November 2021

MORTGAGE LENDING

Use of Alternative Data Is Limited but Has Potential Benefits

Accessible Version

GAO@100

A Century of Non-Partisan Fact-Based Work

GAO-22-104380

MORTGAGE LENDING

Use of Alternative Data Is Limited but Has Potential Benefits

Why GAO Did This Study

Roughly 45 million consumers lack a credit score from one of three major consumer reporting agencies, according to the Consumer Financial Protection Bureau, which limits their ability to qualify for a mortgage loan. To address this, an increasing number of lenders have been exploring use of alternative data—information not used in traditional credit scoring—to determine eligibility for mortgage loans. However, some policymakers and regulators have raised questions about potential risks of using such data in mortgage underwriting.

GAO was asked to review the use of alternative data in mortgage lending. This report describes (1) the extent to which mortgage loans were originated using alternative data in fiscal years 2016–2020, (2) potential benefits and risks associated with using alternative data in such lending, and (3) efforts to encourage lenders' use of alternative data.

GAO analyzed data provided by government-sponsored enterprises and federal agencies for fiscal years 2016–2020; reviewed studies by agencies and other researchers; and interviewed federal financial regulators, agencies with mortgage lending programs, lenders, government-sponsored enterprises, and other industry participants.

View GAO-22-104380. For more information, contact Michael E. Clements at (202) 512-8678 or ClementsM@gao.gov.

What GAO Found

To help determine a borrower's creditworthiness, mortgage lenders can use "alternative data"—consumer information not contained in a traditional credit report, such as a borrower's rent payments. But available data indicate that few mortgage loans have been underwritten with alternative data. In fiscal years 2016–2020, less than 0.1 percent of mortgages purchased by Fannie Mae and Freddie Mac (government-sponsored enterprises that purchase about half of all originated mortgages) were made to borrowers without credit scores, an indication they were underwritten using alternative data. Similarly, very few loans the Federal Housing Administration, Department of Agriculture, and Department of Veterans Affairs insured or guaranteed went to such borrowers (see table).

Mortgage Loans Made to Borrowers without Credit Scores, Fiscal Years 2016–2020

Institution	Total loans	Loans without borrower credit scores	Percent of loans without borrower credit scores
Fannie Mae	5,447,753	5,023	0.09
Freddie Mac	4,813,075	2,212	0.05
Federal Housing Administration	4,109,309	12,777	0.31
Department of Agriculture	599,864	14,174	2.36
Department of Veterans Affairs	2,833,813	2,739	0.10

Source: GAO analysis of Fannie Mae, Freddie Mac, and federal agency data. | GAO-22-104380
Note: Data for Fannie Mae and Freddie Mac represent loans purchased, and for the federal agencies, loans guaranteed or insured. According to agency officials, loans made to borrowers without credit scores very likely used alternative data for underwriting.

Using alternative data in mortgage lending presents benefits and risks. Underwriting with alternative data can increase mortgage access for individuals who have little credit history with the national consumer reporting agencies, including many minority and lower-income consumers, according to literature GAO reviewed and stakeholders GAO interviewed. But the extent to which the use of alternative data could increase access depends on several factors, including whether the data increase credit scores enough to qualify consumers for mortgage loans. Alternative data usage could lead to better pricing for consumers if it improved lenders' ability to predict default risks, but also could present fair lending risks. For example, if alternative data are correlated with characteristics protected under fair lending laws (such as race or gender), borrowers in protected classes may be adversely affected by underwriting models using such data. Use of alternative data also can present privacy concerns if consumers lack knowledge and control of how these data are used.

Public and private entities have taken steps to encourage use of alternative data in mortgage lending. For example, in September 2021, Fannie Mae updated its automated underwriting system to allow rental payments (a form of alternative data) to be included. In December 2020, the Consumer Financial Protection Bureau issued rules that may facilitate use of alternative data. For example, one rule changed the general qualified mortgage definition to give lenders additional flexibility—which could include analyzing alternative data such as cash flows—when assessing a consumer's ability to repay. Lenders are protected from certain types of liability for loans meeting the definition.

Contents

Abbreviations

CFPB	Consumer Financial Protection Bureau
CRA	consumer reporting agency
ECOA	Equal Credit Opportunity Act
FCRA	Fair Credit Reporting Act
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Board of Governors of the Federal Reserve System
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
fintech	financial technology
FTC	Federal Trade Commission
enterprises	government-sponsored enterprises
HMDA	Home Mortgage Disclosure Act
HUD	Department of Housing and Urban Development
NCUA	National Credit Union Administration
OCC	Office of the Comptroller of the Currency
REACh	Roundtable for Economic Access and Change
TILA	Truth in Lending Act
USDA	Department of Agriculture
VA	Department of Veterans Affairs

November 16, 2021

Congressional Requesters

According to the Consumer Financial Protection Bureau (CFPB), roughly 45 million consumers lack a credit score from the three national consumer reporting agencies (CRA), limiting their ability to access credit.[1] Among the efforts being explored to address this issue is the use of alternative data to qualify consumers without credit scores or with limited traditional credit histories for loans. Alternative data refer to any consumer information not traditionally used by the three national CRAs when calculating a credit score—such as a borrower's rental payment history or educational background.[2] While use of alternative data has been more prevalent in determining eligibility for credit card, automobile, and student loans, some mortgage market participants are using these data to determine eligibility for mortgage loans, to expand mortgage access to people with limited traditional credit histories.

In March 2018 and December 2018, we issued reports discussing the benefits and risks associated with using alternative data in financial technology (fintech) lending, including small-dollar consumer lending.[3] We found that alternative data may increase financial inclusion and reduce transaction times in consumer lending but could lead to inaccurate credit assessments or fair lending violations.

You asked us to examine use of alternative data in mortgage lending. This report describes (1) the extent to which mortgage loans were originated using these data in fiscal years 2016–2020, (2) the potential

---

[1]Consumer Financial Protection Bureau, *Data Point: Credit Invisibles* (Washington, D.C.: May 2015). The three national CRAs are Equifax, Experian, and TransUnion.

[2]CRAs assemble information on consumers commonly used by third parties to determine consumers' eligibility for credit, insurance, and employment, and for other authorized purposes. Credit scores are typically calculated using consumer's credit report information, such as mortgage payments, unpaid debt, number and type of loans, debt collection history, and bankruptcy.

[3]GAO, *Financial Technology: Additional Steps by Regulators Could Better Protect Consumers and Aid Regulatory Oversight*, GAO-18-254 (Washington, D.C.: Mar. 22, 2018); and *Financial Technology: Agencies Should Provide Clarification on Lenders' Use of Alternative Data*, GAO-19-111 (Washington, D.C.: Dec. 19, 2018).

benefits and risks associated with using alternative data in mortgage lending, and (3) efforts to encourage lenders' use of alternative data in mortgage lending.

To address all three objectives, we reviewed quantitative and qualitative studies by federal agencies and researchers related to the collection and use of alternative data.[4] We reviewed public responses to federal agency requests for information involving the use of alternative data in mortgage lending. We interviewed representatives of federal agencies, and industry stakeholders (including the national CRAs, credit score model developers, and consumer advocacy groups). We also interviewed a non-probability sample of 16 mortgage lenders about the extent of their use of alternative data.[5] The information gathered from our interviews cannot be generalized to all mortgage lenders.

For the first objective, we collected and analyzed data from Fannie Mae and Freddie Mac on the number of loans they purchased that were underwritten without credit scores in fiscal years 2016–2020. We collected and analyzed data from federal agencies with mortgage programs on the number of loans they guaranteed, insured, or originated that were underwritten without credit scores in the same period. We assessed the reliability of these data by reviewing them for obvious errors or anomalies and interviewing relevant officials about the systems and methods used to compile the data. We determined these data were sufficiently reliable for describing the use of alternative data in mortgage lending. For the second objective, we reviewed federal regulators' procedures for conducting fair lending and safety and soundness examinations, and determined how and to what extent these procedures addressed the use of alternative data in mortgage lending. Finally, for the third objective, we interviewed public and private sector entities with initiatives to encourage or inform the use of alternative data in mortgage

---

[4]To identify relevant reports, we conducted a literature search for studies in October 2020 about the use of alternative data or alternative credit scoring in mortgage lending. Databases searched were ProQuest, EBSCO, ProQuest Dialog, Scopus, CQ for Transcripts, and Social Science Research Network. We identified additional articles by conducting internet searches and searching agency websites, and by soliciting recommendations from federal agency officials, industry associations, and other industry stakeholders during the course of interviews.

[5]We selected these lenders because they represented a range of financial institution types and varied in mortgage lending volume. Our sample consisted of six banks, four nonbank mortgage companies, three credit unions, and three financial technology companies. They conducted from approximately $15 million to approximately $159 billion in mortgage lending in 2019.

lending. For more detailed information about our scope and methodology, see appendix I.

We conducted this performance audit from June 2020 to November 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Traditional and Alternative Data

CRAs collect and compile many types of consumer information. Traditionally, these data have included a consumer's payment history (such as for credit cards and automobile and mortgage loans), including delinquencies and bankruptcies. This information is typically captured in a consumer's credit report and used by credit score developers to calculate credit scores. The most commonly used credit scores are developed by FICO and in mortgage lending are known as Classic FICO scores.[6]

Alternative data are information not used in traditional credit reporting and can be financial or nonfinancial in nature. They can include

- consumers' bank account transactions ("cash flow" data);

- on-time rental, utility, or telecommunications payments data (traditional credit reports typically include only late payments);[7] and

- educational institution and degree earned.

---

[6]FICO is a data analytics company that produces consumer scores. Classic FICO scores come from three scoring models: Equifax Beacon 5.0, Experian/Fair Isaac Risk Model v2, and TransUnion FICO Risk Score, Classic 04. Classic FICO scores range from 300 to 850.

[7]The three national CRAs include certain on-time payments only in special credit reporting products. According to FICO, in 2018, less than 1 percent of all credit bureau files contained rental payment data, 2.5 percent contained telecommunications data, and 2.4 percent contained utility payment data.

Underwriting in Mortgage Lending

Lenders underwrite mortgage loans by using credit scores and credit reports to determine eligibility, interest rates, and fees—for example, borrowers with higher credit scores generally get lower interest rates. This assessment can be done manually or through an automated underwriting system. Typically, lenders use manual underwriting when the borrower does not have a credit score or sufficient credit history needed for automated underwriting.

Housing Finance Markets

The housing finance system includes a primary market, in which lenders make mortgage loans to borrowers, and a secondary market, in which loans are packaged into securities and sold to investors. The federal government participates in both the primary and secondary mortgage markets. In the primary market, the Department of Agriculture (USDA) and the Department of Veterans Affairs (VA) operate direct lending programs, which offer loans to consumers living in rural areas and veterans, respectively.[8] Also, the Federal Housing Administration (FHA) within the Department of Housing and Urban Development (HUD), USDA, and VA administer mortgage guarantee and insurance programs.[9] These agencies establish program requirements to which lenders must adhere to receive the guarantee or insurance. In the secondary market, the Government National Mortgage Association, also within HUD, guarantees the timely payment of principal and interest on securities backed by federally insured or guaranteed mortgage loans.

---

[8]For this report, we focused on USDA-Rural Development's Rural Home Loans (Direct Program), also known as the Section 502 Direct Loan Program (*see* 7 C.F.R. pt. 3550, subpt. B) and VA's Vendee and Native American Direct Loan Programs (*see* 38 C.F.R. pt. 36, subpt. D). VA's Vendee Loan Program also is open to non-veterans.

[9]Mortgage guarantee and insurance programs facilitate mortgage lending by protecting the lender against losses they would otherwise incur if the borrower defaulted. In federal programs, the government agrees to pay some or all of the loan's unpaid principal balance in the event of a default. The exact terms and conditions vary by program and can include payment of other amounts, such as accrued and unpaid interest, funds advanced to protect or preserve the property, and costs incurred in connection with the property's foreclosure or conveyance. For this report, we focused on USDA-Rural Development's Single Family Home Loan Guarantee Program (*see* 7 C.F.R pt. 3555), the VA-guaranteed Home Purchase Loan Program (*see* 38 C.F.R. pt. 36, subpt. B), and FHA's Basic Home Mortgage Loan 203(b) Program (*see* 24 C.F.R. pt. 203).

Fannie Mae and Freddie Mac are the primary participants in the secondary mortgage market, purchasing about half of all originated mortgages in the first quarter of 2021. These government-sponsored enterprises (enterprises) are congressionally chartered, for-profit, shareholder-owned corporations with a primary mission to enhance the liquidity, stability, and affordability of mortgage credit.[10] To sell loans to the enterprises, lenders must meet their underwriting and documentation requirements. To facilitate the origination of loans that conform to their requirements, the enterprises provide lenders with access to their automated underwriting systems, which indicate whether a loan is eligible for purchase.

Federal Laws and Oversight of Mortgage Lending

Federal laws relevant to the use of alternative data in mortgage lending include the following:

- The **Fair Housing Act** prohibits discrimination in residential real estate-related transactions on the basis of a person's race, color, religion, sex, disability, familial status, or national origin.[11] This includes failing to make mortgage loans available or imposing different loan terms and conditions (such as higher interest rates) based on any of these characteristics.

- The **Equal Credit Opportunity Act** (ECOA) prohibits creditors from discriminating in any aspect of a credit transaction on the basis of an applicant's race, color, religion, national origin, sex, marital status, or certain other factors.[12] Prohibited practices include refusing to extend credit or offering less favorable terms of credit based on any of these factors. Creditors are also required to disclose, or offer to disclose, the

---

[10]Since September 2008, the enterprises have been in conservatorship under the Federal Housing Finance Agency. As we previously reported, conservatorship is the legal process in which a person or entity is appointed to establish control and oversight of a company to put it in a sound and solvent condition. In a conservatorship, the powers of the company's directors, officers, and shareholders are transferred to the designated conservator. See GAO, *Housing Finance: Prolonged Conservatorships of Fannie Mae and Freddie Mac Prompt Need for Reform*, GAO-19-239 (Washington, D.C.: Jan. 18, 2019).

[11]42 U.S.C. §§ 3601-3619, 3631. *See also* 24 C.F.R. pt. 100.

[12]15 U.S.C. §§ 1691–1691f. *See also* 12 C.F.R. pt. 1002.

specific reasons for an adverse action taken on an application (such as the denial of credit).[13]

- The **Fair Credit Reporting Act** (FCRA) regulates the collection, use and disclosure of consumer information used to determine a consumer's eligibility for credit and for certain other purposes.[14] FCRA requires CRAs and those that supply information to them (known as furnishers) to take steps to ensure the accuracy of the information in consumer reports. CRAs and furnishers are also required to reinvestigate the accuracy of that information if the consumer disputes it. FCRA also requires mortgage lenders to disclose key factors that negatively affected a consumer's credit score if used in connection with an adverse action.[15]

- The **Truth in Lending Act** (TILA) requires creditors to provide meaningful disclosures concerning certain terms and conditions of consumer credit transactions.[16] Together with its implementing regulation (Regulation Z), the act also requires residential mortgage lenders to determine based on verified and documented information that a consumer has the reasonable ability to repay the mortgage loan before completing the transaction.[17] Loans that meet the regulation's definition of a "qualified mortgage" are presumed to comply with this requirement, which protects the lender from certain types of liability with respect to such loans.[18]

---

[13]*See, e.g.*, 12 C.F.R. § 1002.9.

[14]15 U.S.C. §§ 1681-1681x. *See also* 12 C.F.R. pt. 1022.

[15]*See* 15 U.S.C. §§ 1681m(a)(2), 1681g(f)(1)(C). *See also* 15 U.S.C. § 1681g(g) (requiring disclosures of key factors affecting credits scores used in connection with a home loan application).

[16]15 U.S.C. §§ 1601-1667f. *See also* 12 C.F.R. pt. 1026.

[17]In 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act amended TILA to establish minimum standards for residential mortgage loans, including ability-to-repay requirements. *See* Pub. L. No. 111-203, §§ 1411, 1412, 1414, 124 Stat. 1376, 2142-2148 (codified, as amended, at 15 U.S.C. § 1639c). *See also* 12 C.F.R. § 1026.43.

[18]*See* 12 C.F.R. § 1026.43(e). A qualified mortgage loan is one that meets certain requirements set forth in Regulation Z, such as having a term no longer than 30 years and having limits on up-front points and fees. If a loan constitutes a qualified mortgage, the lender (or subsequent purchaser of the loan) has a safe harbor against legal claims by borrowers that the loan failed to comply with required underwriting criteria. Congressional Research Service, *The Qualified Mortgage (QM) Rule and Recent Revisions*, IF11761 version 2 (Washington, D.C.: Mar. 11, 2021).

See appendix II for additional federal laws that may be relevant to the use of alternative data in mortgage lending.

The federal government regulates mortgage lending primarily through CFPB and the federal prudential regulators.[19] CFPB has the authority to issue regulations under federal consumer financial laws (including ECOA, TILA, and most provisions of FCRA).[20] CFPB also has supervisory and enforcement authority for these laws with respect to insured depository institutions and credit unions with assets of more than $10 billion, and certain nonbank institutions (which include nonbank mortgage lenders).[21] The federal prudential regulators have supervisory and enforcement authority for federal consumer financial laws with respect to insured depository institutions and credit unions with assets of $10 billion or less for compliance.[22] These regulators also have supervisory and enforcement authority with respect to other laws (including the Fair Housing Act) and oversee the safety and soundness of financial institutions within their respective jurisdictions. In particular, safety and soundness oversight includes conducting examinations and other activities to assess if the institutions under their purview have appropriate risk-management processes related to their business lines, such as mortgage lending.

Lastly, the Federal Housing Finance Agency (FHFA) oversees Fannie Mae and Freddie Mac. FHFA is the regulator responsible for ensuring that the enterprises operate in a safe and sound manner and that their operations and actions foster a liquid, efficient, competitive, and resilient national housing finance market.[23] In particular, FHFA assesses the

---

[19]The federal prudential regulators are the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency. HUD also has an oversight role with respect to mortgage lenders through the agency's administration and enforcement of the Fair Housing Act.

[20]12 U.S.C. § 5512. Federal consumer financial laws are more fully defined at 12 U.S.C. § 5481(14). CFPB's authority with respect to such laws is subject to certain exceptions. *See, e.g.,* 12 U.S.C. §§ 5517, 5519. HUD is authorized to issue regulations under the Fair Housing Act.

[21]12 U.S.C. §§ 5514, 5515. *See also* 12 U.S.C. § 5515(c)(2)-(3) (providing other federal agencies with backup enforcement authority).

[22]12 U.S.C. § 5516.

[23]*See* 12 U.S.C. §§ 4511-4603.

enterprises' financial safety and soundness and overall risk-management practices through ongoing monitoring, targeted examinations, and risk assessments. FHFA has additional authorities and responsibilities in its capacity as the conservator of the enterprises.[24]

Use of Alternative Data in Mortgage Underwriting Is Limited

Few Mortgages in 2016—2020 Appear to Have Been Underwritten Using Alternative Data

Lenders can use alternative data in mortgage underwriting when a borrower or co-borrower does not have a credit score or has insufficient data on their credit reports to determine their likelihood of repaying the loan. Federal agencies with mortgage insurance or guarantee programs, as well as the enterprises, have specific requirements about when lenders are permitted to use alternative data to underwrite mortgage loans (see table 1).

Table 1: Eligibility Requirements for Using Alternative Data to Underwrite Mortgage Loans

Loan type	When underwriting with alternative data is permitted
Fannie Mae-purchased	Borrower or co-borrower • Does not have a credit score; or • Has a credit score and the alternative data appear on their credit report;[a] or • Has a credit score, is a first-time homebuyer, and can provide 12 months of rental payments through bank account statements
Freddie Mac-purchased	Borrower or co- borrower does not have a credit score or the credit score is based on limited credit history, or when the alternative data appear on their credit reports[a]
FHA-insured	Borrower or co-borrower does not have a credit score
USDA-guaranteed	Borrower or co-borrower does not have a credit score
USDA direct	Borrower or co-borrower has fewer than two credit scores[b]
VA-guaranteed	All borrowers
VA direct	All borrowers

Legend: FHA = Federal Housing Administration; USDA = Department of Agriculture; VA = Department of Veterans Affairs

[24]According to FHFA, the enterprises' boards of directors oversee day-to-day operations, but certain matters are subject to FHFA's review and approval. See GAO-19-239.

Source: GAO analysis of Fannie Mae, Freddie Mac, FHA, USDA, and VA information. | GAO-22-104380

Note: "Credit scores" refers to scores developed by FICO and provided by the three national consumer reporting agencies.

[a]The three national consumer reporting agencies include certain types of alternative data in special credit reporting products.

[b]This includes borrowers with no credit scores, as well as those with limited credit histories and scores from only one of the three national consumer reporting agencies.

The enterprises and federal agencies also have specific requirements for the types of alternative data lenders can use. For example, they all allow lenders to use data on rent, utility, and insurance payments. FHA and USDA also allow lenders to use a documented history of savings, such as regular deposits to a savings account.

The enterprises, FHA, USDA, and VA do not specifically track the use of alternative data to underwrite loans. However, these entities provided us with data on the number of loans made to borrowers without credit scores. According to entity officials, these loans serve as a good proxy for estimating the number of loans underwritten with alternative data because in the absence of credit scores, lenders would have needed these data to determine the likelihood of repayment.[25]

A very small proportion of loans for single-family homes purchased by the enterprises were made to borrowers without credit scores in fiscal years 2016-2020—an indication that few such loans relied on alternative data. According to enterprise data, these loans represented about 0.07 percent of their total portfolios (see table 2).

Table 2: Enterprise-Purchased Single-Family Home Loans Made without Borrower Credit Score, Fiscal Years 2016–2020

Loan type	Total loans	Loans without borrower credit scores	Percent of loans without borrower credit scores
Fannie Mae-purchased	5,447,753	5,023	0.09
Freddie Mac-purchased	4,813,075	2,212	0.05
Total	**10,260,828**	**7,235**	**0.07**

Source: GAO analysis of Fannie Mae and Freddie Mac data. | GAO-22-104380

[25]Freddie Mac and VA also allow lenders to use alternative data when underwriting loans to borrowers who have credit scores. Therefore, the total number of Freddie Mac-purchased and VA-guaranteed loans underwritten with alternative data could be higher than the number of loans made to borrowers without credit scores.

Note: According to officials of Fannie Mae and Freddie Mac (enterprises), purchased loans without credit scores very likely used alternative data for underwriting.

The proportion of FHA-insured, USDA-guaranteed, and VA-guaranteed loans made to borrowers without credit scores also was low during this period, according to agency data. As shown in table 3, FHA, USDA, and VA reported that 0.31 percent, 2.36 percent, and 0.1 percent, respectively, of single-family home loans they insured or guaranteed went to borrowers without credit scores in fiscal years 2016─2020.

Table 3: Federally Supported Single-Family Home Purchase Loans, Fiscal Years 2016–2020

Loan type	Total loans	Loans without borrower credit scores	Percent of loans without borrower credit scores
FHA-insured	**4,109,309**	12,777	0.31
USDA-guaranteed	**599,864**	14,174	2.36
VA-guaranteed	**2,833,813**	2,739	0.10

Legend: FHA = Federal Housing Administration; USDA = Department of Agriculture; VA = Department of Veterans Affairs

Source: GAO analysis of FHA, USDA, and VA data. | GAO-22-104380

Note: According to agency officials, loans made to borrowers without credit scores very likely used alternative data for underwriting.

As noted earlier, USDA and VA also operate direct lending programs. USDA made 1,115 direct loans—approximately 11 percent of its direct lending portfolio—to borrowers without credit scores in fiscal years 2019–2020.[26] According to VA staff, they identified seven direct loans made to borrowers without credit scores in fiscal years 2016–2020.

Lenders told us they generally must manually underwrite loans that use alternative data because the automated underwriting systems they use do not accept alternative data. They said this can be time-consuming and resource-intensive because it involves requesting and validating information from borrowers. For example, Fannie Mae and Freddie Mac allow lenders to submit loans from borrowers without credit scores in their automated underwriting systems, but lenders have had to collect and evaluate alternative data manually and the systems have not factored these data into their credit assessments. This, in turn, has limited the

---

[26]According to officials, USDA originated approximately the same number of direct loans to borrowers without credit scores in fiscal years 2016-2018. However, the officials said they were not able to provide these data because borrowers' credit scores were not stored consistently in their data system, making it difficult to identify borrowers without scores.

number of mortgages made with these data. Lenders and stakeholders we interviewed stated that the ability to use an automated underwriting system that considers alternative data variables could drive industry adoption of the use of alternative data in mortgage lending. As discussed later in this report, in September 2021, Fannie Mae updated its automated underwriting system to factor in one type of alternative data—consistent rental payments—for certain borrowers.

Enterprises and Federal Agencies Have Different Requirements for Use of Alternative Credit Scores

The enterprises and federal agencies have different, or in some cases, no specific requirements for alternative credit scores. Alternative credit scores are generated from credit models that incorporate alternative data variables.[27] The enterprises and USDA require that lenders submit a Classic FICO score for loans made to borrowers with credit scores. FHA allows lenders to use alternative credit scores when a borrower does not have a Classic FICO score, and the loan is being manually underwritten. VA does not have specific credit score requirements for either its direct or guarantee programs, but lenders that originate VA-guaranteed loans can impose their own credit score criteria.[28] In addition, none of the 16 lenders we interviewed said they used alternative credit scores to determine eligibility or pricing for their mortgage products.

Lenders that hold mortgage loans in their own portfolios or sell them to private investors may have additional flexibilities regarding the types of data they use to underwrite a loan. For example, three lenders we spoke with described using alternative data to determine eligibility for mortgage products targeted to lower income or minority borrowers who do not have traditional credit scores. According to these lenders, these mortgage loans are generally not sold to the enterprises or insured by the federal government.

---

[27]To create these models, CRAs or model developers collect the alternative data in various ways. For example, consumers can give FICO permission to access bank account information, including the frequency of transactions and history of positive balances. FICO then incorporates this information in an alternative credit score, known as Ultra FICO.

[28]According to VA staff, veterans may be eligible for a VA-guaranteed loan under the program's criteria, but due to lender credit score criteria, may not qualify for a mortgage loan.

Alternative Data for Underwriting Could Increase Mortgage Access, but Also Raises Fair Lending and Performance Risks

Stakeholders we interviewed and public comments and literature we reviewed cited several potential benefits and risks of using alternative data in mortgage lending.[29] Potential benefits include increasing access for mortgage loans to certain populations and more accurately determining default risk. Potential disadvantages include possible discriminatory effects and concerns about loan performance.

Alternative Data Could Increase Access to Mortgage Loans, but the Extent of the Increase Could Be Limited

Use of alternative data in mortgage lending (either through alternative credit scores or in underwriting) has the potential to increase access to credit for individuals with little or no credit history with the national CRAs, according to literature we reviewed and stakeholders we interviewed. As noted previously, in 2015, CFPB found that 45 million consumers did not have any credit history with the national CRAs (known as "credit invisibles") or did not have enough credit history to be scored (known as "unscorables").[30] CFPB reported that this population disproportionality included low-income consumers, younger consumers, and minorities.

Several studies indicate that alternative data could help these consumers access credit by improving their ability to be scored or increasing their

---

[29]Public comments we reviewed came from three agency solicitations for comment. First, in December 2017, FHFA requested information on how the enterprises' use of a credit score other than Classic FICO would affect the mortgage industry. Federal Housing Finance Agency, *Credit Score Request for Input* (Washington, D.C.: Dec. 20, 2017). Second, in December 2018, FHFA solicited comments on a proposed rule to establish a process for validation and approval of credit score models used by the enterprises. Validation and Approval of Credit Score Models, 83 Fed. Reg. 65,575 (Dec. 21, 2018). Third, in the summer of 2020, CFPB solicited comments on actions it could take to prevent credit discrimination, encourage innovation, and promote fair access to credit. Request for Information on the Equal Credit Opportunity Act and Regulation B, 85 Fed. Reg. 46,600 (Aug. 3, 2020).

[30]According to the CFPB report, each credit scoring model has its own proprietary definition of sufficient payment history to generate a score. Consumer Financial Protection Bureau, *Data Point: Credit Invisibles*.

credit scores. For example, one study used a model to score a sample of consumers with both traditional CRA data and available utility and telecommunications payments.[31] It found that among thin-file consumers, using utility data reduced the percentage of unscorable consumers from about 65 percent to 4 percent and telecommunications data reduced this percentage from 68 percent to less than 1 percent.[32]

In addition, alternative credit scores could lead to more affordable mortgage loans. Specifically, the enterprises generally charge borrowers who have lower credit scores a higher amount in fees (known as loan-level price adjustments).[33] The range of these fees can be substantial: for example, fees assessed on a $261,000 mortgage could range from $653 to $8,483 depending on the credit score.[34] If using alternative data raises credit scores, borrowers could be charged lower fees, improving their ability to access mortgage credit at an affordable cost. However, according to one stakeholder, using credit scores that incorporate alternative data may result in fees that are too low, if the data are not accurate predictors of borrowers' ability to repay.[35]

The extent to which the use of alternative data could increase access to mortgage credit depends on several factors. One factor is whether alternative data can increase credit scores enough for borrowers to qualify for lower-cost mortgage loans. Although a credit score of 620 is generally considered to be the minimum score for a mortgage purchased

---

[31]Alyssa Stewart Lee, Ann Schnare, et al., *Giving Credit Where Credit is Due: Increasing Access to Affordable Mainstream Credit Using Alternative Data* (Washington, D.C.: The Brookings Institution and Political and Economic Research Council, Dec. 1, 2006).

[32]The study defined thin-file consumers as those with fewer than three accounts on their credit reports (excluding any telecommunications and utility accounts).

[33]Loan-level pricing adjustments are risk-based fees assessed to lenders for delivering loans to the enterprises for sale and are generally passed on to borrowers. These fees also can vary based on factors besides credit score, like loan-to-value ratio and type of loan product.

[34]The median loan amount of a mortgage eligible to be purchased by the enterprises in 2020 was $261,000. The range of fees was based on a 30-year fixed-rate mortgage and a loan-to-value ratio from 90.01 percent to 95 percent. Based on these factors, a borrower with a credit score of less than 620 would be assessed a loan level price adjustment or fee of 3.25 percent of the loan amount, but a borrower with a credit score above 740 would be assessed a fee of 0.25 percent of the loan amount.

[35]Pete Sepp and Thomas Aiello, *Risky Road: Assessing the Costs of Alternative Credit Scoring* (Washington, D.C.: National Taxpayers Union, Mar. 21, 2019).

by the enterprises, in 2020, the average credit score for a mortgage purchased by the enterprises was 762.[36] Studies we reviewed concluded that alternative data have the most effect on scores on the lower end of the spectrum, and in particular, in their ability to move consumers from unscorable to scorable.[37] While the data could improve or generate scores for these consumers, it is unclear whether the increases would be sufficient to qualify many additional consumers for lower-cost mortgages. For instance, alternative data could increase credit scores just enough to qualify applicants for a mortgage, but could result in more expensive loans because applicants with the lowest scores generally are charged higher fees by the enterprises and receive higher interest rates.

Another factor is the extent to which consumers who become scorable through the use of alternative data would be interested in or ready to receive a mortgage. For example, one industry report cited CFPB data showing that 48 percent of consumers who could not be scored were under 24 or over 65 years old—age groups less likely than most to be seeking mortgage credit.[38]

Alternative Data Could Introduce Fair Lending Risks

Depending on the type of alternative data used, the use of these data in mortgage lending could pose fair lending risks if the data correlate with groups of individuals protected under anti-discrimination laws and use of the data has a disproportionately negative impact on those groups.[39] For example, one stakeholder noted that using a borrower's education as a factor in mortgage underwriting could negatively affect Hispanics and African Americans, who as a population are less likely than non-Hispanic Whites to have graduated from high school. However, another study found that cash flow appeared to provide independent predictive value across all groups and did not seem to correlate with race, ethnicity, or

---

[36]This is the average credit score for a loan purchased by both enterprises that did not require private mortgage insurance. See Urban Institute, *Mortgage Insurance Data at a Glance* (Washington, D.C.: July 1, 2021).

[37]For example, see Michael Turner and Patrick Walker, *Potential Impacts of Credit Reporting Public Housing Rental Payment Data* (Washington, D.C.: October 2019); report prepared for the Department of Housing and Urban Development.

[38]Quantilytic, LLC, *Risks and Opportunities in Expanding Mortgage Credit Availability Through New Credit Scores* (December 2017). This research was funded by FICO.

[39]*See, e.g.*, 15 U.S.C. § 1691(a) and 12 C.F.R. pt. 1002, Supp. I, ¶¶ 2(p)-4, 6(a)-2.

gender.[40] Thirteen of the 16 lenders we interviewed noted that fair lending risks were a concern when using alternative data.

In December 2019, CFPB and the federal prudential regulators issued an interagency statement on the use of alternative data in credit underwriting.[41] The statement broadly highlights potential benefits and risks of using alternative data and encourages institutions to use these data responsibly. Regulators also have examination procedures to broadly assess potential fair lending issues in the mortgage lenders being examined.[42] However, according to agency officials, they do not have examination procedures specific to lenders' use of alternative data because current examination procedures assess potential fair lending risk in all mortgage underwriting and because so few mortgage loans use such data in underwriting.

Alternative Data Could More Accurately Measure Default Risk, but Limited Performance Information Exists

Certain alternative data variables could more accurately predict risk of default or delinquency if added to traditional data, according to studies and public comments we reviewed and stakeholders we interviewed. For example, one study found that when included in models of default risk that incorporate traditional credit data, cash flow data improved the ability for the models to predict default risk among borrowers across all credit

---

[40]FinRegLab, *The Use of Cash-Flow Data in Underwriting Credit: Empirical Research Findings* (Washington, D.C.: 2019). This study examined data from six nonbank financial services providers. The providers provided proxies for gender and imputed borrowers' race and ethnicity utilizing a proxy methodology similar to that used by CFPB.

[41]Board of Governors of the Federal Reserve System, Consumer Financial Protection Bureau, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency, *Interagency Statement on the Use of Alternative Data in Credit Underwriting* (Washington, D.C.: Dec. 13, 2019).

[42]Federal Financial Institutions Examination Council, *Interagency Fair Lending Examination Procedures* (Washington, D.C.: August 2009); and Consumer Financial Protection Bureau, *Supervision and Examination Manual* (Washington, D.C.: September 2021).

scores.[43] The study also found that on their own, cash flow metrics (such as bank account transactions) generally were as predictive of loan performance as traditional credit scores. Another study found a correlation between the payment patterns for utility and telecommunications bills and mortgage bills.[44] According to the study, consumers with no past delinquencies on their utility or telecommunications bills had a mortgage delinquency rate of 4.9 percent, while those that had a serious utility or telecommunications delinquency in the past year had a mortgage delinquency rate of 22.3 percent. The study also found differences in mortgage delinquency rates based on utility and telecommunications bill payment patterns for consumers grouped by credit score. The study suggested that consistently including utility and telecommunications delinquencies and on-time payments in a credit score could allow it to more accurately predict borrowers' risk of defaulting on a mortgage.

However, limited information exists on the performance of mortgage loans underwritten using alternative data or alternative credit scores because, as discussed previously, few such loans have been made. Because federal agencies and the enterprises do not identify loans made with alternative data, they cannot separately track the performance of these loans. In addition, studies we reviewed did not track default rates for mortgage loans made with alternative data. Rather, the studies applied alternative data variables to historical data or studied the performance of nonmortgage loans, such as unsecured small-dollar loans. Mortgage

---

[43]*The Use of Cash-Flow Data in Underwriting Credit: Empirical Research Findings*. To examine the relationship between cash flow metrics and default risk, as previously mentioned, this study examined data from six nonbank financial services providers. These providers underwrote unsecured short-term loans and cash advances focusing on consumers (four providers) or small businesses (two providers). Cash flow metrics varied across providers and the study examined the data from each of the providers separately. The results of this study may not generalize to other loan types, and they do not account for possible relationships between borrowers' cash flow metrics and the likelihood of taking out an unsecured short-term loan or cash advance.

[44]Michael Turner and Patrick Walker, *Predicting Financial Account Delinquencies with Utility and Telecom Payment Data* (Durham, N.C.: May 2015). To examine the relationship between utility and telecommunications bill payment behavior and mortgage delinquencies, this study examined a sample of credit files from a consumer credit reporting agency observed from July 2009 through June 2010 on consumers with mortgages and who had no delinquencies reported on their mortgage for the 24 months prior to July 2009. The results of this study may not generalize to other time periods or other loan types, and they do not account for possible relationships between consumers' utility and telecommunications bill payment behavior and the likelihood of having a mortgage.

loans may perform differently than nonmortgage loans because the dollar amounts are larger and terms are longer. Lenders we interviewed said that uncertainty resulting from a lack of performance information is a risk in using such data in underwriting. In particular, they noted that performance of these loans was important for meeting safety and soundness requirements of their regulators.[45]

Limited performance information also may affect the willingness of investors in the secondary market and investors to purchase mortgage loans made with alternative data, which in turn could further limit the volume of these loans. A representative from the Securities Industry and Financial Markets Association noted that performance data for mortgages made with alternative data would help inform investors about the predictiveness of such data relative to traditional data, the credit risk of the underlying loans, and the prepayment risk of the securities.[46] Stakeholders and nearly all of the 16 lenders we interviewed stated that investors' acceptance of alternative data could increase its adoption in mortgage lending. Without wider secondary market acceptance, lenders must hold such loans in their own portfolios, limiting their liquidity to originate more such loans.

Use of Alternative Data in Mortgage Lending Has Raised Concerns about Consumer Data Privacy and Other Risks

Literature we reviewed, stakeholders and lenders we interviewed, and public comments submitted to federal agencies identified additional concerns related to using alternative data in mortgage lending:

---

[45]Lenders that are insured depository institutions are required to follow credit underwriting standards established by the federal prudential regulators for safe and sound business practices. The regulators also have developed and adopted supervisory guidance for lenders to consider on model risk-management, which outlines a framework to address risks that stem from using tools such as credit scoring models for underwriting. See Office of the Comptroller of the Currency, *Supervisory Guidance on Model Risk Management,* OCC Bulletin 2011-12 (Washington, D.C.: Apr. 4, 2011); Board of Governors of the Federal Reserve System, *Supervisory Guidance on Model Risk Management*, SR Letter 11-17 (Washington, D.C.: Apr. 4, 2011); and Federal Deposit Insurance Corporation, *Adoption of Supervisory Guidance on Model Risk Management,* FIL-22-2017 (Washington, D.C.: June 7, 2017).

[46]Prepayment risk to investors is the risk that investors would lose interest payments if the underlying mortgages that make up the securities were paid off early.

- **Consumer data privacy.** Use of alternative data could pose consumer data privacy risks if lenders or credit scoring model developers gather alternative data variables without the knowledge or permission of consumers. For example, some stakeholders have raised concerns that consumers may not know that these data are being used to make credit decisions. Lenders and credit score developers generally access cash flow data through a data aggregator, a third party that can search bank account data for recurring payments. Although access is consumer-permissioned, there can be privacy risks if the purpose and scope of data collection are not clear to the consumer.[47] For example, the National Consumer Law Center has noted that data aggregators could have access to bank account data longer than consumers expected and lenders could use the information for debt collection efforts.[48]

- **Repurchase risk.** When lenders sell mortgage loans to the enterprises, they must provide the enterprises with assurances that the loans comply with selling guide standards. The enterprises conduct regular quality control reviews to assess compliance with these guides. If the enterprises find that a mortgage loan is not compliant, they can require the lender to repurchase the loan from them.[49] Enterprise officials noted that the use of alternative data has no bearing on their decision to require the lender to repurchase a loan as long as it was underwritten in accordance with their guidelines. However, several lenders expressed concern that the enterprises would require them to repurchase mortgages made with alternative data following the default of the loan or due to the enterprises' quality control reviews.

- **"Race to the bottom" among credit scores.** According to some public comments submitted to FHFA, FHFA could increase competition of credit scores in the mortgage industry by allowing the use of non-Classic FICO scores by the enterprises.[50] However, other

---

[47]We previously reported that users of data aggregation services also may face other consumer data privacy risks, such as data breaches and fraudulent use of consumers' account credentials. See GAO-18-254.

[48]National Consumer Law Center, *Credit Invisibility and Alternative Data: Promises and Perils* (Boston, Mass.: July 2019).

[49]The enterprises can require a range of corrective actions if they find that a loan did not comply with their standards, one of which is requiring a lender to repurchase a loan.

[50]As previously mentioned, the Classic FICO scoring models are the primary models used in mortgage lending. These scoring models were developed in the late 1990s.

stakeholder comments noted that increasing the number of models accepted for use in the mortgage industry by the enterprises might lead to a "race to the bottom" if lenders had a choice of credit score model to use. They noted that lenders might have an incentive to choose the credit scoring model that allows them to originate the most loans, rather than the model that is most accurate, because these loans could be sold (and risk transferred) to the secondary market.

- **Lack of explainability for machine learning models.** Underwriting models that incorporate alternative data may use artificial intelligence, such as machine learning, to determine the models' outputs.[51] However, stakeholders have expressed concerns that these complex models lack "explainability"—that is, the ability for people to understand the basis for the models' results and decisions based on those results.[52] As a result, lenders may have difficulty making required disclosures—such as the specific reasons for denial of credit or the factors adversely affecting a consumer's credit score—in terms that are understandable to the average person.

Public and Private Efforts Seek to Expand and Inform the Use of Alternative Data in Mortgage Lending

Fannie Mae Recently Incorporated Positive Rental Payment History into its Automated Underwriting System

In September 2021, Fannie Mae (the largest issuer of single-family mortgage-backed securities in the secondary market) updated its automated underwriting system to identify and factor consistent rental payment history into its credit assessment for an expanded group of borrowers—those with credit scores of at least 620, who are first-time homebuyers, and have paid rental payments of at least $300 for at least 12 months. Prior to that, lenders could manually obtain and document 12 months of rental payment history for borrowers without credit scores, or

---

[51]Credit models that incorporate artificial intelligence and machine learning use advanced statistical techniques and generally can incorporate more data than traditional credit underwriting approaches. Classic FICO models do not use artificial intelligence or machine learning.

[52]Explainability refers to methods and techniques in the application of artificial intelligence to enable the results to be understood by humans.

Fannie Mae's automated underwriting system would incorporate the information if it was already on a borrower's credit report.

With this change, the system notifies lenders if applicants whose loans are otherwise ineligible for Fannie Mae purchase could benefit from the inclusion of rental payments. Lenders then can ask applicants for permission to have a Fannie Mae-approved vendor access their bank statement data. If permission is granted, the underwriting system will automatically identify if 12 months of rental payments exists within the bank statement data and include this in its credit assessment.[53] Fannie Mae stated that it hopes this change will help increase homeownership opportunities for renters who have a limited credit history, but a strong rental payment history.

Before updating its system, Fannie Mae officials said they assessed the potential benefits and risks of more broadly including positive rental payments in its automated underwriting assessments. For example, Fannie Mae evaluated the extent to which this change could increase access to mortgage credit. It reported finding that of a sample of loans previously determined to be ineligible for purchase, 17 percent could have been eligible had the applicants' rental payment history been considered.[54] Fannie Mae and FHFA officials noted that they also assessed the fair lending and credit risks associated with adding positive rental payments to the underwriting of these borrowers. FHFA officials noted that the populations most likely to benefit from this change are applicants with lower credit scores, who are disproportionately minorities. Fannie Mae officials said they plan to track the volume and performance of these loans, as well as the demographics of its borrowers, and regularly report this information to FHFA.

---

[53]Fannie Mae has noted that only positive rental payments are included. Any identified missing payments from bank statements would not be counted against a borrower because Fannie Mae would not be able to determine why they were not present (for instance, a borrower could have missed a payment or paid in cash). As a result, incorporating this information into underwriting only can benefit eligible borrowers.

[54]Fannie Mae officials said they already had rental payment history for the sample of loans from the approved vendors because they had obtained them to verify income and assets. The sample comprised loans from applicants who had not owned a home in the past 3 years.

Other Initiatives Exist to Encourage and Inform the Use of Alternative Data in Mortgage Lending

A range of ongoing federal and other efforts are designed to encourage lenders to use alternative data, such as providing financial incentives and regulatory flexibility when originating loans:

- **Affordable secondary mortgage market model.** One lender we interviewed, a Community Development Financial Institution, manages a mortgage program in which it purchases loans from its partners (other lenders) made with flexible underwriting standards.[55] These standards allow for use of information such as rental and other recurring payments to help borrowers with no credit score or limited traditional credit histories. According to the lender, by purchasing these mortgage loans, it helps its partners continue making more of these loans to low- and moderate-income borrowers. As of February 2021, the lender noted it purchased about $100 million of loans made with flexible underwriting standards.

- **Community Reinvestment Act.** Use of alternative data in mortgage lending can also help lenders meet goals of the Community Reinvestment Act.[56] Officials from the Federal Deposit Insurance Corporation, Board of Governors of the Federal Reserve System, and the Office of the Comptroller of the Currency stated that using alternative data to establish a low- or moderate-income borrower's credit history for the purpose of extending mortgage credit may be considered an innovative practice in lending, which is a factor these agencies consider when issuing Community Reinvestment Act

---

[55]Community Development Financial Institutions are banks and other financial institutions that have received certification from the Community Development Financial Institutions Fund (within the Department of the Treasury) for promoting community development and that meet other eligibility requirements.

[56]The Community Reinvestment Act encourages banking institutions to meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound banking operations. To do so, the act requires federal banking regulators to conduct examinations to regularly assess the records of financial institutions in terms of meeting local credit needs and issue performance ratings. Pub. L. No. 95-128, 91 Stat. 1147 (1977), codified as amended at 12 U.S.C. §§2901-2908. *See also* Community Reinvestment Act; Interagency Questions and Answers Regarding Community Reinvestment; Guidance, Q&A No. 22(b)(5)—1, 81 Fed. Reg. 48,506, 48,539 (July 25, 2016).

performance ratings.[57] The National Community Reinvestment Coalition developed agreements with lenders to use rental and other nontraditional payments in underwriting mortgages as a way to meet their Community Reinvestment Act goals.[58]

- **Enterprise validation and approval of new credit score models.** In August 2019, FHFA issued a final rule outlining a four-phase process for the enterprises to validate and approve new credit scoring models.[59] The enterprises issued a Joint Enterprise Credit Score Solicitation in February 2020, inviting applications from developers of credit scoring models other than Classic FICO.[60] The solicitation is open to developers with credit scoring models that use alternative data, but these developers must pay an additional fee to cover costs associated with validating such models.[61] The submission period ended in September 2020 and the enterprises are conducting business assessments to determine whether to approve or disapprove submitted models. The enterprises' decisions to approve or disapprove the models are subject to FHFA's review and approval.[62]

- **Pilot programs for new credit score models.** Under FHFA's final rule on the validation and approval of credit score models, the enterprises also can undertake a pilot program to evaluate credit score models not then in use by the enterprises. The enterprises must submit a proposal to pilot a new credit score model to FHFA for

---

[57]The Community Reinvestment Act does not apply to credit unions insured by the National Credit Union Administration.

[58]As of September 2021, the organization identified at least four lenders with agreements related to alternative data in mortgage lending.

[59]*See* Validation and Approval of New Credit Score Models, 84 Fed. Reg. 41,886 (Aug. 16, 2021) (codified at 12 C.F.R. pt. 1254). The rule implements the requirements of Section 310 of the Economic Growth, Regulatory Relief, and Consumer Protection Act. Pub. L. No. 115-174, 132 Stat. 1296, 1351 (2018) (codified at 12 U.S.C. §§ 1454, 1717(b), 4548).

[60]Classic FICO was subject to the same process set forth in the final rule and was approved for use in November 2020.

[61]According to the solicitation, there is an up-front application fee of $200,000 for all applicants and an additional fee of $400,000 for applications supported by CRAs that are not one of the three national CRAs. The solicitation states that the fees reimburse each enterprise for the work performed to ensure the new CRA has the appropriate infrastructure with the enterprises, particularly in relation to the transfer and storage of personally identifiable information.

[62]12 C.F.R. § 1254.9.

review and approval before initiating the program.[63] As of August 2021, Fannie Mae and Freddie Mac had not proposed implementing a pilot program. Freddie Mac officials stated they were prioritizing the evaluation of credit scores submitted as part of the Joint Enterprise Credit Score Solicitation before considering pilot programs. Fannie Mae officials noted challenges to conducting pilots, including costs of changing their underwriting systems and potential difficulty obtaining investor commitments to purchase these loans.

- **New qualified mortgage definition.** CFPB has changed the definition of a "qualified mortgage" in ways that could promote the use of alternative data in mortgage lending.[64] For example, the agency modified the general qualified mortgage definition to provide lenders with additional flexibility—which could include the use of tools like cash flow analytics—when assessing a consumer's ability to repay.[65] The agency also expanded the definition to include certain "seasoned" loans (those that met certain performance requirements over a set period of time).[66] CFPB noted that this new category may make lenders more willing to lend to consumers with nontraditional credit profiles. They said it may also encourage innovations such as cash flow underwriting because lenders could still receive the protections that come with making qualified mortgages. CFPB officials noted that

---

[63]12 C.F.R. § 1254.11. The pilot program is not required to be approved through the four-phase process set forth in the FHFA rule described above.

[64]As previously mentioned, lenders obtain certain protections from liability for loans that meet the requirements of a "qualified mortgage" under Regulation Z. *See* 12 C.F.R. § 1026.43(e) and Supp. I to pt. 1026, § 1026.43(e)(4).

[65]Qualified Mortgage Definition Under the Truth in Lending Act (Regulation Z): General QM Definition, 85 Fed. Reg. 86,308 (Dec. 29, 2020) (codified as amended at 12 C.F.R. pt. 1026). In the preamble to the final rule, CFPB noted that the previous definition—which focused on debt-to-income ratio and had strict verification standards—could constrain new approaches to assessing repayment ability like cash flow data and analytics. The new rule replaced the debt-to-income limit with price-based thresholds and provided creditors with additional flexibility for verifying the consumer's income, assets, and debts.

[66]Qualified Mortgage Definition Under the Truth in Lending Act (Regulation Z): Seasoned QM Definition, 85 Fed. Reg. 86,402 (Dec. 29, 2020) (codified at 12 C.F.R. pt. 1026). The rule defines a seasoned qualified mortgage as a first-lien, fixed-rate mortgage loan that has complied with certain restrictions on product features; met certain underwriting and performance requirements; been held in portfolio for at least 36 months by the original creditor or first purchaser; and is not a high-cost mortgage as defined in Regulation Z.

the change in definitions may facilitate additional use of alternative data in mortgage lending. Both changes took effect in March 2021.[67]

- **Improving data collection and reporting to CRAs.** CRAs we interviewed noted challenges to collecting alternative data in a standardized and complete manner for all consumers, affecting the ability to incorporate them into consumers' credit reports and credit score models. There have been several state and federal legislative efforts to encourage reporting of alternative data to CRAs for inclusion in consumer credit reports. For example, a California law that took effect on July 1, 2021, requires landlords of multifamily rental housing developments that receive certain types of government assistance to offer tenants the option to have their rental payments reported to at least one national CRA.[68] In addition, federal legislation introduced in July 2021 proposes to amend FCRA to allow for reporting of consumers' payment histories under residential leases—including HUD-subsidized leases—and contracts for utility and telecommunications services.[69]

Appendix III discusses additional efforts to encourage and inform the use of alternative data in mortgage lending.

Agency Comments and Our Response

We provided a draft of this report to CFPB, the Federal Deposit Insurance Corporation, Board of Governors of the Federal Reserve, FHFA, HUD, the National Credit Union Administration, Office of the Comptroller of the Currency, USDA, and VA for review and comment. We received comments from the National Credit Union Administration, which are

---

[67]Earlier this year, CFPB announced that it was considering whether to initiate a rulemaking to revisit its rule on seasoned qualified mortgages. *See* Public Statement on General QM and Seasoned QM Final Rules, 86 Fed. Reg. 11,623 (Feb. 26, 2021). The agency also extended the mandatory compliance date—from July 1, 2021 to October 1, 2022—for the changes it made to the general definition of a qualified mortgage. Until then, mortgage lenders have the option of complying with either the original definition (based on debt-to-income) or the modified, price-based definition. *See* Qualified Mortgage Definition Under the Truth in Lending Act (Regulation Z): General QM Loan Definition; Delay of Mandatory Compliance Date, 86 Fed. Reg. 22,844 (Apr. 30, 2021).

[68]*See* Cal. Civil Code § 1954.06. The rental payments must be reported to at least one nationwide consumer reporting agency or another consumer reporting agency that resells or furnishes rental payment information to a nationwide consumer reporting agency.

[69]*See* Credit Access and Inclusion Act of 2021, S. 2417, 117th Cong.

reprinted in Appendix IV. All of the agencies, except for HUD and USDA, provided technical comments, which we incorporated as appropriate.

The National Credit Union Administration stated in its letter that it acknowledged our observations and will continue to support efforts related to overseeing the use of alternative data in loan underwriting.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees, the Director of CFPB, Chairman of the Federal Deposit Insurance Corporation, Chair of the Board of Governors of the Federal Reserve, Acting Director of FHFA, Secretary of HUD, Chairman of the National Credit Union Administration, Acting Comptroller of the Currency, Secretary of Agriculture, and Secretary of VA, and other interested parties. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-8678 or clementsm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

Michael E. Clements
Director, Financial Markets and Community Investment

List of Requesters

The Honorable Maxine Waters
Chairwoman
Committee on Financial Services
House of Representatives

The Honorable Al Green
Chairman
Subcommittee on Oversight and Investigations
Committee on Financial Services
House of Representatives

The Honorable Bill Foster
Chairman
Task Force on Artificial Intelligence
Committee on Financial Services
House of Representatives

The Honorable Stephen F. Lynch
Chairman
Task Force on Financial Technology
Committee on Financial Services
House of Representatives

The Honorable Josh Gottheimer
House of Representatives

Appendix I: Objectives, Scope, and Methodology

This report focuses on alternative data in the mortgage lending industry and describes (1) the extent to which mortgage loans were originated using these data in fiscal years 2016–2020, (2) the potential benefits and risks associated with using alternative data in mortgage lending, and (3) efforts to encourage lenders' use of alternative data in mortgage lending.

To address all three objectives, we reviewed quantitative and qualitative studies by federal agencies, and researchers related to the collection and use of alternative data.[1] We reviewed public responses to requests for information issued by the Consumer Financial Protection Bureau (CFPB) and the Federal Housing Finance Agency (FHFA) related to alternative data and changes to credit scoring models in mortgage lending. We interviewed officials from the following federal agencies: CFPB, Federal Deposit Insurance Corporation, Board of Governors of the Federal Reserve System, FHFA, Department of Housing and Urban Development, National Credit Union Administration, Office of the Comptroller of the Currency, Department of Agriculture, and Department of Veterans Affairs. We also interviewed officials from two government-sponsored enterprises (enterprises): Fannie Mae and Freddie Mac.

In addition, we interviewed representatives of industry associations (American Bankers Association, Credit Union National Association, Financial Health Network, Housing Policy Council, Independent Community Bankers of America, Marketplace Lending Association, Mortgage Bankers Association, National Consumer Reporting Association, and Securities Industry and Financial Markets Association); nonlender industry participants (data aggregators, consumer reporting agencies, and credit score model developers); and consumer advocacy groups (Center for Responsible Lending, National Consumer Law Center, National Community Reinvestment Coalition, and National Fair Housing

---

[1]To identify relevant reports, we conducted a literature search for studies in October 2020 about the use of alternative data or alternative credit scoring in mortgage lending. Databases searched were ProQuest, ProQuest Dialog, EBSCO, Scopus, CQ for Transcripts, and Social Science Research Network. We identified additional articles by conducting internet searches and searching agency websites, and by soliciting recommendations from federal agency officials, industry associations, and other industry stakeholders during the course of interviews.

Alliance). We also interviewed researchers that we identified by conducting internet research and reviewing literature on the use of alternative data in mortgage lending. To obtain the perspective of state regulators, we spoke with representatives from the Conference of State Bank Supervisors. We also conducted semi-structured interviews with a non-probability sample of 16 mortgage lenders (six banks, four nonbank mortgage companies, three credit unions, and three financial technology companies) about their use of alternative data in mortgage lending. They conducted from approximately $15 million to approximately $159 billion in mortgage lending in 2019. The information gathered from our interviews cannot be generalized to all mortgage lenders.

For the first objective, we reviewed program guides and analyzed data from the enterprises and federal agencies that operate government-backed and direct lending programs (Federal Housing Administration, Department of Agriculture, and Department of Veterans Affairs). We collected data from the enterprises and federal agencies on the number of loans they purchased, guaranteed, or made to borrowers without credit scores in fiscal years 2016–2020.[2] For both the enterprise and federal agency data, we assessed the reliability of the data collected by reviewing them for obvious errors or anomalies and interviewing relevant enterprise and agency officials about the systems and methods used to compile the data. We determined that the data we included in this report were sufficiently reliable for describing the use of alternative data in mortgage lending.

For the second objective, we reviewed the prudential regulators' procedures for conducting fair lending and safety and soundness examinations.[3] We determined how and to what extent these examination procedures addressed regulated entities' use of alternative data in mortgage lending. We also reviewed federal agency guidance on model risk-management and a 2019 interagency statement from the prudential

---

[2]The Department of Agriculture was not able to provide data from fiscal years 2016–2018 because borrowers' credit scores were not stored consistently in its data system, making it difficult to identify borrowers without scores.

[3]Federal Financial Institutions Examination Council, *Interagency Fair Lending Examination Procedures* (Washington, D.C.: August 2009). The federal prudential regulators are the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency.

regulators on the benefits and risks of using alternative data for credit decisions.[4]

For the third objective, we reviewed federal agency websites and select federal legislation introduced from January 2015 through September 2021 to identify efforts designed to expand access to mortgage credit through alternative data use. We also interviewed public- and private-sector entities with initiatives to encourage or inform the use of alternative data in mortgage lending.

We conducted this performance audit from June 2020 to November 2021 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

---

[4]Office of the Comptroller of the Currency, *Supervisory Guidance on Model Risk Management,* OCC Bulletin 2011-12 (Washington, D.C.: Apr. 4, 2011); Board of Governors of the Federal Reserve System, *Supervisory Guidance on Model Risk Management*, SR Letter 11-17 (Washington, D.C.: Apr. 4, 2011); and Federal Deposit Insurance Corporation, *Adoption of Supervisory Guidance on Model Risk Management,* FIL-22-2017 (Washington, D.C: June 7, 2017). Also see Board of Governors of the Federal Reserve System, Consumer Financial Protection Bureau, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency, *Interagency Statement on the Use of Alternative Data in Credit Underwriting* (Washington, D.C.: Dec. 13, 2019).

Appendix II: Examples of Federal Laws That May Be Relevant to the Use of Alternative Data In Mortgage Lending

Table 4: Examples of Federal Laws That May Be Relevant to the Use of Alternative Data in Mortgage Lending

Name of law	Description of key provisions and agencies with jurisdiction
Community Reinvestment Act	Encourages banking institutions to meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound banking operations. The act is implemented by FDIC, Federal Reserve, and OCC.
Fair Housing Act	Prohibits discrimination in residential real estate-related transactions on the basis of race, color, religion, sex, disability, familial status, or national origin. This can include refusing to make or purchase a loan, as well as imposing different loan terms and conditions, on a prohibited basis. The act is implemented and enforced by several agencies, including HUD, the Department of Justice, and the federal prudential regulators (that is FDIC, Federal Reserve, NCUA, and OCC).
Equal Credit Opportunity Act	Prohibits creditors from discriminating in any aspect of a credit transaction on the basis of an applicant's race, color, religion, national origin, sex, marital status, or certain other factors. The act is implemented and enforced by several agencies, including CFPB, FTC, and the federal prudential regulators.
Federal Trade Commission Act, Section 5	Prohibits unfair or deceptive acts or practices by persons, partnerships, or corporations that are engaged in commerce, such as mortgage lenders. This provision is implemented and enforced by several agencies, including FTC and the federal prudential regulators.
Dodd-Frank Wall Street Reform and Consumer Protection Act, Sections 1031, 1033, and 1036	Prohibits unfair, deceptive, or abusive acts or practices in connection with consumer financial products and services, such as mortgage loans (Sections 1031, 1036). Requires providers of consumer financial products and services to make available to consumers certain information concerning the product or service obtained by the consumer (Section 1033).[a] CFPB has rulemaking authority for these provisions and shares supervisory and enforcement authorities with the federal prudential regulators.
Fair Credit Reporting Act	Regulates the collection, use, and disclosure of consumer information used to determine a consumer's eligibility for credit and for certain other purposes. The act is implemented and enforced by several agencies, including CFPB, FTC, and the federal prudential regulators.
Gramm-Leach-Bliley Act, Title V	Limits when a financial institution may disclose a consumer's "nonpublic personal information" to nonaffiliated third parties. Requires financial institutions to notify their customers about their information-sharing practices and to tell consumers of their right to "opt out" if they do not want their information shared with certain nonaffiliated third parties. The act is implemented and enforced by several agencies, including CFPB, FTC, and the federal prudential regulators.

Name of law	Description of key provisions and agencies with jurisdiction
Home Mortgage Disclosure Act	Requires certain financial institutions to collect, maintain, and report specified loan-level information related to mortgage applications, originations, and purchases. Where applicable, this includes the applicant's credit score or scores relied on in making the credit decision and the name and version of the scoring model used to generate the credit score.[b] HMDA also requires the data collected to be publicly disclosed, subject to certain modifications to protect customer privacy. Among other things, HMDA data helps to show whether lenders are serving the housing needs of their communities and can help identify possible discriminatory lending practices. The act is implemented and enforced by several agencies, including CFPB, HUD, and the federal prudential regulators.
Truth in Lending Act	Requires creditors to provide meaningful disclosures concerning certain terms and conditions of consumer credit transactions. The act also requires mortgage lenders to make a reasonable, good-faith determination based on verified and documented information that a consumer has a reasonable ability to repay the loan at the time the loan is made. The act is implemented and enforced by several agencies, including CFPB, HUD, USDA, VA, and the federal prudential regulators.
Federal Deposit Insurance Act, Section 39	Requires federal banking agencies to establish safety and soundness standards for federally insured depository institutions, including with respect to credit underwriting. The standards are established and enforced by FDIC, Federal Reserve, and OCC for the institutions within their respective jurisdiction.[c]

Legend: CFPB = Consumer Financial Protection Bureau; FDIC = Federal Deposit Insurance Corporation; Federal Reserve = Board of Governors of the Federal Reserve System; FTC = Federal Trade Commission; HMDA = Home Mortgage Disclosure Act; HUD = Department of Housing and Urban Development; NCUA = National Credit Union Administration; OCC = Office of the Comptroller of the Currency; USDA = Department of Agriculture; VA = Department of Veterans Affairs.

Source: GAO analysis of federal laws. | GAO-22-104380

Note: Many of the laws described above are implemented under federal regulations not listed in the table. The table is not exhaustive and other federal laws may apply.

[a]See Advanced Notice of Proposed Rulemaking, 85 Fed. Reg. 71,003 (Nov. 6, 2020).

[b]12 C.F.R. § 1003.4(a)(15)(i).

[c]Federally insured credit unions are subject to safety and soundness oversight by NCUA under various provisions of the Federal Credit Union Act.

Appendix III: Additional Efforts to Encourage and Inform the Use of Alternative Data in Mortgage Lending

In addition to efforts previously discussed, stakeholders, lenders, and federal agencies we interviewed, and literature we reviewed cited other initiatives that could encourage and inform the use of alternative data in mortgage lending.

Opportunities to Use and Study Alternative Data in Mortgage Lending

Special purpose credit programs, a Brookings Institution's research project, and proposed legislation for an alternative data pilot program have the potential to increase the use of alternative data specifically in mortgage lending and study their impact.

Special purpose credit programs. Alternative data can be used in special purpose credit programs to help consumers who have insufficient credit histories gain access to mortgage credit, according to officials from the Consumer Financial Protection Bureau (CFPB) and several stakeholders we interviewed. Lenders can extend special purpose credit to assist economically disadvantaged populations or to meet special social needs.[1] Special purpose credit can include new products or modified eligibility requirements designed to reach consumers who would

---

[1]Lenders can extend special purpose credit under (i) a credit assistance program expressly authorized by Federal or state law for the benefit of an economically disadvantaged class of persons; (ii) a credit assistance program offered by a not-for-profit organization, for the benefit of its members or for the benefit of an economically disadvantaged class of persons; or (iii) a special purpose credit program offered by a for-profit organization to meet special social needs, if the program is administered pursuant to a written plan to extend credit to a class of persons who, under the organization's customary standards of creditworthiness, probably would not receive credit, or would receive credit on less favorable terms than are available to other applicants. 15 U.S.C. § 1691(c) and 12 C.F.R. § 1002.8(a). CFPB does not determine whether individual programs qualify for special purpose credit status.

not meet traditional standards of creditworthiness.[2] A Community Development Financial Institution we interviewed used alternative data to underwrite mortgage loans as part of a special purpose credit program targeted to low-income, female-headed, or single-parent households.[3] In December 2020, CFPB issued an advisory opinion to provide clarity on how for-profit organizations can establish and administer special purpose credit programs in compliance with Regulation B, the implementing regulation for the Equal Credit Opportunity Act (ECOA).[4]

Valuing Homes in Black-Majority Neighborhoods Project. In January 2021, the Brookings Institution (a research organization) and Ashoka (a nonprofit organization) undertook a joint initiative called the Valuing Homes in Black-Majority Neighborhoods Project. The project seeks to map, evaluate, and assess an inventory of innovative market-based and policy-based strategies to address the devaluation of homes in Black-majority neighborhoods, and encourage the best potential solutions by awarding prize money.[5] Brookings Institution officials noted that one category or trend of innovations has been the use of alternative data in mortgage underwriting to expand access to homeownership. Brookings noted they plan to publish a map of innovative strategies used across the country in October 2021.

Proposed legislation to pilot alternative data use in underwriting mortgages insured by the Federal Housing Administration (FHA). Legislation introduced in the 117th Congress would require the Department of Housing and Urban Development (HUD) to conduct a pilot

---

[2]*See* Equal Credit Opportunity (Regulation B); Special Purpose Credit Programs, 86 Fed. Reg. 3762, 3765 (Jan. 15, 2021).

[3]Community Development Financial Institutions are banks and other financial institutions that have received certification from the Community Development Financial Institutions Fund (within the Department of the Treasury) for promoting community development and that also meet other eligibility requirements.

[4]Consumer Financial Protection Bureau, *Consumer Financial Protection Bureau Issues Advisory Opinion to Help Expand Fair, Equitable, and Nondiscriminatory Access to Credit* (Washington, D.C.: Dec. 21, 2020), published at 86 Fed. Reg. 3762 (Jan. 15, 2021). The advisory opinion emphasized that a special purpose credit program may require participants to share one or more common characteristics as long as it is not established or administered with the purpose of evading the requirements of ECOA or its implementing regulation, Regulation B.

[5]The Brookings Institution, *Valuing Homes in Black-majority Neighborhoods*, accessed September 15, 2021. https://www.brookings.edu/valuing-homes-in-black-majority-neighborhoods/.

program that allows for use of alternative credit scoring models in connection with FHA-insured mortgage loans.[6] As part of the program, HUD would evaluate the benefits of using such credit scoring models and report information related to loan performance and the demographics of borrowers who opted into the program.

Efforts to Understand the Performance and Predictiveness of Alternative Data

There are several federal efforts to understand the performance and potential benefits of alternative data in lending more broadly, which could inform use in mortgage lending.

Innovation programs at CFPB. CFPB has certain tools that could aid lenders or credit score modelers in bringing underwriting innovations to market. These tools include no-action letters, compliance assistance sandboxes, and tech sprints.[7] For example, companies that apply for and obtain a no-action letter receive assurance that, subject to any conditions or limitations outlined in the letter, CFPB will not take enforcement or supervisory action relating to the product under the statutory and regulatory authorities detailed in the letter. As of September 2021, CFPB had issued two no-action letters to a fintech lender and bank advocacy

---

[6]*See* Alternative Data for Additional Credit FHA Pilot Program Reauthorization Act, H.R. 123, 117th Cong. (2021), which proposes to amend Section 258 of the National Housing Act (codified as amended at 12 U.S.C. 1715z-24). The latter provision—enacted in 2008— required HUD to carry out a similar pilot program. In July 2010, we reported that HUD had not yet done so. See GAO, *Mandate on Department of Housing and Urban Development's Alternative Credit Pilot Program,* GAO-10-876R (Washington, D.C.: July 30, 2010). HUD's authority for the pilot program had a statutory sunset date of July 30, 2013, and according to HUD officials, the program was never started due to lack of funding and competing agency priorities at the time.

[7]CFPB's compliance assistance sandbox provides companies the opportunity to obtain a safe harbor under certain federal consumer financial laws to test innovative products for a limited time while sharing data from these tests with the agency. CFPB uses tech sprints to gather stakeholders, technology firms, and subject matter experts to collaborate and develop innovative solutions to issues faced by CFPB.

group concerning the use of alternative data in underwriting decisions
(related to nonmortgage lending).[8]

Project Roundtable for Economic Access and Change (REACh). The
Office of the Comptroller of the Currency (OCC) launched Project REACh
in July 2020, which assembles stakeholder groups to address barriers to
economic inclusion. One project component is the Alternative Credit
Scoring Utility workstream, which aims to use borrower cash flow data
available from depository institutions to improve credit availability to
individuals who would not qualify for credit based on traditional data
alone. Although OCC will not directly create or review products resulting
from this workstream, officials noted that they would provide feedback on
consumer protection and fair lending questions.

CFPB research on benefits and fair lending risks of alternative data.
In 2021, CFPB initiated a study to analyze the potential for using
alternative data to provide credit scores to individuals who lack a
traditional credit history. The study also will assess potential fair lending
risks that the use of alternative data may introduce. CFPB anticipates the
data analysis for this study would last at least 5 years.

Efforts to Identify Regulatory Challenges Regarding Use of Alternative Data in Mortgage Underwriting

CFPB and the prudential regulators have issued the following requests for
comment or notices of rulemaking that solicit perspectives on regulatory
challenges that could affect the use of alternative data in mortgage
lending:[9]

---

[8]The letters were issued to Upstart Network, Inc., on September 14, 2017, and November
30, 2020, and the Bank Policy Institute on May 22, 2020. Any of the Bank Policy Institute's
members or any deposit-taking institutions subject to CFPB's supervisory and
enforcement authority can use the letter issued to the institute as a template in a no-action
letter application to use cash flow to underwrite loans less than $2,500.

[9]The federal prudential regulators are the Board of Governors of the Federal Reserve
System, Federal Deposit Insurance Corporation, National Credit Union Administration,
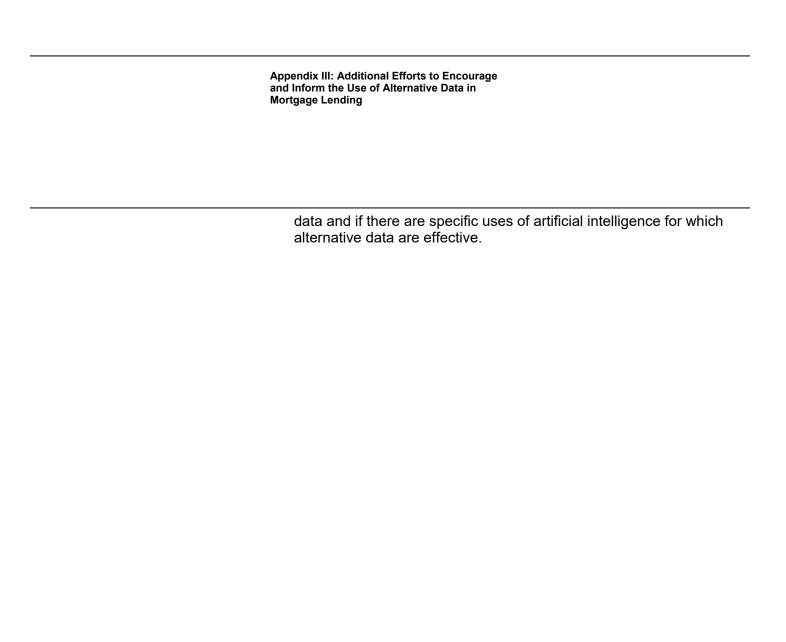and Office of the Comptroller of the Currency.

- In August 2020, CFPB issued a Request for Information seeking public input on opportunities to promote fair and nondiscriminatory access to credit and address regulatory challenges under ECOA and its implementing regulation, Regulation B.[10] One question posed was whether CFPB should provide more regulatory clarity on how financial institutions can use artificial intelligence for credit underwriting in ways that increase access to credit without unlawful discrimination. In particular, the request asked whether guidance was needed on how lenders that use complex artificial intelligence models to make underwriting decisions can comply with ECOA's adverse action requirements.[11]

- In October 2020, CFPB issued an advance notice of proposed rulemaking requesting information to assist the agency in developing regulations to implement Section 1033 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which provides for consumer access to certain types of records.[12] The notice sought information related to the benefits and costs of such access, including by consumer-authorized third parties (such as data aggregators). CFPB regulation in this area could have implications for using cash flow information—a form of alternative data—in mortgage lending decisions.

- In March 2021, CFPB and the prudential regulators jointly issued a Request for Information and Comment on financial institutions' use of artificial intelligence, including machine learning.[13] Among other things, the request sought information related to the use of alternative data by financial institutions to inform credit decisions, including how risk management for alternative data differs from that for traditional

---

[10]Request for Information on the Equal Credit Opportunity Act and Regulation B, 85 Fed. Reg. 46,600 (Aug. 3, 2020).

[11]In October 2020, CFPB also held a tech sprint on electronic disclosure of adverse action notices to identify innovations relating to adverse action notices. There were more than 75 participants from over 29 organizations that proposed methods for, among other things, identifying or notifying consumers of the principal reasons for credit denials when using models powered by artificial intelligence such as machine learning.

[12]Consumer Access to Financial Records, 85 Fed. Reg. 71,003 (Nov. 6, 2020). Specifically, Section 1033 of the Dodd-Frank Wall Street Reform and Consumer Protection Act requires providers of consumer financial products or services to make available to a consumer upon request information held by the provider for consumer financial products or services obtained by the consumer. *See* Pub. L. No. 111-203, 124 Stat. 1376, 2008 (codified at 12 U.S.C. § 5533).

[13]Request for Information and Comment on Financial Institutions' Use of Artificial Intelligence, Including Machine Learning, 86 Fed. Reg. 16,837 (Mar. 31, 2021).

data and if there are specific uses of artificial intelligence for which alternative data are effective.

Appendix IV: Comments from the National Credit Union Administration

National Credit Union Administration
Office of the Executive Director

November 1, 2021

Michael E. Clements
Director, Financial Markets & Community Investment
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Clements,

We reviewed GAO's draft report (GAO 22-104380) entitled *Use of Alternative Data is Limited but Has Potential Benefits.* We acknowledge GAO's observations and will continue to support efforts related to overseeing the use of alternative data in loan underwriting.

Thank you for the opportunity to review and comment on the draft report.

Sincerely,

LARRY FAZIO
Digitally signed by LARRY
FAZIO
Date: 2021.11.01 09:15:36
-04'00'

Larry Fazio
Executive Director

1775 Duke Street – Alexandria, VA 22314-3428 – 703-518-6320

Agency Comment Letter

Text of Appendix IV: Comments from the National Credit Union Administration

Page 1

National Credit Union Administration
Office of the Executive Director

November 1, 2021

Michael E. Clements
Director, Financial Markets & Community Investment
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Clements,

We reviewed GAO's draft report (GAO 22-104380) entitled *Use of Alternative Data is Limited but Has Potential Benefits.* We acknowledge GAO's observations and will continue to support efforts related to overseeing the use of alternative data in loan underwriting.

Thank you for the opportunity to review and comment on the draft report.

Sincerely,

Larry Fazio
Executive Director

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Michael E. Clements, (202) 512-8678 or clementsm@gao.gov

Staff Acknowledgments

In addition to the contact named above, Winnie Tsen (Assistant Director),
Ian P. Moloney (Analyst in Charge), Ron La Due Lake, Erika Navarro,
Kirsten Noethen, Christine Ramos, Barbara Roesmann, and Jena
Sinkfield made key contributions to this report.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. You can also subscribe to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube.
Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.
Visit GAO on the web at https://www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: https://www.gao.gov/about/what-gao-does/fraudnet

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548