Ginnie Mae
Our Guaranty Matters

GLOBAL MARKETS ANALYSIS REPORT

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

January 2024

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Inside this Month's Global Market Analysis Report...

In this month's edition, the *Highlights* section discusses where the Agency MBS market stands today and expectations for 2024 through the lens of some of the largest participants in global capital markets.

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

- The new Housing Affordability - Affordability Index section shows how homebuyer affordability has declined for families purchasing median priced homes. Accordingly, the new homebuyer monthly payment figure shows how monthly payments have increased for first-time homebuyers.
- New figures in the Housing Inventory section show trends in Single-Family and Multifamily construction metrics.
- The Fixed Income Product Performance Comparisons section shows that Ginnie Mae MBS continue to offer attractive yields relative to sovereigns with comparable durations globally.
- The Single-Family MBS Pass-Through Issuance section captures the dominant role government lending/mortgage insurance programs are playing in the post-pandemic mortgage market. Gross and net issuance of Single-Family Ginnie Mae pass-throughs exceeds that of both Fannie Mae and Freddie Mac.
- The SOMA Holdings section captures FED Chair Jerome Powell's comments regarding the FED's decision to keep the policy rate unchanged and includes the composition of the FED's Agency MBS portfolio run-off.

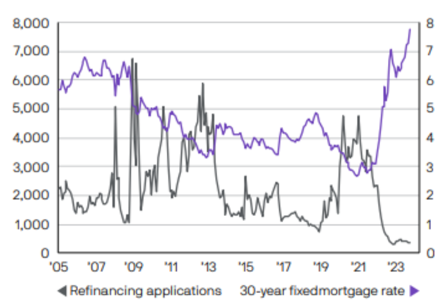
Highlights

At the outset of 2024, the U.S. economy and financial markets quieted largely expected recessionary fears in 2023 and begin the year with an optimistic backdrop. To begin the year, bullish sentiment reigns as equities trade near all-time highs, treasury yields trade well-off cycle highs, mortgage rates rally in line with treasuries, and the Federal Reserve is widely expected to cut rates a handful of times in the coming year. These factors create a much better backdrop compared to where markets began 2023, when inflation remained substantially higher than the Fed's inflation target, the Fed was committed to increasing rates to combat sticky inflationary pressures, and treasury yields were set to climb higher. In this month's edition, *Highlights* reviews where Agency MBS markets stand entering 2024 and where Agency MBS markets are expected to go, a view through the lens of some of the largest participants in global capital markets including Morgan Stanley, Wells Fargo, and JP Morgan.

2024 Agency MBS Supply Outlook:

- Refinances are expected to remain subdued due to the average mortgage rate of existing homeowners with a mortgage sits at 3.74% as of December 1, 2023[1]. However, any marginal decrease in primary mortgage rates should lead to increased refinance activity.
- 97% of the mortgage market is out of the money from a refinance perspective[1]. The majority of supply expected over the coming year is forecasted to come via new home sales.
- Existing home sales have fallen near multi-decade lows due to unaffordability and rising mortgage rates.
- The combination of limited refinances and reduced existing home sales will keep new mortgage loan origination and supply muted in 2024. Outsized demand for mortgage-backed securities compared with supply can lead to outperformance in the secondary market for Agency MBS.
- Prospective home buyers are expected to continue down the new construction path as borrowers continue to take advantage of mortgage rate buy-downs and price cuts as home builders incentivize sales[2].

Figure 1. Refinance Activity vs. 30-year Fixed Mortgage Rate[3]



Source: Federal Home Loan Mortgage Corporation, LSEG Datastream, Mortgage Bankers Association of America, J.P. Morgan Asset Management. Data as of 15 November 2023.

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[1] Source: 2024 Outlooks (morganstanley.com)

[2] Source: Wells Fargo - 2024 Annual Outlook (bluematrix.com)

[3] Source: JPM AM Market Insights (jpmorgan.com)

2024 Monetary Policy Outlook:

- The Fed is expected to cut rates in 2024 according to the Fed's most recent Statement of Economic Projections (SEP) which forecasts 3 rate cuts[4]. However, markets have priced in as many as 7 rate cuts. Mortgage rates can be expected to end the year substantially lower if these rate cuts come to fruition.
- If the economy begins to slow at a dramatic pace, the pace of Quantitative Tightening (QT), which allows the Fed to let maturing securities roll off its balance sheet resulting in an increased supply of securities to the broader market, is an action the Fed may consider. If so, that would certainly be a positive tailwind for Agency MBS.
- In the bear case scenario for 2024, the Fed drastically cuts rates due to deflationary pressures and increased unemployment which would likely result in a major rally in treasury yields and mortgage rates. The resulting rally in mortgage rates could lead to a substantial pickup in refinance activity and flood the mortgage market with new supply. However, this scenario is not the base case scenario.

2024 Secondary Agency MBS Market Outlook:

- Economic slowdown expected to gain steam in 2024, possibly leading to increased mortgage defaults[1]. Mortgage defaults are paid out at par to mortgage investors and can therefore be viewed as a type of prepayment. Increased prepayment speeds via mortgage defaults are a tailwind for Agency MBS investors, especially for investors buying discount/low-coupon MBS securities.
- Agency MBS spreads sit over 100 basis points wider than their 2021 lows[1]. Spreads remain wide relative to other fixed income sectors, such as investment grade corporate bonds.
- Any risk-off/bear scenario would also be beneficial for Agency MBS spreads as investors re-allocate from equities to Treasuries and risk-free adjacent securities.
- Asset managers are expected to shift from extension protection to call protection in 2024 as market participants widely expect that mortgage rates have already reached their peaks for the cycle[1].

Agency MBS are widely expected to outperform this year in a multitude of different scenarios. However, the base case scenario heading into the new year is for the economy to continue to slow, inflation to continue its trend towards the Fed's target, and for the Fed to slowly decrease its policy rate in an effort to keep real rates in line with a historically restrictive range. All scenarios despite a sharp increase in inflation which would coincide with a more restrictive stance from the Fed and therefore higher rates should be beneficial for Agency MBS in the coming year.

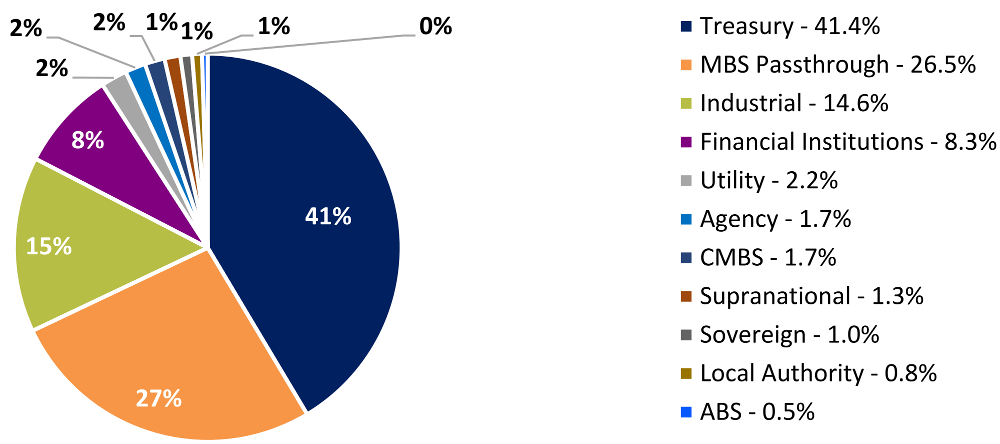
[4] Source: Summary of Economic Projections, December 13, 2023 (federalreserve.gov)

1 US AGGREGATE AND GLOBAL INDICES

1.1 Bloomberg US Aggregate and Global Indices

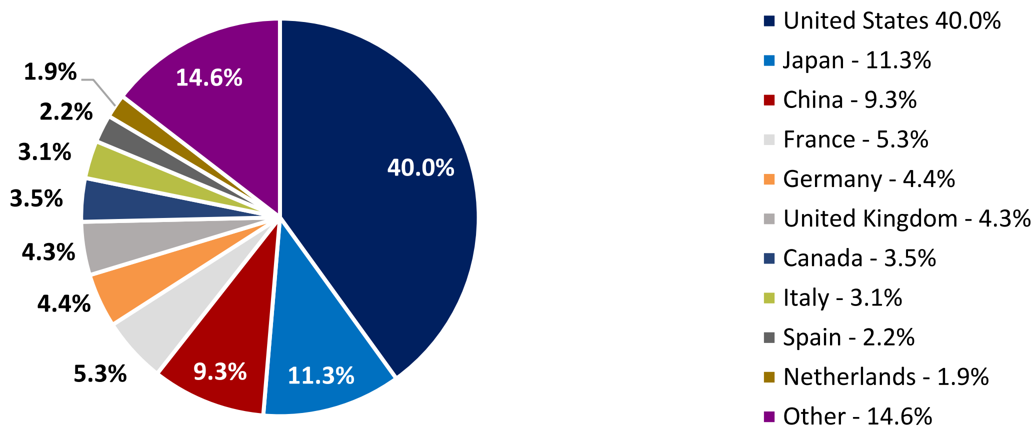
At month-end December, U.S. Treasuries contributed 41.4% to the Bloomberg U.S. Aggregate Index, down approximately 0.1% from the prior month. U.S. MBS (Ginnie Mae, Fannie Mae, and Freddie Mac) contributed 26.5%, up 0.1% from the month prior. For the U.S. Aggregate Index, all other changes to the index components were no larger than 0.1%.

Figure 2. Bloomberg U.S. Aggregate Index



In the Bloomberg Global Aggregate Index by Country, the U.S. share of fixed income remained the largest share of total outstanding issuance, representing 40.0% of the total Bloomberg Global Aggregate Index, down 0.2% from the prior month. Japan's share of fixed income was the second largest at 11.3%, increasing approximately 0.2% from the prior month. All other countries remained stable compared to the prior month with no changes larger than 0.1%.

Figure 3. Bloomberg Global Aggregate Index by Country



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

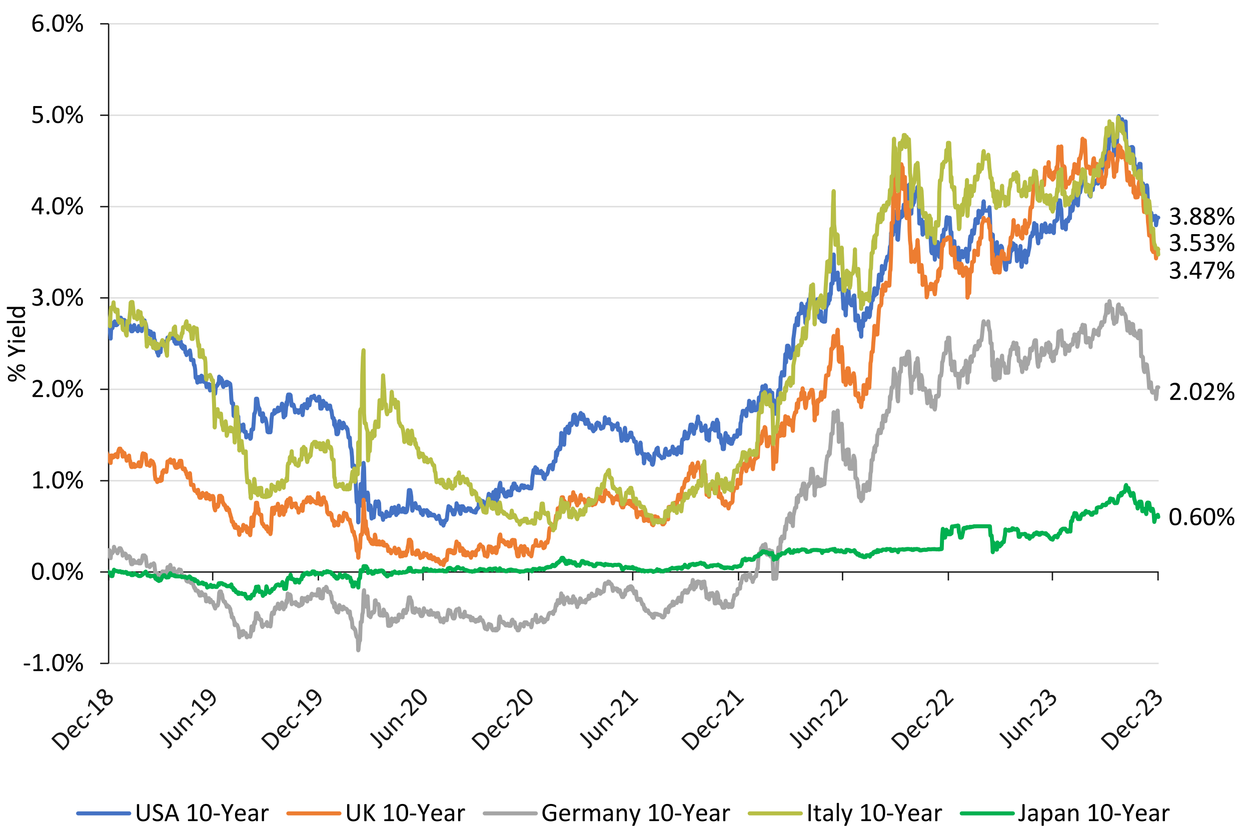
2 SOVEREIGN DEBT PRODUCT PERFORMANCE COMPARISONS

2.1 Global 10-Year Treasury Yields (Unhedged)

The U.S. 10-year Treasury yield moved to 3.88% at month-end December 2023, a MoM decrease of 59 bps. This marks the second consecutive MoM decrease for U.S. 10-year Treasury notes; still claiming the highest government yield amongst the countries listed below. All month-end yields listed have decreased MoM for two consecutive months from October to December 2023.

- The yield on the UK 10-year note decreased to 3.53% at month-end December, a MoM decrease of 75 bps.
- The yield on the German 10-year note decreased to 2.02% at month-end December, a MoM decrease of 62 bps.
- The yield on the Italian 10-year note decreased to 3.47% at month-end December, a MoM decrease of 92 bps.
- The yield on the Japanese 10-year note decreased to 0.60% at month-end December, a MoM decrease of 17 bps.

Figure 4. Global 10-Year Treasury Yields



Source: Bloomberg. Note: Data as of December 2023.

2.2 U.S. Treasury Hedged Yields

The yield for the 10-year Treasury, hedged in Japanese Yen (JPY) stood at -1.05% at month-end December, a 32 bp decrease from month-end November.

The yield for the 10-year Treasury, hedged in Euros (EUR) stood at 2.28% at month-end December, a 60 bp decrease from month-end November.

Figure 5. U.S. 10yr Total Return Hedged, 1 yr. JPY

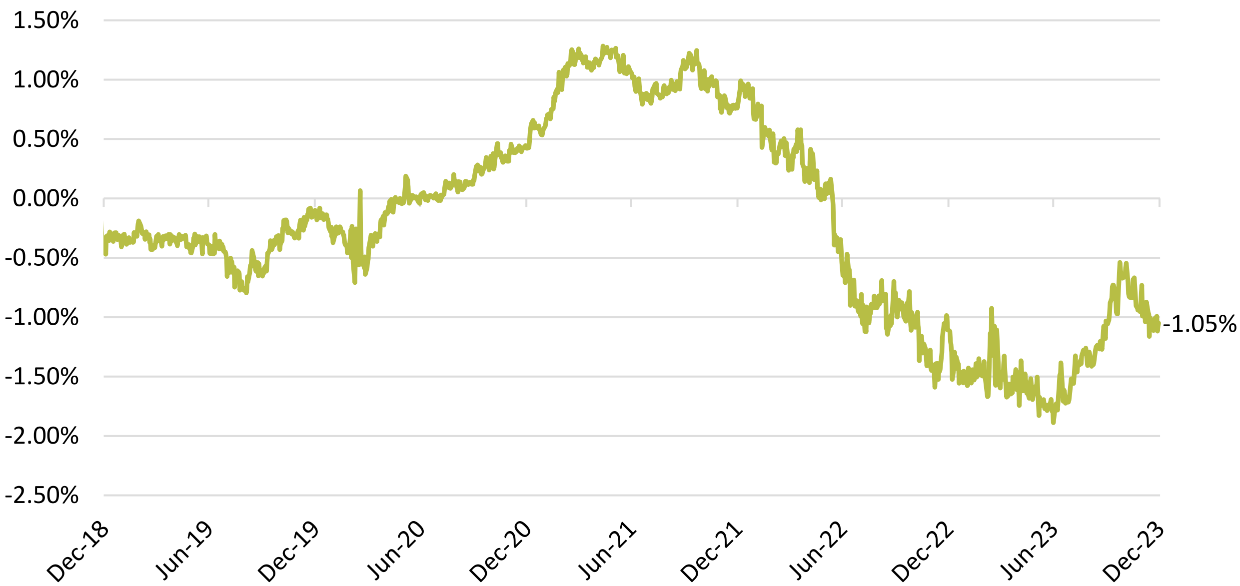
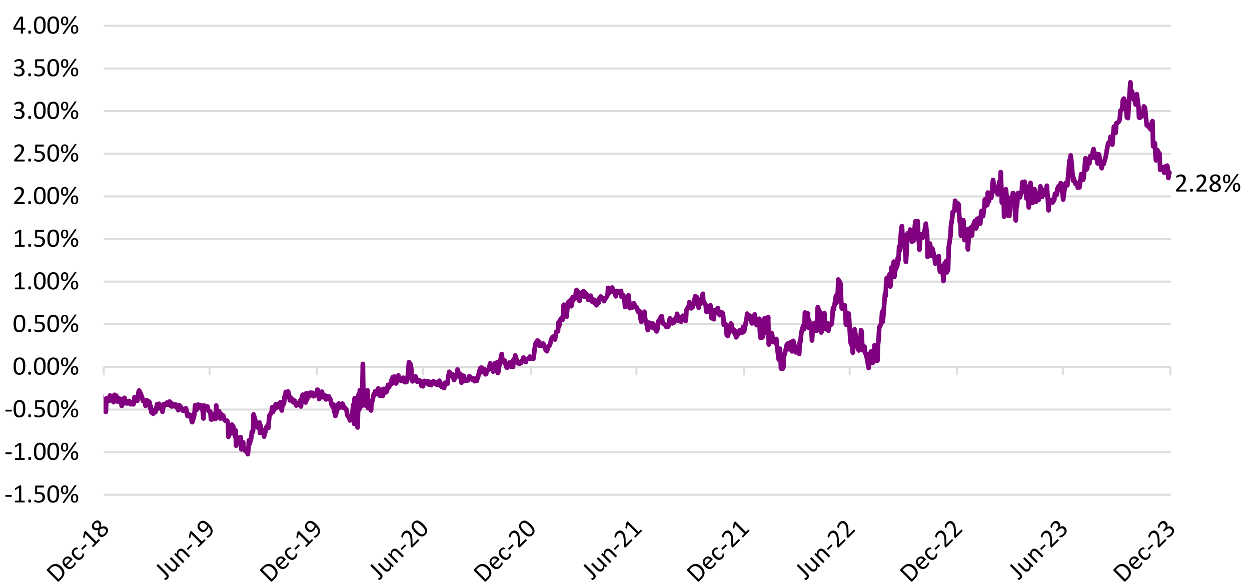


Figure 6. U.S. 10yr Total Return Hedged, 1 yr. EUR



Source: Bloomberg. Notes: Data as of December 2023. The 10yr Total Return Hedged Yields are calculated by taking the 10yr treasury yield and subtracting the 1yr hedge cost for JPY and EUR.

SECONDARY MORTGAGE MARKET

3 FIXED INCOME PRODUCT PERFORMANCE COMPARISONS

3.1 Ginnie Mae Yields – USD

Ginnie Mae II yields were 6.58% at month-end October, decreased 72 bps to 5.72% at month-end November, then decreased 52 bps to 5.20% at month-end December. Ginnie Mae II spreads over the U.S. 10-year Treasury yield decreased 11 bps YoY to 132 bps over the U.S. 10-year Treasury yield as of month-end December 2023.

Figure 7. Ginnie Mae II SF Yield, USD

Figure 8. Ginnie Mae II SF Yield – U.S. 10yr Treasury Yield

Source: Bloomberg. Note: Data as of December 2023.

3.2 Ginnie Mae Hedged Yields

The yield for Ginnie Mae II's, hedged in Japanese Yen stood at 0.27% at month-end December, a 25 bp decrease from month-end November.

The yield for Ginnie Mae II's, hedged in Euros stood at 3.60% at month-end December, a 53 bp decrease from month-end November.

Figure 9. Ginnie Mae II Hedged, 1 yr. JPY

Figure 10. Ginnie Mae II Hedged, 1 yr. EUR

Source: Bloomberg. Notes: Data as of December 2023. The Ginnie Mae II Hedged Yields are calculated by taking the Ginnie Mae II Yield and subtracting the 1yr hedge cost for JPY and EUR.

3.3 Ginnie Mae Yield Spreads – Intermediate Credit

The GNMA II 30-year OAS decreased 10 bps MoM, to 0.40%, as of month-end December. The U.S. Intermediate Credit OAS decreased 7 bps MoM, to 0.81%, as of month-end December. The yield differential between U.S. Intermediate Credit and GNMA II 30-year OAS increased 3 bps to 0.41% at month-end December.

Figure 11. U.S. GNMA II 30yr MBS OAS versus U.S. Intermediate Credit OAS

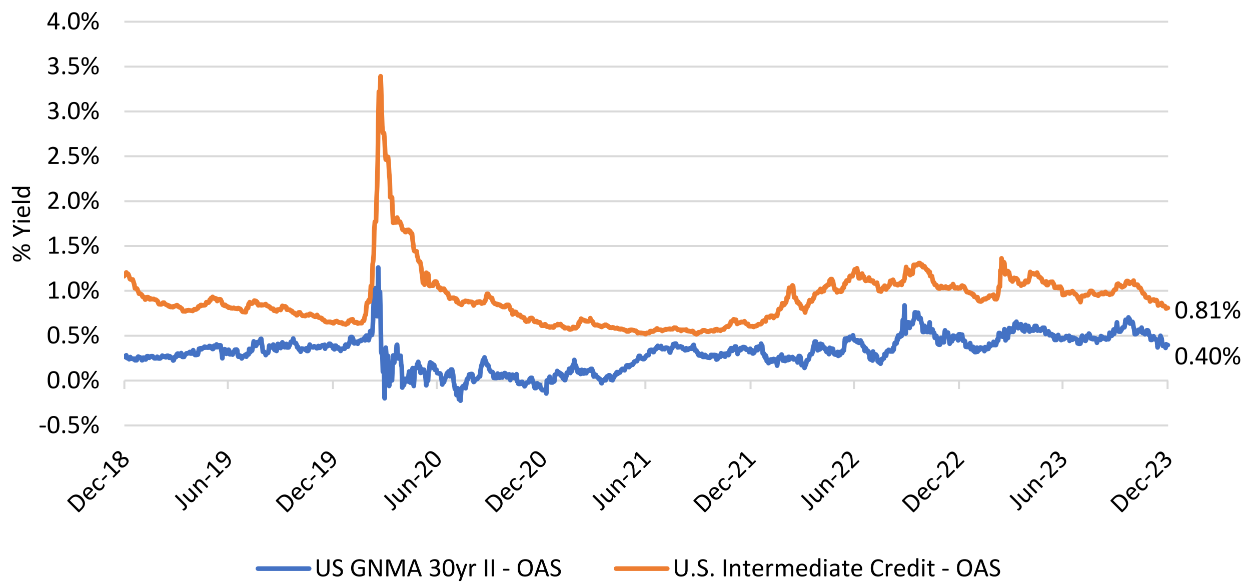
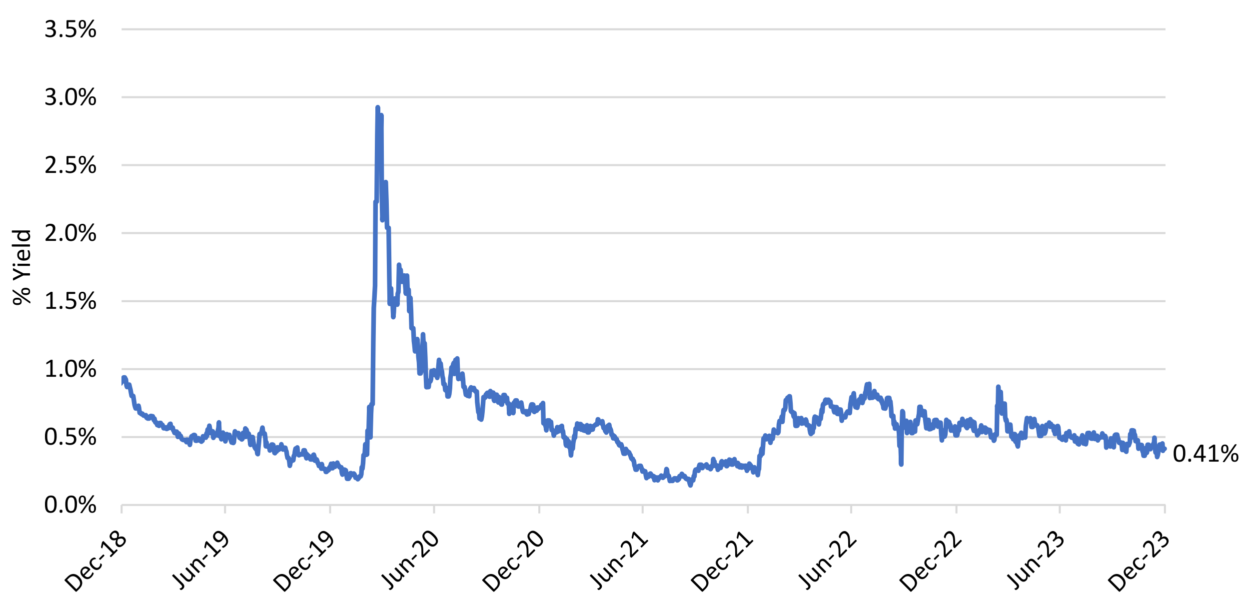


Figure 12. Spread between U.S. Intermediate Credit and U.S. GNMA II 30yr MBS OAS

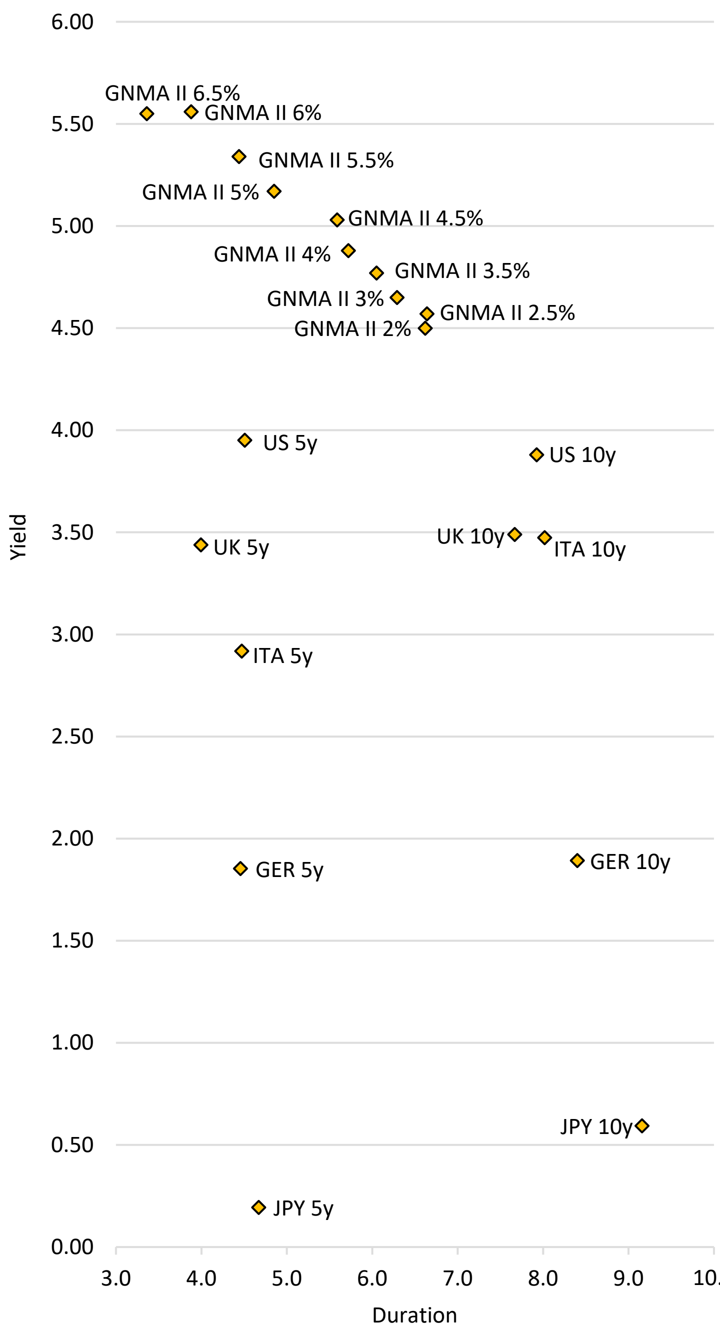


Source: Bloomberg. Note: Data as of December 2023.

3.4 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 13. Yield vs. Duration



Security	Duration	Yield
U.S. 5y	4.51	3.95
U.S. 10y	7.92	3.88
JPY 5y	4.67	0.19
JPY 10y	9.16	0.59
GER 5y	4.46	1.85
GER 10y	8.40	1.89
ITA 5y	4.47	2.92
ITA 10y	8.02	3.47
UK 5y	3.99	3.44
UK 10y	7.67	3.49
GNMA II 2%	6.62	4.50
GNMA II 2.5%	6.64	4.57
GNMA II 3%	6.29	4.65
GNMA II 3.5%	6.05	4.77
GNMA II 4%	5.72	4.88
GNMA II 4.5%	5.59	5.03
GNMA II 5%	4.85	5.17
GNMA II 5.5%	4.44	5.34
GNMA II 6%	3.88	5.56
GNMA II 6.5%	3.36	5.55

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 December 2023. Yields are in base currency of security and unhedged.

4 PREPAYMENTS

4.1 Aggregate Prepayments (CPR)

Fannie Mae fixed rate aggregate prepayment speeds remained at 4.4% from November 2023 to December 2023. Contrarily, Freddie Mac and Ginnie Mae CPRs both decreased by 0.1% and 0.3%, respectively, from November to December 2023. ARM prepayments also decreased 1.1% for Freddie Mac, remained the same for Fannie Mae, and increased 13.0% for Ginnie Mae.

Figure 14. Fixed Rate Aggregate 1-Month CPR

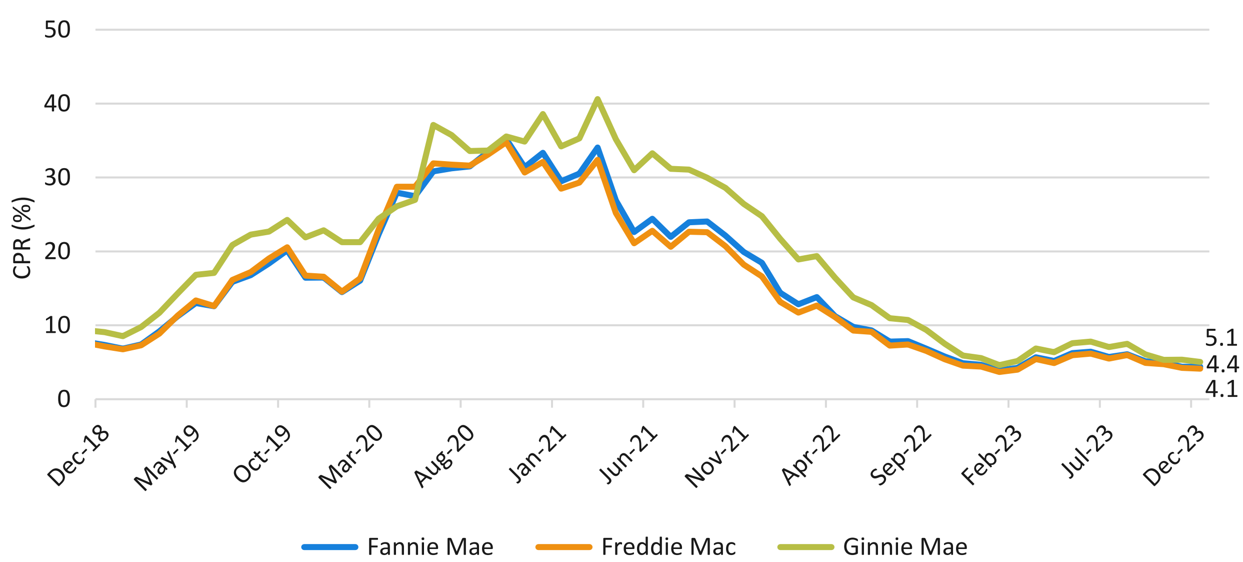
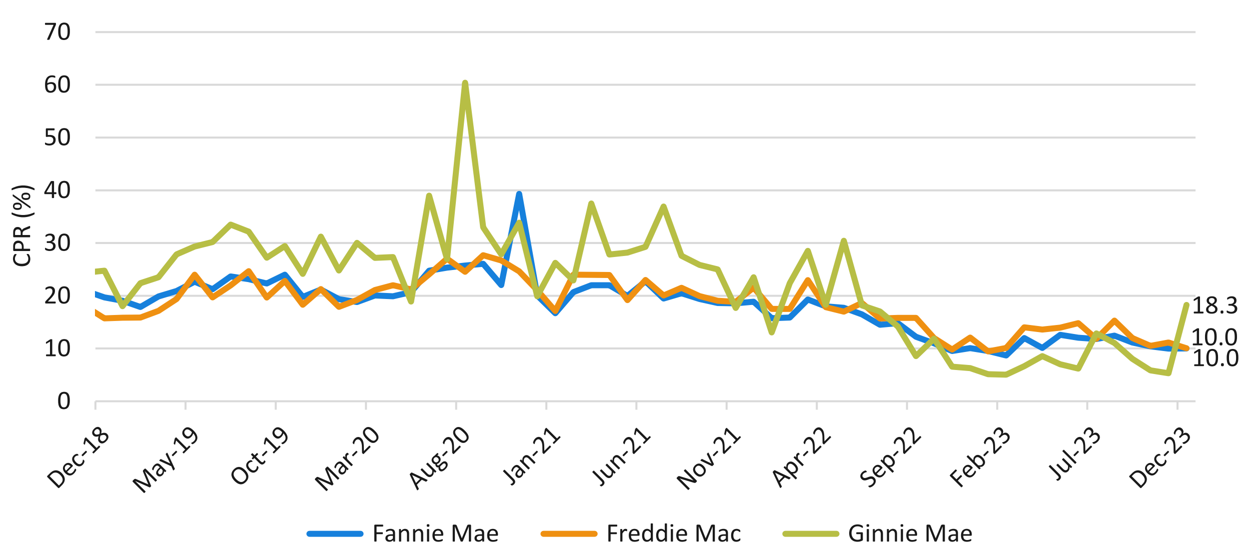


Figure 15. ARM Aggregate 1-Month CPR



Source: Recursion. Note: Data as of December 2023.

4.2 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 December 2023 after slightly overtaking Ginnie Mae in September 2022.

Figure 16. Fixed Rate Aggregate CDR

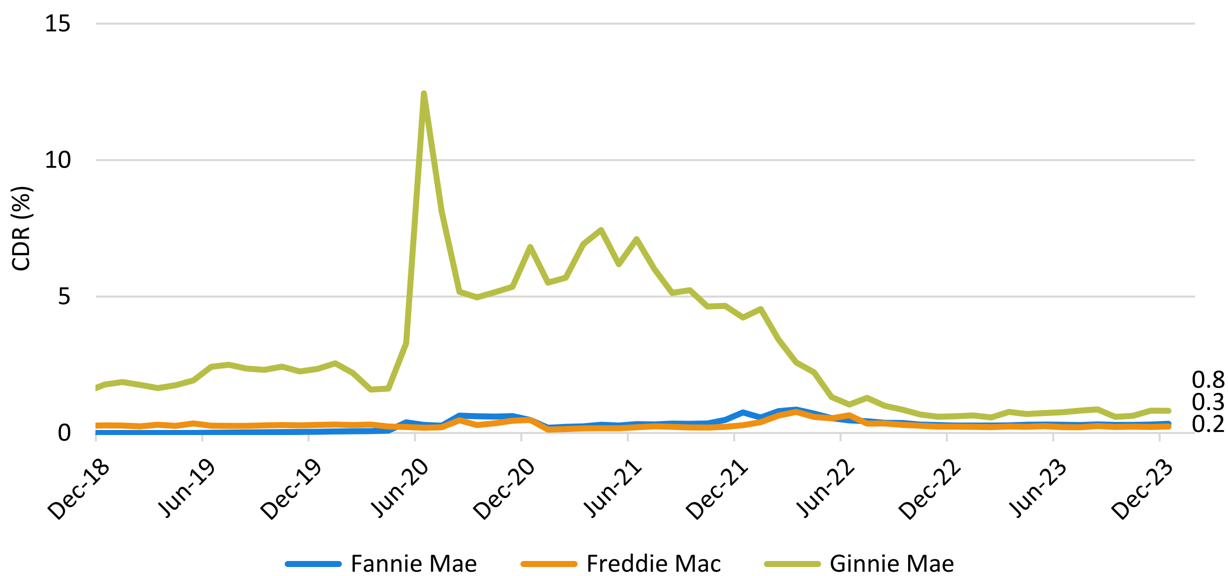
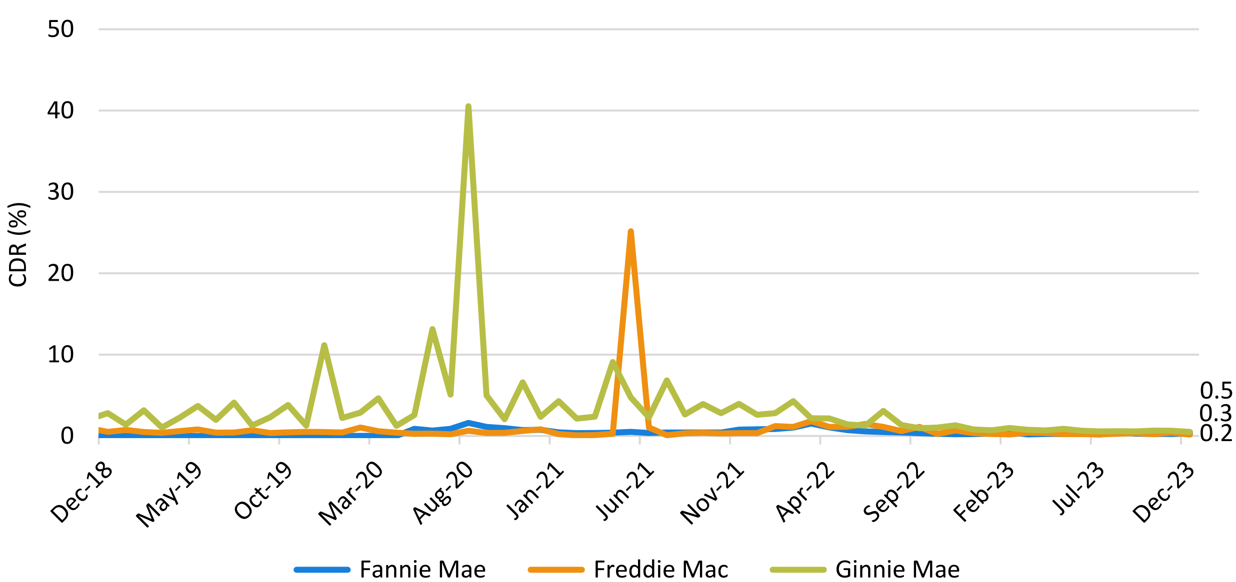


Figure 17. ARM Aggregate CDR



Source: Recursion. Note: Data as of December 2023.

4.3 Voluntary Prepayment Rates (CRR)

Fixed rate voluntary prepayments were higher for Ginnie Mae and Fannie Mae than Freddie Mac. Freddie Mac saw a decrease of 0.1% in fixed rate aggregate CRR while Fannie Mae remained at 4.1%. Freddie Mac and Fannie Mae saw a 0.9% and 0.1% decrease in ARM aggregate CRR, respectively. Ginnie Mae fixed rate aggregate CRR decreased by 0.3% and ARM aggregate CRR increased by 13.1%.

Figure 18. Fixed Rate Aggregate CRR

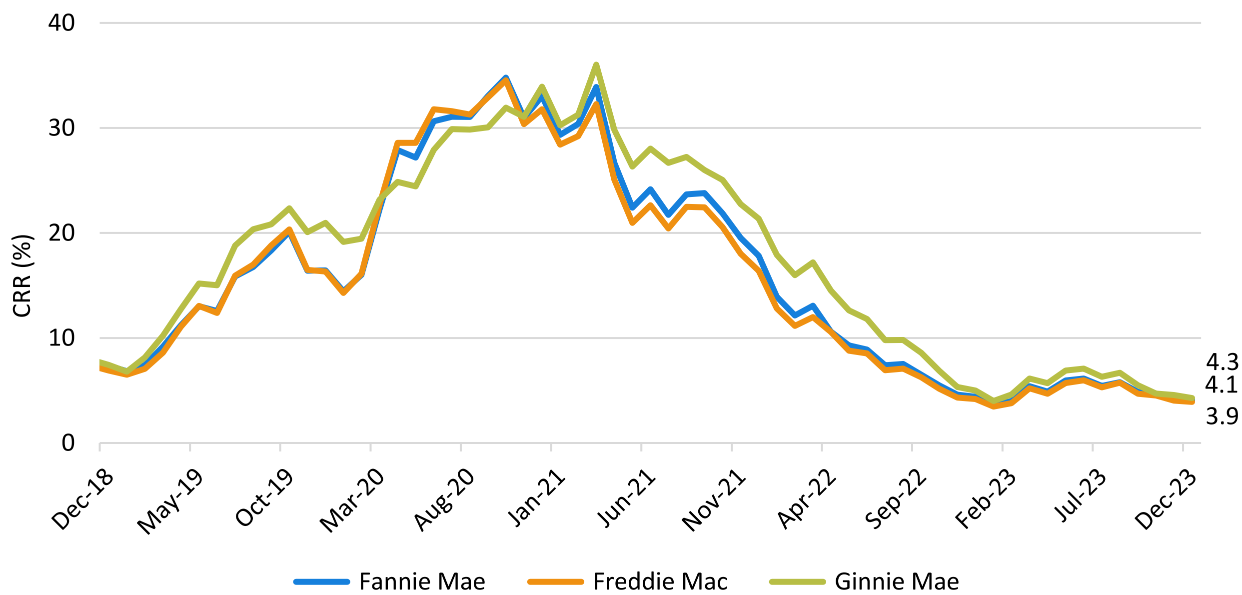
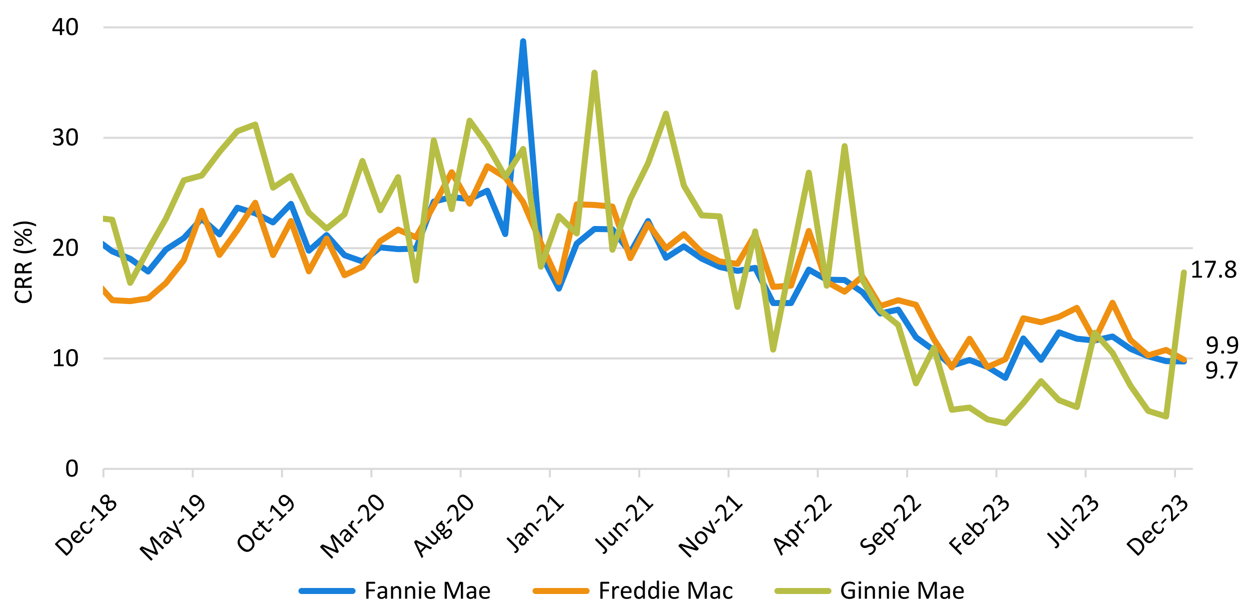


Figure 19. ARM Aggregate CRR



Source: Recursion. Note: Data as of December 2023.

5 SINGLE-FAMILY MBS PASS-THROUGH ISSUANCE

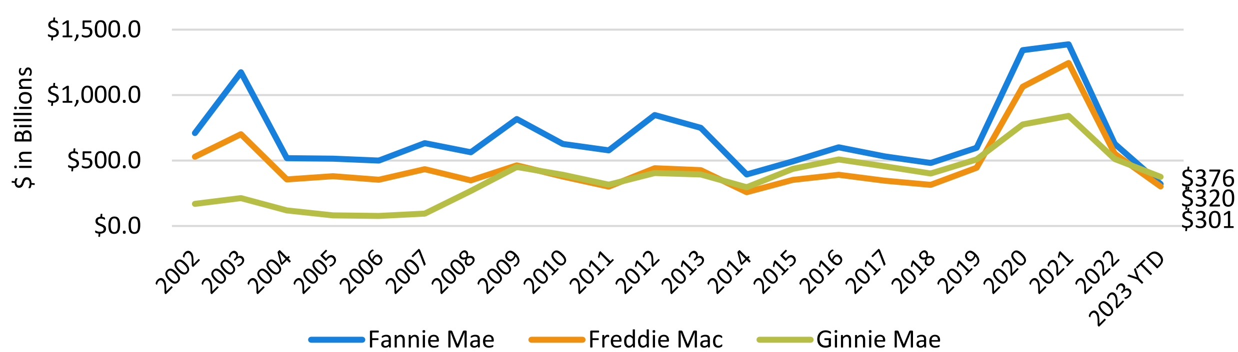
5.1 Gross Issuance of Agency MBS

In December 2023, total gross MBS issuance decreased by approximately $7.4 billion MoM. Freddie Mac and Fannie Mae saw a MoM decrease of $1.4 and $2.8 billion, respectively. Ginnie Mae saw a $3.2 billion MoM decrease in gross issuance.

Table 1. 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	$320.3	$301.4	$621.8	$375.5	$997.3

Figure 20. Agency Gross Issuance

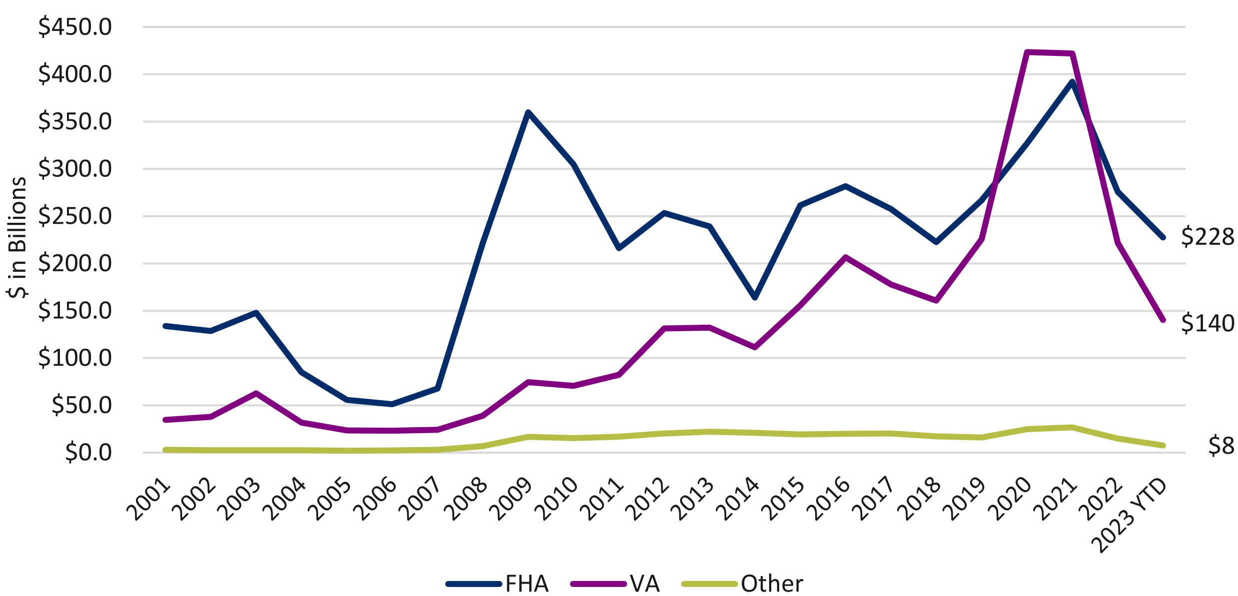


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

Table 2. 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	$227.6	$140.3	$7.7	$375.5

Figure 21. Ginnie Mae Gross Issuance



Source: Recursion. 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.

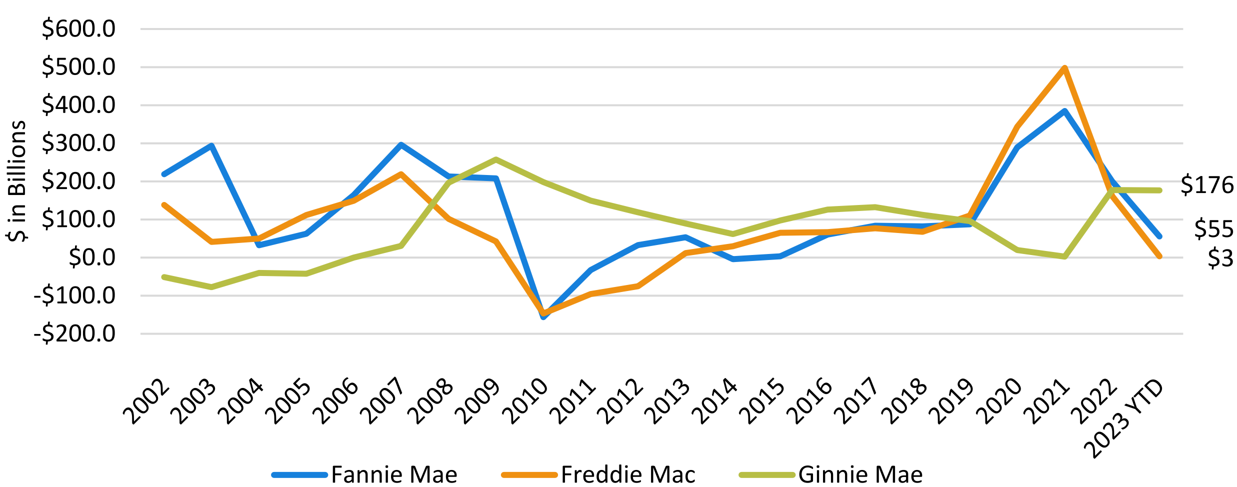
5.2 Net Issuance of Agency MBS

Agency Net Issuance as of month-end December was $235.0 billion for 2023 YTD, shown in **Table 3.** Since 2022, FHA net issuance has outpaced VA net issuance, as shown in **Table 4 and Figure 23.**

Table 3. 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	$55.3	$3.3	$58.6	$176.3	$235.0

Figure 22. Agency Net Issuance

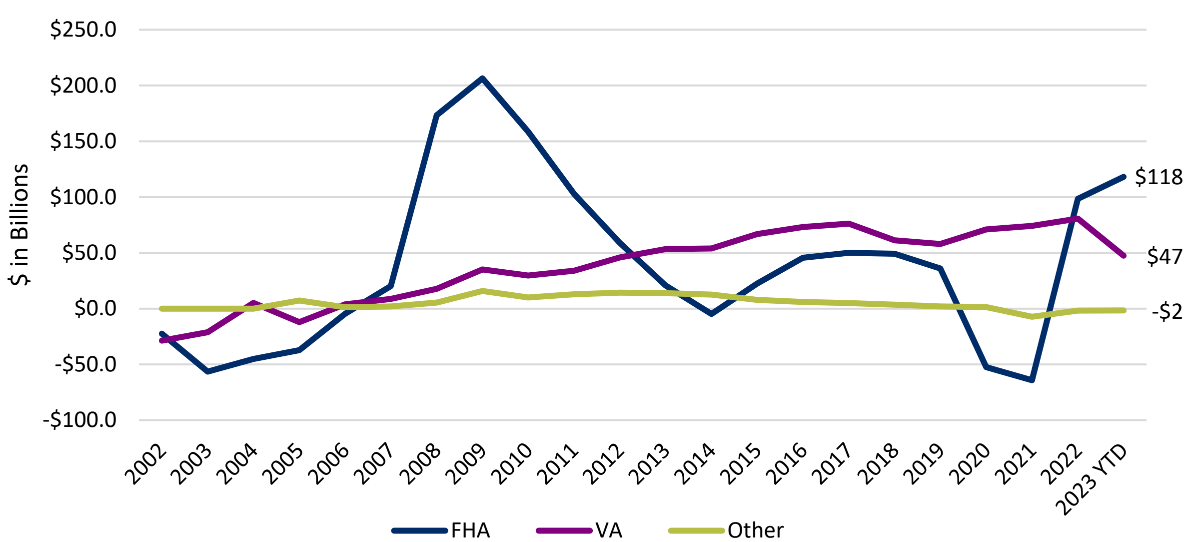


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

Table 4. 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	$127.7	$50.4	-$1.8	$176.3

Figure 23. Ginnie Mae Net Issuance



Source: Recursion. 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.

5.3 Monthly Issuance Breakdown

Agency net issuance for the month of December was approximately $15.0 billion, which represents a $6.6 billion decrease MoM. Ginnie Mae net issuance was $12.6 billion in December, a $2.6 billion decrease from November 2023. Ginnie Mae's $27.3 billion of gross issuance in December, seen in **Table 5**, was approximately $15.4 billion below the average monthly issuance in 2022.

Table 5. 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***
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
Jul-23	$31.7	$27.9	$36.3	$59.6	$95.9	$3.6	$5.9	$18.0	$9.5	$27.5
Aug-23	$27.8	$27.9	$36.5	$55.7	$92.2	-$1.5	$4.8	$17.2	$3.3	$20.5
Sep-23	$28.1	$31.1	$35.1	$59.2	$94.3	$1.9	$10.7	$18.6	$12.6	$31.2
Oct-23	$28.2	$24.5	$32.1	$52.7	$84.8	$2.6	$4.5	$17.0	$7.1	$24.1
Nov-23	$23.8	$25.3	$30.5	$49.1	$79.5	-$0.1	$6.5	$15.2	$6.4	$21.6
Dec-23	$20.9	$23.9	$27.3	$44.8	$72.1	-$2.9	$5.4	$12.6	$2.5	$15.0

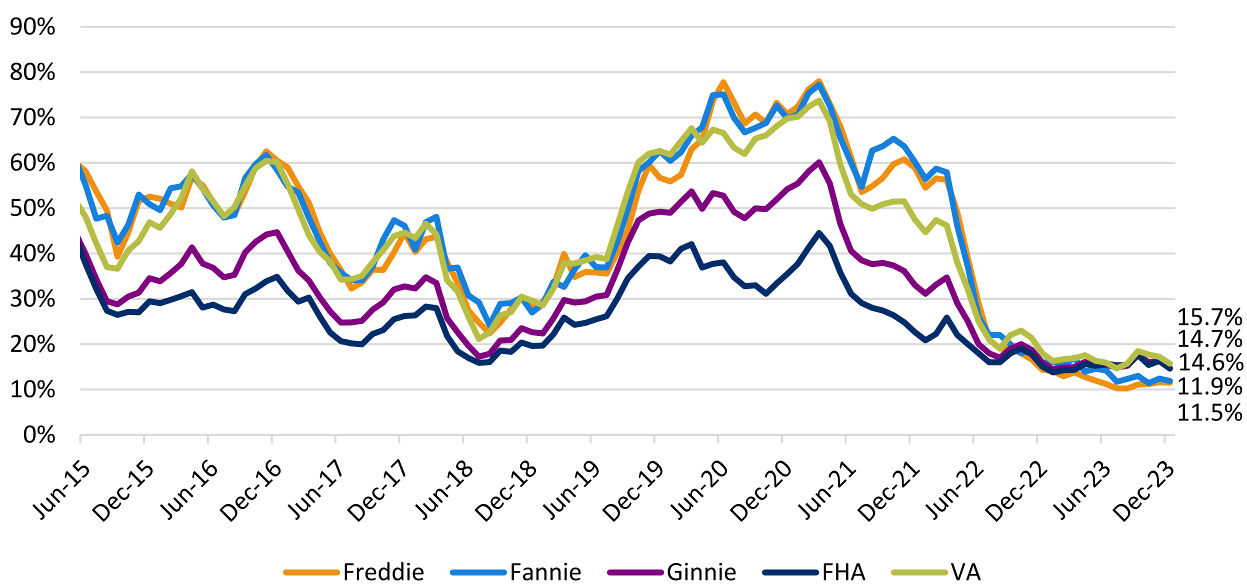
Sources: Beginning May 2021, data for Gross and Net Issuance was sourced from Fannie Mae, Freddie Mac, and Ginnie Mae loan level disclosure files. Net issuance is defined here as the difference between prior period UPB and current period UPB. Data as of December 2023. Beginning with the October 2021 GMAR, the Fannie Mae and Freddie Mac net issuance data have been updated to reflect the current UPB of the portfolios. July 2021 through December 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.

5.4 Percent Refi at Issuance – Single-Family

Refinance activity decreased by approximately 9.8% MoM for Ginnie Mae as of month-end December 2023. The decrease is likely due to elevated mortgage rates discouraging refinance activity.

- Freddie Mac's refinance percentage decreased to 11.5% in December, down from 11.6% in November.
- Fannie Mae's refinance percentage decreased to 11.9% in December, down from 12.4% in November.
- Ginnie Mae's refinance percentage decreased to 14.7% in December, down from 16.3% in November.
- FHA's refinance percentage decreased to 14.6% in December, down from 16.3% in November.
- VA's refinance percentage decreased to 15.7% in December, down from 17.2% in November.

Figure 24. Percent Refinance at Issuance – Single-Family



Source: Recursion. Note: Data as of December 2023.

6 AGENCY SINGLE-FAMILY MBS OUTSTANDING

6.1 Outstanding Single-Family Agency MBS

As of month-end December 2023, outstanding Single-Family MBS in the agency market totaled $8.838 trillion: 40.5% Fannie Mae, 33.4% Freddie Mac, and 26.1% Ginnie Mae MBS. Over the past twelve months, Fannie Mae's, Freddie Mac's, and Ginnie Mae's total outstanding MBS increased by approximately 0.1%, 1.9%, and 8.3%, respectively. Fannie Mae outstanding MBS remains larger than Freddie Mac's and Ginnie Mae's by approximately $627 billion and $1.3 trillion, respectively.

Ginnie Mae MBS collateral composition has changed dramatically over the past five years. In December 2018, 59.7% of Ginnie Mae outstanding collateral was FHA and 34.2% was VA. As of month-end December 2023, FHA collateral comprised 54.3% of Ginnie Mae MBS outstanding, and VA collateral comprised 41.2% of Ginnie Mae MBS outstanding.

Figure 25. Outstanding Agency Mortgage-Backed Securities

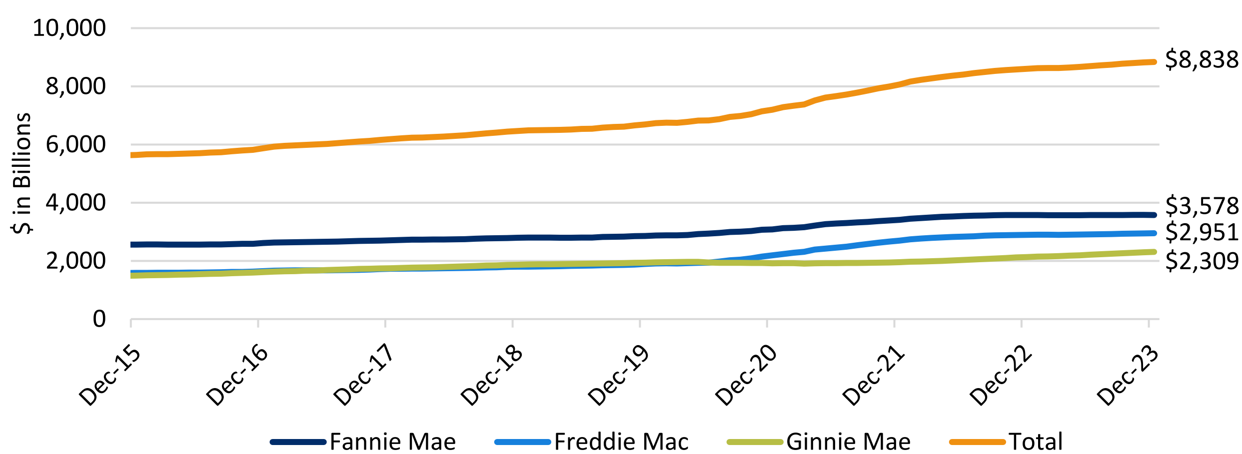
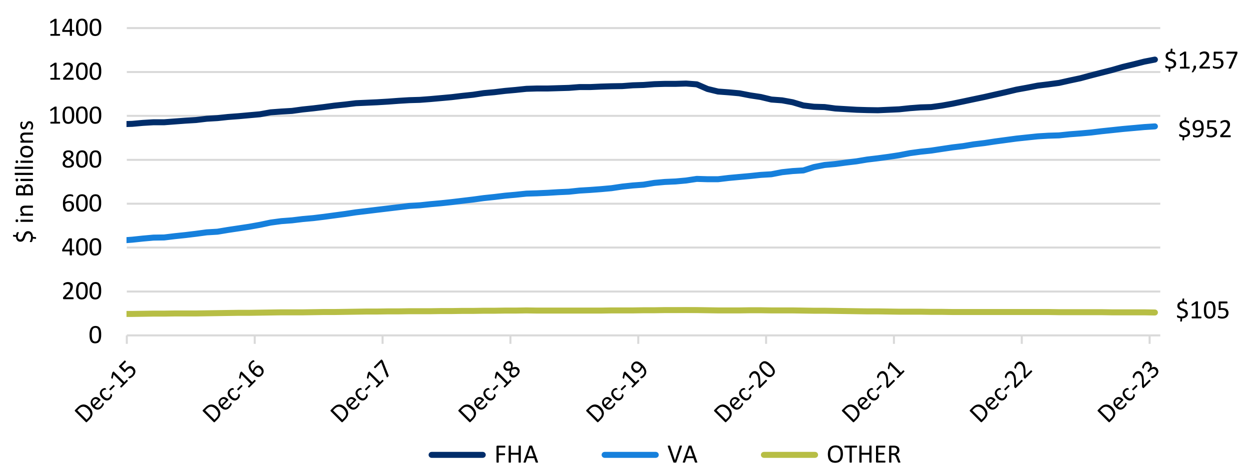


Figure 26. Composition of Outstanding Ginnie Mae Mortgage-Backed Securities



Source: Recursion. Note: Data as of December 2023.

6.2 Origination Volume and Share Over Time

First lien origination volume decreased in Q3 2023, with approximately $385 billion in originations, which represents a decrease in issuance of 3.8% from Q2 2023. Ginnie Mae's share of total origination increased from 22.8% to 26.4% in Q3 2023, while portfolio origination decreased from 32.1% to 26.1%.

Figure 27. First Lien Origination Volume

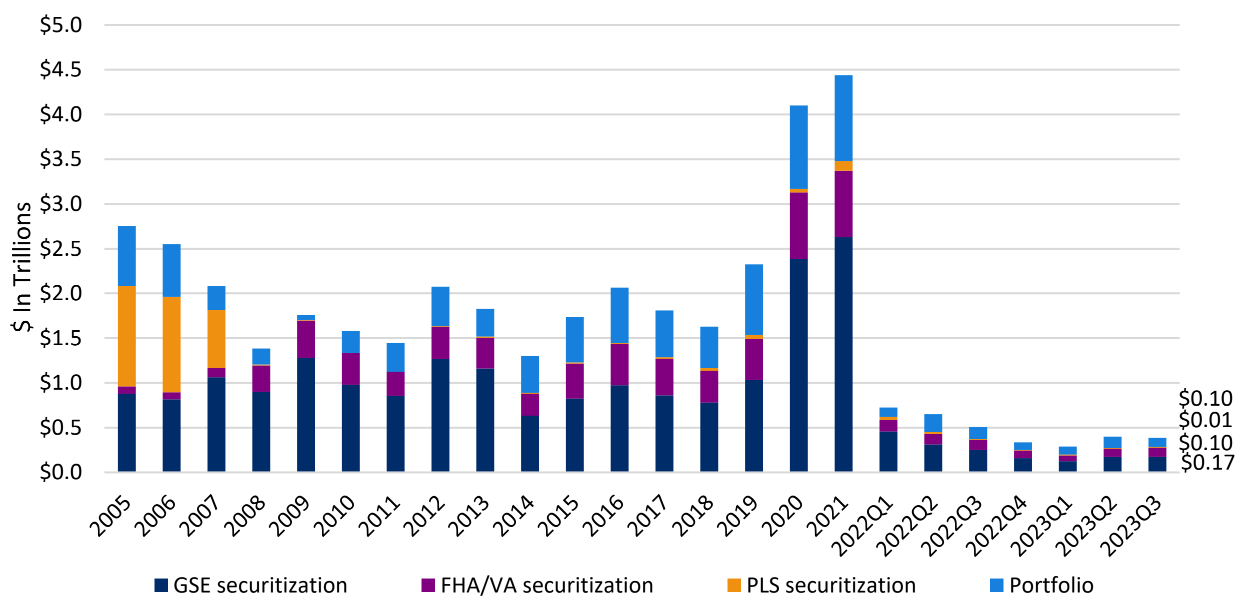
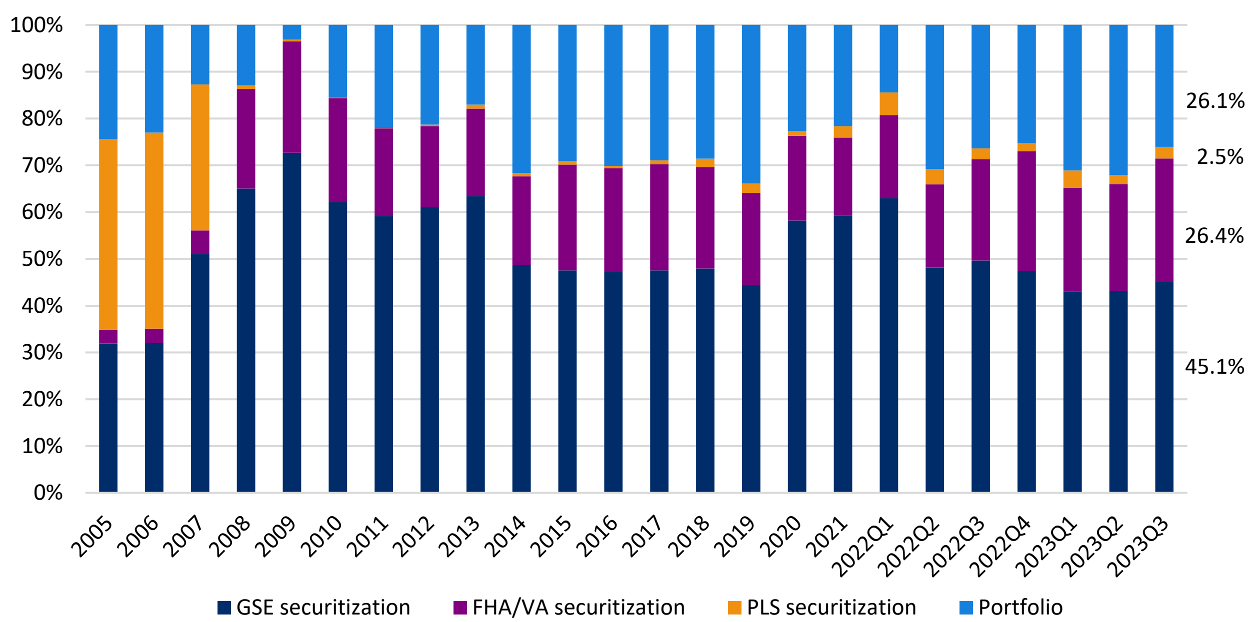


Figure 28. First Lien Origination Share



Source: Inside Mortgage Finance. Note: Data as of Q3 2023.

6.3 Agency Issuance and Agency Outstanding by State

Ginnie Mae MBS represents approximately 38% of new agency issuance over the past year, roughly 11% higher than Ginnie Mae's 27% share of agency outstanding. The share of Ginnie Mae's new agency issuance varies across states, with the highest Ginnie Mae share being Alaska (60%) and the lowest in the District of Columbia (23%). The highest Ginnie Mae outstanding share is in Mississippi and Alaska (49%) and the lowest in the District of Columbia (14%).

Table 6. 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)
	38%	**1,522,177**	**296.62**	**302.05**	**27%**	**11,118,283**	**210.20**	**211.64**
AK	60%	4,065	353.45	308.79	49%	37,892	264.33	220.06
AL	53%	36,095	234.32	247.26	42%	247,137	163.15	178.63
AR	48%	18,766	201.69	234.44	40%	141,120	137.18	162.64
AZ	39%	45,128	337.17	341.35	26%	290,550	230.39	228.24
CA	33%	85,751	470.42	467.78	17%	714,226	335.58	318.91
CO	35%	31,199	418.28	409.31	24%	222,277	301.46	279.44
CT	33%	11,963	280.31	289.81	26%	108,680	205.08	208.98
DC	23%	1,058	511.92	434.69	14%	9,315	390.73	347.05
DE	39%	6,650	286.04	309.00	32%	53,929	208.33	212.47
FL	42%	143,927	320.08	316.29	33%	899,702	222.53	215.61
GA	45%	80,419	276.90	307.74	35%	519,474	188.83	209.84
HI	47%	3,440	625.93	520.13	33%	34,417	473.63	356.81
IA	33%	11,364	192.81	203.96	23%	85,324	138.15	148.41
ID	35%	9,015	343.82	332.87	24%	66,457	228.85	225.09
IL	30%	46,305	219.78	251.66	23%	379,489	163.08	179.48
IN	38%	39,777	203.40	221.67	31%	288,382	139.44	152.64
KS	38%	12,937	204.84	230.44	30%	98,563	144.34	164.62
KY	47%	24,240	208.34	223.54	36%	171,278	148.37	156.50
LA	53%	26,448	210.53	238.80	41%	209,609	160.26	176.85
MA	29%	13,850	397.24	391.12	17%	117,865	290.89	267.66
MD	45%	34,135	352.90	343.52	34%	301,315	268.61	249.08
ME	35%	4,792	263.73	283.45	26%	38,863	182.73	193.10
MI	28%	35,841	196.24	222.08	21%	283,468	137.48	157.18
MN	24%	17,303	263.66	285.26	18%	162,409	186.19	198.87
MO	39%	32,829	209.37	230.04	30%	251,076	146.58	162.99
MS	59%	17,217	211.16	226.52	49%	127,171	148.38	161.67
MT	33%	3,866	329.33	325.84	24%	32,943	216.12	218.01
NC	40%	64,884	271.91	302.40	30%	431,064	184.27	204.82
ND	36%	2,040	248.97	245.98	25%	17,333	195.17	182.80
NE	36%	8,136	233.18	234.34	27%	66,199	154.84	161.78
NH	30%	4,464	334.77	326.71	23%	39,021	231.75	216.51
NJ	31%	28,500	343.52	357.90	22%	238,894	246.41	254.77
NM	48%	12,430	257.66	271.72	39%	98,294	172.55	179.89
NV	43%	20,047	361.46	346.93	31%	140,093	257.07	237.61
NY	28%	32,689	308.84	344.11	20%	313,904	214.94	248.74
OH	37%	55,315	197.15	210.23	30%	436,079	134.49	150.21
OK	49%	25,084	213.36	231.89	43%	194,296	146.02	163.96
OR	29%	13,687	367.33	375.26	20%	114,549	260.77	254.44
PA	31%	43,672	211.92	256.90	26%	397,419	151.54	182.72
RI	45%	4,549	352.36	318.10	31%	37,081	241.56	213.28
SC	45%	39,535	269.30	273.32	35%	247,702	191.05	194.31
SD	41%	3,899	256.55	252.45	30%	30,017	178.66	177.65
TN	41%	41,924	277.46	296.81	32%	279,358	184.94	207.38
TX	39%	167,530	288.10	320.33	33%	1,154,480	192.01	216.77
UT	33%	14,661	397.82	398.28	20%	100,663	273.24	265.76
VA	48%	54,570	342.93	340.65	37%	458,227	261.10	249.91
VI	27%	79	406.04	434.58	24%	801	261.89	306.96
VT	25%	1,353	255.52	276.72	19%	12,388	183.65	181.44
WA	32%	28,317	415.70	426.77	22%	238,909	292.67	290.84
WI	27%	15,567	222.42	237.75	18%	127,085	160.32	163.16
WV	54%	8,286	203.12	197.82	45%	62,277	147.63	145.22
WY	46%	3,188	284.33	277.35	36%	25,522	210.09	201.76

Source: Recursion. Note: Outstanding balance based on loan balance as of December 2023. Values above are based on loan level disclosure data, thus excluding loan balances for 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](#).

6.4 Outstanding Ginnie Mae MBS Volume by Coupon and Vintage Over Time

As of month-end December 2023, the weighted average coupon (WAC) on outstanding Ginnie Mae MBS increased slightly from 3.48% in November 2023 to 3.51% as seen in **Figure 29**. **Figure 30** illustrates that loans originated since 2019 account for approximately 82% of Ginnie Mae MBS collateral outstanding.

Figure 29. Outstanding Ginnie Mae MBS Balance, by Coupon

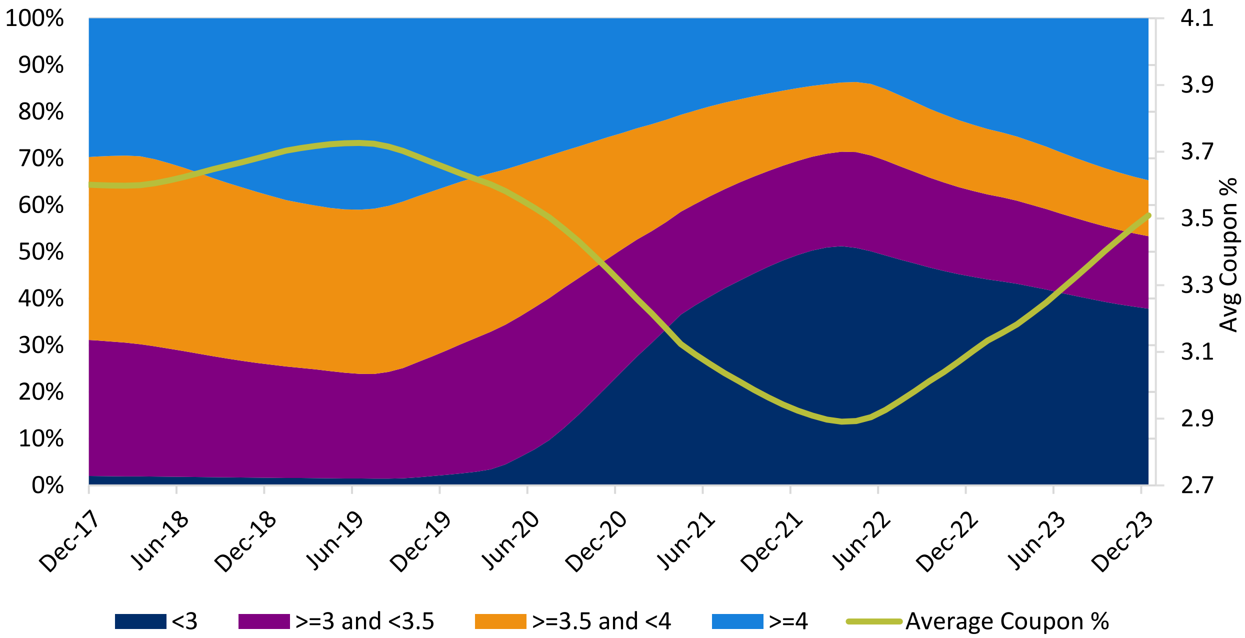
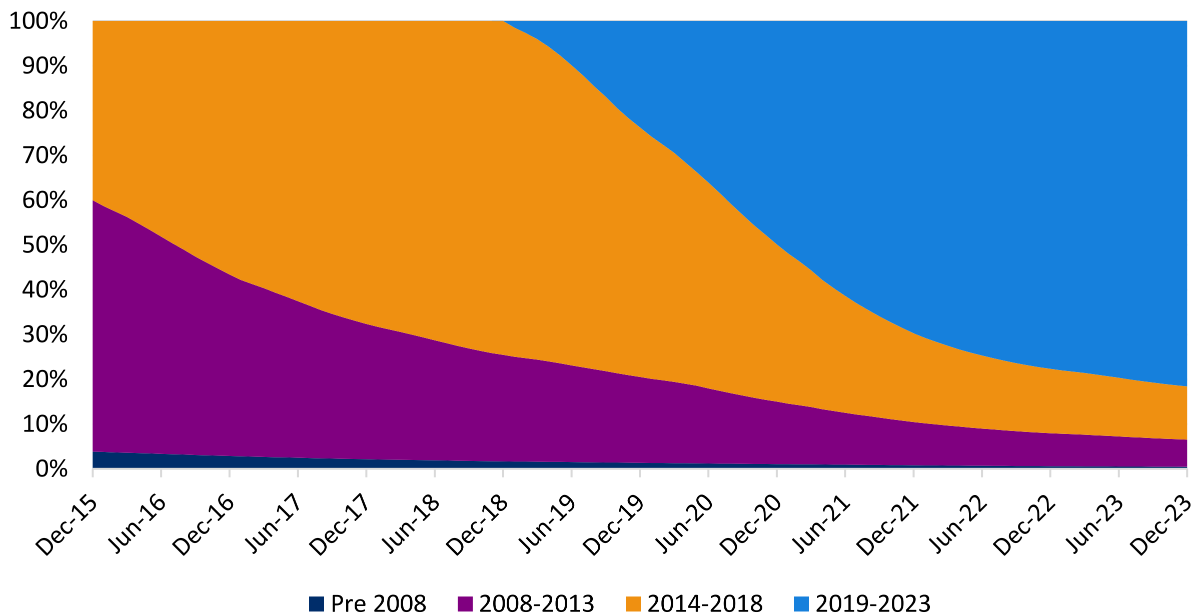


Figure 30. Outstanding Ginnie Mae MBS Balance, by Vintage



Source: Recursion. Note: December 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.

7 AGENCY REMIC SECURITIES

7.1 Monthly REMIC Demand for Ginnie Mae MBS

Ginnie Mae Real Estate Mortgage Investment Conduit (REMIC) issuance volume for the month of December was approximately $7.8 billion. This represents a 11.74% MoM decrease from $8.8 billion in November 2023, and a 3.31% decrease YoY from $8.1 billion in December 2022. Approximately $215.5 million of the December 2023 issuance volume were Multifamily MBS having coupons over 4.0% and approximately $6.5 billion were Single-Family MBS having coupons over 6.0%. $288.9 million of previously securitized REMICs were re-securitized into new REMIC deals in December.

Figure 31. Ginnie Mae Single-Family and Multifamily REMIC Issuance

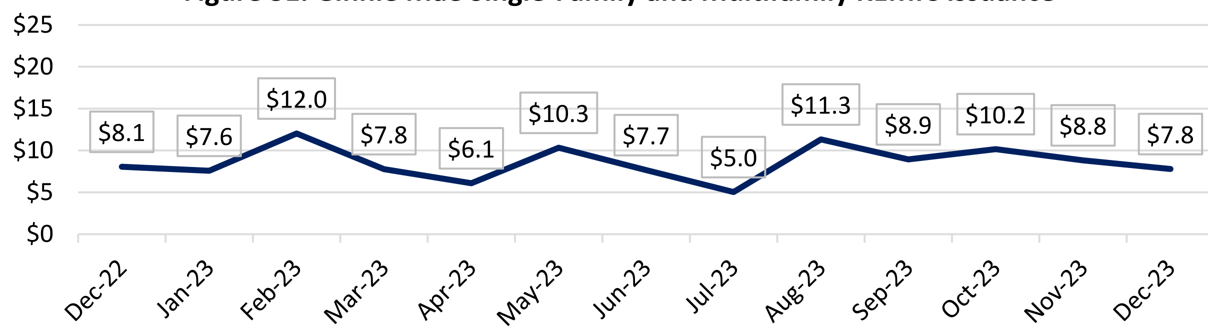


Table 7. December 2023 REMIC Collateral Coupon Distribution

Net Coupon (%)	***Approx. Ginnie Mae MBS amount securitized into REMIC Deals ($MM)*** [5]	***% Breakdown of REMIC Collateral by coupon***
Multifamily		
3.501-4.000	243.5	53.1%
4.501-5.000	215.5	46.9%
Subtotal	**459.0**	**100.0%**
Single-Family		
ReREMIC	288.9	3.9%
2.001-2.501	1.7	0.0%
2.501-3.001	41.2	0.6%
4.001-4.501	133.9	1.8%
4.501-5.001	110.9	1.5%
5.001-5.501	259.5	3.5%
6.001-6.501	2,798.3	38.2%
6.501-7.001	3,424.7	46.7%
>7.001	271.0	3.7%
Subtotal	**7,330.0**	**100.0%**
Grand Total	**7,788.9**	**100.0%**

Source: Ginnie Mae Disclosure Files

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

7.2 REMIC Market Snapshot

- In December 2023, Ginnie Mae and Freddie Mac saw increases in their single-family REMIC issuance collateral coupon of 2 bps and 25 bps, respectively, to new 12-month highs. Fannie Mae's single-family REMIC issuance collateral coupon decreased 15 bps MoM.
- In December 2023, Ginnie Mae and Freddie Mac saw decreases of 4 bps and 11 bps, respectively, in their multifamily REMIC issuance collateral coupon. Fannie Mae did not issue a multifamily REMIC deal in December, marking their 5th time doing so in 2023.
- In December 2023, Ginnie Mae and Fannie Mae issued 17 deals and 6 deals, respectively, across SF and MF. That was a decrease of 3 deals and 2 deals, respectively. Freddie Mac issued 20 deals, across SF and MF, an increase of 6 deals MoM.
- In December 2023, total single-family and multifamily issuance across the three agencies fell 11.8% or $2.02 billion from November.

Figure 32. December 2023 REMIC Issuance by Agency

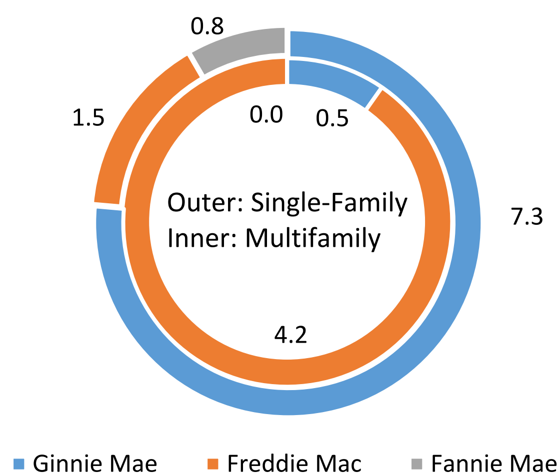


Table 8. Monthly REMIC Issuance by Agency

	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	7.33	76.4%	12	0.46	9.8%	4
Freddie Mac	1.46	15.2%	11	4.24	90.2%	9
Fannie Mae	0.80	8.4%	6	0.00	0.0%	0
Total [6]	$9.60	100%	29	$4.70	100%	13

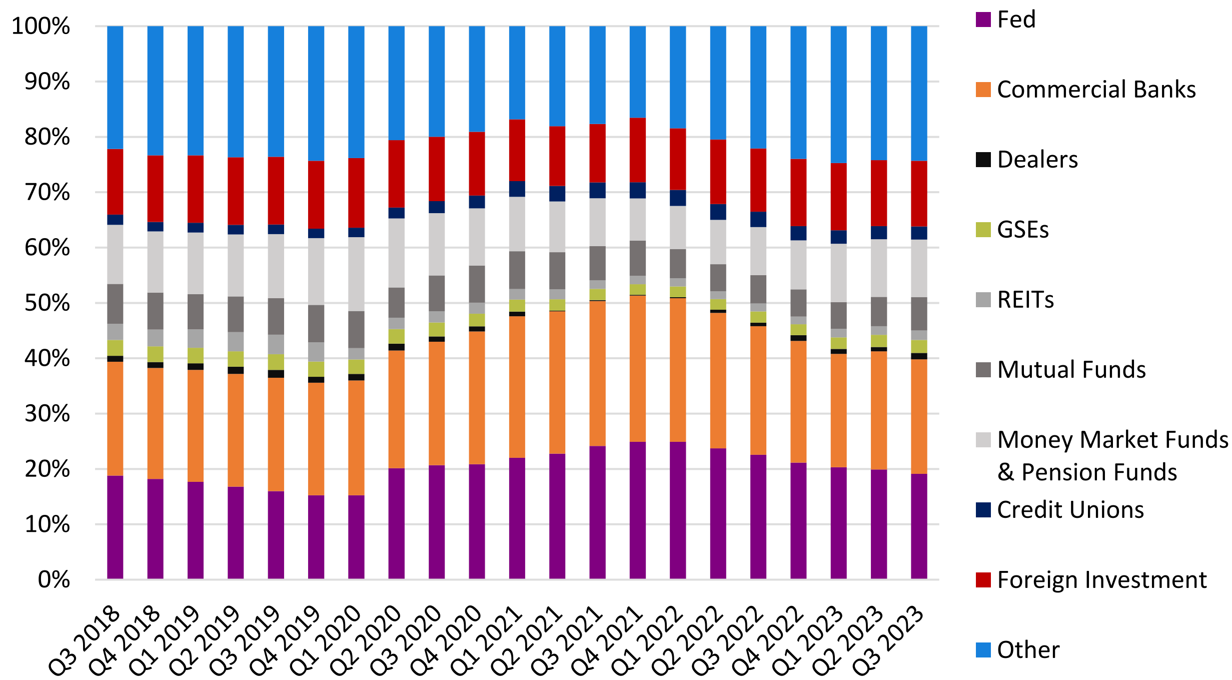
Source: Ginnie Mae Disclosure Files

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

8 MBS OWNERSHIP

As of Q3 2023, the largest holders of agency debt (agency MBS + agency notes and bonds) included commercial banks (21%), the Federal Reserve (19%), and foreign investors (12%). The Federal Reserve's share decreased slightly by 1% in the third quarter of 2023 as compared to the second quarter of 2023. Out of the approximately $2.5 trillion in holdings as of the end of December 2023, roughly $1.91 trillion was held by the top 25 domestic banks per **Table 9** below.

Figure 33. 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 Q3 2023.

8.1 Commercial Bank Holdings of Agency MBS

Table 9. Commercial Bank Holdings of Agency MBS

	Commercial Bank Holdings ($Billions)								
	Apr-23	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**
Largest 25 Domestic Banks	1,953.4	1,947.1	1,961.3	1,955.1	1,944.4	1,940.1	1,921.3	1,927.7	1,907.9
Small Domestic Banks	627.8	628.4	618.2	610.5	602.0	587.2	578.1	572.8	581.8
Foreign Related Banks	26.8	24.0	26.2	24.3	23.2	25.9	26.7	30.1	27.6
Total, Seasonally Adjusted	**2,608.0**	**2,599.5**	**2,605.7**	**2,589.9**	**2,569.6**	**2,553.2**	**2,526.1**	**2,530.6**	**2,517.3**

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

8.2 Bank and Thrift Residential MBS Holdings

In Q3 2023, MBS holdings at banks and thrifts continued to decrease. The decrease was mostly driven by GSE pass-throughs and Agency CMO holdings. Ginnie Mae pass-throughs saw a decrease of 2.8%, showing the smallest percentage decrease of all banks and thrifts, quarter over quarter (QoQ). Total bank and thrift MBS holdings decreased by approximately 12.1% from Q3 2022 and 6.3% from Q2 2023. Out of the $2.14 trillion in MBS holdings at banks and thrifts as of Q3 2023, $1.29 trillion were GSE pass-throughs and $373 billion were Ginnie Mae pass-throughs.

Table 10. 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
2Q23	$2,280.38	$1,389.37	$383.52	$3.03	$446.19	$58.27	$2,022.46	$257.92
3Q23	$2,137.37	$1,289.29	$372.71	$2.63	$416.84	$55.89	$1,892.93	$244.44
Change:								
2Q23-3Q23	-6.3%	-7.2%	-2.8%	-13.1%	-6.6%	-4.1%	-6.4%	-5.2%
3Q22-3Q23	-12.1%	-15.2%	5.9%	-20.0%	-16.1%	-5.7%	-12.2%	-11.2%

Source: Inside Mortgage Finance. Notes: Data as of Q3 2023.

Table 11. Top 20 Bank and Thrift Residential MBS Investors ($ in millions)

Rank	Institution	Total	GSE PT	GNMA PT	Agency CMO	Non-Agency	Share
1	Bank Of America Corporation	$391,501.0	$329,448.0	$56,255.0	$5,656.0	$142.0	18.3%
2	Wells Fargo & Company	$221,156.0	$141,703.0	$77,058.0	$2,337.0	$58.0	10.3%
3	JPMorgan Chase & Co.	$155,852.0	$65,121.0	$78,094.0	$492.0	$12,145.0	7.3%
4	Charles Schwab	$146,103.0	$82,508.0	$5,184.0	$58,411.0	$0.0	6.8%
5	Truist Bank	$94,378.0	$47,324.0	$10,741.0	$33,505.0	$2,808.0	4.4%
6	U.S. Bancorp	$93,011.4	$59,409.8	$23,102.3	$10,499.2	$0.1	4.4%
7	Citigroup Inc.	$82,089.0	$63,563.0	$15,799.0	$2,110.0	$617.0	3.8%
8	PNC Bank, National Association	$66,149.3	$56,128.4	$3,733.4	$5,346.2	$941.3	3.1%
9	Capital One Financial Corporation	$59,512.4	$28,072.3	$13,922.7	$17,197.5	$320.0	2.8%
10	Morgan Stanley	$47,308.0	$29,290.0	$6,466.0	$11,523.0	$29.0	2.2%
11	Bank Of New York Mellon Corporation	$37,611.0	$26,281.0	$1,471.0	$8,096.0	$1,763.0	1.8%
12	USAA Federal Savings Bank	$35,306.0	$29,812.0	$1,734.0	$3,760.0	$0.0	1.7%
13	State Street Bank and Trust Company	$34,679.3	$12,693.0	$7,927.0	$12,493.3	$1,566.0	1.6%
14	BMO Harris Bank National Association	$28,675.4	$3,870.8	$5,751.2	$19,053.4	$0.0	1.3%
15	The Huntington National Bank	$26,094.3	$10,300.1	$8,502.9	$7,172.6	$118.7	1.2%
16	TD Bank USA/TD Bank NA	$25,998.1	$1,164.1	$70.8	$24,730.9	$32.3	1.2%
17	KeyBank National Association	$23,122.6	$3,463.2	$167.6	$19,491.8	$0.0	1.1%
18	HSBC Bank USA, National Association	$23,053.7	$3,876.6	$14,222.4	$4,954.0	$0.7	1.1%
19	Citizens Bank, National Association	$22,907.3	$11,578.3	$5,101.0	$6,228.1	$0.0	1.1%
20	Ally Bank	$18,161.0	$11,369.0	$1,675.0	$1,457.0	$3,660.0	0.8%
Total	**Top 20**	**$1,632,668.7**	**$1,016,975.5**	**$336,978.3**	**$254,514.0**	**$24,201.0**	**76.4%**

Source: Inside Mortgage Finance. Notes: Data as of Q3 2023.

8.3 SOMA Holdings

FOMC and Economic Highlights:

Federal Open Market Committee Meeting 12/13/2023 Press Release:

- "The Committee decided to maintain the target range for the federal funds rate at 5-1/4 to 5-1/2 percent."
- "Tighter financial and credit conditions for households and businesses are likely to weigh on economic activity, hiring, and inflation. The extent of these effects remains uncertain. The Committee remains highly attentive to inflation risks."
- "The Committee is strongly committed to returning inflation to its 2 percent objective."
- "The Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities, as described in its previously announced plans."
- Powell indicated in his press conference that "we are likely at or near the peak rate for this cycle," but is "not taking the possibility of future rate hikes off the table." The next FOMC meeting is scheduled for January 30-31.

SOMA Portfolio Highlights (Nov 29, 2023 vs. Dec 27, 2023)

- SOMA holdings of domestic securities totaled \$7.1 trillion on December 27th (a decrease of \$67.8 billion or -0.94% from November 29th). \$52.5 billion (77% of the total decrease) was in U.S. Treasury holdings and \$15.2 billion (23% of the total decrease) was in Agency MBS.
- Since the institution of redemption caps in June 2022, SOMA holdings have decreased by \$1.275 trillion. The total reduction of holdings of U.S. Treasuries was \$1.0 trillion and \$275.0 billion of Agency MBS. This represents 95.8% and 44.9% of the total redemption cap over the period for U.S. Treasuries and Agency MBS, respectively.
- Agency MBS comprise about 34% of the total SOMA portfolio. The \$15.2 billion monthly decrease was primarily due to MBS principal repayments rather than outright sales and was comprised of a \$6.4 billion decrease in Fannie Mae holdings, a \$5.4 billion decrease in Freddie Mac holdings, and a \$3.4 billion decrease in Ginnie Mae holdings.
- Over 99% of SOMA Agency MBS holdings have coupons of 4.5% or lower with an average WAC of 2.507%.
- The redemption cap for SOMA's Agency MBS holdings is set at \$35 billion per month. The reduction of \$15.2 billion in Agency MBS represents 43% of the monthly liquidation cap.

Table 12. SOMA Holdings as of November 29, 2023 and December 27, 2023 (\$ Billions)

Holdings by Security Type	*November 29, 2023*		*December 27, 2023*		*Month-Over-Month*	
	SOMA Holdings	*% Share*	*SOMA Holdings*	*% Share*	*\$ Change*	*% Change [7]*
U.S. Treasuries	\$4,729.1	65.89%	\$4,676.6	65.77%	-\$52.5	-1.11%
Federal Agency Debt	\$2.3	0.03%	\$2.3	0.03%	\$0.0	0.00%
Agency MBS	\$2,438.8	33.79%	\$2,423.5	34.08%	-\$15.2	-0.62%
Agency Commercial MBS	\$8.3	0.12%	\$8.2	0.12%	\$0.0	-0.50%
Total SOMA Holdings	**\$7,178.5**	**100.0%**	**\$7,110.7**	**100.0%**	**-\$46.4**	**-0.64%**

[7] *Table 12 illustrates figures in \$ billions, any change less than \$50 million will be expressed as a "\$0.0" change in the "\$ Change" column.*

Table 13. SOMA Agency MBS Holdings Distribution ($ Billions)

Agency	Singly-Family AMBS Outstanding December 1, 2023	% AMBS Outstanding	SOMA AMBS Holdings November 29, 2023	% SOMA Holdings	SOMA AMBS Holdings December 27, 2023	% SOMA Holdings
Fannie Mae	$3,580.5	40.6%	$1,004.3	41.2%	$997.9	41.2%
Freddie Mac	$2,945.4	33.4%	$931.4	38.2%	$926.0	38.2%
Ginnie Mae	$2,296.9	26.0%	$503.1	20.6%	$499.6	20.6%
Total	**$8,822.7**	**100.0%**	**$2,438.8**	**100.0%**	**$2,423.5**	**100.0%**

Table 14. SOMA Agency MBS Liquidations from Nov 29, 2023 to Dec 27, 2023 ($ Billions)

	MBS Holdings as of 11.29.23	*MBS Holdings 12.27.23*	*Liquidated Amount*	*Liquidation Cap* [8]	*% of Liquidation Cap*
Total	$2,438.8	$2,423.5	$15.2	$35.0	43%

Source: New York FED SOMA Holdings https://www.newyorkfed.org/markets/soma-holdings. Notes: The liquidation cap is per calendar month. Our analysis here instead covers a four-week period to maintain consistency with other analyses in this report.

[8] *The Liquidation cap is per calendar month. Our analysis here instead covers a four-week period to maintain consistency with other analyses in this report.*

8.4 Foreign Ownership of MBS

For the month of November 2023, foreign ownership of MBS represented $1.31 trillion in Agency MBS, up approximately $124 billion from November 2022. Total foreign ownership of Agency MBS represents roughly 14% of total Agency MBS outstanding. Total foreign ownership excluding Fed Holdings and CMO's represents roughly 24% of total Agency MBS available.

Figure 34. Agency MBS Owned by Foreign Entities Ex-Fed Holdings and CMO's (USD Billions)

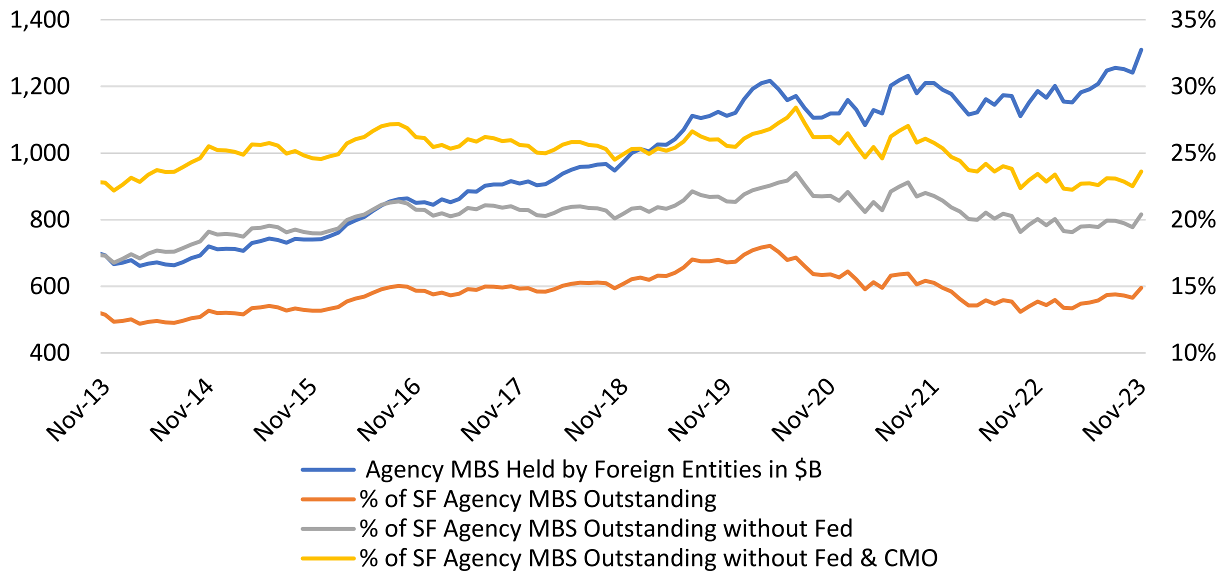
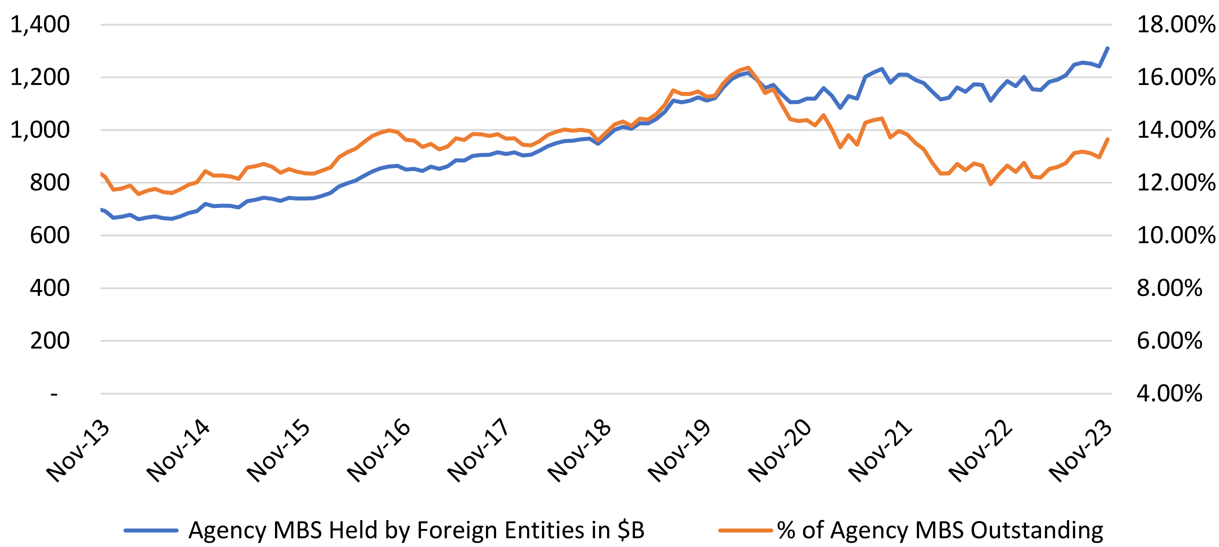


Figure 35. Agency MBS Owned by Foreign Entities (USD Billions)



Sources: TIC and Recursion, as of November 2023.

8.5 Foreign Ownership of Agency Debt and Agency MBS

The largest holders of Agency MBS were China, Japan, and Taiwan. As of September 2023, these three owned roughly 54% of all foreign owned Agency MBS. Between September 2022 and September 2023, China and Japan increased their Agency MBS holdings while Taiwan's holdings decreased. China's holdings increased by $13.6 billion, Japan's holdings increased by $19.7 billion, and Taiwan's holdings decreased by $8.4 billion.

Table 15. All Agency Debt

Country	*Level of Holdings ($ Millions)*				*Change in Holdings ($ Millions)*			
	12/1/2022	3/1/2023	6/1/2023	9/1/2023	Q4 2022	Q1 2023	Q2 2023	Q3 2023
China	251,592	263,892	269,980	255,110	10,069	12,300	6,088	-14,870
Japan	278,069	287,051	253,357	252,463	45,300	8,982	-33,694	-894
Taiwan	210,309	212,533	208,226	201,010	856	2,224	-4,307	-7,216
Canada	97,234	105,527	105,330	116,642	7,921	8,293	-197	11,312
United Kingdom	61,393	41,101	55,682	90,017	5,045	-20,292	14,581	34,335
Luxembourg	47,240	51,202	40,971	42,656	8,681	3,962	-10,231	1,685
Ireland	22,478	25,099	36,766	39,697	4,786	2,621	11,667	2,931
Cayman Islands	30,941	29,485	30,398	37,089	-4,140	-1,456	913	6,691
South Korea	36,237	38,131	36,737	36,508	594	1,894	-1,394	-229
France	19,609	22,578	20,411	24,287	3,410	2,969	-2,167	3,876
Other	225,466	196,641	208,190	218,177	34,361	-28,825	11,549	9,987
Total	**1,280,568**	**1,273,240**	**1,266,048**	**1,313,656**	**116,883**	**-7,328**	**-7,192**	**47,608**

Table 16. Agency MBS

Country	*Level of Holdings ($ Millions)*		
	9/1/2022	9/1/2023	*YoY Change in Holdings ($ Millions)*
China	241,523	255,110	13,587
Japan	232,769	252,463	19,694
Taiwan	209,453	201,010	-8,443
Canada	89,313	116,642	27,329
United Kingdom	56,348	90,017	33,669
Luxembourg	38,559	42,656	4,097
Ireland	17,692	39,697	22,005
Cayman Islands	35,081	37,089	2,008
South Korea	35,643	36,508	865
France	16,199	24,287	8,088
Other	191,105	218,177	27,072
Total	**1,163,685**	**1,313,656**	**149,971**

Source: Treasury International Capital (TIC). Note: Level of agency debt Holdings by month data as of Q3 2023. Agency MBS as of September 2023. Table 16 includes the top 10 holders of agency debt listed as of September 2023.

9 FIXED INCOME LIQUIDITY INDICATORS

The Agency MBS average daily trading volume YTD as of month-end December 2023 was $255 billion, which was up from a monthly average of $241 billion for calendar year 2022. As of month-end December 2023, Agency MBS average daily trading volume decreased 7.1% MoM. *See footnote below for update on "Average Daily Turnover by Sector" data.*

Figure 36. Average Daily Trading Volume by Sector

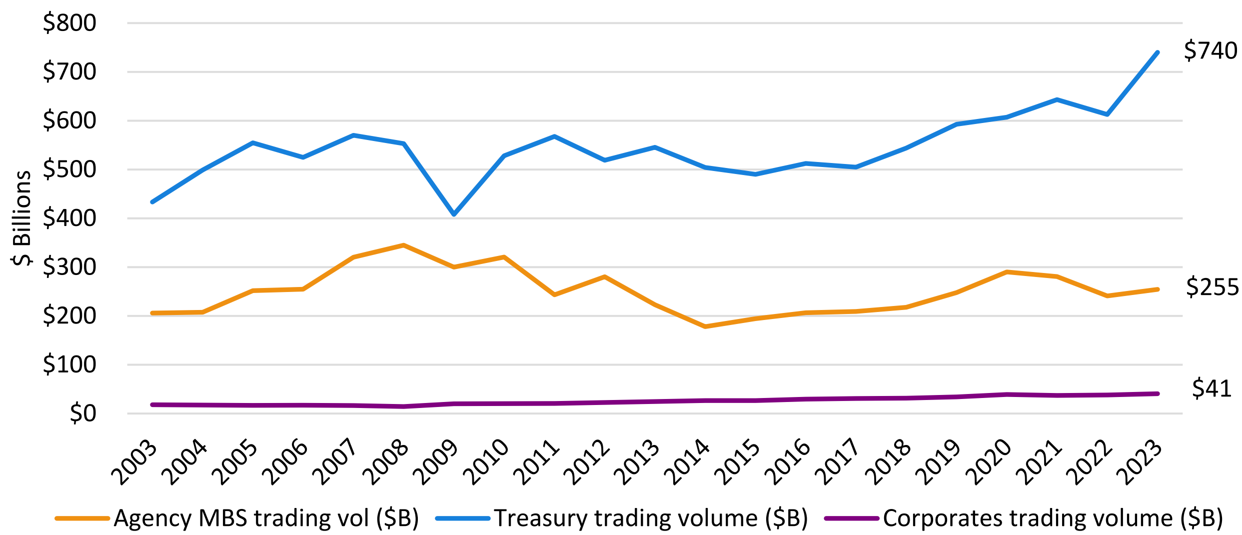
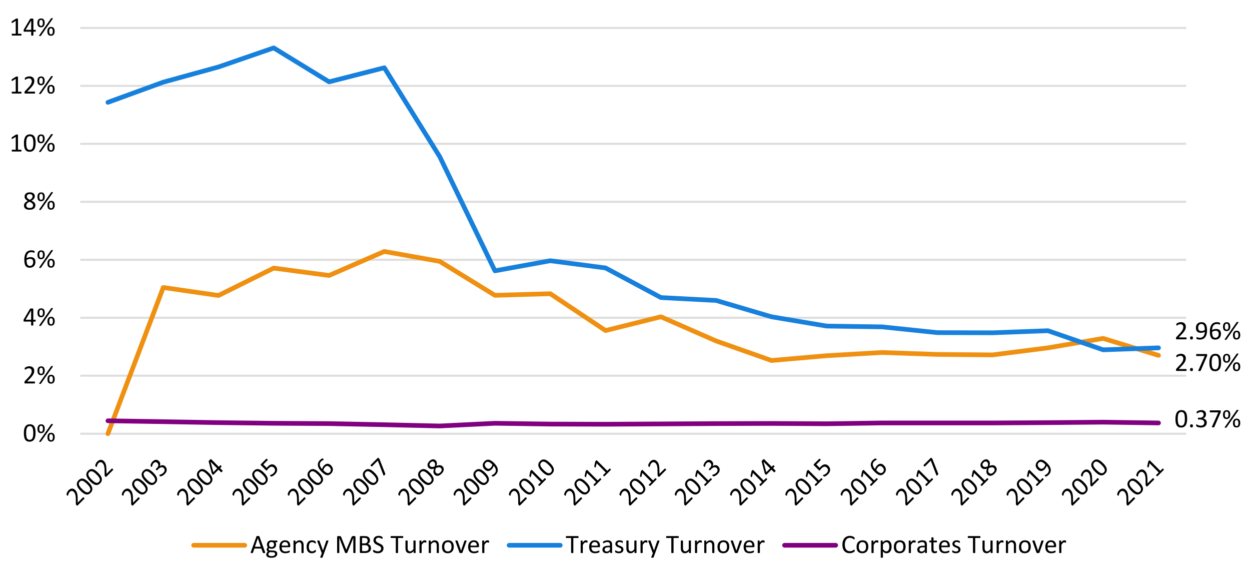


Figure 37. Average Daily Turnover by Sector



Source: SIFMA. Note: Data as of December 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

10 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 December 2023. The distribution statistics capture some key differences in the populations served by the agencies.

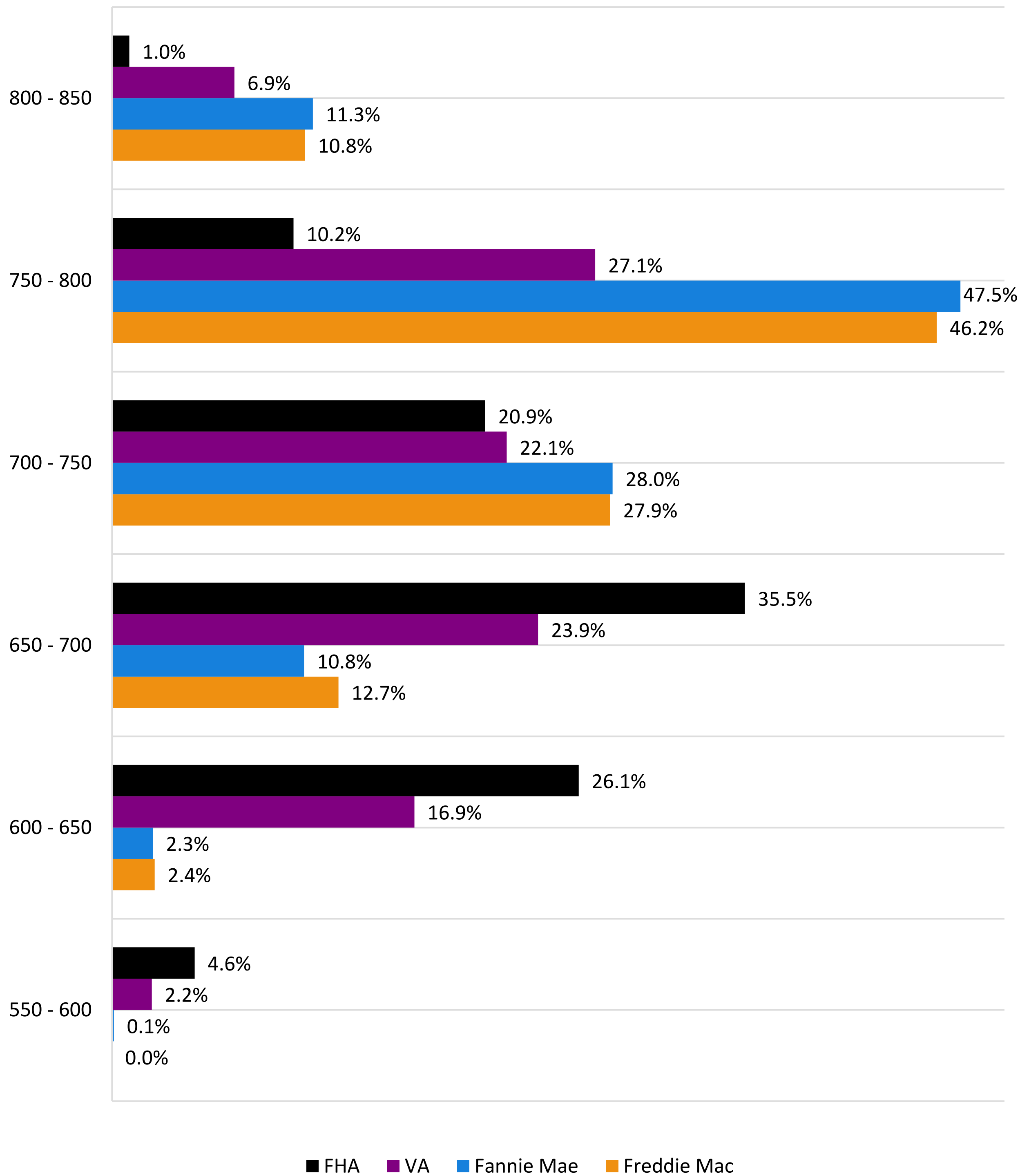
10.1 Credit Scores

Table 17. Share of Loans by FICO Score

			Purchase FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	190,707	655	697	746	781	799	736
Fannie	58,198	699	731	765	789	802	757
Freddie	64,351	692	727	763	788	802	754
Ginnie	68,158	629	656	695	744	781	700
			Refi FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	38,650	625	657	704	755	788	704
Fannie	11,047	661	697	739	776	798	734
Freddie	11,832	663	695	735	772	796	732
Ginnie	15,771	598	628	658	694	734	662
			All FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	229,357	647	688	740	778	798	730
Fannie	69,245	691	726	761	787	801	753
Freddie	76,183	686	722	760	787	801	751
Ginnie	83,929	623	649	687	736	777	693
			Purchase FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	68,158	629	656	695	744	781	700
FHA	44,829	626	650	683	725	761	689
VA	21,126	639	675	732	777	798	724
Other	2,203	634	659	695	735	765	698
			Refi FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	15,771	598	628	658	694	734	662
FHA	11,092	593	624	653	685	720	654
VA	4,672	610	640	674	717	757	679
Other	7	644	654	689	695	743	692
			All FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	83,929	623	649	687	736	777	693
FHA	55,921	620	645	677	718	757	682
VA	25,798	631	665	719	770	796	716
Other	2,210	634	659	695	735	765	698

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

Figure 38. FICO Distributions by Agency



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

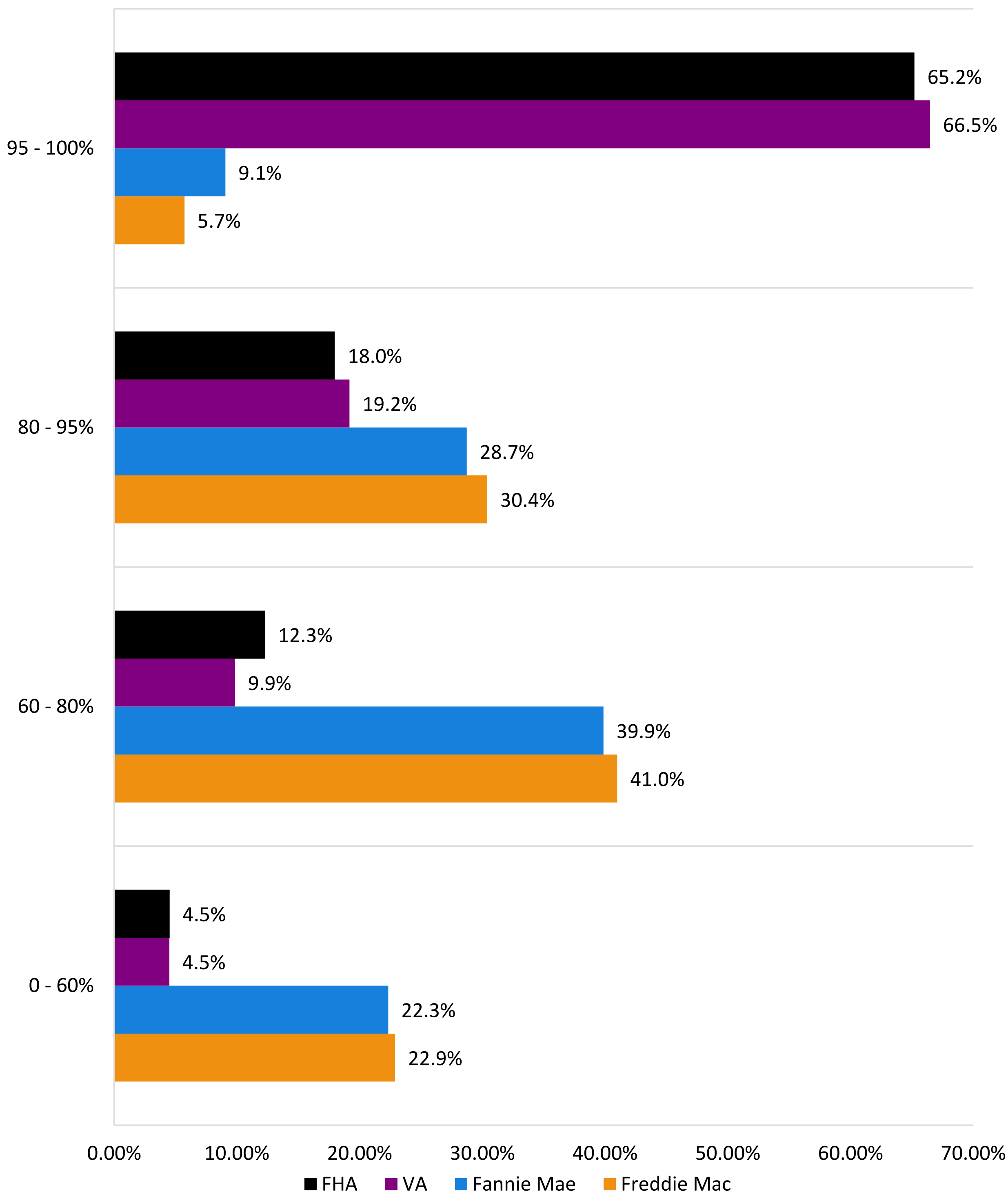
10.2 Loan-to-Value (LTV)

Table 18. Share of Loans by LTV

Names	Number of Loans	P10	P25	Median	P75	P90	Mean
Purchase LTV							
All	190,951	60	80	90	97	99	85
Fannie	58,289	54	75	80	95	97	79
Freddie	64,368	51	71	80	94	95	78
Ginnie	68,294	89	97	98	100	100	96
Refi LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	38,798	31	48	66	79	84	62
Fannie	11,050	26	39	55	68	76	53
Freddie	11,833	26	40	58	70	79	55
Ginnie	15,915	52	67	79	81	91	74
All LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	229,749	51	73	85	97	98	81
Fannie	69,339	44	65	80	91	95	75
Freddie	76,201	44	64	80	90	95	74
Ginnie	84,209	74	90	98	99	100	92
Purchase LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	68,294	89	97	98	100	100	96
FHA	44,919	90	97	98	98	98	96
VA	21,150	81	100	100	100	101	96
Other	2,225	90	98	101	101	101	97
Refi LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	15,915	52	67	79	81	91	74
FHA	11,176	48	64	76	81	81	70
VA	4,731	62	77	90	96	100	84
Other	8	35	40	53	82	85	58
All LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	84,209	74	90	98	99	100	92
FHA	56,095	73	86	97	98	98	90
VA	25,881	76	90	100	100	100	93
Other	2,233	89	97	101	101	101	97

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

Figure 39. Loan-to Value by Agency



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

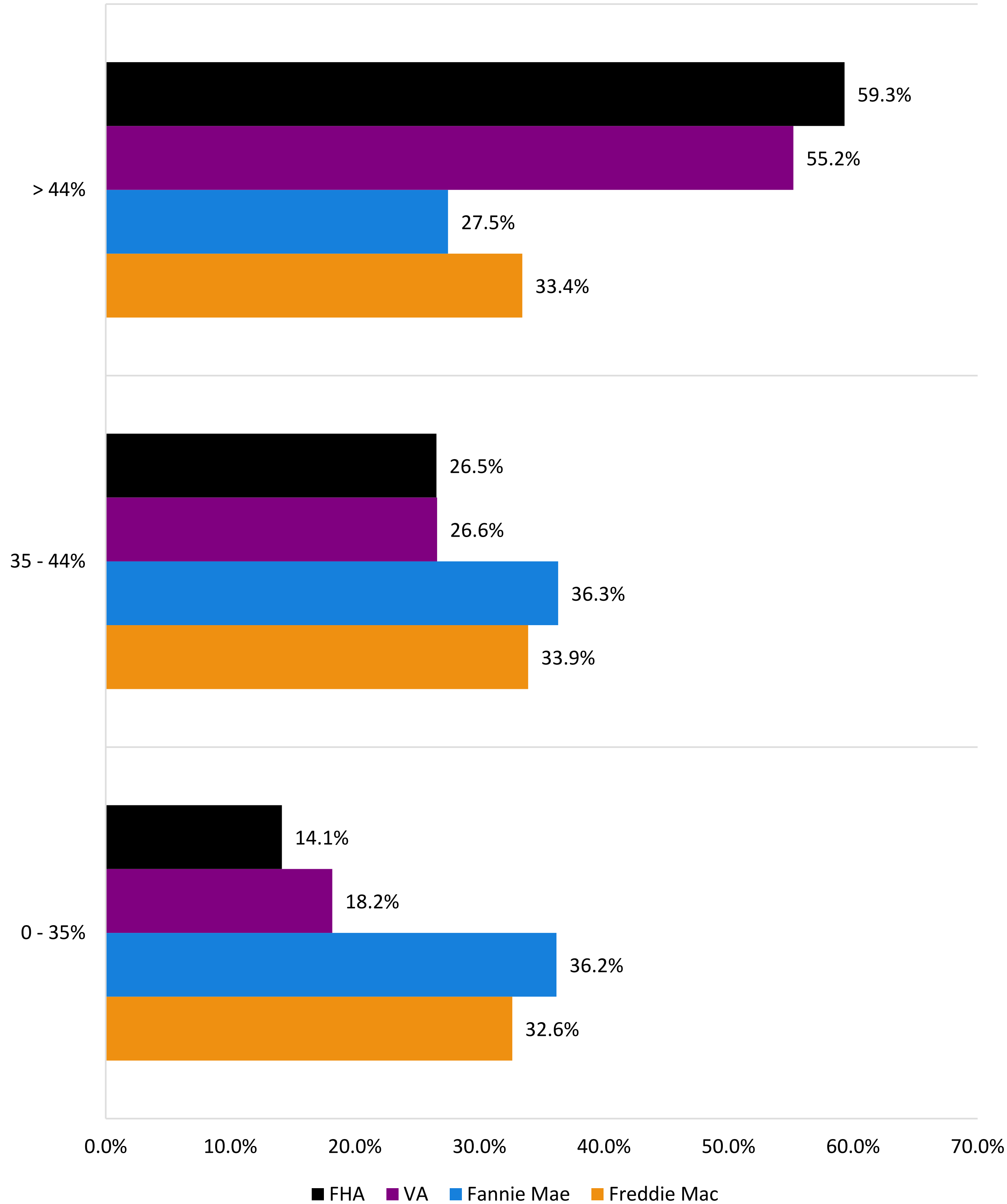
10.3 Debt-to-Income (DTI)

Table 19. Share of Loans by DTI

Purchase DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	190,624	27	35	42	48	51	41
Fannie	58,289	25	32	40	45	49	38
Freddie	64,368	25	33	41	46	49	39
Ginnie	67,967	33	40	46	52	56	45
Refi DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	38,532	25	33	41	47	50	40
Fannie	11,050	23	30	38	43	47	36
Freddie	11,833	25	33	41	46	49	39
Ginnie	15,649	29	36	44	50	55	43
All DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	229,156	27	34	42	48	51	41
Fannie	69,339	24	32	39	45	48	38
Freddie	76,201	25	33	41	46	49	39
Ginnie	83,616	32	39	46	52	55	45
Purchase DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	67,967	33	40	46	52	56	45
FHA	44,903	34	41	47	52	55	46
VA	20,842	31	38	46	52	57	45
Other	2,222	28	32	36	40	42	35
Refi DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	15,649	29	36	44	50	55	43
FHA	11,038	29	36	44	50	55	42
VA	4,603	29	36	44	50	55	43
Other	8	27	32	36	40	40	35
All DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	83,616	32	39	46	52	55	45
FHA	55,941	33	40	46	52	55	45
VA	25,445	31	38	46	52	56	44
Other	2,230	28	32	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 40. Debt-to Income by Agency



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

10.4 High LTV Loans: Ginnie Mae vs. GSEs

Comparing the three-month range of October 2022 – December 2022 to the three-month range of October 2023 – December 2023, the share of high-LTV agency loans with:

- FICO scores above 750 increased by approximately 11.3%.
- DTIs below 35% decreased by approximately 19.2%.

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 70.97% of its issuances between October 2023 – December 2023 having LTVs of 95 or above, compared to 22.06% for the GSEs.

Table 20. Share of Loans with LTV > 95

	Ginnie Mae	*GSE*	*All*
Oct 2022 - Dec 2022	68.45%	22.84%	40.22%
Oct 2023 - Dec 2023	70.97%	22.06%	40.65%

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

	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	2.14%	3.35%	4.57%	6.96%	0.04%	17.05%
35-45	5.90%	8.94%	10.33%	11.04%	0.03%	36.24%
≥45	8.46%	13.89%	12.45%	10.74%	0.07%	45.61%
NA	0.25%	0.20%	0.13%	0.16%	0.36%	1.10%
All	**16.74%**	**26.39%**	**27.49%**	**28.90%**	**0.49%**	**100.00%**

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

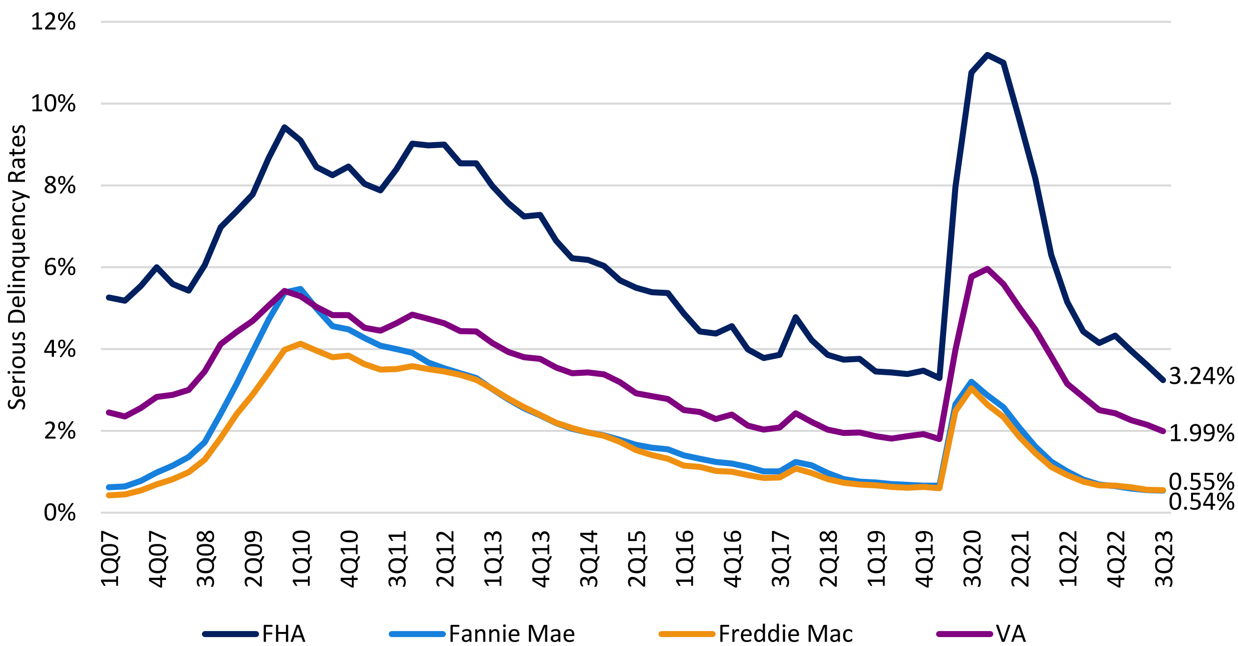
	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	1.60%	2.52%	3.54%	6.04%	0.06%	13.77%
35-45	4.96%	7.58%	9.75%	12.00%	0.05%	34.34%
≥45	7.74%	14.07%	14.92%	13.93%	0.10%	50.76%
NA	0.25%	0.20%	0.15%	0.18%	0.34%	1.12%
All	**14.55%**	**24.38%**	**28.37%**	**32.16%**	**0.55%**	**100.00%**

Sources: Recursion and Ginnie Mae. Data as of December 2023.

10.5 Serious Delinquency Rates

Serious delinquency rates for Single-Family GSE, VA, and FHA loans all fell in Q3 2023. From Q2 2023 to Q3 2023, Fannie and Freddie serious delinquencies both decreased by 1 bp. Ginnie Mae collateral's serious delinquency rates decreased more than the GSE rate, with VA decreasing 16 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 11.

Figure 41. Serious Delinquency Rates: Single-Family Loans



Sources: Fannie Mae and Freddie Mac Monthly Summary Reports. MBA Delinquency Survey

Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Data as of Q3 2023.

10.6 Credit Box

The first-time homebuyer share for agency purchase loans was 55.0% as of month-end December 2023, an increase from 55.6% in November 2023 and up from 54.3% in December 2022. Freddie Mac and Fannie Mae's first-time homebuyer shares, 45.9% and 48.1%, respectively, as of month-end December 2023, increased 0.7% and 0.5%, respectively, YoY. Ginnie Mae's first-time homebuyer share increased 1.4% YoY. **Table 23** shows that based on mortgages originated as of month-end December 2023, the average GSE first-time homebuyer was more likely to have a higher credit score and lower LTV than a Ginnie Mae first-time homebuyer. Ginnie Mae's first-time homebuyers were more likely to have lower loan amounts and lower credit scores, while having higher mortgage rates than Ginnie Mae repeat buyers.

Figure 42. First-Time Homebuyer Share: Purchase Only Loans

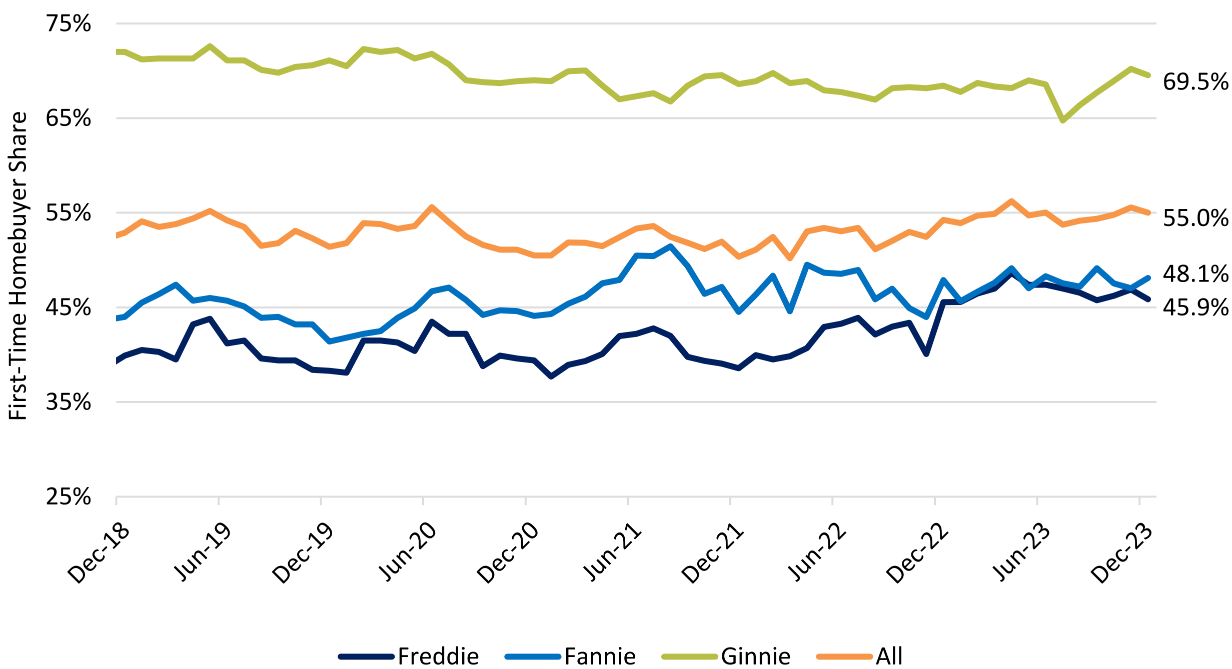


Table 23. Agency First-Time Homebuyer Share Summary

	Fannie Mae		Freddie Mac		Ginnie Mae		All	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$309,315	$324,942	$322,944	$327,549	$306,448	$350,553	$311,848	$332,205
Credit Score	750	763	747	761	694	712	724	750
LTV (%)	85.3%	74.1%	83.7%	73.2%	96.6%	93.3%	90.0%	78.3%
DTI (%)	38.0%	37.9%	38.8%	38.5%	44.7%	45.9%	41.3%	40.1%
Loan Rate (%)	7.3%	7.4%	7.3%	7.4%	7.0%	6.9%	7.1%	7.3%

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

In the Ginnie Mae purchase market, 77.4% of FHA loans, 51.3% of VA loans, and 82.9% of "Other" loans provided financing for first-time home buyers as of month-end December 2023. The share of first-time home buyers in the Ginnie Mae purchase market decreased MoM for FHA, VA loans, and "Other" loans. **Table 24** shows that based on mortgages originated as of month-end December 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 16.0% smaller loans, had a 23.9-point lower credit score, 5.2% higher LTV than VA repeat buyers.

FHA's first-time homebuyers are much more like their repeat buyers, with only 3.3% smaller loans, similar interest rates, and 2.6% 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 have similar credit scores compared to their first-time home buyers. For VA and conventional borrowers alike, repeat buyers tend to have higher credit scores than first-time homebuyers.

Figure 43. First-time Homebuyer Share: Ginnie Mae Breakdown

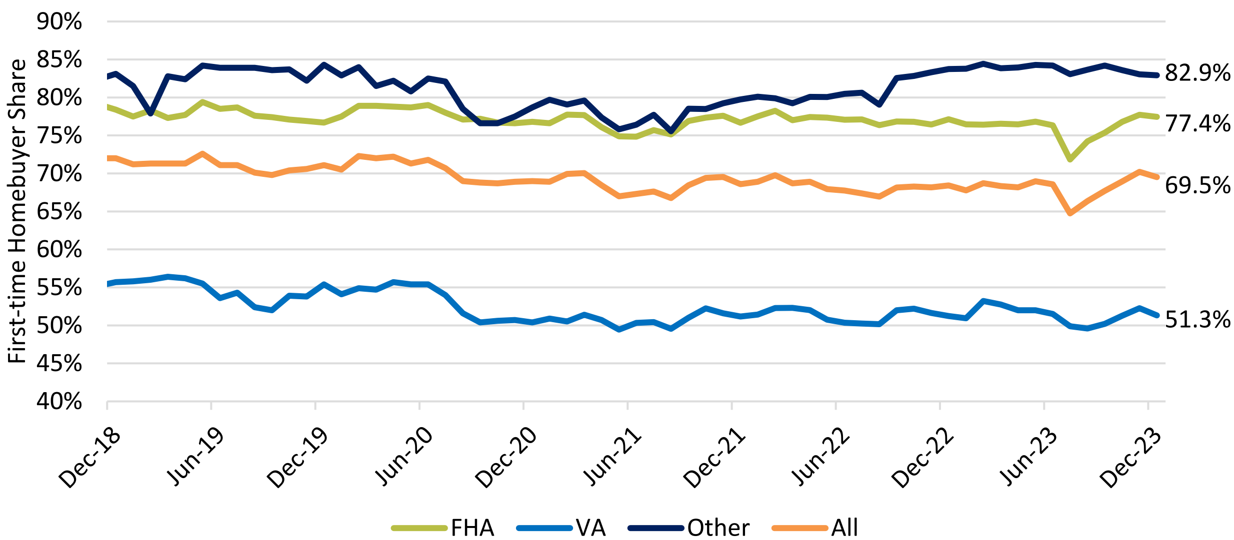


Table 24. Ginnie Mae First-Time Homebuyer Share Breakdown Summary

	FHA		VA		Other		Total	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$306,676	$316,997	$327,659	$389,969	$177,361	$177,334	$306,448	$350,553
Credit Score	688	689	712	736	698	698	694	712
LTV (%)	96.1%	93.5%	98.0%	92.9%	97.0%	97.7%	96.6%	93.3%
DTI (%)	45.4%	46.8%	44.3%	45.3%	35.3%	35.8%	44.7%	45.9%
Loan Rate (%)	7.0%	6.9%	7.0%	6.9%	7.1%	6.9%	7.0%	6.9%

Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of December 2023.

Note: LTV, DTI, and Loan Rate are rounded to nearest tenth.

10.7 Credit Box: Historical

The median FICO score for all agency loans originated as of month-end December 2023 was 737, which represents an 8-point increase from December 2022. Ginnie Mae median FICO scores increased 10 points from 672 in December 2022 to 682 as of month-end December 2023. As of month-end December 2023, average FICO scores for refinances increased for Ginnie Mae and Freddie Mac borrowers by 4 and 21 points YoY, respectively.

Figure 44. FICO Scores for All Loans

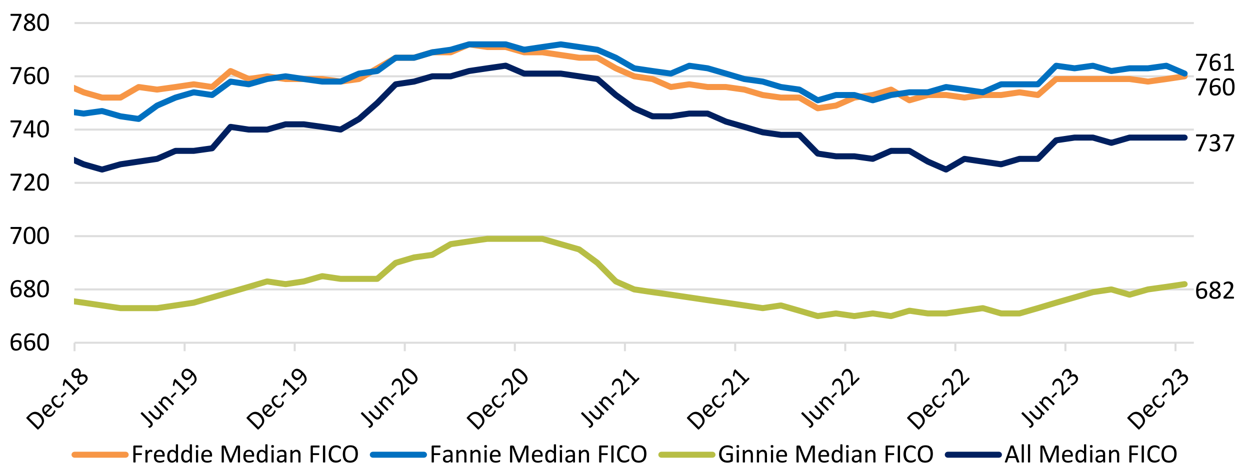


Figure 45. FICO Scores for Purchase Loans

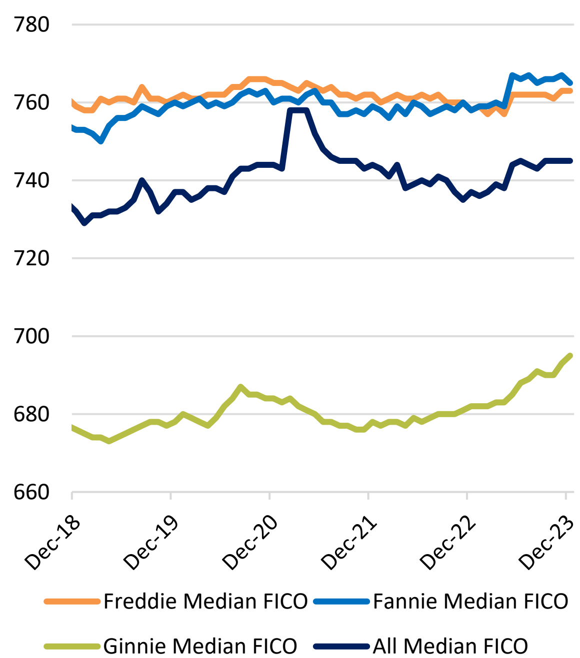
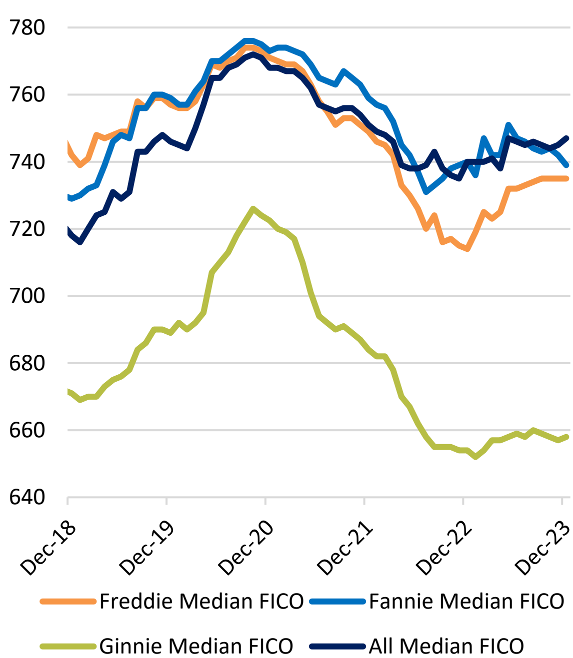


Figure 46. FICO Scores for Refinance Loans



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

In December 2023, the median LTV for Ginnie Mae loans was 97.2% compared to 80% for Fannie Mae and Freddie Mac, owing primarily to the lower down-payment requirements for government loan programs. Fannie Mae and Freddie Mac saw their LTV ratios remain flat YoY, while Ginnie Mae saw a 0.8% decrease in LTV from December 2022 to December 2023. In December 2023, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.5%, 41.0%, and 39.0%, respectively. In December 2022, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.0%, 40.0%, and 39.0%, respectively.

Figure 47. LTV Ratio for All Loans

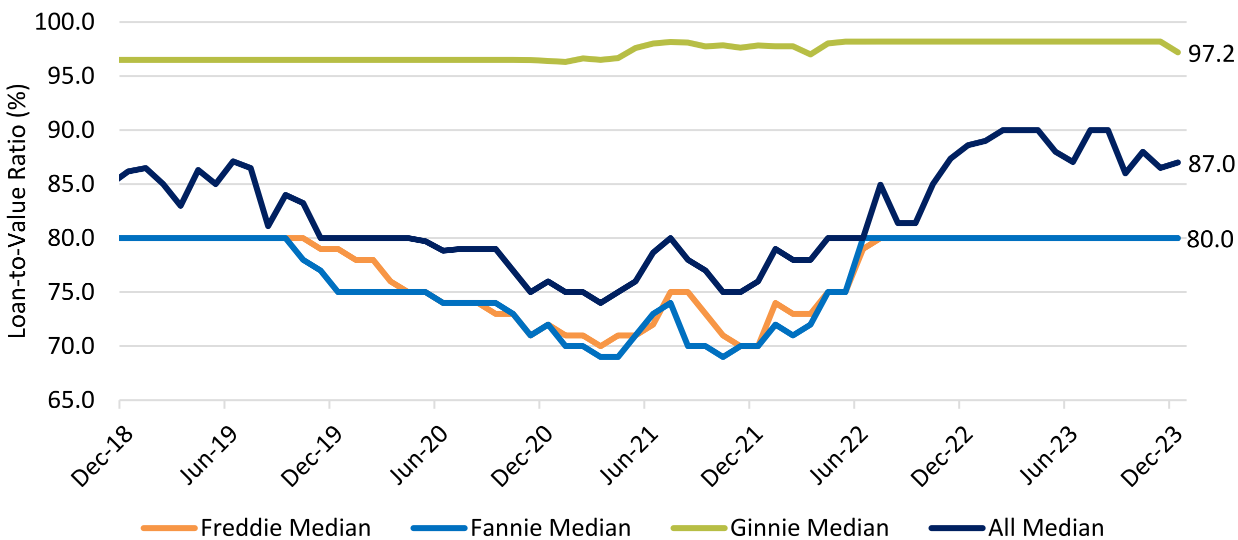
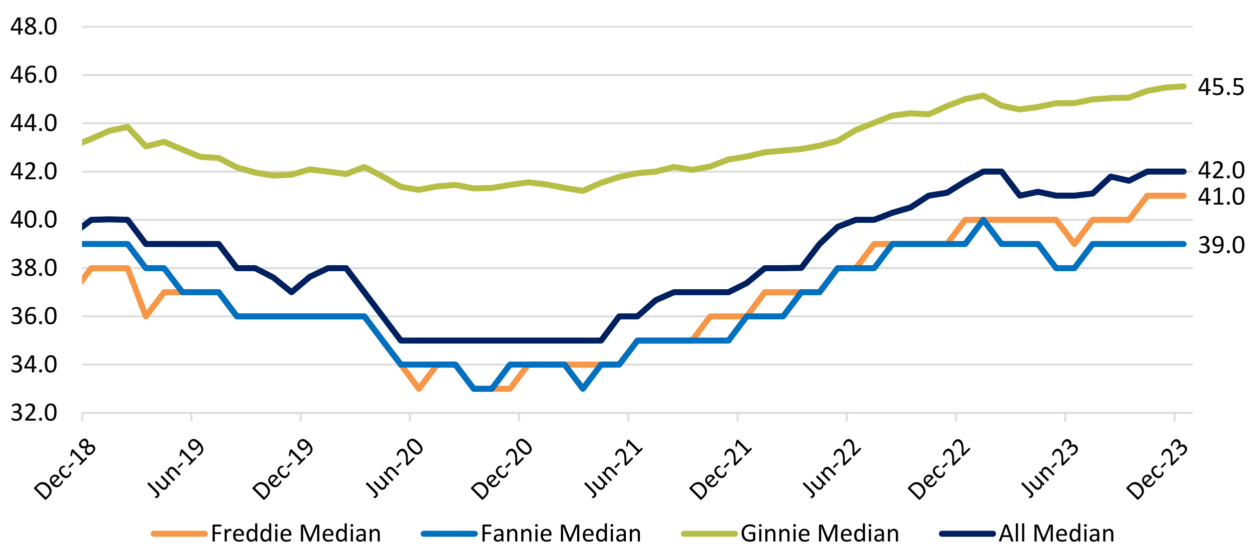


Figure 48. DTI Ratio for All Loans



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

11 FORBEARANCE TRENDS

At the end of December 2023, 30,628 Ginnie Mae loans were in forbearance. The number of loans in forbearance removed from MBS pools in December was 317 while 30,311 loans in forbearance remained in pools. The number of loans in forbearance and loans in forbearance that remained in pools decreased MoM. 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.

Tables 25-27. Forbearance Snapshot

All Loans in Forbearance – December 2023

	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	650	4.2	$190,391	73.8	74.8	30,628
Bank	669	4.1	$135,416	81.8	83.7	6,751
Nonbank	647	4.2	$207,706	72.5	73.5	23,837
FHA	647	4.3	$180,509	77.1	76.6	24,666
Bank	668	4.2	$133,148	83.8	84.4	5,846
Nonbank	644	4.3	$196,514	75.8	75.2	18,786
VA	656	4.0	$275,946	58.9	66.0	4,610
Bank	667	3.5	$185,111	61.2	73.0	578
Nonbank	655	4.0	$289,624	58.6	65.6	4,028

Loans in Forbearance and Removed from Pools – December 2023

	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	653	5.4	$156,713	76.7	72.5	317
Bank	673	6.0	$126,298	85.7	89.9	196
Nonbank	640	5.0	$226,059	68.7	61.9	121
FHA	647	5.8	$154,316	78.9	79.2	277
Bank	671	6.1	$129,974	86.7	90.2	183
Nonbank	630	5.5	$226,258	71.2	71.0	94
VA	681	3.7	$189,843	48.7	32.6	32
Bank	723	4.7	$165,616	50.8	92.2	7
Nonbank	679	3.5	$247,607	48.3	28.7	25

Loans in Forbearance that Remain in Pools – December 2023

	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	650	4.2	$190,698	73.8	74.8	30,311
Bank	669	4.1	$135,506	81.7	83.6	6,555
Nonbank	647	4.2	$207,603	72.5	73.5	23,716
FHA	647	4.3	$180,937	77.1	76.6	24,389
Bank	668	4.1	$133,340	83.7	84.3	5,663
Nonbank	644	4.3	$196,147	75.9	75.2	18,692
VA	656	4.0	$276,409	58.9	66.2	4,578
Bank	667	3.5	$185,376	61.2	72.9	571
Nonbank	655	4.0	$290,030	58.7	65.8	4,003

*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 December 2023; *Averages weighted by remaining principal balance of the loans. Rounded to nearest tenth.*

12 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 28.** The top 30 firms collectively own 87.40% of Ginnie Mae MSRs (see Cumulative Share). Twenty of these top 30 are non-depository institutions, the remaining ten are depository institutions. As of December 2023, over half (52.36%) of the Ginnie Mae MSRs are owned by the top six firms.

Table 28. Top 30 Holders of Ginnie Mae Mortgage Servicing Rights (MSRs), by UPB

MSR Holder	*Current*	*Rank Year prior*	*Change*	*UPB ($ millions)*	*Share*	*Cumulative Share*	*CPR*	*CDR*
Lakeview Loan Servicing	1	1	↔	$305,707,846,129	13.2%	13.22%	4.96%	0.76%
DBA Freedom Mortgage	2	2	↔	$296,362,553,418	12.8%	26.03%	5.56%	0.78%
PennyMac Loan Service	3	3	↔	$272,200,727,324	11.8%	37.80%	4.67%	0.64%
Wells Fargo Bank	4	6	↑	$98,760,968,180	4.3%	42.07%	6.12%	1.09%
Mr. Cooper (Nationstar)	5	4	↓	$127,103,782,134	5.5%	47.56%	5.47%	0.86%
Rocket Mortgage (Quicken Loans)	6	7	↑	$110,997,457,460	4.8%	52.36%	6.49%	0.31%
Carrington Mortgage	7	8	↑	$114,244,507,254	4.9%	57.30%	5.30%	0.83%
Newrez LLC	8	5	↓	$127,425,405,294	5.5%	62.81%	4.63%	0.50%
U.S. Bank	9	9	↔	$56,290,083,731	2.4%	65.24%	5.28%	1.96%
Planet Home Lending	10	11	↑	$68,188,306,990	2.9%	68.19%	4.18%	0.28%
United Wholesale Mortgage	11	10	↓	$57,385,938,152	2.5%	70.67%	4.48%	1.14%
LoanDepot	12	12	↔	$40,149,963,475	1.7%	72.41%	5.49%	0.65%
Truist Bank	13	18	↑	$20,350,122,365	0.9%	73.29%	5.40%	0.95%
M&T Bank	14	NR	↑	$27,304,315,798	1.2%	74.47%	3.73%	0.33%
Navy Federal Credit Union	15	15	↔	$29,357,977,883	1.3%	75.74%	4.90%	0.29%
MidFirst Bank	16	27	↑	$11,763,983,119	0.5%	76.25%	10.70%	6.09%
The Money Source	17	17	↔	$22,707,722,340	1.0%	77.23%	5.27%	0.62%
Guild Mortgage Company	18	16	↓	$24,297,036,621	1.1%	78.28%	4.10%	0.17%
PHH Mortgage Corporation	19	26	↑	$18,581,291,813	0.8%	79.08%	3.95%	0.57%
J.P. Morgan Chase Bank	20	29	↑	$10,150,658,401	0.4%	79.52%	5.73%	1.20%
Mortgage Research Center	21	13	↓	$28,014,871,170	1.2%	80.73%	5.68%	0.49%
Idaho Housing and Finance	22	24	↑	$17,508,665,746	0.8%	81.49%	3.12%	0.66%
New American Funding	23	20	↓	$20,308,201,815	0.9%	82.37%	4.82%	0.52%
CrossCountry Mortgage	24	19	↓	$21,471,402,564	0.9%	83.29%	5.12%	1.06%
Movement Mortgage	25	22	↓	$20,720,967,937	0.9%	84.19%	3.64%	0.52%
Citizens Banks	26	25	↓	$14,048,176,748	0.6%	84.80%	4.85%	0.61%
AmeriHome Mortgage	27	14	↓	$19,832,742,871	0.9%	85.66%	4.15%	0.98%
CMG Mortgage	28	23	↓	$19,219,156,954	0.8%	86.49%	4.60%	0.80%
PNC Bank	29	NR	↑	$6,567,445,910	0.3%	86.77%	5.29%	1.07%
Flagstar Bank	30	28	↓	$14,573,701,003	0.6%	87.40%	5.38%	1.62%

Sources: Deloitte, Recursion. Notes: Data as of December 2023.

13 AGENCY NONBANK ORIGINATORS

Total agency nonbank origination share increased as of month-end December 2023 by approximately 1.7% MoM. The increase in nonbank origination share was driven by an increase in both Freddie Mac and Fannie Mae nonbank origination share, up 5.0% MoM and 0.6% MoM, respectively. The Ginnie Mae nonbank share rose to 91.2% as of December 2023 but has remained consistently higher than the GSEs, largely driven by origination share of refinance mortgage loans.

Figure 49. Agency Nonbank Originator Share (All, Purchase, Refi)

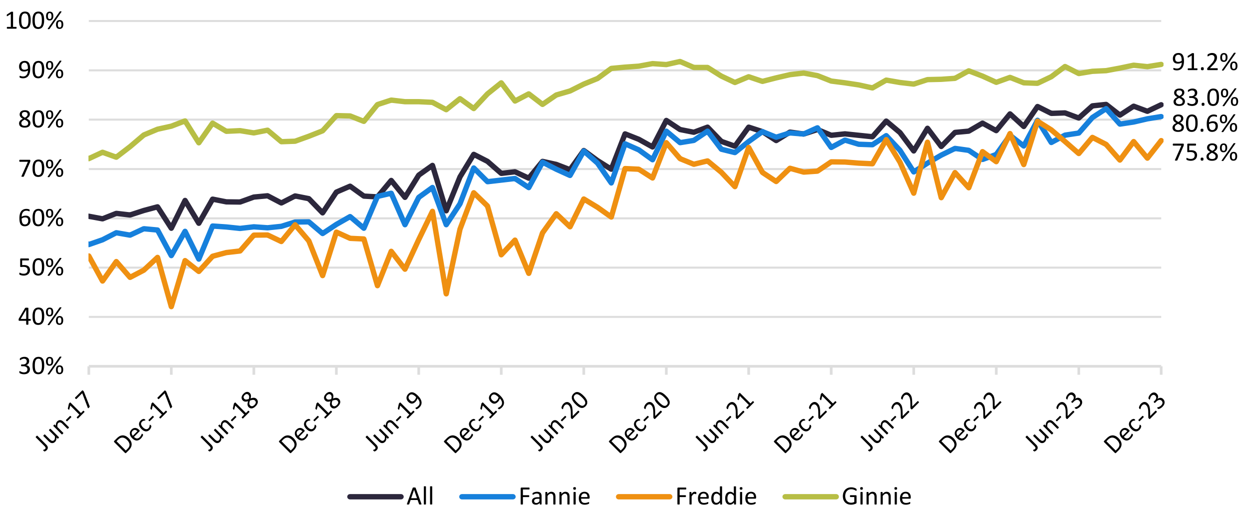


Figure 50. Nonbank Origination Share: Purchase Loans

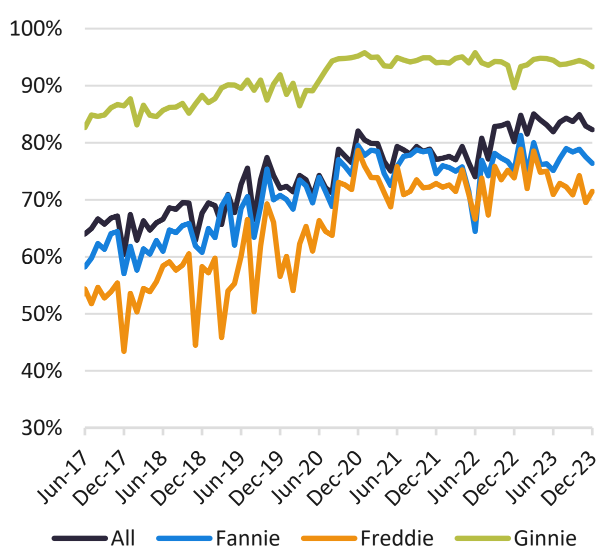
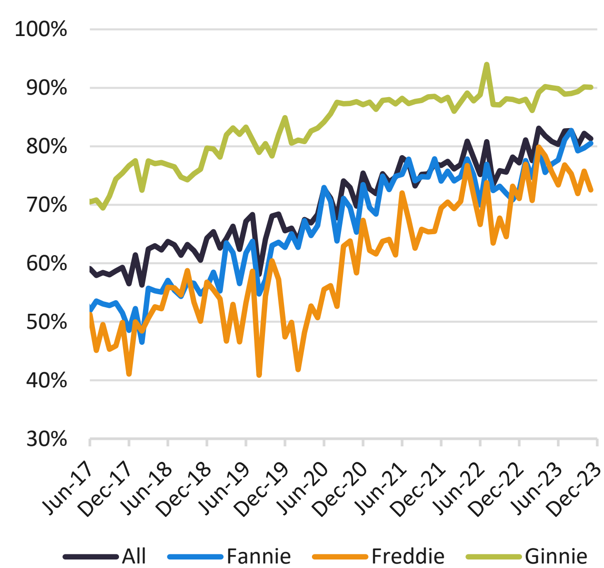


Figure 51. Nonbank Origination Share: Refi Loans



Source: Recursion. Notes: Data as of December 2023.

Ginnie Mae's total nonbank originator share remained relatively stable as of month-end December 2023. Ginnie Mae continues to have a high proportion of nonbank originations, with a rate of 91.2% in December 2023. The percentage of Ginnie Mae's "Other" nonbank refinanced loans decreased to 44.5% in December 2023.

Figure 52. Ginnie Mae Nonbank Originator Share (All, Purchase, Refi)

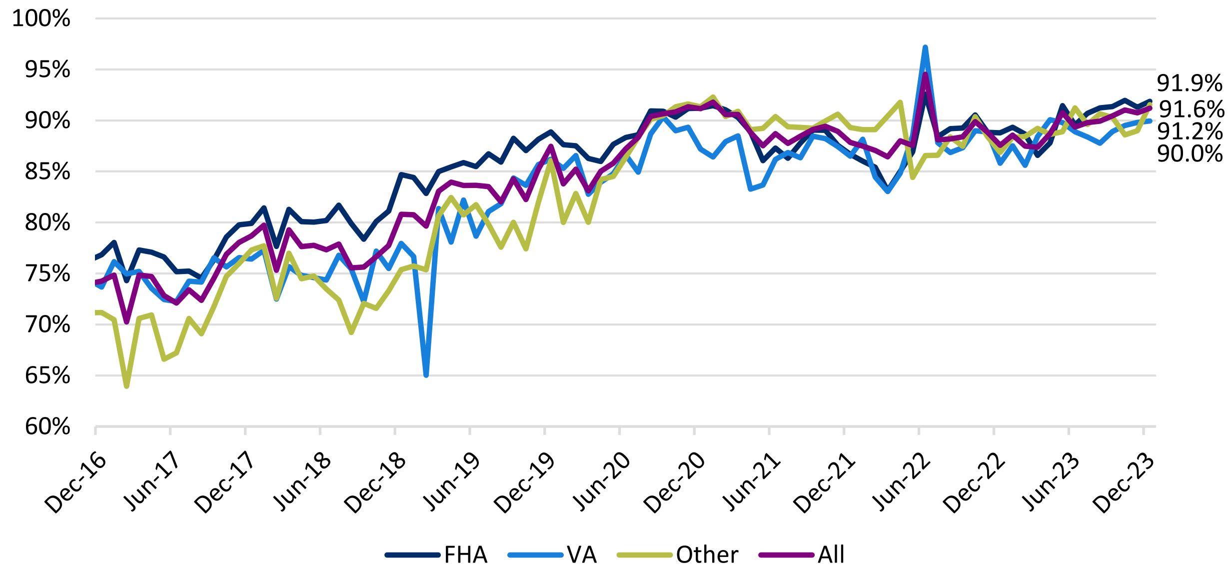


Figure 53. Ginnie Mae Nonbank Share: Purchase Loans

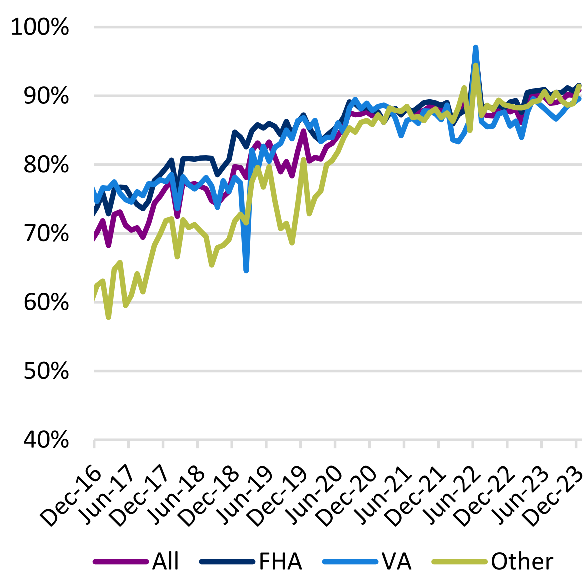
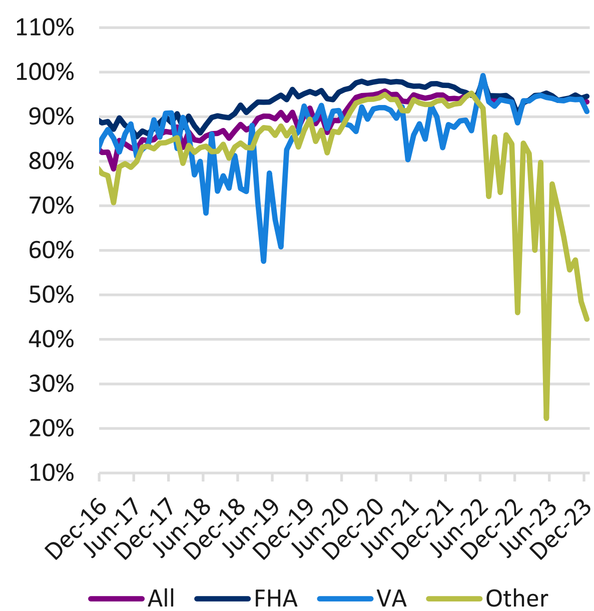


Figure 54. Ginnie Mae Nonbank Share: Refi Loans



Source: Recursion. Notes: Data as of December 2023.

14 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 remained constant from November 2023 to December 2023. The agency median FICO score increased to 738 in December 2023.

Figure 55. Agency FICO: Bank vs. Nonbank

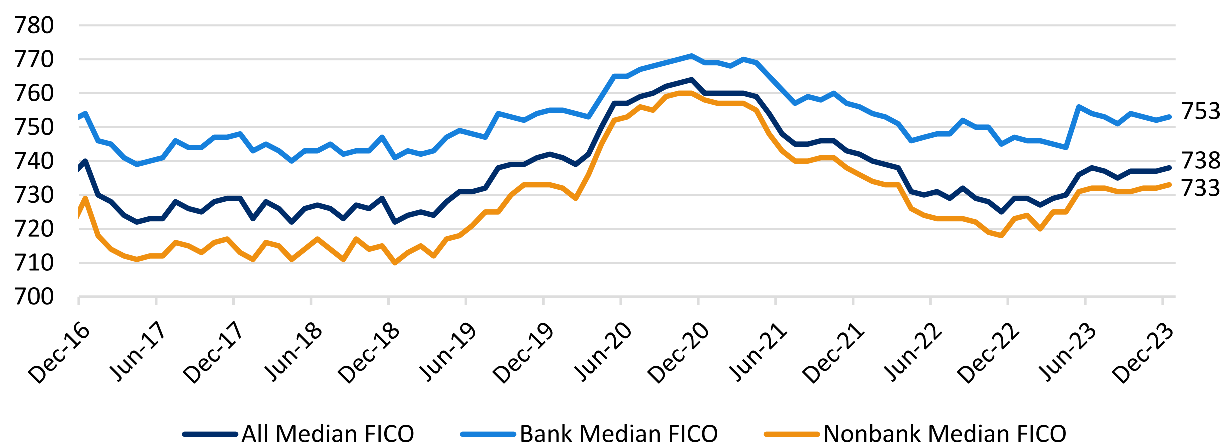


Figure 56. GSE FICO: Bank vs. Nonbank

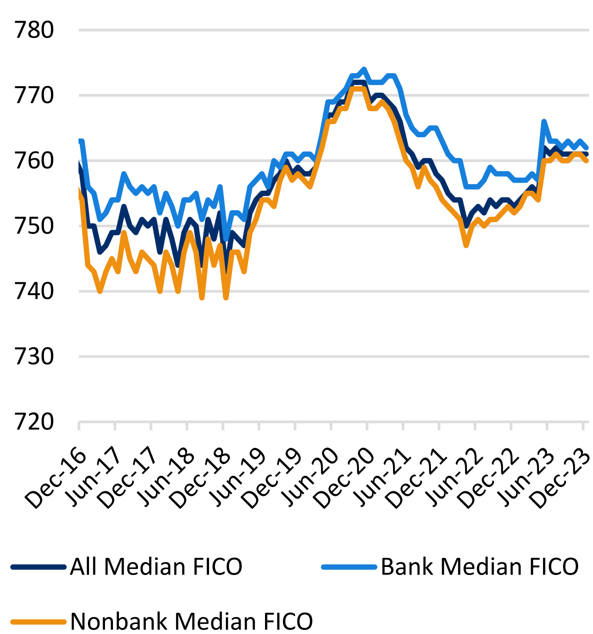
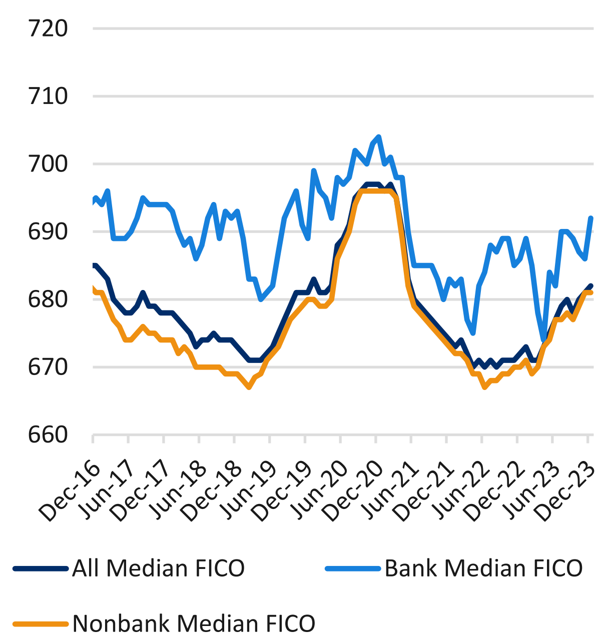


Figure 57. Ginnie Mae FICO: Bank vs. Nonbank



Source: Recursion: Notes: Data as of December 2023.

The median LTV for all GSE originators remained the same as of month-end December 2023 at 80.0%. Ginnie Mae median bank LTV remained flat at 98.2% and nonbank fell to 97.0%. Ginnie Mae median DTI remained at 45.8% through December 2023 in nonbank originations.

Figure 58. GSE LTV: Bank vs. Nonbank

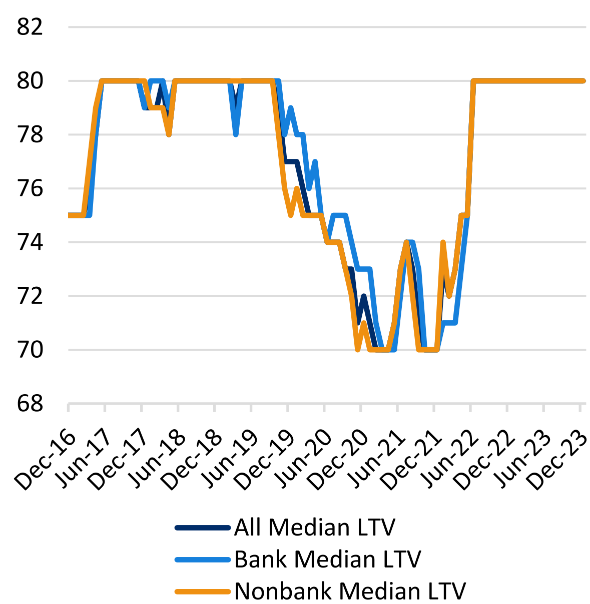


Figure 59. Ginnie Mae LTV: Bank vs. Nonbank

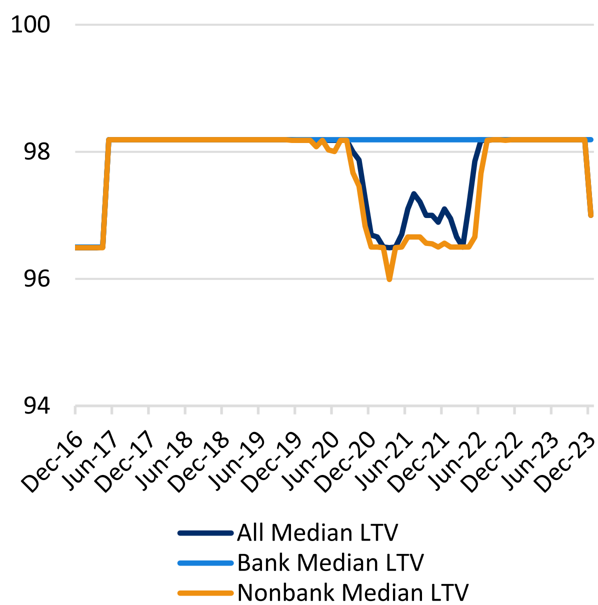


Figure 60. GSE DTI: Bank vs. Nonbank

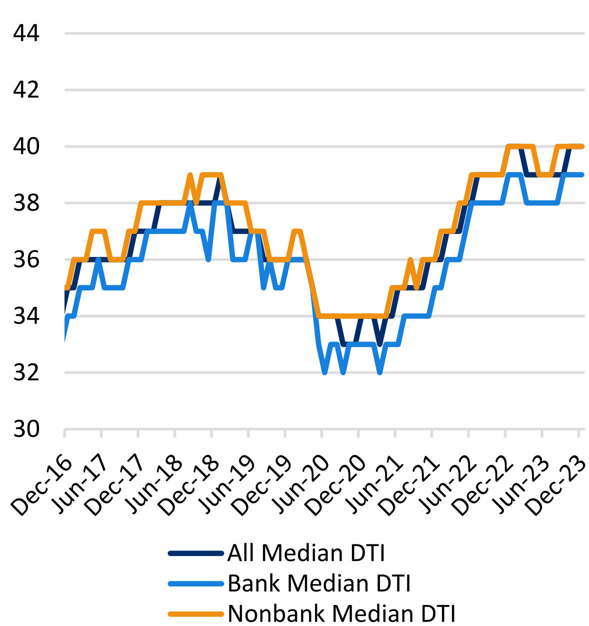
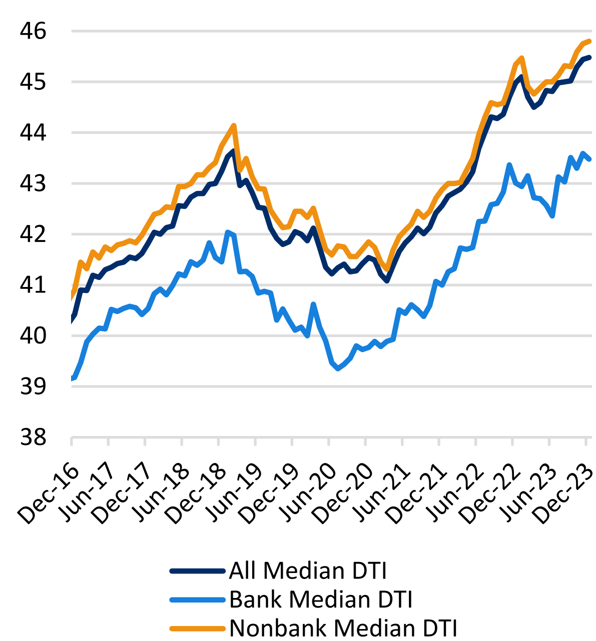


Figure 61. Ginnie Mae DTI: Bank vs. Nonbank



Source: Recursion. Notes: Data as of December 2023.

As of month-end December 2023, the median FICO score for Ginnie Mae bank increased by 6 points to 692 and nonbank remained constant at 681. The median FICO score for all Ginnie originations increased 1 point to 682. The gap between banks and nonbanks is most apparent in “Other” lending (21-point spread).

Figure 62. Ginnie Mae FICO Score: Bank vs. Nonbank

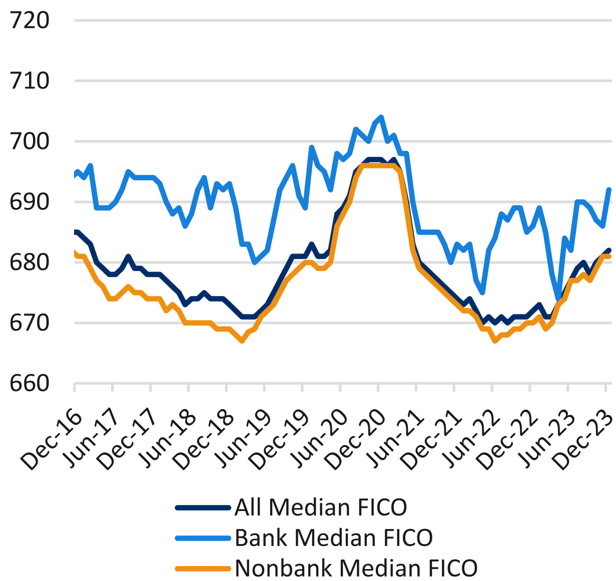


Figure 63. Ginnie Mae FHA FICO Score: Bank vs. Nonbank

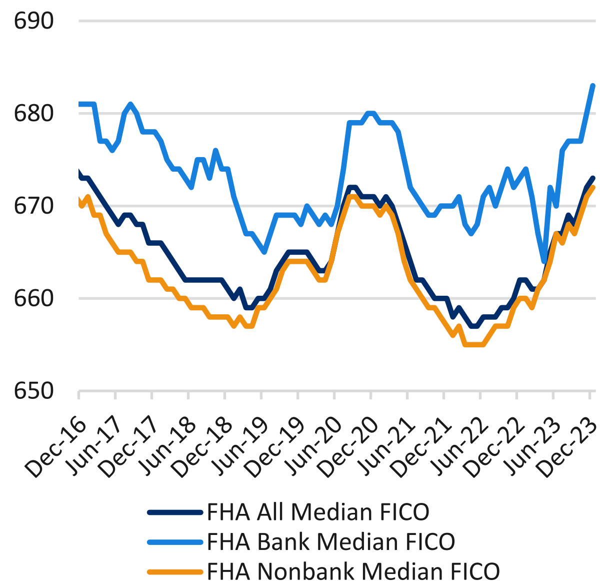


Figure 64. Ginnie Mae VA FICO Score: Bank vs. Nonbank

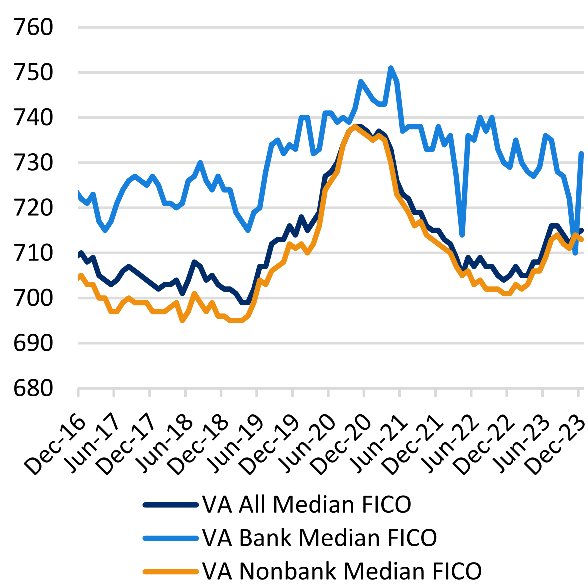
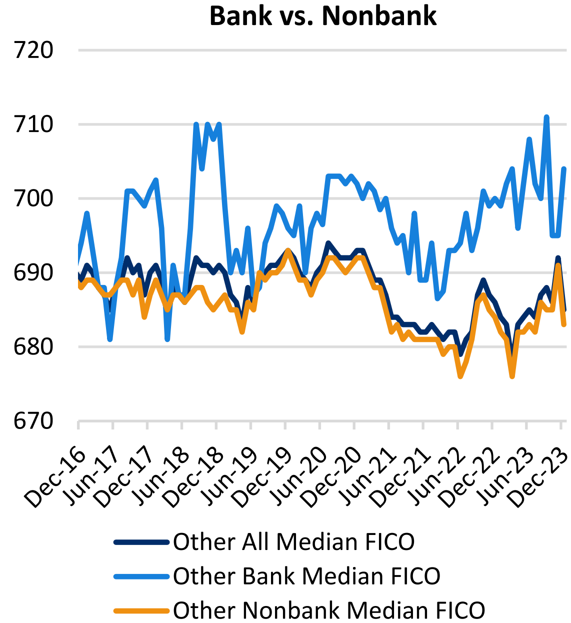


Figure 65. Ginnie Mae Other FICO Score: Bank vs. Nonbank



Source: Recursion. Notes: Data as of December 2023.

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 66. Ginnie Mae DTI: Bank vs. Nonbank

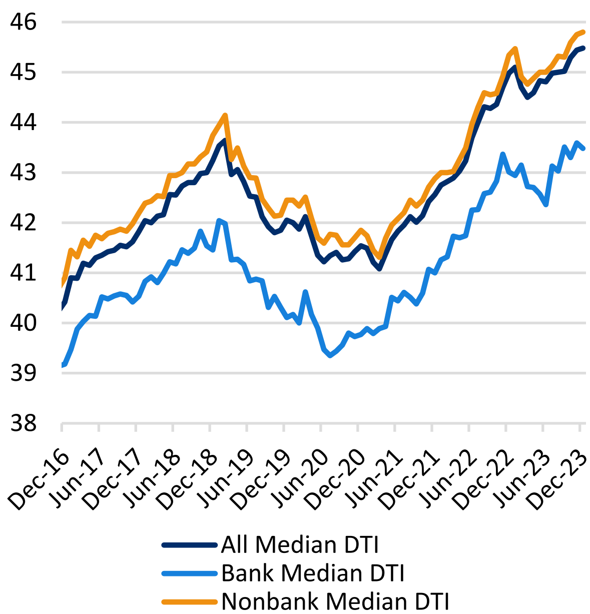


Figure 67. Ginnie Mae FHA DTI: Bank vs. Nonbank

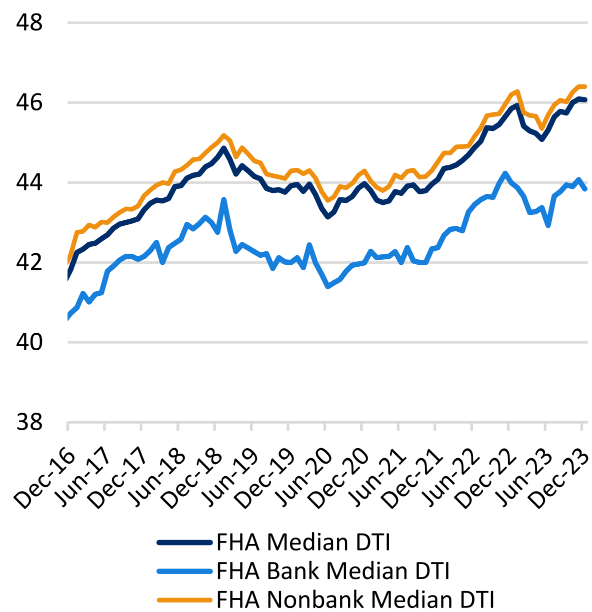


Figure 68. VA DTI: Bank vs. Nonbank

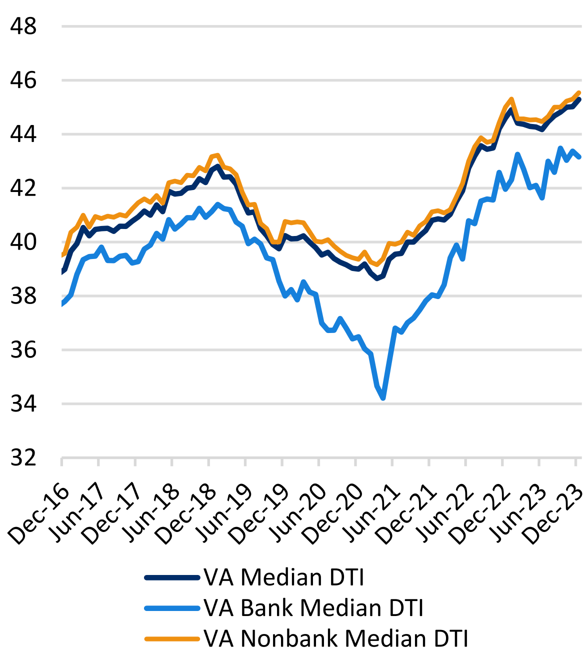
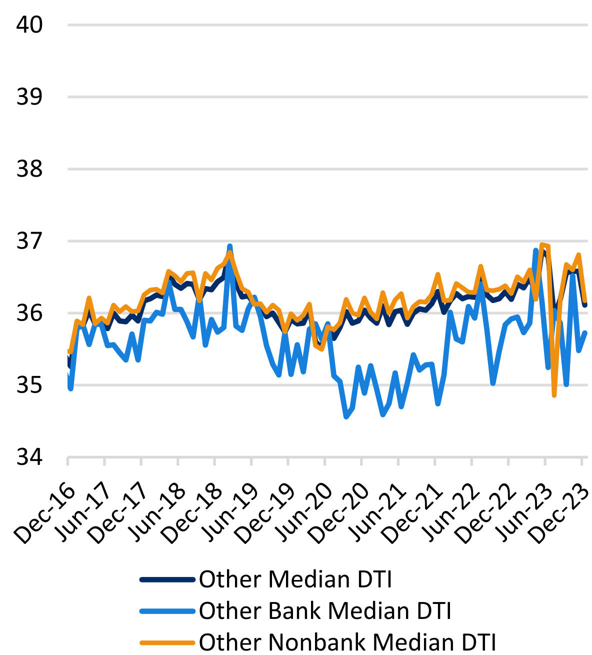


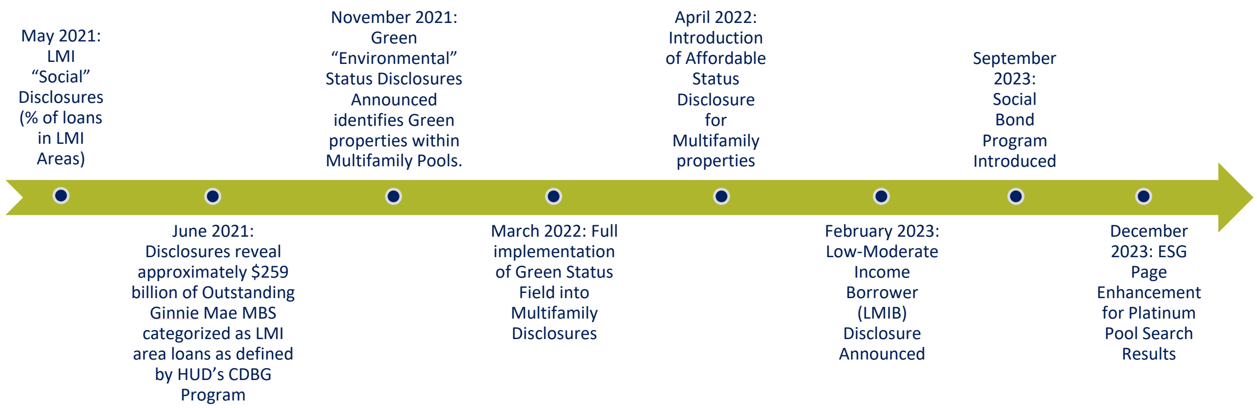
Figure 69. Other DTI: Bank vs. Nonbank



Source: Recursion. Notes: Data as of December 2023.

15 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.



15.1 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 29. ESG Metrics – MBS Portfolio (December 2023)

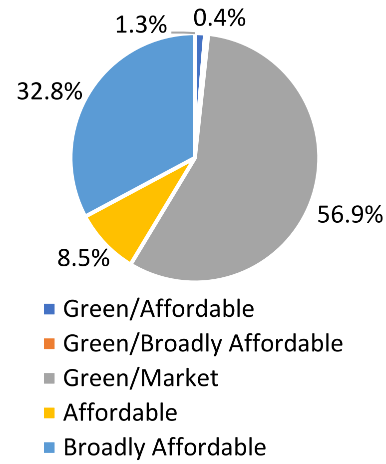
Ginnie Mae's ESG Metrics – MBS Portfolio as of December 2023				
	Targeted Population	**Positive Outcomes**	**Our Commitment**	
Social - Affordable	FHA Borrowers – 6,884,823 VA Borrowers – 3,597,293 RHS Borrowers – 783,483 PIH Borrowers – 23,732	**Loans under $200K** 6,520,871 Loans **First-Time Home Buyers** 4,194,999 Loans **Down Payment Assistance** 696,492 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. 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. 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)	3,222,726 Loans		Single Family
Social - Affordable	LMI Majority Census Tract Loans	1,735,033 Loans		Single Family
Social - Affordable	Borrowers Facing Difficulties	792,112 modifications with over 684,745 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	282,817 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)	1.314 million apartment homes 493,017 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	4,866 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

15.2 Environmental

Table 30. UPB by ESG Status

ESG Status	UPB	%
Green/Affordable	1,090,699,976	0.7%
Green/Broadly Affordable	343,303,047	0.2%
Green/Market	47,320,093,820	31.4%
Green Total	48,754,096,843	32.4%
Affordable [9]	7,095,089,594	4.7%
Broadly Affordable	27,268,428,169	18.1%
Affordable Total	35,797,520,786	23.8%
ESG Total	83,117,614,606	55.2%
Total	**150,548,571,224**	**100.0%**

Figure 70. 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 U.S. Green Building Council, Energy Star, Greenpoint, and the National Green Building Standard, just to name a few. Additionally, over 23% of Ginnie Mae Multifamily collateral is "Affordable" or "Broadly Affordable". In total 55.2% of Ginnie Mae's Multifamily collateral is considered ESG.

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

15.3 Social

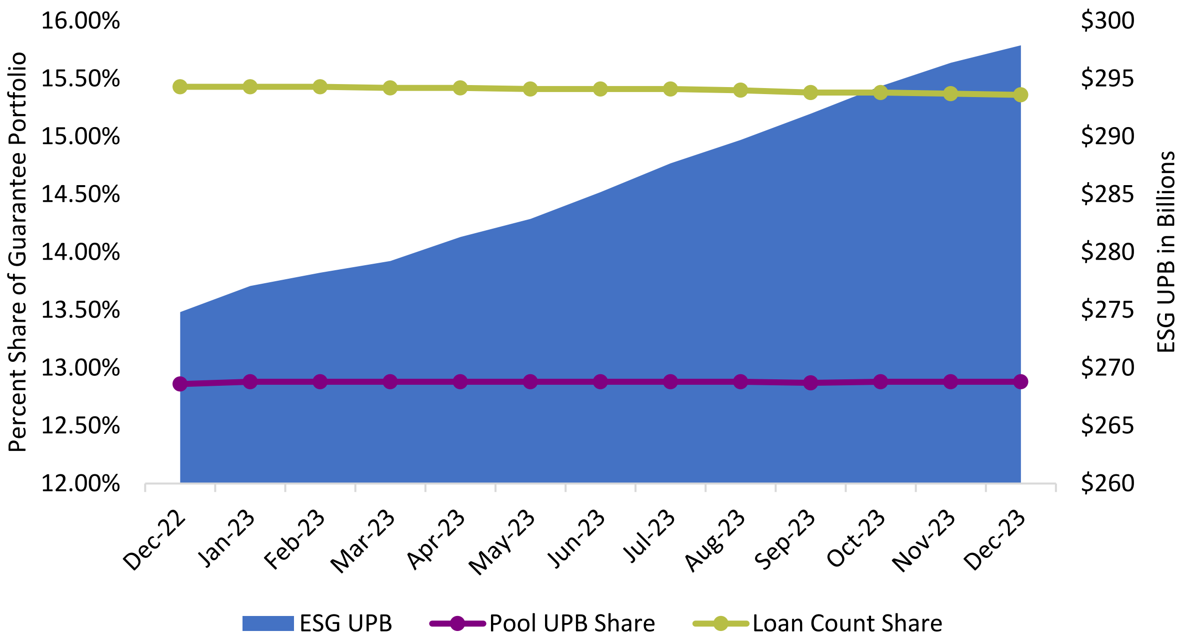
With the introduction of Ginnie Mae's new social disclosures, investors can now identify the number of underlying loans made to LMI borrowers, the percentage of LMI loan count out of total loan count, the unpaid principal balance (UPB) of LMI loans in the MBS, and the percentage of LMI UPB out of total 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. In September 2023, Ginnie Mae launched its Social Bond update to its Single-Family Forward MBS program and its Social Impact and Sustainability Framework. These enhancements highlight the structural aspects of Ginnie Mae's mission and program which drives broader access to mortgage financing, affordable homeownership, and rental opportunities for historically underserved communities. In December 2023, Ginnie Mae added Low/Moderate Geographic Area Values and Low/Moderate Borrower Income Values to their Platinum pool securities including UPB amount and UPB percentage.

[9] *"Affordable" and "Broadly Affordable" removes "Green/Affordable" and "Green/Broadly Affordable" from the UPB total.*

15.3.1 Low-to-Moderate Income Borrowers

Roughly $298 billion of Ginnie Mae Single-Family collateral and over 1.7 million of loans outstanding have been issued too low to moderate income borrowers. Total ESG UPB increased by approximately $23 billion YoY.

Figure 71. ESG Share of the Outstanding SF Portfolio



Source: Ginnie Mae Disclosures as of December 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 91% of total UPB.

Table 31. Percent LMI by Pool Share

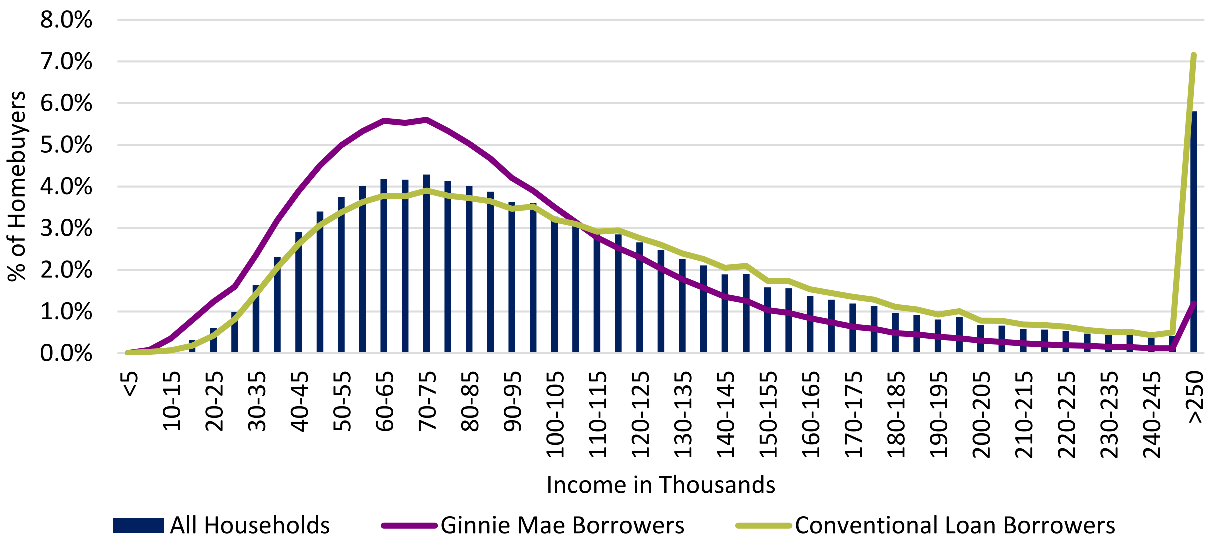
Metric	LMI Pool Share >50%	LMI Pool Share 20% - 50%	LMI Share < 20%	All Pools
Total UPB ($ billions)	$8.2	$199.9	$2,057.5	$2,265.7
Average Original Loan Size	$173,964	$191,328	$337,189	$323,726
Credit Score (Median)	674	675	679	677
DTI (Median)	40%	40%	40%	40%
LTV (Median)	97%	96%	95%	96%
Interest Rate (WA)	4.76%	4.59%	3.89%	3.95%

Source: Ginnie Mae Disclosures as of December 2023

15.3.2 Purchase and Refinance Origination by Income Bracket

Over 18% of all purchase and refinance loan originations guaranteed by Ginnie Mae are to households with income less than $50,000 compared to 10.7% of the Government Sponsored Entities (GSE's) Single-Family guarantee portfolio. Additionally, over 68% of these loan originations guaranteed by Ginnie Mae are to households with income less than $100,000 compared to 47.3% at the GSE's.

Figure 72. Income Distribution of Homebuyers Served Under Ginnie Mae Program



Source: Home Mortgage Disclosure Act (HMDA) data as of 2022

U.S. HOUSING MARKET

16 HOUSING AFFORDABILITY

16.1 Housing Affordability – Home Price Appreciation

Home prices increased in all regions in Q3 2023. Notably, the East North Central, Middle Atlantic, South Atlantic, and New England regions all saw over a 2.00% increase QoQ. The West South Central region saw the smallest QoQ increase in HPI of 1.06%. The New England region has appreciated more than any other region over the past four quarters, appreciating by 9.21% from Q3 2022 to Q3 2023.

Figure 73. Regional HPI Trend Analysis Q/Q

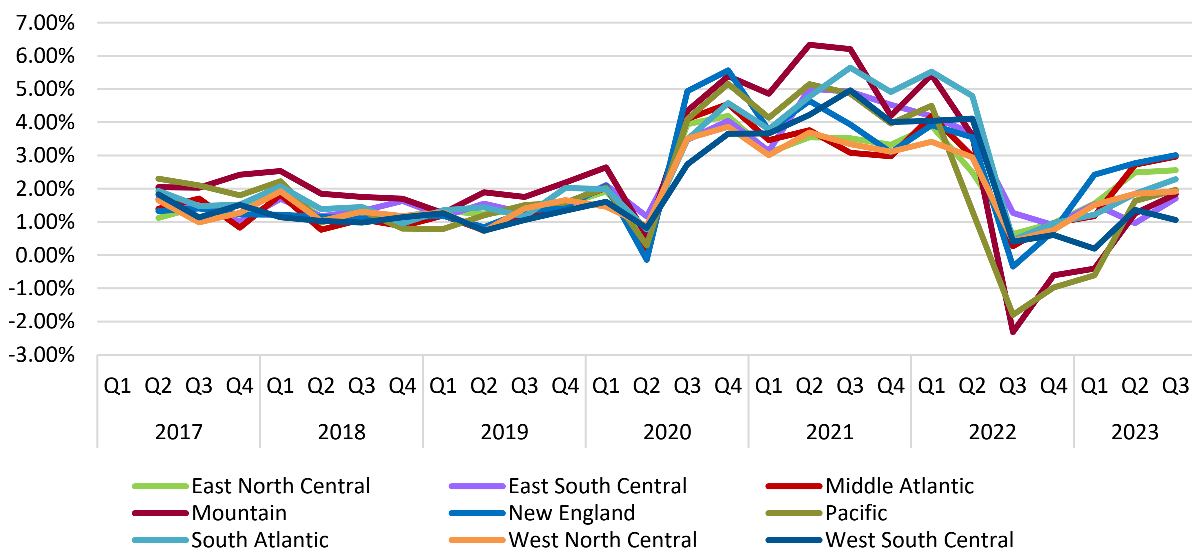
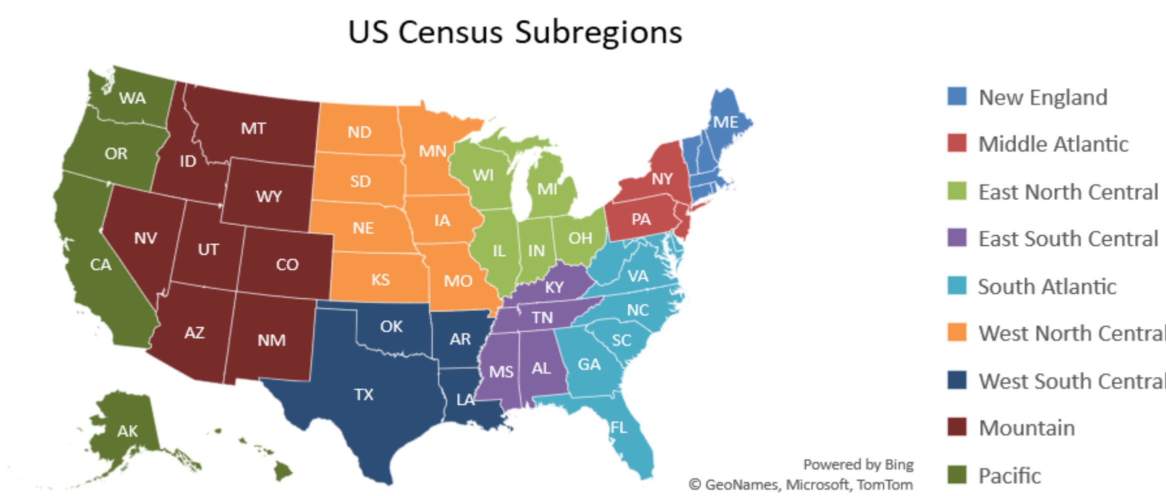


Figure 74. FHFA U.S. Census Subregions as defined by the U.S. Census Bureau



Source: HPI data from FHFA and is seasonally adjusted. U.S. Census Subregions as defined by the U.S. Census Bureau.

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

As of month-end December 2023, inflation was 3.3%, increasing from 3.1% in the month prior. Nationally, rents are down 0.8% YoY as of month-end December 2023. The MoM change in rents from November 2023 to December 2023 decreased by 0.1%. Wage growth saw no change for the fourth consecutive month, holding at 5.2% at month-end December 2023. Month-end October 2023 reporting data shows YoY home price appreciation increased to 4.8% from a 4.0% YoY change in October 2023.

Figure 75. Inflation | 12-Month Percent Change in CPI

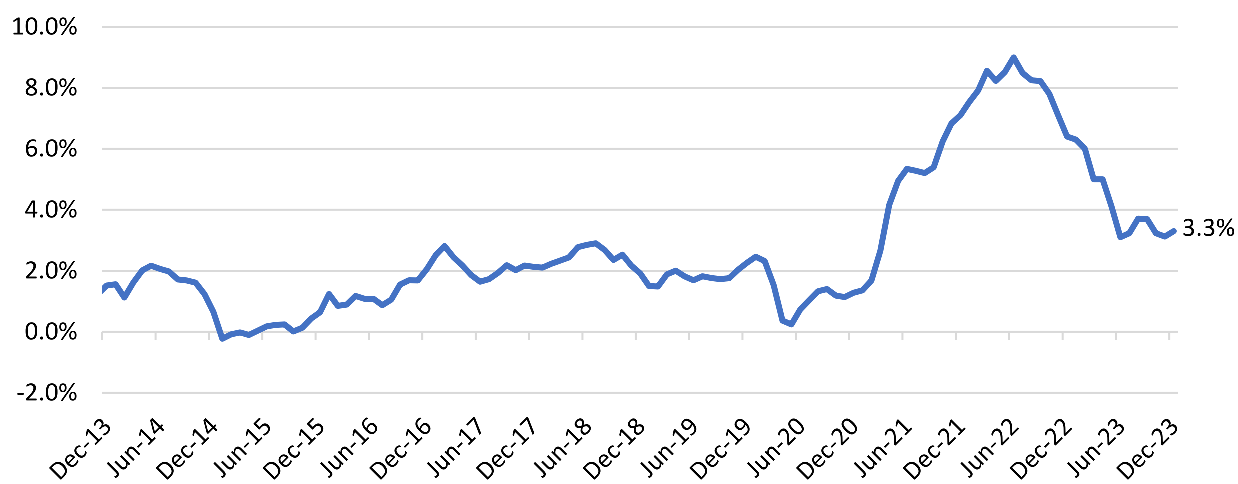
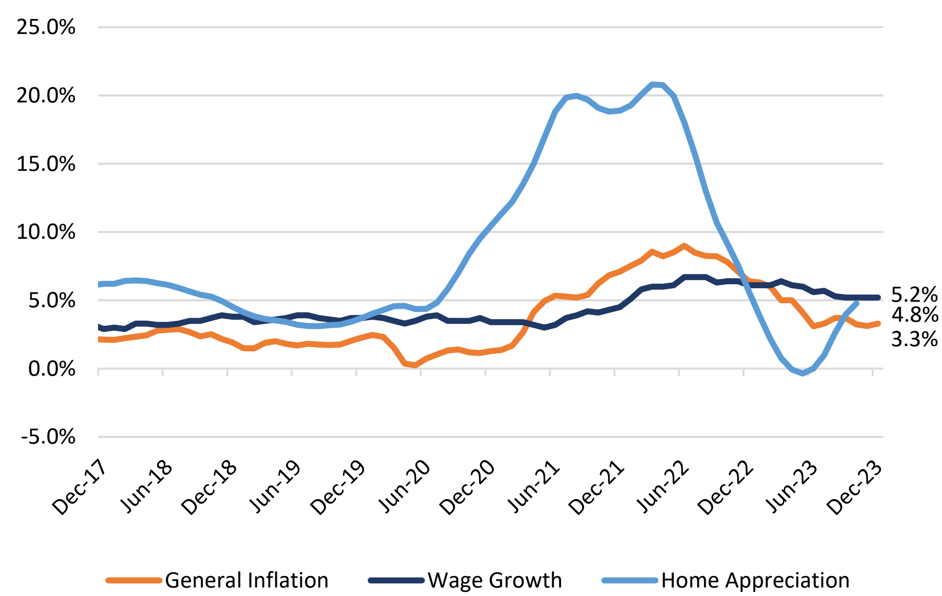


Figure 76. Asset Price Appreciation vs. Wage Increases



Metric	*Statistic*
General Inflation	*3.3%*
Home Price Appreciation *(YoY)*	*4.8%*
Rental Price Appreciation *(Median Rent Change YoY)*	*-0.8 %*
Wage Growth	*5.2%*

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

16.2.1 Housing Affordability – Affordability Index

As of month-end December 2023, the Homebuyer Affordability Fixed Mortgage Index (HAFM) was 91.4 and the First-Time Homebuyer Monthly Payment (FTMP), which represents the median payment for first-time homebuyers, was $2,149. This marks a 16.38% decrease in the Homebuyer Affordability Fixed Mortgage Index and an 11.35% increase in monthly payments for first-time homebuyers from December 2022 to December 2023. HAFM has decreased 51.33% and FTMP has increased 109.45% since January 2021.

Figure 77. Homebuyer Affordability

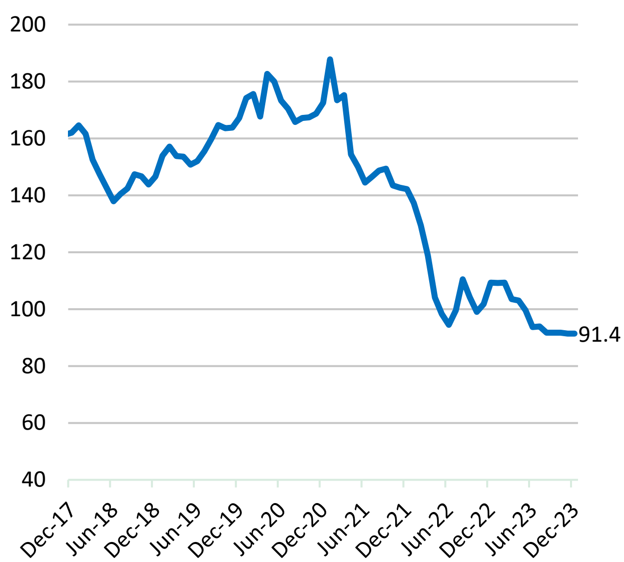
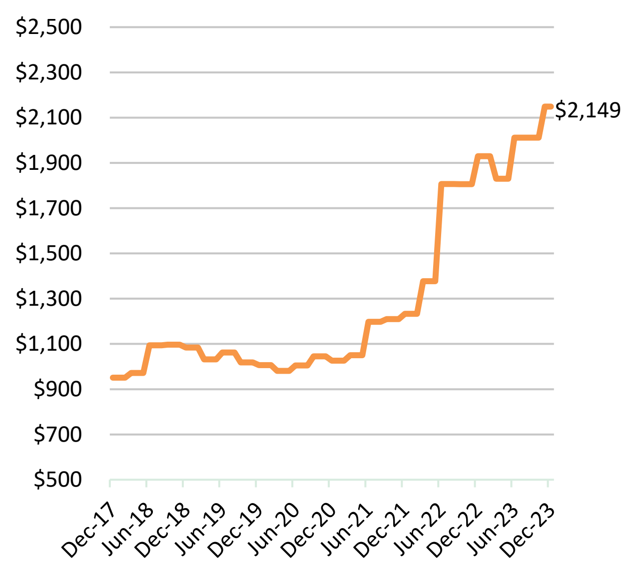


Figure 78. First-Time Homebuyer Monthly Payment



Source: Bloomberg. Note: Housing Affordability Index: Value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signifies that a family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home, assuming a 20 percent down payment. This index is calculated for fixed rate mortgages.

16.2.2 Housing Affordability – Mortgage Rate Trends

The Federal Reserve maintained the Federal Funds target range on December 13, 2023, at a range of 5.25% and 5.50% per the FOMC [10]. As of January 18, 2024, the average 30-year and 15-year fixed rate mortgage rates were 6.60% and 5.76%, respectively. The average 30-year fixed rate mortgage rate decreased 35 bps and the average 15-year fixed rate mortgage rate decreased 62 bps MoM from December 14, 2023.

Figure 79 Average Fixed Rate Mortgage Rates

Sources: FRED data as of January 2024

[10] Federal Reserve Board - Federal Reserve issues FOMC statement

16.3 Housing Inventory

As of December 2023, there was 8.2 months of housing inventory on the market, a decrease of 0.6 months from a readjusted 8.8 months in November 2023. As housing affordability continues to remain low (See above Section 16.2) Single-Family home sales are unlikely to play a large role in the resolution of the housing shortfall. **Figures 81 and 82** show Single-Family and Multifamily Housing metrics, including the number of permits, starts, and completions. From December 2022 to December 2023, the number of Single-Family completions rose 14.6%, while the number of starts and permits decreased 33.4% and 25.3%, respectively. Multifamily metrics show that from December 2022 to December 2023, the number of completions decreased 5.4%, while the number of starts and permits increased 20.9% and 15.9%, respectively.

Figure 80. Single-Family Housing Inventory

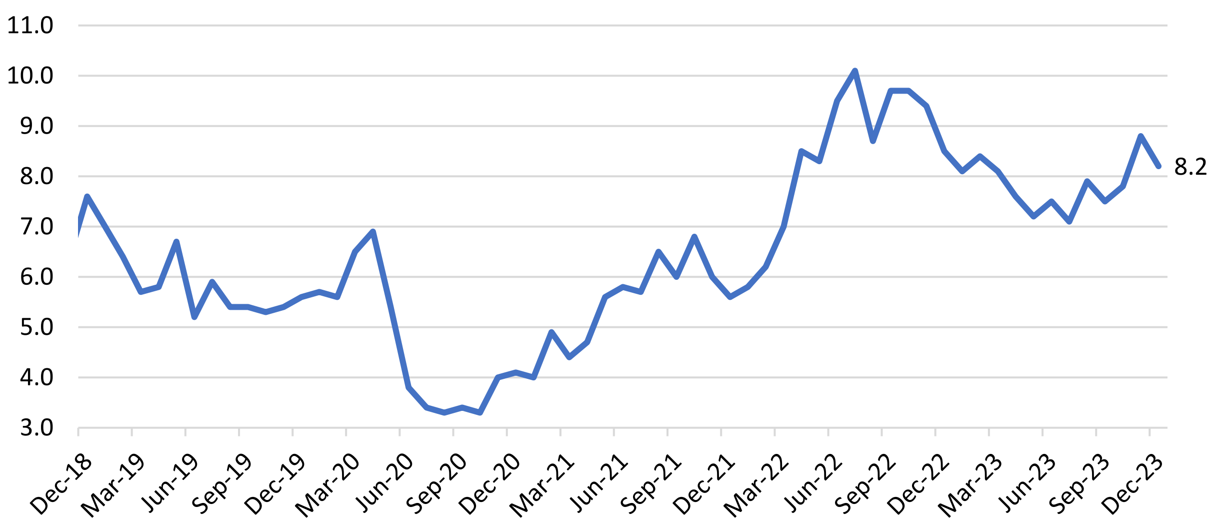


Figure 81. Single-Family Construction Metrics: Permits, Starts, Completions

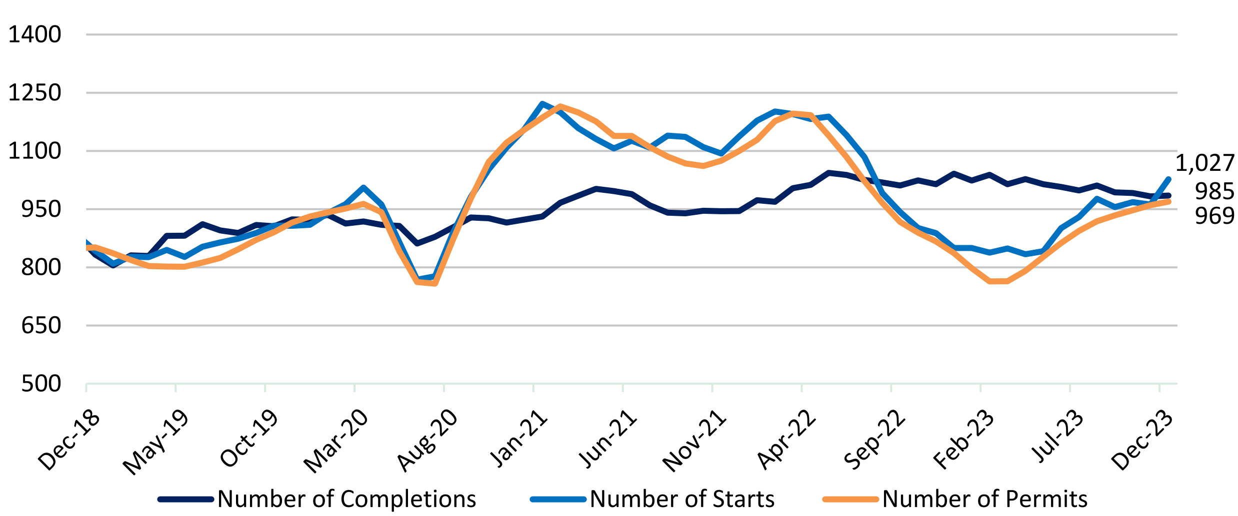
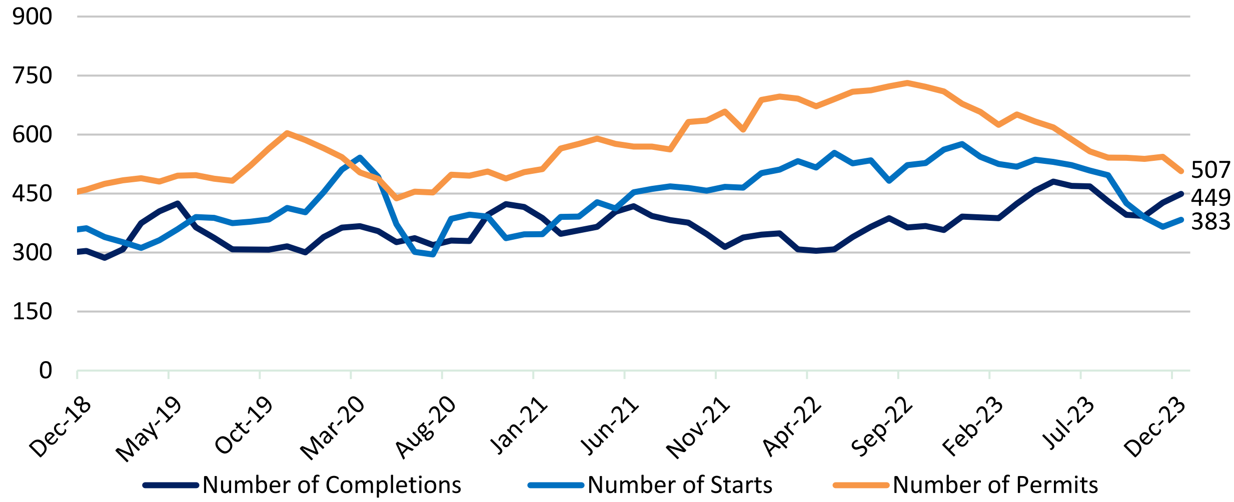


Figure 82. Multifamily Constructions Metrics: Permits, Starts, Completions



Source: FRED. Figure 80: data as of November 2023. New Residential Construction, U.S. Census Bureau. Figure 81 & 82: data as of December 2023. Note: Figures 81 & 82 are calculated using a 3-month moving average to identify underlying trends in construction metrics.

16.4 Size and Value of the U.S. Housing Market

The total value of the Single-Family housing market increased to $45.5 trillion in Q3 2023. The total value of the US housing market is up approximately 139% from its trough in 2011. From Q3 2022 to Q3 2023 mortgage debt outstanding increased from $12.3 trillion to $12.9 trillion and household equity increased from $31.2 trillion to $32.6 trillion. At roughly $9.0 trillion in Q3 2023, Agency Single-Family MBS continues to account for a growing percentage of the total mortgage debt outstanding, up to 65% of total mortgage debt from just 52% in 2011.

Figure 83. Value of the U.S. Housing Market

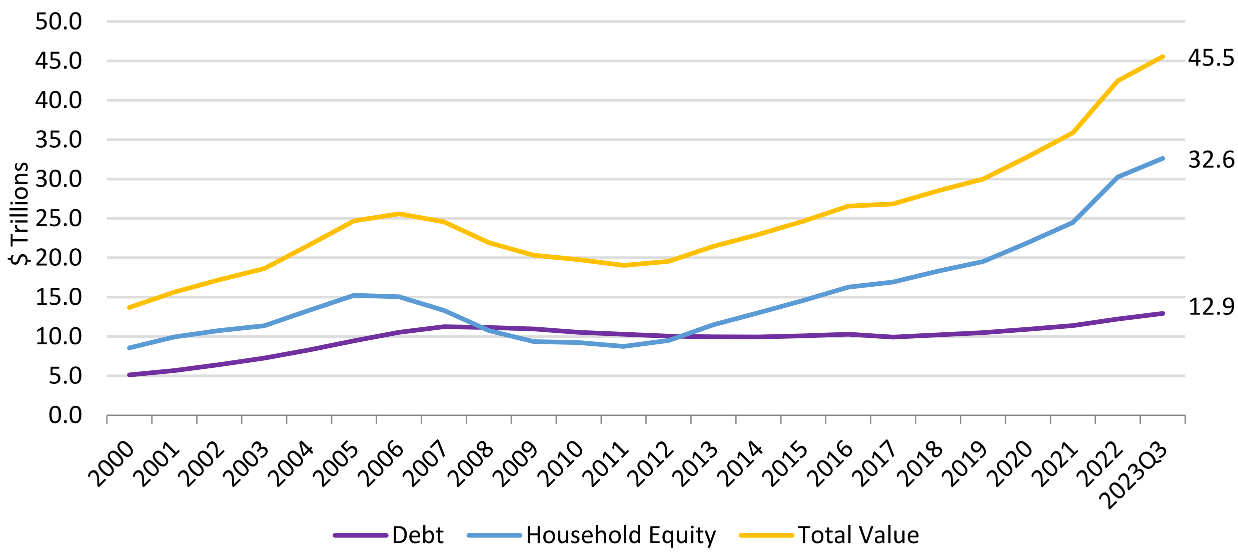
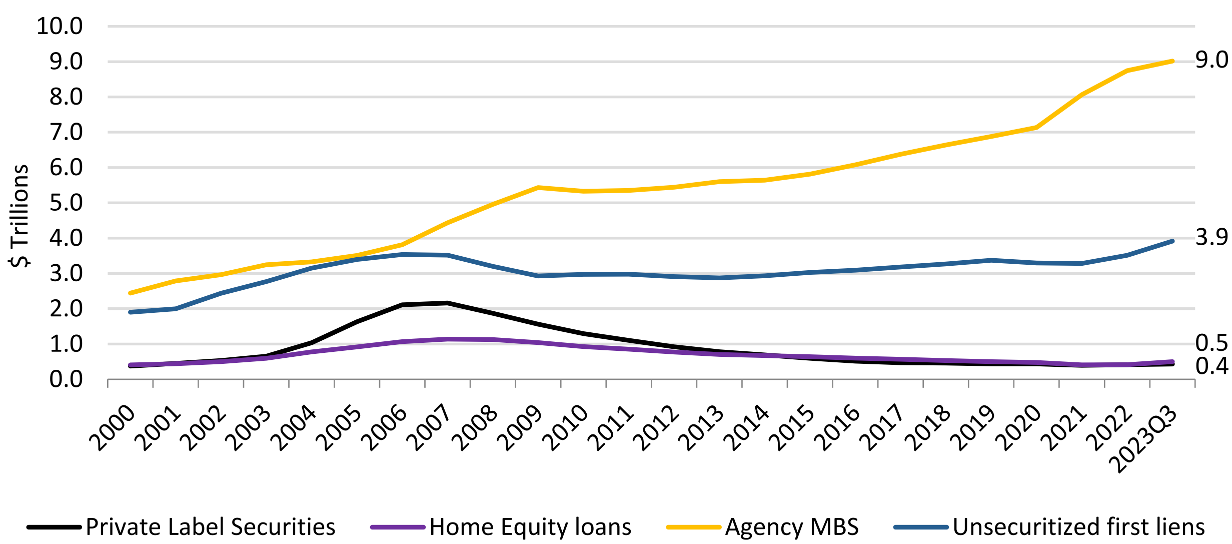


Figure 84. Size of the U.S. Residential Mortgage Market



Source: Federal Reserve Flow of Funds Data as of Q3 2023.

17 DISCLOSURE

“The data provided in the Global Markets Analysis Report (hereinafter, the “report”) should be considered as general information only and is current only as of its specified date, unless otherwise noted. No information contained herein is, and should not be construed to be, investment advice. Nor does any information contained herein constitute an offer to sell, or is a solicitation of an offer to buy, securities.

The information contained herein is based upon information generally available to the public from sources believed to be reliable as of the specified date. The accuracy of the information contained herein is based on the corresponding accuracy of the issuer data as reported to the Government National Mortgage Association (hereinafter, “Ginnie Mae”).

Therefore, if there is insufficient or inaccurate data to support calculations of any specific disclosure information, Ginnie Mae disclaims any and all liability relating to that information, including, without limitation, any express or implied representations or warranties for statements or errors contained in, or omissions from, the report.

The forward-looking statements, and underlying assumptions, speak only as of the date of December 31, 2023. Ginnie Mae expressly disclaims any obligation or undertaking to update or revise any forward-looking statement or underlying assumption contained in the report to reflect any change in its expectations or any change in circumstances upon which such statement is based.

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