Ginnie Mae
Our Guaranty Matters

# GLOBAL MARKETS ANALYSIS REPORT

A Monthly Publication of Ginnie Mae's Office of Capital Markets

July 2023

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# Inside this Month's Global Market Analysis Report…

This month's *Highlights* section introduces a new section, Section 1, focused on Environmental, Social, and Governance (ESG) disclosures within Ginnie Mae's Single-family and Multifamily security pools. The *Highlights* section provides a background on Ginnie Mae's purpose, mandated by its Congressional charter, and illustrates the steps Ginnie Mae has taken in providing ESG disclosures.

Notable insights in this month's Global Market Analysis Report include the following:

- The Agency REMIC Issuance section captures the continued upward trend in coupon rates for REMIC deals.
- The Agency Credit Breakdown section illustrates the leading role that Ginnie Mae continues to play in high-LTV lending and in providing homeownership opportunities to first-time homebuyers.
- The U.S. Housing Market section includes home price indices for each of the U.S. census regions by quarter. While inflation has slowed, it continues to be elevated and mortgage rates have continued to increase. Home prices are increasing at a much slower pace than seen in 2021 and 2022 but remain high. This section also includes an analysis of the average price of homes sold to median income buyers, which shows housing affordability remains historically low.

## Highlights

This month's *Global Market Analysis Report* introduces a new section, Section 1, which provides a summary of Ginnie Mae's perspectives on certain Environmental, Social, and Governance (ESG) factors. This new section highlights Ginnie Mae's enhanced disclosures along with a multitude of new ESG metrics that cover Ginnie Mae's Multifamily and Single-family securities.

Ginnie Mae was created in 1968 under Title III of the National Housing Act. Ginnie Mae's charter, established by Congress, includes the following purposes:

- Provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgage on housing for low-and-moderate income (LMI) families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.
- Promote access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.

In other words, Congress chartered Ginnie Mae to make a positive social impact by improving access to affordable housing for American households. To align with its charter, and as part of Ginnie Mae's ESG initiative, Ginnie Mae has been providing investors with more granular disclosure data to further support sustainable investment goals. As the capital markets have accelerated integration of ESG initiatives, its focus on related disclosures has become an integral part of Ginnie Mae's ESG strategy. Further, investors now have the analytical tools to support their investment goals and disclosures. Access to additional data expands investors' opportunity to drive positive change in the nation's most underserved communities by providing the ability to identify and fund investments that have a concrete and verifiable social impact.

Some examples of the disclosures provided by Ginnie Mae include their May 2021, LMI "Social" disclosures that introduced the percentage of loans in LMI areas within a pool of mortgages. LMI areas are defined by the Department of Housing and Urban Development (HUD) (as delineated by HUD's Community Development Block Grant (CDBG) Program). In March 2022, Green Status disclosures were implemented that helped investors identify the "Green" properties within Multifamily pools. Ginnie Mae's Green Status disclosure denotes whether properties collateralizing a Multifamily pool qualify as green properties under FHA's Multifamily Green and Energy Efficient Housing program. The Green Status disclosure classifies MBS into five categories: GRA (Green/Affordable), GRB (Green/Broadly Affordable), GRM (Green/Market), NGR (Not Green), or blank (Unknown).

In February 2023, Ginnie Mae announced a new pool level LMI borrower disclosure. The new disclosure captures the number of underlying loans made to LMI borrowers, the percentage of LMI loan count of total loan count, the unpaid principal balance (UPB) of LMI loans in the mortgage-backed security (MBS), and the percentage of LMI UPB of total MBS UPB. LMI households are classified according to the Federal Financial Institutions Examination Council (FFIEC) Median Family Income Report Tables corresponding with the time of loan origination[1]. Borrower income at origination which is less than 80% of the Area Median Income (AMI) is deemed LMI. This undisclosed borrower level information is aggregated and disclosed only at the MBS security level for privacy.

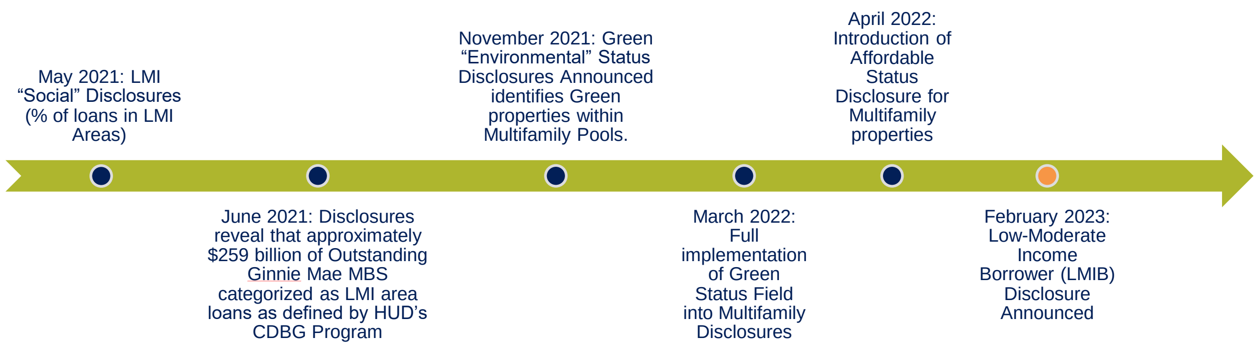
The disclosure data also includes the number of LMI loans, the percentage of LMI loans within the pool, the UPB of LMI loans within the pool, and the percentage of LMI loans within the pool by UPB.

The data provided in Section 1 illustrates Ginnie Mae's efforts in providing capital markets-sourced liquidity in order to support funding mortgage loans made to low-and-moderate income borrowers as well as environmentally friendly Multifamily properties, and providing loan level data to capital markets participants. While each investor has their own definition of what constitutes an ESG investment, Ginnie Mae's data disclosures maintain the transparency each investor needs to make an informed investment.

[1] About the FFIEC

# 1 ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

Ginnie Mae Mortgage-Backed Securities are collateralized by loans that facilitate homeownership for low-to-moderate income (LMI) borrowers, veterans, rural borrowers, and others that traditionally experience challenges in their efforts to achieve homeownership or obtain housing. Ginnie Mae is enhancing their disclosures to provide insight into the extent that the securities they guarantee support meaningful environmental and social goals. The timeline below captures the efforts Ginnie Mae has taken to produce ESG disclosures in recent years.




## 1.1 Environmental, Social, and Governance: A Summary

Ginnie Mae's guaranty of the securities provides a connection between the primary and secondary mortgage markets that promote access to mortgage credit throughout the Nation for residential and multifamily properties. The table below captures the outcomes Ginnie Mae has seen, both socially and environmentally, through its guaranty program.

**Table 1. ESG Metrics – MBS Portfolio (June 2023)**

**Ginnie Mae's ESG Metrics – MBS Portfolio as of June 2023**

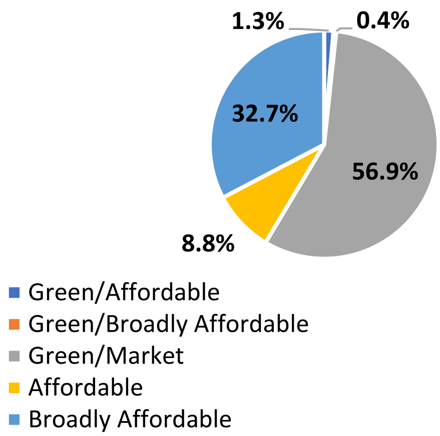
| | Targeted Population | Positive Outcomes | Our Commitment | |
|---|---|---|---|---|
| Social - Affordable | FHA Borrowers - 6,680,009<br>VA Borrowers - 3,531,599<br>RHS Borrowers – 789,757<br>PIH Borrowers - 23,800 | Loans under $200K<br>6,517,730 Loans<br>First-Time Home Buyers<br>3,975,856 Loans<br>Down Payment Assistance<br>681,654 Loans | Ginnie Mae was established by Congress in 1968 to offer broad access to credit nationwide with a special emphasis on low- and moderate-income borrowers, and rural, inner-city, and underserved communities.<br>Ginnie Mae securitization provides a unique and sustainable service in making home ownership more affordable, accessible, and equitable for our nation. The proceeds from the sale of Ginnie Mae Primary Issuance MBS are a source of capital to finance the specific residential mortgage loans collateralizing the Ginnie Mae MBS.<br>Ginnie Mae securitization collateral selection is restricted to agency insured mortgages from the following United States Government Agencies. These agencies are the: Federal Housing Administration (FHA), Department of Veterans Affairs (VA), United States Department of Agriculture's Rural Housing Service (USDA-RHS), and HUD Public and Indian Housing (PIH). The combination of these insuring agency programs and Ginnie Mae's guaranty enable housing outcomes for households who might otherwise not be able to obtain mortgage access. | Single Family |
| Social - Affordable | Low-to-Moderate Income Borrowers (LMI) | 3,159,095 Loans | | Single Family |
| Social - Affordable | LMI Majority Census Tract Loans | 1,699,807 Loans | | Single Family |
| Social - Affordable | Borrowers Facing Difficulties | 790,944 modifications with over 582,049 in partial claims | Ginnie Mae has been integral to the federal actions to prevent foreclosure for homeowners experiencing financial hardship. | Single Family |
| Social - Affordable | Senior Citizens Aging in Place | 291,385 Home Equity Convertible Mortgages (HECM) or Reverse | Ginnie Mae has developed the securities market for the FHA HECM (Reverse Mortgage) program which provides senior citizens a vehicle for accessing the equity in their homes. | HECM |
| Social - Affordable | Multifamily Housing (MF) | 1.31 million apartment homes<br>498,800 healthcare living units | Affordable rental housing is in critically short supply. Government lending and subsidy programs support preservation and creation of new affordable housing units nationwide. | Multi-Family |
| Social - Affordable | MF Affordable | 4,874 MF loans are either Green, Affordable, or both | Ginnie Mae provides information to investors via its monthly bond disclosure on multifamily investments that meet FHA's MF Green Mortgage Insurance Premium (MIP) Discount Qualified Mortgages and those loans meeting FHA's MF Broadly Affordable and Affordable requirements. | Multi-Family |
| Green | MF Green | | | Multi-Family |

## 1.2 Environmental

**Table 2. UPB by ESG Status**

| ESG Status | UPB | % |
|---|---|---|
| **Green/Affordable** | $1,046,282,957 | 0.7% |
| **Green/Broadly Affordable** | $326,999,502 | 0.2% |
| **Green/Market** | $45,775,300,209 | 30.8% |
| **Affordable** | $7,046,425,419 | 4.7% |
| **Broadly Affordable** | $26,318,065,996 | 17.7% |
| **ESG Total** | $80,513,074,083 | 54.2% |
| **Total** | $148,428,953,008 | 100.0% |

**Figure 1. Composition of Ginnie Mae Green Status and Affordable Multifamily Collateral**




Much of Ginnie Mae's environmental impact is made through its Multifamily programs. Approximately 32% of Ginnie Mae collateral are "Green"-certified, as defined by the multiple organizations that sponsor and maintain green building certifications, including the US Green Building Council, Energy Star, Greenpoint, and the National Green Building Standard, just to name a few. Additionally, over 22% of Ginnie Mae Multifamily collateral is "Affordable" or "Broadly Affordable". In total 54.2% of Ginnie Mae's Multifamily collateral is considered ESG.

*Sources: Ginnie Mae Disclosures as of June 2023, https://www.hud.gov/program_offices/housing/mfh/green*

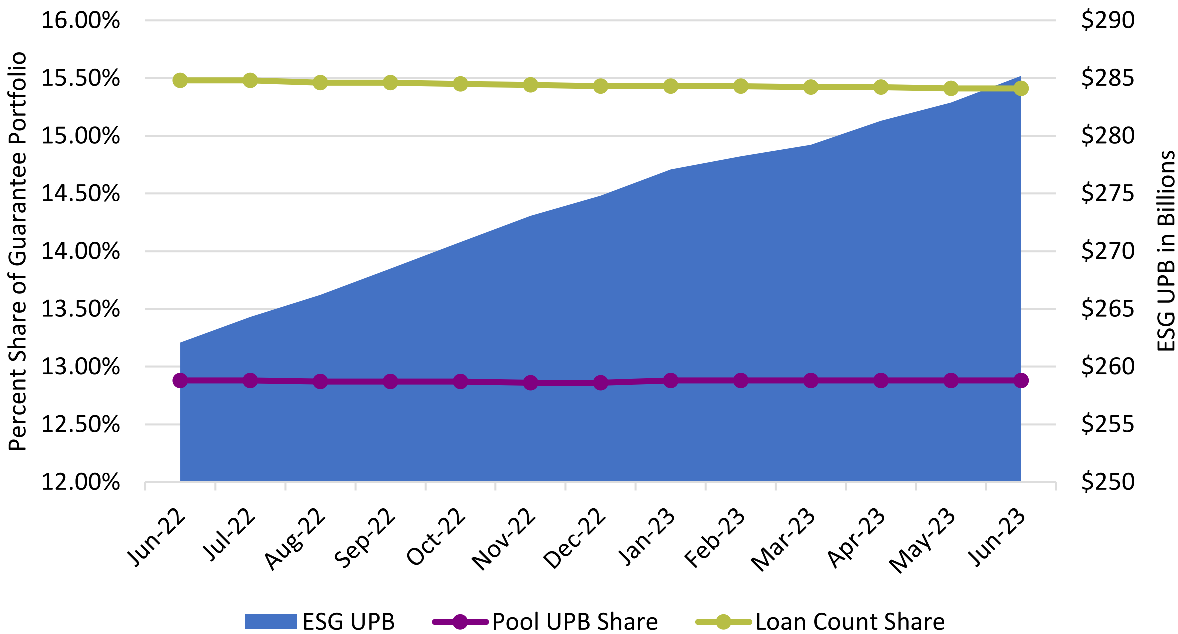
## 1.3 Social

With the introduction of Ginnie Mae's new social disclosures, investors can now identify the number of underlying loans made to LMI borrowers, the percentage of LMI loan count out of total loan count, the unpaid principal balance (UPB) of LMI loans in the MBS, and the percentage of LMI UPB out of total MBS UPB. The borrower household income and address data, received from the government's insuring and guarantying agencies, is compared against the appropriate Federal Financial Institution's Examination Council (FFIEC) Area Median Income (AMI) database by loan origination year. If the borrower income is less than 80 percent of its respective AMI income value, in the associated census tract, their mortgage will be flagged as an LMI loan.

### 1.3.1 Low-to-Moderate Income Borrowers

Over $285 billion of Ginnie Mae single-family collateral and approximately 1.7 million of loans outstanding have been issued too low to moderate income borrowers. Total ESG UPB increased by approximately $23 billion over the past 12 months as of June 2023.

**Figure 2. ESG Share of the Outstanding SF Portfolio**




*Source: Ginnie Mae Disclosures as of June 2023*

The UPB of pools that are made up of 20% or more LMI loans make up over 9% of total pool UPB. These pools have slightly higher LTV's, marginally lower FICO scores, and substantially lower loan sizes than pools made up of less than 20% LMI loans. The UPB of pools that are made up of less than 20% LMI loans make up roughly 90% of total UPB.

**Table 3. Percent LMI by Pool Share**

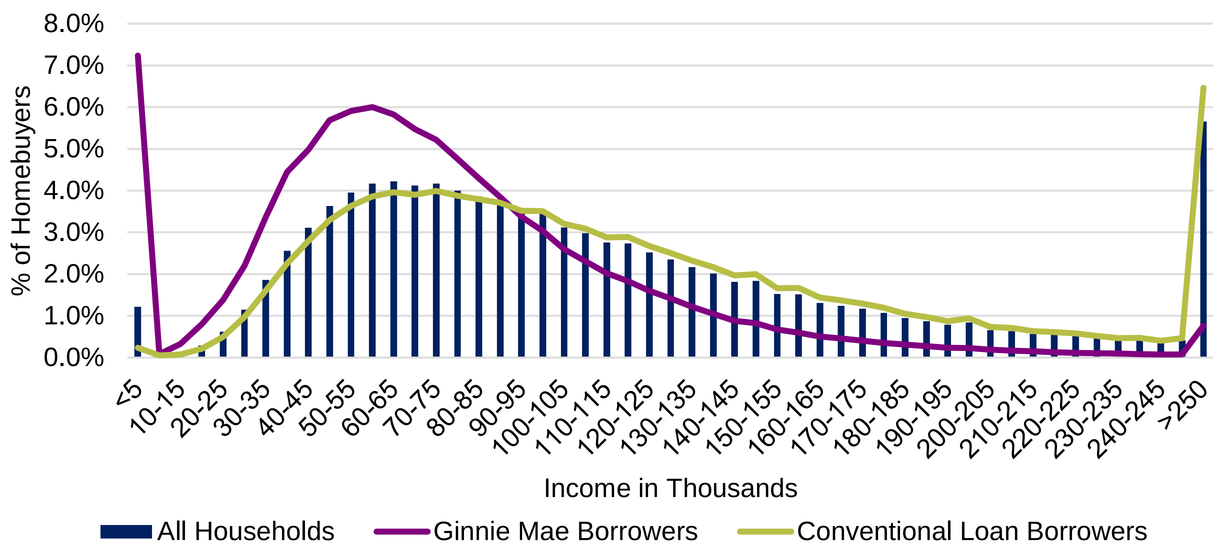
| Metric | LMI Pool Share >50% | LMI Pool Share >=20 - <50% | LMI Share < 20% | All Pools |
|---|---|---|---|---|
| **Total UPB ($ billions)** | $7.9 | $193.1 | $1,969.6 | $2,170.6 |
| **Average Original Loan Size** | $169,754 | $186,924 | $329,627 | $316,350 |
| **Credit Score (Median)** | 675 | 675 | 679 | 677 |
| **DTI (Median)** | 40% | 40% | 40% | 40% |
| **LTV (Median)** | 97% | 96% | 95% | 96% |
| **Interest Rate (WA)** | 4.64% | 4.41% | 3.65% | 3.72% |

*Source: Ginnie Mae Disclosures as of June 2023*

### 1.3.2 Purchase and Refinance Origination by Income Bracket

Over 30% of all purchase and refinance loan originations guaranteed by Ginnie Mae are to households with income less than $50,000 compared to 12% of the Government Sponsored Entities (GSE's) single-family guarantee portfolio. Additionally, over 78% of these loan originations guaranteed by Ginnie Mae are to households with income less than $100,000 compared to 49.8% at the GSE's.

**Figure 3. Income Distribution of Homebuyers Served Under Ginnie Mae Program**



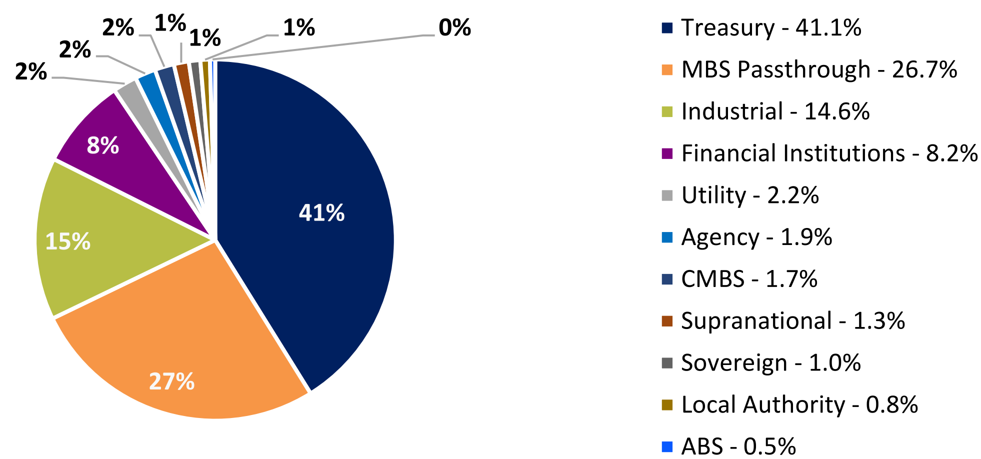

*Source: Home Mortgage Disclosure Act (HMDA) data as of 2021*

# 2 US AGGREGATE AND GLOBAL INDICES

## 2.1 Bloomberg US Aggregate and Global Indices

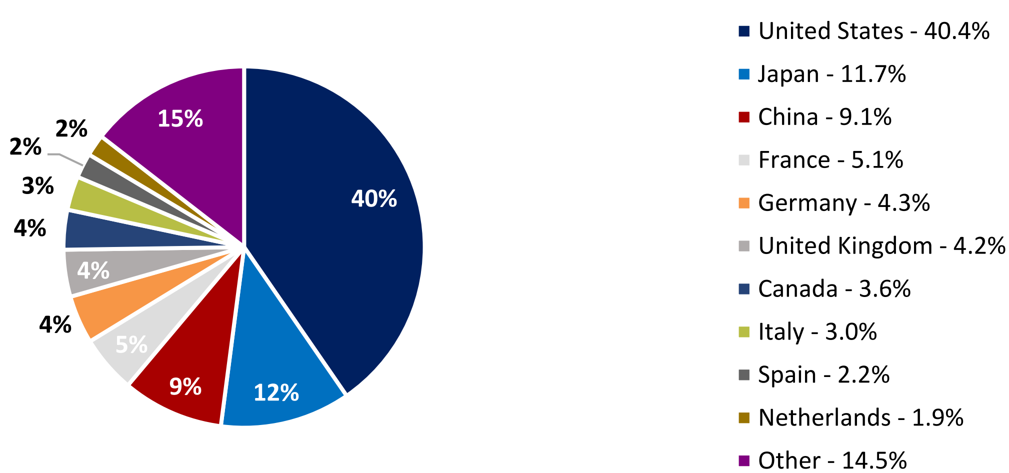
At month-end June, US Treasuries contributed 41.1% to the Bloomberg US Aggregate Index, stable from the prior month. US MBS (Ginnie Mae, Fannie Mae, and Freddie Mac) contributed 26.7%, down approximately 0.3% from the month prior. For the US Aggregate Index, all other changes to the index components were no larger than 1%.

**Figure 4. Bloomberg US Aggregate Index**




In the Bloomberg Global Aggregate Index by Country, the US share of fixed income remained the largest share of total outstanding issuance, representing 40.4% of the total Bloomberg Global Aggregate Index, down slightly from the prior month. Japan's share of fixed income was the second highest at 11.7%, down slightly from the prior month. For the Global Aggregate Index, all countries remained stable compared to the prior month with no changes larger than 1%.

**Figure 5. Bloomberg Global Aggregate Index by Country**




*Source: Bloomberg [both charts]. Note: Data as of June 2023. Figures in charts may not add to 100% due to rounding.*

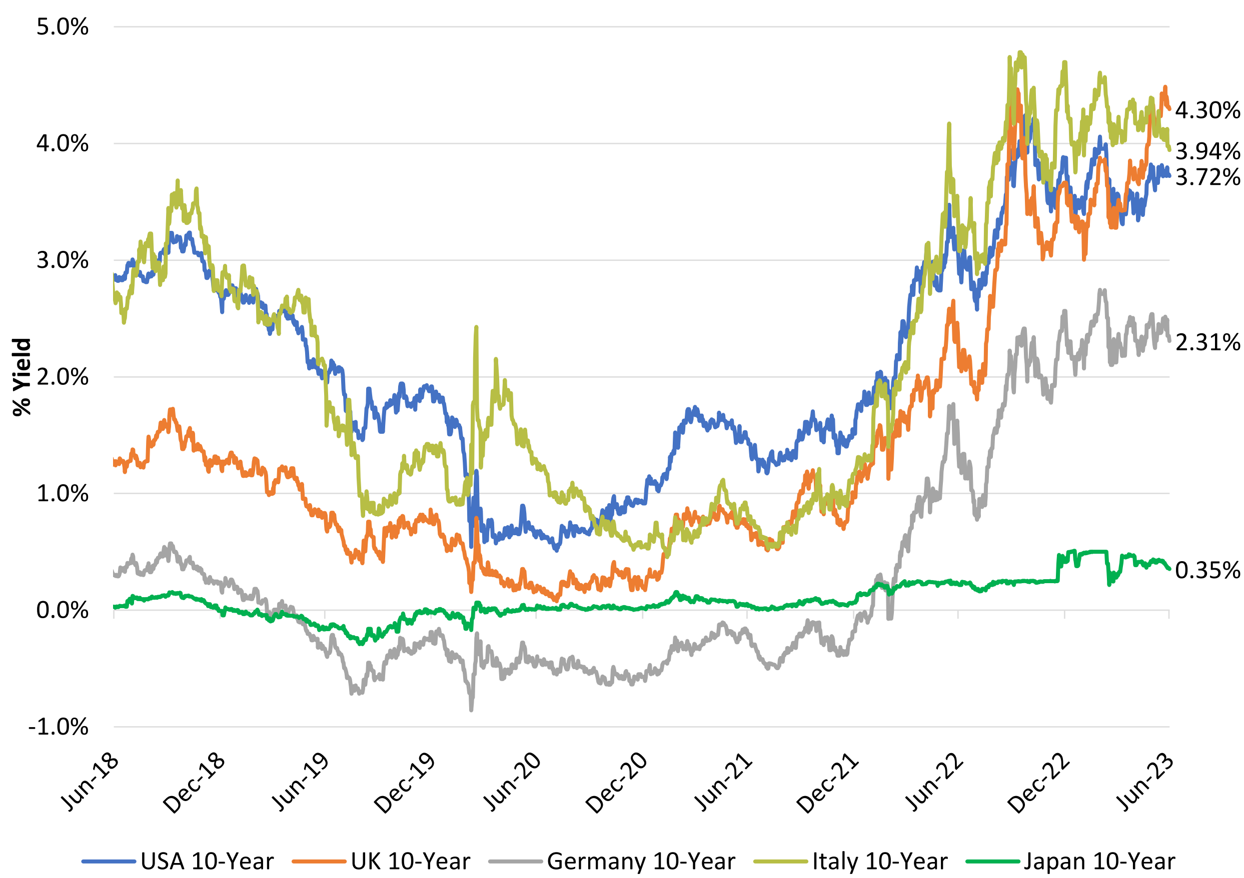
# 3 SOVEREIGN DEBT PRODUCT PERFORMANCE COMPARISONS

## 3.1 Global 10-Year Treasury Yields (Unhedged)

The US 10-year Treasury yield moved to 3.72% at month-end June 2023, a MoM decrease of 8 bps. US Treasury yields were the third highest of all the government treasury yields depicted in the figure below behind UK and Italian government bond yields.

- The yield on the UK 10-year note decreased to 4.30% at month-end June, a MoM decrease of 3 bps.
- The yield on the German 10-year note decreased to 2.31% at month-end June, a MoM decrease of 23 bps.
- The yield on the Italian 10-year note decreased to 3.94% at month-end June, a MoM decrease of 44 bps.
- The yield on the Japanese 10-year note decreased to 0.35% at month-end June, a MoM decrease of 6 bps.

**Figure 6. Global 10-Year Treasury Yields**




*Source: Bloomberg. Note: Data as of June 2023.*

## 3.2 US Treasury Hedged Yields

- The hedged yield for the 10-year Treasury JPY decreased MoM by 4 bps to 2.12% at month-end June.
- The hedged yield for the 10-year Treasury EUR decreased MoM by 2 bps to 1.24% at month-end June.

**Figure 7. 7–10yr Total Return Hedged Index, JPY**


**Figure 8. 7–10yr Total Return Hedged, EUR**


*Source: Bloomberg. Note: Data as of June 2023.*

# SECONDARY MORTGAGE MARKET

## 4 FIXED INCOME PRODUCT PERFORMANCE COMPARISONS

### 4.1 Ginnie Mae Yields – USD

Ginnie Mae II yields were 4.94% in March, increased 20 bps to 5.14% by month-end April, then increased 36 bps to 5.50% by month-end May. Ginnie Mae I yields were 4.95% in March, increased 12 bps to 5.07% by month-end April, then increased 22 bps to 5.29% by month-end May. The yields on the Ginnie Mae I were 149 bps higher than the US 10-year Treasury yield at month-end May 2023, a decrease of 13 bps MoM. Ginnie Mae II spreads over the US 10-year Treasury yield increased 78 bps YoY to 170 bps over the US 10-year Treasury yield by month-end May 2023.

**Figure 9. Ginnie Mae II SF Yield, USD**


**Figure 10. Ginnie Mae I SF Yield, USD**


*Sources Bloomberg. Note: Data as of May 2023.*

## 4.2 Ginnie Mae Hedged Yields

The yield for the Ginnie Mae II, hedged in the Japanese Yen stood at 3.86% at month-end May, a 4 bps decrease MoM. The yield for the Ginnie Mae II, hedged in the Euro, stood at 2.96% at month-end May, a 1 bp decrease MoM.

The yield for the Ginnie Mae I, hedged in the Japanese Yen, stood at 3.65% at month-end May, an 18 bps decrease MoM. The yield for the Ginnie Mae I, hedged in the Euro, stood at 2.75% at month-end May, a 15 bps decrease MoM.

**Figure 11. Ginnie Mae I and II Hedged, JPY**

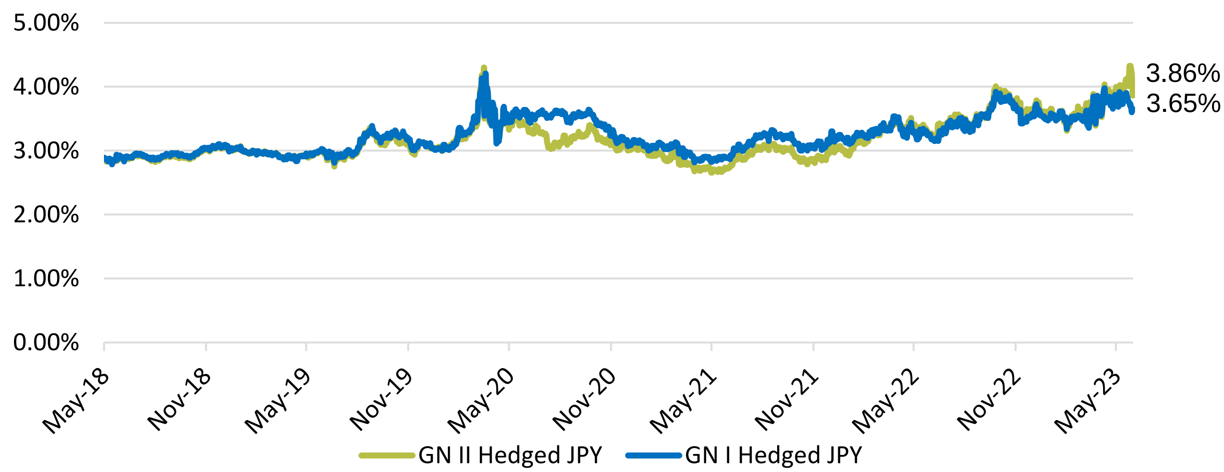
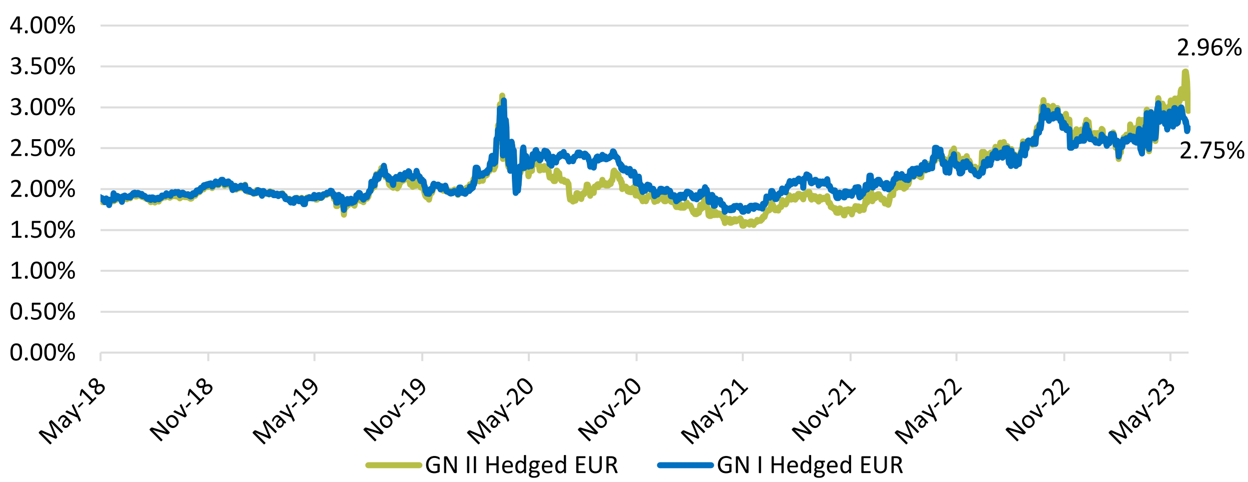



**Figure 12. Ginnie Mae I and II Hedged, EUR**




*Source: Bloomberg. Note: Data as of May 2023.*

*Note: Hedged yield calculations assume hedge costs for Ginnie Mae securities are equivalent to those for U.S. Treasuries.*

## 4.3 Ginnie Mae Yield Spreads – Intermediate Credit

The yield differential between US Intermediate Credit and GNMA II 30-year OAS decreased by 9 bps to 0.49% at month-end June. The GNMA II 30-year OAS decreased 6 bps MoM as of month-end June. The US Intermediate credit OAS decreased 15 bps MoM as of month-end June.

**Figure 13. US GNMA II 30yr MBS OAS versus US Intermediate Credit OAS**

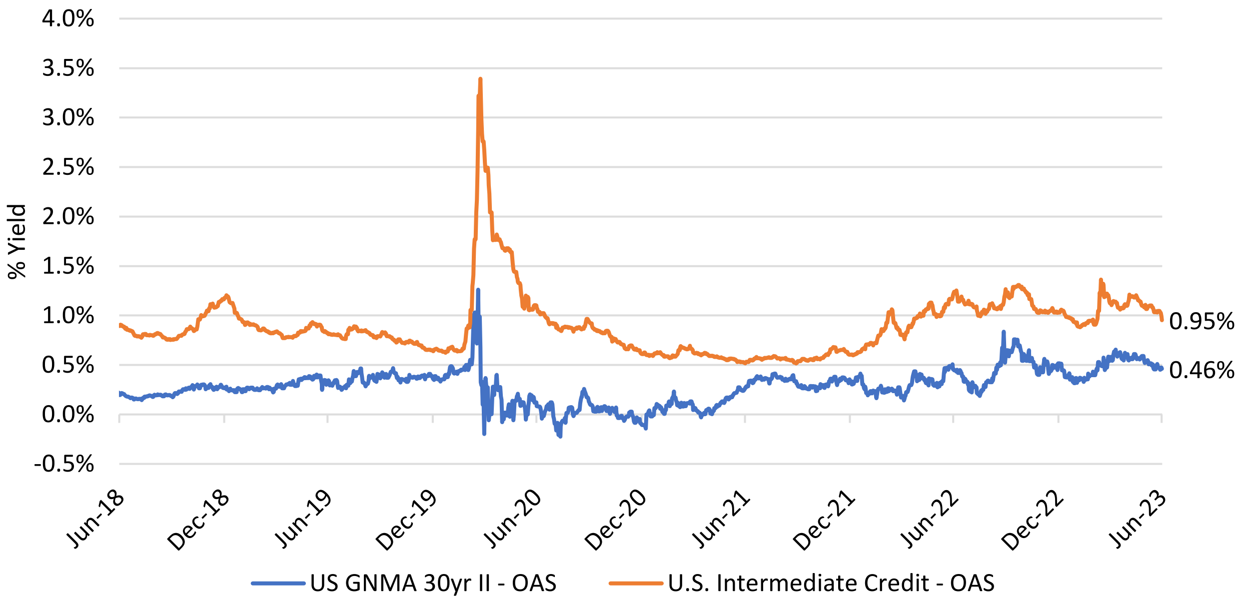


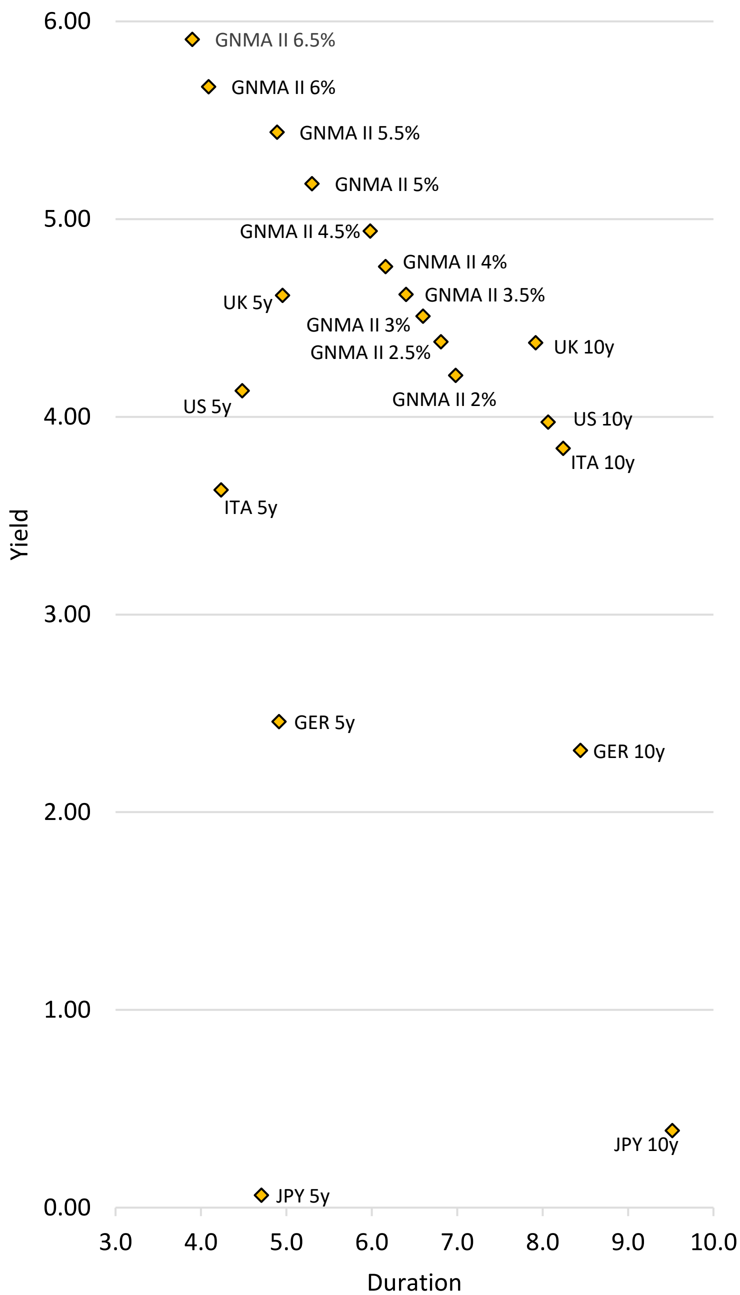

**Figure 14. Spread between US Intermediate Credit and US GNMA II 30yr MBS OAS**


*Source: Bloomberg. Note: Data as of June 2023.*

## 4.4 Global Treasury Yield Per Duration

GNMA MBS continued to offer a higher yield in comparison to other government fixed income securities of various tenors with similar or longer duration. Prepayment risk is a feature of MBS.

**Figure 15. Yield vs. Duration**




| Security | Duration | Yield |
|---|---|---|
| US 5y | 4.48 | 4.13 |
| US 10y | 8.24 | 3.84 |
| JPY 5y | 4.71 | 0.06 |
| JPY 10y | 9.52 | 0.39 |
| GER 5y | 4.92 | 2.46 |
| GER 10y | 8.44 | 2.31 |
| ITA 5y | 4.24 | 3.63 |
| ITA 10y | 8.06 | 3.97 |
| UK 5y | 4.95 | 4.61 |
| UK 10y | 7.92 | 4.38 |
| GNMA II 2% | 6.98 | 4.21 |
| GNMA II 2.5% | 6.81 | 4.38 |
| GNMA II 3% | 6.60 | 4.51 |
| GNMA II 3.5% | 6.40 | 4.62 |
| GNMA II 4% | 6.16 | 4.76 |
| GNMA II 4.5% | 5.98 | 4.94 |
| GNMA II 5% | 5.30 | 5.18 |
| GNMA II 5.5% | 4.89 | 5.44 |
| GNMA II 6% | 4.09 | 5.67 |
| GNMA II 6.5% | 3.90 | 5.91 |

*Source: Bloomberg. Note: Yield and modified duration for GNMA II securities is based on median prepayment assumptions from surveyed Bloomberg participants. All data is as of June 2023. Yields are in base currency of security and unhedged.*

# 5 PREPAYMENTS

## 5.1 Aggregate Prepayments (CPR)

Ginnie Mae fixed rate aggregate prepayment speeds increased in June 2023 by 2.8% MoM. Likewise, Fannie Mae and Freddie Mac CPRs increased 3.0% and 3.7%, respectively. ARM prepayments increased for Freddie Mac but decreased for Ginnie Mae and Fannie Mae MoM.

**Figure 16. Fixed Rate Aggregate 1-Month CPR**

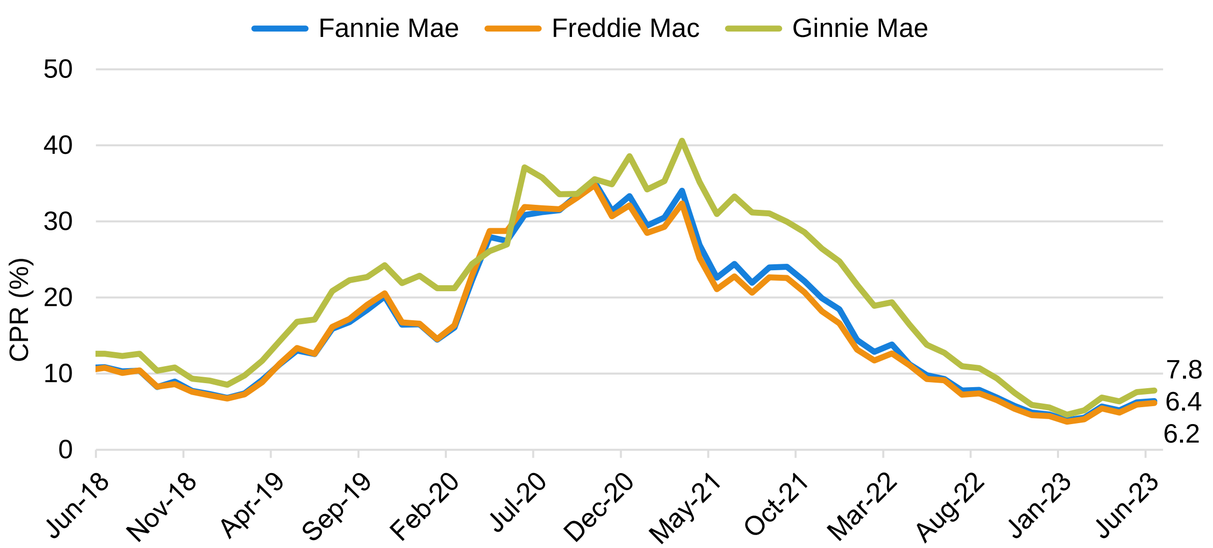
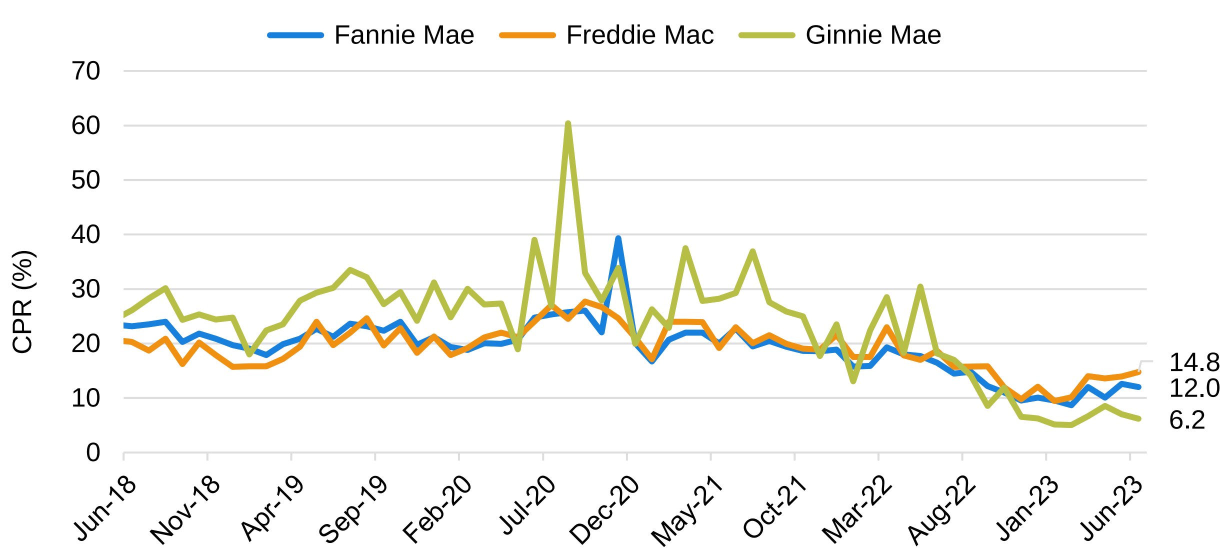



**Figure 17. ARM Aggregate 1-Month CPR**




*Source: Recursion. Note: Data as of June 2023.*

## 5.2 Involuntary Prepayments (CDR)

Fixed rate involuntary prepayments (CDR) remained higher for Ginnie Mae than for the GSEs. The spread in prepayment speeds between Ginnie Mae and GSE prepayments has converged significantly since Ginnie Mae's peak of 12.4 CDR in June 2020. ARM CDRs for Freddie Mac continued to remain below Ginnie Mae as of month-end June 2023 after slightly overtaking Ginnie Mae in September 2022.

**Figure 18. Fixed Rate Aggregate CDR**

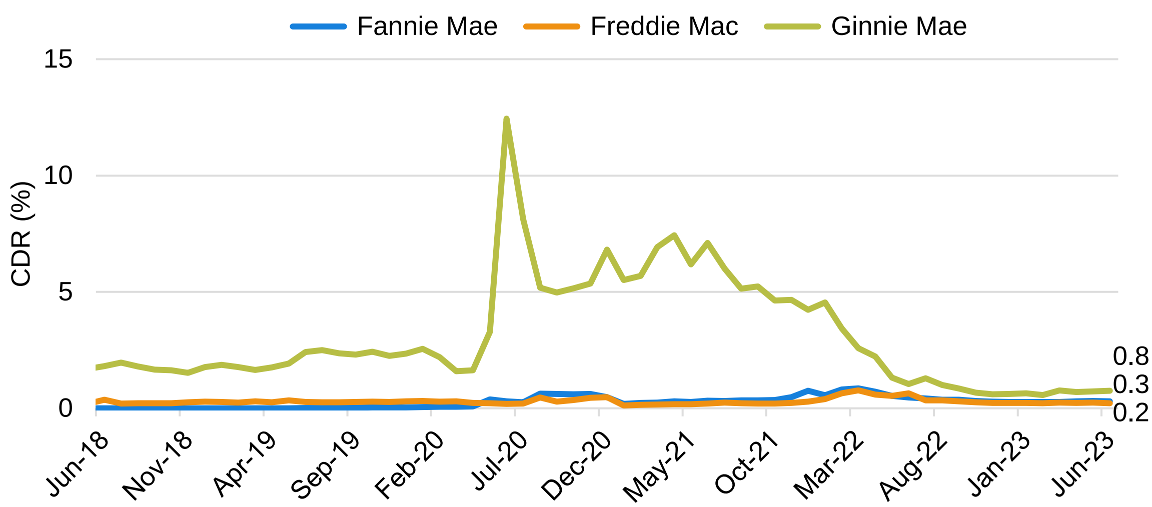
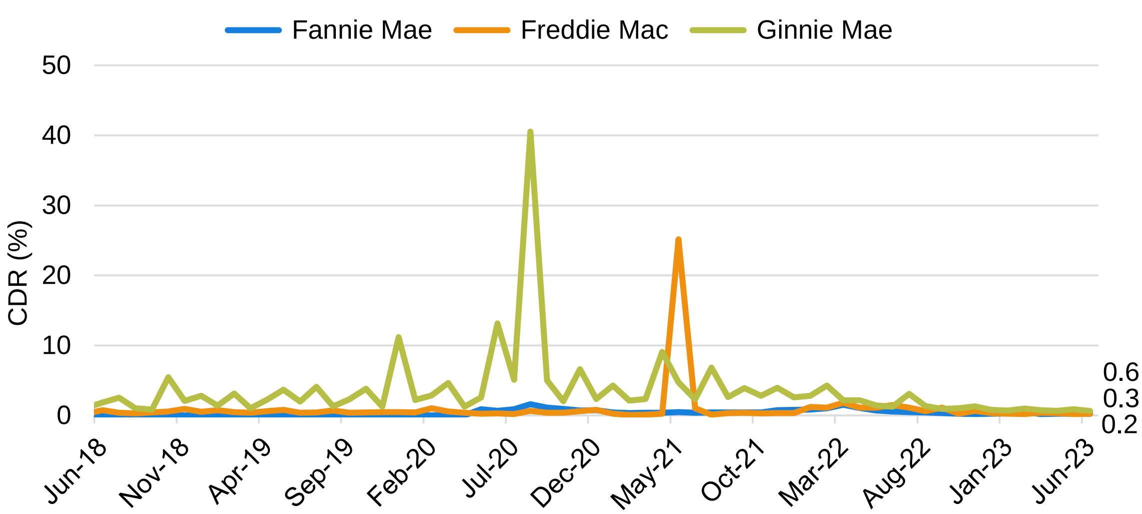



**Figure 19. ARM Aggregate CDR**




*Source: Recursion. Note: Data as of June 2023.*

## 5.3 Voluntary Prepayment Rates (CRR)

Fixed rate voluntary prepayments (CRR) continued to remain higher for Ginnie Mae relative to the GSEs. Fannie Mae and Freddie Mac saw increases of 3.2% MoM and 4.4% MoM in fixed rate aggregate CRR, respectively. Freddie Mac saw a 5.9% MoM increase and Fannie Mae saw a 4.6% MoM decrease in ARM aggregate CRR. Ginnie Mae increased 2.7% MoM in fixed rate aggregate CRR and saw a 10.0% MoM decrease in ARM aggregate CRR.

**Figure 20. Fixed Rate Aggregate CRR**

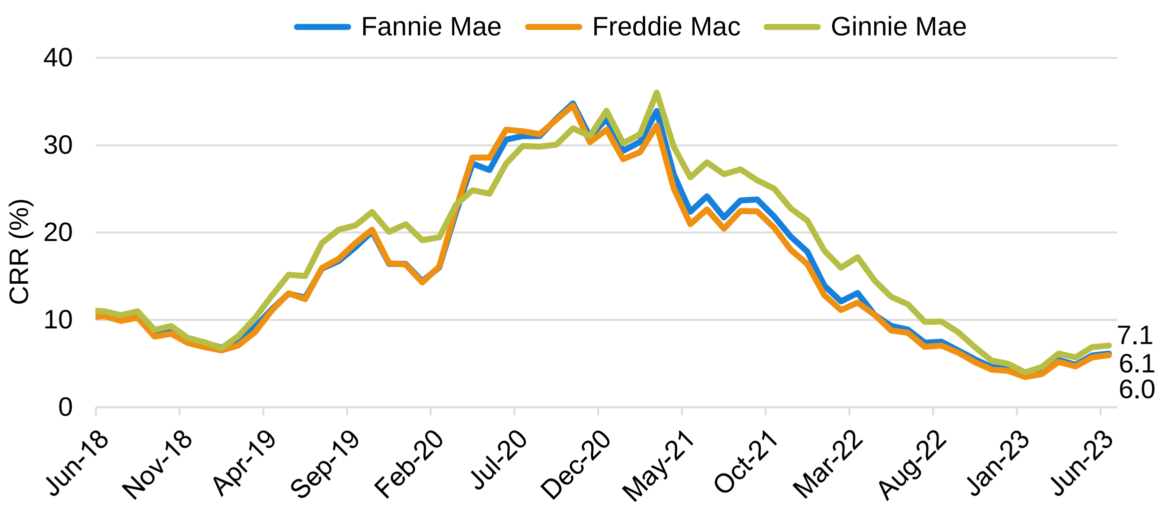
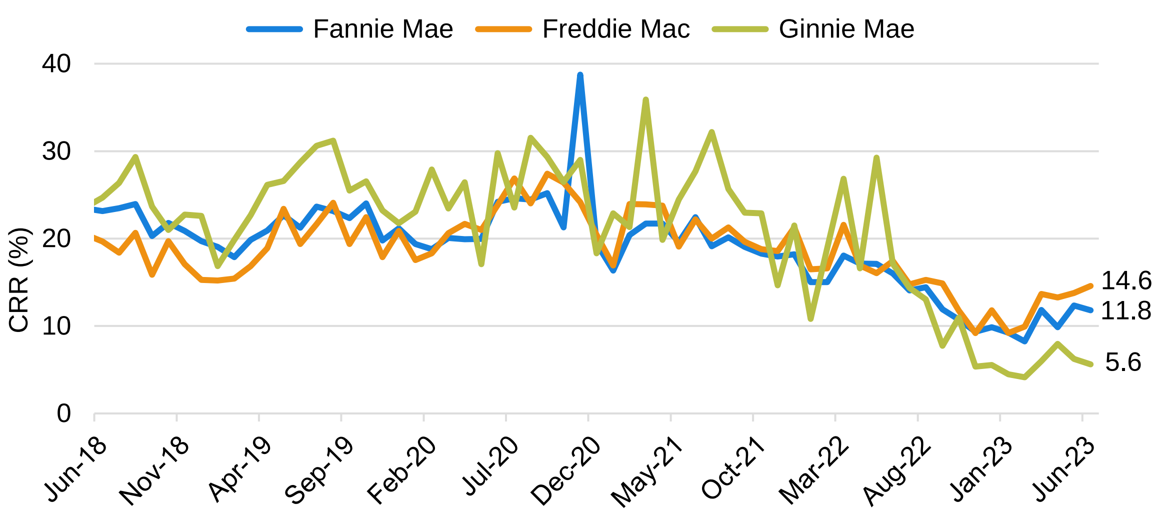



**Figure 21. ARM Aggregate CRR**




*Source: Recursion. Note: Data as of June 2023.*

# 6 SINGLE-FAMILY MBS PASS-THROUGH ISSUANCE

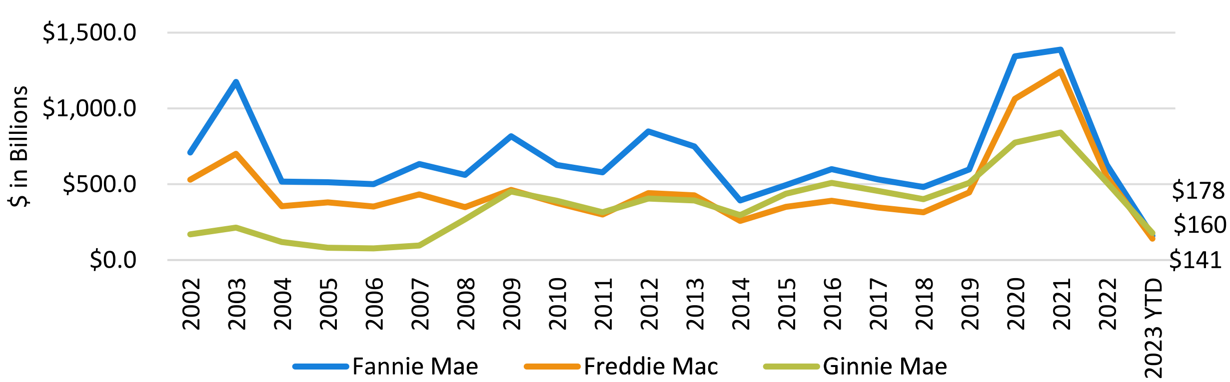
## 6.1 Gross Issuance of Agency MBS

Agency gross MBS issuance increased by 13% MoM. Freddie Mac, Ginnie Mae, and Fannie Mae all saw increases in gross issuance compared to May 2023 as seen in Section 6.3.

**Table 4. Agency Gross Issuance ($ in billions)**

| Issuance Year | Fannie Mae | Freddie Mac | GSE Total | Ginnie Mae | Total |
|---|---|---|---|---|---|
| 2001 | $506.9 | $378.2 | $885.1 | $171.5 | $1,056.6 |
| 2002 | $710.0 | $529.0 | $1,238.9 | $169.0 | $1,407.9 |
| 2003 | $1,174.4 | $700.5 | $1,874.9 | $213.1 | $2,088.0 |
| 2004 | $517.5 | $355.2 | $872.6 | $119.2 | $991.9 |
| 2005 | $514.1 | $379.9 | $894.0 | $81.4 | $975.3 |
| 2006 | $500.2 | $352.9 | $853.0 | $76.7 | $929.7 |
| 2007 | $633.0 | $433.3 | $1,066.2 | $94.9 | $1,161.1 |
| 2008 | $562.7 | $348.7 | $911.4 | $267.6 | $1,179.0 |
| 2009 | $817.1 | $462.9 | $1,280.0 | $451.3 | $1,731.3 |
| 2010 | $626.6 | $377.0 | $1,003.5 | $390.7 | $1,394.3 |
| 2011 | $578.2 | $301.2 | $879.3 | $315.3 | $1,194.7 |
| 2012 | $847.6 | $441.3 | $1,288.8 | $405.0 | $1,693.8 |
| 2013 | $749.9 | $426.7 | $1,176.6 | $393.6 | $1,570.2 |
| 2014 | $392.9 | $258.0 | $650.9 | $296.3 | $947.2 |
| 2015 | $493.9 | $351.9 | $845.7 | $436.3 | $1,282.0 |
| 2016 | $600.5 | $391.1 | $991.6 | $508.2 | $1,499.8 |
| 2017 | $531.3 | $345.9 | $877.3 | $455.6 | $1,332.9 |
| 2018 | $480.9 | $314.1 | $795.0 | $400.6 | $1,195.6 |
| 2019 | $597.4 | $445.2 | $1,042.6 | $508.6 | $1,551.2 |
| 2020 | $1,343.4 | $1,064.1 | $2,407.5 | $775.4 | $3,182.9 |
| 2021 | $1,388.0 | $1,245.1 | $2,633.1 | $840.9 | $3,474.0 |
| 2022 | $628.3 | $551.6 | $1,179.9 | $512.3 | $1,692.2 |
| 2023 YTD | $159.8 | $140.9 | $300.7 | $177.7 | $478.4 |

**Figure 22. Agency Gross Issuance**

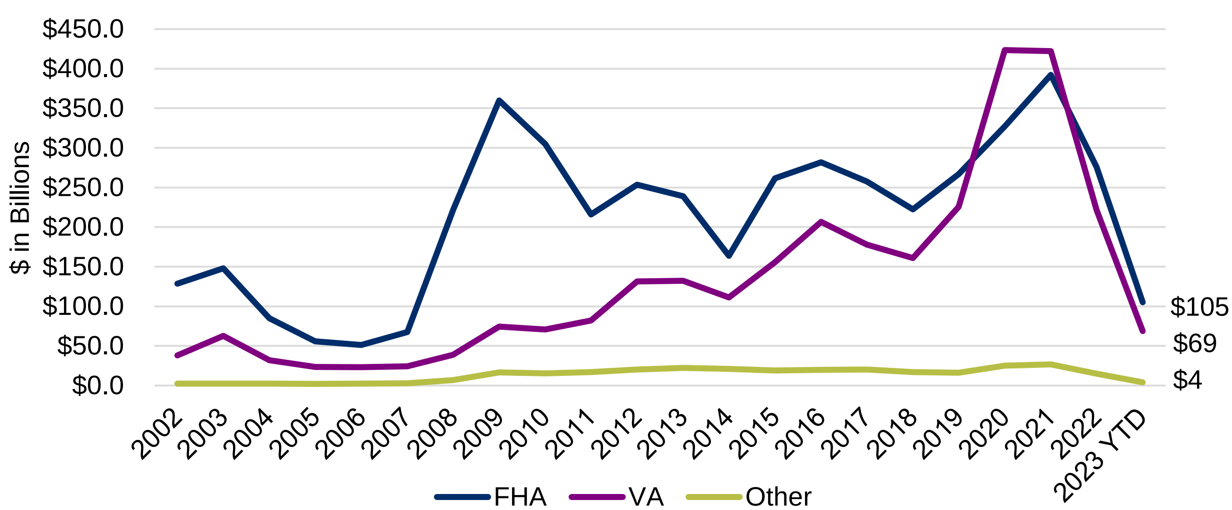



*Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.*

**Table 5. Ginnie Mae Gross Issuance Collateral Composition ($ in billions)**

| Issuance Year | FHA | VA | Other | Total |
|---|---|---|---|---|
| 2001 | $133.8 | $34.7 | $3.1 | $171.5 |
| 2002 | $128.6 | $37.9 | $2.5 | $169.0 |
| 2003 | $147.9 | $62.7 | $2.5 | $213.1 |
| 2004 | $85.0 | $31.8 | $2.5 | $119.2 |
| 2005 | $55.7 | $23.5 | $2.1 | $81.4 |
| 2006 | $51.2 | $23.2 | $2.3 | $76.7 |
| 2007 | $67.7 | $24.2 | $3.0 | $94.9 |
| 2008 | $221.7 | $39.0 | $6.9 | $267.6 |
| 2009 | $359.9 | $74.6 | $16.8 | $451.3 |
| 2010 | $304.9 | $70.6 | $15.3 | $390.7 |
| 2011 | $216.1 | $82.3 | $16.9 | $315.3 |
| 2012 | $253.4 | $131.3 | $20.3 | $405.0 |
| 2013 | $239.2 | $132.2 | $22.2 | $393.6 |
| 2014 | $163.9 | $111.4 | $21.0 | $296.3 |
| 2015 | $261.5 | $155.6 | $19.2 | $436.3 |
| 2016 | $281.8 | $206.5 | $19.9 | $508.2 |
| 2017 | $257.6 | $177.8 | $20.2 | $455.6 |
| 2018 | $222.6 | $160.8 | $17.2 | $400.6 |
| 2019 | $266.9 | $225.7 | $16.0 | $508.6 |
| 2020 | $327.0 | $423.5 | $24.9 | $775.4 |
| 2021 | $392.2 | $422.1 | $26.7 | $840.9 |
| 2022 | $275.8 | $221.7 | $14.8 | $512.3 |
| 2023 YTD | $105.0 | $68.6 | $4.1 | $177.7 |

**Figure 23. Ginnie Mae Gross Issuance**




*Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.*

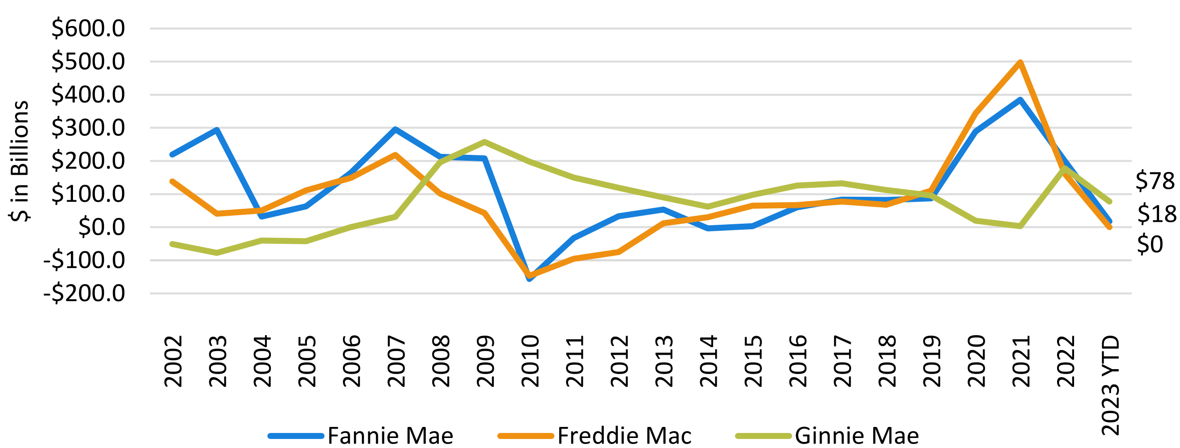
## 6.2 Net Issuance of Agency MBS

Agency Net Issuance as of month-end June was $95.1 billion for 2023 YTD as shown in **Table 6**. Since 2022, FHA net issuance has outpaced VA net issuance, as shown in **Table 7 and Figure 25.**

**Table 6. Agency Net Issuance ($ in billions)**

| Issuance Year | Fannie Mae | Freddie Mac | GSE | Ginnie Mae | Total |
|---|---|---|---|---|---|
| **2002** | $218.9 | $138.3 | $357.2 | -$51.2 | $306.1 |
| **2003** | $293.7 | $41.1 | $334.9 | -$77.6 | $257.3 |
| **2004** | $32.3 | $50.2 | $82.5 | -$40.1 | $42.4 |
| **2005** | $62.5 | $111.7 | $174.2 | -$42.2 | $132.0 |
| **2006** | $164.3 | $149.3 | $313.6 | $0.2 | $313.8 |
| **2007** | $296.1 | $218.8 | $514.9 | $30.9 | $545.7 |
| **2008** | $213.0 | $101.8 | $314.8 | $196.4 | $511.3 |
| **2009** | $208.1 | $42.5 | $250.6 | $257.4 | $508.0 |
| **2010** | -$156.4 | -$146.8 | -$303.2 | $198.3 | -$105.0 |
| **2011** | -$32.6 | -$95.8 | -$128.4 | $149.6 | $21.2 |
| **2012** | $32.9 | -$75.3 | -$42.4 | $119.1 | $76.8 |
| **2013** | $53.5 | $11.8 | $65.3 | $89.6 | $154.9 |
| **2014** | $-4.0 | $30.0 | $26.0 | $61.6 | $87.7 |
| **2015** | $3.5 | $65.0 | $68.4 | $97.3 | $165.7 |
| **2016** | $60.5 | $66.8 | $127.4 | $126.1 | $253.5 |
| **2017** | $83.7 | $77.0 | $160.7 | $132.3 | $293.0 |
| **2018** | $81.9 | $67.6 | $149.4 | $112.0 | $261.5 |
| **2019** | $87.4 | $110.3 | $197.7 | $95.7 | $293.5 |
| **2020** | $289.3 | $343.5 | $632.8 | $19.9 | $652.7 |
| **2021** | $384.9 | $498.0 | $882.9 | $2.7 | $885.6 |
| **2022** | $200.4 | $161.5 | $361.9 | $177.4 | $539.4 |
| ***2023 YTD*** | $17.5 | -$0.2 | $17.2 | $77.9 | $95.1 |

**Figure 24. Agency Net Issuance**

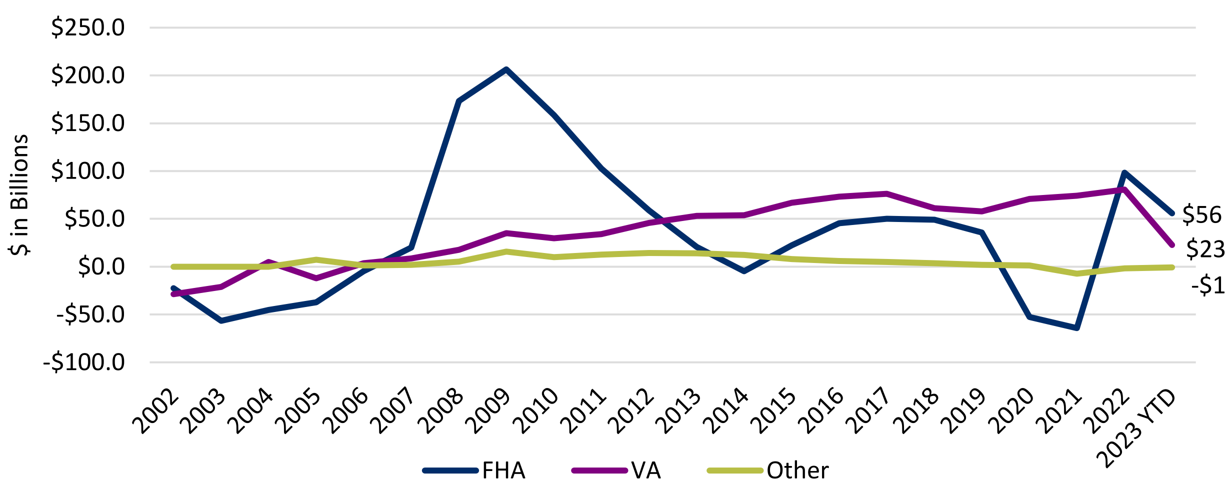



*Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.*

## Table 7. Ginnie Mae Net Issuance Collateral Composition ($ in billions)

| Issuance Year | FHA | VA | Other | Total |
|---|---|---|---|---|
| 2000 | $29.0 | $0.3 | $0.0 | $29.3 |
| 2001 | $0.7 | -$10.6 | $0.0 | -$9.9 |
| 2002 | -$22.5 | -$28.7 | $0.0 | -$51.2 |
| 2003 | -$56.5 | -$21.1 | $0.0 | -$77.6 |
| 2004 | -$45.2 | $5.1 | $0.0 | -$40.1 |
| 2005 | -$37.3 | -$12.1 | $7.2 | -$42.2 |
| 2006 | -$4.7 | $3.8 | $1.2 | $0.2 |
| 2007 | $20.2 | $8.7 | $2.0 | $30.9 |
| 2008 | $173.3 | $17.7 | $5.4 | $196.4 |
| 2009 | $206.4 | $35.1 | $15.8 | $257.4 |
| 2010 | $158.6 | $29.6 | $10.0 | $198.3 |
| 2011 | $102.8 | $34.0 | $12.8 | $149.6 |
| 2012 | $58.9 | $45.9 | $14.3 | $119.1 |
| 2013 | $20.7 | $53.3 | $13.9 | $87.9 |
| 2014 | -$4.8 | $53.9 | $12.5 | $61.6 |
| 2015 | $22.5 | $66.9 | $7.9 | $97.3 |
| 2016 | $45.6 | $73.2 | $6.0 | $124.9 |
| 2017 | $50.1 | $76.1 | $5.0 | $131.2 |
| 2018 | $49.2 | $61.2 | $3.5 | $113.9 |
| 2019 | $35.9 | $58.0 | $1.9 | $95.7 |
| 2020 | -$52.5 | $71.0 | $1.3 | $19.9 |
| 2021 | -$64.2 | $74.2 | -$7.3 | $2.7 |
| 2022 | $98.5 | $80.7 | -$1.7 | $177.4 |
| 2023 YTD | $55.8 | $22.8 | -$0.7 | $77.9 |

## Figure 25. Ginnie Mae Net Issuance




*Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.*

## 6.3 Monthly Issuance Breakdown

Agency net issuance as of month-end June was approximately $30.2 billion, which represents a 50% MoM increase. Ginnie Mae net issuance was $17.8 billion as of month-end June, a 32% increase from May 2023. Ginnie Mae's $37.5 billion in gross issuance as of month-end June, seen in **Table 8**, was approximately 12% below the average monthly issuance for 2022.

### Table 8. Agency Issuance ($ in billions)

| | Agency Gross Issuance Amount (in $ Billions) | | | | | Agency Net Issuance Amount (in $ Billions) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Month | Fannie Mae | Freddie Mac | Ginnie Mae | GSEs | Total | Fannie Mae | Freddie Mac | Ginnie Mae | GSEs | Total |
| Jun-20 | $118.9 | $78.1 | $58.5 | $197.0 | $255.4 | $30.0 | $15.9 | $1.3 | $45.9 | $47.2 |
| Jul-20 | $125.0 | $108.1 | $66.5 | $233.1 | $299.5 | $23.4 | $38.0 | -$15.5 | $61.4 | $45.9 |
| Aug-20 | $137.6 | $113.6 | $73.6 | $251.3 | $324.8 | $34.2 | $43.4 | -$4.1 | $77.6 | $73.5 |
| Sep-20 | $122.9 | $102.1 | $72.4 | $225.0 | $297.5 | $16.5 | $29.9 | $1.0 | $46.5 | $47.5 |
| Oct-20 | $142.3 | $124.8 | $72.6 | $267.1 | $339.7 | $28.9 | $48.3 | -$0.3 | $77.2 | $76.9 |
| Nov-20 | $152.4 | $131.5 | $72.6 | $283.9 | $356.5 | $31.4 | $48.4 | -$4.5 | $79.8 | $75.3 |
| Dec-20 | $130.8 | $126.7 | $76.9 | $257.5 | $334.4 | $22.8 | $53.1 | $1.7 | $75.8 | $77.5 |
| Jan-21 | $141.6 | $117.3 | $78.2 | $258.9 | $337.1 | $25.9 | $37.9 | -$6.5 | $63.8 | $57.3 |
| Feb-21 | $118.8 | $115.5 | $72.3 | $234.3 | $306.6 | $16.8 | $44.3 | -$0.9 | $61.1 | $60.2 |
| Mar-21 | $143.9 | $118.9 | $76.9 | $262.8 | $339.7 | $37.6 | $44.0 | $1.0 | $81.6 | $82.6 |
| Apr-21 | $148.0 | $142.3 | $85.6 | $290.3 | $375.9 | $26.2 | $57.0 | -$4.2 | $83.3 | $79.0 |
| May-21 | $132.3 | $91.4 | $71.7 | $223.7 | $295.4 | $64.9 | $38.8 | -$3.1 | $103.7 | $100.6 |
| Jun-21 | $108.5 | $91.2 | $67.7 | $199.7 | $267.4 | $34.0 | $33.7 | $2.6 | $67.8 | $70.4 |
| Jul-21 | $95.4 | $84.6 | $69.0 | $180.0 | $249.0 | $27.6 | $31.9 | -$1.4 | $59.5 | $58.0 |
| Aug-21 | $104.8 | $109.3 | $66.6 | $214.1 | $280.8 | $27.5 | $48.5 | $1.4 | $76.1 | $77.4 |
| Sep-21 | $102.9 | $105.3 | $68.0 | $208.3 | $276.3 | $26.4 | $45.6 | $3.1 | $72.0 | $75.1 |
| Oct-21 | $105.1 | $102.7 | $62.5 | $207.8 | $270.3 | $34.6 | $46.9 | $1.9 | $81.5 | $83.4 |
| Nov-21 | $93.6 | $81.1 | $60.8 | $174.7 | $235.5 | $29.5 | $34.9 | $3.1 | $64.4 | $67.6 |
| Dec-21 | $93.7 | $85.4 | $58.9 | $179.1 | $238.0 | $33.8 | $34.4 | $5.7 | $68.3 | $73.9 |
| Jan-22 | $93.1 | $85.9 | $59.0 | $179.0 | $238.0 | $45.6 | $37.6 | $14.0 | $83.2 | $97.3 |
| Feb-22 | $73.3 | $64.6 | $49.0 | $137.9 | $186.9 | $27.8 | $22.7 | $9.7 | $50.5 | $60.2 |
| Mar-22 | $76.8 | $62.9 | $47.4 | $139.7 | $187.1 | $22.6 | $23.1 | $6.9 | $45.7 | $52.6 |
| Apr-22 | $65.3 | $53.5 | $47.8 | $118.8 | $166.6 | $19.5 | $17.7 | $13.2 | $37.2 | $50.4 |
| May-22 | $54.7 | $43.7 | $45.0 | $98.4 | $143.4 | $13.6 | $12.5 | $15.5 | $26.1 | $41.6 |
| Jun-22 | $54.5 | $42.0 | $43.6 | $96.5 | $140.1 | $14.8 | $10.7 | $16.0 | $25.5 | $41.5 |
| Jul-22 | $46.8 | $40.3 | $42.4 | $87.1 | $129.5 | $12.1 | $14.4 | $18.0 | $26.5 | $44.5 |
| Aug-22 | $39.8 | $46.3 | $40.3 | $86.1 | $126.4 | $4.8 | $19.8 | $16.2 | $24.6 | $40.8 |
| Sep-22 | $39.3 | $38.2 | $39.9 | $77.5 | $117.4 | $7.6 | $13.9 | $18.3 | $21.5 | $39.8 |
| Oct-22 | $34.1 | $26.1 | $35.5 | $60.2 | $95.7 | $5.8 | $4.7 | $17.3 | $10.5 | $27.8 |
| Nov-22 | $25.7 | $22.7 | $33.6 | $48.4 | $82.0 | $0.3 | $3.5 | $18.3 | $3.8 | $22.1 |
| Dec-22 | $24.9 | $25.5 | $28.8 | $50.4 | $79.2 | $0.2 | $6.6 | $14.0 | $6.8 | $20.8 |
| Jan-23 | $25.7 | $22.4 | $27.1 | $48.1 | $75.2 | $3.4 | $5.3 | $14.1 | $8.7 | $22.8 |
| Feb-23 | $18.9 | $16.5 | $22.7 | $35.4 | $58.1 | -$4.4 | -$1.4 | $8.6 | -$5.8 | $2.8 |
| Mar-23 | $23.6 | $19.2 | $26.2 | $42.8 | $69.0 | -$4.4 | -$2.4 | $8.7 | -$6.8 | $1.9 |
| Apr-23 | $27.7 | $21.0 | $31.6 | $48.7 | $80.3 | $1.4 | $0.6 | $15.0 | $2.0 | $17.0 |
| May-23 | $30.4 | $29.0 | $32.6 | $59.4 | $92.0 | $0.6 | $6.0 | $13.5 | $6.6 | $20.1 |
| Jun-23 | $33.5 | $32.9 | $37.5 | $66.4 | $103.9 | $3.1 | $9.3 | $17.8 | $12.4 | $30.2 |

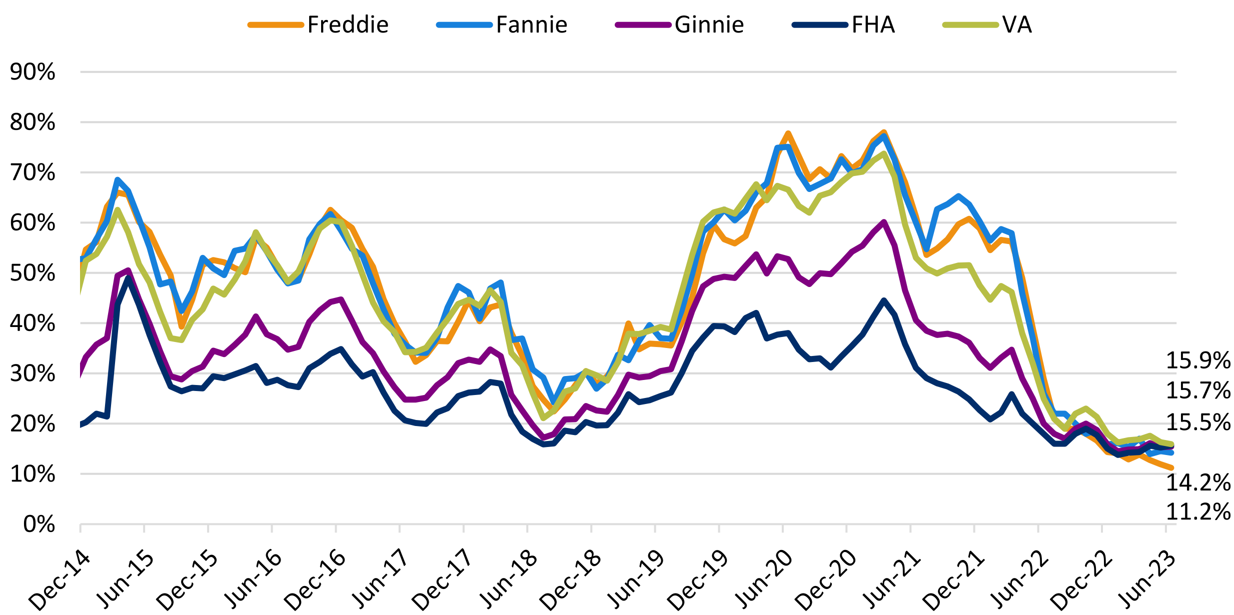
*Source: Beginning May 2021, data for Gross and Net Issuance was sourced from Fannie Mae, Freddie Mac, and Ginnie Mae loan level disclosure files. Net issuance is defined here as the difference between prior period UPB and current period UPB. Data as of June 2023. Beginning with the October 2021 GMAR, the Fannie Mae and Freddie Mac net issuance data have been updated to reflect the current UPB of the portfolios. July 2021 through June 2023 GMAR net issuance data reflect the UPB at security issuance for Fannie Mae and Freddie Mac. Note: Numbers are rounded to the nearest hundred million.*

## 6.4 Percent Refi at Issuance – Single-Family

Refinance activity increased for Ginnie Mae as of month-end June 2023 by approximately .9% MoM. VA's lending was down approximately 2.6% in June MoM. FHA's refinance share increased by approximately 3.1%. In the conventional conforming mortgage market space, Fannie Mae saw a decrease of 2.2% MoM and Freddie Mac saw a decrease of 6.2% MoM.

- Freddie Mac's refinance percentage dropped to 11.2% in June, down from 12.0% in May.
- Fannie Mae's refinance percentage dropped to 14.2% in June, down 14.6% in May.
- Ginnie Mae's refinance percentage rose to 15.5% in June, up from 15.3% in May.
- FHA's refinance percentage rose to 15.7% in June, up from 15.2% in May.
- VA's refinance percentage dropped to 15.9% in June, down from 16.4% in May.

**Figure 26. Percent Refinance at Issuance – Single-Family**




*Sources: Recursion. Note: Data as of June 2023.*

# 7 AGENCY SINGLE-FAMILY MBS OUTSTANDING

## 7.1 Outstanding Single-Family Agency MBS

As of month-end June 2023, outstanding single-family MBS in the agency market totaled $8.698 trillion: 41.1% Fannie Mae, 33.5% Freddie Mac, and 25.4% Ginnie Mae MBS. Over the past twelve months, Fannie Mae's, Freddie Mac's, and Ginnie Mae's total outstanding MBS increased by approximately 0.9%, 2.8%, and 8.9%, respectively. Fannie Mae outstanding MBS remains larger than Freddie Mac's and Ginnie Mae's by approximately $661 billion and $1.4 trillion, respectively.

Ginnie Mae MBS collateral composition has changed dramatically over the past five years. In June 2018, 60.2% of Ginnie Mae outstanding collateral was FHA and 33.7% was VA. As of month-end June 2023, FHA collateral comprised 53.5% of Ginnie Mae MBS outstanding, and VA collateral comprised 41.7% of Ginnie Mae MBS outstanding.

**Figure 27. Outstanding Agency Mortgage-Backed Securities**

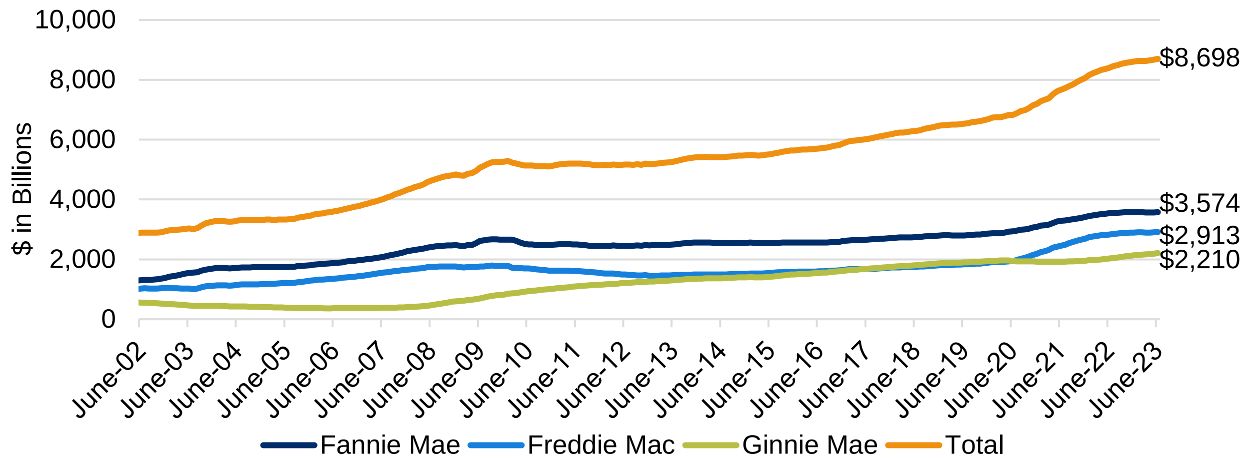
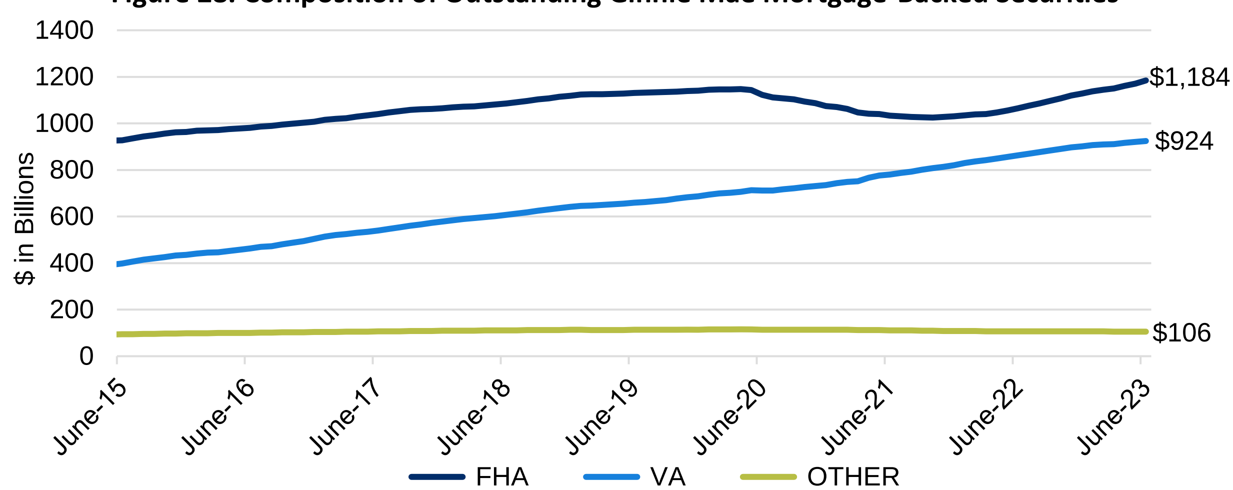



**Figure 28. Composition of Outstanding Ginnie Mae Mortgage-Backed Securities**




*Sources: Recursion. Note: Data as of June 2023.*

## 7.2 Origination Volume and Share Over Time

First lien origination volume continued to decline in Q1 2023, with approximately $290 billion in originations, which represents an approximate decline in issuance of 13% from Q4 2022. Ginnie Mae's share of total origination decreased from 25.6% to 22.3% in Q1 2023, while portfolio origination increased from 25.3% to 31.1%.

**Figure 29. First Lien Origination Volume**

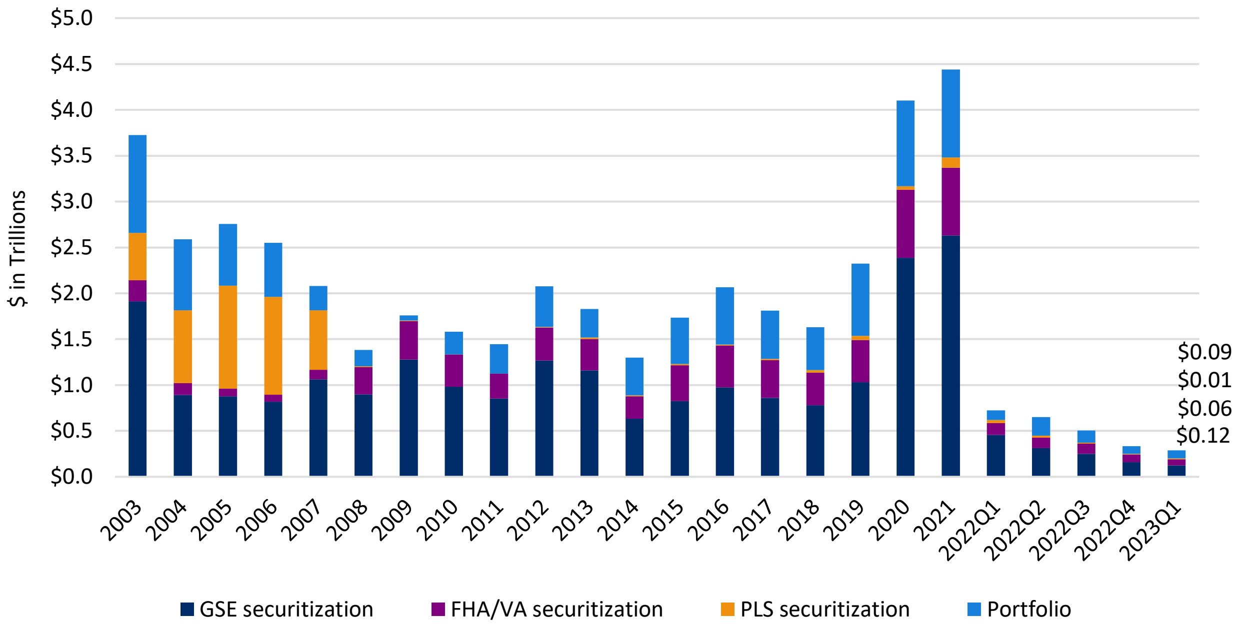
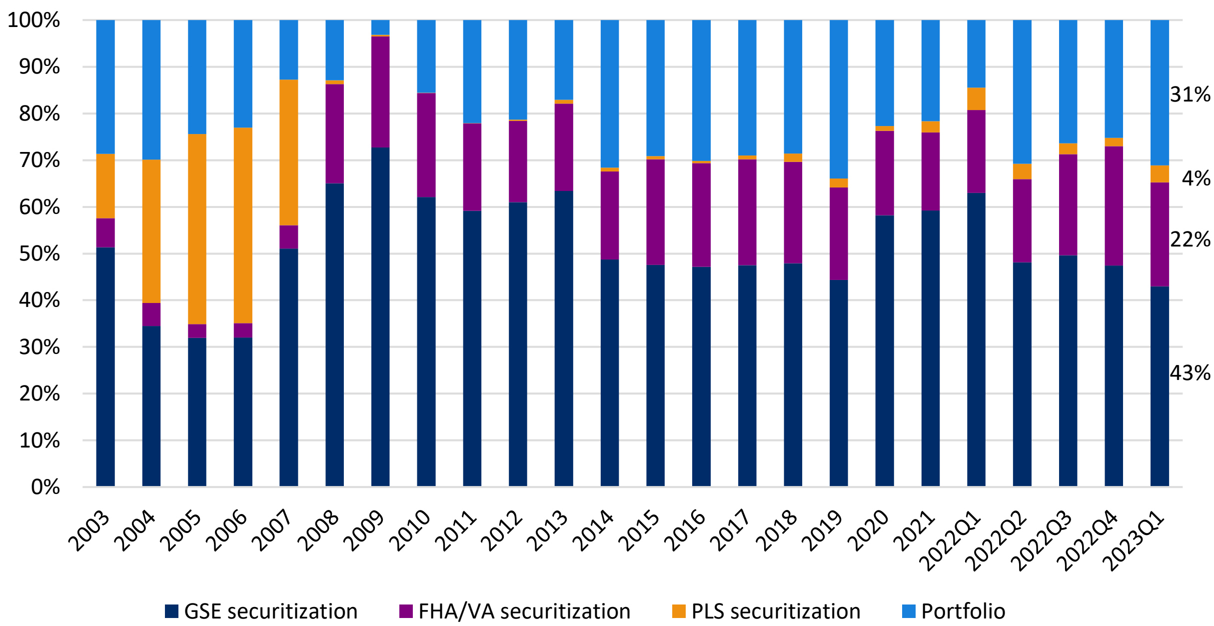



**Figure 30. First Lien Origination Share**




*Source: Inside Mortgage Finance. Note: Data as of Q1 2023.*

## 7.3 Agency Issuance and Agency Outstanding by State

Ginnie Mae MBS represent approximately 35% of new agency issuance over the past year, roughly 9% higher than Ginnie Mae's 26% share of agency outstanding. The share of Ginnie Mae's new agency issuance varies across states, with the highest Ginnie Mae share being in Alaska (56%) and the lowest in the District of Columbia (22%). The highest Ginnie Mae outstanding share is also in Alaska (48%) and the lowest in the District of Columbia (13%).

### Table 9. Agency Issuance Breakdown by State

| | Agency Issuance (past 1 year) | | | | Agency Outstanding (past 1 year) | | | |
|---|---|---|---|---|---|---|---|---|
| National | GNMA Share by UPB | GNMA Loan Count | GNMA Avg. Loan Size (000) | GSE Avg. Loan Size (000) | GNMA Share by UPB | GNMA Loan Count | GNMA Avg. Loan Size (000) | GSE Avg. Loan Size (000) |
| | **35%** | **1,710,832** | **288.04** | **297.24** | **26%** | **10,890,791** | **206.87** | **211.12** |
| AK | 56% | 5,324 | 343.95 | 308.06 | 48% | 37,514 | 262.09 | 220.45 |
| AL | 49% | 40,385 | 229.33 | 244.34 | 41% | 240,679 | 159.46 | 178.18 |
| AR | 45% | 21,015 | 196.62 | 228.10 | 39% | 138,244 | 134.21 | 161.54 |
| AZ | 34% | 50,443 | 327.16 | 334.59 | 25% | 280,305 | 224.19 | 227.44 |
| CA | 30% | 104,109 | 454.75 | 451.71 | 17% | 695,512 | 330.81 | 320.04 |
| CO | 33% | 36,909 | 410.92 | 402.31 | 24% | 216,448 | 296.05 | 278.73 |
| CT | 33% | 15,103 | 269.79 | 281.87 | 26% | 107,352 | 203.12 | 208.85 |
| DC | 22% | 1,289 | 499.23 | 426.28 | 13% | 9,082 | 385.91 | 348.85 |
| DE | 37% | 7,822 | 276.21 | 304.23 | 31% | 52,746 | 205.66 | 212.05 |
| FL | 38% | 157,001 | 308.89 | 307.62 | 32% | 869,133 | 216.64 | 213.79 |
| GA | 41% | 92,299 | 266.54 | 300.46 | 34% | 507,144 | 183.92 | 208.40 |
| HI | 46% | 4,512 | 623.49 | 509.24 | 32% | 33,853 | 470.66 | 357.63 |
| IA | 32% | 12,482 | 185.64 | 199.74 | 23% | 83,355 | 135.38 | 148.27 |
| ID | 32% | 10,025 | 337.79 | 330.51 | 24% | 64,527 | 222.61 | 224.11 |
| IL | 29% | 55,904 | 213.61 | 248.36 | 22% | 372,085 | 160.98 | 179.23 |
| IN | 36% | 45,554 | 196.75 | 218.52 | 30% | 282,695 | 136.20 | 151.71 |
| KS | 36% | 14,545 | 198.74 | 228.41 | 29% | 96,933 | 141.55 | 164.13 |
| KY | 44% | 27,400 | 202.98 | 220.20 | 35% | 167,273 | 145.49 | 156.24 |
| LA | 49% | 32,398 | 208.64 | 240.27 | 41% | 204,457 | 158.83 | 177.44 |
| MA | 29% | 16,684 | 382.17 | 376.80 | 16% | 115,121 | 286.39 | 267.85 |
| MD | 43% | 42,458 | 343.20 | 334.93 | 34% | 295,637 | 266.28 | 249.34 |
| ME | 35% | 5,662 | 252.96 | 277.52 | 26% | 38,263 | 179.19 | 191.97 |
| MI | 28% | 42,285 | 190.21 | 218.68 | 20% | 278,812 | 135.22 | 156.84 |
| MN | 23% | 20,473 | 254.74 | 283.10 | 18% | 160,218 | 183.35 | 198.41 |
| MO | 37% | 38,066 | 203.40 | 225.39 | 29% | 246,815 | 143.80 | 162.43 |
| MS | 56% | 19,924 | 206.99 | 223.19 | 48% | 124,189 | 145.57 | 161.42 |
| MT | 30% | 4,426 | 317.11 | 322.03 | 24% | 32,475 | 211.43 | 216.97 |
| NC | 36% | 71,809 | 262.07 | 295.99 | 29% | 420,003 | 179.41 | 203.56 |
| ND | 35% | 2,493 | 248.79 | 243.16 | 24% | 17,085 | 193.79 | 183.51 |
| NE | 33% | 9,032 | 226.29 | 230.19 | 27% | 65,221 | 151.25 | 161.29 |
| NH | 29% | 5,253 | 324.30 | 316.70 | 22% | 38,497 | 228.15 | 215.21 |
| NJ | 30% | 35,235 | 326.40 | 342.56 | 22% | 234,776 | 242.52 | 254.31 |
| NM | 45% | 14,193 | 249.55 | 260.87 | 38% | 96,253 | 169.23 | 178.99 |
| NV | 38% | 22,820 | 353.20 | 342.03 | 31% | 135,646 | 251.96 | 236.81 |
| NY | 27% | 38,500 | 300.10 | 341.08 | 20% | 310,159 | 211.19 | 248.38 |
| OH | 35% | 63,532 | 189.22 | 206.63 | 29% | 428,264 | 131.82 | 149.50 |
| OK | 45% | 27,980 | 208.06 | 229.96 | 42% | 190,694 | 143.12 | 163.25 |
| OR | 26% | 16,279 | 360.03 | 370.57 | 19% | 111,802 | 256.62 | 254.02 |
| PA | 30% | 51,546 | 205.42 | 251.57 | 26% | 392,404 | 149.87 | 182.16 |
| RI | 43% | 5,417 | 336.01 | 308.09 | 30% | 36,154 | 236.87 | 212.83 |
| SC | 42% | 44,423 | 260.41 | 268.80 | 34% | 239,686 | 186.54 | 193.28 |
| SD | 37% | 4,279 | 249.89 | 250.74 | 30% | 29,376 | 174.72 | 177.46 |
| TN | 37% | 47,059 | 266.36 | 289.95 | 31% | 273,216 | 179.46 | 205.91 |
| TX | 34% | 176,488 | 278.35 | 312.71 | 32% | 1,115,296 | 186.57 | 214.92 |
| UT | 27% | 16,062 | 388.60 | 395.84 | 19% | 97,148 | 265.88 | 265.19 |
| VA | 47% | 67,113 | 337.70 | 330.01 | 36% | 450,691 | 258.54 | 250.16 |
| VI | 25% | 110 | 367.15 | 431.89 | 24% | 804 | 255.21 | 303.98 |
| VT | 25% | 1,608 | 246.16 | 270.23 | 19% | 12,207 | 181.83 | 180.79 |
| WA | 30% | 33,815 | 407.75 | 416.16 | 22% | 234,065 | 287.88 | 290.26 |
| WI | 26% | 18,073 | 215.33 | 233.23 | 17% | 124,786 | 157.71 | 163.02 |
| WV | 52% | 9,481 | 196.93 | 197.97 | 44% | 60,600 | 145.34 | 145.30 |
| WY | 41% | 3,735 | 272.19 | 273.32 | 35% | 25,091 | 206.96 | 201.79 |

*Source: Recursion. Note: Outstanding balance is based on loan balance as of June 2023. Ginnie Mae issuance is based on the last 12 months, from May 2022 to June 2023. Values above are based on loan level disclosure data, thus excluding loan balances for the first 6 months that loans are in a pool. This accounts for the difference in share of outstanding MBS represented above & in Outstanding Single-Family Agency MBS.*

## 7.4 Outstanding Ginnie Mae MBS Volume by Coupon and Vintage Over Time

As of month-end June 2023, the weighted average coupon (WAC) on outstanding Ginnie Mae MBS increased slightly from 3.25% in May 2023 to 3.29% as seen in **Figure 31**. **Figure 32** illustrates that loans originated since 2019 account for approximately 90% of Ginnie Mae MBS collateral outstanding.

**Figure 31. Outstanding Ginnie Mae MBS Balance, by Coupon**

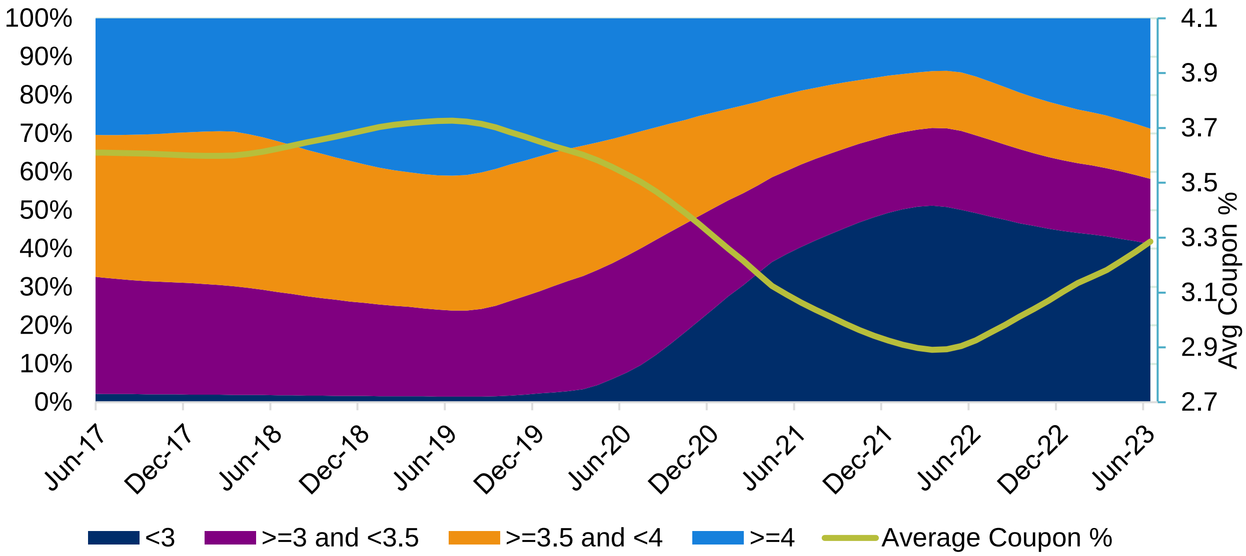
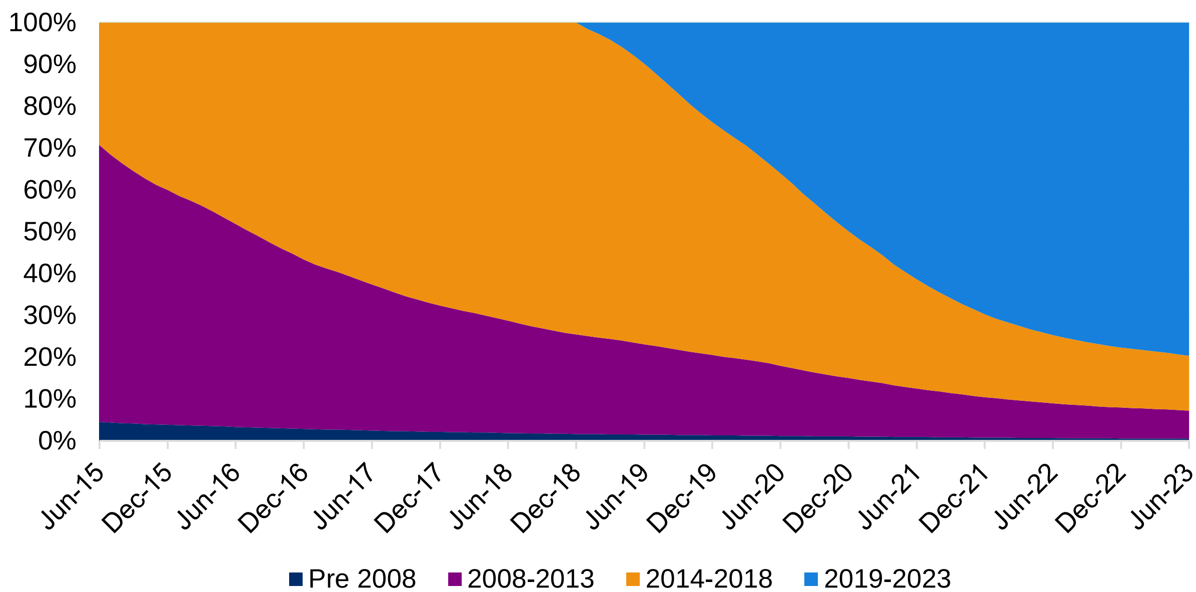



**Figure 32. Outstanding Ginnie Mae MBS Balance, by Vintage**




*Sources: Recursion. Note: June 2023 data points reflect the current composition of balances by coupon and vintage; factor data is not applied to prior date balance compositions. Average coupon is weighted by remaining principal balance.*

# 8 AGENCY REMIC SECURITIES

## 8.1 Monthly REMIC Demand for Ginnie Mae MBS

As of month-end June 2023, $7.4 billion of Ginnie Mae MBS were securitized into Real Estate Mortgage Investment Conduits (REMICs) as underlying collateral. This represents a marginal 0.1% increase YoY from $7.4 billion in June 2022, and a 25.6% MoM decrease from $9.9 billion in May 2023. Of that, approximately $295.7 million were multifamily MBS having coupons over 4.01%. $5.9 billion were single-family MBS having coupons over 5.01%.

**Figure 33. Ginnie Mae Single-Family and Multifamily MBS Securitized into REMICs**

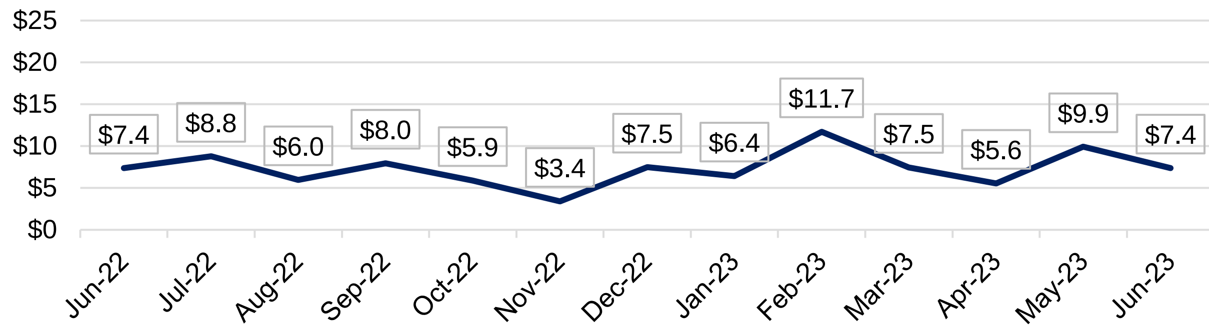



**Table 10. June 2023 REMIC Collateral Coupon Distribution**

| Net Coupon (%) | Approx. Ginnie Mae MBS amount securitized into REMIC Deals ($MM)[2] | % Breakdown of REMIC Collateral by coupon |
|---|---|---|
| **Multifamily** | | |
| <2.01 | 0.0 | 0% |
| 2.01-3.00 | 330.8 | 36% |
| 3.01-4.00 | 302.6 | 32% |
| 4.01-5.00 | 295.7 | 32% |
| >5.00 | 0.0 | 0% |
| **Subtotal** | **929.1** | **100.0%** |
| **Single-Family** | | |
| <2.01 | 0.0 | 0% |
| 3.00-4.00 | 377.6 | 6% |
| 4.01-5.00 | 120.3 | 2% |
| 5.01-6.00 | 4,022.7 | 62% |
| 6.01-7.00 | 1,871.7 | 29% |
| >7.00 | 59.2 | 1% |
| **Subtotal** | **6,451.5** | **100.0%** |
| **Grand Total** | **7,380.5** | **100.0%** |

*Source: Ginnie Mae Disclosure Files*

[2] *Totals may not sum due to rounding.*

## 8.2 REMIC Market Snapshot

- In June 2023, Ginnie Mae was the only agency that saw a decrease in single-family REMIC issuance collateral coupon, which was 15 basis points. Fannie and Freddie saw increases of 13 basis points and 50 basis points respectively.
- In June 2023, Ginnie Mae recorded a second consecutive month of increase in multifamily issuance. The last time this occurred was in September of 2022.
- In June 2023, despite offering 20 deals, Ginnie Mae had its lowest average deal size since November 2022.
- In June 2023, Fannie Mae did not issue a multifamily deal. This is the 6th month in the last 12 months where this instance has occurred. Previously, from September 2017 to June 2022 there was only one month where Fannie Mae had no multifamily deal issuance.

**Figure 34. REMIC Issuance by Agency**

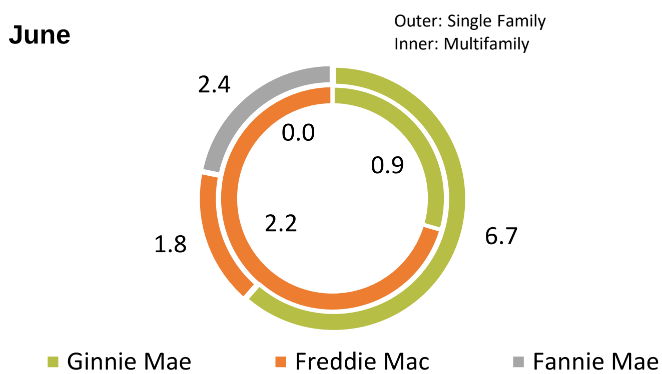



**Table 11. Monthly REMIC Issuance by Agency**

| | SF REMIC Issuance Volume ($B) | % of SF REMIC Issuance Volume | Number of SF REMIC Transactions | MF REMIC Issuance Volume ($B) | % of MF REMIC Issuance Volume | Number of MF REMIC Transactions |
|---|---|---|---|---|---|---|
| Ginnie Mae | 6.73 | 61.4 | 11 | 0.93 | 29.5 | 6 |
| Freddie Mac | 1.84 | 16.8 | 7 | 2.22 | 70.5 | 4 |
| Fannie Mae | 2.39 | 21.8 | 6 | 0.00 | 0.0 | 0 |
| Total[3] | **$10.96** | **100%** | **24** | **$3.15** | **100%** | **10** |

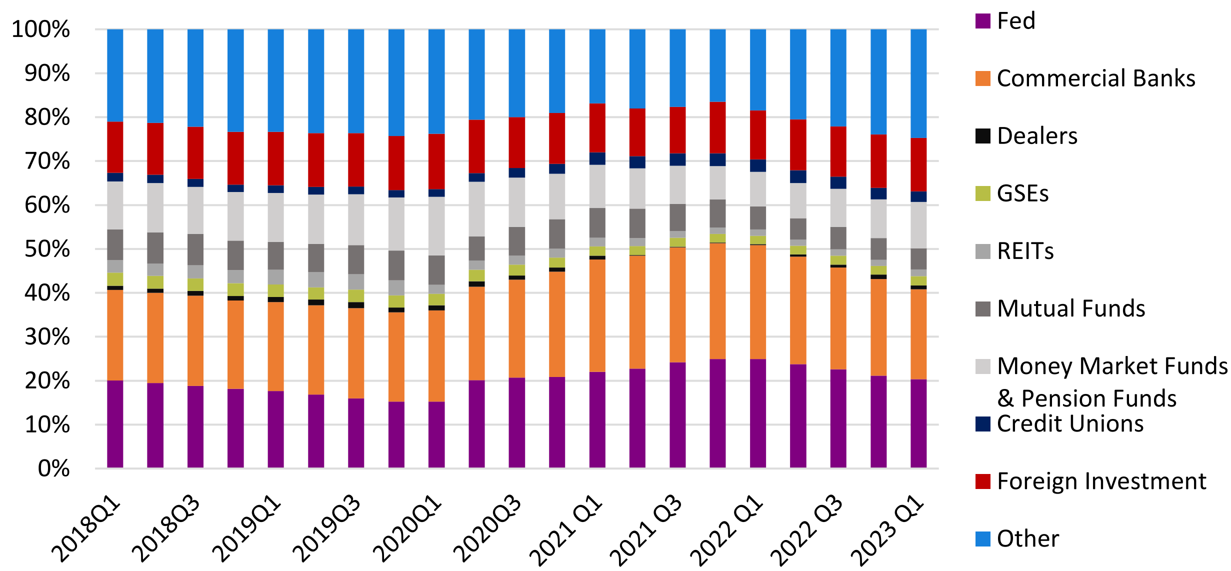
*Source: Ginnie Mae Disclosure Files*

[3] *Totals may not sum due to rounding.*

## 9 MBS OWNERSHIP

As of Q1 2023, the largest holders of agency debt (agency MBS + agency notes and bonds) included commercial banks (20%), the Federal Reserve (20%), and foreign investors (12%). The Federal Reserve's share decreased slightly to 20% in the first quarter of 2023 from 21% in the fourth quarter of 2022. Along with the Federal Reserve, commercial banks are one of the largest holders of agency MBS. Out of the approximately $2.6 trillion in holdings as of the end of June 2023, roughly $2.0 trillion was held by the top 25 domestic banks per **Table 12** below.

**Figure 35. Who Owns Total Agency Debt?**




*Source: Federal Reserve Flow of Funds. Note: The "other" category includes primarily life insurance companies, state and local governments, households and nonprofits. Data as of Q1 2023.*

### 9.1 Commercial Bank Holdings of Agency MBS

**Table 12. Commercial Bank Holdings of Agency MBS**

| | Commercial Bank Holdings ($Billions) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Oct-22** | **Nov-22** | **Dec-22** | **Jan-23** | **Feb-23** | **Mar-23** | **Apr-23** | **May-23** | **Jun-23** |
| *Largest 25 Domestic Banks* | 2,067.6 | 2,052.0 | 2,056.5 | 2,054.5 | 1,961.4 | 1,952.3 | 1,953.4 | 1,947.1 | 1,961.3 |
| *Small Domestic Banks* | 692.2 | 690.9 | 677.3 | 663.5 | 764.0 | 700.9 | 627.8 | 628.4 | 618.2 |
| *Foreign Related Banks* | 35.9 | 39.3 | 36.6 | 30.0 | 27.0 | 28.4 | 26.8 | 24 | 26.2 |
| ***Total, Seasonally Adjusted*** | **2,795.7** | **2,782.2** | **2,770.4** | **2,748.0** | **2,752.4** | **2,681.6** | **2,608.0** | **2,599.5** | **2,605.7** |

*Source: Federal Reserve Bank. Note: Small domestic banks include all domestically chartered commercial banks not included in the top 25. Data as of June 2023.*

## 9.2 Bank and Thrift Residential MBS Holdings

In Q1 2023, MBS holdings at banks and thrifts continued to decrease. The decrease was driven by GSE pass-throughs, agency CMO holdings, and Private CMO holdings, with GSE pass-throughs seeing the largest decrease. In contrast, Ginnie Mae pass-throughs saw an increase of 3.9%. Total bank and thrift MBS holdings decreased by approximately 15.8% from Q1 2022 and 2.8% from Q4 2022. Out of the $2.4 trillion in MBS holdings at banks and thrifts as of Q1 2023, $1.4 trillion were GSE pass-throughs and $386 billion were Ginnie Mae pass-throughs.

### Table 13. Bank and Thrift Residential MBS Holdings

| | All Banks & Thrifts ($ in billions) | | | | | | All MBS ($ in billions) | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **Total** | **GSE PT** | **GNMA PT** | **Private MBS** | **Agency CMO** | **Private CMO** | **Banks** | **Thrifts** |
| 2001 | $730.84 | $270.59 | $109.53 | $37.62 | $236.91 | $76.18 | $606.91 | $203.37 |
| 2002 | $832.50 | $376.11 | $101.46 | $20.08 | $244.98 | $89.88 | $702.44 | $209.66 |
| 2003 | $899.89 | $461.72 | $75.11 | $19.40 | $236.81 | $106.86 | $775.66 | $206.45 |
| 2004 | $1,011.01 | $572.40 | $49.33 | $20.55 | $208.18 | $160.55 | $879.75 | $234.31 |
| 2005 | $1,033.77 | $566.81 | $35.92 | $29.09 | $190.70 | $211.25 | $897.06 | $242.69 |
| 2006 | $1,124.46 | $628.52 | $31.13 | $42.32 | $179.21 | $243.28 | $983.49 | $223.42 |
| 2007 | $1,149.10 | $559.75 | $31.58 | $26.26 | $174.27 | $357.24 | $971.42 | $264.59 |
| 2008 | $1,218.77 | $638.78 | $100.36 | $12.93 | $207.66 | $259.04 | $1,088.00 | $211.73 |
| 2009 | $1,275.52 | $629.19 | $155.00 | $7.53 | $271.17 | $212.64 | $1,161.67 | $184.07 |
| 2010 | $1,433.38 | $600.80 | $163.13 | $7.34 | $397.30 | $181.61 | $1,233.28 | $200.09 |
| 2011 | $1,566.88 | $627.37 | $214.81 | $3.28 | $478.82 | $167.70 | $1,359.24 | $207.64 |
| 2012 | $1,578.86 | $707.87 | $242.54 | $17.16 | $469.27 | $138.67 | $1,430.63 | $148.22 |
| 2013 | $1,506.60 | $705.97 | $231.93 | $26.11 | $432.60 | $114.15 | $1,363.65 | $142.94 |
| 2014 | $1,539.32 | $733.71 | $230.45 | $20.33 | $449.90 | $104.94 | $1,409.84 | $129.48 |
| 2015 | $1,643.56 | $823.10 | $292.30 | $11.14 | $445.39 | $71.63 | $1,512.67 | $130.89 |
| 2016 | $1,736.93 | $930.67 | $323.46 | $7.40 | $419.80 | $55.60 | $1,576.07 | $160.86 |
| 2017 | $1,844.15 | $1,010.83 | $367.70 | $4.63 | $413.97 | $47.01 | $1,672.93 | $171.22 |
| 2018 | $1,814.97 | $980.56 | $380.43 | $2.69 | $416.59 | $34.69 | $1,634.99 | $179.98 |
| 1Q19 | $1,844.99 | $1,001.61 | $383.49 | $3.06 | $422.18 | $34.65 | $1,673.40 | $171.59 |
| 2Q19 | $1,907.13 | $1,037.93 | $407.97 | $2.90 | $421.56 | $36.76 | $1,727.65 | $179.47 |
| 3Q19 | $1,975.78 | $1,079.82 | $427.10 | $4.74 | $428.69 | $35.44 | $1,786.74 | $189.04 |
| 2019 | $1,985.38 | $1,089.41 | $426.85 | $4.62 | $428.99 | $35.52 | $1,796.29 | $189.09 |
| 1Q20 | $2,107.66 | $1,173.36 | $448.34 | $4.65 | $443.73 | $37.57 | $1,907.02 | $200.64 |
| 2Q20 | $2,195.19 | $1,228.87 | $441.06 | $5.00 | $478.11 | $42.14 | $1,946.36 | $248.83 |
| 3Q20 | $2,310.42 | $1,349.48 | $415.24 | $4.43 | $499.50 | $41.78 | $2,040.61 | $269.81 |
| 4Q20 | $2,520.90 | $1,537.54 | $390.66 | $3.94 | $548.65 | $40.10 | $2,210.22 | $310.68 |
| 1Q21 | $2,690.92 | $1,713.78 | $374.63 | $4.88 | $555.35 | $42.28 | $2,350.94 | $339.98 |
| 2Q21 | $2,781.91 | $1,825.80 | $352.77 | $4.77 | $555.45 | $43.12 | $2,431.76 | $350.15 |
| 3Q21 | $2,858.59 | $1,886.78 | $353.12 | $4.24 | $565.51 | $48.95 | $2,487.32 | $371.27 |
| 4Q21 | $2,906.04 | $1,915.48 | $352.71 | $4.45 | $577.98 | $55.42 | $2,529.78 | $376.26 |
| 1Q22 | $2,799.22 | $1,817.72 | $368.43 | $4.04 | $548.60 | $60.43 | $2,476.12 | $323.10 |
| 2Q22 | $2,623.79 | $1,665.94 | $369.20 | $3.81 | $523.01 | $61.83 | $2,321.17 | $302.62 |
| 3Q22 | $2,431.57 | $1,520.24 | $352.02 | $3.29 | $496.72 | $59.30 | $2,156.16 | $275.41 |
| 4Q22 | $2,423.87 | $1,505.65 | $371.91 | $3.96 | $481.69 | $60.65 | $2,154.46 | $269.41 |
| 1Q23 | $2,356.93 | $1,441.18 | $386.32 | $4.12 | $465.24 | $60.08 | $2,088.27 | $268.65 |
| **Change:** | | | | | | | | |
| 4Q22-1Q23 | -2.8% | -4.3% | 3.9% | 3.9% | -3.4% | -0.9% | -3.1% | -0.3% |
| 1Q22-1Q23 | -15.8% | -20.7% | 4.9% | 1.9% | -15.2% | -0.6% | -15.7% | -16.9% |

*Source: Inside Mortgage Finance. Notes: Data as of Q1 2023.*

## Table 14. Top 20 Bank and Thrift Residential MBS Investors ($ in millions)

| | Institution | Total | GSE PT | GNMA PT | Agency CMO | Non-Agency | Share |
|---|---|---|---|---|---|---|---|
| 1 | BANK OF AMERICA CORPORATION | $441,978.0 | $371,659.0 | $63,657.0 | $6,507.0 | $155.0 | 18.8% |
| 2 | WELLS FARGO & COMPANY | $242,632.0 | $159,544.0 | $80,344.0 | $2,679.0 | $65.0 | 10.3% |
| 3 | CHARLES SCHWAB | $165,161.0 | $93,045.0 | $5,902.0 | $66,214.0 | $0.0 | 7.0% |
| 4 | JPMORGAN CHASE & CO. | $159,776.0 | $68,225.0 | $77,521.0 | $84.0 | $13,946.0 | 6.8% |
| 5 | Truist Bank | $106,362.0 | $53,175.0 | $12,106.0 | $37,983.0 | $3,098.0 | 4.5% |
| 6 | U.S. BANCORP | $99,297.1 | $65,567.4 | $22,611.2 | $11,118.5 | $0.1 | 4.2% |
| 7 | CITIGROUP INC. | $85,290.0 | $71,919.0 | $10,284.0 | $2,359.0 | $728.0 | 3.6% |
| 8 | PNC Bank, National Association | $72,575.9 | $61,538.1 | $4,239.4 | $5,758.5 | $1,039.9 | 3.1% |
| 9 | CAPITAL ONE FINANCIAL CORPORATION | $65,965.9 | $31,251.2 | $15,525.8 | $18,843.8 | $345.0 | 2.8% |
| 10 | MORGAN STANLEY | $50,482.0 | $33,644.0 | $7,486.0 | $9,352.0 | $0.0 | 2.1% |
| 11 | BANK OF NEW YORK MELLON CORP | $41,504.0 | $29,776.0 | $1,549.0 | $8,193.0 | $1,986.0 | 1.8% |
| 12 | USAA Federal Savings Bank | $39,747.0 | $33,550.0 | $1,969.0 | $4,228.0 | $0.0 | 1.7% |
| 13 | State Street Bank and Trust Company | $36,651.0 | $14,278.0 | $6,671.0 | $14,113.0 | $1,589.0 | 1.6% |
| 14 | BMO Harris Bank National Association | $32,377.2 | $4,377.1 | $6,507.5 | $21,492.6 | $0.0 | 1.4% |
| 15 | The Huntington National Bank | $29,310.3 | $11,575.7 | $9,649.1 | $7,955.8 | $129.8 | 1.2% |
| 16 | TD Bank USA/TD Bank NA | $27,683.2 | $1,003.5 | $79.5 | $26,559.3 | $40.9 | 1.2% |
| 17 | KeyBank National Association | $25,837.8 | $3,868.3 | $195.8 | $21,773.7 | $0.0 | 1.1% |
| 18 | Citizens Bank, National Association | $22,505.8 | $12,082.1 | $5,622.6 | $4,801.1 | $0.0 | 1.0% |
| 19 | HSBC Bank USA, National Association | $22,323.7 | $4,445.4 | $12,249.2 | $5,628.4 | $0.8 | 0.9% |
| 20 | Ally Bank | $20,329.0 | $12,759.0 | $1,870.0 | $1,654.0 | $4,046.0 | 0.9% |
| | **Total Top 20** | $1,787,788.9 | $1,137,282.7 | $346,039.1 | $277,297.7 | $27,169.3 | 75.9% |

*Source: Inside Mortgage Finance. Notes: Data as of Q1 2023.*

## 9.3 Foreign Ownership of MBS

For the month of January 2023, foreign ownership of MBS represented $1.202 trillion in agency MBS, up approximately $36 billion from December 2022. Total foreign ownership includes $567 billion held by foreign private institutions and $635 billion held by foreign official institutions. The pre-Covid foreign ownership peak of approximately 17.5% has fallen to 13.97% as of January 2023.

**Figure 36. Foreign Share of Agency MBS Market**

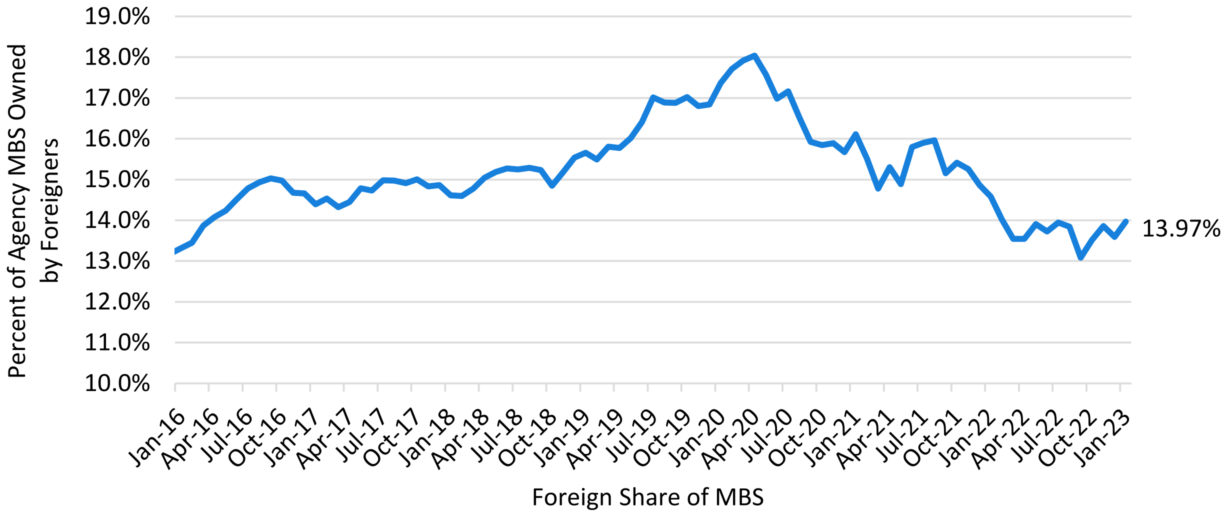
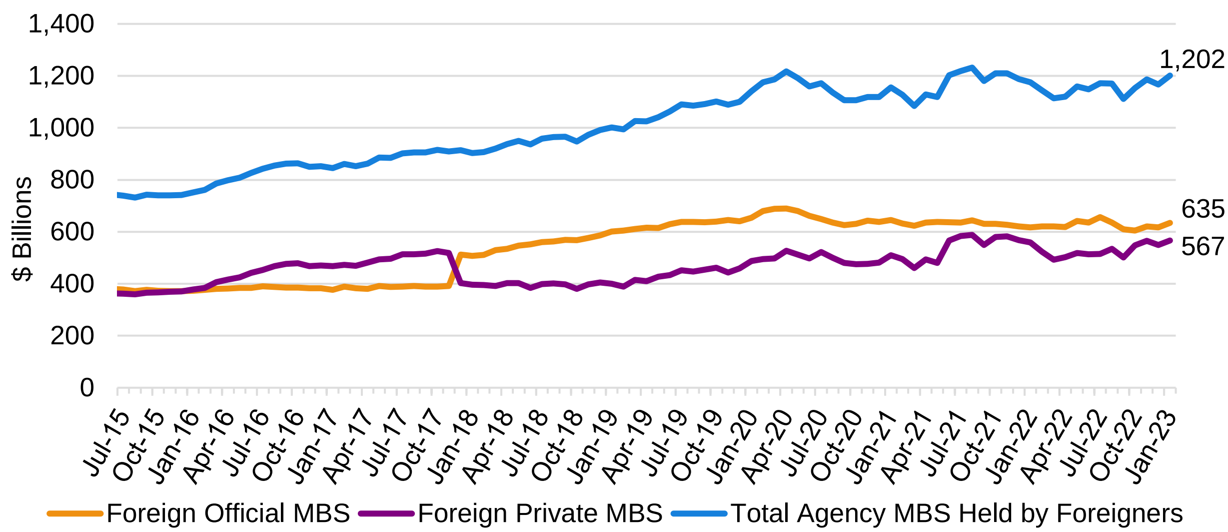



**Figure 37. Monthly Foreign MBS Holdings**




*Sources: Recursion and Treasury International Capital (TIC) [Top Chart], Treasury International Capital (TIC) [Bottom Chart] Notes: In December 2017, there was a data correction that moved about $120 billion from privately held U.S. agency bonds to officially held U.S. agency bonds; this resulted in a series break at December 2017 in the split between the portion held by foreign private and the portion held by foreign official. Data as of January 2023.*

## 9.4 Foreign Ownership of Agency Debt and Agency MBS

The largest holders of agency MBS were Japan, China, and Taiwan. As of March 2023, these three owned 60% of all foreign owned US MBS. Between March 2022 and March 2023, Japan and China increased their agency MBS holdings while Taiwan's holdings decreased. Japan's holdings increased by $27.2 billion, China's holdings increased by $44.3 billion, and Taiwan's holdings decreased by $20.6 billion.

### Table 15. All Agency Debt

| Country | Level of Holdings ($ Millions) | | | | Change in Holdings ($ Millions) | | | |
|---|---|---|---|---|---|---|---|---|
| | 6/1/2022 | 9/1/2022 | 12/1/2022 | 3/1/2023 | Q2 2022 | Q3 2022 | Q4 2022 | Q1 2023 |
| *Japan* | 231,437 | 232,769 | 278,068 | 287,050 | (28,407) | 1,332 | 45,299 | 8,982 |
| *China* | 244,389 | 241,523 | 251,566 | 263,891 | 24,840 | (2,866) | 10,043 | 12,325 |
| *Taiwan* | 222,670 | 209,453 | 210,309 | 212,782 | (10,670) | (13,217) | 856 | 2,473 |
| *Canada* | 76,391 | 89,313 | 97,234 | 105,527 | 2,668 | 12,922 | 7,921 | 8,293 |
| *Luxembourg* | 42,840 | 38,559 | 47,142 | 51,268 | 9,456 | (4,281) | 8,583 | 4,126 |
| *United Kingdom* | 66,229 | 56,348 | 61,418 | 41,147 | 17,793 | (9,881) | 5,070 | (20,271) |
| *South Korea* | 37,963 | 35,643 | 36,240 | 38,146 | (2,365) | (2,320) | 597 | 1,906 |
| *Cayman Islands* | 34,981 | 35,081 | 30,954 | 29,485 | 3,009 | 100 | (4,127) | (1,469) |
| *Ireland* | 20,204 | 17,692 | 22,478 | 25,100 | (385) | (2,512) | 4,786 | 2,622 |
| *France* | 16,706 | 16,199 | 19,805 | 22,578 | (421) | (507) | 3,606 | 2,773 |
| *Other* | 199,626 | 191,424 | 187,241 | 196,266 | 12,816 | (8,202) | (4,183) | 9,025 |
| ***Total*** | **1,193,436** | **1,164,004** | **1,242,455** | **1,273,240** | **28,334** | **(29,432)** | **78,451** | **30,785** |

### Table 16. Agency MBS

| Country | Level of Holdings ($ Millions) | | |
|---|---|---|---|
| | 3/1/2022 | 3/1/2023 | YoY Change in Holdings ($ Millions) |
| *Japan* | 259,844 | 287,050 | 27,206 |
| *China* | 219,549 | 263,891 | 44,342 |
| *Taiwan* | 233,340 | 212,782 | -20,558 |
| *Canada* | 73,723 | 105,527 | 31,804 |
| *Luxembourg* | 33,384 | 51,268 | 17,884 |
| *United Kingdom* | 48,436 | 41,147 | -7,289 |
| *South Korea* | 40,328 | 38,146 | -2,182 |
| *Cayman Islands* | 31,972 | 29,485 | -2,487 |
| *Ireland* | 20,589 | 25,100 | 4,511 |
| *France* | 17,127 | 22,578 | 5,451 |
| *Other* | 186,810 | 196,266 | 9,456 |
| ***Total*** | **1,165,102** | **1,273,240** | **108,138** |

*Source: Treasury International Capital (TIC). Note: Level of agency debt Holdings by month data as of Q1 2023. Agency MBS as of March 2023. Revised to include top 10 holders of agency debt listed as of March 2023.*

## 10 FIXED INCOME LIQUIDITY INDICATORS

The agency MBS average daily trading volume YTD as of month-end June 2023 was $247 billion, which was up from a monthly average of $241 billion for calendar year 2022. As of month-end June 2023, agency MBS average daily trading volume increased 5.8% MoM. *See footnote below for update on "Average Daily Turnover by Sector" data.*

**Figure 38. Average Daily Trading Volume by Sector**

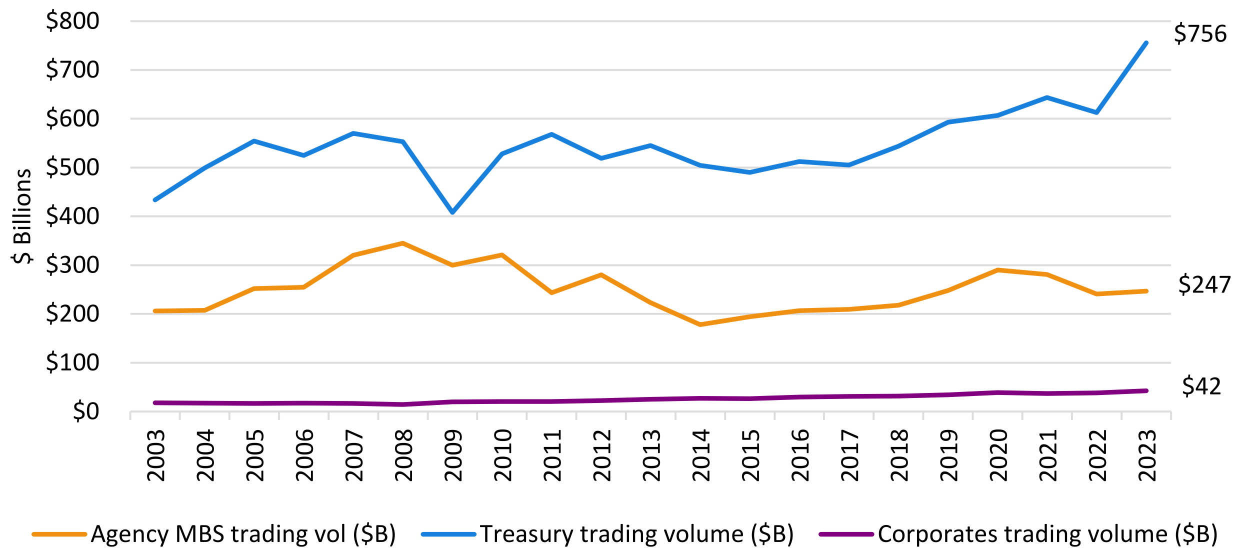
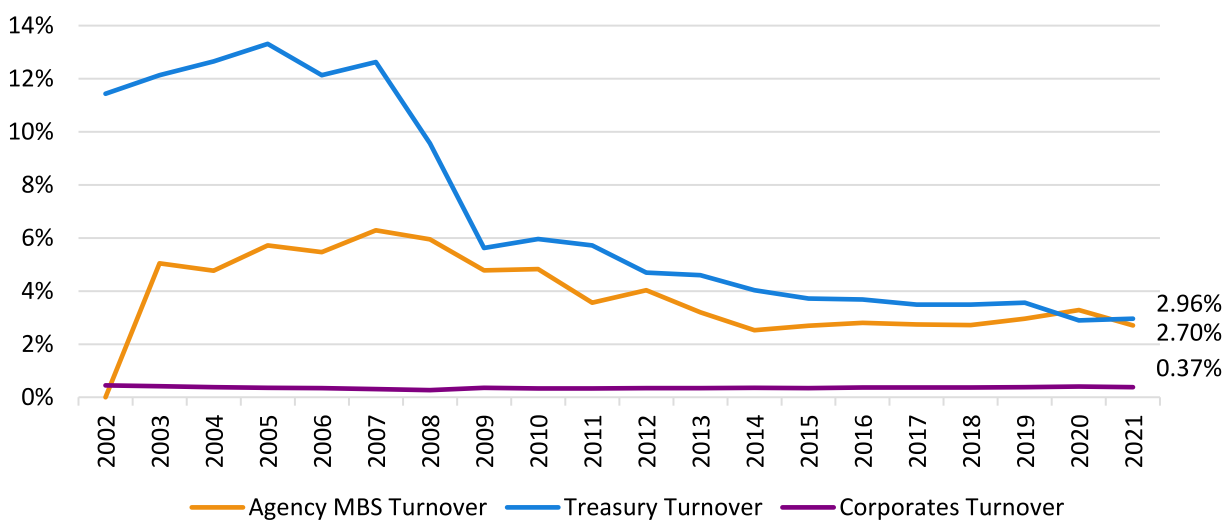



**Figure 39. Average Daily Turnover by Sector**




*Source: SIFMA. Note: Data as of June 2023 for Average Daily Trading Volume by Sector and as of December 2021 for agency MBS in Average Daily Turnover by Sector. The MBS outstanding database for Turnover by Sector is under maintenance and is not updated in this report.*

# PRIMARY MORTGAGE MARKET

## 11 AGENCY CREDIT BREAKDOWN

**Tables 17, 18, and 19** below outline the population distributions of FICOs, DTIs, and LTVs between the agencies and between FHA, VA, and other Ginnie Mae loan sources as of month-end June 2023. The distribution statistics capture some key differences in the populations served by the agencies.

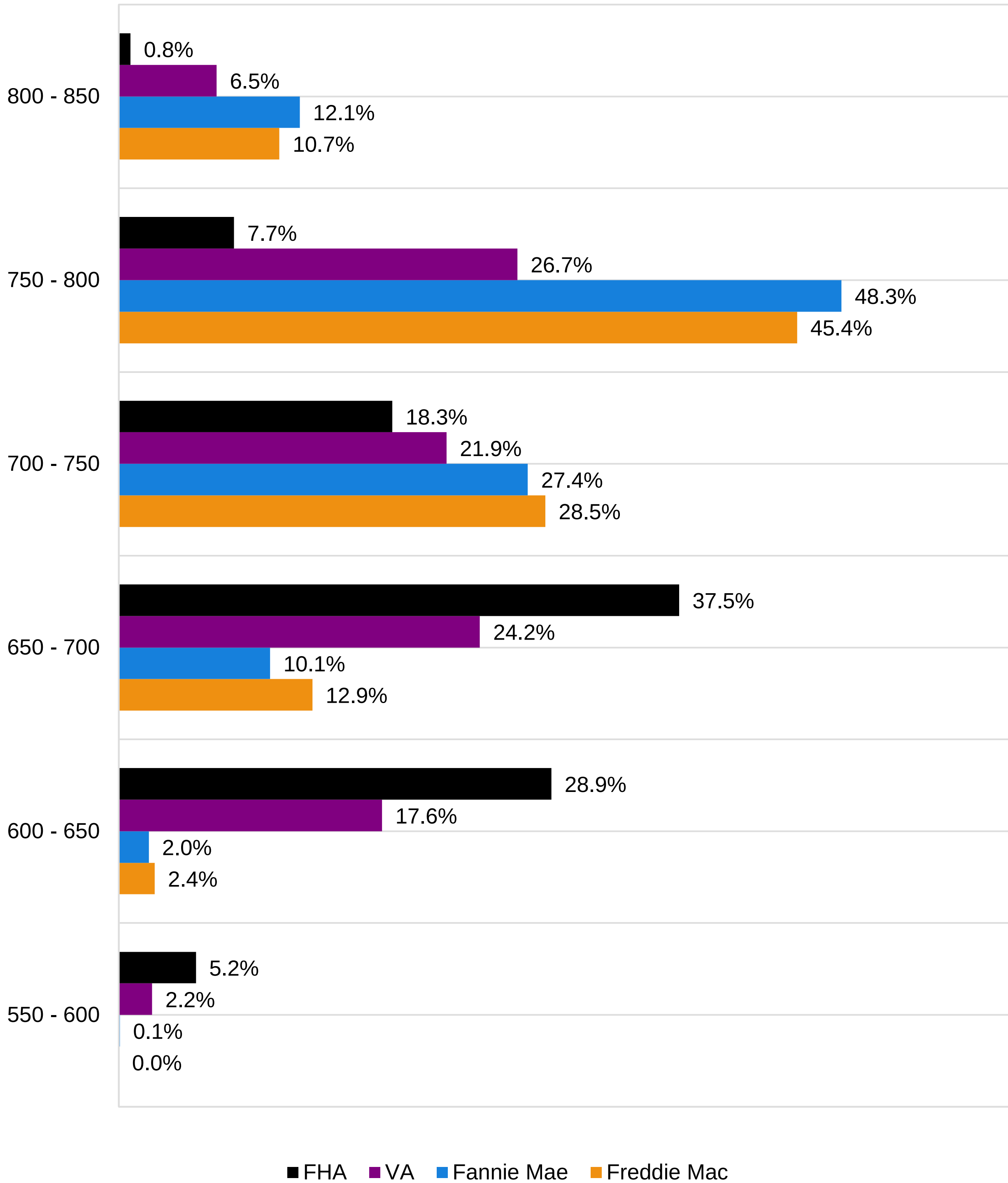
### 11.1 Credit Scores

**Table 17. Share of Loans by FICO Score**

| *Purchase FICO* | | | | | | | |
|---|---|---|---|---|---|---|---|
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 261,038 | 652 | 695 | 746 | 781 | 799 | 735 |
| *Fannie* | 84,272 | 700 | 733 | 766 | 790 | 803 | 758 |
| *Freddie* | 86,370 | 693 | 726 | 762 | 788 | 802 | 754 |
| *Ginnie* | 90,396 | 627 | 651 | 688 | 738 | 779 | 695 |
| ***Refi FICO*** | | | | | | | |
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 57,418 | 627 | 661 | 708 | 759 | 791 | 707 |
| *Fannie* | 19,823 | 671 | 706 | 747 | 781 | 800 | 741 |
| *Freddie* | 15,446 | 661 | 691 | 732 | 771 | 795 | 730 |
| *Ginnie* | 22,149 | 598 | 628 | 659 | 693 | 734 | 662 |
| ***All FICO*** | | | | | | | |
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 318,456 | 646 | 687 | 740 | 779 | 798 | 730 |
| *Fannie* | 104,095 | 693 | 728 | 763 | 789 | 802 | 755 |
| *Freddie* | 101,816 | 686 | 721 | 759 | 787 | 801 | 750 |
| *Ginnie* | 112,545 | 622 | 647 | 681 | 730 | 774 | 689 |
| ***Purchase FICO: Ginnie Mae Breakdown By Source*** | | | | | | | |
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 90,396 | 627 | 651 | 688 | 738 | 779 | 695 |
| *FHA* | 57,453 | 623 | 646 | 676 | 714 | 753 | 681 |
| *VA* | 29,390 | 636 | 672 | 729 | 776 | 798 | 722 |
| *Other* | 3,553 | 635 | 658 | 695 | 733 | 762 | 697 |
| ***Refi FICO: Ginnie Mae Breakdown By Source*** | | | | | | | |
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 22,149 | 598 | 628 | 659 | 693 | 734 | 662 |
| *FHA* | 15,193 | 594 | 625 | 652 | 684 | 717 | 654 |
| *VA* | 6,948 | 609 | 639 | 675 | 718 | 760 | 679 |
| *Other* | 8 | 606 | 639 | 658 | 681 | 742 | 668 |
| ***All FICO: Ginnie Mae Breakdown By Source*** | | | | | | | |
| ***Names*** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 112,545 | 622 | 647 | 681 | 730 | 774 | 689 |
| *FHA* | 72,646 | 617 | 641 | 671 | 708 | 747 | 676 |
| *VA* | 36,338 | 630 | 663 | 716 | 769 | 796 | 714 |
| *Other* | 3,561 | 635 | 658 | 695 | 733 | 762 | 697 |

*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files. Note: All averages are rounded to the nearest whole number.*

**Figure 40. FICO Distributions by Agency**




*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.*

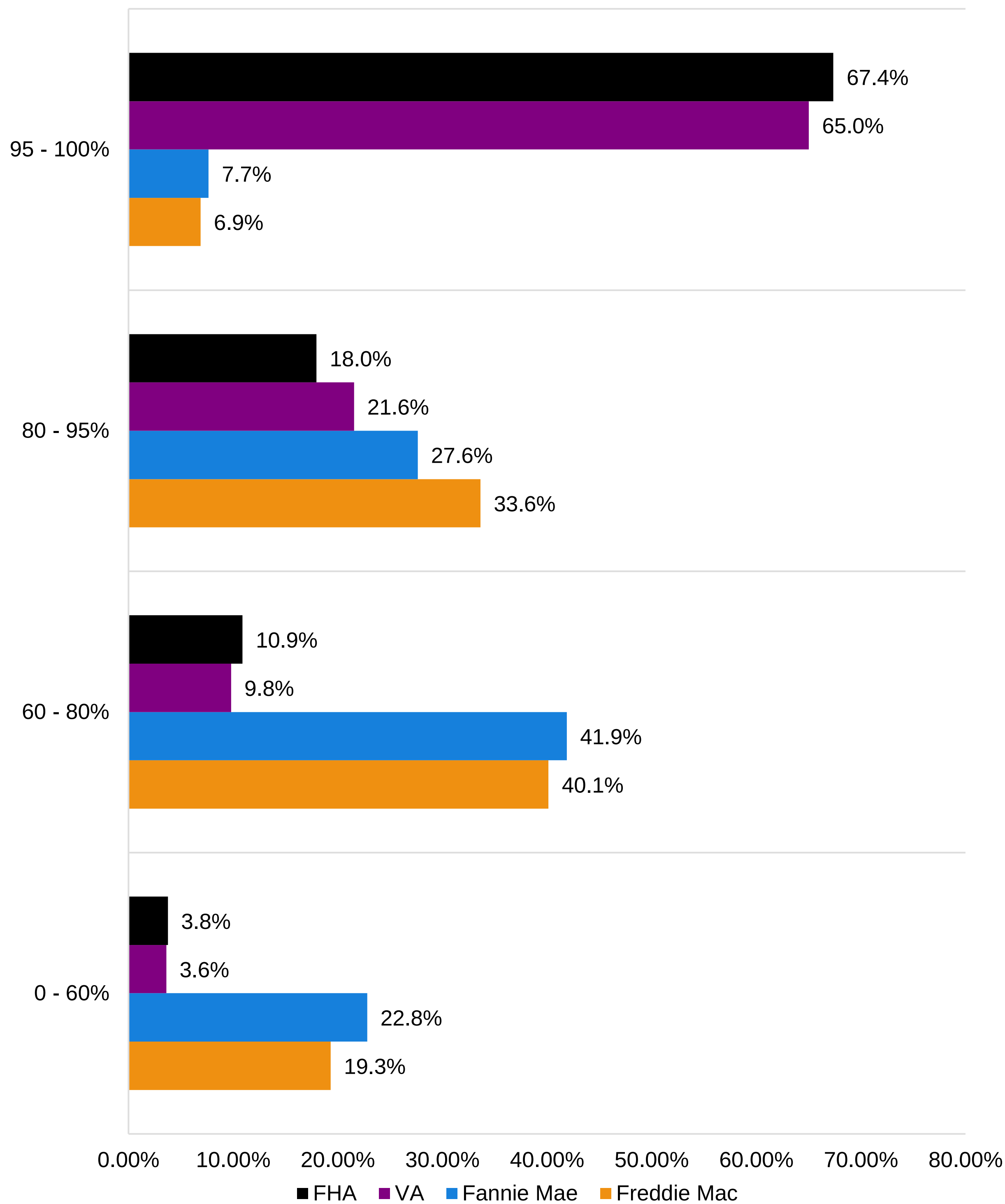
## 11.2 Loan-to-Value (LTV)

**Table 18. Share of Loans by LTV**

| Purchase LTV | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 261,315 | 63 | 80 | 92 | 98 | 99 | 85 |
| *Fannie* | 84,365 | 55 | 75 | 80 | 95 | 95 | 79 |
| *Freddie* | 86,405 | 56 | 75 | 80 | 95 | 95 | 80 |
| *Ginnie* | 90,545 | 91 | 98 | 98 | 100 | 100 | 96 |
| **Refi LTV** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 57,123 | 33 | 50 | 67 | 80 | 83 | 63 |
| *Fannie* | 19,827 | 28 | 42 | 58 | 70 | 78 | 55 |
| *Freddie* | 15,446 | 29 | 43 | 59 | 70 | 79 | 56 |
| *Ginnie* | 21,850 | 55 | 69 | 80 | 81 | 90 | 76 |
| **All LTV** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 318,438 | 53 | 75 | 86 | 97 | 98 | 81 |
| *Fannie* | 104,192 | 45 | 64 | 80 | 90 | 95 | 74 |
| *Freddie* | 101,851 | 48 | 69 | 80 | 94 | 95 | 77 |
| *Ginnie* | 112,395 | 76 | 90 | 98 | 99 | 100 | 92 |
| **Purchase LTV: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 90,545 | 91 | 98 | 98 | 100 | 100 | 96 |
| *FHA* | 57,532 | 92 | 97 | 98 | 98 | 98 | 96 |
| *VA* | 29,445 | 85 | 100 | 100 | 100 | 102 | 96 |
| *Other* | 3,568 | 93 | 99 | 101 | 101 | 101 | 98 |
| **Refi LTV: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 21,850 | 55 | 69 | 80 | 81 | 90 | 76 |
| *FHA* | 15,297 | 52 | 66 | 77 | 81 | 81 | 72 |
| *VA* | 6,545 | 63 | 77 | 89 | 92 | 100 | 84 |
| *Other* | 8 | 52 | 58 | 82 | 92 | 100 | 77 |
| **All LTV: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| *All* | 112,395 | 76 | 90 | 98 | 99 | 100 | 92 |
| *FHA* | 72,829 | 75 | 86 | 98 | 98 | 98 | 91 |
| *VA* | 35,990 | 79 | 90 | 100 | 100 | 102 | 94 |
| *Other* | 3,576 | 93 | 99 | 101 | 101 | 101 | 98 |

*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files. Note: All averages are rounded to the nearest whole number.*

**Figure 41. Loan-to Value by Agency**




*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.*

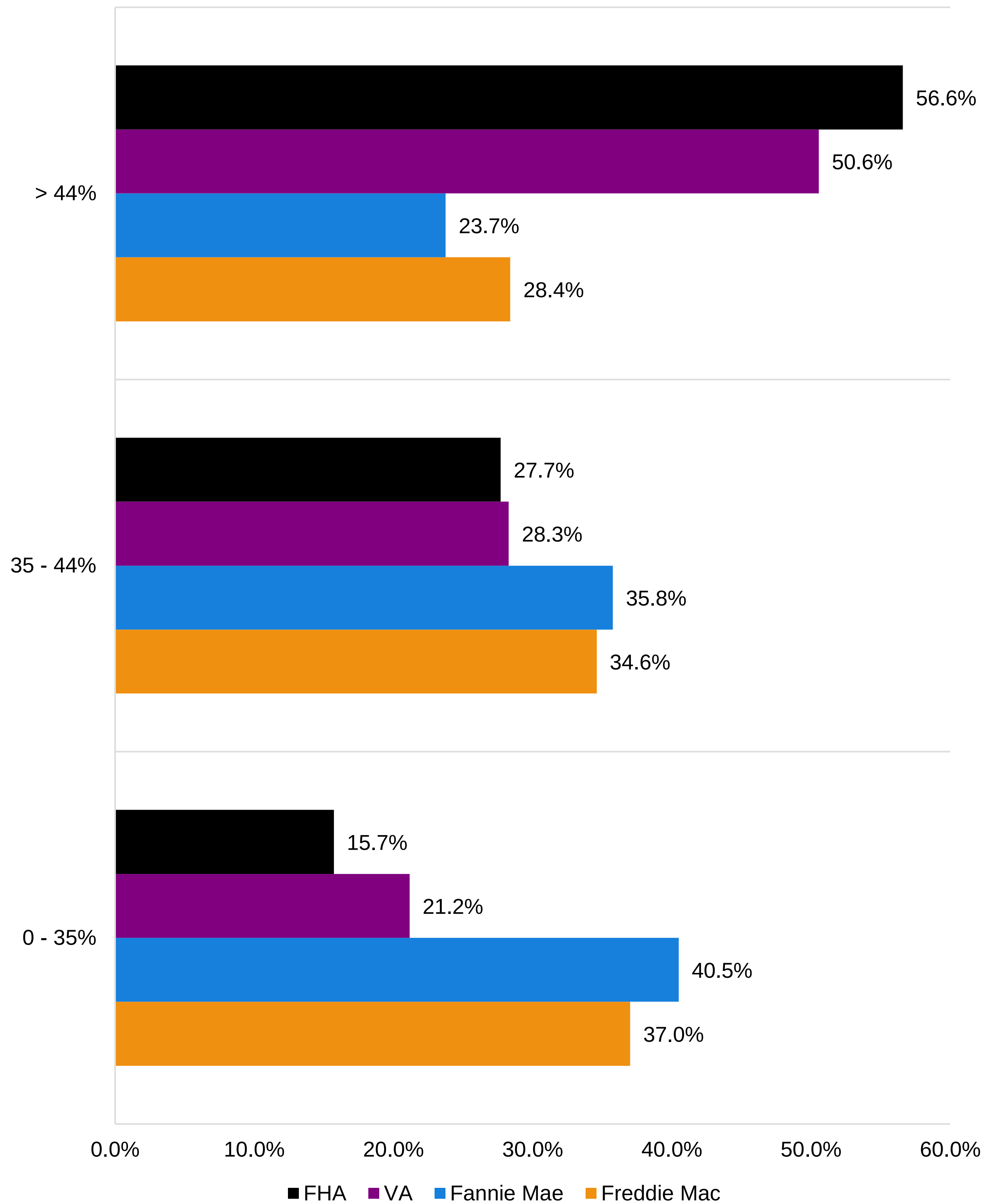
## 11.3 Debt-to-Income (DTI)

**Table 19. Share of Loans by DTI**

| Purchase DTI | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 260,924 | 26 | 33 | 41 | 47 | 50 | 40 |
| Fannie | 84,365 | 24 | 31 | 38 | 45 | 48 | 37 |
| Freddie | 86,405 | 24 | 31 | 39 | 45 | 49 | 38 |
| Ginnie | 90,154 | 31 | 38 | 45 | 51 | 55 | 44 |
| **Refi DTI** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 56,773 | 25 | 32 | 40 | 46 | 50 | 39 |
| Fannie | 19,827 | 22 | 29 | 37 | 43 | 47 | 36 |
| Freddie | 15,446 | 24 | 32 | 40 | 46 | 49 | 38 |
| Ginnie | 21,500 | 29 | 36 | 43 | 50 | 55 | 42 |
| **All DTI** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 317,697 | 26 | 33 | 41 | 47 | 50 | 39 |
| Fannie | 104,192 | 23 | 30 | 38 | 44 | 48 | 37 |
| Freddie | 101,851 | 24 | 31 | 39 | 45 | 49 | 38 |
| Ginnie | 111,654 | 31 | 38 | 45 | 51 | 55 | 44 |
| **Purchase DTI: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 90,154 | 31 | 38 | 45 | 51 | 55 | 44 |
| FHA | 57,508 | 33 | 40 | 46 | 52 | 55 | 45 |
| VA | 29,080 | 30 | 37 | 44 | 51 | 56 | 44 |
| Other | 3,566 | 27 | 31 | 36 | 40 | 42 | 35 |
| **Refi DTI: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 21,500 | 29 | 36 | 43 | 50 | 55 | 42 |
| FHA | 15,150 | 29 | 36 | 44 | 50 | 55 | 43 |
| VA | 6,342 | 28 | 35 | 43 | 49 | 54 | 42 |
| Other | 8 | 28 | 30 | 33 | 36 | 41 | 33 |
| **All DTI: Ginnie Mae Breakdown By Source** | | | | | | | |
| **Names** | **Number of Loans** | **P10** | **P25** | **Median** | **P75** | **P90** | **Mean** |
| All | 111,654 | 31 | 38 | 45 | 51 | 55 | 44 |
| FHA | 72,658 | 32 | 39 | 46 | 51 | 55 | 44 |
| VA | 35,422 | 30 | 36 | 44 | 51 | 56 | 43 |
| Other | 3,574 | 27 | 31 | 36 | 40 | 42 | 35 |

*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files. Note: All averages are rounded to the nearest whole number.*

**Figure 42. Debt-to Income by Agency**




*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.*

## 11.4 High LTV Loans: Ginnie Mae vs. GSEs

Comparing the three-month range of April 2022 – June 2022 to the three-month range of April 2023 – June 2023, the share of high-LTV agency loans are going to borrowers with:

- FICO scores above 750 decreased by approximately 4.0%.
- DTIs below 35% decreased by approximately 19.1%.

YoY, the share of high-LTV loans increased in the Ginnie Mae guarantee book by approximately 12% and in the GSE portfolios by approximately 30%. Still, Ginnie Mae maintains its key role of expanding credit access to low-to-moderate income borrowers as it continues to dominate high-LTV lending, with 71.15% of its issuances between April 2023 – June 2023 having LTVs of 95 or above, compared to 23.66% for the GSEs.

**Table 20. Share of Loans with LTV > 95**

| | *Ginnie Mae* | *GSE* | *All* |
|---|---|---|---|
| Apr 2022 - Jun 2022 | 63.56% | 18.14% | 31.91% |
| Apr 2023 - Jun 2023 | 71.15% | 23.66% | 41.15% |

**Table 21. Agency Market Share by DTI and FICO for Loans with LTV > 95 (April 2022-June 2022)**

| | FICO | | | | | |
|---|---|---|---|---|---|---|
| *DTI* | <650 | 650-700 | 700-750 | ≥750 | NA | All |
| ***<35*** | 2.35% | 4.03% | 5.50% | 9.09% | 0.06% | 21.03% |
| ***35-45*** | 5.60% | 8.84% | 10.07% | 11.30% | 0.05% | 35.86% |
| ***≥45*** | 6.74% | 11.01% | 9.43% | 12.37% | 0.05% | 39.60% |
| ***NA*** | 0.72% | 0.48% | 0.29% | 0.25% | 1.77% | 3.51% |
| ***All*** | 15.41% | 24.36% | 25.30% | 33.00% | 1.93% | 100.00% |

**Table 22. Agency Market Share by DTI and FICO for Loans with LTV > 95 (April 2023-June 2023)**

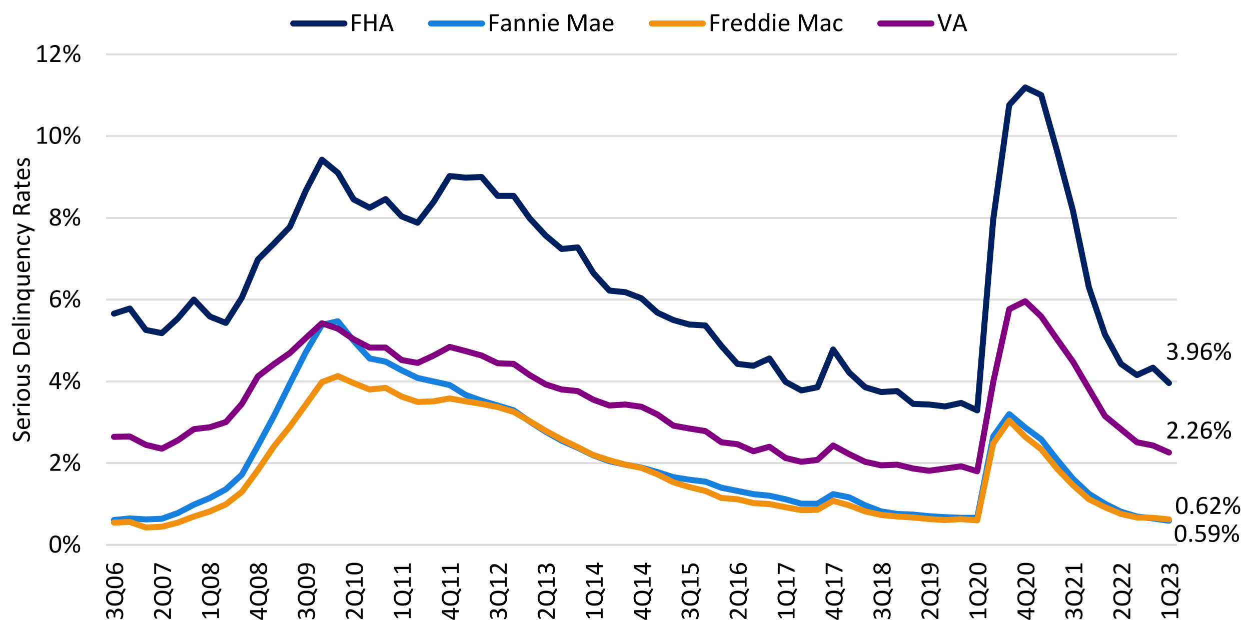
| | *FICO* | | | | | |
|---|---|---|---|---|---|---|
| *DTI* | <650 | 650-700 | 700-750 | ≥750 | NA | All |
| ***<35*** | 1.93% | 3.07% | 4.46% | 7.49% | 0.05% | 17.00% |
| ***35-45*** | 5.57% | 8.27% | 10.14% | 12.24% | 0.05% | 36.27% |
| ***≥45*** | 7.86% | 13.01% | 12.73% | 11.80% | 0.10% | 45.49% |
| ***NA*** | 0.26% | 0.19% | 0.11% | 0.17% | 0.50% | 1.23% |
| ***All*** | **15.63%** | **24.54%** | **27.45%** | **31.69%** | **0.69%** | **100.00%** |

*Sources: Recursion and Ginnie Mae. Data as of June 2023.*

## 11.5 Serious Delinquency Rates

Serious delinquency rates for single-family GSE, VA, and FHA loans all fell in Q1 2023. From Q4 2022 to Q1 2023, Fannie and Freddie serious delinquencies decreased by 6 and 4 bps, respectively. Ginnie Mae collateral's serious delinquency rates decreased more than the GSE rate, with VA decreasing 17 bps and FHA decreasing 37 bps. This overall decline in serious delinquency rates is consistent with the decrease in the number of loans in forbearance captured in Section 12 below.

**Figure 43. Serious Delinquency Rates: Single-Family Loans**




*Sources:*

1. *Fannie Mae and Freddie Mac Monthly Summary Reports*
2. *MBA Delinquency Survey*

*Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Data as of Q1 2023.*

## 11.6 Credit Box

The first-time homebuyer share for agency purchase loans was 55.0% as of month-end June 2023, an increase from 54.7% in May 2023 and up from 53.0% in June 2022. Ginnie Mae and Fannie Mae's first-time homebuyer shares, 68.6% and 48.3% respectively, as of month-end June 2023, have remained relatively flat YoY. Freddie Mac's first-time homebuyer share increased 9.5% YoY. **Table 23** shows that based on mortgages originated as of month-end June 2023, the average GSE first-time homebuyer was more likely to have a higher credit score and lower LTV. Ginnie Mae's first-time homebuyers were more likely to have lower loan amounts, credit scores, and DTI while loan rates were very similar.

**Figure 44. First-Time Homebuyer Share: Purchase Only Loans**

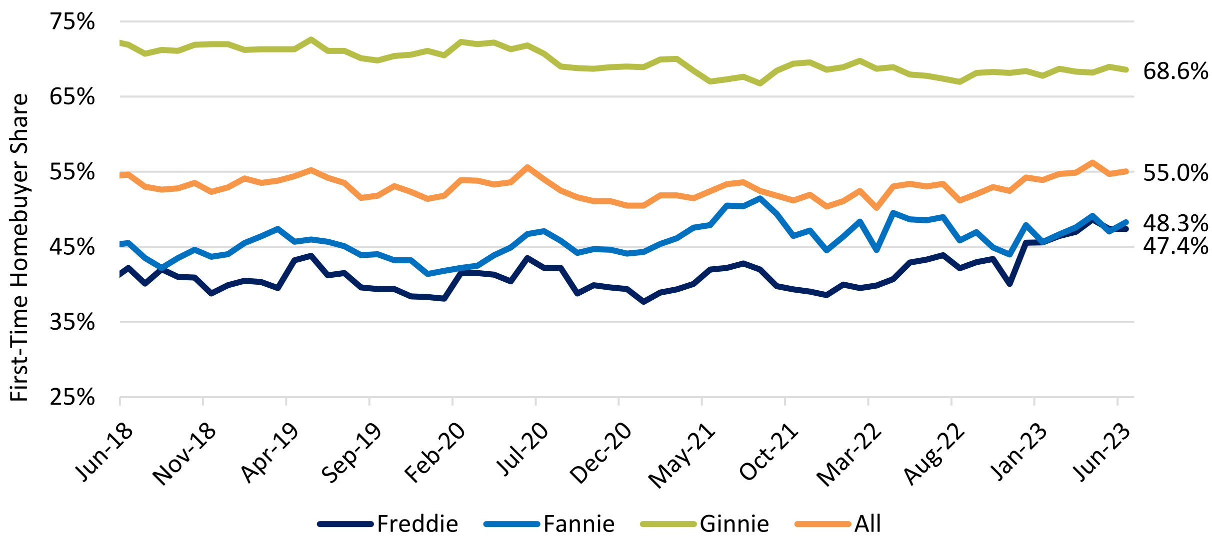



**Table 23. Agency First-Time Homebuyer Share Summary**

| | Fannie Mae | | Freddie Mac | | Ginnie Mae | | All | |
|---|---|---|---|---|---|---|---|---|
| | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat |
| *Loan Amount $* | 336,952 | 344,664 | 325,224 | 343,608 | 305,621 | 362,925 | 320,082 | 348,679 |
| *Credit Score* | 752 | 764 | 747 | 760 | 689 | 708 | 724 | 749 |
| *LTV (%)* | 85 | 74 | 85 | 75 | 97 | 94 | 90 | 79 |
| *DTI (%)* | 37 | 37 | 37 | 38 | 44 | 45 | 40 | 39 |
| *Loan Rate (%)* | 6.3 | 6.4 | 6.4 | 6.4 | 6.2 | 6.0 | 6.3 | 6.3 |

*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of June 2023*

In the Ginnie Mae purchase market, 76.3% of FHA loans, 51.5% of VA loans, and 84.2% of other loans provided financing for first-time home buyers as of month-end June 2023. VA, FHA, and other loans all slightly decreased MoM. **Table 24** shows that based on mortgages originated as of month-end June 2023; the credit profile of the average VA first-time homebuyer differed from the average VA repeat buyer. The average VA first-time homebuyer took out 16.4% smaller loans, had a 23.7-point lower credit score, 4.5% higher LTVs and had an 18 bp higher interest rate. FHA's first-time homebuyers are much more like their repeat buyers, with only 5.9% smaller loans, 5 bps higher in interest rate, and 2.2% higher LTVs. Because FHA provides one of few credit options for borrowers with lower credit scores, repeat borrowers with weaker credit profiles are often limited to FHA financing; FHA's repeat buyers continue to have lower credit scores than their first-time home buyers. For VA and conventional borrowers alike, repeat buyers tend to have higher credit scores than first-time homebuyers.

**Figure 45. First-time Homebuyer Share: Ginnie Mae Breakdown**

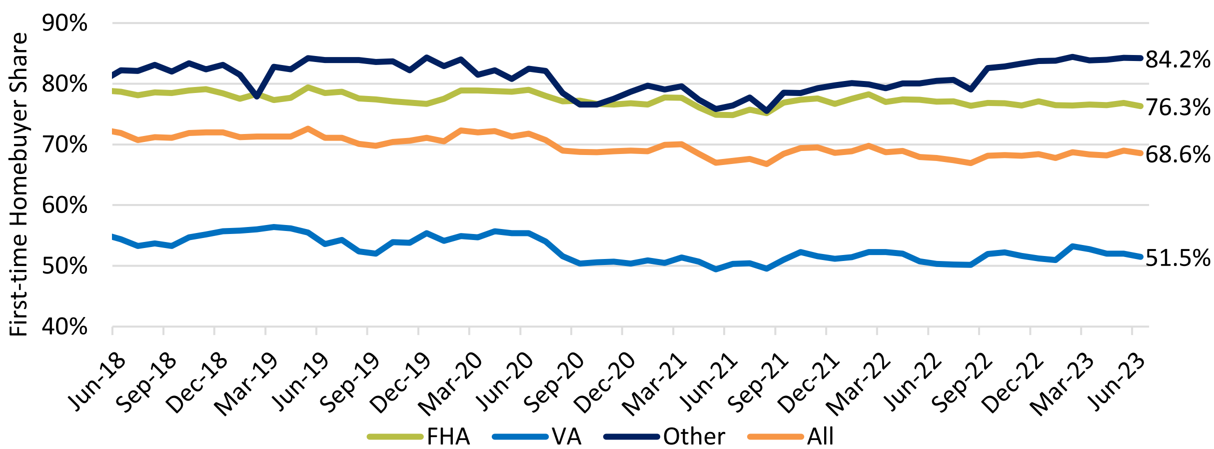



**Table 24. Ginnie Mae First-Time Homebuyer Share Breakdown Summary**

| | FHA | | VA | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|
| | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat |
| *Loan Amount $* | 300,840 | 319,817 | 343,448 | 410,820 | 184,600 | 191,486 | 305,621 | 362,925 |
| *Credit Score* | 682 | 681 | 711 | 734 | 697 | 697 | 689 | 708 |
| *LTV (%)* | 97 | 95 | 99 | 94 | 98 | 98 | 97 | 94 |
| *DTI (%)* | 45 | 46 | 43 | 44 | 35 | 35 | 44 | 45 |
| *Loan Rate (%)* | 6.2 | 6.1 | 6.1 | 6.0 | 6.3 | 6.2 | 6.2 | 6.0 |

*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of June 2023*

## 11.7 Credit Box: Historical

The median FICO score for all agency loans originated as of month-end June 2023 was 737, which represents a 7-point increase YoY from June 2022. Ginnie Mae median FICO scores increased 7 points between June 2022 and June 2023 to 677. As of month-end June 2023, average FICO scores for refinances increased for Fannie Mae and Freddie Mac borrowers by 10 and 6 points YoY, respectively.

**Figure 46. FICO Scores for All Loans**

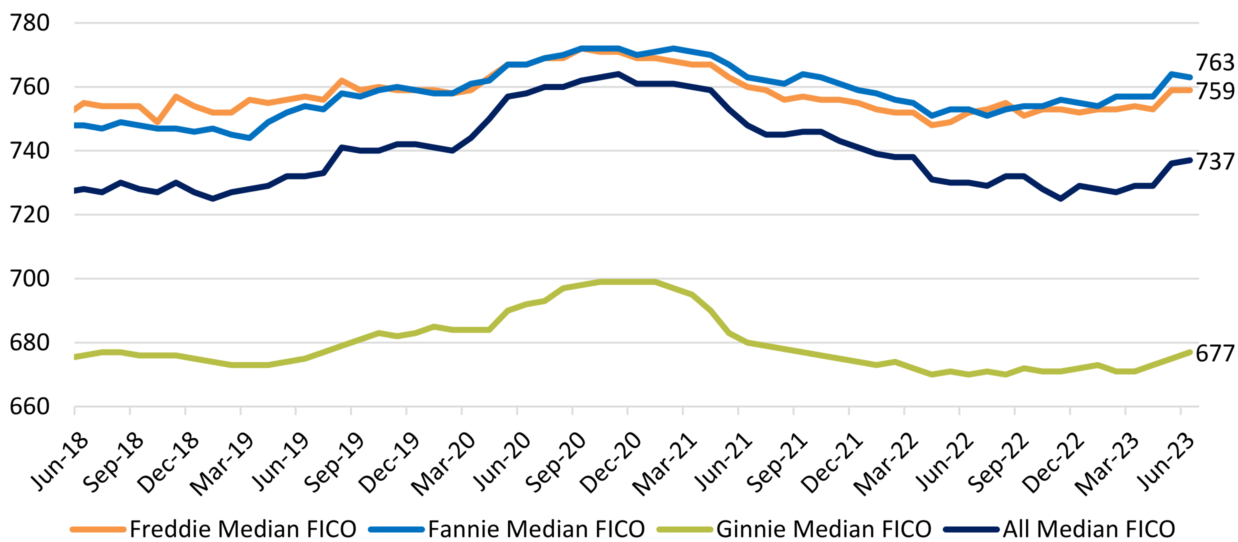



**Figure 47. FICO Scores for Purchase Loans**

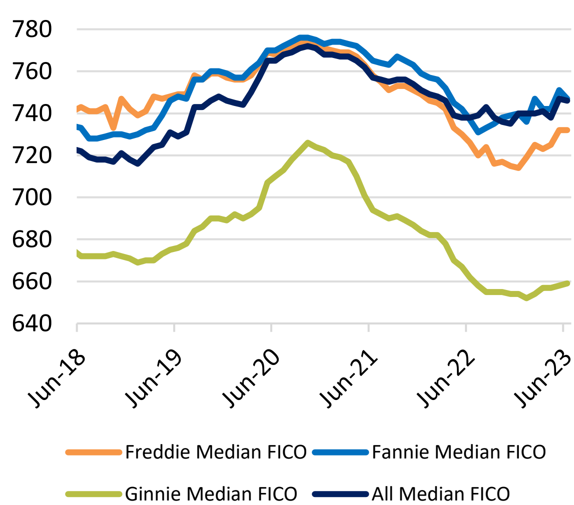
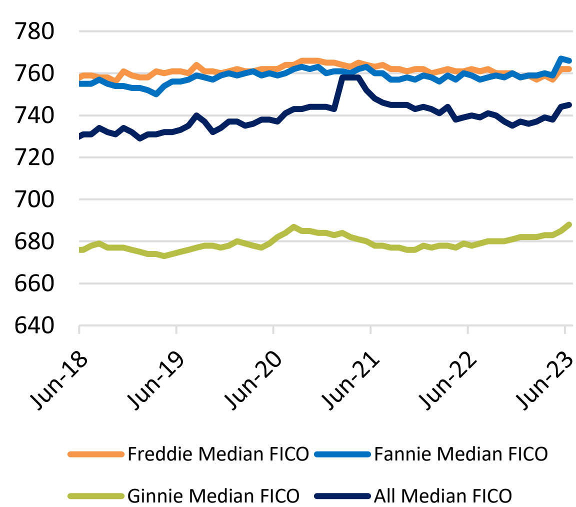



**Figure 48. FICO Scores for Refinance Loans**




*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files*

In June 2023, the median LTV for Ginnie Mae loans was 98.2% compared to 80% for Fannie Mae and Freddie Mac, owing primarily to the lower down-payment requirements for government loan programs. Freddie Mac saw an increase in median LTV YoY from 79.0% in June 2022 whereas Ginnie Mae and Fannie Mae LTVs remained flat from 98.2% and 80.0% over the same period. In June 2023, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 44.8%, 39.0%, and 38.0% respectively. In June 2022, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 43.7%, 38.0%, and 38.0% respectively.

**Figure 49. LTV Ratio for All Loans**

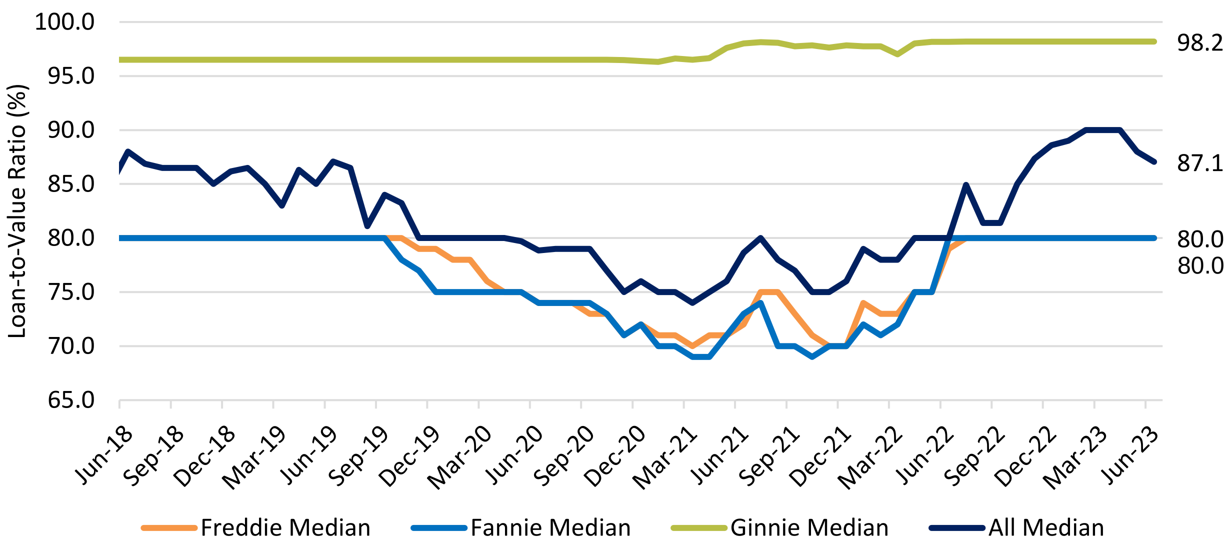
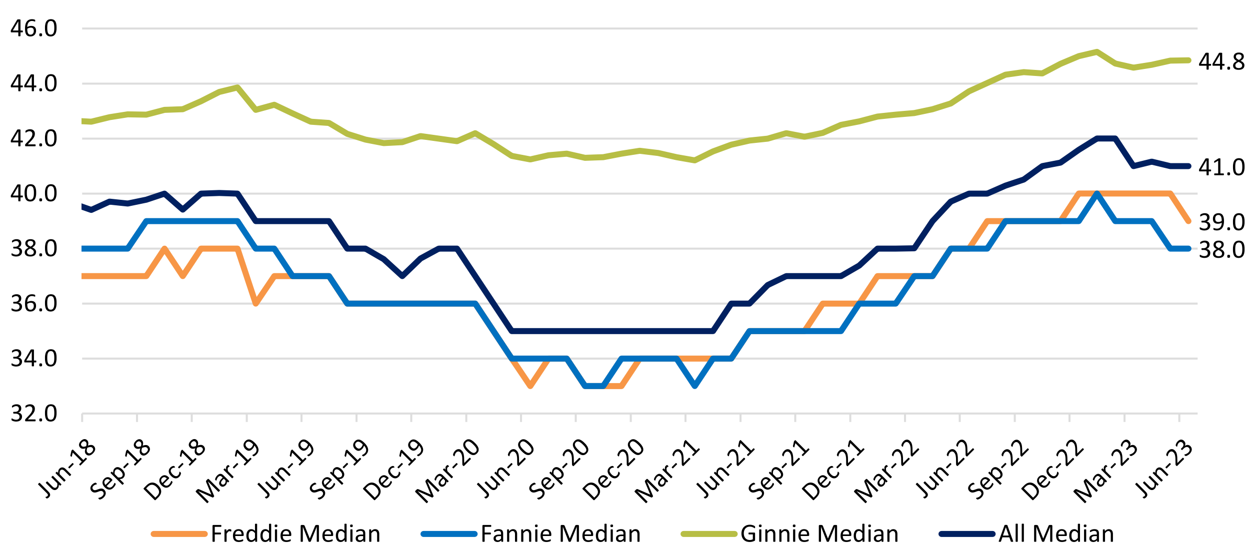



**Figure 50. DTI Ratio for All Loans**




*Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.*

## 12 FORBEARANCE TRENDS

At the end of June 2023, 85,769 Ginnie Mae loans were in forbearance. The number of loans in forbearance removed from MBS pools in June was 563 while 85,206 loans in forbearance remain in pools. The number of loans in forbearance and loans that remained in pools decreased MoM while loans in forbearance that were removed from pools increased. The median current principal balance for Ginnie Mae, FHA, and VA was higher for loans in forbearance originated by nonbanks than banks in all subsets.

**Table 25. Forbearance Snapshot**

| | FICO Score* | Note Rate* | Current Principal Balance Median | First Time Homebuyer Share (%) | Purchase Share (%) | Loan Count |
|---|---|---|---|---|---|---|
| ***All Loans in Forbearance – June 2023*** | | | | | | |
| ***Ginnie*** | 656 | 3.7 | $208,973 | 73.7 | 75.8 | 85,769 |
| ***Bank*** | 672 | 3.9 | $145,131 | 83.0 | 87.8 | 10,227 |
| ***Nonbank*** | 654 | 3.7 | $218,106 | 72.8 | 74.9 | 75,523 |
| ***FHA*** | 652 | 3.8 | $203,796 | 77.4 | 78.7 | 64,433 |
| ***Bank*** | 671 | 4.0 | $142,683 | 86.3 | 90.5 | 8,651 |
| ***Nonbank*** | 650 | 3.8 | $213,535 | 76.5 | 77.6 | 55,769 |
| ***VA*** | 666 | 3.6 | $268,122 | 58.0 | 63.9 | 15,796 |
| ***Bank*** | 676 | 3.6 | $190,387 | 57.7 | 70.0 | 1,083 |
| ***Nonbank*** | 665 | 3.6 | $273,211 | 58.0 | 63.7 | 14,710 |
| ***Loans in Forbearance and Removed from Pools – June 2023*** | | | | | | |
| | **FICO Score*** | **Note Rate*** | **Current Principal Balance Median** | **First Time Homebuyer Share (%)** | **Purchase Share (%)** | **Loan Count** |
| ***Ginnie*** | 661 | 3.6 | $182,176 | 64.9 | 66.9 | 563 |
| ***Bank*** | 679 | 4.2 | $99,874 | 66.3 | 82.6 | 90 |
| ***Nonbank*** | 659 | 3.6 | $201,680 | 64.7 | 65.5 | 473 |
| ***FHA*** | 653 | 3.8 | $175,732 | 65.2 | 75.2 | 389 |
| ***Bank*** | 681 | 4.2 | $93,108 | 66.8 | 78.9 | 72 |
| ***Nonbank*** | 650 | 3.8 | $195,487 | 65.0 | 74.9 | 317 |
| ***VA*** | 678 | 3.2 | $232,901 | 60.9 | 46.8 | 137 |
| ***Bank*** | 692 | 4.3 | $215,688 | 66.4 | 87.9 | 9 |
| ***Nonbank*** | 677 | 3.2 | $235,150 | 60.4 | 44.7 | 128 |
| ***Loans in Forbearance that Remain in Pools – June 2023*** | | | | | | |
| | **FICO Score*** | **Note Rate*** | **Current Principal Balance Median** | **First Time Homebuyer Share (%)** | **Purchase Share (%)** | **Loan Count** |
| ***Ginnie*** | 656 | 3.7 | $209,160 | 73.7 | 75.9 | 85,206 |
| ***Bank*** | 672 | 3.9 | $145,675 | 83.1 | 87.8 | 10,137 |
| ***Nonbank*** | 654 | 3.7 | $218,211 | 72.9 | 74.9 | 75,050 |
| ***FHA*** | 652 | 3.8 | $203,978 | 77.5 | 78.7 | 64,044 |
| ***Bank*** | 671 | 4.0 | $143,255 | 86.4 | 90.5 | 8,579 |
| ***Nonbank*** | 650 | 3.8 | $213,596 | 76.5 | 77.6 | 55,452 |
| ***VA*** | 666 | 3.6 | $268,293 | 58.0 | 64.1 | 15,659 |
| ***Bank*** | 676 | 3.6 | $190,313 | 57.6 | 69.9 | 1,074 |
| ***Nonbank*** | 665 | 3.6 | $273,531 | 58.0 | 63.8 | 14,582 |

*Sources: Ginnie Mae loan level MBS disclosure and forbearance file and Ginnie Mae Issuer Operational Performance Profile (IOPP) -Peer Group Listings. Notes: Data as of June 2023; *Averages weighted by remaining principal balance of the loans.*

# 13 HOLDERS OF GINNIE MAE MORTGAGE SERVICING RIGHTS

The 30 largest owners of mortgage servicing rights (MSR) by UPB for loans collateralizing Ginnie Mae MBS is shown in **Table 26.** The top 30 firms collectively own 87.22% of Ginnie Mae MSRs (see Cumulative Share). Twenty-three of these top 30 are non-depository institutions, the remaining seven are depository institutions. As of June 2023, over half (54.02%) of the Ginnie Mae MSRs are owned by the top six firms.

**Table 26. Top 30 Holders of Ginnie Mae Mortgage Servicing Rights (MSRs), by UPB**

| *MSR Holder* | *Rank* | | | *UPB* | | *Cumulative Share* | | |
|---|---|---|---|---|---|---|---|---|
| | *Current* | *Year prior* | *Change* | *($ millions)* | *Share* | | *CPR* | *CDR* |
| *LAKEVIEW LOAN SERVIC* | 1 | 3 | ↑ | $300,867,769,097 | 13.59% | 13.59% | 8.26% | 1.10% |
| *DBA FREEDOM HOME MOR* | 2 | 1 | ↓ | $277,030,908,764 | 12.51% | 26.10% | 8.77% | 0.77% |
| *PENNYMAC LOAN SERVIC* | 3 | 2 | ↓ | $259,614,627,373 | 11.73% | 37.83% | 8.55% | 0.89% |
| *NATIONSTAR MORTGAGE,* | 4 | 6 | ↑ | $127,351,318,567 | 5.75% | 43.58% | 9.38% | 1.29% |
| *NEWREZ LLC* | 5 | 8 | ↑ | $123,175,264,986 | 5.56% | 49.14% | 7.34% | 0.71% |
| *WELLS FARGO BANK, NA* | 6 | 4 | ↓ | $108,031,938,732 | 4.88% | 54.02% | 7.84% | 0.26% |
| *ROCKET MORTGAGE, LLC* | 7 | 5 | ↓ | $107,198,035,758 | 4.84% | 58.86% | 9.36% | 0.49% |
| *CARRINGTON MORTGAGE* | 8 | 7 | ↓ | $95,752,284,614 | 4.32% | 63.18% | 8.74% | 0.82% |
| *U. S. BANK, NA* | 9 | 10 | ↑ | $53,725,417,633 | 2.43% | 65.61% | 6.61% | 0.83% |
| *PLANET HOME LENDING,* | 10 | 14 | ↑ | $50,702,353,717 | 2.29% | 67.90% | 6.61% | 0.29% |
| *UNITED WHOLESALE MOR* | 11 | 11 | ↔ | $46,050,873,955 | 2.08% | 69.98% | 4.75% | 0.02% |
| *AMERIHOME MORTGAGE C* | 12 | 17 | ↑ | $38,303,666,385 | 1.73% | 71.71% | 5.68% | 0.46% |
| *LOANDEPOT.COM,LLC* | 13 | 13 | ↔ | $38,242,322,681 | 1.73% | 73.44% | 7.91% | 0.36% |
| *NAVY FEDERAL CREDIT* | 14 | 16 | ↑ | $29,170,681,279 | 1.32% | 74.76% | 8.70% | 0.24% |
| *MORTGAGE RESEARCH CE* | 15 | 12 | ↓ | $26,767,994,681 | 1.21% | 75.96% | 9.32% | 0.50% |
| *GUILD MORTGAGE COMPA* | 16 | 19 | ↑ | $23,120,643,567 | 1.04% | 77.01% | 7.50% | 0.24% |
| *THE MONEY SOURCE INC* | 17 | 18 | ↑ | $21,672,862,600 | 0.98% | 77.99% | 8.47% | 0.69% |
| *TRUIST BANK* | 18 | 20 | ↑ | $20,089,300,165 | 0.91% | 78.89% | 8.93% | 0.79% |
| *CROSSCOUNTRY MORTGAG* | 19 | 21 | ↑ | $19,716,277,834 | 0.89% | 79.79% | 6.80% | 0.48% |
| *VILLAGE CAPITAL & IN* | 20 | 23 | ↑ | $18,904,360,137 | 0.85% | 80.64% | 8.93% | 0.67% |
| *NEW AMERICAN FUNDING* | 21 | 22 | ↑ | $18,809,963,196 | 0.85% | 81.49% | 7.75% | 0.65% |
| *MOVEMENT MORTGAGE, LL* | 22 | 28 | ↑ | $18,357,649,451 | 0.83% | 82.32% | 6.51% | 0.40% |
| *CMG MORTGAGE, INC.* | 23 | 27 | ↑ | $18,331,923,119 | 0.83% | 83.15% | 7.53% | 0.65% |
| *IDAHO HOUSING AND FI* | 24 | 25 | ↑ | $15,405,567,195 | 0.70% | 83.84% | 5.69% | 0.84% |
| *PHH MORTGAGE CORPORA* | 25 | NR | ↑ | $14,438,233,383 | 0.65% | 84.49% | 7.03% | 0.57% |
| *CITIZENS BANK N.A.* | 26 | 26 | ↔ | $13,909,546,026 | 0.63% | 85.12% | 7.41% | 0.23% |
| *FLAGSTAR BANK, N.A.* | 27 | NR | ↑ | $12,858,999,661 | 0.58% | 85.70% | 6.98% | 0.29% |
| *MIDFIRST BANK* | 28 | 29 | ↑ | $12,684,157,795 | 0.57% | 86.28% | 11.28% | 4.67% |
| *CARDINAL FINANCIAL C* | 29 | 30 | ↑ | $10,752,603,689 | 0.49% | 86.76% | 7.90% | 0.63% |
| *SUN WEST MORTGAGE CO* | 30 | NR | ↑ | $10,241,618,418 | 0.46% | 87.22% | 7.27% | 0.20% |

*Sources: Deloitte, Recursion. Notes: Data as of June 2023.*

## 14 AGENCY NONBANK ORIGINATORS

Total agency nonbank origination share decreased as of month-end June 2023 by approximately 1.3% MoM. The decrease in nonbank origination share was driven by a decrease in both Ginnie Mae and Freddie Mac nonbank origination share, down 1.6% and 3.2% MoM, respectively. The Ginnie Mae nonbank share fell to 89.3% as of June 2023 and has remained consistently higher than the GSEs, largely driven by origination share of refinance mortgage loans.

**Figure 51. Agency Nonbank Originator Share (All, Purchase, Refi)**

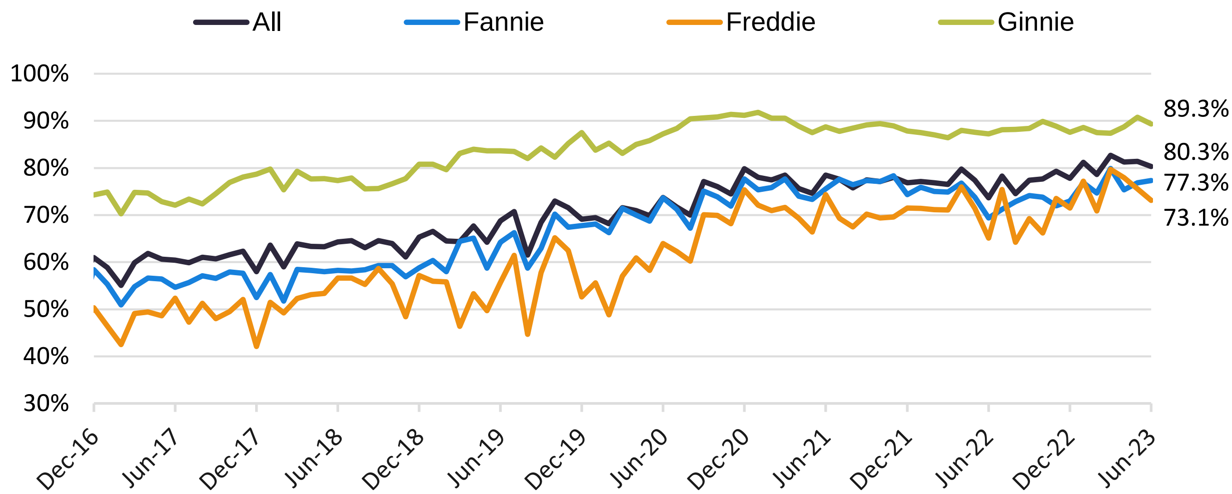



**Figure 52. Nonbank Origination Share: Purchase Loans**

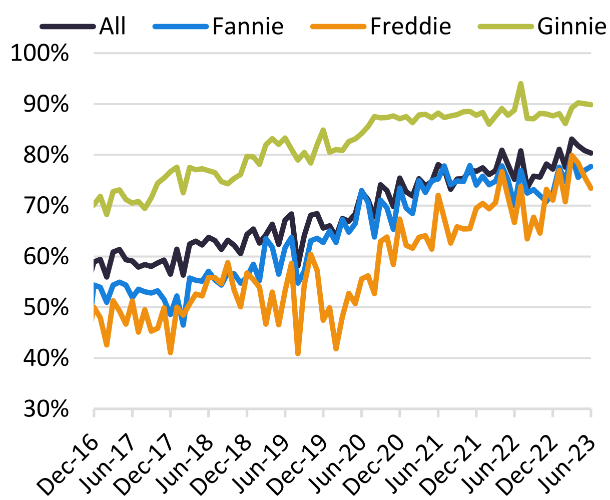
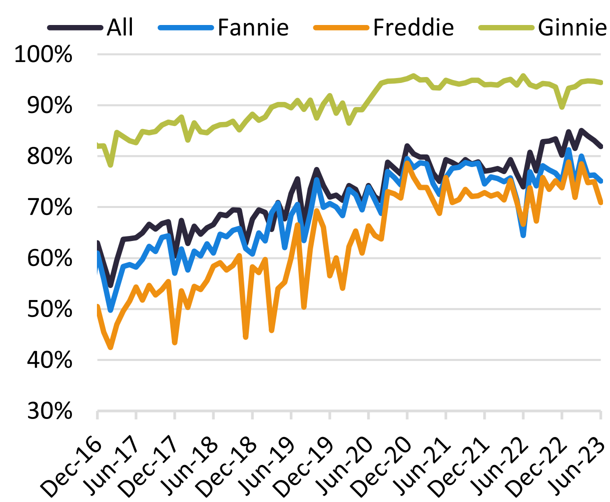



**Figure 53. Nonbank Origination Share: Refi Loans**




*Sources: Recursion. Notes: Data as of June 2023.*

Ginnie Mae's total nonbank originator share remained relatively stable as of month-end June 2023. Ginnie Mae continues to have a high proportion of nonbank originations, with a rate of 89.3% in June 2023. The percent of Ginnie Mae's Other nonbank refinanced loans increased to 91.2% in June 2023.

**Figure 54. Ginnie Mae Nonbank Originator Share (All, Purchase, Refi)**

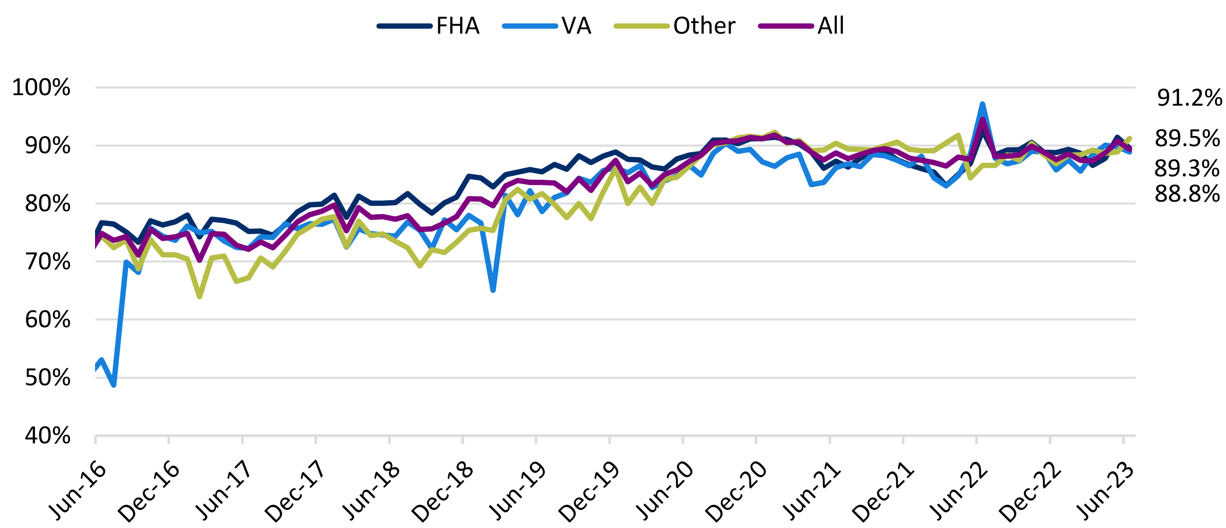



**Figure 55. Ginnie Mae Nonbank Share: Purchase Loans**

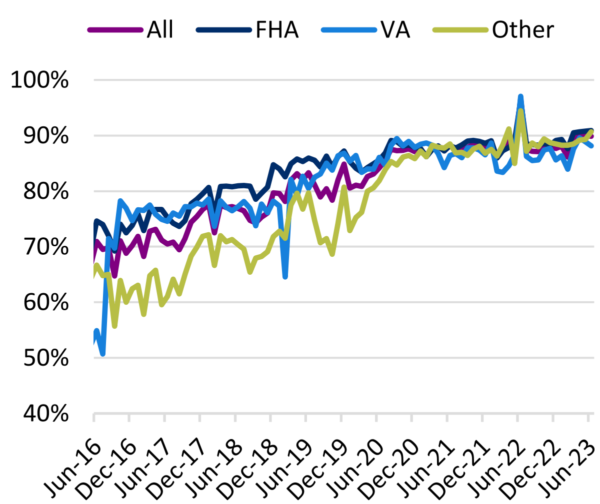
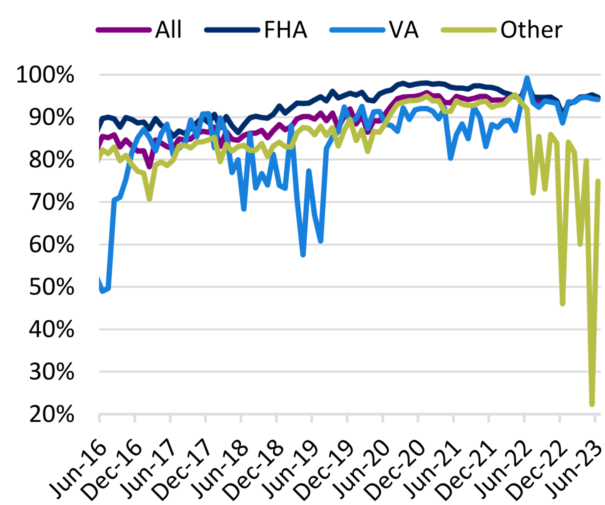



**Figure 56. Ginnie Mae Nonbank Share: Refi Loans**




*Sources: Recursion. Notes: Data as of June 2023.*

## 14.1 Bank vs. Nonbank Originators Historical Credit Box, Ginnie Mae vs. GSE

### 14.1.1 (FICO, LTV, DTI)

The mortgage loan originations of nonbanks continued to have a consistently lower median FICO score than their bank counterparts across all agencies. The spread between nonbank and bank FICO scores decreased by 3 points from May 2023 to June 2023. The agency median FICO increased by 2 points MoM to 738.

**Figure 57. Agency FICO: Bank vs. Nonbank**

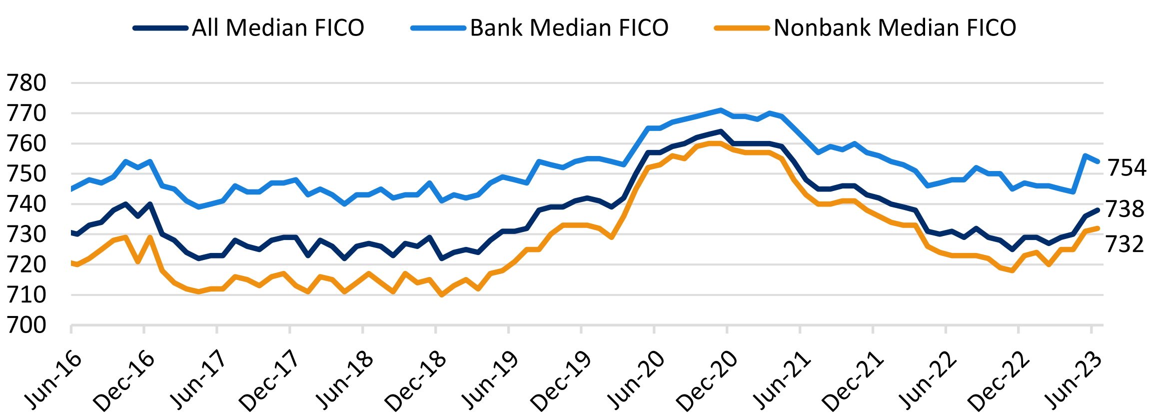



**Figure 58. GSE FICO: Bank vs. Nonbank**

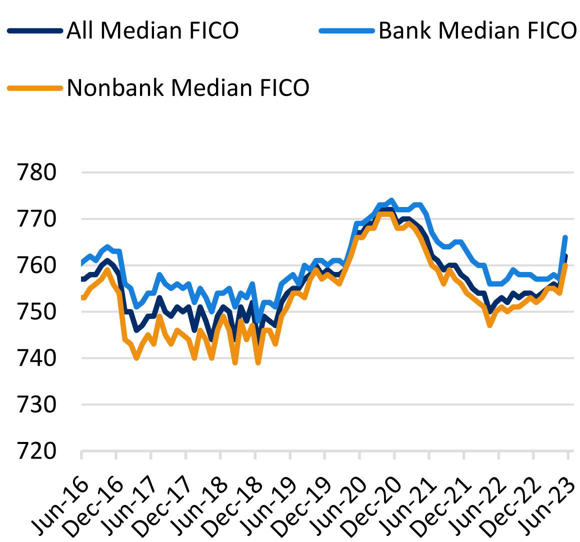
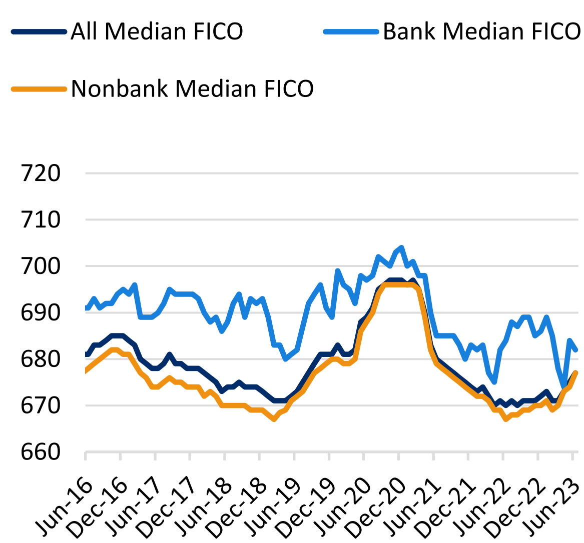



**Figure 59. Ginnie Mae FICO: Bank vs. Nonbank**




*Sources: Recursion: Notes: Data as of June 2023.*

The median LTV for all GSE originators remained the same as of month-end June 2023 MoM at 80%. Ginnie Mae median bank and nonbank LTV remained flat at 98.19% MoM. Ginnie Mae median DTI remained at 45.0% MoM June 2023 in nonbank originations.

**Figure 60. GSE LTV: Bank vs. Nonbank**

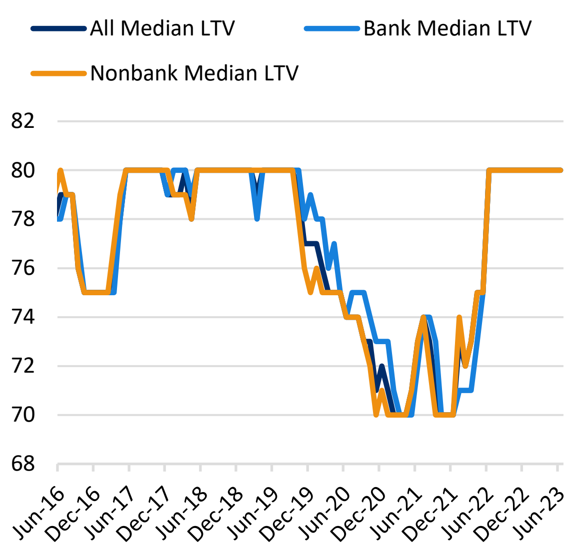



**Figure 61. Ginnie Mae LTV: Bank vs. Nonbank**

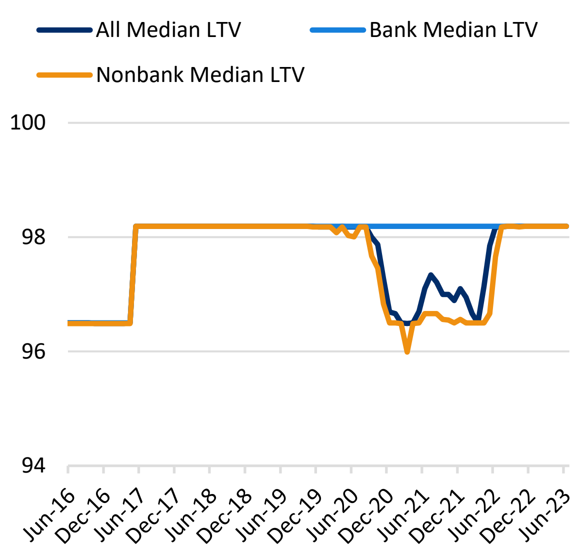



**Figure 62. GSE DTI: Bank vs. Nonbank**

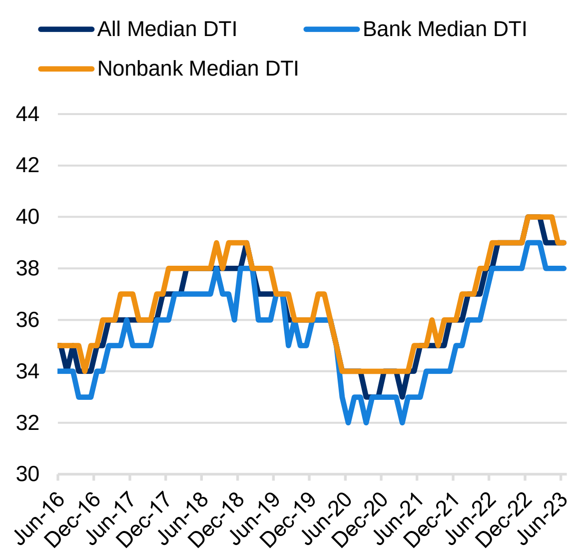
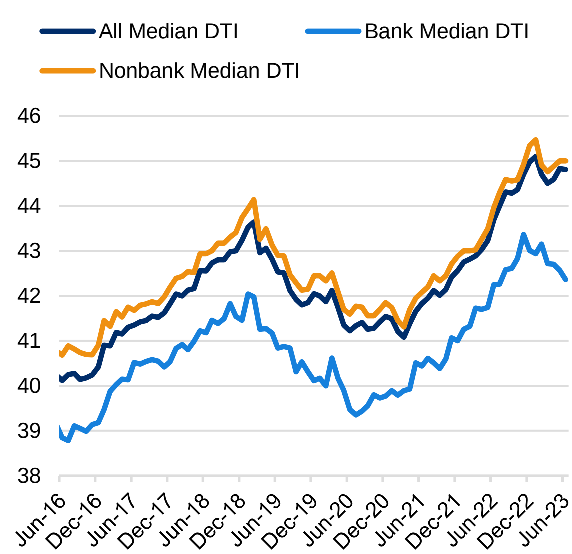



**Figure 63. Ginnie Mae DTI: Bank vs. Nonbank**




*Sources: Recursion. Notes: Data as of June 2023.*

As of month-end June 2023, the median FICO score for Ginnie Mae bank decreased 2 points to 682 and nonbank increased 3 points to 677 MoM. The median FICO for all Ginnie originations increased 2 points to 677 MoM. The gap between banks and nonbanks is most apparent in VA lending (27-point spread).

**Figure 64. Ginnie Mae FICO Score: Bank vs. Nonbank**

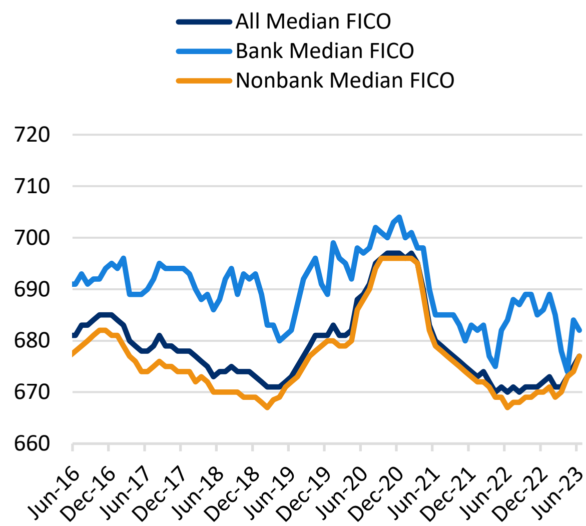



**Figure 65. Ginnie Mae FHA FICO Score: Bank vs. Nonbank**

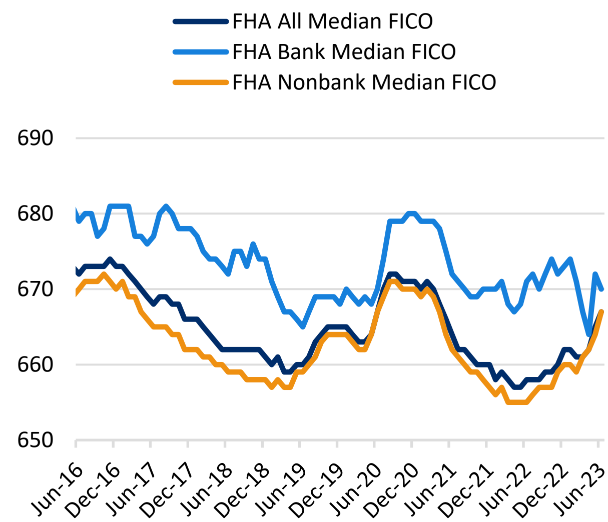



**Figure 66. Ginnie Mae VA FICO Score: Bank vs. Nonbank**

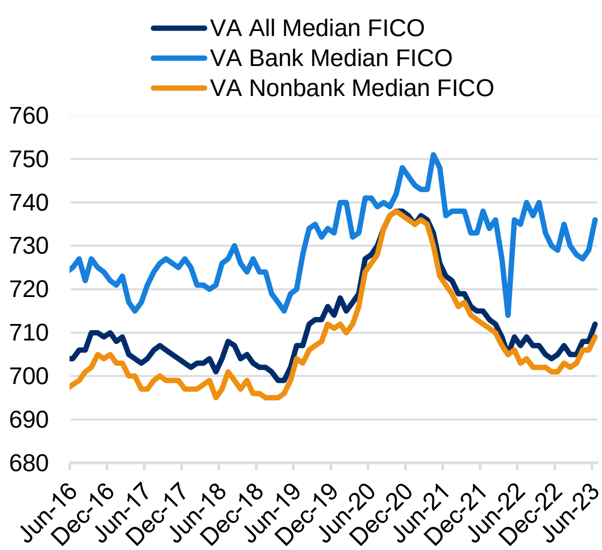
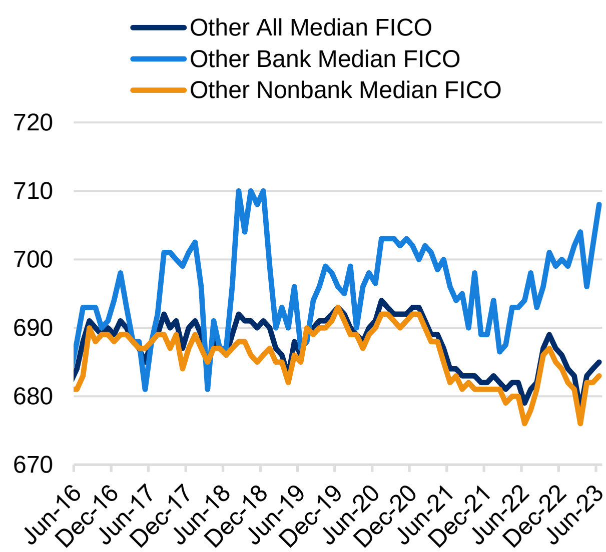



**Figure 67. Ginnie Mae Other FICO Score: Bank vs. Nonbank**



Median DTI for Ginnie Mae nonbank originations has been consistently higher than the median DTI for Ginnie Mae bank originations. This is a trend evident for all Ginnie Mae-eligible loan types except for the “Other” category, where the spread between median bank and nonbank DTI is relatively small.

**Figure 68. Ginnie Mae DTI:**

**Bank vs. Nonbank**

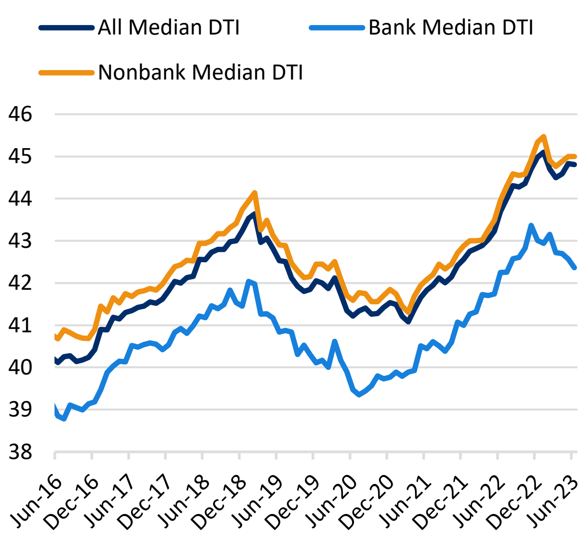



**Figure 69. Ginnie Mae FHA DTI:**

**Bank vs. Nonbank**

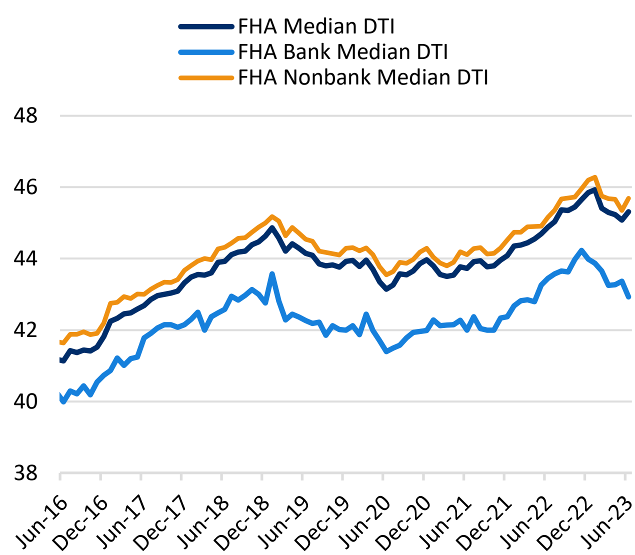



**Figure 70. Ginnie Mae VA DTI:**

**Bank vs. Nonbank**

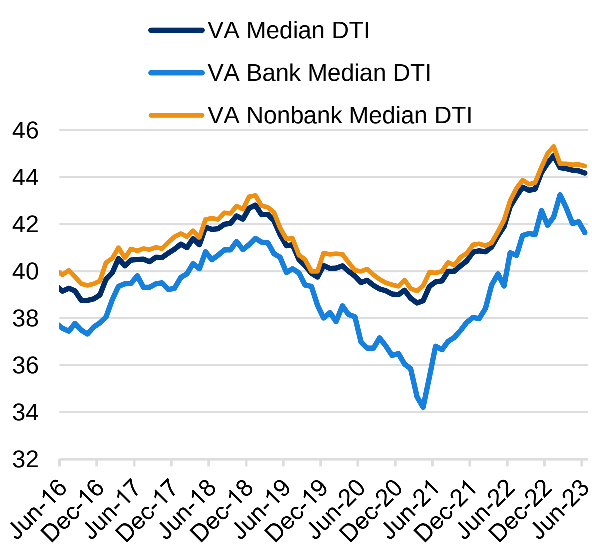
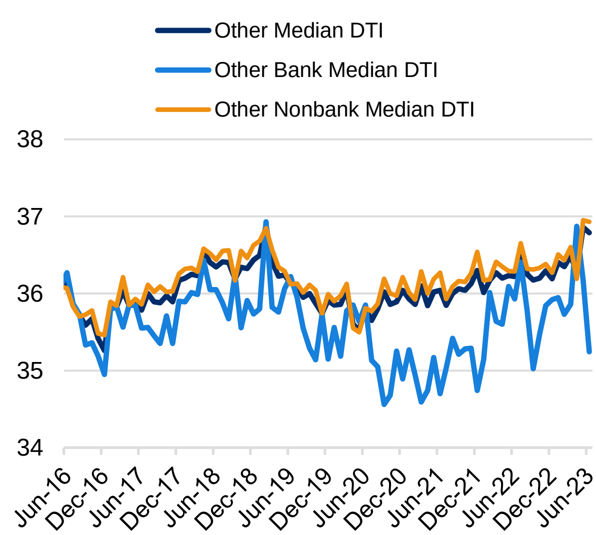



**Figure 71. Ginnie Mae Other DTI:**

**Bank vs. Nonbank**




*Sources: Recursion. Notes: Data as of June 2023.*

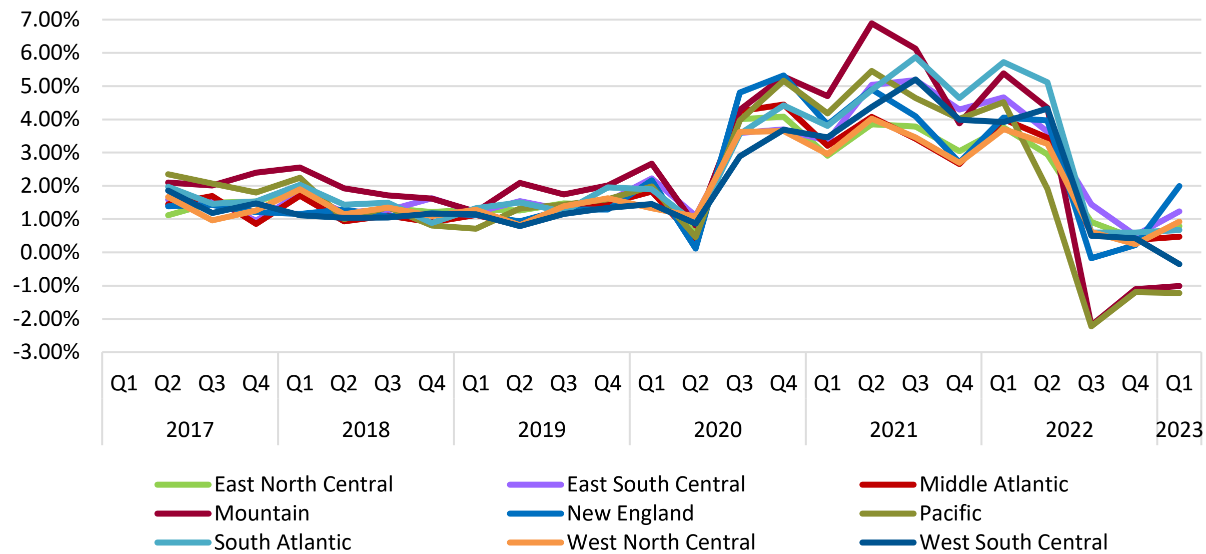
# U.S. HOUSING MARKET

## 15 HOUSING AFFORDABILITY

### 15.1 Housing Affordability – Home Price Appreciation

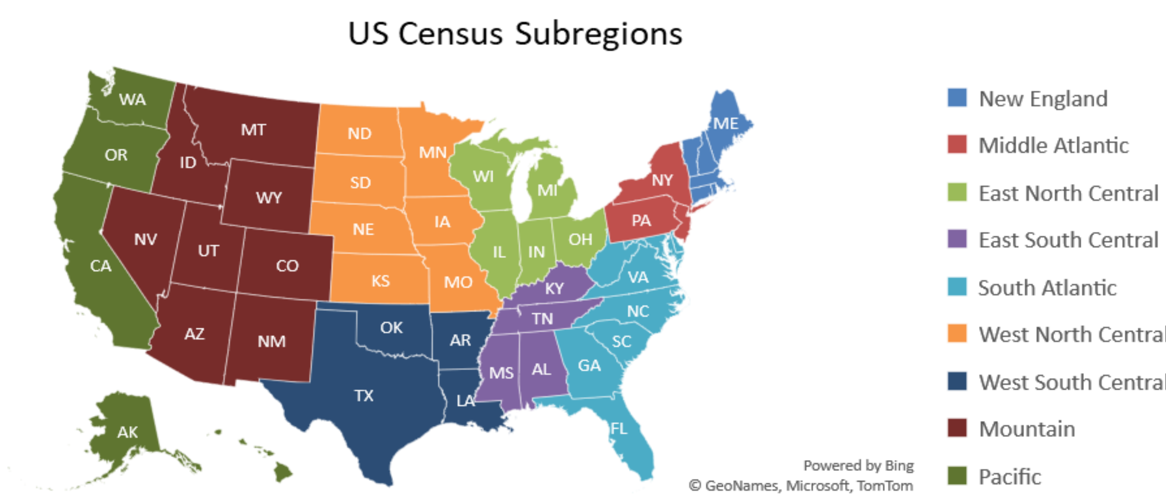
Home prices increased in all regions but the Pacific, Mountain, and West South Central in Q1 2023. Notably, the New England region experienced a 177 basis point QoQ increase in HPI between 2022 Q4 to 2023 Q1. The East South Central and West North Central regions saw a 72 and 68 basis point increase in the QoQ change in HPI, respectively.

**Figure 72. Regional HPI Trend Analysis Q/Q**




*Source: HPI data from FHFA.US Census Subregions as defined by the US Census Bureau.*

**Figure 73. FHFA US Census Subregions as defined by the US Census Bureau**




*Source: HPI data from FHFA.US Census Subregions as defined by the US Census Bureau.*

## 15.2 Housing Affordability – Inflation, Wages, and the Price of Real Estate

As of month-end June 2023, inflation was 3.1%, in line with the month prior. Nationally, rents are up 0.5% YoY as of month-end June 2023. The MoM change from May 2023 to June 2023 increased by 1.72%. Wage growth saw a decrease from 6.0% in May 2023 to 5.6% as of month-end June 2023. Month-end May 2023 reporting data shows YoY home price appreciation has decreased 0.5%, down from an increase of 0.2% in April 2023.

**Figure 74. Inflation | 12-Month Percent Change in CPI**

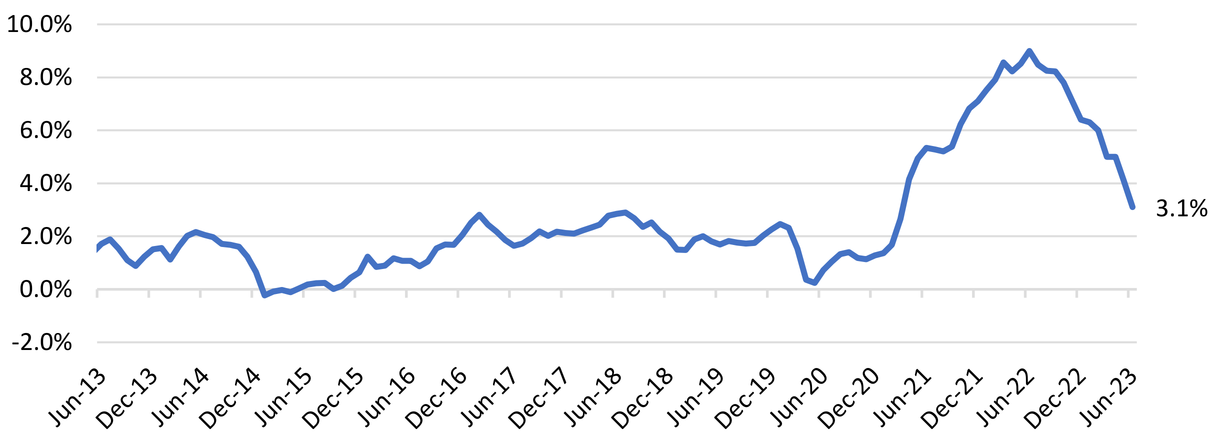
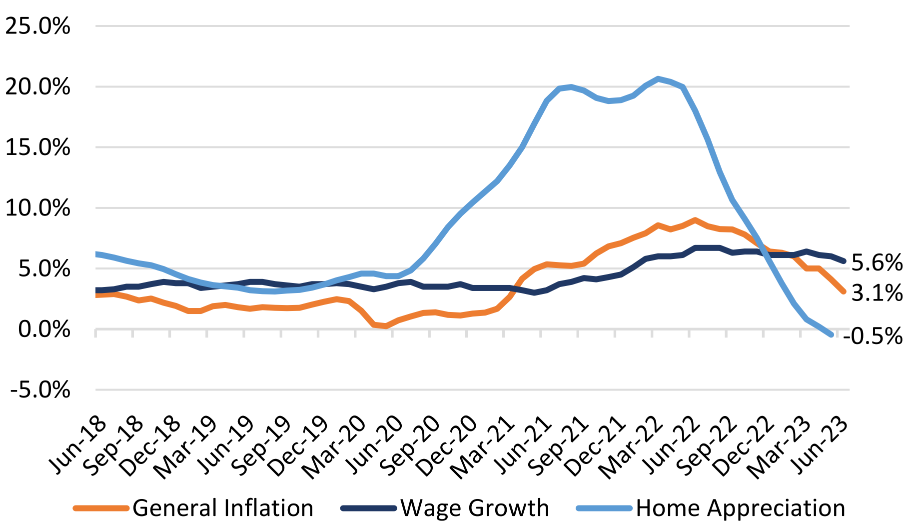



**Figure 75. Asset Price Appreciation vs. Wage Increases**

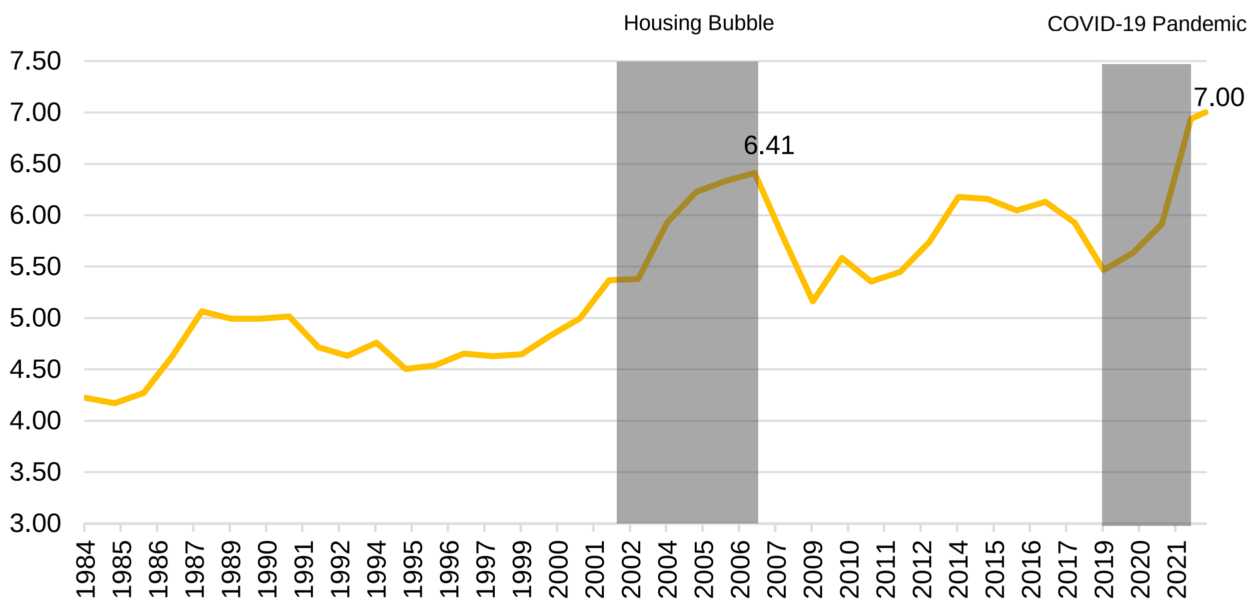



| Metric | *Statistic* |
|---|---|
| General Inflation | *3.1%* |
| Home Price Appreciation (YoY) | *-0.5%* |
| Rental Price Appreciation (Median Rent Change YoY) | *0.5%* |
| Wage Growth | *5.6%* |

*Sources: Bureau of Labor Statistics – Consumer Price Index and Wage-Growth Data; Rent.com - Rental Price Appreciation; S&P/Case-Schiller U.S. National Home Price Index – Home Price Appreciation.*

Home affordability remains low, as the ratio of the average price of sold homes to median incomes is at a historically high level. Typically, this ratio has been around 5:1; the current 7:1 sales price to median income ratio exceeds the ratio observed during the housing bubble (6.4:1). With declining home price appreciation, and home prices even dropping in some regions in the country, this ratio may drop back down to historically normal levels.

**Figure 76. Average Price of Homes Sold to Median Income Ratio**

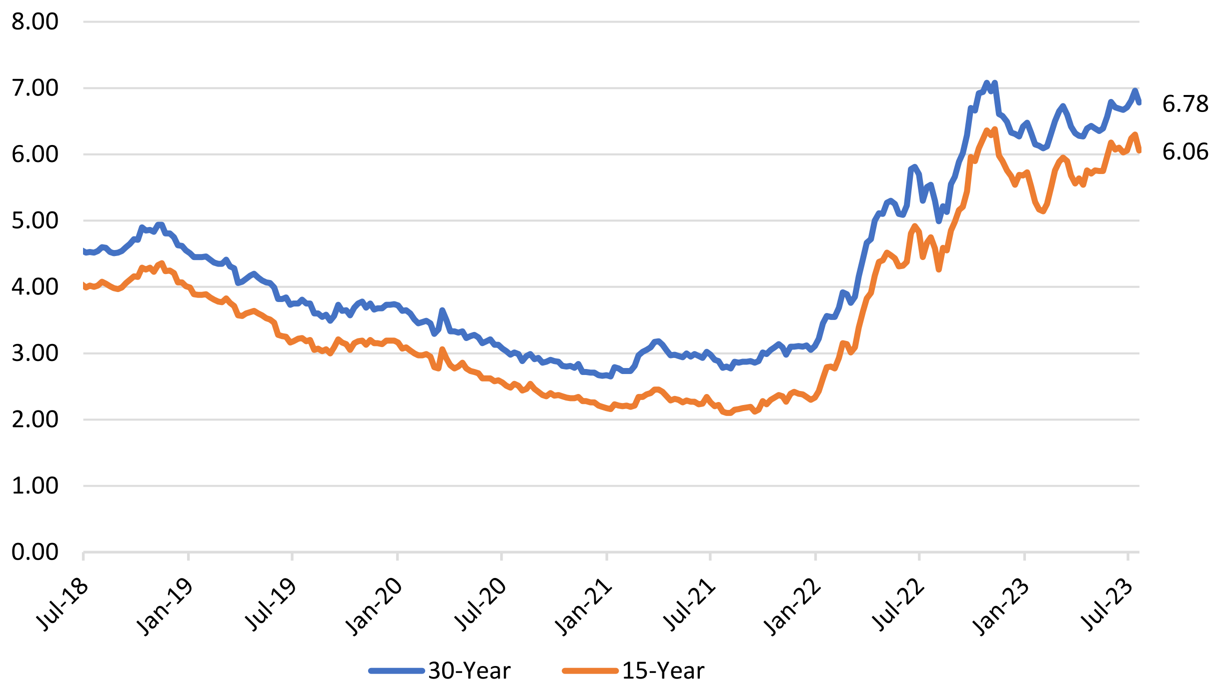



*Source: FRED Average Home Sales Data, FRED Median Income Data*

### 15.2.1 Housing Affordability – Mortgage Rate Trends

The Federal Funds Target Rate stayed the same on June 14, 2023, at a range of 5.00% and 5.25% per the FOMC.[4] As of July 20, 2023, the average 30-year and 15-year fixed rate mortgage rates were 6.78% and 6.06%, respectively. The average 30-year fixed rate mortgage rate increased 9 bps and the average 15-year fixed rate mortgage rate decreased 4 bps MoM from June 15, 2023.

**Figure 77. Average Fixed Rate Mortgage Rates**




*Sources: FRED data as of July 2023*

[4] https://www.federalreserve.gov/newsevents/pressreleases/monetary20230614a.htm

## 15.3 Housing Inventory

As of May 2023, there was 6.7 months of housing inventory on the market, a decrease from 7.6 months in April 2023. As housing affordability continues to remain low (See above Section 15.2) single-family home sales are unlikely to play a large role in the resolution of the housing shortfall. Multifamily construction volume metrics, shown in **Figure 79**, increased in 2022; number of starts increased by 15.0% and numbers of permits increased by 10.7% while number of completions remained relatively stable.

**Figure 78. Single-Family Housing Inventory**

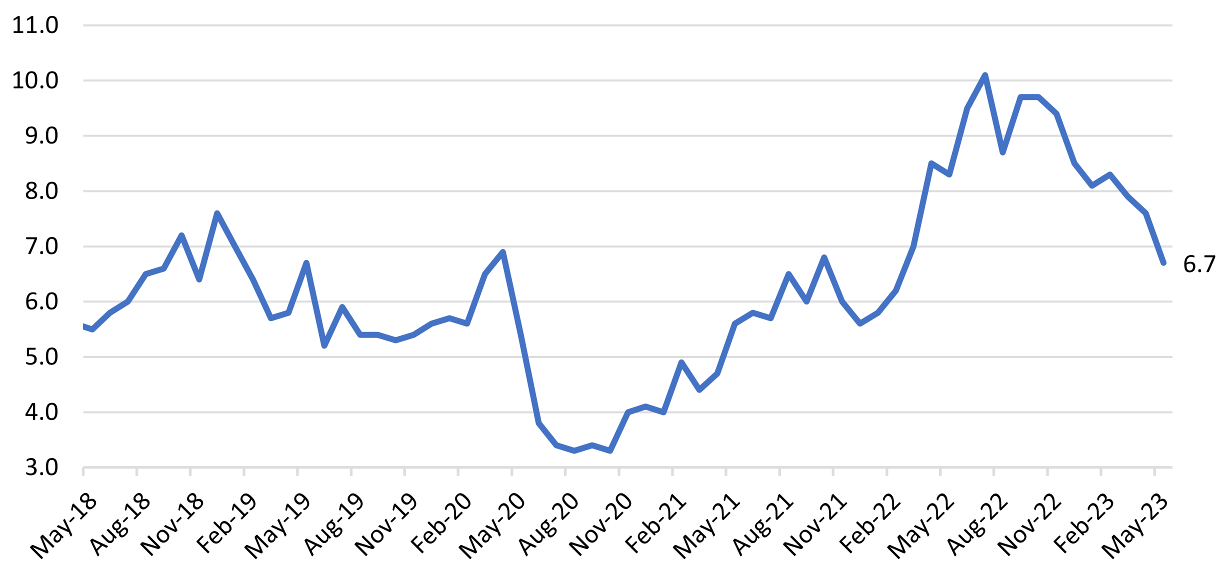
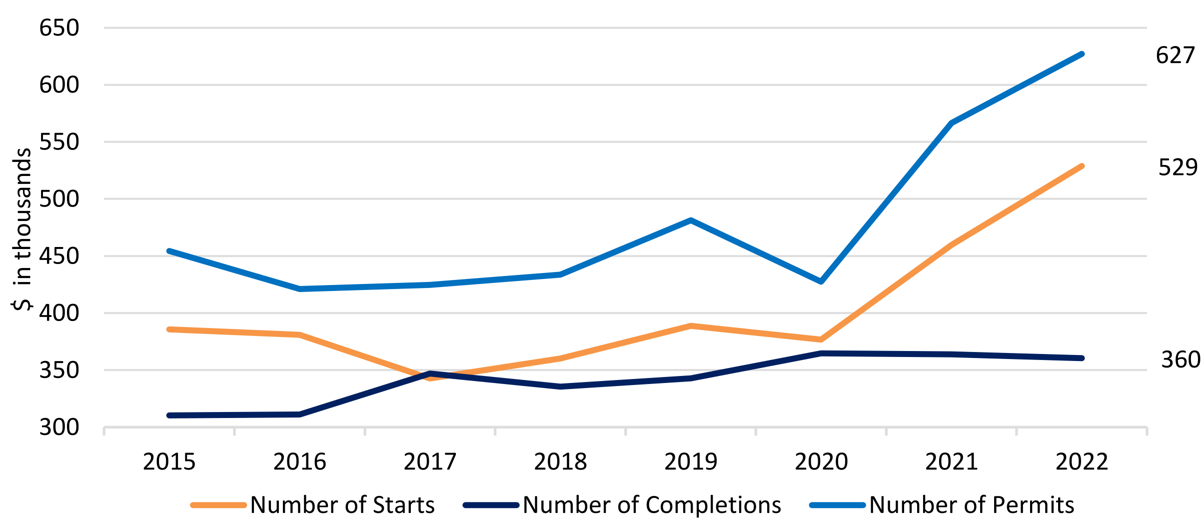



**Figure 79. Multifamily Construction Metrics: Permits, Starts, Completions**




*Source: FRED. Figure 78: data as of May 2023. New Residential Construction, US Census Bureau. Figure 79: data as of December 2022.*

## 15.4 Size and Value of the US Housing Market

The total value of the single-family housing market declined to $41.2 trillion in Q1 2023. However, the total value of the US housing market is up 117% from its trough in 2011. From Q1 2022 to Q1 2023 mortgage debt outstanding increased from $12.0 trillion to $12.5 trillion and household equity increased from $27.8 trillion to $28.7 trillion. At $8.9 trillion in Q1 2023, agency single family MBS continues to account for a growing percentage of the total mortgage debt outstanding, up to 66% of total mortgage debt from just 52% in 2011.

**Figure 80. Value of the US Housing Market**

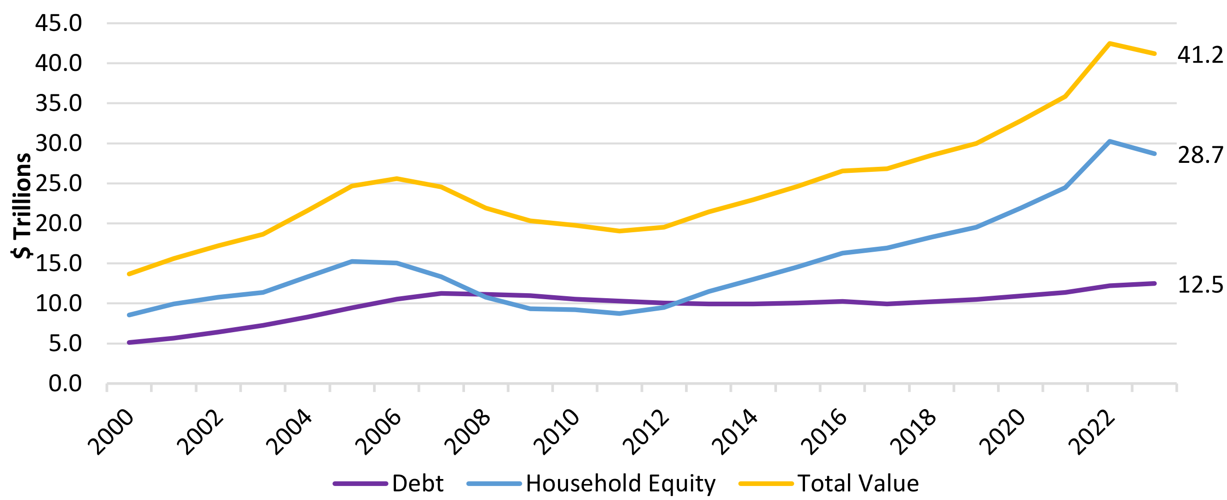
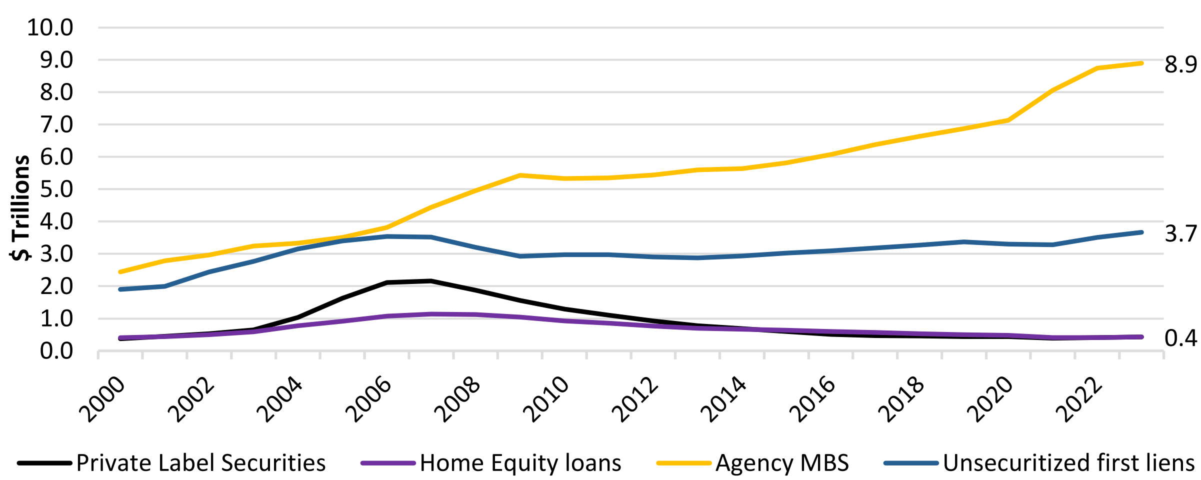



**Figure 81. Size of the US Residential Mortgage Market**




*Source: Federal Reserve Flow of Funds Data as of Q1 2023.*

## 16 DISCLOSURE

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