduce new forms of discrimination because of the way a model is designed, implemented, and used.[103] For example, in the healthcare context, a widely used algorithm for determining which hospital patients required additional care allocated Black patients less care than similarly situated White patients.[104] Bias occurred because the algorithm used health costs as a proxy for health needs, but previous unequal access to care meant that less money was spent caring for Black patients than for White patients.[105] Thus, the algorithm falsely concluded that Black patients were healthier than equally sick White patients.[106] The number of Black patients selected for additional care would have nearly doubled if the bias had been eliminated.[107]

Algorithmic bias concerns may arise with AVMs if, for example, the model systematically over- or undervalues properties in neighborhoods of color. Such a result hurts borrowers and entire communities. Overvaluing a home can potentially lead the consumer to take on an increased amount of debt that raises risk to the consumer's financial well-being. On the other hand, undervaluing a home can result in a consumer being denied access to credit for which the consumer otherwise qualified, potentially resulting in a canceled sale, or offered credit at less favorable terms.[108]

Thus, the CFPB is considering including an AVM quality control factor focused on nondiscrimination given the risk of bias in algorithmic systems. It is critical for AVM model risk to be mitigated with proper fair lending controls and governance.

The agencies have issued a number of documents addressing how institutions may identify and manage fair lending risk. For example, the OCC, Board, FDIC, NCUA, and CFPB have issued statements and other materials setting forth principles the agencies will consider to identify discrimination.[109] The OCC, Board, FDIC, NCUA, and CFPB also recently underscored the importance of robust consumer compliance review in an Interagency Policy Statement on the Use of Alternative Data in Credit Underwriting.[110] Specifically, the agencies emphasized that "[r]obust compliance management includes appropriate testing, monitoring and controls to ensure consumer protection risks are understood and addressed."[111] In addition, we have published procedures for CFPB examiners to use to assess an institution's fair lending related risks and controls related to the use of models—including, potentially, AVMs—in the credit decision process.[112] Thus, we preliminarily believe requiring institutions using AVMs to adopt

fair lending compliance policies and practices would be consistent with current fair lending guidance.

As stated above and for all the reasons discussed, we are considering proposing to specify a fifth quality control factor to require regulated institutions to adopt policies, practices, procedures, and control systems designed to ensure that AVMs used for covered transactions comply with applicable nondiscrimination laws. We preliminarily believe standards designed to ensure compliance with applicable nondiscrimination laws may help ensure the accuracy, reliability, and independence of AVMs for all consumers and users. While institutions have a preexisting obligation to comply with Federal nondiscrimination requirements, including ECOA and the FHAct, a specific quality control factor under section 1125(a)(5) would create an independent requirement for institutions to establish policies and procedures to mitigate against fair lending risk in their use of AVMs.

If such a quality control factor is added, we are considering proposing that institutions would have the flexibility to design fair lending policies, practices, procedures, and control systems tailored to their business model, as explained in part III.F.1 concerning the first four statutory quality control factors. Controls need to be commensurate with an institution's risk exposures, size, business activities, and the extent and complexity of its use of AVMs. Subject to further consideration to ensure practicality, enforceability, and statutory consistency, we preliminarily believe that different fair lending policies, practices, procedures, and control systems may be appropriate for institutions with different business models and risk profiles, and a more prescriptive rule potentially could unduly restrict institutions' efforts to tailor their fair lending risk management practices accordingly. Similarly, as the technology underlying AVMs continues to evolve, a rule that prescribes specific fair lending quality control requirements could potentially become outdated in a relatively short time.

As an alternative, for reasons similar to the discussion in part III.F.1 concerning the first four quality control factors, we are also considering whether to take a more prescriptive approach and propose specific requirements for the fifth quality control factor on fair lending. In regard to the fifth factor, for example, such prescriptive requirements could address risks that lending decisions based on AVM outputs generate unlawful disparities, by specifying methods of AVM development (*e.g.*, data sources, modeling choices) and AVM use cases. As explained in the previous part, we are considering proposing to include such requirements in an appendix or official commentary appended to the CFPB's rule.

As an alternative to adopting a fifth factor, we are considering whether compliance with applicable nondiscrimination laws with respect to AVMs is already encompassed within three of the first four statutory quality control factors requiring a high level of confidence in the estimates produced by AVMs, protection against the manipulation of data, and random sample testing and reviews, such that delineation of a nondiscrimination factor is not necessary.

> Q35. What are the advantages and disadvantages for small entities of specifying a quality control factor on nondiscrimination? Would there be an impact on your costs?

Please explain. Are there other alternative approaches the CFPB should consider? Why or why not? What is the basis for this recommendation?

Q36. Does your small entity consider fair lending risk when using AVMs? Please describe your AVM oversight and testing capabilities. Are additional regulatory tools, guidance, or resources needed? Why or why not?

Q37. If your small entity uses a third-party service provider for AVMs, what type of fair lending review, if any, do you conduct of the third-party model?

Q38. What would the start-up and ongoing costs be for your small entity to implement fair lending policies and procedures for AVMs? If these potential costs are difficult to quantify, you are invited to describe these costs qualitatively, such as small, medium, or large as well as outline breakdown of costs. Are there any particular complexities you anticipate under any of the alternatives presented?

Q39. Please provide your small entity's perspective on any of the following potential fair lending issues:

- Risks and benefits of underlying AVM methodologies, *e.g.*, repeat sales indices and mark-to-market, hedonic price models, appraiser emulation;
- How neighborhood characteristics and amenities (*e.g.*, nearby parks and trails, transit access, grocery stores) should be incorporated in an AVM model;
- Ensuring unbiased input data;
- Data accuracy and integrity;
- Use of comparables;
- Geographic segmentation;[113]
- Identifying and quantifying disparities;
- Identifying proxies for prohibited basis characteristics;
- Techniques to measure and monitor for potential discrimination in AVMs; and
- Addressing historical incidences of appraisal bias that may be perpetuated through AVMs.

G. Implementation period

We are considering a 12-month implementation period after issuance of an eventual interagency final rule. A 12-month period would be consistent with title XIV of the Dodd-Frank Act.[114]

We seek input from the SERs on how long small entities would need to conform their practices to the options under consideration. As noted in part II above, no institution will be required to comply with new regulatory requirements before a proposed rule is published, public comment is received and reviewed by the agencies, a final rule is issued, and the implementation period designated in the final rule concludes.

Q40. How much time do you estimate your small entity would need to prepare for compliance with an eventual final rule? Are there any particular aspects of the CFPB's options under consideration that could be particularly time consuming or costly for your small entity to implement? Are there any factors outside your small entity's control that would affect its ability to prepare for compliance?

IV. Potential Impacts on Small Entities

A. Overview

The Regulatory Flexibility Act (RFA) generally requires an agency to consider the economic impact rules will have on small entities.[115] In order to estimate the total potential impact on small entities, the CFPB needs to ascertain the number of small entities that would be affected by the options under consideration and the costs that those entities would incur to comply with the options' requirements.

Computing the number of affected small entities requires knowing the extent to which small entities regulated by the CFPB—small non-depositories—use AVMs and how their use would be affected by the options. Section 1125 of FIRREA divides covered entities into mortgage originators and secondary market issuers that use AVMs for covered purposes. However, given the extent of available data, the CFPB is not able to reliably ascertain the prevalence of AVM use among small mortgage originators or small secondary market issuers.

The CFPB also lacks data and information to quantify costs associated with complying with the options and how much costs would vary across small entities. The CFPB seeks feedback and information from the SERs about how options under consideration may change one-time and ongoing costs associated with the use of AVMs.

The CFPB's preliminary qualitative assessment is that the options under consideration would primarily impact small entities via one-time costs and that ongoing costs would be largely unchanged. However, evolving use cases may require updating policies and procedures, which would entail new costs. Nevertheless, the CFPB encourages contributions of data and other factual information to inform its assessment of potential compliance costs and other impacts on small entities. Specifically, the CFPB seeks feedback and information, including supporting data, from SERs on the following:

Q41. For what purposes do you currently use AVMs to determine the value of residential property?

Q42. Do you develop the AVM yourself or do you procure the software from a third party?

Q43. What are your costs associated with AVM use? Are there recurring or variable costs associated with your use of AVMs? Were there any one-time or initial costs associated with your use of AVMs?

If you develop the AVM independently,

Q43A. How many staff do you task to AVM development? How many person-hours per year do you devote to AVM development and implementation?

Q43B. Do you source the AVM model data internally or procure it elsewhere?

Q43C. If you procure third-party data, what features do you procure? How many loans does the data have? What are your costs of procurement, including licensing costs and costs per data point or loan?

Q44. Do you have policies and procedures in place for your use of AVMs in mortgage lending?

If yes,

Q44A. What are the goals of the policies and procedures?

Q44B. As part of the policies and procedures, what discretion does your staff have to override the AVM in case they disagree with its predictions?

Q44C. How did you develop the policies and procedures? How many person-hours per year did you commit to development? If you contracted an outside vendor, did the vendor provide tailored policies and procedures tailored for your entity? If so, how much did those services cost?

Q44D. If applicable, who conducts review of the policies and procedures? How often are the policies and procedures updated and for what reasons? What is your estimated annual cost (in terms of person-hours and in dollar terms) of conducting the review?

Q44E. Are there particular situations (*e.g.*, loan dollar thresholds) where you determine that utilization of an AVM is necessary?

Q45. What type of oversight and review of the AVM do you conduct for both business purposes and compliance with regulation? Do you test and validate the AVM predictions yourself or contract an outside vendor? If you contract an outside vendor, what services does the vendor provide and how much do those services cost?

If you test and validate AVM predictions internally,

Q45A. How many staff do you assign to testing and validating AVM predictions? How many person-hours per year do you devote to testing and validating AVM predictions?

Q45B. How do you test model predictions? How do you select data to test the models?

Q45C. If the AVM predictions are deemed to be unreliable, what do you use as an alternative?

B. Small entities covered by the options under consideration

The CFPB has identified certain types of small entities that may be subject to the AVM rule options under consideration and regulated by the CFPB for purposes of the RFA. Specifically, the CFPB has identified several categories of non-depository institutions whose use of AVMs may be covered under the revenue criteria established by the Small Business Administration:[116]

- Real estate credit[117] companies with average annual receipts of $41.5 million or less;
- Secondary market financing companies[118] with average annual receipts of $41.5 million or less;
- Other non-depository credit intermediation[119] companies that originate mortgages with average annual receipts of $41.5 million or less;
- Mortgage and nonmortgage loan brokers with average annual receipts of $8 million or less;[120] and
- Other activities related to credit intermediation[121] such as mortgage loan servicers with average annual receipts of $22 million or less.

Across these five industries, 87 percent to 96 percent of entities' annual receipts would qualify them as small (Table 1).

Table 1: Number and share of non-depository entities by revenue thresholds

	Number of Entities	Fraction of Entities
A. Potentially Small Entities		
Real estate credit (522292)		
< $40M (Revenue)	2,872	87%
< $50M (Revenue)	2,904	88%
Secondary market financing (522294)		
< $15M (Revenue)	101	88%
< $100M (Revenue)	106	92%
All Other Non-depository Credit Intermediation (522298)		
< $40M (Revenue)	5,292	98%
< $50M (Revenue)	5,300	99%
Mortgage and Nonmortgage Loan Brokers (522310)		
< $7.5M (Revenue)	6,609	97%
< $10M (Revenue)	6,643	98%
Other Activities Related to Credit Intermediation (522390)		
< $20M (Revenue)	3,595	95%
< $25M (Revenue)	3,610	96%
B. Large Entities		
Real estate credit (522292)		
> $50M (Revenue)	385	12%
Secondary market financing (522294)		
> $100M (Revenue)	9	8%
All Other Non-depository Credit Intermediation (522298)		
> $50M (Revenue)	122	5%
Mortgage and Nonmortgage Loan Brokers (522310)		
> $10M (Revenue)	166	2%
Other Activities Related to Credit Intermediation (522390)		
> $25M (Revenue)	162	4%

Source: U.S. Census Bureau, 2017 Economic Census, *The Number of Firms and Establishments, Employment, Annual Payroll, and Receipts by Industry and Enterprise Receipts Size: 2017* (May 28, 2021), https://www2.census.gov/programs-surveys/susb/tables/2017/us_6digitnaics_rcptsize_2017.xlsx. The tabulations and shares were computed according to available enterprise size cells.

However, not all small entities use AVMs. The CFPB believes that AVM use is more prevalent among larger entities but is not aware of publicly available data that both identify whether non-depositories use AVMs for covered purposes and their revenues, data that would be necessary to reliably quantify the number of institutions that may be affected by the options under consideration. The CFPB anticipates learning more about small non-depositories' use of AVMs

through the SBREFA process. Although only the CFPB is subject to the SBREFA requirement among the agencies collaborating on the AVM rulemaking, other small depository institutions whose use of AVMs may be covered if their assets are $600 million or less, as established by the SBA.[122]

C. CFPB review of compliance processes and costs

The CFPB preliminarily believes that the primary costs of the options under consideration are one-time costs. As noted above, the CFPB is considering proposing a rule that supplements the first four statutory factors with a fifth factor which would require regulated institutions to adopt policies, practices, procedures, and control systems designed to ensure that AVMs used for covered transactions comply with applicable nondiscrimination laws. Here, the CFPB considers the compliance costs associated with the first four statutory factors and, separately, with the fifth potential factor.

Lacking direct or indirect data on costs associated with verifying compliance with the options under consideration, the CFPB is limited to inferring typical costs from alternative sources. These estimates may be inaccurate if verifying compliance is more complex than CFPB forecasts. The estimates may also be inaccurate in describing the breadth of AVM uses in mortgage origination and correspondingly the costs. For typical hourly labor costs, the Bureau draws upon aggregated data from the Bureau of Labor Statistics and the Bureau of Economic Analysis. To estimate the personnel hours required to verify compliance, the CFPB draws upon information derived from a survey of financial institutions used to support the Small Business Lending Data Collection rulemaking, which specifies data points that financial institutions must collect and report in association with applications for small business loans. During the Small Business Lending Data Collection rulemaking process, the CFPB surveyed institutions on the number of personnel-hours they would require for compliance-related tasks, including drafting policies and procedures and legal review. The CFPB classified entities by their origination volumes and estimated that small entities would be Type A (zero to 150 originations) or Type B (151 to 999 originations).[123]

The Small Business Lending Data Collection proposed rule is different in scope and objective from the AVM rulemaking. However, the CFPB uses the Small Business Lending Data Collection proposed rule's one-time cost survey to inform its estimates of personnel hours for two reasons. First, though the Small Business Lending Data Collection proposed rule imposes new reporting requirements on financial institutions, the personnel requirements for drafting policies and procedures may be largely similar. Second, the CFPB is aware of no other sources of information or data that would allow it to quantify the necessary costs or personnel hours for complying with regulations that require quality control policies and procedures.[124] If the hours estimates derived from the survey are poor approximations for the hours required to comply to an eventual AVM rule, the CFPB's cost estimates will be proportionately affected.

For entities that have existing policies and procedures that govern their use of AVMs, these costs are likely limited to legal costs associated with verifying compliance with the eventual final rule. Entities may face lower costs to comply with the first four factors because compliance with

current industry standard practices may be sufficient. While the non-depository entities supervised by the CFPB are not subject to the Guidelines issued by the prudential regulators in 2010, the CFPB preliminarily believes that the principles laid out in the Guidelines are considered an industry standard.

In November 2021, employees in the Legal Services industry earned on average $50 per hour.[125] In 2020, compensation costs represented approximately 50 percent of total value added in the legal services industry.[126] Thus, a simple estimate for an average hour of legal services is $100 per hour, which includes non-labor fixed costs and overhead (*e.g.*, computers, office real estate, etc.) and profits.

The Small Business Lending Data Collection proposed rule's one-time cost survey estimated 69 hours were required for legal compliance and review for Type A depository institutions on the lower end of origination volumes.[127] If verifying compliance of policies and procedures with the AVM rule required 69 average hours of legal services, then the implied labor cost (including overhead) would be approximately $7,000. The same institutions also reported $3,300 in non-salary direct expenses.[128] Combined, the total cost would be roughly $10,000.

The CFPB's cost estimates are sensitive to its assumptions. For example, if verifying compliance requires relatively more higher-wage personnel (*e.g.*, lawyers) and relatively fewer lower-wage personnel (*e.g.*, paralegals), then the costs would necessarily be larger. For instance, if verifying compliance primarily required the work of lawyers, then average labor costs would be closer to $70 per hour, by itself increasing the $10,000 estimate to approximately $13,000.[129] If costs reflected purely labor costs without overhead, profits, or non-salary expenses (as may be the case if small entities have in-house legal teams), then costs may be closer to $3,000.[130] The CFPB does not have information on the number or composition of legal personnel that would be required to verify compliance.

The estimates similarly vary with different assumptions about the requisite number of hours required to verify compliance with policies and procedures. Verifying compliance is likely to be more expensive for small entities that use AVMs for more diverse purposes, which may require additional hours of legal consultation. If CFPB underestimates the required number of hours, then the costs would necessarily be larger. In the Small Business Lending Data Collection proposed rule's one-time cost survey, Type B institutions reported an average of 35 required hours and non-depositories reported an average of 55 required hours. The CFPB seeks quantitative or qualitative information from the SERs that would help it compute how costs and personnel requirements associated with compliance vary across small entities.

Notably, the existing Guidelines do not directly discuss applicable nondiscrimination law, which would be covered by the fifth factor under consideration. The CFPB seeks feedback from the SERs on whether current policies governing use of AVMs conform to the Guidelines and whether current policies also ensure that AVM use specifically complies with nondiscrimination laws.

To the extent that small entities' current policies and use of AVMs would comply with the options under consideration, the CFPB does not anticipate the eventual final rule to substantially

increase costs. However, for those small entities without policies and procedures concerning AVM use or that deem their policies and procedures insufficient to comply with the eventual final rule, entities would bear costs of drafting and vetting new policies and procedures.

Entities will likely have to spend time and resources reading and understanding the regulation, developing the required policies and procedures for their employees to follow to ensure compliance in addition to engaging a legal team to review their draft policies and procedures. Costs associated with drafting compliant policies and procedures are likely to be higher for institutions who use AVMs for a more diverse set of circumstances. Such entities would likely need to tailor guidance for each specific use case to "ensure a high level of confidence."[131]

Respondents to the Small Business Lending Data Collection proposed rule's one-time cost survey reported the estimated number of hours associated with developing policies and procedures. Type A depository institutions estimated an average 65 required personnel-hours and no non-salary direct expenses.[132] Applying the estimated cost of legal services implies a total cost of about $7,000.[133] Other types of institutions generally reported fewer required hours, but nevertheless, drafting policies and procedures for AVM use may require more labor than those required for the Small Business Lending Data Collection proposed rule. The CFPB seeks feedback on the number of hours small entities would have to devote to developing policies and procedures.

Small entities will also likely have to implement training of staff that utilize AVM output for covered purposes. Correspondingly, costs associated with training will likely be higher for entities that use AVMs for many purposes. However, while training is an ongoing cost, small entities will incur training costs regardless of an eventual AVM rule. The costs attributable to the eventual rule are those associated with changing existing training practices, corresponding analogously to the Small Business Lending Data Collection proposed rule's one-time cost survey on hours associated with training staff. Entities with the lowest origination volume reported an average of 60 hours of required personnel hours.[134] If labor costs to update training practices costs the $100 per hour in Legal Services, this suggests a total cost of roughly $6,000.[135] Type B and Type C respondents to the one-time cost survey with larger origination volumes reported higher labor demands associated with training, an average of 72 and 108 hours, respectively.

The options under consideration cover the use of the AVM, not its development. As such, the CFPB preliminarily believes that small entities will likely incur most of the costs outlined above regardless of whether they develop an AVM on their own or procure one from a third party. In the latter case, the CFPB anticipates that most third parties would be able to provide institution-specific policies, procedures, and training as a service that accompanies the AVM. While entities are ultimately responsible for policies' and procedures' compliance with the eventual final rule, third parties may tailor their services to ensure compliance. Whether small entities' costs increase depends ultimately on whether third party service providers pass along costs. For example, costs may increase if each third-party service provider has to commit 200 labor hours of legal services to customizing policies and procedures for each small entity. Costs may not increase if third-party service providers can sell the same general set of policies and procedures to many small entities with little modification.

[1] Public Law 111-203, 124 Stat. 1376 (2010).

[2] Dodd-Frank Act section 1473(q), 124 Stat. 2198 (codified at 12 U.S.C. 3354).

[3] 12 U.S.C. 3354(d).

[4] Public Law 101-73, 103 Stat. 183 (1989). The full text of FIRREA section 1125, as added by section 1473(q) of the Dodd-Frank Act, 124 Stat. 2198, is included as appendix A.

[5] 12 U.S.C. 3354(a).

[6] 12 U.S.C. 3354(c). *See also* 12 U.S.C. 3350(6) (defining "Federal financial institutions regulatory agencies") and (7) (defining "financial institution").

[7] 12 U.S.C. 3354(c). Unlike the CFPB, the Federal Trade Commission and State attorneys general do not have FIRREA section 1125 rulemaking authority. 12 U.S.C. 3354(b).

[8] U.S. Dep't of the Treasury, *A Financial System the Creates Economic Opportunities: Nonbank Financials, Fintech and Innovation*, at 103 (July 2018), https://home.treasury.gov/sites/default/files/2018-08/A-Financial-System-that-Creates-Economic-Opportunities---Nonbank-Financials-Fintech-and-Innovation.pdf.

[9] *See, e.g.*, Andreas Fuster *et al.*, *Predictably Unequal? The Effects of Machine Learning on Credit Markets*, 77 J. of Fin. 5 (Feb. 2022), https://doi.org/10.1111/jofi.13090; Emily Bembeneck *et al.*, *To Stop Algorithmic Bias, We First Have to Define It*, Brookings Inst. (Oct. 21, 2021), https://brookings.edu/research/to-stop-algorithmic-bias-we-first-have-to-define-it/; Reva Schwartz *et al.*, *A Proposal for Identifying and Managing Bias in Artificial Intelligence*, Nat'l Inst. of Standards & Tech., U.S. Dep't of Com. (June 2021), https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1270-draft.pdf.

[10] *See, e.g.*, *Appraisals for Higher-Priced Mortgage Loans*, 78 FR 10367, 10417 (Feb. 13, 2013) (inflated valuations can "lead consumers to borrowing that would not be supported by their true home value" and deflated valuations "can lead consumers to be eligible for a narrower class of loan products that are priced less advantageously").

[11] 5 U.S.C. 601 *et seq*.

[12] Public Law 104-121, 110 Stat. 857 (1996) (5 U.S.C. 609) (amended by Dodd-Frank Act section 1100G).

[13] U.S. Small Bus. Admin., *Table of Small Business Standards Matched to North American Industry Classification System Codes* (effective Aug. 19, 2019), https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards_Effective%20Aug%2019%2C%202019_Rev.pdf.

[14] See 5 U.S.C. 601(3) through (6).

[15] The CFPB believes the types of small businesses discussed above are most commonly represented by the following North American Industry Classification System (NAICS) codes, together with the maximum average annual receipts to be considered a small entity under each NAICS code:

522292—Real estate credit—$41.5 million
522294—Secondary market financing—$41.5 million
522298—Other non-depository credit intermediation—$41.5 million
522310—Mortgage and nonmortgage loan brokers—$8 million
522390—Other activities related to credit intermediation—$22 million

[16] The NAICS codes for these types of depository institutions are 522110, 522120, 522130, and 522190.

[17] 5 U.S.C. 603(d)(2)(B).

[18] *See, e.g.*, 12 U.S.C. 3331; 75 FR 77450, 77465 (Dec. 10, 2010); 12 CFR 34.43(a)(1) through (14) (OCC); 12 CFR 225.63(a)(1) through (15) (Board); 12 CFR 323.3(a)(1) through (14) (FDIC); 12 CFR 722.3(a)(1) through (6) (NCUA).

[19] 15 U.S.C. 1639h (added by Dodd-Frank Act section 1471).

[20] CFPB: 12 CFR 1026.35(a) and (c); OCC: 12 CFR part 34, subpart G and 12 CFR part 164, subpart B; Board: 12 CFR 226.43; NCUA: 12 CFR 722.3(a); FHFA: 12 CFR part 1222, subpart A. The FDIC adopted the CFPB's version of the regulations. *See* 78 FR 10368, 10370 (Feb. 13, 2013).

[21] 15 U.S.C. 1639e (added by Dodd-Frank Act section 1472).

[22] CFPB: 12 CFR 1026.42; Board: 12 CFR 226.42; *see* 75 FR 66554 (Oct. 28, 2010) (interim final rule); 75 FR 80675 (Dec. 23, 2010) (correction). TILA section 129E(g)(2) directed the Board to issue an interim final rule. 15 U.S.C. 1639e(g)(2).

[23] Dodd-Frank Act section 1473(r), 124 Stat. 2198-99 (codified at 12 U.S.C. 3355) (adding section 1126 to FIRREA). Under FIRREA section 1126, a "broker price opinion" means "an estimate prepared by a real estate broker, agent, or sales person that details the probable selling price of a particular piece of real estate property and provides a varying level of detail about the property's condition, market, and neighborhood, and information on comparable sales, but does not include an automated valuation model." 12 U.S.C. 3355(b).

[24] 15 U.S.C. 1691(e) (amended by Dodd-Frank Act section 1474).

[25] 12 CFR 1002.14.

[26] 12 U.S.C. 3354(d). As discussed below, FIRREA section 1125 focuses on mortgages "secured by a consumer's principal dwelling." *Id.*

[27] *Id.*

[28] *Determination*, *Black's Law Dictionary* (11th ed. 2019).

[29] As discussed in part III above, other Federal laws and implementing regulations require appraisals for certain transactions.

[30] 12 U.S.C. 3354(d).

[31] *See generally* Bureau of Consumer Fin. Prot., *Compliance Bulletin and Policy Guidance; 2016–02, Service Providers* (Oct. 31, 2016), https://www.consumerfinance.gov/documents/1385/102016_cfpb_OfficialGuidanceServiceProviderBulletin.pdf ("[T]he mere fact that a supervised bank or nonbank enters into a business relationship with a service provider does not absolve the supervised bank or nonbank of responsibility for complying with Federal consumer financial law to avoid consumer harm.").

[32] *See* Dodd-Frank Act section 1473(q), 124 Stat. 2198 (adding FIRREA section 1125).

[33] *See* Appraisal Standards Bd., *Advisory Opinion 18* (rev. Sept. 16, 1998), https://www.workingre.com/advisory-opinion-18-ao-18/.

[34] *See* 12 U.S.C. 3353(a)(3), 3339.

[35] 12 U.S.C. 3350(10).

[36] 12 U.S.C. 3345.

[37] *See* Appraisal Inst., *The Appraisal Profession*, https://www.appraisalinstitute.org/appraisal-profession/ (last visited Nov. 18, 2021).

[38] 12 U.S.C. 3310.

[39] *See generally* Appraisal Subcomm. of the Fed. Fin. Inst. Examination Council, *2020 Annual Report* (June 14, 2021), https://www.asc.gov/Documents/AnnualReports/2020%20ASC%20Annual%20Report.pdf (listing the subcommittee's findings from its State compliance reviews).

[40] Excluding the use of an AVM by a certified or licensed appraiser in developing an appraisal from the scope of the eventual rule would not exclude the use of AVMs in the process of preparing evaluations, which are required for certain exempt transactions under the interagency appraisal regulations.

[41] 12 U.S.C. 3354(d).

[42] *See* 78 FR 11279, 11308 (Feb. 15, 2013) (discussing amendment to Regulation Z comment 36(a)-1.iii).

[43] *See* 12 CFR 1026.36(a)(1)(i)(E).

[44] *But see* 12 CFR 1026.20(a)(1) through (5) (exceptions to the general definition).

[45] For transactions covered by Regulation Z § 1026.40, creditors' ability to suspend further advances or reduce the credit limit is subject to certain limitations.

[46] Fannie Mae, *Fannie Mae Single Family Selling Guide* (Oct. 6, 2021), https://singlefamily.fanniemae.com/media/29306/display.

[47] Fannie Mae, *Appraisal Waivers Fact Sheet* (Dec. 4, 2018), https://singlefamily.fanniemae.com/media/5916/display.

[48] Fannie Mae, *Appraisal Waivers*, https://singlefamily.fanniemae.com/originating-underwriting/appraisal-waivers; Freddie Mac, *Automated Collateral Evaluation Now Available for Purchase Transactions* (Aug. 18, 2017), https://sf.freddiemac.com/articles/news/automated-collateral-evaluation-now-available-for-purchase-transactions.

[49] Fannie Mae, *Appraisal Waivers Fact Sheet* (Dec. 4, 2018), https://singlefamily.fanniemae.com/media/5916/display; Freddie Mac, Guide Section 5601.9, *Seller representations and warranties regarding the mortgaged premises* (June 21, 2021), https://guide.freddiemac.com/app/guide/section/5601.9.

[50] Am. Enter. Inst., *Prevalence of GSE Appraisal Waivers* (July 2021), https://www.aei.org/research-products/report/prevalence-of-gse-appraisal-waivers/.

[51] Freddie Mac, *Automated Collateral Evaluation (ACE)*, https://sf.freddiemac.com/tools-learning/loan-advisor/our-solutions/ace-automated-collateral-evaluation (last visited Oct. 25, 2021).

[52] Urban Inst., *Appraisal Waivers Have Helped Homeowners Find Payment Flexibility Amid Pandemic-Induced Economic Struggles* (Oct. 15, 2020), https://www.urban.org/urban-wire/appraisal-waivers-have-helped-homeowners-find-payment-flexibility-amid-pandemic-induced-economic-struggles.

[53] American Enterprise Institute data show a total of 3.24 million waivers issued in 2020. When multiplied by the average cost of an appraisal from HomeAdvisor ($348), consumers saved $1.13 billion in 2020.

[54] Fed. Hous. Fin. Agency, *An Overview of Enterprise Appraisal Waivers* (Sept. 14, 2018), https://www.fhfaoig.gov/sites/default/files/WPR-2018-006.pdf.

[55] Fed. Hous. Fin. Agency, *Request for Information on Appraisal-Related Policies, Practices, and Processes* (Dec. 28, 2020), https://www.fhfa.gov/Media/PublicAffairs/PublicAffairsDocuments/RFI-Appraisal-Related-Policies.pdf.

[56] *Id*.

[57] 12 U.S.C. 3354(d).

[58] For example, in addition to covering AVMs used by "mortgage originators," section 1125(d) of FIRREA further limits coverage to AVMs used "to determine the collateral worth of a mortgage secured by a consumer's principal dwelling." As discussed in part III.D below, we are considering various potential options for the definition of the term "mortgage." Depending on the definition of "mortgage" ultimately adopted, we may need to adjust the definition of "mortgage originator" accordingly.

[59] 15 U.S.C. 1601 *et seq*.

[60] 12 CFR 1026.1 *et seq*.

[61] Regulation Z § 1026.2(a)(22) defines the term "person" to mean "a natural person or an organization, including a corporation, partnership, proprietorship, association, cooperative, estate, trust, or government unit."

[62] 12 CFR 1026.36(a)(1). However, section 1026.36(a)(1) further states that the term "loan originator" does not include:

> (A) A person who does not take a consumer credit application or offer or negotiate credit terms available from a creditor, but who performs purely administrative or clerical tasks on behalf of a person who does engage in such activities. (B) An employee of a manufactured home retailer who does not take a consumer credit application, offer or negotiate credit terms available from a creditor, or advise a consumer on credit terms (including rates, fees, and other costs) available from a creditor. (C) A person that performs only real estate brokerage activities and is licensed or registered in accordance with applicable State law, unless such person is compensated by a creditor or loan originator or by any agent of such creditor or loan originator for a particular consumer credit transaction subject to this section. (D) A seller financer that meets the criteria in [§ 1026.36(a)(4) or (a)(5)], as applicable. (E) A servicer or servicer's employees, agents, and contractors who offer or negotiate terms for purposes of renegotiating, modifying, replacing, or subordinating principal of existing mortgages where consumers are behind in their payments, in default, or have a reasonable likelihood of defaulting or falling behind. This exception does not apply, however, to a servicer or servicer's employees, agents, and contractors who offer or negotiate a transaction that constitutes a refinancing under § 1026.20(a) or obligates a different consumer on the existing debt.

[63] Except for purposes of Regulation Z § 1026.36(f) and (g) (relating to loan originator qualification requirements and certain loan document disclosure requirements respectively), the term "loan originator" under Regulation Z § 1026.36(a)(1) only covers "creditors" to the extent they engage in table funding. *See* 12 CFR 1026.36(a)(1)(i). Therefore, the CFPB is considering proposing a definition under section 1125 that would cover persons who are "loan originators" for purposes of Regulation Z, including "creditors" that satisfy the definition of loan originator and regardless of whether they engage in table funding.

[64] *See* 12 CFR 1026.36(a)(1)(i)(E).

[65] *But see* 12 CFR 1026.20(a)(1) through (5) (exceptions to the general definition).

[66] Public Law 101-73, 103 Stat. 183 (1989).

[67] 124 Stat. 2190.

[68] 124 Stat. 2192 (codified at 12 U.S.C. 3353).

[69] 12 U.S.C. 3350(11).

[70] 80 FR 32657, 32680 (June 9, 2015).

[71] Rulemaking authority for sections 1124 and 1125 is codified at 12 U.S.C. 3353 and 3354, respectively.

[72] 12 U.S.C. 3354(d). Section 1125(d) of FIRREA does not distinguish between mortgages secured by a first lien and those secured by a subordinate lien. *See id.*

[73] See part III.E below for a discussion of the scope of the term "dwelling" being considered for proposal by the CFPB.

[74] Section 1473(q), which added section 1125 to FIRREA, is in title XIV of the Dodd-Frank Act. Various other provisions in title XIV focus on extensions of credit. *See, e.g.*, Dodd-Frank Act section 1401, 124 Stat. 2138 (referencing consumer "credit" transactions when defining "residential mortgage loan").

[75] 12 U.S.C. 3354(d).

[76] 12 U.S.C. 3331 through 3356.

[77] Regulation Z comment 42(a)-2.

[78] 15 U.S.C. 1602(i).

[79] Regulation Z § 1026.2(a)(11). Regulation Z § 1026.2(a)(12) defines "consumer credit" to mean "credit offered or extended to a consumer primarily for personal, family, or household purposes."

[80] For example, Regulation Z § 1026.12(a) includes language that applies TILA requirements limiting issuance of credit cards "[r]egardless of the purpose for which a credit card is to be used, including business, commercial, or agricultural use."

[81] 12 U.S.C. 3354(c)(2). The Board, FDIC, OCC, and NCUA, defined as "Federal financial institutions regulatory agencies" by 12 U.S.C. 3350(6), have enforcement authority for AVM quality control standards applicable to the institutions and subsidiaries for which they are the primary Federal supervisors. 12 U.S.C. 3354(c)(1).

[82] 15 U.S.C. 1602(w).

[83] Regulation Z § 1026.2(a)(19). *See also* Regulation Z comments 2(a)(19)-2 ("dwelling" does not include recreational vehicles, campers, and similar structures that are not used as residences) and 23(a)(1)-3 ("dwelling" includes structures that are classified as personalty under State law).

[84] *See* Regulation X § 1024.2(b) (federally related mortgage loan) and 1024.5(b)(4).

[85] TILA section 1639e; Regulation Z § 1026.42(a).

[86] Regulation Z comment 42(b)(2)-1.

[87] *Id*.

[88] 75 FR 77450 (Dec. 10, 2010).

[89] *See* Off. of Comptroller of the Currency, *Supervisory Guidance on Model Risk Management*, OCC Bulletin 2011-12 (Apr. 4, 2011), https://www.occ.gov/news-issuances/bulletins/2011/bulletin-2011-12.html; Bd. of Governors of the Fed. Reserve Sys., SR Letter 11-7 (Apr. 4, 2011), https://www.federalreserve.gov/supervisionreg/srletters/sr1107.htm; Fed. Deposit Ins. Corp., *Guidance on Model Risk Management*, FDIC FIL-22-2017 (June 7, 2017), https://www.fdic.gov/news/financial-institution-letters/2017/fil17022.html.

[90] *See* Fed. Hous. Fin. Agency, *Model Risk Management Guidance*, FHFA Advisory Bulletin 2013-07 (Nov. 20, 2013), https://www.fhfa.gov/SupervisionRegulation/AdvisoryBulletins/Pages/AB-2013-07-Model-Risk-Management-Guidance.aspx.

[91] 12 U.S.C. 3354(b).

[92] Algorithmic systems such as AVMs may also be subject to State and local nondiscrimination laws.

[93] 15 U.S.C. 1691 *et seq*.

[94] 42 U.S.C. 3601 *et seq*. The FHAct prohibits unlawful discrimination in all aspects of residential real estate-related transactions, including appraisals of residential real estate. 42 U.S.C. 3605 (prohibiting discrimination because of race, color, religion, national origin, sex, disability, or familial status in residential real estate-related transactions); 3605(b)(2) (defining "real estate-related transactions" to include the "selling, brokering, or appraising of residential real property"); *see also* 24 CFR part 100. The FHAct gives the Department of Housing and Urban Development (HUD) the authority and responsibility for administering and enforcing the Act, including the authority to conduct formal adjudications of Fair Housing Act complaints and the power to promulgate rules to interpret and carry out the Act. The Department of Justice and HUD are jointly responsible for enforcing the FHAct.

[95] 15 U.S.C. 1691(a) (prohibiting discrimination on the basis of race, color, religion, national origin, sex or marital status, age (provided the applicant has the capacity to contract), because all or part of the applicant's income derives from any public assistance program, or because the applicant has in good faith exercised any right under the Consumer Credit Protection Act); *see also* 12 CFR part 1002.

[96] *See* Interagency Task Force on Fair Lending, *Policy Statement on Discrimination in Lending*, 59 FR 18266, 18268 (Apr. 15, 1994), https://www.govinfo.gov/content/pkg/FR-1994-04-15/html/94-9214.htm (Interagency Policy

Statement on Discrimination in Lending) (noting that under both ECOA and the Fair Housing Act, a lender may not, because of a prohibited factor, use different standards to evaluate collateral).

[97] *See* Bureau of Consumer Fin. Prot., *CFPB Bulletin 2012-04 (Fair Lending), Lending Discrimination* (Apr. 18, 2012), https://files.consumerfinance.gov/f/201404_cfpb_bulletin_lending_discrimination.pdf (concurring with Interagency Policy Statement on Discrimination in Lending).

[98] *See* Interagency Policy Statement on Discrimination in Lending at 18268.

[99] *See* Regulation B comment 4(a)-1 (stating that "[d]isparate treatment on a prohibited basis is illegal whether or not it results from a conscious intent to discriminate"); Bureau of Consumer Fin. Prot., *Equal Credit Opportunity Act (ECOA) Examination Procedures*, at 1 (Oct. 30, 2015), https://files.consumerfinance.gov/f/documents/201510_cfpb_ecoa-narrative-and-procedures.pdf (ECOA Examination Procedures); *see also* Interagency Policy Statement on Discrimination in Lending at 18268.

[100] *See* Regulation B comment 6(a)-2; ECOA Examination Procedures at 1; *see also* Interagency Policy Statement on Discrimination in Lending at 18269.

[101] *See, e.g.*, Andreas Fuster *et al.*, *Predictably Unequal? The Effects of Machine Learning on Credit Markets*, 77 J. of Fin. 5 (Feb. 2022), https://doi.org/10.1111/jofi.13090; Emily Bembeneck *et al.*, *To Stop Algorithmic Bias, We First Have to Define It*, Brookings Inst. (Oct. 21, 2021), http://brookings.edu/research/to-stop-algorithmic-bias-we-first-have-to-define-it/; Reva Schwartz *et al.*, *A Proposal for Identifying and Managing Bias in Artificial Intelligence*, Nat'l Inst. of Standards & Tech., U.S. Dep't of Com. (June 2021), https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1270-draft.pdf.

[102] Yavar Bathaee, *The Artificial Intelligence Black Box and the Failure of Intent and Causation*, 31 Harv. J.L. & Tech. 890 (2018), https://jolt.law.harvard.edu/assets/articlePDFs/v31/The-Artificial-Intelligence-Black-Box-and-the-Failure-of-Intent-and-Causation-Yavar-Bathaee.pdf.

[103] FinRegLab, *The Use of Machine Learning for Credit Underwriting* (Sept. 2021), at 77, https://finreglab.org/wp-content/uploads/2021/09/The-Use-of-ML-for-Credit-Underwriting-Market-and-Data-Science-Context_09-16-2021.pdf; Nicol Turner Lee *et al.*, *Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms*, Brookings Inst. (May 22, 2019), https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms/.

[104] Ziad Obermyer *et al.*, *Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations*, Science, Vol. 366, Issue 6464 (Oct. 25, 2019), https://www.science.org/doi/abs/10.1126/science.aax2342.

[105] *Id.*

[106] *Id.*

[107] *Id.*

[108] *See, e.g.*, Appraisals for Higher-Priced Mortgage Loans, 78 FR 10367, 10417 (Feb. 13, 2013) (inflated valuations can "lead consumers to borrowing that would not be supported by their true home value" and deflated valuations "can lead consumers to be eligible for a narrower class of loan products that are priced less advantageously").

[109] *See, e.g.*, Interagency Policy Statement on Discrimination in Lending; Interagency Fair Lending Examination Procedures (Aug. 2009), https://www.ffiec.gov/PDF/fairlend.pdf; Bureau of Consumer Fin. Prot., *Examination Procedures—ECOA* (Oct. 2015), https://files.consumerfinance.gov/f/documents/201510_cfpb_ecoa-narrative-and-procedures.pdf.

[110] *Interagency Statement on the Use of Alternative Data in Credit Underwriting* (Dec. 2019), https://files.consumerfinance.gov/f/documents/cfpb_interagency-statement_alternative-data.pdf; Bureau of Consumer Fin. Prot., *Supervisory Highlights: Summer 2013*, 5-11 (Aug. 2013), https://files.consumerfinance.gov/f/201308_cfpb_supervisory-highlights_august.pdf (discussing the pillars of a well-functioning CMS).

[111] *Id.*

[112] Bureau of Consumer Fin. Prot., *ECOA Baseline Review Module* 2, 6 (Apr. 2019), https://files.consumerfinance.gov/f/documents/cfpb_supervision-and-examination-manual_ecoa-baseline-exam-procedures_2019-04.pdf (providing instructions to CFPB examiners on evaluating a financial institution's use of models for fair lending related risks and controls).

[113] In order to account for differences in neighborhood characteristics and amenities, AVMs often run separate models for different geographic areas. Thus, the models produce different weights, such as value per amenity. The value of a property that sits between the border of two neighborhoods with different property values may vary widely, depending on which model weights are applied.

[114] Section 1473(q) of the Dodd-Frank Act added section 1125 to FIRREA, which directs the agencies to develop regulations for AVM quality control standards. Dodd-Frank Act section 1473(q), 124 Stat. 2198 (codified at 12 U.S.C. 3354). Section 1473(q) is in title XIV of the Dodd-Frank Act and section 1400(c) of the Dodd-Frank Act states that the "regulations required to be prescribed under this title [XIV] or the amendments made by this title shall . . . take effect not later than 12 months after the date of issuance of the regulations in final form." Dodd-Frank Act section 1400(c), 124 Stat. 2136 (codified at 15 U.S.C. 1601 note); *see also* 78 FR 78519, 78524 (Dec. 26, 2013) ("The Dodd-Frank Act . . . requires that regulations required under Title XIV take effect not later than 12 months after the date of issuance of the regulations in final form.") (citation and internal quotation marks omitted).

[115] 5 U.S.C. 601 *et seq.*

[116] *See* Table of Small Business Standards, *supra* note 13.

[117] The 2017 six-digit NAICS code for institutions in the "Real estate credit" industry is 522292.

[118] The 2017 six-digit NAICS code for institutions in the "Secondary market financing" industry is 522294.

[119] The 2017 six-digit NAICS code for institutions in the "Other non-depository credit intermediation" industry is 522298.

[120] The 2017 six-digit NAICS code for institutions in the "Mortgage and nonmortgage loan brokers" industry is 522310.

[121] The 2017 six-digit NAICS code for institutions in the "Other activities related to credit intermediation" industry is 522390.

[122] The 2017 four-digit NAICS code for depository institutions is 5221. According to the Bureau's analysis of bank and credit union call report data in 2018, approximately 83 percent of depository institutions have assets below $600 million. Bureau of Consumer Fin. Prot., *Small Business Advisory Review Panel for Consumer Financial Protection Bureau Small Business Lending Data Collection Rulemaking: Outline of Proposals Under Consideration and Alternatives Considered* (Sept. 15, 2020), at 44, https://files.consumerfinance.gov/f/documents/cfpb_1071-sbrefa_outline-of-proposals-under-consideration_2020-09.pdf.

[123] *See id.* at 48.

[124] In a review of the academic literature, the CFPB was unable to find estimates that would reliably inform costs associated with drafting or verifying compliance of policies and procedures related to AVMs. The CFPB seeks feedback or references that could improve its estimates.

[125] U.S. Bureau of Labor Stat., *Employment and Earnings Table B-3a*, https://www.bls.gov/web/empsit/ceseeb3a.htm#ce_ee_table3a.f.1 (modified Jan. 7, 2022).

[126] U.S. Bureau of Econ. Analysis, *Compensation of employees: Domestic private industries: Legal services Vintage: 2022-01-25/Gross Domestic Product: Legal Services (NAICS 5411) in the United States Vintage: 2021-10-01*, https://alfred.stlouisfed.org/graph/?g=Lci4 (last visited Jan. 25, 2022).

[127] Small Business Lending Data Collection under the Equal Credit Opportunity Act (Regulation B), 86 FR 56356, 56556 (Oct. 8, 2021).

[128] *Id*.

[129] U.S. Bureau of Labor Stat., *Occupational Employment and Wages—23-1011 Lawyers* (May 2020), https://www.bls.gov/oes/current/oes231011.htm ($70 per hour times mark-up factor of 2 times 69 hours + $3,300 non-salary direct expenses = $12,960).

[130] $50 per hour times 69 hours = $3,450.

[131] 12 U.S.C. 3354(a).

[132] 86 FR 56356, 56556 (Oct. 8, 2021).

[133] $50 per hour times mark-up factor of 2 times 65 hours = $6,500.

[134] *Id*.

[135] $50 per hour times mark-up factor of 2 times 60 hours = $6,000.

Appendix A: Section 1125 of FIRREA

12 USC 3354.

"SEC. 1125. AUTOMATED VALUATION MODELS USED TO ESTIMATE COLLATERAL VALUE FOR MORTGAGE LENDING PURPOSES.

"(a) IN GENERAL.—Automated valuation models shall adhere to quality control standards designed to—

"(1) ensure a high level of confidence in the estimates produced by automated valuation models;

"(2) protect against the manipulation of data;

"(3) seek to avoid conflicts of interest;

"(4) require random sample testing and reviews; and

"(5) account for any other such factor that the agencies listed in subsection (b) determine to be appropriate.

"(b) ADOPTION OF REGULATIONS.—The Board, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the National Credit Union Administration Board, the Federal Housing Finance Agency, and the Bureau of Consumer Financial Protection, in consultation with the staff of the Appraisal Subcommittee and the Appraisal Standards Board of the Appraisal Foundation, shall promulgate regulations to implement the quality control standards required under this section.

"(c) ENFORCEMENT.—Compliance with regulations issued under this subsection shall be enforced by—

"(1) with respect to a financial institution, or subsidiary owned and controlled by a financial institution and regulated by a Federal financial institution regulatory agency, the Federal financial institution regulatory agency that acts as the primary Federal supervisor of such financial institution or subsidiary; and

"(2) with respect to other participants in the market for appraisals of 1-to-4 unit single family residential real estate, the Federal Trade Commission, the Bureau of Consumer Financial Protection, and a State attorney general.

"(d) AUTOMATED VALUATION MODEL DEFINED.—For purposes of this section, the term 'automated valuation model' means any computerized model used by mortgage originators and secondary market issuers to determine the collateral worth of a mortgage secured by a consumer's principal dwelling.".