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Is the CRA Still Relevant to Mortgage Lending?

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ABSTRACT

Market share of conforming-size, home purchase mortgage originations has steadily and substantially shifted from banking institutions to nonbank lenders over recent years. In 2017, nonbanks originated more than 1.8 million conventional and FHA purchase mortgages (53% of the market), as compared to 1.4 million by banks. In contrast, nonbanks originated 30% of purchase-money mortgages (by volume) in 2000 and 24% in 2007. Does the declining role of banking institutions imply that the Community Reinvestment Act (CRA) is becoming less relevant to mortgage lending, since only they are subject to the requirements of the CRA?

We address this question by exploring the changing composition of home purchase mortgage originations since 2000. We focus on the share of FHA and conforming-sized conventional loans to low- or moderate income households or to finance properties in low- or moderate-income neighborhoods, and provide a more detailed examination of the shifts in market composition than previous studies.

Our analysis points to a conclusion that the CRA continues to be relevant to maintaining broad access to mortgage credit. We find that the overall share of loans to low-or moderate-income borrowers has decreased compared to pre-2004, which we view as a reasonable benchmark period. However, this decrease has mostly been offset by an increased share to borrowers (broadly distributed by income) purchasing properties in low-or moderate-income neighborhoods.



1. INTRODUCTION

As housing markets in the United States recovered from the foreclosure crisis and stabilized during 2012 through 2017, the mortgage origination market became reconfigured. Market share steadily and substantially shifted from banking institutions to nonbank lenders. By 2017, nonbank institutions were originating a slight majority of conforming-sized conventional mortgages and nearly four-out-of-five Federal Housing Administration (FHA) insured loans. The volume of mortgage lending by banks decreased from 3 million loans in 2000 to 1.5 million in 2017, while nonbank loans increased from 1.5 to 2 million loans. Overall lending has substantially decreased, particularly for conforming-sized conventional mortgages, as FHA loan volume increased.

Whereas depository institutions (other than credit unions) are subject to the requirements of the Community Reinvestment Act (CRA), nonbank lenders are not. This raises the following question: Does the declining role of banking institutions (especially in originating FHA loans, which tend to be favored by low-and-moderate-income borrowers and those purchasing homes in low- or moderate-income areas), imply that the CRA is becoming less relevant to mortgage lending?

We address this question by exploring the changing composition of home purchase mortgage originations since 2000, focusing on the share of FHA and conforming-sized conventional loans provided to low-and-moderate-income households or financing properties in low-and-moderate-income neighborhoods.\(^1\) We provide a more detailed examination of the shifts in market composition than previous studies, such as by distinguishing between different size categories of banks and across markets with differing affordability trends.

The analysis points to a conclusion that the CRA continues to be relevant. In particular, community banks have maintained a stable share of the overall market and an increasing share of loans to finance properties in low- and moderate-income neighborhoods. We also find that the overall share of FHA and conforming-sized conventional loans from all lenders to low- or moderate-income borrowers has decreased compared to pre-2004, which we view as a reasonable benchmark period. This decline is occurring along with tighter credit conditions compared to pre-2005. Moreover, a more pronounced decline is observed in areas with greater house price appreciation, which suggests an impact of declining affordability. However, this decrease has been mostly offset by an increased share of lending to borrowers (broadly distributed by income) purchasing properties in low- or moderate-income neighborhoods.

The remainder of the paper is organized as follows. Section 2 provides a brief review of previous studies that have documented and examined the recent shift in market share of mortgage originations to nonbanks. Section 3 presents our longer-term look at the evolving market shares of nonbanks and banking institutions differentiated by size category, for the overall conforming-sized, home purchase loan market and separately for the conventional and government-insured segments. Section 4 examines, at various levels of aggregation, the evolving share of loans originated to low-and-moderate-income households or to finance properties in low- or moderate-income neighborhoods. Section 5 concludes.

2. LITERATURE REVIEW

The shift in market share of mortgage origination from banking institutions to nonbanks since 2011 has been widely reported and discussed both in the popular press and in government and industry publications, and also has been the subject of a number of academic studies. Mostly these have focused on the exit of large banking institutions from FHA and VA lending and related issues, including potential impacts on lending to low-and-moderate-income borrowers.²



Kim, Laufer, Pence, Stanton, and Wallace (2018) document the reduction in FHA lending among depository institutions, and report that as of 2016, nonbanks captured 75% of the combined FHA and VA market. They point to increased capital requirements for the mortgage servicing assets of large banking institutions as a reason for this shift of FHA and VA lending to nonbanks and assess the implications for financial stability.³ In particular, they argue that concentration of mortgage lending and servicing among nonbanks poses risk of a liquidity crisis in the mortgage market in the event of a major housing market downturn, because "nonbank mortgage companies are subject to liquidity pressures in both their origination and servicing activities."

Fuster et al. (2018) explore the growth of nonbank FinTech lenders in the mortgage origination market. They present evidence that quicker and more efficient processing of loan applications by these lenders has been an important contributing factor. Gete and Reher (2019) argue that a portion of the growth in nonbank market share can be explained by the introduction of the U.S. Liquidity Coverage Ratio rule in 2014, which fueled demand for Ginnie Mae mortgage-backed securities by the large financial institutions covered by the rule.

Bhutta, Laufer, and Ringo (2017) document a significant reduction in lending to low-and-moderate-income borrowers between 2010 and 2016. They find similar patterns between banks and nonbanks, but for the largest three banks (Wells Fargo, Bank of America, and JPMorgan Chase) they find a more precipitous decline. They explain that the steeper decline for these institutions was mostly, but not entirely, a consequence of their retreat from FHA lending, which disproportionately serves low-and-moderate-income households. They attribute the retreat from FHA lending to recent litigation brought by the Department of Justice against large lenders under the False Claims Act.⁴

Unlike banks, nonbanks are not subject to CRA, so they may have less incentive to serve low- or moderate-income borrowers and communities. Indeed, recent research has found convincing evidence of a causal impact of CRA on expanding credit access by banks. Ding and Nakamura (2017) and Ringo (2018) study exogenous changes in metropolitan boundaries, which alter CRA eligibility thresholds, and find that the CRA has a positive impact on financing of home purchases by low-and-moderate-income households and in low-and-moderate-income neighborhoods. Ringo's study focuses on metropolitan boundary changes in 2003 and argues that the additional loans originated because of the CRA are not inherently riskier than other loans made to borrowers with similar income levels.

Bhutta and Ringo (2015) summarize the literature on the CRA's role in expanding credit access, and assess the evidence on whether the CRA contributed to the foreclosure crisis that accompanied the housing market downturn of 2007 through 2011. They conclude that the CRA was not a significant contributor to the crisis, since few subprime mortgages were CRA-related, and CRA-related loans did not exhibit worse performance. However, in response to the crisis and the consequent tightening of regulations and imposition of penalties, banks have tightened their supply of credit.

Gete and Reher (2017) consider the impact of this tightening of mortgage credit by lenders who experienced regulatory shocks following the Dodd-Frank Act. They find that areas with greater exposure to these lenders experience a greater overall restriction in the supply of credit, resulting in more households being unable to become homeowners. Similarly, Mondragon (2018) finds that counties more exposed to the collapse of a large mortgage lender experienced a larger reduction in total mortgage credit and ultimately in local employment rates.⁵

3. EVOLVING MARKET SHARES OF BANKING INSTITUTIONS AND NONBANKS

We use Home Mortgage Disclosure Act (HMDA) data from 2000 through 2017 to study the evolving role of banks versus nonbanks and its implications for the CRA.⁶ HMDA data are submitted annually in early spring



by mortgage lending institutions, providing information on each home purchase and refinance mortgage application from the preceding year. HMDA filers include all commercial banks, savings and loan institutions, credit unions, and mortgage companies that meet minimum asset size thresholds and have a branch in a metropolitan area.⁷

HMDA data provide the action taken on each loan application (whether it was approved, denied, or withdrawn); the year of the application and of the action taken; loan purpose (purchase or refinance); loan amount; lien position (first- or junior-lien); loan type (conventional, FHA, VA, or other government-insured); occupancy status (owner-occupied, second home, or investor property); and property type (one-to-four family or multi-family). HMDA data also provide the income and racial or ethnic classification of the applicant (and of the co-applicant, if applicable) and the state, county, and Census tract location of the subject property. In addition, the data indicate whether an originated loan was sold prior to year-end, and the type of purchaser.⁸

We restrict attention to originated (approved and not withdrawn) conventional and FHA loans on first-lien home purchase mortgages originated and secured by one- to four-family properties. In particular, we exclude refinance loans, because the refinance market is largely distinct from the market for home purchase loans, as it is comprised of households with existing mortgages who are seeking to extract equity (cash-out refinance) or obtain more favorable terms (interest rate refinance).

Loan counts. We begin by charting mortgage origination volumes by institution category, annually for 2000 through 2017. Panel A of Figure 1 displays the number of purchase mortgage originations each year by banks (including both commercial banks and thrifts), nonbanks, and credit unions. Panels B, C, and D break out the Panel A observations by loan type: conforming-sized conventional, FHA, and jumbo.

As seen in Figure 1, total home purchase loan originations have been on a steady upswing since 2011. This growth primarily reflects the lending activity of nonbanks; bank lending has not kept pace. Although origination volume of credit unions has been rising since 2011 for each loan type, and most noticeably for conventional conforming, these volumes are minimal compared to banks and nonbanks.

FHA lending by banking institutions has declined precipitously—whereas banks and nonbanks were about equally active in FHA lending in 2011, by 2017 nearly 80 percent of FHA loans were originated by nonbanks. Although banks had long been dominant in the conventional conforming market, their volume of conventional, conforming-sized mortgage originations has been flat since 2013, while the loan volume that of nonbanks has increased steadily, surpassing that of banks in 2017. Banks remain dominant in the jumbo mortgage market. While this market has grown steadily since 2011, origination volumes remain well below pre-downturn levels.

Market shares. Figure 2 shows market shares by institution category, annually for 2000 through 2017. Panel A displays market shares of conforming conventional plus FHA originations for nonbanks and three size categories of banks: large (> \$50 billion in assets), regional (\$10 – 50 billion in assets), and community banks (< \$10 billion in nominal assets), based on total assets from end-of-year Call Report filings. Panels B, C, and D, respectively, display market shares for the conforming-sized conventional, FHA, and jumbo loan type segments. Note that while we include credit unions in market totals and when calculating market shares of other lenders, we do not distinguish them in the chart due to their minimal market shares.

Since 2011, nonbanks have increased their market share of each loan type. As of 2017, nonbanks originated close to half of all conventional conforming and nearly 80 percent of FHA mortgages. These volumes are much higher than in the years preceding the 2007 through 2011 housing market downturn, when nonbanks' market shares were relatively stable at roughly 45 percent of FHA and 30 to 35 percent of conventional conforming originations. As of 2017, nonbanks' market share of jumbo originations was 20 percent, roughly the same as in 2000 through 2003 but below their peak share of just over 30 percent in 2005 and 2006.



The market share of regional banks dropped sharply between 2004 and 2006, consistently across loan type segments, with overall share dropping from 25 down to 10 percent. After 2006, their market share of jumbo originations remained roughly stable at about 10 percent. Regional banks' market shares of FHA and conventional conforming originations continued a steady decline through 2012, and then stabilized at an overall market share of about 6 percent.

Large banks' market share exhibits broadly similar patterns over time between FHA and conventional conforming—roughly stable during 2000 through 2004 (ranging between 15 and 20 percent for FHA and 20 to 25 percent for conventional conforming; rising sharply in 2005 through 2007 for each loan type, and subsequently declining substantially. As of 2012 both had returned to their pre-2004 levels, but then continued to decline. As of 2017, large banks had nearly entirely exited the FHA market, and were originating only 10 percent of conventional conforming mortgages. Large banks' market share of jumbo originations also rose sharply during 2005 through 2007, when it peaked at 60 percent. It has since fallen back to 50 percent as of 2017, still well above pre-2005 levels.

Community banks are characterized by a relatively stable market share, making up 13-28% of conventional loans between 2000 and 2017 (Figure 2 Panel B), and originating 13-19% of FHA loans (Panel C). Since 2014, they have lost some ground to nonbanks, but as of 2017 their market share is only slightly below its 2000 through 2003 average, overall as well as for each loan type.

4. LENDING TO LOW- OR MODERATE-INCOME HOUSEHOLDS AND COMMUNITIES

Does the declining role of banking institutions in home purchase lending, especially in originating FHA loans (which tend to be favored by low-and-moderate-income borrowers and those purchasing homes in low- or moderate-income areas), imply that the CRA is becoming less relevant to this credit market? We have noted that for each loan type, the market share of community banks remains (as of 2017) close to what it what it was historically during 2000 through 2003, while the market share for large and regional banks declined. As that could be considered a relatively normal historical period for the housing market, in contrast to the rapidly rising house price environment (housing bubble) of 2004-2006 and subsequent severe downturn, it provides a reasonable benchmark.

In this context, it is important to recognize that, despite the relatively high proportion of loans to low- or moderate-income households and communities that characterizes FHA lending, these low- or moderate-income borrowers and communities have traditionally relied on conventional loan products to an important extent. Thus, despite the large shift in market share of FHA lending to nonbanks, the ongoing relevance of CRA may be reflected in banks' role serving low- or moderate-income households and communities through conventional mortgage lending.

To further explore this issue, we now examine the evolving shares of FHA and conforming-sized conventional loans provided to low- or moderate income households or financing properties in low- or moderate-income neighborhoods, by loan type and institution category. In presenting this analysis, we again do not distinguish credit unions and also will not separately show regional banks due to their small market shares, so as to avoid crowding the charts. However, we include credit unions and regional banks when aggregating all lenders in the analysis. We exclude a small number of loans originated by international lenders.

Lending to low- or moderate-income borrowers. Figure 3 shows the volume and Figure 4 shows the percentage of loans originated to low- or moderate-income borrowers, annually by loan type during 2000 through 2017. Panel A of Figure 4 displays the annual percentage originated to these borrowers among all home purchase mortgages (FHA, conventional conforming, and jumbo). Panels B, C, and D, respectively, show



the annual percentages originated to these borrowers for conventional conforming plus FHA, conventional conforming only, and FHA only.

As seen in Figure 4, the share of FHA and conforming-sized conventional mortgages originated to low- or moderate-income borrowers by HMDA reporters dropped sharply during the housing market "bubble" period of 2005 and 2006. This drop is common to all HMDA reporters, banks as well as nonbanks. The result of the affordability pressures was an increase in the share of loans originated to higher income households.

The overall percentage of conventional conforming plus FHA mortgages originated to low- and moderate-income borrowers partially rebounded in 2007 and 2008, reflecting a shift in the market toward FHA borrowing. The rebound accelerated in 2009, bringing the overall percentage to a historical peak at 35 percent, likely due to exceptionally weak demand for mortgages from middle and upper income households, combined with falling home prices making purchases more affordable.

Between 2009 and 2014, as the housing market recovered and housing prices rebounded, the overall percentage of conventional conforming plus FHA mortgages originated to low- and moderate-income borrowers substantially declined. Since 2014, this overall percentage and the percentage originated to low- and moderate-income borrowers within the conforming conventional segment seem to have stabilized, but are well below what they were in the early 2000's, as are the dollar volumes of lending. Within FHA, the percentage originated to low- and moderate-income borrowers continued to decline after 2014, but the increase in FHA relative to conforming conventional originations offset this decline. Overall, there was a long-run decline in the share of conventional conforming mortgages originated to low- and moderate-income borrowers, from about 32 percent in the early 2000's to about 26 percent in 2017.

The long-run decline in the share of conventional conforming mortgages originated to low- and moderate-income borrowers may reflect tighter credit standards since the mortgage crisis, as well as a long-run decline in home affordability. In addition, large and regional banking institutions exited from FHA lending and decreased their lending share to the conventional conforming segment. These trends seem to suggest a reduced role for the CRA in mortgage lending particularly for large and regional banks as nonbanks, not covered by the CRA, expanded their lending to this market, at the expense of covered banks.

Notably, however, community banks not only have retained market share, but consistently have originated a comparatively large percentage of their conforming conventional and FHA mortgages to low- or moderate-income borrowers, including in recent years. We next turn our attention to the geographic distribution of bank lending.

Lending to CRA-qualifying neighborhoods. Figure 5 shows the percentage of purchase-money mortgages originated in a CRA-qualifying (low- or moderate-income or distressed/underserved) Census tract, annually by loan type and institution category, during 2000 through 2017. Panel A displays the annual percentage originated to these neighborhoods among all home purchase loans (FHA, conventional conforming, and jumbo). Panels B, C, and D, respectively, show the annual percentages originated to these neighborhoods for conventional conforming plus FHA, conventional conforming only, and FHA only.

Beginning in 2006, the Federal Financial Institutions Examination Council initiated a list of distressed and underserved nonmetropolitan tracts that are middle or high income but are CRA-eligible due to features such as high poverty rates or population loss. Together with low- or moderate-income Census tracts (those with median family income less than or equal to 80% of the area median income), these tracts make up CRA-eligible neighborhoods. Community banks originate a greater share of their loans in nonmetropolitan tracts, which may drive their relatively larger increase in low- or moderate-income lending to CRA-eligible tracts in 2006 and later, as compared to other lender types that are more active in metropolitan areas, which were not affected by the adoption of the distressed and underserved status.



From 2007 to 2011, the percentage of loans made in CRA-qualifying communities declined within each institution category. Since 2012, the percentage of loans originated to these communities has been increasing within each institution category, surpassing pre-2004 levels by 2017. With respect to conventional conforming mortgages, this trend has been strongest among community banks.

Lending to low- or moderate-income borrowers or to CRA-qualifying neighborhoods. Figure 6 shows the percentage of loans originated to low- or moderate income or borrowers or for purchase of a property in a CRA-qualifying (low- or moderate-income or distressed/underserved) Census tract, annually by loan type and institution category, during 2000 through 2017. Panel A displays the annual percentage originated to these borrowers or neighborhoods among all home purchase mortgages (FHA, conventional conforming, and jumbo). Panels B, C, and D, respectively, show the annual percentages originated to these borrowers or neighborhoods for conventional conforming plus FHA, conventional conforming only, and FHA only.

As seen in Figure 6, since 2006, community banks have had a relatively high percentage of their conventional conforming loans originated to low- or moderate-income borrowers or in CRA-qualifying Census tracts. Moreover, the percentage of conventional conforming plus FHA loans originated to low- or moderate-income borrowers or to CRA-qualifying Census tracts by community banks in recent years (since 2015) is about the same as in the early 2000's (about 35 percent)."

Since 2013, the percentage of conventional conforming mortgages originated to low- or moderate-income borrowers or in CRA-qualifying Census tracts, overall and within each lender category, has been trending up. For all lenders combined, the percentage of conventional conforming plus FHA mortgages originated to low- or moderate-income borrowers or in CRA-qualifying Census tracts in recent years (since 2015) is only marginally less than in the early 2000's (about 38 versus 36 percent.)

These observations are consistent with a continuing role of the CRA in buffering the impact of relatively tight credit standards and rising home prices on access to affordable home purchase financing. These facts suggest that, despite the declining market share of banking institutions relative to nonbanks, the CRA continues to have an impact in encouraging banking institutions to lend to borrowers home purchases in low- and moderate-income neighborhoods.

Affordability relationships. We have speculated that declining affordability of homes may be a significant factor contributing to observed declines in lending to low- and moderate-income borrowers despite the relative constancy of lending to low-and-moderate-income neighborhoods. In an attempt to shed some light on this issue, we repeat the preceding analysis distinguishing between states that experienced "low" and "high" rates of house price appreciation over the (post-downturn) period of 2012 through 2017.

These are defined, respectively, as states in the bottom and top 25th percentiles of the distribution of 2012-2017 state-level appreciation rates; they represent areas that remained relatively affordable versus those where affordability eroded over that period. For the sake of brevity, we confine our attention to conventional conforming and FHA loans, grouped together, and show in Figure 7: (1) the percentage of these loans originated to low- or moderate-income borrowers, (2) the percentage of loans originated in CRA-qualifying Census tracts, and (3) the percentage of loans to either low- or moderate-income borrowers or CRA-qualifying tracts, by lender category.

The resulting comparisons, shown in Figure 7, appear consistent with an impact of affordability on composition of borrowing. The percentages of loans originated to low- or moderate-income borrowers have declined since 2009 more sharply in the areas that experienced high price appreciation during 2012-2017. However, the percentage of loans to CRA-qualifying census tracts rose during this time, and increases were somewhat greater in high-appreciation areas for large banks and nonbanks. In recent years, overall CRA-eligible lending, shown in the bottom set of charts in Figure 7, is marginally lower in high-appreciation areas and marginally



higher in low-appreciation areas in comparison to the pre-2004 benchmark period. We noted above (based on Figure 6) that since 2013, the percentage of conventional conforming mortgages originated to low- or moderate-income borrowers or financing home purchases in CRA-qualifying Census tracts has been trending up. A natural question is whether this trend reflects an increasing percentage of loans in CRA-qualifying Census tracts being originated to higher income borrowers, which may be seen as less consistent with the original intent of the CRA.

Figure 8 shows the composition of borrowers financing properties in CRA-qualifying Census tracts by income range, annually during 2000 through 2017, separately for conforming conventional and FHA lending. The distribution of borrowers in the conforming conventional segment has been stable since 2013, such that the aforementioned trend is not the consequence of an influx of higher income borrowers into CRA-qualifying neighborhoods. In contrast, we observe some shift of FHA lending in CRA-qualifying neighborhoods toward middle and higher income borrowers between 2013 and 2015. During this time, low-income borrowers (those with incomes < 50% of the area median) received a smaller share of the FHA loans originated. This was true both in CRA-eligible tracts and in all tracts.

5. CONCLUSION

Since 2012, the market share of home purchase mortgage origination has steadily shifted from banking institutions to nonbanks. By 2017, nonbank lenders were originating a slight majority of conforming conventional mortgages and nearly four-out-of-five Federal Housing Administration (FHA) insured loans.

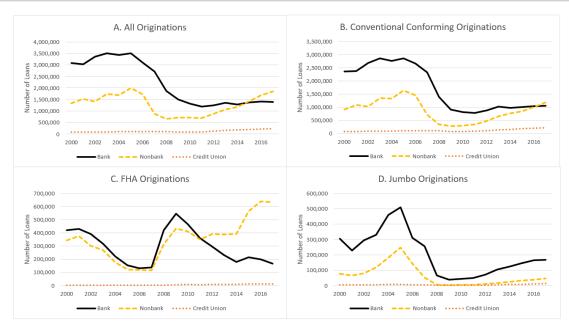
We have examined the declining role of banking institutions and its potential implications for the relevance of the CRA to mortgage lending. We drill down by size of banking institution and for conventional conforming and FHA loans, separately.

We find that community banks have maintained their FHA market share and grew their conventional market share, while large and regional banks decreased their market share and nonbank market share increased. Since 2012 all lender types have been originating a larger share of their FHA and conforming-sized conventional loans in CRA-eligible neighborhoods. With respect to conventional conforming-sized mortgages, this trend has been strongest among community banks.

On the other hand, we also find that the overall share of FHA and conforming-sized conventional loans (from all lenders) to low-and-moderate-income borrowers has decreased compared to a pre-2004 benchmark period. The decreased share of loans to low- or moderate-income borrowers is approximately offset by the increased share to borrowers purchasing properties in low- or moderate-income neighborhoods. The income distribution of borrowers purchasing properties in these neighborhoods has remained fairly stable over time, with the primary exception being a decrease in the proportion of low-income borrowers within the FHA segment. Altogether, these findings suggest that the CRA may continue to have an impact on lending patterns by promoting access to affordable home purchase financing, buffering the impact of relatively tight credit standards and rising home prices, in these neighborhoods.

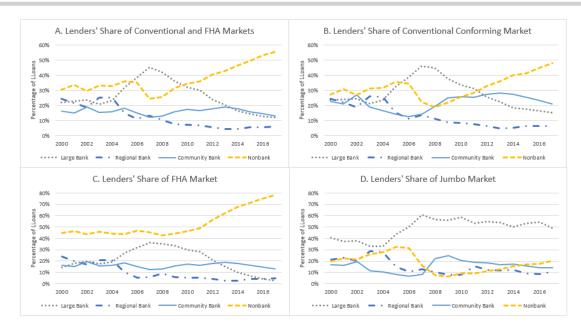


FIGURE 1: Lending Volume by Banks, Credit Unions, and Nonbanks, 2000-2017



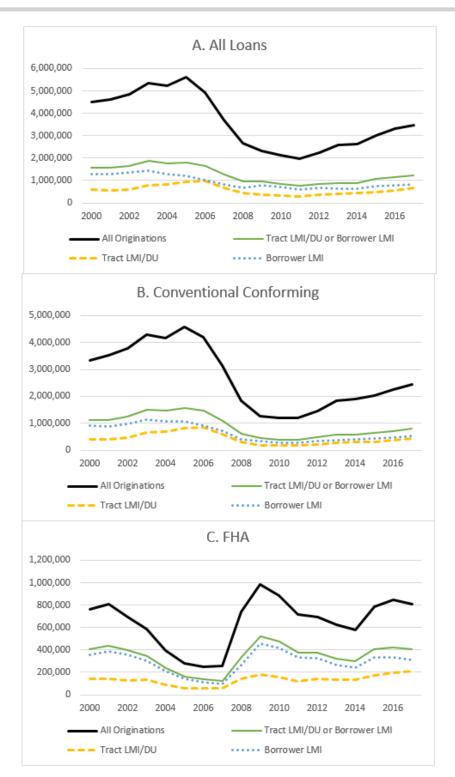
Source: Home Mortgage Disclosure Act data. Note: loans are restricted to purchase-money mortgages.

FIGURE 2: Lenders' Market Share by Loan Type, 2000-2017



 $Source: Home\ Mortgage\ Disclosure\ Act\ data.\ Note: loans\ are\ restricted\ to\ purchase-money\ mortgages.$

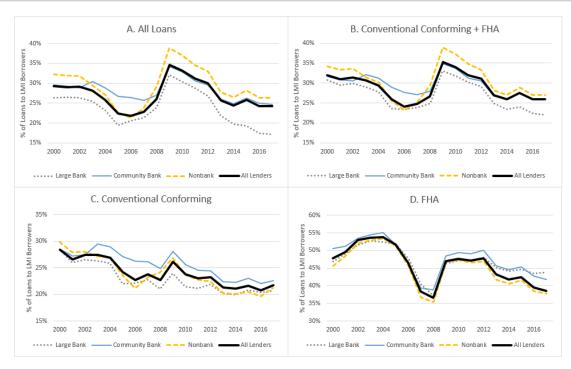
FIGURE 3: Lending Volume by Low- or Moderate-Income (LMI) Status, 2000-2017



Source: Home Mortgage Disclosure Act data. Note: loans are restricted to purchase-money mortgages. Tract LMI/DU stands for low- or moderate-income or distressed or underserved.

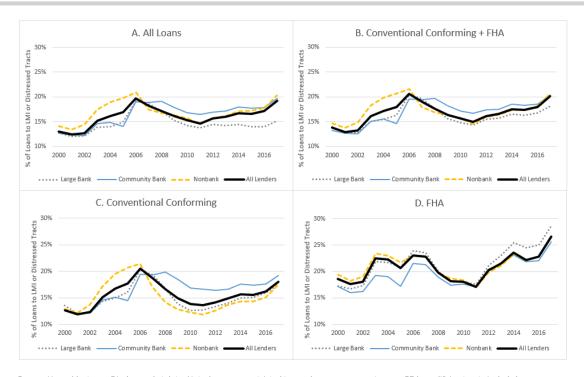
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FIGURE 4:
Percentage of Loans Originated to Low- or Moderate-Income Borrowers, 2000-2017



 $Source: Home\ Mortgage\ Disclosure\ Act\ data.\ Note: loans\ are\ restricted\ to\ purchase-money\ mortgages.$

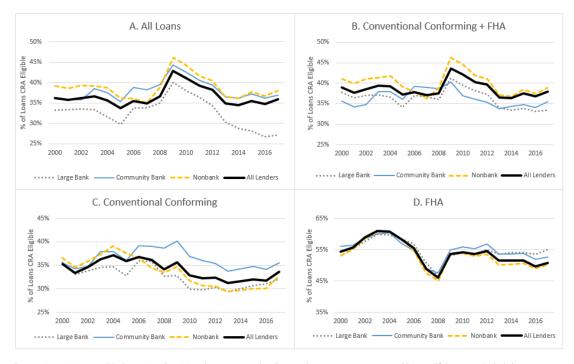
FIGURE 5:
Percentage of Loans Originated in CRA-Qualifying Tracts, 2000-2017



Source: Home Mortgage Disclosure Act data. Note: loans are restricted to purchase-money mortgages. CRA-qualifying tracts include low- or moderate-income Census tracts or those designated as distressed or underserved areas.



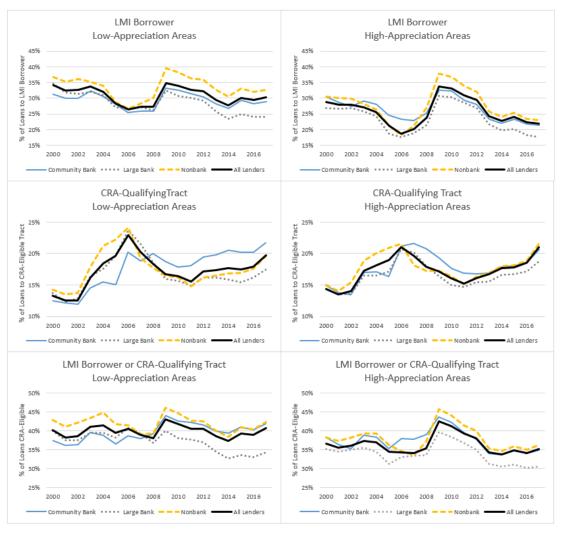
FIGURE 6:
Percentage Originated to Low- or Moderate-Income Borrowers or in CRA-Qualifying Tracts, 2000-2017



Source: Home Mortgage Disclosure Act data. Note: loans are restricted to purchase-money mortgages. CRA-qualifying tracts include low- or moderate-income Census tracts orthose designated as distressed or underserved areas.

FIGURE 7:

Percentage of FHA and Conventional Conforming Mortgages Originated to Low- or Moderate-Income Borrowers or in CRA-Qualifying Tracts, by Range of State House Price Appreciation, 2000-2017

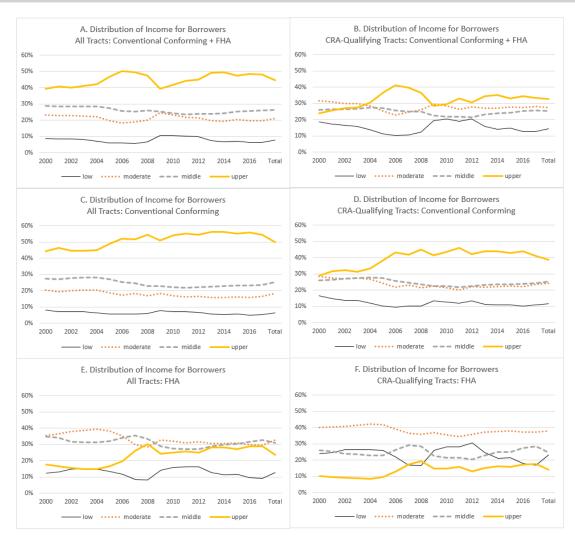


Source: Home Mortgage Disclosure Act and CoreLogic Solutions House Price Index data

Note: Low-appreciation areas include states that experienced the 25th percentile appreciation rate or less between March 2012 and December 2017; high-appreciation areas include states that experienced the 75th percentile appreciation rate or greater. Loans are restricted to purchase-money mortgages. CRA-qualifying tracts include low- or moderate-income Census tracts or those designated as distressed or underserved areas.



FIGURE 8: Income Distribution of Borrowers, 2000-2017



Source: Home Mortgage Disclosure Act data. Note: CRA-qualifying tracts include low- or moderate-income Census tracts or those designated as distressed or underserved areas. Borrower income levels are based on applicant income relative to area median income: low (< 50%), moderate (50-80%), middle (80-120%), and high (> 120%). Loans without borrower income reported are excluded from the analysis.



NOTES

- 1. Loans are eligible for CRA credit if they are made to low- or moderate-income borrowers or in low-or-moderate income Census tracts. A rationale for CRA may be information externalities in the mortgage market (Guttentag and Wachter, 1980; Lang and Nakamura, 1993; Ling and Wachter, 1998). If so, a case can be made for lending in distressed neighborhoods, regardless of the income status of the borrower. However, gentrification is a competing concern in revitalizing neighborhoods; therefore, lending to low- or moderate-income borrowers is important both overall and in these neighborhoods (Barr, 2005).
- 2. See, for example, Mortgage Bankers Association and PwC (2015), United States Government Accountability Office (2016), Kaul (2017), and Marte (2018). See also Goodman, Zhu, and Walsh (2018).
- 3. Goodman (2014), Parrott (2014) and Goodman (2015) also offer informative discussions of the reasons for this shift.
- 4. The authors also point to rising FHA premiums, uncertainty around the FHA 'indemnification' policy and increased servicing costs as further shifting lenders from origination of FHA mortgages. See also McCoy and Wachter (2017) for discussion of "bank overlays" as a response to post-crisis litigation against mortgage lenders and its impact on lender behavior.
- 5. Acolin, Bricker, Calem, and Wachter (2016) show that homeownership rate declines are almost entirely attributable to the tightening of credit since the Great Recession.
- 6. For supplementary analysis we also use CRA assessment area data for banks subject to CRA, which is provided by the Federal Financial Institutions Examination Council.
- 7. For details, see the Federal Financial Institutions Examination Council guidelines on HMDA reporting at http://www.ffiec.gov/hmda/pdf/DepCriteriao2o4.pdf
- 8. The data distinguish among sold via private securitization; sold to non-affiliate commercial or savings banks; to non-affiliate insurance, mortgage, or finance company; or sold to other types of purchasers.
- 9. Note that, for the analysis presented here, in defining CRA-qualifying mortgage, we do not require that the associated property be located within the originating institution's CRA assessment area. However, the patterns are similar when this restriction is imposed.
- 10. As shown in Panel A, among large banks the share of aggregate lending to these neighborhoods has not increased, remaining below pre-2004 levels. This is largely due to an increased role of large banks in the jumbo mortgage market, due to the lack of a robust private securitization market post-crisis.
- 11. The percentage of conventional conforming loans originated to low- or moderate-income borrowers or to CRA-qualifying Census tracts by community banks also has been about the same since 2015 as in the early 2000's.



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