



HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

May 2021

ABOUT THE CHARTBOOK

The Housing Finance Policy Center's (HFPC) mission is to produce analyses and ideas that promote sound public policy, efficient markets, and access to economic opportunity in the area of housing finance. *At A Glance*, a monthly chartbook and data source for policymakers, academics, journalists, and others interested in the government's role in mortgage markets, is at the heart of this mission.

We welcome feedback from our readers on how we can make *At A Glance* a more useful publication. Please email any comments or questions to ataglance@urban.org.

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INTRODUCTION

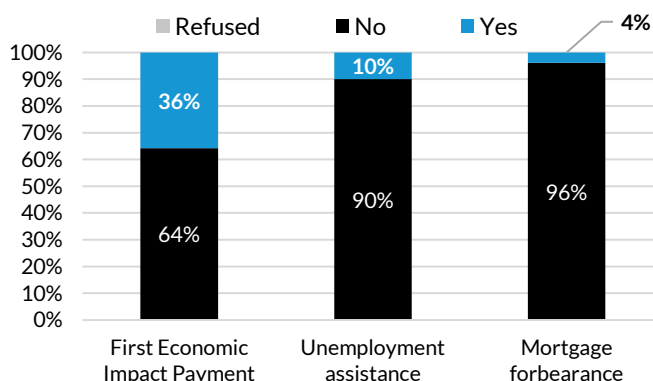
The Impact of the Federal Government's Pandemic Response on Mortgaged Homeowners

The COVID-19 pandemic led to a deep recession; impairing many homeowners' ability to continue making their mortgage payments. But amid this historic recession, the federal government responded forcefully and quickly with assistance. Mortgage forbearance provided payment relief specifically for homeowners, while the Economic Impact Payments (EIP) and unemployment assistance, expanded in response to the pandemic, provided financial aid that could be used for mortgage payments as well as other needs.

Which program had the biggest impact on homeowners' ability to remain in their home? The 2020 Survey of Household Economics and Decision-making (SHED) provides initial insights into this question. The SHED is administered by the Federal Reserve Board and measures households' economic well-being.

It's worth noting that two EIPs were authorized in 2020. Starting in March 2020, the [first EIP](#) provided \$2,400 for individuals filing a joint tax return with \$150,000 or less in adjusted gross income (AGI), \$1,200 for those filing either single or married filing separately and an AGI at or below \$75,000. The second EIP provided \$1,200 and \$600 to the same tax filer groups respectively and with the same income limits, but it was authorized by the COVID-related Tax Relief Act of 2020 which was enacted in December and likely had no impact on homeowners' ability to keep their home in 2020.

Have Any of the Following Helped You Stay in Your Home since the Onset of the Pandemic in March?

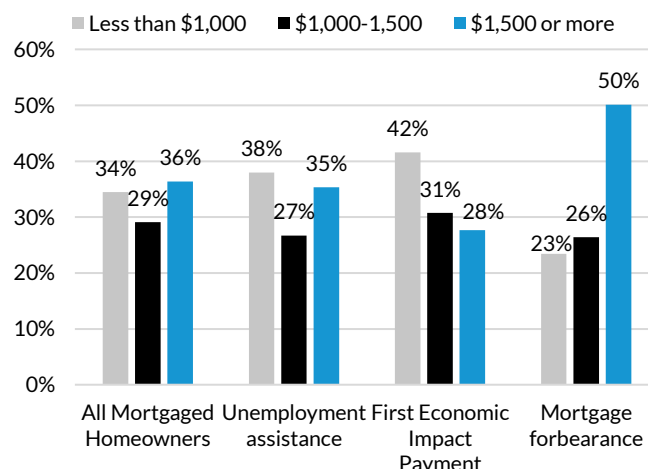


Source: Urban Institute analysis of data from the Federal Reserve.

The figure above illustrates that approximately one-in-three homeowners with a mortgage (36 percent) indicated that the first EIP helped them stay in their home in the months since the pandemic's onset in March 2020. The share of mortgaged homeowners acknowledging the beneficial impact of the EIP was more three times larger than the proportion noting the help of unemployment assistance (10 percent) and nine times greater than the percentage identifying the help of mortgage forbearance (4 percent). Respondents could answer affirmatively to more than one program.

These results largely reflect the proportion of homeowners that received each type of federal assistance. Most homeowners received the stimulus payment. The disparate impact of the pandemic on lower-income renter households suggests that fewer homeowners needed unemployment assistance and mortgage forbearance.

Distribution of Mortgaged Homeowners That Answered "Yes" To Each Financial Support by Monthly Mortgage Payment Category



Source: Urban Institute analysis of data from the Federal Reserve.

The helpfulness of each assistance type also varied with the borrower's monthly mortgage payment. Homeowners with lower mortgage payments accounted for a larger share of those that believed EIP helped them stay in their home. In contrast, homeowners with higher mortgage payments accounted for a larger proportion of those that believed mortgage forbearance helped them remain in their home. Meanwhile, the distribution of homeowners acknowledging the role of unemployment assistance by monthly mortgage payment mirrored that of mortgaged homeowners overall.

These results shed early light on the relative impact of the federal government's pandemic response on homeowners in 2020. Initial analysis indicates that cash assistance had a more far-reaching impact relative to more narrowly focused mortgage payment relief. However, many homeowners noting the impact of the first EIP may have been able to remain in their homes even without receipt of the stimulus payment. And there is a strong possibility that absent it, or unemployment assistance, those who couldn't remain in their home would have fallen back on mortgage forbearance. For this reason, research that more precisely assesses the contribution made by the federal government's pandemic-related programs will be needed in preparation for future crises.

INSIDE THIS ISSUE

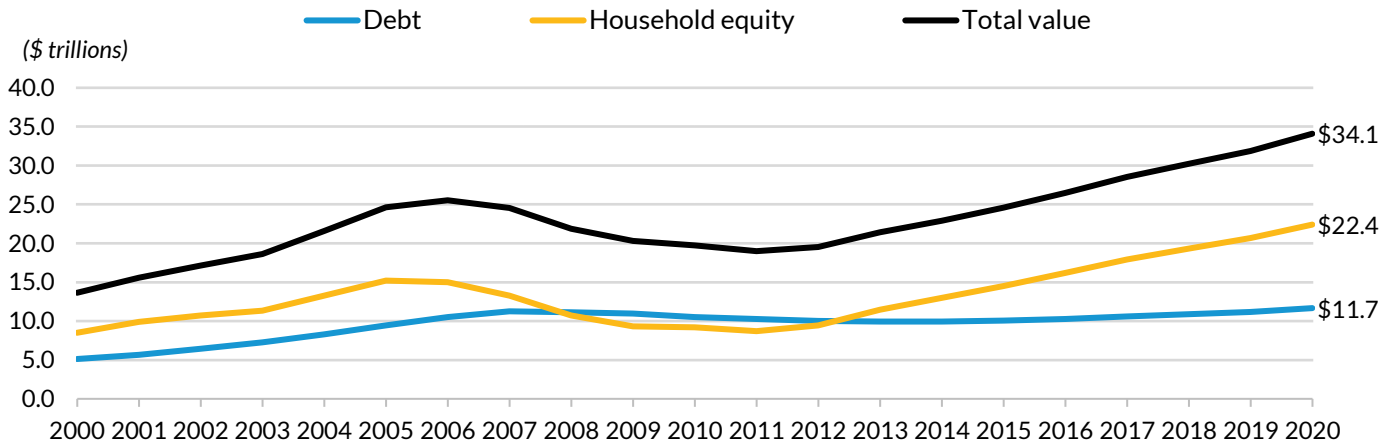
- In the GSE space, FICO scores for nonbanks have dipped slightly in 2021 even as bank FICOs remain at elevated levels (Page 17).
- Despite interest rates near historic lows, increases in home prices have pushed affordability to its worst levels since 2008 (Page 21).
- As the economy continues to heal from COVID-19, Q1 2021 mortgage delinquencies and the percent of borrowers in forbearance are down (Page 24).

OVERVIEW

MARKET SIZE OVERVIEW

The Federal Reserve's Flow of Funds Report has indicated a gradually increasing total value of the housing market, driven primarily by growing home equity since 2012. Mortgage debt outstanding increased slightly from \$11.5 trillion in Q3 2020 to \$11.7 trillion in Q4 2020 while total household equity increased from \$21.7 trillion to \$22.4 trillion. The total value of the housing market reached \$34.1 trillion in Q4 2020, 33.5 percent higher than the pre-crisis peak in 2006. Agency MBS account for 64.5 percent of the total mortgage debt outstanding, private-label securities make up 3.5 percent, and unsecuritized first liens make up 28.2 percent. Home equity loans comprise the remaining 3.8 percent of the total.

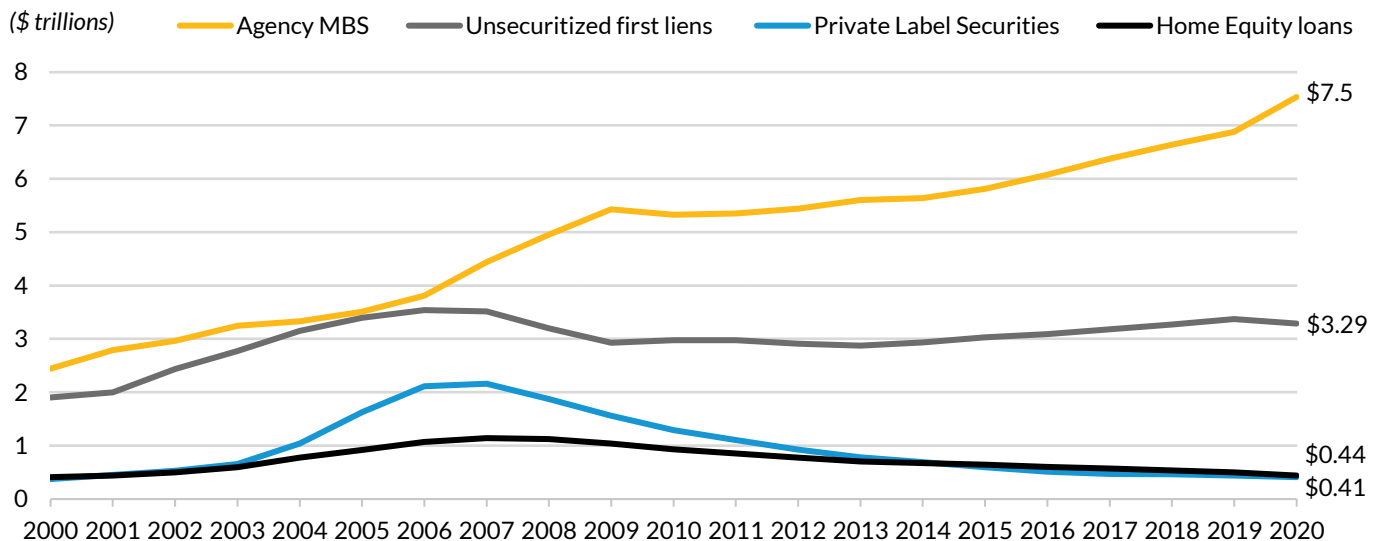
Value of the US Single Family Housing Market



Sources: Federal Reserve Flow of Funds and Urban Institute. Last updated March 2021.

Note: Single family includes 1-4 family mortgages. The home equity number is grossed up from Fed totals to include the value of households and the non-financial business sector.

Composition of the US Single Family Mortgage Market



Sources: Federal Reserve Flow of Funds, eMBS and Urban Institute. Last updated March 2021.

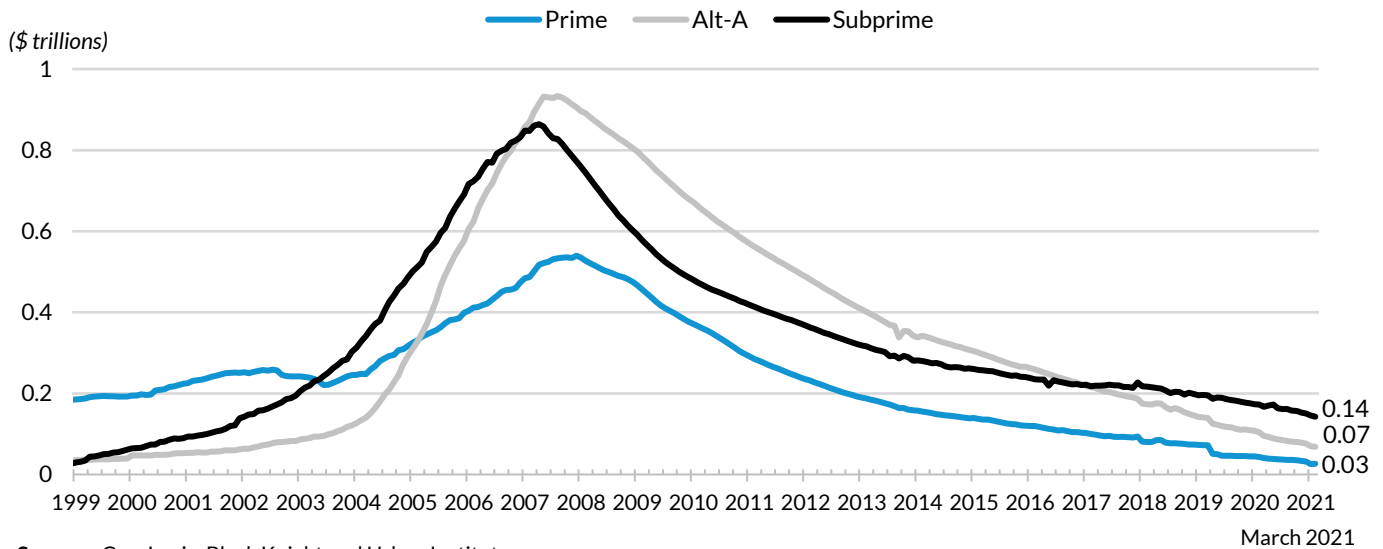
Note: Unsecuritized first liens includes loans held by commercial banks, GSEs, savings institutions, credit unions and other financial companies.

OVERVIEW

MARKET SIZE OVERVIEW

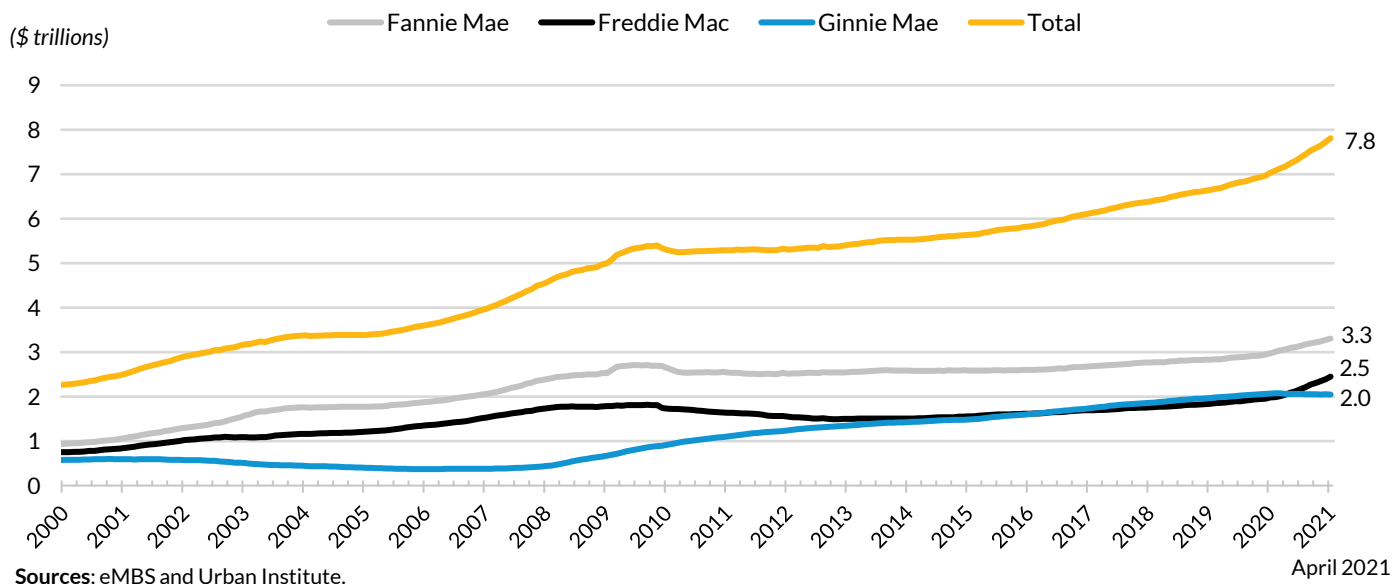
As of March 2021, our sample of first lien mortgage debt in the private-label securitization market totaled \$237 billion and was split among prime (11.2 percent), Alt-A (28.7 percent), and subprime (60.1 percent) loans. In April 2021, outstanding securities in the agency market totaled \$7.8 trillion, 42.3 percent of which was Fannie Mae, 31.4 percent Freddie Mac, and 26.2 percent Ginnie Mae.

Private-Label Securities by Product Type



Sources: CoreLogic, Black Knight and Urban Institute.

Agency Mortgage-Backed Securities

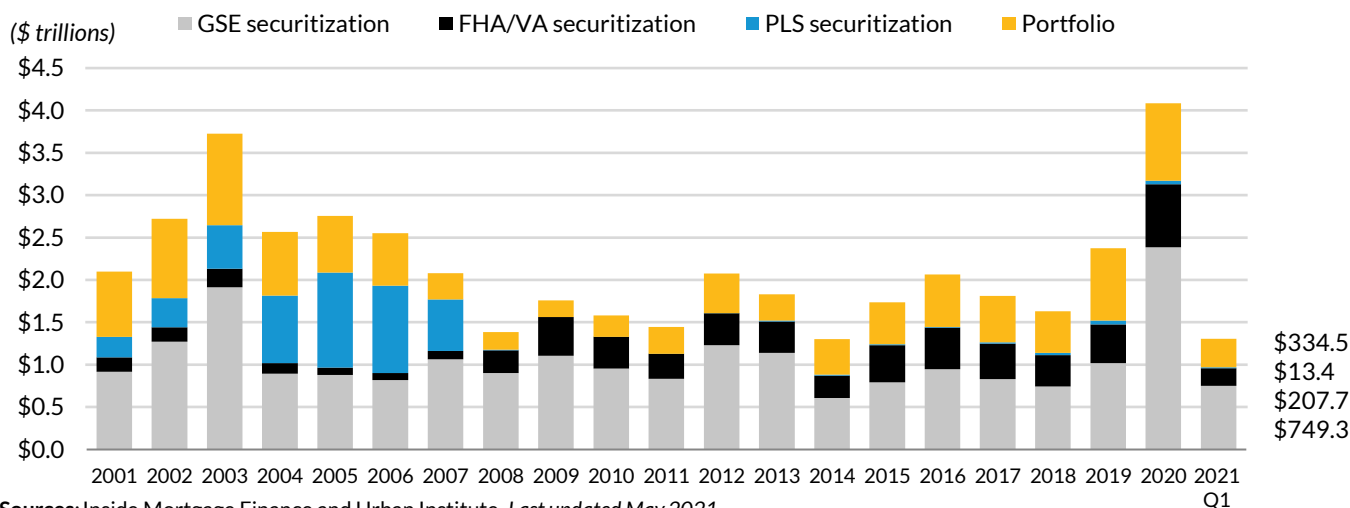


Sources: eMBS and Urban Institute.

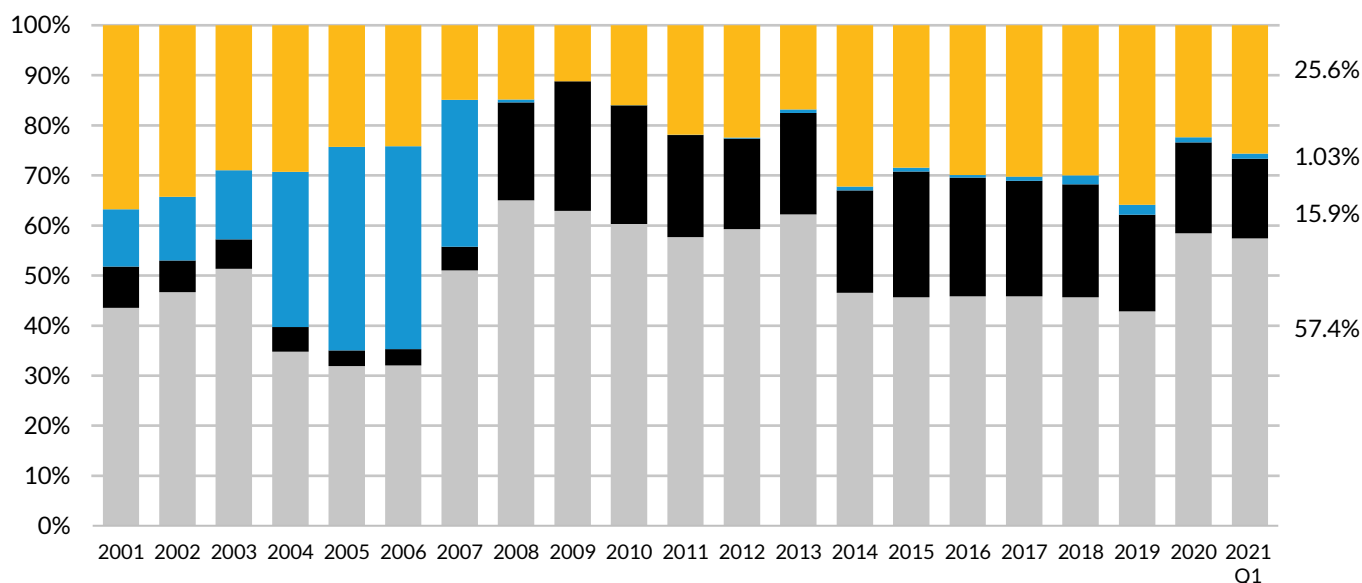
ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

2021 is off to a strong start for first-liens originations, with \$1.31 trillion in mortgages originated during Q1. The share of portfolio originations was 25.6 percent in Q1 2021, an increase from the 22.3 percent share in full year 2020. The Q1 2021 GSE share was down very slightly in Q1 2021 at 57.4 percent, compared to 58.2 percent for full year 2020. The FHA/VA share in the first quarter of 2021 was 15.9 percent, down from 18.1 percent in 2020. The PLS share was roughly the same in Q1 2021 as in 2020, at 1.03 percent, and a fraction of its share pre-2008. The smaller share of portfolio and PLS in 2020 reflects the impact of COVID-19, which made it difficult to originate mortgages without government support. The higher GSE 2020 share reflects heavy refinance activity. In 2020, with private capital pulling back because of the downturn, the federal government played an outsized role in the market. This has begun reversing in Q1 2021, as demonstrated by the increase in the portfolio share.



(Share, percent)

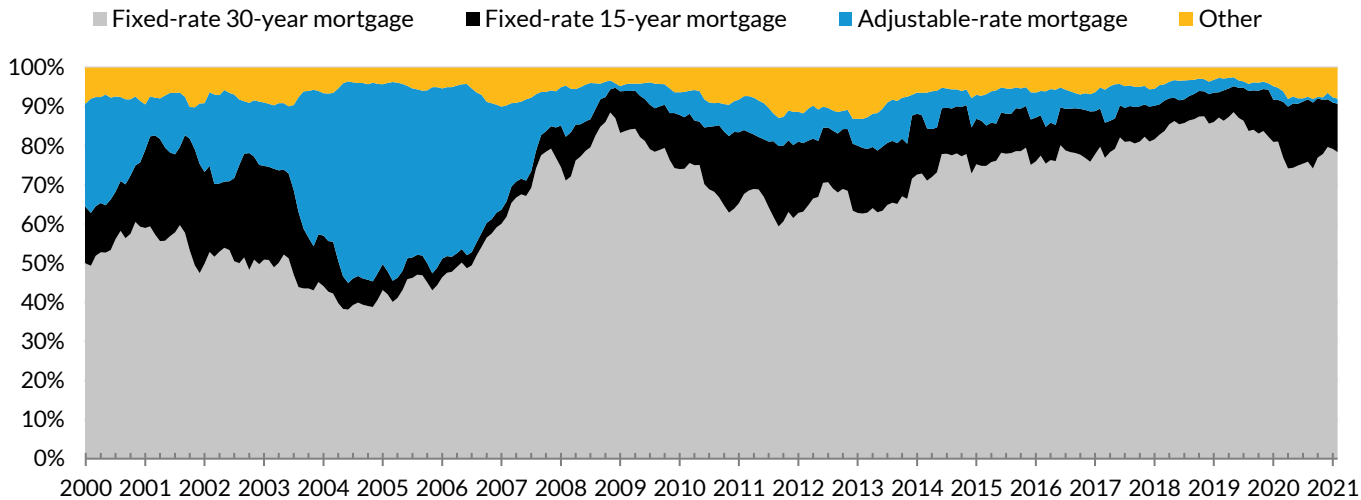


OVERVIEW

PRODUCT COMPOSITION AND REFINANCE SHARE

The 30-year fixed-rate mortgage continues to remain the bedrock of the US housing finance system, accounting for 78.5 percent of new originations in March 2021. The share of 15-year fixed-rate mortgages, predominantly a refinance product, was 12.3 percent of new originations in March 2021. The ARM share accounted for 1.3 percent of new originations. Since late 2018, while there has been some month-to-month variation, the refinance share (bottom chart) has generally grown for both the GSEs and for Ginnie Mae as interest rates have dropped. The GSE refi shares are in the 78 to 80 percent range; the Ginnie Mae refi share was 60.2 percent in March 2021.

Product Composition

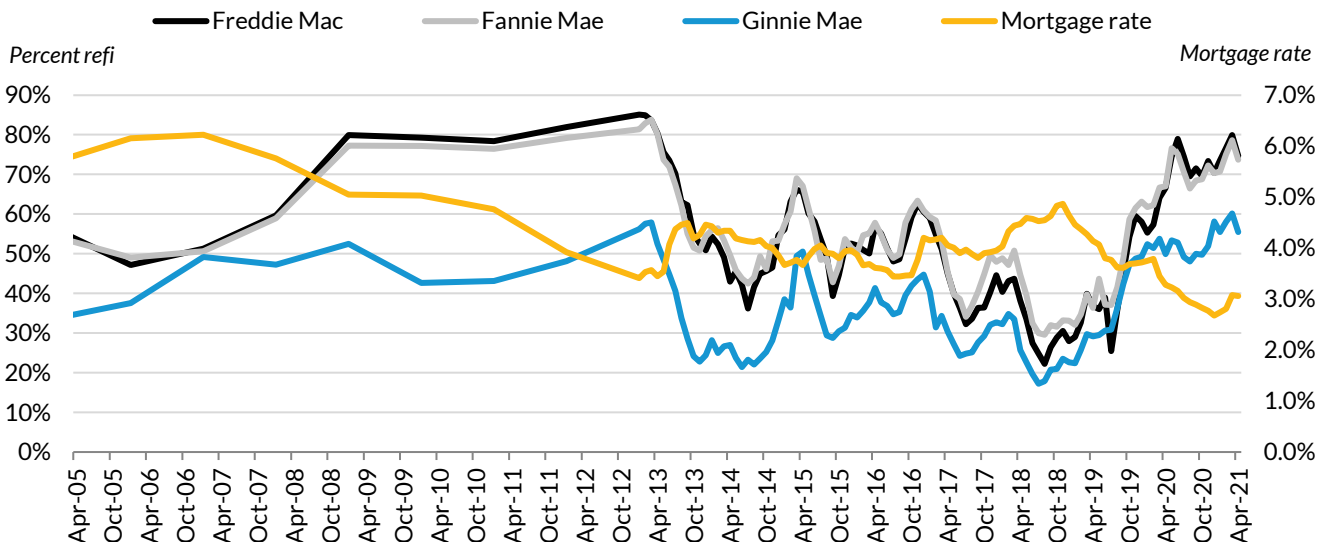


Sources: Black Knight, eMBS, HMDA, SIFMA and Urban Institute.

March 2021

Note: Includes purchase and refinance originations.

Percent Refi at Issuance



Sources: eMBS and Urban Institute.

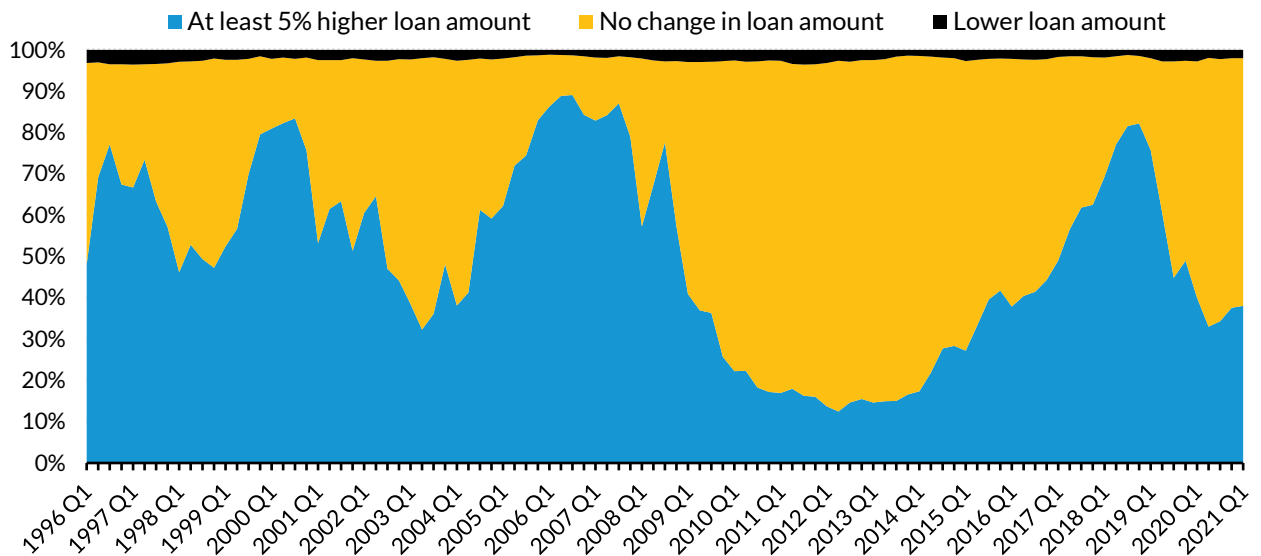
Note: Based on at-issuance balance. Figure based on data from April 2021.

OVERVIEW

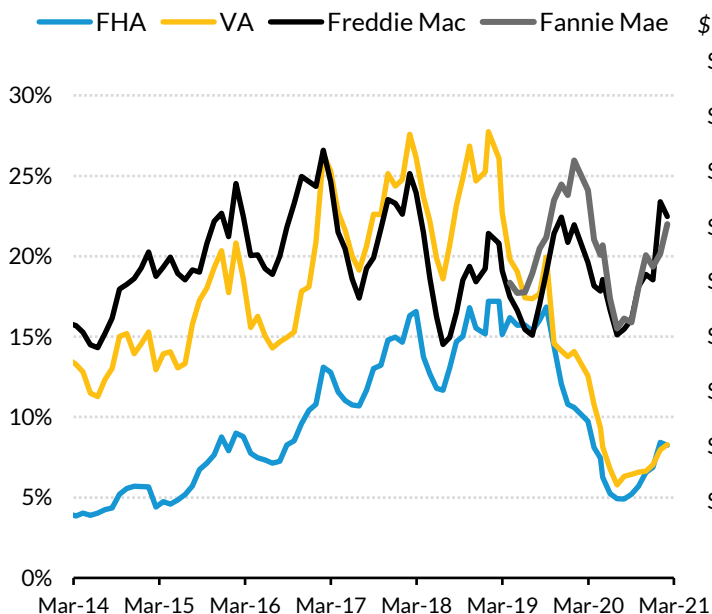
CASH-OUT REFINANCES

When mortgage rates are low, the share of cash-out refinances tends to be relatively smaller, as rate/term refinancing allows borrowers to save money by taking advantage of lower rates. But when rates are high, the cash-out refinance share is higher since the rate reduction incentive is gone and the only reason to refinance is to take out equity. The cash-out refi share generally declined during 2020 due to increased rate refinances amidst historically low rates. As rates have increased slightly in recent months, the cash-out share rose from 34 percent in Q3 2020 to 37 percent in Q4 2020 and again to 38 percent in Q1 2021. Note that while home prices have risen, equity take-out volumes are substantially lower compared to bubble years.

Loan Amount after Refinancing



Cash-out Refi Share of All Originations



Equity Take-Out from Conventional Mortgage Refinance Activity



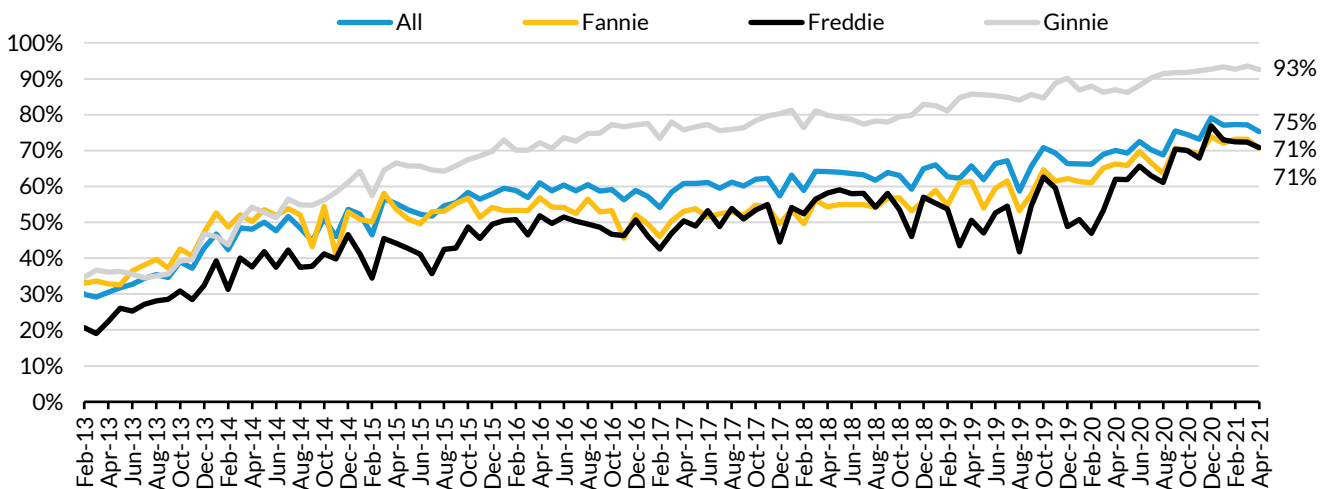
2021 Q1

OVERVIEW

AGENCY NONBANK ORIGINATION SHARE

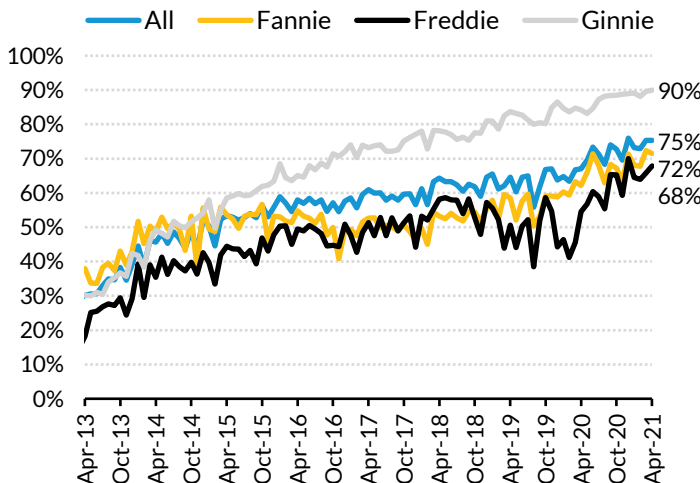
The nonbank share for agency originations has been rising steadily since 2013, standing at 75.3 percent in April 2021. The Ginnie Mae nonbank share has been consistently higher than the GSEs, decreasing slightly in April 2021 to 92.5 percent. Fannie and Freddie both had nonbank shares of 71 percent in April 2021. Ginnie Mae and Freddie Mac have higher nonbank origination shares for refi activity than for purchase activity in April 2021. Fannie Mae's nonbank origination share for purchase and refi activity was approximately the same in April 2021.

Nonbank Origination Share: All Loans



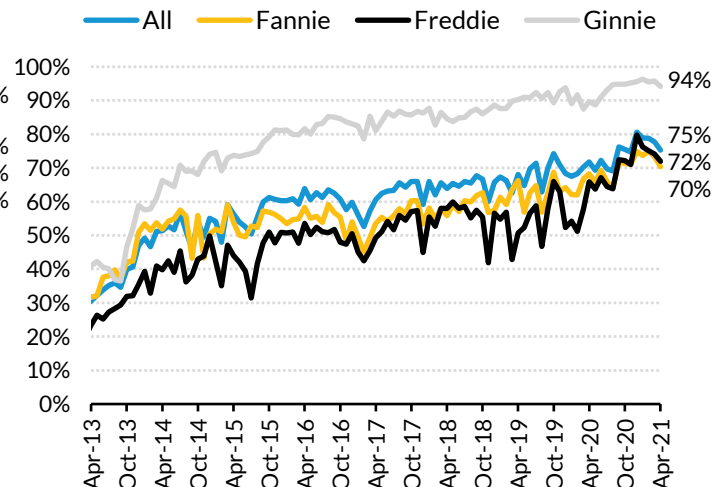
Sources: eMBS and Urban Institute.

Nonbank Origination Share: Purchase Loans



Sources: eMBS and Urban Institute.

Nonbank Origination Share: Refi Loans



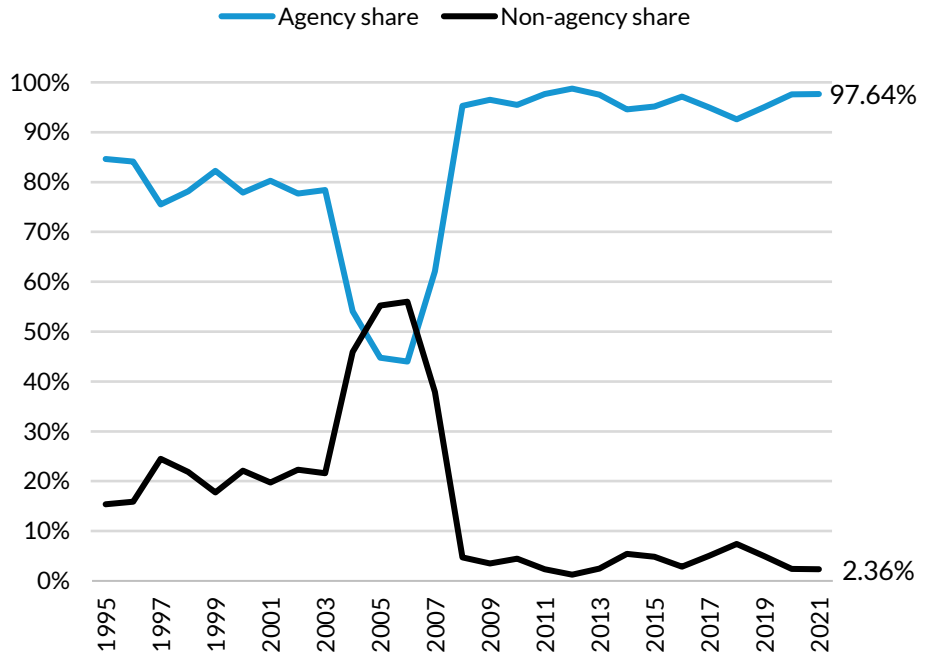
Sources: eMBS and Urban Institute.

OVERVIEW

SECURITIZATION VOLUME AND COMPOSITION

Agency/Non-Agency Share of Residential MBS Issuance

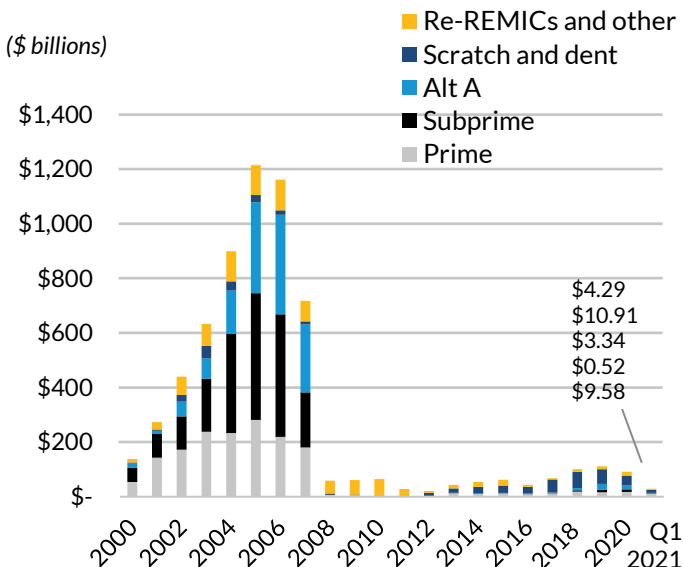
The non-agency share of mortgage securitizations increased gradually over the post-crisis years, from 1.83 percent in 2012 to 5.0 percent in 2019. In 2020, the non-agency share dropped to 2.44 percent, and as of March 2021, it stood at 2.36 percent. The sharp drop in 2020, and continuing into 2021, reflects less non-agency production due to dislocations caused by COVID-19. Non-agency securitization volume totaled \$28.64 billion in Q1 2021, a slight decrease relative to Q1 2020, while agency securitizations rose considerably. Non-agency securitizations continue to be tiny compared to pre-housing market crisis levels.



Sources: Inside Mortgage Finance and Urban Institute.

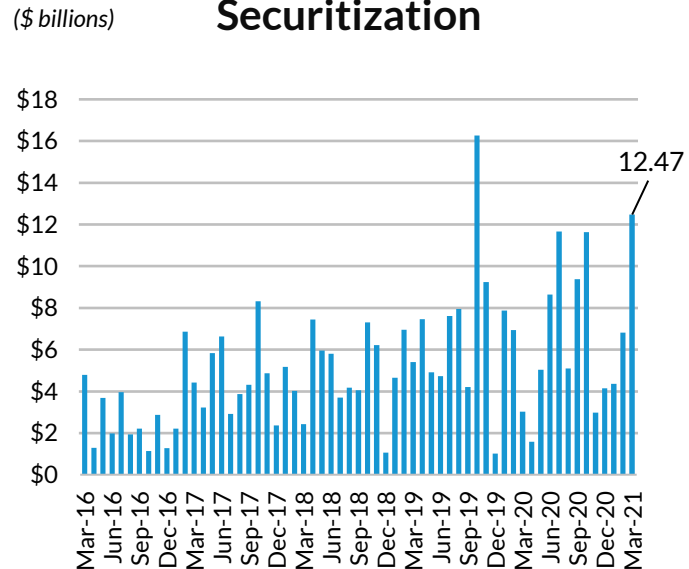
Note: Based on data from March 2021. Monthly non-agency volume is subject to revision.

Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.

Monthly Non-Agency Securitization



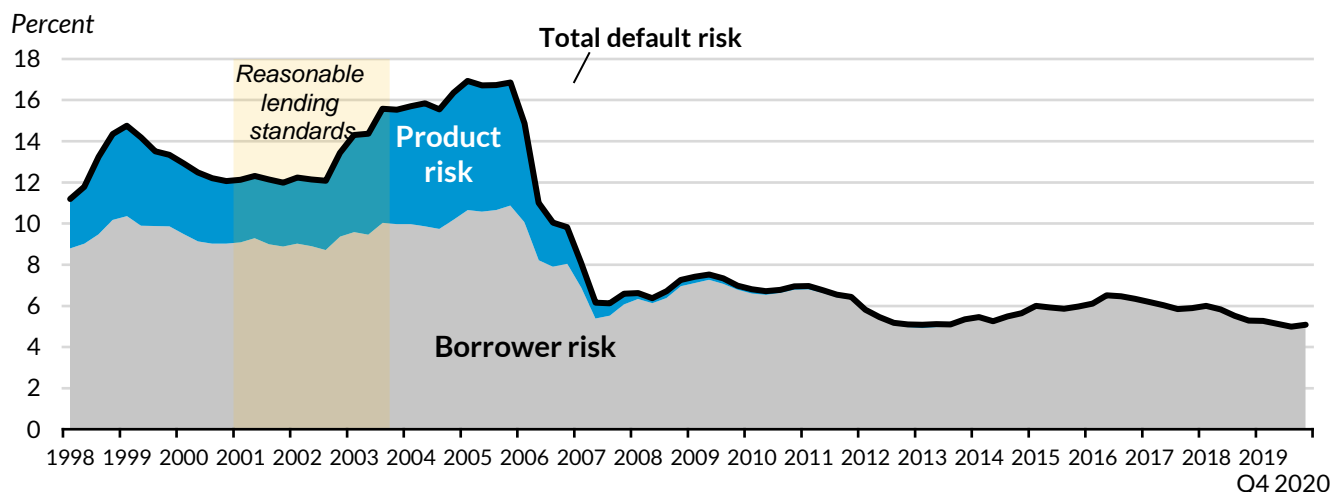
Sources: Inside Mortgage Finance and Urban Institute.

CREDIT BOX

HOUSING CREDIT AVAILABILITY INDEX

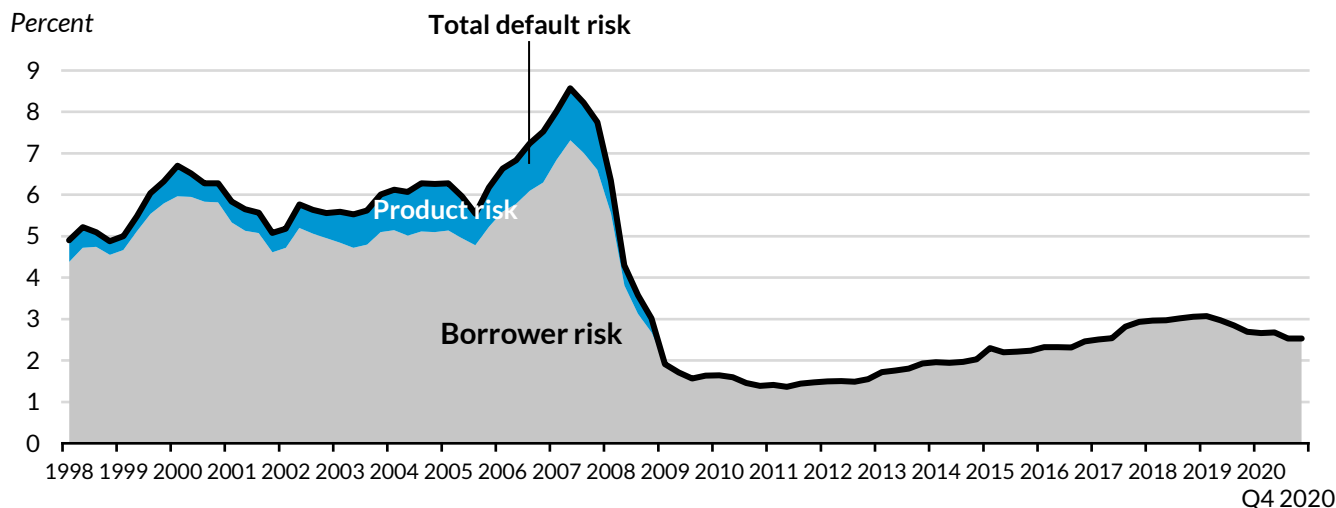
The Urban Institute's Housing Credit Availability Index (HCAI) assesses lenders' tolerance for both borrower risk and product risk, calculating the share of owner-occupied purchase loans that are likely to go 90+ days delinquent over the life of the loan. The HCAI stood at 5.1 percent in Q4 2020, up slightly from a historic low in Q3 of just below 5.0 percent. Note that we updated the methodology as of Q2 2020, see new methodology [here](#). Credit loosening from Q3 to Q4 2020 was led by increased borrower default risk among government channel originations, as well as a shift in market composition, with the GSE channel making up a smaller portion of total purchase originations. More information about the HCAI is available [here](#).

All Channels



GSE Channel

The trend toward greater credit availability in the GSE channel began in Q2 2011. From Q2 2011 to Q1 2020, the total risk taken by the GSE channel had nearly doubled, from 1.4 percent to 2.7 percent. This is still very modest by pre-crisis standards. However, over the past year credit availability has trended down, standing at 2.5 percent in Q4 2020, the result of accelerated tightening throughout 2020 induced by market conditions due to COVID-19.



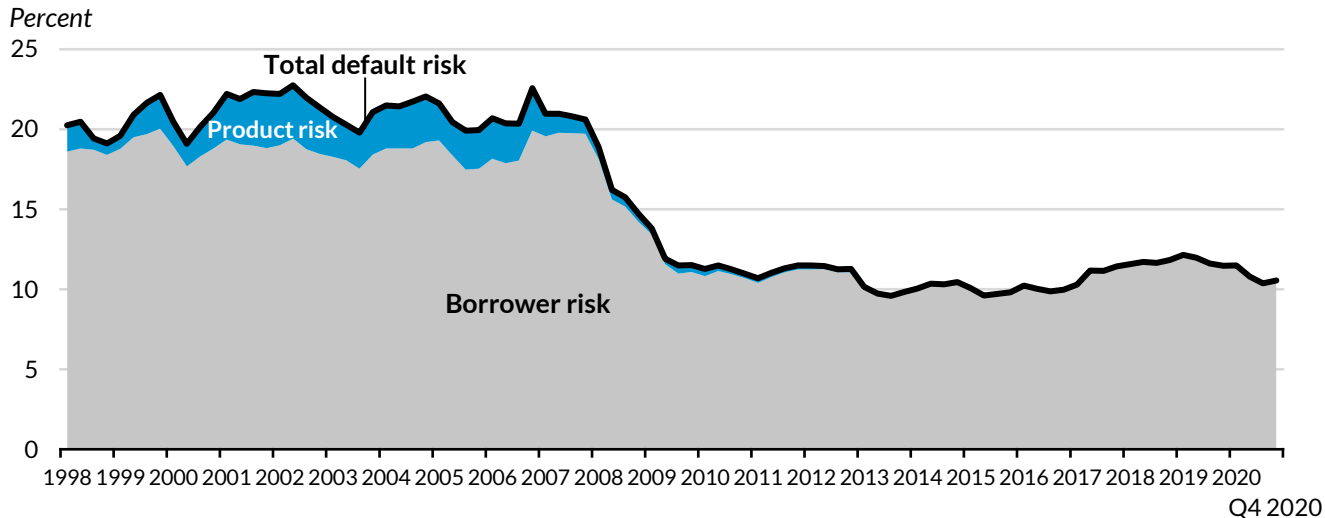
Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.

Note: Default is defined as 90 days or more delinquent at any point. Last updated April 2021.

HOUSING CREDIT AVAILABILITY INDEX

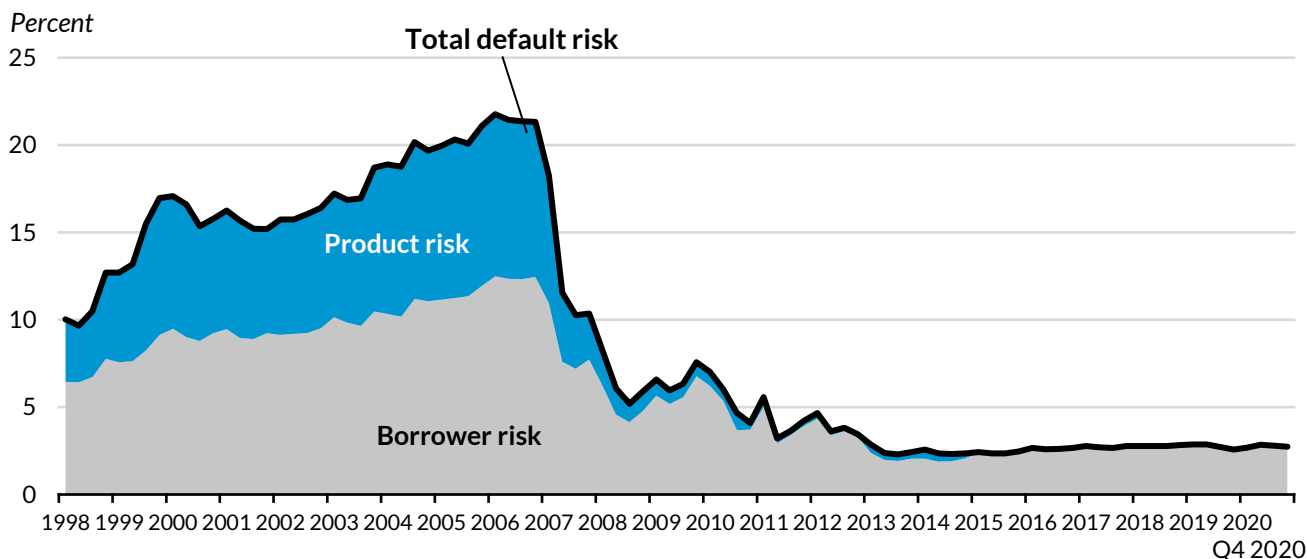
Government Channel

The total default risk the government loan channel is willing to take bottomed out at 9.6 percent in Q3 2013. It fluctuated in a narrow range at or above that number for three years. In the eleven quarters from Q4 2016 to Q1 2019, the risk in the government channel increased significantly from 9.9 to 12.1 percent but has since receded. The government channel reduced risk in quarters two and three of 2020, declining to 10.4 percent in Q3 but increased risk in Q4 to 10.6 percent; still far below the pre-bubble level of 19 to 23 percent.



Portfolio and Private Label Securities Channels

The portfolio and private-label securities (PP) channel took on more product risk than the FVR and GSE channels during the bubble. After the crisis, the channel's product and borrower risks dropped sharply. The numbers have stabilized since 2013, with product risk well below 0.5 percent and total risk largely in the range of 2.3-3.0 percent; it was 2.7 percent in Q4 2020. It is important to realize the PP market share plummeted during the COVID-19 crisis, as borrowers increasingly used government or GSE channels or could not obtain a mortgage at all. The PP share increased slightly in Q4 but remains a shadow of what it once was.



Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.

Note: Default is defined as 90 days or more delinquent at any point. Last updated April 2021.

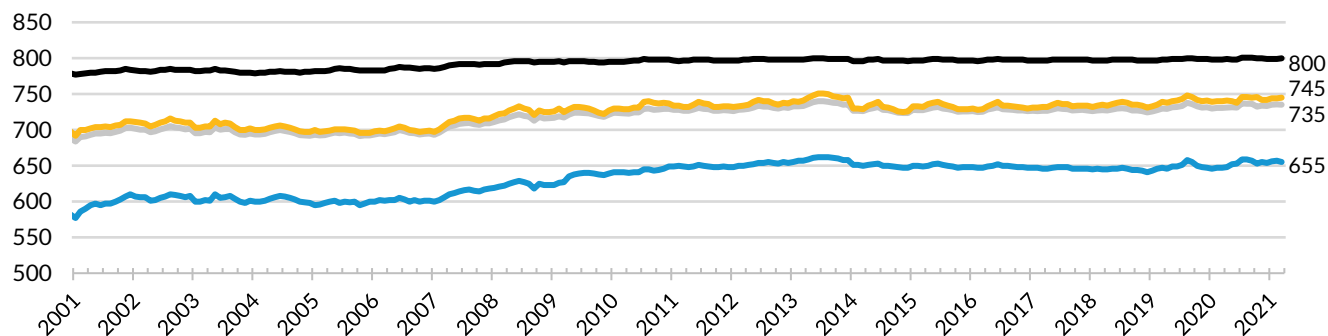
CREDIT AVAILABILITY FOR PURCHASE LOANS

Access to credit remains tight, especially for lower FICO borrowers. The median FICO for current purchase loans is about 45 points higher than the pre-housing crisis level of around 700. The 10th percentile, which represents the lower bound of creditworthiness to qualify for a mortgage, was 655 in March 2021, which is high compared to low-600s pre-bubble. The median LTV at origination of 93 percent also remains high, reflecting the rise of FHA and VA lending. Origination DTIs trended lower over the course of 2020 and early 2021, reflecting the sharp decline in mortgage rates.

— Mean — 90th percentile — 10th percentile — Median

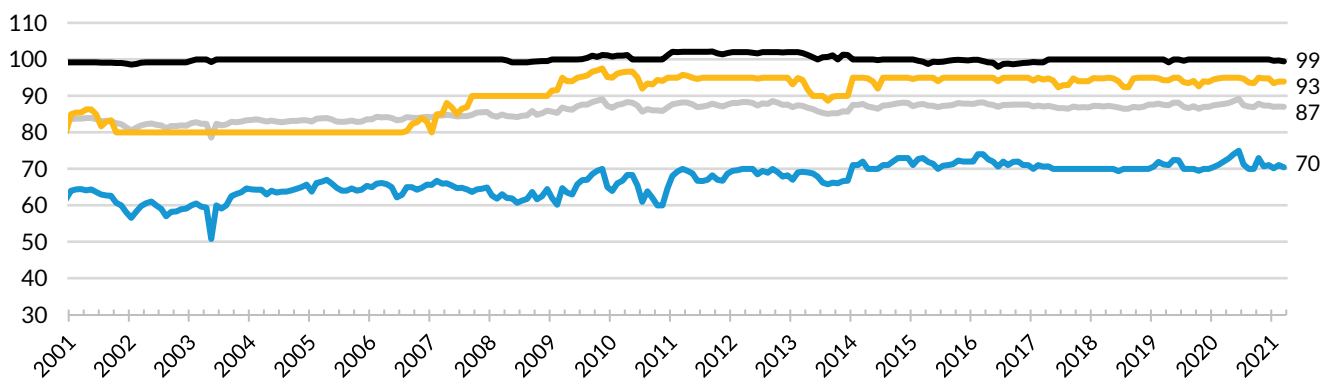
Borrower FICO Score at Origination

FICO Score



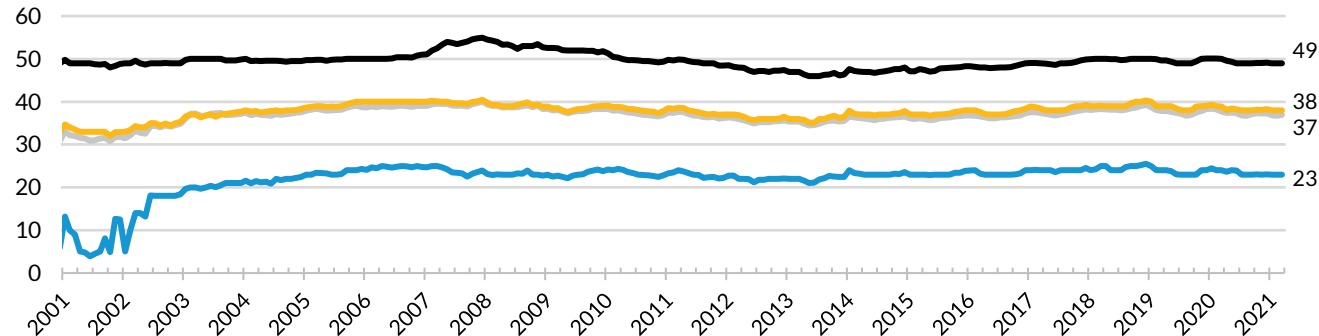
Combined LTV at Origination

LTV



DTI at Origination

DTI



Sources: Black Knight, eMBS, HMDA, SIFMA, CoreLogic and Urban Institute.

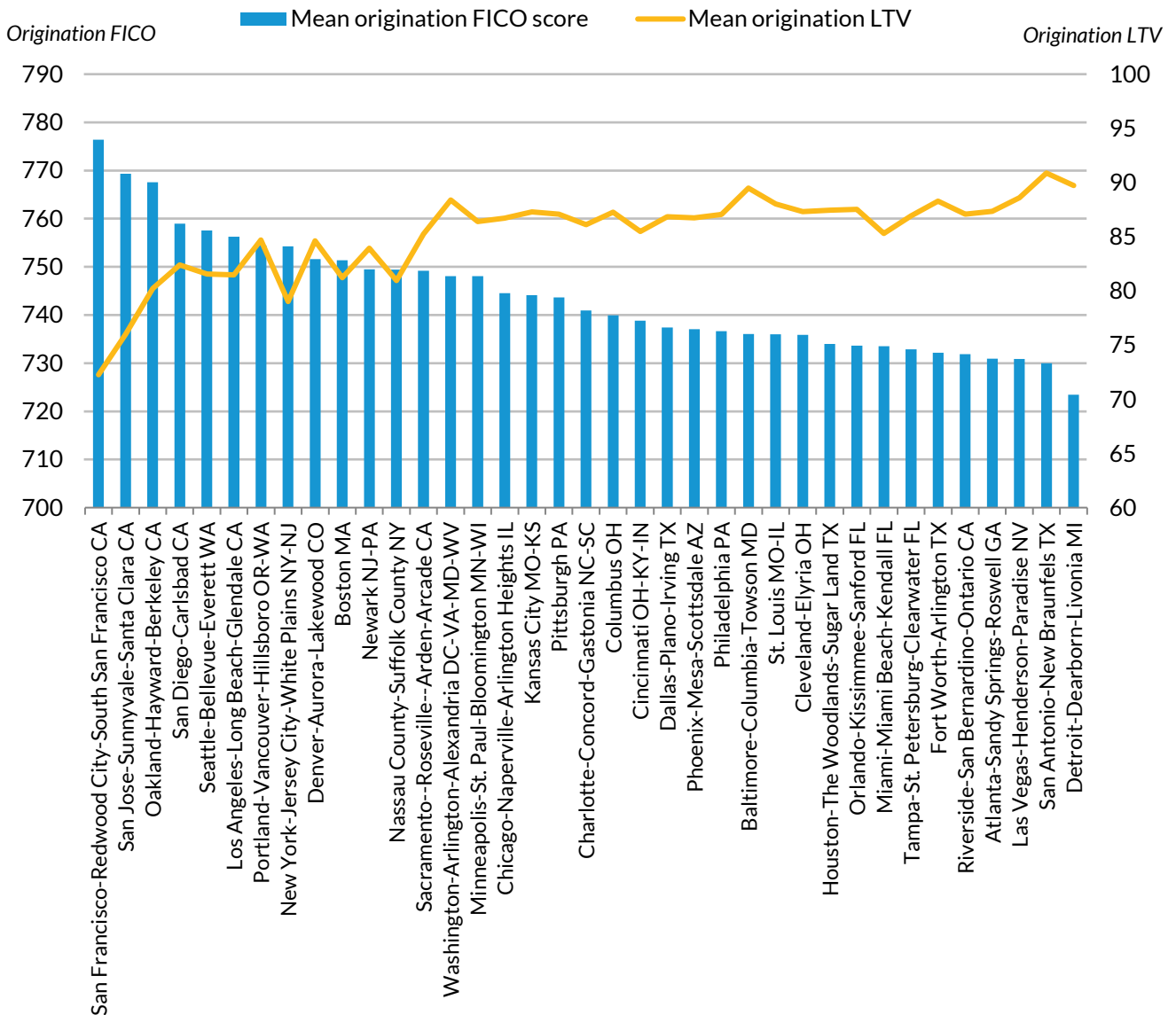
Note: Includes owner-occupied purchase loans only. DTI data prior to April 2018 is from CoreLogic; after that date, it is from Black Knight. Data as of March 2021.

CREDIT BOX

CREDIT AVAILABILITY BY MSA FOR PURCHASE LOANS

Credit has been tight for all borrowers with less-than-stellar credit scores—especially in MSAs with high housing prices. For example, the mean origination FICO for borrowers in San Francisco-Redwood City-South San Francisco, CA is approximately 776 in March 2021. Across all MSAs, lower average FICO scores tend to be correlated with high average LTVs, as these MSAs rely heavily on FHA/VA financing.

Origination FICO and LTV



Sources: Black Knight, eMBS, HMDA, SIFMA and Urban Institute.

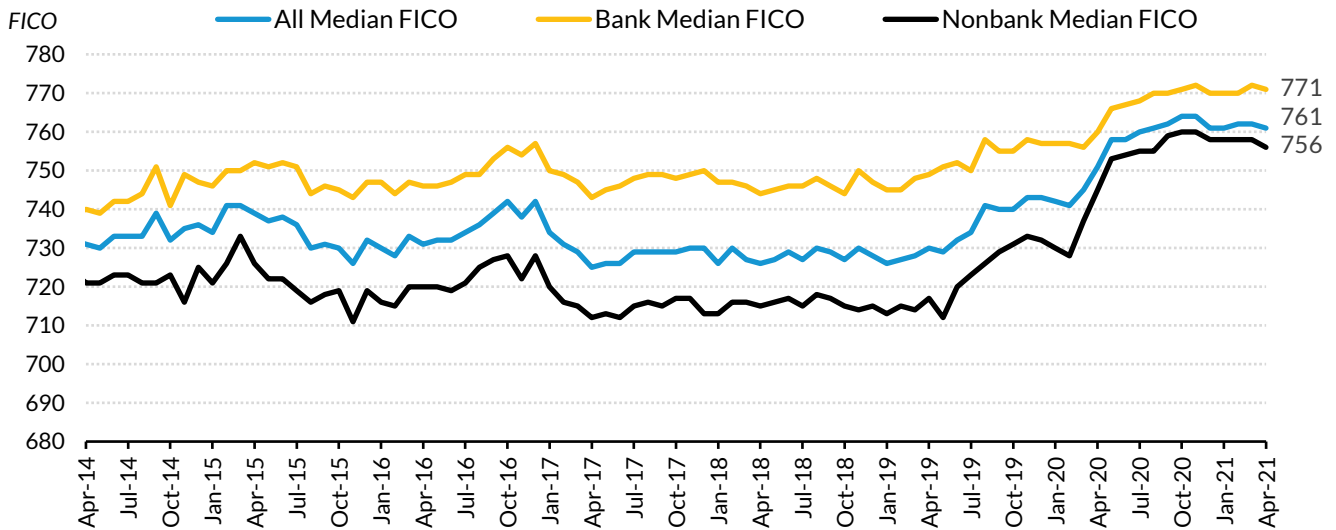
Note: Includes owner-occupied purchase loans only. Data as of March 2021.

CREDIT BOX

AGENCY NONBANK CREDIT BOX

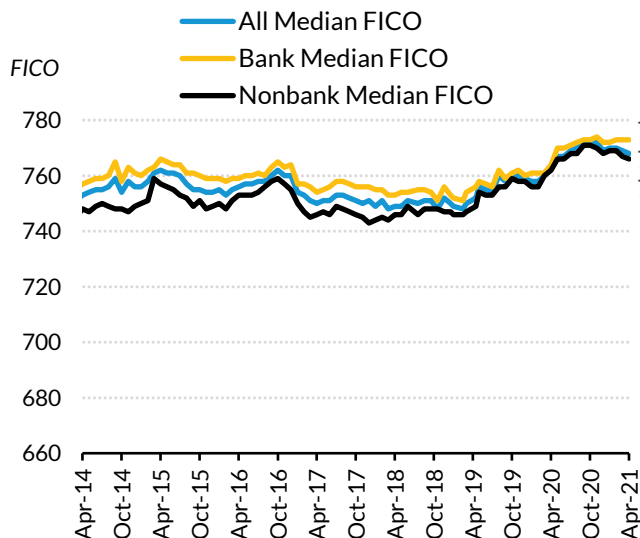
Nonbank originators have played a key role in expanding access to credit. In the GSE space, FICO scores for nonbanks have dipped slightly in 2021 even as bank FICOs remain at elevated levels. The difference between the two stood at 7 points in April 2021, compared to 25 points gap between bank and nonbank FICOs in the Ginnie Mae space. FICO scores for banks and nonbanks in both GSE and Ginnie Mae segments increased during the Q1 2019 to Q1 2021 period, due to increased refi activity; this activity is skewed toward higher FICO scores. Note that there has been a sharp cut-back in FHA lending by banks post-2008. As pointed out on page 11, banks now comprise only about 7 percent of Ginnie Mae originations.

Agency FICO: Bank vs. Nonbank



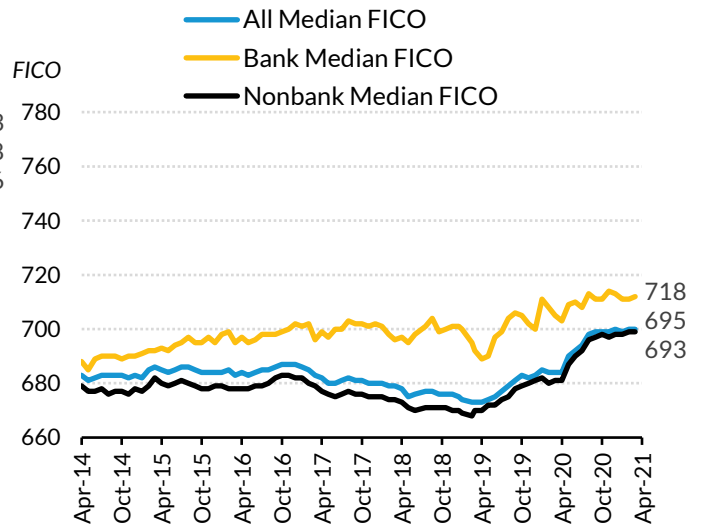
Sources: eMBS and Urban Institute.

GSE FICO: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

Ginnie Mae FICO: Bank vs. Nonbank



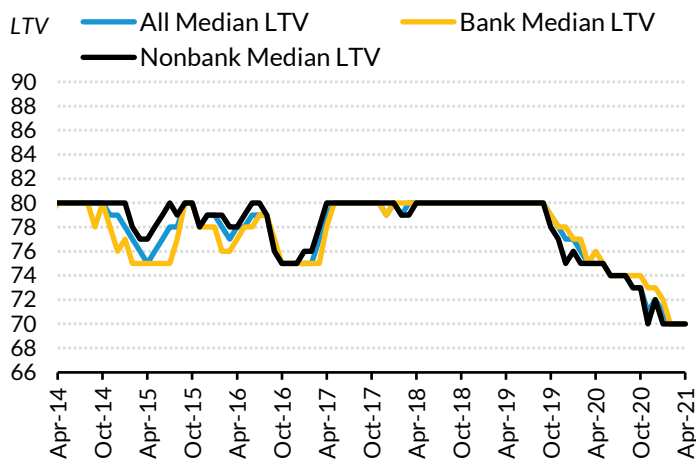
Sources: eMBS and Urban Institute.

CREDIT BOX

AGENCY NONBANK CREDIT BOX

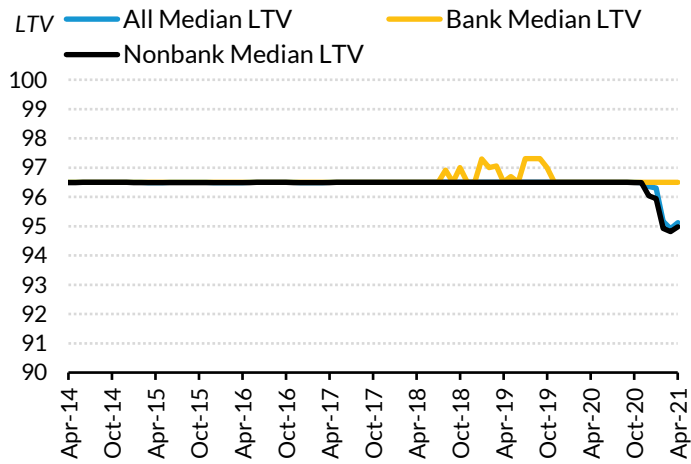
The median LTVs for nonbank and bank originations are comparable, while the median DTI for nonbank loans is higher than for bank loans, more so in the Ginnie Mae space. From early 2017 to early 2019, there was a sustained increase in DTIs, which has reversed beginning in the spring of 2019. This is true for both Ginnie Mae and the GSEs, for banks and nonbanks. As interest rates in 2017 and 2018 increased, DTIs rose, because borrower payments were driven up relative to incomes. As rates fell during most of the 2019 through early 2020 timeframe, DTIs fell as borrower payments declined relative to incomes.

GSE LTV: Bank vs. Nonbank



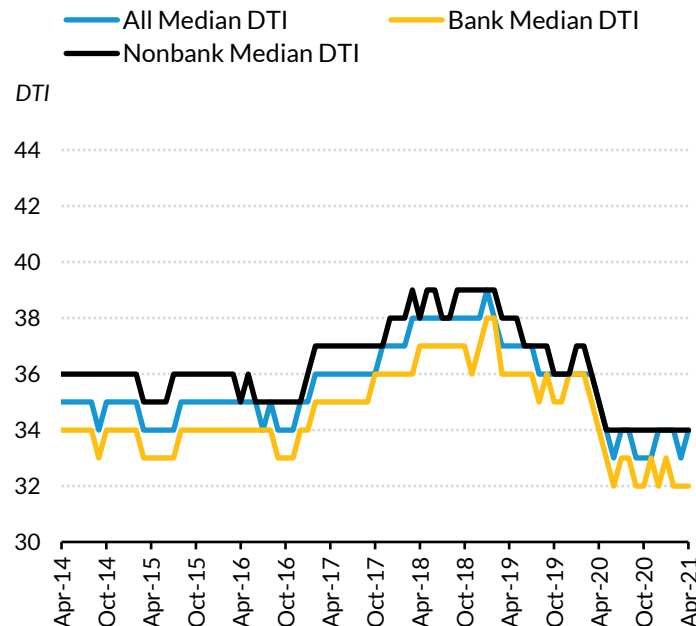
Sources: eMBS and Urban Institute.

Ginnie Mae LTV: Bank vs. Nonbank



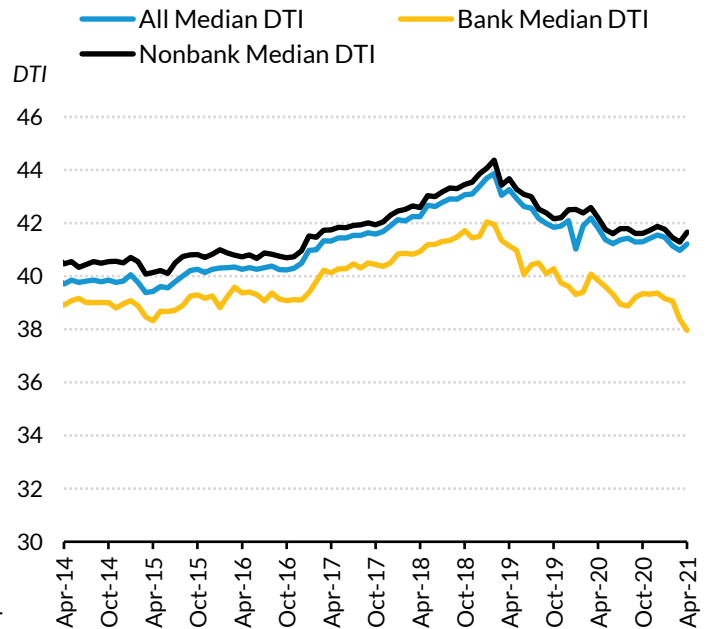
Sources: eMBS and Urban Institute.

GSE DTI: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

Ginnie Mae DTI: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

MORTGAGE ORIGINATION PROJECTIONS

Fannie Mae, Freddie Mac and the MBA estimate 2021 origination volume to be between \$3.28 and \$4.08 trillion, lower than the \$3.83 to \$4.54 trillion in 2020. 2020 was the highest origination year in the 21st century; page 8 top provides the longer historical time series. The very robust 2020 origination volume is due to very strong refinance activity. All three groups expect the 2021 refinance share to be 9 to 14 percentage points lower than in 2020.

Total Originations and Refinance Shares

| Period | Originations (\$ billions) | | | Refi Share (percent) | | |
|---------|----------------------------|-----------------------|---------------------|----------------------|----------------|--------------|
| | Total, FNMA estimate | Total, FHLMC estimate | Total, MBA estimate | FNMA estimate | FHLMC estimate | MBA estimate |
| 2020 Q1 | 752 | 675 | 563 | 61 | 60 | 52 |
| 2020 Q2 | 1096 | 975 | 928 | 68 | 68 | 61 |
| 2020 Q3 | 1346 | 1140 | 1076 | 62 | 64 | 59 |
| 2020 Q4 | 1342 | 1250 | 1261 | 64 | 68 | 62 |
| 2021 Q1 | 1266 | 1090 | 1094 | 71 | 69 | 69 |
| 2021 Q2 | 1183 | 964 | 974 | 58 | 51 | 50 |
| 2021 Q3 | 874 | 797 | 638 | 41 | 44 | 29 |
| 2021 Q4 | 757 | 629 | 578 | 39 | 36 | 24 |
| 2017 | 1826 | 1810 | 1760 | 36 | 37 | 35 |
| 2018 | 1766 | 1700 | 1677 | 30 | 32 | 28 |
| 2019 | 2462 | 2432 | 2253 | 46 | 46 | 44 |
| 2020 | 4536 | 4040 | 3828 | 64 | 66 | 59 |
| 2021 | 4081 | 3480 | 3284 | 55 | 52 | 48 |
| 2022 | 3036 | 2394 | 2313 | 38 | 32 | 23 |

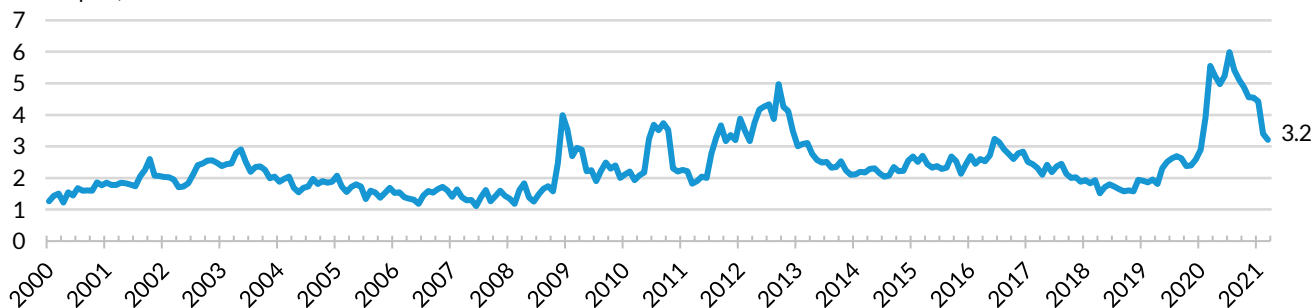
Sources: Fannie Mae, Freddie Mac, Mortgage Bankers Association and Urban Institute.

Note: Shaded boxes indicate forecasted figures. All figures are estimates for total single-family market. Regarding interest rates, the yearly averages for 2017, 2018, 2019 and 2020 were 4.0, 4.6, 3.9, and 3.0 percent. For 2021, the respective projections for Fannie, Freddie, and MBA are 3.0, 3.2, and 3.7 percent. Freddie Mac forecasts are now released quarterly, last updated April 2021.

Originator Profitability and Unmeasured Costs

In April 2021, Originator Profitability and Unmeasured Costs (OPUC) stood at \$3.21 per \$100 loan, down from last month's \$3.40. Increased profitability reflects lender capacity constraints amidst strong refi demand. Additionally, the Fed's massive purchases of agency MBS since March pushed down secondary yields, thus widening the spread to primary rates. We would expect OPUC to remain elevated for some time, declining as the backlog of refinance activity is processed, volumes ebb and originators begin to compete more aggressively on price. OPUC, formulated and calculated by the Federal Reserve Bank of New York, is a good relative measure of originator profitability. OPUC uses the sales price of a mortgage in the secondary market (less par) and adds two sources of profitability; retained servicing (both base and excess servicing, net of g-fees), and points paid by the borrower. OPUC is generally high when interest rates are low, as originators are capacity constrained due to refinance demand and have no incentive to reduce rates. Conversely, when interest rates are higher and refi activity low, competition forces originators to lower rates, driving profitability down.

Dollars per \$100 loan



Sources: Federal Reserve Bank of New York, updated monthly and available at this link:

<http://www.ny.frb.org/research/epr/2013/1113fust.html> and Urban Institute. Last updated April 2021.

Note: OPUC is a monthly (4-week moving) average as discussed in [Fuster et al. \(2013\)](#).

STATE OF THE MARKET

HOUSING SUPPLY

Months of supply in April 2021 was 2.4, 1.6 months lower than it was in April 2020 and up only slightly from the record low of 1.9 in January 2021. Strong demand for housing in recent years, fueled by low mortgage rates, has kept the months supply limited. Fannie Mae, the MBA, and the NAHB forecast 2021 housing starts to be 1.54 to 1.65 million units; these 2021 forecasts are above 2020 levels. Fannie Mae, Freddie Mac, and the MBA predict total home sales of 6.87 to 7.28 million units in 2021, above 2020 levels.

Months of Supply

Months of supply



April 2021

Source: National Association of Realtors and Urban Institute. Data as of April 2021.

Housing Starts and Home Sales

| Year | Housing Starts, thousands | | | Home Sales, thousands | | | |
|------|---------------------------|---------------------|----------------------|-----------------------|-----------------------|---------------------|-----------------------|
| | Total, FNMA estimate | Total, MBA estimate | Total, NAHB estimate | Total, FNMA estimate | Total, FHLMC estimate | Total, MBA estimate | Total, NAHB estimate* |
| 2017 | 1203 | 1208 | 1208 | 6123 | 6120 | 6158 | 5520 |
| 2018 | 1250 | 1250 | 1250 | 5957 | 5960 | 5956 | 5351 |
| 2019 | 1290 | 1295 | 1295 | 6023 | 6000 | 6016 | 5439 |
| 2020 | 1380 | 1395 | 1395 | 6462 | 6500 | 6491 | 5901 |
| 2021 | 1646 | 1595 | 1543 | 6868 | 7100 | 7282 | 6601 |
| 2022 | 1547 | 1626 | 1554 | 6524 | 6700 | 7454 | 6772 |

Sources: Mortgage Bankers Association, Fannie Mae, Freddie Mac, National Association of Home Builders and Urban Institute.

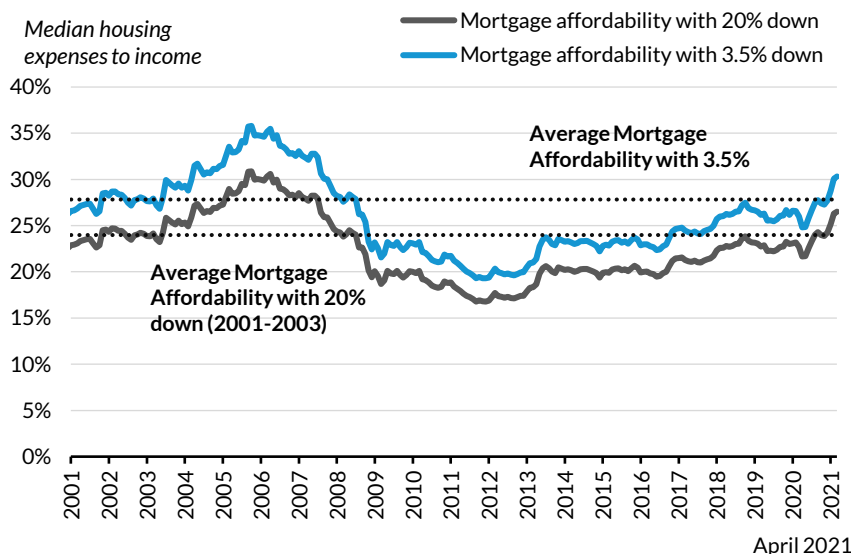
Note: Shaded boxes indicate forecasted figures; column labels indicate source of estimate. Freddie Mac home sales are now updated quarterly instead of monthly, with the last update in April 2021. *NAHB home sales estimate is for single-family structures only, it excludes condos and co-ops. Other figures include all single-family sales.

STATE OF THE MARKET

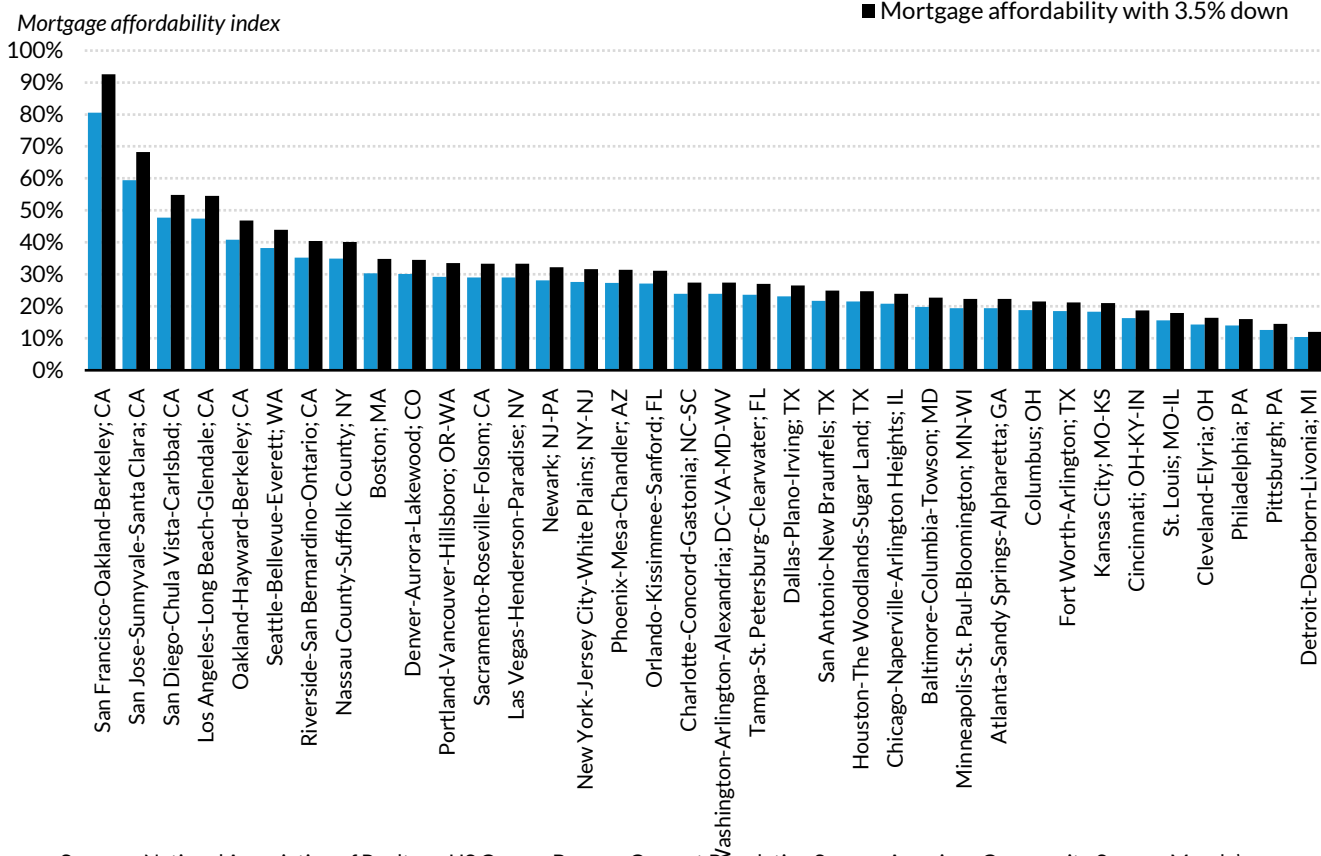
HOUSING AFFORDABILITY

National Mortgage Affordability Over Time

Despite historic low interest rates, increases in home prices have pushed affordability to the worst levels since 2008. As of April 2021, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 26.5 percent; with 3.5 percent down it is 30.3 percent. These numbers are well above the 2001-2003 median, and represent a sharp worsening in affordability over the past year. As shown in the bottom picture, mortgage affordability varies widely by MSA.



Mortgage Affordability by MSA



Sources: National Association of Realtors, US Census Bureau, Current Population Survey, American Community Survey, Moody's Analytics, Freddie Mac Primary Mortgage Market Survey, and the Urban Institute.

Note: Mortgage affordability is the share of median family income devoted to the monthly principal, interest, taxes, and insurance payment required to buy the median home at the Freddie Mac prevailing rate 2018 for a 30-year fixed-rate mortgage and property tax and insurance at 1.75 percent of the housing value. Data for the bottom chart as of Q3 2020.

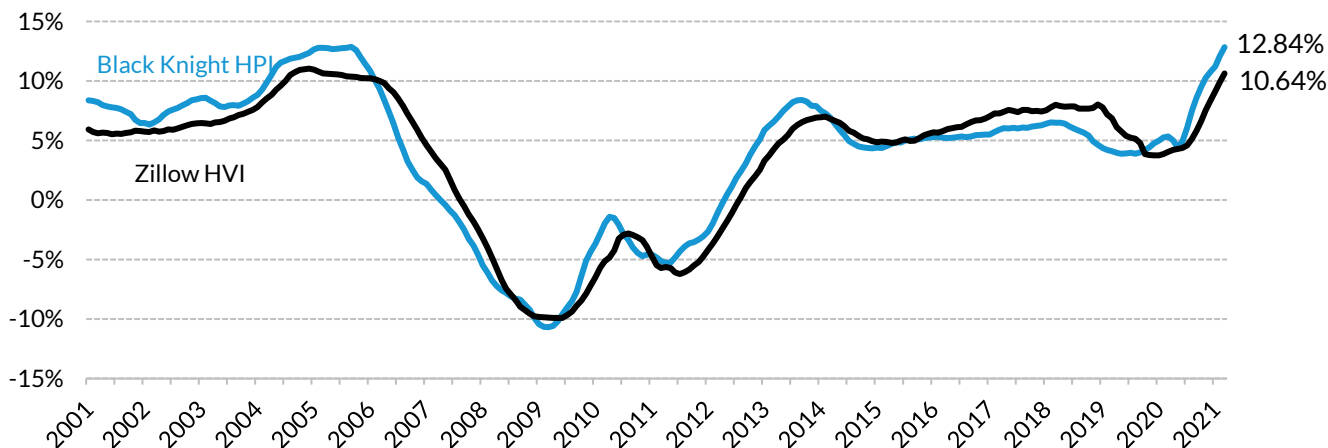
STATE OF THE MARKET

HOME PRICE INDICES

National Year-Over-Year HPI Growth

According to Black Knight's updated repeat sales index, year-over-year home price appreciation increased to 12.84 percent in March 2021, compared to 12.10 percent the previous month. Year-over-year home price appreciation as measured by Zillow's hedonic index was 10.64 percent in March 2021, up from 9.88 in February. Although housing affordability remains constrained, especially at the lower end of the market, low rates serve as a partial offset.

Year-over-year growth



Sources: Black Knight, Zillow, and Urban Institute. **Note:** Black Knight modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. Data as of March 2021.

Changes in Black Knight HPI for Top MSAs

After rising 81.0 percent from the trough, national house prices are now 35.3 percent higher than pre-crisis peak levels. All the top 15 MSAs have exceeded their pre-crisis peak HPI, though Chicago, IL, an MSA particularly hard hit by the bust, is just 0.4 percent above its prior peak.

| MSA | HPI changes (%) | | | % above peak |
|----------------------------------------------|-----------------|----------------|-------------------|--------------|
| | 2000 to peak | Peak to trough | Trough to current | |
| United States | 74.8 | -25.2 | 81.0 | 35.3 |
| New York-Jersey City-White Plains, NY-NJ | 127.7 | -22.5 | 61.9 | 25.5 |
| Los Angeles-Long Beach-Glendale, CA | 179.1 | -38.0 | 118.3 | 35.3 |
| Chicago-Naperville-Arlington Heights, IL | 67.2 | -38.5 | 63.2 | 0.4 |
| Atlanta-Sandy Springs-Roswell, GA | 32.2 | -35.2 | 114.2 | 38.8 |
| Washington-Arlington-Alexandria, DC-VA-MD-WV | 149.0 | -28.5 | 58.4 | 13.3 |
| Houston-The Woodlands-Sugar Land, TX | 29.4 | -6.6 | 64.6 | 53.7 |
| Phoenix-Mesa-Scottsdale, AZ | 113.3 | -51.1 | 154.7 | 24.5 |
| Riverside-San Bernardino-Ontario, CA | 174.5 | -51.6 | 136.0 | 14.3 |
| Dallas-Plano-Irving, TX | 26.5 | -7.4 | 90.8 | 76.8 |
| Minneapolis-St. Paul-Bloomington, MN-WI | 69.6 | -31.0 | 84.4 | 27.3 |
| Seattle-Bellevue-Everett, WA | 90.0 | -33.1 | 159.2 | 73.3 |
| Denver-Aurora-Lakewood, CO | 34.1 | -12.6 | 131.9 | 102.8 |
| Baltimore-Columbia-Towson, MD | 123.2 | -24.5 | 42.9 | 7.9 |
| San Diego-Carlsbad, CA | 148.1 | -37.5 | 118.6 | 36.6 |
| Anaheim-Santa Ana-Irvine, CA | 162.9 | -35.2 | 93.5 | 25.5 |

Sources: Black Knight HPI and Urban Institute. Data as of March 2021.

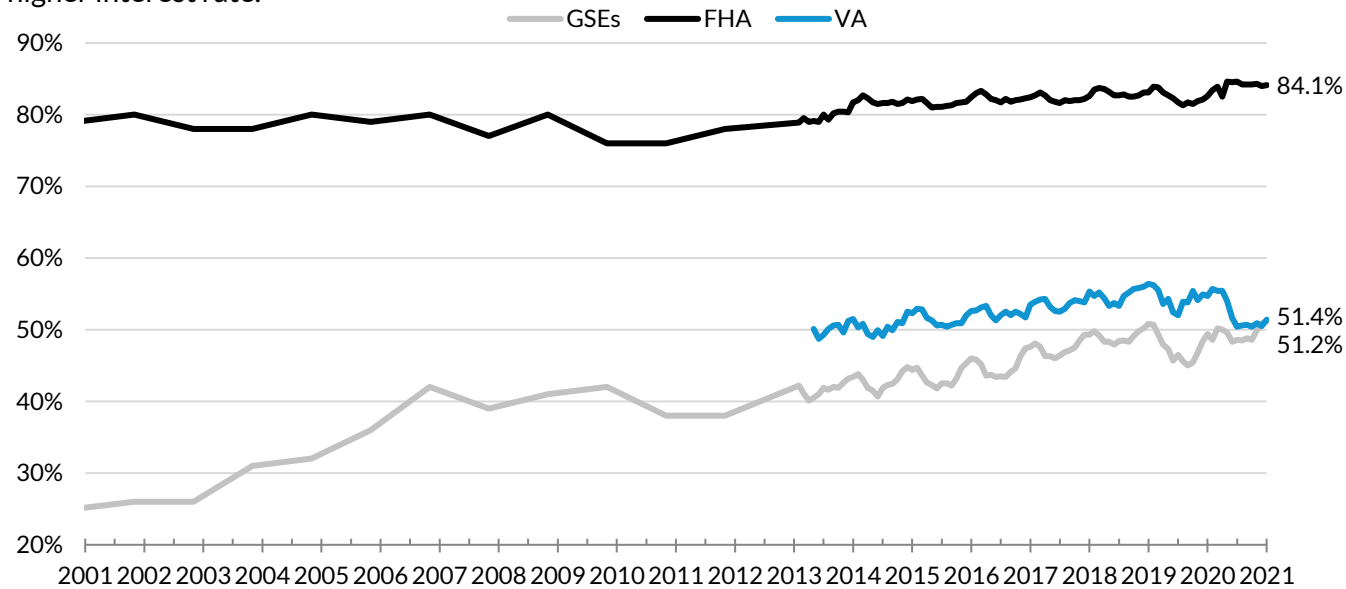
Note: Black Knight modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. This table includes the largest 15 Metropolitan areas by mortgage count.

STATE OF THE MARKET

FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

In March 2021, the FTHB share for FHA, which has always been more focused on first time homebuyers, was 84.1 percent. The FTHB share of VA lending in February was 51.4 percent. The GSE FTHB share increased in March relative to February, to 51.2 percent. The bottom table shows that based on mortgages originated in March 2021, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV, thus paying a higher interest rate.



Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.

March 2021

Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

Comparison of First-Time and Repeat Homebuyers, GSE and FHA Originations

| Characteristics | GSEs | | FHA | | GSEs and FHA | |
|------------------|------------|---------|------------|---------|--------------|---------|
| | First-time | Repeat | First-time | Repeat | First-time | Repeat |
| Loan Amount (\$) | 302,483 | 319,454 | 245,593 | 260,212 | 283,664 | 311,351 |
| Credit Score | 748 | 757 | 677 | 676 | 725 | 746 |
| LTV (%) | 88 | 80 | 95 | 94 | 90 | 82 |
| DTI (%) | 34 | 35 | 43 | 44 | 37 | 36 |
| Loan Rate (%) | 2.80 | 2.75 | 2.84 | 2.79 | 2.82 | 2.76 |

Sources: eMBS and Urban Institute.

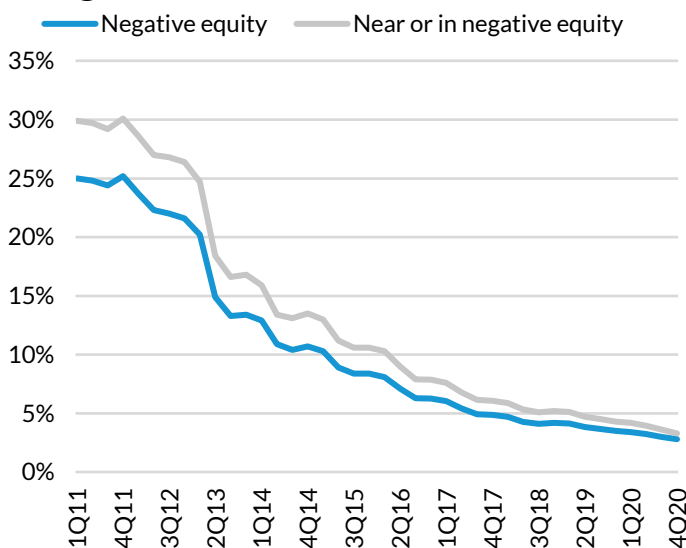
Note: Based on owner-occupied purchase mortgages originated in March 2021.

STATE OF THE MARKET

DELINQUENCIES AND LOSS MITIGATION ACTIVITY

Loans in and near negative equity continued to decline in Q4 2020; 2.8 percent now have negative equity, an additional 0.5 percent have less than 5 percent equity. Due to the effects of COVID-19, the share of loans that are 90 days or more delinquent or in foreclosure remained high but declined slightly in Q1 2021, at 4.70 percent. This number includes loans where borrowers have missed their payments, including loans in COVID-19 forbearance. The bottom chart shows the share of loans in forbearance according to the MBA Weekly Forbearance and Call Volume Survey, launched in March 2020. After peaking at 8.55 percent in early June 2020, the total forbearance rate has declined to 4.22 percent as of May 9, 2021. GSE loans have consistently had the lowest forbearance rates, standing at 2.24 percent as of May. The most recent forbearance rate for Ginnie Mae loans was 5.61 percent; other (e.g., portfolio and PLS) loans had the highest forbearance rate at 8.26 percent.

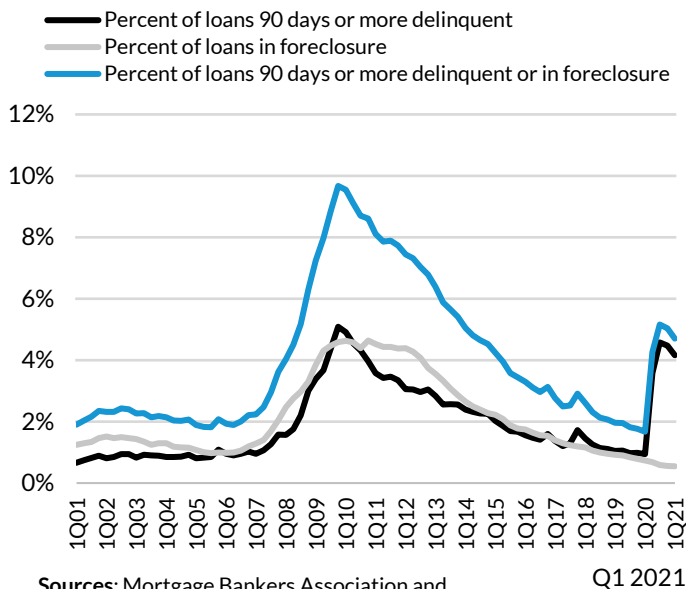
Negative Equity Share



Sources: CoreLogic and Urban Institute.

Note: Loans with negative equity refer to loans above 100 percent LTV. Loans near negative equity refer to loans above 95 percent LTV. Last updated March 2021.

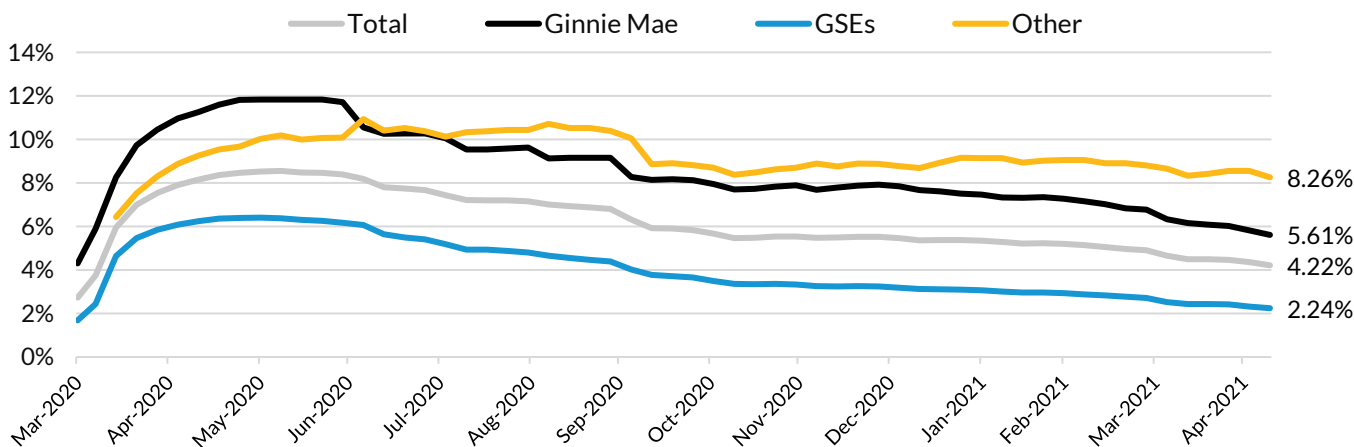
Loans in Serious Delinquency/Foreclosure



Sources: Mortgage Bankers Association and Urban Institute. Last updated May 2021.

Q1 2021

Forbearance Rates by Channel



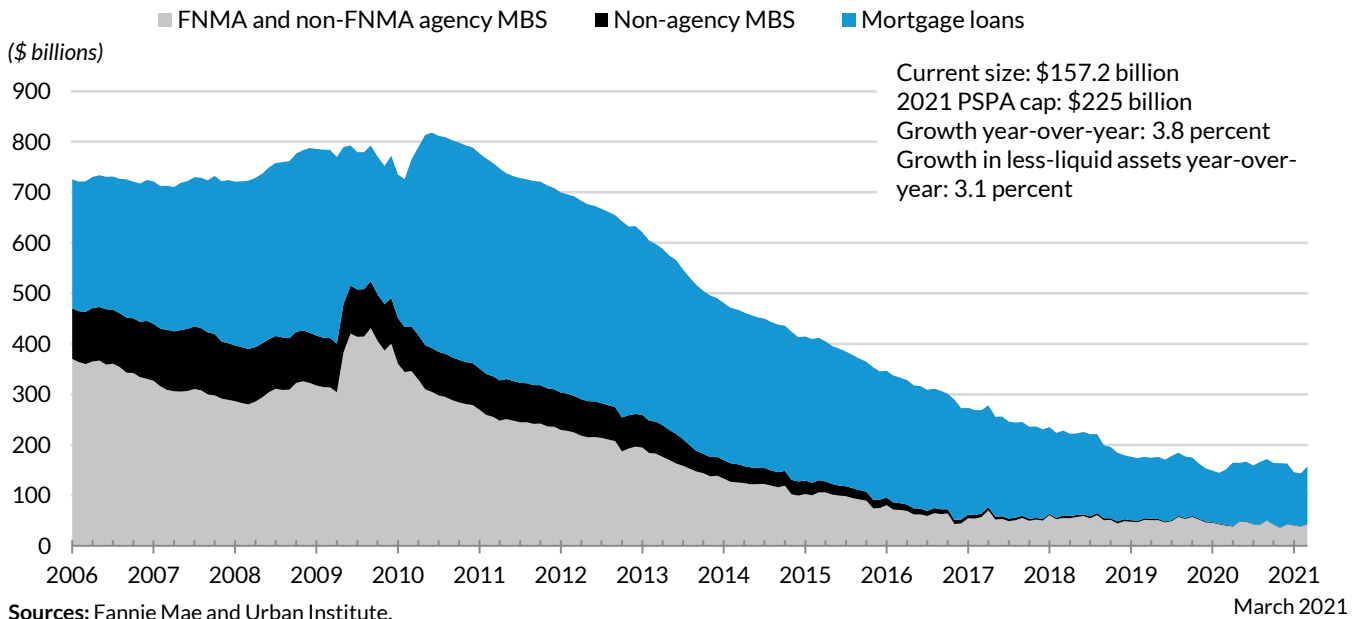
Source: MBA Weekly Forbearance and Call Volume Survey. Forbearance rates as of May 9, 2021.

GSES UNDER CONSERVATORSHIP

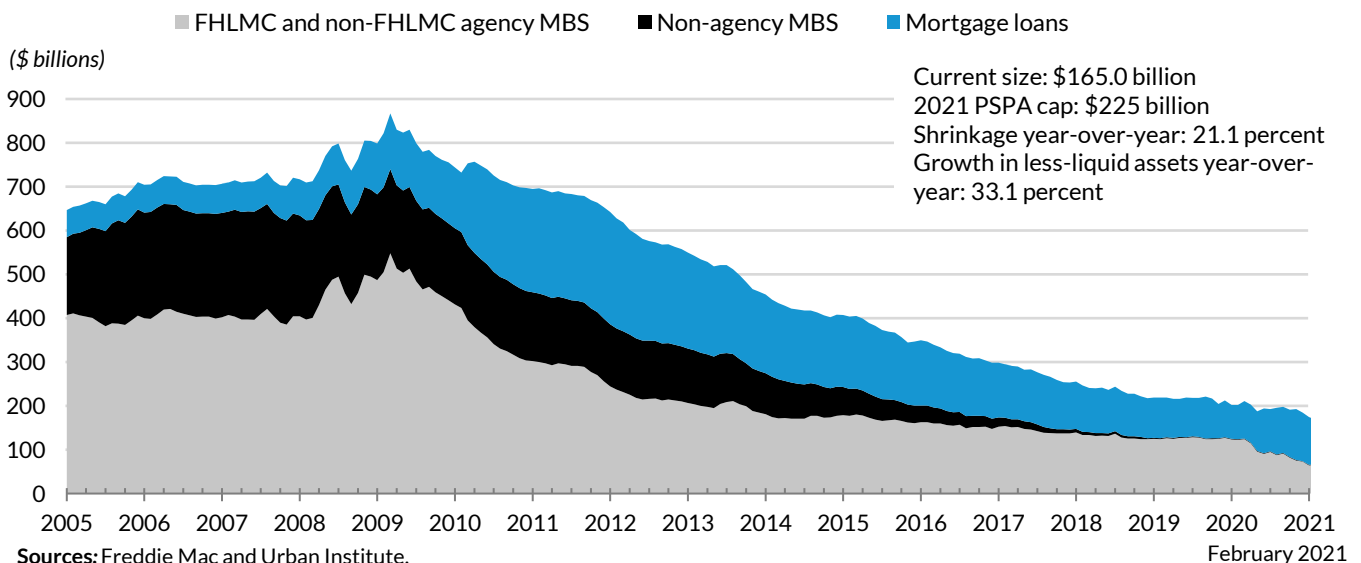
GSE PORTFOLIO WIND-DOWN

The Fannie Mae and Freddie Mac portfolios remain well below the \$250 billion size they were required to reach by year-end 2018, or the \$225 billion cap mandated in January 2021 by the new Preferred Stock Purchase Agreements (PSPAs). From March 2020 to March 2021, the Fannie portfolio grew year-over-year by 3.8 percent, while the Freddie portfolio contracted by 21.1 percent. Within the portfolio, both Fannie Mae and Freddie Mac increased their less-liquid assets (mortgage loans, non-agency MBS), by 3.1 percent and 33.1 percent, respectively, over the same 12 month period. These changes reflect both a smaller overall portfolio and the increased need to hold loans in portfolio for loss mitigation purposes.

Fannie Mae Mortgage-Related Investment Portfolio Composition



Freddie Mac Mortgage-Related Investment Portfolio Composition



Note: Effective March 2021, Freddie Mac doesn't provide FHLMC/non-FHLMC breakout of agency MBS. The above charts were updated in May 2021 to reflect this.

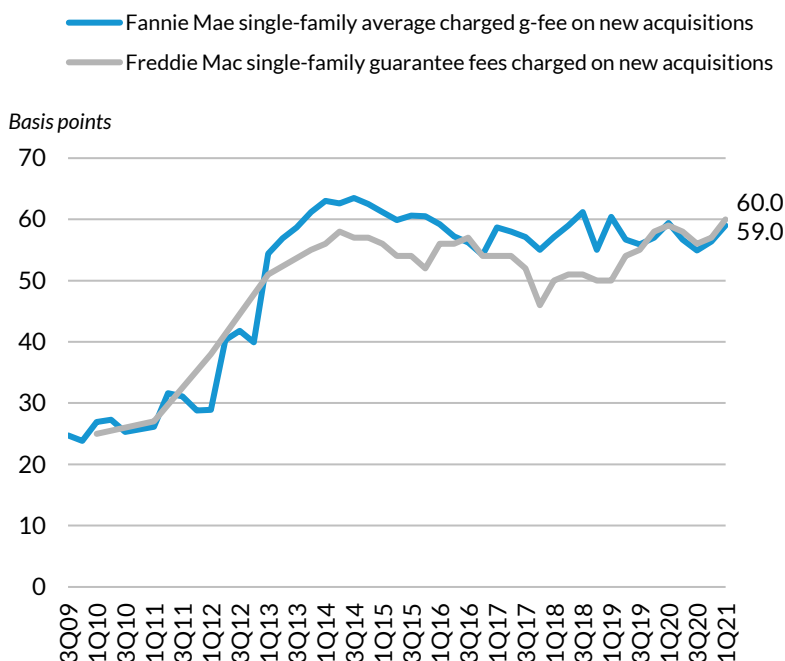
GSES UNDER CONSERVATORSHIP

EFFECTIVE GUARANTEE FEES

Guarantee Fees Charged on New Acquisitions

Fannie Mae and Freddie Mac's average g-fees charged have largely converged since the first quarter of 2020. Fannie Mae's average g-fees charged on new acquisitions increased from 56.4 bps in Q4 2020 to 59.0 bps in Q1 2021. Freddie's also increased from 57.0 bps to 60.0 bps. The gap between the two g-fees was 1.0 bps in Q1 2021. Today's g-fees are markedly higher than g-fee levels in 2011 and 2012, and have contributed to the GSEs' earnings; the bottom table shows Fannie Mae LLPAs, which are expressed as upfront charges. Note: The GSEs instituted a new LLPA of 50.0 basis points on most refinances, effective Dec 1, 2020.

Sources: Fannie Mae, Freddie Mac and Urban Institute.
Last updated May 2021.



Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

| Credit Score | LTV (%) | | | | | | | | |
|-------------------------------------|---------|------------|------------|------------|------------|------------|------------|------------|-------|
| | ≤60 | 60.01 – 70 | 70.01 – 75 | 75.01 – 80 | 80.01 – 85 | 85.01 – 90 | 90.01 – 95 | 95.01 – 97 | >97 |
| > 740 | 0.00 | 0.25 | 0.25 | 0.50 | 0.25 | 0.25 | 0.25 | 0.75 | 0.75 |
| 720 – 739 | 0.00 | 0.25 | 0.50 | 0.75 | 0.50 | 0.50 | 0.50 | 1.00 | 1.00 |
| 700 – 719 | 0.00 | 0.50 | 1.00 | 1.25 | 1.00 | 1.00 | 1.00 | 1.50 | 1.50 |
| 680 – 699 | 0.00 | 0.50 | 1.25 | 1.75 | 1.50 | 1.25 | 1.25 | 1.50 | 1.50 |
| 660 – 679 | 0.00 | 1.00 | 2.25 | 2.75 | 2.75 | 2.25 | 2.25 | 2.25 | 2.25 |
| 640 – 659 | 0.50 | 1.25 | 2.75 | 3.00 | 3.25 | 2.75 | 2.75 | 2.75 | 2.75 |
| 620 – 639 | 0.50 | 1.50 | 3.00 | 3.00 | 3.25 | 3.25 | 3.25 | 3.50 | 3.50 |
| < 620 | 0.50 | 1.50 | 3.00 | 3.00 | 3.25 | 3.25 | 3.25 | 3.75 | 3.75 |
| Product Feature (Cumulative) | | | | | | | | | |
| Investment Property | 2.125 | 2.125 | 2.125 | 3.375 | 4.125 | 4.125 | 4.125 | 4.125 | 4.125 |

Sources: Fannie Mae and Urban Institute.
Last updated March of 2021.

GSEs UNDER CONSERVATORSHIP

GSE RISK-SHARING TRANSACTIONS

Fannie Mae and Freddie Mac have been laying off back-end credit risk through CAS and STACR deals and through reinsurance transactions. They have also done front-end transactions with originators and reinsurers, and experimented with deep mortgage insurance coverage with private mortgage insurers. Historically, the GSEs have transferred vast majority of their credit risk to private markets. Fannie Mae's CAS issuances since inception total \$1.65 trillion; Freddie's STACR totals \$1.96 trillion. Since the COVID-19 induced spread widening in March 2020, Freddie Mac has issued eleven deals, while Fannie has issued none.

Fannie Mae – Connecticut Avenue Securities (CAS)

| Date | Transaction | Reference Pool Size (\$m) | Amount Issued (\$m) | % of Reference Pool Covered |
|---------------|-----------------|---------------------------|---------------------|-----------------------------|
| 2013 | CAS 2013 deals | \$26,756 | \$675 | 2.5 |
| 2014 | CAS 2014 deals | \$227,234 | \$5,849 | 2.6 |
| 2015 | CAS 2015 deals | \$187,126 | \$5,463 | 2.9 |
| 2016 | CAS 2016 deals | \$236,459 | \$7,392 | 3.1 |
| 2017 | CAS 2017 deals | \$264,697 | \$8,707 | 3.3 |
| 2018 | CAS 2018 deals | \$205,900 | \$7,314 | 3.6 |
| 2019 | CAS 2019 deals | \$291,400 | \$8,071 | 2.8 |
| January 2020 | CAS 2020 - R01 | \$29,000 | \$1,030 | 3.6 |
| February 2020 | CAS 2020 - R02 | \$29,000 | \$1,134 | 3.9 |
| March 2020 | CAS 2020 - SBT1 | \$152,000 | \$966 | 0.6 |
| Total | | \$1,649,572 | \$46,601 | 2.8 |

Freddie Mac – Structured Agency Credit Risk (STACR)

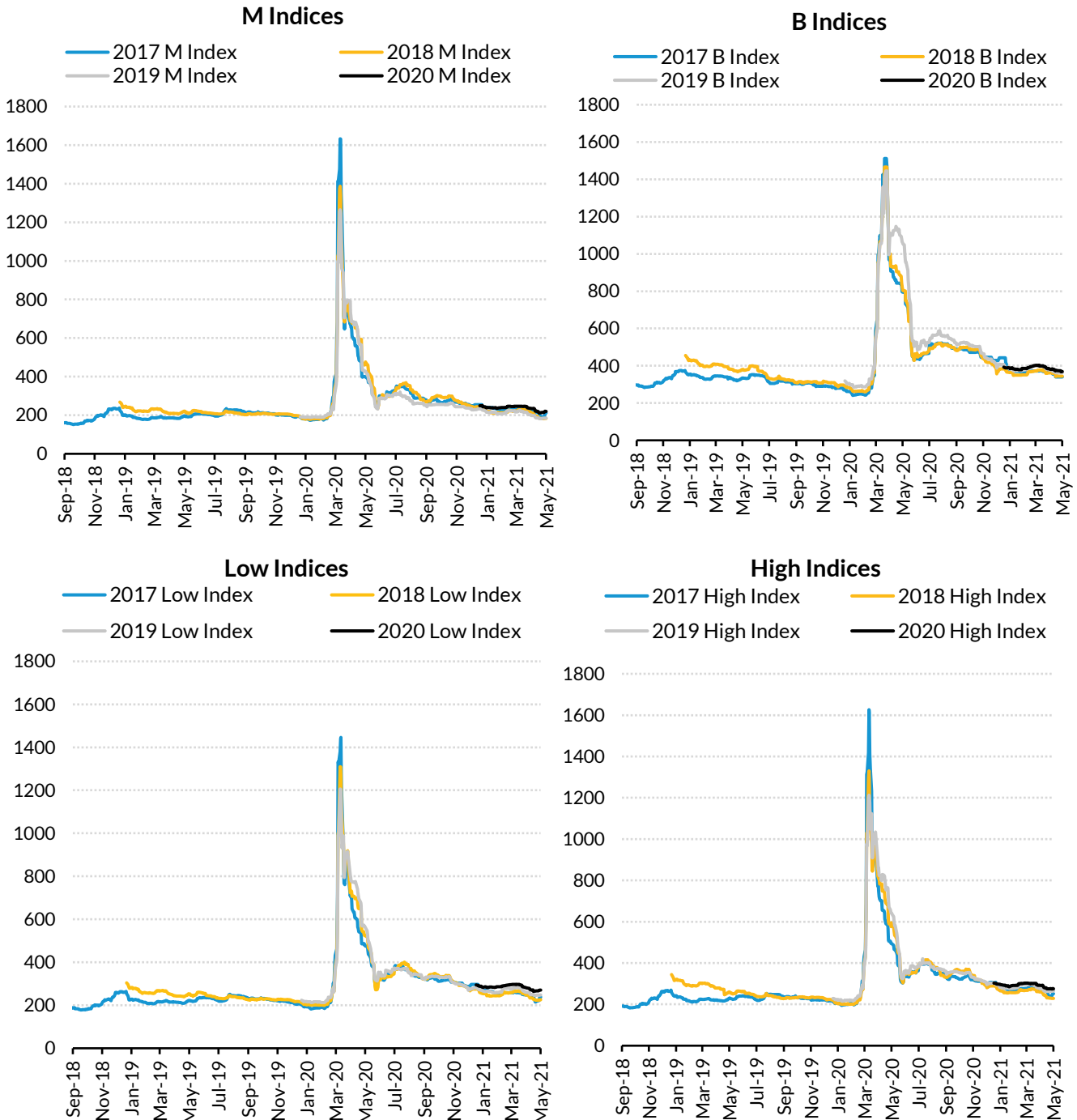
| Date | Transaction | Reference Pool Size (\$m) | Amount Issued (\$m) | % of Reference Pool Covered |
|----------------|--------------------------|---------------------------|---------------------|-----------------------------|
| 2013 | STACR 2013 deals | \$57,912 | \$1,130 | 2.0 |
| 2014 | STACR 2014 deals | \$147,120 | \$4,916 | 3.3 |
| 2015 | STACR 2015 deals | \$209,521 | \$6,658 | 3.2 |
| 2016 | STACR 2016 deals | \$183,421 | \$5,541 | 2.8 |
| 2017 | STACR 2017 deals | \$248,821 | \$5,663 | 2.3 |
| 2018 | STACR 2018 deals | \$216,581 | \$6,055 | 2.8 |
| 2019 | STACR 2019 deals | \$271,105 | \$5,947 | 2.2 |
| January 2020 | STACR Series 2020 – DNA1 | \$29,641 | \$794 | 2.7 |
| February 2020 | STACR Series 2020 – HQA1 | \$24,268 | \$738 | 3.0 |
| February 2020 | STACR Series 2020 – DNA2 | \$43,596 | \$1,169 | 2.7 |
| March 2020 | STACR Series 2020 – HQA2 | \$35,066 | \$1,006 | 2.9 |
| July 2020 | STACR Series 2020 – DNA3 | \$48,328 | \$1,106 | 2.3 |
| July 2020 | STACR Series 2020 – HQA3 | \$31,278 | \$835 | 2.7 |
| August 2020 | STACR Series 2020 – DNA4 | \$41,932 | \$1,088 | 2.6 |
| September 2020 | STACR Series 2020 – HQA4 | \$25,009 | \$680 | 2.7 |
| October 2020 | STACR Series 2020 – DNA5 | \$43,406 | \$1,086 | 2.5 |
| November 2020 | STACR Series 2020 – HQA5 | \$42,257 | \$1,080 | 2.6 |
| December 2020 | STACR Series 2020 – DNA6 | \$38,810 | \$790 | 2.0 |
| January 2021 | STACR Series 2021 – DNA1 | \$58,041 | \$970 | 1.7 |
| February 2021 | STACR Series 2021 – HQA1 | \$62,980 | \$1,386 | 2.2 |
| March 2021 | STACR Series 2021 – DNA2 | \$55,687 | \$1,188 | 2.1 |
| April 2021 | STACR Series 2021 – DNA3 | \$44,585 | \$950 | 2.1 |
| Total | | \$1,959,365 | \$50,776 | 2.6 |

Sources: Fannie Mae, Freddie Mac and Urban Institute. **Note:** Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

GSES UNDER CONSERVATORSHIP

GSE RISK-SHARING INDICES

The figures below show the spreads on 2017, 2018, 2019, and 2020 indices, as priced by dealers. Note the substantial spread widening in March 2020. This reflects expectations of higher defaults and potential credit losses owing to COVID-19, as well as forced selling. Spreads have tightened considerably since then but remain above pre-COVID levels, especially for B tranches. The 2017, 2018, 2019, and 2020 indices contain both the bottom mezzanine tranche as well as the equity tranche, in all deals when the latter was sold. 2020 indices are heavily Freddie Mac as Fannie hasn't issued any new deals since March 2020.

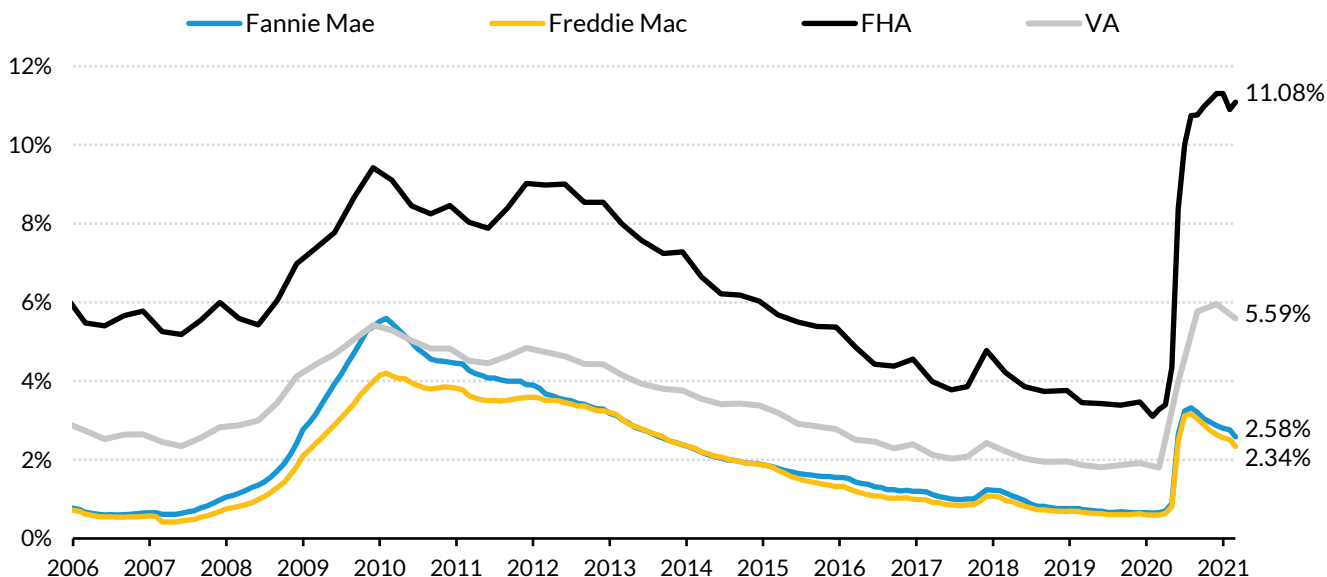


Sources: Vista Data Services and Urban Institute.
Note: Data as of May 14, 2021.

GSES UNDER CONSERVATORSHIP SERIOUS DELINQUENCY RATES

Serious delinquency rates for single-family GSE loans decreased in March 2021, to 2.58 percent for Fannie Mae and 2.34 percent for Freddie Mac. Serious delinquency rates for FHA loans rose slightly in March 2021, to 11.08 percent. In Q1 2021, VA serious delinquency rates declined to 5.59 percent. Note that loans that are in forbearance are counted as delinquent for the purpose of measuring delinquency rates. Fannie multifamily delinquencies decreased in March 2021 to 0.66 percent, while Freddie multifamily delinquencies increased slightly to 0.16 percent, same as last month.

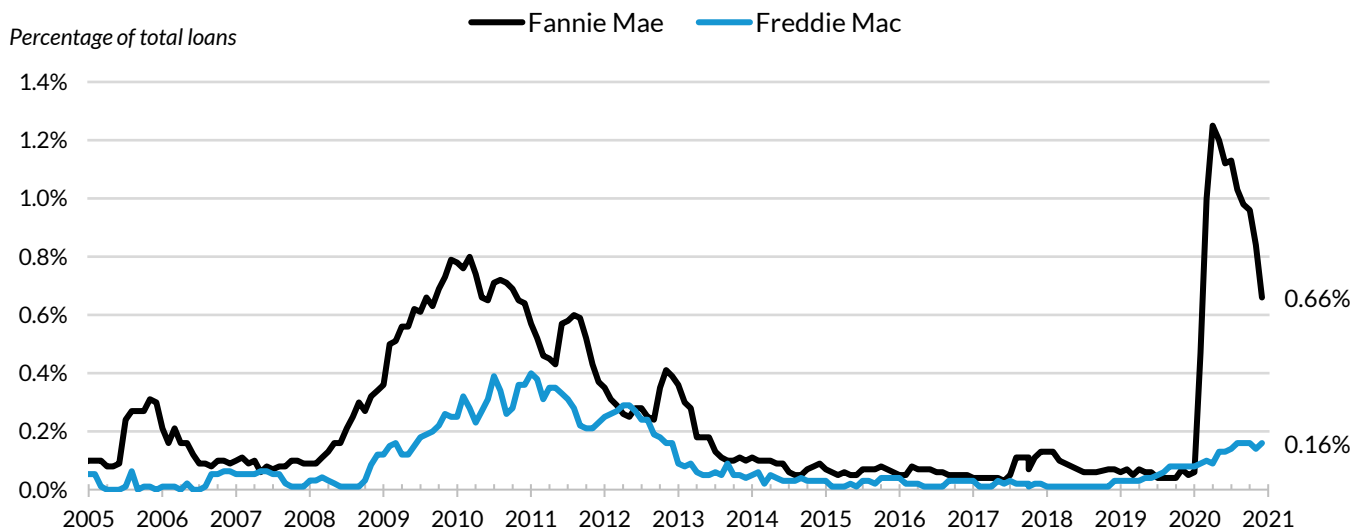
Serious Delinquency Rates–Single-Family Loans



Sources: Fannie Mae, Freddie Mac, Federal Housing Administration, MBA Delinquency Survey and Urban Institute.

Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Not seasonally adjusted. VA delinquencies are reported on a quarterly basis, last updated for Q1 2021. GSE and FHA delinquencies are reported monthly, last updated for March 2021.

Serious Delinquency Rates–Multifamily GSE Loans



Sources: Fannie Mae, Freddie Mac and Urban Institute.

Note: Multifamily serious delinquency rate is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.

March 2021

AGENCY GROSS AND NET ISSUANCE

Agency gross issuance was \$1.36 trillion for the first four months of 2021, nearly double the volume in the same period of 2020. The sharp increase is due to the refinance wave, which accelerated significantly in 2020. Net issuance (new securities issued less the decline in outstanding securities due to principal pay-downs or prepayments) totaled \$279.2 billion in the first four months of 2021, a 174.7 percent increase from the volume in the first four months of 2020.

Agency Gross Issuance

| Issuance Year | GSEs | Ginnie Mae | Total |
|-------------------------|-----------|------------|-----------|
| 2001 | \$885.1 | \$171.5 | \$1,056.6 |
| 2002 | \$1,238.9 | \$169.0 | \$1,407.9 |
| 2003 | \$1,874.9 | \$213.1 | \$2,088.0 |
| 2004 | \$872.6 | \$119.2 | \$991.9 |
| 2005 | \$894.0 | \$81.4 | \$975.3 |
| 2006 | \$853.0 | \$76.7 | \$929.7 |
| 2007 | \$1,066.2 | \$94.9 | \$1,161.1 |
| 2008 | \$911.4 | \$267.6 | \$1,179.0 |
| 2009 | \$1,280.0 | \$451.3 | \$1,731.3 |
| 2010 | \$1,003.5 | \$390.7 | \$1,394.3 |
| 2011 | \$879.3 | \$315.3 | \$1,194.7 |
| 2012 | \$1,288.8 | \$405.0 | \$1,693.8 |
| 2013 | \$1,176.6 | \$393.6 | \$1,570.1 |
| 2014 | \$650.9 | \$296.3 | \$947.2 |
| 2015 | \$845.7 | \$436.3 | \$1,282.0 |
| 2016 | \$991.6 | \$508.2 | \$1,499.8 |
| 2017 | \$877.3 | \$455.6 | \$1,332.9 |
| 2018 | \$795.0 | \$400.6 | \$1,195.3 |
| 2019 | \$1,042.6 | \$508.6 | \$1,551.2 |
| 2020 | \$2,407.5 | \$775.4 | \$3,182.9 |
| 2021 YTD | \$1,046.3 | \$313.0 | \$1,359.3 |
| 2021 % Change Over 2020 | 110.2% | 41.2% | 88.9% |
| 2021 Annualized | \$3,139.0 | \$938.9 | \$4,077.8 |

Agency Net Issuance

| Issuance Year | GSEs | Ginnie Mae | Total |
|-------------------------|-----------|------------|-----------|
| 2001 | \$368.40 | -\$9.90 | \$358.50 |
| 2002 | \$357.20 | -\$51.20 | \$306.10 |
| 2003 | \$334.90 | -\$77.60 | \$257.30 |
| 2004 | \$82.50 | -\$40.10 | \$42.40 |
| 2005 | \$174.20 | -\$42.20 | \$132.00 |
| 2006 | \$313.60 | \$0.20 | \$313.80 |
| 2007 | \$514.90 | \$30.90 | \$545.70 |
| 2008 | \$314.80 | \$196.40 | \$511.30 |
| 2009 | \$250.60 | \$257.40 | \$508.00 |
| 2010 | -\$303.20 | \$198.30 | -\$105.00 |
| 2011 | -\$128.40 | \$149.60 | \$21.20 |
| 2012 | -\$42.40 | \$119.10 | \$76.80 |
| 2013 | \$69.10 | \$87.90 | \$157.00 |
| 2014 | \$30.5 | \$61.6 | \$92.1 |
| 2015 | \$75.1 | \$97.3 | \$172.5 |
| 2016 | \$127.4 | \$125.8 | \$253.1 |
| 2017 | \$168.5 | \$131.3 | \$299.7 |
| 2018 | \$149.4 | \$112.0 | \$261.5 |
| 2019 | \$197.8 | \$95.7 | \$293.5 |
| 2020 | \$632.8 | \$19.9 | \$652.7 |
| 2021 YTD | \$289.8 | -\$10.6 | \$279.2 |
| 2021 % Change Over 2020 | 231.6% | -30.6% | 174.7% |
| 2021 Annualized | \$869.3 | -\$31.8 | \$837.5 |

Sources: eMBS and Urban Institute.

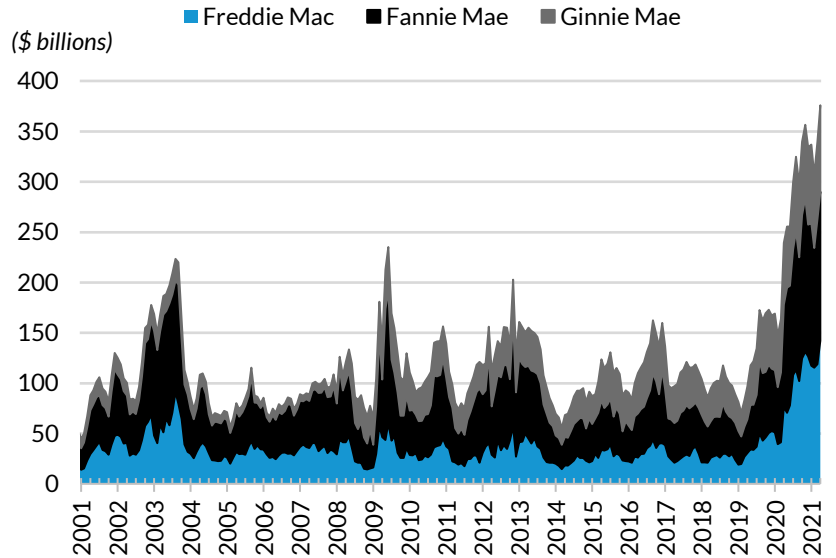
Note: Dollar amounts are in billions. Data as of April 2021.

AGENCY ISSUANCE

AGENCY GROSS ISSUANCE & FED PURCHASES

Monthly Gross Issuance

While FHA, VA and GSE lending have dominated the mortgage market since the 2008 housing crisis, there has been a change in the mix. The Ginnie Mae share of new issuances has risen from a pre-crisis level of 10-12 percent to 34.8 percent in February 2020, reflecting gains in both purchase and refinance shares. Since then, the Ginnie share has declined, reaching 22.8 percent in April 2021; the drop reflects the more robust ramp up in GSE refinances relative to Ginnie Mae refinances.

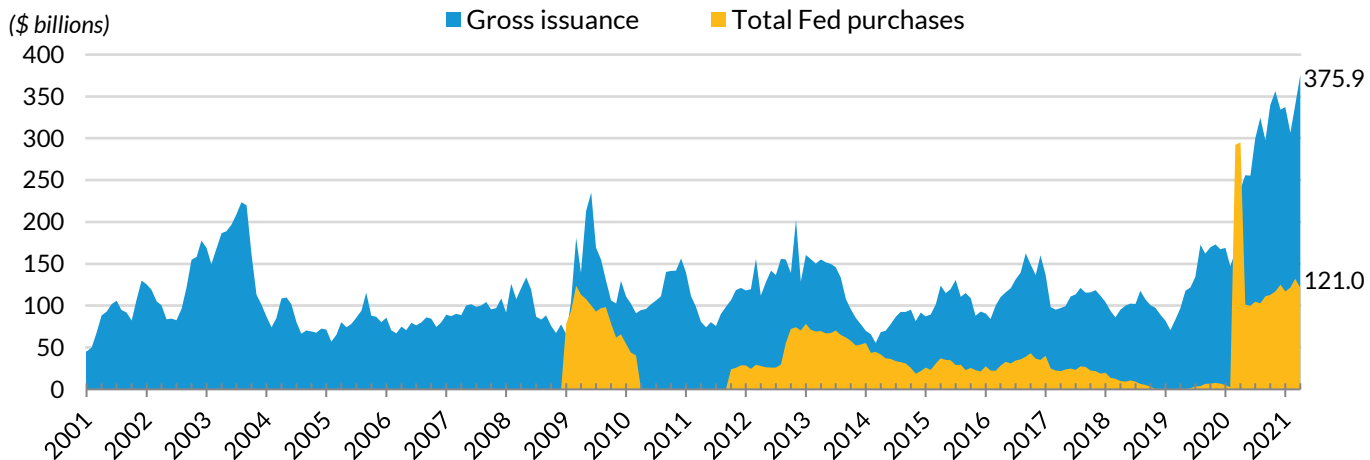


Sources: eMBS, Federal Reserve Bank of New York, and Urban Institute.

April 2021

Fed Absorption of Agency Gross Issuance

On March 23, 2020, in response to the market dislocations caused by the coronavirus pandemic, the Fed announced they would purchase Treasuries and agency MBS in an amount necessary to support smooth functioning markets. In March 2020 the Fed bought \$292.2 billion in agency MBS, and April 2020 clocked in at \$295.1 billion, the largest two months of mortgage purchases ever; and well over 100 percent of gross issuance for each of those two months. After the market stabilized, the Fed slowed its purchases to around \$100 billion per month in May through August of 2020. More recently, Fed purchases have ramped up again slightly; purchases totaled \$121.0 billion in April 2021. April Fed purchases totaled 32.2 percent of monthly issuance. As of March 2021, total agency MBS owned by the Fed equaled \$2.22 trillion. Prior to the COVID-19 intervention, the Fed was winding down its MBS portfolio from its 2014 prior peak.



Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

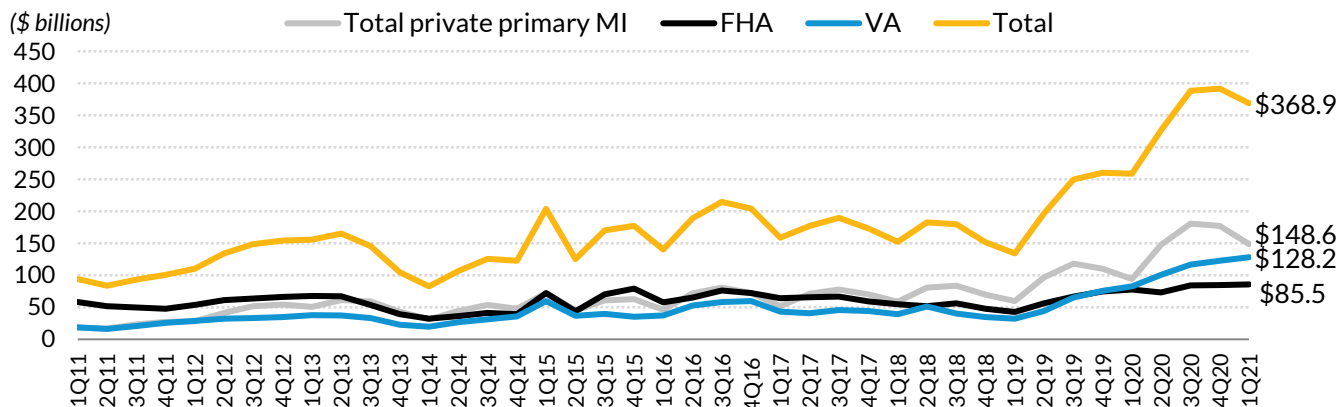
April 2021

AGENCY ISSUANCE

MORTGAGE INSURANCE ACTIVITY

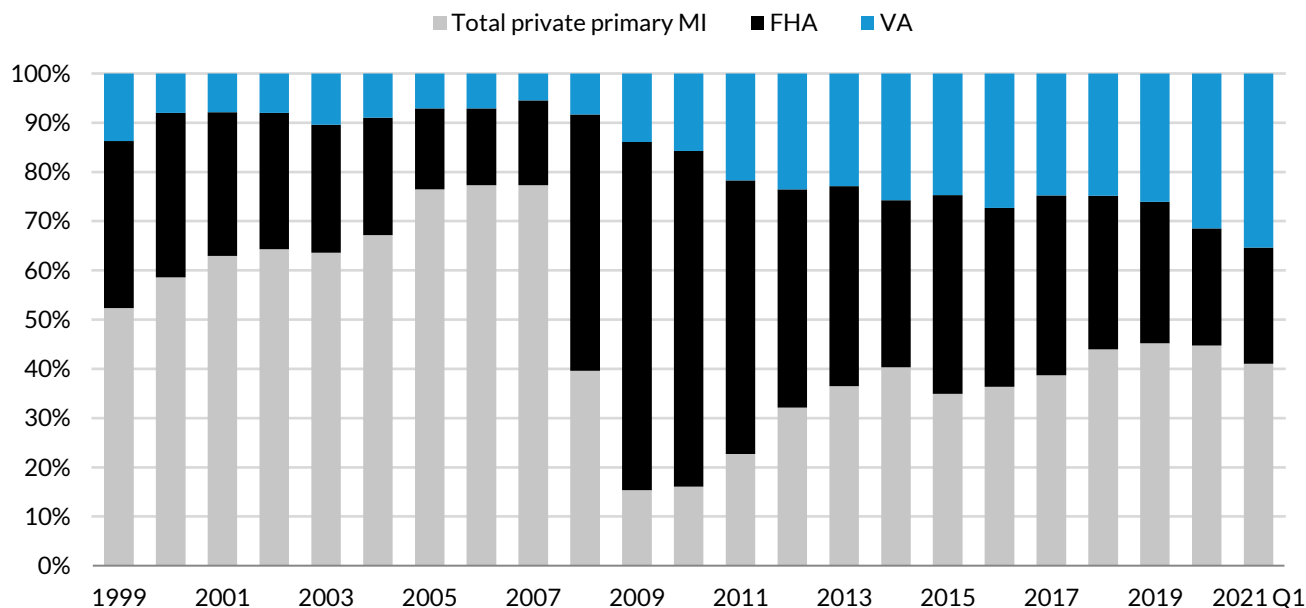
MI Activity

In the first quarter of 2021, private mortgage insurance written increased by \$54.4 billion, FHA increased by \$7.7 billion, and VA increased by \$45.6 billion relative to Q1 2020. During this period, the VA share increased from 31.9 to 34.8 percent, while the FHA share fell from 30.0 to 23.2 percent. The private mortgage insurers share increased, from 36.3 to 40.3 percent compared to the same period a year ago.



Sources: Inside Mortgage Finance and Urban Institute. Last updated May 2021.

MI Market Share



Sources: Inside Mortgage Finance and Urban Institute. Last updated May 2021.

MORTGAGE INSURANCE ACTIVITY

FHA premiums rose significantly in the years following the housing crash, with annual premiums rising from 50 to 135 basis points between 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 bps cut in annual insurance premiums, making FHA mortgages more attractive than GSE mortgages for the overwhelming majority of borrowers putting down less than 5%. The April 2016 reduction in PMI rates for borrowers with higher FICO scores and April 2018 reduction for lower FICO borrowers has partially offset that. As shown in the bottom table, a borrower putting 3.5 percent down with a FICO of less than 720 will find FHA financing to be more financially attractive, borrowers with FICO's of 720 and above will find GSE execution with PMI to be more attractive.

FHA MI Premiums for Typical Purchase Loan

| Case number date | Upfront mortgage insurance premium (UFMIP) paid | Annual mortgage insurance premium (MIP) |
|------------------------------------|-------------------------------------------------|-----------------------------------------|
| 1/1/2001 - 7/13/2008 | 150 | 50 |
| 7/14/2008 - 4/5/2010* | 175 | 55 |
| 4/5/2010 - 10/3/2010 | 225 | 55 |
| 10/4/2010 - 4/17/2011 | 100 | 90 |
| 4/18/2011 - 4/8/2012 | 100 | 115 |
| 4/9/2012 - 6/10/2012 | 175 | 125 |
| 6/11/2012 - 3/31/2013 ^a | 175 | 125 |
| 4/1/2013 - 1/25/2015 ^b | 175 | 135 |
| Beginning 1/26/2015 ^c | 175 | 85 |

Sources: Ginnie Mae and Urban Institute.

Note: A typical purchase loan has an LTV over 95 and a loan term longer than 15 years. Mortgage insurance premiums are listed in basis points.

* For a short period in 2008 the FHA used a risk based FICO/LTV matrix for MI.

^a Applies to purchase loans less than or equal to \$625,500. Those over that amount have an annual premium of 150 bps.

^b Applies to purchase loans less than or equal to \$625,500. Those over that amount have an annual premium of 155 bps.

^c Applies to purchase loans less than or equal to \$625,500. Those over that amount have an annual premium of 105 bps.

Initial Monthly Payment Comparison: FHA vs. PMI

| Assumptions | | | | | | | | |
|----------------|-----------|--|--|--|--|--|--|--|
| Property Value | \$250,000 | | | | | | | |
| Loan Amount | \$241,250 | | | | | | | |
| LTV | 96.5 | | | | | | | |
| Base Rate | | | | | | | | |
| Conforming | 3.06 | | | | | | | |
| FHA | 3.20 | | | | | | | |

| FICO | 620 - 639 | 640 - 659 | 660 - 679 | 680 - 699 | 700 - 719 | 720 - 739 | 740 - 759 | 760 + |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| FHA MI Premiums | | | | | | | | |
| FHA UFMIP | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| FHA MIP | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| PMI | | | | | | | | |
| GSE LLPA* | 3.50 | 2.75 | 2.25 | 1.50 | 1.50 | 1.00 | 0.75 | 0.75 |
| PMI Annual MIP | 1.86 | 1.65 | 1.54 | 1.21 | 0.99 | 0.87 | 0.70 | 0.58 |
| Monthly Payment | | | | | | | | |
| FHA | \$1,232 | \$1,232 | \$1,232 | \$1,232 | \$1,232 | \$1,232 | \$1,232 | \$1,232 |
| PMI | \$1,493 | \$1,430 | \$1,394 | \$1,308 | \$1,264 | \$1,226 | \$1,185 | \$1,161 |
| PMI Advantage | -\$260 | -\$197 | -\$162 | -\$75 | -\$31 | \$6 | \$47 | \$71 |

Sources: Genworth Mortgage Insurance, Ginnie Mae, and Urban Institute. FHA rate from MBA Weekly Applications Survey. Conforming rate from Freddie Mac Primary Mortgage Market Survey.

Note: Rates as of April 2021.

Mortgage insurance premiums listed in percentage points. Grey shade indicates FHA monthly payment is more favorable, while blue indicates PMI is more favorable. The PMI monthly payment calculation does not include special programs like Fannie Mae's HomeReady and Freddie Mac's Home Possible (HP), both offer more favorable rates for low- to moderate-income borrowers.

LLPA= Loan Level Price Adjustment, described in detail on page 25.

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Acknowledgments

The Housing Finance Policy Center (HFPC) was launched with generous support at the leadership level from the Citi Foundation and John D. and Catherine T. MacArthur Foundation. Additional support was provided by The Ford Foundation and The Open Society Foundations.

Ongoing support for HFPC is also provided by the Housing Finance Innovation Forum, a group of organizations and individuals that support high-quality independent research that informs evidence-based policy development. Funds raised through the Forum provide flexible resources, allowing HFPC to anticipate and respond to emerging policy issues with timely analysis. This funding supports HFPC's research, outreach and engagement, and general operating activities.

The chartbook is funded by these combined sources. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

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