BUREAU OF CONSUMER FINANCIAL PROTECTION | JANUARY 2019

Ability-to-Repay and Qualified Mortgage Rule Assessment Report

Message from Kathleen L. Kraninger

Director

The Bureau of Consumer Financial Protection is pleased to publish this report containing the results of its assessment of the Ability-to-Repay and Qualified Mortgage Rule that the Bureau issued in 2013 to implement provisions of the Dodd-Frank Act amending the Truth in Lending Act. The provisions were designed to assure that consumers are offered and receive residential mortgage loans on terms that reasonably reflect their ability to repay the loans.

Separately, section 1022(d) of the Dodd-Frank Act requires the Bureau to conduct an assessment of each significant rule or order adopted by the Bureau under Federal consumer financial law. This report has been prepared to satisfy that statutory obligation.

This somewhat unique statutory requirement places a responsibility on the Bureau to take a hard look at each significant rule it issues and evaluate whether the rule is effective in achieving its intended objectives, and the purposes and objectives of Title X of the Dodd-Frank Act, or whether it is having unintended consequences. I see this as a valuable opportunity to assure that public policy is being pursued in an efficient and effective manner and to facilitate making evidence-based decisions in the future on whether changes are needed.

The Bureau's Office of Research took the lead in conducting this assessment. The Bureau's researchers began work over two years ago in identifying the questions that needed to be asked and in exploring the available data sources to answer those questions. The researchers then developed research plans and solicited public comment on such plans and other information. The researchers determined that although public and commercially-available data, along with the National Mortgage Database which the Bureau has developed in collaboration with the Federal Housing Finance Agency, could be used to examine the effects of the rule on the market as a whole, those data were insufficient to examine specific market segments where the rule might have had its largest effect. Accordingly, the Bureau obtained, among other things, a unique dataset comprised of de-identified, loan-level data from a number of creditors to fill this gap. The Bureau's researchers supplemented those data with a survey to which over 175 lenders responded along with data from a survey conducted by the Conference of State Bank Supervisors.

Through rigorous statistical analyses of the quantitative data and a careful review of the qualitative data and public comments received in response to the Bureau's Request For Information, the Bureau has produced this comprehensive assessment report. I am confident that this report provides numerous useful findings and insights for stakeholders, policy makers, and the general public about developments in the origination of mortgages and the effects of the rule on the availability and cost of credit.

The issuance of this report is not the end of the line for the Bureau. I am committed to assuring that the Bureau uses lessons drawn from the assessments to inform the Bureau's approach to future rulemakings. We are interested in hearing reactions from stakeholders to the report's methodology, findings and conclusions. The Bureau anticipates that continued interaction with and receipt of information from stakeholders about this report will help inform the Bureau's future assessments as well as its future policy decisions regarding this rule.

Sincerely,

Kathleen L. Kraninger

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Executive Summary

The mortgage market has been a key to homeownership for an increasing number of American families since the middle of the 20th century.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) amended the Truth in Lending Act (TILA) in 2010 to place certain new obligations on the origination of consumer mortgages. The Dodd-Frank Act also directed the Bureau of Consumer Financial Protection (Bureau) to issue rules to effectuate certain amendments and authorized the Bureau to prescribe rules as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of TILA. The Bureau's initial rule and certain changes to that rule, which this report refers to collectively as the Ability-to-Repay/Qualified Mortgage (ATR/QM) Rule or Rule, came into effect in January 2014.[1]

Section 1022(d) of the Dodd-Frank Act requires the Bureau to conduct an assessment of each of its significant rules and orders and to publish a report of each assessment within five years of the effective date of the rule or order. The Bureau has determined that the ATR/QM Rule is a significant rule. The Bureau developed plans for assessments in 2015 and began work on the ATR/QM Rule assessment in 2016. Pursuant to decisions made at that time, although this assessment addresses matters relating to the costs and benefits of the Rule, this report does not include a benefit-cost analysis of the Rule or parts of the Rule. For Section 1022(d) assessments that the Bureau undertakes going forward, the Bureau in its discretion is reconsidering whether to include benefit-cost analysis in its assessment and its published report. The Bureau expects that this report will inform the public about the effects of the Rule and will help inform the Bureau's future policy decisions concerning mortgage originations including whether to commence a rulemaking proceeding to make the Rule more effective in protecting consumers, less burdensome to industry, or both.

The key requirement of the Rule is that lenders must make a reasonable and good faith determination, based on verified and documented information, that the consumer has a

[1] For a full definition of the ATR/QM Rule, see Chapters 1 and 2.

reasonable ability to repay (ATR) before issuing a residential mortgage loan. The Rule defines certain factors that a lender must consider in making such a determination and requires that the determination must be made using a payment schedule that fully amortizes the loan over the term of the loan. Lenders who are found to be non-compliant with this requirement can be held liable for damages under TILA. In addition, non-compliance can be asserted as a matter of defense by recoupment or setoff in a foreclosure proceeding.

The Rule also defines the category of Qualified Mortgage (QM) loans and provides that QM loans are presumed to comply with the ATR requirement. In most cases, the presumption is conclusive (i.e. a safe harbor). However, for "high cost" loans—a term whose definition largely tracks one developed by the Federal Reserve Board as a proxy for subprime loans—the presumption is rebuttable, allowing the consumer the opportunity to prove that the lender in fact failed to make a reasonable determination of the consumer's repayment ability.

All QM loans must be fully amortizing loans with terms no greater than thirty years and (except for loans under $100,000) cannot have the sum of points and fees exceed 3 percent of the loan amount. Additionally, to meet the Rule's General QM test, the ratio of monthly debt obligations to income cannot exceed 43 percent ("debt to income ratio," or "DTI"). For this test, DTI must be calculated in accordance with the provisions of the Rule's Appendix Q which incorporates the FHA underwriting standards from 2013 for calculating debt and income. The Rule creates a temporary category under which loans eligible for purchase or guarantee by Fannie Mae or Freddie Mac (the Government Sponsored Enterprises, or GSEs) generally qualify as QM loan. This exception (the Temporary GSE QM) is scheduled to expire seven years after the effective date of the Rule (or earlier if the GSEs cease to be in conservatorship). In addition, mortgages eligible for purchase or guarantee by the Federal Housing Authority (FHA), Veterans Administration (VA), or Rural Housing Service (RHS) are QMs by virtue of separate regulations issued by those agencies pursuant to separate Title XIV rulemaking authority under the DFA.

Key Findings

The collapse of the housing market in 2008 sparked the most severe recession in the United States since the Great Depression. As documented in this report, the years prior to the collapse were marked by an increased share of lending going to borrowers of lower creditworthiness and to new loan product types associated with higher risk.

A number of different theories have been advanced as to why the housing market collapsed. In the report that the National Commission on the Causes of the Financial and Economic Crisis in the United States[2] issued after the Dodd-Frank Act was enacted the majority pointed to "dramatic failures of corporate governance and risk management," "excessive borrowing, risky investments and lack of transparency," and "widespread failures in financial regulation and supervision" as key causes.[3] A minority report by one commissioner concluded that "government housing policy" was responsible for "fostering the growth of a bubble of unprecedented size and an equally unprecedented number of weak and high-risk residential mortgages."[4] A separate minority report by three other commissioners disagreed with both views and identified ten causes, some global and some domestic, as essential to explaining the financial and economic crisis.[5] Since the issuance of the Commission's report there has been a vast body of academic literature seeking to explore the contributing causes of the crisis.[6] It is beyond the scope of this report to address the question of what caused the housing market to collapse a decade ago.

The provisions of the Dodd-Frank Act described above and that are the subject of this report were enacted for the stated purpose of "assur[ing] that consumers are offered and receive residential mortgage loans on terms that reasonably reflect their ability to repay."[7] This report

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[2] The Commission was created in May, 2009 by P.L. 111-21 and issued its report in January, 2011. Six members of the Commission were appointed by the Democratic leadership of Congress and four by the Republican leadership. The majority reported was joined by the six members appointed by the Democratic leadership; three members appointed by the Republican leadership joined one dissent and the fourth authored a separate dissent.

The Financial Crisis Inquiry Report at xviii - xxii (2011).

[4] *Id.* at 444.

[5] *Id.* at 445-448.

[6] For a non-exhaustive list of additional literature on the causes of the crisis, *see* Adelino, Manuel, Antoinette Schoar, and Felipe Severino. "Loan originations and defaults in the mortgage crisis: The role of the middle class." The Review of Financial Studies 29.7 (2016); Amromin, Gene, et al. "Complex mortgages." Review of Finance 22.6 (2018); Avery, Robert B., and Kenneth P. Brevoort. "The subprime crisis: Is government housing policy to blame?" Review of Economics and Statistics 97.2 (2015); Bubb, Ryan, and Alex Kaufman. "Securitization and moral hazard: Evidence from credit score cutoff rules." 63, 1-18 (Apr. 2014); Case, Karl E., Robert J. Shiller, and Anne Thompson. "What have they been thinking? Home buyer behavior in hot and cold markets." National Bureau of Economic Research Working Paper #18400 (2012); Cheng, Ing-Haw, and Sahil Raina, and Wei Xiong. "Wall Street and the Housing Bubble." 104(9): 2797-2829 (2014); Corbae, Dean, and Erwan Quintin, "Leverage and the Foreclosure Crisis," Journal of Political Economy 123, no. 1 (Feb. 2015); Foote, Christopher L., Kristopher S. Gerardi, and Paul S. Willen. "Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis." National Bureau of Economic Research Working Paper #18082 (2012); Lee, Donghoon, Christopher Mayer, and Joseph Tracy. "A New Look at Second Liens." Federal Reserve Bank of New York Staff Reports (2012); Mian, Atif, and Amir Sufi. "Fraudulent income overstatement on mortgage applications during the credit expansion of 2002 to 2005." The Review of Financial Studies 30.6 (2017); Palmer, Christopher, "Why Did So Many Subprime Borrowers Default During the Crisis: Loose Credit or Plummeting Prices?" (Sept. 24, 2015).

[7] TILA §129B(a)(2), 15 USC §1639b(a)(2).

does not address the necessity of the new TILA requirements or the merits of possible alternative ways that Congress might have responded to the housing collapse, but rather, as required by the Dodd-Frank Act, assesses the effectiveness of the ATR-QM Rule that implemented those requirements.

Assuring Ability to Repay

A primary purpose of the Rule is to prevent the extension of mortgage credit for which consumers lack the ability to repay, based on information available at the time of origination. The report finds that approximately 50 to 60 percent of mortgages originated between 2005 and 2007 that experienced foreclosure in the first two years after origination were mortgage loans with features that the ATR/QM Rule generally eliminates, restricts, or otherwise excludes from the definition of a qualified mortgage, such as loans that combined low initial monthly payments with subsequent payment reset or those made with limited or no documentation of the consumer's income or assets. Loans with these features had largely disappeared from the market prior to the adoption of the Rule, and today they appear to be restricted to a limited market of highly credit-worthy borrowers.

Further, this report finds that loans with higher debt to income ratios—which is a factor generally required to be considered in making ATR determinations and is one of the criteria used to define the General QM category—are historically associated with higher levels of delinquency, after controlling for other relevant borrower characteristics (even though the strength of the relationship depends on the economic cycle). In the conventional mortgage market—which encompasses all mortgages other than those purchased or guaranteed by a government agency—DTI ratios are constrained from returning to crisis-era levels by a combination of the ATR requirement, GSE underwriting limits which define the loans which are eligible for purchase by the GSEs (currently, a DTI limit of 45 percent applies to most loans) and the Bureau's General QM DTI threshold which limits the General QM category to loans with DTIs at or below 43 percent. Even though house prices have largely returned to pre-crisis levels, currently five to eight percent of conventional loans for home purchase have DTI exceeding 45 percent; in contrast, approximately 24 to 25 percent of loans originated in 2005 – 2007 exceeded that ratio.

Even though it is not possible for the Bureau to directly observe the ability to repay at origination, an analysis of realized loan performance across a wide pool of loans can be informative. Among other metrics, this report examines the percentage of loans becoming 60 or more days delinquent within two years of origination. The analysis finds that the introduction of the Rule was generally not associated with an improvement in loan performance according to this metric.

In part, this is due to the fact that delinquency rates on mortgages originated in the years immediately prior to the effective date of the Rule were historically low, as credit was already tight at that time. The delinquency rate of loans with DTIs exceeding 43 percent made under the Rule's ATR underwriting requirements (non-QM loans) remained steady at 0.6 percent; the delinquency rate of GSE loans with DTIs above 43 percent increased from 0.6 percent for loans originated in 2012-2013 to 1.0 percent among 2014-2015 originations. Thus, although the performance of non-QM loans did not improve in absolute terms, it has improved relative to the performance of comparable QM loans. (Chapter 4)

Access to Credit and Restrictions on Unaffordable Loans

Looking at the market as a whole, there was not a significant break in the volume of mortgage applications or the average approval rate at the time the Rule became effective. This is attributable in part to the fact that, as noted, following the financial crisis and before the Rule took effect credit had tightened substantially and in part to the breadth of the definition of QM and the safe harbor afforded to most QM loans. The Bureau estimates that 97-99 percent of loans originated in 2013, the last year prior to the effective date of the Rule, would have satisfied QM requirements. As explained above, if a loan is a QM loan, it is presumed to meet the Rule's ATR requirement, and, therefore, the ATR requirement would not separately decrease access to credit for borrowers who qualify for a QM loan.

There are, however, certain segments of the market where the Rule is more likely to have affected access to credit and the Report focuses on those segments.

- **Borrowers with high debt to income ratios** – For high DTI borrowers—defined here to mean borrowers with a DTI above 43 percent—who qualify for a loan eligible for purchase or guarantee by one of the GSEs (or one of the federal agencies), the Rule has not decreased access to credit since such mortgages meet the standard for QM loans. In fact, the evidence suggests that the GSEs may have loosened their underwriting requirements for high DTI borrowers, as evidenced by recent trends (Chapter 6)

  There is a segment of high DTI borrowers seeking loans which are not eligible for GSE purchase (or a government purchase or guarantee), most commonly due to loan size. Generally, such loans are non-QM loans as they cannot meet the General QM standard and thus are subject to the ATR provisions. The Bureau's analysis of detailed application data from nine larger lenders (further, "Application Data") indicates that the Rule displaced between 63 and 70 percent of approved applications for *home purchase* among non-QM High DTI borrowers during the period of 2014 – 2016; this translates into a reduction of between 1.5 and 2.0 percent of all loans for home purchase made by these nine lenders during this period. Evidence from other data sources, including a survey of mortgage lenders that the Bureau conducted as part of this assessment (further, Lender Survey) and recent research by the Federal Reserve Board and academic economists likewise points to sharp reductions in access to credit among this category of borrowers following the implementation of the Rule. Notably, results in the *refinance* category are quite different. For non-QM, High DTI borrowers seeking to refinance their loans, the Application Data points to an initial reduction in access to credit in 2014, followed by gradual improvement in the years after. This is consistent with a notion that consumers seeking to refinance a mortgage having already demonstrated some ability to repay, thereby lowering ATR risk and making lenders more likely to extend credit. (Chapter 5)

The Application Data also indicates that among the non-QM High DTI borrowers seeking to purchase homes, approval rates declined across all credit tiers and income groupings, with the result that the average credit score and income for declined applicants increased after the Rule took effect. Further, more broad-based industry data indicates that despite tightening of credit, delinquency rates for non-QM High DTI borrowers did not decrease after the Rule took effect. Together, these findings suggest that the observed decrease in access to credit in this segment was likely driven by lenders' desire to avoid the risk of litigation by consumers asserting a violation of the ATR requirement or other obligations or risks associated with that requirement, rather than by rejections of borrowers who were unlikely to repay the loan. (Chapter 5)

- **Self-employed borrowers** – As with high DTI borrowers, the Rule did not impact access to credit for self-employed borrowers seeking a mortgage which is eligible for purchase or guarantee by one of the GSEs or federal agencies. In contrast, self-employed borrowers who do not qualify for a loan eligible for purchase or guarantee by one of the GSEs or federal agencies generally need to qualify under the General QM standard in order to obtain a QM loan. Responses to the Lender Survey indicate that specifically for self-employed borrowers, lenders may find it difficult to comply with Appendix Q relating to the documentation and calculation of income and debt. However, the Application Data indicates that the approval rates for non-High DTI, non-GSE eligible self-employed borrowers have decreased only slightly, by two percentage points. (Chapter 5)

- **Borrowers seeking smaller loan amounts:** The points-and-fees cap on QM loans has potential implications for borrowers seeking smaller loan amounts because, to the extent there are fixed costs in originating mortgages, those costs will constitute a higher percentage of the loan amount for smaller loans relative to larger loans. The Bureau's analysis of HMDA data indicates, however, that the Rule likely had no effect on access to credit for such loans. This is consistent with responses to Lender Survey which indicate that applications for which the points and fees limit will be exceeded are sufficiently rare that lenders handle them on a case-by-case basis. Specifically, lenders typically waive certain fees, with or without a compensating increase in the interest rate, to avoid exceeding the cap. Lenders denying an application to avoid exceeding the QM points and fee cap is rare. (Chapter 5)

Creditor Costs and the Cost of Credit

The Rule introduces certain requirements for documenting income and debt that may differ from the pre-Rule practices for some lenders. For non-QM loans (as well as high cost QMs), the Rule also creates potential liability for ATR violations. Furthermore, under a separate rule administered by other agencies, holders of non-QM loans are required to hold extra capital against such loans which can add to the cost of funding these loans. The Report examines the effect of the Rule on lenders' costs of originating loans and on the prices they charged to consumers.

At the aggregate market level, the Rule does not appear to have materially increased costs or prices. A periodic survey conducted by the Mortgage Bankers Association among non-bank lenders indicates that the costs of originating mortgage loans have increased over the past decade but that there was not a distinct increase around the time of the implementation of the Rule. Similarly, the Bureau's analysis indicates that the spread between the average interest rate on 30-year fixed-rate mortgages over the relevant Treasury rate has remained constant since the implementation of the Rule. (Chapter 3)

The Bureau would not be able to reasonably obtain evidence that directly measures the extra cost of originating a loan that may have been created by the Rule. Instead, the Bureau has obtained qualitative feedback through responses to the Lender Survey, regarding material changes in credit policy that have occurred. A majority of respondents indicated that their business model has changed as a result of the Rule. Among those respondents who reported changed business model, some respondents pointed to increased income documentation or increased staffing, while others mentioned adopting a policy of not originating non-QM loans. The Bureau has utilized the Application Data to quantify the cost in the form of foregone profits from not originating certain non-QM loans; it is found that among the nine lenders that provided the data, the lost profits amounted to between $20 and 26 million per year.

Focusing specifically on non-QM loans, evidence is mixed as to whether the Rule has increased the price of such loans. None of the nine lenders that provided Application Data charge extra for non-QM loans specifically and a review of retail rate sheets of approximately 40 lenders revealed that an extra adjustment for non-QM loans is very infrequent. Nevertheless, 23 out of 204 respondents to the Lender Survey that the Bureau conducted for this assessment indicated applying such an increase and recent research by the Federal Reserve Board finds that loans with DTIs above 43 percent are substantially more expensive than similar loans with DTIs at or below 43 percent. (Chapter 5)

Effects on Market Structure

To a large extent, the current QM category is broad due to the inclusion of loans eligible for purchase by the GSEs. The inclusion of such loans in the QM category is temporary and is set to expire by January 2021. Contrary to the Bureau's expectations at the time of the rulemaking, the GSEs have maintained a persistently high share of the market in the years following the Rule's effective date. The private label mortgage-backed securities market, where investors purchase loans that are not insured or guaranteed by GSEs or government agencies, remains small relative to GSE securitizations and primarily provides funding for QM loans made to prime jumbo borrowers (although recently there has been a number of non-QM securitizations based on loans made to other types of borrowers). The dominance of GSEs in the conventional loan segment may be attributable to a range of factors which distinguish GSE loans from those made under the General QM and ATR criteria, potential advantages in compliance certainty and flexibility, and robust secondary market liquidity. (Chapter 6)

The Bureau has examined whether the Temporary GSE QM provision of the Rule has caused in an increased reliance on GSEs' Automated Underwriting Systems (AUSs) for loans that are not sold to the GSEs. The analysis of submissions to AUSs shows no immediate increase in the aggregate volume of submissions relative to the volume of loans purchased by GSEs. However, the data do suggest a somewhat higher use of the GSEs' AUS in recent years, particularly for loans which do not fit within or are more difficult to document within the General QM underwriting standards, such as loans made to self-employed borrowers. (Chapter 6)

The Rule contains certain provisions for smaller lenders that allow them to originate High DTI loans, and in some cases, balloon loans as long as such loans are held on portfolio for at least two years after the origination by small creditors (Small Creditor QM and Small Creditor Balloon QM, respectively). Among HMDA reporting depository institutions involved in mortgage lending in 2016, approximately 90 percent meet the definition of Small Creditor and these institutions account for about 24 percent of mortgage loans. The Rule does not appear to be constraining the activities of these lenders since virtually all fall well below the threshold that defines Small Creditor. There are systematic differences in the loans made by Small Creditors and non-Small Creditors. The former hold a larger share of their originations on portfolio, although there was a noticeable decline in the share of portfolio loans made by small creditors in 2016 which coincided with an expansion in the definition of small creditor. Similarly, a larger share of small creditor mortgages are made in rural counties or to finance manufactured housing mortgages. Small creditors responding to a survey conducted by the Conference of State Banking Supervisors (CSBS) in 2015 reported that a larger share of their portfolio loans were non-QM loans than was true for the larger lenders who responded to the survey, and also reported declining a smaller percentage of applications than larger creditors. To the extent small creditors declined applications, these creditors were less likely than larger creditors to attribute their denial to the requirements of the Rule than larger creditors. (Chapter 7)

1. Introduction

The mortgage market is the single largest market for consumer financial products and services in the United States, with approximately $10.7 trillion in consumer mortgage loans outstanding.[8] During the first decade of the 21st century, this market went through an unprecedented cycle of expansion and contraction. When the housing market collapsed in 2008, it sparked the most severe recession in the United States since the Great Depression.[9]

An early warning sign of the approaching mortgage crisis was an upswing in early payment delinquencies and defaults.[10] For mortgage originations between 2000 and 2004, 1.7 percent would become 60 or more days delinquent within the first year.[11] For the 2006 vintage, the figure was 5.4 percent. Expanding to the first two years of repayment, the growth in delinquencies was more severe. For mortgages made in 2005, 2006, and 2007, 6.0 percent, 13.0 percent, and 14.4 percent became 60 or more days delinquent within the first two years, respectively. These rates are substantially above the average between 2000 and 2004 of 3.6 percent. As the economy worsened, the share of loans with serious delinquencies (90 or more days past due or in foreclosure) grew further. For loans with atypical features that became common during the mid-2000s, the rates of serious delinquency were particularly high. By the end of 2010, among loans originated from 2005 to 2007, 35.5 percent of short-reset adjustable-rate mortgages, 29.7 percent of interest only loans, and 27.1 percent of loans with limited or no documentation were or had been seriously delinquent. Some of those delinquencies may have resulted from an unanticipated deterioration in the borrowers' economic situation after the loans were originated. But the high rate of early delinquencies suggests that for some portion of

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[8] Fed. Reserve System, Mortgage Debt Outstanding, https://www.federalreserve.gov/data/mortoutstand/current.htm (last visited Dec. 13, 2018).

[9] *See* Thomas F. Siems, *Branding the Great Recession*, at 3, Fin. Insights (Fed. Reserve Bank of Dall., May 2012), *available at* https://www.dallasfed.org/~/media/documents/outreach/fi/2012/fi1201.pdf (stating that the [great recession] "was the longest and deepest economic contraction, as measured by the drop in real GDP, since the Great Depression.").

[10] Early payment defaults are generally defined as borrowers being 60 or more days delinquent within the first year. However, where noted, this discussion also uses a more expansive definition of early payment default to include 60 days delinquent within the first two years.

[11] All statistics in this paragraph are Bureau calculations using the National Mortgage Database.

the borrowers, the loans may have been beyond their ability to repay, either from the start or shortly thereafter.

The impact of these high rates of delinquency and default was severe on consumers and communities,[12] on creditors[13] who held loans on their books, and on private investors who purchased loans directly or indirectly through certain types of securitizations.[14] Because the risk from these products was spread throughout the financial system,[15] a severe credit shock disrupted the American economy. The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), which supported the mainstream mortgage market, experienced heavy losses and were placed in conservatorship by the federal government in 2008 to support the collapsing mortgage market.[16] House prices, which had risen 27 percent nationally between 2003 and 2007,[17] fell an average of 33 percent from their peak in 2006,[18] and delinquency and foreclosure rates remained elevated[19] for several years.

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[12] *See* 78 Fed. Reg. 6408, 6559–6560 (Jan. 30, 2013).

[13] The term "creditor" and "lender" are used interchangeably in this report.

[14] "Alarmed by the unexpected delinquencies and defaults that began to appear in mid-2007, investors fled the multi-trillion dollar market for mortgage-backed securities (MBS), dropping MBS values—and especially those MBS backed by subprime and other risky loans—to fractions of their former prices. Mark-to-market accounting then required financial institutions to write down the value of their assets—reducing their capital positions and causing great investor and creditor unease." U.S. Fin. Crisis Inquiry Comm'n, *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*, at 444–445 (Official Gov't ed. 2011) (FCIC Report), *available at* https://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf.

[15] For example, such securities were used as collateral for borrowing. *See id.* at 43.

[16] The Housing and Economic Recovery Act of 2008 (HERA), which created the Federal Housing Finance Agency (FHFA), granted the Director of FHFA discretionary authority to appoint FHFA conservator or receiver of the Enterprises "for the purpose of reorganizing, rehabilitating, or winding up the affairs of a regulated entity." Housing and Economic Recovery Act of 2008, section 1367 (a)(2), amending the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, 12 U.S.C. § 4617(a)(2). On September 6, 2008, FHFA exercised that authority, placing Fannie Mae and Freddie Mac into conservatorships. Fed. Hous. Fin. Agency, *Conservator's Report on the Enterprises' Financial Performance*, at 17 (2nd Quarter 2012), *available at* https://www.fhfa.gov/webfiles/24549/ConservatorsReport2Q2012.pdf.

[17] FCIC Report, *supra* note 14, at 156.

[18] Fed. Reserve System, *The U.S. Housing Market: Current Conditions and Policy Considerations*, at 3 (Fed. Reserve Bd., White Paper, 2012), *available at* https://www.federalreserve.gov/publications/other-reports/files/housing-white-paper-20120104.pdf.

[19] *See* Lender Processing Servs., *LPS Mortgage Monitor: May 2012 Mortgage Performance Observations, Data as of April 2012 Month End*, at slide 3, 11 (May 2012), *available at* http://www.bkfs.com/CorporateInformation/NewsRoom/MortgageMonitor/201204MortgageMonitor/MortgageMonitorApril2012.pdf.

In response to the crisis, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), which was signed into law on July 21, 2010.[20] In the Dodd-Frank Act, Congress included a significant number of new provisions governing the origination of consumer mortgages. In particular, sections 1411 and 1412 of the Dodd-Frank Act amended the Truth In Lending Act (TILA) by adding sections 129C(a) and (b).[21] These amendments to TILA generally provide that no creditor may make a residential mortgage loan unless the creditor makes a reasonable and good faith determination based on verified and documented information that, at the time the loan is consummated, the consumer has a reasonable ability to repay the loan.[22] The amendments to TILA also establish a presumption of compliance with the ability-to-repay requirement for creditors originating a category of loan called a "qualified mortgage" (QM).[23] Congress directed the Bureau of Consumer Financial Protection (Bureau) to issue rules to effectuate certain of these amendments[24] and authorized the Bureau to prescribe regulations revising, adding to, or subtracting from the criteria that define a qualified mortgage.[25]

In January 2013, to implement sections 1411 and 1412 of the Dodd-Frank Act, the Bureau published a final rule titled "Ability-to-Repay and Qualified Mortgage Standards Under the Truth in Lending Act (Regulation Z)" (January 2013 Rule).[26] The Bureau amended the January 2013 Rule several times both before it took effect on January 10, 2014 and afterwards. For purposes of determining whether the January 2013 Rule was significant under section 1022(d) of the Dodd-Frank Act, the Bureau made its determination based on the January 2013 Rule and amendments to it that took effect on January 10, 2014.[27] However, in order to facilitate a clearer and more meaningful assessment, the assessment and this report take into consideration certain

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[20] Pub. L. No. 111–203, 124 Stat. 1376 (2010).

[21] TILA section 129C(a)–(b) (codified as amended at 15 U.S.C. § 1639c(a)–(b)).

[22] TILA section 129C(a) (codified as amended at 15 U.S.C. § 1639c(a)).

[23] TILA section 129C(b) (codified as amended at 15 U.S.C. § 1639c(b)).

[24] Congress generally consolidated in the Bureau the rulemaking authority for Federal consumer financial laws previously vested in certain other federal agencies. Congress also provided the Bureau with the authority to, among other things, prescribe rules as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws and to prevent evasions thereof. 12 U.S.C. § 5512(b)(1). The Federal consumer financial laws include TILA.

[25] TILA section 129C(b)(3)(B)(i) (codified as amended at 15 U.S.C. § 1639c(b)(3)(B)(i)).

[26] 78 Fed. Reg. 6408 (Jan. 30, 2013).

[27] *See* Section 1.1.2, at n.[41].

amendments affecting small creditors that took effect in 2016.[28] Therefore, the term "ATR/QM Rule" (or "Rule") generally refers throughout this report to ability-to-repay and qualified mortgage requirements in effect as of January 2014; except that for certain analyses of small creditors, the Rule includes requirements on small creditors in effect as of March 2016, as indicated.

The ATR/QM Rule, among other things, describes certain minimum requirements for creditors making ability-to-repay determinations, but does not dictate that they follow particular underwriting standards. Creditors generally must consider certain specified underwriting factors and use reasonably reliable third-party records to verify the information on which they rely to determine repayment ability.[29] The ATR/QM Rule also defines several categories of QM loans for which, as noted above, compliance with the ATR requirement is presumed.[30] The presumption of compliance can be either conclusive (*e.g.*, a safe harbor) for QM loans that are not "higher-priced", or rebuttable, for QM loans that are "higher-priced."[31]

Section 1022(d) of the Dodd-Frank Act requires the Bureau to conduct an assessment of each significant rule or order adopted by the Bureau under Federal consumer financial law.[32] As discussed further below, the Bureau has determined that, for purposes of section 1022(d), the January 2013 Rule and amendments to it that took effect on January 10, 2014 is a significant rule. Another requirement of section 1022(d) is that the Bureau publish a report of the assessment within five years of the effective date of the significant rule or order. This document is the report of the Bureau's assessment of the ATR/QM Rule in accordance with section 1022(d).

In June 2017, the Bureau published a Request for Information (RFI) requesting public comment on its plans for assessing the Rule, and requesting certain recommendations and information

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[28] *See* 80 Fed. Reg. 59943 (Oct. 2, 2015) (among other things, this rule increased the mortgage originations threshold for small creditors and expanded the definition of "rural area.") *See also* 81 Fed. Reg. 16074 (Mar. 25, 2016) (this rule removed "predominantly" as a qualifier of the "operates in rural or underserved areas" requirement).

[29] 12 C.F.R. § 1026.43(c)(2)–(4). The eight factors that must be considered in an ATR determination are listed in Section 2.3.2, below.

[30] 12 C.F.R. § 1026.43(e)–(f).

[31] 12 C.F.R. § 1026.43(e)(1). A "higher-priced covered transaction" is defined at 12 C.F.R. § 1026.43(b)(4) as "a covered transaction with an annual percentage rate that exceeds the average prime offer rate for a comparable transaction as of the date the interest rate is set by 1.5 or more percentage points for a first-lien covered transaction, other than a qualified mortgage under paragraph (e)(5), (e)(6), or (f) of this section; by 3.5 or more percentage points for a first-lien covered transaction that is a qualified mortgage under paragraph (e)(5), (e)(6), or (f) of this section; or by 3.5 or more percentage points for a subordinate-lien covered transaction."

[32] 12 U.S.C. § 5512(d).

useful in conducting the assessment.[33] The Bureau received approximately 480 comments in response to the RFI. The Bureau considered data and other relevant information provided by commenters, as well as comments on the assessment plan, as it conducted the assessment and prepared this report.[34]

This report does not generally consider the potential effectiveness of alternative requirements on the origination of consumer mortgages that might have been or might be adopted, nor does it include specific proposals by the Bureau to modify any rules. The Bureau expects that the assessment findings made in this report and the public comments received in response to the RFI will help inform the Bureau's future policy decisions concerning consumer mortgages, including whether to commence a rulemaking proceeding to make the ATR/QM Rule more effective in protecting consumers, less burdensome to industry, or both. In future policy development, the Bureau expects to consider other public comments, including comments received in 2018 in response to a series of requests for information about Bureau activities.[35] Those comments are not summarized in this report.

Finally, the Bureau's assessments pursuant to section 1022(d) of the Dodd-Frank Act are not part of any formal or informal rulemaking proceedings under the Administrative Procedure Act. This report does not represent legal interpretation, guidance, or advice of the Bureau and does not itself establish any binding obligations. Only the rules and their official interpretations (commentary) establish the definitive requirements.

1.1 Purpose and scope of the assessment

1.1.1 Statutory requirement for assessments

Section 1022(d) of the Dodd-Frank Act requires the Bureau to conduct an assessment of each significant rule or order adopted by the Bureau under Federal consumer financial law.[36] The

33 Request for Information Regarding Ability-to-Repay/Qualified Mortgage Rule Assessment, 82 Fed. Reg. 25246 (June 1, 2017).

34 Summaries of the different types of comments received in response to the RFI are included in Appendix B to this report. See also Section 1.2 below.

35 Request for Information Regarding the Bureau's Adopted Regulations and New Rulemaking Authorities, 83 Fed. Reg. 12286 (Mar. 21, 2018).

36 12 U.S.C. § 5512(d).

Bureau must publish a report of the assessment not later than five years after the effective date of such rule or order. The assessment must address, among other relevant factors, the rule's effectiveness in meeting the purposes and objectives of title X of the Dodd-Frank Act and the specific goals stated by the Bureau.[37] The assessment must reflect available evidence and any data that the Bureau reasonably may collect. Before publishing a report of its assessment, the Bureau must invite public comment on recommendations for modifying, expanding, or eliminating the significant rule or order.

The purposes and objectives of title X of the Dodd-Frank Act are set out in section 1021 of the Dodd-Frank Act. Pursuant to section 1021(a) of the Dodd-Frank Act, the purpose of the Bureau is to implement and, where applicable, enforce Federal consumer financial law consistently for the purpose of ensuring that all consumers have access to markets for consumer financial products and services and that markets for consumer financial products and services are fair, transparent, and competitive.[38] The objectives of the Bureau are listed in section 1021(b) of the Dodd-Frank Act. Specifically, section 1021(b) provides that the Bureau is authorized to exercise its authorities under Federal consumer financial law for the purposes of ensuring that with respect to consumer financial products and services:[39]

1. Consumers are provided with timely and understandable information to make responsible decisions about financial transactions;

2. Consumers are protected from unfair, deceptive, or abusive acts and practices and from discrimination;

3. Outdated, unnecessary, or unduly burdensome regulations are regularly identified and addressed in order to reduce unwarranted regulatory burdens;

4. Federal consumer financial law is enforced consistently, without regard to the status of a person as a depository institution, in order to promote fair competition; and

5. Markets for consumer financial products and services operate transparently and efficiently to facilitate access and innovation.

[37] The specific goals of the ATR/QM Rule are discussed below in Section 1.1.3.

[38] 12 U.S.C. § 5511(a).

[39] 12 U.S.C. § 5511(b).

1.1.2 Overview of the ATR/QM Rule

The Dodd-Frank Act amended TILA to provide that no creditor may make a residential mortgage loan unless the creditor makes a reasonable and good faith determination based on verified and documented information that, at the time the loan is consummated, the consumer has a reasonable ability to repay the loan. The amendments to TILA also establish a presumption of compliance with the ability-to-repay requirement for creditors originating a qualified mortgage.

As noted above, the Bureau first implemented these requirements in the January 2013 Rule.[40] The Bureau amended the January 2013 Rule several times both before it took effect on January 10, 2014, and afterwards. For purposes of determining whether the January 2013 Rule was significant under section 1022(d) of the Dodd-Frank Act, the Bureau made its determination based on the January 2013 Rule and amendments to it that took effect on January 10, 2014.[41] However, in order to facilitate a clearer and more meaningful assessment, the assessment and this report take into consideration certain amendments that took effect in 2016. These amendments revised the definition of a small creditor and preserved the ability of small creditors to make balloon-payment QMs without regard to whether they operated predominantly in rural or underserved areas.[42] Therefore, as stated above, the term "ATR/QM

[40] *See* 78 Fed. Reg. 6408 (Jan. 30, 2013). The January 2013 Rule also included: (i) special provisions for creditors refinancing "non-standard mortgages;" (ii) certain limits on prepayment penalties; (iii) enhanced record retention requirements; and (iv) anti-evasion provisions. This Report does not discuss these provisions at length given their modest impact on the overall effectiveness of the ATR/QM rule in meeting the purposes and objectives of title x and the goals specified by the Bureau in the rule. For example, the special provisions for refinancing "non-standard mortgages" provide an exception to the ATR requirement, but as Chapter 4 points out, these types of loans, (*i.e.*, interest-only, negative amortization, or ARMs with an introductory period of one year or longer), are quite rare in the post-Rule period and already made up a small share of the market in the years immediately prior to the Rule's effective date. The prepayment penalty and recordkeeping provisions are additional standards and requirements based on other Dodd-Frank Act provisions (sections 1414 and 1416, respectively) not directly related to the ATR determination. No comments that were received on the assessment focused on any of these provisions and the Bureau has marshaled its resources to examine provisions more central to the ATR determination and the effectiveness of the ATR/QM Rule.

[41] When the January 2013 Rule was issued, the Bureau concurrently issued a proposal to amend it, and that proposal was finalized on May 29, 2013. *See* 78 Fed. Reg. 6622 (Jan. 30, 2013) (January 2013 ATR Proposal); 78 Fed. Reg. 35430 (June 12, 2013) (May 2013 ATR Rule). The Bureau issued additional corrections and clarifications in the summer and fall of 2013. *See* 78 Fed. Reg. 44686 (July 24, 2013); 78 Fed. Reg. 60382 (Oct. 1, 2013); 78 Fed. Reg. 62993 (Oct. 23, 2013). Amendments that took effect after January 10, 2014, are an interpretive rule regarding successors-in-interest, *see* 79 Fed. Reg. 41631 (July 17, 2014); a rule related to nonprofit entities and which also provided a cure mechanism for the points and fees limit that applies to qualified mortgages, *see* 79 Fed. Reg. 65300 (Nov. 3, 2014); revisions to the definitions of small creditor and rural area, *see* 80 Fed. Reg. 59943 (Oct. 2, 2015); a procedural rule establishing an application process for designation as a rural area, *see* 81 Fed. Reg. 11099 (March 3, 2016); and revisions to the requirements for QM loans issued by small creditors, *see* 81 Fed. Reg. 16074 (March 25, 2016).

[42] *See* 80 Fed. Reg. 59943 (Oct. 2, 2015) (revisions to the definitions of small creditor and rural area); 81 Fed. Reg. 16074 (Mar. 25, 2016) (revisions to the requirements for QM loans issued by small creditors).

Rule" (or Rule) generally refers throughout this report to ability-to-repay and qualified mortgage requirements in effect as of January 2014, except for certain analyses of small creditors, as indicated.

As discussed in greater detail in Chapter 2, the ATR/QM Rule describes certain minimum requirements for creditors making ability-to-repay determinations. Creditors generally must consider certain minimum underwriting factors and they generally must use reasonably reliable third-party records to verify the information they use to determine repayment ability.[43] The Dodd-Frank Act attached civil liability to a creditor's failure to meet the ability-to-repay requirement.

The Dodd-Frank Act also established a presumption of compliance with the ability-to-repay requirement and protection from liability for creditors originating a qualified mortgage. The Rule defines several categories of qualified mortgages. All categories must meet certain requirements, which include having terms of 30 years or less, regular periodic payments that are substantially equal (except in the case of adjustable-rate or step-rate mortgages) that do not result in the increase of the principal balance, and total points and fees which do not exceed a certain percentage of the loan amount.[44] Additional restrictions apply depending on the type of qualified mortgage.[45]

One category of qualified mortgage is the "General QM." To fall within this category, the ratio of the consumer's total monthly debt payment to total monthly income (DTI) cannot exceed 43 percent and must be calculated using debt and income in accordance with Appendix Q.[46] The criteria for General QM further require that creditors calculate mortgage payments based on the highest payment that will apply in the first five years of the loan.[47] This category also includes a restriction on balloon payment features.

A second category of qualified mortgage is the "Temporary GSE QM." This is a separate, temporary category of QM for loans eligible to be purchased or guaranteed by either Fannie Mae or Freddie Mac (collectively, the Government Sponsored Entities or GSEs) while they operate under federal conservatorship or receivership. Under the terms of the Rule, the Temporary GSE

[43] 12 C.F.R. §1026.43(c)(2)–(4).

[44] 12 C.F.R. §1026.43(e)(2)(i)–(iii).

[45] Chapter 2 provides a full discussion of the requirements for qualified mortgages. The summary below provides information that may be especially useful for understanding the empirical analyses in subsequent chapters.

[46] 12 C.F.R. §1026.43(e)(2)(vi).

[47] 12 C.F.R. §1026.43(e)(2)(iv).

QM category will continue to be in effect until the earlier of: (i) the end of conservatorship; or (ii) January 10, 2021.[48]

The Rule also provided a temporary QM category for loans eligible to be insured by the U.S. Department of Housing and Urban Development (FHA Loans); guaranteed by the U.S Department of Veterans Affairs (VA Loans); guaranteed by the U.S. Department of Agriculture (USDA Loans); or insured by the Rural Housing Service (RHS Loans) (collectively, 'Temporary Federal Agency QM').[49] The category of Temporary Federal Agency QM no longer exists and has been replaced by the category of Federal Agency QM because the relevant federal agencies (i.e., FHA, VA, and RHS) have all now issued their own qualified mortgage rules.[50] The Bureau is not considering these Federal Agency QM rules in the assessment, which is limited to the Bureau's own ATR/QM Rule.

A fourth category of qualified mortgages provides more flexible underwriting standards for small creditor portfolio loans,[51] and a fifth category allows small creditors that operate in rural or underserved areas to make balloon-payment portfolio loans that are qualified mortgages.[52] A temporary category that expired in April 2016 allowed any small creditor to make balloon-payment portfolio loans that are qualified mortgages, even if they did not operate in rural or underserved areas.[53] However, amendments prior to the expiration revised the "operate in rural areas" requirement and preserved the ability of small creditors to make balloon-payment QMs without regard to whether they operated "predominantly" in rural or underserved areas so long as such creditors make at least one residential mortgage in a rural or underserved area.[54]

1.1.3 Goals and expected effects of the Rule

The goals of the ATR/QM Rule generally reflect the specific goals set forth by Congress in the relevant amendments to TILA. Specifically, TILA section 129B, added by section 1402 of the Dodd-Frank Act, states that Congress created new TILA section 129C upon a finding that

[48] 12 C.F.R. § 1026.43(e)(4)(ii)(A).

[49] 12 C.F.R. § 1026.43(e)(4)(ii)(B)–(E).

[50] *See, e.g.*, 24 C.F.R. § 203.19 (for HUD rules).

[51] 12 C.F.R. § 1026.43(e)(5).

[52] 12 C.F.R. § 1026.43(f).

[53] 12 C.F.R. § 1026.43(e)(5).

[54] 12 C.F.R. § 1026.35(b)(2)(iii)(A); *see also supra* note 42.

"economic stabilization would be enhanced by the protection, limitation, and regulation of the terms of residential mortgage credit and the practices related to such credit, while ensuring that responsible, affordable mortgage credit remains available to consumers."[55] TILA section 129B further states that the purpose of TILA section 129C is to "assure that consumers are offered and receive residential mortgage loans on terms that reasonably reflect their ability to repay the loans and that are understandable and not unfair, deceptive or abusive."[56]

In its January 2013 Rule implementing these TILA amendments, the Bureau recognized that a goal of the statute was to prevent a repeat of the deterioration of lending standards which preceded the financial crisis and which led to various consumer harms.[57] For example, the Bureau noted that the ATR requirement of the Rule was intended to prevent consumers from obtaining mortgages they could not afford.[58] To the extent that the January 2013 Rule would reduce credit access, the goal was to reduce lending that ignored or inappropriately discounted a consumer's ability to repay.[59] The Bureau viewed these effects as consistent with congressional intent and one of the benefits of the Rule.[60] Similarly, by requiring that creditors determine ability to repay based on an amortizing payment using the fully indexed rate[61] (or the maximum possible rate in five years for certain categories of qualified mortgages), the statute[62] and the Rule effectively prohibited underwriting loans based upon low initial monthly payments.[63] Non-

55 TILA section 129B(a)(1) (codified as amended at 15 U.S.C. § 1639b(a)(1)).

56 TILA section 129B(a)(2) (codified as amended at 15 U.S.C. § 1639b(a)(2)).

57 *See* 78 Fed. Reg. 6408, 6570 (Jan. 30, 2013) ("A primary goal of the statute was to prevent a repeat of the deterioration of lending standards that contributed to the financial crisis, which harmed consumers in various ways and significantly curtailed their access to credit.").

58 "The statutory ability-to-repay standards reflect Congress's belief that certain lending practices (such as low- or no-documentation loans or underwriting loans without regard to principal repayment) led to consumers having mortgages they could not afford, resulting in high default and foreclosure rates." *Id.* at 6415.

59 "The Bureau believes that, to the extent the final rule reduces credit access, it will primarily reduce inefficient lending that ignores or inappropriately discounts a consumer's ability to repay the loan, thereby preventing consumer harm, rather than impeding access to credit for borrowers that do have an ability to repay." *Id.* at 6570. *See also id.* at 6558–6560 (Economics of Ability To Repay).

60 *See, supra* note, 58.

61 "Fully indexed rate" means the interest rate calculated using the index or formula that will apply after recast, as determined at the time of consummation, and the maximum margin that can apply at any time during the loan term. *See* 12 C.F.R. § 1026.43(b)(3).

62 TILA section 129C(a)(6)(D)(iii) (codified as amended at 15 U.S.C. § 1639c(a)(6)(D)(iii))(providing "the interest rate over the entire term of the loan is a fixed rate equal to the fully indexed rate at the time of the loan closing, without considering the introductory rate.").

63 For example, low initial payments may occur as the interest-only payments on interest-only loans or negatively amortizing option ARMs or result from the introductory rates on hybrid ARMs. The statute required only the use of

amortizing products were expected likely to persist only in narrow niches for more sophisticated borrowers who wanted to match their mortgage payment to changes in their expected income stream, and who had the resources to qualify for the products under the underwriting assumptions the statute and regulation required.[64]

The Bureau stated a number of other general and particular goals in the January 2013 Rule. The Bureau stated that it sought to allow for flexible proprietary underwriting standards in ability-to-repay determinations and to support innovation.[65] The Bureau also sought to provide qualified mortgage standards that would allow creditors and the secondary market to readily determine whether a particular loan is a QM loan. For General QM loans, the ATR/QM Rule generally requires creditors to use the standards for defining "debt" and "income" in Appendix Q, which were adapted from FHA guidelines. The Bureau expected that the standards set forth in Appendix Q, together with the bright-line 43 percent threshold, would provide sufficient detail and clarity to encourage creditors to provide qualified mortgages to consumers.[66] The Bureau also noted, however, that the Rule might have an adverse effect on access to credit for consumers with atypical financial characteristics, such as income streams that are inconsistent over time or particularly difficult to document.[67]

The Bureau stated a number of goals for the categories of temporary QM loans.[68] The Bureau sought to preserve access to credit for consumers with debt-to-income ratios above 43 percent during a transition period in which the market was fragile and the mortgage industry was

the fully indexed rate. The Rule requires use of the fully indexed rate or initial rate, whichever is greater (12 C.F.R. § 1026.43(c)(5)(i)(A)).

64 *See* 78 Fed. Reg. 6408, 6562 (Jan. 30, 2013).

65 *Id.* at 6461 ("The Bureau believes that a variety of underwriting standards can yield reasonable, good faith ability-to-repay determinations…. [C]reditors are permitted to develop and apply their own proprietary underwriting standards and to make changes to those standards over time in response to empirical information and changing economic and other conditions. The Bureau believes this flexibility is necessary given the wide range of creditors, consumers, and mortgage products to which this rule applies."). Further, "In crafting the rules to implement the qualified mortgage provision, the Bureau has sought to balance creating new protections for consumers and new responsibilities for creditors with preserving consumers' access to credit and allowing for appropriate lending and innovation." *Id.* at 6505.

66 "[T]he Bureau recognizes concerns that creditors should readily be able to determine whether individual mortgage transactions will be deemed qualified mortgages. The Bureau addresses these concerns by adopting a bright-line debt-to-income ratio threshold of 43 percent, as well as clear and specific standards, based on FHA guidelines, set forth in appendix Q for calculating the debt-to-income ratio in individual cases." *Id.* at 6525. The 2011 multi-agency Credit Risk Retention Proposed Rule also relied on FHA standards for defining "debt" and "income" for purposes of defining "qualified residential mortgage" (QRM), which would be exempt from the risk retention requirements. *Id.* at 6527; *see* 76 Fed. Reg. 24090 (Apr. 29, 2011).

67 *See* 78 Fed. Reg. 6408, 6570 (Jan. 30, 2013).

68 *See* Chapter 6 for further discussion of the Temporary GSE QM category.

adjusting to the final rule.[69] By providing for most of the conventional market[70] to continue to originate higher debt-to-income loans as QM loans, but limiting this to the conforming market and making the provision temporary, the Bureau sought, over the long term, to encourage innovation and responsible lending on an individual basis under the ability-to-repay criteria.[71] The Bureau expected that there would be a "robust and sizable market" for non-QM loans beyond the 43 percent threshold and structured the Rule to try to ensure that this market would develop.[72] The Bureau also stated that because the temporary category of QM loans covers loans that are *eligible* to be purchased, guaranteed, or insured regardless of whether the loans are actually purchased, guaranteed, or insured, private investors could acquire these loans and secure the same legal protection as the GSEs and Federal agencies.[73] This would avoid creating a disincentive for the return of private investors even before the expiration of the temporary category.

Finally, the Bureau noted that as the market recovered, the GSEs and Federal agencies would be able to reduce their presence in the market (*e.g.*, by reducing their loan limits). In this scenario, the percentage of loans granted qualified mortgage status under the temporary category would

[69] 78 Fed. Reg. 6408, 6533 (Jan. 30, 2013) ("[T]he Bureau acknowledges it may take some time for the non-qualified mortgage market to establish itself in light of the market anxiety regarding litigation risk under the ability-to-repay rules, the general slow recovery of the mortgage market, and the need for lenders to adjust their operations to account for several other major regulatory and capital regimes. In light of these factors, the Bureau has concluded that it is appropriate to provide a temporary alternative definition of qualified mortgage. This will help ensure access to responsible, affordable credit is available for consumers with debt-to-income ratios above 43 percent and facilitate compliance by lenders by promoting the use of widely recognized, federally-related underwriting standards"). On the tight credit environment at the time of the rulemaking and the general reluctance of lenders regarding risks, *see id.* at 6412.

[70] A conventional mortgage loan is one that is not insured or guaranteed by the federal government, including the Federal Housing Administration (FHA), the U.S. Department of Veterans Affairs (VA), or the USDA's Farm Service Agency or Rural Housing Service (FSA/RHS). Conventional loans are either private or guaranteed by one of the two Government Sponsored Enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac).

[71] "[The final rule] allows room for a vibrant market for non-qualified mortgages over time. The Bureau recognizes that there will be many instances in which individual consumers can afford an even higher debt-to-income ratio based on their particular circumstances, although the Bureau believes that such loans are better evaluated on an individual basis under the ability-to-repay criteria rather than with a blanket presumption." *Id.* at 6506.

[72] "Over the long term, as the market recovers from the mortgage crisis and adjusts to the ability-to-repay rules, the Bureau expects that there will be a robust and sizable market for prudent loans beyond the 43 percent threshold even without the benefit of the presumption of compliance that applies to qualified mortgages. In short, the Bureau does not believe that consumers who do not receive a qualified mortgage because of the 43 percent debt-to-income ratio threshold should be cut off from responsible credit, and has structured the rule to try to ensure that a robust and affordable ability to-repay market develops over time." *Id.* at 6528.

[73] "The temporary exception has been carefully structured to cover loans that are eligible to be purchased, guaranteed, or insured by the GSEs (while in conservatorship) or Federal agencies regardless of whether the loans are actually so purchased, guaranteed, or insured; this will leave room for private investors to return to the market and secure the same legal protection as the GSEs and Federal agencies." *Id.* at 6534.

also shrink and the market would be able to develop alternative approaches to assessing ability-to-repay within the General QM requirements.[74]

When the January 2013 Rule was released, the Bureau issued public statements that reiterated these goals and elaborated on particular aspects of these goals. The Bureau stated that consumers would be protected from risky lending practices and would not receive loans that they could not afford.[75] The Bureau also described "two distinctly different mortgage markets" over the previous decade, the first in which lending was lax and a more recent one in which credit was tight. The Bureau stated that its goal with the January 2013 Rule was to address both of these issues, to make sure borrowers were assured of greater consumer protections and have reasonable access to credit.[76]

In May 2013, the Bureau amended the January 2013 Rule to exempt certain creditors and mortgage loans from ability-to-repay requirements; provided an additional definition of a qualified mortgage for certain loans made and held in portfolio by small creditors, and a temporary definition of a qualified mortgage for balloon loans; and revised rules on how to

[74] "At the same time, as the market recovers and the GSEs and FHA are able to reduce their presence in the market, the percentage of loans that are granted qualified mortgage status under the temporary definition will shrink towards the long term structure." *Id*.

[75] Press Release, Bureau of Consumer Fin. Prot., *CFPB Issues Rule to Protect Consumers from Irresponsible Mortgage Lending* (Jan. 10, 2013), *available at* https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-issues-rule-to-protect-consumers-from-irresponsible-mortgage-lending/ ("When consumers sit down at the closing table, they shouldn't be set up to fail with mortgages they can't afford.... Our Ability-to-Repay rule protects borrowers from the kinds of risky lending practices that resulted in so many families losing their homes. This common-sense rule ensures responsible borrowers get responsible loans.").

[76] Press Release, Bureau of Consumer Fin. Prot., *Prepared Remarks of Richard Cordray at the Ability-to-Repay Rule Field Hearing* (Jan. 10, 2013), *available at* https://www.consumerfinance.gov/about-us/newsroom/prepared-remarks-of-richard-cordray-at-the-ability-to-pay-rule-field-hearing/ ("The Ability-to-Repay rule...comes against the backdrop of two distinctly different mortgage markets that we have experienced over the past decade. In the run-up to the financial crisis, we had a housing market that was reckless about lending money. It was driven by assumptions about property values that turned out to be badly wrong. It had dysfunctional incentives, with lenders being able to off-load virtually any mortgage into the secondary market regardless of the quality of the underwriting. There was broad indifference to the ability of many consumers to repay loans.... Now, in the wake of the financial crash, we have been experiencing a housing market that is tough on people in just the opposite way—credit is achingly tight. Since 2008, most mortgages are being priced on very attractive terms. But access to credit has become so highly constrained that many consumers cannot borrow to buy a house even with strong credit.... Our goal with the Ability-to-Repay rule is to make sure that people who work hard to buy their own home can be assured of not only greater consumer protections but also reasonable access to credit so they can get a sustainable mortgage.").

calculate loan originator compensation for certain purposes.[77] The Bureau stated that the goals of these rules were generally to foster access to responsible credit for consumers.[78]

In September 2015, the Bureau issued amendments to further facilitate the origination of qualified mortgage loans by small creditors, including loans with balloon payments.[79] The Bureau stated that the goals of these rules were to help consumers in rural or underserved areas access mortgage credit.[80]

In March 2016, the Bureau implemented the Helping Expand Lending Practices in Rural Communities (HELP) Act through an interim final rule.[81] This rule further expanded the ability of small creditors to originate qualified mortgage loans with balloon payments.

1.1.4 Determination that the ATR/QM Rule is a significant rule

As discussed in the June 2017 RFI, the Bureau determined that the ATR/QM Rule—here, the January 2013 Rule and the amendments that took effect on January 10, 2014—is a significant

[77] 78 Fed. Reg. 35430 (June 12, 2013).

[78] *Id.* (Regarding small creditors, the amendments were "necessary to preserve access to credit for some consumers, including consumer who do not qualify for conforming mortgage credit, and will ensure that this credit is provided in a responsible, affordable way…. [T]he Bureau understands that small creditors are a significant source of nonconforming mortgage credit") *Id.* at 35484; (regarding loan originator compensation, "[T]he Bureau believes that there remain some risks of consumer injury from business models in which mortgage brokers attempt to steer consumers to more costly transactions. Including in points and fees compensation paid by creditors to mortgage brokers should help reduce those risks.") *Id.* at 35456; *see also* Press Release, Bureau of Consumer Fin. Prot., *CFPB Finalizes Amendments to Ability-to-Repay Rule* (May 29, 2013), *available at* https://www.consumerfinance.gov/about-us/newsroom/cfpb-finalizes-amendments-to-ability-to-repay-rule/ ("Today's amendments embody our efforts to make reasonable changes to the rule in order to foster access to responsible credit for consumers.").

[79] 80 Fed. Reg. 59943 (Oct. 2, 2015).

[80] *Id.* ("The intent of the small creditor test is to facilitate lending by those small creditors that provide responsible, affordable credit to consumers, and to enable consumers in rural and underserved areas to access creditors with a lending model, operations, and products that may meet their particular needs.") *Id.* at 59950; *see also* Press Release, Bureau of Consumer Fin. Prot., *CFPB Finalizes Rule to Facilitate Access to Credit in Rural and Underserved Areas* (Sept. 21, 2015), *available at* https://www.consumerfinance.gov/about-us/newsroom/cfpb-finalizes-rule-to-facilitate-access-to-credit-in-rural-and-underserved-areas/ ("The financial crisis was not caused by community banks and credit unions, and our mortgage rules reflect the fact that small institutions play a vital role in many communities…. These changes will help consumers in rural or underserved areas access the mortgage credit they need, while still maintaining these important new consumer protections.").

[81] 81 Fed. Reg. 16074 (Mar. 25, 2016) ("This interim final rule is implementing Congress's intention to expand the cohort of small creditors that are eligible for a special provision of Regulation Z that permits origination of balloon-payment qualified mortgages….") *Id.* at 16075.

rule for purposes of section 1022(d) of the Dodd-Frank Act.[82] The Bureau stated in the RFI that it believed that the initial effect of the ATR/QM Rule on costs was muted given market conditions prevailing in early 2013 and given the Bureau's decision to create a broad temporary category of QM loans, particularly the Temporary GSE QM loans. The Bureau recognized that industry's strong preference to obtain a presumption of compliance with the ATR/QM Rule by originating QM loans resulted in meaningful operational changes in originations across the market. The Bureau also took into consideration the possible effect of the ATR/QM Rule on access to credit in particular submarkets and possible effects on innovation, overall product design, and competition. Considering these factors, coupled with the Bureau's more general interest to better understand how the Rule's effects vary under different market conditions, the Bureau concluded that the ATR/QM Rule was a significant rule for purposes of section 1022(d).

1.2 Methodology and plan for assessing effectiveness

In general, the Bureau's methodology for the assessment consisted of three steps:

- First, the Bureau considered at a high level the potential relevant effects of the Rule at a high level. These effects are the intended and unintended consequences of the Rule that would potentially be useful in evaluating whether the Rule, or a specific Rule requirement, furthers the goals of the Rule that were stated at the time of the rulemaking and, as relevant, the purposes and objectives of the Bureau or other relevant factors. The Bureau also considered the broader market context that could influence the effect of the Rule.

- Second, the Bureau developed specific measures of the potential relevant effects and market conditions. The Bureau then collected available evidence and data that would allow the Bureau to compute these measures.

- Third, the Bureau analyzed these measures and considered whether the Rule or specific Rule requirement furthered the goals of the Rule that were stated at the time of the rulemaking and, as relevant, the purposes and objectives of the Bureau or other relevant factors. In doing so, where possible, the Bureau compared the observed measures to what those measures would be under a counterfactual or "baseline."

[82] *See*, *supra* note, 33.

Specifying a baseline against which to evaluate a rule's effects is necessary for both forecasting the future effects of proposed regulations and evaluating the historical effects of adopted regulations.[83] When a regulation has already taken effect, however, it is often not possible to find a group of firms or a part of the market that is neither subject to the rule nor indirectly affected by the rule—but is nevertheless subject to the same other determinants of prices, quantities and other market outcomes—such that data about those firms or that market provide a baseline for evaluating the effects of the rule. In particular cases, it may be possible to define a specific set of outcomes that can serve as the baseline. For example, it may be generally agreed that the purpose of the rule is to increase (or reduce) particular outcomes relative to some observed or specified benchmark. In general, however, retrospective analysis requires making a formal or informal forecast of the market absent a rule, or absent a specific provision of a rule, to serve as the baseline, and data limitations make this difficult to do in practice.

For purposes of this assessment, the Bureau has generally used a baseline that is the market absent the Rule as a whole or the specific Rule provision being evaluated.[84] For certain analyses, the data is available with which to estimate this baseline. The lender survey that the Bureau conducted also provides insight into how mortgage origination policies responded to the Rule. When it is not possible to reliably estimate what a measure would have been absent the Rule or a specific provision, the analysis uses other baselines, in some cases comparing the relevant measure to its level before the Rule's effective date, thus capturing changes since the Rule took effect. Such changes are an imperfect measure of the effects of the Rule to the extent that market changes that would have taken place even absent the Rule affect relevant measures.

As noted above, in June 2017, the Bureau published an RFI that, among other things, described the assessment plan and requested public comment on the plan.[85] The RFI described the general focus of the assessment and some of the effects and outcomes that the Bureau would analyze.[86]

[83] *See, e.g.*, Joseph E. Aldy, Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy, (Harv., Retrospective Rev. Rep., 2014), *available at* https://www.acus.gov/report/retrospective-review-report(prepared for consideration of the Administrative Conference of the United States) ("In evaluating the efficacy, benefits, and costs of any individual regulation, an analyst must make a determination about the counterfactual, i.e., what would have happened in the absence of the regulation. In ex ante analysis, this requires constructing an alternative future scenario, or baseline, from which to assess the impacts of the proposed regulation. In ex post analysis, this requires constructing an alternative historic scenario for comparison with the implemented regulation. The choice of counterfactual can be quite challenging and subject to criticism.") *Id.* at 62–63. See also the extensive list of references contained therein.

[84] This report also uses other baselines, such as the effects that the Bureau expected would occur at the time of the rulemaking. See, for example, Chapter 6.

[85] 82 Fed. Reg. 25246, 25248–50 (June 1, 2017).

[86] *Id.* at 25249. "The Bureau anticipates that the assessment will primarily focus on the ATR/QM Rule's requirements in achieving the goal of preserving consumer access to responsible, affordable credit. The Bureau stated with the

The major provisions that the RFI said were to be examined were (i) the ATR requirements a creditor must consider, including the eight underwriting factors; (ii) the QM provisions, with a focus on the DTI threshold, the points and fees threshold, the small creditor threshold, and the Appendix Q requirements; and (iii) the applicable verification and third-party documentation requirements. The outcomes included effects on mortgage costs, origination volumes, approval rates, and subsequent loan performance; and certain changes in creditors' underwriting policies and procedures.[87] The RFI also described the data that were available to the Bureau at that time and the data that the Bureau expected to obtain.[88]

Comments on the assessment plan received in response to the RFI generally proposed either specific analyses for the Bureau to consider or specific data for the Bureau to collect. The analyses and data collections used in this assessment and discussed in this report are largely consistent with those proposed by commenters.[89] It was not possible, however, to consider the impact of the Rule on every sub-group of creditors or consumers suggested by some commenters. In particular, a number of commenters recommended that the Bureau assess the effects on consumers, mortgage brokers and affiliates of including certain payments and expenses in calculating total points and fees for purposes of meeting the QM threshold. In order to quantify these effects, however, the Bureau would need data on the frequency with which total points and fees exceeded the threshold on initial applications—ideally, before and after the Rule took effect—and then data (post-Rule) on adjustments that took place in order to stay under the threshold. The Bureau had limited data on points and fees in its possession at the start of the assessment, there are no publicly-available datasets with the desired information, and it would have been extremely burdensome to require standardization and reporting of this information to the Bureau for purposes of the assessment. The Bureau did, however, collect data from nine lenders and conducted a lender survey in order to acquire certain data on the

January 2013 Rule its belief that the ATR/QM Rule 'will not lead to a significant reduction in consumers' access to consumer financial products and services, namely mortgage credit' (references omitted). The Bureau took into consideration, however, the potential that the rule 'may have a disproportionate impact on access to credit for consumers with atypical financial characteristics, such as income streams that are inconsistent over time or particularly difficult to document.'"

[87] *Id.* In analyzing these effects, the RFI stated that certain categories of borrowers were of special interest, but that the data for considering any differential impacts of the Rule on these borrowers were not necessarily available. These categories were: (i) borrowers generating income from self-employment (including those working as "contract" or "1099" employees); (ii) borrowers anticipated to rely on income from assets to repay the loan; (iii) borrowers who rely on intermittent, supplemental, part-time, seasonal, bonus, or overtime income; (iv) borrowers seeking smaller-than-average loan amounts; (v) borrowers with a debt-to-income ratio exceeding 43 percent; (vi) low and moderate income borrowers; (vii) minority borrowers; and (viii) rural borrowers. The assessment generally focused on (i), (iv) and (v), with some discussion of (viii), due to data limitations.

[88] *Id.* at 25249–25250.

[89] *See* Appendix B (The assessment plan) and Section 1.3 of this report.

frequency with which applications and originations fail the points and fees threshold and adjustments that occur. This data, together with the information that the Bureau does have in its possession, provide some insights into the effects of the points and fees threshold on consumers and mortgage brokers for different types of loans.[90]

1.3 Sources of information and data

In conducting the assessment the Bureau reviewed available public sources of data, including both publicly available loan-level data and published studies and reports pertaining to mortgage originations and performance. The Bureau's researchers also reviewed information it obtained through various channels in the normal course of its work and in response to the Request for Information the Bureau published regarding this assessment. Based on its review, the Bureau concluded that additional data were needed to conduct this assessment and collected certain data as described below. Described below are the principal sources of data that the Bureau has found most probative and on which the findings in this report are primarily based.[91]

- *Loan origination and performance data from the National Mortgage Database (NMDB), Black Knight, CoreLogic, and HMDA.* Throughout this assessment, the Bureau used three sources of de-identified data that combine loan-level performance and origination data and a fourth source of de-identified origination data. The first is the National Mortgage Database (NMDB) jointly developed by the FHFA and the Bureau, which provides loan characteristics and performance for a 5 percent representative sample of all mortgage originations from 1998 to the present, supplemented by loan and borrower characteristics from federal administrative sources and credit reporting data on the additional debts held by these mortgage borrowers. The second is the commercially available "McDash" data set from Black Knight (McDash Data), which includes data on approximately 160 million loans serviced from 1989 to 2017. The third dataset is CoreLogic's Loan-Level Market Analytics (LLMA) data which contains detailed loan-level information on originations and performance with market coverage of 76 percent of all residential mortgages in the United States since January 1, 1999. Loan-level performance information is generally updated on a monthly basis in the McDash and CoreLogic datasets, and quarterly in the NMDB.

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[90] *See* Section 5.4 and in particular Section 5.4.6.

[91] The Bureau considered additional available datasets, including publicly available loan-level data from the GSEs, but found these less probative than, or superseded by, the datasets described below.

An advantage of these loan performance sources is that they include a large number of loans from a broad selection of lenders, with information on relevant loan attributes including debt-to-income ratios, GSE securitization status, loan amounts, interest rates, Loan-to-value (LTV) ratios, and loan types, as well as borrowers' credit scores. The NMDB data are particularly well suited to providing nationally representative results and insights into loans insured by the GSEs. The McDash and CoreLogic Data supplement these with additional detail on non-insured loans for large but non-random samples of the market. However, none of these three datasets can distinguish all non-QM loans from QM loans, and they do not include data on all loan features affected by the Rule (*e.g.*, points and fees).

A fourth dataset, coming from required filings under the Home Mortgage Disclosure Act (HMDA Data), does not contain loan performance data, but does provide loan and borrower characteristics for over 90 percent of mortgage originations. The dataset used is the Federal Agency HMDA data, which includes additional fields, notably application dates and closing dates, which are not contained in the publicly available HMDA data. The Bureau uses these data to measure market-wide shifts over time in the characteristics of new mortgage originations.

- *Desktop Underwriter and Loan Prospector submissions and acquisitions data provided by Fannie Mae and Freddie Mac*. These data contain disaggregated counts of submissions to the Desktop Underwriter (DU) and Loan Prospector (LP) Automated Underwriting Systems operated by the GSEs, and counts of loans acquired by the GSEs disaggregated by borrower and loan characteristics. The data are used in Chapter 6 to measure utilization of the Temporary GSE QM provision.

- *Application-level data from nine lenders*. The Bureau collected de-identified application-level data from nine mortgage lenders using its authority under section 1022(c)(4) of the Dodd-Frank Act ("Application Data"). The lenders were selected to represent a range of large nationally operating banks and non-depositories. The data collection covered all applications received from 2013 to 2016. In total, the Application Data cover over five million applications. The data include information about each application's characteristics and whether the application was approved by the lender.

  The Application Data are a unique source of information about the activities that were directly affected by the Rule. They provide insight into how lenders' approval rates and processes may have changed in response to the Rule, as well as into how application behavior by consumers may have changed. These data are supplemented by lenders' responses to a series of qualitative questions about how they incorporated the requirements of the Rule into their business practices. Importantly, however, because they are drawn from the records of only nine lenders, the Application Data may not be representative of data from all lenders.

- *Lender survey*. The Bureau conducted a voluntary survey to ask mortgage lenders about business process changes they have made in response to the Rule. The lenders surveyed varied both in size and institution type. The survey provides information on lenders' business practices before and after the Rule, their experience underwriting to Appendix Q, and how they responded to certain requirements of the Rule. This provides valuable information on the Points and Fees requirement and Non-QM originations that are lacking in other data sources. Over 190 lenders responded to the survey. Lenders responding to the survey had the opportunity to provide more information in the form of structured interviews as well. Relative to the 1022(c)(4) request associated with the Application Data, the survey provides more information on how smaller lenders responded to the Rule. Although informative, the lender survey is not statistically representative of the market as a whole.

- *Supervision Data*. The Bureau has utilized data from several fair lending exams to examine whether the QM points and fees requirements is associated with changes in closing costs; the data has also been used to examine the impact of the rebuttable presumption.

- *Residential mortgage backed securities (RMBS) data from IMF, Bloomberg, L.P., and SEC*. To analyze possible effects of the Rule on secondary markets for mortgage securities, the Bureau used aggregate data from Inside Mortgage Finance (IMF). IMF reports annual aggregate volumes of RMBS issuances by securitizer giving a historical perspective on the size of the securitization market from 1990 to 2017. This allowed the Bureau to evaluate how the Rule may have affected the volume and/or the composition of RMBS issuances.

  To assess the post-Rule securitization market, the Bureau used additional loan-level RMBS data from Bloomberg and the Securities and Exchange Commission (SEC). These data are used to analyze the market for Non-QM securitizations between 2015 and 2018. Data for all known Non-QM issuances come from Bloomberg and include fields for loan and borrower characteristics. The data were then merged to publicly available due diligence reports from the SEC to determine an individual loan's QM status to compile detailed information on the loan and borrower characteristics for Non-QM loans and the appetite for Non-QM securitizations in the secondary market.

- *MBA cost data*. To understand how the Rule may have affected lender costs, the Bureau used cost data from the Mortgage Bankers Association's (MBA) Annual Mortgage Bankers Performance Reports between 2009 and 2018. The reports contain data on the revenue and expenses associated with the origination and servicing of one to four unit residential mortgage loans of independent mortgage companies and other non-depository institutions. The annual reports also contain information on production and servicing volume mixes by product type and overall income and balance sheet summaries. Most lenders included in the data are independent mortgage companies. While not necessarily representative, the data provide detailed information on the cost and revenue structure for a large share of independent mortgage companies.

- *CSBS Public Survey data*. The Bureau used data from the Conference of State Bank Supervisors' (CSBS) 2015 National Survey of Community Banks to examine the behavior of small creditors in relation to the Rule. The 2015 CSBS Public Survey involved 974 respondents in 39 states, most of which were small creditors. This survey in particular included many questions related to the Rule. Notably, the CSBS survey data include information from respondents that do not report to HMDA and consequently may be underrepresented in available loan-level datasets.

- *Evidence from comments received in response to the 2017 RFI concerning the ATR/QM assessment*. The Bureau received approximately 480 comments in response to the RFI. Approximately 75 percent of the comments came from mortgage brokers or loan originator organizations. A small number of commenters provided quantitative information regarding their own experiences with the Rule. A number of commenters pointed the Bureau toward published research regarding the overall effects of the Rule and the effects of particular Rule requirements that are within the scope of the assessment. This information is summarized in Appendix B and incorporated into other parts of the report as appropriate.

Secondary sources of information. In addition to the primary sources of data discussed above, the Bureau reviewed a number of secondary sources of information, including reports suggested by commenters discussed above, the reports of other federal agencies, and published research on the mortgage market and the Rule. This report discusses and cites these reports in the relevant sections below. In addition, the Bureau held conversations with industry participants to understand their experiences with the Rule.

2. The ATR/QM Rule

This chapter discusses the statutory basis of the Rule, the development of the Rule, and the provisions of the ATR/QM Rule.

2.1 Statutory background

The ATR/QM Rule is based on several related provisions enacted in the Dodd-Frank Act. Section 1411 of the Dodd-Frank Act added a new section 129C(a) to TILA. This new section generally prohibits a creditor from making a residential mortgage loan unless the creditor has made a reasonable and good faith determination based on verified and documented information that, at the time the loan is consummated, the consumer has a reasonable ability to repay the loan. This requirement does not apply to an open-end credit plan, timeshare plan, reverse mortgage, or temporary loan with a term of 12 months or less.[92] New TILA section 129C(a) also establishes certain minimum underwriting factors that a creditor generally must consider in determining the consumer’s repayment ability, including: the consumer's credit history, current income, expected income the consumer is reasonably assured of receiving, current obligations, debt-to-income ratio or the residual income the consumer will have after paying non-mortgage debt and mortgage-related obligations, employment status, and other financial resources not including the consumer's equity in the dwelling or real property that secures repayment of the loan.[93]

Creditors that violate the ability-to-repay requirements may be subject to government enforcement and private actions. As amended by section 1416 of the Dodd-Frank Act, TILA provides that a consumer who brings a timely action against a creditor for a violation of the ability-to-repay requirement may be able to recover special statutory damages equal to the sum

[92] The TILA section 103(cc)(5) definition of “residential mortgage loan,” added by section 1401 of the Dodd-Frank Act, excludes open-end credit plans and timeshare plans. TILA section 129C(a)(8) excludes reverse mortgages and temporary loans with terms of 12 months or less.

[93] TILA section 129C(a)(3) (codified as amended at 15 U.S.C. § 1639c(a)(3)).

of all finance charges and fees paid by the consumer (but not to exceed three years of such charges and fees), unless the creditor demonstrates that the failure to comply was not material.[94] Moreover, TILA section 130(k), added by section 1413 of the Dodd-Frank Act, provides that if a creditor, an assignee, other holder or their agent initiates a foreclosure action, a consumer may assert a violation of TILA section 129C(a) (*i.e.*, the ability-to-repay requirements) "as a matter of defense by recoupment or setoff" to the initiation of a foreclosure action, while setting no time limit on consumer use of this defense.[95]

To provide more certainty to creditors that they are in compliance with the ability-to-repay requirements and not subject to liability while also protecting consumers from loans with terms that do not reasonably reflect their ability to repay, section 1412 of the Dodd-Frank Act added TILA section 129C(b).[96] TILA section 129C(b)(1) states that a creditor or assignee may presume that a loan has met the repayment ability requirement if the loan is a qualified mortgage.[97] TILA section 129C(b) generally defines a qualified mortgage as a residential mortgage loan for which: the loan does not contain negative amortization, interest-only payments, or balloon payments; the term does not exceed 30 years; the points and fees (costs associated with the origination of the loan) generally do not exceed 3 percent of the loan amount; the consumer's income or assets are verified and documented; and the underwriting is based on the maximum interest rate during the first five years of the loan, uses a payment schedule that fully amortizes the loan over the loan term, and takes into account all mortgage-related obligations.[98] A qualified mortgage must also comply with any guidelines or regulations established by the Bureau relating to total monthly debt payments to total monthly income ratio (DTI) or alternative measures of ability to pay regular expenses after payment of total monthly debt taking into account the borrower's income.[99]

The Dodd-Frank Act amendments to TILA also authorize the Bureau to prescribe regulations

[94] TILA section 130(a)(4), (codified as amended at 15 U.S.C. § 1640(a)(4)). This recovery for a violation of ATR is in addition to actual damages; statutory damages in an individual action or class action, up to a prescribed threshold; and court costs and attorney fees that would be available for violations of other TILA provisions. See TILA section 130(a), (codified as amended at 15 U.S.C. § 1640(a)). The statute of limitations for an action for a violation of TILA section 129C is three years from the date of the occurrence of the violation, as compared to one year for other TILA violations. See TILA section 130(e), (codified as amended at 15 U.S.C. § 1640(e)).

[95] TILA section 130(k), (codified as amended at 15 U.S.C. § 1640(k)).

[96] TILA section 129C(b) (codified as amended at 15 U.S.C. § 1639c(b)).

[97] TILA section 129C(b)(1) (codified as amended at 15 U.S.C. § 1639c(b)(1)).

[98] TILA section 129C(b)(2)(A), (codified as amended at 15 U.S.C. § 1639c(b)(2)(A)).

[99] TILA section 129C(b)(2)(A)(vi) (codified as amended at 15 U.S.C. 1639c(b)(2)(A)(vi)).

that would revise, add to, or subtract from criteria that define a qualified mortgage upon a finding that such regulations are necessary or proper to ensure that responsible, affordable mortgage credit remains available to consumers in a manner consistent with the purposes of the ability-to-repay requirements; or are necessary and appropriate to effectuate the purposes of the ability-to-repay requirements, to prevent circumvention or evasion thereof, or to facilitate compliance with TILA sections 129B and 129C.[100] The Dodd-Frank Act further provides the Bureau with certain other specific grants of rulewriting authority with respect to the ability-to-repay and qualified mortgage provisions, including (for instance) express authority to prescribe rules adjusting the qualified mortgage points and fees limits to permit creditors that extend smaller loans to meet the requirements of the qualified mortgage provisions.[101] TILA section 129C(b)(2)(E), added by the Dodd-Frank Act, grants the Bureau discretion to determine whether to issue rules providing that the term "qualified mortgage" covers balloon loans that meet certain minimum criteria, the contours of which the Bureau further has discretion to set under the statute.[102] As discussed in the next section of this Chapter, the Bureau exercised these authorities in finalizing rules implementing sections 1411 and 1412 of the Dodd-Frank Act.

2.2 ATR/QM Rule background

This section broadly describes the Bureau's development of its ATR/QM Rule. Rulemaking authority for TILA was originally vested in the Board of Governors of the Federal Reserve System (Board). General rulemaking authority for TILA, including the ATR/QM Rule, transferred from the Board to the Bureau on July 21, 2011, pursuant to the Dodd-Frank Act. In May of 2011, before the transfer of rulemaking authority to the Bureau went into effect, the Board published for public comment a proposed rule (May 2011 Proposed Rule) proposing to amend Regulation Z to implement the ability-to-repay and qualified mortgage amendments to TILA made by the Dodd-Frank Act.[103] The Bureau reopened the comment period on June 5, 2012 to solicit comment on new data and information submitted during or obtained after the close of the original comment period.[104] The Bureau's January 2013 Rule implemented the

[100] TILA section 129C(b)(3)(B)(i), (codified as amended at 15 U.S.C. § 1639c(b)(3)(B)(i)).

[101] TILA section 129C(b)(2)(D), (codified as amended at 15 U.S.C. § 1639c(b)(2)(D)).

[102] TILA section 129C(b)(2)(E), (codified as amended at 15 U.S.C. § 1639c(b)(2)(E)). Section 101 of the Economic Growth, Regulatory Relief, and Consumer Protection Act, Pub. L. 115–174, enacted May 24, 2018, established an additional category of qualified mortgages for loans held in portfolio by certain lenders.

[103] 76 Fed. Reg. 27390 (May 11, 2011).

[104] 77 Fed. Reg. 33120 (June 5, 2012).

statutory ability-to-repay provisions after reviewing and considering the comments submitted in response to the Board's May 2011 Proposed Rule and to the additional comment request by the Bureau.

The January 2013 Rule, among other things, generally requires creditors to make a reasonable, good faith determination of a consumer's ability to repay any consumer credit transaction secured by a dwelling, other than an open-end credit plan, timeshare plan, reverse mortgage, or temporary loan with a term of 12 months or less.[105] The January 2013 Rule describes certain minimum requirements for creditors making ability-to-repay determinations, but does not dictate that they follow particular underwriting standards. The January 2013 Rule also provided four categories of "qualified mortgage" loans, for which compliance with the ability-to-repay requirement is presumed.[106]

The Bureau amended the January 2013 Rule several times prior to its effective date to address important questions raised by industry, consumer advocacy groups, and other stakeholders. The Bureau determined that these amendments were necessary to protect consumers better, avoid potentially significant disruption in mortgage markets, and clarify standards by making technical corrections and conforming changes.

As discussed in the Introduction, the Bureau has determined that the January 2013 Rule and related amendments that took effect on the Rule's effective date collectively make up a significant rule, the ATR/QM Rule, for purposes of this assessment. The amendments that the Bureau did and did not consider as part of the assessment are described below.

2.2.1 Amendments to the Rule considered in the assessment

May 2013 final rule. To avoid impairing access to credit for consumers on terms that reasonably reflect their ability to repay, the May 2013 final rule[107] provided exemptions from the ability-to-repay requirements for loans made by creditors pursuant to identified development and Federal emergency economic stabilization programs and for loans made by certain nonprofit

[105] 12 C.F.R. § 1026.43(c)(1).

[106] 12 C.F.R. § 1026.43(e) and (f) established the General, Temporary GSE, Temporary Agency, and Rural/Undeserved Small Creditor Balloon Payment QM categories.

[107] 78 Fed. Reg. 35430 (June 12, 2013). The rule was finalized and issued on May 29, 2013, but was not published until the later date.

creditors.[108] Further, the May 2013 final rule added two new qualified mortgage categories to the four categories provided in the January 2013 Rule. One of the new QM categories was for loans held in portfolio by small creditors[109] and the other new QM category was a temporary category that allowed all small creditors to make balloon-payment qualified mortgages.[110]

July 2013 final rule. The final rule published on July 24, 2013,[111] included clarifications to the Temporary GSE QM and Temporary Federal Agency QM categories and to Appendix Q, which prescribes the income and debt a creditor uses to determine a consumer's debt-to-income ratio for purposes of the General QM category.

October 1, 2013 final rule. The October 1, 2013, final rule[112] expanded the small creditor balloon-payment QM category to include certain high-cost mortgages and to cover additional creditors, those that met the "rural or underserved" definition in any of the three preceding years rather than only in the preceding year.

October 23, 2013, interim final rule. The interim final rule published on October 21, 2013,[113] included a minor technical correction to the Federal Agency QM loan category.

2.2.2 Other substantive rules affecting the ATR/QM Rule

In addition to the above rules amending the January 2013 Rule before its effective date that the Bureau is considering as part of the assessment, the Bureau has issued other substantive rules that affect the ATR/QM Rule. Although these other rules technically fall outside the five-year assessment period, they are considered to the extent they are reflected in the data and are relevant to the analysis of the ATR/QM Rule's effectiveness in meeting its purposes, objectives, and goals.

November 2014 final rule. A final rule published on November 3, 2014,[114] excluded certain subordinate loans originated by nonprofit creditors from the number counted for purposes of

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[108] 12 C.F.R. § 1026.43(a)(3)(iv)—(vi).

[109] 12 C.F.R. § 1026.43(e)(5).

[110] 12 C.F.R. § 1026.43(e)(6).

[111] 78 Fed. Reg. 44686 (July 24, 2013).

[112] 78 Fed. Reg. 60382 (Oct. 1, 2013).

[113] 78 Fed. Reg. 62993 (Oct. 23, 2013).

[114] 79 Fed. Reg. 65300 (Nov. 3, 2014).

the nonprofit exemption from the ability-to-repay requirements.[115] This final rule also implemented a temporary points and fees cure provision.[116]

October 2015 final rule. Among other changes, the October 2015 final rule[117] increased the number of creditors that could meet the definition of "small creditor" by raising the originations limit from 500 first-lien mortgage loans to 2,000 and excluding loans held in portfolio.[118] The October 2015 final rule also substantially expanded the definition of "rural" by adding census blocks[119] that are not in an "urban area," as defined by the Census Bureau, to the definition of rural areas.[120]

March 2016 interim final rule. The Bureau published an interim final rule[121] on March 25, 2016 amending Regulation Z to implement the HELP Rural Communities Act provision[122] that removed "predominantly" from the TILA requirement that small creditors operate "predominantly in rural or underserved areas"[123] to qualify for certain special provisions, including eligibility to make balloon-payment qualified mortgages. The Bureau implemented the removal of "predominantly" by replacing the "extended more than 50 percent of their total covered transactions in rural or underserved counties" requirement with "extended a first-lien covered transaction on a property that is located in an area that is designated either 'rural' or 'underserved.'"[124]

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115 12 C.F.R. § 1026.43(a)(3)(vii).

116 12 C.F.R. § 1026.43(e)(3)(iii)—(iv).

117 80 Fed. Reg. 59943 (Oct. 2, 2015).

118 12 C.F.R. § 1026.35(b)(2)(iii)(B); comments 12 C.F.R. § 1026.43(e)(5)–4; 12 C.F.R. § 1026.43(f)(2)(ii)–1. The changes were made to the exemption provisions of an escrow rule, which are cross-referenced in the small creditor qualified mortgage provisions. *See* 12 C.F.R. § 1026.43(e)(5)(i)(D); (e)(6)(i)(B); (f)(1)(vi).

119 A census block is the smallest geographic area for which the U.S. Census Bureau collects and tabulates decennial census data. *See* 80 Fed. Reg. 59943, 59956 (Oct. 2, 2015).

120 12 C.F.R. § 1026.35(b)(2)(iv)(A)(*2*); comment 12 C.F.R. § 1026.43(f)(1)(vi)–1.

121 81 Fed. Reg. 16074 (Mar. 25, 2016).

122 Pub. L. 114–94, section 89003 (2015).

123 TILA section 129C(b)(2)(E)(iv)(I), (codified as amended at 15 U.S.C. § 1639c(b)(2)(E)(iv)(I)).

124 12 C.F.R. § 1026.35(b)(2)(ii)(A); comments 12 C.F.R. § 1026.43(f)(1)(vi)–1; 12 C.F.R. § 1026.43(f)(2)(ii)–1.

2.3 Overview of ATR/QM Rule requirements

2.3.1 Scope of the ATR/QM Rule

This section describes the scope and major substantive provisions of the ATR/QM Rule. With certain exceptions, the ATR/QM Rule applies to any consumer credit transaction that is secured by a dwelling.[125] The Rule does not apply to an extension of credit primarily for a business, commercial, or agricultural purpose, even if it is secured by a dwelling.[126] As noted above, TILA excludes from coverage open-end home equity lines of credit, timeshare plans, reverse mortgages, and temporary loans with terms of 12 months or less.[127]

In addition, the May 2013 final rule provided exemptions from the ability-to-repay requirements for programs administered by housing finance agencies; creditors designated as Community Development Financial Institutions, Downpayment Assistance through Secondary Financing Providers, or Community Housing Development Organizations; certain nonprofit creditors; certain homeownership stabilization and foreclosure prevention programs; and certain Federal agency and GSE refinancing programs.[128] These exemptions addressed concerns that the ATR/QM Rule's ability-to-repay requirements were substantially different from the underwriting requirements employed by these creditors or required under these programs. Without an exemption, creditors might have been may be discouraged from participating in these programs and significantly impair access to credit for consumers under these programs.[129]

2.3.2 Major provisions of the ATR/QM Rule

This section describes the major topics addressed in the ATR/QM Rule. As indicated, many of the requirements in the Rule, which was promulgated to implement Dodd-Frank Act amendments to TILA, mirror the statute.

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[125] 12 C.F.R. § 1026.43(a)(1)–(3).

[126] *See* Comment 12 C.F.R. § 1026.43(a)–1.

[127] *See, supra note,* 92.

[128] 12 C.F.R. § 1026.43(a)(3)(iv)–(vi).

[129] *See* 78 Fed. Reg. 35430, 35440 (June 12, 2013).

Ability-to-Repay provisions (§ 1026.43(c))

To implement TILA section 129C(a), 12 C.F.R. § 1026.43(c)(1) provides that a creditor shall not make a loan that is a covered transaction unless the creditor makes a reasonable and good faith determination at or before consummation that the consumer will have a reasonable ability to repay the loan according to its terms.

Eight factors. In making the repayment ability determination, creditors generally must consider, at a minimum, eight underwriting factors:[130]

(i) current or reasonably expected income or assets, other than the value of the dwelling, including any real property attached to the dwelling, that secures the loan;

(ii) current employment status, if the creditor relies on income from employment in determining repayment ability;

(iii) the monthly payment on the covered transaction;

(iv) the monthly payment on any simultaneous loan(s) that the creditor knows or has reason to know will be made;

(v) the monthly payment for mortgage-related obligations;

(vi) current debt obligations, alimony, and child support;

(vii) the monthly debt-to-income ratio or residual income; and

(viii) credit history.

Verification. Creditors generally must verify the information that they will rely upon in determining a consumer's repayment ability, using reasonably reliable third-party records specific to the individual consumer. [131] For example, a creditor must verify the amounts of income or assets relied on to determine a consumer's ability to repay the loan using third-party records that provide reasonably reliable evidence of a consumer's income or assets.[132]

Payment calculation. Monthly payments on the loan must generally be calculated by assuming that the loan is repaid in substantially equal monthly payments during its term.[133] For adjustable-rate mortgages, the monthly payment must be calculated using the fully indexed rate

[130] 12 C.F.R. § 1026.43(c)(2).[131] 12 C.F.R. § 1026.43(c)(3); comment 12 C.F.R. § 1026. 43(c)(3)–1.

[131] 12 C.F.R. § 1026.43(c)(3); comment 12 C.F.R. § 1026. 43(c)(3)–1.

[132] 12 C.F.R. § 1026.43(c)(4).

[133] 12 C.F.R. § 1026.43(c)(5)(i)(B).

or an introductory rate, whichever is higher.[134] Special payment calculation rules apply for loans with balloon payments, interest-only payments, or negative amortization.[135] Loans with such features are not prohibited under the ability-to-repay standards, which were intended to provide flexibility in underwriting standards so that creditors could adapt their underwriting processes to a consumer's particular circumstances.[136]

Qualified Mortgage provisions (§ 1026.43(e)(1) through (3))

To implement TILA section 129C(b), 12 C.F.R. § 1026.43(e) and (f) provide for a class of "qualified mortgage" loans, for which compliance with the ability-to-repay requirement is presumed.[137]

Presumption of compliance. The Dodd-Frank Act provides that "qualified mortgages" are entitled to a presumption that the creditor making the loan satisfied the ability-to-repay requirements, but it does not specify whether the presumption of compliance is conclusive (*i.e.*, creates a safe harbor) or is rebuttable. Under the ATR/QM Rule, the presumption of compliance can be either conclusive, *i.e.*, a safe harbor, for QM loans that are not "higher-priced," or rebuttable, for most QM loans that are "higher-priced."[138] Generally, if the annual percentage rate (APR) of a qualified mortgage exceeds the average prime offer rate (APOR)[139] for a comparable loan product by 1.5 or more percentage points for a first-lien covered transaction, the loan is a higher-priced covered transaction (HPCT)[140] and a rebuttable presumption qualified mortgage.[141] The 1.5 percent limit is raised to 2.5 percent in the case of a subordinate-

[134] 12 C.F.R. § 1026.43(c)(5)(i)(A).

[135] 12 C.F.R. § 1026.43(c)(3).

[136] *See* 78 Fed. Reg. 6408, 6460 (Jan. 30, 2013).

[137] TILA section 129C(b) (codified as amended at 15 U.S.C. § 1639c(b)); 12 C.F.R. § 1026.43(e).

[138] 12 C.F.R. § 1026.43(e)(1).

[139] The ATR/QM Rule relies upon the definition of "APOR." *See* 12 C.F.R. § 1026.35(a)(2). "Average prime offer rate" means an annual percentage rate that is derived from average interest rates, points, and other loan pricing terms currently offered to consumers by a representative sample of creditors for mortgage transactions that have low-risk pricing characteristics. The Bureau publishes average prime offer rates for a broad range of types of transactions in a table updated at least weekly as well as the methodology the Bureau uses to derive these rates.

[140] 12 C.F.R. § 1026.43(b)(4).

[141] 12 C.F.R. § 1026.43(e)(1)(ii)(A).

lien qualified mortgage. If a qualified mortgage is not an HPCT, it is a safe harbor qualified mortgage.[142]

Product and cost restrictions. The ATR/QM Rule defines QM loans in part by establishing restrictions on product features and costs. Specifically, restrictions on product features generally include prohibitions against negative amortization, balloon payments, interest-only payments,[143] and terms greater than 30 years.[144] In addition, the total points and fees (certain charges in connection with the loan's origination) payable in connection with a QM Loan must not exceed a certain percentage of the loan amount. The ATR/QM Rule establishes five tiers of points and fees limits, based on loan size, with higher points and fees permitted for smaller loans. These tiers range from three percent for loans of $100,000 or more to eight percent for loans under $12,500.[145]

Categories of Qualified Mortgages (§ 1026.43(e)(4) through (6))

General QM loans. One category of qualified mortgages is referred to as "General QM" loans. In addition to complying with the product and cost restrictions noted above, for a loan to be a General QM loan, a creditor must:

> Underwrite the loan taking into account the monthly payment on the loan calculated by using the maximum rate during the first five years after the date on which the first regular periodic payment will be due and a payment schedule that will repay either (i) the outstanding principal balance over the remaining term of the loan as of the date that the interest rate adjusts to the maximum rate (and assuming the consumer will have made all required payments as due prior to that date); or (ii) the loan amount over the loan term;[146]
>
> Consider and verify at or before consummation the consumer's current or reasonably expected income or assets other than the value of the dwelling (including any real property attached to the dwelling) that secures the loan, current debt obligations, alimony, and child-support obligations, in accordance with Appendix Q, which sets

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[142] 12 C.F.R. § 1026.43(e)(1)(i).

[143] 12 C.F.R. § 1026.43(e)(2)(i). However, small creditors that operate in rural and underserved areas may make QM loans with balloon payment features. *See* 12 C.F.R. § 1026.43(f).

[144] 12 C.F.R. § 1026.43(e)(2)(ii).

[145] 12 C.F.R. § 1026.43(e)(2)(iii) and (3). The threshold amounts are adjusted annually.

[146] 12 C.F.R. § 1026.43(e)(2)(iv).

standards for determining the "debt" and "income" that may be used for General QM loan purposes;[147]

Ensure that the ratio of the consumer's total monthly debt to total monthly income at the time of consummation, as determined in accordance with appendix Q, does not exceed 43 percent (DTI ceiling).[148],[149]

Temporary GSE QM loans. The ATR/QM Rule provides a separate, temporary, qualified mortgage category for loans eligible to be purchased or guaranteed by either the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation (collectively, the GSEs) while they operate under Federal conservatorship or receivership or until January 10, 2021, whichever is earlier ("Temporary GSE QM" loans).[150] The product and points and fees cost restrictions that generally apply to qualified mortgages must be followed, but the GSE underwriting standards generally are used instead of the General QM standards, which include Appendix Q and the 43 percent DTI ceiling.

Temporary Federal Agency QM loans. The ATR/QM Rule also provided a temporary category of QM loans for loans eligible to be insured or guaranteed by the U.S. Department of Housing and Urban Development (FHA Loans); guaranteed by the U.S. Department of Veterans Affairs (VA Loans); guaranteed by the U.S. Department of Agriculture (USDA Loans); or insured by the Rural Housing Service (RHS Loans) (collectively, "Temporary Federal Agency QM" loans).[151] The category of Temporary Federal Agency QM loans no longer exists and has been replaced by the category of Federal Agency QM loans because since 2014 the relevant Federal agencies (i.e., FHA, VA, and USDA/RHS) have all issued their own qualified mortgage rules[152] as permitted by TILA.[153] Because these Federal Agency QM rules are neither rules nor orders adopted by the

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[147] 12 C.F.R. §1026.43(e)(2)(v).

[148] 12 C.F.R. §1026.43(e)(2)(vi). The monthly debt obligation must include the monthly payment for mortgage-related obligations and any simultaneous loan the creditor knows or has reason to know will be made.

[149] In establishing the DTI ceiling, the Bureau stated it "believes, based upon its review of the data it has obtained and the comments received, that the use of total debt-to-income as a qualified mortgage criterion provides a widespread and useful measure of a consumer's ability to repay, and that the Bureau should exercise its authority to adopt a specific debt-to-income ratio that must be met in order for a loan to meet the requirements of a qualified mortgage. The Bureau believes that the qualified mortgage criteria should include a standard for evaluating whether consumers have the ability to repay their mortgage loans, in addition to the product feature requirements specified in the statute." *See* 78 Fed. Reg. 6408, 6526 (Jan. 30, 2013).

[150] 12 C.F.R. §1026.43(e)(4)(ii)(A).

[151] 12 C.F.R. §1026.43(e)(4)(ii)(B)–(E).

[152] *See*, *e.g.*, 24 C.F.R. §203.19 (HUD rules).

[153] TILA section 129C(b)(3)(B)(ii), added by section 1412 of the Dodd-Frank Act.

Bureau under Federal consumer financial law, their effectiveness is beyond this assessment's scope.

Small Creditor Portfolio QM loans. The ATR/QM Rule permits small creditors, defined as creditors that fall below certain assets and originations thresholds,[154] to make "Small Creditor Portfolio QM" loans. Such loans must generally conform to all of the requirements of General QM loans but do not have to follow Appendix Q and are not subject to the 43 percent DTI ceiling. These loans must be held in portfolio, generally for a minimum of three years, to maintain their qualified mortgage status. The APR over APOR safe harbor limit is increased for these loans from 1.5 percentage points to 3.5 percentage points, making it easier for loans made by small creditors to qualify for the safe harbor.[155]

Rural/Underserved Small Creditor Balloon Payment QM loans. Although generally excluded from being qualified mortgages, balloon payment loans can be qualified mortgages if made by small creditors that fall below certain asset and origination thresholds and that operate in rural and underserved areas.[156] These "Small Creditor Balloon Payment QM" loans are only eligible for qualified mortgage status if certain product and cost restrictions that generally apply to qualified mortgages are followed and if they have a term of at least five years and a fixed interest rate. Income and debt must be considered and verified, and the consumer's monthly debt-to-income ratio or residual income must be considered, but the standards in Appendix Q and the 43 percent DTI ceiling do not apply.[157] Except in limited circumstances, a Small Creditor Balloon Payment QM will lose its QM status if, post consummation, it is sold, assigned, or otherwise transferred to another person within three years of consummation.[158] As with Small Creditor Portfolio QM loans, the APR over APOR safe harbor limit is increased for these loans from 1.5 percentage points to 3.5 percentage points.[159]

Temporary Small Creditor Balloon Payment QM loans. The ATR/QM Rule also included a temporary qualified mortgage category for small creditors that fall below certain asset and origination thresholds. The "Temporary Small Creditor Balloon Payment QM" loan category was temporary, providing a two-year transition period through April 1, 2016, during which small

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[154] The assets and originations thresholds are in 12 C.F.R. § 1026.35(b)(2)(iii)(B) and (C), respectively.

[155] 12 C.F.R. § 1026.43(e)(5).

[156] 12 C.F.R. § 1026.35(b)(2)(iii)(A) through C, cross-referenced in 12 C.F.R. § 1026.43(f)(1)(vi).

[157] 12 C.F.R. § 1026.43(f).

[158] 12 C.F.R. § 1026.43(f)(2).

[159] These Small Creditor Balloon Payment QM provisions are provided in 12 C.F.R. § 1026.43(f).

creditors that did not operate predominantly in rural or underserved areas could make balloon-payment qualified mortgages if they held the loans in portfolio and otherwise followed the balloon-payment qualified mortgage requirements applicable to creditors operating in rural or underserved areas.[160]

[160] 12 C.F.R. § 1026.43(e)(6). The requirement to "operate predominantly in rural or underserved areas" did not affect the ability of small creditors to make balloon payment QMs because the Temporary Small Creditor Balloon Payment QM loan category that allowed all small creditors to make balloon-payment QMs was in effect until the "predominantly" requirement was dropped in the March 2016 interim final rule.

3. Market overview

This chapter provides background on the mortgage market and the economy as relevant to the Bureau's assessment of the ATR/QM Rule. It starts by providing an overview of the development of the modern mortgage market starting around the Great Depression. The chapter next focuses on the expansion in the mortgage market that started in the early 2000s. Next comes a brief discussion of the subsequent mortgage market contraction, financial crisis, and Great Recession.[161] The chapter then turns to the moderate economic recovery that took place leading up to the implementation of the Rule. The chapter finally describes relevant dimensions of the mortgage market shortly before and after the implementation of the Rule and compliance with the Rule. The measures based on aggregate market data described in this section give a first take on any effects on the market the Rule may have had. These complement and anticipate the analyses in Chapters 4 through 8 which analyze effects of the Rule or specific provisions of the Rule (e.g. QM provisions) on narrower segments of the mortgage market. At all points in the chapter, the dynamics of relevant variables are presented in figures often covering a long time range. These figures are discussed in multiple steps in the various sections covering different time periods.

The main themes emerging from this chapter are as follows:

- The roots of the modern mortgage market can be traced to the Great Depression, after which housing finance innovations made mortgages more available and affordable, and World War II, after which the housing market went through two decades of expansion.

- Another robust expansion of the mortgage market started around 2000. This more recent expansion saw an increased share of lending going to borrowers of lower creditworthiness and to newer loan product types associated with higher risk.

[161] The National Bureau of Economic Research considers the most recent recession to have lasted from December 2007 to June 2009. *See* Nat'l Bureau of Econ. Research, *US Business Cycle Expansions and Contractions*, http://www.nber.org/cycles.html (last visited Dec. 17, 2018).

- In 2006 and 2007, the performance of loans originated became worse and worse. House prices started a significant correction in 2007 and the US economy experienced its most severe recession since the Great Depression. The ensuing reduction in originations was especially stark amongst certain loan products associated with higher risk and among lower credit score borrowers.

- The path to economic recovery after the recession ended in June 2009 was slow and the recovery in the housing market was particularly slow. Between 2011 and the implementation of the ATR/QM Rule, the volume of mortgage lending gradually increased but credit remained tight in 2013, the last year prior to the Rule.

- Many trends in the mortgage market evolved smoothly around the time of the Rule's implementation. This includes the volume of mortgage applications, the approval rate of these applications, the spread of the average interest rate on fixed-rate mortgages over the relevant Treasury rate, and the revenues and expenses associated with originating a mortgage loan reported by non-depository lenders. There was an increase in the share of purchase originations sold to the GSEs before the Rule took effect, although this share did not shift appreciably in the years following the Rule's implementation. There was an increase in the share of jumbo loans and a reduction in the spread between the cost of jumbo and conforming loans following the effective date of the Rule, although both of those effects are likely attributable to market forces rather than the Rule.

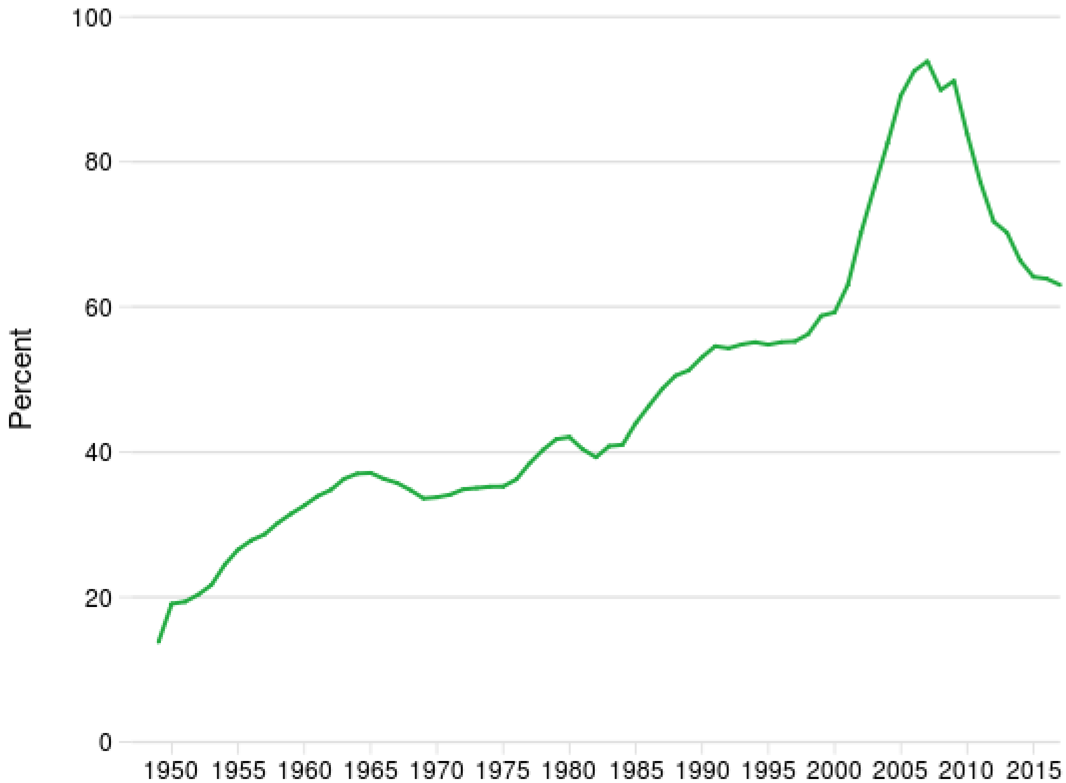
3.1 The development of the modern mortgage market[162]

As highlighted already in Chapter 1, the mortgage market is the single largest market for consumer financial products and services in the United States with approximately $10.7 trillion in consumer mortgage loans outstanding as of mid-2018. Figure 1 plots mortgage debt

[162] The discussion in this section relies on several background sources, including: Nat'l Bureau of Econ. Research, *Housing and Mortgage Markets in Historical Perspective*, (Eugene N. White, et al., eds., Univ. Of Chi. Press 2014); Daniel K. Fetter, *How Do Mortgage Subsidies Affect Home Ownership? Evidence from the Mid-Century GI Bills*, 5 American Econ. J. 111 (2013); Richard K. Green & Susan M. Wachter, *The American Mortgage in Historical and International Context*, 19 J. of Econ. Persp. 93 (2005); Edward M. Gramlich, *Subprime Mortgages: America's Latest Boom and Bust*, (Urban Inst. Press 2007); N. Eric Weiss & Katie Jones, *Overview of the Housing Finance System in the United States* (Jan. 2017) (CRS Report) (report on the housing finance system in the United States prepared for members and committees of Congress).

outstanding as a share of personal income since 1949.[163] The significant growth in mortgage holdings as a share of personal income up to mid-1960s can be attributed to New Deal policies that promoted homeownership and the post-war housing boom that occurred between 1945 and 1960.

FIGURE 1: MORTGAGE DEBT OUTSTANDING AS SHARE OF PERSONAL INCOME, 1949-2017



Data source: FRED Economic Data (Federal Reserve Bank of St. Louis)

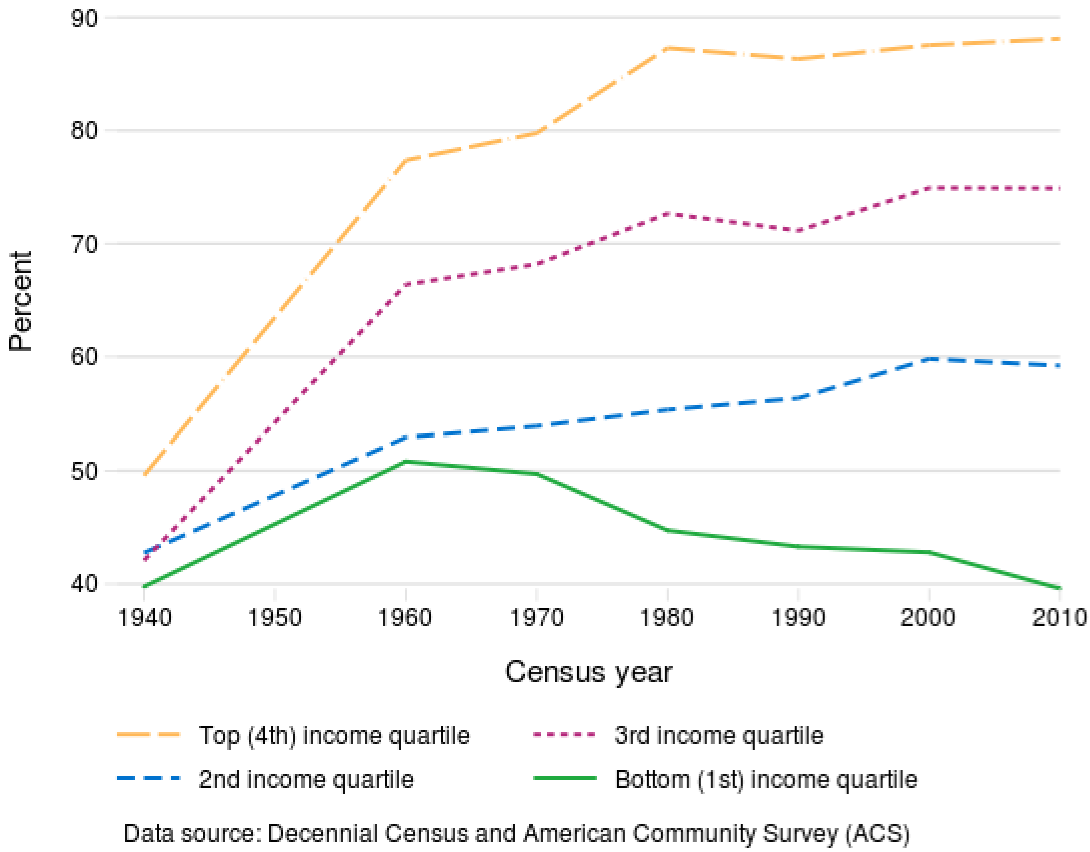
Between the 1940 and 1960 censuses, the homeownership rate in the United States increased from 43.5 to 61.9 percent. To show which households were affected the most by the expansion of mortgage credit, Figure 2 shows the homeownership rate by family income quartile since 1940

[163] *See* FRED Economic Data, *Mortgage Debt Outstanding by Type of Property: One- to Four-Family Residences*, Fed. Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/MDOTP1T4FR (last visited Dec. 17, 2018); FRED Economic Data, *Mortgage Debt Outstanding by Type of Property: Multifamily Residences*, https://fred.stlouisfed.org/series/MDOTP1T4FR (last visited Dec. 17, 2018); FRED Economic Data, *Personal Income*, Fed Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/A065RC1A027NBEA (last visited Dec. 17, 2018) (Personal income is the income that persons receive in return for their provision of labor, land, and capital and the net current transfer payments that they receive from business and from government.).

using publicly available Census Bureau data.[164] Between 1940 and 1960, there is substantial growth in homeownership that is most pronounced for the top two income quartiles. The top income quartile's homeownership rate grows from 49.6 percent to 77.4 percent over this period, while the growth for the second income quartile is from 42.1 percent to 66.4 percent. Growth for both of these groups continues up until 1980, at which point the homeownership rate of the two groups is 87.3 percent and 72.7 percent, respectively. Subsequently, the homeownership rate stays relatively stable for these two groups.

[164] We calculate the homeownership rate as the share of heads of household at least 18 years of age who report that they own their housing unit outright or are in the process of buying it. Data come from the Integrated Public Use Microdata Series (IPUMS), which provides harmonized Census Bureau microdata. For 1940 to 2000, microdata from the Decennial Census are used. Homeownership data are not available for the 1950 Census. Due to data limitations, microdata for 2010 come from the American Community Survey (ACS). The ACS is a survey managed by the Census Bureau, which uses a representative sample of the US population. *See* Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas, and Matthew Sobek. IPUMS USA, *U.S. Census Data for Social Economic, and Health Research*, https://doi.org/10.18128/D010.V8.0 (last visited Dec. 17, 2018). Family income is not reported in the 1940 census. Family income for that year is proxied by the sum of individual wage income in the family and is imputed for families with no reported wage income based on educational attainment, socioeconomic index, occupational income score, and the presence of children in the household.

FIGURE 2: HOMEOWNERSHIP RATE BY INCOME QUARTILE, 1940-2010



The third income quartile also experiences increases in the homeownership rate, but at a lesser pace than the top two groups. Finally, homeownership rates have decreased at the bottom of the income distribution. The homeownership rate of this group was 50.8 percent in 1960 and dropped to 42.8 percent by 2000.

This growth in homeownership was facilitated by innovations in housing finance. In response to the wave of foreclosures that accompanied the Great Depression, in 1934 the government established the Federal Housing Administration (FHA) to provide mortgage insurance necessary for investors to purchase mortgages with confidence. By creating the standards that loans had to meet to be insured by the FHA, the modern American mortgage was created with minimum quality standards, full amortization, a long (eventually 30 year) term which substantially reduced monthly payments and the risk of default for borrowers as compared to earlier loan products that were non-amortizing, had shorter maturity periods, and most often had balloon payments. During the 1930s, similar programs were established by the United States Department of Agriculture (USDA). Following the war, the Veterans Administration (VA) also created a mortgage insurance program similar to that of the FHA in order to serve the needs of returning soldiers. Compared to products before the Great Depression which often limited loan-to-value ratios to at most 50 percent, the new products also allowed for higher loan-to-value ratios, thereby making mortgages affordable for more households. Over time, 20 percent arose as the typical downpayment for conventional mortgages;[165] programs through the FHA and VA sometimes allowed even smaller downpayments.

Most mortgages prior to the Great Depression were funded using lenders' funds, known as portfolio lending. The Federal National Mortgage Association (Fannie Mae) was created in 1938 to purchase FHA-insured loans, pool them, and sell them as securities to investors on financial markets as residential mortgage backed securities (RMBS). This created the secondary mortgage market and gave lenders a new source of capital. In the process Fannie Mae mandated certain lending practices. If lenders didn't meet Fannie Mae's guidelines about underwriting practices or other loan terms and lending practices, then their loans would not be packaged as securities. As part of the Housing and Urban Development Act of 1968, Fannie Mae was split into two entities: Ginnie Mae and the "new" Fannie Mae. Ginnie Mae was established as a government-owned entity that provides an explicit government guarantee of timely payment for RMBS backed by federally insured or guaranteed loans—loans insured or guaranteed by the FHA, the VA, and the USDA.[166] Fannie Mae in contrast became a publicly-traded company.

In 1970, Congress created Federal Home Loan Mortgage Corporation (Freddie Mac), which operated similarly to Fannie Mae. In 1972, Fannie Mae and Freddie Mac both began to purchase conventional mortgages that were not guaranteed or insured by the FHA, VA, or USDA; high leverage conventional loans could be insured instead by Private Mortgage Insurance (PMI) companies. By the mid-1980s funds provided through the securitization of mortgages in the secondary market had overtaken depository portfolio funding as the primary source of mortgage capital.

Fannie Mae and Freddie Mac are jointly known as the Government Sponsored Enterprises (GSEs). Although their securities are not explicitly backed by the government, most investors have long believed that the government would not allow them to default on their obligations.[167]

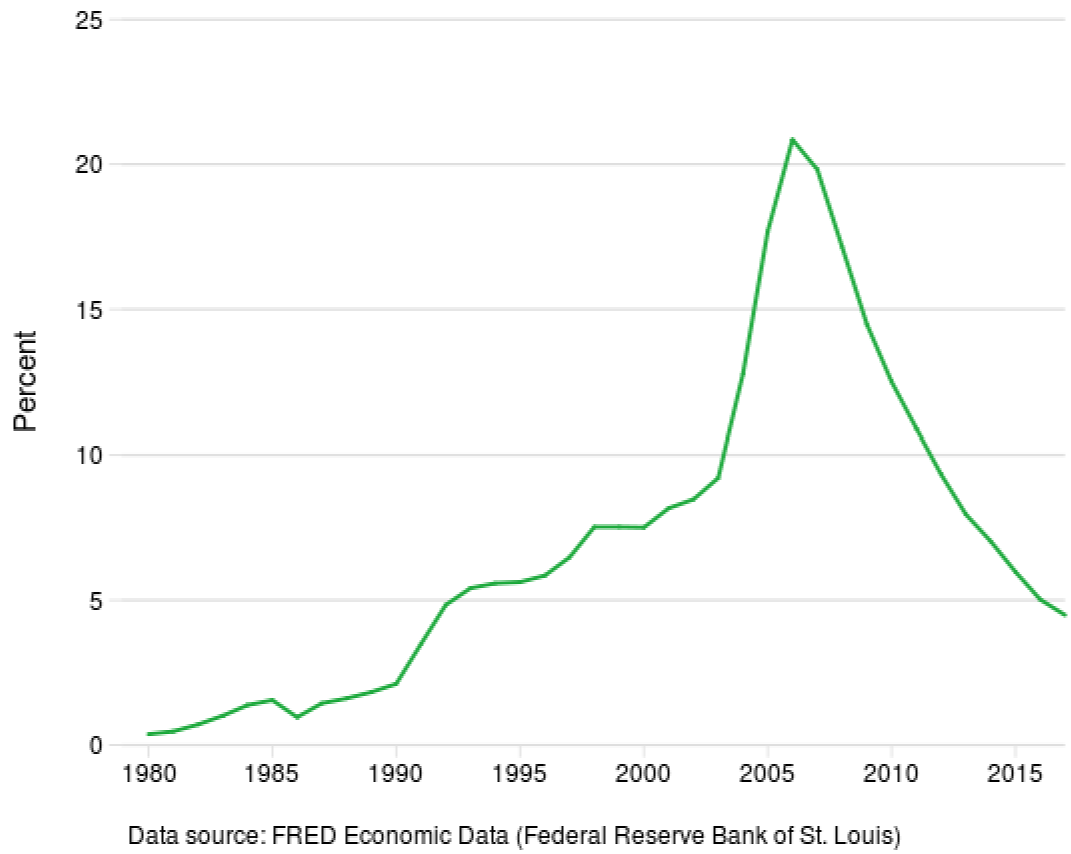
[165] A conventional mortgage loan is one that is not insured or guaranteed by the federal government, including the Federal Housing Administration (FHA), the U.S. Department of Veterans Affairs (VA), or the USDA's Farm Service Agency or Rural Housing Service (FSA/RHS). Conventional loans are either private or guaranteed by one of the two Government Sponsored Enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac).

[166] Ginnie Mae, *50 Years of Ginnie Mae: We Make Affordable Housing a Reality*, (Oct. 2018), *available at* https://www.ginniemae.gov/newsroom/mediaresources/Documents/about_ginniemae.pdf.

[167] Congressional Budget Off., *Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market*, (Dec. 2010), *available at* https://www.cbo.gov/publication/21992.

This belief proved to be true during the financial crisis and is probably felt even more strongly today with the GSEs in government conservatorship.

FIGURE 3: SHARE OF MORTGAGE DEBT OUTSTANDING FUNDED BY PRIVATE SECURITIZATION, 1980-2017



Finally, private companies also issue mortgage backed securities.[168] In contrast to Agency (Ginnie Mae or GSE) RMBS, these private label securities (PLS) have no government guarantee. As a result, investors see these securities as riskier than Agency RMBS. Despite this, the share of outstanding mortgage debt accounted for by PLS grew gradually over the next two decades as can be seen in Figure 3, reaching 7.5 percent by 2000.

These developments then set the stage in the mortgage market for the long expansion of the 1990s and beyond.

[168] The first private label mortgage backed security was issued by Bank of America in 1977.

3.2 Early 2000s mortgage market expansion

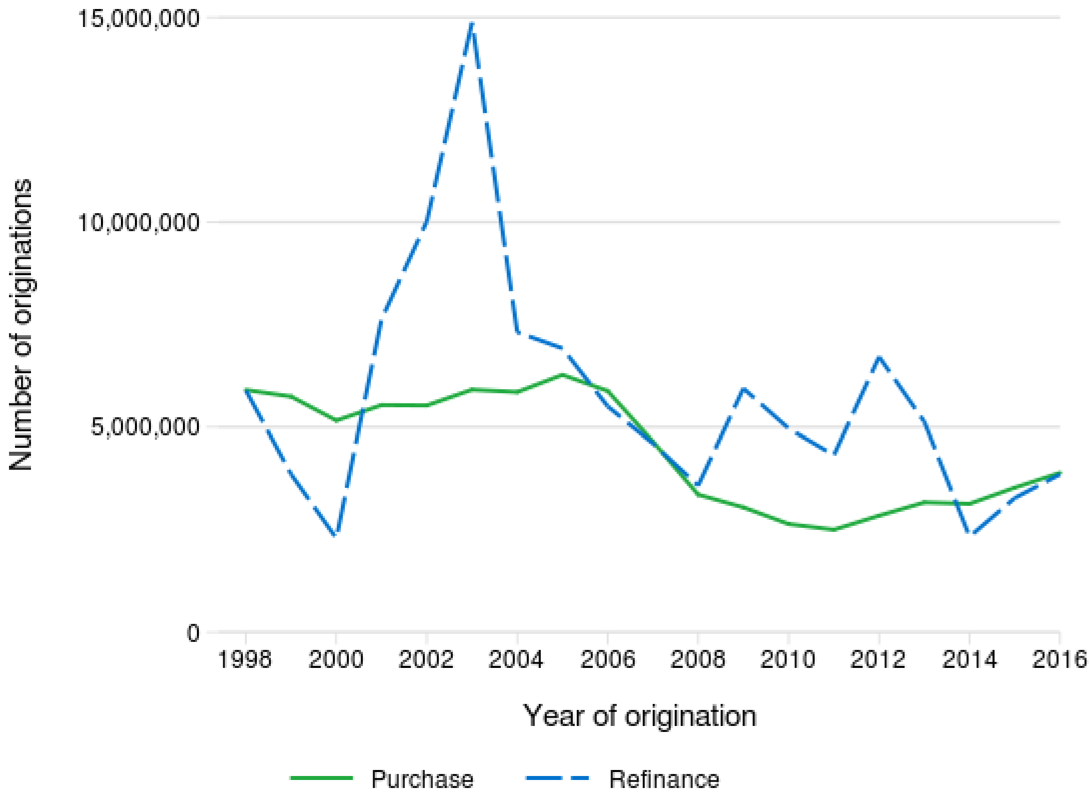
The recession of 2001 ended a decade of economic growth, but it was brief and shallow.[169] Its effect in the mortgage market was limited. The share of personal income accounted for by outstanding mortgage debt hovered around 55 percent in the decade before 1998 and then began a climb that was rapid and was not slowed down by the recession. By 2007, total mortgage debt outstanding as a share of personal income stood at 93.9 percent. No previous period has experienced the same rapid growth in household housing leverage and the only period that came close was that of the post-war expansion. The expansion of the 2000s was markedly different than the post-war expansion, however, as demonstrated by Figure 2, since the more recent expansion was much less concentrated among high-income households. Another new development of this era was the significant growth in funding accounted for by private securitization (see Figure 3), the share of which reached 20.9 percent by 2006. All in all, the types of mortgage products available, the types of borrowers participating in the market, and the type of funding available during the post-war period were all much more limited compared to those observed since 2000.

Figure 4 shows the number of purchase and refinance mortgage originations for each year from 1998, the first year of full NMDB coverage, to 2016, the last year of full NMDB coverage.[170] The number of originations declined in 2000 compared to the late 1990s, especially among refinances, but the market quickly recovered and went through an unprecedented refinance boom in 2003. This was partly attributable to the large drop in interest rates that took place at the time. Figure 5 shows the average 30-year fixed mortgage rate together with the benchmark of the 10-year Treasury rate and the spread between the two. Following 2003, the number of refinance originations dropped, while the number of purchase originations continued growing through 2005.

[169] The recession officially lasted from March 2001 to November 2001. *See* Kevin L. Kliesen, *The 2001 Recession: How was it different and what developments may have caused it?*, (Federal Reserve Bank of St. Louis, 2003) *available at* https://files.stlouisfed.org/files/htdocs/publications/review/03/09/Kliesen.pdf.

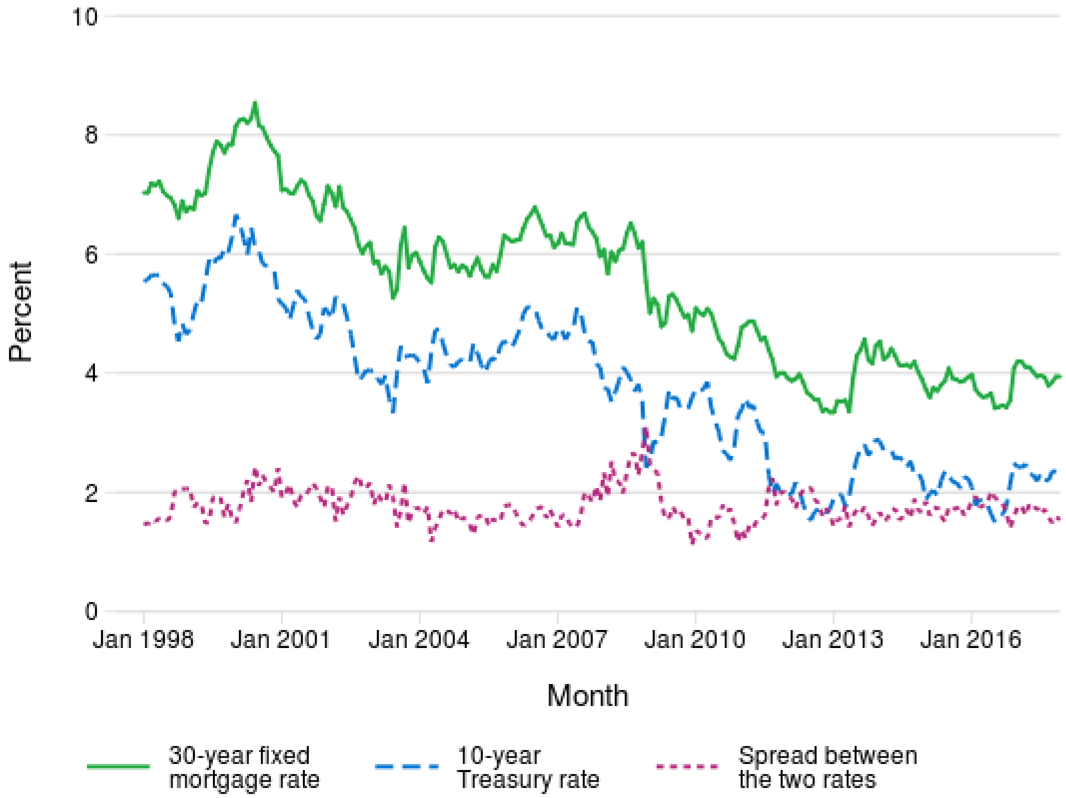
[170] In Figure 4, the sample is restricted to first-lien originations since only those appear in the NMDB.

FIGURE 4: NUMBER OF PURCHASE AND REFINANCE ORIGINATIONS, 1998-2016



Data source: NMDB 4.0

FIGURE 5: 30-YEAR AVERAGE FIXED MORTGAGE RATE, 10-YEAR CONSTANT MATURITY TREASURY RATE, AND THEIR SPREAD, 1998-2017

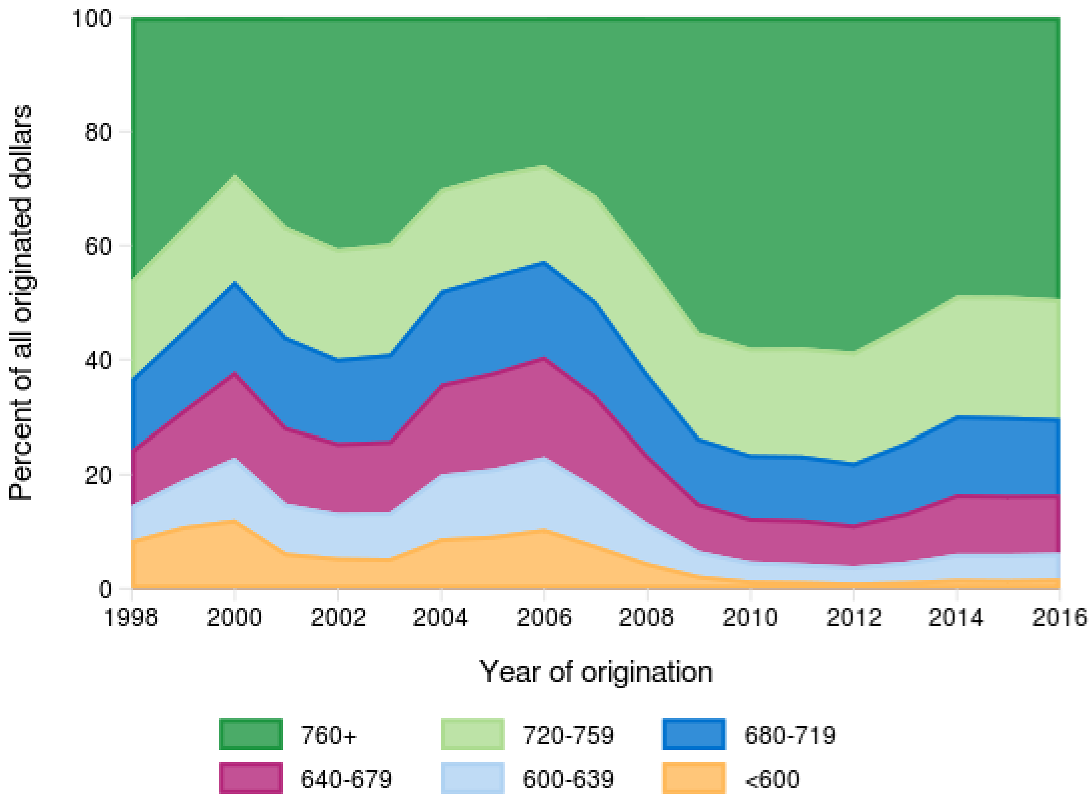


Data source: FRED Economic Data (Federal Reserve Bank of St. Louis)

The early 2000s saw some changes in the mix of lending by creditworthiness as measured by a borrower's credit score. Figure 6 shows the share of total amount of mortgage lending (in dollars) accounted for by the various credit score groups.[171] The share of lending accounted for by lower credit score groups expanded in the last two years of the 1990s. The 2001 recession led to a temporary reversal in this trend, but by 2004 the share of lending accounted for by borrowers with a credit score below 680 was 36.4 percent and this share peaked in 2006 at 41.3 percent.

[171] The credit score used is the VantageScore 3.0, which is what is available in the NMDB. FICO scores have been more commonly used for underwriting during the period of study. The distribution of Vantage scores in the NMDB has a thicker left tail than the distribution of FICO scores in the CoreLogic data, so there are relatively more low score borrowers using the Vantage score.

FIGURE 6: DISTRIBUTION OF ORIGINATED MORTGAGE DEBT BY CREDIT SCORE GROUP, 1998-2016



Data source: NMDB 4.0

There was also a shift in the type of loan products originated. Figure 7 shows the distribution of originations by loan product type. While there is a multitude of products and product features that existed and were introduced into the market at the time, for sake of exposition, this figure distinguishes between three broad groups of loan products. Traditionally, fixed-rate mortgages with a loan-to-value (LTV) ratio of 80 percent or less have been the most common and have been considered the least risky. These are referred to as "Low-leverage fixed-rate loans." On the other end are products that have features that turned out to be so highly correlated with default risk that the Rule generally does not provide them with a presumption of compliance with the ability-to-repay requirement or otherwise limits them. These features are interest-only, negative amortization, term over 30 years, and balloon loans (restricted to non-QM loans by the Rule)[172] and ARMs with reset periods under five years (limited by the Rule given its payment calculation

[172] Balloon loans are allowed as a QM for small, rural lenders.

provisions). These are referred to as "Restricted feature loans."[173] The remaining loans are categorized as "Other loans" and consist of higher leverage fixed-rate loans, ARMs with longer reset periods, and so on. As can be seen from the figure, there was a rise in loans with restricted features and in other loans during the late 1990s, but this trend reversed temporarily with the 2001 recession. From 2000 to 2003 the share of low-leverage fixed-rate loans rose from 51.8 percent to 63.7 percent. Then the prevalence of restricted feature loans picked up, reaching a peak of 30.3 percent in 2006. This followed the relaxation of underwriting standards, which allowed borrowers to be approved in a short amount of time and with less documentation of their ability to repay the loan.

[173] No documentation loans are also restricted by the Rule, but the NMDB data do not distinguish these loans from low documentation loans.

FIGURE 7: DISTRIBUTION OF ORIGINATIONS BY LOAN PRODUCT TYPE, 1998-2016

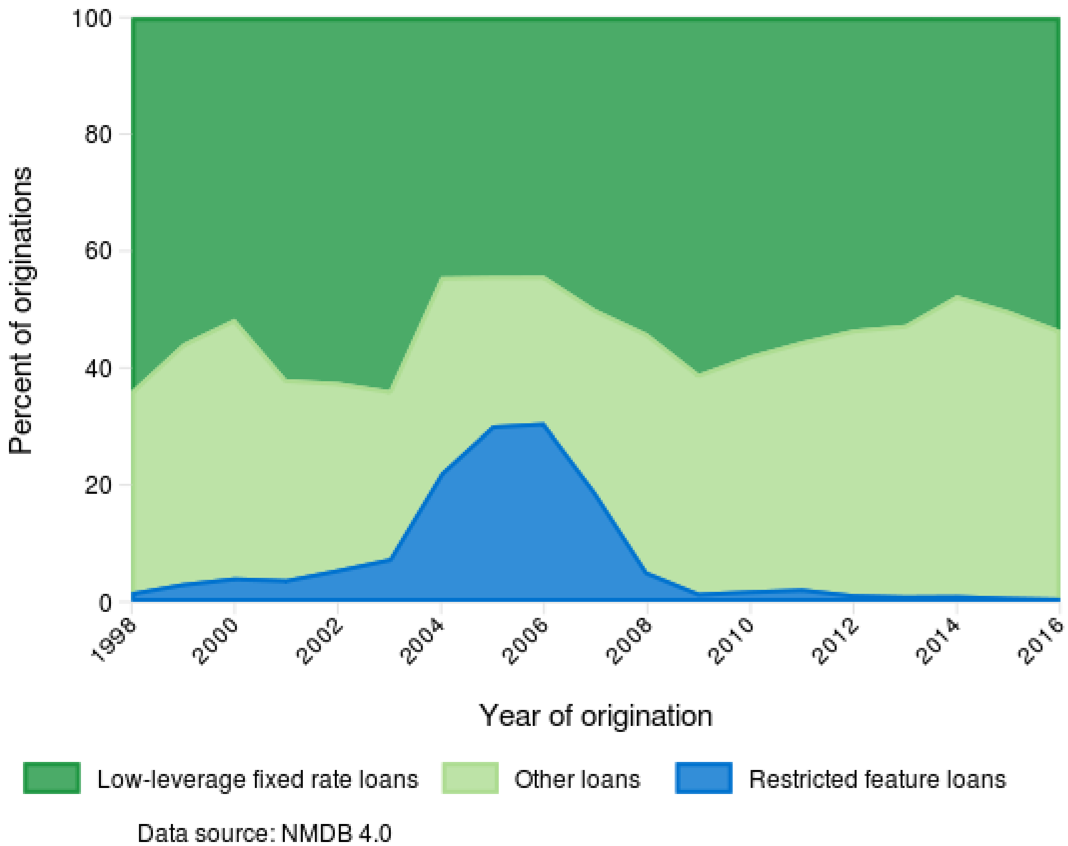
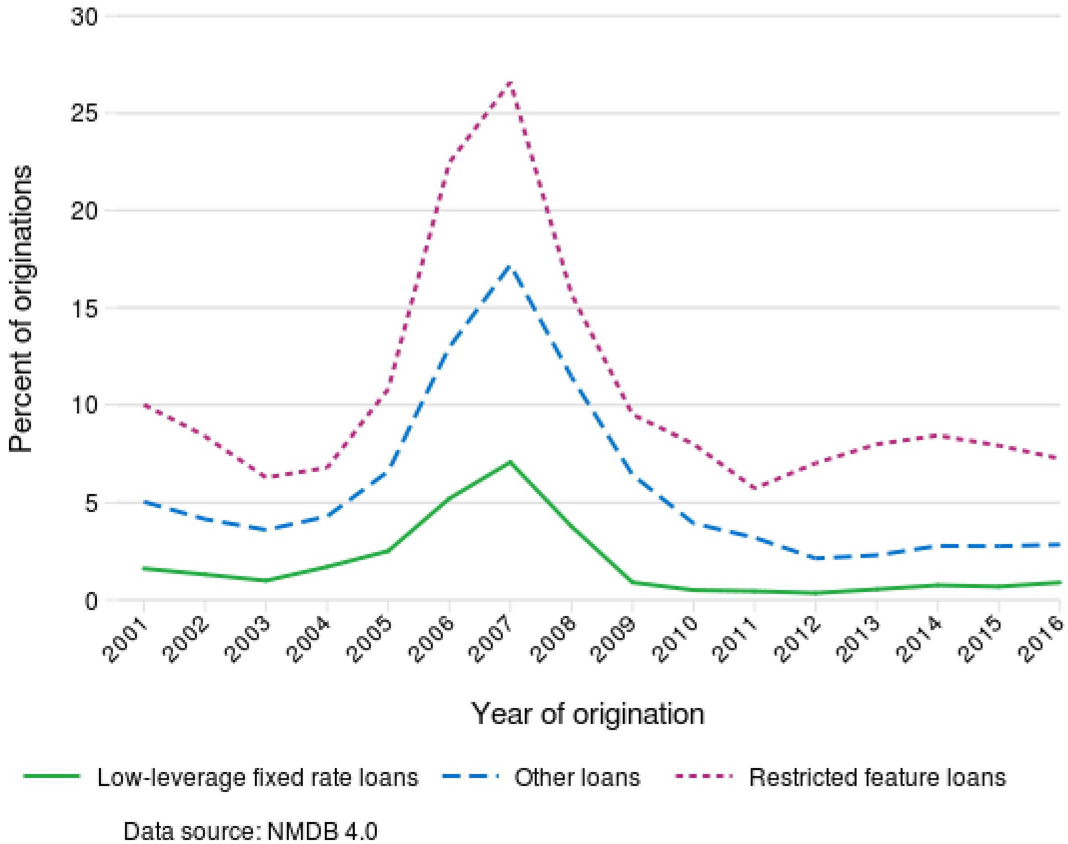


Figure 8 shows the "early delinquency rate" by the loan product types used in Figure 7 and by year of origination.[174] The early delinquency rate is measured as the percent of loans that become 60 days or more past due within two years of origination. As expected, restricted feature loans had the highest early delinquency rate while low-leverage fixed-rate loans had the lowest early delinquency rate during the expansion. The performance of loans originated in the two years subsequent to the 2001 recession was better than in 2001. Delinquency rates started increasing in 2004, but it was not until 2005 that delinquency rates surpassed the levels of 2001. By the 2007 cohort of loans, the delinquency rate for each loan product type was more than two and one half times its level in 2001.

[174] Figure 8 starts in 2001, the first year that loan performance information is available in the NMDB.

FIGURE 8: EARLY DELINQUENCY RATE BY LOAN PRODUCT TYPE, 2001-2016

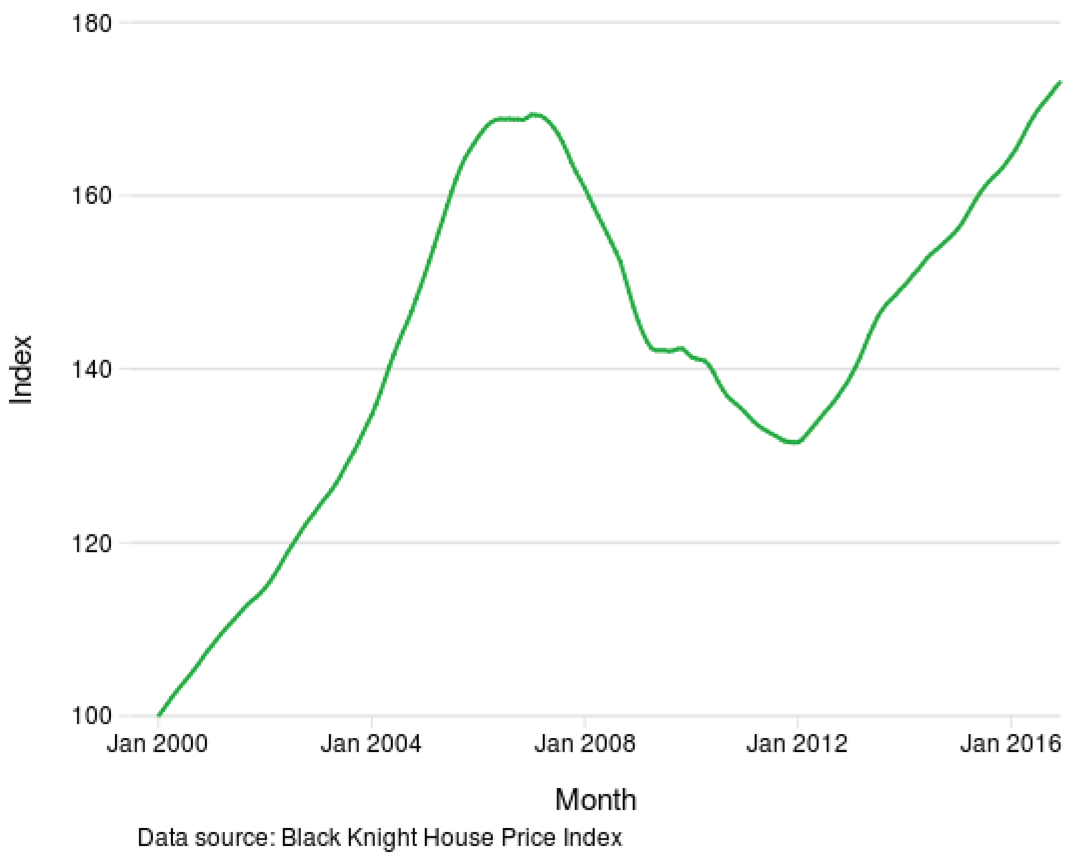


Overall, the expansion of mortgage credit coincided with both an increased share of lending to borrowers of lower creditworthiness and an increase in the share of loan product types associated with higher risk (*e.g.* interest-only loans). While the shift toward less creditworthy borrowers and riskier product types explain part of the rise in the overall early delinquency rate, early delinquency rates within loan product type groups reported in Figure 8 (and even more finely within loan product type and borrower credit score groups) also increased.

3.3 Financial crisis and Great Recession: 2007-2009

In 2007, a significant correction in the housing market began. Between 2000 and the beginning of 2007, prices of single-family homes rose 69.5 percent nationally as shown in Figure 9. House prices peaked in March of 2007 and then started falling and ultimately fell 23.4 percent by the time they hit their trough in January of 2012.[175] The declining value of borrowers' collateral partly contributed to the surge of delinquencies documented in Figure 8.

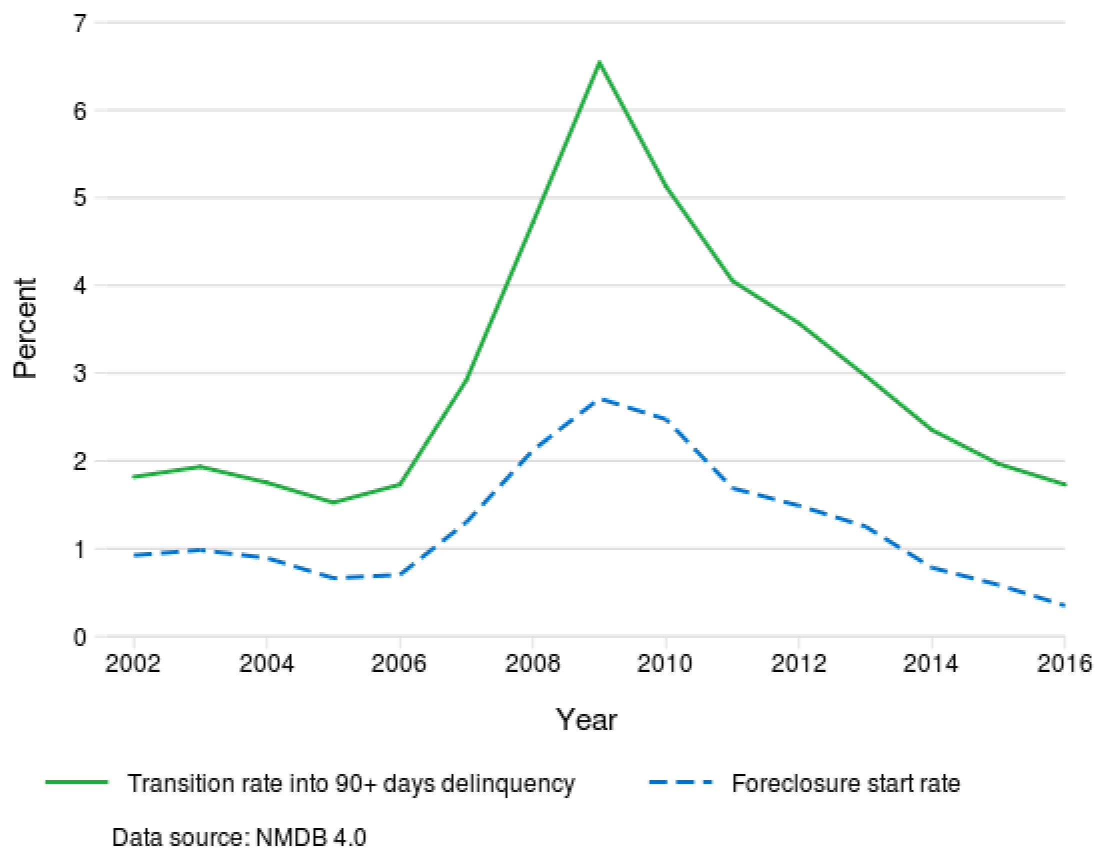
FIGURE 9: HOUSE PRICE INDEX (JAN 2000=100), JAN 2000 – DEC 2016



[175] For a comparison of growth rates in median home prices and median rents, see the Census Bureau's Quarterly Residential Vacancies and Homeownership data series, *available at* https://www.census.gov/housing/hvs/files/currenthvspress.pdf.

Purchase originations quickly declined from their previous levels starting in 2007 and the contraction lasted through 2011. Refinance originations were also muted. The drop in refinances between 2005 and 2008 was comparable to that experienced by purchases, but the refinance market experienced a weak recovery by 2009. The contraction was especially stark amongst loans with restricted features (see Figure 7)—almost no loans with such features were made by 2009—and among the lower credit score groups (see Figure 6).

FIGURE 10: TRANSITION RATE INTO 90+ DAYS DELINQUENCY AND FORECLOSURE START RATE, 2002 – 2016



Concurrently, the transition rate into serious delinquency (90 or more days past due or in foreclosure) and the foreclosure start rate remained at elevated levels for several years. Figure 10 shows for each year the annual rate at which borrowers with existing mortgages transitioned into serious delinquency or had a foreclosure started.[176, 177] In 2007, the transition rate into serious delinquency surpassed its previous high of 1.93 percent reached in 2003 and stayed above that level through 2015, peaking at 6.54 percent in 2009. At the same time, the foreclosure start rate reached 2.71 percent, almost triple its previous peak of 0.98 percent reached in 2003. Simultaneously, as the new issuance of PLS all but faded after 2007,[178] the share of outstanding mortgage debt funded by PLS gradually declined reaching less than half its 2006 share by 2012.

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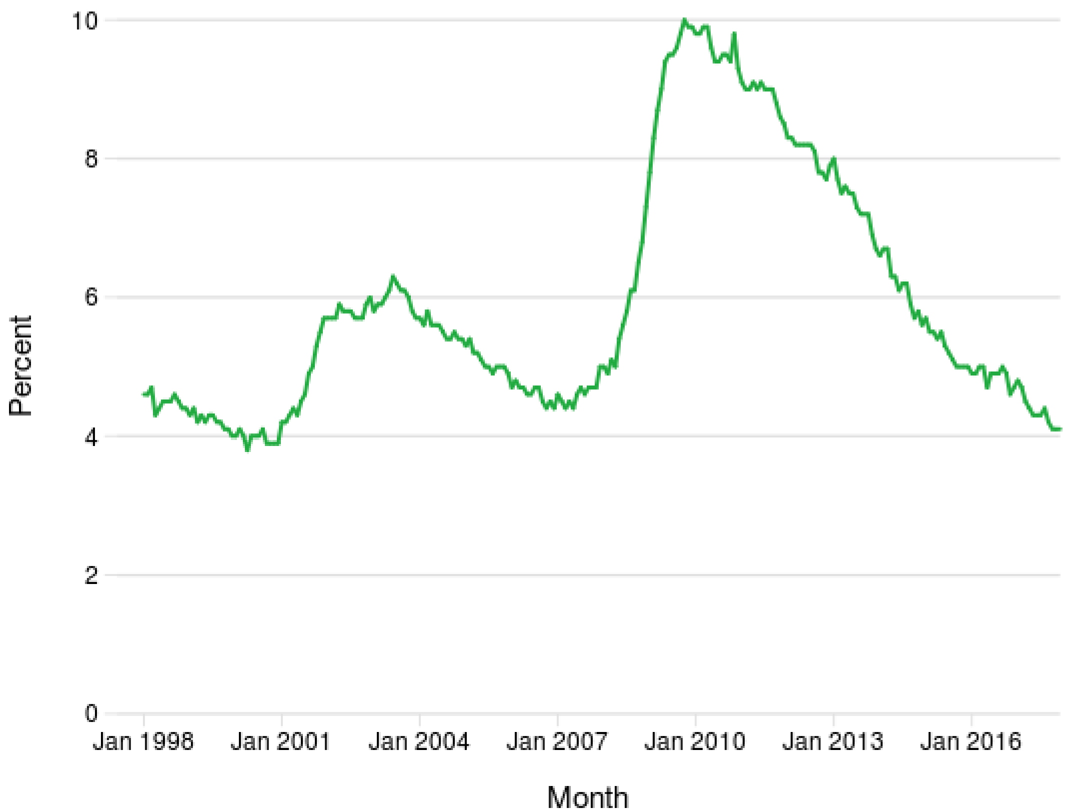
[176] The quarterly transition rate into serious (90+ days) delinquency measures the percent of all mortgages not in serious delinquency at the end of a quarter in which the loans are reported to be seriously delinquent at the end of the subsequent quarter. The quarterly foreclosure start rate measures the percent of all mortgages not in foreclosure held at the end of a quarter that are reported to be in foreclosure at the end of the subsequent quarter. The annual rates reported are the sums of the quarterly rates during a year. Note that the foreclosure start rate is different from the commonly used foreclosure (inventory) rate (used, for example, by the Mortgage Bankers of America National Delinquency Survey), which is the share of mortgages at a point in time that are in foreclosure. An advantage of the foreclosure start rate is that, unlike the foreclosure inventory rate, it is not influenced by the length of time that a mortgage is in foreclosure which can vary across states and over time due to differences in state regulations and changes in the speed of processing foreclosures over time. *See* Timothy Dunne & Guhan Venkatu, *Foreclosure Metrics*, Econ. Commentary, Fed. Reserve Bank of Cleveland (Apr. 2009), *available at* https://www.clevelandfed.org/newsroom-and-events/publications/economic-commentary/economic-commentary-archives/2009-economic-commentaries/ec-20090409-foreclosure-metrics.aspx (for a discussion of various foreclosure metrics).

[177] Note that the horizontal axis in Figure 10 is the year when the loan entered serious delinquency or foreclosure, while in Figure 8 it was the year the loan was originated.

[178] Laurie Goodman, *A Progress Report on the Private-Label Securities Market*, Hous. Fin. Pol'y Ctr. Commentary, Urb. Inst. (2016), *available at* https://www.urban.org/research/publication/progress-report-private-label-securities-market.

FIGURE 11: CIVILIAN UNEMPLOYMENT RATE, JAN 1998 – DEC 2017



Data source: FRED Economic Data (Federal Reserve Bank of St. Louis)

The housing crisis soon was followed by a full financial crisis as the value of mortgage backed securities and the derivative securities tied to them dwindled.[179] Ultimately, the US economy experienced its most severe postwar recession, commonly known as the Great Recession.[180, 181]

The economic effects were widespread and severe. The fall in housing prices is estimated to have resulted in 7.4 trillion dollars of household wealth lost.[182] As shown in Figure 11, the

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179 James Bullard, et al., *Systemic Risk and the Financial Crisis: A Primer*, at 403–417, Fed. Reserve Bank of St. Louis Rev. (Sept./Oct., Part 1, 2009), *available at* https://files.stlouisfed.org/files/htdocs/publications/review/09/09/part1/Bullard.pdf.

180 See Federal Reserve Bank of Minneapolis Special Study: *Recession in Perspective*, *available at* https://www.minneapolisfed.org/publications/special-studies/recession-in-perspective.

181 See Siems, *supra* note, 9.

182 *See* FRED Economic Data, *Households; Owners' Equity in Real Estate, Level*, https://fred.stlouisfed.org/series/OEHRENWBSHNO (last visited Dec. 18, 2018). The loss was calculated as the difference between 2006 Q1 peak and 2009 Q1 trough in households' equity in real estate.

unemployment rate reached 10 percent in October of 2009, levels that the US economy had not experienced since 1983.[183] This was also a time of substantial household deleveraging as the share of personal income held as mortgage debt fell 17 percentage points to reach 77.2 percent by 2011 as shown in Figure 1.

3.4 Pre-Rule economic recovery: 2009-2013

The path to economic recovery after the recession ended in June 2009 was slow and uneven. The unemployment rate started to slowly decline in November of 2009. Consumer spending started to recover as early as the middle of 2009, while nonmortgage lending to consumers began recovering in 2010.[184]

In contrast to consumer spending and nonmortgage lending, recovery in the housing market was much slower. The housing market remained depressed throughout 2009 and 2010. Over this period, the market saw decline and then stagnation in new home construction and sales in combination with an increase in real estate owned by lender (REO) and short sales.[185] As shown in Figure 9, house prices continued falling through 2011 reaching their trough in December of that year.

The housing market began showing signs of recovery starting in 2012. The recovery was attributed, at least in part, to continued improvements in the labor market documented in Figure 11, to historically low interest rates as shown in Figure 5, and to pent-up demand from the post-recessionary period.[186] Loan modification programs also became available to aid distressed borrowers.[187] House prices began to slowly increase in 2012 and experienced

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[183] *See* FRED Economic Data, *Civilian Unemployment Rate*, Fed. Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/UNRATE/ (last visited Dec. 18, 2018); FRED Economic Research, *30-Year Fixed Rate Mortgage Average in the United States*, Fed. Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/MORTGAGE30US/ (last visited Dec. 18, 2018).

[184] *See* Fin. Stability Oversight Council, *2011 Annual Report*, U.S. Dep't of the Treasury (2011), *available at* https://www.treasury.gov/initiatives/fsoc/studies-reports/Pages/2011-Annual-Report.aspx.

[185] *See* Fin. Stability Oversight Council, *2014 Annual Report*, U.S. Dep't of the Treasury (2014), *available at* https://www.treasury.gov/initiatives/fsoc/studies-reports/Pages/2014-Annual-Report.aspx.

[186] Id.

[187] Early in the housing crisis, the availability and terms of mortgage modification programs varied widely and often failed to lower monthly payments for the borrower. As these early mortgage modifications rarely improved affordability, the modified loans were highly likely to re-default. In response to the financial crisis, the federal government established programs aimed at assisting distressed homeowners. Home Affordable Modification Program (HAMP) was introduced in March 2009, providing incentive payments to mortgage lenders, servicers, borrowers, and investors for modifying loans to conform to the HAMP guidelines. *See* Maximilian D. Schmeiser &

substantial growth starting in 2013. The number of purchase mortgage originations started increasing again in 2012 as shown in Figure 4. In the same year refinance loans experienced an upturn, which was largely attributed to low interest rates. The market for these loans cooled off in the second half of 2013 as interest rates rose slightly.[188]

Although the housing market was recovering, the experience of the financial crisis led to tighter underwriting standards in mortgage lending compared to the standards used by some during the preceding expansion.[189] By 2013, the number of purchase originations was well below the levels observed in the late 1990s (Figure 4). High credit score group borrowers experienced a much more robust recovery than those in lower credit score groups, for whom mortgage credit availability was significantly lower than in the late 1990s (Figure 6). Borrowers with credit scores above 760 accounted for close to 58 percent of originated dollars in 2013, compared to just 25 percent in 2006 and 39 percent in 2003. Loans with restricted features all but disappeared from the market, at 1.05 percent their share in 2013 was lower than their 1998 share at 1.63 percent. Note that the disappearance of these loans, which started in 2009, took place prior to the effective date of the Rule's requirements regarding restricted features.

All in all, between 2011 and the implementation of the ATR/QM Rule, mortgage lending recovered somewhat from its trough but remained tight, especially for borrowers of lower creditworthiness and those using riskier loan product types. Correspondingly, early delinquency rates fell to below 2 percent for loans originated in 2011 and stayed below that level through 2016. The tightness of the mortgage market was also reflected in further household deleveraging, with the share of personal income accounted for by mortgage debt falling to below 67 percent by 2014.

Matthew Gross, *The Determinants of Subprime Mortgage Performance Following a Loan Modification*, 52 J. of Real Est. Fin. & Econ. 1 (2016).

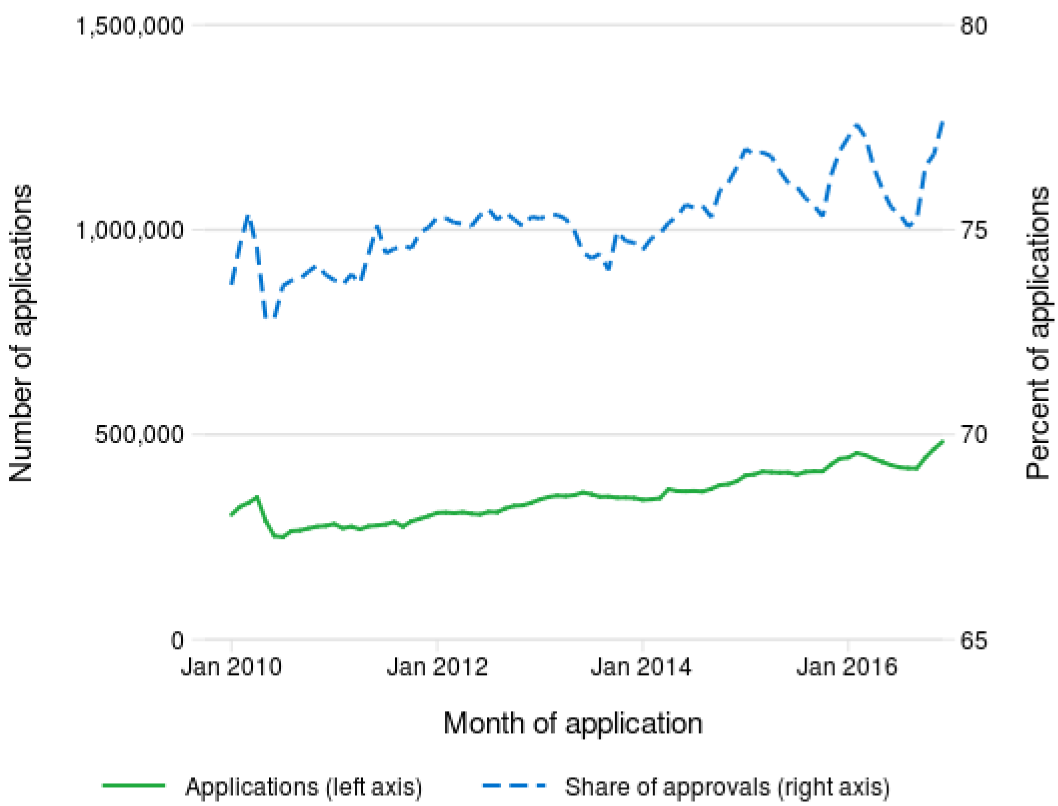
188 Certain commenters suggested that the housing market recovery has been weaker than the data examined by the Bureau suggest. See Appendix B.

189 *See* Laurie Goodman et al., *Where Have All the Loans Gone? The Impact of Credit Availability on Mortgage Volume*, Hous. Fin. Pol'y Ctr. Commentary (2014), *available at* https://www.urban.org/sites/default/files/publication/22386/413052-Where-Have-All-the-Loans-Gone-The-Impact-of-Credit-Availability-on-Mortgage-Volume.PDF; Laurie Goodman et al., *The Impact of Tight Credit Standards on 2009–13 Lending*, Hous. Fin. Pol'y Ctr. Commentary, Urb. Inst. (2015), *available at* https://www.urban.org/sites/default/files/publication/48731/2000165-The-Impact-of-Tight-Credit-Standards-on-2009-13-Lending.pdf.

3.5 Mortgage market pre- and post-Rule

This section provides additional observations on the mortgage market shortly before and after the implementation of the Rule using more refined aggregate market data in order to highlight possible effects of the Rule. It considers applications and approval rates, breaks down mortgage originations by loan size and purchaser type, shows interest rate trends by loan size, and discusses lenders' costs of and revenues from mortgage origination over time. The purpose of the present section is to assess whether the implementation of the Rule had a large, discrete effect on the market that would be apparent in these aggregate trends. Later chapters included in this assessment analyze narrower segments of the mortgage market that may have been most directly affected by the Rule or particular requirements of the Rule.

FIGURE 12: PURCHASE MORTGAGE APPLICATIONS AND SHARE OF APPROVALS, JAN 2010 – DEC 2016



Data source: Home Mortgage Disclosure Act

An imperfect but measurable correlate of mortgage loan demand is the number of applications made for a mortgage loan.[190] The share of applications that are approved as opposed to denied (or withdrawn), in turn, reflects the considerations of lenders in the market and of investors who purchase loans from lenders. Examining these two drivers of mortgage market outcomes can signify how borrower and lender behavior are changing in the market. Figure 12 reports the number of purchase mortgage applications on the left axis and the percent of such applications approved on the right axis as reported under HMDA between 2010 and 2016, both seasonally adjusted.[191] There is no significant break in either applications or the approval rate around the effective date of the Rule, implying that, at this aggregate level, neither demand nor supply were significantly disrupted.

To examine any shifts in the distribution of loan size, Figure 13 shows the share of purchase mortgage originations for loan size categories above the standard conforming limit over the period 2010 to 2016 as reported under HMDA.[192] Super conforming loans are defined as loans with a size above the standard conforming loan limit and up to the county-specific maximum that are permitted in designated high-cost areas.[193] Jumbo loans are defined as loans that are originated with values above either the standard conforming loan limit or the high-cost county maximum, whichever is greater. Not shown in the figure are conforming loans, which account for over 90 percent of mortgage originations through early 2013. The share of jumbo loans grew by 64 percent between early 2013 and the end of 2016 while the growth in the share of super conforming loans was more muted at 35 percent.[194] Despite the significant growth in the jumbo

[190] It is important to note that applications cannot be taken to be a direct measure of demand. To the extent that borrowers anticipate variation in the approval rate, they may turn their latent demand for mortgage loans into actual applications with different propensity depending on the approval rate they anticipate. Effects of this type are analyzed in Chapter 5.

[191] In Figure 12, the measure of applications includes those applications that are ultimately originated, approved but not accepted, denied, withdrawn by the applicant, closed for incompleteness, and purchased by an institution. The sample excludes pre-approval requests and is restricted to purchase applications for first-lien loans on single-family residences. *See* U.S. Census Bureau, *The X13 Arima-Seats Seasonal Adjustment Program*, (2014–2017), *available at* https://www.census.gov/srd/www/x13as/ (seasonal adjustment is performed using the Census Bureau's X13 seasonal adjustment program).

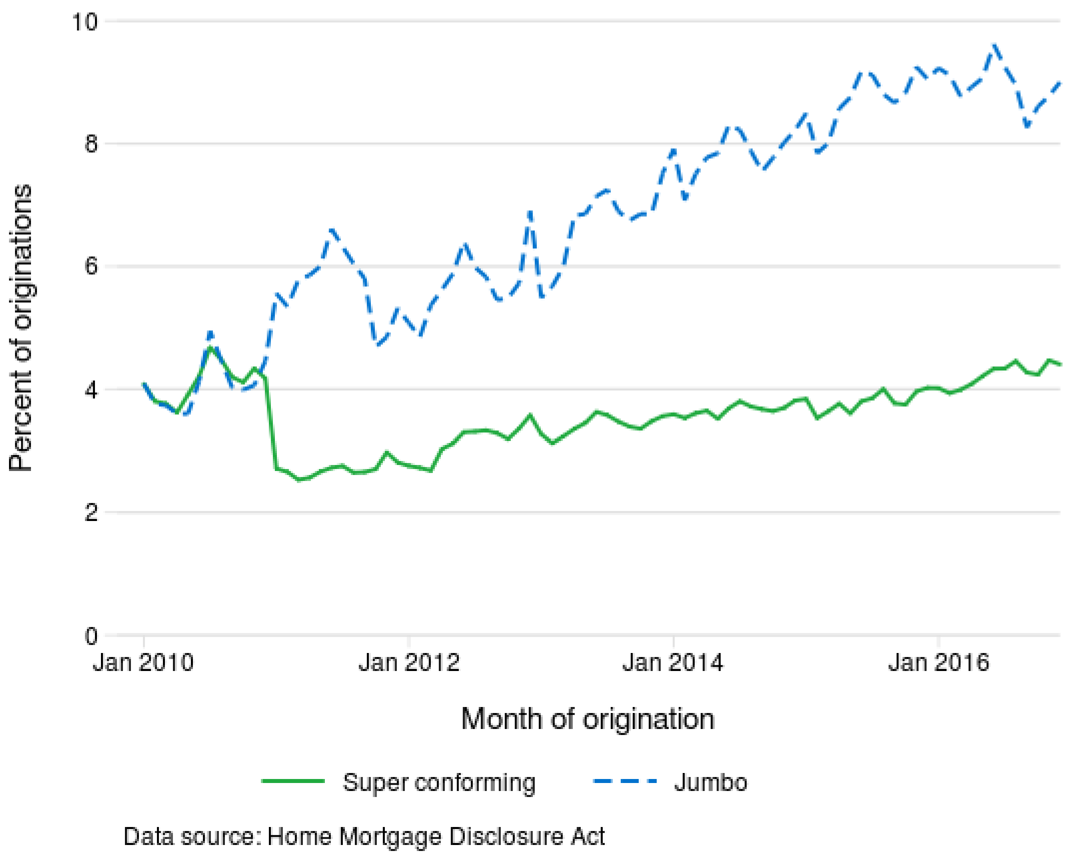
[192] In Figure 13, the sample is restricted to first-lien conventional purchase originations.

[193] The national conforming loan limit for mortgages for single-family one-unit properties was $417,000 for 2006-2008, with limits 50 percent higher for four statutorily-designated high cost areas: Alaska, Hawaii, Guam, and the U.S. Virgin Islands. Since 2008, various legislative acts, including the Housing and Economic Recovery Act of 2008, increased the loan limits in certain high-cost areas in the United States. *See* Fed. Hous. Fin. Agency, *Conforming Loan Limits*, https://www.fhfa.gov/DataTools/Downloads/Pages/Conforming-Loan-Limits.aspx (last visited Dec. 18, 2018) (to determine the applicable limits, HMDA data are matched at the year and county level to the high-cost county limits).

[194] Note that the sharp drop in the share of super conforming loans and the equivalent increase in the share of jumbo loans between 2010 and 2011 was due to the county-specific maxima being significantly lowered in several counties in 2011. At all other times, county-specific maxima stayed the same or increased.

share, later chapters using more refined analysis will examine whether the growth of jumbo originations would have been even higher absent the Rule.[195]

FIGURE 13: SHARE OF ORIGINATIONS BY LOAN SIZE, JAN 2010 – DEC 2016



At the other end of the loan size distribution, the cap on points and fees for qualified mortgages introduced by the Rule could be binding. Figures 14 and 15 show the share of small loans among purchase mortgage originations using loan size thresholds defining the Rule's points and fees cap, for site-built and manufactured home loans, respectively.[196]

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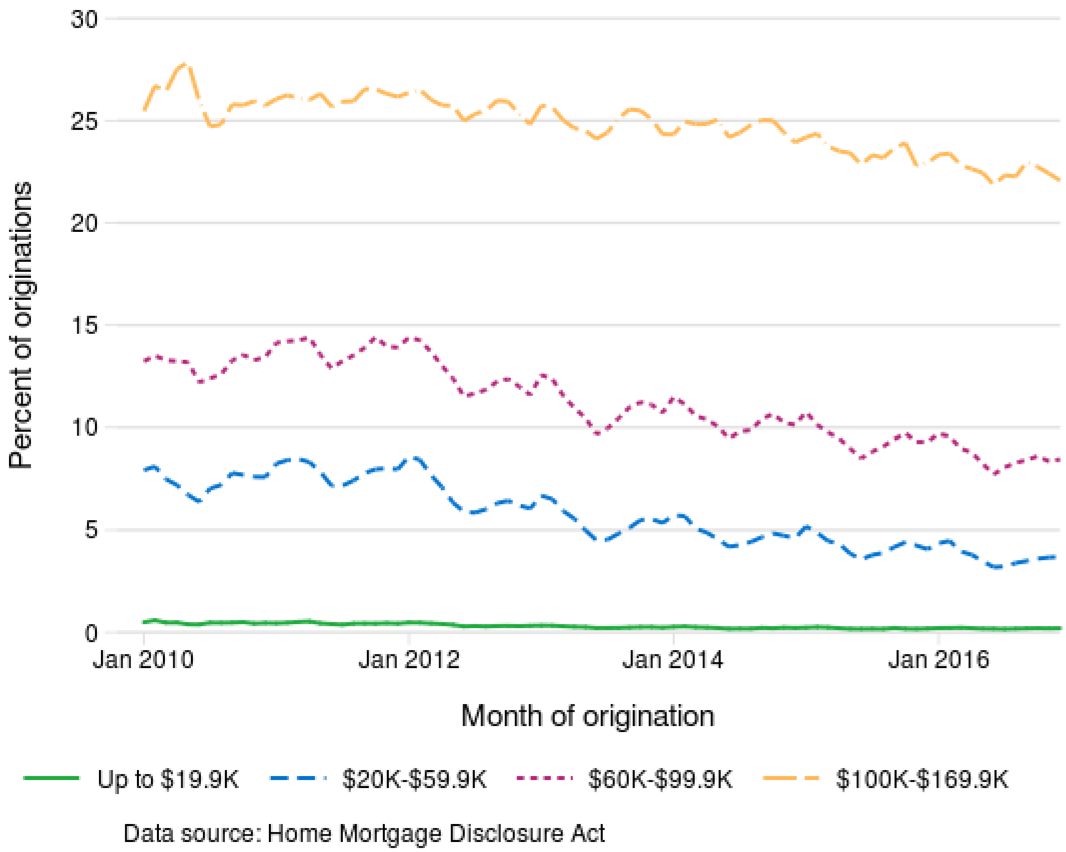
[195] As discussed further in Chapters 5 and 6, with regards to the treatment of jumbo loans under the ATR/QM Rule, the primary difference is that they cannot qualify for Temporary GSE QM status.

[196] In these figures, the sample is restricted to first-lien conventional purchase originations that are valued under $170,000, the median loan size in 2011.

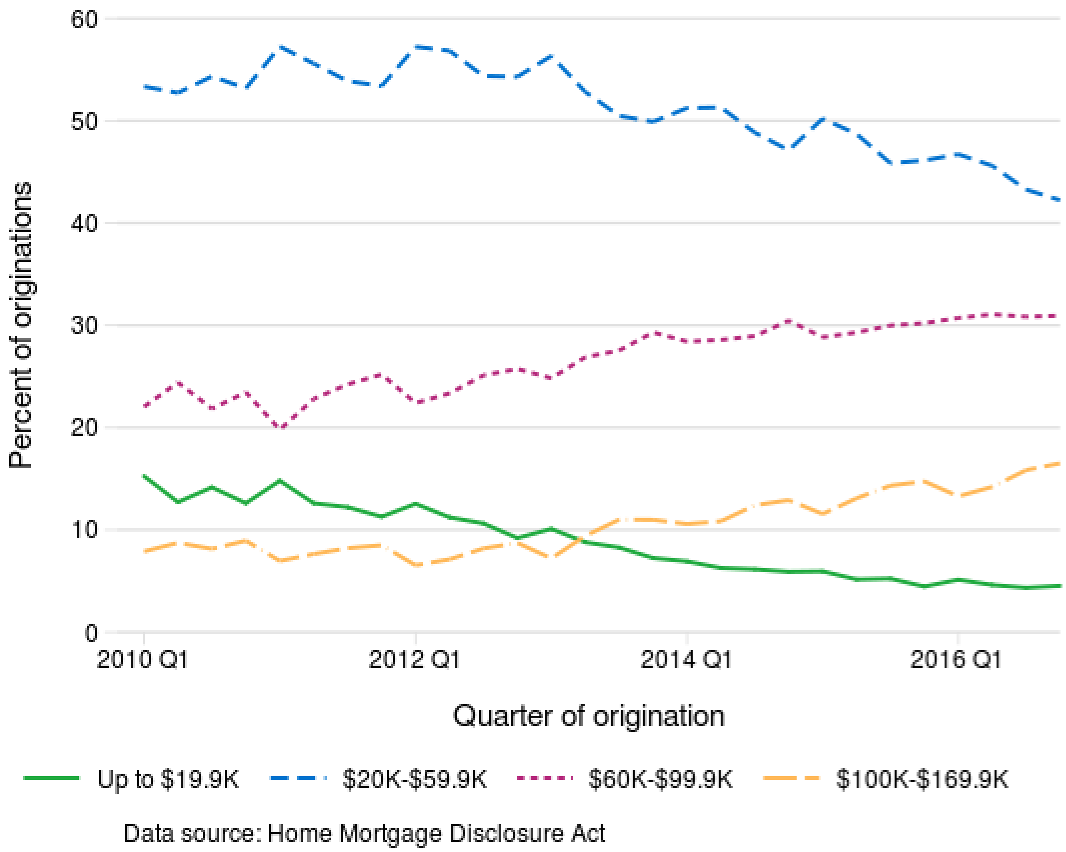
FIGURE 14: SHARE OF ORIGINATIONS BY LOAN SIZE, SMALL SITE-BUILT HOME LOANS, JAN 2010 – DEC 2016



Among site-built home loans, the share of loans under $170,000 was 47.1 percent at the beginning of 2010 and declined to 34.4 percent by the end of 2016. This was largely due to a combination of the price increases documented in Figure 9, borrowers purchasing larger homes, and borrowers taking out loans with a higher loan-to-value ratio.[197] The Rule's points and fees cap may also have contributed to this trend, an issue further examined in Section 5.4.5.

[197] The median loan-to-value ratio for site-built home loans increased from 76 percent to 80 percent over the same period.

FIGURE 15: SHARE OF ORIGINATIONS BY LOAN SIZE, SMALL MANUFACTURED HOME LOANS, 2010 Q1 – 2016 Q4

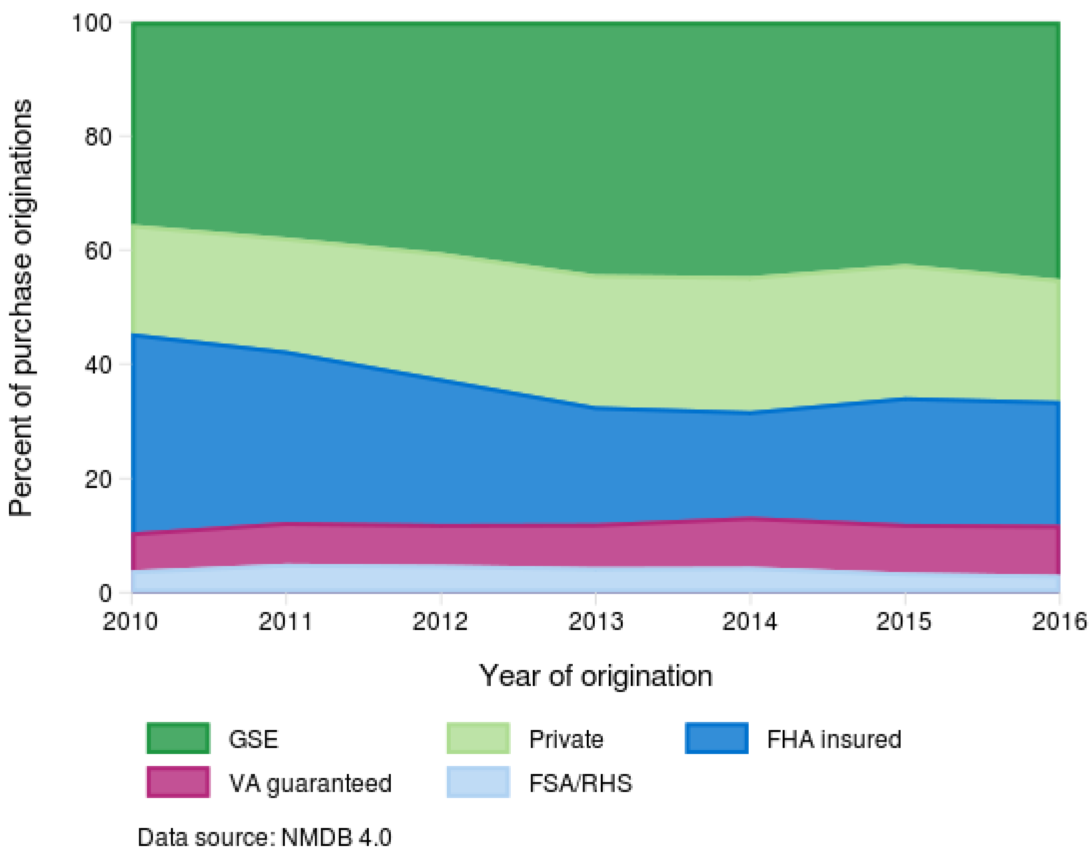


Among manufactured home loans, there was a distinct shift from loans under $60,000 to loans over this value. The share of loans under $60,000 decreased from 68.6 percent to 46.8 percent over the seven years studied, while the share of loans between $60,000 and $170,000 in size increased from 29.9 percent to 47.4 percent. The shift towards larger sizes was more pronounced among manufactured home loans as compared to site-built home loans. This was also reflected in the growth in the median loan amount from $44,000 in the first quarter of 2010 to $63,000 in the last quarter of 2016, a 43.2 percent increase.[198] The changes observed among small site-built and manufactured home loans were gradual and there were no sharp discontinuities observed around the effective date of the Rule. Section 5.4.5 further explores the effect of the Rule on small balance manufactured home loans.

[198] Over the same period, the median size of site-built home loans grew by 24.4 percent, from $180,000 to $224,000. Also, the loan-to-value ratio for manufactured home loans grew from 65 percent in 2010 to 68 percent in 2016.

Figures 16 and 17 show the distribution of home purchase and refinance mortgage originations, respectively, by loan purchaser type over the period of 2010 to 2016 using data from the NMDB. GSE loans represented 35.5 percent of purchase originations in 2010, but their share grew to 44.3 percent by 2013 and stayed around that level thereafter. Private originations constituted 19.1 percent of purchase originations in 2010; their share grew to 23.7 percent by 2014, but then declined back to 21.4 percent by 2016.[199] Overall, the share of conventional (GSE plus Private) originations grew from 55 percent in 2010 to around 67 percent in the years from 2013 to 2016, while the composition of conventional originations did not shift appreciably during this time. This composition is discussed in further detail in Chapters 5 and 6.

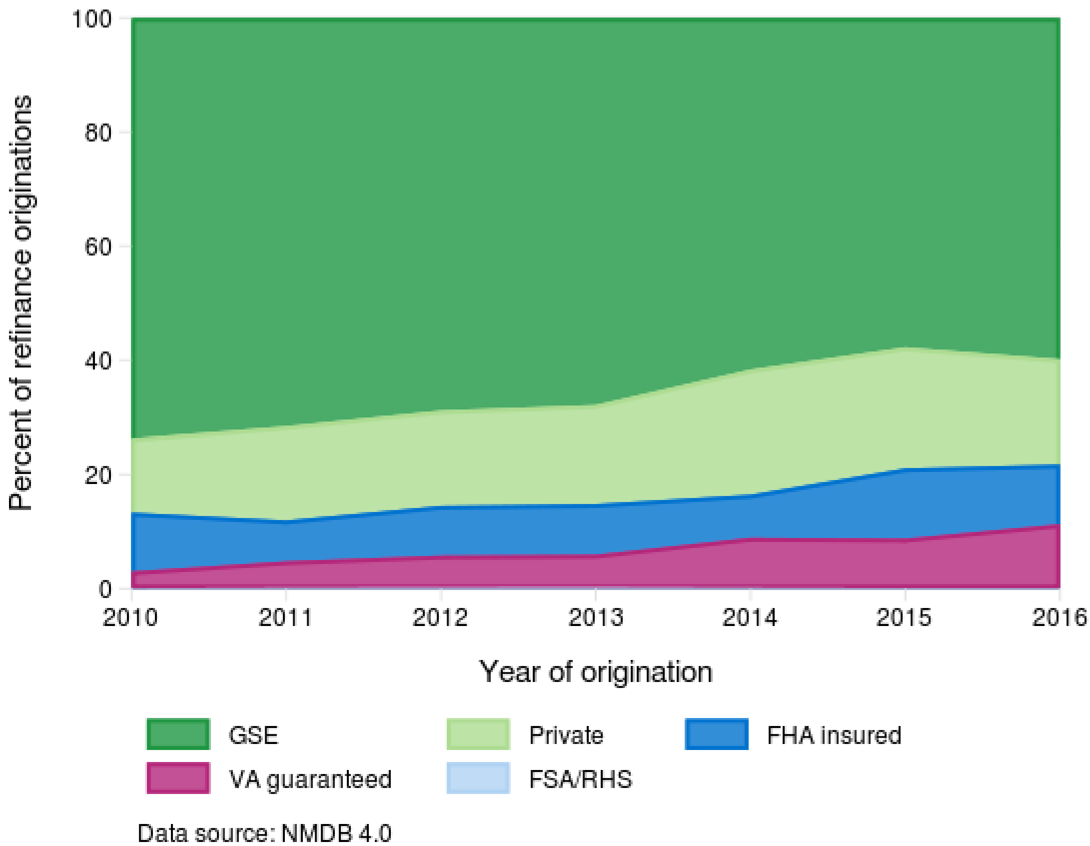
FIGURE 16: DISTRIBUTION OF PURCHASE ORIGINATIONS BY LOAN PURCHASER TYPE, 2010-2016



[199] Private originations comprise of loans securitized by PLS and loans financed by portfolio lending by commercial banks, credit unions, savings banks, savings associations, mortgage banks, life insurance companies, finance companies, their affiliate institutions, and other private purchasers.

Conventional loans play a more dominant role among refinance originations throughout the period. There is a slight shift in the composition of conventional loans as the origination share of GSEs declines from 73.7 percent in 2010 to 67.9 percent in 2013. The private origination share grows from 13.0 percent in 2010 to 17.3 percent by 2013. After that point, the share of GSE originations experiences further decline to 59.9 percent by 2016 while private originations show a small increase to 18.4 percent by 2016. This shift in composition may reflect possible effects of the Rule.

FIGURE 17: DISTRIBUTION OF REFINANCE ORIGINATIONS BY LOAN PURCHASER TYPE, 2010-2016

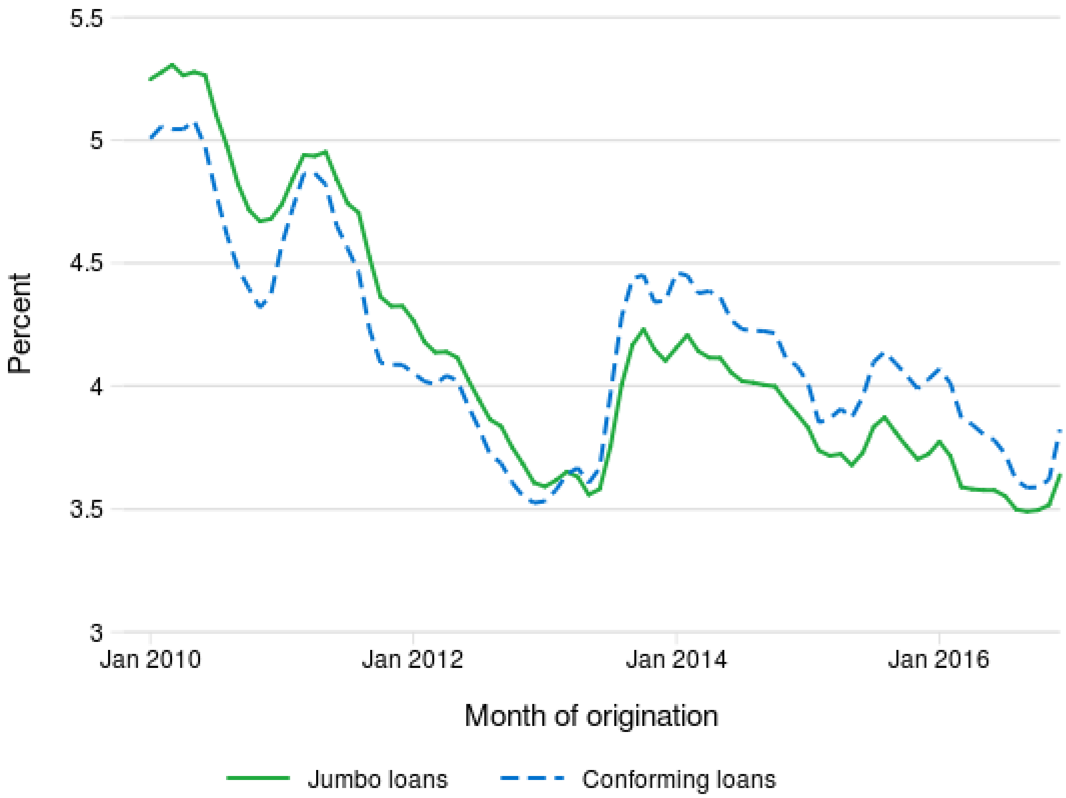


To capture changes in pricing, Figure 18 shows average interest rates on jumbo and conforming mortgage loans among fixed rate originations.[200] The conforming loan category contains both standard conforming and super-conforming loans. Both conforming and jumbo interest rates

[200] Figure 18 pools purchase and refinance originations since the trends are very similar.

trend downward from 2010 to early 2013, falling from around 5 percent to roughly 3.5 percent. A small spread exists between the two categories with jumbo loans having a slightly higher interest rate than conforming loans. Following the rise of the benchmark 10-year Treasury rate (Figure 5), mortgage interest rates increase in the second half of 2013 back to around 4.5 percent for conforming loans. Around the same time, interest rates on conforming loans become higher than those for jumbo loans. Both rates trend downward through the end of 2016 again following the benchmark 10-year Treasury rate, and the positive spread between conforming and jumbo loans is sustained over that period. While the inversion of the rates roughly coincides with the implementation of the Rule, these data are inconsistent with the proposition that the Rule caused a significant increase in the price of jumbo loans relative to those of conforming loans.

FIGURE 18: AVERAGE FIXED INTEREST RATE BY CONFORMING LIMIT, JAN 2010 – DEC 2016



Data source: McDash Loan Originations

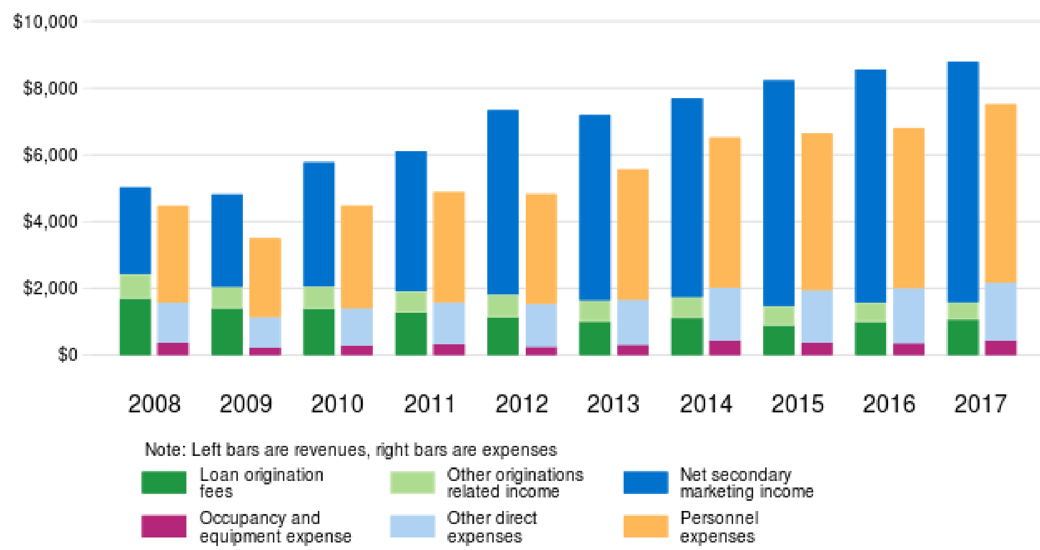
This section closes by considering the revenues and expenses associated with originating a mortgage loan over time. Since 2008, the Mortgage Bankers Association has been publishing the Annual Mortgage Bankers Performance Report that provides data on the revenues and expenses associated with the origination of one-to-four unit residential loans.[201] Most providers of the data are independent mortgage companies. In 2017, 280 respondents provided data. These lenders originated 8,822 residential mortgages on average with an average loan size of $240,191 and with an average origination volume of $2.13 billion. Respondents represented around 74.2 percent of the mortgage origination volume of independent mortgage companies and 34.4 percent of the volume originated market-wide.[202] While a large share of independent mortgage companies are represented in the data, it is not possible to know exactly how representative the reported numbers are among all independent mortgage companies.

[201] The data also cover the costs of servicing mortgage loans. Those costs are not considered here.

[202] These share calculations are based on the 2016 volume of mortgage originations for respondents, all independent mortgage companies, and for the market as a whole and the latter two volume figures are derived from HMDA.

Furthermore, because the data are limited to independent mortgage companies, they do not provide insight into the expenses of depository institutions. However, to the Bureau's knowledge, these data give the most detailed information on the expense and revenue structure of mortgage origination.[203]

FIGURE 19: AVERAGE REVENUES AND EXPENSES ASSOCIATED WITH ORIGINATING A LOAN FOR INDEPENDENT MORTGAGE COMPANIES, 2008-2017



Data source: MBA Annual Performance Report

Figure 19 plots average revenues and expenses associated with originating a loan and their respective components. Both revenues and expenses have been rising substantially from a little over $4,000 in 2008 to around $8,000 in 2017. Revenue growth has somewhat outpaced the growth in expenses, with revenues growing 75.1 percent and expenses growing 68 percent over this time. In terms of revenues, net secondary marketing income (which includes the gain or loss on the sale of loans in the secondary market, pricing subsidies and overages, as well as capitalized servicing and servicing released premiums, together with a small amount of interest income) has a large and growing share. Its share has grown from 51.7 percent of revenues in 2008 to 81.9 percent of revenues in 2017. Correspondingly, loan origination fee income's share has shrunk, from 33.7 percent in 2008 to 12.1 percent in 2017. Finally, the share of other

[203] Several commenters noted the discussion of these data in U.S. Dep't of the Treasury, *A Financial System that Creates Economic Opportunities: Banks and Credit Unions*, June 2017. In addition, several commenters referenced surveys of regulatory burden for credit unions conducted by the Credit Union National Association, *available at* https://www.cuna.org/regburden/. *See also* Appendix B.

originations income (such us underwriting and processing income, administration and other fees, and fee income earned on loans acquired from correspondents and brokers) has remained small and relatively stable.

In terms of expenses, non-personnel expenses (occupancy and equipment expenses and other direct expenses, including technology-related expenses, outsourcing and professional fees, and other operating expenses) have grown moderately over the period covered from $1,570 per loan in 2008 to $2,174 in 2017. Personnel expenses, in contrast, have grown rapidly both in absolute amount and as a share of overall expenses, from $2,905 per loan in 2008 to $5,346 in 2017, reaching 71.1 percent of all expenses by 2017. This increase can be attributed to increased compensation per employee as the growth in the average number of employees (at 230 percent over the period covered) has not outpaced the growth in the number of originations (241 percent).

While the above reported trends clearly establish that the revenues and expenses associated with originating mortgage loans have increased over the past decade, it is uncertain whether the increase or some part of it was caused by the ATR/QM Rule. First, the increase that took place was gradual and there was no distinct increase around the time of the implementation of the Rule. Second, multiple changes in the mortgage market have affected the cost of doing business in this market over the period examined. On the regulatory side, the Secure and Fair Enforcement for Mortgage Licensing (SAFE) Act was enacted into law on July 30, 2008 and the Bureau's TILA-RESPA Integrated Disclosure Rule also came into effect on October 3, 2015. On the non-regulatory side, there was pressure to keep up with consumer expectations for a more streamlined process with investments in better technology[204], ongoing uncertainty about GSE reform, and reduced volume of lending in part because of historically low refinance activity. For these reasons, it is not possible to determine from these aggregate trends alone if the ATR/QM Rule contributed, in part or at all, to the observed increase in mortgage origination expenses.

3.6 Compliance with the Rule

Section 1025 of the Dodd-Frank Act grants the Bureau exclusive authority to examine insured depository institutions and insured credit unions with total assets of more than $10 billion and their affiliates to (among other things) assess these entities' compliance with the requirements of Federal consumer financial laws. Section 1024 of the Dodd-Frank Act separately

[204] *See* Daily Dose, *Keeping Pace with Digitization in the Mortgage Markets*, MReport (Aug. 27, 2018), *available at* https://themreport.com/daily-dose/08-27-2018/keeping-pace-with-digitization-in-mortgage-lending.

authorizes the Bureau to examine depositories[205] and certain non-bank depositories engaged in residential mortgage lending,[206] among other things, and assess these entities' compliance with the requirements of Federal consumer financial laws.[207] The Bureau created its non-depository supervision program in January 2012.[208]

After the effective date of the Rule, the Bureau allowed four months to pass in order for financial institutions to address compliance and technical issues that may be impacted by major system changes.[209] Supervisory examinations of mortgage originators since 2014 have generally focused on reviewing for compliance with the Rule. The Bureau discusses in its Supervisory Highlights patterns and trends found during exams.[210] This section focuses on ATR-related findings from mortgage origination exams.

Supervision has observed that most entities, depository or non-depository, examined by the Bureau are generally complying with the ATR/QM Rule. However, as first described in the Fall 2016 Supervisory Highlights[211] and further discussed in the Spring 2017 Supervisory Highlights[212], with respect to certain ability-to-repay provisions[213], the Bureau's examinations identified the following violation:

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205 12 U.S.C. § 5515.

206 12 U.S.C. § 5514. (326).

207 12 U.S.C. § 5514(a)(1)(A): this provision applies to any covered person who "offers or provides origination, brokerage, or servicing of loans secured by real estate for use by consumers primarily for personal, family, or household purposes, or loan modification or foreclosure relief services in connection with such loans."

208 *See* Steve Antonakes & Peggy Twohig, *The CFPB Launches its Nonbank Supervision Program*, CFPB Blog (Jan. 5, 2012), *available at* https://www.consumerfinance.gov/about-us/blog/the-cfpb-launches-its-nonbank-supervision-program/.

209 *See* Bureau Consumer Fin. Prot., *Supervisory Highlights*, Issue 7 (Winter 2015), *available at* https://files.consumerfinance.gov/f/201503_cfpb_supervisory-highlights-winter-2015.pdf.

210 *See generally* Bureau Consumer Fin. Prot., *Supervisory Highlights*, https://www.consumerfinance.gov/policy-compliance/guidance/supervisory-highlights/ (last visited Dec. 31, 2018) (for a list of all published Supervisory Highlights); *see also* Bureau Consumer Fin. Prot., *Supervisory Highlights, Issue 15* (Spring 2017), *available at* https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/201704_cfpb_Supervisory-Highlights_Issue-15.pdf (for Supervision's observations and approach to compliance with the ATR/QM Rule provisions).

211 *See* Bureau Consumer Fin. Prot., *Supervisory Highlights*, Issue 13 (Fall 2016), *available at* https://files.consumerfinance.gov/f/documents/Supervisory_Highlights_Issue_13__Final_10.31.16.pdf.

212 *See* Bureau Consumer Fin. Prot., Supervisory Highlights, Issue 15 (Spring 2017), available at *https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/201704_cfpb_Supervisory-Highlights_Issue-15.pdf*.

213 12 C.F.R. § 1026.43(c)(2)(vii), .43(c)(4), and .43(c)(7).

Income Verification

- A creditor violated the ATR requirements by failing to properly verify income relied upon when considering the consumer's monthly debt-to-income ratio and determining the consumer's ability to repay.[214]

The Bureau also has enforcement authority with respect to non-depository mortgage originators[215] and depositories with assets over $10 billion,[216] and the prudential regulators have enforcement authority with respect to smaller depositories. Since the effective date of the Rule, the Bureau has not brought enforcement actions against any entities, depository or non-depository, for violating the Rule.

214 *Supra* note 211, at 14.

215 For enforcement authority of non-depositories, *see* 12 U.S.C. § 5514(c).

216 For enforcement authority of depositories, *see* 12 U.S.C. § 5515(c).

4. Assuring the ability to repay

This chapter assesses the effectiveness of the 2013 ATR/QM Rule in assuring that mortgages consumers received are on terms that reasonably reflected their ability to repay the loans. The Rule's Ability-to-Repay provisions require that lenders consider and verify specific underwriting factors, while the Qualified Mortgage provisions provide a legal presumption of compliance (that is either conclusive or rebuttable) for loans which satisfy certain underwriting requirements and restrictions, including those on interest-only payments, negative amortization, balloon payments, terms exceeding 30 years, and debt-to-income (DTI) ratios. These provisions apply to covered loans applied for on: 1) the relationships between some of the key restricted loan characteristics and loan performance; 2) changes in loan characteristics when the Rule became effective; and 3) measures of loan performance for those segments of the market where loan characteristics changed.

The main findings in this chapter include:

- Loans with risky features, including interest-only payments, low documentation, negative amortization, balloon payments, adjustable-rate mortgages (ARMs) for which the interest rate can reset in under five years, and terms exceeding 30 years, had largely disappeared from the market prior to the effective date of the Rule and today appear to be restricted to a limited market of highly credit-worthy borrowers. Such loans had particularly high rates of default among 2005 to 2007 originations. By subjecting the origination of loans with risky features to the ATR requirement, and limiting the ability of such loans to obtain QM status, the Rule is likely to mitigate the reemergence of risky loans should a similar overexpansion of the mortgage market take place.

- In the current market, DTI ratios are likely constrained from returning to crisis-era levels by a combination of the ATR requirement, GSE underwriting limits which define the loans which are eligible for purchase by the GSEs (currently, a DTI limit of 45 percent applies to most loans) and the Bureau's General QM DTI threshold which limits the General QM category to loans with a DTI at or below 43 percent. Even though house prices have largely returned to pre-crisis levels, currently 5 to 8 percent of conventional loans for home purchase have DTI exceeding 45 percent; in contrast, approximately 24 to 25 percent of loans originated in 2005 – 2007 exceeded that ratio. Given the negative relationship between higher DTIs and loan performance, this restraint likely contributes to ensuring that borrowers receive loans they are able to repay, in addition to potentially mitigating systemic risks.

- Early delinquency rates (measured as the percentage of loans becoming 60 or more days past due over the first two years since origination) remain historically low in the post-crisis era. The early delinquency rate of loans with DTI exceeding 43 percent made under the Rule's ATR underwriting requirements (non-QM loans) has remained steady at 0.6 percent. In contrast, the early delinquency rate of GSE loans with DTIs above 43 percent rose from 0.6 percent in 2012-2013 to 1 percent among 2014-2015 originations. Thus, the performance of non-QM loans with DTI greater 43 percent has improved relative to the performance of comparable loans purchased by the GSEs following the implementation of the Rule.

The first section describes the loan performance statistics used to measure borrower distress, and how such measures relate to the idea of assuring the ability to repay. The second section provides evidence on several restricted features which prevent loans from satisfying the General QM requirements, including interest-only payments, balloon payments, negative amortization, terms exceeding 30 years, and loans made with limited income or asset documentation. Loans with restricted features are quite rare in the post-Rule period, but where the data allow, their performance is analyzed and compared to that of loans without such features. Effects on adjustable-rate mortgages, which the QM provisions require to be underwritten to the maximum payment within the first five years of the loan, are also examined. The third section provides historical evidence on the trends in DTI ratios and their relationship to loan performance. The final section documents how DTIs changed for some covered loans originated after the Rule became effective and compares the performance of these loans to those which were not directly affected by the Rule's General QM DTI threshold.

4.1 Ability to repay and loan performance

Because the affordability of a given mortgage will vary from consumer to consumer based upon a range of factors, there is no recognized metric that can directly measure whether the terms of mortgage loans made after the Rule's effective date reasonably reflect consumers' ability to repay. This analysis instead measures a proxy for the lack of ability to repay across a wide pool of loans by considering the frequency of early borrower distress, measured as whether a borrower was ever 60 or more days past due within the first two years after origination.[217] This

[217] Days past due is defined using the Mortgage Bankers Association (MBA) calculation method.

measure is referred to as the "early delinquency rate" in the analyses in this chapter. The focus on early delinquencies is intended to capture borrowers' difficulties in making payments soon after the origination of the loan, even if these delinquencies do not lead to a borrower potentially losing their home. To evaluate more serious borrower distress, some analyses use a measure of whether a borrower was ever in foreclosure within the first two years after origination, referred to as the "early foreclosure rate." For purposes of this assessment, the Bureau assumes that the average "early delinquency rate" and "early foreclosure rate" across a wide pool of Qualified Mortgages (QM) are probative of whether QM loans reasonably assure repayment ability, and that the dependence of these rates on the defining characteristics of QM loans is probative of how those characteristics may influence repayment ability. Likewise, the average "early delinquency rate" and "early foreclosure rate" among a wide pool of non-QM loans are probative of whether such loans reasonably assure repayment ability.

To be clear, this analysis does not define or otherwise identify any acceptable limits of delinquencies and defaults for QM and non-QM loans. Delinquencies are measured but are not assessed against any assumed benchmark. Defining or otherwise identifying benchmarks for acceptable levels of delinquencies for new loans is beyond the scope of this report and, in any event, is difficult in part because the level of delinquencies at a given time (and thus for vintages of loans made around that time) will depend not only on the characteristics and underwriting of the loans themselves but also on the subsequent health of the economy as a whole. The primary goal of this chapter is to present relevant evidence over time and across products.

4.2 Loans with restricted features

The Rule imposed specific documentation, verification and underwriting requirements for loans to meet the General QM criteria, generally eliminating or restricting no-documentation and certain low-documentation loans; furthermore, the General QM category excludes loans with particular features that are viewed as higher risk such as interest-only payments, balloon payments, negative amortization, and terms over 30 years.[218] The Rule also imposes requirements on how creditors determine the monthly payment obligations used in underwriting. In particular, in order for a loan to be a General QM loan, it must be underwritten based on the maximum interest rate permitted during the first five years of repayment, whereas

[218] Balloon loans are particularly rare in both McDash and CoreLogic. One possible explanation is that coverage in both data sources is skewed towards larger lenders and therefore may not fully capture loans originated by small creditors. Chapter 8 further discusses a provision in the Rule that allows small creditors to originate balloon payment QMs, subject to similar restrictions as General QM loans. *See* 12 C.F.R § 1026.43(f) for more information.

for non-QM loans the underwriting must be based on the maximum interest rate permitted under the mortgage.[219]

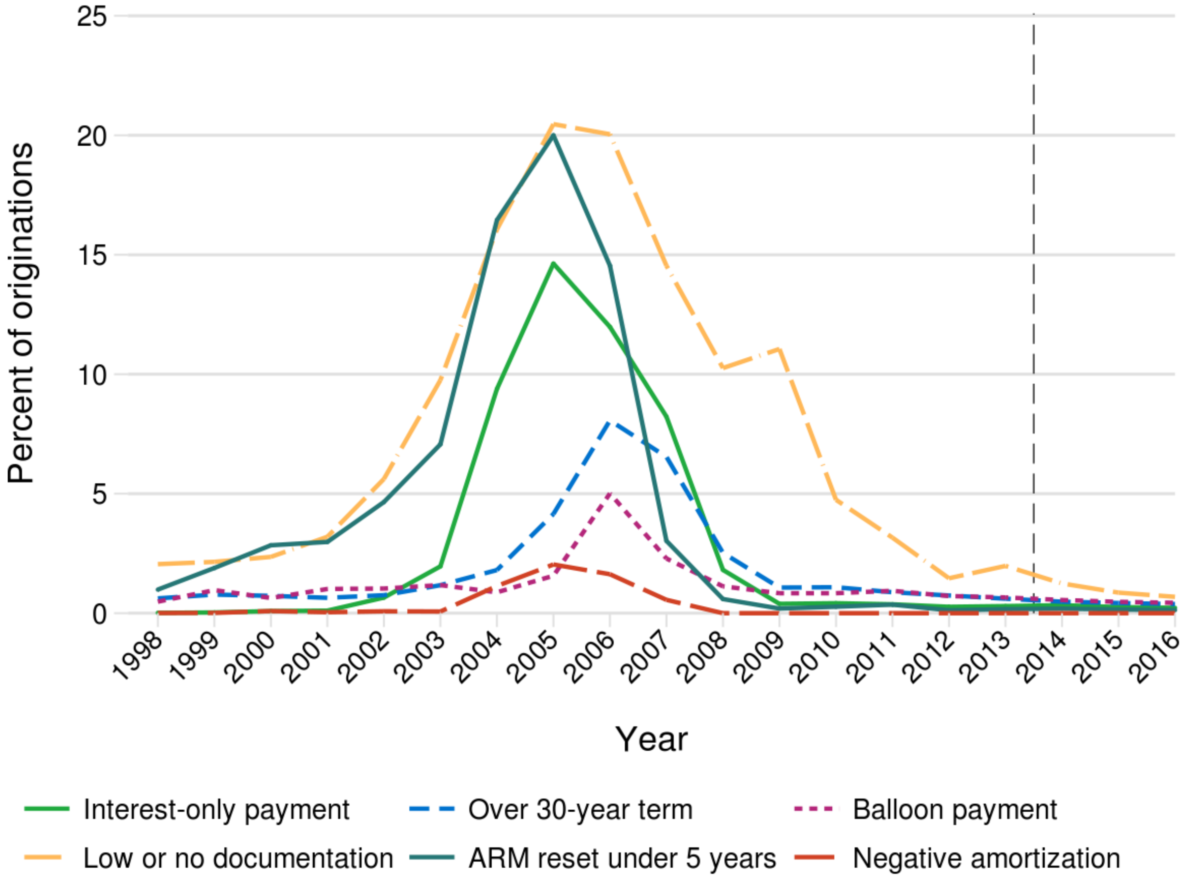
Figure 20 shows the share of conventional purchase loans with each restricted loan feature based on NMDB data.[220] The prevalence of restricted feature loans in the market was already quite limited prior to the Rule's implementation, in contrast to their more widespread use in the years preceding the financial crisis.[221] While it is beyond the scope of this assessment to model how the U.S. economy and the housing market would have progressed had the ATR/QM Rule been in place at the beginning of the 21st century or how it would progress in the future absent the Rule, some simple calculations can shed light on some of the changes that the Rule would have likely brought about had it been in place at the time.

[219] 12 C.F.R. § 1026.43(e)(2)(vi)(A).

[220] Loans may have multiple restricted features, and thus appear in multiple groups in Figure 20.

[221] Comparable patterns have been found in other studies of these restricted feature loans. *See* Bing Bai et al., *Has the QM Rule Made it Harder to Get a Mortgage?*, Hous. Fin. Pol'y Ctr. Commentary, Urb. Inst. (2016), *available at* https://www.urban.org/sites/default/files/publication/78266/2000640-Has-the-QM-Rule-Made-It-Harder-to-Get-a-Mortgage.pdf.

FIGURE 20: SHARE OF CONVENTIONAL PURCHASE LOANS WITH RESTRICTED FEATURES, 1998-2016



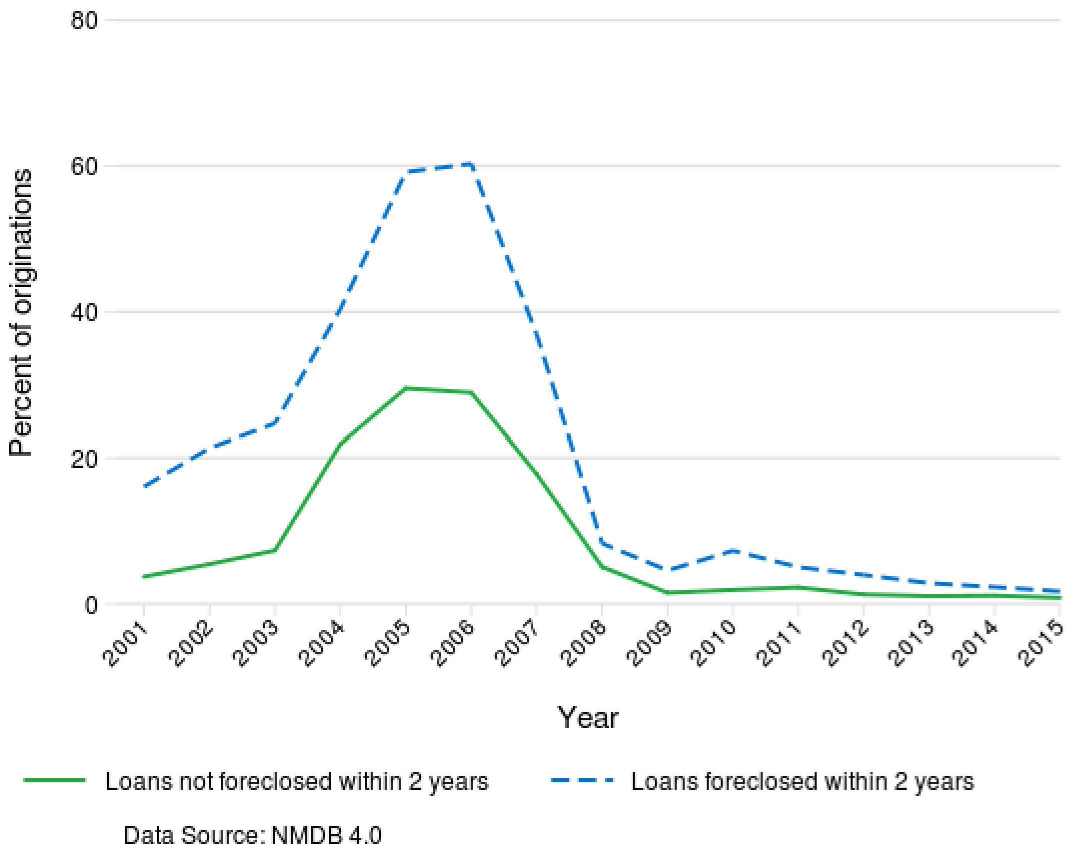
Data Source: NMDB 4.0

Figure 21 shows the share of loans with at least one restricted feature[222] among early foreclosure loans (defined here as loans that foreclosed within two years of origination) and among performing loans (defined here as those loans that did not foreclose within two years of origination) by origination year. The figure shows that 50 to 60 percent of early foreclosed loans from the 2005 to 2007 originations that preceded the crisis had features that the Rule generally subsequently restricted or eliminated in some manner. The Rule would likely have prevented at least some of the early foreclosed loans that had these features from being originated in the first place, potentially eliminating a majority of early foreclosed loans if the Rule had been in place at

[222] Given that loans with no documentation are not distinguished from loans with low documentation in the NMDB, this figure does not classify loans as having restricted features based on documentation alone. Foreclosure shares when classifying these loans as restricted are similar.

the time.[223] On the other hand, it is not possible to assess to what extent performing loans with these features would have been originated under terms allowed by the Rule and to what extent they would have been eliminated. Further, while it is not possible to assess the likelihood that risky lending with these features would occur again in the future absent the Rule, an important benefit of the Rule is that it limits such an outcome and any consequent consumer harm or macroeconomic disruption.

FIGURE 21: SHARE OF LOANS WITH RESTRICTED FEATURES AMONG EARLY FORECLOSURE LOANS AND AMONG PERFORMING LOANS BY ORIGINATION YEAR



The remainder of this section focuses on the more narrow use of products with these restricted features in the post-crisis era. To assess borrowers' ability to repay within this space, the

[223] An analysis using CoreLogic data finds that the national foreclosure inventory, as measured by the number of mortgaged residences that have been placed into the foreclosure process by the servicer, peaked in January 2011. See *United States Residential Foreclosure Crisis: Ten Years Later* (March 2017), *available here* https://www.corelogic.com/research/foreclosure-report/national-foreclosure-report-10-year.pdf.

following analyses compare the characteristics and performance of such loans to loans in the overall market, taking advantage of the larger sample sizes available in the McDash and CoreLogic datasets.[224] Figure 22 shows the limited prevalence of restricted feature loans in these datasets since 2012. Further, in qualitative responses to the Bureau's survey of lenders concerning mortgage applications from 2013 through 2016, multiple lenders reported discontinuing products with balloon and interest-only payments, as well as changing the structure or income requirements of ARM products.[225]

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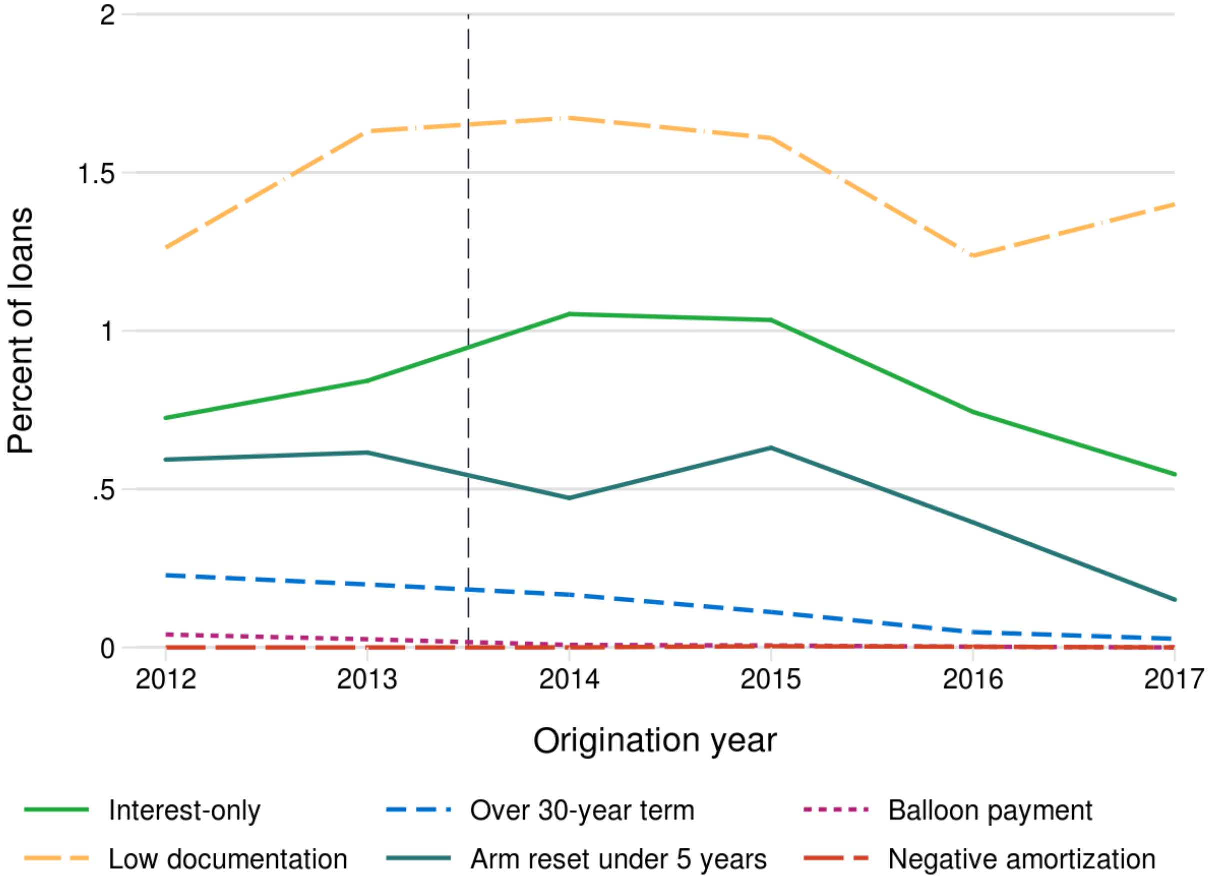
[224] The variable that indicates documentation status in the McDash data is reported as missing or unknown for over 60 percent of loan observations beginning in 2014. For this reason, this subsection uses CoreLogic LLMA data in order to measure loan performance by documentation status and the McDash data to analyze the other loan features. The CoreLogic data indicate whether a loan is "full documentation", "low or minimal documentation", or "no asset/income verification". A "full documentation" loan is described as one in which the borrower's employment, income and assets have been verified. In contrast, loans are categorized as "no documentation" if the provider of the loan data clearly indicates that the loan was originated with no documentation. The third category of loans is "low or minimal documentation", which includes any loan that does not fit in the previous two categories and is not missing this information. Low documentation loans may include phrasing from the data provider such as streamlined, reduced, or limited verification.

[225] See Section 8.2 in this report for additional details of responses to the survey of lenders. In addition, responses to the Bureau's 1022(c)(4) information request to nine anonymous mortgage lenders also indicate that several lenders preemptively discontinued some of these restricted product features altogether prior to the Rule's effective date. Other lenders report that they continue to offer interest-only loan products as non-QM loans or that they still originate loans with documentation exceptions in limited circumstances.

FIGURE 22: SHARE OF CONVENTIONAL PURCHASE LOANS WITH RESTRICTED FEATURES: 2012-2017



Data Source: McDash Loan Current and Loan Month Files, CoreLogic LLMA

4.2.1 Post-crisis characteristics and performance of loans with restricted features

Given their rarity and the low overall delinquency levels in the current market, the available data do not allow for informative comparisons of loan performance for loans with balloon payments, negative amortization, and/or terms over 30 years.[226, 227] Further, loans with no asset or income

[226] Balloon loans are particularly rare in both the McDash and CoreLogic datasets. One possible explanation is that coverage in both data sources is skewed towards larger lenders and therefore may not fully capture loans originated by small creditors. Chapter 7 further discusses a provision in the Rule that allows small creditors to originate balloon payment QMs, subject to similar restrictions as General QM loans. *See* 12 C.F.R. § 1026.43(f).

[227] The McDash data are reported on a monthly basis and as such, this analysis does not consider loans with terms of 361 or 362 months to exceed 30 years. Considering such loans as 30-year term also accounts for the possibility that

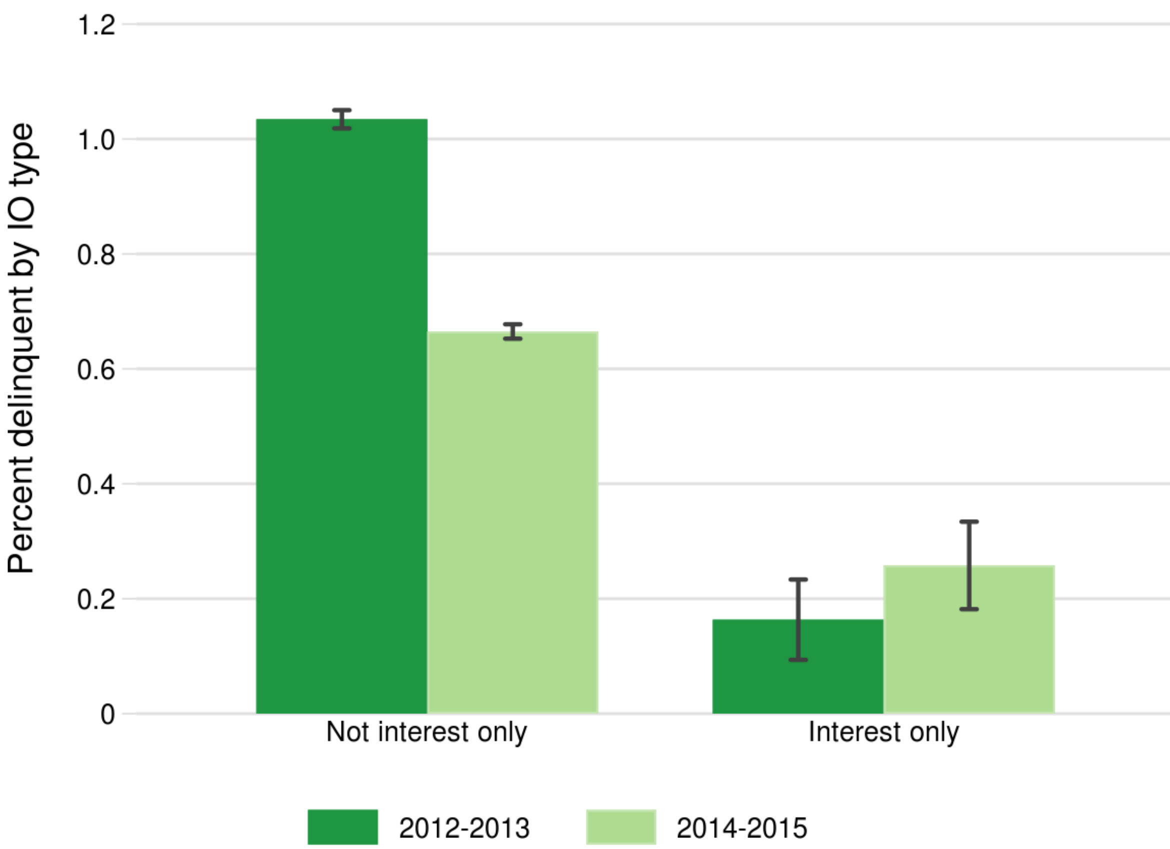
verification are non-existent in the sample used in this chapter, even before the ATR/QM Rule took effect. For those reasons, performance is only estimated for loans with interest-only payments, loans with limited documentation of borrower assets or income, and (in the next subsection) loans with ARM resets under five years.

Figure 23 shows that from 2012 through 2015, loans with interest-only payments had considerably lower early delinquency rates than the market as a whole. This likely reflects the more limited use of such products after the crisis era. There was a small rise in the use of such loans at the time the Rule went into effect (see Figure 22), which was accompanied by an uptick in their early delinquency rate while still staying significantly below the early delinquency rate of non-interest only loans (see Figure 23). Figure 24 shows that the limited number of loans reported as having minimal documentation of either assets or income performed comparably to the broader population of mortgages from 2012 through 2015.[228]

a loan origination could occur a month or more before the borrower's first payment is due. For example, if a borrower closes on a loan on January 15th, the first payment may not be due until March 1st and this may result in a reported loan term that is one to two months longer than 360 months. *See* 12 C.F.R. § 1026.17(c)(4)(iii) for more information about disclosures relating to the calculation of payment schedules.

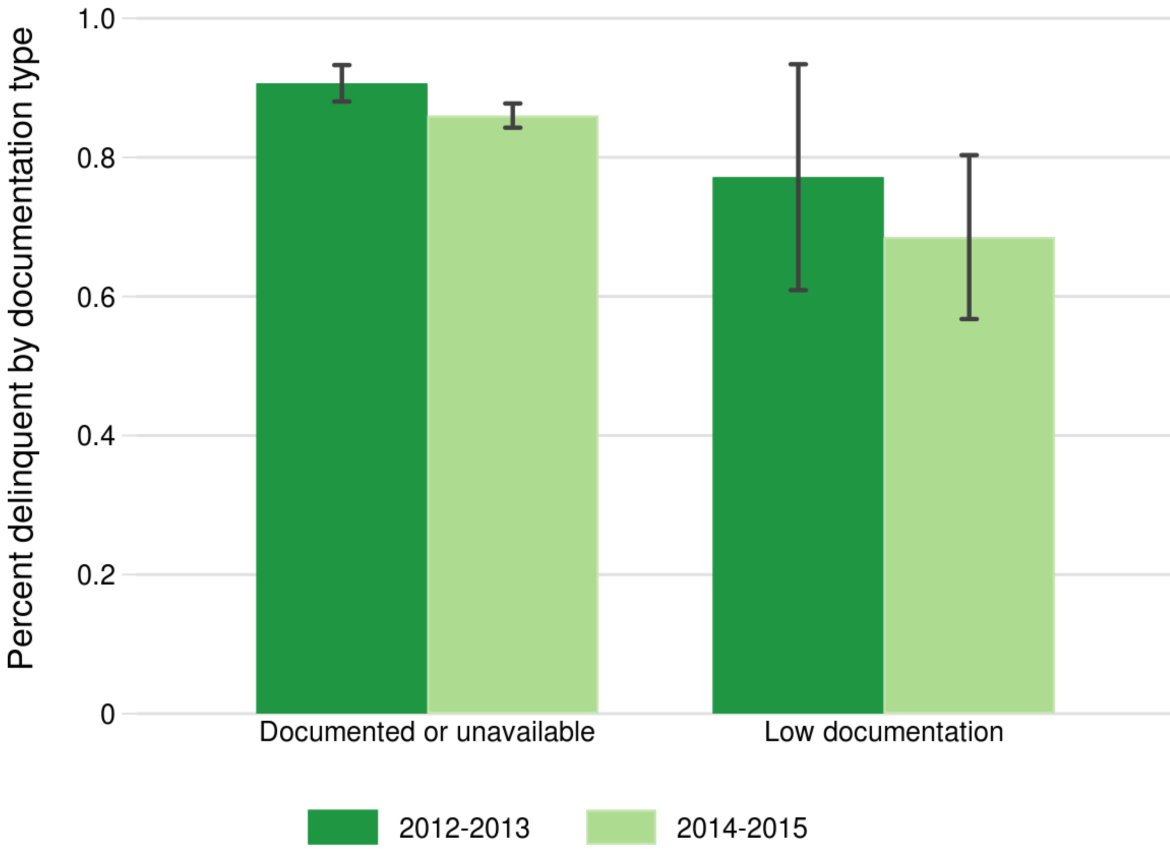
[228] Due to limitations in data availability, the delinquency rates shown in Figure 24 are measured for loans that were originated from January 2012 through September 2015.

FIGURE 23: EARLY DELINQUENCY RATES BY INTEREST-ONLY PAYMENT STATUS, CONVENTIONAL PURCHASE LOANS, 2012 THROUGH 2015



Data Source: McDash Loan Current and Loan Month Files

FIGURE 24: EARLY DELINQUENCY RATES BY ASSET AND INCOME DOCUMENTATION STATUS, CONVENTIONAL PURCHASE LOANS, 2012 THROUGH 2015



Data Source: CoreLogic LLMA

To further examine the underwriting of these loans, Table 1 shows average borrower and loan characteristics for 2014 originations of the two loan products analyzed in this subsection, as well as the adjustable rate products analyzed in the next subsection. On average, the small subset of borrowers who took out low documentation loans in 2014 tended to have similar characteristics to the general population of borrowers, consistent with their comparable loan performance shown in Figure 24. On the other hand, borrowers who took out interest-only loans tended to have higher credit scores and markedly lower LTV ratios and introductory rates on average. These characteristics suggest that loans with these restricted features may be largely confined to highly creditworthy borrowers.

TABLE 1: AVERAGE BORROWER AND LOAN CHARACTERISTICS OF CONVENTIONAL PURCHASE LOANS WITH RESTRICTED FEATURES, 2014 ORIGINATIONS

Loan sample	Credit score	DTI ratio	LTV ratio	Interest rate	Observations
All loans (McDash)	755.48	29.69	81.93	4.23	875,044
Interest-only (McDash)	770.79	32.57	69.46	2.99	8,108
ARMs that reset in under 5 years (McDash)	772.63	31.71	74.4	2.88	3,635
All loans (CoreLogic)	755.47	33.45	80.48	4.24	579,931
Low documentation (CoreLogic)	756.44	32.62	80.54	4.04	9,700

4.2.2 Effects on adjustable rate mortgage characteristics

In addition to prohibiting certain features on QM loans, the QM provisions of the Rule require that creditors underwrite based on the maximum interest rate permitted during the first five years of repayment.[229] These provisions operate in part to prevent the widespread return of loans underwritten based on a "teaser" rate payment used for the first two or three years of the loan, which would then reset to a much higher level.[230] In qualitative responses to the Bureau, several lenders noted that they had changed the structure of some adjustable rate mortgages (ARMs) in response to this requirement, increasing the time until first payment reset to five years or longer.

To assess whether such a shift occurred across the market more broadly, Figure 25 examines the share of ARMs with initial reset timing below five years.[231] The sample is restricted to the conventional, non-GSE market where General QM provisions, rather than Temporary GSE QM or Federal Agency QM provisions, are likely to bind. The data show that while ARMs with initial

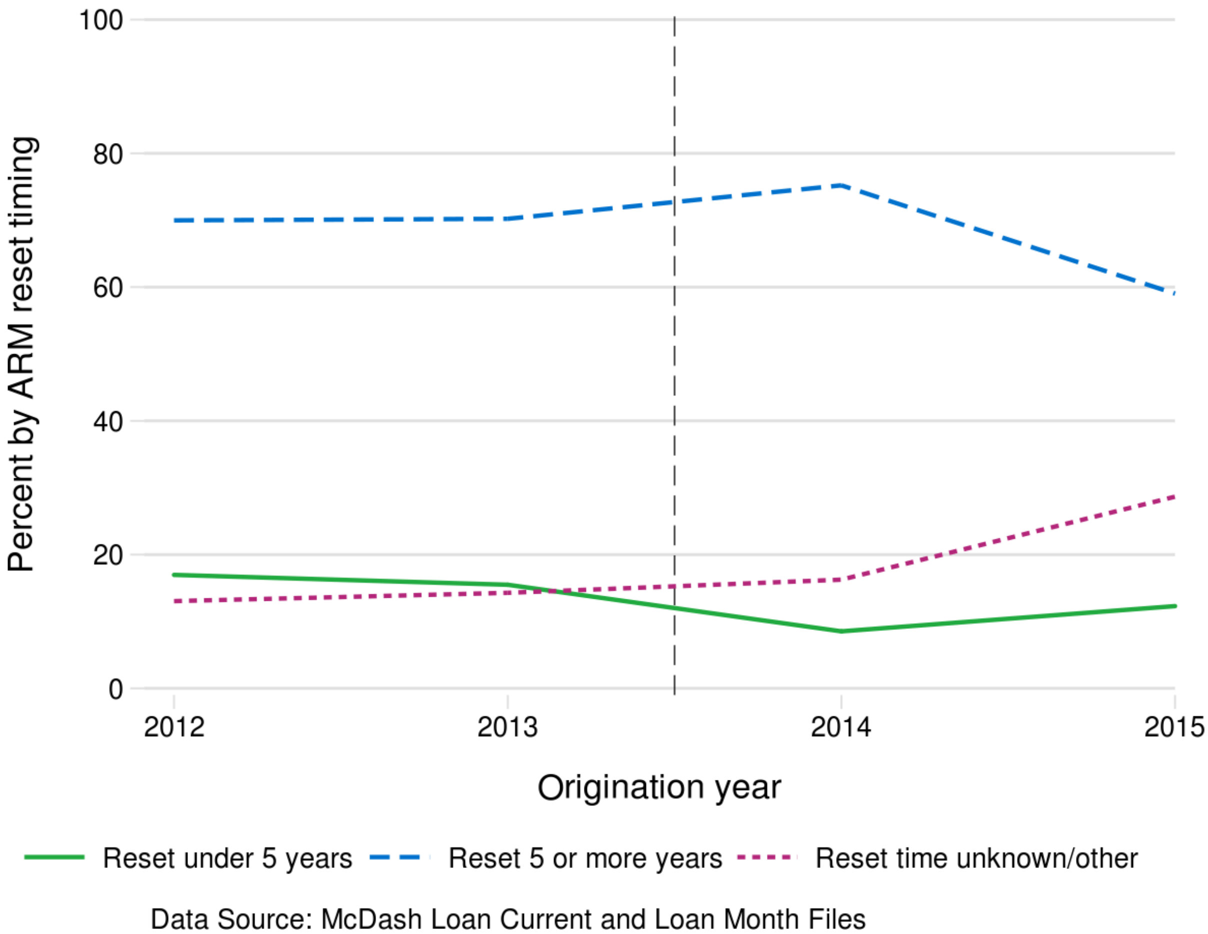
[229] 12 C.F.R. § 1026.43(e)(2)(iv)(A).

[230] "[T]he ability-to-repay provisions of the Dodd-Frank Act were codified in response to lax lending terms and practices in the mid-2000's, which led to increased foreclosures, particularly for subprime borrowers. The statutory underwriting requirements for a qualified mortgage—for example, the requirement that loans be underwritten on a fully amortized basis using the maximum interest rate during the first five years and not a teaser rate, and the requirement to consider and verify a consumer's income or assets—will help prevent a return to such lax lending." 78 Fed. Reg. 6511 (Jan. 30, 2013).

[231] The initial reset of an ARM is also referred to by the term "recast."

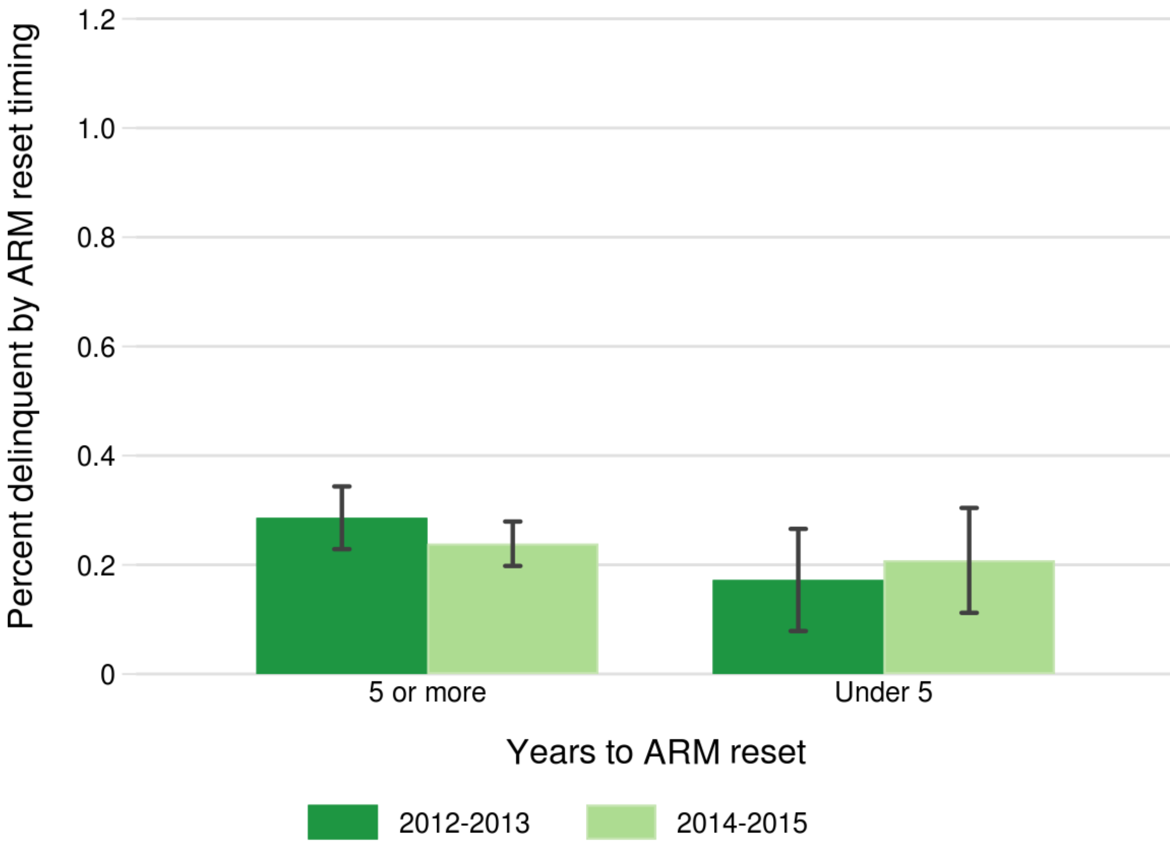
reset timing under five years already made up less than 20 percent of ARMs prior to the Rule's effective date, their share fell further after the effective date of the Rule.

FIGURE 25: SHARE OF CONVENTIONAL, NON-GSE ADJUSTABLE RATE MORTGAGES SPLIT BY INITIAL RESET TIMING, 2012 TO 2015



Like the non-QM loan features discussed in the previous subsection, short timing reset ARMs already made up a much smaller share of the market in the years immediately prior to the Rule's effective date than during the financial crisis. Column 3 of Table 1 shows that short timing reset ARMs appear to be restricted to highly creditworthy borrowers. This is also reflected in the very low early delinquency rates for such loans, shown in Figure 26, though the strong initial performance for all ARMs is due in part to loans for which initial payments have yet to reset. Together, the ATR and General QM underwriting requirements of the Rule will likely prevent loans with these characteristics from re-emerging as a means of enabling borrowers to gain approval for a mortgage.

FIGURE 26: EARLY DELINQUENCY RATES OF CONVENTIONAL, NON-GSE ADJUSTABLE RATE MORTGAGES, SPLIT BY INITIAL RESET TIMING, 2012 TO 2015



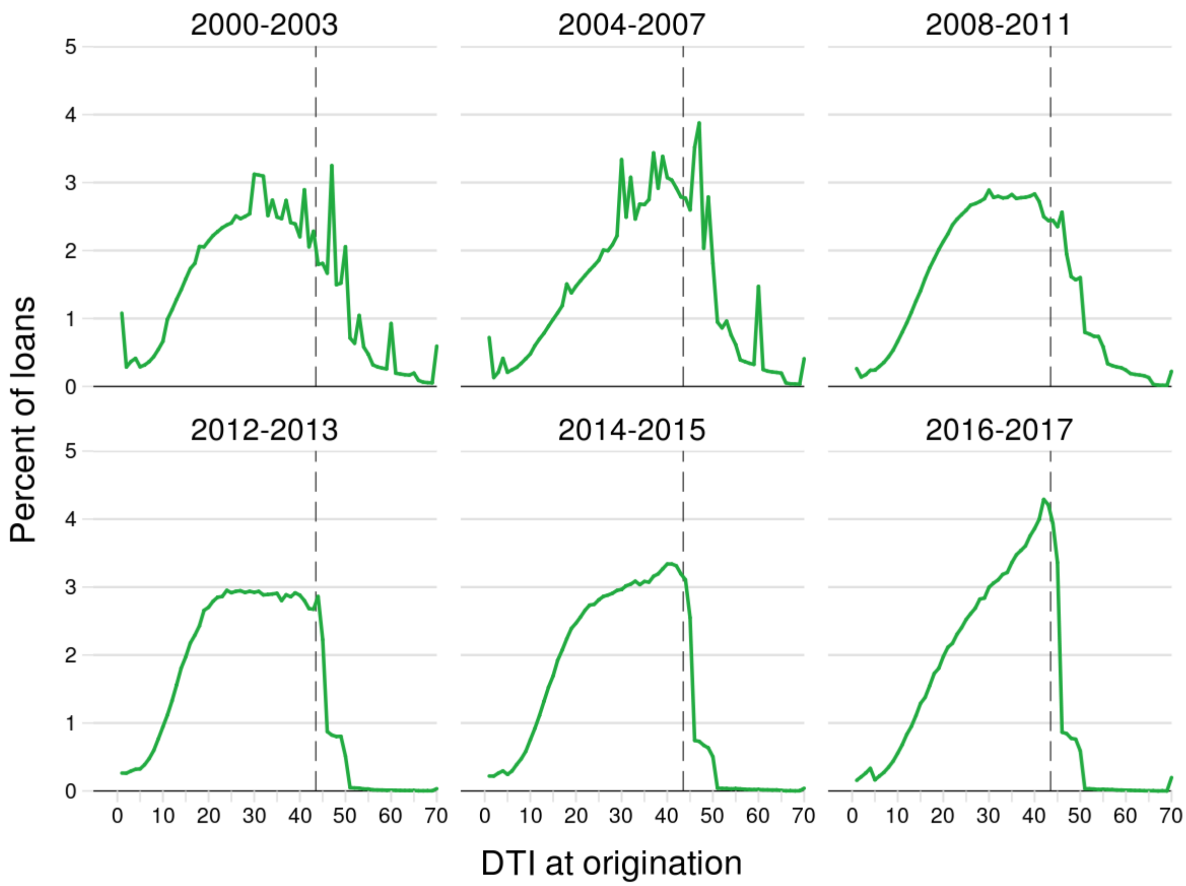
Data Source: McDash Loan Current and Loan Month Files

4.3 Historical trends in DTI and relationship with loan performance

4.3.1 Historical trends in DTI

While the primary focus of this chapter is on the years surrounding the Rule's implementation, this subsection provides context by examining how DTIs have evolved since 2000. As was shown in Figure 8 of Chapter 3, recent vintages of mortgage originations have had very low early delinquency rates, on the order of 1 to 3 percent depending on the product type, relative to peak vintage early delinquencies of 7 to 25 percent in 2007. These low early delinquency rates are seen for vintages both before and after the Rule's 2014 effective date, likely reflecting both steady economic growth and changes in lender practices following the collapse of the mortgage market and the 2007 to 2009 recession as discussed in Chapter 3.

FIGURE 27: CONVENTIONAL PURCHASE MORTGAGE DTI DISTRIBUTIONS BY ORIGINATION YEAR



Data Source: McDash Loan Current and Loan Delinquency History Files, DTI topcoded at 70

Shifts over time in both housing costs and underwriting practices can be seen in the changing distribution of DTI for loans originated in the years prior to, during, and after the financial crisis. Figure 27 plots these distributions for conventional purchase mortgages and in each case indicates the Rule's General QM DTI threshold of 43 percent.[232] The distribution of DTIs shifted substantially higher from the pre-crisis era (2000 to 2003) to the years surrounding the crisis-era (2004 to 2007) as a result of rising home prices and loosening underwriting requirements, and included many loans above both the General QM DTI threshold and recent GSE DTI limits (45 percent without what the GSEs consider compensating factors like required cash reserves or

[232] DTI data are only available for 33 percent of loans in this sample of the McDash data. Where possible, analyses are replicated using NMDB data on GSE and FHA loans, for which close to full DTI coverage is available.

LTV restrictions, 50 percent with such compensating factors).[233] Following the crisis, by 2012 nearly all conventional loans had DTIs below these GSE limits, and substantially fewer loans were made with DTIs above 43 percent. While DTIs for conventional loans are trending higher in the current market, they are likely being constrained from returning to crisis-era levels by these GSE limits, combined with limited appetite from lenders to originate non-QM loans above the General QM DTI threshold.[234] In 2017, 5 percent of conventional purchase loans had DTIs over 45 percent, compared to 24 percent in the years surrounding the crisis.[235]

The role of the GSE DTI limits is highlighted in Figure 28, which shows the comparable DTI distributions for GSE and FHA loans over this time period, using NMDB data. DTI levels for GSE loans have been held below the GSE-imposed 45 percent and 50 percent limits in current years, driving the results seen for all conventional loans in Figure 27. In contrast, current DTI levels for FHA loans exceed their crisis-era levels, with numerous loans originated up to an apparent DTI limit of 57 percent.[236]

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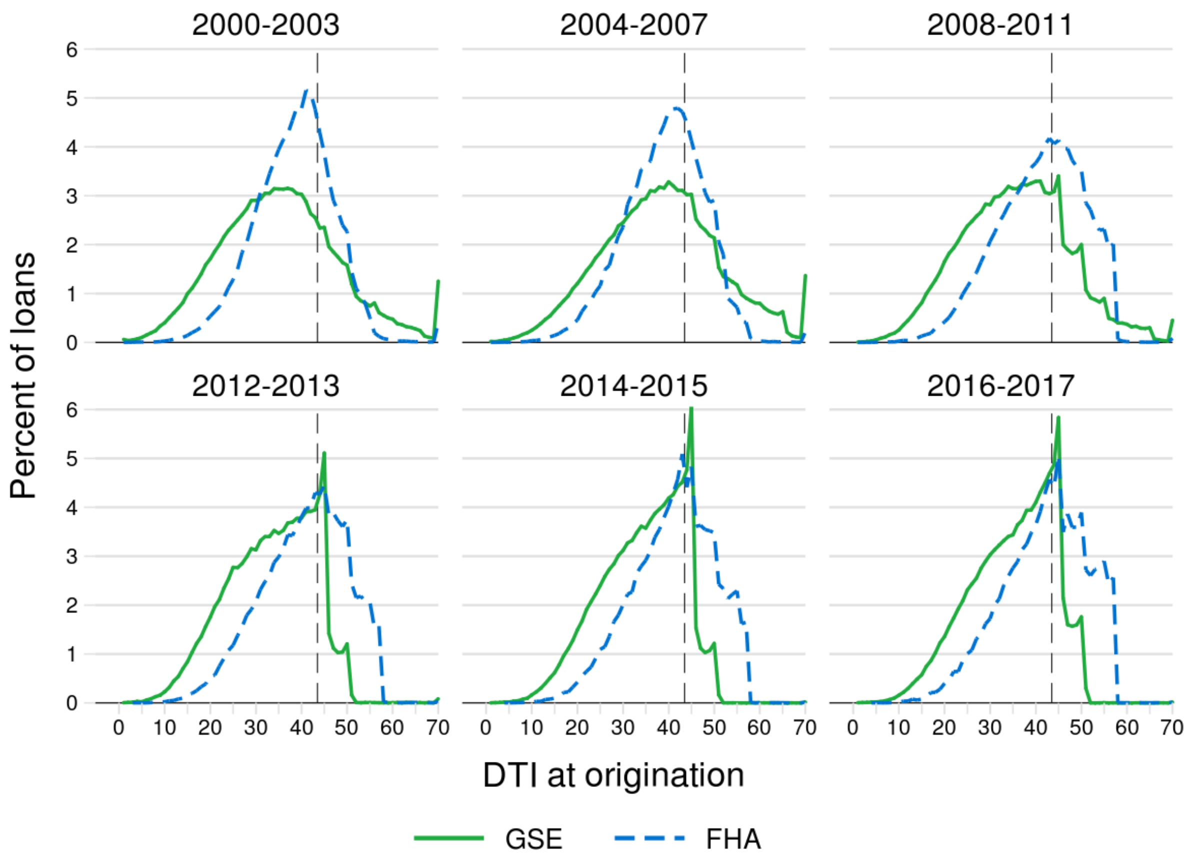
[233] Typical required compensating factors for GSE loans with a DTI above 45 percent include twelve months of cash reserves for the borrower and a maximum LTV ratio of 80 percent. *See* Steve Holden & Walt Scott, *Desktop Underwriter Version 10.1 – Updates to the Debt-to-Income (DTI) Ratio Assessment*, Credit Risk Sharing Commentary, Fannie Mae (July 10, 2017), *available at* http://www.fanniemae.com/portal/funding-the-market/credit-risk/news/desktop-underwriter-debt-to-income-ratios-071017.html.

[234] Chapters 5, 6, and 8 provide further evidence and discussion on lenders' approaches to non-QM lending.

[235] In the CoreLogic data, 8 percent of 2017 conventional purchase originations had DTIs over 45 percent, compared to 25 percent in the years surrounding the crisis.

[236] FHA underwriting allows DTI ratios above those seen in the conventional space. Section 4.1.2 provides a brief analysis of DTI and delinquency for recent FHA originations.

FIGURE 28: GSE AND FHA PURCHASE MORTGAGE DTI DISTRIBUTIONS BY ORIGINATION YEAR



Data Source: NMDB 4.0, DTI topcoded at 70

While the remainder of this section focuses on the relationship between DTI and loan performance, the Rule's focus on DTI was intended to have additional benefits. The Rule's underwriting requirements were not only meant to improve assessments of individual consumers' ability to repay, but were also intended to limit potential systemic effects of overextended credit.[237] Underwriting limits on maximum allowable DTIs can provide a

[237] For example, regarding misstated incomes used in underwriting, the Rule stated that "[t]he systemic effects were evident: the extension of credit against inflated incomes expanded the supply of credit, which in turn continued the rapid rise of house prices in the later years of the housing boom and exacerbated the eventual crash." 78 Fed. Reg. 6408, 6561 (Jan. 30, 2013). For the prevalence of teaser rate products which did not reflect true debt payment liabilities, the Rule stated that ". . . the widespread use of the product put many borrowers in precarious financial positions and may also have fueled the systemic rise in home prices. The elimination of these products should limit both the individual and systemic harms which ultimately translate, in the largest part, into harms to the individual consumers." *Id*. The Rule's requirements to accurately document and use income and debt payment information

meaningful constraint on borrowing levels. In turn, a DTI limit which binds for the most highly leveraged borrowers can potentially benefit the broader population of consumers, by constraining excessive house price growth and subsequent resulting price declines in a downturn. Such a limit effectively imposes a link between borrowing and household incomes. Recent research, notably Greenwald (2018), has studied this mechanism in depth, finding that in a market with low downpayment requirements and large numbers of borrowers at or near DTI limits (as exists in the post-Rule period), small changes in DTI limits can lead to substantial house price and borrowing changes.[238] In simulations conducted in that paper, the existence of a DTI limit significantly reduces the magnitude of house price fluctuations and the resulting borrower distress from pricing corrections. This report does not attempt to estimate these systemic effects, but they represent a potentially substantial benefit of DTI thresholds for overall market stability and loan performance, in addition to the relationships described in the next subsections.

4.3.2 Relationship between DTI and loan performance

The following figures examine the relationship between DTI and early delinquency rates, across different time periods and mortgage loan types, and find that relationship to be generally positive. The relationships are shown through both observed mean early delinquency rates for loans with different DTIs, as well as expected mean early delinquency rates which have been adjusted to control for differences between loans in other characteristics.

The included control variables reflect underwriting information used directly to assess mortgage riskiness (credit scores, LTV ratios), characteristics which may indirectly signal the risk of a loan (documentation type, interest rate, loan amounts), and the month and year of origination to account for changes in the economy over time which influence market-wide performance.[239] The

ensure that DTI limits cannot be evaded by misrepresentation, which in turn allows the DTI limits to impose a meaningful constraint on borrowing levels.

[238] Daniel Greenwald, *The Mortgage Credit Channel of Macroeconomic Transmission*, (MIT Sloan Research Paper No. 5184–16, 2016). See also Dean Corbae and Erwan Quintin (2015), *Leverage and the Foreclosure Crisis,* Journal of Political Economy, vol. 123(1), pg. 1-65.

[239] Though not necessarily indicators of repayment ability, these control variables reflect standard risk factors used both in practice to set mortgage pricing and by researchers to study loan-level risk based on characteristics at origination. *See, e.g.*, Fannie Mae, *Loan-Level Price Adjustments (LLPA) Matrix*, (June 5, 2018), *available at* https://www.fanniemae.com/content/pricing/llpa-matrix.pdf; Freddie Mac, *Credit Fees in Price*, at E19–12 (Dec. 5, 2018), *available at* http://www.freddiemac.com/singlefamily/pdf/ex19.pdf (for mortgage pricing); *see* Robert B. Avery et al., *Credit Risk, Credit Scoring, and the Performance of Home Mortgages*, Fed. Reserve Bull. (July 1996); Hamilton Fout, Grace Li, & Mark Palim, *Credit Risk of Low Income Mortgages*, (Fannie Mae, Econ. & Strategic Research White Paper, 2017), *available at* http://www.fanniemae.com/resources/file/research/datanotes/pdf/credit-risk-of-low-income-mortgages-white-

inclusion of these variables helps assess the extent to which the relationships between DTI and mean early delinquency in the data are driven by correlation with these other characteristics (for example if DTI is positively correlated with LTV), and whether they persist after accounting for such correlations.[240] When the full set of control variables is included, the estimated relationship between DTI and early delinquency reflects the expected early delinquency for two otherwise similar loans originated in the same month and year with the same credit score, LTV ratio, loan amount, documentation type, and interest rate.[241]

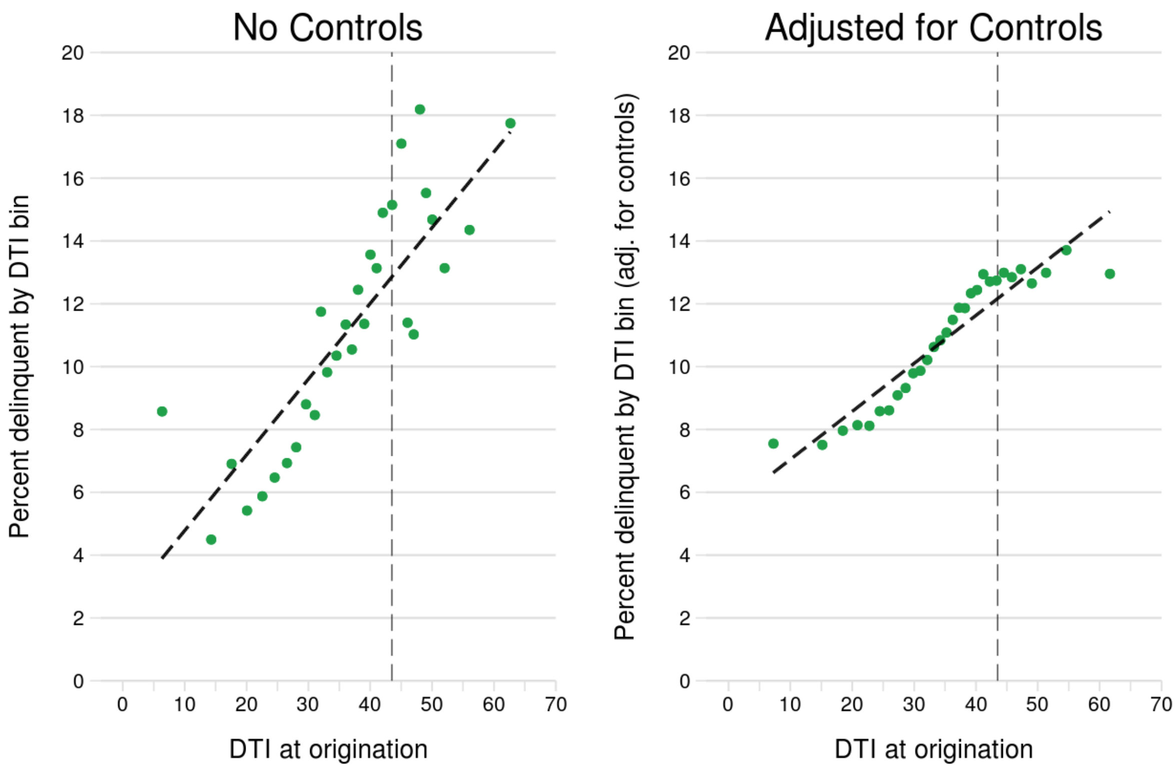
Figure 29 shows the relationship between DTI and early delinquency rates for conventional single-family purchase loans originated from 2006 to 2008 during the latter part of the financial crisis. The green data points reflect the mean early delinquency rate for loans originated within each equally sized (by count of loans) DTI bin. The black line shows the linear best fit line for the underlying data. The right panel shows that for two loans which are otherwise identical according to the characteristics listed above, the expected early delinquency rate for a loan with a DTI of 20 percent was approximately 8 percent, while a loan with a DTI of 40 percent had an expected early delinquency rate near 13 percent.

paper.pdf; Christopher Mayer, Karen Pence, & Shane M. Sherlund, *The Rise in Mortgage Defaults*, 23 J. of Econ. Persp. 27 (2009) (studies of loan-level risk based on characteristics at origination).

240 Note that this analysis does not attempt to estimate the relative explanatory or predictive power of different variables that could be used in underwriting, but rather seeks to establish the relationship between DTI and performance with and without controlling for these other underwriting factors. *See* Diana Farrell, Kanav Bhagat, & Chen Zhao, *Falling Behind: Bank Data on the Role of Income and Savings in Mortgage Default*, (JP Morgan Chase Inst., 2018), *available at* https://www.jpmorganchase.com/corporate/institute/insight-income-shocks-mortgage-default.htm; Mark Zandi & Cristian DeRitis, *Special Report: The Skinny on Skin in the Game*, (Moody's Analytics, Econ. & Consumer Credit Analytics, 2011), *available at* https://www.economy.com/mark-zandi/documents/QRM_030911.pdf.

241 A shift in reporting of documentation type occurs in 2014 in the McDash data, with a substantially higher share of loans reporting "unknown" documentation type. The specifications used in this analysis includes an interaction term for documentation type and dates after 2014 to account for potentially differential categorizations used in the latter part of the sample. For additional details on the methodology used for these figures, see Michael Stepner, 2013. "Binscatter: Stata module to generate binned scatterplots," Statistical Software Components S457709, Boston College Department of Economics, available at https://ideas.repec.org/c/boc/bocode/s457709.html.

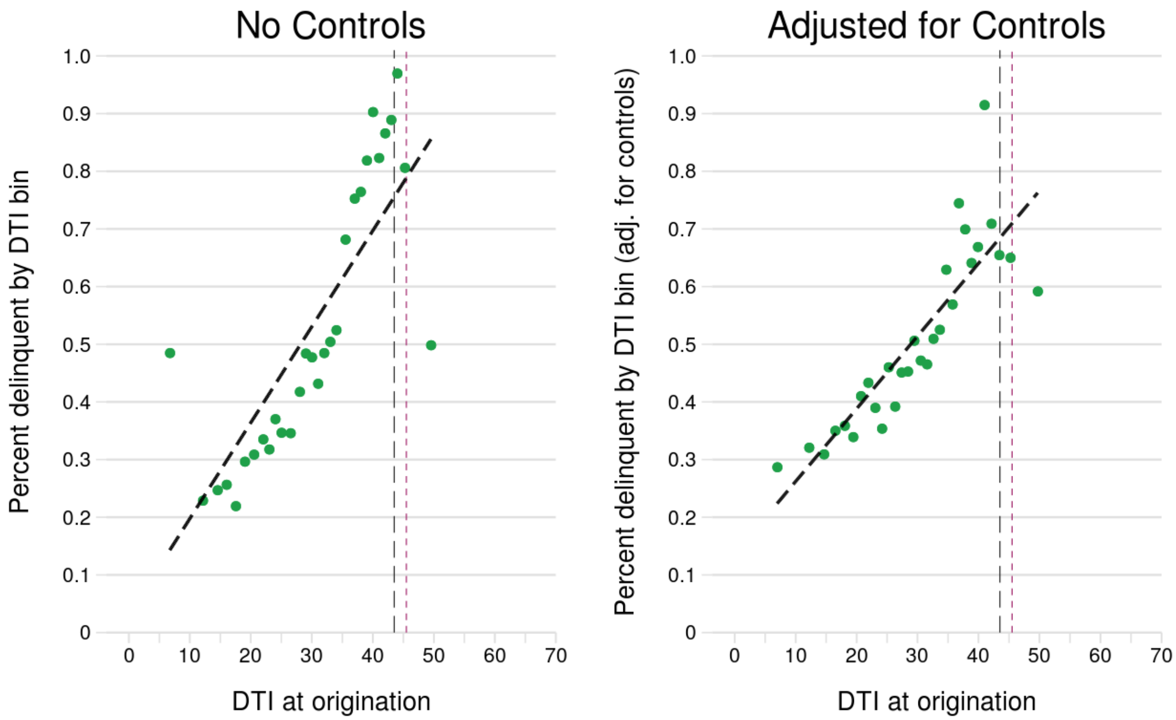
FIGURE 29: RELATIONSHIP BETWEEN EARLY DELINQUENCIES AND DTI, 2006 TO 2008 CONVENTIONAL PURCHASE ORIGINATIONS



Data Source: McDash Loan Current and Loan Delinquency History Files, DTI topcoded at 70

Figure 30 shows the same relationship for conventional single-family purchase loans originated in the years surrounding the implementation of the Rule from 2012 to 2015. As discussed earlier, the overall early delinquency rate during this period is approximately one tenth of that for the 2006 to 2008 vintages (see different scale on y-axis). A similar positive correlation is seen, though with a decline in delinquencies at the highest levels of DTI, particularly those above the General QM threshold (dashed gray line) or the GSE limit without compensating factors (purple short-dashed line). The sharp decrease in originations above these levels (shown in Figures 27 and 28), captures the increased underwriting requirements for loans with DTI above these levels on characteristics that are observable in the data (e.g., credit scores, LTV) and unobservable in the data (e.g., asset and savings requirements, lender accommodation). Examples of such unobservable underwriting criteria required by one or more of the lenders from the Application Data include reserve asset requirements of 10, 25, or 50 percent of the original loan amount depending on the extent to which DTIs exceed 43 percent. Controlling for the observable underwriting dimensions reduces the decline in delinquencies for those loans above the GSE DTI threshold of 45, and the remaining gap is likely due to the unobserved underwriting factors.

FIGURE 30: RELATIONSHIP BETWEEN EARLY DELINQUENCIES AND DTI, 2012 TO 2015 CONVENTIONAL PURCHASE ORIGINATIONS



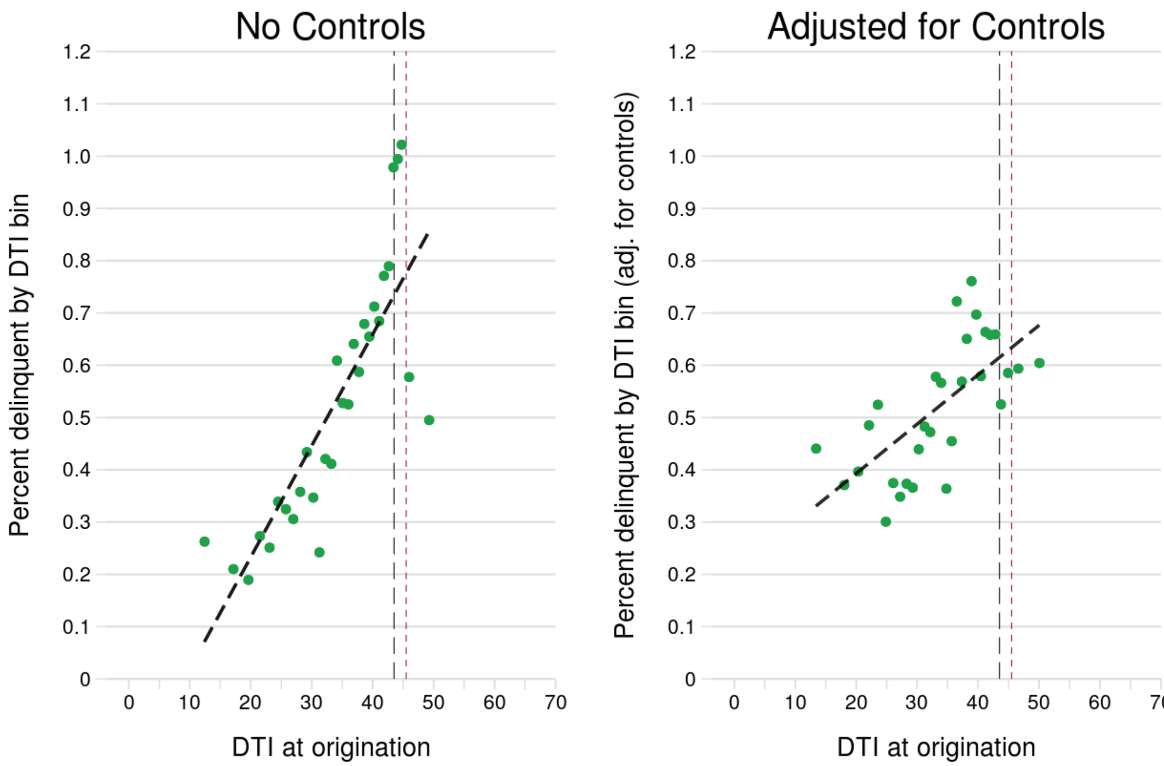
Data Source: McDash Loan Current and Loan Month Files
Notes: DTI topcoded at 70, vertical lines reflect General QM DTI threshold (gray dashed) and GSE DTI limit without compensating factors (purple short-dashed)

The previous two figures use McDash servicing data, which has missing DTI values for a substantial share of loans. Figures 31 and 32 show the relationship between DTI and early delinquencies for the period 2012 through 2016 for nationally representative samples of purchase originations of GSE and FHA insured loans, respectively, for which there exist complete DTI data coverage in the NMDB dataset. For context, GSE and FHA loans represented 44.6 and 18.5 percent of purchase loans in 2014, respectively (Figure 16 in Chapter 3). In these samples, the same strong positive relationship exists both unconditionally and with controls. As highlighted earlier, Figure 31 shows that GSE early delinquencies decline for loans with DTIs above 45 percent, likely due to unobservable underwriting criteria.[242] However, because FHA

[242] This decrease in GSE delinquencies above DTIs of 45 percent, though with a positive relationship below this level. *See also* Karan Kaul & Laurie Goodman, *Updated: What, If Anything, Should Replace the QM GSE Patch*, Hous. Fin. Pol'y Ctr. Commentary (2018), *available at* https://www.urban.org/research/publication/updated-what-if-anything-should-replace-qm-gse-patch.

originations do not decrease as substantially at DTI thresholds over 43 percent, the positive relationship in Figure 32 continues through these higher levels.[243]

FIGURE 31: RELATIONSHIP BETWEEN EARLY DELINQUENCIES AND DTI, GSE HOMEBUYERS, 2012 TO 2016 PURCHASE ORIGINATIONS



Data Source: NMDB 4.0, DTI topcoded at 70

These figures document post-crisis loan performance relative to historical levels, and the basic relationship between DTI and performance across large segments of the mortgage market. For all periods and samples studied, the positive relationship between DTI and early delinquency is present and economically meaningful. In all cases, the slope of the relationship is stronger for the unconditional early delinquency rate, providing evidence that higher DTI is correlated with other higher risk loan characteristics. However, because the positive relationship still exists after

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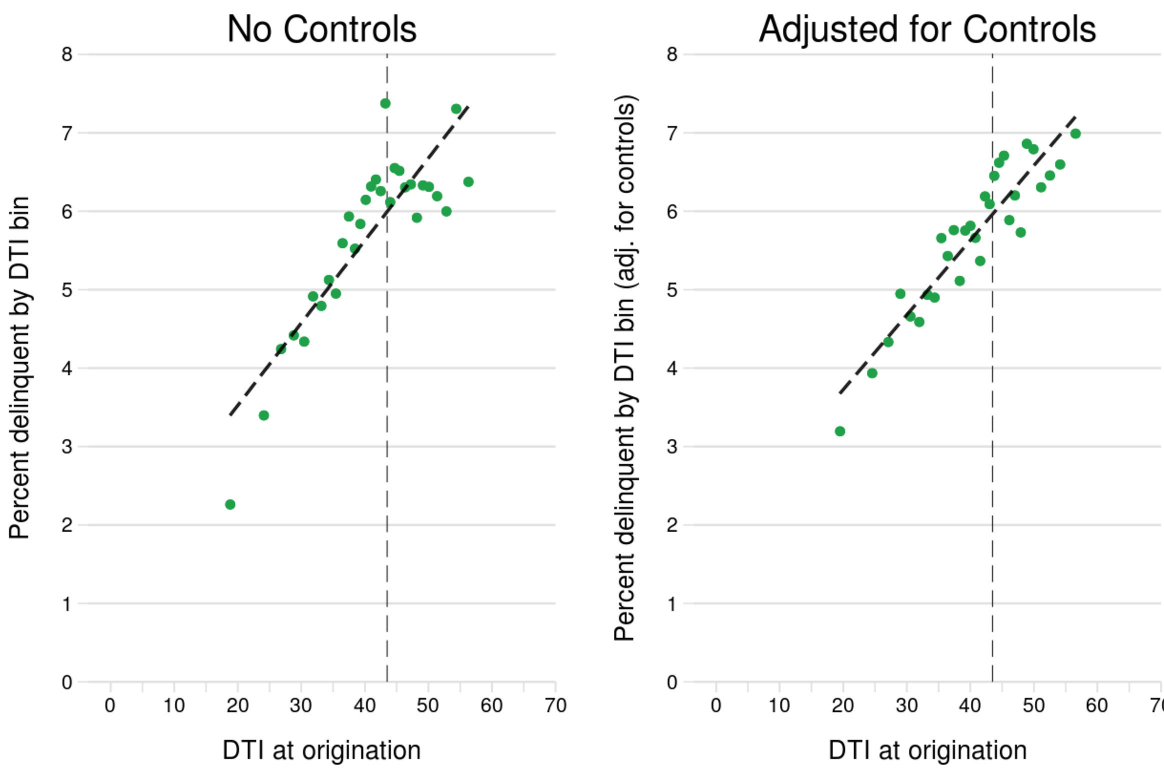
243 Current FHA manual underwriting guidelines loans do apply additional credit score requirements or compensating factors (*e.g.*, documented cash reserves, residual income tests, minimal increases in housing payments, significant additional income like bonuses or overtime) at DTI thresholds of 40, 43, 47, and 50, but these are generally less stringent than GSE requirements, and thus have a more limited effect on origination patterns. *See* U.S. Dep't of Hous. & Urban Dev., *FHA Single Family Housing Policy Handbook*, at 25 (Dec. 30, 2016), *available at* https://www.hud.gov/sites/documents/40001HSGH.pdf.

controlling for other underwriting criteria, these figures suggest that higher DTI does independently increase expected early delinquency, regardless of the other factors.

FIGURE 32: RELATIONSHIP BETWEEN EARLY DELINQUENCIES AND DTI, FHA HOMEBUYERS, 2012 TO 2016 PURCHASE ORIGINATIONS



Data Source: NMDB 4.0, DTI topcoded at 70

The slope of the relationship in Figures 29 and 30 also appears to scale with the overall level of early delinquencies between time periods, suggesting that adverse changes to the housing market as a whole may lead to proportionately higher delinquencies for loans with higher DTIs. Thus, while higher DTI loans have low overall early delinquencies in recent vintages, the potential for higher DTI loans to default at higher rates in a weaker housing market persists. To the extent that underwriting responses to the combination of GSE requirements and the Rule limit such loans to a narrower set of consumers with strong borrowing characteristics, the Rule's General QM DTI threshold and Temporary GSE QM provision contribute to ensuring borrowers receive loans they are able to repay.

4.4 Effects of the General QM DTI limit on loan performance

To further assess whether the implementation of the Rule's General QM DTI limit may have had immediate effects on the early delinquency rate—which, as previously discussed, serves as a proxy for measuring the effect of the Rule on ability to repay—this section first identifies the market segments in which the Rule meaningfully changed loan origination behavior. Specifically, loans covered by the Rule's General QM DTI threshold likely saw a reduction in originations with a DTI above the limit of 43 percent and may have increased originations just below the limit. The latter effect would occur, for example, if borrowers started choosing to buy homes of a somewhat lower value or putting down larger downpayments. The full set of responses to the threshold may also have affected loan performance.

This section primarily examines first-lien, conventional, single-family purchase mortgages originated in the year preceding (2013) and the year following (2014) the Rule's effective date of January 10, 2014. The focus is on comparing the origination and performance trends, before and after the Rule, of a segment of loans not purchased by the GSEs (and therefore, unless eligible for GSE or government agency purchase, guarantee, or insurance, or else made by and held on the portfolios of Small Creditors, must comply with the General QM DTI limit to obtain QM status) with a segment of loans that are purchased by GSEs (and therefore not subject to the General QM DTI limit due to the Temporary GSE QM).[244] The trends in originations for these segments are presented first in Section 4.4.1, while their performance is measured in Section 4.4.2.[245] These approaches draw in part on academic research into the Rule's effects, notably DeFusco, Johnson, and Mondragon (2017).[246]

4.4.1 Effects on DTI distributions

To first demonstrate the starkest potential origination changes due to the General QM DTI threshold, Figure 33 below shows DTI distributions of jumbo single-family purchase loans in the McDash data, which are ineligible for GSE purchase due to their size, in 2013 (prior to the Rule's effective date) and 2014 (after the Rule became effective). For context, total jumbo purchase originations increased from an estimated 108,700 to 130,200 between 2013 and 2014, based on nationally representative NMDB data. While jumbo loans are not representative of the market as a whole, their ineligibility for GSE purchase allows a clean look at changes for a market segment where essentially all loans are subject to the General QM DTI threshold. Each point on a given line shows the percentage of loans originated in that year which had DTI—rounded up to the nearest whole number—equal to the level shown on the horizontal axis. Vertical lines

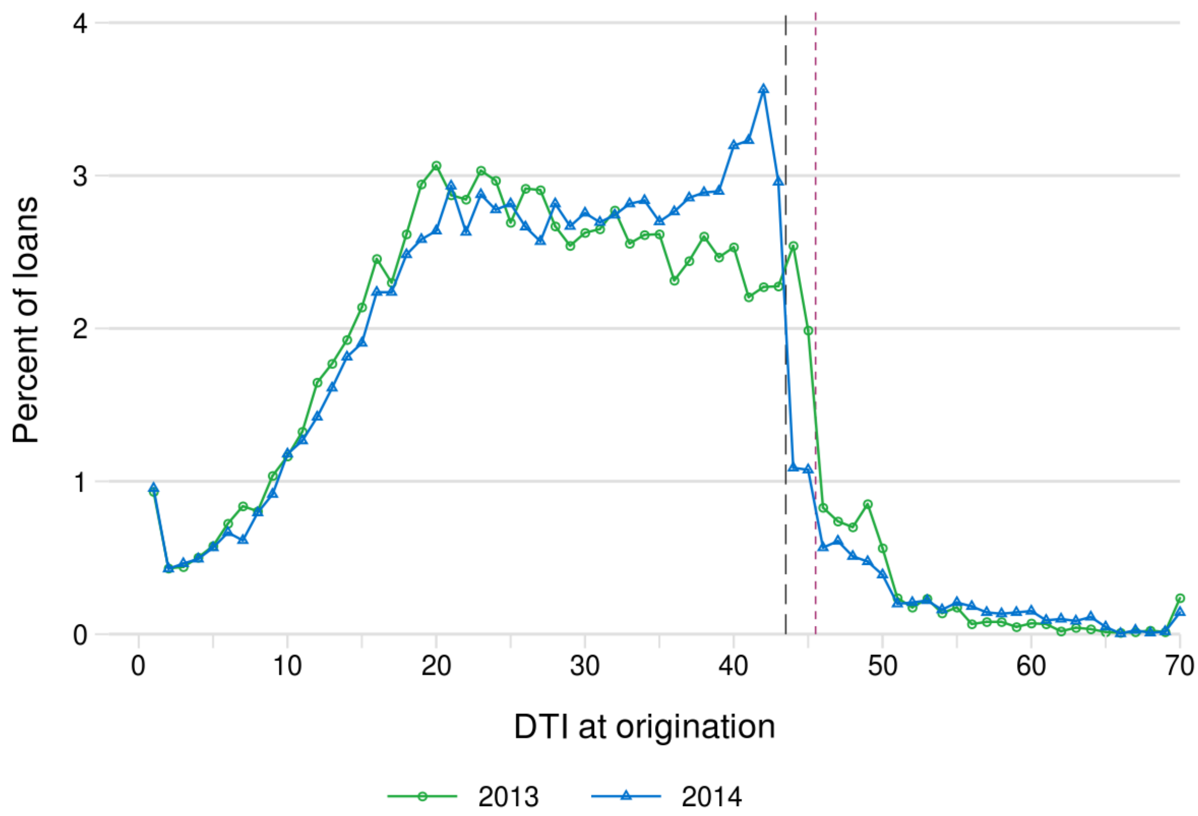
[244] Note that loans not purchased by the GSEs could nonetheless be QMs under the Temporary GSE QM if such loans were eligible for GSE purchase. The available loan performance data does not identify which non-purchased loans were eligible for purchase, nor does it provide a reliable means to estimate purchase eligibility. In the data, the presence of eligible (and therefore QM) loans not purchased by the GSEs is likely to lessen any performance differences observed between loans purchased and those not purchased by the GSEs. While they do not provide performance data, the Application Data used in Chapter 5 allows for the comparison of GSE-eligible and ineligible applications and originations. Data on submissions to GSE Automated Underwriting Systems are used in Chapter 6 to examine possible lender utilization of the Temporary GSE QM for loans not sold to the GSEs.

[245] These comparisons before and after the Rule of loans purchased and not purchased by the GSEs are in the style of so-called "differences-in-differences" analyses, with discussion and evidence on the caveats and assumptions required to interpret them as such developed in the sections below. The further comparisons of average performance when splitting the loans within these segments above and below the 43 percent DTI threshold are in the style of "triple difference" analyses, though the potential substitution of borrowers across the DTI threshold requires caution in interpreting them as such.

[246] *See* Anthony A. Defusco, Stephanie Johnson & John Mondragon, *Regulating Household Leverage*, (NW. Univ. Kellogg Sch. of Mgmt., 2017). *Available at* SSRN: https://ssrn.com/abstract=3046564.

separate loans above and below the General QM DTI limit of 43 percent (gray dashed) and the GSE limit without compensating factors of 45 percent effective during this period (purple short-dashed). In 2014, the share of loans originated above a DTI of 43 percent fell, while the share of loans originated at and just below a DTI of 43 percent increased. This change likely reflects some general market trends from one year to the next, but may also reflect the ability of borrowers to adjust DTI, with some borrowers who would have obtained a loan with a DTI above 43 percent absent the Rule instead obtaining a loan with a DTI just below 43 percent.

FIGURE 33: CHANGE IN DTI DISTRIBUTION FROM 2013 TO 2014, CONVENTIONAL JUMBO PURCHASE ORIGINATIONS



Data Source: McDash Loan Current and Loan Month Files
Notes: DTI topcoded at 70, vertical lines reflect General QM DTI threshold (gray dashed) and GSE DTI limit without compensating factors (purple short-dashed)

A pattern of "bunching" at DTIs below (but not exactly at) the limit of 43 percent in 2014 may be due to the difficulty of precisely measuring DTI as well as the fact that while some methods of lowering DTI are continuous, such as that of increasing downpayments, other methods are discrete in nature, such as purchasing a less costly home or eliminating other installment debt payments by paying off such loans.

The General QM DTI threshold's apparent effect of reducing jumbo originations at DTIs over 43 percent while potentially increasing them at DTIs under 43 percent is consistent with the findings of DeFusco, Johnson, and Mondragon (2017). Using the 2013 to 2014 shift in DTIs for loans of $417,000 or less to model the counterfactual shift for loans above that amount, the paper estimates that the DTI limit caused 15 percent of originations above $417,000 with DTIs over 43 percent that would have been made in 2014 absent the Rule to no longer be made with the Rule in effect, and caused an additional 20 percent of these originations to be made at lower DTIs. Chapter 5 explores these patterns and the implications for credit access in depth, using new Application Data from nine lenders. In particular, the Application Data can distinguish loans based on GSE eligibility rather than only GSE purchase, allowing for a more precise accounting of borrower and lender responses to the Rule.

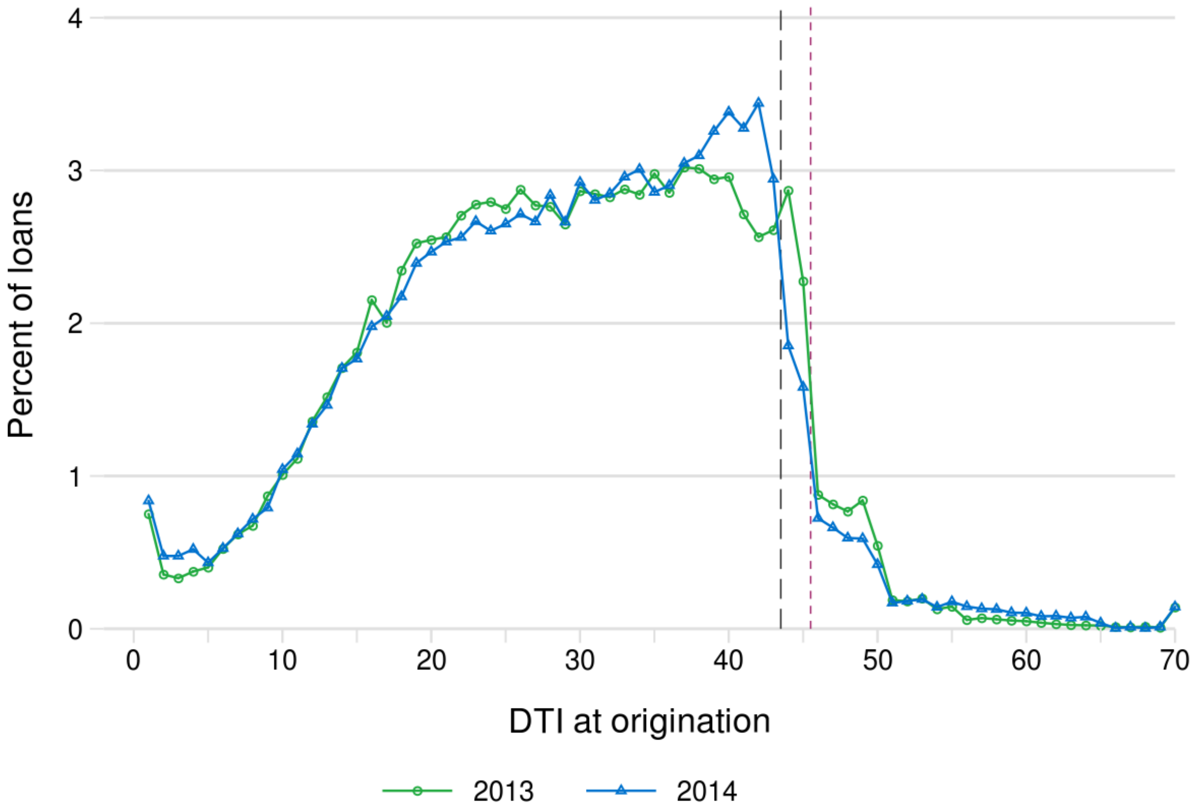
While the DTI distributions for jumbo loans are suggestive of the Rule's effects, the following two figures examine the broader and more representative comparison samples used for the loan performance analysis in Section 4.4.2. Figure 34 shows the DTI distributions for a "treated" sample including not only jumbo loans, but all conventional loans not purchased by the GSEs within two years of origination. It is important to note that not all loans within this sample will be subject to the General QM DTI threshold, for example those that qualify as Small Creditor QM or are GSE eligible—and thus covered by the Temporary GSE QM—but not sold to the GSEs.[247] Figure 35 shows the comparable DTI distributions for those loans that were purchased by the GSEs within two years of origination, assuring that they were not subject to the General QM DTI limit (the "control" sample). One potential concern for this comparison is that the assignment of GSE eligible loans to either the treatment or control samples is not random, but rather will reflect potential changes in the insurance and securitization choices made by lenders after the Rule's effective date, as well as changes in consumers' loan choices. While lenders could, in response to the Rule, choose to sell to the GSEs eligible loans with high DTIs that the lender would have kept on portfolio absent the Rule, analysis in Chapter 6 suggests that such substitution was not prevalent at the time the Rule was implemented. Looking at estimated total conventional purchase originations in the NMDB data, GSE purchased loans decreased slightly from 1,403,200 in 2013 to 1,397,500 in 2014, while non-GSE conventional purchase originations increased from 732,700 in 2013 to 741,300 in 2014.[248]

The pattern of a decreased shared of DTIs over 43 percent and an increased share of DTIs at or below 43 percent is also present in the larger sample of loans not purchased by the GSEs (Figure 34), though less pronounced than for the subsample of only jumbo loans (Figure 33). This suggests that any borrower or lender response was less pronounced for non-jumbo loans than for jumbo loans.

[247] Comparable to the limitations discussed in Footnote 244 regarding GSE eligible loans not purchased by the GSEs, the available loan performance data does not identify which loans were originated by lenders eligible for the Small Creditor QM, nor does it provide a reliable means to estimate such eligibility. In the data, the presence of Small Creditor QM loans is likely to lessen any performance differences observed between loans purchased by the GSEs and those not purchased. Chapter 7 specifically analyzes the effects of the Small Creditor QM category.

[248] Due to differences in data availability, loans in the NMDB data are categorized as GSE or non-GSE based on whether they have been reported in credit records as purchased by a GSE as of September 2018, rather than within two years of origination.

FIGURE 34: CHANGE IN DTI DISTRIBUTION FROM 2013 TO 2014, CONVENTIONAL NON-GSE PURCHASE LOANS

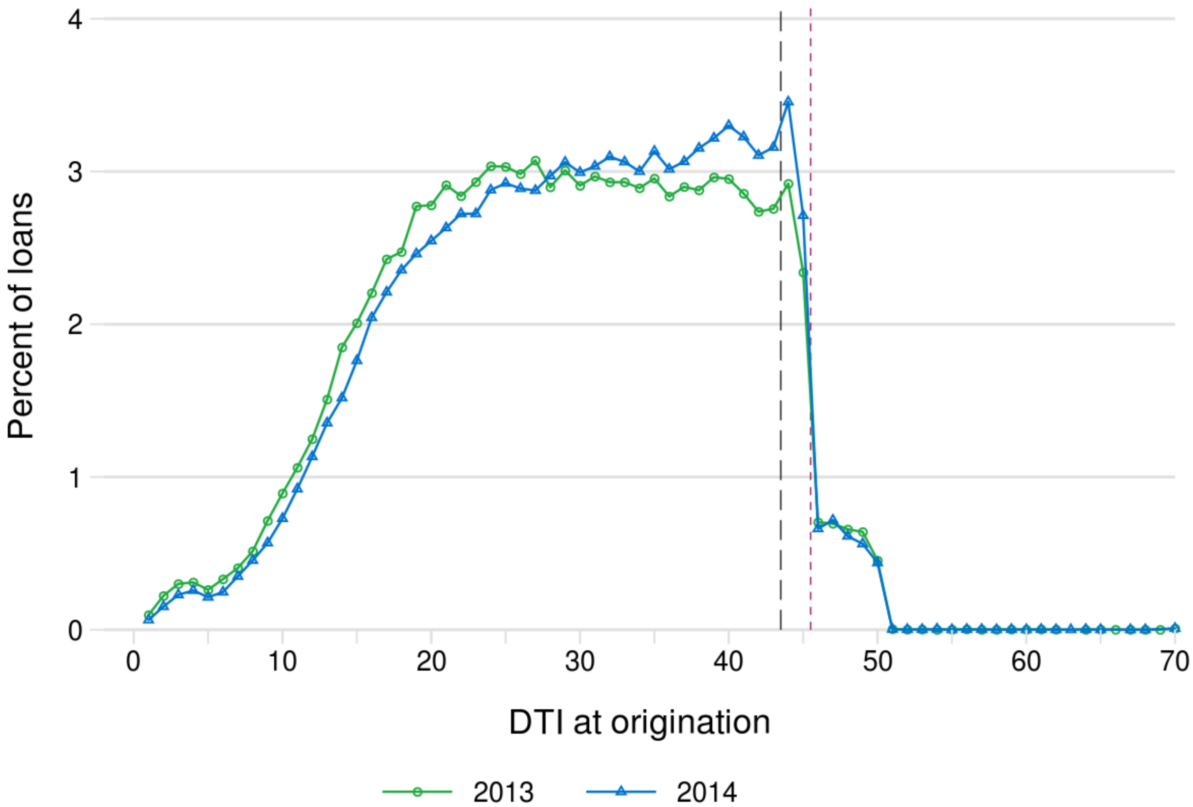


Data Source: McDash Loan Current and Loan Month Files
Notes: DTI topcoded at 70, vertical lines reflect General QM DTI threshold (gray dashed) and GSE DTI limit without compensating factors (purple short-dashed)

In comparison, for the control group of loans purchased by the GSEs, Figure 35 shows that there was an increase from 2013 to 2014 in the share of loans with DTI of 44 or 45 percent, while the shares with DTI above 45 percent stayed comparable. This shift is consistent with the general market trend towards higher DTI that can be observed throughout the DTI distribution in Figures 28 and 35.[249]

[249] The increased share of high DTI loans is similar just below the 43 percent threshold and just above. Given that substitution into GSE securitization due to the Rule's DTI threshold would be expected to occur only above the 43 percent threshold, this pattern suggests limited substitution of this type.

FIGURE 35: CHANGE IN DTI DISTRIBUTION FROM 2013 TO 2014, GSE PURCHASE LOANS



Data Source: McDash Loan Current and Loan Month Files
Notes: DTI topcoded at 70, vertical lines reflect General QM DTI threshold (gray dashed) and GSE DTI limit without compensating factors (purple short-dashed)

The next section evaluates how loan performance changed for loans not purchased by the GSEs just above and below the General QM DTI threshold, relative to loans purchased by the GSEs (and hence not subject to the General QM DTI threshold) above and below the threshold.

4.4.2 Effects on loan performance

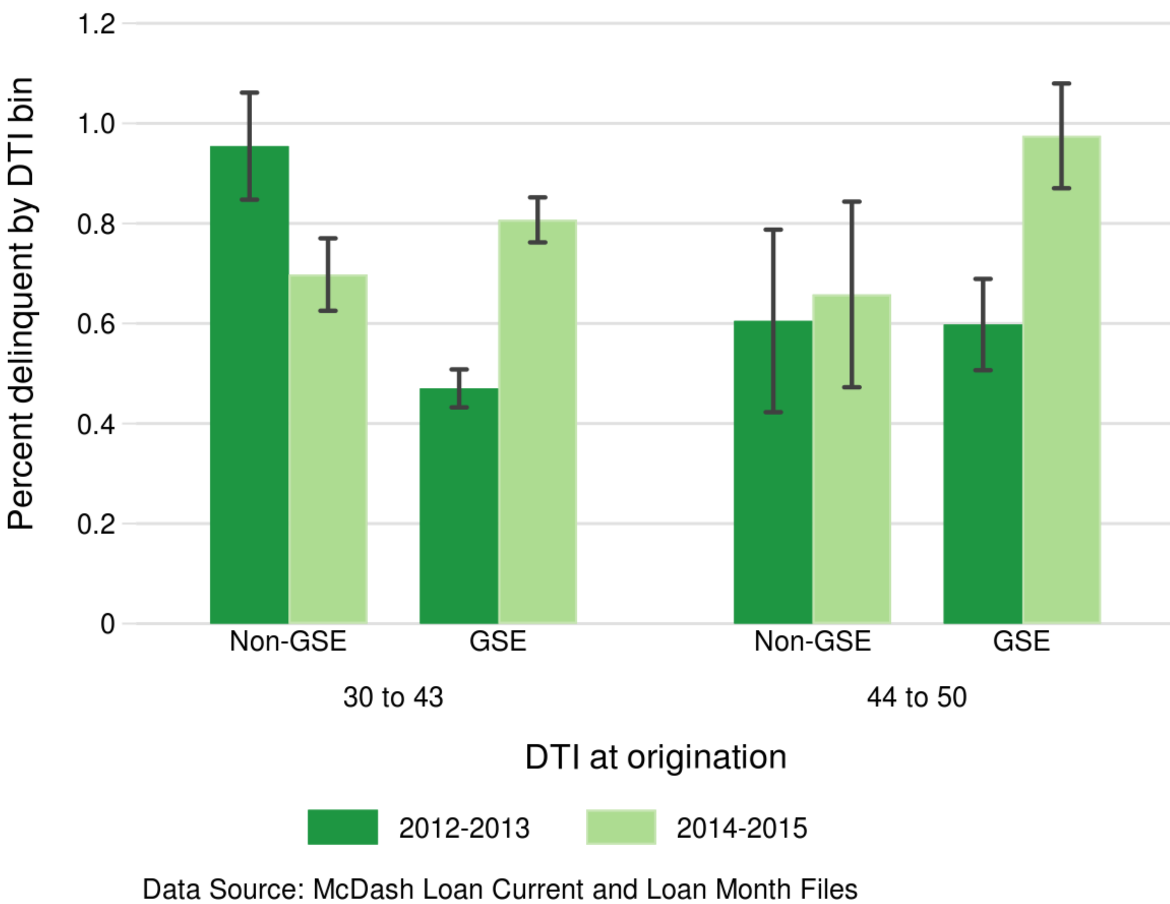
Figure 36 compares early delinquency rates for GSE and non-GSE conventional purchase loans, dividing the sample into two segments: 1) those with DTIs ranging from 30 to 43; and 2) those with DTIs ranging from 44 to 50. In addition to originations from 2013 and 2014, the figure adds originations from 2012 and 2015 to provide more statistical power for the comparisons.[250] The gray bars represent 95 percent confidence intervals.

Prior to the Rule's implementation, non-GSE loans had higher early delinquency rates than GSE loans at DTIs up to 43, and comparable early delinquency at DTIs above 43. Looking at changes in delinquency from 2012-2013 to 2014-2015, GSE early delinquency rates increased for both DTI bins (0.5 percent to 0.8 percent at DTIs below 43, 0.6 percent to 1.0 percent at DTIs above 43), while the non-GSE early delinquency decreased at DTIs up to 43 (1.0 percent to 0.7 percent) and remained steady at 0.6 percent for DTIs above 43.[251] Under an assumption that GSE and non-GSE loans would have followed parallel trends absent the Rule, this would suggest that lenders were more cautious in making non-GSE loans to borrowers with DTIs near the General QM threshold as a result of the Rule but that the Rule did not similarly affect underwriting for GSE loans with similar DTIs. Notably, the relative improvement of non-GSE loans is seen both immediately above and immediately below the threshold, suggesting that these differences may result from either more general responses to the Rule (beyond the DTI threshold) or from compositional changes in the set of loans taken out by borrowers as part of their shift from above the threshold to below.

[250] The delinquency results using only 2013 and 2014 are qualitatively similar, but less precise. Similarly, the shifts in the DTI distributions when including the additional years of 2012 and 2015 are similar to those shown in Figures 34 and 35. Note also that the QRM risk-retention rule became effective in February 2015, and because that rule provides that a QM equals a QRM, the QM DTI thresholds are applicable to securitized residential mortgage loans that are QRMs.

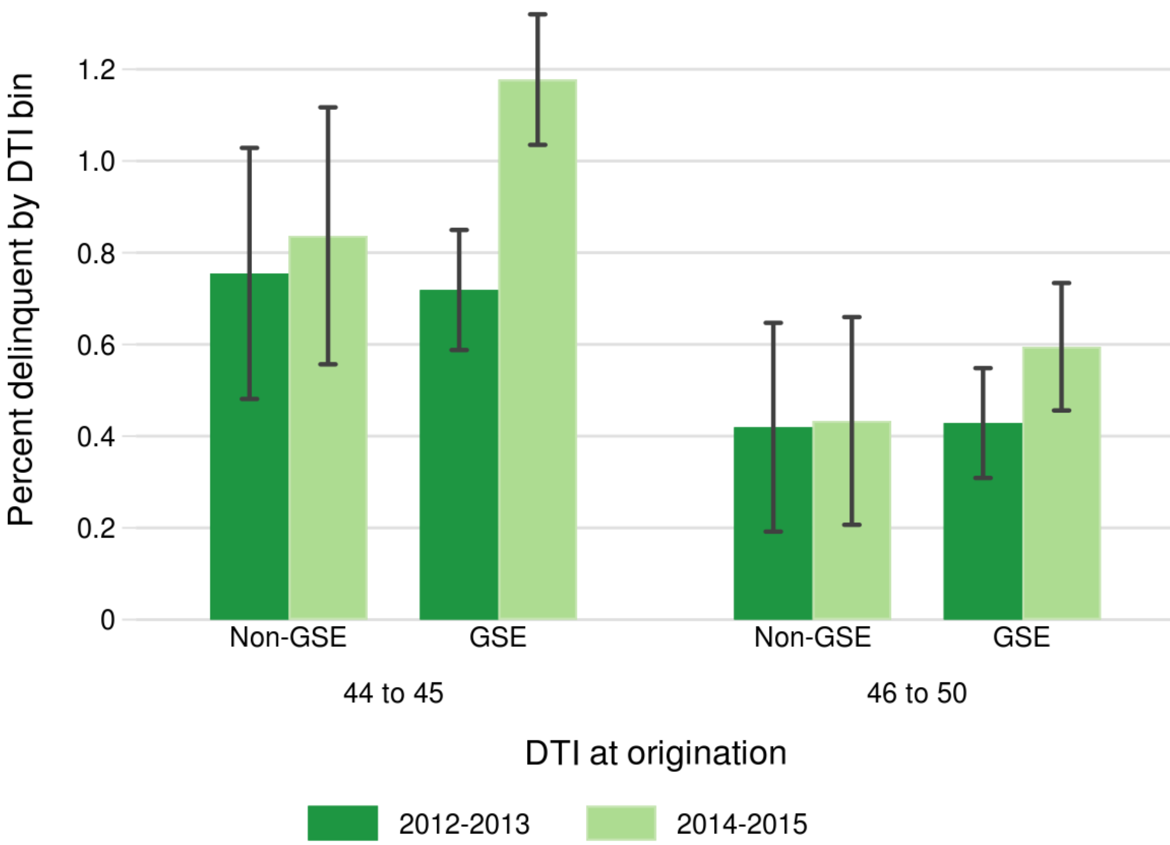
[251] Further, GSE delinquency rates at DTIs over 43 percent exceeded the delinquency rates of non-GSE (and therefore generally non-QM) loans at these DTI levels in 2014 to 2015.

FIGURE 36: EARLY DELINQUENCY RATES BY DTI FOR GSE VERSUS NON-GSE PURCHASE LOANS, 2012 THROUGH 2015



For non-GSE loans above the General QM DTI limit, their very low, albeit unchanged, early delinquency rates combined with their reduced origination volume following the Rule's implementation (as shown in Figure 34) suggests that lenders continued to provide such loans to only a limited segment of borrowers with strong creditworthiness along other underwriting dimensions. To further highlight the role additional underwriting criteria may play, Figure 37 shows performance for conventional purchase loans with DTIs above 43, split between those up to the effective GSE limit of 45 without compensating factors, and those above 45 requiring such factors. Consistent with tighter underwriting above these thresholds, the higher GSE early delinquency rates after the Rule's implementation are concentrated in originations with DTIs of 44 or 45, which exceed the early delinquency rates of the less common originations with DTI exceeding 45. It is noteworthy that for both groups of loans the early delinquency rate for GSE loans originated post-Rule increased whereas the early delinquency rate for non-GSE loans remained relatively flat.

FIGURE 37: EARLY DELINQUENCY RATES BY DTI (OVER 43) FOR GSE VERSUS NON-GSE PURCHASE LOANS, 2012 THROUGH 2015



Data Source: McDash Loan Current and Loan Month Files

Overall, the Rule appears to have reduced the share of mortgages originated with DTI over 43 percent, while potentially increasing the share originated with DTIs at or just below 43 percent. These patterns are studied in more detail in Chapter 5. Further, both above and below the DTI threshold of 43 percent, the improvement in performance of non-GSE loans relative to GSE loans provides some evidence that those loans that continue to be made under the General QM, other non-Temporary GSE QM, or non-QM ATR guidelines are underwritten in a way that reflects consumers' ability to repay.

5. Effects of the Rule on access to mortgage credit and cost of credit

This chapter presents evidence regarding the impact of the ability-to-repay (ATR) requirement on access to mortgage credit and cost of credit among borrowers who do not qualify for a QM loan. The Bureau estimates that the segment of non-QM loans primarily consists of loans that are not eligible for purchase by GSE's, with debt to income ratios exceeding 43 percent. In the home purchase category, such loans constituted approximately 1-3 percent of all loans in 2013. Although the most common reason for such loans being not eligible for GSE purchase is loan size (e.g. "jumbo loans"), the available data indicates that there may be a substantial number of borrowers with DTI exceeding 43% that do not qualify for a GSE loan for other reasons. Such borrowers may include those with irregular income, certain self-employed borrowers, and those with little or no credit history. Although such borrowers may not fit into a standard GSE (or FHA) product, or otherwise qualify for a QM loan, they may nevertheless have the ability to repay. Unfortunately, the available data does not always distinguish all types of non-QM borrowers.

The impact of the Rule on access to credit for non-QM borrowers derives primarily from the fact that, relative to the pre-Rule period, such originations carry an extra risk (actual or perceived) and impose extra costs for the lender, collectively referred to as "ATR risk." It is a combined result of a host of various risks and/or cost factors, such as: a) risk of litigation by private parties asserting that the lender failed to assess ATR; b) cost of complying with documentation and verification requirements of the Rule (if different from the pre-Rule practice); c) additional cost of funds, due to a separate requirement, adopted by other federal agencies, that lenders retain extra capital to cover the risk associated with non-QM loans; d) and, additional cost of funds due to the cost of originating less liquid assets (non-QM loans are not easily sold on the secondary market).

The impact is separately considered for two types of non-QM loans: a) loans with DTI>43 percent (further, "High DTI" loans) that are not eligible for purchase by GSEs; these are primarily jumbo loans, with some presence of conforming size loans that aren't eligible for GSE purchase for other reasons; and b) loans where the sum of applicable points and fees exceeds the QM limit (particularly, small balance loans). The available data do not allow for the study of the impact of the Rule among other types of non-QM borrowers.

The chapter then goes on to examine the impact of the rebuttable presumption provision that applies to first-lien mortgages with annual percentage rates (APRs) that are 1.5 or more percentage points over the benchmark Average Prime Offer Rate (APOR) for a comparable transaction, and second-lien mortgages with APRs that are 3.5 percentage points over the comparable APOR.

The main findings are:

- Application level data obtained from nine large lenders (further, "Application Data") indicates that among these lenders, the Rule eliminated between 63 and 70 percent of non-GSE eligible, High DTI loans for home purchase over the period of 2014 to 2016. In absolute terms, this represents a loss of between 9,000 and 12,000 approved applications for such loans among these lenders, over the period of three years. For context, these lenders have approved approximately 615,000 applications for home purchase during the same period. Thus, the number of displaced loans represents between 1.5 to 2 percent of loans approved over three years. Notably, the impact of the Rule in the refinance category is much more muted than in the purchase category.[252] This is consistent with a notion that consumers seeking to refinance a mortgage having already demonstrated some ability to repay, thereby lowering ATR risk and making lenders more likely to extend credit.

- The findings from the Application Data are corroborated by a lender survey conducted by the Bureau for this assessment. Among 89 lenders who responded to the appropriate survey question, 30 indicated introducing a 43 percent DTI limit or not originating non-QM loans that the lenders intend to hold rather than selling ("portfolio loans") and loans intended for sale to investors other than the GSEs or a government agency. Recent research by the Federal Reserve Board and academic economists also suggests significant reductions in lending among non-QM High DTI borrowers following the Rule.

[252] Some of the refinanced mortgages may have been loans governed by 12 C.F.R. § 1026.43(d). Unfortunately, the data on loans being refinanced is not available.

- The analysis of characteristics of rejected applications suggests that the Rule did not have a differential impact on access to credit among particular categories of borrowers, along dimensions such as credit score, income and downpayment amount. Thus, the observed effect on access to credit was likely driven by lenders' avoidance of litigation or other risks associated with the ATR requirement, rather than by rejections of borrowers who were unlikely to repay the loan.

- There is significant heterogeneity in the extent to which lenders have tightened credit for non-GSE eligible High DTI borrowers after the Rule. This heterogeneity in lender's responses to the Rule, and its persistence during the years following the Rule, is consistent with a notion that the industry has not developed a common approach to measuring and predicting ATR risk, as it has accomplished for other types of risk, such as prepayment and default.

- The Application Data indicates that, notwithstanding concerns that have been expressed about the challenge of documenting and verifying income for self-employed borrowers under the General QM standard and the documentation requirements contained in Appendix Q to the Rule, approval rates for non-High DTI, non-GSE eligible self-employed borrowers have decreased only slightly, by two percentage points.

- One of the criteria for a QM is that the total points and fees charged at the time of origination cannot exceed a set limit, which is 3 percent of the loan amount for loans above 100,000 dollars; higher limits apply to mortgages with smaller balances. This research finds that non-QM loans where the sum of applicable points and fees exceeds the QM limit are generally not originated. According to conversations with lenders, instances when an application indicates that the points and fees limit will be exceeded are sufficiently rare that lenders handle them on a case by case basis. The lender survey indicates that the violation is typically remedied by waiving certain fees, with or without a compensating increase in the interest rate; denying an application is rarely done. The analysis of data reported by lenders under the Home Mortgage Disclosure Act on approval rates of small balance loans similarly indicates that the Rule likely had no effect on access to credit for such loans.

- Research using HMDA data indicates that the rebuttable presumption status applicable to HPML loans did not reduce access to such loans by consumers, both in the site-built and in the manufactured housing segments.

When interpreting these results, one must keep in mind that the credit standards were already relatively tight by the time the Rule took effect; it is possible that the impacts would be different during times when credit is more abundant.

5.1 Market trends in origination of loans with DTI greater than 43 percent

The Bureau has utilized two servicing datasets: McDash and CoreLogic, for measuring the originations of non-GSE eligible loans with DTI>43 percent. Although neither of these datasets is statistically representative of the market, both are large datasets, with millions of loan level observations, covering 30 to 40 percent of conventional originations for home purchase. In the GSE segment, the National Mortgage Database (NMDB) provides a representative share of High DTI originations. The sample of GSE loans included in NMDB is representative of the population of GSE loans, and the DTI information is provided directly by the GSEs (whereas it is often missing in the servicing datasets).

FIGURE 38: SHARE OF GSE HOME PURCHASE LOANS WITH DTI ABOVE 43 PERCENT, 2012-2017 BY DATA SOURCE

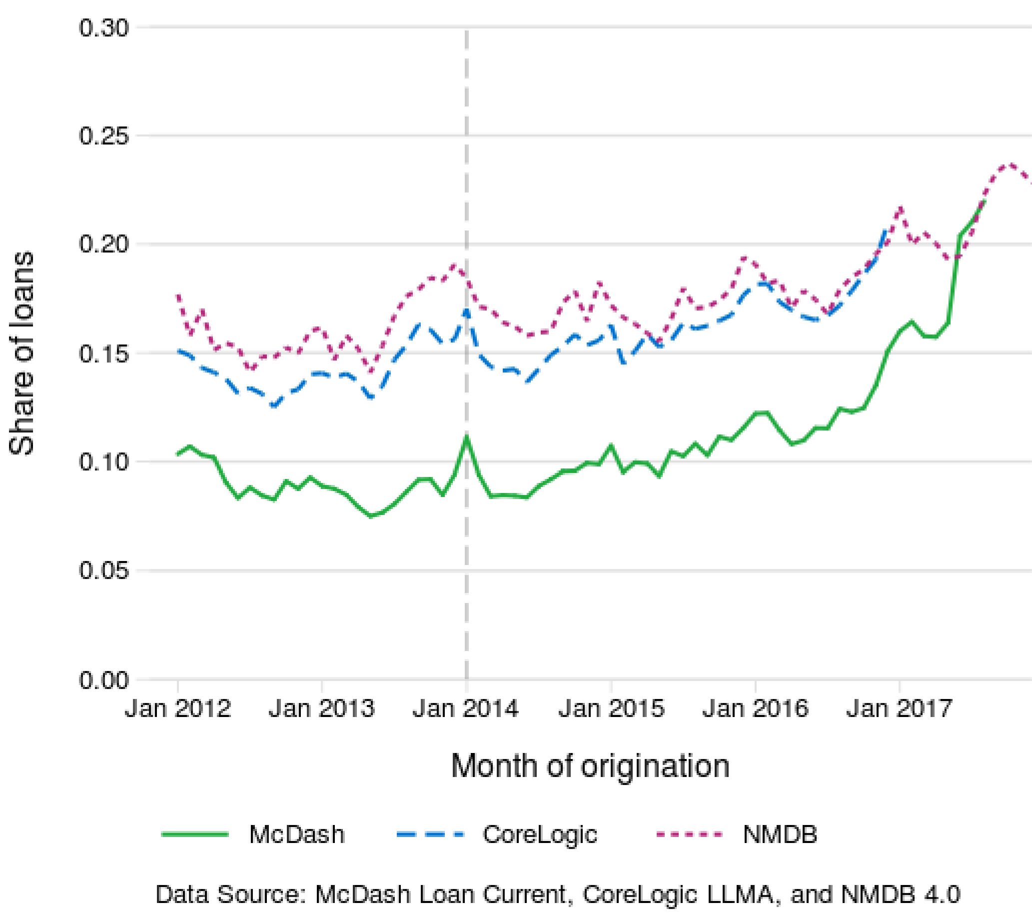
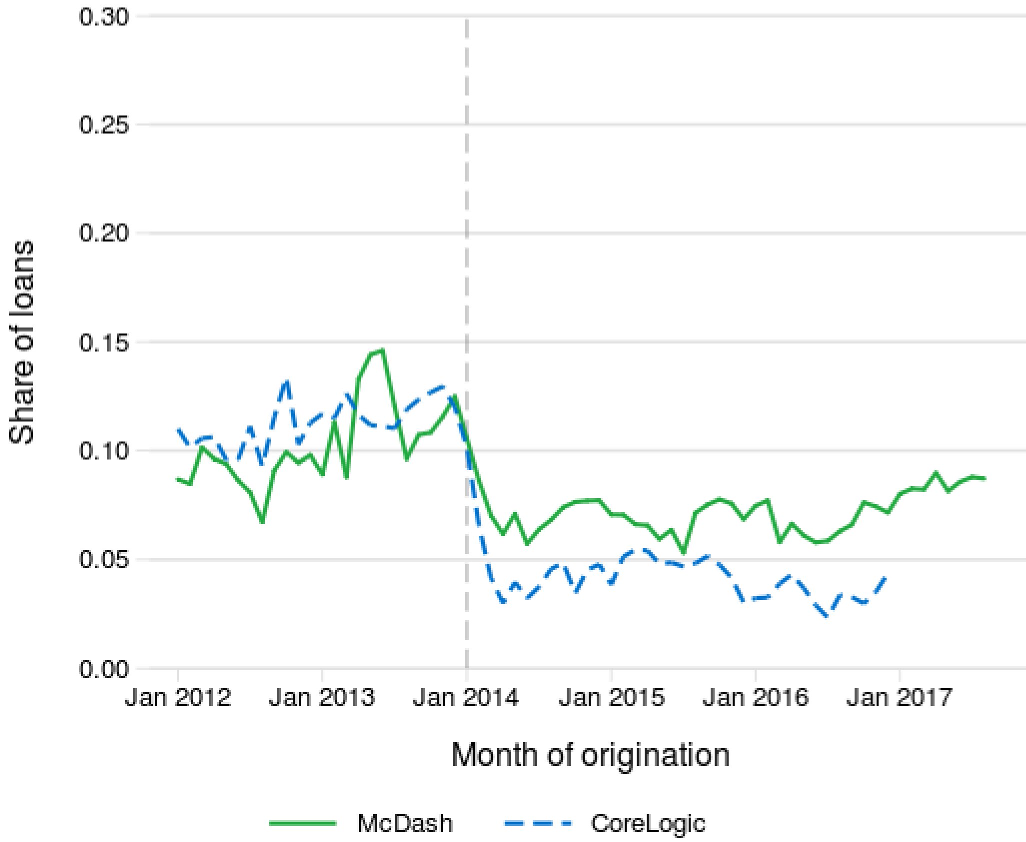


FIGURE 39: SHARE OF NON-GSE PURCHASE LOANS OVER $417,000 WITH DTI ABOVE 43 PERCENT, 2012-2017 BY DATA SOURCE



Data Source: McDash Loan Current and CoreLogic LLMA

Figures 38 and 39 plot shares of High DTI originations over time, separately for GSE and non-GSE loans, among first lien loans for home purchase. The loan is labeled as "GSE" if the data indicates it was sold to the GSEs within 2 years of origination; otherwise, it is labeled as Non-GSE. Because some GSE eligible loans are never sold to the GSEs, the set of loans in the Non-GSE category is further restricted to loans with amount above $417,000. In the GSE segment, both CoreLogic and NMDB show the share of High DTI loans at approximately 15 percent before the Rule, and growing after the Rule. Notably, McDash shows a much lower value, approximately 10 percent before the Rule. It is not clear what drives the difference between these two datasets. In the Non-GSE segment, NMDB data is sparse and not shown in Figure 39; both servicing datasets indicate that in the post-Rule period, the share of High DTI loans among non-GSE loans is fluctuating between 4 and 8 percent.

The General QM requirements of the Rule apply to loans in the Non-GSE segment, but not to loans in the GSE segment, which serves as a control group. Although the share of High DTI loans in the Non-GSE segment has clearly dropped after the Rule, the visual inspection of Figure

39 is not a reliable method of identifying the impact of the Rule on credit access for High DTI borrowers in the Non-GSE segment. The general concern is that due to reasons unrelated to the Rule, such as house price growth, the number of High DTI borrowers seeking to purchase a home may be increasing over time.[253] Because GSE lending and non-GSE lending generally have different geographic footprint (with non-GSE borrowers, primarily jumbo borrowers, being concentrated in metropolitan areas), the impact of the house price growth on the proportion of High DTI borrowers is likely different between two segments. If house price growth did not occur after the Rule was introduced, the observed declines in the share of High DTI loans in the Non-GSE segment would have been deeper than what is currently observed. Similar concerns apply to other relevant characteristics of applicants, such as credit score, income, downpayment—all of which may be affected by changes in economic conditions unrelated to the Rule. To properly control for these changes, Section 5.3 provides an econometric analysis using application level data.[254]

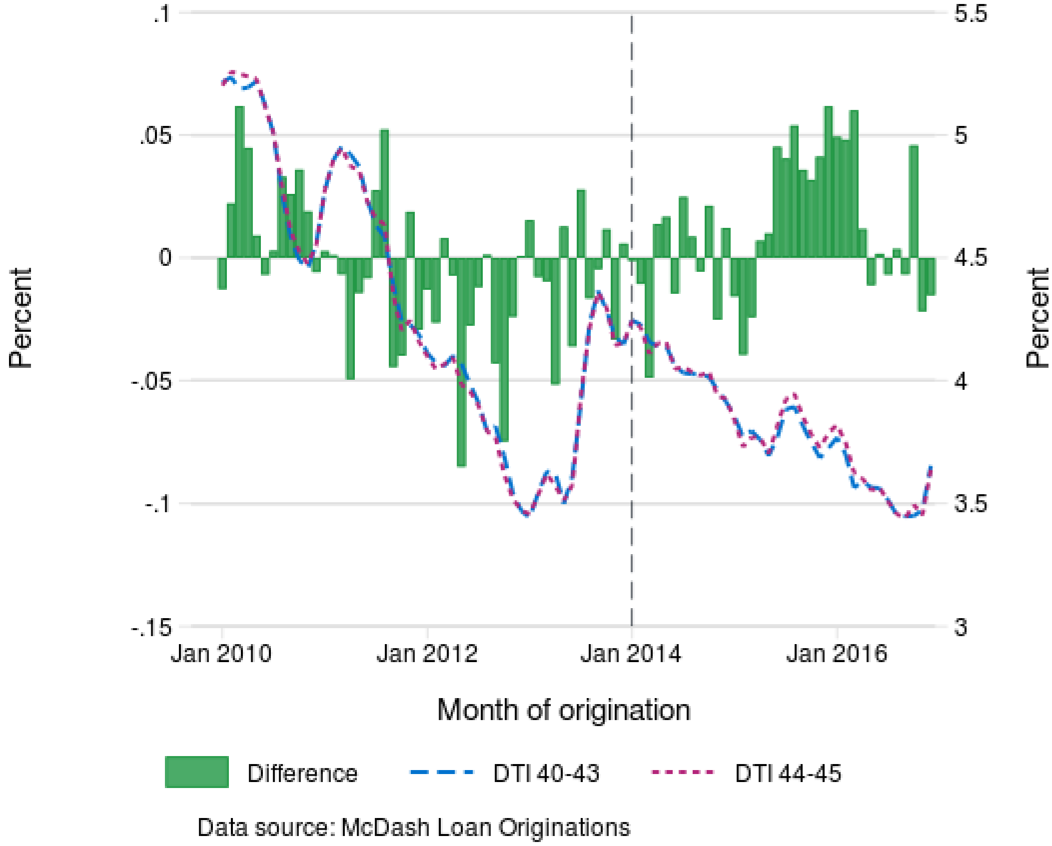
In terms of pricing, Figure 40 shows the interest rate on loans for High-DTI and non-High DTI loans over time among the non-GSE loans over $417,000. The figure compares loans with DTIs between 40 and 43 percent (i.e. just below the General QM threshold) and those with 44 to 45 percent (i.e. just above the threshold).[255] There does not appear to be a marked change in the relative price of High DTI loans in the year following the Rule. The difference between the two interest rates (shown on the left vertical axis) becomes positive, albeit fairly small, in late 2015 and early 2016.

[253] Commenters noted comparable trends in data and reports produced by the Urban Institute's Housing Finance Policy Center, *available at* https://www.urban.org/policy-centers/housing-finance-policy-center, and by the American Enterprise Institute's Center on Housing Markets and Finance, *available at* http://www.aei.org/housing/.

[254] Calculations using CoreLogic data (which includes originated loans, not applications) suggest a 35 percent decline in the origination of High DTI loans over $417,000 after the Rule, with 15 percent not originated at all and 20 percent shifting to lower DTIs. *See "Regulating Household Leverage*," by Anthony DeFusco, Stephanie Johnson and John Mondragon, available at https://ssrn.com/abstract=3046564.

[255] The tighter the band around 43 percent, the more likely that the loans are comparable, but the smaller are the sample sizes. For the bands chosen, the average monthly sample size is 732 for DTI between 40 and 43 percent and 219 for DTI between 44 and 45 percent.

FIGURE 40: INTEREST RATES ON NON-GSE LOANS OVER $417K BY DTI, 2012-2016



This finding is in contrast with research recently done by the Federal Reserve Board[256], which utilizes application data from Optimal Blue (a platform that provides rate locks for lenders), and has shown that non-QM High DTI loans are more expensive than comparable non-High DTI loans by approximately 25 basis points (2013 to 2018 average). This research also finds that there was not an immediate increase in the relative cost of High DTI loans after the Rule, but rather a gradual increase during 2015 through 2018. The difference in results may be attributable to the fact that different lenders contribute their data to McDash and Optimal Blue datasets. The Bureau's own research suggests that not all lenders charge extra for a non-QM loan (more details in the next section).

[256] Aurel Hizmo & Shane Sherlund, *The Effects of the Ability-to-Repay Rule/Qualified Mortgage Rule on Mortgage Lending*, FEDS Notes (Nov. 16, 2018), *available at* https://www.federalreserve.gov/econres/notes/feds-notes/effects-of-the-ability-to-repay-qualified-mortgage-rule-on-mortgage-lending-20181116.htm.

5.2 Evidence from the lender survey

In summer 2018, the Bureau conducted a survey of mortgage lenders in order to gain insight into policy responses to the Rule. An email with a survey link was sent to almost 2,000 lenders using email addresses from the Bureau's HMDA operations. In total, 195 responses were received. Twenty five respondents did not answer most of the questions in the survey and two respondents were Community Development Financial Institutions (CDFIs) and are therefore not covered by the Rule. The survey was not sent to the nine lenders that provided the Application Data; instead, these lenders provided more detailed written responses regarding their policy responses to the Rule. This information was sufficient to impute answers to a subset of questions on the survey for these lenders. Thus, the total number of respondents in the results presented below is 177; however, the actual number of respondents depends on the specific question. Although the sample of respondents is not statistically representative of the overall population of mortgage lenders and, like any such survey, is subject to non-response bias, it includes a diverse group of lenders.

The purpose of this section is to summarize results from the survey that are relevant to the issue of the impact of the Rule on access to credit and the cost of credit; it is not meant to be a complete summary of the survey. Other parts of this report make use of data provided by this survey where relevant.

TABLE 2: WHICH OF THE FOLLOWING OPTIONS BEST DESCRIBES THE TYPE OF YOUR INSTITUTION? CHOOSE ONE.

Institution Type	Count of Respondents	Percent of Respondents
Bank with <$2 billion in total assets	45	25%
Bank with $2-10 billion in total assets	16	9%
Bank with >$10 billion in total assets	23	13%
Credit Union	23	13%
Non-DI	70	40%
Total responses	**177**	**100%**

TABLE 3: HOW MANY MORTGAGES DID YOUR INSTITUTION DIRECTLY ORIGINATE IN 2017? PLEASE USE COUNT OF LOANS.

Origination volume in 2017	Count of respondents	Percent of respondents
0-299	31	17.8%
300-499	17	9.8%
500-999	17	9.8%
1000-1999	29	16.7%
2000-4999	26	14.9%
5000-9999	26	14.9%
10000-19999	9	5.2%
>=20000	19	10.9%
Total responses	**174**	**100.0%**

Table 2 and Table 3 provide the breakdown of respondents by institution type and by the volume of originations in 2017. Lenders of every category have provided a meaningful number of responses to the survey.

TABLE 4: AMONG MORTGAGES YOUR INSTITUTION ORIGINATED IN 2017, WHAT WAS THE COMBINED SHARE ELIGIBLE TO BE PURCHASED, GUARANTEED OR INSURED BY A GSE, FHA, VA, OR USDA/RHS?

Percentage of originations (count of loans)	Count of respondents	Percent of respondents
Less than 80%	94	55%
Approximately 80%	13	8%
Approximately 90%	36	21%
100% (all loans)	28	16%
Total responses	**171**	**100%**

The degree to which a mortgage lender's business is potentially affected by the requirements of the Rule is represented by the share of originations that are not eligible for purchase or guarantee by the GSEs, FHA or VA, because such loans generally need to satisfy the General QM requirements in order to obtain QM status. According to Table 4, for 28 respondents all or almost all loans were eligible for purchase or guarantee by GSE/FHA/VA. This suggests the General QM requirements of the Rule currently do not affect those lenders; however, it is possible that some of them may have decided to originate only Temporary and Agency QM loans in response to the Rule.

TABLE 5: AMONG MORTGAGES YOUR INSTITUTION ORIGINATED IN 2017, WHAT WAS THE COMBINED SHARE ELIGIBLE TO BE PURCHASED, GUARANTEED OR INSURED BY A GSE, FHA, VA, OR USDA/RHS? BREAKDOWN BY INSTITUTION TYPE.

Share of originations	Depository institution	Non-DI (Independent mortgage banker)
Less than 80%	74	20
Approximately 80%	12	1
Approximately 90%	15	21
100% (all loans)	3	25
Total responses	**104**	**67**

Note: only includes observations where response to both questions was provided.

According to Table 5, out of 28 respondents who originate only Temporary QM loans or Agency QM loans, the majority (25 out of 28) are non-depository lenders. The inverse is not true, however: there are 42 non-depository lenders who reported originating loans that do not meet the Temporary QM or Agency QM standards. Likely, these are jumbo loans that are subsequently sold to private investors.

TABLE 6: CONSIDER YOUR 2013 BUSINESS MODEL. WHAT SPECIFICALLY CHANGED AS A DIRECT RESULT OF THE ATR/QM RULE?

Response	Count of respondents	Percent of respondents
Business model changed	100	62.50%
Does not apply/No change	60	37.50%
Total responses	**160**	**100.00%**

Among the 160 lenders who responded to question in Table 6, approximately 63 percent indicated that the Rule had an impact on their business operations. For the remaining 37 percent, it may be inferred that the Rule did not produce a material impact; this may occur either because these lender's business only focused on originating QM loans, or because their lending standards already were in compliance with the requirements of the Rule.

TABLE 7: IMPACT OF THE ATR/QM RULE ON THE BUSINESS MODEL BY THE SHARE OF 2017 ORIGINATIONS ELIGIBLE TO BE PURCHASED, GUARANTEED OR INSURED BY A GSE, FHA, VA, OR USDA/RHS.

Share of originations	Business model changed	Does not apply/No change
Less than 80%	55	32
Approximately 80%	10	2
Approximately 90%	19	12
100% (all loans)	15	13
Total responses	**99**	**59**

Note: only includes observations where response to both questions was provided.

Table 7 suggests that the set of lenders who reported that their business model was not changed by the Rule is not identical to the set of lenders who originate only Temporary or Agency QM loans. In sum, the reported impact of the Rule is not restricted to institutions of particular type.

Among the 100 lenders who responded that the business model has changed, 87 provided write-in responses detailing what specifically has changed.

TABLE 8: ANALYSIS OF WRITE-IN RESPONSES TO THE QUESTION "CONSIDER YOUR 2013 BUSINESS MODEL. WHAT SPECIFICALLY CHANGED AS A DIRECT RESULT OF THE ATR/QM RULE?"

Issue mentioned	Count of respondents	Percent of respondents
Increased income documentation	31	36%
DTI cap of 43% was introduced	28	32%
Products with balloon feature discontinued	17	20%
Increased staffing / compliance costs	13	15%
Determined not to originate non-QM	11	13%
Changes to cap structure or income requirements for ARM products	13	15%
Products with interest only feature discontinued	16	18%
Difficulties with meeting points and fees test	11	13%
Longer closing times	3	3%
Asset depletion no longer allowed	2	2%
Total responses	**87**	**100%**

Table 8 lists the issues mentioned by respondents, sorted in the order of declining frequency. The percentages in the right most column of do not sum up to 100 percent because some respondents indicated multiple issues. Two findings are notable. First, "Increased income documentation" is the most frequently mentioned change that was prompted by the Rule. This finding is somewhat surprising given the general notion that income documentation standards already had been fairly strict at the time of the introduction of the Rule.[257] Some respondents explicitly link the increased documentation to Appendix Q requirements, while others mention general ability to repay requirement as the reason. Second, the third most popular issue is "Products with balloon feature discontinued", mentioned by 19 percent of respondents.

Some respondents have indicated that the business model change was to stay away from non-QM originations, either through a DTI cap of 43 percent on portfolio or investor loans, or as a more general policy of not originating non-QM loans regardless of the reason. Nevertheless, a number of lenders do originate non-QM loans, according to Table 9.

TABLE 9: WHAT SHARE OF YOUR 2017 ORIGINATIONS IS REPRESENTED BY NON-QM LOANS? CHOOSE ONE OPTION.

Non-QM share	Count of respondents	Percent of respondents
None	50	30%
<5%	74	44%
>5%	35	21%
Do not know	8	5%
Total responses	**167**	**100%**

Among lenders who provided responses to this question, 30 percent mentioned not originating any non-QM loans. Among those who report originating non-QM loans, the majority indicated that the share of such loans among their originations was low, less than 5 percent. The Bureau has obtained more detailed data from several large lenders, including those who provided the Application Data; generally, the share of non-QM loans was found to be less than 1 percent.

257 78 Fed. Reg. 6408, 6564 (Jan. 30, 2013).

TABLE 10: ORIGINATION OF NON-QM LOANS BY INSTITUTION TYPE

Non-QM share	Bank with <$2 billion in total assets	Bank with $2-10 billion in total assets	Bank with >$10 billion in total assets	Credit Union	Non-DI
None	38%	36%	5%	29%	37%
<5%	38%	18%	64%	38%	54%
>5%	25%	45%	32%	33%	9%
Total responses	**40**	**11**	**22**	**21**	**65**

Note: only includes observations where response to both questions was provided.

Table 10 examines which institution type is more likely to originate non-QM loans. The last row in the table indicates the number of responses in the corresponding column. Non-depository lenders ("Non-DI") are significantly less likely to originate a substantial amount (">5%") of non-QM loans than any other lender type. At the same time, the percentages on the row labeled "None" indicate that non-depository lenders do originate some non-QM loans at a rate that is comparable to banks. Originations of non-QM loans by non-depository lenders, who generally do not hold loans on balance sheets, suggest there exists a secondary market for this type of loans. Large banks, with more than $10 billion in assets, almost all originate some non-QM loans; this is in contrast to other institution types, where about a third do not originate any non-QM loans. Chapter 7 provides additional information on non-QM originations by small and medium banks, utilizing a separate survey conducted by the Conference of State Bank Supervisors.

TABLE 11: DO YOU SELL ANY OF YOUR NON-QM LOANS TO THIRD PARTIES? BREAKDOWN BY INSTITUTION TYPE.

Response	Depositary institution	Non-DI (independent mortgage banker)
No, we keep all or almost all such loans on portfolio	61	3
Yes, we sell most or all of our non-QM loans	1	32
Yes, we sell some of our non-QM loans	3	1
Total responses	**65**	**36**

Almost all depository institutions hold non-QM loans they originate on portfolio, as Table 11 suggests. Conversations with lenders suggest that one possible explanation is that depository institutions originate non-QM loans on an occasional basis through their general portfolio products, while some non-depository lenders maintain specialized non-QM mortgage products, financed by investors.

TABLE 12: AMONG THE NON-QM LOANS THAT YOU ORIGINATE, DO AT LEAST SOME OF THEM HAVE THE FOLLOWING FEATURES?

A jumbo loan with DTI>43%	**Count**	**Percent**
Rarely or never	46	46%
Sometimes	49	49%
Often	6	6%
Total responses	101	100%
A non-jumbo loan with DTI>43% (Only consider mortgages not eligible to be purchased, guaranteed or insured by a GSE, FHA, VA, or USDA/RHS)	**Count**	**Percent**
Rarely or never	32	32%
Sometimes	56	56%
Often	12	12%
Total responses	100	100%
Borrower did not (could not) provide documentation required by Appendix Q (Only consider mortgages not eligible to be purchased, guaranteed or insured by a GSE, FHA, VA, or USDA/RHS)	**Count**	**Percent**
Rarely or never	52	60%
Sometimes	27	31%
Often	8	9%
Total responses	87	100%

As Table 12 indicates, the phenomenon of non-QM High DTI loans is not restricted to the jumbo segment. This finding suggests that the Rule may have had an impact on originations of loans that are conforming in loan size but do not fit into the GSE guidelines on other parameters. The analysis in the following section provides further insight into this issue.

TABLE 13: OVER THE NEXT YEAR, DO YOU EXPECT YOUR INSTITUTION'S NON-QM LENDING WILL:

Response	**Count of respondents**	**Percent of responses**
Decrease	5	5%
Increase	25	26%
Stay about the same	68	69%
Total responses	**98**	**100%**

When asked about expectations regarding the future growth of non-QM originations, 70 percent of respondents who replied to the question indicated that it would “Stay about the same” according to Table 13 above.

Finally, with regards to pricing, the Bureau inquired whether lenders apply extra pricing adjustment for non-QM loans when the DTI exceeds 43 percent. This policy option is of particular interest as it represents an alternative to rejecting a non-QM application. Table 14 presents the count and share of respondents who responded “yes” to the question whether they applied a pricing adjustment in situations where the DTI on a mortgage loan exceeded 43 percent. Responses are restricted to lenders who did not qualify for a Small Creditor QM status. The respondents were asked to only consider mortgages not eligible to be purchased, guaranteed or insured by a GSE, FHA, VA, or USDA/RHS.

TABLE 14: COUNT OF RESPONDENTS APPLYING PRICING ADJUSTMENT FOR LOANS OVER 43 PERCENT DTI (ONLY LENDERS THAT DO NOT QUALIFY FOR A SMALL CREDITOR QM)

Institution type	Count of respondents	Apply adjustment
Bank with <$2 billion in total assets	12	3
Bank with $2-10 billion in total assets	7	4
Bank with >$10 billion in total assets	20	5
Credit Union	10	0
Non-DI	32	11
Total	**81**	**23 (28%)**

Note: only includes observations where response to both questions was provided.

Overall, about 28 percent of respondents indicated applying a pricing adjustment. The Bureau has investigated this issue further by examining retail ratesheets from a number of lenders (approximately, 40). Only a few lenders from the examined set have a pricing adjustment that applies specifically to High DTI loans. None of the nine lenders who provided Application Data apply such an adjustment. Overall, it appears that using extra pricing adjustment to compensate for ATR risk is a less popular policy response to the Rule among lenders, as compared to tightening of underwriting standards (introducing a 43 percent DTI cap), particularly when institution size is taken into account.

5.3 Effect of the Rule on access to credit for borrowers with DTI greater than 43 percent: evidence from the Application Data

5.3.1 Description of the data

To analyze the impact of the ATR requirement on access to credit, the Bureau acquired de-identified, application level data from nine large lenders, including depository and non-depository institutions, spanning the four years from 2013 to 2016.[258] None of the lenders is a small creditor under the Rule and none are credit unions. Although these lenders account for a significant percentage of mortgage originations (over 15 percent of jumbo originations in 2016), they are not representative of the entire market and thus the analyses that follow must be read with that limitation in mind.

For each lender, the data contain information on each application received by the lender, its affiliates, and correspondent lenders and brokers for a closed-end, first-lien consumer mortgage to purchase or refinance an owner-occupied one to four family residential property. If several applications were submitted by an applicant with respect to a single transaction, then respondents were instructed to include information on only the final application. Respondents were instructed not to include pre-approval requests.

For each application, the available data fields include the outcome of the loan application—approved, denied, or withdrawn—as well as a broad set of characteristics of the borrower and of the mortgage. See Appendix C for details on the available data fields and their values. To minimize the risk of re-identifying individual borrowers, the numeric data fields, such as loan amount, loan-to-value (LTV) ratio, income reported on the application, etc., were reported in bins with each bin identified by the range of included values. Furthermore, the date of application was coarsened to the year-month level, and the location of the property was recorded at the county level.

The universe of applications is classified into loan types, according to the mortgage product applied for: GSE, FHA, VA, USDA/RHS, and Private. The latter is a catch-all category that

[258] See Appendix C for details, including the data dictionary.

represents privately funded loans (either held in portfolio or by investors). Such classification is based on the type of product the borrower applied for. For instance, the "GSE" category consists of applications for GSE mortgage products, or products where the lender sells most or all loans to the GSE's. Applications in the "Private" category are those which the lender either retains on portfolio or sells to private investors. Lender-level statistics reported in this chapter are de-identified and randomized across tables to reduce re-identification risk.

The Temporary GSE QM provision of the Rule maintains that loans eligible for purchase by GSE's generally are QM loans. Such loans constitute a control group for the purposes of this analysis.[259] This group consists of GSE applications (for loans that would have been subsequently sold to GSEs) and of GSE eligible Private applications (for loans that generally would not have been sold to GSEs). Indeed, not all GSE eligible loans are sold to GSEs by the nine lenders that contributed the Application Data. The data includes an appropriate indicator that distinguishes between GSE eligible and non-GSE eligible Private applications. The Bureau assumes for purposes of analysis that Private non-GSE eligible applications must satisfy General QM provisions of the Rule in order to obtain the QM status.[260]

Applications from other segments (FHA, VA, and USDA/RHS) are not used in this analysis because they are subject to these agencies' own QM rules.

TABLE 15: COMPOSITION OF THE APPLICATION DATA BY LENDER

GSE Eligibility	Min	Mean	Max
GSE	0.48	0.82	100
Private GSE eligible	0.00	0.03	0.24
Private Non-GSE eligible	0.00	0.15	0.33

Table 15 provides the breakdown of applications by: GSE applications, Private GSE eligible applications and Private non-GSE eligible applications. The sample includes all conventional applications for home purchase or refinance, 2013 to 2016 (all years of data). On average across

[259] Importantly, the DTI requirements for GSE eligibility have remained unchanged during the study period (2013 to 2016).

[260] Section 1026.43(4)(ii)(A) provides that a QM mortgage must be eligible for purchase or guaranty by the GSE "except with regard to matters wholly unrelated to ability to repay . . . ." It is therefore conceivable that some percentage of non-GSE eligible loans nevertheless could meet the requirement for the Temporary GSE QM provision if the ineligibility was attributable to a matter wholly unrelated to the ability to repay. The Application Data does not allow such differentiation, hence the assumption mentioned above.

nine lenders, the share of GSE applications was 82 percent, the share of Private GSE eligible applications was 3 percent, and the share of Private non-GSE eligible applications was 15 percent. The share of the Private non-GSE eligible applications (treated group) determines the degree to which the lender's business is potentially affected by the General QM DTI requirement; that share varies significantly by lender, between 0 and 33 percent. One lender only originates GSE loans, which means that this lender's data is entirely in the control group. The heterogeneity in the share of non-GSE eligible loans holds more broadly across mortgage lenders, as seen from responses to the Lender Survey.

In total, the sample includes close to 3.5 million applications for GSE products, and close to half a million applications for Private products. The large number of observations is important as it provides sufficient power to identify effects in small segments. The large size of the dataset also implies that the estimated impacts of the Rule, albeit obtained for a non-representative sample of lenders, affect large number of borrowers.

Table 16 and Table 17 compare GSE eligible and non-GSE eligible applications along a number of loan and borrower characteristics. Because each characteristic is recorded as a categorical variable, these tables show percentages separately for each sub-sample. For example, Table 16 indicates that 23.45 percent of applications in the GSE eligible category were made for home purchase; in the non-GSE eligible category, the share of home purchase applications is 52.43 percent. The primary difference between the two categories is loan size: over 70 percent of non-GSE eligible applications exceed the general $417,000 conforming limit effective at the time, whereas only about 4 percent of GSE eligible applications exceed this limit, all located in high-cost counties. In other words, 30 percent of non-GSE eligible applications are within conforming limits, which suggests that loan size alone (e.g., "jumbo loan") is a rather imperfect proxy for non-GSE eligibility. On dimensions other than loan size, it is often possible to find comparable GSE eligible borrowers for a given non-GSE eligible borrower who may serve as a control group.

TABLE 16: DISTRIBUTION OF APPLICATION AND BORROWER CHARACTERISTICS BY APPLICATION TYPE, 2013-2016

Variable	Percent of GSE eligible applications	Percent of Non-GSE eligible applications
Decision		
Approved	70.03	67.26
Denied	17.25	16.04
Withdrawn	12.72	16.70
Loan Purpose		
Purchase	23.45	52.34
Refinance	76.55	47.66
Loan Amount		
< 60,001	4.54	3.52
60,001-100,000	14.42	5.00
100,001-150,000	21.28	5.72
150,001-250,000	30.87	7.44
250,001-417,000	25.06	6.95
417,001-625,000	3.38	30.79
> 625,000	0.46	40.59
FICO Score		
<620	4.46	8.23
620-659	7.19	2.02
660-679	6.05	2.25
680-699	8.35	4.50
700-719	9.66	7.39
720-739	10.20	10.54
>=740	54.08	65.07
Back-end DTI		
< 21%	13.12	14.71
21-30%	22.06	22.65
31-40%	31.24	36.76
41-43%	10.36	13.69
44-45%	8.40	3.61
46-50%	5.93	3.68
> 50%	8.89	4.91

TABLE 17: DISTRIBUTION OF APPLICATION AND BORROWER CHARACTERISTICS BY APPLICATION TYPE, 2013-2016 (CONTINUED)

Variable	Percent of GSE eligible applications	Percent of Non-GSE eligible applications
Application income, dollars per month		
< 2,501	9.05	11.21
2,501-5,000	24.62	7.83
5,001-7,500	23.99	4.58
7,501-10,000	17.22	6.57
10,001-12,500	10.45	9.11
12,501-15,000	5.86	9.75
> 15,000	8.81	50.94
LTV		
< 50%	17.9	15.92
51-80%	54.86	61.4
81-90%	11.63	6.58
91-95%	9.18	4.38
> 95%	6.43	11.72
Number of borrowers		
1	51.69	44.78
2	48.31	55.22
Self-employed		
No	86.13	77.02
Yes	13.87	22.98
Fixed rate mortgage		
No	3.61	27.19
Yes	96.39	72.81
Delinquency on other loans		
No	99.6	99.67
Yes	0.4	0.33
Bankruptcy		
No	98.19	99.53
Yes	1.81	0.47

FIGURE 41: SHARES OF HIGH DTI APPLICATIONS AMONG GSE ELIGIBLE AND NON-GSE ELIGIBLE CATEGORIES, BY LENDER, 2013

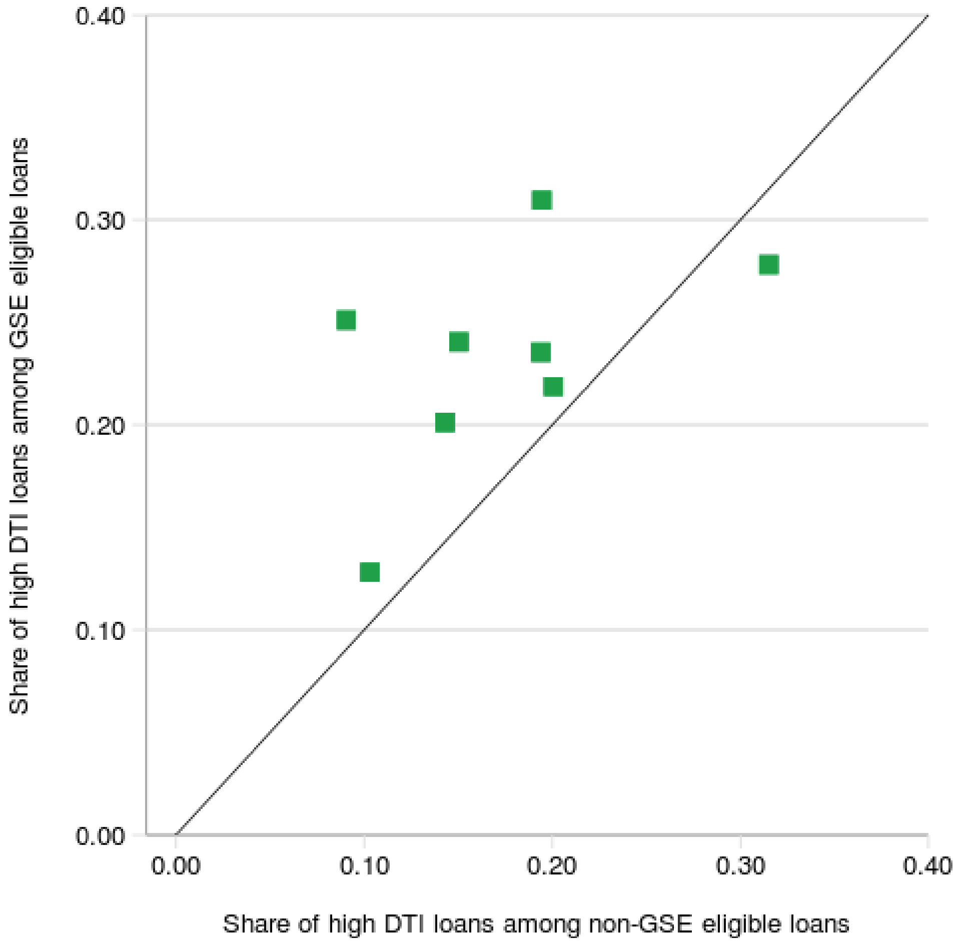
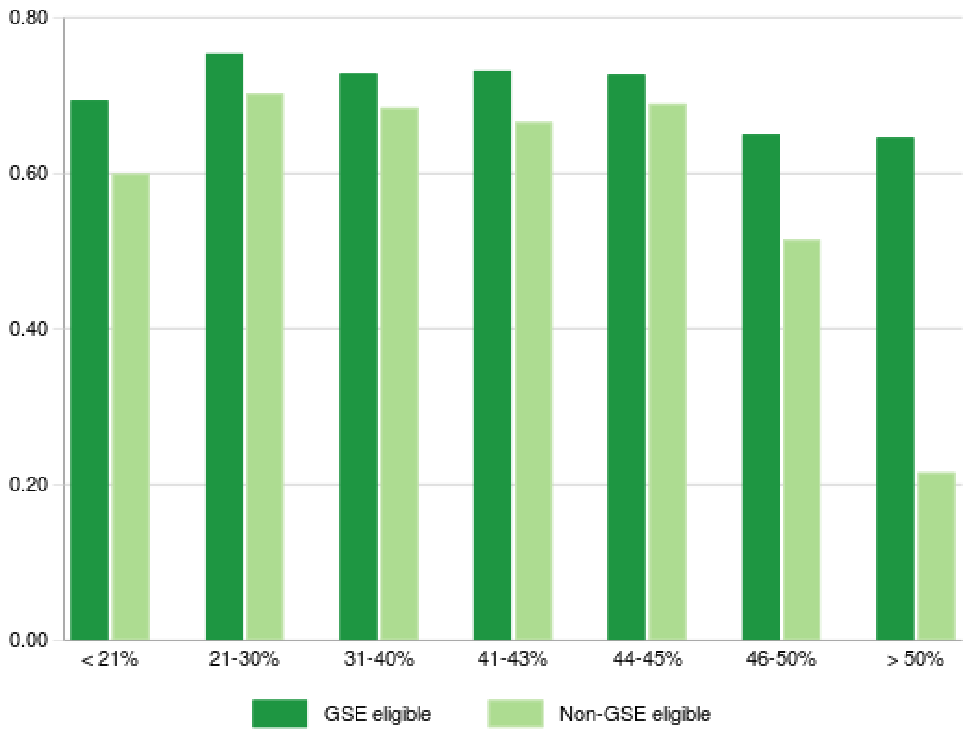


Figure 41 provides, separately for each lender, the share of High DTI applications in the GSE eligible and non-GSE eligible segments in 2013. The pre-Rule data is used to eliminate the influence of the Rule on the data. Almost all points lie above the 45-degree line, meaning that for each lender, the share of High DTI applications was higher in the GSE eligible segment than in the non-GSE eligible segment. Before the implementation of the Rule, there was wide variation across lenders in the proportion of High DTI applications, in both segments, ranging from 10 to 30 percent.

In addition, shares of High DTI applications in both segments are positively related. This could result from common factors, such as the geographic footprint of a lender, but also from the lender's credit policy towards High DTI borrowers. Note that not all borrowers who contact a lender end up submitting an application. From the borrower's perspective, filing an application requires effort and often a fee, which makes sense only if there is a reasonable expectation of approval, which itself is a function of the lenders' underwriting approach. Therefore, this analysis considers the share of High DTI applications as an outcome that may be affected by the Rule, along with the more traditional outcome, the approval rate of High DTI borrowers.

FIGURE 42: APPROVAL RATES BY DTI AND BY LOAN TYPE, 2013



The approval rate is defined as the ratio of approved applications to all applications. Figure 42 plots approval rates by DTI bin, separately for GSE eligible and non-GSE eligible applications, using 2013 data to capture the state of the market before the Rule took effect. There is no significant difference in how lenders approach applications with DTI in the [41-43%] bin, and applications in the [44-45%] bin. Also, there is almost no difference in approval rates between GSE eligible and non-GSE eligible applications in the [44-45%] bin. In other words, the 43 percent cutoff was immaterial in the pre-Rule environment from the point of view of credit policy. This finding helps us identify the impact of the Rule, because it alleviates a concern that applicants just above 43 percent were different from those just below 43 percent on dimensions not observed in the data.

FIGURE 43: SHARE VS APPROVAL RATE OF HIGH-DTI NON-GSE ELIGIBLE APPLICATIONS, 2013

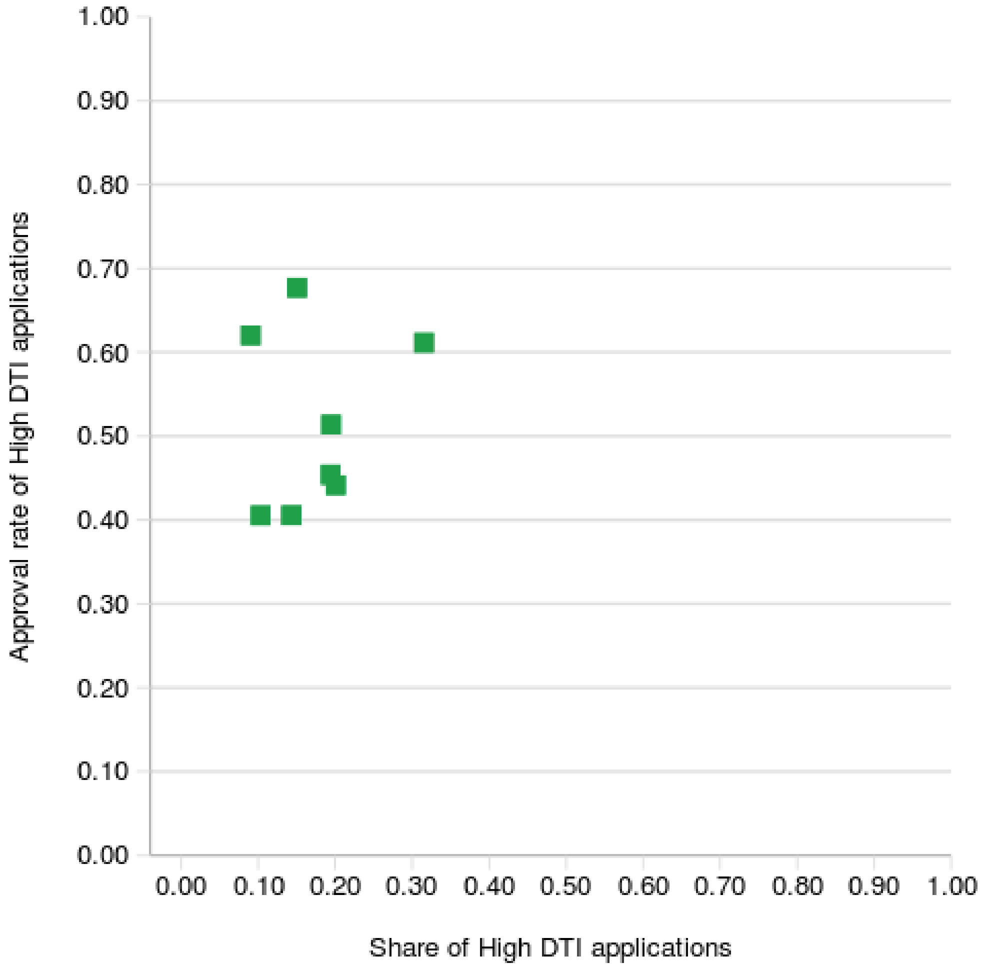


Figure 43 plots two key indicators—the share of High DTI applications and the approval rate of High DTI applications—against each other, among non-GSE eligible applications, using 2013 data. There seem to be two clusters of lenders, but within each cluster the relationship between the two indicators is positive, suggesting that both are likely influenced by a given lender's underwriting approach towards High DTI borrowers.

FIGURE 44: CHARACTERISTICS OF HIGH-DTI APPLICATIONS, 2013

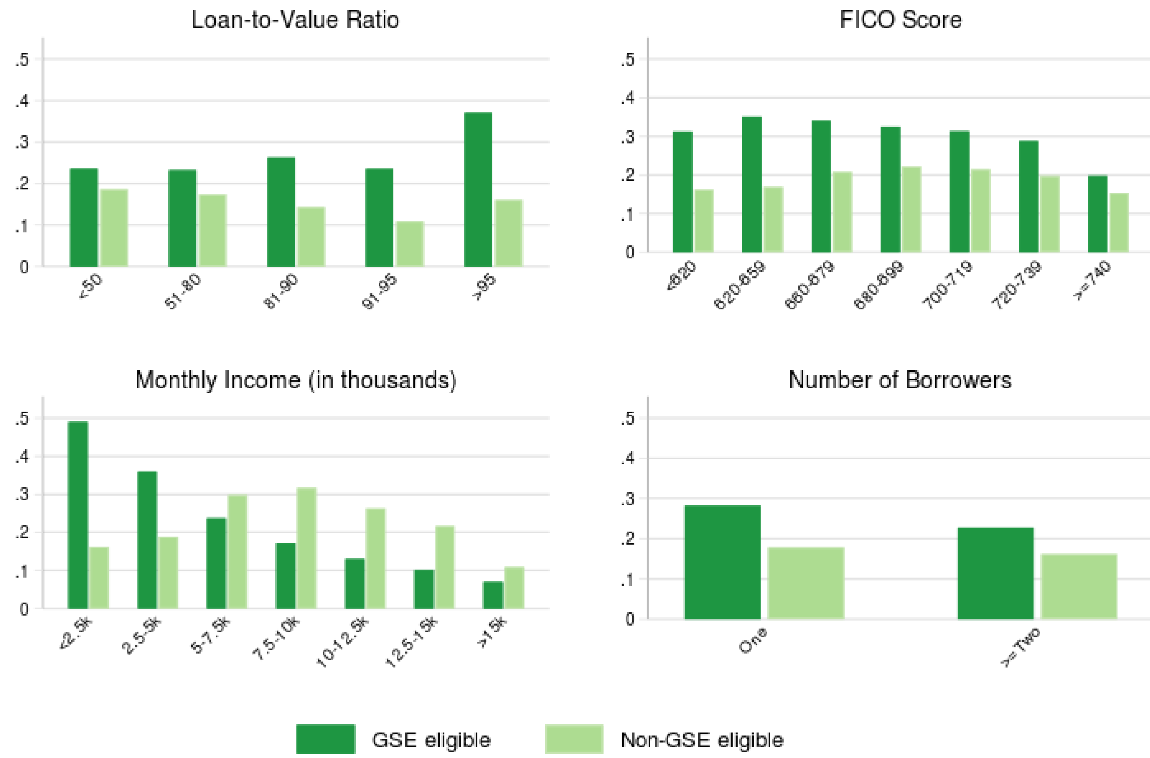
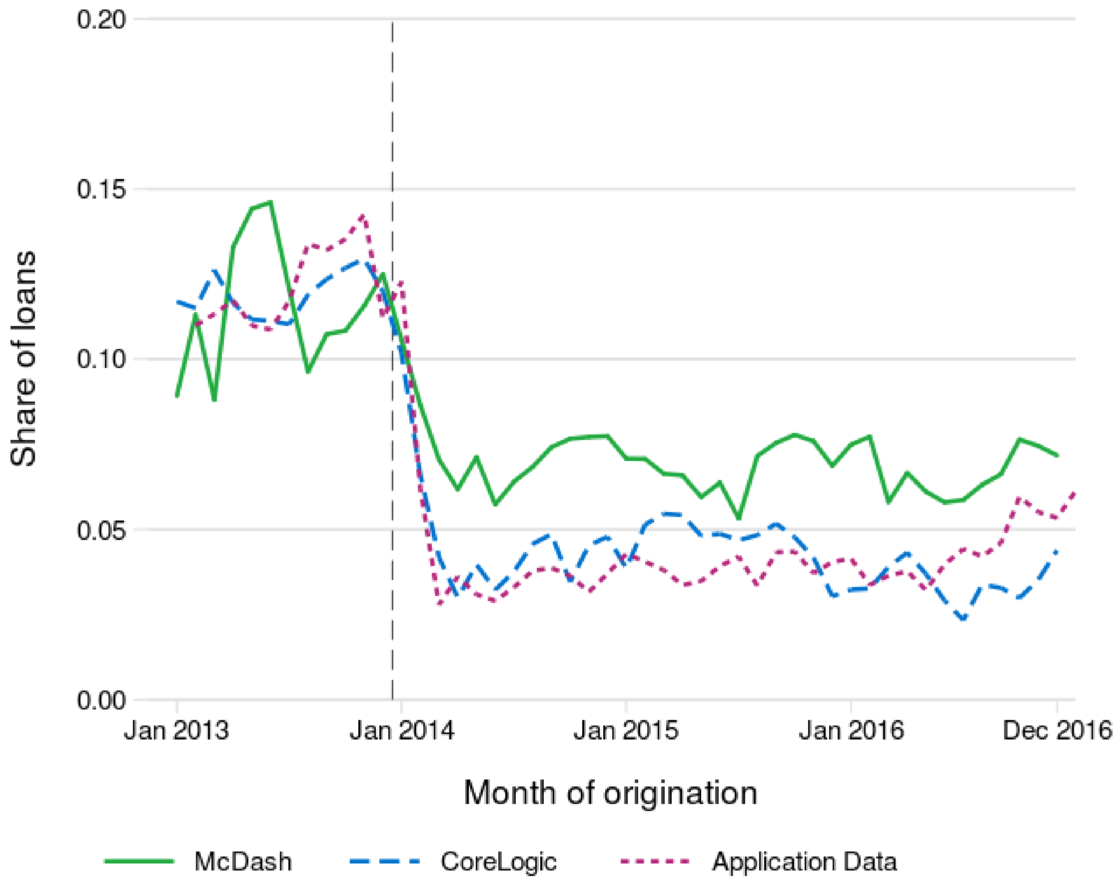


Figure 44 compares characteristics of High DTI applications between two segments: GSE eligible applications and non-GSE eligible applications. The height of a bar corresponds to the share of High DTI applications among all applications that belong to that category. For instance, the "LTV" graph indicates that among GSE eligible applications with LTV>95 percent, approximately 35 percent were High DTI. For LTV, FICO score and number of borrowers, the "GSE eligible" bars are all higher than the "Non-GSE eligible," reflecting the fact that there are universally more High DTI applicants in the GSE segment. However, with respect to income, the two segments differ substantially. Among GSE eligible applications, as the income reported on the application (measured in thousands of dollars per month) rises, the share of applications that are High DTI falls. In contrast, among non-GSE eligible applications, there is an inverse U-shape relationship: applicants with the lowest incomes (less than $5,000 per month) and highest incomes (more than $15,000 per month) are less likely to be High DTI than applicants in the middle. This evidence is consistent with the notion that the share of High DTI applications is reflective of lender's underwriting approach. It must be noted, however, that this observation belongs to 2013 data and does not suggest that lower income non-GSE eligible High DTI applicants have been particularly affected by the Rule—this specific hypothesis is explored later.

To conclude the description of the data, Figure 45 compares Application Data to two servicing datasets along the key metric that can be computed in all three datasets: the share of loans with DTI>43 percent among non-GSE eligible loans. It appears that the Application Data tracks to the CoreLogic dataset quite closely, which is about twice as large by count of loans, and more importantly includes many more lenders.

FIGURE 45: COMPARISON OF APPLICATION DATA TO SERVICING DATASETS (TRENDS IN THE SHARE OF HIGH DTI LOANS FOR HOME PURCHASE)



Data Source: McDash Loan Month, CoreLogic LLMA, and Application Data

5.3.2 Estimation approach

The goal of this analysis is to isolate the effect of the ATR requirement on two key metrics of interest: the share of High DTI applications and the approval rate of High DTI applications, among non-GSE eligible applications. The estimation approach utilizes the DTI threshold established by the General QM standard. This analysis assumes that non-GSE eligible applications with DTI less or equal to 43 percent will comply with the ATR provision by complying with the General QM requirements, whereas non-GSE eligible applications with DTI greater than 43 percent (High DTI) will comply with the ATR requirement directly.

To estimate the effect of the Rule on the share of High DTI applications, it is necessary to control for the influence of confounding factors that may affect the share of High DTI applications for reasons not related to the Rule. For instance, the income of applicants or the amount of debt they apply for are influenced by economic conditions and house price growth. The analysis controls for application income directly, as this field is available in the data. Changes in house prices are controlled for by comparing the share of High DTI borrowers in the non-GSE eligible segment to the contemporaneous share of similar High DTI borrowers in the GSE eligible segment, within the same lender. It was not possible to include house price indices directly into the regression because geographic data is not available for all applications.

To estimate the effect of the Rule on the approval rate of High DTI applications, a triple-differences estimation approach is adopted. Whereas the previous approach (for the share of High DTI applications) performed two comparisons (before vs. after, and treatment vs control group), the approach for approval rates performs a three-way comparison. This helps further eliminate the potential effects of confounding factors on the outcome. First, the approval rate of High DTI applications is compared to the approval rate of otherwise similar non-High DTI applications in the GSE eligible segment; the same comparison is performed within the non-GSE eligible segment as well. This helps isolate the influence of confounding factors that affect the approval rate of all borrowers, regardless of DTI. Second, the approval rate of High DTI applications in the non-GSE eligible segment is compared to the approval rate of High DTI applications in the GSE segment, revealing the effect of differences in lenders' underwriting approaches to such applicants in these two segments. Third, the analysis examines how the above mentioned differences have changed after the implementation of the Rule. See Section 5.3.8 for details of both specifications.

The plan for the rest of Section 5.3 is as follows. Sections 5.3.3 and 5.3.4 present estimation results for home purchase loans and refinance loans, respectively. Sections 5.3.5 and 5.3.6 examine the impact of the Rule within specific groups of borrowers. Section 5.3.7 calculates the combined effect of the Rule on the number of approved non-GSE eligible High DTI applications. Finally, Section 5.3.8 is the technical appendix that contains the details of econometric specifications and certain regression tables not included in the main text.

5.3.3 Results for home purchases

Table 18 provides information on aggregate changes in the outcomes of interest—the share of High DTI applications and the approval rate of High DTI applications—over time, separately for the GSE eligible and non-GSE eligible segments in the home purchase category. The share of High DTI applications in the GSE eligible segment grew each year, whereas in the non-GSE eligible segment this share declined substantially in 2014 and remained at approximately that level afterwards. The approval rate of High DTI applications in the GSE eligible category segment stayed relatively constant during 2013-2016, whereas in the non-GSE eligible segment the approval rate declined substantially in 2014 and remained at approximately that level afterwards.

TABLE 18: SHARE AND APPROVAL RATE OF HIGH DTI APPLICATIONS BY GSE ELIGIBILITY, HOME PURCHASE, 2013-2016

Year	Share of High DTI GSE Eligible applications	Approval rate of High DTI GSE Eligible applications	Share of High DTI Non-GSE eligible applications	Approval rate of High DTI Non-GSE eligible applications
2013	0.16	0.68	0.15	0.53
2014	0.17	0.68	0.09	0.33
2015	0.17	0.68	0.09	0.35
2016	0.19	0.69	0.09	0.39

The statistics in Table 18 are simple averages that do not control for any underlying changes in loan and borrower characteristics. Figures 46 and 47 show model estimates of the dynamics of these outcomes at a monthly level that would have been observed if loan and borrower characteristics stayed constant. See Section 5.3.8 for the specification of the model that produced these estimates.

FIGURE 46: ESTIMATED EFFECT ON THE SHARE OF HIGH DTI LOANS AMONG PURCHASE APPLICATIONS, 2013-2016

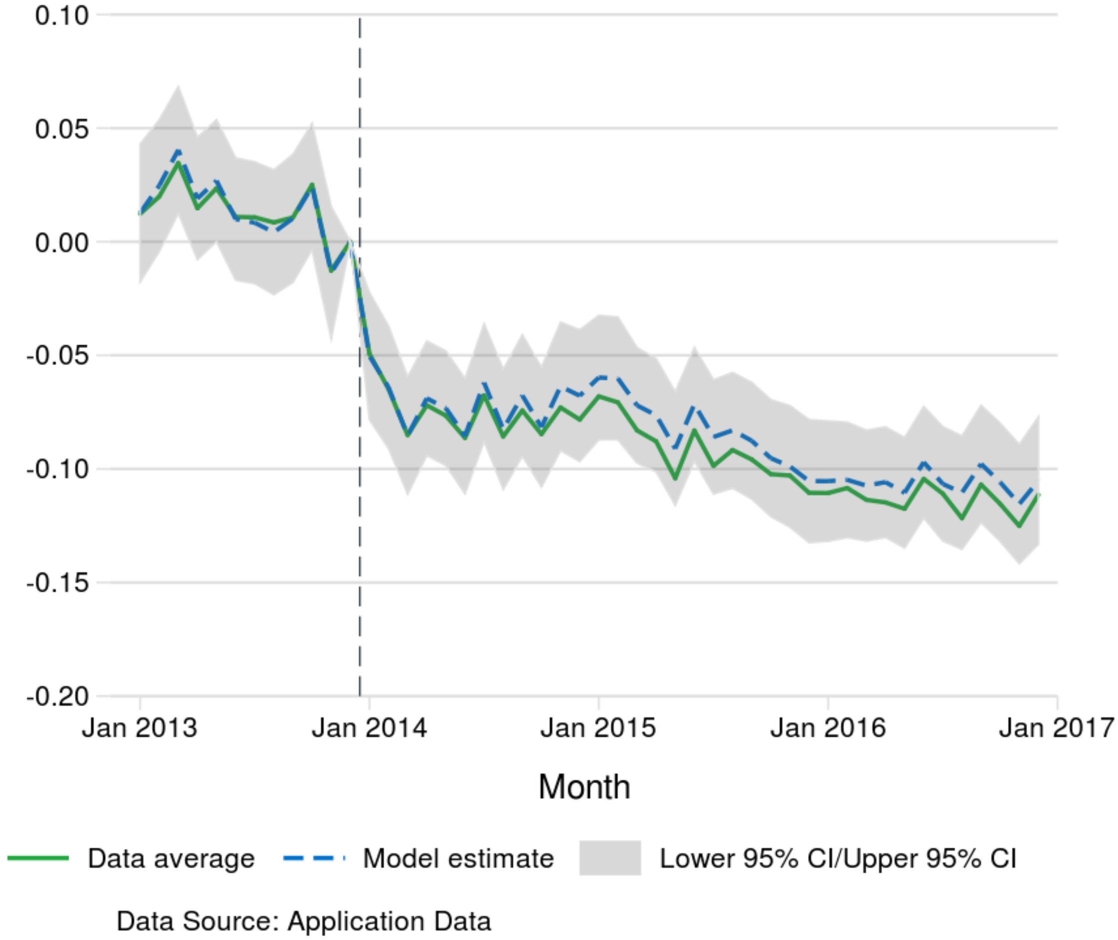
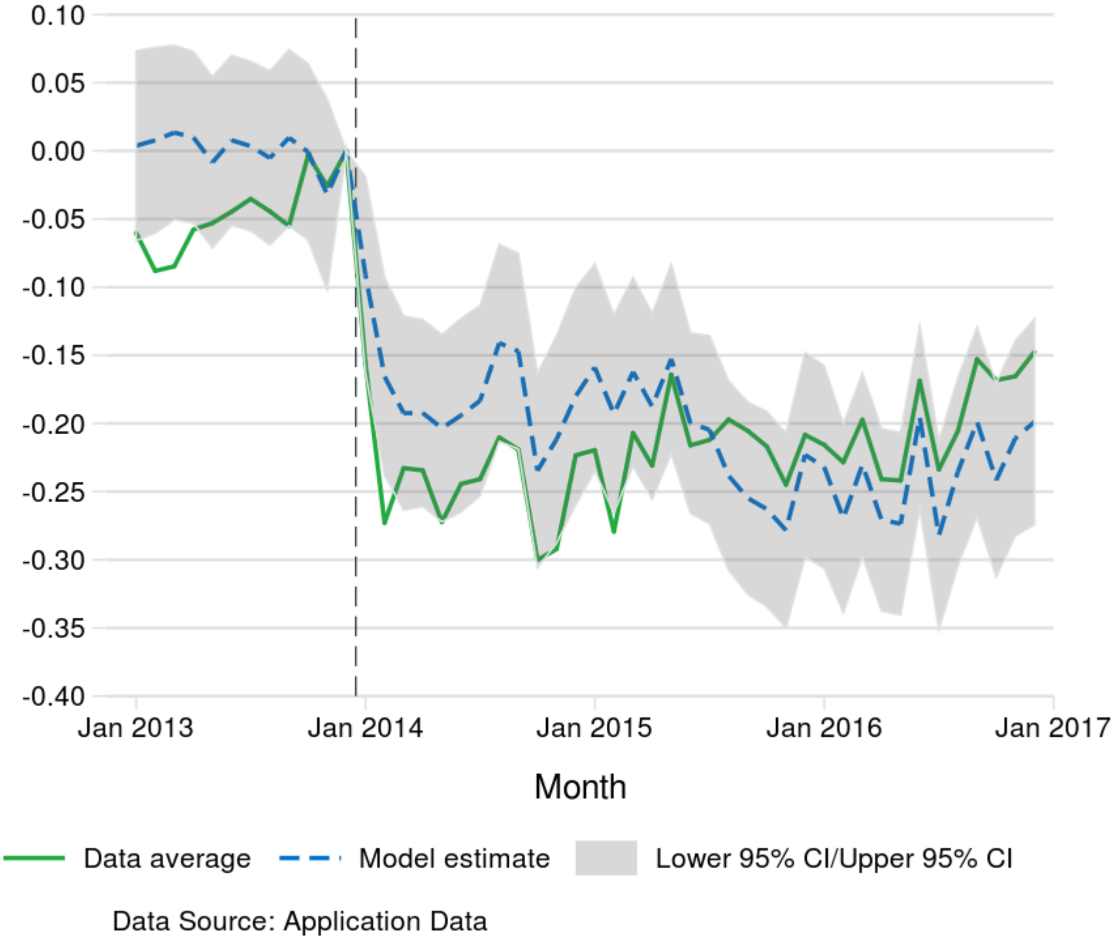


FIGURE 47: ESTIMATED EFFECT ON THE APPROVAL RATE ON HIGH DTI PURCAHSE APPLICATIONS, 2013-2016



Consider first Figure 46, which plots the share of High DTI applications. The vertical dotted line divides the pre-Rule and post-Rule periods (it is placed between the December 2013 and January 2014 data points). The line labeled "Data Average" plots the difference in the share of High DTI applications between non-GSE eligible and GSE eligible segments, for each month of data. This difference is normalized to zero for January 2014. As an example, the Data Average in January 2013 is graphed at 0.02. This means that the difference in the share of High DTI applications between non-GSE eligible and GSE eligible segments was approximately 2 percentage points higher than the same difference in January 2014. The negative values after January 2014 indicate a negative impact of the Rule on the relative share of High DTI applicants in the non-GSE eligible category. The line "Model Estimate" plots the predicted difference in the shares of High DTI loans between the two segments that would have been observed if the mix of applicants—on dimensions other than DTI—stayed constant throughout the entire period. Both lines are fairly close to each other because non-DTI characteristics of the borrower have low predictive power of the High DTI status. Finally, the shaded area around the Model Estimate line represents the 95% confidence interval. Figure 47 is interpreted in a similar fashion. On that figure, the “Data Average” and “Model Estimate” lines diverge, implying that changes in average approval rates understate the actual impact of the Rule.

For the share of High DTI applications in the non-GSE eligible category, the regression model estimates show an average decline of 10 percentage points after the implementation of the Rule (see Section 5.3.8). In other words, in the absence of the Rule, there would have been 10 percentage points more High DTI applications in the non-GSE eligible segment. In 2013, the share of High DTI applications in the non-GSE eligible segment was 14.7 percent. Therefore, in relative terms the change represents a 68 percent reduction in the number of High DTI applications over 2014 to 2016. In absolute terms, e.g. relative to the total number of applications made by these lenders over 2014 to 2016, this change is small, only several percentage points.

For the approval rate of High DTI applications in the non-GSE eligible category, the regression model estimates show an average decline of 21 percentage points after the implementation of the Rule (see Section 5.3.8). This decline in the approval rate is very large: it is larger than the difference in approval rates between a borrower with a FICO score of 620 and a borrower with a FICO score of 740 or above (see Table 28 for reference). Relative to the 2013 baseline, this change represents a 40 percent decline.

Beyond the average effects, the dynamics of these outcomes over time are also important. Figures 46 and 47 show that the introduction of the Rule was associated with a sharp drop in both the share and approval rate of High DTI, non-GSE eligible applications, relative to High DTI GSE eligible applications. After this initial decline, the outcomes gradually declined further. While the average approval rate difference seems to have returned to the level of January 2014 by the end of 2016, the model estimates suggest that this reversal is due to changes in the mix of High DTI applicants rather than due to changes in lenders’ credit policies. For both outcomes, the model estimates suggest no convergence of outcomes to pre-Rule levels, implying that lenders tightened underwriting approaches toward non-GSE High DTI purchase applicants at the time the Rule became effective, and had not relaxed these approaches by 2016.

FIGURE 48: ESTIMATED EFFECT OF THE GENERAL QM DTI PROVISION, BY LENDER. APPLICATIONS FOR HOME PURCHASE, 2013-2016

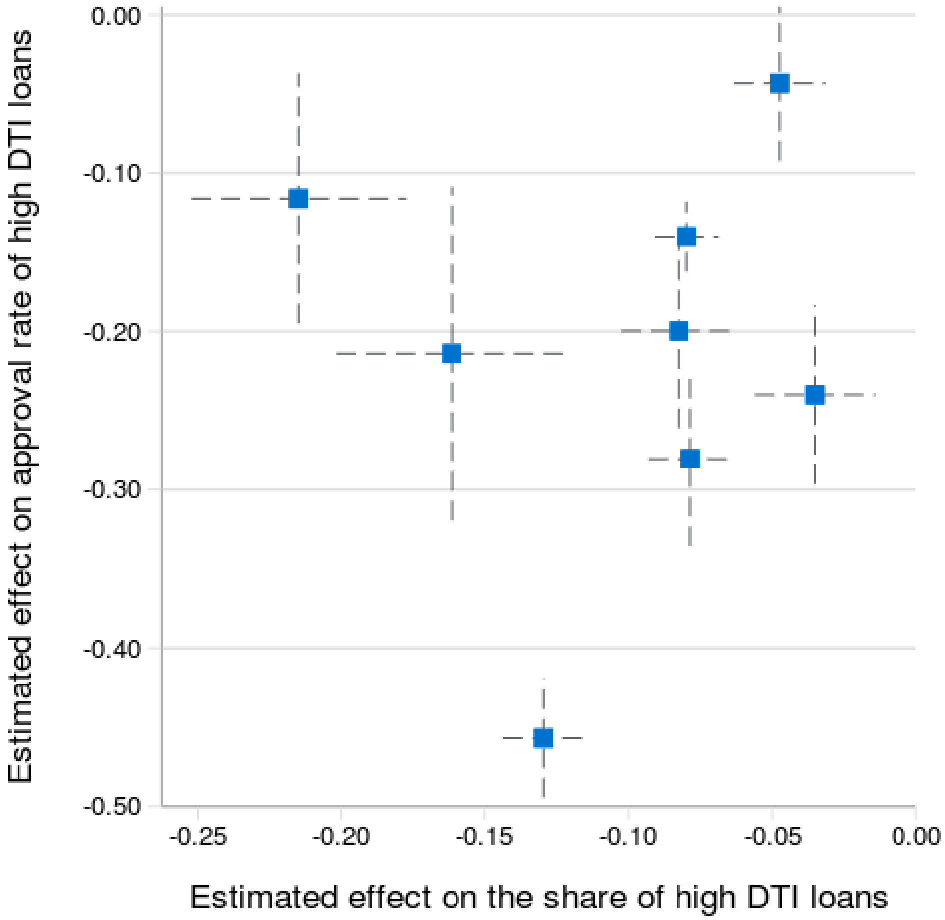


Figure 48 plots the estimated effect of the General QM DTI provision separately for each lender. The figure also includes 95% confidence intervals for each estimate, indicated as dashed lines. There is substantial heterogeneity in the extent to which lenders have changed their underwriting approaches toward non-GSE eligible High DTI applicants after the Rule.

For one lender in the upper right corner of the figure, the approach to High DTI applicants in the non-GSE eligible segment has not substantially changed after the Rule. Another lender, in the bottom middle part of the figure, has reduced its approval rate of High DTI applications by close to 45 percentage points. The remaining six lenders are located between these two extremes.

The fact that lenders have reacted so differently to the Rule is important for several reasons.[261]

First, the heterogeneity of responses leaves open the possibility that lenders not included in the sample may have reacted to the QM DTI requirement differently from those that are included. For this reason, the average results presented here are valid only for this specific set of lenders. The significance of the results presented in this section stems from the large combined size of lenders included in the Application Data: based on HMDA 2016 data, these nine lenders processed close to 20 percent of all applications for jumbo loans (a crude approximation of the non-GSE eligible segment). Further, Figure 45 shows that according to a key metric—the share of High DTI loans in the non-GSE eligible category—the Application Data is close to the CoreLogic servicing dataset, which represents data from many more lenders.

Second, the differences in lenders' reactions to the Rule, and the persistence of these differences across time, suggests that lenders have not yet developed a common approach to measure and model ATR risk in the same way as they approach other types of risk, such as the risk of delinquency and default. For instance, cross-lender differences in both the level and the change in approval rates of High DTI applications are much larger than, for example, differences in approval rates by FICO category.

5.3.4 Results for refinances

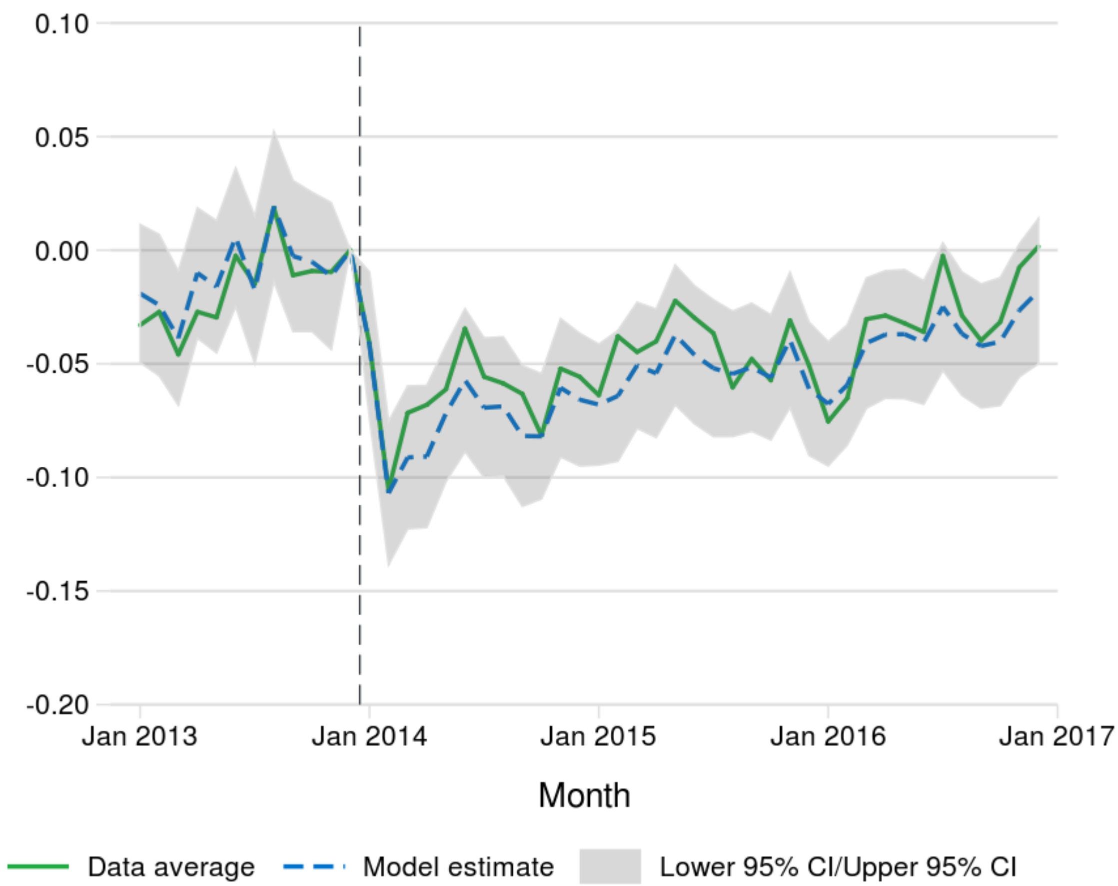
This subsection briefly discusses results for High DTI refinance applications. Figures 49 and 50 present the dynamics of outcomes of applications for refinance. Similar to the patterns found among applications for home purchase, there was a sharp drop in the relative share and the relative approval rate of High DTI non-GSE eligible applications immediately after the introduction of the Rule. However, in contrast to the home purchase category, the outcomes show a trend toward convergence back to pre-Rule levels by the end of 2016, as seen from Table 19, and from Figures 49 and 50. This finding is consistent with a notion that lenders have developed a common approach to ATR risk on refinance loans; for example, there may be a consensus that on such loans the ability to repay has already been demonstrated.

[261] Beyond the issues discussed below, the differences in lender's approaches to High DTI borrowers emphasize the importance of shopping for a loan. Existing research points to limited amount of shopping. *See* Alexei Alexandrov & Sergei Koulayev, No Shopping in the U.S. Mortgage Market: Direct and Strategic Effects of Providing Information, (Bureau Consumer Fin. Prot., Office of Research, Working Paper No. 2017–01, 2017).

TABLE 19: SHARE AND APPROVAL RATE AND SHARE OF HIGH DTI APPLICATIONS BY GSE ELIGIBILITY, REFINANCE, 2013-2016

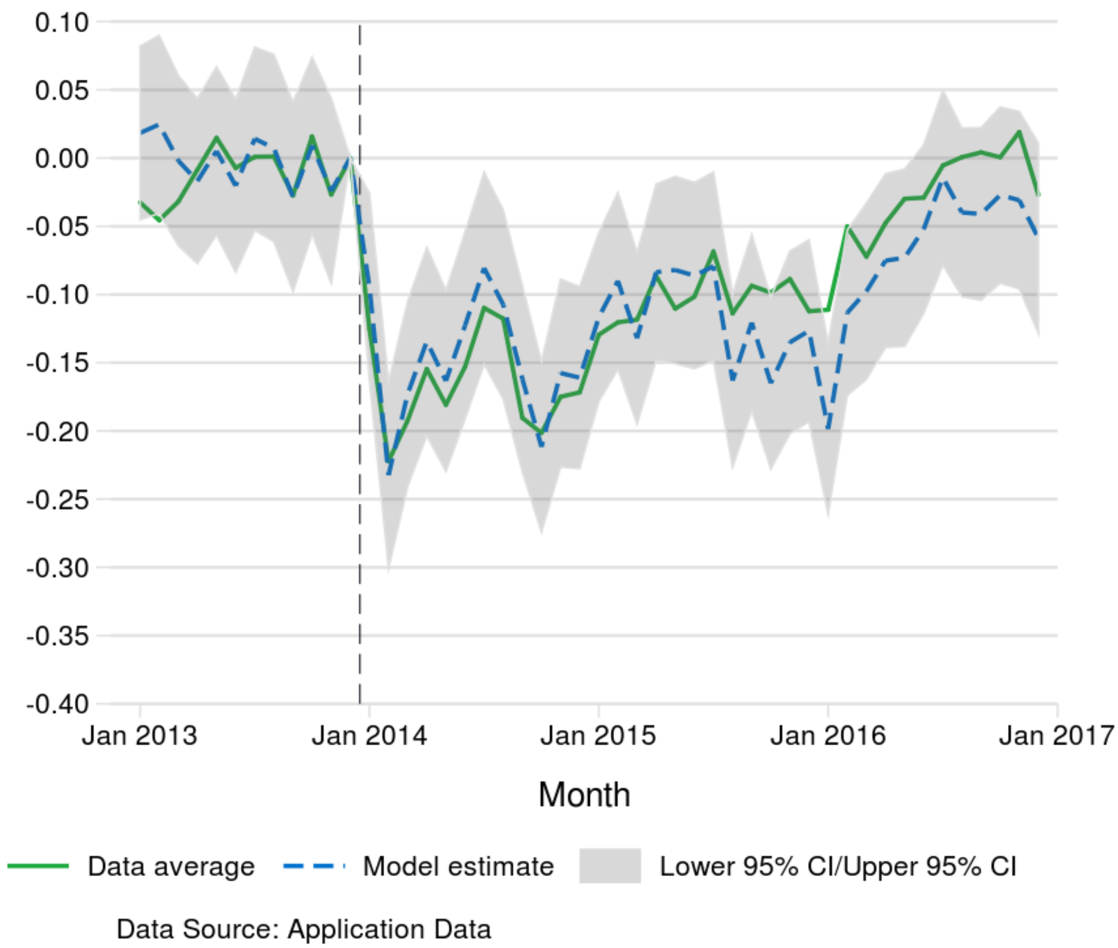
Year	Share of High DTI GSE Eligible applications	Approval rate of High DTI GSE Eligible applications	Share of High DTI Non-GSE eligible applications	Approval rate of High DTI Non-GSE eligible applications
2013	0.27	0.67	0.19	0.46
2014	0.26	0.58	0.14	0.22
2015	0.23	0.57	0.13	0.28
2016	0.23	0.56	0.13	0.35

FIGURE 49: ESTIMATED EFFECT ON THE SHARE OF HIGH DTI LOANS AMONG APPLICATIONS FOR REFINANCE, 2013-2016



Data Source: Application Data

FIGURE 50: ESTIMATED EFFECT ON THE APPROVAL RATE ON HIGH DTI REFINANCE APPLICATIONS, 2013-2016



5.3.5 Effects on specific groups of borrowers: FICO, LTV, Income

The previous results have shown that the Rule likely caused some non-GSE eligible High DTI applications not to be submitted and if they were submitted then to be denied. This finding on its own does not speak for or against the effectiveness of the DTI restriction in achieving the purposes of the Rule or the Act. If the denied applicants in fact lacked the ability to repay, then the reduction in approval rates is an intended consequence of the Rule. If the opposite were the case, and the rejected applicants did have the ability to repay, then an unintended result is observed.

Even though the ability to repay is not directly observed in the Application Data used in this analysis, it is nevertheless informative to examine whether the Rule has affected home buyers in a way that is consistent with the expected loan performance.[262] Specifically, this analysis differentiates borrowers by FICO score and application income, as these variables are traditional predictors of delinquency and default. Figures 51 plots, separately for each FICO score bin (FICO<680, 680-720, and FICO>720), the difference between the share and approval rate of High DTI applicants in the GSE eligible and non-GSE eligible categories, normalized to zero in January 2014; Figure 52 plots similar trends by income. Large decreases in the shares and approval rates of High DTI, non-GSE eligible borrowers are observed for applicants with high credit scores (>720) and high income, as well as for those with low credit score and low income. Econometric analysis confirms that the Rule did not have differential impact on any specific category of non-GSE eligible High DTI borrowers (see Section 5.3.8).

Table 20 illustrates how the pool of denied non-GSE eligible High DTI applicants has changed between 2013 and 2014. After the introduction of the Rule, the pool of denied applicants contains more of borrowers with higher income, higher FICO score and higher downpayment. Together, these findings suggest that the observed decrease in access to credit in this segment was likely driven by lenders' desire to avoid the risk of litigation by consumers asserting a violation of the ATR requirement or other risks associated with that requirement, rather than by rejections of borrowers who were unlikely to repay the loan.

[262] Several commenters noted the possibility that the Rule could have differential access to credit effects on different segments of the borrowing population. For background, see Neil Bhutta and Glenn B. Canner, *Mortgage Market Conditions and Borrower Outcomes: Evidence from the 2012 HMDA Data and Matched HMDA-Credit Record Data*, Fed. Res. Bull., Nov. 2013.

FIGURE 51: DIFFERENCE IN GSE ELIGIBLE AND NON-GSE ELIGIBLE APPROVAL RATE AND SHARE OF HIGH DTI APPLICATIONS FOR HOME PURCHASE BY FICO BIN, 2013-2016

FIGURE 52: DIFFERENCE IN GSE ELIGIBLE AND NON-GSE ELIGIBLE APPROVAL RATE AND SHARE OF HIGH DTI APPLICATIONS FOR HOME PURCHASE BY APPLICATION INCOME, 2013-2016

TABLE 20: AVERAGE CHARACTERISTICS OF DENIED NON-GSE ELIGIBLE HIGH DTI APPLICATIONS FOR HOME PURCHASE, 2013-2016

Variable	Percent frequencies among High DTI applications denied in 2013	Denied in 2014
Application income, dollars per month		
< 2,501	46.86	38.45
2,501-5,000	10.39	11.93
5,001-7,500	6.91	7.34
7,501-10,000	7.29	7.67
10,001-12,500	6.36	6.88
12,501-15,000	5.42	7.01
> 15,000	16.77	20.73
FICO Score		
<620	40.54	30.74
620-659	3.04	4.5
660-679	3.34	3.6
680-699	5.19	5.72
700-719	6.05	6.28
720-739	7.27	8.36
>=740	34.57	40.79
LTV		
< 50%	5.44	5.36
51-80%	40.07	42.55
81-90%	5.53	8.63
91-95%	5.47	6.18
> 95%	43.49	37.29

5.3.6 Effects on self-employed borrowers

Another borrower characteristic of interest is self-employment.[263] The Bureau has examined whether the Rule has had a disproportionate impact on self-employed borrowers who do not

[263] Several commenters noted the importance of self-employment income for mortgage borrowers. For survey and other evidence on the prevalence of self-employment income, see Board of Governors of the Federal Reserve System, *Report on the Economic Well-Being of U.S. Households in 2016*, May 2017, *available at* https://www.federalreserve.gov/publications/files/2017-report-economic-well-being-us-households-201805.pdf; Elka Torpey and Andrew Hogan, Bureau of Labor Statistics, *Career Outlook:* "Working in a gig economy," May 2016, *available at* https://www.bls.gov/careeroutlook/2016/article/pdf/what-is-the-gig-economy.pdf.

qualify for a GSE loan. This impact may occur through two different channels: first, through the ATR risk, where lenders may perceive self-employed borrowers as presenting higher ATR risk; second, through compliance with Appendix Q requirements on documenting income and debt, where self-employed borrowers may have a harder time presenting the required documentation, or lenders may perceive a greater uncertainty of compliance among self-employed borrowers.

The Application Data contain a flag identifying self-employed applicants and therefore can be used to examine the effect of the Rule on this group of borrowers. Table 21 reports the share of home purchase applications submitted by self-employed borrowers between 2013 and 2016 for the nine lenders in the Application Data. There is no discernible drop in the share of applications from self-employed borrowers after the Rule was introduced; instances where the share has declined in 2014 over 2013 are often reversed in later years.

TABLE 21: PERCENTAGE OF APPLICATIONS FOR HOME PURCHASE SUBMITTED BY SELF-EMPLOYED BORROWERS, 2013-2016.

Lender	2013	2014	2015	2016
#	26%	26%	28%	25%
#	17%	15%	13%	13%
#	17%	12%	12%	17%
#	26%	22%	21%	22%
#	38%	37%	37%	38%
#	13%	10%	11%	12%
#	13%	11%	14%	15%
#	13%	13%	16%	18%
Total	17%	16%	16%	17%

More definitive conclusions can be obtained using a regression analysis of the approval rates for self-employed borrowers, similar to the one employed above for High DTI borrowers. See Section 5.3.8 for specification and detailed results. The effect of the Rule on non-GSE eligible self-employed borrowers is considered separately for High DTI and non-High DTI borrowers. In the High DTI segment, there is no differential impact on self-employed borrowers (in other words, their approval rate has declined in the same fashion as it did for all High DTI, non-GSE eligible borrowers). Among non-High DTI, non-GSE eligible borrowers, the analysis finds that approval rates are reduced by 2 percentage points for self-employed borrowers, compared to similar non-self-employed borrowers. This effect is statistically significant at the 95 percent confidence level, but is relatively small in magnitude compared to the overall approval rates. This implies that the above described channels through which self-employed borrowers are disproportionately affected, such as the Appendix Q requirements, are present but not prohibitive.

The lender survey also sheds some light on the effect of Appendix Q, which, in all likelihood, is most relevant for self-employed borrowers. Table 22 reports survey respondents' responses to how often they originate non-QM loans (therefore not eligible to be purchased, guaranteed or insured by a GSE, FHA, VA, or USDA/RHS) where the borrower did not (could not) provide documentation required by Appendix Q.

TABLE 22: LENDER SURVEY: LACK OF DOCUMENTATION REQUIRED BY APPENDIX Q

Frequency of originating non-QM loans where borrower did not (could not) provide documentation required by Appendix Q	Count	Percent
Often	8	9%
Sometimes	27	31%
Rarely or never	52	60%
Total responses	**87**	**100%**

Among 87 lenders who responded to this question (all of them originating non-QM loans), the majority indicated "Rarely or never". This suggests that in most cases, borrowers, including the self-employed ones, are able to provide the documentation required by Appendix Q. Nevertheless, a non-trivial portion of respondents indicated that such difficulties occur "Sometimes" or "Often", leaving open the possibility that Appendix Q requirements may have had an impact on access to credit.

5.3.7 Combined effect of the Rule on High DTI borrowers

The two previously estimated effects on application counts and approval rates can be combined into an overall estimated effect of the Rule on the number of approved High DTI non-GSE eligible applications. Importantly, this analysis does not speak to the alternatives that were chosen by borrowers who did not appear among non-GSE eligible High DTI applications after the Rule. The possibilities include, but are not limited to: a) documenting more income or paying off other debt, in order to fit under 43 percent DTI; b) choosing a lower loan amount either by increasing the downpayment or purchasing a home at a lower purchase price[264]; c) postponing home purchase; or (d) obtaining a non-GSE eligible High DTI loan from a lender outside of the sample.

[264] Lowering the loan amount may result in a conforming size loan, which may be GSE eligible. The Bureau has also examined submissions to GSE platforms that received approve/eligible status, and did not find any sharp increase in the number of High DTI submissions that would be consistent with substitution away from the non-QM segment (see Chapter 6 below for more details).

Some of these alternatives, if chosen, may manifest themselves in an increased number of applications just under the regulatory threshold of 43 percent (the so-called "bunching" behavior). Evidence for such bunching has been presented in Chapter 4. It is possible to account for "bunching" by considering changes in the share of applications with DTI above 40 percent rather than 43 percent; in this way, the redistribution of applications from above 43 percent to just below 43 percent will not affect the estimated change in the total number of High DTI applications. Table 23 and Table 24 present lower bound and upper bound estimates by utilizing DTI thresholds of 40 percent and 43 percent, respectively. It is estimated that the General QM DTI provision has eliminated between 63 and 70 percent of approved non-GSE High DTI applications for home purchase among the nine lenders that contributed the data, over the period of 2014 – 2016; this change translates into a reduction of between 1.5 and 2 percent of all loans for home purchase made by these lenders during this period.[265] Taking the average profit margin of 48 basis points for 2014 through 2016 from the Annual Mortgage Bankers Performance Report and considering the average non-GSE eligible loan size, the impact of the Rule amounts to a cost of between $20 million and $26 million per year in lost profits.

[265] Recent research by the Federal Reserve Board, using Optimal Blue data, finds an approximately 50 percent reduction in originations of High DTI, non-GSE eligible loans. Available at https://www.federalreserve.gov/econres/notes/feds-notes/effects-of-the-ability-to-repay-qualified-mortgage-rule-on-mortgage-lending-20181116.htm.

TABLE 23: LOWER BOUND ESTIMATE OF THE COMBINED EFFECT OF THE RULE (ACCOUNTING FOR BUNCHING UNDER 43 PERCENT), OVER 2014 – 2016, HOME PURCHASE.

Step	Result
Pre-Rule share of DTI>40% among Non-GSE eligible	.408
Pre-Rule share of DTI>40% among GSE eligible	.435
Post-Rule share of DTI>40% among Non-GSE eligible	.375
Post-Rule share of DTI>40% among GSE eligible	.456
Post-Rule change in relative share of DTI>40%	(.375-.456) - (.408-.435) = -.053
Counterfactual post-Rule share of DTI>40% among Non-GSE eligible	.375 - (-.053) = .429
Post-Rule count of NOT DTI>40% among Non-GSE eligible	70112
Counterfactual post-Rule count of DTI>40% among Non-GSE eligible	.429 = X/(70112+X) => X = 52744
Actual post-Rule count of DTI>40% among Non-GSE eligible	42215
Lost post-Rule count of High DTI among Non-GSE eligible	52744 - 42215 = 10529
Actual post-Rule count of High DTI applications among Non-GSE eligible	15135
Counterfactual post-Rule count of High DTI applications	15135 + 10529 = 25664
Post-Rule approval rate of High DTI applications among Non-GSE eligible	.359
Causal estimate of the impact on approval rate	-.212
Counterfactual post-Rule approval rate of High DTI	.359 - -.212 = .571
Actual count of post-Rule approved High DTI applications	5439
Counterfactual count of approved High DTI applications post Rule	.571*25664 = 14672
Estimate of the count of approved High DTI applications lost due to Rule	14672-5439 = 9233
Estimate of the share of approved High DTI applications lost due to Rule	(14672-5439)/14672 = .629
Estimate of lost profits assuming 48 bps profit rate, millions of dollars	19.281

TABLE 24: UPPER BOUND ESTIMATE OF THE COMBINED EFFECT OF THE RULE (ACCOUNTING FOR BUNCHING UNDER 43 PERCENT), OVER 2014 – 2016, HOME PURCHASE.

Step	Result
Pre-Rule share of DTI>43% among Non-GSE eligible	.232
Pre-Rule share of DTI>43% among GSE eligible	.260
Post-Rule share of DTI>43% among Non-GSE eligible	.134
Post-Rule share of DTI>43% among GSE eligible	.271
Post-Rule change in relative share of DTI>43%	(.134-.271) - (.232-.260) = -.109
Counterfactual post-Rule share of DTI>43% among Non-GSE eligible	.134 - (-.109) = .244
Post-Rule count of NOT DTI>43% among Non-GSE eligible	97192
Counterfactual post-Rule count of DTI>43% among Non-GSE eligible	.244 = X/(97192+X) => X= 31392
Actual post-Rule count of DTI>43% among Non-GSE eligible	15135
Lost post-Rule count of High DTI among Non-GSE eligible	31392 - 15135 = 16257
Actual post-Rule count of High DTI applications among Non-GSE eligible	15135
Counterfactual post-Rule count of High DTI applications	15135 + 16257 = 31392
Post-Rule approval rate of High DTI applications among Non-GSE eligible	.359
Causal estimate of the impact on approval rate	-.212
Counterfactual post-Rule approval rate of High DTI	.359 - -.212 = .571
Actual count of post-Rule approved High DTI applications	5439
Counterfactual count of approved High DTI applications post Rule	.571*31392 = 17946
Estimate of the count of approved High DTI applications lost due to Rule	17946-5439 = 12507
Estimate of the share of approved High DTI applications lost due to Rule	(17946-5439)/17946 = .696
Estimate of lost profits assuming 48 bps profit rate, millions of dollars	26.118

5.3.8 Technical Appendix

To analyze changes in the share of High DTI applicants, the following linear probability model is estimated:

$$HighDTI_i = \alpha_0 + \alpha_1 NGSE_i + \alpha_2 Post2013_i + \alpha_3 NGSE_i \times Post2013_i + X_i'\gamma + \epsilon_i.$$

Here $HighDTI_i$ is a variable that takes on the value of 1 if application i has DTI>43 percent and 0 otherwise (such variables are known as indicators); $NGSE_i$ is an indicator for application i being non-GSE eligible; X_i is a set of control variables including a full set of dummies for calendar month (January – December), dummies for each bin of loan amount, FICO, LTV, CLTV, income, number of borrowers, self-employment status, number of units, payment type (fixed or adjustable rate mortgage), past foreclosure or current delinquency. See Appendix C for data dictionary. The parameter of interest in this model is α_3 which applies to the interaction term $NGSE_i \times Post2013_i$. This parameter measures the change in the share of High-DTI applications in the non-GSE eligible segment relative to the GSE-eligible control group that occurred after 2013. Results are found in the first and the second column of Table 25 (the second column includes borrower controls X_i, while the first does not).

To analyze changes in the approval rate of High-DTI applications, the following linear probability model is estimated:

$$Approved_i = \alpha_0 + \alpha_1 NGSE_i + \alpha_2 Post2013_i + \alpha_3 HighDTI_i + \alpha_4 NGSE_i \times Post2013_i + \alpha_4 NGSE_i \times$$

$$HighDTI_i + \alpha_5 Post2013_i \times HighDTI_i + \alpha_6 NGSE_i \times Post2013_i \times HighDTI_i + X_i'\gamma + \epsilon_i.$$

The set of borrower controls X_i is the same as in the regression for the High DTI status above. Given that the outcome is a binary indicator of approval, all coefficient estimates are interpreted as changes in the approval probability, expressed in percentage points. The parameter of interest in this model is α_6, which applies to the triple interaction term $NGSE_i \times Post2013_i \times HighDTI_i$. This parameter measure the change in the approval rate of High-DTI, non-GSE eligible applications relative to the High-DTI, GSE-eligible control group in each year after 2013. Results are found in the third and the fourth column of Table 25 (the fourth column includes borrower controls X_i, while the third does not).

Table 25 shows the average impact across lenders for the entire post-Rule period, for applications for home purchase. Table 26 shows results for refinances. Among applications for home purchase (Table 25), the likelihood that a given application is High DTI declined by 10 percentage points, and the likelihood that a given High DTI application is approved declined by more than 21 percentage points[266]. This decline in the approval rate is very large: it is larger than the difference in approval rates between a borrower with a FICO score of 620 and a borrower with a FICO score of 740 or above (see Table 28 for reference).

TABLE 25: ESTIMATED EFFECT OF THE RULE ON HIGH DTI APPLICATIONS FOR HOME PURCHASE, 2013-2016

	Share High DTI	Share High DTI	Approval rate	Approval rate
NGSE	-0.028***	-0.02***	-0.086***	0.038***
Post2013	0.011***	0.014***	0.011***	-0.005***
Post2013 X NGSE	-0.109***	-0.102***	0.062***	0.012***
High DTI			-0.098***	-0.106***
NGSE X High DTI			-0.067***	-0.031***
Post2013 X High DTI			-0.005	0.007**
Post2013 X NGSE X High DTI			0.234***	0.212***
Borrower controls	No	Yes	No	Yes
Observations	686,334	686,304	686,334	686,304
R^2	0.013	0.053	0.03	0.184

266 Level of significance is reported in the tables as * p<0.10, ** p<0.05, and *** p<0.01.

TABLE 26: ESTIMATED EFFECT OF THE RULE ON HIGH DTI APPLICATIONS FOR REFINANCE, 2013-2016

	Share High DTI	Share High DTI	Approval rate	Approval rate
NGSE	-0.114***	-0.048***	-0.048	-0.041***
Post2013	0.082***	0.045***	-0.007***	-0.017***
Post2013 X NGSE	-0.032***	-0.046***	0.067***	0.056***
High DTI			-0.050***	-0.003**
NGSE X High DTI			-0.158***	-0.192***
Post2013 X High DTI			-0.086***	-0.094***
Post2013 X NGSE X High DTI			-0.139***	-0.106***
Borrower controls	No	Yes	No	Yes
Observations	1,876,221	1,876,165	1,876,221	1,876,165
R^2	0.012	0.118	0.023	0.068

TABLE 27: ESTIMATED EFFECT OF THE QM DTI PROVISION WITHIN FICO AND INCOME CATEGORIES: HIGH DTI APPLICATIONS FOR HOME PURCHASE, 2013-2016

	Share of High DTI	Approval rate among High DTI
Post	-0.00211	-0.00236
FICO 1-699	-0.0524***	-0.193***
Post X FICO 1-699	0.0583***	0.0454***
Income < 5K	0.170***	-0.311***
Income 5-10K	0.0872***	-0.0423***
Post X Income < 5K	0.0544***	0.0342**
Post X Income 5-10K	0.0123***	0.00453
SelfEmp	0.127***	-0.0803***
Post X SelfEmp	-0.0028	0.00159
Private	-0.0501***	0.00904
Private X FICO 1-699	0.0978***	-0.125***
Private X Income < 5K	-0.0390***	-0.0635***
Private X Income 5-10K	0.0700***	-0.0437**
Private X SelfEmp	-0.0284***	-0.0131
Private X Post	-0.0970***	-0.251***
Private X Post X FICO 1-699	-0.0416***	0.117***
Private X Post X Income < 5K	-0.0158	0.0167
Private X Post X Income 5-10K	-0.00996	0.0507**
Private X Post X SelfEmp	-0.00433	-0.00301
Constant	0.281***	0.997***
Observations	357,638	79,625
R^2	0.061	0.175

TABLE 28: ESTIMATED EFFECT OF THE RULE ON APPROVAL RATES FOR SELF-EMPLOYED BORROWERS FOR HOME PURCHASE, 2014 – 2016

	High DTI	Not High DTI
NGSE	-0.001	0.037***
SelfEmp	-0.090***	-0.033***
NGSE & SelfEmp	-0.004	-0.010*
NGSE & Post2013	-0.185***	0.015***
SelfEmp & Post2013	0.002	0.013***
NGSE & SelEmp & Post2013	-0.040**	-0.021***
Post2013	-0.006	-0.008***
FICO < 620	omitted	
FICO 620-659	0.302***	0.556***
FICO 660-679	0.354***	0.591***
FICO 680-699	0.383***	0.621***
FICO 700-719	0.413***	0.632***
FICO 720-739	0.435***	0.659***
FICO >= 740	0.472***	0.680***
LTV controls	YES	YES
Loan size controls	YES	YES
More than one borrower	0.017***	0.028***
Fixed rate loan	0.029***	0.017***
CLTV>LTV	-0.070***	-0.013***
One unit	0.064***	0.088***
Quarter of application controls	YES	YES
Constant	-0.025*	-0.097***
Observations	168496	887670
R-squared	0.143	0.188

5.4 Effects of the points and fees requirement on the availability of small dollar loans and cost of credit

As amended by the Dodd-Frank Act, TILA requires that a "qualified mortgage" at or above $100,000 have total "points and fees" that do not exceed three percent of the total loan amount, except for "smaller loans" for which Congress directed the Bureau to adopt points and fee caps.[267] Points and fees are charges paid for the loan to the creditor, loan originator, or an affiliate. In addition to the general three percent cap, the ATR/QM Rule provides for proportionally higher points and fees limits for smaller loan amounts: eight percent of the loan amount for loans less than $12,500; $1,000 for loans that are at least $12,500 but less than $20,000; five percent of the loan amount for loans that are at least $20,000 but less than $60,000; $3,000 dollars for loans between $60,000 and $100,000, which are all indexed for inflation, and a 3 percent cap for loans above $100,000.[268]

From conversations with lenders, the Bureau has learned that borrowing scenarios where the QM points and fees threshold (further, "QM PF threshold" or simply "PF threshold") is exceeded are relatively rare and are typically dealt with through an "exception process". Loan origination software calculates the PF status on each application and produces a message if the status is negative (*i.e.*, PF threshold is exceeded); on some systems, such an alert puts a stop on the application process until a loan officer with sufficient authority creates an exception. If the lender wishes to avoid originating a loan that exceeds the QM PF threshold, the options include: a) reduce fees to adhere to the threshold, or b) deny the application.

There are several major difficulties with quantifying the direct impact of the QM PF threshold on access to credit and the cost of credit. First, before the Rule lenders did not perform the points and fees calculation in a manner prescribed by the Rule, and therefore such data does not exist. Second, the Bureau does not have data on individual loan charges with sufficient detail to reconstruct the results of the points and fees calculation. As a result, there does not exist a longitudinal dataset of loan originations that would allow a comprehensive examination of the impact of the QM PF provision, of the kind that was utilized to study the impact of the General QM DTI provision. Third, even if such data did exist, it would reflect the results of PF calculation

[267] Dodd-Frank Act section 1412; TILA section 129C(b)(2)(A)(vii). The limits on points and fees for qualified mortgages are implemented in 12 C.F.R. § 1026.43(e)(3).

[268] 12 C.F.R. § 1026.43(e)(3).

on the originated loans would reflect the final status of the application, *e.g.*, after lenders have made necessary fee adjustments to stay under the PF threshold. Such data would say little about the frequency at which PF violations occur at the initial status of the application, or about the magnitude of fee adjustments. For instance, if broker compensation was adjusted (lowered) to fit within the PF threshold, the existing data on individual loan charges is not informative on what the broker compensation would have been absent the Rule.

Although it is not possible to produce a causal estimate of the impact of the QM PF provision on access to credit and cost of credit, the available data (some collected specifically for the purposes of this assessment) allows to answer partial questions that are indicative of that impact. Specifically, the questions explored this section are the following: 1) How often is the QM PF threshold initially exceeded on an application (e.g., before adjustments are made)?; 2) Which borrowing scenarios are most affected?; and 3) What are the lender policies in the situation where an application indicates that the PF threshold would be exceeded?

5.4.1 Summary of the points and fees requirement

TILA defines points and fees to include: 1) all items included in the finance charge[269] except interest or the time price differential; 2) all compensation paid directly by either a consumer or a creditor to a mortgage originator from any source; 3) certain real estate related settlement charges that are generally excluded from the finance charge (such as title insurance,[270] document preparation, and appraisal fees) unless the charge is paid to an unaffiliated third party and meets other conditions; 4) certain charges such as credit insurance and prepayment penalties; and 5) such other charges as the Bureau determines to be appropriate.[271] The Bureau did not determine it appropriate to add any charges beyond those listed in the statutory

[269] 12 C.F.R. § 1026.4.

[270] For research relevant to the title insurance market, the role of affiliated service providers, and more general research on vertical integration, see Lawrence J. White, *The Title Insurance Industry, Reverse Competition, and Controlled Business - A Different View*, The Journal of Risk and Insurance, Vol. 51, No. 2 (1984); Analysis Group, Inc., *Competition and Title Insurance Rates in California*, January 2006, *available at* https://www.analysisgroup.com/link/4b5d321ac3c1459cb5d09ca007e4dbca.aspx; Birny Birnbaum, *Report to the California Insurance Commissioner*, "An Analysis of Competition in the California Title Insurance and Escrow Industry," December 2005, *available at* http://www.insurance.ca.gov/0400-news/0200-studies-reports/upload/CATitleCompetitionReport0512Public.pdf; Harris/Nielsen, *One-Stop Shopping Consumer Preferences*, October 2015, *available at* http://narfocus.com/billdatabase/clientfiles/172/25/2950.pdf; Michael H. Riodan, *Competitive Effects of Vertical Integration*, Columbia University Department of Economics Discussion Paper Series, 2005; Timothy Bresnahan and Jonathan Levin, *Vertical Integration and Market Structure*, Stanford Institute for Economic Policy Research March 2012.

[271] TILA section 103(bb)(4).

definition of points and fees when it implemented this list in the ATR/QM Rule.[272] In a loan originated directly by a creditor, points and fees will generally be limited to direct charges by the creditor and charges by any affiliates it chooses to use for settlement services.[273]

As amended by the Dodd-Frank Act, TILA provides certain exclusions from the points and fees definition.[274] TILA excludes any mortgage insurance premium charged by a government agency, such as FHA.[275] TILA may also exclude up-front premiums for private mortgage insurance, but certain conditions must be met. Typically, private mortgage insurance is paid monthly after settlement, usually as part of the loan's escrow payment. TILA excludes from points and fees any mortgage insurance premium paid after closing.[276] However, there can also be a sizable up-front premium for private mortgage insurance that is paid at settlement. TILA excludes any up-front private mortgage insurance charge that is not in excess of the typical up-front amount charged by the FHA, as long as the excluded amount is automatically refundable pro rata when the loan is paid off.[277]

In order to avoid the points and fees cap interfering with creditors offering discount points to consumers, TILA excludes from points and fees either one or two "bona fide" discount points, depending on the difference between the interest rate without any discount being purchased and the average prime offer rate (APOR) for the transaction.[278] For example, if a creditor originates a loan that would have an interest rate of 5 percent with no discount purchased, and the APOR for the transaction is 4 or higher (1 percent difference or less), the creditor may exclude up to two bona fide discount points from the points and fees for the transaction. If a creditor originates a loan that would have an interest rate of 6 percent with no discount, and the APOR is 4 percent or between 4 and 5 percent (2 percent difference or less, but more than 1 percent), the creditor

[272] 12 C.F.R. § 1026.32(b)(1).

[273] 12 C.F.R. § 1026.32(b)(1).

[274] The exclusions described here do not include exclusions provided in the list of points and fees items above from TILA section 103(bb)(4), such as reasonable unaffiliated third-party real estate charges from which the creditor receives no compensation and credit insurance calculated and paid monthly.

[275] TILA section 103(bb)(1)(C)(i).

[276] TILA section 103(bb)(1)(C)(ii), (iii).

[277] These provisions are implemented in the ATR/QM Rule at 12 C.F.R. § 1026.32(b)(1)(i)(B)–(C).

[278] TILA section 103(dd). This provision is implemented in the ATR/QM Rule at § 1026.32(b)(1)(i)(E)–(F) and § 1026.32(b)(3)(i). The provision has a separate test for exclusion of discount points on loans for non-real estate manufactured housing. The average prime offer rate (APOR) is an annual percentage rate that is derived from average interest rates, points, and other loan pricing terms currently offered to consumers by a representative sample of creditors for mortgage transactions that have low-risk pricing characteristics. 12 C.F.R. § 1026.35(a)(2).

may only exclude one bona fide discount point. TILA requires that bona fide discount points excluded from points and fees result in a real discount and that the amount of the rate reduction purchased be reasonably consistent with established industry norms and practices.[279]

5.4.2 Evidence from the lender survey

In the lender survey, the Bureau asked: "How often does a loan application initially exceed the QM cap for points and fees? Please only consider applications for loans of less than $100,000." This question focuses on the initial status of the application, as opposed to the final status which reflects fee adjustments that may have been made in order to accommodate the QM cap. The question also focuses on applications for smaller loan amounts as those generally have higher PF ratios. A total of 159 responses were received on this question.

TABLE 29: HOW OFTEN DOES A LOAN APPLICATION INITIALLY EXCEED THE QM CAP FOR POINTS AND FEES? PLEASE ONLY CONSIDER APPLICATIONS FOR LOANS OF LESS THAN $100,000.

Percentage of applications	Count of respondents	Percent of responses
<1% of applications	74	47%
1 - 3% of applications	22	14%
>3% of applications	24	15%
Do not know	39	25%
Total responses	**159**	**100%**

Table 29 provides the breakdown of responses to the question stated above. Notably, a substantial portion of respondents, 39 out of 159, indicated that they "Did not know" the incidence in which the points and fees on an application initially exceed QM PF threshold. As some of them indicated in the write-in response, this is because the final status of the application as it is recorded in the loan originations software already reflects fee adjustments and thus is uninformative regarding the initial PF violation. In the majority of cases, 96 out of 159, the incidence of PF violations is infrequent, less than 3 percent of applications.

The write-in responses provide additional detail regarding the situations where the PF cap might be initially exceeded. For example, one bank indicated that over 15 percent of their

[279] TILA section 103(dd).

wholesale portfolio applications had points and fees that initially exceeded the cap, due to the inclusion of broker compensation in the calculation of PF. Other respondents mentioned circumstances leading to QM PF violations including: lower loan amounts, particularly in rural areas; second homes; private mortgage insurance (PMI); discount points paid to buy down the rate; fees on special loan programs (HFA, FHA); and fees due to an affiliated appraisal or title company. Respondents also mentioned low credit scores, high LTVs, and manufactured homes as additional circumstances although it is less clear in these cases what the underlying causes may be. In addition to the lender survey responses, seven out of 31 lenders that provided comments to the initial Federal Register notice on this assessment also provided detail on the circumstances leading to QM PF violations. These comments pointed to: smaller loans in rural areas; generally loans below $50,000 and; broker compensation as contributing causes.

TABLE 30: DO YOU TAKE THE FOLLOWING ACTIONS WHEN A LOAN APPLICATION IS BEING PROCESSED AND THERE IS AN INDICATION THAT THE QM CAP FOR POINTS AND FEES COULD BE EXCEEDED?

Policy for PF violation	Number of respondents who mentioned this policy	Percent of respondents who mentioned this policy
Waive certain fees to keep points and fees ratio under the limit, and increase interest rate	51	39%
Waive certain fees to keep points and fees ratio under the limit, without increasing interest rate	112	76%
Deny the loan application	29	22%
Proceed without making any changes	22	17%
Total responses	**137**	

The next question on the survey asks: "Do you take the following actions when a loan application is being processed and there is an indication that the QM cap for points and fees could be exceeded?" Table 30 shows the breakdown of responses to this question. A total of 137 lenders have responded to this question. Because some respondents chose multiple options (e.g., more than one policy) the sum of values in the first column exceeds 137. By far the most popular option was "Waive certain fees ... without increasing the interest rate," followed by "Waive certain fees ... and increase the interest rate".[280]

TABLE 31: PF VIOLATION POLICES BY INSTITUTION TYPE

Institution type	Waive certain fees to keep points and fees ratio under the limit, and increase interest rate	Waive certain fees to keep points and fees ratio under the limit, without increasing interest rate	Deny the loan application	Proceed without making any changes
Bank with <$2 billion in total assets (45)	17%	68%	17%	27%
Bank with $2-10 billion in total assets (16)	63%	73%	22%	14%
Bank with >$10 billion in total assets (23)	37%	70%	11%	16%
Credit Union (23)	29%	62%	17%	18%
Non-DI (70)	51%	90%	30%	11%
All (177)	**39%**	**77%**	**22%**	**17%**

Table 31 presents the breakdown of policy options by institution type (the number in brackets indicates the number of respondents among each type). The percentage values show the percentage of respondents of a given type (indicated by the row) mentioning a given policy (indicated by the column). Notably, 70 percent of banks with >$10 billion in total assets mentioned "Waive certain fees to keep points and fees ratio under the limit, without increasing interest rate" as applicable policy. Thus, this policy option is not only the most popular among lenders, but is also most likely to be applied across borrowers as it is often chosen by larger institutions.

[280] This finding is consistent with other surveys on this topic. See National Association of Realtor's Survey of Mortgage Providers, April 2014, available at https://www.nar.realtor/research-and-statistics/research-reports/mortgage-originators-survey/june-2014-mortgage-originators-survey.

5.4.3 Evidence from the Application Data

As part of the data collection that resulted in the Application Data from nine lenders, the Bureau requested, that for each application, a data field indicating whether the application has passed the QM PF test. Seven out of nine lenders were able to provide these data (the other two do not routinely collect this information). Because the PF calculation is different for FHA applications, the foregoing analysis below only focuses on applications for conventional loans. The analysis further focuses on applications for loan purchase, as these are more likely to exceed the QM PF threshold due to extra origination-related charges that apply to purchase transactions.

TABLE 32: PERCENT OF PF VIOLATIONS AMONG CONVENTIONAL APPLICATIONS FOR HOME PURCHASE IN THE RETAIL CHANNEL

Lender	Approved in 2013	Approved in 2014	Approved in 2015	Approved in 2016	Denied in 2013	Denied in 2014	Denied in 2015	Denied in 2016
#	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	1.5% (0.0%)	2.0% (0.0%)	2.5% (0.0%)
#	. (100%)	0.0% (14.6%)	0.0% (15%)	0.0% (18%)	. (100%)	. (100%)	. (100%)	0.0% (100%)
#	. (100%)	0.0% (1.4%)	0.0% (0.0%)	0.0% (0.0%)	. (100%)	2.9% (1.8%)	2.9% (0.0%)	2.9% (0.0%)
#	32.5% (36.3%)	1.5% (0.1%)	0.0% (0.0%)	0.0% (0.0%)	40.0% (75.2%)	5.0% (0.6%)	0.0% (0.0%)	1.1% (0.0%)
#	. (100%)	0.0% (1.7%)	0.0% (0.0%)	0.0% (0.0%)	. (100%)	1.1% (1.9%)	1.1% (0.0%)	1.1% (0.0%)
#	0.0% (0.0%)	0.0% (0.0%)	0.2% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.0% (0.0%)	0.5% (0.0%)	0.1% (0.0%)
#	44.7% (97%)	1.6% (4.5%)	0.9% (1.1%)	0.9% (1.2%)	53.4% (98.0%)	8.1% (6.1%)	4.2% (2.1%)	5.5% (2.0%)
All	9.7% (64%)	0.5% (4.8%)	0.2% (4%)	0.1% (4.3%)	2.4% (79.5%)	2.8% (29.9%)	1.9% (26.7%)	1.9% (21.0%)

Table 32 present the percentage of applications where the QM PF threshold was exceeded, for the retail channel (results for the corresponding channel are almost identical). The broker channel is examined below in Section 5.4.6. For each lender–year combination, the first row indicates the incidence of PF violations; the values in brackets indicate the percentage of records where information on PF status is missing. Unfortunately, for the pre-Rule period (2013 applications), the information is missing in majority of cases. For this reason, the 2013 percentages are considered to be unreliable.

In the post-Rule period, 2014 to 2016, almost all approved applications indicate passing the QM PF test. Importantly, the Application Data indicates the final status of the application, *i.e.*, after fee adjustments were made. For this reason, it is not possible to examine the impact of the initial PF violation on the eventual approval rate of an application.

Presumably, denied applications did not go through the same fee adjustment process and thus may provide some indication, albeit imprecise, of how often the PF threshold is initially exceeded. Because denied applications are systematically different from approved applications (lower FICO score, higher LTV, etc.), for this analysis only denied applications with at least a 50 percent probability of approval were selected. The probability of approval on denied applications was calculated using estimates from the approval regression model (see Section 5.3.8 for detail). Among this selected group of denied applications, between 2 and 3 percent of applications are found to exceed the QM PF threshold. This finding indicates that PF violations do occur, albeit infrequently.

TABLE 33: PERCENT OF PF VIOLATIONS AMONG APPLICATIONS FOR LOAN AMOUNTS BELOW $100,000 (RETAIL AND CORRESPONDENT APPLICATIONS FOR HOME PURCHASE)

Lender	Approved in 2014	Approved in 2015	Approved in 2016	Denied in 2014	Denied in 2015	Denied in 2016
#	0.1%	0.0%	0.0%	3.2%	4.4%	3.8%
#	0.0%	0.0%	0.0%			
#	0.0%	0.0%	0.0%	5.2%	2.6%	3.3%
#	4.2%	0.0%	0.1%	10.1%	0.0%	4.4%
#	0.0%	0.0%	0.0%	2.6%	2.7%	2.2%
#	0.0%	0.1%	0.1%	0.0%	0.9%	0.8%
#	1.4%	0.6%	0.6%	6.8%	2.6%	5.0%
Total	0.7%	0.2%	0.2%	3.9%	2.8%	2.9%

Table 33 examines the incidence of PF violations among applications for loan amounts less than $100,000. Among approved applications, there is almost no difference from applications for larger loan amounts (e.g., almost all applications pass the QM PF test). However, among denied applications, an application for a loan under $100,000 is 1-2 percentage points more likely to fail the PF test than an application for a larger loan. Nevertheless, overall incidence is low, under 3 percent in most cases. This finding corroborates the results of the lender survey where most respondents indicated that fewer than 3 percent of applications initially exceeded the PF threshold.

5.4.4 Evidence from the fair lending data

From the above analyses, it appears that lenders waive fees and sometimes increase interest rates in response to an initial PF violation. However, the ultimate impact of these adjustments on the cost of credit remains unclear. To study this issue, the Bureau has utilized data it received from lenders for the purposes of certain fair lending exams. Data from seven exams contained a sufficient number of observations for the pre-Rule and post-Rule period.

Unfortunately, only two exams included loans that were closed before 2014. For the remaining five exams, the pre-Rule data includes applications that were submitted before 2014, but closed in 2014. This may introduce trends in the data due to potential selection of applications that may be correlated with points and fees.

FIGURE 53: QUANTILES OF NET TOTAL POINTS AND FEES FOR LOANS BELOW $150,000, BY LENDER 2013-2015

Figure 53 presents the main result of this analysis. Separately for each lender, it plots the first and fifth quantiles of the distribution of "Net Total Points and Fees" paid on that lender's loans, along with the median. The calculation of this cost metric is different from the one involved in the QM PF definition, so the data should be interpreted as only a proxy. And, the Bureau has been unable to compare this proxy to points and fees calculated according to the QM PF definition, because the fair lending data does not have sufficient detail to perform this calculation. Nevertheless, changes in this measure of cost of credit should be informative of the impact of the Rule.

For some lenders, the net total points and fees at the first, fifth and fiftieth (median) percentile declined in 2014 compared to 2013. For other lenders, this cost metric has stayed generally constant; and for one lender substantial increases are observed. This is somewhat consistent with the evidence from the prior evidence that lenders may be, on the margin, taking steps to ensure that loans are under the threshold. However, the fact that declines in mortgage costs are observed at all quantiles, while the impact of the PF provision is expected to be limited to borrowers with the highest values of points and fees, limits any conclusion that the dynamics here are related to the Rule.

5.4.5 Approval rates and originations of small balance loans: evidence from HMDA

Several trade groups and individual commenters on the RFI stated that the current points and fees tiers make smaller size mortgages less attractive to lenders given the relatively high cost of originating such loans. As detailed in the next section, qualitative responses to the lender survey indicate that smaller size loans may be more likely to exceed the points and fees threshold than larger size loans, rendering them ineligible for QM status. The survey also indicates that such situations may be uncommon.

This section summarizes analysis studying how approval rates for small loans changed in response to the implementation of the points and fees cap. The analysis utilizes HMDA data and focuses on conventional loans under $170,000 between 2012 and 2016, covering two years before and three years after the Rule's effective date.[281]

The HMDA data do not allow for a direct measurement of points and fees for a given loan. In order to estimate the impact of the cap, the analysis instead compares approval rates before and after the implementation of the Rule across loan size thresholds established under the Rule. Specifically, the analysis relies on the observation that, given the structure of the cap, it is likely to be more or less restrictive at different loan sizes. For instance, given a fixed points and fees cap of $3,000 for loan sizes between $60,000 and $100,000, to the extent that some of the cost of originating a mortgage varies positively with loan size, the cap is expected to be more restrictive for loans at or just below $100,000 in size as compared to loans at or just above $60,000 in size. Therefore, if the points and fees cap has a negative effect on the rate at which

[281] The value of $170,000 is the median loan size in 2011 before the beginning of the data under study. Restricting to loan sizes below this median results in a set of loans that are similar to each other in important market characteristics, such as geography. For example, homes with higher prices—and therefore higher loan sizes—are more likely to be located in metropolitan areas. In comparison, the smaller size loans that are the focus of this analysis are more likely to be found in non-metropolitan, micropolitan, or smaller metropolitan areas.

loan applications are approved, among loans between $60,000 and $100,000 in size, this effect is expected to be more pronounced for larger loans.

To test this hypothesis, the analysis defines loan size bins of width $10,000, with the first bin covering $60,000 to $69,999 and the last bin covering $90,000 to $99,999.[282] A statistical model is constructed where approval is modeled as a function of occupancy status, the month and year of application, the county where the property is located, whether the property is located inside a metropolitan statistical area, the loan purchaser type, and loan size bin. Then an additional term is introduced to allow the approval rate by loan size bin to be different starting in 2014. Again, under the hypothesis outlined above regarding the effect of the points and fees cap, the estimated effects after 2014 would show a lower approval rate for the higher size bins than for the lower size bins relative to the earlier years.

Site-built home loans

Figure 54 shows the estimated effects for site-built home loan applications (classified in HMDA as applications for one to four family home loans other than manufactured housing).

[282] The analysis is restricted to first-lien conventional purchase loans.

FIGURE 54: APPROVAL RATE MODEL ESTIMATES FOR SITE-BUILT HOME LOANS, 2012-2016

Data source: Home Mortage Disclosure Act

The green bars show for each loan size bin the estimated approval rate for a loan with average occupancy status in the average county and the average month and year of origination over the 2012-2013 period. Higher size loans experienced slightly higher approval rates between 2012 and 2016. When allowing for differential approval rates starting in 2014, there is no discernible difference at higher loan size bins. The black bars represent the 95 percent confidence intervals, which are tightly estimated. The model shows no statistically significant changes in the relative approval rates after 2014. This implies that the points and fees cap was not binding for these loans.

Manufactured home loans

Figure 55 shows the estimated effects on the approval rate for originations for properties classified as manufactured homes in HMDA.

FIGURE 55: APPROVAL RATE MODEL ESTIMATES FOR MANUFACTURED HOME LOANS, 2012-2016

Data source: Home Mortage Disclosure Act

Manufactured home loan applications have a substantially lower approval rate than those for site-built homes. Unlike with site-built home loans, higher loan size applications have a lower approval rate than lower loan size applications. After 2014, the relative approval rate of higher size loan applications increases, and this increase is statistically significant. This does not lend support to the hypothesis that the points and fees cap suppressed the approval rate of higher size loans relative to lower size loans in this loan size range. [283,284]

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[283] Notice that these results are reflective of a larger trend among manufactured housing loan applications during this period, that of the approval rate of larger loans becoming higher relative to that of smaller loans. In particular, the average approval rate of applications with a size between $20,000 and $59,999 dropped from 48.3 percent in 2012 to 40.8 percent in 2016, the average approval rate of applications with a size between $60,000 and $99,999 dropped from 41.7 percent in 2012 to 37.5 percent in 2016, while the average approval rate of applications with a size between $100,000 and $169,999 increased from 33.6 percent in 2012 to 41.3 percent in 2016.

[284] In terms of interpreting these results, it is important to note the changes to the Home Ownership and Equity Protection Act (HOEPA) pursuant to the Dodd-Frank Act were implemented at the same time as the ATR/QM Rule. These changes likely increased the share of manufactured home loans that are classified as HOEPA loans substantially. *See* Bureau of Consumer Fin. Prot., *Manufactured-housing Consumer Finance in the United States*, (Sept. 2014), *available at* https://files.consumerfinance.gov/f/201409_cfpb_report_manufactured-housing.pdf.

While the potential for an effect from the points and fees caps is most clear from a fixed cap, as between loan size of $60,000 and $100,000, a percentage cap can also have an effect on the rate of approvals. If some of the cost of originating a loan is fixed as opposed to changing with the size of the loan, then a percentage cap becomes less restrictive as loan size increases. This hypothesis is tested for loans between $20,000 and $60,000 (where the points and fees cap is five percent of the loan size) and for loans between $100,000 and $170,000 (where the points and fees cap is three percent of the loan size). Among manufactured housing loan applications, the relative approval rate increased with loan size among these ranges, too. While this does not rule out the above hypothesis, it may also be a result of the larger trend of a shift towards larger loans in this market documented in Chapter 3.

Using a similar methodology, the Bureau also analyzed year-on-year growth rates of originations at the state level taking into account home price changes and allowing for variation with the quarter and year of origination, the state, and by loan size bin. No statistically significant effects of the points and fees cap were found. The lack of statistical significance is partly due to the small sample size (unlike the previous analysis that uses individual data, this analysis relies on state-level observations), but the point estimates do not indicate an economically significant effect either.

5.4.6 The effect of the QM points and fees provision in the broker segment

The Rule specifies that the loan originator compensation paid by a creditor to a non-employee (e.g., a mortgage broker) must be included in points and fees, even if the creditor is paying this fee on the consumer's behalf.[285] In contrast, the points and fees formula does not include payments that the creditor makes to its own employees. As a result, brokered transactions will generally have a higher sum of points and fees than retail transactions, and thus are more likely to exceed the QM PF threshold. The Bureau has examined the available data to investigate whether this is indeed the case, and whether brokered transaction have declined after the Rule.[286]

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[285] The ATR/QM Rule implements the loan originator compensation part of points and fees. *See* C.F.R. § 1026.32(b)(1)(ii). The discussion of this provision summarized in the text above is from the preamble to the ATR/QM Rule. *See* 78 Fed. Reg. 6408, 6432–6438 (Jan. 30, 2013).

[286] For additional research on the role of mortgage brokers in lending competition and pricing, see M. Cary Collins and Keith D. Harvey (2010), *Mortgage Brokers and Mortgage Rate Spreads: Their Pricing Influence Depends on*

TABLE 34: PERCENT OF PF VIOLATIONS IN THE APPLICATION DATA FROM NINE LENDERS: BROKER CHANNEL

Lender	Approved in 2013	Approved in 2014	Approved in 2015	Approved in 2016	Denied in 2014	Denied in 2015	Denied in 2016
#		43.7%	41.1%	43.9%	43.9%	46%	35.8%
	100%	1.9%	0.0%	0.0%	1.5%	0.0%	0.0%
#		0.0%	0.0%	0.0%	7.6%	0.027	5.5%
	100%	1.6%	0.0%	0.0%	2.0%	0.0%	0.0%
#	33.3%	0.3%	0.0%	0.3%	0.0%	100%	
	99.8%	4.4%	1.2%	0.8%	99.3%	99.3%	100%
Total	33.3%	4.8%	5.2%	7.3%	9.4%	4.5%	7.8%
	99.9%	2.0%	0.3%	0.2%	11.9%	16.9%	11%

Table 34 presents the percentage of brokered applications where the QM PF threshold was exceeded, separately for three lenders (the other six lenders did not utilize brokers). For each lender–year combination, the first row indicates the incidence of PF violations; the second row indicates the percentage of records where information on PF status is missing. Only one lender shows a significant percentage of approved brokered transactions where PF is exceeded. The other two lenders are curing all or almost all PF violations on the approved applications. Among denied applications, for two lenders reported in Table 34, the percentage of PF violations in the broker segment is higher than in the retail segment. For the remaining lender, almost all data on denied brokered applications is missing. To conclude, this limited examination suggests that brokered applications are initially more likely to result in a PF violation.

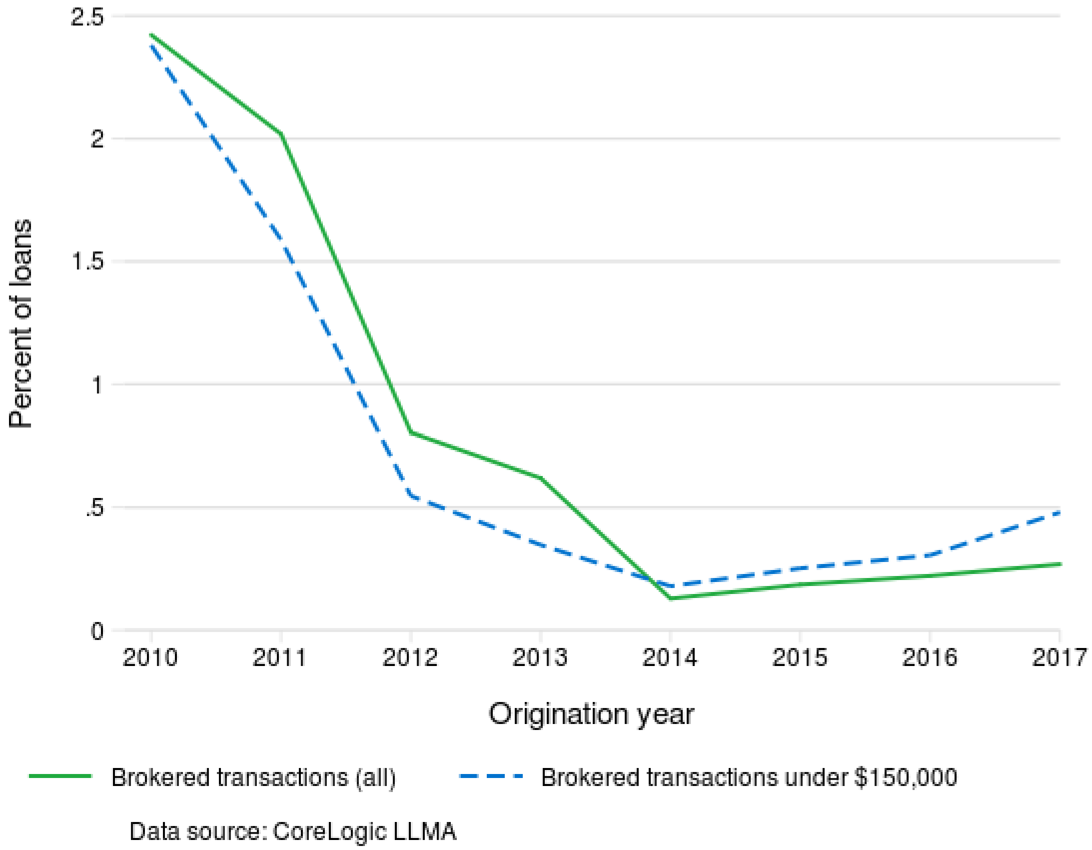
Neighborhood Type, Journal of Housing Research 19(2); Amany El Anshasy, Gregory Elliehausen, and Yoshiaki Shimazaki, *The Pricing of Subprime Mortgages by Mortgage Brokers and Lenders*, July 2005, *available at* http://www.chicagofed.org/digital_assets/others/events/2005/promises_and_pitfalls/paper_pricing.pdf.

TABLE 35: SHARE OF BROKERED APPLICATIONS IN THE APPLICATION DATA FROM THREE LENDERS THAT EMPLOY BROKERS

Lender	2013 (all loans)	2014 (all loans)	2015 (all loans)	2016 (all loans)	2013 (<150k)	2014 (<150k)	2015 (<150k)	2016 (<150k)
#	2.1%	3.8%	5.4%	10.7%	6.3%	9.3%	12%	17.7%
#	21.6%	19.1%	15.5%	11.4%	14.7%	11.3%	13.1%	8.6%
#	3.5%	3.5%	6.1%	5.5%	2%	2%	3.9%	3.5%
Total	**7.6%**	**9%**	**9.7%**	**9.2%**	**5.8%**	**6.2%**	**8.4%**	**7.1%**

Table 35 displays the share of brokered applications for three lenders. While there are some fluctuations, there is no evidence that these lenders have systematically reduced their reliance on brokered loans after the introduction of the Rule. A similar result is obtained if one examines the share of brokered loans in the CoreLogic data, as seen in Figure 56.

FIGURE 56: SHARE OF BROKERED ORIGINATIONS AMONG MORTGAGE LOANS FOR HOME PURCHASE, 2010-2017.



The Bureau has received numerous comments from mortgage brokers with examples that suggest that the QM PF provision may have created difficulties both for brokers and for consumers involved in these transactions. Unfortunately, the Bureau could not reasonably obtain data that would allow it to evaluate these examples on a market-by-market level. The impact of the QM PF provision in the mortgage broker segment is an area that requires further research.

5.5 The rebuttable presumption provision

The Rule's safe harbor and rebuttable presumption provisions provide different liability protection for QM loans depending on whether they are higher-priced covered transactions (HPCTs). HPCTs are generally defined as first-lien mortgages with annual percentage rates

(APRs) that are 1.5 or more percentage points over the benchmark Average Prime Offer Rate (APOR) for a comparable transaction, and second-lien mortgages with APRs that are 3.5 percentage points over the comparable APOR.[287] For Small Creditor Portfolio and Small Creditor Balloon Payment QMs, the first-lien HPCT threshold is an APR that is 3.5 or more percentage points over APOR.[288]

QM loans that are not HPCTs, referred to here as "Safe Harbor QMs," receive a complete safe harbor from civil liability—i.e., the Rule conclusively presumes creditors originating these loans complied with the Ability-to-Repay (ATR) requirements.[289] By contrast, the Rule establishes only a rebuttable presumption that creditors originating QM loans that are HPCTs complied with the ATR requirements—i.e., a consumer who purchased a HPCT qualified mortgage can provide evidence to attempt to rebut that presumption.[290] For example, the Rule provides that a consumer may rebut the presumption with evidence demonstrating that the consumer's residual income was insufficient to meet living expenses. With the potential legal risk associated with HPCTs, this section analyzes how the Rule's rebuttable presumption provision may have impacted HPCT originations.

Lenders had requirements to monitor their origination of higher-priced loans prior to the adoption of the ATR/QM Rule. The Board began tracking loan pricing data for higher-priced loans through HMDA in 2004, so that government agencies would be able to "identify more easily price disparities that require investigation."[291] In 2008, the Board adjusted the reporting thresholds for higher-priced loans, and issued amendments to Regulation Z which defined these loans as higher-priced mortgage loans (HPMLs).[292] The thresholds for HPMLs are generally the same as the first-lien (other than for small creditor QMs) and second-lien HPCT APR/APOR thresholds (other than for small creditor QMs).[293] The Board's rule also required that a creditor

[287] 12 C.F.R. § 1026.35(a)(1).

[288] 12 C.F.R. § 1026.43(b)(4).

[289] 12 C.F.R. § 1026.43(e)(1)(i).

[290] 12 C.F.R. § 1026.43(e)(1)(ii).

[291] Fed. Reserve Board, *Frequently Asked Questions About the New HMDA Data*, (Mar. 31, 2005), *available at* https://www.federalreserve.gov/boarddocs/press/bcreg/2005/20050331/attachment.pdf.

[292] Fed. Fin. Insts. Examination Council, *History of HMDA*, https://www.ffiec.gov/hmda/history2.htm (last modified Sept. 6, 2018).

[293] 12 C.F.R. § 1026.35(a)(1). The threshold is 2.5 or more percentage points over APOR for "jumbo" loans. 12 C.F.R. § 1026.35(a)(1)(ii).

make an ATR determination, and only applied this requirement to HPMLs.[294] In 2010, the Dodd-Frank Act extended the ATR requirement to all mortgage loans, beginning in January 2014 when the ATR/QM Rule took effect.

Using HMDA data, this section first analyzes whether the Rule's rebuttable presumption provision had an immediate impact on HPML origination volume. HPMLs, because of their nearly identical definition, may serve as a proxy for HPCTs. Since the Board's 2008 rule required lenders to make an ATR determination for HPMLs, and therefore already increased the potential legal risk associated with these loans, the impact in this category is likely muted (although cannot be ruled out a priori). The analysis focuses on conventional first-lien mortgages originated for the purchase of owner-occupied homes from 2012 to 2016. Site-built homes and manufactured homes are evaluated separately. Loans insured and guaranteed by the Federal Housing Administration (FHA), the U.S. Department of Veterans Affairs (VA), and the U.S. Department of Agriculture/Rural Housing Service (USDA/RHS) are not subject to the Bureau's ATR/QM Rule. For such loans, QM status is determined using each Agency's own metrics. For this reason, the analysis excludes these loans.

The second part of this section analyzes loan rate spreads, the difference between the APR of a loan and APOR, to assess if the rebuttable presumption rate spread threshold was a binding constraint for lenders after the effective date of the Rule. An increase in loan originations directly under the threshold would suggest an immediate impact of the rebuttable presumption provision of the Rule, as it might indicate that some lenders have responded to the Rule by originating loans that are just within 1.5 percentage points of APOR to maintain their Safe Harbor status. This section makes use of data obtained through several fair lending examinations. For the reasons discussed in the preceding paragraph, these data are similarly restricted to conventional first-lien owner-occupied purchase loans but only include site-built originations and not manufactured housing loans. The data are further restricted to only include lenders whose exams cover a pre- and post-Rule period.

5.5.1 Site-built home loans

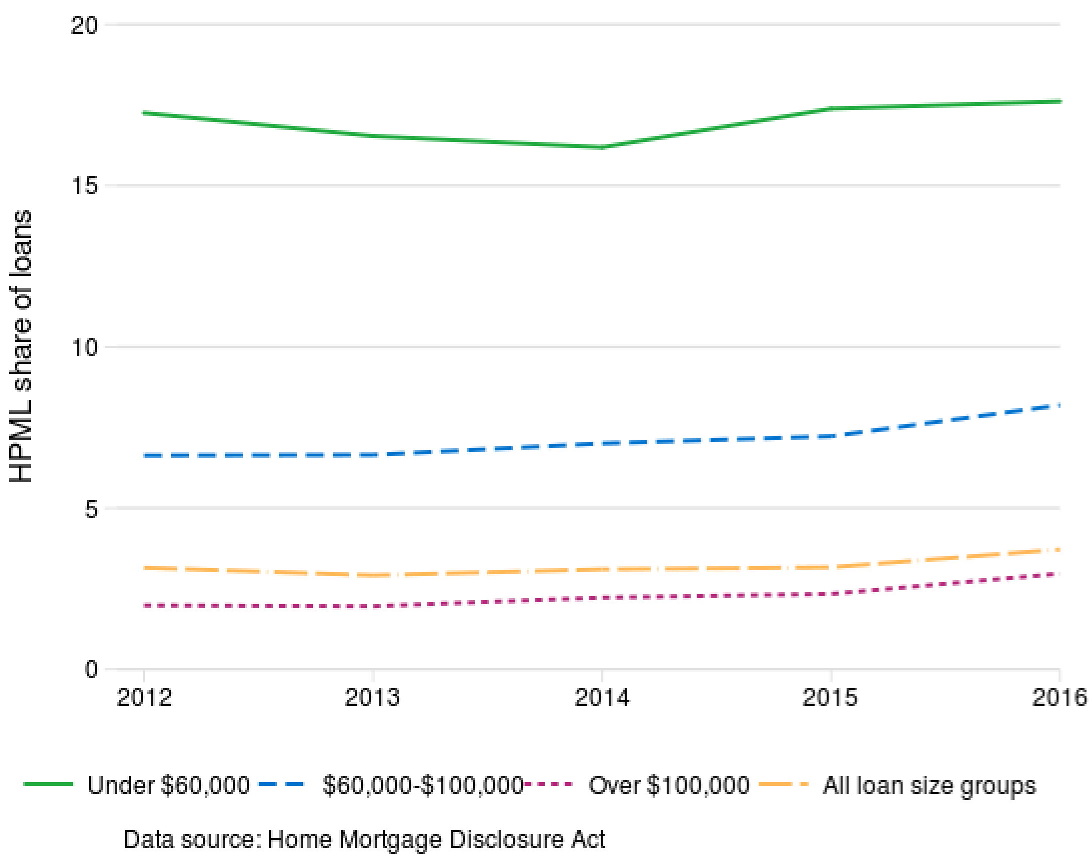
The level of HPML lending as reflected in the HMDA data for a period before and after the effective date of the Rule as shown in Figure 57. From 2012 to 2016, HPMLs were a small share of mortgage originations; they represented fewer than 4 percent of first-lien conventional home purchase loan originations for owner-occupied site-built homes. HPML lending slightly

[294] In 2008, the Board also revised the definition of HPML. This definition matches the one later adopted for HPCTs in the ATR/QM Rule. *See* Truth in Lending, 73 Fed. Reg. 44522 (July 30, 2008).

increased after the adoption of the ATR/QM Rule (2014 to 2016), but overall, the share of HPMLs originated remained relatively constant and did not vary beyond one percentage point over the course of five years.

Figure 57 also shows the share of HPMLs originated for three loan size groups based on some of the points and fees thresholds—loans less than $60,000, loans greater than or equal to $60,000 up to $100,000, and loans greater than or equal to $100,000. Under the ATR/QM Rule, small-balance mortgages have higher limits on points and fees to qualify as a QM than larger loans. As small-balance mortgages are often more expensive to originate, as they have the same fixed costs as larger loans, yet bring in less revenue, it is important to analyze the potential impact on these different loan size groups. Additionally, the definition of an HPML depends on the APR for a loan which can be affected by the fees relative to the size of the loan.

FIGURE 57: HPML ORIGINATION SHARE BY YEAR AND LOAN SIZE, SITE-BUILT HOMES 2012-2016

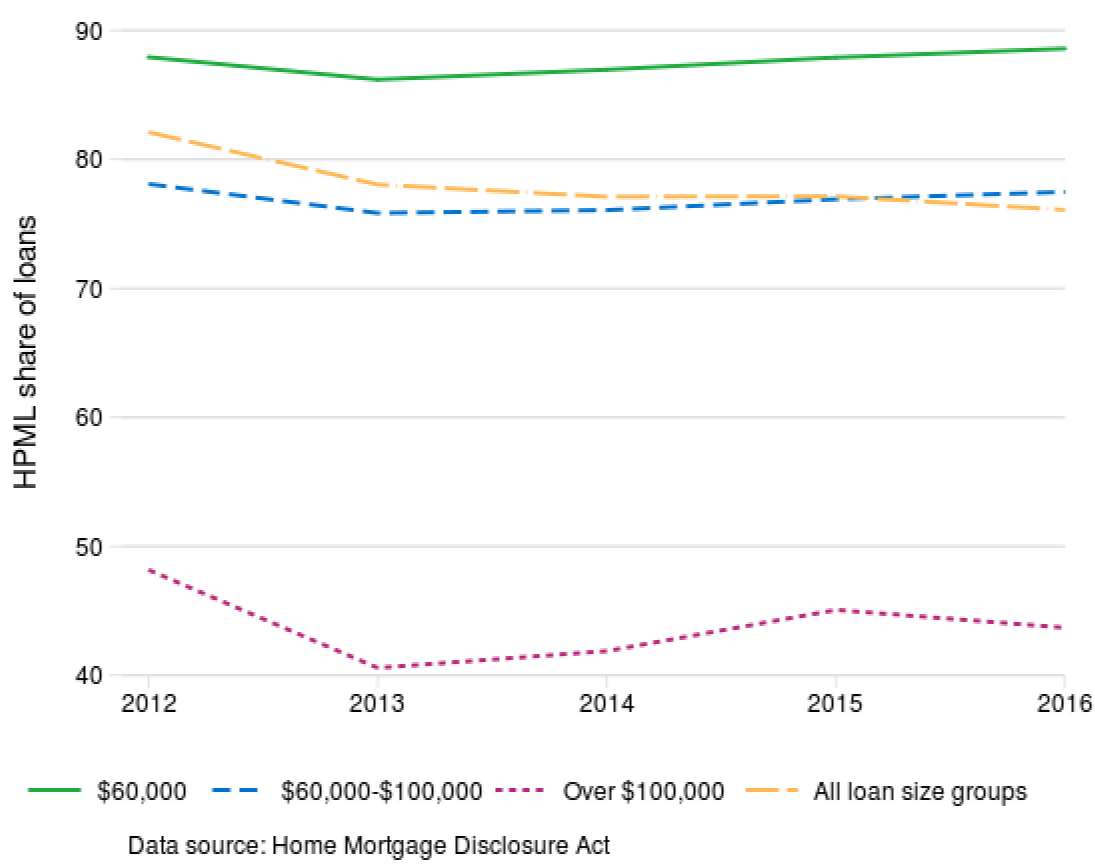


In Figure 57, it is clear that HPML lending is more common among the loans in the smaller loan size buckets. However, over time, each loan size group has a similar pattern. There were no large changes from year to year, and since the adoption of the ATR/QM Rule, the share of HPMLs originated slightly increased. Loans under $60,000 experienced a small decrease in the share of HPMLs originated directly following and leading up to the ATR/QM Rule effective date in January 2014; however, HPML lending in that group promptly rebounded in 2015.

5.5.2 Manufactured home loans

The majority of mortgages originated for the purchase of manufactured homes are HPMLs. From 2012 to 2016, over three quarters of first-lien conventional mortgage originations for owner-occupied manufactured homes were HPMLs, as seen in the following figure. Similarly to site-built homes, the change was quite small, and the share of HPMLs originated remained relatively constant over the five year period. Additionally, an analysis of the loans by loan balance suggests that this small decrease is driven by a change in the size of the loans originated rather than a direct change in lender pricing.

FIGURE 58: HPML ORIGINATION SHARE BY YEAR AND LOAN SIZE, MANUFACTURED HOMES 2012-2016

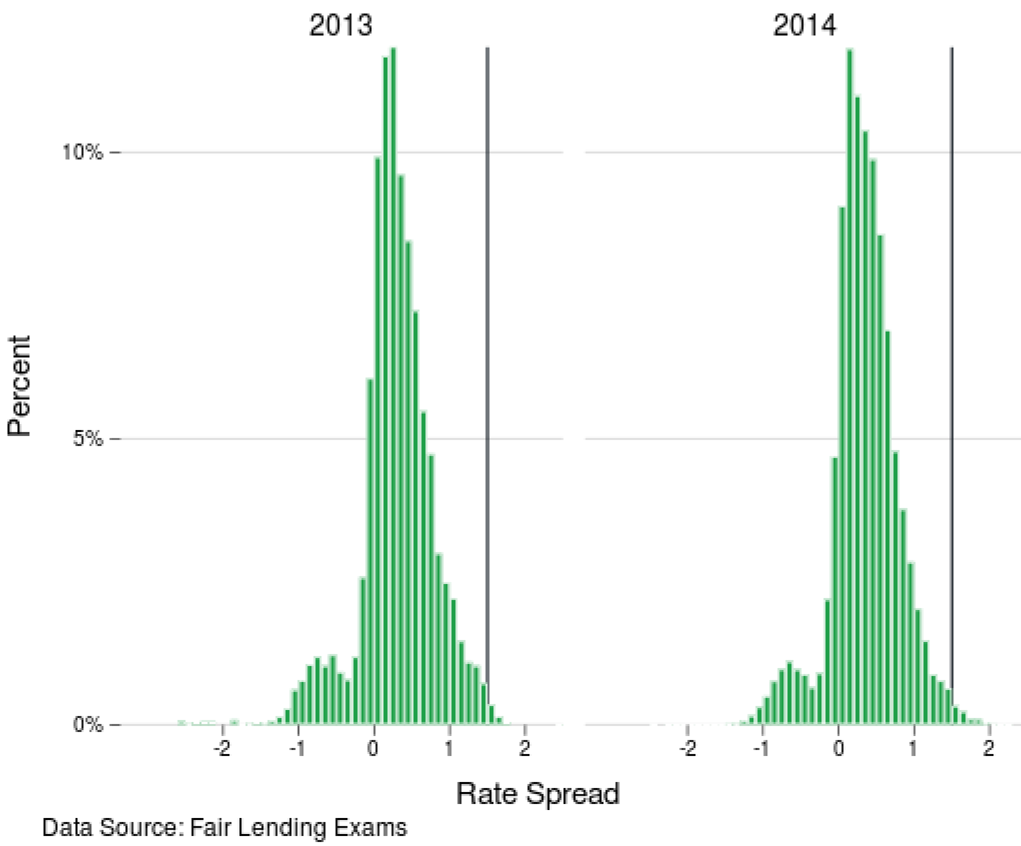


Manufactured housing loans are divided into the same buckets as in Figure 58. When broken out into these loan size groups, in contrast with the aggregate picture, the share of HPMLs originated in each size group increases in the years following the Rule's effective date (2014 to 2016). Again, this increase is small. However, the overall decrease in the share of HPMLs originated for manufactured homes is primarily driven by an increase in the origination of loans with larger balances. In fact, the share of manufactured housing loans greater than or equal to $100,000 increased from 12 percent of originations in 2013 to 20 percent of originations in 2016. As with site-built homes, HPML lending is more common for manufactured housing loans with smaller balances. So an increase in the share of larger loans originated drove down the overall share of HPMLs originated.

5.5.3 Analysis of rate spreads

Pricing data from a sample of seven fair lending exams that cover the pre- and post-Rule periods provided the APR for approximately 60,000 conventional loans. Rate spreads were then calculated for each loan using the respective APOR rate effective the same week as the loan rate lock date. Figure 59 shows the distribution of the computed rate spreads for 2013 and 2014. Post-Rule bunching directly below the 1.5 percentage point threshold, as indicated with a vertical grey line, is not apparent when comparing the 2013 and 2014 distributions. Bunching is typically associated with a binding constraint, as lenders change parameters of the loan (in this case, rate spread) to stay under a regulatory threshold.

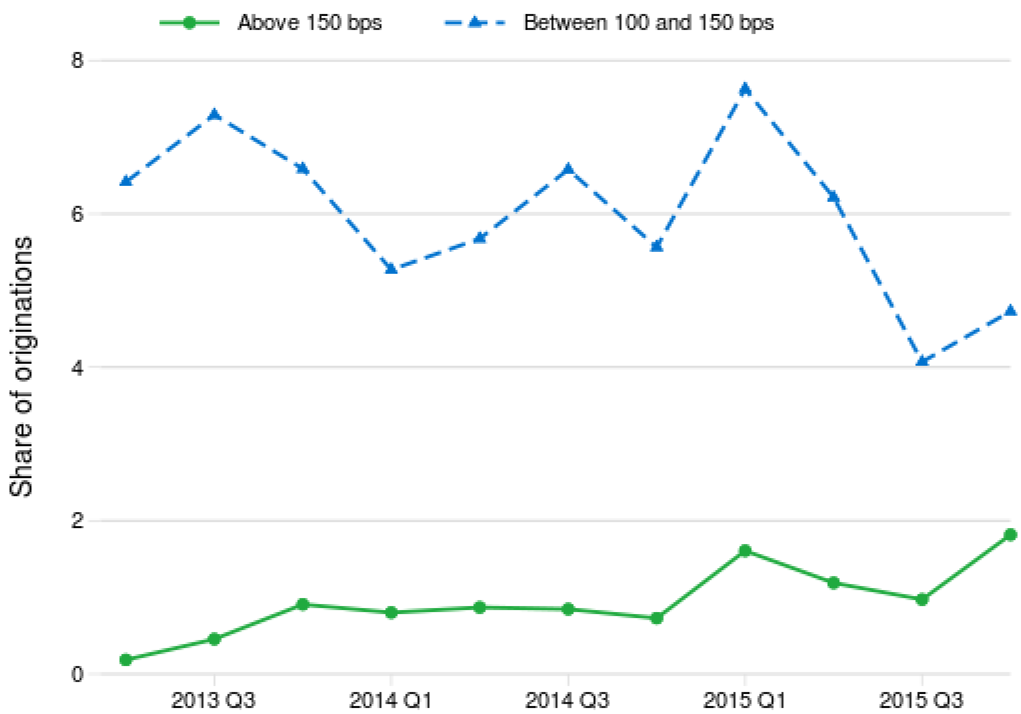
FIGURE 59: RATE SPREAD DISTRIBUTION BY YEAR, 2013 AND 2014



To further analyze potential bunching effects not directly observed in the Figure 59 distributions, loans are divided into two rate spread groups around the threshold—rate spreads above the 150 basis point threshold and rate spreads between 100 and 150 basis points above APOR. Figure 60 reports the share of originations for each rate spread group between the second quarter of 2013 and the fourth quarter of 2015[295]. Consistent with the patterns seen in Figure 59, no substantial shift in the shares of originations with differing rate spreads is observed in Figure 60 around the Rule's effective date. Loans with rate spreads below 100 basis points are not shown on the figure but commanded the majority of the share of total loans (above 90 percent) in the data compared to the between and above rate spread groups. The share of loans above the threshold experienced a slight increase in the beginning of 2015 but still remained below 2 percent of total loans.

[295] Due to the aforementioned restrictions, data from the Fair Lending exams is only available beginning in the third quarter of 2013 until the end of 2015.

FIGURE 60: ORIGINATION SHARE BY RATE SPREAD GROUP, 2013Q3-2015Q4



Data source: Fair Lending Exam data

Based on the findings above, the Rule's rebuttable presumption provision does not appear to have had a significant impact on HPML lending, nor is there systematic evidence that the rate spread threshold is binding. The share of mortgage origination volumes accounted for by site-built and manufactured housing HPMLs were relatively steady from 2012 to 2016, suggesting that lenders were not driven away from originating HPMLs after the implementation of the Rule. The Bureau's findings from the Fair Lending data also suggest that the rebuttable presumption threshold of 150 basis points above APOR was not a binding constraint for lenders as the share of originations above the threshold remained steady after the implementation of the Rule.

These results are likely explained by the fact that the Board's 2008 rule applied an ATR requirement to HPMLs. These results do not rule out the possibility that the Board's rule significantly impacted HPML lending however, analysis of that question is beyond the scope of this Report.

6. The Temporary GSE QM

This chapter considers trends in the volume, characteristics and sale into the secondary market of conforming loans that are originated under the Temporary GSE QM provision of the ATR/QM Rule. Previous chapters considered the performance of these loans and the role that they have played in preserving access to credit. This chapter considers potential explanations for the large and persistent market share of Temporary GSE QM originations in the conforming segment of the market.[296]

The main findings include the following:

- The GSE's share of the conventional purchase market was large prior to the Rule's introduction and has seen a further small increase in the years following. The large and persistent market share may be attributable to a range of factors which distinguish GSE loans from those made under the General QM and ATR criteria, potential advantages in compliance certainty and flexibility, and robust secondary market liquidity. As a result of these and other factors, at least with respect to loans originated for sale on the secondary market, given the option to extend mortgage credit to a particular borrower through a GSE loan, originators have generally done so.

- The market for private label mortgage backed securities remains quite small relative to its pre-crisis level. This limits the funding available for loans that are not eligible for purchase or guarantee by the GSEs or government agencies, a category of loans that includes non-QM loans. Although there have been some issuances containing non-QM loans, the majority of new private label securities consist of prime jumbo loans made to borrowers with strong credit characteristics.

- The evidence does not suggest that there was an immediate shift to increased use of the GSEs' Automated Underwriting Systems (AUSs) for loans not intended to be sold to the GSEs, as a preferable method of establishing a loan's QM status compared to meeting the

[296] The jumbo segment of the market is analyzed in Chapters 4 and 5 and is not directly affected by the Temporary GSE QM provisions. Thus, this Chapter considers only the conforming segment of the market.

General QM underwriting requirements. However, the data do suggest a somewhat greater use of the GSEs' AUS in recent years, particularly for loans which do not fit within or are more difficult to document within the General QM underwriting standards, such as loans made to self-employed borrowers.

Section 6.1 briefly reviews the Temporary GSE QM criteria and the Bureau's expectations, stated at the time of the rulemaking, of how QM and non-QM lending would evolve over time. Section 6.2 presents trends in the share of GSE originations in the years before and after the Rule. Section 6.3 describes certain functional features of the Temporary GSE QM requirements and considers how these features may have contributed to the large and persistent market share of Temporary GSE QM loans in the conforming segment. These fundamental features are compliance certainty and flexibility, the ability to accommodate high debt-to-income mortgage demand, and access to liquidity through the secondary market. This section also presents empirical results on the use of GSE eligibility to secure QM status. Section 6.4 then briefly considers four goals of the QM requirements and draws on the analysis in the previous section to inform why these goals have or have not been met.

6.1 Background

As discussed in detail in Chapter 2, the Temporary GSE QM, sometimes referred to as the Patch, is a temporary qualified mortgage category that under the terms of the Rule will be in effect until the earlier of: (i) the end of GSE conservatorships; or (ii) January 10, 2021.[297] The Temporary GSE QM category includes the product and cost restrictions that generally apply to qualified mortgages. However, the Temporary GSE QM category generally uses the GSE underwriting standards instead of the General QM standards and does not establish a DTI threshold. The General QM underwriting standards include Appendix Q of the Bureau's Regulation Z and the 43 percent threshold on DTI.[298] As with other types of QM loans, the presumption of compliance for Temporary GSE QM loans can be either conclusive, *i.e.*, a safe harbor, for QM loans that are not "higher-priced"; or rebuttable, for QM loans that are "higher-priced." [299]

[297] At the time the Rule took effect, the temporary category of qualified mortgages also included loans eligible to be guaranteed or insured (as appropriate) by the U.S. Department of Housing and Urban Development, U.S. Dept. of Veterans Affairs, or the U.S. Dept. of Agriculture or Rural Hous. Serv. These provisions of the temporary category phased out as these federal agencies issue their own qualified mortgage rules and would have expired after seven years. *See* 78 Fed. Reg. 6408, 6409 (Jan. 30, 2013).

[298] 12 C.F.R. § 1026.43(e)(2)(v)–(vi).

[299] 12 C.F.R. § 1026.43(e)(1).

In establishing the categories of temporary QM loans, the Bureau stated that it sought to preserve access to credit for consumers with debt-to-income ratios above 43 percent during a transition period in which the market was fragile and the mortgage industry was adjusting to the final rule.[300] By providing for most of the conventional market to continue to originate higher debt-to-income loans as QM loans, but limiting this to the conforming market and making the provision temporary, the Bureau sought, over the long term, to encourage innovation and responsible lending on an individual basis under the ability-to-repay criteria. The Bureau expected that there would be a robust and sizable market for non-QM loans beyond the 43 percent threshold and structured the Rule to try to ensure that this market would develop.

The Bureau also stated that because the temporary category of QM loans covers loans that are *eligible* to be purchased, guaranteed, or insured regardless of whether the loans are actually purchased, guaranteed, or insured, private investors could acquire these loans and secure the same legal protection as the GSEs and Federal agencies. This would avoid creating a disincentive for the return of private investors even before the expiration of the temporary category.

Finally, the Bureau noted that as the market recovered, the GSEs and federal agencies would be able to reduce their presence in the market (*e.g.*, by reducing their loan limits). In this scenario, the percentage of loans granted qualified mortgage status under the temporary category would also shrink and the market would be able to develop alternative approaches to assessing ability-to-repay within the General QM requirements.

The continued prominence of Temporary GSE QM originations is contrary to the Bureau's expectations at the time of the rulemaking, and certain goals of the Rule have therefore not been met. In accounting for the continued prominence of Temporary GSE QM originations, two factors can be distinguished. First, the scope of GSE-eligible loans is broad, and it grew even broader for a period of time after the Rule became effective as the GSEs loosened their credit eligibility in various respects. Second, for a number of reasons, investors in mortgage-backed securities favor funding GSE-guaranteed loans over other loans, including GSE-eligible, General QM and non-QM loans. Thus, at least with respect to loans originated for sale on the secondary market, given the option to extend mortgage credit to a particular borrower through a GSE-loan, originators will generally do so; and any expansion of the scope of GSE eligible loans will grow the share of Temporary GSE QM originations. To the extent there is a preference for GSE-eligible but not guaranteed loans over General QM or non-QM loans either among investors or among creditors originating loans to hold in portfolio, this too will contribute to the prominence of Temporary GSE QM originations. This chapter addresses both of these factors in considering

[300] See Chapter 1 at Section 1.1.3, for references.

potential explanations for the large and persistent market share of Temporary GSE QM originations in the conforming segment of the market.

6.2 Conforming originations since the implementation of the Rule

Chapter 4 examined changes in the DTI distribution of GSE loans and found that for loans originated in 2014, there was an upward shift in DTIs for GSE loans, which was most pronounced among loans with DTIs approaching 45 percent. Chapter 5 examined changes in the share of high DTI loans among GSE and non-GSE loans and, for the nine lenders in the Application Data, among GSE-eligible and non-GSE eligible originations. Those data show a decline in high DTI lending in the non-GSE space relative to the GSE space and thus the continued prominence of the Temporary GSE Exemption among high DTI borrowers. Thus, although the Bureau expected that loans with DTI above the 43 percent threshold would increasingly be originated outside the Temporary QM category, *i.e.*, as non-QM loans, the available data suggests that the opposite is happening.

Figure 61 broadens the analysis and presents the share of conventional purchase-mortgage originations insured by the GSEs since 2000, for loans at or below $417,000, which was the conforming loan limit in most counties at the time the Rule became effective.[301] The share of GSE insured loans was large prior to the Rule's introduction and has seen a further small increase since the Rule's 2014 effective date. The GSE share of conventional purchase loans under $417,000 rose from 69 percent in 2013 to 70 percent in 2014, and remained at 71 percent by 2017.[302] Counter to the Bureau's expectations, the percentage of GSE insured loans has not shrunk since the finalization of the Rule.[303] The next sections of this chapter discuss potential reasons for the sustained GSE share of conventional purchase loans, and analyze data from GSE

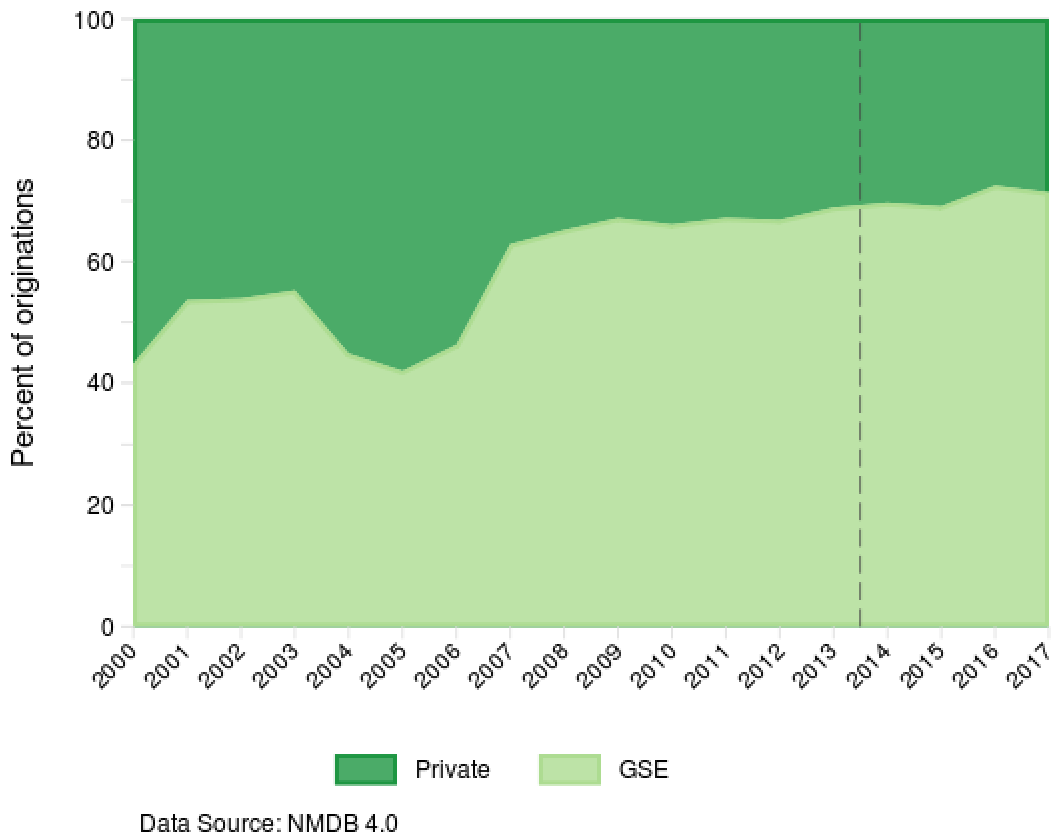
301 As discussed in Section 3.5, some "high-cost" counties had higher conforming loan limits. Given that patterns in conforming loan originations in these typically large urban markets may reflect more local trends, the analysis of conforming loans is restricted to loans at or below $417,000. However, the broad shifts in the GSE share over time shown in Figure 61 are robust to the inclusion of these larger loans in these high-cost counties. See Figure 16 in Chapter 3 for a breakdown of purchase originations for all (conventional and nonconventional) loan types.

302 Originations of conventional refinance loans fell in aggregate from 2013 to 2014. The GSE share for such loans fell from 83 percent in 2013 to 78 percent in 2014, and remained at 76 percent by 2017.

303 Commenters cited industry survey results consistent with these findings, see 23rd Annual ABA Residential Real Estate Survey Report, April 2016, *available at* https://www.aba.com/Tools/Function/Mortgage/Documents/2016ABARealEstateLendingSurveyReport.pdf.

Automated Underwriting Systems (AUS) to further assess the role of the Temporary GSE QM in observed market trends.

FIGURE 61: LOAN TYPE COMPOSITION OF CONVENTIONAL PURCHASE ORIGINATIONS UNDER $417,000, 2000 TO 2017



6.3 Functional features of the Temporary GSE QM requirements

6.3.1 Compliance certainty and flexibility

As noted above, given the option to extend mortgage credit to a particular borrower through either a Temporary GSE QM or a General QM, originators generally offer a Temporary GSE QM, at least with respect to loans intended to be sold in the secondary market. While the existence of a secondary market is certainly one factor favoring the Temporary GSE QM, there are other factors that may help account for the large and persistent market share of Temporary GSE QM originations in the conforming market.

First, Fannie Mae and Freddie Mac provide a high degree of specific detail for the method to be used to calculate income and debt. Although admittedly a crude measure of detail, Fannie Mae and Freddie Mac guidelines for creditors originating loans for sale to them each provide 108 and 125 pages, [304] respectively on these topics. In contrast, the regulatory text of Appendix Q is contained within only 11 pages.[305]

Second, there is a perceived lack of clarity in Appendix Q. The Bureau viewed the use of FHA guidelines as providing clear, well-established standards for determining whether a loan is a qualified mortgage.[306] However, some respondents to the RFI disagree. For example, respondents to the RFI stated that it "is ambiguous and leads to uncertainty," "confusing and unworkable" and that "additional guidance . . . is needed."[307] These concerns with Appendix Q may have contributed to investors'—and at least derivatively, creditors'—preference for Temporary GSE QM lending and interfered with the achievement of policy goals for the Temporary GSE QM category.[308]

Third, Appendix Q has been static since the adoption of January 2013 Rule. In contrast, the Temporary GSE QM provides flexibility and has changed over time. Flexibility potentially allows for clarification and refinement in the face of ever-changing market conditions as well as for innovation as discussed later in this Chapter. The GSEs regularly adjust and update their underwriting guidelines, often monthly and sometimes more frequently. These changes affect allowable DTI calculation methods and can address emerging issues with respect to the

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[304] In the October 2, 2018, the PDF version of Fannie Mae's Selling Guide, Chapter B3-3, Income Assessment is 86 pages (pages 313–398) and Chapter B3-6, Liability Assessment is 22 pages (pages 501–522). In the October 18, 2018, the PDF version of Freddie Mac's Single-Family Seller/Servicer Guide, Topic 5300, Stable Monthly Income and Asset Qualification is 106 pages (pages 5301-1–5301-6, 5302-1–5302-9, 5303-1–5303-33, 5304-1–5304-14, 5305-1–5305-16, 5306-1–5306-18, 5307-1–5307-10) and Topic 5400, Evaluation of Monthly Obligations is 19 pages (pages 5401-1–5401-19).

[305] 12 C.F.R. § 1026, appendix Q, at 446–456.

[306] 78 Fed. Reg. 6408, 6527 (Jan. 30, 2013).

[307] *See* Appendix B.

[308] Perhaps supporting an assessment of ambiguity, the Federal Housing Administration, the agency responsible for the source material, "provide[ed] more definitive underwriting standards . . . to overcome lender uncertainty," by revising the source material in December 2013. *See* Truth in Lending, 78 Fed. Reg. 75238, 75243 (Dec. 11, 2013).

treatment of certain types of debt or income categories.[309] In contrast, as discussed in Chapter 5, of the 87 respondents to the lender survey who responded to a question regarding Appendix Q, 27 percent said that sometimes borrowers who were approved for loans could not provide documentation required by Appendix Q and 8 percent said this was often true.[310]

Finally, although technically the Temporary GSE QM applies to loans that are eligible for purchase or guarantee by one of the GSEs, market participants believe that extra compliance certainty is assured for loans actually sold to the GSEs.

6.3.2 Accommodating high debt-to-income mortgage demand

A further reason for the continued use of Temporary GSE QM is that the GSEs were able to accommodate demand for mortgages above the 43 percent DTI ceiling as the DTI distribution shifted up in recent years due to house price appreciation, increases in debt load (especially for those with student loans) and other factors. At the time of the rulemaking, the Bureau understood that FHA had been using the 43 percent DTI threshold for many years as a general boundary for defining affordability. The Bureau found the threshold a relatively liberal one relative to the GSE guidelines with a benchmark of 36 percent, before consideration of compensating factors.[311] However, while the Bureau was aware at the time of the rulemaking that 18 percent of GSE and federal agency loans had a DTI over 43 percent,[312] the Bureau did not attempt to predict how readily the GSEs—and thus the Temporary GSE QM category—would accommodate loans with higher DTI as house prices and the interest rate recovered. Indeed, the Bureau expected that over time the GSEs role in the housing market would shrink.

In fact, the opposite has occurred, especially within the segment of high DTI borrowers. Evidence presented in prior chapters shows that high-DTI loans have recently been an increasing share of Temporary GSE QM originations. Figure 35 of Chapter 4 demonstrates the rising DTIs of GSE originations in the year following the effective date of the Rule, while Figure

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309 There can, however, be a tradeoff between flexibility and compliance certainty. To support the pace of these updates, both Fannie and Freddie provide robust implementation support to lenders and other stakeholders on their websites with videos, fact sheets, searchable FAQs, training schedules and various job aids.

310 See Table 22 in this report.

311 *Id.* at 6505 ("[T]he 43 percent threshold has been utilized by the Federal Housing Administration (FHA) for many years as its general boundary for defining affordability. Relative to other benchmarks that are used in the market (such as GSE guidelines) that have a benchmark of 36 percent, before consideration of compensating factors, this threshold is a relatively liberal one which allows ample room for consumers to qualify for an affordable mortgage").

312 *Id.* at 6569 ("Based on the data as of year-end 2011, such loans are approximately 18 percent of the market.").

38 of Chapter 5 specifically notes the increased share of originations with a DTI over 43 percent through 2017. Some of this growth is likely a product of rising house prices as well as rising interest rates, which directly increase borrowers' required monthly payments for any given loan size, but more recent growth also is attributable to actions by the GSEs.[313]

Each of the GSEs uses a proprietary automated underwriting system (AUS) to determine eligibility for most of its business and with each new release of the AUS the GSEs can adjust their criteria. In particular, in May 2017, Fannie Mae announced that its July 2017 release of its Desktop Underwriter (DU) would include an expansion of high-DTI eligibility by removing the preexisting requirement that borrowers with DTIs above 45 percent have at least 12 months of reserves and a loan-to-value of at least 80 percent. Fannie explained that, "A higher DTI presents a higher degree of risk and therefore, the updated risk assessment (DU version 10.1) will require compensating risk factors to address this additional risk. However, for loans with up to 50% DTI, the assessment will now be made entirely within the DU risk assessment and without the use of a model overlay."[314]

This policy change resulted in a dramatic increase in high-DTI originations by the GSEs. For example, Fannie Mae reported that its purchases with DTIs over 45 percent increasing from 6 percent in June 2017 to 19 percent in December 2017.[315] For the first five months of 2018, 29 percent of Fannie Mae's loans and 21 percent of Freddie Mac's loans had DTI ratios above 43 percent, up from 13 and 14 percent respectively in 2013.[316] These increases were larger than anticipated, and, after evaluating the profile of loans Fannie Mae responded by tightening their DU underwriting criteria for such loans in March 2018 to limit "risk layering.[317] Over the same period, Freddie Mac made no significant announced changes to their compensating factors

[313] Average 30-year fixed rate mortgage interest rates increased from a recent weekly low of 3.41 percent in July 2016 to as high as 4.94 percent in November 2018, based on Freddie Mac Primary Mortgage Market Survey data, *available at* http://www.freddiemac.com/pmms.

[314] *See* Steve Holden & Walt Scott, *Desktop Underwriter Version 10.1 – Updates to the Debt-to-Income (DTI) Ratio Assessment*, Credit Risk Sharing Commentary, Fannie Mae (July 10, 2017), *available at* http://www.fanniemae.com/portal/funding-the-market/credit-risk/news/desktop-underwriter-debt-to-income-ratios-071017.html.

[315] *See* "Fannie Mae's Efforts to Ease Mortgage Access Show How Hard it is to Balance Risk and Access," April 5, 2018 *available at* https://www.urban.org/urban-wire/fannie-maes-efforts-ease-mortgage-access-show-how-hard-it-balance-risk-and-access.

[316] Karan Kaul & Laurie Goodman, *Updated: What, If Anything, Should Replace the QM GSE Patch*, Hous. Fin. Pol'y Ctr. Commentary (2018), *available at* https://www.urban.org/research/publication/updated-what-if-anything-should-replace-qm-gse-patch.

[317] *See* Fannie Mae, *Desktop Underwriter/Desktop Originator Release Notes DU Version 10.2*, (Jan. 30, 2018), *available at* https://www.fanniemae.com/content/release_notes/du-do-release-notes-03172018.pdf.

required for loans with high DTIs, and generally saw the high DTI share of their overall portfolio increase gradually.

In contrast, the underwriting guidelines and DTI limits for General QM loans have remained static since they were issued. As noted above, these calculation methods under the General QM, which are provided in Appendix Q, are a subject of concern for a number of commenters on the RFI.

6.3.3 Liquidity through the secondary market

A final reason for the continued use of the Temporary GSE QM relative to the General QM is the immediate liquidity available to creditors through the robust secondary market available for loans originated to the GSE standards.

When lenders adhere to the GSEs' guidelines—guidelines that are standardized and that are provided with robust implementation and client management support—they also gain access to a highly liquid secondary market. In contrast, while private market securitizations have grown somewhat in recent years, their volume is extremely small compared to their pre-crisis level. (In 2017, there were less than $20 billion in new origination PLS issuances, while the same number was over $1 trillion in 2005.)

Figure 62 depicts the level and composition of new origination PLS issuances.[318,319] To the extent that there have been private securitizations since 2014, the majority of new origination PLS issuances consisted of prime jumbo loans made to borrowers with strong credit characteristics.[320] These securities have a low share of non-QM loans and their non-QM loans have better credit characteristics than non-QM loans found in securities with a high percentage of non-QM loans.[321] The adoption of the ATR/QM rule in 2014 does not seem to have led to the

[318] Since the financial crisis in 2008, the majority of PLS issuances have consisted of pools of loans originated prior to the crisis, sometimes referred to as "seasoned deals." These are generally securities of repackaged loans from existing RMBS and securities of seasoned re-performing or non-performing loans.

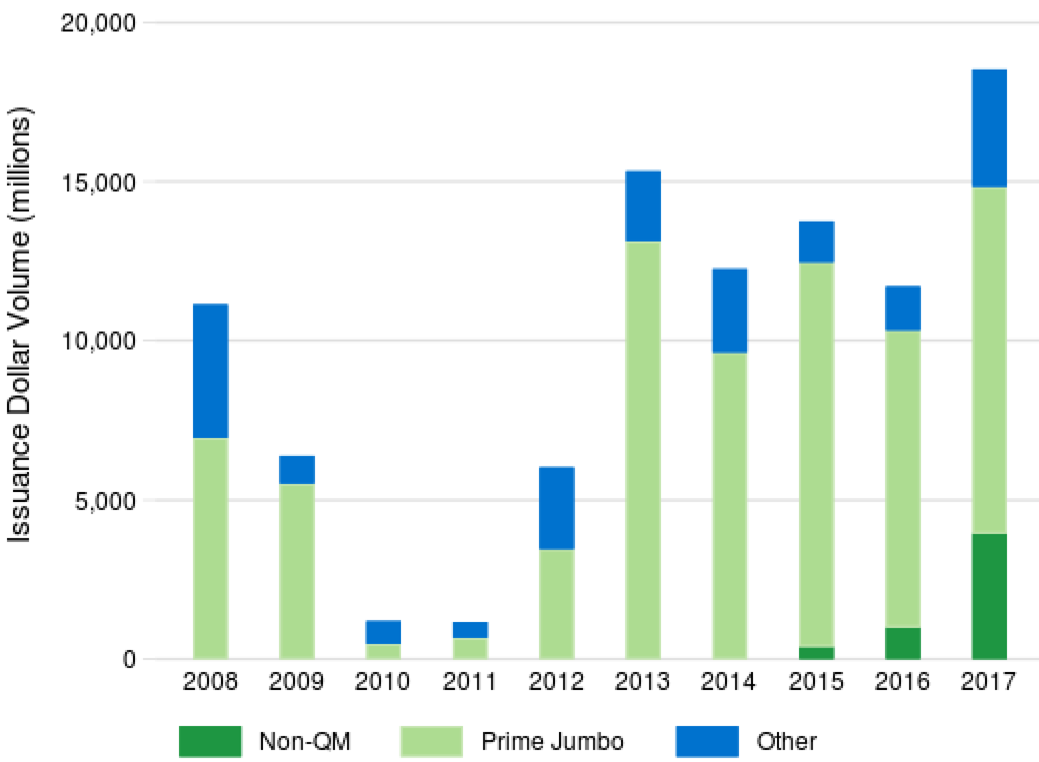
[319] Unless otherwise noted, statistics regarding PLS are from Inside Mortgage Finance.

[320] For example, in 2017, the average FICO score of a loan in a prime jumbo issuance was more than 20 points greater than the average score of a loan in an Agency RMBS and the average DTI was 2 percentage points lower. *See* Inside Mortg. Fin., *Prime Jumbo MBS Characteristics: 2013 through 2018*; Inside Mortg. Fin., *Agency/Channel Purpose Loan Characteristics*, https://www.insidemortgagefinance.com/data/gse_mbs_characteristics.html (last visited Dec. 31, 2018).

[321] As an example, in 2017, only 3 percent of loans in prime jumbo securities were interest-only, and therefore non-QM, and these were generally loans to high-income borrowers.

development of a private market for non-QM loans, as 94 percent of the loans securitized during this time were QM.

FIGURE 62: PLS ISSUANCES BACKED BY NEWLY ORIGINATED LOANS BY TYPE, 2008-2017



Data source: Inside Mortgage Finance Publications, Inc. Copyright © 2018 Used with permission

Following the implementation of the Rule in 2014, non-QM issuances appeared first in 2015 and continued to grow over the past three years, though they still made up only 21 percent of new origination PLS issuances in 2017.[322] From 2015 until the beginning of the fourth quarter of 2018, 52 non-QM securities were issued.[323] On average, about 66 percent of the loans held in these securities were non-QM loans. When observing the loan-level detail, compared to the QM loans in the same issuances, non-QM loans were often low documentation (most often in case of self-employed borrowers), but had similar LTVs and DTIs as the QM loans in the same

[322] Data on non-QM securities are only available post-Rule.

[323] Ratings agency reports were used to identify non-QM issuances and their aggregate statistics.

issuance.[324] In terms of pricing, controlling for observable loan characteristics (such as documentation status, whether the interest rate is fixed or variable, the purpose of the loan, the occupancy status, the size of the loan and the loan-to-value ratio at origination) and the borrower's credit score and year of origination reveals that non-QM loans carried an estimated premium of 119 basis points over safe harbor QM loans.[325],

In sum, the percentage of loans that are granted Qualified Mortgage status under the Temporary GSE and Federal Agency QM categories has not shrunk and there appears to be limited momentum toward a long-term structure with a more pronounced role for private market securitization.

A review of potential explanations unrelated to the issuance of the ATR/QM Rule for the absence of private market securitizations is outside the scope of this assessment.[326]

6.3.4 The use of GSE eligibility to secure QM status

As previously noted, in defining the Temporary GSE QM to include GSE-eligible loans regardless of whether the loans were actually guaranteed by one of the GSEs, the Rule sought to avoid creating a disincentive that would inhibit the growth of a private securitization market. The prior section shows that such a market has not emerged. To further assess use of the Temporary GSE QM, the Bureau analyzed data provided by Fannie Mae and Freddie Mac on the utilization of their respective Desktop Underwriter and Loan Prospector AUSs from 2013 Q1 to 2017 Q1. The data include counts of applications submitted and determined eligible as well as the number of loans actually purchased by the GSEs, broken down by various loan and borrower characteristics.

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324 Loan-level data were found for 43 of the 52 non-QM securities on the Bloomberg Terminal. To determine the loan-level QM status for these 43 securities, the data were matched to due diligence reports from the EDGAR database at SEC.gov of which 11 securities matched fully containing 5,378 loans (Not covered/Exempt loans were removed).

325 There were 165 loans that were QM with a rebuttable presumption. The estimated premium was 100 basis points over safe harbor QM loans.

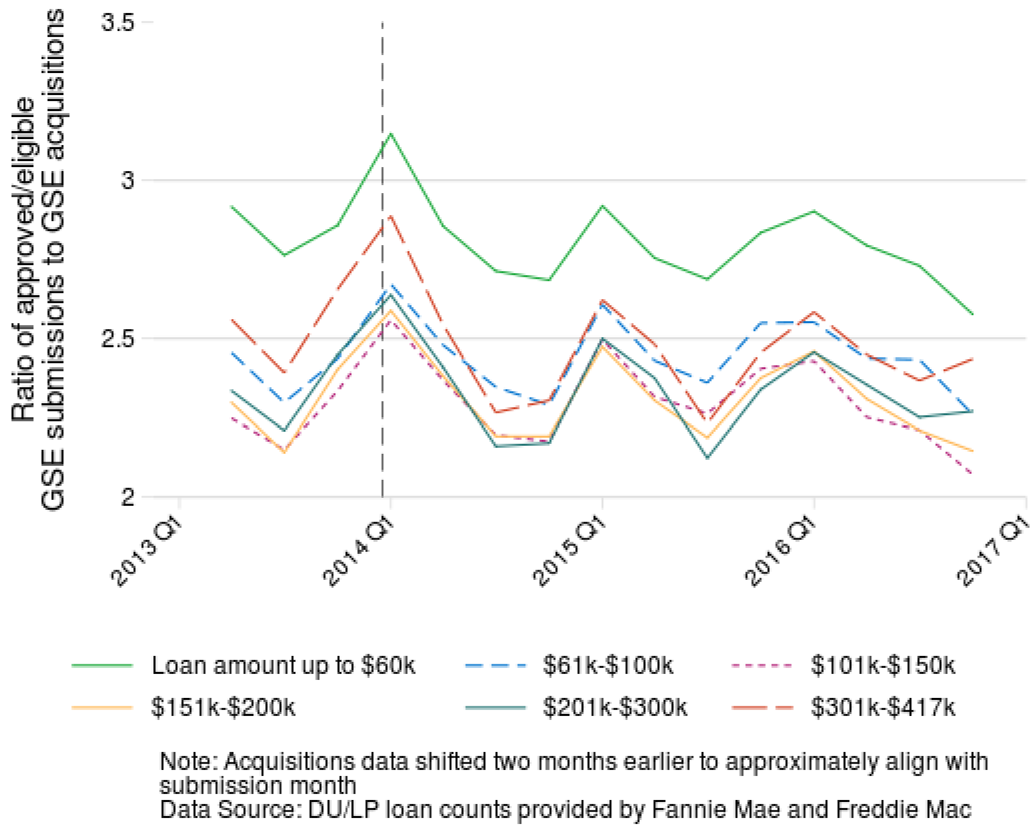
326 *See, e.g.*, Laurie Goodman, *The Rebirth of Securitization: Where is the Private-Label Mortgage Market*, (Hous. Fin. Pol'y Ctr., Urb. Inst., Research Paper, 2015), *available at* https://www.urban.org/research/publication/rebirth-securitization-where-private-label-mortgage-market/view/full_report; *see also* Azar Abramov et al., Private-Label Mortgage Securitization Market Challenges and the Implications for Insurers and Insurance Regulation, (Nat'l Ass'n of Insurance Comm'rs, CIPR Study Series 2016–2, 2016), *available at* http://www.naic.org/documents/cipr_study_161208_private-label_mortgage_securitization.pdf.

Given that any loans eligible to be purchased by the GSEs are QM under the Temporary GSE QM, the data on eligible submissions to the GSEs' AUSs are used to assess whether lenders responded to the rule by submitting additional loans to the AUSs beyond those intended to be sold to the GSEs. Such a response could occur if lenders perceived the GSEs' AUSs as a preferable method of establishing a loan's QM status, compared to General QM underwriting requirements, either for loans originated for sale or for loans originate to be held on portfolio. Such a response also could occur if lenders perceived the safe harbor or presumption of the Temporary GSE exemption as preferable to underwriting under the ATR requirements. If lenders used the Temporary GSE QM in either or both of these ways, it would be reflected in increased submissions to the GSEs' AUSs relative to measures of total loan applications or total GSE purchases (under an assumption these are unaffected by the Rule). Further, any such increases should be strongest for loans which may be more difficult to underwrite under the General QM or ATR requirements.

Aggregating the submission and purchase data, Figure 63 shows the ratio of loans purchased by the GSEs to eligible submissions to the GSEs from 2013 Q1 through 2016 Q4 by loan amount bin, where purchases are shifted two months earlier (*i.e.*, 2013 acquisitions for June, July, and August are plotted in line with 2013 Q2 submissions to account for the lag between submissions and purchases).[327] If lenders responded to the Rule by submitting additional loans to the AUSs without increasing their sales to the GSEs, this ratio would be expected to fall. In contrast, the figure shows that while the ratio of purchases to eligible submissions varies with loan amount and fluctuates from quarter-to-quarter, the aggregate level remained fairly stable over the period observed.

[327] Individual submissions and purchases cannot be observed or linked in the data, and it is common for loans to be purchased several months after they were submitted. For this reason, the figures in this chapter shift acquisitions two months earlier, to better align the submissions to their eventual purchases. Since only the submission dates are available for submissions, and only acquisition dates are available for purchased loans, the ratio of submissions to purchases within a given quarter will reflect some spillovers of submissions and purchases from the prior and following quarters.

FIGURE 63: RATIO OF APPROVED/ELIGIBLE GSE SUBMISSIONS TO GSE PURCHASES, BY LOAN AMOUNT, 2013 TO 2016

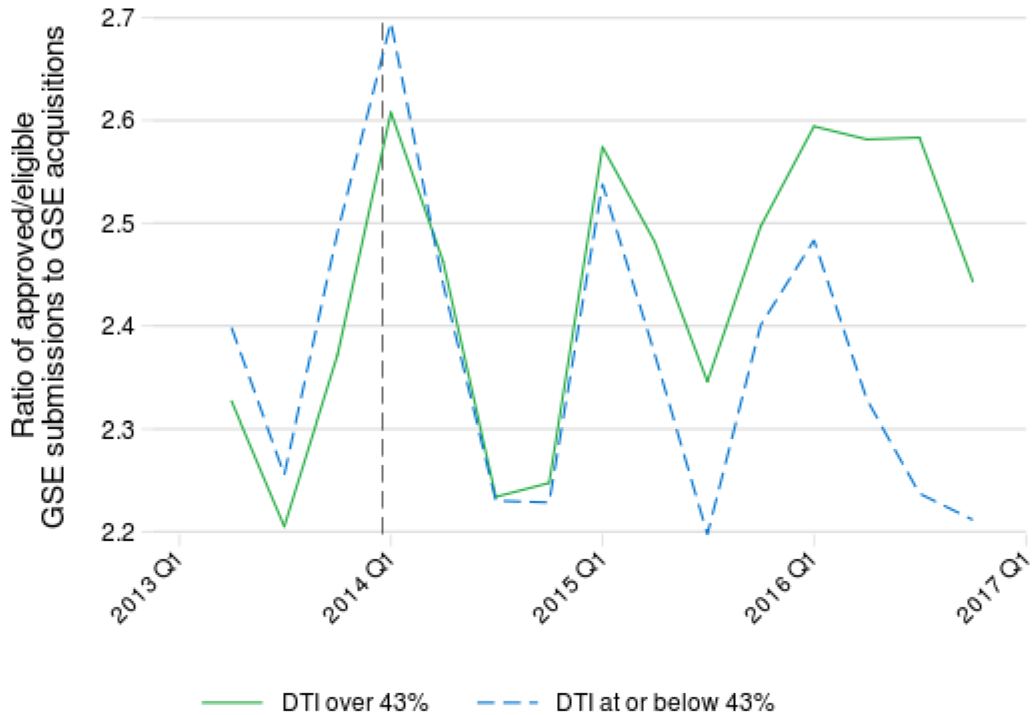


While Figure 63 does not provide evidence of any aggregate shifts in the use of the GSEs' AUSs, lenders' incentive to respond may be strongest for loans which are either definitively not General QM (*e.g.*, DTI over 43 percent) or those loans for which Appendix Q underwriting requirements may be most difficult (*e.g.*, self-employed borrowers). In qualitative responses to the Bureau's Lender Survey, underwriting for self-employed borrowers was one of the most frequently reported sources of difficulty in originating mortgages using Appendix Q, and 61 respondents reported making changes to income documentation requirements for self-employed borrowers. The Bureau also received numerous comments stating that Appendix Q was ambiguous regarding how to account for particular sources of income and recurring expenses in calculating DTI. These examples typically involve borrowers who are self-employed, have irregular income, or wanted to use asset depletion as income.[328] When considering these

[328] Commenters also described the documentation and certain other requirements as ambiguous or overly restrictive. *See, e.g.*, Comment letter from Structured Fin. Indus. Grp. (July 31, 2017); Comment letter from Teacher's Ins. and

effects, it is important to keep in mind the results of Section 5.3.6 that imply that an adverse differential effect on the approval rate of self-employed applicants in response to the Rule is present but limited.

FIGURE 64: RATIO OF APPROVED/ELIGIBLE GSE SUBMISSIONS TO GSE PURCHASES, SPLIT BY DTI BINS, LOANS UNDER $417,000



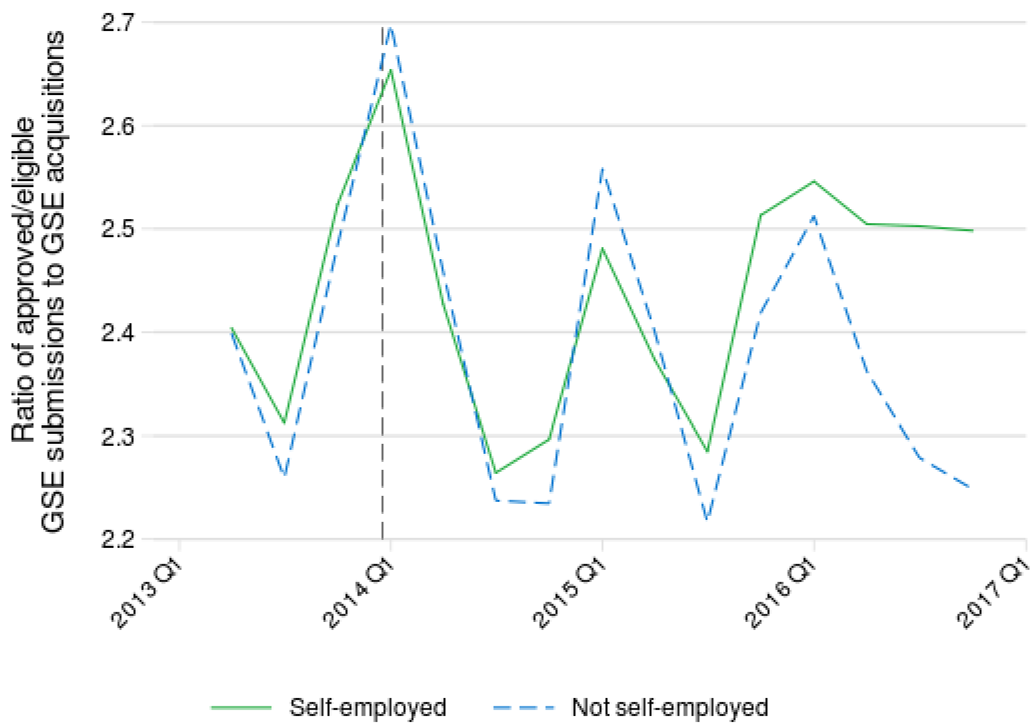
Note: Acquisitions data shifted two months earlier to approximately align with submission month
Data Source: DU/LP loan counts provided by Fannie Mae and Freddie Mac

Figure 64 shows the ratio of eligible submissions to GSE purchases for loans split between those with DTIs above 43 percent versus those at or below 43 percent, while Figure 65 shows the same ratio for self-employed borrowers relative to those who are not self-employed. In Figure 64, the ratios for DTIs exceeding 43 percent increase relative to those below 43 percent over time. Figure 65 shows more limited differences between ratios for self-employed and not self-employed borrowers, though with a relative increase in the ratio for self-employed borrowers potentially emerging by the end of 2016. With the caveat that these patterns likely reflect a mix

Annuity Ass'n, (July 31, 2017); Comment letter from JPMorgan Chase Bank, (July 31, 2017) (See Appendix B for further details.).

of market trends, the findings are consistent with somewhat higher use of the GSEs' AUSs for loans which do not fit within (or are more difficult to document within) the General QM underwriting standards.

FIGURE 65: RATIO OF APPROVED/ELIGIBLE GSE SUBMISSIONS TO GSE PURCHASES, SPLIT BY SELF-EMPLOYMENT INCOME, LOANS UNDER $417,000



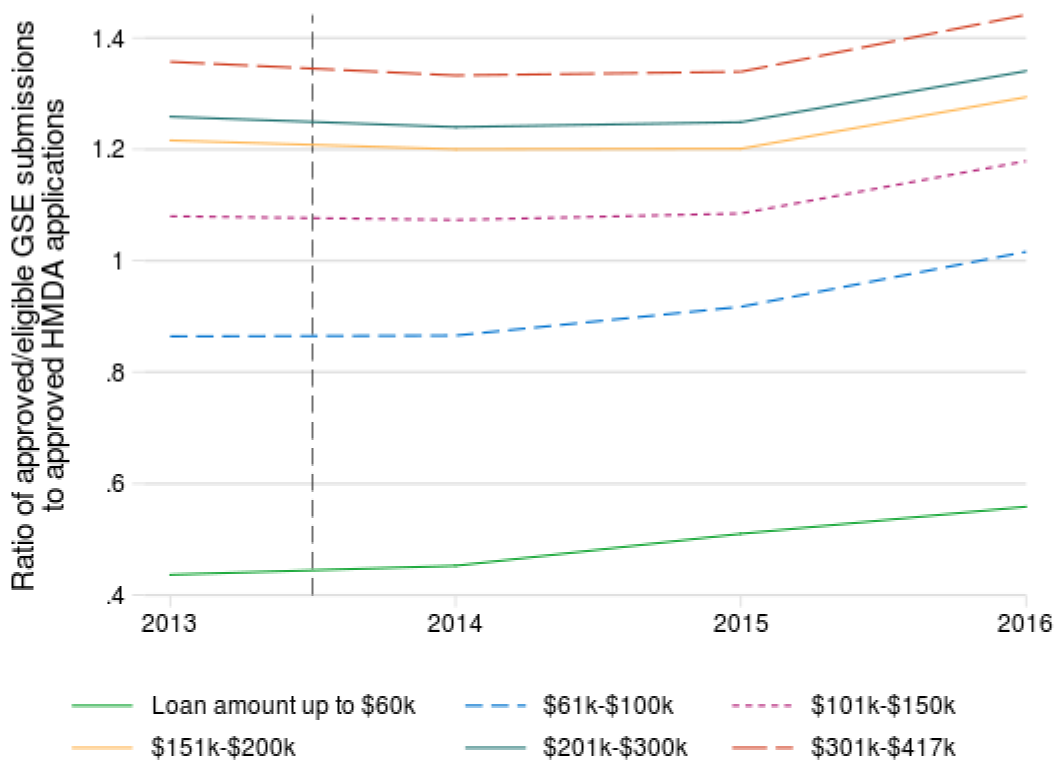
Note: Acquisitions data shifted two months earlier to approximately align with submission month
Data Source: DU/LP loan counts provided by Fannie Mae and Freddie Mac

Finally, given the possibility of changes in the propensity of lenders to sell loans to the GSEs at the time the Rule was implemented (which would affect the denominator of the ratios in the previous figures), Figure 66 assesses the trend in eligible GSE AUS submissions relative to the number of approved conventional, conforming applications in HMDA, with both samples restricted to purchase loans at or below $417,000.[329] By comparing eligible submission to all HMDA-reported, conventional conforming loans, this measure captures both changes in the propensity to submit loans to the GSEs' AUS, as well as any market shifts towards (or away

329 A comparable comparison for submissions with DTI over 43 percent or self-employed borrowers similar to Figures 64 and 65 is not possible for these groups, as they are not distinguished in the HMDA data.

from) loan products typically sold to the GSEs. As with the preceding figures, these ratios can exceed one, as borrowers may shop between multiple loans before (or without) originating a loan.[330] The data show a relatively steady pattern of submissions to approved applications from 2013 to 2014, followed by an increase in submissions to approved applications in the years that follow. This potential longer-run market pattern of increased overall submissions to the GSEs' AUSs, coupled with the persistent share of eligible loans actually sold to the GSEs, suggests that lenders generally have not decreased their use of the Temporary GSE QM in the non-jumbo conventional market segment in the years following the implementation of the Rule. Rather, the evidence as a whole suggests that lenders may be increasingly taking advantage of the provisions in certain market segments even with respect to loans that are not sold to the GSEs.

FIGURE 66: RATIO OF GSE APPOVED/ELIGIBLE AUS SUBMISSIONS TO APPROVED HMDA CONVENTIONAL APPLICATIONS, BY LOAN AMOUNT, 2013 TO 2016



Data Source: DU/LP loan counts provided by Fannie Mae and Freddie Mac; HMDA

330 The submissions data have been de-duplicated, meaning that if multiple submissions were received for a given borrower attempting to take out a single loan, only the last submission is kept in the data.

6.4 Meeting the goals of the QM requirements

6.4.1 Access to responsible credit that consumers have the ability to repay

Although a robust market outside of the qualified mortgage space has not emerged, the mortgage market has successfully maintained fairly broad credit access, including maintaining or exceeding the preexisting 18 to 22 percent range of originations above 43 percent DTI after the implementation of the Rule.[331] Other QM provisions, including those that allowed more flexibility for portfolio originations by small creditors, may also have supported this market stability. The market as a whole has experienced minimal disruption, as evidenced in Chapter 3's market overview. Chapters 4, 5, and 7 present evidence on potential access to credit issues affecting narrower segments of the market.

6.4.2 Providing a clear QM framework

The Bureau adopted a specific debt-to-income ratio threshold in General QM because it viewed the approach as providing a clear, bright line criterion for a qualified mortgage that ensured that lenders in fact evaluate consumers' ability to repay qualified mortgages while also providing certainty for lenders, assignees, and investors in the secondary market.[332] However, as documented in the multiple comment letters and survey responses received by the Bureau citing specific challenges and seeking additional clarity regarding Appendix Q's requirements, there is sometimes no bright line criterion a lender can use to assess whether the amounts used for monthly income and for monthly debt are in compliance with Appendix Q.[333]

To be sure, lenders may also experience difficulties when they attempt to interpret the method of calculating income and debt in compliance with GSE standards. However, the industry has had more experience with these GSE standards and more tools available for the resolution of interpretive uncertainty. Thus the use of the GSEs adds compliance certainty for loans that could also satisfy the General QM test, and for high DTI loans the Temporary GSE QM provides

331 78 Fed. Reg. 6408, 6527, 6569 (Jan. 30, 2013).

332 *Id.* at 6527.

333 *See* Appendix B.

the only means of compliance certainty. These factors may have contributed to investors' persistent preference for GSE-guaranteed loans as well as to creditors increased use of GSE underwriting for certain categories of loans, their reluctance to originate non-QM loans, and their shift away from high-DTI loans in the non-GSE eligible space.

6.4.3 Supporting the emergence of a non-QM market

Chapter 5.1 discusses the origination of high-DTI (non-GSE eligible) loans. Given available data, this is the only sizeable segment of non-QM loans that it is possible to identify with any certainty, and even this segment represents only 1 to 2 percent of the market. The analysis finds that among the lenders supplying the Application Data, around two thirds of the purchase loans in this specific segment were eliminated following the implementation of the Rule. Further, as discussed above, a vibrant primary and secondary market for non-QM loans was a goal of the Rule, but does not yet exist.

Overall, it is possible that the breadth of the Temporary GSE QM category in itself is inhibiting the growth of the non-QM market. However it is also possible that this market might not exist even with a narrower Temporary GSE QM category and narrower Federal Agency QM category, if borrowers were not willing to pay the price required for the potential litigation risk associated with non-QM loans, or lenders were unwilling or lacked the funding to make such loans. Commenters on the RFI stated that creditors and investors are uncertain as to how individual judges might interpret the standards that exist in the ATR regulations, and that there is little litigation experience with which to guide the identification of legal risks. As a result, they claim that it is not possible to measure this risk and consider whether it leads to pricing above the amount that prospective borrowers for whom a non-QM loan is the only option would pay.

6.4.4 Innovation

As discussed previously, when establishing the General QM presumption of ATR compliance standard, the Bureau sought to strike a balance between appropriate lending and innovation. The Bureau expected that private mortgage market participants would innovate at least in the non-QM space. Innovation could also occur in the General QM space with respect to underwriting approaches that would be consistent with the General QM criteria.

The original proposal of the Rule contained a comment that indicated that lenders could look to widely accepted governmental or nongovernmental underwriting standards to evaluate a consumers ability to repay.[334] The proposed comment was not adopted because the Bureau concluded that an emphasis on widely accepted underwriting standards could distract lenders from ability-to-repay determinations that are reasonable and in good faith, hinder lenders' ability to respond to changing market and economic conditions, and stifle market growth and positive innovation.[335] In the final rule, the Bureau emphasized that lenders were permitted to develop and apply their own proprietary underwriting standards and to make changes to those standards over time in response to empirical information and changing economic and other conditions.[336] Nevertheless, the vast majority of loans are originated as QMs: as discussed in Section 6.1, three quarters of current originations are GSE and Federal Agency loans.

Innovation is occurring in the mortgage market under the umbrella of the Temporary GSE QM. For example, the GSEs are providing pre-closing assurances of purchase that rely upon automated verifications and validations.[337] Fannie Mae has a program that "allows lenders to validate a borrower's income, assets, and employment with a single report from a single approved vendor that the lender chooses."[338] The Temporary GSE QM does not require that these new methods of income verification and calculation be compliant with Appendix Q, and it would be difficult for a creditor to determine if they were, as much of the underlying requirements and technical specifications are maintained under proprietary confidentiality between the vendors and the GSEs. Similarly, while a private investor or lender could seek to originate and privately securitize mortgage loans using these same innovations, the complexity of the GSE-approved methods, at least in some cases, and the fact that these methods are private, would make it difficult for an entity to know if the loan was in fact eligible for purchase by the GSEs. These constraints may explain, at least in part, why innovation in one segment of the market does not appear to have spurred growth and innovation in others.

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334 Proposed Supplement I to Part 1026—Official Interpretations, Paragraph 43(c)–1, at 76 Fed. Reg. 27390, 27492 (May 11, 2011).

335 78 Fed. Reg. 6408, 6461 (Jan. 30. 2013).

336 Id.

337 Michal Tucker, *Fannie Mae, Freddie Mac Tout New Programs to Boost Access to Credit*, Newslink (Oct. 25, 2016), *available at* https://www.mba.org/servicing-newslink/2016/october/servicing-newslink-10-25-16/news-and-trends/fannie-mae-freddie-mac-tout-new-programs-to-boost-access-to-credit.

338 Kelsey Ramirez, Fannie Mae Reveals Major Upgrade to its Day 1 Certainty Product: Here are the Companies Involved in the Pilot Program, HousingWire (Oct. 23, 2017), available at https://www.housingwire.com/articles/41638-fannie-mae-reveals-major-upgrade-to-its-day-1-certainty-product.

7. Analysis of the small creditor QM category

This chapter considers the Rule's Small Creditor QM category and the associated asset and origination requirements and explores whether these thresholds are influencing lender behavior. This section also analyzes to what extent, if any, small creditors moved in and out of the Small Creditor definitions and also looks at their lending activity in rural and underserved counties.

Main findings in this chapter include the following:

- There was no bunching of small creditors just below the loan thresholds defining a small creditor as most small creditors fell well below the 500-loan threshold that was in effect in 2014 and 2015 and the amended 2,000 loan threshold that took effect in March 2016.

- The geographic market coverage of small creditors increased substantially with the new 2,000 loan threshold in the March 2016 amendment to the Rule. The number of counties served and the market share held by small creditors within individual counties increased in 2016 compared to 2014 allowing for more lenders to qualify as small creditors and increasing access to credit for borrowers in rural and underserved areas who have DTIs above 43 percent.

- From 2012 to 2015, the share of depository institutions that met the definition of small creditor ranged from 81 percent to 86 percent although the share of loans made by these creditors ranged from 12 percent to 16 percent. In 2016, when a broader definition of small creditor took effect, the share of depositories that were small creditors increased to 89 percent and their share of loans increased to 24 percent.

- There are systematic differences in the loans made by small and non-small depository institutions. Small creditors hold a larger share of their originations in portfolio, although there was a noticeable decline in the share of portfolio loans made by small creditors in 2016 which coincided with the change in the definition of small creditor.

Similarly, a larger share of small creditor mortgages are made in rural counties or for manufactured housing.

- Results from the CSBS survey show that small creditors declined a smaller percentage of applications than larger creditors. To the extent small creditors declined applications, these creditors were less likely to attribute their denial to the requirements of the Rule than larger creditors.

7.1 Background

The Rule contains provisions directed at smaller lending institutions, including provisions that are meant to preserve access to mortgage credit in rural and underserved areas. Lenders who meet certain asset and origination criteria are considered to be "small creditors" and can originate loans that are classified as Qualified Mortgages (QM) even if they contain characteristics or are underwritten in a manner that would otherwise render them non-QM loans.[339]

In addition to loans that meet standard QM definitions, small creditors can originate Small Creditor QM loans and small creditors who operate in rural and underserved areas can originate Small Creditor QM Balloon loans. While these loans must meet many of the standard QM criteria, they have a higher threshold to be considered higher priced for purposes of determining whether they qualify for the QM safe harbor.[340] They are also not subject to the 43 percent DTI limit nor are they required to use Appendix Q to calculate debt and income.[341] Small creditors who operate in rural or undeserved areas can originate certain loans with a balloon payment that are still considered to be QM provided they meet other QM criteria.[342] Finally, Small

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339 The focus of this chapter is on "small creditors" as defined under 1026.35(b)(2)(iii)(B) and (C) and 12 C.F.R. § 1026.43(e)(5).This chapter also discusses "rural small creditors," which are small creditors that operate in a rural or underserved area and can make Small Creditor Balloon QMs. *See* 12 C.F.R. § 1026.35(b)(2)(iii)(A)–(C) and 1026.43(f).

340 QM mortgages are generally considered to be higher priced if they have an APR that exceeds the applicable APOR by at least 1.5 percentage points for first-lien loans and at least 3.5 percentage points for subordinate-lien loans. In contrast, Small Creditor QM loans, including balloons, are only considered higher priced if the APR exceeds APOR by at least 3.5 percentage points for either a first- or subordinate-lien loan. 12 C.F.R. § 1026.43(b)(4). QMs which are higher priced enjoy only a rebuttable presumption of compliance with the ATR requirements, whereas QMs which are not higher priced enjoy a safe harbor.

341 12 C.F.R. § 1026.43(e)(5)(i)(A).

342 For example, Small Creditor Balloon QM loans may not have negative-amortization or interest-only features and must comply with the points and fees limits to which other QM loans are subject. In addition, Small Creditor Balloon QM loans must carry a fixed interest rate, payments other than the balloon must fully amortize the loan

Creditor QM loans and Small Creditor QM Balloon loans must be held in portfolio for three years.[343] This section does not analyze the Small Creditor Balloon QM category specifically but does look into rural lending by small creditor status.[344]

As noted above, lenders must be within certain asset and origination thresholds to be considered small creditors.[345] These thresholds have been modified over time as shown in Table 36. For example, when the Rule was first implemented in 2014, small creditors were defined as lenders that originated 500 or fewer loans (including loans originated by any affiliates) and had assets of no more than $2 billion (not including the assets of any affiliates) in the previous calendar year.[346] The asset threshold is adjusted annually for inflation.

The small creditor criteria were amended along three dimensions with the changes becoming effective in 2016.[347] First, lenders who originated up to 2,000 loans could be considered small creditors. Second, any loans held in the lender's portfolio were exempt from the 2,000 loan limit. Third, the asset threshold was required to include the assets of any affiliates. Again, these changes became effective in 2016 with a grace period for small creditors who may move out of small creditor status due to the change.

TABLE 36: SMALL CREDITOR QM CATEGORY REQUIREMENTS

Year	Origination Threshold	Include Affiliate Originations?	Exclude Portfolio Loans?	Asset Threshold	Include Affiliate Assets?
2014	500	Yes	No	$2 billion	No
2015	500	Yes	No	$2.06 billion	No
2016	2,000	Yes	Yes	$2.052 billion	Yes

This chapter makes use of both administrative and survey data to report trends in lending among institutions classified as small creditors. The first section of the analysis uses data

over 30 years or less, and the loan term must be at least five years. The lender must determine the borrower's ability to make periodic payments other than the balloon and verify income and assets.

343 12 C.F.R. § 1026.43(e)(5)(ii); 12 C.F.R. § 1026.43(f)(2).

344 See Section 8.2 for a discussion on balloon loans based on the results of the Bureau's lender survey.

345 12 C.F.R. § 1026.43(e)(5)(i)(D) (cross-referencing 12 C.F.R. § 1026.35(b)(2)(iii)(B)–(C)).

346 12 C.F.R. § 1026.35(b)(2)(iii)(B) and (C), January 1, 2015 edition.

347 12 C.F.R. § 1026.35(b)(2)(iii)(B)–(C) (as amended at 81 Fed. Reg. 16074 (Mar. 25, 2016)).

reported under HMDA to estimate the number of small creditors among HMDA reporting institutions. The HMDA data are also used to examine lending behavior before and after the Rule. The second section makes use of the CSBS survey data as described in Chapter 1 to understand how small creditors are engaging in the origination of qualified mortgages.

7.2 Analysis using HMDA data

The first section of the HMDA analysis describes the data and methods used to estimate the number of small creditors who report HMDA data and to analyze the impact, if any, the Rule had on these lenders and the borrowers they serve. The second section focuses on estimating the share of mortgage lenders that may meet the small creditor criteria before and after the Rule's implementation in 2014 using administrative data.[348] The prevalence and type of mortgage lenders that met the small creditor requirements over this time period and the extent to which mortgage lenders moved between size groups are also reported.

The next section examines whether the distribution of lenders by the number of covered loans they originate changed over time in response to the Rule and provides a summary of findings on mortgage origination activity for lenders below and above the origination threshold.[349] This section also shows portfolio lending activity and, for loans sold in the secondary market, the typical type of purchaser broken down by small creditor status. The last section provides an analysis on the role that small creditors play in rural counties and in other housing markets, such as in manufactured home lending.

Overall, small creditors account for a large portion of mortgage lenders and a small but growing share of loans. The data provide evidence that the share of small lenders has been growing over the period of analysis used in this section. The analysis shows that most lenders in the data that may meet the small creditor criteria are well within the origination and asset thresholds.

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[348] Results reported for small creditors in years before the ATR/QM Rule took effect use the small creditor thresholds in effect in 2014 to classify lenders as small creditors. As noted in the next section, assets and originations are used to determine which lenders in the data would qualify as "small creditors." However, "small creditors" as defined in this analysis may differ from the lender's actual status.

[349] The analyses in this chapter focus on HMDA data for first-lien purchase mortgages on 1-4 unit single-family properties when observing origination trends.

7.2.1 Data and methods

This analysis uses the non-public HMDA data described in Chapter 1.[350] In the context of this chapter, any reference to "lender(s)" or "creditor(s)" only refers to HMDA reporting lenders. Estimates of small lenders in this analysis are not the complete universe of mortgage originators. The Bureau estimates that there are over 4,000 depository institutions which originate mortgages but are not HMDA reporters. Most, if not all, of HMDA non-reporters would qualify as small creditors due to their small size.[351]

To estimate asset levels, data from the Federal Financial Institutions Examinations Council (FFIEC)[352] and National Credit Union Administration (NCUA)[353] are used. Asset data on banks and credit unions are matched to loan counts for HMDA reporting institutions. Using the matched data, small creditor status is defined for each year between 2012 and 2016 based on the requirements in Table 36.[354] Any affiliates of a lender are identified as such in HMDA and are included in the calculation of a lender's prior year originations that go into the small creditor determination for all years between 2012 and 2016. The origination count is determined based on the institution's prior year covered mortgage transactions in HMDA data that are subject to the ATR/QM Rule. Covered transactions in HMDA are identified as first-lien purchase and refinance originations on owner-occupied site-built and manufactured housing properties. Current year asset holdings are determined based on total assets from the last quarter of the

350 HMDA requires covered depository and non-depository institutions to collect and publicly disclose information about applications and originations of mortgage loans used to purchase a home, refinance an existing mortgage loan, or for home improvement purposes. For more information on HMDA data and reporting. *See* Fed. Fin. Insts. Examination Council, *A Guide to HMDA Reporting: Getting it Right!*, *available at* https://www.ffiec.gov/hmda/guide.htm (effective Jan. 1, 2018).

351 In a separate analysis, the Bureau estimated the universe of mortgage lenders using HMDA and Call Report data. The analysis estimates that the universe of mortgage lenders in 2016 was 11,656 that includes HMDA reporters and lenders that did not meet the reporting requirements for HMDA due to their size but still originated mortgage loans. Of this estimate, there were roughly 4,892 mortgage lenders who did not report HMDA data and 9,106 lenders considered to be small based on the ATR/QM definitions, suggesting that the analysis of HMDA data in this report is limited to about 56 percent of all estimated small creditors.

352 Every national bank, state member bank, and insured nonmember bank is required by its primary federal regulator to file a Call Report as of the close of business on the last day of each calendar quarter. The specific reporting requirements depend upon the size of the bank and whether it has any foreign offices.

353 The NCUA Call Report includes data on all federally insured credit unions. These credit unions make up 98 percent of all credit unions and 99 percent of all insured deposits in credit unions. *See* U.S. Gov't Accountability Office, GAO–17–259, *Private Deposit Insurance: Credit Unions Largely Complied with Disclosure Rules But Rules Should be Clarified*, at 5, Figure 1 (2017), *available at* https://www.gao.gov/assets/690/683779.pdf.

354 Although the Rule was not implemented until January 10, 2014, lenders are retroactively identified as small creditors in 2012 and 2013 if they met the requirements in the respective previous years to analyze how the new Small Creditor QM status may have changed lenders' behaviors after implementation.

preceding year using the matched FFIEC and NCUA data. Assets of a lender's affiliates in 2016 are combined when determining small creditor status in that year. All prior year's assets from affiliates are not included in a lender's asset holdings.[355] Finally, the primary sample consists of depository institutions (i.e., banks and credit unions).[356] For purpose of this analysis, banks and credit unions are not broken out separately.[357, 358]

Estimates of small creditors within this analysis do not represent the universe of small creditors due to data limitations associated with how HMDA data are collected and reported. Creditors are required to report under HMDA only if they have assets above a specified threshold and a home or branch office within a metropolitan area. These non-reporters are excluded from the analysis that follows. Other limitations may lead to underestimating[359] or overestimating[360] when determining a lender's small creditor status in HMDA although the aforementioned limitation results in an overall underestimation of small creditors.

7.2.2 Distribution of mortgage lenders by size over time

Within the HMDA data, most mortgage lenders are small institutions, but the share of origination volume accounted for by these institutions is small. The majority of mortgage loans are originated by the relatively few large lenders.

Table 37 reports estimates of small creditor status. The table indicates that at least a large majority of lenders in the sample likely met the small creditor criteria during the 2012-2016

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355 Small creditors in 2016 are estimated in two ways–(1) using the amended 2016 thresholds, denoted as 2016b in this chapter and; (2) using the 2015 thresholds to estimate the number of small creditors in 2016 in the absence of the 2016 threshold amendments denoted as 2016a. If 2016a or 2016b is not specified in a table or figure, the 2016 amendments were used.

356 Non-depositories (*e.g.*, independent brokers and affiliated lenders) are excluded from the analysis because they are not expected to benefit from small creditor status. Small Creditor QM loans require the lender to hold the loan on portfolio for a three year period. Non-depositories do not hold loans on portfolio and, therefore, are not expected to originate Small Creditor QM loans.

357 For summary statistics on market share, average costs and profits over time for credit unions, see *https://www.ncua.gov/analysis/Pages/industry/fact-sheets.aspx*.

358 For additional analysis on the impacts the Rule may have had on credit unions specifically, *see* https://www.nafcu.org/research/reportoncreditunions-archive; *see also* Appendix B.

359 Small creditor status may be underestimated is due to dwelling size classifications. Single-family housing units are defined as one to four unit properties in the HMDA data. The small creditor exemption only applies to single-unit homes. This difference would increase the number of lenders that fall above the origination threshold and, therefore, reduces the number of small creditors observed in the data.

360 Overestimation may occur in 2016 as some affiliates of HMDA reporters may not show up in the data and thus cannot be included in the overall origination amounts in that year.

time period. In 2016, 89 percent of HMDA depository institutions were small creditors but made up only 24 percent of the total count of mortgage originations in that year. The share of depository institutions in the data that met the small creditor criteria ranged from 81 percent to 86 percent between 2012 and 2015, although most of the change in share was attributable to a decrease in the total number of lenders reporting HMDA data. Notably, there was an increase to 89 percent in 2016 due to the origination threshold change that took effect in 2016 (see Table 36). Before 2016, the share of loans originated by small creditors ranged from 12 to 14 percent but then rose to 24 percent in 2016. As described earlier, the origination threshold increased from 500 to 2,000 in 2016, with loans held in portfolio no longer counting towards this limit. On the other hand, all affiliates' assets were now taken into account for the asset threshold, which stood at just over $2 billion in both 2015 and 2016. Without the 2016 amendment increasing the origination threshold, the number of small creditors would have decreased by 267 and the number of non-small creditors would have risen by 83 lenders. The absolute number of small creditors also increased from 2014 to 2016 while the overall number of mortgage lenders in the data declined.[361]

TABLE 37: ESTIMATED NUMBER OF HMDA-REPORTING MORTGAGE LENDERS WHO MET THE SMALL CREDITOR CRITERIA, 2012-2016

	2012	2013	2014	2015	2016a	2016b
Total Non-Small Lenders (number)	976	1,152	1,067	806	889	619
Non-Small Lenders (share of loans)	86%	88%	86%	84%	86%	76%
Total Small Lenders (number)	5,408	5,066	5,047	5,128	4,860	5,130
Small Lenders (share of loans)	14%	12%	14%	16%	14%	24%
Total Lenders	**6,384**	**6,218**	**6,114**	**5,934**	**5,749**	**5,749**

Note: 2016a uses the 2015 amendments to while 2016b uses the 2016 amendments.

7.2.3 Small creditor originations

Next, the analysis reports the distribution of the number of covered originations across lenders. Shifts in the distribution of loan originations -after the Rule may provide evidence that lending

[361] Commenters provided CUNA Mutual Group's Credit Union Trends Report (2017) for overall trends in credit unions, *available at* https://www.cunamutual.com/resource-library/insights/industry/credit-union-trends-report?shortURL=https://www.cunamutual.com/resource-library/publications/credit-union-trends-report. *See also* Appendix B.

institutions are sensitive to the originations threshold that determines small creditor status. For example, changes in origination behavior after the Rule might be observed through bunching in the distribution of originations suggesting that lenders changed their lending activity to fall below the origination threshold. Alternatively, the data may show evidence of a concentration of institutions just below the covered origination threshold.[362]

Figures 67 and 68 are overlaid origination distributions that show that the majority of lenders in the data originated fewer than 500 loans annually during the 2013-2016 time periods. A smaller number of lenders in the data originated 500-1,000 loans, and originating over 1,000 loans annually is far less common.[363] There is a dip in the number of lenders in the data who originated fewer than 100 loans in 2015 compared to 2016 (Figure 64). Overall, when comparing 2013 to 2014 and 2015 to 2016, the distributions have little variation over time.

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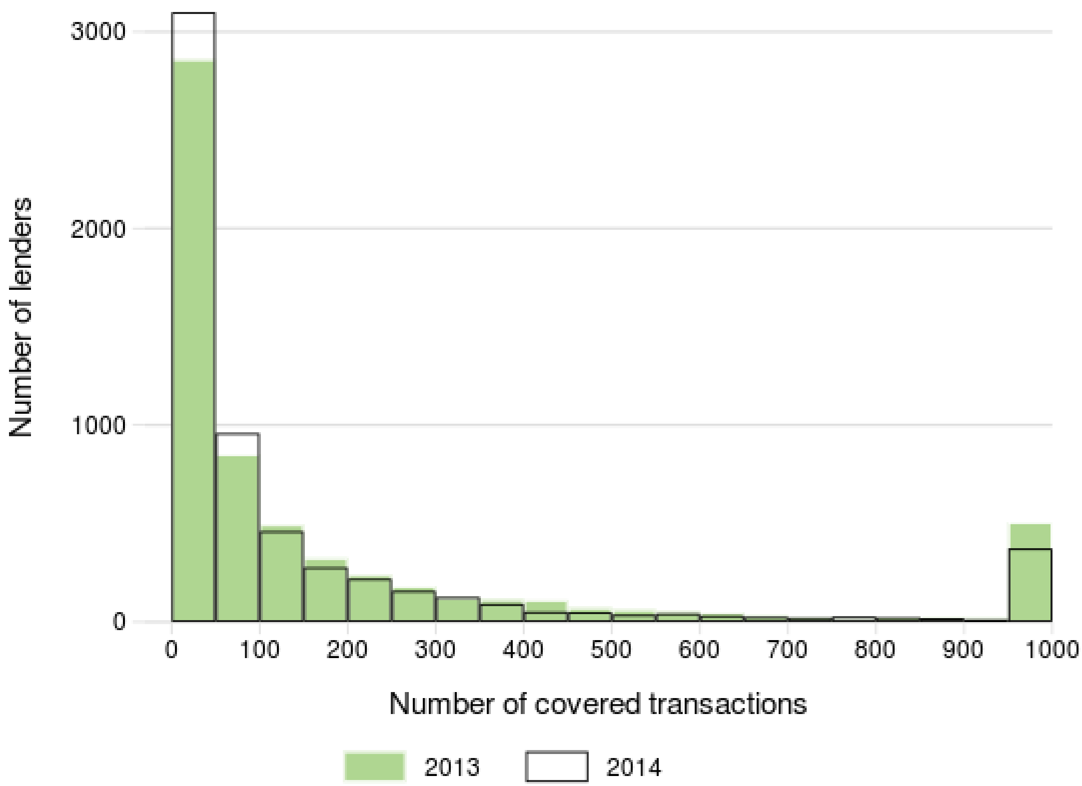
[362] In a similar analysis (not shown here), no evidence was found to support lender sensitivity to both the originations and asset threshold. Few lenders were within ± 20 percent of the origination threshold and ± 25 percent of the asset threshold.

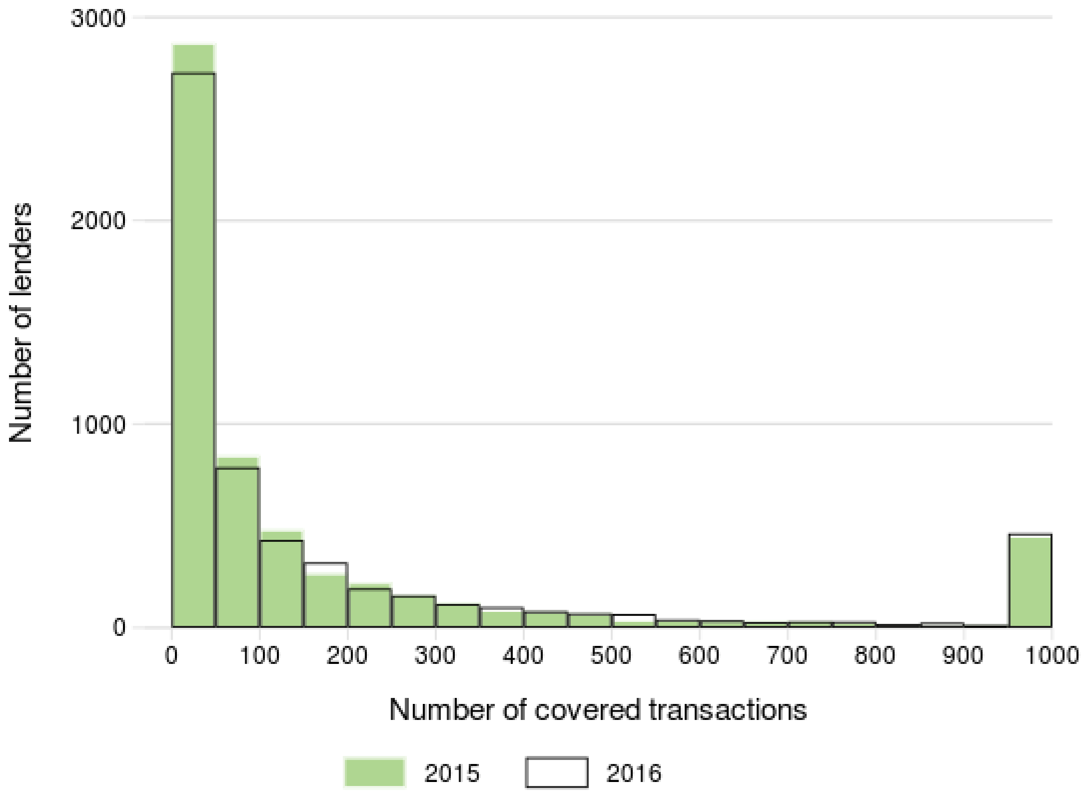
[363] The data for Figures 67 and 68 are top-coded at a value of 1,000 loans originated.

FIGURE 67: DISTRIBUTION OF THE NUMBER OF ORIGINATIONS PER MORTGAGE LENDER, 2013 AND 2014



Data source: Home Mortgage Disclosure Act

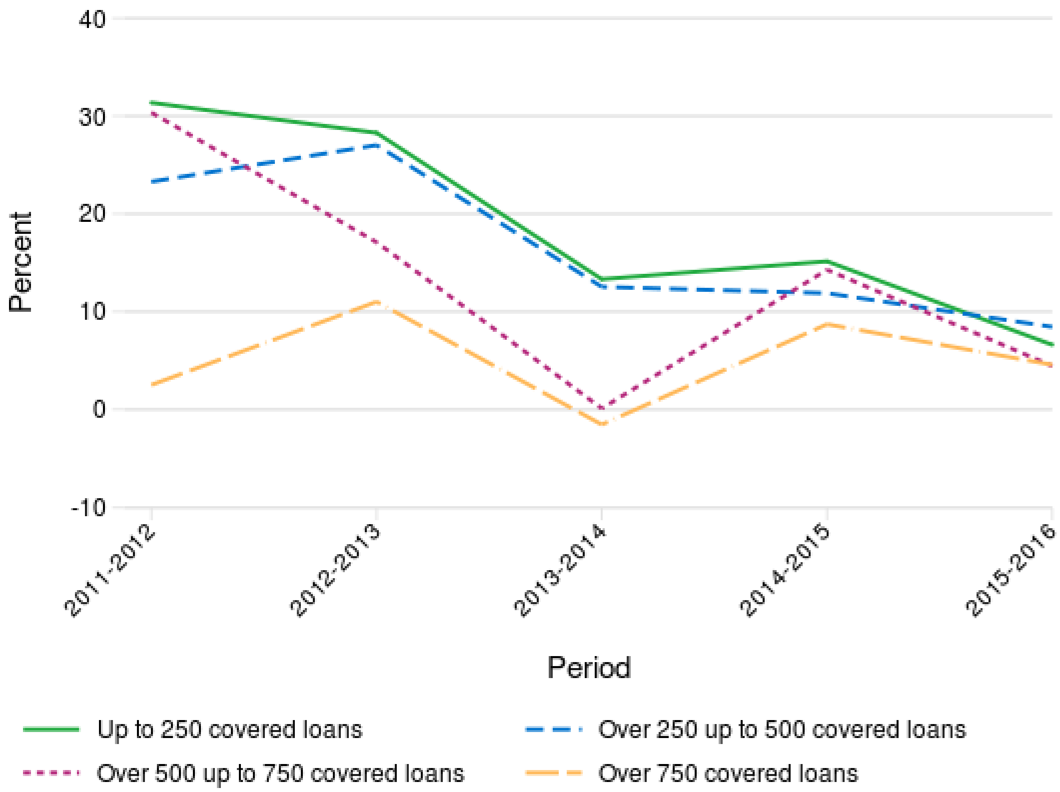
FIGURE 68: DISTRIBUTION OF THE NUMBER OF ORIGINATIONS PER MORTGAGE LENDER, 2015 AND 2016



Data source: Home Mortgage Disclosure Act

Next the analysis provides time series evidence on originations growth for depository institutions that are just below and above the origination threshold. If lenders are reducing originations in order to stay or become a small creditor, there would be evidence of bunching just around the thresholds. To analysis this, lenders are placed into loan groups based on their originations that were used to determine small creditor status according to the Rule (see Section 7.2.1). The loan groups are as follows for covered loans: 1) up to 250 covered loans; 2) over 250 and up to 500; 3) over 500 but up to 750; and 4) over 750 covered loans. Figure 69 reports the growth rates in mortgage originations for lenders by these loan groups. Overall, lenders in all four groups exhibit a similar trend in origination growth. Origination growth decreases for all groups between the 2013 and 2014 periods. Growth picked up after 2014 but then declined slightly in 2016. As there are no clear differences in the growth rates for the threshold groups, this implies that the thresholds did not impact the lending behavior of depository institutions.

FIGURE 69: TIME SERIES GROWTH IN ORIGINATIONS OF LENDERS ABOVE AND BELOW THE ORIGINATION THRESHOLD BY COVERED LOAN GROUP



Data source: Home Mortgage Disclosure Act

Finally, the analysis on small creditor originations considers the relationship between small creditor status and loan purchaser type. [364] Figures 70 and 71 show the share of originations in each year by purchaser type for non-small and small creditors respectively. Compared to non-small creditors, small creditors held a higher share of their originations in portfolio between 2012 and 2016.[365] The share in portfolio for small creditors increased up to 2014 to about 62 percent but then experienced a decline to roughly 44 percent by 2016. A potential reason for this

[364] Because portfolio loans are recorded in the HMDA data only if the loans are originated and sold in the same calendar year, loans originated toward the end of the year are less likely to be reported as sold. For that reason, statistics on portfolio loan are computed using only loans originated during the first three quarters of the year. However, when determining small creditor status in 2016, portfolio loans are used for the entirety of the year as this would be the number lenders use when determining their small creditor status.

[365] Due to data limitations, portfolio lending can only be observed at origination. The length of time the originated loan is held in portfolio cannot be observed. The numbers provide an upper bound on the number of Small Creditor QM loans.

decline may be that the higher origination threshold of 2016 brought in lenders who did not hold a substantial share of originations in portfolio thus decreasing the overall share for small creditors in 2016. This is confirmed if the 500 origination threshold is applied in 2016 as the composition of loan purchaser type for small creditors remains largely unchanged compared to 2015. Non-small creditors sell a higher share of originations to affiliate lenders compared to small creditors in the data while small creditors sell a higher share of loans to non-affiliates.

FIGURE 70: SHARE OF NON-SMALL ORIGINATIONS BY PURCHASER TYPE AND YEAR

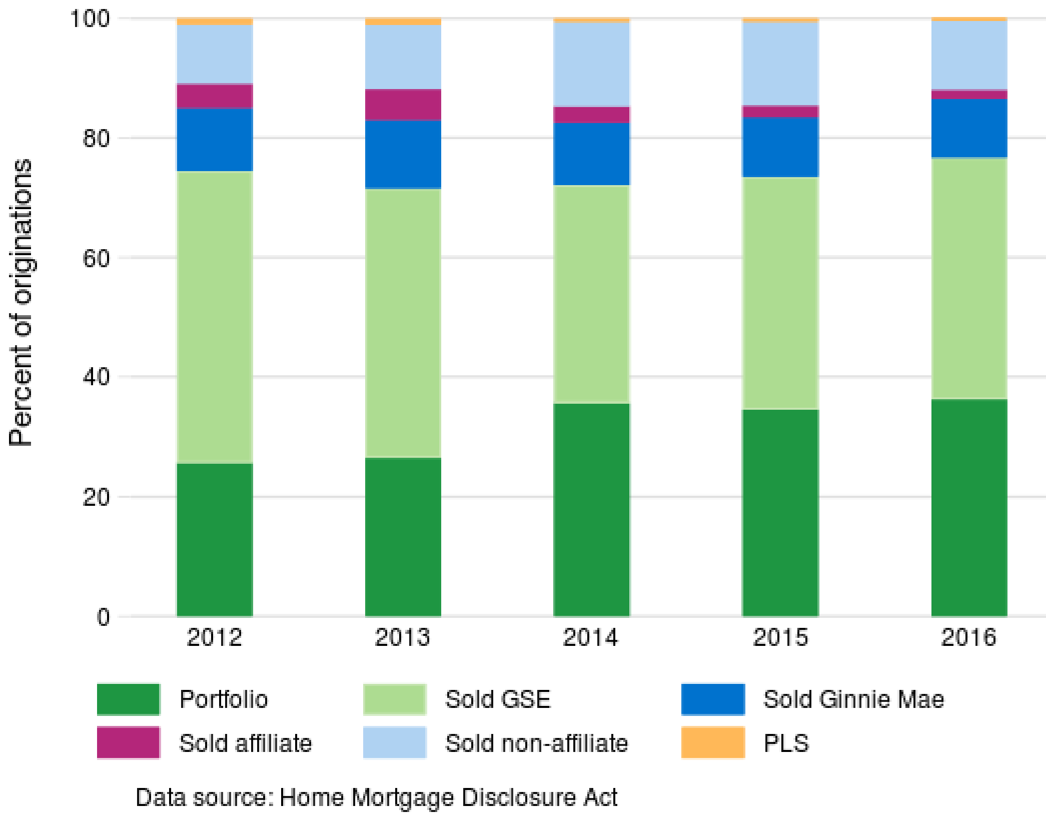
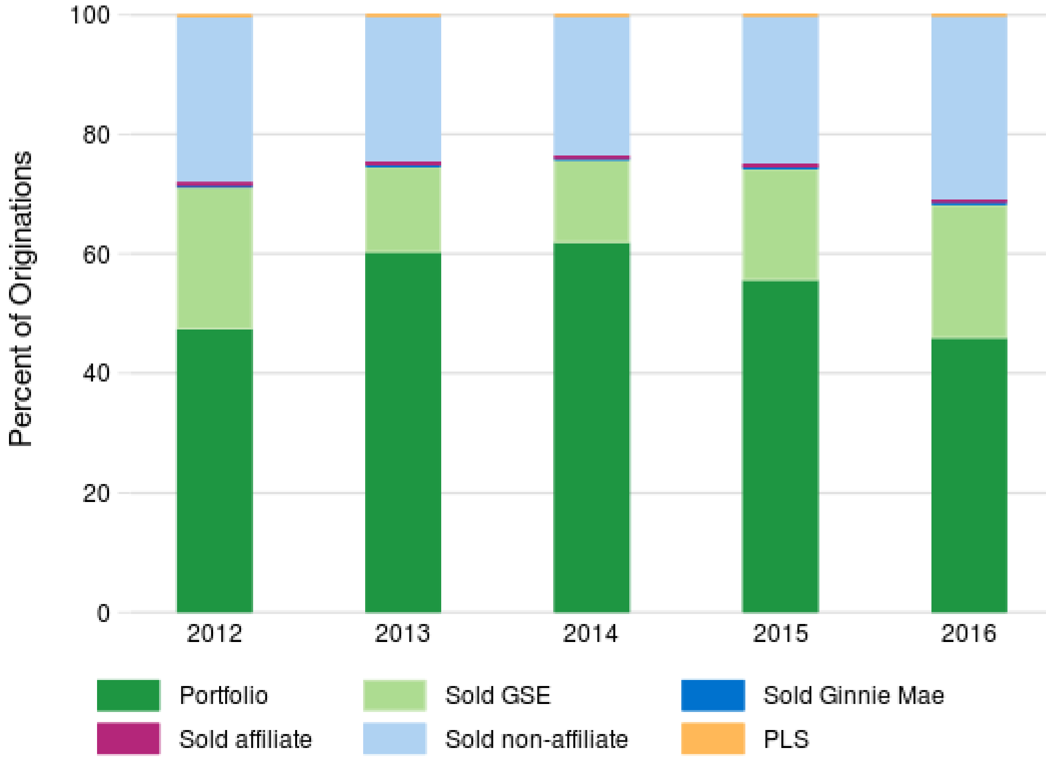


FIGURE 71: SHARE OF SMALL ORIGINATIONS BY PURCHASER TYPE AND YEAR



Data source: Home Mortgage Disclosure Act

The differences across small and non-small institutions show that portfolio originations are a much larger proportion of mortgage originations for small institutions compared to non-small institutions. As the Rule generally requires Small Creditor QMs to be held on portfolio for three years after consummation, this may suggest that small creditors are utilizing this category of QM.

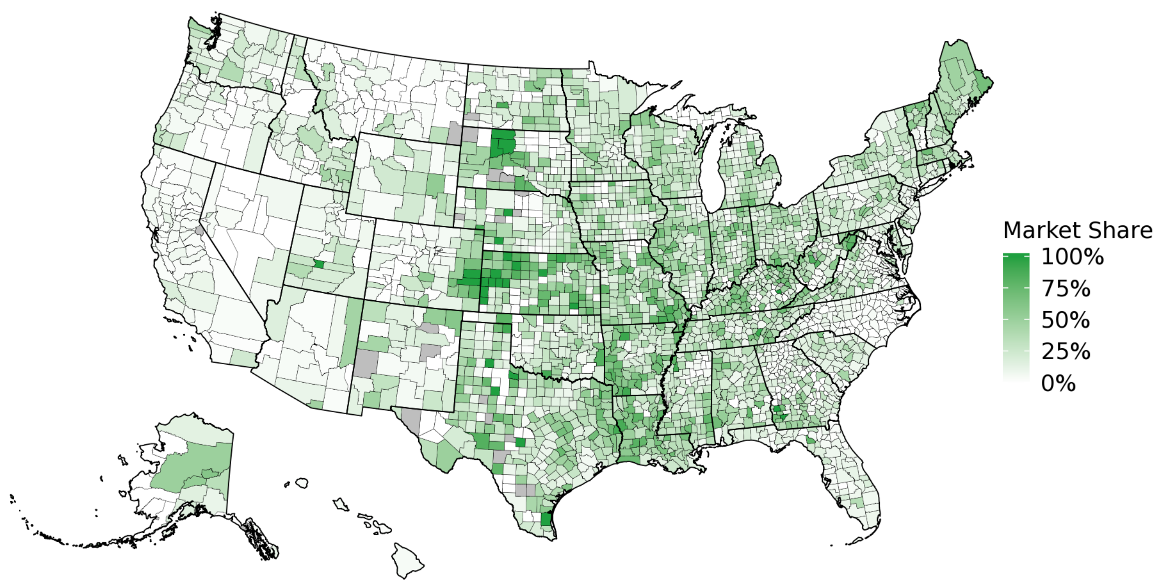
7.2.4 Small creditors in rural and manufactured housing markets

Small creditors are more likely to operate in rural areas compared to larger creditors. This section provides insight into the geographic distribution of small creditors, along with their role in providing access to credit in rural and manufactured housing markets. As previously discussed, this analysis is missing data from lenders who do not have a branch or office in a metropolitan area, and is therefore likely missing a large number of rural lenders.

Figures 72 and 73 show the geographic distribution of small lenders and their market share for 2014 and 2016, respectively. Market share is calculated by looking at the total originations of depository institutions in a given county and then identifying the share that are accounted for by small creditors. In 2014, small lenders originated loans throughout much of the United States. In rural areas, small lenders often carried a large market share. This was especially true in much of the Southern, Midwestern, and Mountain states.

Comparing Figures 72 and 73, market coverage among small creditors increased substantially between 2014 and 2016. The figures show both increases in the number of counties that small creditors serve and the market share held by small creditors within individual counties. The number of small creditors increasing between this time (see Table 37) and the 2016 amendment may explain this increase of coverage.

FIGURE 72: COUNTY-LEVEL MARKET SHARE OF SMALL CREDITORS IN 2014



Data source: Home Mortgage Disclosure Act

FIGURE 73: COUNTY-LEVEL MARKET SHARE OF SMALL CREDITORS IN 2016

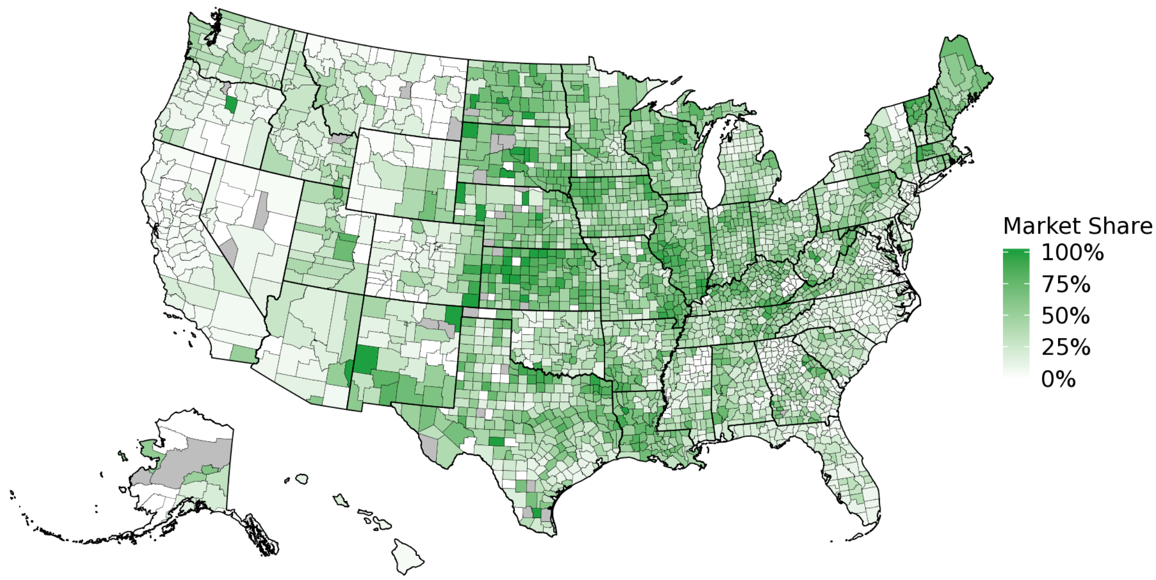


Table 38 reports mortgage originations by small and non-small creditors in rural counties.[366] Among small creditors, the share of total originations occurring in rural areas is much larger than for non-small creditors. This appears to be consistent with the higher likelihood that small creditors operate only or predominantly in rural or underserved areas compared to non-small creditors. The 2016a columns suggests that without the 2016 threshold amendments, the rural share of small creditor originations would have stayed the same instead of decreasing to 21

[366] The Bureau publishes a yearly list of rural and underserved counties that are exempt from certain regulatory requirements of the Truth in Lending Act. Bureau of Consumer Fin. Prot., *Rural and Underserved Counties List*, *available at* https://www.consumerfinance.gov/policy-compliance/guidance/implementation-guidance/rural-and-underserved-counties-list/ (last visited Dec. 31, 2018) (for the current and previous year's lists).

percent in 2016 with the amendments. The 2016 amendments did however increase the share of small creditors operating in rural areas due to being more inclusive of larger lenders. The amendments in 20

TABLE 38: ESTIMATED NUMBER OF HMDA-REPORTING MORTGAGE LENDERS WITH ORIGINATIONS IN RURAL COUNTIES

	2012	2013	2014	2015	2016a	2016b
Total Non-Small Lenders	**976**	**1,152**	**1,067**	**806**	**889**	**619**
Share of Non-small Originations	26%	20%	11%	11%	11%	10%
Total Small Lenders	**5,408**	**5,066**	**5,047**	**5,128**	**4,860**	**5,130**
Share of Small Originations	44%	34%	24%	24%	24%	21%
Total	**6,384**	**6,218**	**6,114**	**5,934**	**5,749**	**5,749**

Table 39 reports manufactured housing mortgage originations by small and non-small creditors. Manufactured housing loans make up a larger share of small lenders' originations compared to non-small lenders. Similar to rural loan originations, these patterns are consistent with small creditors being more likely to provide access to mortgage credit for manufactured housing compared to larger creditors although the share or manufactured originations that make up a small creditor's lending has been declining since 2012.

TABLE 39: ESTIMATED NUMBER OF HMDA-REPORTING MANUFACTURED HOUSING MORTGAGE LENDERS

	2012	2013	2014	2015	2016a	2016b
Total Non-Small Lenders	**976**	**1,152**	**1,067**	**806**	**889**	**619**
Share of Non-small Originations	4%	4%	3%	2%	2%	2%
Total Small Lenders	**5,408**	**5,066**	**5,047**	**5,128**	**4,860**	**5,130**
Share of Small Originations	13%	12%	10%	9%	9%	7%
Total	**6,384**	**6,218**	**6,114**	**5,934**	**5,749**	**5,749**

7.3 Evidence from CSBS survey data

7.3.1 Overview of survey data

The section utilizes survey evidence from the Conference of State Bank Supervisors' (CSBS) 2015 National Survey of Community Banks, an annual survey of community banks.[367] The survey provides additional insight into the small creditor exemption implemented under the Rule because many of the survey respondents are small banks that are not required to report under HMDA.[368] In total, 974 community banks responded to the CSBS survey.[369] Survey respondents are also disproportionately rural institutions: over 65 percent of respondents reported that the majority of their lending was in rural areas or did an equal amount of lending in urban and rural settings.

The focus of the 2015 survey is mortgage originations that occurred in 2014, although some survey questions ask about future lending expectations. The survey evidence provides a snapshot of lending activity in the year after the Rule was implemented. One limitation of the data is that no comparison to the pre-Rule period is available, as no information directly related to the Rule was collected before 2015.

The CSBS survey provides information related to lender characteristics, including lenders' primary lines of business, ownership structure, asset size, and market areas. The survey asks several questions related to qualified mortgage lending, including questions concerning qualified mortgage portfolio lending, mortgage application denial behavior related to the Rule, and future plans for qualified mortgage lending. The reported asset size is used to determine a lender's small creditor status. Lenders who reported assets below $2 billion are considered to be

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[367] More information and findings, such as compliance costs on the annual survey conducted by CSBS, *see* https://www.communitybanking.org/~/media/files/cb21pub_2017_book_web.pdf.

[368] About 30 percent of survey respondents that responded to a question about their HMDA reporting status indicated that they were not HMDA reporters. Respondents to this question represented 16 percent of all survey respondents in 2015.

[369] Commenters provided additional information on community banks and lending, *see* Appendix B. Data on the profitability of community banks, *available at* https://www.fdic.gov/bank/analytical/quarterly/2016-vol10-4/article1.pdf and https://www.fdic.gov/bank/analytical/quarterly/2016_vol10_4/fdic_v10n4_3q16_quarterly.pdf; the decline in community banks, *available at* https://www.communitybanking.org/~/media/files/cb21pub_2017_book_web.pdf); and the health of community banks post-crisis relative to larger banks, *available at* https://www.communitybanking.org/~/media/files/communitybanking/2015/session3_paper4_bassett.pdf).

small in this dataset.[370] Based on this, number of small lenders were determined to be 677 and the number of non-small was 30. The remaining 267 lenders were not included in the analysis since as their asset size was unknown and therefore could not be identified as either small or non-small.

There are a few limitations to the CSBS survey data. A limitation of these results is that they cannot be compared to pre-Rule mortgage lending among small creditors and all other creditors, as the survey was conducted only once, in 2017. Also, the CSBS survey is not nationally representative and mostly includes smaller FDIC-insured institutions from an unequal geographic distribution.

7.3.2 Analysis of CSBS survey data

This section discusses mortgage lending among small creditors responding to the CSBS survey, comparing their behavior to that of non-small creditors. The analysis examines how denial rates, portfolio lending, and non-QM lending vary across the two groups based on survey responses from the CSBS data.

Figures 74 and 75 report differences in denial rates for small and non-small creditors in 2014. Percentages on the vertical axis of the figures represent the share of lenders responding to each possible response to a question by size. Creditors may have different rates at which mortgage applications are denied based on their lending strategy and the pool of applications they receive, among other factors.

Figure 74 examines the distribution of surveyed institutions by application denial rates. In total, 649 lenders responded to this question provided the share of denied applications in 2014. Of this total, 623 were small creditors and 26 were non-small. The figure shows that a about 27 percent of small creditor survey respondents denied between 0 and 10 percent of loans, whereas application denial rates from non-small institutions peak at the 10 to 20 percent and 20 to 30 percent marks. There were some respondents who indicated that they did not deny any loans, all of these were small creditors (roughly 5 percent of small creditor respondents). Among survey respondents, then, small creditors generally denied a smaller share of applications relative to non-small respondents.

[370] The Bureau conducted a match to HMDA data and for the lenders in the CSBS survey data who matched to HMDA, a vast majority also met the origination threshold to be considered small creditors.

FIGURE 74: SHARE OF ALL APPLICATIONS DENIED IN 2014, BY SIZE OF INSTITUTIONS

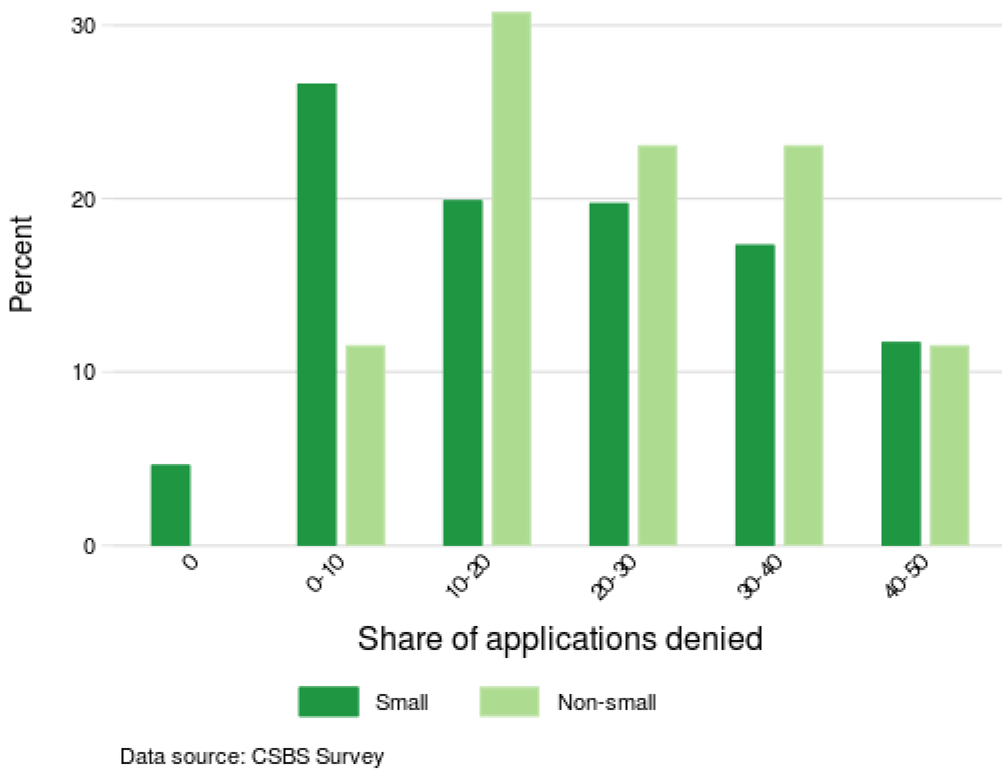
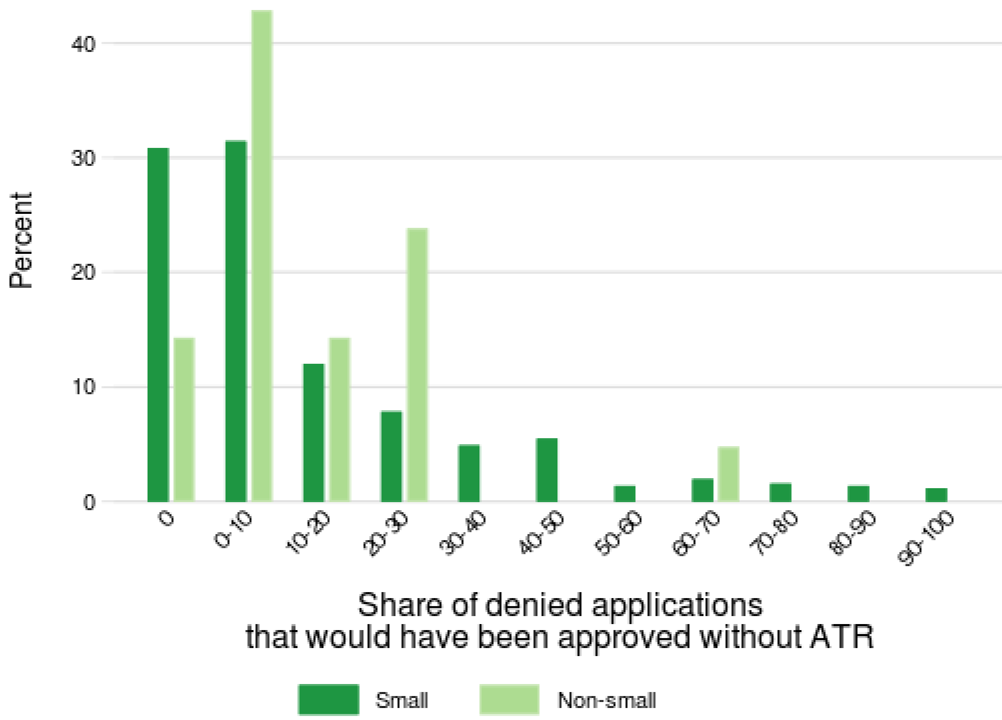


Figure 75 reports the share of denied applications that respondents stated would have been approved in absence of the ability-to-repay standard under the Rule.[371] The total number of lenders responding to this question was 530 with 21 being non-small and 509 small. The figure shows that over 30 percent of small creditor respondents stated that they did not deny any applications due to the ATR standard, while most of the non-small creditors responded that between 0 and 10 percent of denied applications were denied because of the ATR rule. This may indicate that small creditors were taking advantage of the small creditor exemption and rejecting fewer applications due to the ATR standard than they would have otherwise.

[371] The data reflect responses to the question, "Of the 1-4 family mortgage loan applications that you denied in 2014, what percentage of them would you have approved if the Ability-to-Repay underwriting standard had not been in place?" For the purposes of this question, the Bureau assumes that small creditors interpreted the question to signify that the loans in question would have violated some portion of the ability-to-repay requirements. The question itself links to the Bureau's overview of the ATR requirements for qualified mortgages.

FIGURE 75: SHARE OF DENIED APPLICATIONS THAT WOULD HAVE BEEN APPROVED WITHOUT THE ATR STANDARD IN 2014, BY SIZE OF INSTITUTIONS

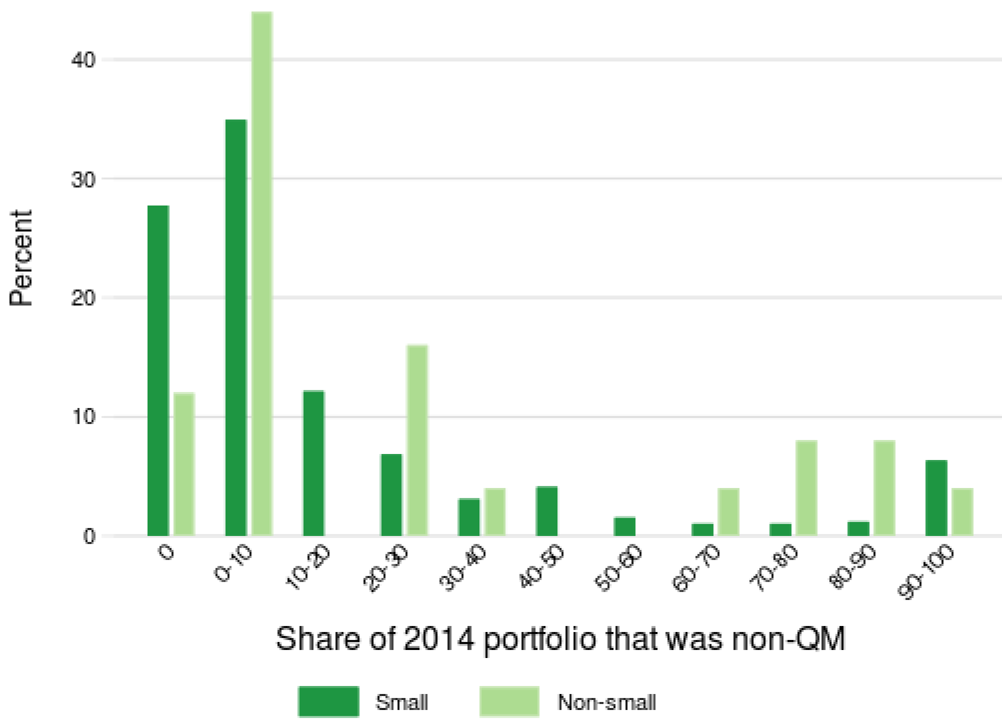


Data source: CSBS Survey

Finally, the CSBS survey included questions that illuminate small creditor non-QM lending behavior. This analysis makes use of two CSBS survey questions that provide information on differences in non-QM lending among small and not small creditors. The first is a question inquiring about the non-QM share of lenders' 2014 portfolio originations and the second being a question on lenders' expected future plans for non-QM lending.

Figure 76 reports the share of non-QM loans held in portfolio among survey respondents. For this question, 609 lenders responded with 584 of this total being small and 25 non-small. About 35 percent of small creditor survey respondents indicated that between 0 and 10 percent of their portfolios consisted of non-QM loans. Many small creditors also held no non-QM loans in portfolio (thereby indicating that they did not make non-QM loans in 2014). Notably, there is a small spike in the distribution for small creditors at 90 to 100 percent non-QM loans being held in portfolio. Such spike is not present for non-small creditors. This may be due to the small creditor exemption, which, as previously discussed, required that small creditors hold Small Creditor QM loans on their portfolios for three years to ensure QM status. This may indicate that small creditors were more willing to extend credit to borrowers whose loans may not have been approved by larger institutions due to non-QM loan features. It should also be noted that about 16 percent of non-small respondents stated that between 70 and 90 percent of their portfolios were non-QM in 2014 however, this amounts to four non-small lenders.

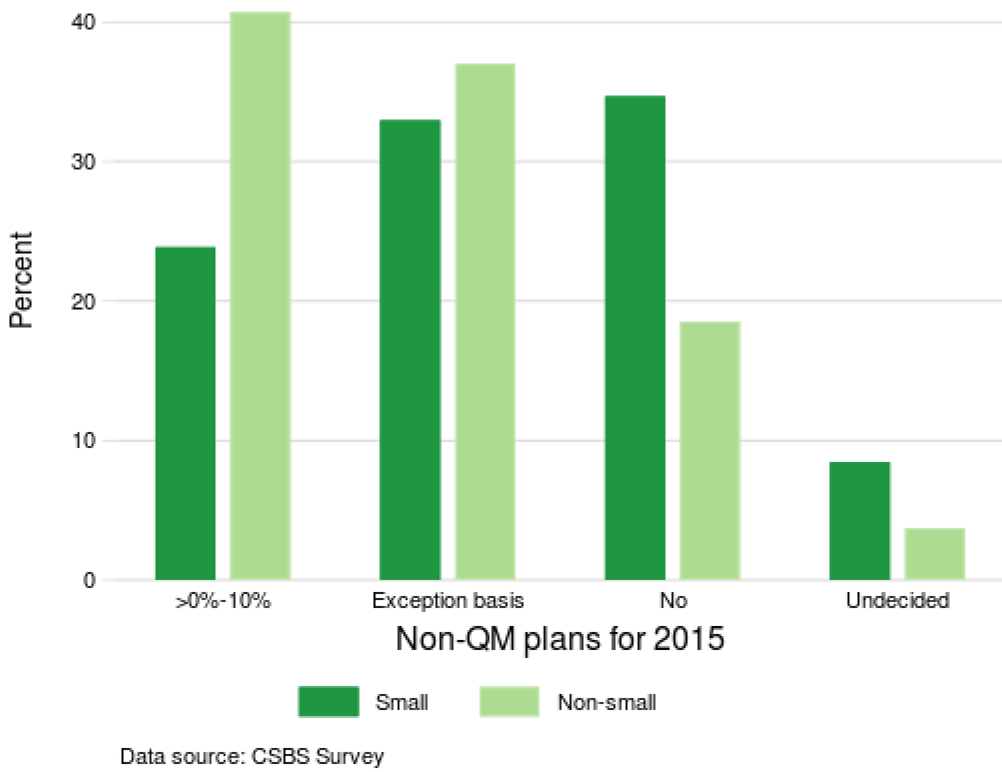
FIGURE 76: SHARE OF LENDERS' 2014 PORTFOLIOS THAT WERE NON-QM, BY SIZE OF INSTITUTIONS



Data source: CSBS Survey

Figure 77 reports institutions' expectations of non-QM lending in 2015 with 664 lenders responding to this question in the survey. Respondents were made up of 637 small creditors and 27 non-small. Specifically, this figure examines survey respondents' plans for non-QM lending in 2015 at the beginning of the year. Most small creditor respondents indicated that they would offer non-QM loans in 2015, either as a part of their normal lending process or on an exception basis. Though non-small institutions seemed proportionally more inclined to non-QM lending going forward, this information indicates that small respondents generally expected to engage in non-QM lending in 2015.

FIGURE 77: PLANS FOR OFFERING NON-QM LOANS IN 2015, BY SIZE OF INSTITUTIONS



8. Additional effects of the Rule

The preceding chapters have outlined several effects the Rule has had on the mortgage market in general, and on specific segments and types of lenders. This chapter discusses some additional potential effects of the Rule. The chapter starts by presenting a study of how closing times changed in response to the Rule. The chapter then presents additional results from the lender survey the Bureau conducted that have not been discussed in previous chapters.

Main findings include the following:

- Closing times immediately after the effective date of the Rule increased by about three and a half days for refinance loans and little over a day for purchase loans. It is likely that these short term effects attenuated over time due to learning and adaptation to the new requirements.

- The survey of lenders conducted by the Bureau establishes that a substantial share of respondents changed their business model and/or their product offerings in response to the Rule. The survey did not attempt to quantify the cost of these changes. About two thirds of respondents report originating non-QM loans.

8.1 Effect on closing times

The Bureau used loan-level data reported under HMDA between 2011 and 2016 to study the effect of the ATR/QM Rule on mortgage closing times—the number of days between a borrower applying for a loan and the eventual closing of that loan. The Rule applied to all loans with an application date on or after the Rule's effective date. Therefore, the analysis estimates the Rule's effect by comparing the distributions of closing times on loans with application dates shortly before and after the effective date. As such, the analysis is only equipped to estimate short-run effects.

Simply comparing applications received either seven days or 21 days before and after the effective date of the Rule, average closing times lengthened by less than a day, both for purchase and refinance loans.[372] This comparison does not control for seasonal variation or fluctuations in the volume or average loan size of applications or in borrower characteristics. To do so, closing times are modelled as flexible functions of these variables.[373] With the model's predictions in hand, the Rule's effect is estimated by examining how the difference between each loan's observed closing time (which reflects the Rule's effect) and the predicted closing time (which only accounts for the modelled characteristics and not the Rule) varied 30 days after the effective date compared to the 30 days before.[374] Examining loans with application dates close to the effective date allows focusing on the Rule's effect rather than potential factors that vary further from the effective date but are not captured in the model.

According to the model, average closing times lengthened by 1.2 days for purchase loans and 3.6 days for refinance loans after the ATR/QM Rule took effect.[375] This is larger than the simple difference reported above, especially for refinance loans. This is because the model predicts that, given seasonal factors and other covariates, the closing time of refinance loans would have decreased following the Rule's effective date. Instead, it increased slightly, implying the larger effect estimated for such loans. The larger estimated effect on refinance loans compared with purchase loans might be seen as suggestive evidence that the Rule added relatively more documentation requirements for refinance loans, which were often more streamlined and less costly to originate, than for purchase loans.

In sum, after controlling for confounding factors, average closing times increased by about three and one half days for refinance loans, but the estimated effect on purchase loan closing times was much smaller, at a little over one day.[376] Again, these are short term effects applicable to the month immediately after the effective date of the Rule. It is possible that these short term effects

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[372] To put that into context, around the time the Rule was implemented, average closing time was around 55 days for purchases and around 45 days for refinances.

[373] Explanatory variables include 14 trigonometric terms to capture seasonality; purchase-, refinance-, and home-improvement application volumes; the property's state; the borrower's income; whether there was a co-borrower; borrower and, if applicable, co-borrower race and ethnicity; loan amount; lien status; application day of the week; whether the loan was higher-priced or classified as a high-cost loan; indicators for loan type and property type; and several interaction terms.

[374] Results are similar using a 60-day window and excluding 14 days before and after the effective date. This window allows for the possibility that borrowers or lenders tried to have certain types of applications submitted before the Rule took effect.

[375] Standard errors calculated using a methodology akin to bootstrapping establish that these changes were statistically significant at the 95 percent level of confidence.

[376] Commenters also reported experiencing an increase in closing times, *see* Appendix B.

reflect delays due to one-time changes in software and systems, or staff needing to learn new policies, practices, and systems, and that the effect on closing times may have attenuated over time and with experience.

8.2 Survey evidence

Some of the responses to the Bureau's survey of lenders described in Chapter 1 were summarized in Chapter 5. Here we summarize responses to additional questions that address the effects of the Rule on lenders. When considering these results, it is important to keep in mind that the survey respondents are likely not representative of the market as a whole. As mentioned in Section 5.2, the sample used from the lender survey includes 177 lenders which excludes CDFIs and lenders that did not provide a substantive number of responses to questions.

Table 40 reports responses by institution type to whether the lender's business model changed as a direct result of the ATR/QM Rule.

TABLE 40: RESPONSES TO WHETHER BUSINESS MODEL CHANGED AS A DIRECT RESULT OF THE ATR/QM RULE

	Bank with <$2 billion in assets	Bank with $2-10 billion in assets	Bank with >$10 billion in assets	Credit union	Independent mortgage lender
Business model changed	27	5	22	17	29
No change	13	7	1	4	35
Total responses	**40**	**12**	**23**	**21**	**64**

Overall, 100 respondents reported changing their business model, while 60 reported no changes.[377] Generally, depository lenders were somewhat more likely to report changing their business model compared to independent mortgage lenders.

[377] Recall that there were 196 respondents to the lender survey and an additional eight respondents to the survey among lenders providing the Application Data. Twenty-five of the respondents provided no responses to the survey and two respondents were CDFIs and thus not covered by the Rule, leaving 177 covered respondents with responses

TABLE 41: WAYS IN WHICH BUSINESS MODELS WERE REPORTED TO HAVE CHANGED

Changes mentioned	**Depository institution**	**Independent mortgage lender**
Increased income documentation	26	5
DTI cap of 43 percent was introduced	25	3
Balloon loans discontinued	15	2
Structure of or income requirements for ARM loans changed	12	1
Interest only loans discontinued	10	1
Decided not to originate non-QM loans	8	5
Experienced higher staffing and/or compliance costs	7	9
Had difficulties meeting points and fees test	5	6
Experienced longer closing times	3	0
Asset depletion no longer allowed	2	0
Total responses	**62**	**25**

Table 41 reports the specific ways in which respondents reported changing their business models. The number of responses reported are not the same as the number of respondents as a respondent could provide multiple, one, or no responses regarding the ways in which their business model changed. Depository lenders were more likely to report increasing income documentation requirements and introducing a 43 percent monthly DTI ratio cap while independent mortgage lenders were more likely to report increased staffing and/or compliance costs. The discontinuation of balloon and interest-only loans and the restructuring of ARMs point towards effects on loans with restricted features studied in the first part of Chapter 4.

Table 42 reports responses by institution type to whether the lender discontinued or materially modified mortgage products for reasons related to the requirements of the ATR/QM Rule.

to at least some of the questions. Seventeen respondents did not provide an answer to the question regarding business model change, therefore the responses of 160 respondents are reported in Table 40.

TABLE 42: RESPONSES TO WHETHER PRODUCT WAS CHANGED OR DISCONTINUED

	Bank with <$2 billion in assets	Bank with $2-10 billion in assets	Bank with >$10 billion in assets	Credit union	Independent mortgage lender
Made changes or discontinued products	15	4	18	10	16
Made no material changes	25	9	5	10	47
Total responses	**40**	**13**	**23**	**20**	**63**

63 respondents out of 159 reported making changes to or discontinuing products.[378] Depository lenders—especially large ones—were more likely to report making changes to or discontinuing products compared to independent mortgage lenders. Two specific discontinued products were mentioned by more than five respondents: balloon loans (15 responses) and interest-only loans (6 responses). Eleven respondents stated that the discontinuation affected more than 10 percent of their loans, 13 respondents said 5 to 10 percent of their loans were affected, while the remaining 21 respondents giving a quantitative response said that less than 5 percent of their loans were affected.

Table 43 shows lenders' reported share of 2017 originations represented by non-QM loans by institution type. For each institution type, except for the largest banks, about one third of respondents do not originate non-QM loans.[379] There is one bank with assets over $10 billion that does not originate non-QM loans, but this bank originates few mortgages.

[378] Eighteen respondents did not answer this question.

[379] Consistent with the findings here, commenters noted industry survey evidence on the limited share of non-QM lending by independent mortgage lenders, see National Association of Realtors' Survey of Mortgage Originators, First Quarter 2017: The Future of the CFPB, QM, and Small Lender Rule, *available at* https://www.nar.realtor/research-and-statistics/research-reports/mortgage-originators-survey/survey-of-mortgage-originators-first-quarter-2017.

TABLE 43: SHARE OF NON-QM LOANS

Non-QM Share	Bank with <$2 billion in assets	Bank with $2-10 billion in assets	Bank with >$10 billion in assets	Credit union	Independent mortgage lender
None	15	4	1	6	24
<5%	15	2	14	8	35
6 - 10%	3	0	4	5	5
11 - 15%	3	1	0	0	1
21 - 30%	1	0	0	0	0
>30%	3	4	3	2	0
Do not know	4	2	1	0	1
Total responses	**44**	**13**	**23**	**21**	**66**

Among the 98 lenders making non-QM loans and responding to the question regarding their expectation regarding the change in their non-QM lending over the coming year, five expected decreasing their non-QM lending, 25 expected increasing their non-QM lending, and 68 said that their non-QM lending would stay about the same.

Finally, 67 respondents indicated originating loans in rural areas in 2013 and one indicated discontinuing doing so in 2014. All others continued doing so through 2017.

Balloon loans were originated by 49 respondents in 2013 and 14 respondents indicated discontinuing doing so in 2014 with the propensity to discontinue being larger for independent mortgage lenders, credit unions and large banks as opposed to smaller banks. Five additional respondents discontinued offering balloon loans after 2014, leaving 33 respondents offering them in 2017.

Appendix A: THE RULE AND BUREAU PURPOSES AND OBJECTIVES

Introduction

As discussed in Chapter 1, section 1022(d) of the Dodd-Frank Act requires the Bureau to conduct an assessment of each significant rule or order adopted by the Bureau under Federal consumer financial law. Section 1022(d) requires that the assessment address, among other relevant factors, the rule's effectiveness in meeting the specific goals stated by the Bureau, as well as the Bureau's purposes and objectives specified in section 1021 of title X of the Dodd-Frank Act. Whereas the body of the report addresses the specific goals stated by the Bureau, this appendix highlights certain core findings in the body of the report with respect to the latter requirement.[380]

Purposes

Under section 1021(a) of the Dodd-Frank Act, "[t]he Bureau shall seek to implement and, where applicable, enforce federal consumer financial law consistently for the purpose of ensuring that all consumers have access to markets for consumer financial products and services and that markets for consumer financial products and services are fair, transparent, and competitive."[381]

All consumers have access to markets for consumer financial products and services.

In issuing the Rule, the Bureau stated that it "sought to balance creating new protections for consumers and new responsibilities for creditors with preserving consumers' access to credit

[380] As evidenced below, the degree to which the ATR/QM Rule implicates each of the purposes and objectives of title X varies, and the Bureau has endeavored to include in this appendix information that may be relevant to those purposes and objectives directly and indirectly implicated. The Bureau further acknowledges that some of the title X purposes and objectives may overlap and some of the findings discussed below may be relevant for multiple purposes and objectives. Thus, while this appendix distinguishes between purposes and objectives in order to highlight key findings in the body of the report, the appendix is not meant as a comprehensive summary of all findings relevant to each purpose and objective.

[381] 12 U.S.C. § 5511(a).

and allowing for appropriate lending and innovation."[382] This concern recognizes that establishing the ability to repay requirement for making residential mortgage loans created litigation risk that could disrupt markets and thus consumers' access to credit. Overall, consumer access to residential mortgage loans after the Rule's effective date has been preserved at levels comparable to those before the effective date. Applications and approval rates analyzed for the market overview discussed in Chapter 3 indicate that there were no significant breaks in either applications or approval rates around the time of the Rule became effective. At this aggregate level, neither supply nor demand were significantly disrupted, although applications and approval rates might have been higher if not for the Rule. To the extent that the Rule may have impacted mortgage pricing, In terms of mortgage pricing, Figure 5 of Chapter 3 shows that the spread of the mortgage interest rate over the 10-year Treasury rate did not change significantly around the time the Rule came into effect, so mortgage pricing did not appreciably change at the market level after the Rule took effect. Mortgage pricing might, however, have been lower if not for the Rule.

The Rule may have decreased consumer access to credit in certain sub-markets for which data were available and reasonably obtainable. Indicating a decreased access to credit for a specific group of consumers, Figure 45 in Chapter 5 shows that the introduction of the Rule was associated with a sharp drop in both the share and approval rate of High DTI, non-GSE eligible applications. After this initial drop, these outcomes continued to decline further. While the average approval rate seems to have returned to the January 2014 level by the end of 2016, the model estimates suggest that this reversal is due to changes in the mix of High DTI applicants rather than due to changes in lenders' propensity to approve applicants of a given set of characteristics. Section 5.3.7 estimates that the QM DTI provision eliminated approximately 10,000 loans among this group of consumers over three years, for the lenders considered, thereby decreasing access to credit. Section 5.3.6 also considers the effect of the Rule on self-employed borrowers' access to credit and finds the effects of the Rule to be relatively neutral. Application Data presented in Table 21 indicates that approval rates for non-High DTI, non-GSE eligible self-employed borrowers have decreased only slightly, by two percentage points, after the Rule. Section 7.3 also considers loans that were denied due to the ATR requirements of the Rule using CSBS survey data. Figure 71 in this chapter shows that 44 lenders, out of 693 who responded to this question, denied at least half of the loans that would have been approved absent the Rule in 2014, a decrease in access to credit.

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[382] 78 Fed. Reg. 6408, 6505 (Jan. 30, 2013).

Chapter 7 indicates that amendments to the Rule in 2015 appear to have increased access to credit for markets and consumers served by small creditors. The geographic market coverage of small creditors increased substantially with the October 2015 amendments to the Rule, which increased the loan originations threshold from 500 to 2,000 first-lien covered transactions and excluded loans held in portfolio in determining whether this threshold had been crossed.[383] The number of counties served and the market share held by small creditors within individual counties increased in 2016 compared to 2014. Without the amendment, the number of small creditors, and markets served, would have decreased according to HMDA data.

Markets for consumer financial products and services are fair, transparent, and competitive.

The Rule applies to all creditors that make residential mortgage loans. This broad coverage promotes fairness in the sense of establishing a level playing field among creditors in this market.

The Rule also prohibits practices (i.e. making loans without assessing the consumer's ability to repay) that the Board of Governors of the Federal Reserve System had found to be "unfair" at least with respect to subprime borrowers. The Rule also helps ensure the markets for consumer financial products are fair. Chapter 4 finds that loans with potentially risky non-QM characteristics, including interest-only payments, low documentation, negative amortization, ARM resets under five years, and terms exceeding 30 years, appear to be almost nonexistent or restricted to a limited market of highly credit-worthy borrowers. These types of products largely disappeared from the market prior to the adoption of the Rule, and it is not possible to assess whether absent the Rule the incentives for such practices would return, but the Rule would constrain the origination of loans for which consumers lack a reasonable ability to repay and the resulting harms.

At the same time, the Rule does not appear to have inhibited competition among creditors, as indicated by analyses in Chapter 5. Figure 45 in Chapter 5, analyzing the effect of the QM DTI provision on non-GSE eligible High DTI applicants for purchase loans, indicates substantial heterogeneity in response to the Rule across lenders. From a consumer's point of view, differences in competing lenders' approaches to High DTI applicants evidence robust competition and varied strategies for meeting that competition.

383 80 Fed. Reg. 59943 (October 2, 2015).

Some aspects of the rule may also have resulted in limiting competition in the secondary market for residential mortgage loans. Chapter 6 notes the market share of the GSEs has not decreased in the years after the Rule went into effect, contrary to the Bureau's expectation at the time Rule was written. The persistent prominence of Temporary GSE QM lending likely reflects the GSEs' advantages in compliance certainty, underwriting flexibility, accommodation of high-DTI lending, and the availability of a robust secondary market. An entity that attempted to compete with the GSE's by selling bonds from securitizing loans eligible for purchase by the GSEs may find it more difficult to ensure compliance with GSE requirements (and hence ensure Temporary GSE QM status) and would not have the potential pricing advantages that come with conservatorship. Also in Chapter 6, the data suggests a somewhat higher use of the GSEs' AUS in recent years, particularly for loans which do not fit within or are more difficult to document within the General QM underwriting standards, such as loans made to self-employed borrowers.

Objectives

The objectives of the Bureau are listed in section 1021(b) of the Dodd-Frank Act.[384]

Consumers are provided with timely and understandable information to make responsible decisions about financial transactions.

Although the Rule, and particularly the QM requirements, encourage creditors to originate loans with understandable loan features, the Rule does not include requirements for information disclosures that creditors must provide to consumers.

Consumers are protected from unfair, deceptive, or abusive acts and practices and from discrimination.

In the years leading up to the passage of the Dodd-Frank Act, the Federal Reserve Board imposed certain restrictions on high-cost loans based on a conclusion that such restrictions were necessary to prevent unfair and deceptive acts or practices in connection with mortgage loans.[385] The ATR/QM Rule is not strictly a rule designed to address unfair deceptive or abusive acts and practices, or to protect consumers from discrimination, and the Bureau has not determined that

[384] 12 U.S.C. § 5511(b).

[385] 73 Fed. Reg. 44522 (July 30, 2008)

the absence of repayment ability or the presence of any particular loan feature would render a mortgage transaction unfair, deceptive, abusive, or discriminatory. The Dodd-Frank Act nevertheless states that one purpose of the ATR requirement is to assure that consumers are offered and receive residential mortgage loans on terms that reasonably reflect their ability to repay the loans and that are understandable and not unfair, deceptive, or abusive. The ATR/QM Rule in turn has the potential to reduce the likelihood of unfair, deceptive, abusive, or discriminatory acts or practices by generally restricting or eliminating the origination of loans with riskier loan characteristics. Chapter 4 notes several consumer protection outcomes, particularly those associated with the QM and DTI provisions of the Rule. Loans with potentially risky non-QM characteristics, including interest-only payments, low documentation, negative amortization, ARM resets under five years, and terms exceeding 30 years, appear to be almost nonexistent or restricted to a limited market of highly credit-worthy borrowers, in contrast to their more widespread use during the housing crisis. Chapter 4 provides evidence on the very high foreclosure rates of loans with these features in the years leading up to the housing crisis. Such products now appear to be restricted to credit-worthy borrowers, and likely will be prevented from re-emerging on a large scale by the QM underwriting requirements.

For the most highly-leveraged conventional loan borrowers, DTI ratios are likely constrained from returning to crisis-era levels by a combination of GSE underwriting limits and the Bureau's General QM DTI ceiling. Given the negative relationship between higher DTIs and loan performance, demonstrated across loan types and over time, these limits contribute to ensuring borrowers receive loans they are able to repay, in addition to potentially mitigating systemic risks. In addition, non-QMs originated under the Rule's ATR requirements also demonstrate strong performance. As noted in section 4.4.2, both above and below the DTI limit of 43, the improvement in performance of non-GSE loans relative to GSE loans provides some evidence that those loans that continue to be made under the General QM, other non-Temporary GSE QM, or non-QM ATR guidelines are underwritten in a way that reflects consumers' ability to repay.

Outdated, unnecessary, or unduly burdensome regulations are regularly identified and addressed in order to reduce unwarranted regulatory burdens.

The Bureau amended the January 2013 Rule several times before and after its effective date to address important questions raised by industry, consumer advocacy groups, and other stakeholders. For example, the May 2013 final rule added two new qualified mortgage categories to the four categories provided in the January 2013 Rule. One of the new QM categories was for loans held in portfolio by small creditors and the other was a temporary category that allowed all small creditors to make balloon-payment qualified mortgages.

More changes were made by additional rules, including amendments that clarified provisions of Appendix Q,[386] implemented a temporary points and fees cure provision,[387] and expanded the definition of "rural" by adding census blocks[388] that are not in an "urban area," as defined by the Census Bureau, to the definition of rural areas.[389]

The Bureau determined that these amendments were necessary to protect consumers better, avoid potentially significant disruption in mortgage markets, and clarify standards by making technical corrections and conforming changes. In these ways, the Bureau reduced the regulatory burden imposed by the Rule several times.

Federal consumer financial law is enforced consistently, without regard to the status of a person as a depository institution, in order to promote fair competition.

The specific goals of the Rule, which are noted in Chapter 1, do not include consistent enforcement of Federal consumer financial law without regard to status as a depository or non-depository institution.

As noted in section 3.6, the Bureau has enforcement authority with respect to non-depository mortgage originators[390] and depositories with assets over $10 billion,[391] and the prudential regulators have enforcement authority with respect to smaller depositories. Since the effective date of the ATR/QM Rule, the Bureau has not brought enforcement actions against any entities, depository or non-depository, for violating the Rule.

The Bureau has supervisory authority with respect to depositories with assets over $10 billion[392] and non-depositories engaged in residential mortgage lending.[393] As discussed in Chapter 3, the Bureau has conducted examinations among large depositories and non-depository mortgage

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386 78 Fed. Reg. 44686 (July 24, 2013).

387 12 C.F.R. § 1026.43(e)(3)(iii) and (iv).

388 A census block is the smallest geographic area for which the Census Bureau collects and tabulates decennial census data. *See* 80 Fed. Reg. 59943, 59956 (Oct. 2, 2015).

389 12 C.F.R. § 1026.35(b)(2)(iv)(A)(*2*) and Supplement I to Part 1026—Official Interpretations, Paragraph 43(f)(1)(vi)-1.

390 For enforcement authority of non-depositories, *see* 12 U.S.C. § 5514(c).

391 For enforcement authority of depositories, *see* 12 U.S.C. § 5515(c).

392 For supervisory authority of depositories, *see* 12 U.S.C. § 5515(a)-(b).

393 For supervisory authority of non-depositories, *see* 12 U.S.C. § 5514(a)(1)(A).

originators. Most mortgage originators examined by the Bureau, depository or non-depository, have generally been complying with the ATR rule.

Finally, although it is not directly related to the consistent enforcement of the law, the Bureau observes that the Rule applies to all creditors that make residential mortgage loans, promoting fair competition by establishing a more level playing field among creditors in this market.

Markets for consumer financial products and services operate transparently and efficiently to facilitate access and innovation.

Aspects of the Rule have facilitated access to credit, but in doing so may have had a negative effect on innovation. As discussed in Chapter 6, the Temporary GSE QM was likely crucial in maintaining short term access to responsible credit, in part due to its compliance certainty and flexibility advantages, relative to the newly adopted Appendix Q, and in part due to robust secondary market liquidity. However, given the large share of originations able to meet the Temporary GSE QM criteria at the time the Rule became effective, there has been limited momentum toward the emergence of a robust non-QM market, likely limiting innovation in the non-GSE market.

As noted in Chapter 6, though, innovation is occurring in the mortgage market under the umbrella of the Temporary GSE QM. However, the ability of the private sector to leverage this innovation outside the GSE space has been limited. This limited ability may explain, at least in part, why innovation in one segment of the market does not appear to have spurred growth and innovation in others.

Appendix B: COMMENT SUMMARIES

On June 1, 2017, the Bureau published a request for information on the ATR/QM Rule ("Rule") assessment and invited the public to submit comments and information on a variety of topics.[394] The public comment period closed on July 31, 2017. The Bureau received approximately 480 comments in response to the RFI. The Bureau provides a description of the comments and summarizes the information received on certain topics below and the full comments are available on www.regulations.gov.[395]

Generally, commenters reported on their own experiences, and provided information from surveys and other types of research, regarding the overall effect of the Rule and the effects of particular requirements that are within the scope of the assessment report. This information is summarized here and incorporated into other parts of the report as appropriate. See Chapter 1, "Sources of information and data," for a summary of the data and information used in the assessment.[396]

The Bureau inventoried over 80 studies, surveys, and other types of research cited by commenters regarding effects of the Rule on the market as a whole; on loan originators; on consumers or particular subgroups of consumers; on credit unions; and on affiliated settlement service providers. These research items were reviewed and their content and potential

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[394] 82 Fed. Reg. 25246 (June 1, 2017). Under section 1022(d)(3), before publishing an assessment report, the Bureau is required to seek comment on recommendations for modifying, expanding, or eliminating the newly adopted significant rule or order. In the RFI, the Bureau invited the public to submit: (1) comments on the feasibility and effectiveness of the assessment plan, the objectives of the ATR/QM Rule that the Bureau intends to emphasize in the assessment, and the outcomes, metrics, baselines and analytical methods for assessing the effectiveness of the Rule; (2) data and other factual information that may be useful for executing the Bureau's assessment plan; (3) recommendations to improve the assessment plan, as well as data, other factual information, and sources of data that would be useful and available to execute any recommended improvements to the assessment plan including data on certain exceptions and provisions; (4) data and other factual information about the benefits and costs of the ATR/QM Rule for consumers, creditors, and other stakeholders in the mortgage industry; and about the impacts of the Rule on transparency, efficiency, access, and innovation in the mortgage market; (5) data and other factual information about the Rule's effectiveness in meeting the purposes and objectives of title X of the Dodd-Frank Act (section 1021); and (6) recommendations for modifying, expanding, or eliminating the ATR/QM Rule. *Id.* at 25250.

[395] As stated in the RFI, the Bureau is not generally responding to each comment received pursuant to the RFI. "The Bureau plans to consider relevant comments and other information received as it conducts the assessment and prepares an assessment report. The Bureau does not, however, expect that it will respond in the assessment report to each comment received pursuant to this document. Furthermore, the Bureau does not anticipate that the assessment report will include specific proposals by the Bureau to modify any rules, although the findings made in the assessment will help to inform the Bureau's thinking as to whether to consider commencing a rulemaking proceeding in the future." *See* 82 Fed. Reg. 25246, 25247 (June 1, 2017).

[396] Section 1022(d)(1) provides that the assessment report shall reflect available evidence and any data that the Bureau reasonably may collect. Some commenters also directed the Bureau toward published research, which the Bureau reviewed and incorporated into other parts of the report as appropriate.

relationship to the Bureau's assessment taken into account in developing this report. Some are cited within the body of the assessment and all are listed, using the citation provided by the respective commenter, below in this appendix, grouped under the individual subject headings they address.

This appendix also contains a summary of recommendations for modifying, expanding or eliminating the Rule.[397] Finally, section IV of the RFI described the assessment plan, and the Bureau also invited comments on the plan. These comments are summarized below. The Bureau continued to develop the assessment plan after publishing the RFI, taking into account the comments received.

Evidence about ATR/QM Rule effects[398]

General Comments about the Rule's Effectiveness, Costs, and Effects on the Mortgage Market

A number of commenters supported the Rule and noted what they considered to be the Rule's positive effects. A trade group and consumer advocacy organizations stated that the Rule strengthened underwriting standards and eliminated higher risk products and features. A trade group and a law professor stated that, while further improvements to the Rule are needed, the Rule has restored common-sense principles to the mortgage origination market and has done so without restricting access to credit. A creditor and some individual commenters also provided general support without additional arguments.

397 Section 1022(d)(3) provides that before publishing a report of its assessment, the Bureau shall invite public comment on recommendations for modifying, expanding, or eliminating the newly adopted significant rule or order. The Bureau invited these recommendations in the RFI.

398 Certain commenters offered evidence on the overall effects of the Rule. Chapter 3 presents an overview of trends in the mortgage market, including trends in originations by loan size and consumer characteristics, and considers whether the Rule affected these trends. Other effects for which commenters presented evidence are primarily discussed as follows. Effects on small creditors are discussed in Section 7.2; credit availability, Sections 3.5, 5.3 and 5.4.5; costs of origination, Section 3.5; time to closing, Section 8.1; liability concerns generally, Chapter 5 (non-GSE eligible loans) and Chapter 6 (GSE eligible loans); jumbo loans, Sections 3.5 , 4.4.1 and 6.3.3; Appendix Q, Section 5.3.6 (but also Chapter 6); mortgage brokers, Section 5.4.6; specific groups of consumers, Sections 5.3.5 (FICO, LTV, income), 5.3.6 (self-employed), 5.4.5 (small loans), 7.2.4 (rural consumers). Commenters generally presented evidence of adverse changes and attributed these changes to the Rule. In some cases Bureau findings were quantitatively or directionally consistent with this evidence and in other cases opposed; see each subsection for the specific results.

Commenters that recommended that the Rule be relaxed or eliminated generally noted what they considered to be negative effects of the rule. A trade group stated that the affordability and availability of mortgage credit and the complete recovery of the housing market continue to be adversely affected by a steady rise in regulatory compliance costs, loan origination entities' fear of enforcement action by the Bureau, and a lack of clear and reliable regulatory guidance. The same trade group, along with another trade group and one individual commenter stated that the Rule restricts access to credit.

As discussed under separate headings below, some commenters made general statements concerning the Rule's effects on the mortgage market, and some commenters made statements on the Rule's effect on specific market participants, consumers, and specific consumer sub-groups.

Comments on the effects on the market as a whole

Commenters made several general statements about the effect on the mortgage market as a whole. Trade groups and a number of small creditors and loan originators stated that the Rule has reduced competition in the mortgage market and favors large creditors. A trade group stated its survey of members suggests that the Rule is having a downward impact in lending, with 72 percent of survey participants responding that the ATR/QM Rule is affecting credit availability and 7 percent responding that the impact is "severe." The commenter also noted that the current state of homeownership has remained between 62.9 and 63.7 percent, a "plateau" that constitutes the lowest rate in more than 50 years, according to the Census Bureau.

A creditor and a trade group stated that the Rule has increased compliance costs and risks to creditors, with the trade group stating that a member creditor has increased the number of employees to comply with the Rule at a cost in additional salaries of $238,000 in addition to third-party costs, such as compliance support and audits of roughly $52,000 annually. Another trade group stated that market studies indicate that over the past decade the cost of originating a mortgage has increased by 72 percent, from approximately $4,376 in the third quarter of 2009 to approximately $7,562 by the fourth quarter of 2016.

A trade group stated that the Rule, along with other regulatory changes, has made it difficult for creditors to stay profitable or continue operations in some markets in response to increased costs and legal risks, leaving consumers with fewer options. A creditor stated that a $12,000 home equity loan now requires the same processing time as an $800,000 mortgage loan. Another creditor stated that the Rule is not working as desired, since time to closing and creditor costs have increased while credit has become less available and that small loans, especially for low to middle income consumers, are less likely to be originated, as a result.

Studies, surveys, and research cited by commenters regarding effects of the Rule on the market as a whole:

- a creditor cited Report on the Economic Well-Being of U.S. Households in 2016, (Washington DC, 2017); a trade group cited Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances, June 2012;

- a creditor cited Neil Bhutta & Glenn B. Canner, Mortgage Market Conditions and Borrower Outcomes: Evidence from the 2012 HMDA Data and Matched HMDA-Credit Record Data, Fed. Res. Bull., Nov. 2013;

- a creditor, mortgage insurer, and a trade group of credit unions cited A Financial System that Creates Economic Opportunities, (June 2017).

- a trade group cited the Real Estate Service Providers Council Survey dated 2013;

- another trade group cited Ken Fears, Reach of New Risky Loans Still Modest, Economist's Outlook Blog, National Association of Realtors, June 15,2017

- a consumer advocacy organization cited the a report for the Conference of State Banking Supervisors by William F. Basset and John C. Driscoll, Post Crisis Residential Mortgage Lending by Community Banks (2015);

- a trade group, a creditor and consumer advocacy organizations cited Laurie Goodman, Jun Zhu, Bing Bai, Tight credit standards prevented 5.2 million mortgages between 2009 and 2014, Urban Wire, January 28, 2016;

- a trade group cited Laurie Goodman, Jun Zhu, Bing Bai, Overly tight credit killed 1.1 million mortgages in 2015, Urban Wire, November 21, 2016 ;

- that same trade group, two groups of consumer advocacy organizations, and a creditor cited Laurie Goodman, Bing Bai, Ellen Seidman, Has the QM Rule Made It Harder to Get a Mortgage?, February 2016;

- the same trade group cited Edward Golding, Laurie Goodman, Jun Zhu, Fannie Mae Raises the DTI Limit, July 2017;

- a law professor cited Laurie Goodman, Quantifying the Tightness of Mortgage Credit and Assessing Policy Actions;

- a group of consumer advocacy organizations cited Jim Parrot and Mark Zandi, Opening up the Credit Box (2013)

- a creditor cited Edward Golding, Laurie Goodman and Jun Zhu, Fannie Mae Raises the DTI Limit, July 2017

- a trade group cited Richard Green, The Trouble with DTI as an Underwriting Variable- and as an Overlay" Richard's Real Estate and Urban Economics Blog, December 7, 2016;

- a trade group cited Diane Katz, Heritage Foundation, A Better Path for Mortgage Regulation, Feb. 28, 2017;

- the same trade group also cited a statement of Todd Zywicki, Professor of Law and Executive Director of the Law and Economics Center, George Mason University School of Law, Assessing the Effects of Consumer Financial Regulations: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs, 115th Cong. (2016);

- the same consumer advocacy organizations cited Michael Stone, What is Housing Affordability? The case for the Residual Income Approach, Housing Policy Debate, Vol. 17, Issue 1 (Aug. 31, 2006);

- a trade group cited Steve Holden and Walt Scott, Desktop Underwriter Version 10.1 – Updates to DTI Ratio Assessment, Fannie Mae, July 10, 2017

- a creditor cited Matthew Jozoff, The Cost of Post-Crisis Regulation on Mortgage Lending, J.P. Morgan Research (March 31, 2017);

- consumer advocacy organizations cited CoreLogic, United States Residential Foreclosure Crisis, Ten Years Later (2017);

- the same consumer advocacy organizations cited CoreLogic, Mortgage Performance Continues Steady Improvement in April 2017;

- a different group of consumer advocacy organizations cited CoreLogic, Home Equity Lending Landscape (Feb. 2016)

- a creditor cited a report from Moody Analytics by Mark Zandi & Cristian DeRitis, The Skinny on Skin in the Game, March 11, 2011;

Comments on the effect of liability concerns

One trade group stated that the mortgage market remains dominated by loans covered by the qualified mortgage safe harbor. The commenter further stated that this concentration is due primarily to liability concerns and uncertainties around what can happen outside of the QM "safety zones." The commenter stated that Bureau did a commendable job in eliminating specious class action probabilities, but nonetheless creditors and investors remain uncertain as to how the courts will interpret the numerous standards that exist in the Rule and apply them to specific circumstances. The trade group also stated that its members anticipate that foreclosure challenges asserting non-compliance with the Rule will emerge based on whether creditors complied with general statutory requirements, for which there is also assignee liability under TILA.

Comments on the effect of the Temporary GSE QM definition

Several commenters specifically provided statements concerning the impact of the Temporary GSE QM provision of the Rule. A few trade groups stated that the Temporary GSE QM provision has worked to prevent significant disruption in the mortgage market and enable lenders to continue to originate loans seamlessly. One trade group stated that the fact that all loans sold to GSEs automatically are qualified mortgages provides a great benefit to both consumers and creditors by significantly reducing the amount of burdensome and oftentimes confusing paperwork that goes in the mortgage application, allowing creditors to lend more efficiently and to more consumers. Another trade group stated that the temporary GSE qualified mortgage provision has: combined a bright-line definition with underwriting flexibility, which has allowed creditors to reach deeper into the population of credit-worthy consumers and permitted responsible lending above a 43 percent debt-to-income ratio. However, the commenter also stated that not including jumbo mortgages into the Temporary GSE Qualified Mortgage definition contributed to the retarded recovery of private label securities market because the investment community has rejected these mortgages.

Comments on the effects of Appendix Q of Regulation Z[399]

A trade group and a creditor stated that Appendix Q is ambiguous and leads to uncertainty, inappropriate results, and restricts appropriate access to credit. Another trade group stated that the current definition of income causes documentation problems, litigation and liability risk, and harms consumers with less than meticulous credit records. A consumer advocacy organization stated that the documentation standards for self-employment income add time and expense to the mortgage application process and can discourage creditors and borrowers from pursuing loans when such income is present. A trade group stated that for income from part-time employment, the amount of time it takes to properly document and assess a two-year history of income, consumers essentially need to have been working up to three years for it to be used to determine income, which is extremely burdensome on those consumers. A trade group

[399] *See also* recommendations to modify, expand or eliminate Appendix Q below.

and a creditor stated that the treatment of work history gaps, as well as documentation of a new job, interferes with appropriate access to credit.

Comments on effects to specific market participants

Comments concerning the Rule's effectiveness, costs, and effect on the mortgage market often focused on effects to specific market participants and ranged from effects on loan originators and credit unions to those on consumers generally, first-time homebuyers, retired consumers, self-employed consumers, rural consumers, minority consumers, credit-challenged consumers, special program consumers (e.g., doctors), and consumers seeking loans with a low loan amount.

LOAN ORIGINATORS

Trade groups and individual commenters, especially mortgage brokers, stated that the Rule had negative effects on non-employee loan originators in particular, including: reducing competition that limits consumer options; unequal treatment of loan originators that work for mortgage brokers compared to those employed by depository institutions, forcing small loan origination organizations out of business; and reducing compensation to mortgage brokers while increasing compliance costs. Some of these commenters also stated that the Rule favors banks, but should create an even playing field for brokers, wholesale lending, small independent mortgage originators, and banks. These commenters stated no other business has regulations of caps on income and expenses like mortgage brokers and since the loan origination compensation requirements under other rules protects consumers, there is no need to limit loan originator compensation further through the Rule's points and fees provisions. A creditor stated that mortgage broker lending is less costly and better for consumers and that there are fewer complaints concerning the conduct of mortgage brokers in the Bureau's consumer complaint database than complains about banks, but that the Rule has resulted in reduced lending by mortgage brokers.

Studies, surveys, and research cited by commenters regarding effects of the Rule on Loan Originators:

- A trade group cited to a paper from the Chicago Federal Reserve Bank by Amany El Anshasy, Gregory Elliehausen & Yoshiaki Shimazaki, The Pricing of Subprime Mortgages by Mortgage Brokers and Lenders (July 2005) (unpublished manuscript);

- A trade group cited the National Association of Realtors' Research Division, 2017 Member Profile, (May 2017);

- a trade group cited M. Cary Collins & Keith D. Harvey, Mortgage Brokers and Mortgage Rate Spreads: Their Pricing Influence Depends on Neighborhood Type, 19 J. HOUSING RES. 153, 168 (2010)

CONSUMERS

Some commenters referenced effects of the Rule on consumers. A number of individual commenters stated that the Rule made it difficult for many consumers to get a loan. A number of individual commenters, creditors, and a trade group stated that consumers are being harmed by the Rule since it has resulted in a lack of competition between providers of mortgages. A few individuals and a creditor stated that the Rule has resulted in increased costs to consumers. Some individuals and a creditor stated that the Rule has harmed specific groups of consumers, including retirees, self-employed consumers (due to a lack of consideration of their income in Appendix Q), consumers residing in rural areas, consumers with challenging credit (also referred to as subprime borrowers), consumers seeking low loan amounts, and consumers who seek special programs, such as doctors. One commenter stated that the Rule has resulted in reducing supply of consumers attempting to move up into another home which leads to an oversupply of higher priced homes. A trade group stated that the Rule has harmed minority borrowers. A trade group stated that the vast amounts of paperwork required to meet the Rule's requirements often leads consumers to become frustrated with the mortgage process and back out. The commenter further stated that consumers are frustrated when they apply for mortgages since the requirements are the same for a small home equity loan or for a large purchase loan.

Studies, surveys, and research cited by commenters regarding effects of the Rule on consumers or particular subgroups of consumers:

- A title company cited the economic analysis conducted in connection with HUD's Final Rule Amendments to Regulation X, the Real Estate Settlement Procedures Act: Withdrawal of Employer-Employee and Computer Loan Origination Systems (CLOs) Exemptions, 61 Fed. Reg. 29238 (Jun. 7, 1996);

- the same commenter cited a study commissioned by HUD conducted by Peat, Marwick, Mitchell & Co., Real Estate Closing Costs, RESPA, Section 14a, prepared for HUD under Contract H-2910, Project Code 4.3.01.103 (Oct. 1980);

- a creditor cited Report on the Economic Well-Being of U.S. Households in 2016, (Washington DC, 2017); a trade group cited Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances, June 2012;

- a creditor cited Neil Bhutta & Glenn B. Canner, Mortgage Market Conditions and Borrower Outcomes: Evidence from the 2012 HMDA Data and Matched HMDA-Credit Record Data, Fed. Res. Bull., Nov. 2013;

- a joint letter from consumer advocacy groups cited Underwriting Standards Ease for Fourth Consecutive Year, OCC Survey Shows, Office of the Comptroller of the Currency (2016)

- a joint letter from consumer advocacy groups cited Title Insurance: Actions Needed to Improve Oversight of the Title Industry And Better Protect Consumers, Government Accountability Office (2007);

- a creditor cited Elka Torpey and Andrew Hogan, Working in a gig economy, Career Outlook, Bureau of Labor Statistics, May 2016;

- a trade group cited an examination of closed loans in Duval County, Florida, apparently conducted by the commenter or at least without a reference to its source, concerning consumer costs at closing for a creditor transaction averaging $6,222 and for a mortgage broker transaction, after credits applied, averaging $3,479

- a trade group cited a survey conducted on behalf of the National Association of Realtors by Harris/Nielson, One-Stop Shopping Consumer Preferences, October 6, 2015;

- a trade group, a creditor and consumer advocacy organizations cited Laurie Goodman, Jun Zhu, Bing Bai, Tight credit standards prevented 5.2 million mortgages between 2009 and 2014, Urban Wire, January 28, 2016;

- a trade group cited Laurie Goodman, Jun Zhu, Bing Bai, Overly tight credit killed 1.1 million mortgages in 2015, Urban Wire, November 21, 2016;

- that same trade group, two groups of consumer advocacy organizations, and a creditor cited Laurie Goodman, Bing Bai, Ellen Seidman, Has the QM Rule Made It Harder to Get a Mortgage?, February 2016;

- the same trade group cited Edward Golding, Laurie Goodman, Jun Zhu, Fannie Mae Raises the DTI Limit, July 2017;

- a law professor cited Laurie Goodman, Quantifying the Tightness of Mortgage Credit and Assessing Policy Actions;

- a group of consumer advocacy organizations cited Jim Parrot and Mark Zandi, Opening up the Credit Box (2013)

- a trade group cited M. Cary Collins & Keith D. Harvey, Mortgage Brokers and Mortgage Rate Spreads: Their Pricing Influence Depends on Neighborhood Type, 19 J. HOUSING RES. 153, 168 (2010)
- a creditor cited Sean M. Hoskins, The Ability to Repay Rule: Possible Effects of the Qualified Mortgage Definition on Credit Availability and Other Selected Issues, January 9, 2014;
- the same creditor cited Patrick T. O'Keefe, Qualified Mortgages & Government Reverse Redlining: How the CFPB's Qualified Mortgage Regulations Will Handicap the Availability of Credit to Minority Borrowers, Fordham Law Review;
- a group of consumer advocacy organizations cited Michael Calhoun, The Federal Housing Administration can do more with more, Brookings (2017);
- a title insurance company cited Michael H. Riodan, Competitive Effects of Vertical Integration, Columbia University Department of Economics Discussion Paper Series, 2005;
- the same title insurance company cited Timothy Bresnahan and Jonathan Levin, Vertical Integration and Market Structure, Stanford Institute for Economic Policy Research Mar. 2012;
- the same title insurance company also cited Lawrence J. White, The Title Insurance Industry, Reverse Competition, and Controlled Business - A Different View, The Journal of Risk and Insurance, Vol. 51, No. 2 (1984);
- a group of consumer advocacy organizations cited Heather K. Way & Lucy Wood, Contracts for Deed: Charting Risks and New Paths for Advocacy, 23 J. Affordable Hous. & Cmty. Dev. L. 37 (2014);
- the same consumer advocacy organizations cited Michael Stone, What is Housing Affordability? The case for the Residual Income Approach, Housing Policy Debate, Vol. 17, Issue 1 (Aug. 31, 2006);
- the Center for Responsible Lending, by Ellen Schloemer, et al., Losing Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners (2006);
- the Center for Responsible Lending, by Sarah Wolff, Analysis of HMDA Data 2012-2015;

- a creditor cited Center for Responsible Lending, by Debbie Gruenstein Bocian, Wei Li, and Keith S. Ernst, Foreclosures by Race and Ethnicity—The Demographics of a Crisis, June 18, 2010 ; and a law professor also cited the Center for Responsible Lending, Roberto Quercia, et al., Balancing Risk and Access (2012);

- a creditor cited Rachel Witowski, Blacks and Hispanics Likely to Be Hurt by Qualified Mortgage Rule, Nat'l Mortgage News, October 22, 2013;

- a trade group of credit unions cited a member credit union as stating that they Rule, together with another rulemaking, has required the credit union to pass long costs to the consumer of $54 per transaction at consummation and $247 in increased annual mortgage costs

CREDIT UNIONS

A number of trade groups and credit unions described effects to their segment of the mortgage industry. A few trade groups stated that the Rule makes it unnecessarily difficult for credit unions to provide high quality, consumer-friendly products to their members. One trade group stated that credit unions are good-faith partners helping their members buy a home, and the Rule should reflect this. A trade group stated that a study conducted by the Credit Union National Association indicated the Rule had an impact of $7.2 billion on credit unions in 2014. A credit union stated that the Rule resulted in higher mortgage costs, more restrictive portfolio lending, and reduced efficiencies in its lending process. The credit union further stated that the Rule has required additional staffing and oversight, upgrades in technology systems, and additional time to evaluate loans under the new underwriting guidelines and verification processes.

Studies, surveys, and research cited by commenters regarding effects of the Rule on Credit Unions:

- a survey conducted on behalf of the Credit Union National Association by Haller, Jon; Ledin, Paul; and Malla, Bandana, Credit Union National Association Impact of CFPB Rules Survey (Feb. 2017);

- a trade group of credit unions cited a study for the Credit Union National Association by Hui, Vincent; Myers , Ryan; and Symour, Kaleb, Regulatory Financial Impact Study;

- a consumer advocacy group cited the Credit Union National Association Mutual Group's Credit Union Trends Report (2017);

- a trade group of real state service providers cited a series of surveys, the most recent dated 2015 conducted by Harris/Nielsen concerning affiliated business relationships in real estate transactions;
- a trade group and consumer advocacy groups cited surveys by the National Association of Insurance Commissioners Of State Insurance Laws Regarding Title Data And Title Matters, from 2010 and 2015;
- a title insurance company cited Michael H. Riordan, Competitive Effects of Vertical Integration, Columbia University Department of Economics Discussion Paper Series, 2005;
- the same title insurance company cited Timothy Bresnahan and Jonathan Levin, Vertical Integration and Market Structure, Stanford Institute for Economic Policy Research Mar. 2012;
- the same title insurance company also cited Lawrence J. White, The Title Insurance Industry, Reverse Competition, and Controlled Business - A Different View, The Journal of Risk and Insurance, Vol. 51, No. 2 (1984);
- a title company cited Analysis Group, Inc., Competition and Title Insurance Rates in California, Jan. 2006;
- a trade group of credit unions cited a member credit union as stating that they Rule has required the credit union to add additional positions costing $238,000 annually along with an additional $70,000 for a different rulemaking, $52,000 in extra annual costs in third party contracts for the two rules.

AFFILIATED SETTLEMENT SERVICE PROVIDERS

Some commenters referenced effects of the Rule on affiliated settlement service providers, stating that the Rule has had an adverse effect on the ability of affiliated settlement service providers to compete with other market participants.

Studies, surveys, and research cited by commenters regarding effects of the Rule on affiliated settlement service providers:

- A title company cited the economic analysis conducted in connection with HUD's Final Rule Amendments to Regulation X, the Real Estate Settlement Procedures Act: Withdrawal of Employer-Employee and Computer Loan Origination Systems (CLOs) Exemptions, 61 Fed. Reg. 29238 (Jun. 7, 1996);

- the same commenter cited a study commissioned by HUD conducted by Peat, Marwick, Mitchell & Co., Real Estate Closing Costs, RESPA, Section 14a, prepared for HUD under Contract H-2910, Project Code 4.3.01.103 (Oct. 1980);

Recommendations to modify, expand, or eliminate the ATR/QM Rule

This section discusses the comments received that recommend modification, expansion, or elimination of the Rule. As noted in the Request for Information, the findings made in this assessment, and these comments, will help inform the Bureau as to whether to consider commencing rulemaking in the future in relation to the Rule.

Commenters provided numerous suggestions for specific changes to components of the Rule. The areas discussed included requirements associated with definition of a qualified mortgage; the definition of points and fees and the maximum cap of 3 percent of the loan amount on points and fees; changes to, or elimination of, the maximum debt-to-income ratio for qualified mortgages; elimination or extension of the Temporary GSE QM definition; establishing permissible calculations related to a residual income calculation that can be used in lieu of the debt-to-income ratio; changes to Appendix Q of Regulation Z, which can be used to determine the amount of income and debt of the consumer used to calculate the debt-to-income ratio; changes to permit asset-based lending; changes to post-consummation cures to ensure qualified mortgage status; exemption of credit unions from the Rule; and miscellaneous other changes.

Comments on general principals and goals for Rule modifications

A few commenters discussed general principles and goals of modifications to the Rule. A trade group stated that the Dodd-Frank Act gave the Bureau tremendous latitude and discretion, so the assessment should determine revisions to the Rule, and that it is crucially important to preserve the fundamental intent of law, which the commenter identifies as restricting risky practices and encouraging traditional prime lending. A creditor stated that the Rule should provide simple guidelines, rather than complex underwriting rules. A trade group stated that the Rule should clarify bank statement lending programs. A creditor stated that the Rule should change ability-to-pay reliance on historical performance to allow for new products with no performance history. A trade groups stated that the Rule must advance towards a uniform and transparent set of guidelines, criteria, and compensating factors that are objective and policy-based and independent of any institutional market participant. Two trade groups stated that any changes to the Rule should be applied holistically and not vary based on size of the institution or business model. One of these trade groups also stated that the Rule should responsibly widen the credit box so that many more consumers can benefit from safe, sustainable mortgages. A trade group of State regulators stated that the Rule should provide more flexibility for community banks that rely on relationship lending and use more qualitative data in their lending. A group of consumer advocates stated that property assessed clean energy loans and home equity lines of credit should be covered by the Rule.

Commenters stated that various changes to the definition of a qualified mortgage should be made to the Rule. A trade group supported the statutory definition for qualified mortgage, but recommended removing the debt-to-income ratio requirement. Several trade groups, creditors and individual commenters stated that the qualified mortgage safe harbor should be expanded to mortgages held in portfolio by creditors, or at least those held by credit unions or community banks. These commenters stated such a change would facilitate worthwhile lending since the Rule discourages lending outside of the safe harbor. Consumer advocacy groups stated that the qualified mortgage safe harbor should not be expanded to mortgages held in portfolio by larger institutions, as the risk of foreclosure is not a constraint on lending if a consumer has enough equity in the property that secures the mortgage, which could lead to equity stripping by creditors originating mortgages to hold in portfolio. These consumer advocacy groups also stated that high-cost mortgages should not receive the qualified mortgage safe harbor since high-cost mortgages are inherently dangerous and have a long track record of consumer harm. A number of trade groups stated that the scope of the safe harbor should be expanded by adjusting the threshold of high-cost mortgages to a higher threshold of 250 basis points above the average prime offer rate. A trade group stated that non-qualified mortgages should be considered to be qualified mortgages if the consumer consistently makes periodic payments on the mortgage for a certain period of time and the mortgage is considered "seasoned". Two individuals stated that streamline refinances should meet the definition of qualified mortgages. One individual stated that land installment contracts should not be considered qualified mortgages, while two consumer advocacy organizations stated that the Bureau should make clear that land installment contracts are mortgages and are covered by the Rule.

Comments related to the inclusion of loan originator compensation in the definition of points and fees

Approximately three quarters of the comments consisted of comments from loan originators or loan originator organizations. These commenters were consistently critical of how loan originator compensation is treated under the points and fees requirement for qualified mortgages and requested various changes for regulatory relief. Several individual commenters stated that the points and fees definition in the statute was a drafting error. These commenters stated that the points and fees definition double counts mortgage broker compensation. Commenters suggested changes to the definition of "mortgage broker" to recognize the difference between a loan originator and a loan originator organization. Commenters suggested that the Rule should exclude compensation paid by the creditor to the mortgage broker from the definition of points and fees or only count compensation received directly from the consumer. The commenters stated the compensation is merely the gain on sale of the promissory note into the secondary mortgage market, and that the consumer does not directly pay these funds to the mortgage broker. Some individual commenters also stated that the Bureau has recognized the error in the points and fees provision, because the integrated mortgage disclosure forms do not include a requirement to disclose the split in compensation between a loan originator organization and the individual loan originator.

Some creditors and a large number of individual commenters stated that the Rule should remove the statutory 3 percent cap on points and fees from the qualified mortgage definition altogether because of the deleterious impact that the provision has had on small-business mortgage brokers and low- and moderate-income consumers, as well as because the operation of the loan originator compensation rule sufficiently constrains the actions of mortgage brokers and protects consumers.

Comments concerning the limit on points and fees in relation to loans for smaller amounts

A few trade groups and individual commenters stated that the Bureau should modify the tiers for smaller loan amounts from their existing thresholds because the high costs associated with origination for creditors make the current levels less economically feasible, reducing the attractiveness of low balance loans to creditors. A group of consumer advocates stated that the levels for smaller loans should not be changed unless there is clear evidence that the Rule is artificially reducing access.

Comments recommending raising the points and fees limit

A few individuals stated that the points and fees limit should be increased from the 3 percent amount to 5 percent, or 5.5 percent. A group of consumer advocates and a trade group stated that the definition of points and fees should not change since there is no possibility of a refund if there is an overpayment of points and fees, while a consumer can at least try to refinance a mortgage if they happen to have a higher interest rate.

Comments on the inclusion of various charges in the points and fees definition

AFFILIATE FEES

A few trade groups and individuals stated that fees paid to affiliates should be excluded from the definition of points and fees to encourage the development of 'one-stop shopping' for mortgages.

Comments from groups of consumer advocate organizations stated that affiliate charges should remain included in the points and fees definition. These commenters also stated that the removal of affiliate charges from the definition of points and fees would significantly increase prices for those services.

PRIVATE MORTGAGE INSURANCE

Two trade groups stated that upfront private mortgage insurance payments should be excluded from the definition of points and fees since equivalent government program upfront fees are not included in the definition and the determination of whether a loan can be repaid is not determined by a mortgage insurance provider's identity.

BONA FIDE DISCOUNT POINTS

An individual commenter stated that the Bureau should provide more guidance on the exclusion of bona fide discount points from the definition of points and fees.

Comments recommending changes to the maximum permissible debt-to-income ratio

A number of commenters stated that the maximum permissible debt-to-income ratio for a qualified mortgage should be eliminated or modified. A number of trade groups, a creditor, and some individual commenters stated that the maximum debt-to-income ratio for a qualified mortgage should be eliminated because it makes no sense, has hurt consumers with difficult to document income, and that other measurements, such as cash flow, would be a more inclusive indicator of the ability to repay the loan. One trade group stated that the maximum debt-to-income amount should be eliminated or other methods for satisfying the qualified mortgage definition should be seriously considered if there is no significant change to mortgage performance when the debt-to-income ratio exceeds 43 percent.

One trade group commenter stated that the varying levels of permissible debt-to-income ratios between the GSEs and loans guaranteed or insured by a government agency versus a General QM's 43 percent debt-to-income ratio creates opportunities for regulatory arbitrage, leading creditors to direct consumers to a mortgage product based on regulatory provisions rather than the needs of the consumer. This commenter stated that the results of the assessment should be used to examine debt-to-income ratios above 43 percent and its interplay with compensating risk factors with a view towards creating a more expansive, uniform, and transparent standard. This commenter further stated that if harmonizing the various debt-to-income standards amongst qualified mortgages is not possible, the various government agencies that guarantee or insure mortgages should be required to justify higher debt-to-income ratios and any permissive lending standards should be accompanied by periodic monitoring and reporting requirements.

Several trade groups, creditors, and individual commenters stated that the debt-to-income ratio should be changed to an amount higher than 43 percent, some without specifying the amount and others stating that the amount should be increased by various levels ranging from 45 to 60 percent and either outright increases, under extenuating circumstance, or when the Temporary GSE QM provision expires, in order to provide consumers with more access to credit. A creditor and a couple of individual commenters stated the maximum debt-to-income ratio should be eliminated for jumbo mortgages since the Rule does not effectively measure the ability to repay for them and that high-income consumers do not need the same protections as other consumers. One individual commenter stated that the maximum debt-to-income ratio should be a sliding scale based on gross income. A trade group stated that a 'one size fits all' regulation does not work, and an individual commenter sated that investors should be permitted to establish their own debt-to-income ratio. In contrast to the suggested increases to the maximum debt-to-income ratio amount, two individual commenters stated that there should be no increases.

Comments in relation to the elimination or extension of the Temporary GSE QM provision

Two trade groups and an individual commenter stated that the Temporary GSE QM provision should be removed and the Bureau should rely on core statutory requirements to define a qualified mortgage. One trade group stated that although it believes that the Temporary GSE QM provision is essential for mortgage market support at the present, the Temporary GSE QM provision must eventually sunset. Another trade group stated that it supported the Temporary GSE QM provision unless and until the Bureau develops a standard that more effectively balances the need for a bright line with the reasonable credit underwriting that balances multiple factors. A few trade groups stated that the Temporary GSE QM provision has combined a regulatory bright line with underwriting flexibility for creditors by permitting the creditor to use GSE underwriting standards in order to comply with the qualified mortgage requirements, allowing creditors to reach deeper into a population of credit-worthy consumers. Two groups of consumer advocates and two trade groups stated that the Temporary GSE QM provision has worked and should be maintained for various reasons, including the effect of an expiration on the availability of credit to consumers, the necessity of doing responsible lending above a 43 percent debt-to-income ratio, and maintaining underwriting flexibility that is incorporated in the GSE standards, which is not possible in a regulation. An individual commenter suggested extending the Temporary GSE QM provision for seven years, while three trade groups and a consumer advocacy organization suggested an indefinite extension until an alternative is in place. Three trade groups, two creditors and a consumer advocacy organization stated that the

Temporary GSE QM provision should be permanent. A creditor and two trade groups also supported extending the Temporary GSE QM provision to the jumbo mortgage market since the discrepancy in treatment of jumbo mortgages interferes with the securitization process. One trade group stated that the Bureau should clarify that the documentation requirements for the Temporary GSE QM provision does not require that the mortgage actually be purchased or guaranteed by a GSE. A provider of credit scoring models stated the implicit endorsement of the FICO credit model in GSE underwriting standards should be expanded to include other credit scoring models.o

Comments concerning Appendix Q of Regulation Z

GENERAL

Many commenters suggested modifications, modernization, simplification, and alternatives to Appendix Q of Regulation Z, which describes how to determine income and debt for use in the maximum debt-to-income ratio of 43 percent under the Rule. A few trade groups, a creditor, and a consumer advocacy organization argued that Appendix Q should be completely eliminated. Two of these trade groups with the creditor and consumer advocacy organization stated that the Bureau should develop a transparent set of criteria, including compensating factors, to define a qualified mortgage to replace Appendix Q. A trade group stated that Appendix Q was borrowed from static, vague, and outdated guidelines that do not reflect today's employment and income trends and documentation standards, let alone technological norms for complying and verifying information and a consumer's ability to repay. Two trade groups and two individual commenters stated that the Bureau should approve alternatives to Appendix Q, including commonly accepted underwriting standards such as those of the GSEs, FHA, VA and RHS.

CALCULATING INCOME AND DEBT

Several commenters specifically discussed modifications to the method used to determine income set forth in Appendix Q, especially in relation to stated difficulties for specific groups of consumers. These groups included consumers that receive income from self-employment, part-time employment, renting real property, social security, and nontraditional income.

As noted above, a trade group stated that for income from part-time employment, the amount of time it takes to properly document and assess a two-year history of income, consumers essentially need to have been working up to three years for it to be used to determine income, which is extremely burdensome on those consumers. This trade group further stated that Appendix Q is not clear if the income can come from any part-time job held during the two year period, or if it must be from the same job, and that the Bureau should clarify this requirement. In addition this trade group states that in determining social security income under Appendix Q, creditors should be permitted to gross up to a standard 125 percent instead of to the consumer's tax rate, as it would make the process easier and less burdensome on the consumer, without any impact on underwriting.

An individual commenter stated that the 25 percent cap on variable income should be increased to something more reasonable like 45 to 50 percent. A trade group and a creditor stated that the Bureau should clarify that income from vacation rentals received by a consumer should be considered a valid income for Appendix Q. A creditor stated that income received from a line of credit to manage cash flow from accounts receivables of self-employed consumers is not considered income under Appendix Q, but should be. Another trade group stated that Appendix Q is confusing on how to use asset depletion as income.

A credit reporting agency stated that the Rule should allow income estimation models, such as the Income Insight Score, to be used to determine income and only require third party verification if the Income Insight Score does not match the consumer's stated income. An individual commenter stated that Appendix Q contains a dichotomy in treatment between income and debt related to student loans, as the payments due on student loans are included in determining debt while anticipated increases in income from the consumer's education are not considered in determining income. A creditor stated that Appendix Q counted certain debts twice in determining debts and should be changed to avoid such a result.

An industry trade group stated that Appendix Q should permit the use of compensating factors and residual income in determining income. This trade group, along with a few other trade groups and a creditor, stated that the Bureau should consider the VA's residual income test as an option to use in the definition of a qualified mortgage. Another two trade groups and a creditor stated a residual income threshold would allow more flexibility in the Rule. Another trade group stated that the Bureau should provide a clear definition of residual income, since the current definition causes documentation problems, litigation and liability risk, and harms consumers with less than meticulous credit records.

DOCUMENTING INCOME AND DEBT

Several commenters stated there are problematic issues related to documentation of income under Appendix Q. A number of commenters, including several trade groups, creditors and individual commenters, stated that additional guidance from the Bureau in relation to Appendix Q is needed in relation to verification of employment (especially for foreign nationals), lending to non-permanent resident aliens, and clarity on the effect of a decline in income for self-employed consumers on the determination of income.

A trade group and a creditor stated that the treatment of work history gaps, as well as documentation of a new job, interferes with appropriate access to credit. Another creditor stated that provisions requiring explanations of 30-day gaps in employment is unnecessarily short and should be expanded, and that alternative employment documentation to what is currently accepted should be sufficient for Appendix Q. A trade group and a creditor stated that Appendix Q is confusing and unworkable on how to use a consumer's tax return for documentation. This trade group, and another creditor, stated that tax transcripts should be used to document income instead of copies of the complete tax return forms completed by consumers, since the majority of consumers file and sign tax returns electronically. This trade group also stated that requirements for a balance sheet and profit and loss statements for sole proprietors and partnerships to document income should be eliminated in Appendix Q.

A trade group stated that documentation requirements that include current lease information for rental income is duplicative as creditors are already required to collect tax information for at least two years, creating another burden on consumers. This trade group also stated that social security income should be able to be documented by a direct deposit or checking statement showing that the social security funds were deposited in the consumer's account, instead of requiring a benefit verification letter. In addition, this trade group stated that the written verification of continuance requirements for military add-on income (such as basic allowance for housing or subsistence) should be eliminated because requiring consumers to provide written verification of this additional income is not required for civilian consumers and is almost impossible to obtain by the consumer or creditor.

A creditor stated that Appendix Q should permit the annuitization of assets to substitute for income verification. An individual commenter stated that reduced documentation should be available for self-employed consumers that demonstrate a 5 year history of being in business.

Comments recommending extension or adoption of a post-consummation cure provision

A few trade groups and a consumer advocacy organization stated that the post-consummation cure for points and fees that will expire in January 2021 should be made permanent. An industry trade group and two creditors stated that the post-consummation cure should be expanded to include instances of missing documentation to establish compliance with the Rule. The same trade group, along with two other trade groups stated that the post-consummation cure should also be extended to include debt-to-income ratio issues. A creditor and the same two trade groups stated that creditors should be able to use a post-consummation cure for the points and fees threshold by providing refunds to consumers.

Comments recommending creation of an exemption from the Rule for credit unions

A few credit unions and a trade group stated that an exemption from the Rule for credit unions was appropriate. These commenters stated that credit unions did not cause the mortgage crisis, do provide a financial benefit to their members, and do not profiteer off of them. These commenters suggested the Bureau exercise its authority under Dodd-Frank Act section 1022(b)(3)(A) and exempt credit unions from the Rule. Another trade group stated that the asset size limit for credit unions to originate small creditor qualified mortgages should be increased.

Other comments recommending modification, expansion, or elimination of the Rule

Some commenters included proposed modifications to the Rule that are not tied to specific provisions nor a general comment on the Rule itself. One trade group stated that creditors should be permitted to make decisions based on a consumer's overall credit profile, including looking at the consumer's credit score and the loan-to-value ratio for consumers relying on income from assets to repay the loan. Further, this trade group stated that that creditors should be permitted to make decisions on where a consumer falls within a higher credit score bracket, relaxing guidance for loan-to-value ratios if the credit score analysis supports the transaction for consumers seeking smaller-than-average loan amounts. A trade group stated that no-documentation and low-documentation mortgages are no longer possible, so the Rule should be modified since the risks associated with these categories is gone. A creditor stated that profit on the sale of a mortgage is a good indication of risk and should be considered by the Rule, and that a consumer's cash reserves and loan-to-value ratio should be offsetting factors. Another creditor stated that the Rule should permit third-party verification of consumer's records. One group of consumer advocates stated that the Bureau should examine whether it is appropriate to have different standards for the Rule based on the source of credit insurance for the mortgage (e.g., GSEs, FHA, or VA). One trade group of State banking regulators stated that asset size is a bad way to define community banks, and that the Bureau should adopt the definition used by the FDIC.

The assessment plan[400]

Comments concerning the baseline measurements

An industry trade group commenter stated that, because the market retraction underway at the time of the Rule's effective date would suggest that using the law's inception point as a baseline to measure impact could lead to erroneous conclusions, the selection of a baseline for comparison be carefully weighed and considered by the Bureau. This commenter urged the adoption of a multidimensional perspective that at a minimum adopts multiple baselines that can be compared with current lending activity. The commenter indicated that the use of multiple baselines allows for broader comparisons of potential policy courses that should be considered in determining optimal solutions and regulatory restructuring of the Rule.

A trade group stated that the assessment should include an analysis of the products and structures that caused the 2008 mortgage crisis, as well as the role that securitization of non-document and low-document loans played in the crisis including inaccurate ratings of mortgage-back securities. This commenter also stated that the assessment should focus on cost, origination volume, approval rates, subsequent loan performance, millennial and immigrant markets, self-employed borrowers, and the interaction between the dramatic increase in closing costs since 2008 and the inclusion of affiliates in the definition of points and fees in the Rule.

Comments concerning the sufficiency of the data

Some commenters stated that the data and other factual information to be used was insufficient, specifically that the use of daily rate-sheets would not be useful in determining trends in the cost of credit.

Comments recommending specific data to be reviewed

Two commenters suggested that the assessment plan should also focus on the number of safe harbor qualified mortgages, rebuttable presumption qualified mortgages, and non-qualified mortgages, and the accompanying income, credit score, and demographic data for each category. Another suggested the use of HMDA reports and information from the GSEs, FHA, VA, and industry databases, such as Mortgage Banker Association surveys.

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400 As noted above, the Bureau continued to develop the assessment plan after publishing the RFI, taking into account the comments received. See also Chapter 1, section 1.2.

Comments recommending the use of qualitative methods

Some commenters suggested the use of qualitative methods would help the assessment, specifically interviews of creditors and surveys of various mortgage market participants and subsets of participants. One trade group stated that the Bureau should interview a broad-based sample of community banks that lend in both rural and non-rural markets, including those that qualify for the small creditor and rural exemptions and those that do not. Consumer advocacy groups stated that the assessment should include outreach to consumers and consumer advocates.

Comments concerning data on impacts on creditors

A commenter stated that the assessment plan only focuses on consumer outcomes, and does not consider effects on the mortgage industry and marketplace, and that the conclusions will be unnecessarily constrained and not fulfill Congressional intent. Some commenters stated that the assessment should include reviews of information and impacts on creditors and the market. A trade group stated that the assessment should include the perspective of all the purposes and objectives laid out in Dodd-Frank Act sections 1021 and 1022, and ensure the Bureau identifies and addresses outdated, unnecessary or unduly burdensome rules within the scope of its rulemaking authority. Another trade group stated that the assessment should carefully consider the effect the Rule has had on credit unions and their members.

Comments concerning review of regulatory costs

A creditor stated that the assessment's scope should be expanded to include market outcomes, measured by elapsed time from application to consummation, costs, credit availability, and regulatory burden. A trade group also stated that the assessment should analyze regulatory costs in terms of the overall compliance environment, taking into account the interrelation of all mortgage reforms that currently impact lending operations. This commenter also stated that the assessment should analyze the Rule and other rules, e.g. loan originator compensation.

Comments concerning review of access to sustainable credit

An academic commenter stated that metrics will need to be developed to evaluate whether mortgage regulation, including the Rule, increases access to sustainable credit. A trade group stated that the assessment should determine which consumers that have been shut out of the mortgage market, and whether enhancements to qualified mortgage standards, or further harmonization of the various qualified mortgage standards, can improve access to credit while still protecting consumers.

Comments recommending a focus on specific metrics

A number of commenters stated that the assessment should focus on particular areas encompassed by the Rule and specific metrics related to mortgage origination.

A trade group stated the assessment should look at the volume of small balance versus higher-balance qualified mortgages, demand for loans at various loan amounts, and the impact of points and fees on smaller loan balances. This commenter also stated the assessment should look at the performance of mortgages at various debt-to-income ratios, since before the current ratio was selected, the Bureau considered and provided FHFA loan performance data for public comment and that data on current loan performance should again be obtained and offered for public comment. The commenter further stated that observable compensating factors that may affect the performance of mortgages at various debt-to-income ratios should be better understood for the assessment, as well as the comparative debt-to-income ratios between qualified mortgages and the performance of GSE, VA, FHA, and RHS mortgages. The same commenter also stated the assessment should analyze the effect of the Rule on access to credit by estimating the number of mortgages in each category of qualified mortgages and non-qualified mortgages, such as those that meet the Temporary GSE QM provision, those that meet the General QM definition, and those that have a safe harbor or rebuttable presumption of compliance.

This commenter, as well as a group of consumer advocates and another trade group, stated that the assessment should focus on the Rule's effect on access to credit by consumers. The group of consumer advocates also stated that the assessment should focus on preventing unaffordable lending. A trade group stated that the assessment should prioritize analysis of the market impact of the Temporary GSE Qualified Mortgage provision and begin the process of identifying appropriate uniform standards that can eventually replace this provision without disrupting markets. A trade group stated that if the assessment considers only the Rule's QM standards, it will have a significant gap because the assessment will achieve an understanding of only some, but not all, products being offered to consumers. A trade group stated that costs of court litigation and eventual settlements must form a part of the assessment, as unknown litigation risks associated with non-qualified mortgages has been a primary factor in the failure of investors to support a reemergence of private label security markets.

Comments on effect of a lack of clarity in the Rule

A trade group stated that the assessment should consider whether difficulties with originating non-qualified mortgages are based on a lack of clarity on how to comply with the ability-to-pay requirements. This commenter, an industry participant, and a consumer advocacy organization, state that the assessment should review whether underwriting guides of the GSE and governmental programs should serve as alternatives to Appendix Q.

Comments recommending a focus on effects to affiliates

A number of trade groups and other commenters, stated that the assessment should measure the Rule's effect on affiliates, sometimes generally and sometimes in the context of the Rule's definition of points and fees.

Appendix C: APPLICATION DATA REQUEST TO NINE LENDERS

As mentioned in Sections 1.3 and 5.3.1, the Bureau collected de-identified application-level data from nine lenders using its authority under section 1022(c)(4) of the Dodd-Frank Act. The lenders represent a range of national banks and non-depositories and includes applications received from 2013 to 2016. This amounts to five million applications in total with information about each application's characteristics and whether the application was approved, denied or withdrawn by the lender.

The nine lenders provided data on applications received by their institution, affiliates, correspondent lenders, and mortgage brokers. For applications received from the correspondent or broker channel, only applications where the lender made the final credit decision were included. Applications data were requested for first-lien home purchase or refinance closed-end, owner-occupied, one to four family residential consumer mortgages. Certain restrictions were placed such as excluding pre-approval requests, incomplete applications, any personally identifiable information, and information on the race or ethnicity of the applicant or co-applicant.

Below is a complete list of the requested fields contained in the Application Data.

Application Fields

#	Field name	Field description	Labels and value ranges	Notes
[1]	fico	FICO score of the applicant at origination. If more than one applicant, report the lowest score.	1 = <620 2 = 620 – 659 3 = 660 – 679 4 = 680 – 699 5 = 700 – 719 6 = 720 – 739 7 = 740+	
[2]	numborr	Number of applicants on the application.	1 = One 2 = More than one	
[3]	inc_src	Primary source of income used to qualify for a loan. If more than one applicant, this applies to the applicant with the highest income.	1 = Full time employment 2 = Part time employment 3 = Monthly income from retirement/pension plan 4 = Monthly withdrawals from	This field will be adjusted to reflect detail recorded in your data systems.

#	Field name	Field description	Labels and value ranges	Notes
			assets 5 = Other U = Unknown	
[4]	self_emp	Indicator for a self-employed applicant whether it was a primary or secondary source of income. If more than one applicant, this is an indicator for whether one of the applicants is self-employed.	1 = Self-employed 0 = Not self-employed U = Unknown	
[5]	delinq	Delinquent at the time of application or in default on any Federal debt or any other loan, mortgage, financial obligation, bond, or loan guarantee? If more than one applicant, then indicate whether any applicant is delinquent.	1 = Delinquent 0 = Not delinquent N/A = Not applicable U = Unknown	
[6]	bankruptcy	An indicator for a bankruptcy in the last 7 years, by any of the applicants.	1 = Bankruptcy 0 = No bankruptcy U = Unknown	
[7]	dti	Back-end DTI.	1 = <21.01% 2 = 21.01 – 30.00% 3 = 30.01 – 40.00% 4 = 40.01 – 43.00% 5 = 43.01 – 45.00% 6 = 45.01 – 50.00% 7 = >50.00%	
[8]	amount	Loan amount, in dollars	1 = <60,001 2 = 60,0001 – 100,000 3 = 100,001 – 150,000 4 = 150,001 –	

#	Field name	Field description	Labels and value ranges	Notes
			250,000 5 = 250,001 – 417,000 6 = 417,001 – 625,000 7 = >625,000	
[9]	inc	Application income, per month, in dollars.	1 = <2,501 2 = 2,501 – 5,000 3 = 5,001 – 7,500 4 = 7,501 – 10,000 5 = 10,001 – 12,500 6 = 12,501 – 15,000 7 = >15,000	
[10]	purpose	Loan purpose.	1 = Purchase 2 = Refinance	Do not include applications for other purposes
[11]	app_date	Application date, MM/YYYY.	MM/YYYY	Include applications received between 01/01/2013 – 12/31/2016
[12]	gse_eligib	An indicator of an application for a loan that is eligible to be purchased, insured, or guaranteed by a GSE (regardless of whether you sold, or intended to sell, the loan to GSE's).	1 = GSE-eligible 0 = Not GSE-eligible U = Unknown	
[13]	loantype	The type of mortgage product applied for. Response options: "GSE" - you typically sell loans originated under this product to GSE's "FHA" - an application for an FHA insured loan "VA" - an application for VA guaranteed loan	1 = GSE 2 = FHA 3 = VA 4 = USDA/RHS 5 = JUMBO 6 = Other	

#	Field name	Field description	Labels and value ranges	Notes
		"USDA/RHS" - an application for a guaranteed USDA/RHS loan "Jumbo" - a loan above the applicable GSE conforming limit.		
[14]	portfolio	An indicator for an application for a portfolio mortgage product. You typically keep loans originated under this mortgage product in portfolio, for at least 1 year after origination.	1 = Portfolio product 0 = Not a portfolio product U = Unknown	
[15]	ltv	LTV	1 = <50.01% 2 = 50.01 – 80.00% 3 = 80.01 – 90.00% 4 = 90.01 – 95.00% 5 = >95	Discuss cases where appraisal information is not available on an application
[16]	cltv	An indicator of whether the CLTV>LTV on the loan application. This usually occurs if there is a contemporaneous application for a second mortgage.	1 = CLTV>LTV 0 = CLTV=LTV U = Unknown	
[17]	paytype	Payment type of the mortgage product.	1 = Fixed 2 = ARM 3 = Balloon 4 = Other	
[18]	term	Amortization term, in years.	Numeric values (e.g., 5, 10, 15, 30 etc.)	
[19]	arm_t	Length of initial term before reset	Numeric values, such as 1,3,5,7,10	

#	Field name	Field description	Labels and value ranges	Notes
		for an ARM loan, in years, for ARM loans.	N/A = non-ARM loans	
[20]	balloon_t	Length of the term before the balloon payment, for a balloon loan.	Numeric values N/A = Not a balloon loan	
[21]	points_test	An indicator for whether the application has passed the QM points and fees test (e.g., the sum of applicable points and fees does not exceed the relevant threshold).	1 = Application has passed the QM points and fees test 0 = Application has not passed the QM points and fees test U = Unknown	
[22]	hoepa	An indicator for a HOEPA loan.	1 = HOEPA 0 = Not HOEPA U = Unknown	
[23]	channel	Origination channel where the application was acquired.	1 = Retail 2 = Correspondent 3 = Broker U = Unknown	
[24]	units	Number of units in the property.	1, 2, 3, 4 U = Unknown	Only applications for 1-4 unit single family homes. If the exact number of units is not captured, alternatively indicate whether this is a 1 unit or >1 unit property
[25]	mh	Manufactured housing indicator.	1 = Manufactured home 0 = Not a manufactured home U = Unknown	