GLOBAL MARKETS ANALYSIS REPORT

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

March 2024

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

The March 2024 *Highlights* section discusses Agency REMIC issuance for February 2024, while emphasizing Ginnie Mae's majority share of REMIC issuance over the past two years. Single-Family REMIC collateral is also highlighted, discussing how collateral composition changes in different macroeconomic environments. Lastly, the *Highlights* discusses how investor appetite for specific principal types in REMIC tranches shift with the expectation of interest rate cuts.

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

- 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.
- The 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.

Highlights

Agency REMIC Issuance

February 2024's $26.2 billion of Agency REMIC issuance marked the highest combined total of single-family and multifamily REMIC issuance since April 2022. Ginnie Mae's single-family and multifamily REMIC issuance for February 2024 totaled $14.4 billion, making up greater than 55% of total Agency REMIC issuance for the month. Since January 2022, Ginnie Mae's single-family and multifamily REMIC issuance has been responsible for $243.8 billion of the $500.3 billion of Agency REMIC issuance, approximately 48.7% of total Agency REMIC issuance for the period. Ginnie Mae is the largest issuer of REMIC securities among the three Agencies.

Table 1, *Agency REMIC Issuance*, breaks down the monthly issuance amounts by Agency and by collateral type (single-family, multifamily, and total) as well as Ginnie Mae's share since January 2022. Additionally, **Table 1**, provides 2022 and 2023 annual data as well as 2024 YTD data for the metrics mentioned above.

Table 1. Agency REMIC Issuance (in $ billions)

	Freddie Mac		Fannie Mae		Ginnie Mae		Total		GNMA Share		
Date	**Single-Family**	**Multifamily**	**Single-Family**	**Multifamily**	**Single-Family**	**Multifamily**	**Single-Family**	**Multifamily**	**Single-Family**	**Multifamily**	**Total**
Jan-22	7.9	4.1	9.3	2.0	13.0	4.0	30.2	10.1	43.0%	39.2%	42.1%
Feb-22	5.6	8.1	3.9	2.7	12.4	3.8	21.9	14.6	56.5%	26.2%	44.4%
Mar-22	4.0	7.5	3.4	0.7	8.9	3.4	16.3	11.6	54.6%	29.2%	44.1%
Apr-22	7.2	7.6	2.2	0.9	9.4	2.6	18.8	11.2	49.9%	23.6%	40.0%
May-22	5.0	5.0	4.6	1.6	4.3	1.9	13.9	8.5	30.7%	22.5%	27.6%
Jun-22	3.3	4.4	4.8	0.6	6.2	2.1	14.3	7.1	43.5%	29.4%	38.8%
Jul-22	2.5	5.4	1.9	0.0	8.2	1.1	12.6	6.4	64.8%	16.4%	48.4%
Aug-22	2.6	4.3	3.7	0.0	4.9	1.6	11.3	5.9	43.2%	26.6%	37.5%
Sep-22	2.7	5.3	2.4	0.6	7.0	1.9	12.1	7.8	58.0%	24.2%	44.8%
Oct-22	3.2	3.1	3.7	0.0	5.0	0.9	11.8	3.9	42.4%	22.1%	37.3%
Nov-22	0.4	2.5	0.9	0.4	3.7	1.3	5.0	4.1	73.9%	31.2%	54.6%
Dec-22	0.4	3.6	0.2	0.0	7.1	0.9	7.8	4.5	92.0%	20.3%	65.8%
Jan-23	0.5	2.7	0.6	0.0	6.4	1.2	7.6	3.9	84.9%	29.7%	66.2%
Feb-23	1.8	2.8	1.6	0.3	10.2	1.8	13.6	4.9	75.2%	36.8%	65.0%
Mar-23	1.5	1.8	2.2	0.0	7.2	0.6	10.8	2.5	66.1%	25.4%	58.6%
Apr-23	0.8	2.0	0.5	0.2	5.8	0.3	7.1	2.4	81.6%	12.4%	63.9%
May-23	1.3	3.2	1.2	0.5	9.6	0.7	12.2	4.4	79.0%	15.8%	62.3%
Jun-23	1.8	2.2	2.4	0.0	6.7	0.9	11.0	3.1	61.4%	29.5%	54.3%
Jul-23	2.7	3.0	0.9	1.8	4.5	0.5	8.1	5.4	55.7%	10.1%	37.5%
Aug-23	3.0	3.9	1.0	0.0	10.5	0.8	14.5	4.7	72.3%	17.5%	58.8%
Sep-23	5.5	3.7	1.7	0.0	8.3	0.7	15.5	4.3	53.5%	15.2%	45.1%
Oct-23	4.0	4.4	2.8	0.3	9.1	1.0	15.9	5.7	57.5%	18.4%	47.2%
Nov-23	2.3	3.0	1.7	0.5	8.0	0.8	12.0	4.3	67.0%	18.6%	54.1%
Dec-23	1.5	4.2	0.8	0.0	7.3	0.5	9.6	4.7	76.4%	9.8%	54.5%
Jan-24	2.0	0.8	0.6	0.5	9.5	0.9	12.1	2.2	78.3%	39.8%	72.5%
Feb-24	4.0	2.4	4.9	0.5	13.2	1.2	22.1	4.1	59.9%	28.8%	55.0%
Annual											
2022	45.0	60.8	40.8	9.6	90.0	25.4	175.9	95.8	51.2%	26.5%	42.5%
2023	26.8	36.9	17.3	3.6	93.7	9.9	137.7	50.4	68.0%	19.6%	55.0%
YTD 2024	6.0	3.2	5.5	1.0	22.7	2.0	34.2	6.3	66.4%	32.6%	61.1%

Single-Family REMIC Collateral

As for REMIC collateral, approximately 58.2% of Ginnie Mae's single-family REMIC issuance in February 2024 was collateralized by MBS containing loans originated within the past two months, roughly $7.7 billion in total. The majority of MBS collateral securing Ginnie Mae's February single-family REMIC issuance has a weighted average loan age (WALA) of less than or equal to 2 months.

If Sponsors continue to pool newly originated MBS securities and/or MBS securities with low WALA collateral into REMICs, the recent pickup in Ginnie Mae's gross MBS issuance, shown in **Table 2**, *Issuance Amount (MM) by Purchase vs Refi*, below, could support elevated REMIC issuance in the months to come.

Table 2. Issuance Amount (MM) by Purchase vs Refi[1]

Issue Date	*23-Apr*	*23-May*	*23-Jun*	*23-Jul*	*23-Aug*	*23-Sep*	*23-Oct*	*23-Nov*	*23-Dec*	*24-Jan*	*24-Feb*	*24-Mar*
FHL PURCH	86.7%	87.8%	88.6%	89.6%	89.6%	88.7%	88.6%	88.1%	88.3%	87.6%	84.3%	85.1%
FHL RE-FI	13.3%	12.2%	11.4%	10.4%	10.4%	11.3%	11.4%	11.9%	11.7%	12.4%	15.7%	14.9%
Total FHL	**19,874**	**28,409**	**32,502**	**27,445**	**27,746**	**30,854**	**24,279**	**25,050**	**23,510**	**17,285**	**17,265**	**18,450**
FNM PURCH	85.2%	85.3%	85.6%	88.0%	87.5%	86.8%	88.3%	87.4%	87.9%	88.1%	84.1%	83.1%
FNM RE-FI	14.8%	14.7%	14.4%	12.0%	12.5%	13.2%	11.7%	12.6%	12.1%	11.9%	15.9%	16.9%
Total FNM	**25,516**	**29,661**	**33,057**	**30,531**	**27,435**	**27,785**	**27,496**	**23,381**	**20,249**	**21,549**	**20,121**	**11,599**
GNM PURCH	83.2%	84.1%	83.8%	84.5%	83.9%	81.4%	83.0%	82.8%	83.7%	84.2%	75.9%	73.5%
GNM RE-FI	16.8%	15.9%	16.2%	15.5%	16.1%	18.6%	17.0%	17.2%	16.3%	15.8%	24.1%	26.5%
Total GNM	**28,339**	**29,913**	**34,470**	**34,074**	**34,100**	**32,766**	**29,957**	**28,556**	**24,245**	**25,376**	**27,715**	**26,868**

Single-Family MBS Issuance

Ginnie Mae's fixed-rate gross MBS issuance amount for February totaled over $27.7 billion, the largest of the three Agencies. Freddie Mac and Fannie Mae's fixed-rate gross MBS issuance totaled approximately $17.3 billion and $20.1 billion, respectively, in February. Additionally, roughly 24% of Ginnie Mae's fixed-rate gross MBS issuance collateral consisted of refinanced loans. In comparison, only 15.7% and 15.9% of Freddie Mac and Fannie Mae's fixed-rate gross MBS issuance collateral consisted of refinanced loans in February. As of March 19, 2024, Ginnie Mae's fixed-rate gross MBS issuance totaled more than $26.8 billion to-date for the month of March and consisted of 26.5% refinanced loans.

Investors in new origination Agency MBS securities have dealt with extension risk for much of 2022 and 2023 as the Fed raised rates at a historical pace and magnitude. However, as the Fed now focuses on interest rate cuts in 2024, the risk shifts from extension to prepayment risk. Ginnie Mae MBS collateral refinance issuance amount has already seen an uptick as shown in **Table 2**, *Issuance Amount (MM) by Purchase vs Refi*.

REMIC Principal Types

As rates were increasing in 2022 and 2023, investor appetite for floating rate interest and pass-through principal type tranches in Agency REMIC securities increased to safeguard investors from extension risk. If investor concern shifts toward prepayment risk, investor appetite for REMIC principal types that protect against elevated prepay speeds may increase. These principal types include sequential pay, planned amortization class (PAC), and targeted amortization class (TAC) tranches. These principal types offer protection against increased prepayment speeds by receiving regularly scheduled interest payments while deferring principal payments to a later date until a pre-determined amount of principal from the REMIC's underlying collateral is paid out.

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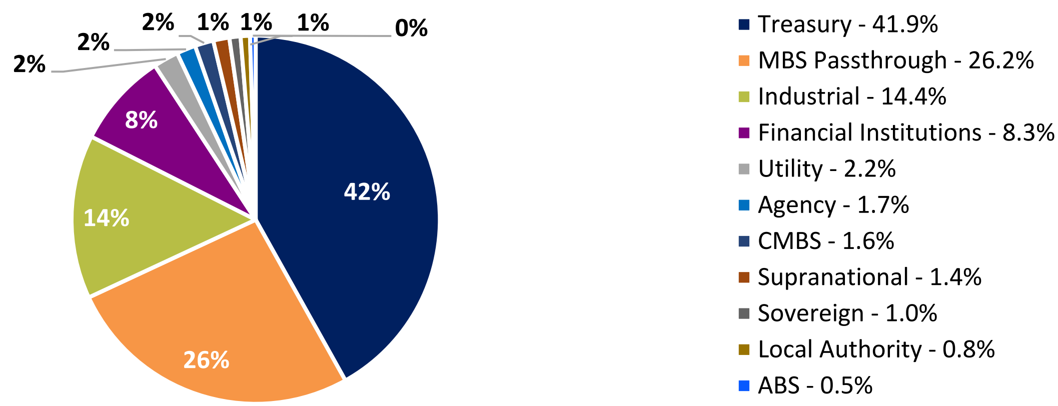
[1] Source: eMBS as of 3/19/2024. Note: eMBS data represents fixed-rate gross MBS issuance by purchase and refinance for each Agency from April 2023 through March 19, 2024.

1 US AGGREGATE AND GLOBAL INDICES

1.1 Bloomberg US Aggregate and Global Indices

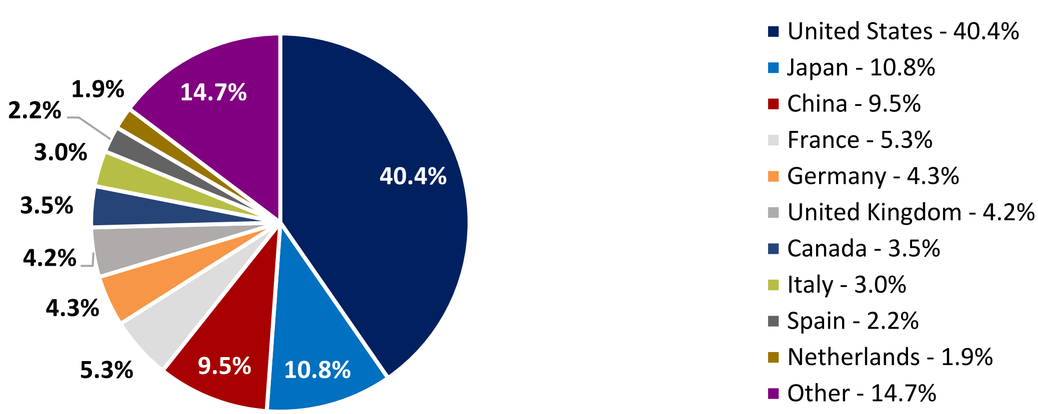
At month-end February, U.S. Treasuries contributed 41.9% to the Bloomberg U.S. Aggregate Index, up approximately 0.1% from the prior month. U.S. Agency MBS Passthrough (Ginnie Mae, Fannie Mae, and Freddie Mac) contributed 26.2%, down 0.2% from the month prior. For the U.S. Aggregate Index, all other changes to the index components were no larger than 0.1%.

Figure 1. 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 40.4% 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 10.8%, decreasing approximately 0.1% from the prior month. China's share of fixed income increased approximately 0.1% from the month prior, representing the third largest share of the Global Aggregate Index at 9.5%. "Other" countries share increased from the prior month by approximately 0.3%, from 14.4% to 14.7%. All other countries listed remained stable compared to the prior month with no changes larger than 0.1%.

Figure 2. Bloomberg Global Aggregate Index by Country



Source: Bloomberg [both charts]. Note: Data as of February 2024. Figures in charts may not add to 100% due to rounding.

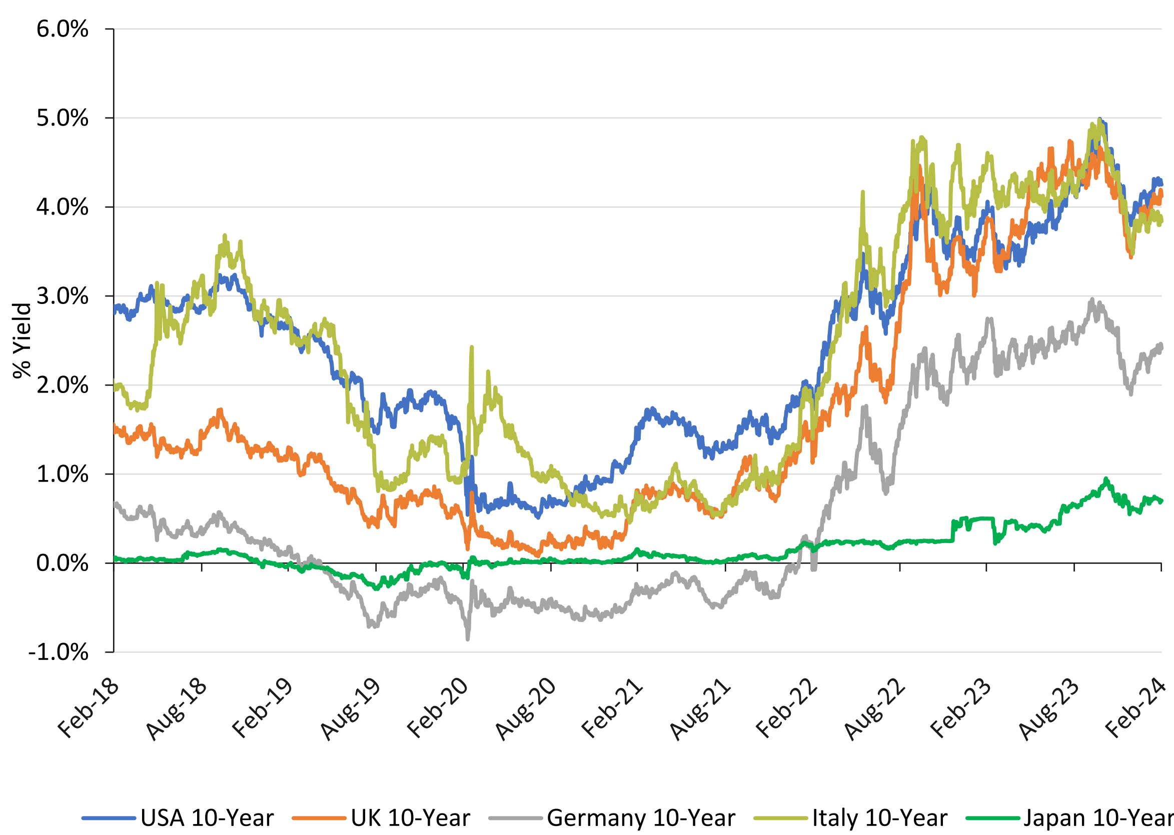
2 SOVEREIGN DEBT PRODUCT PERFORMANCE COMPARISONS

2.1 Global 10-Year Treasury Yields (Unhedged)

The U.S. 10-year Treasury yield moved to 4.25% at month-end February 2024, a MoM increase of 34 bps. Since October 2023, month end U.S. 10-year Treasury note rates have marked the highest government yield amongst the countries listed below. All month-end yields listed, excluding Japan, have increased MoM for two consecutive months.

- The yield on the UK 10-year note increased to 4.12% at month-end February, a MoM increase of 33 bps.
- The yield on the German 10-year note increased to 2.41% at month-end February, a MoM increase of 24 bps.
- The yield on the Italian 10-year note increased to 3.84% at month-end February, a MoM increase of 12 bps.
- The yield on the Japanese 10-year note decreased to 0.70% at month-end February, a MoM decrease of 3 bps.

Figure 3. Global 10-Year Treasury Yields



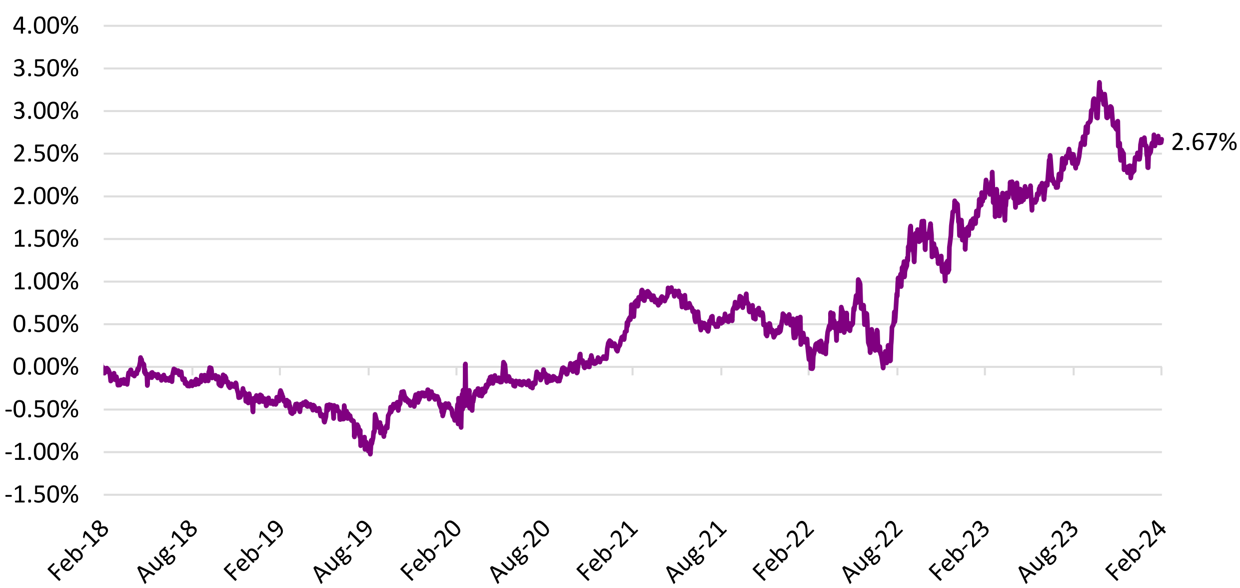
Source: Bloomberg. Note: Data as of February 2024.

2.2 U.S. Treasury Hedged Yields

- The yield for the 10-year Treasury, hedged in Japanese Yen (JPY) stood at -0.83% at month-end February, a 15 bp increase from month-end January.
- The yield for the 10-year Treasury, hedged in Euros (EUR) stood at 2.67% at month-end February, a 33 bp increase from month-end January.

Figure 4. U.S. 10yr Total Return Hedged, 1 yr. JPY

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



Source: Bloomberg. Notes: Data as of February 2024. 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 5.20% at month-end December, decreased 1 bp to 5.19% at month-end January, then increased 54 bps to 5.73% at month-end February. The Ginnie Mae II spread over the U.S. 10-year Treasury yield decreased 11 bps from 159 bps in February 2023 to 148 bps over the U.S. 10-year Treasury yield as of month-end February 2024.

Figure 6. Ginnie Mae II SF Yield, USD

Figure 7. Ginnie Mae II SF Yield – U.S. 10yr Treasury Yield

Source: Bloomberg. Note: Data as of February 2024.

3.2 Ginnie Mae Hedged Yields

The yield for Ginnie Mae II's, hedged in Japanese Yen stood at 0.65% at month-end February, a 34 bp increase from month-end January.

The yield for Ginnie Mae II's, hedged in Euros stood at 4.15% at month-end February, a 53 bp increase from month-end January.

Figure 8. Ginnie Mae II Hedged, 1 yr. JPY

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

Source: Bloomberg. Notes: Data as of February 2024. 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 increased 6 bps MoM, to 0.45%, as of month-end February. The U.S. Intermediate Credit OAS decreased 3 bps to 0.78% from month-end January to month-end February. The yield differential between U.S. Intermediate Credit and GNMA II 30-year OAS decreased 9 bps to 0.33% at month-end January.

Figure 10. U.S. GNMA II 30yr MBS OAS versus U.S. Intermediate Credit OAS

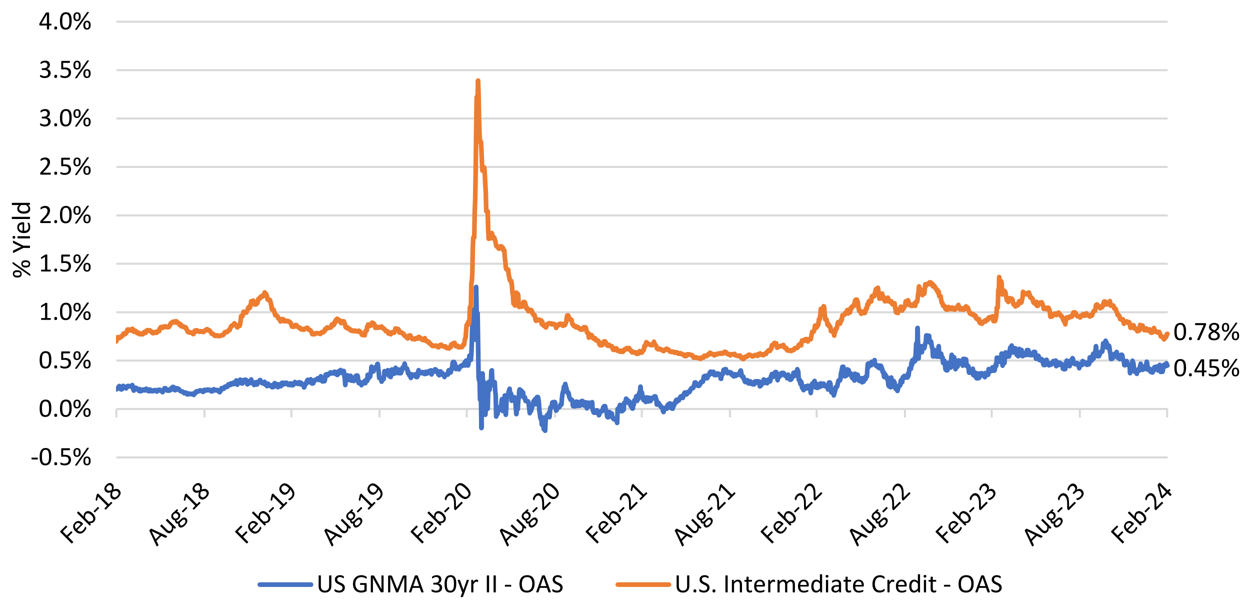
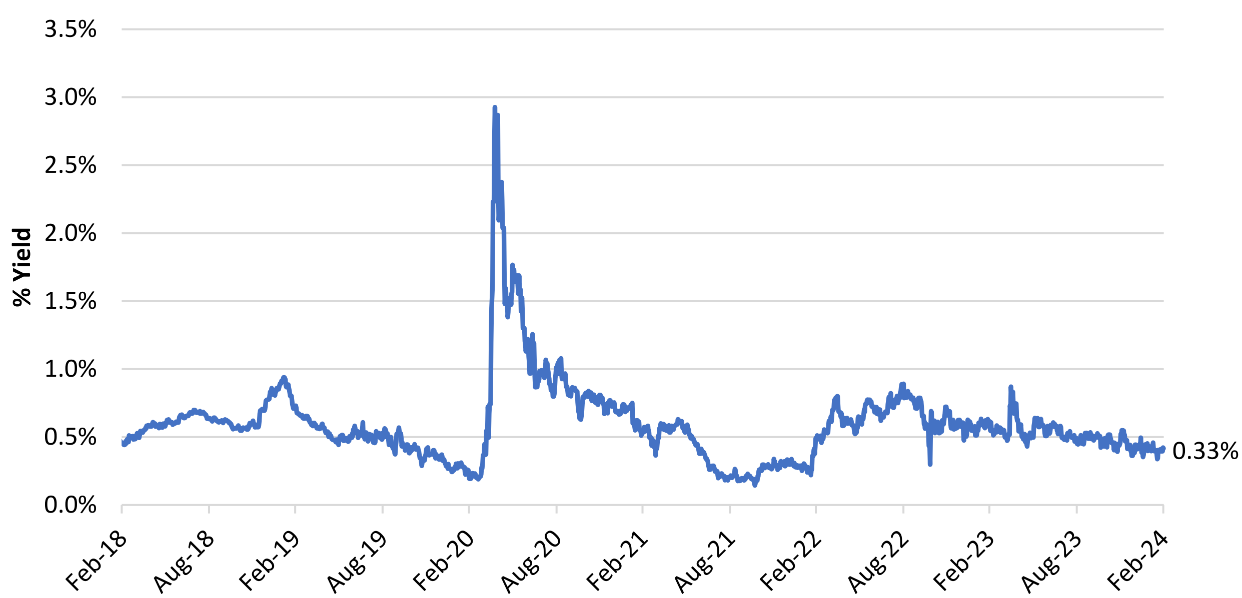


Figure 11. Spread between U.S. Intermediate Credit and U.S. GNMA II 30yr MBS OAS

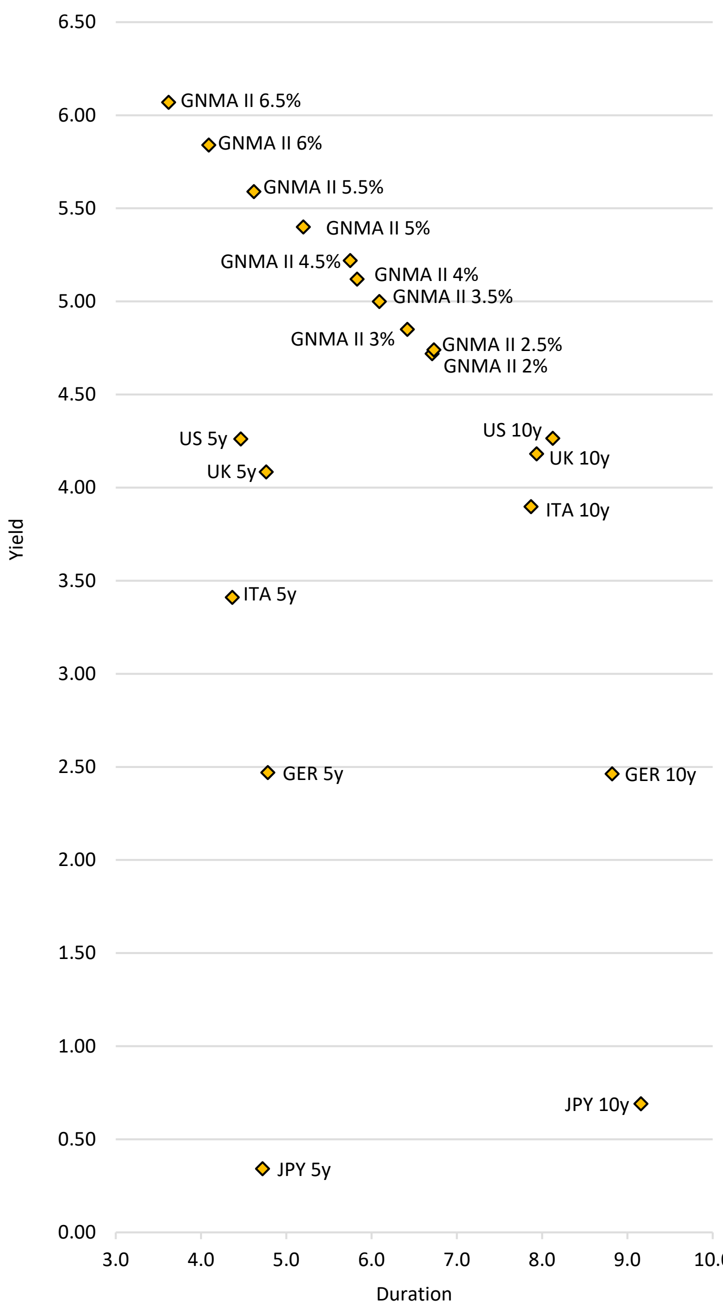


Source: Bloomberg. Note: Data as of February 2024.

3.4 Global Treasury Yield Per Duration

GNMA MBS continues 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 12. Yield vs. Duration



Security	Duration	Yield
U.S. 5y	4.47	4.26
U.S. 10y	8.12	4.26
JPY 5y	4.72	0.34
JPY 10y	9.16	0.69
GER 5y	4.78	2.47
GER 10y	8.82	2.46
ITA 5y	4.37	3.41
ITA 10y	7.87	3.90
UK 5y	4.76	4.08
UK 10y	7.94	4.18
GNMA II 2%	6.65	4.75
GNMA II 2.5%	6.73	4.74
GNMA II 3%	6.42	4.85
GNMA II 3.5%	6.09	5.00
GNMA II 4%	5.83	5.12
GNMA II 4.5%	5.75	5.22
GNMA II 5%	5.20	5.40
GNMA II 5.5%	4.62	5.59
GNMA II 6%	4.09	5.84
GNMA II 6.5%	3.62	6.07

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 February 2024. Yields are in base currency of security and unhedged.

4 PREPAYMENTS

4.1 Aggregate Prepayments (CPR)

Freddie Mac fixed rate aggregate prepayment speeds increased by 0.4% from January 2024 to February 2024. Similarly, Fannie Mae CPRs increased by 0.4% and Ginnie Mae CPRs increased by 0.8% from January 2024 to February 2024. ARM prepayments increased 1.8% for Freddie Mac, decreased 0.6% for Fannie Mae, and remained constant at 4.7% for Ginnie Mae.

Figure 13. Fixed Rate Aggregate 1-Month CPR

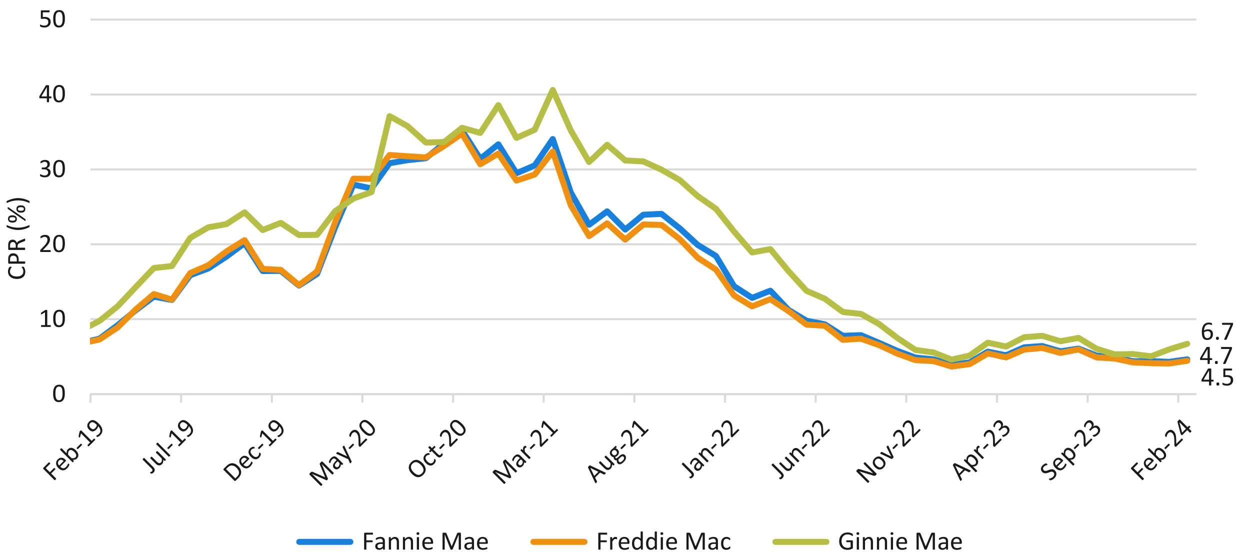
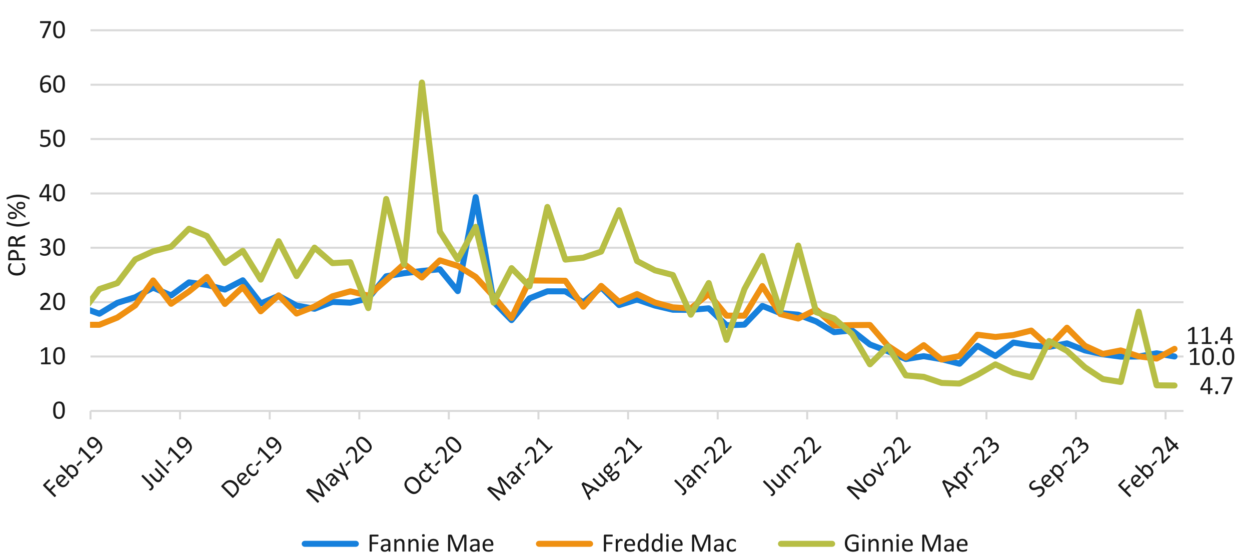


Figure 14. ARM Aggregate 1-Month CPR



Source: Recursion. Note: Data as of February 2024.

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 February 2024 after slightly overtaking Ginnie Mae in September 2022.

Figure 15. Fixed Rate Aggregate CDR

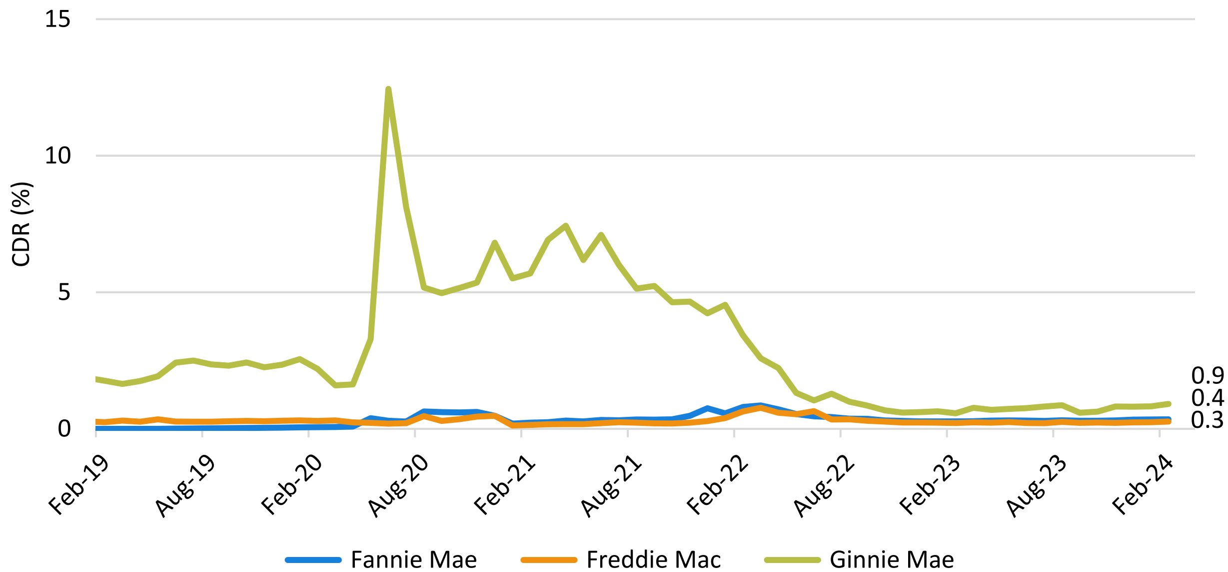
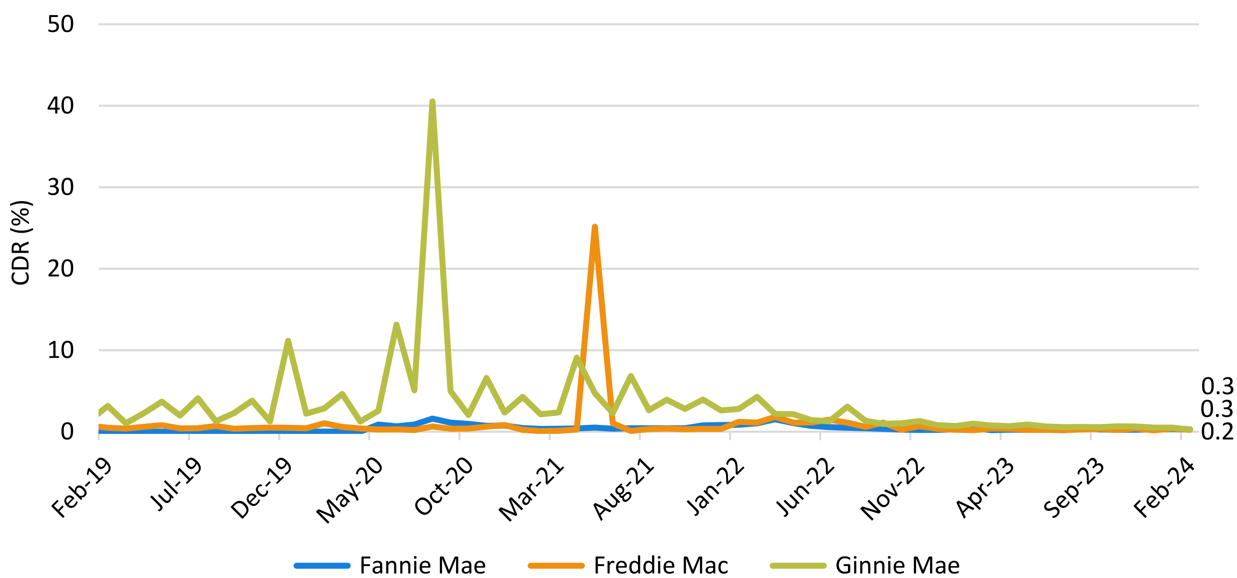


Figure 16. ARM Aggregate CDR



Source: Recursion. Note: Data as of February 2024.

4.3 Voluntary Prepayment Rates (CRR)

Fixed rate voluntary prepayments were higher for Ginnie Mae and Fannie Mae than Freddie Mac. Fannie Mae and Freddie Mac saw increases of 0.3% and 0.4%, respectively, in fixed rate aggregate CRR. Freddie Mac saw a 2.0% increase in ARM aggregate CRR while Fannie Mae saw 0.6% decrease. Ginnie Mae fixed rate aggregate CRR increased by 0.7% and ARM aggregate CRR increased by 0.2%.

Figure 17. Fixed Rate Aggregate CRR

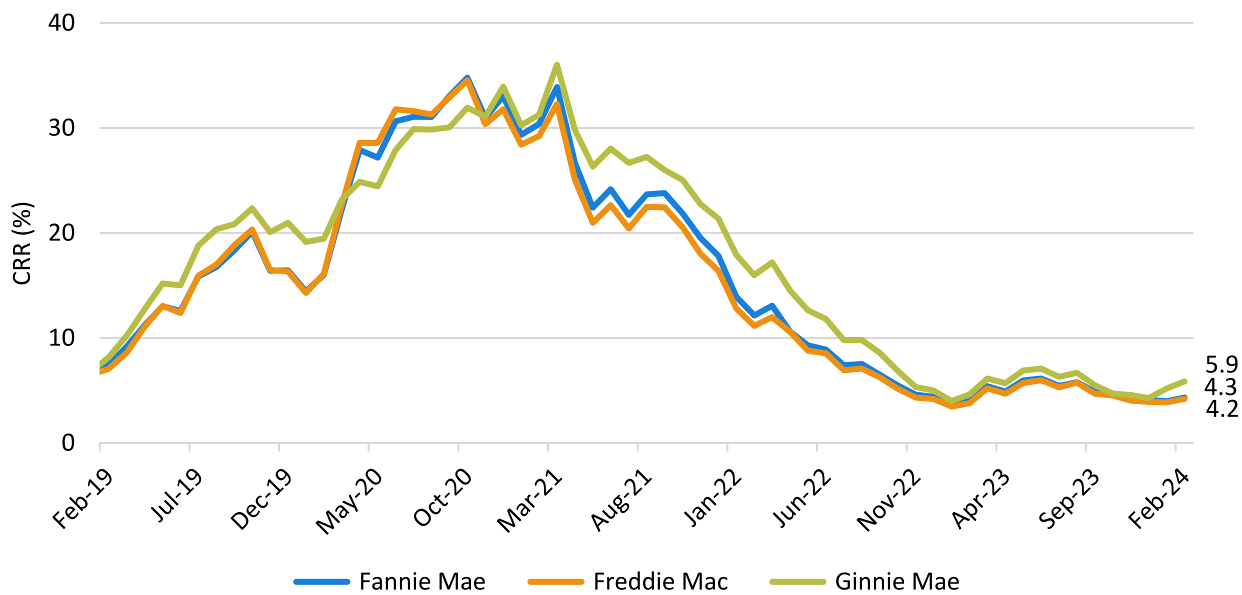
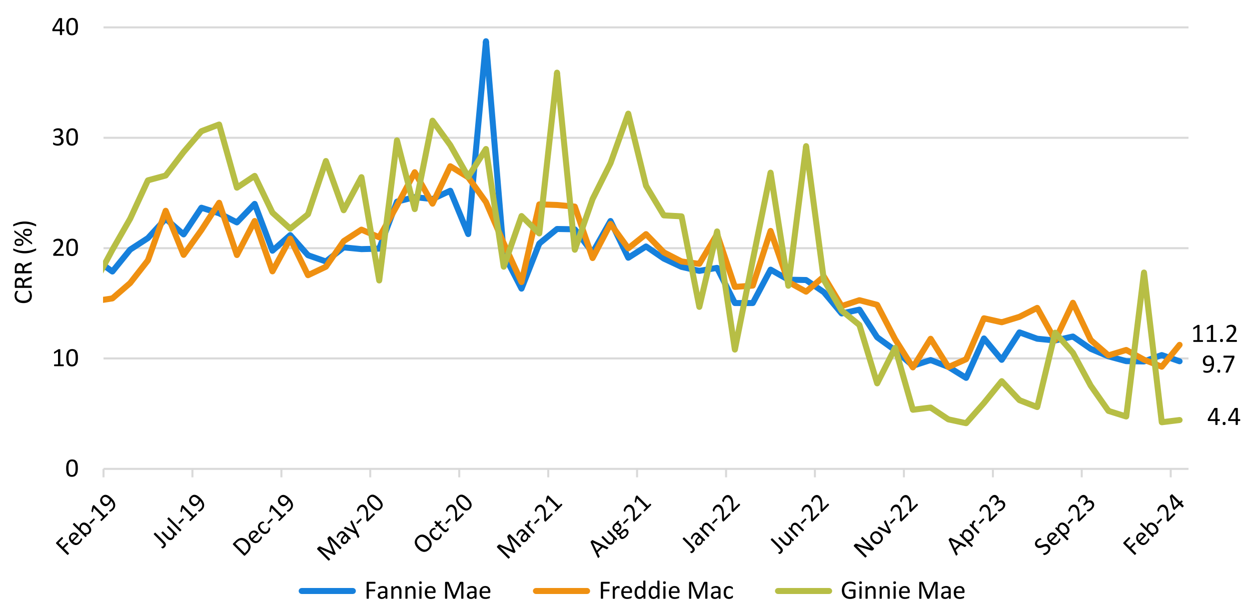


Figure 18. ARM Aggregate CRR



Source: Recursion. Note: Data as of February 2024.

5 SINGLE-FAMILY MBS PASS-THROUGH ISSUANCE

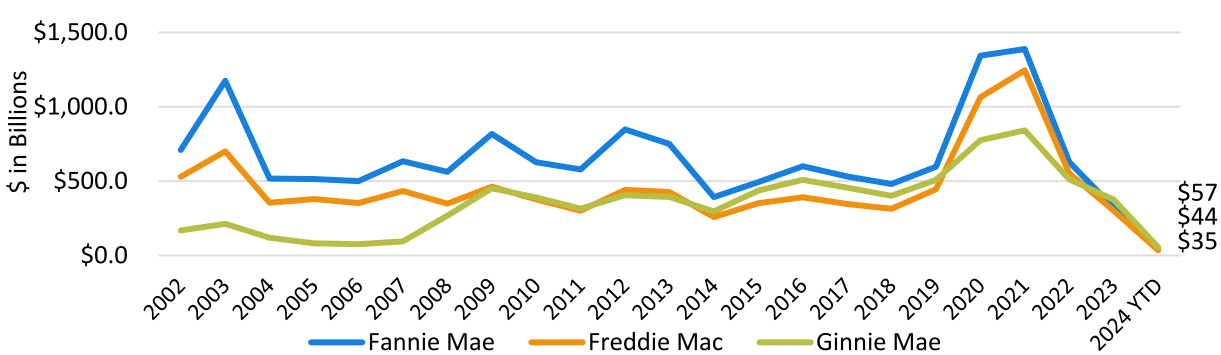
5.1 Gross Issuance of Agency MBS

In February 2024, total gross MBS issuance decreased by approximately $0.4 billion MoM. Freddie Mac and Fannie saw MoM decreases of $0.1 billion and $2.9 billion, respectively. Ginnie Mae saw a $2.5 billion MoM increase in gross issuance.

Table 3. Agency Gross Issuance ($ in billions)

Issuance Year	Fannie Mae	Freddie Mac	GSE Total	Ginnie Mae	Total
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	$320.3	$301.4	$621.8	$375.5	$997.3
2024 YTD	$43.8	$35.4	$79.2	$56.8	$135.9

Figure 19. Agency Gross Issuance

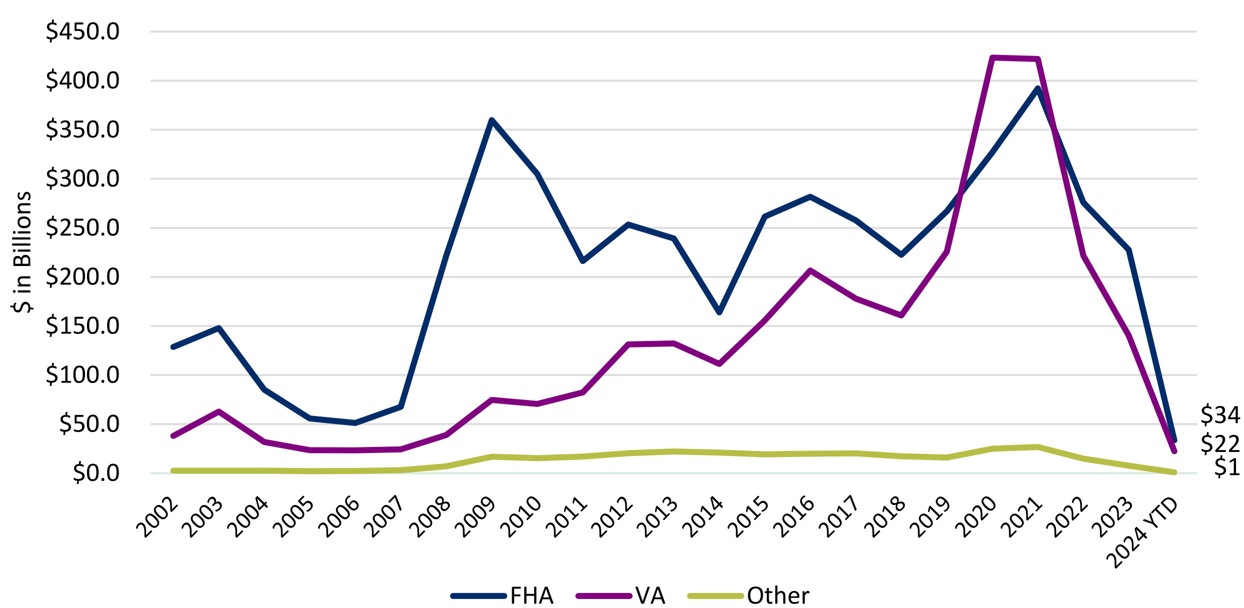


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

Table 4. Ginnie Mae Gross Issuance Collateral Composition ($ in billions)

Issuance Year	FHA	VA	Other	Total
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	$227.6	$140.3	$7.7	$375.5
2024 YTD	$33.6	$22.3	$0.9	$56.8

Figure 20. 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.

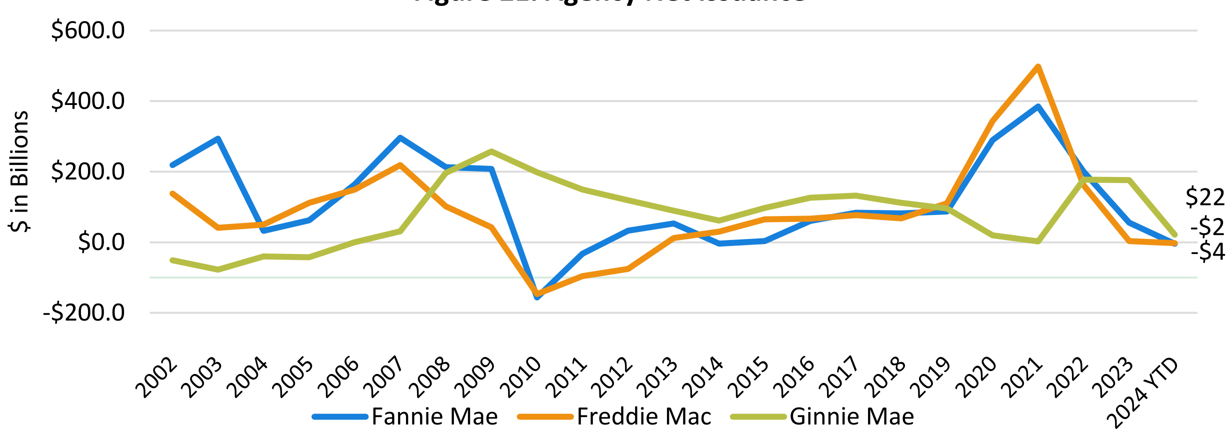
5.2 Net Issuance of Agency MBS

Agency Net Issuance as of month-end February was $15.0 billion for 2024 YTD, shown in **Table 5.** Ginnie Mae has the largest net issuance YTD, totaling $21.7 billion as of month-end February 2024. Since 2022, FHA net issuance has outpaced VA net issuance, as shown in **Table 6 and Figure 22.**

Table 5. 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	$55.3	$3.3	$58.6	$176.3	$235.0
2024 YTD	-$4.4	-$2.3	-$6.7	$21.7	$15.0

Figure 21. Agency Net Issuance

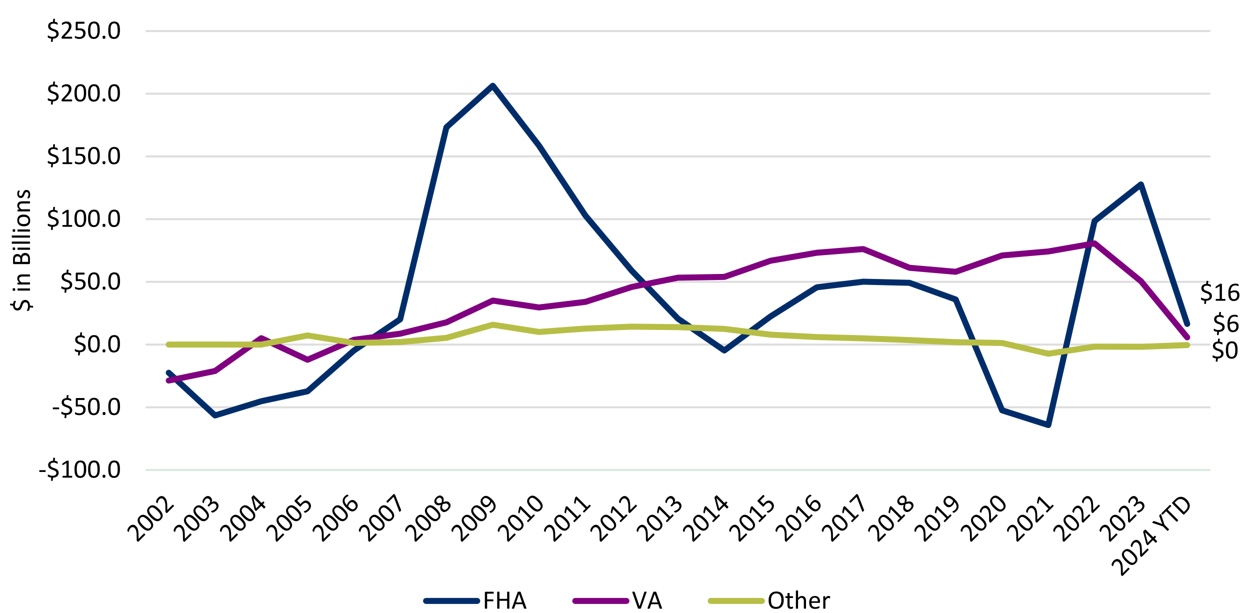


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

Table 6. Ginnie Mae Net Issuance Collateral Composition ($ in billions)

Issuance Year	FHA	VA	Other	Total
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	$127.7	$50.4	-$1.8	$176.3
2024 YTD	$16.4	$5.7	-$0.4	$21.7

Figure 22. 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 February was approximately $5.5 billion, which represents an approximate $4.0 billion decrease MoM. Ginnie Mae net issuance was $11.3 billion in February, a $0.9 billion increase from January. Ginnie Mae's $29.6 billion of gross issuance in February, seen in **Table 7**, was approximately $1.7 billion below the average monthly issuance in 2023.

Table 7. 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
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
Jan-24	$23.3	$17.7	$27.1	$41.1	$68.2	-$0.3	-$0.6	$10.4	-$0.9	$9.5
Feb-24	$20.5	$17.7	$29.6	$38.1	$67.7	-$4.2	-$1.7	$11.3	-$5.9	$5.5

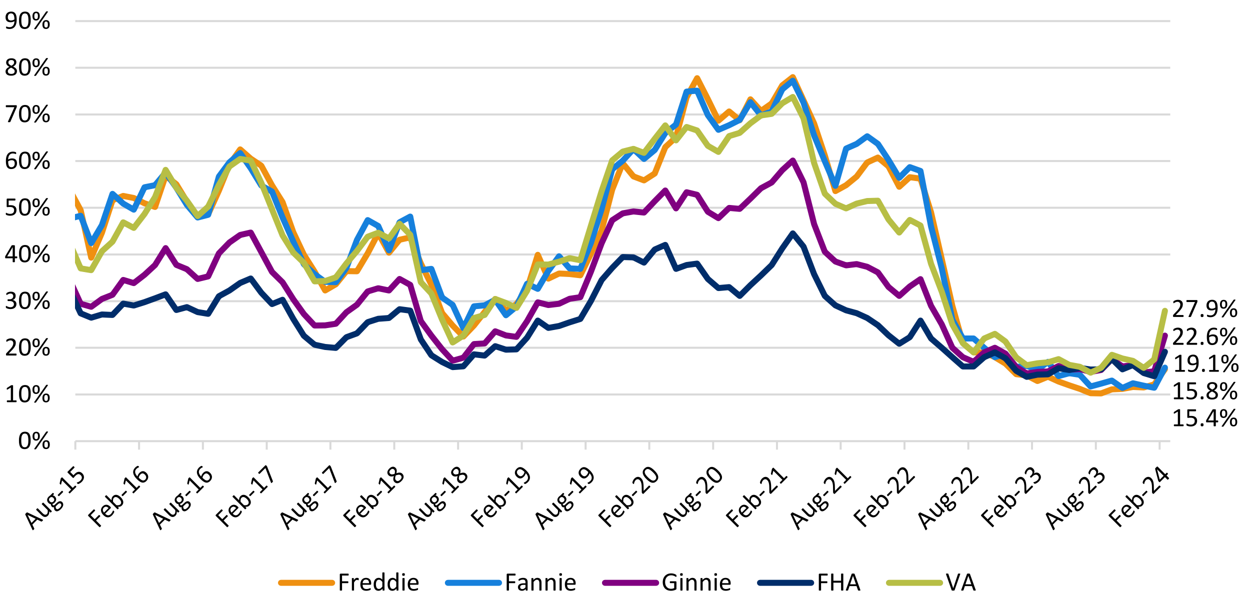
Sources: Beginning May 2021, data for Gross and Net Issuance was sourced from Fannie Mae, Freddie Mac, and Ginnie Mae loan level disclosure files. Net issuance is defined here as the difference between prior period UPB and current period UPB. Data as of February 2024. Beginning with the October 2021 GMAR, the Fannie Mae and Freddie Mac net issuance data have been updated to reflect the current UPB of the portfolios. July 2021 through February 2024 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 increased by approximately 51.0% MoM for Ginnie Mae as of month-end February 2024.

- Freddie Mac's refinance percentage increased to 15.4% in February, up from 12.2% in January.
- Fannie Mae's refinance percentage increased to 15.8% in February, up from 11.4% in January.
- Ginnie Mae's refinance percentage increased to 22.6% in February, up from 15.0% in January.
- FHA's refinance percentage increased to 19.1% in February, up from 13.9% in January.
- VA's refinance percentage increased to 27.9% in February, up from 17.5% in January.

Figure 23. Percent Refinance at Issuance – Single-Family



Source: Recursion. Note: Data as of February 2024.

6 AGENCY SINGLE-FAMILY MBS OUTSTANDING

6.1 Outstanding Single-Family Agency MBS

As of month-end February 2024, outstanding Single-Family MBS in the Agency market totaled $8.853 trillion: 40.4% Fannie Mae, 33.3% Freddie Mac, and 26.3% Ginnie Mae MBS. Over the past twelve months, Freddie Mac's and Ginnie Mae's total outstanding MBS increased by approximately 1.7% and 8.1%, respectively, while Fannie Mae's total outstanding MBS stayed relatively flat. Fannie Mae outstanding MBS remains larger than Freddie Mac's and Ginnie Mae's by approximately $625 billion and $1.2 trillion, respectively.

Ginnie Mae's MBS collateral composition has changed over time as shown in **Figure 25**. In February 2019, 59.7% of Ginnie Mae's outstanding collateral was FHA and 34.4% was VA. As of month-end February 2024, FHA collateral comprised 54.5% of Ginnie Mae MBS outstanding, and VA collateral comprised 41.0% of Ginnie Mae MBS outstanding.

Figure 24. Outstanding Agency Mortgage-Backed Securities

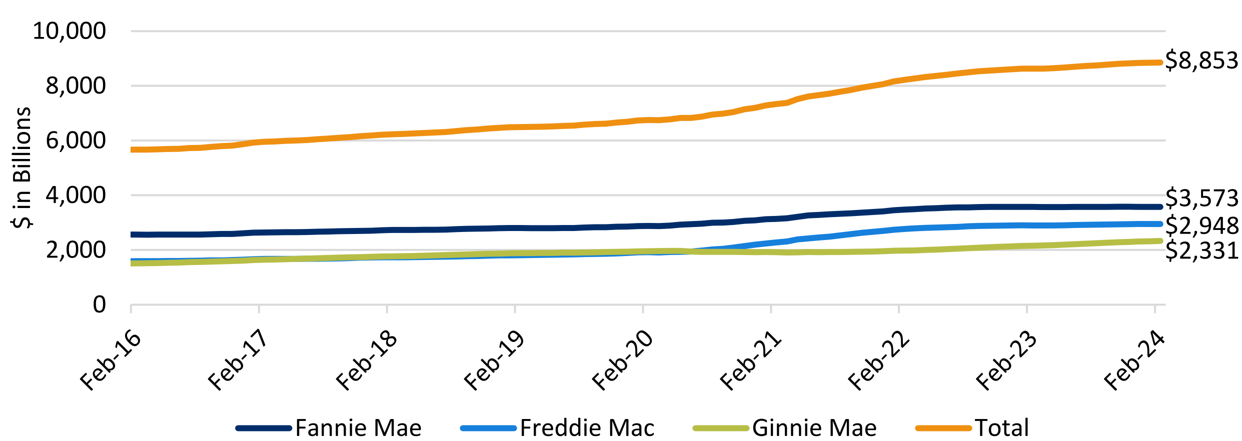
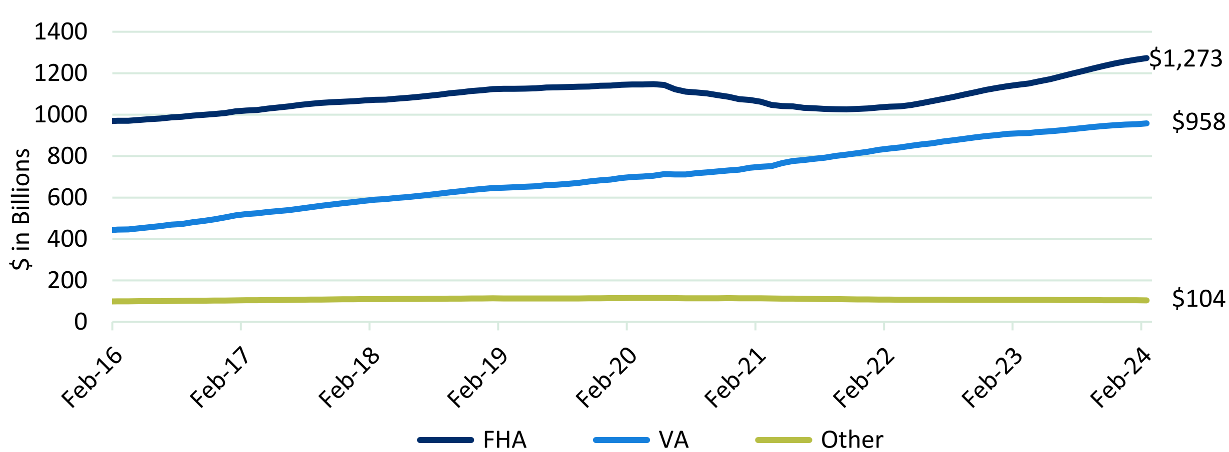


Figure 25. Composition of Outstanding Ginnie Mae Mortgage-Backed Securities



Source: Recursion. Note: Data as of February 2024.

6.2 Origination Volume and Share Over Time

First lien origination volume decreased in Q4 2023, with approximately $300 billion in originations, which represents a decrease in issuance of 22.1% from Q3 2023. Ginnie Mae's share of total origination increased from 26.4% to 28.5% in Q4 2023, while portfolio origination decreased from 26.1% to 19.8%.

Figure 26. First Lien Origination Volume

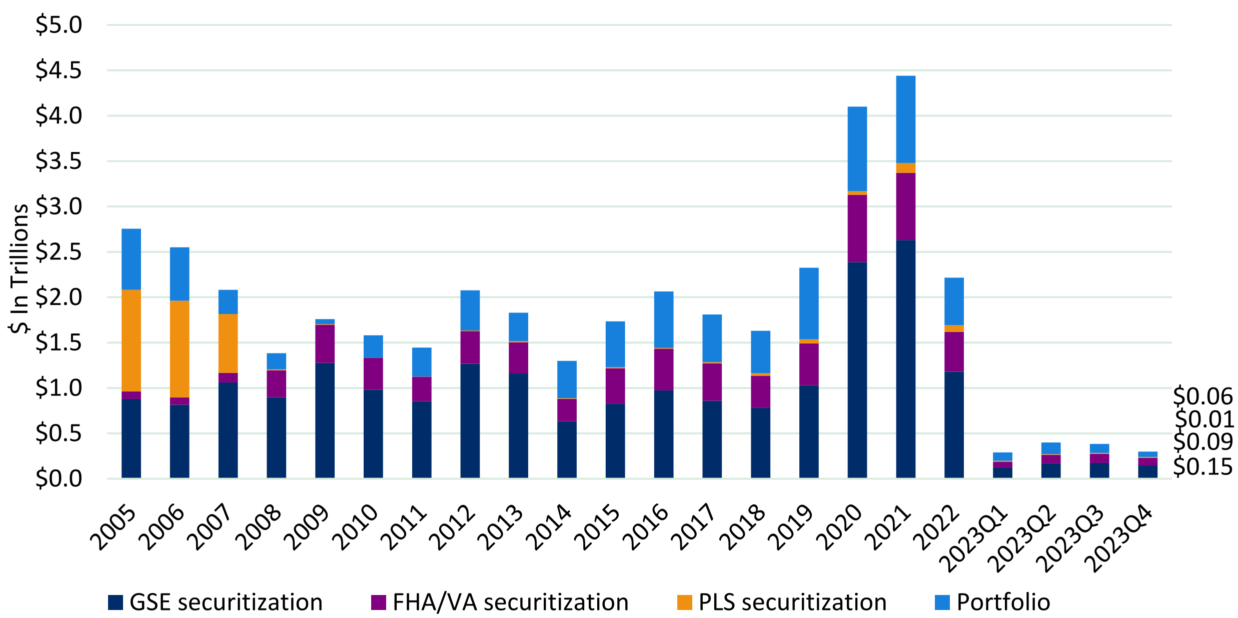
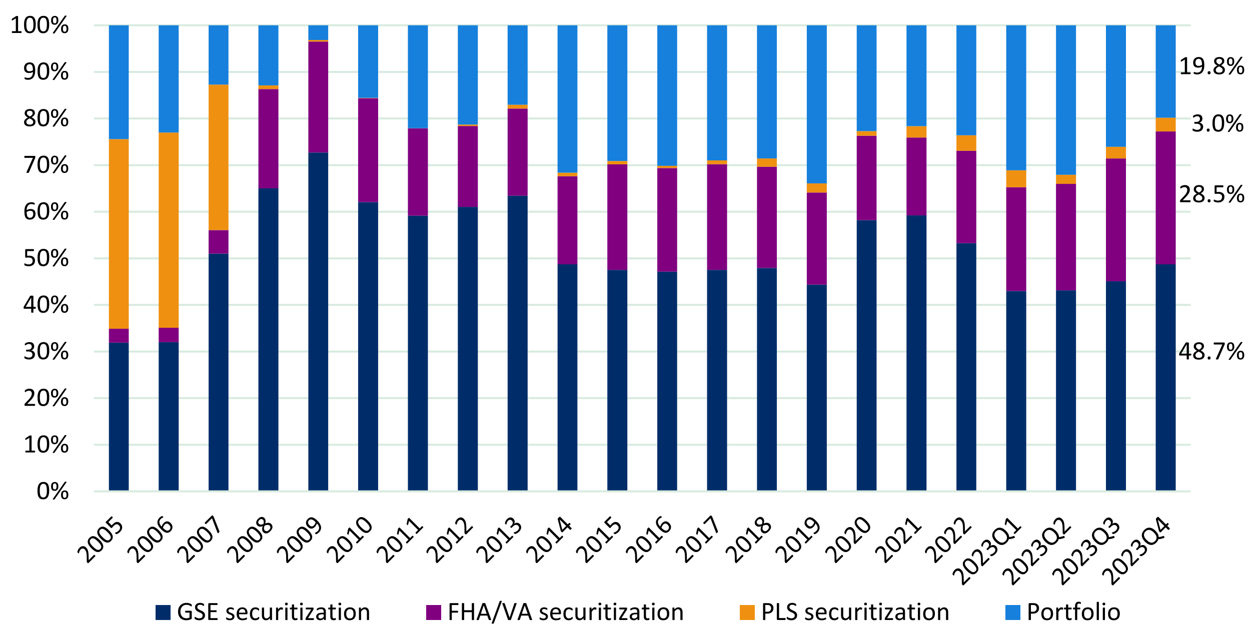


Figure 27. First Lien Origination Share



Source: Inside Mortgage Finance. Note: Data as of Q4 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 largest share by UPB being in both Mississippi and Alaska (60%) and the smallest 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 8. Agency Issuance Breakdown by State

National	Agency Issuance (past 1 year)				Agency Outstanding (past 1 year)			
	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%	**1,453,668**	**301.17**	**305.42**	**27%**	**11,212,474**	**211.28**	**211.38**
AK	60%	3,781	356.16	309.72	49%	37,957	264.41	219.46
AL	53%	35,309	237.22	247.38	42%	248,262	163.95	178.49
AR	48%	18,286	204.01	236.85	40%	141,644	137.81	162.70
AZ	40%	44,580	341.80	344.03	26%	292,700	231.86	228.18
CA	33%	84,020	477.72	475.50	18%	718,453	336.55	318.30
CO	36%	30,481	423.00	412.87	25%	223,482	302.64	279.20
CT	33%	11,351	283.58	292.49	26%	109,027	205.46	208.71
DC	23%	1,038	524.83	441.06	14%	9,353	391.43	346.21
DE	39%	6,345	290.07	308.87	32%	54,184	208.76	212.29
FL	43%	142,122	323.50	319.11	33%	906,594	223.95	215.84
GA	46%	78,306	280.64	310.68	35%	521,873	189.92	209.93
HI	46%	3,365	633.24	529.87	33%	34,554	473.62	356.42
IA	33%	10,956	196.53	205.97	23%	85,794	138.62	148.12
ID	35%	8,996	346.55	333.43	25%	67,041	230.39	225.03
IL	29%	44,149	221.28	252.24	23%	380,944	163.33	179.10
IN	39%	38,534	205.85	222.20	31%	289,591	140.04	152.59
KS	38%	12,549	206.65	232.28	30%	98,799	144.73	164.40
KY	48%	23,580	210.02	224.40	36%	172,158	148.90	156.34
LA	53%	25,669	212.03	238.52	42%	210,675	160.48	176.44
MA	29%	13,507	402.00	397.35	17%	118,576	291.75	267.24
MD	45%	33,288	358.73	346.20	34%	302,762	269.24	248.61
ME	35%	4,550	267.90	287.52	26%	39,021	183.33	192.99
MI	28%	34,027	199.16	223.47	21%	284,426	137.88	156.89
MN	24%	16,673	266.25	285.41	18%	162,959	186.59	198.52
MO	39%	31,739	212.87	231.67	30%	251,812	147.11	162.85
MS	60%	16,815	213.48	225.93	49%	127,788	148.97	161.42
MT	34%	3,660	335.69	327.50	24%	32,982	217.04	217.70
NC	40%	63,774	276.23	304.53	30%	433,572	185.42	204.92
ND	36%	1,910	252.92	249.20	25%	17,356	195.32	182.36
NE	36%	7,838	236.16	236.02	27%	66,476	155.48	161.69
NH	30%	4,295	341.20	330.69	23%	39,184	232.58	216.45
NJ	31%	27,095	348.79	363.99	22%	239,736	247.11	254.47
NM	49%	12,139	261.86	274.04	39%	98,723	173.46	179.87
NV	44%	19,693	365.76	348.31	32%	141,018	258.17	237.55
NY	27%	30,692	317.99	346.13	21%	314,879	215.85	248.52
OH	37%	53,386	199.83	211.83	30%	437,900	135.02	150.14
OK	49%	24,338	215.36	230.71	43%	194,978	146.53	163.81
OR	30%	13,367	369.81	378.57	20%	115,080	261.29	254.16
PA	31%	41,709	214.82	258.56	26%	398,667	151.83	182.49
RI	45%	4,335	358.25	323.46	31%	37,310	242.61	213.04
SC	46%	39,028	273.12	275.28	36%	249,551	192.17	194.32
SD	42%	3,866	257.84	252.52	31%	30,258	179.21	177.44
TN	42%	41,176	281.88	299.62	32%	280,576	186.14	207.54
TX	40%	165,929	291.06	322.94	33%	1,163,840	193.35	216.93
UT	33%	14,692	402.07	401.84	20%	101,505	274.87	265.70
VA	48%	52,122	350.33	344.27	37%	459,630	261.73	249.43
VI	25%	69	415.25	441.60	24%	805	262.84	305.73
VT	24%	1,280	258.48	277.93	19%	12,429	183.86	181.49
WA	32%	27,354	421.14	432.04	22%	239,986	293.49	290.49
WI	27%	14,921	225.96	239.41	18%	127,419	160.70	162.91
WV	55%	7,933	206.11	198.09	45%	62,604	148.03	144.98
WY	46%	3,051	288.07	277.79	36%	25,581	210.59	201.37

Source: Recursion. Note: Outstanding balance based on loan balance as of February 2024. 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 February 2024, the weighted average coupon (WAC) on outstanding Ginnie Mae MBS increased slightly from 3.54% in January 2024 to 3.56% as seen in **Figure 28**. **Figure 29** illustrates that loans originated since 2019 account for approximately 80% of Ginnie Mae MBS collateral outstanding.

Figure 28. Outstanding Ginnie Mae MBS Balance, by Coupon

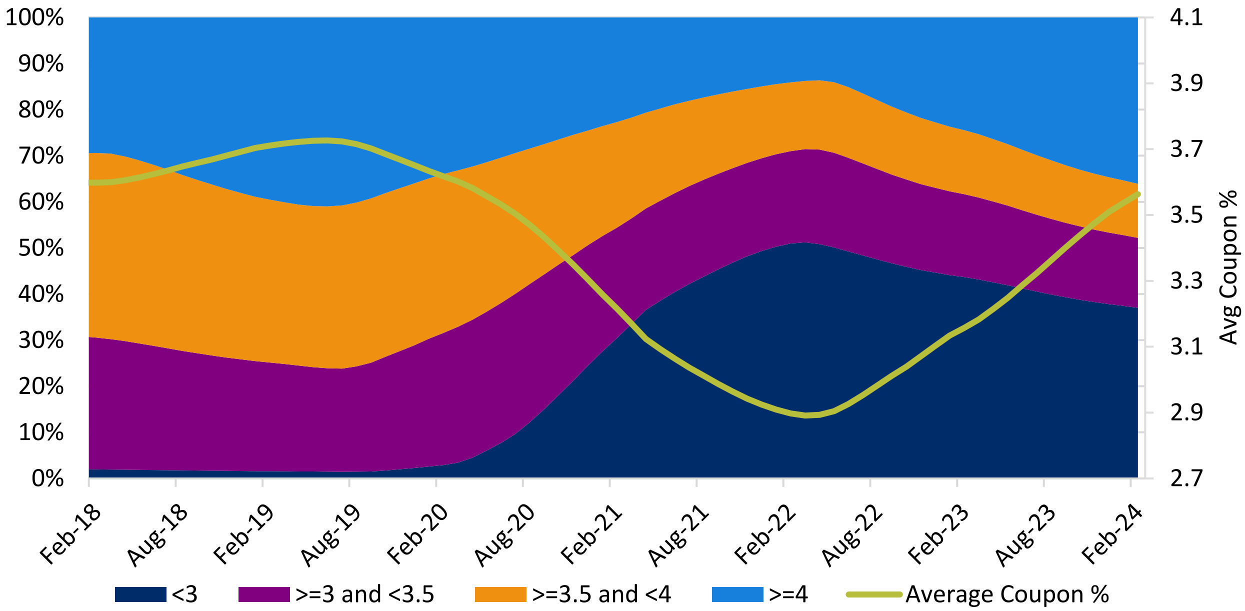
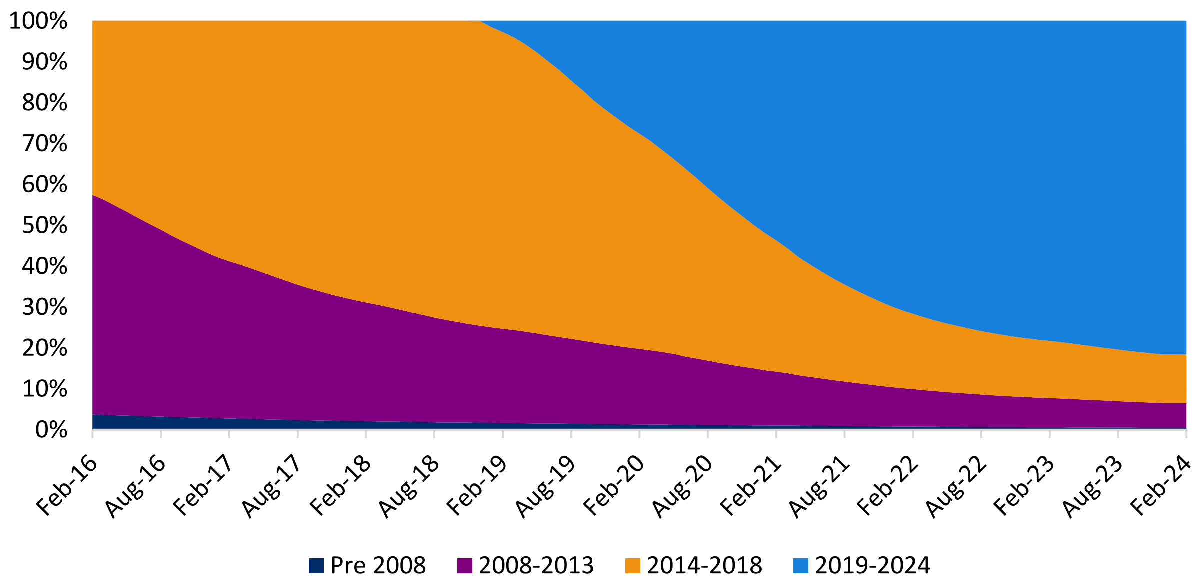


Figure 29. Outstanding Ginnie Mae MBS Balance, by Vintage



Source: Recursion. Note: February 2024 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 February was approximately $14.4 billion. This represents a 39.5% MoM increase from $10.3 billion in January 2024, and a 19.9% increase YoY from $12.0 billion in February 2023. Approximately $501.5 million of the February 2024 issuance volume were Multifamily MBS having coupons over 5.0%, and approximately $11.1 billion were Single-Family MBS having coupons over 5.5%. Roughly $421.8 million of previously securitized REMICs were re-securitized into new REMIC deals in February.

Figure 30. Ginnie Mae Single-Family and Multifamily REMIC Issuance

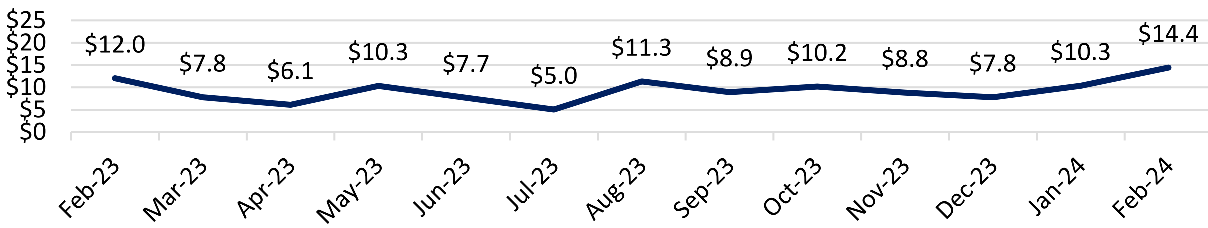


Table 9. February 2024 REMIC Collateral Coupon Distribution

Net Coupon (%)	*Approx. Ginnie Mae MBS amount securitized into REMIC Deals ($MM)*	*% Breakdown of REMIC Collateral by coupon*
Multifamily		
2.001-2.501	1.4	0.1%
2.501-3.001	193.7	16.3%
3.501-4.001	220.8	18.6%
4.001-4.501	58.5	4.9%
4.501-5.001	208.9	17.6%
5.001-5.501	335.9	28.3%
5.501-6.001	165.7	14.0%
Subtotal	**1,184.9**	**100.0%**
Single-Family		
ReREMIC	421.8	3.2%
<2.001	27.4	0.2%
2.501-3.001	25.9	0.2%
3.001-3.501	71.1	0.5%
3.501-4.001	455.7	3.4%
4.001-4.501	119.8	0.9%
4.501-5.001	502.8	3.8%
5.001-5.501	569.9	4.3%
5.501-6.001	3,481.9	26.3%
6.001-6.501	4,806.5	36.3%
6.501-7.001	1,816.1	13.7%
>7.001	948.1	7.2%
Subtotal	**13,247.0**	**100.0%**
Grand Total [2]	**14,431.9**	**100.0%**

Source: Ginnie Mae Disclosure Files

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

7.2 REMIC Market Snapshot

- In February 2024, Freddie Mac and Fannie Mae saw decreases in their Single-Family REMIC issuance collateral coupon of 6 basis points and 41 basis points, respectively. Ginnie Mae saw an increase of 8 basis points in their Single-Family REMIC issuance collateral coupon.
- In February 2024, Ginnie Mae and Fannie Mae saw decreases of 31 basis points and 58 basis points, respectively, in their Multifamily REMIC issuance collateral coupon. Freddie Mac's Multifamily REMIC issuance collateral coupon increased 18 basis points to 6.11%.
- In February 2024, Ginnie Mae's total Single-family, Multifamily, and HMBS REMIC issuance totaled $14.97 billion, the highest total issuance since February 2022.
- In February 2024, total Single-Family and Multifamily issuance across the three Agencies increased 83.8% or $11.97 billion from January. February 2024 marked the highest Agency REMIC issuance, $26.25 billion, since April 2022.

Figure 31. February 2024 REMIC Issuance by Agency ($Billion)

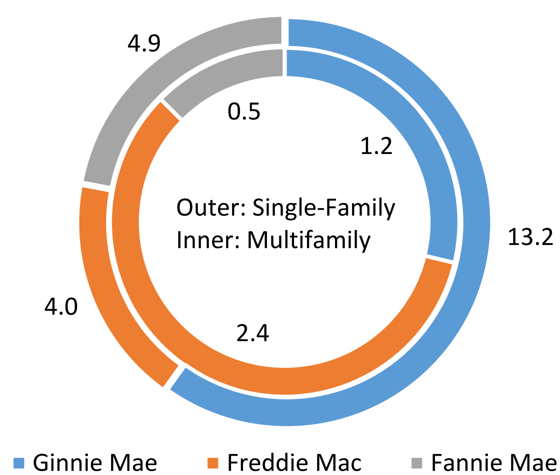


Table 10. Monthly REMIC Issuance by Agency

	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	13.25	59.9%	11	1.18	28.8%	9
Freddie Mac	4.00	18.1%	9	2.42	58.7%	4
Fannie Mae	4.88	22.0%	8	0.52	12.6%	1
Total [3]	**$22.13**	**100%**	**28**	**$4.12**	**100%**	**14**

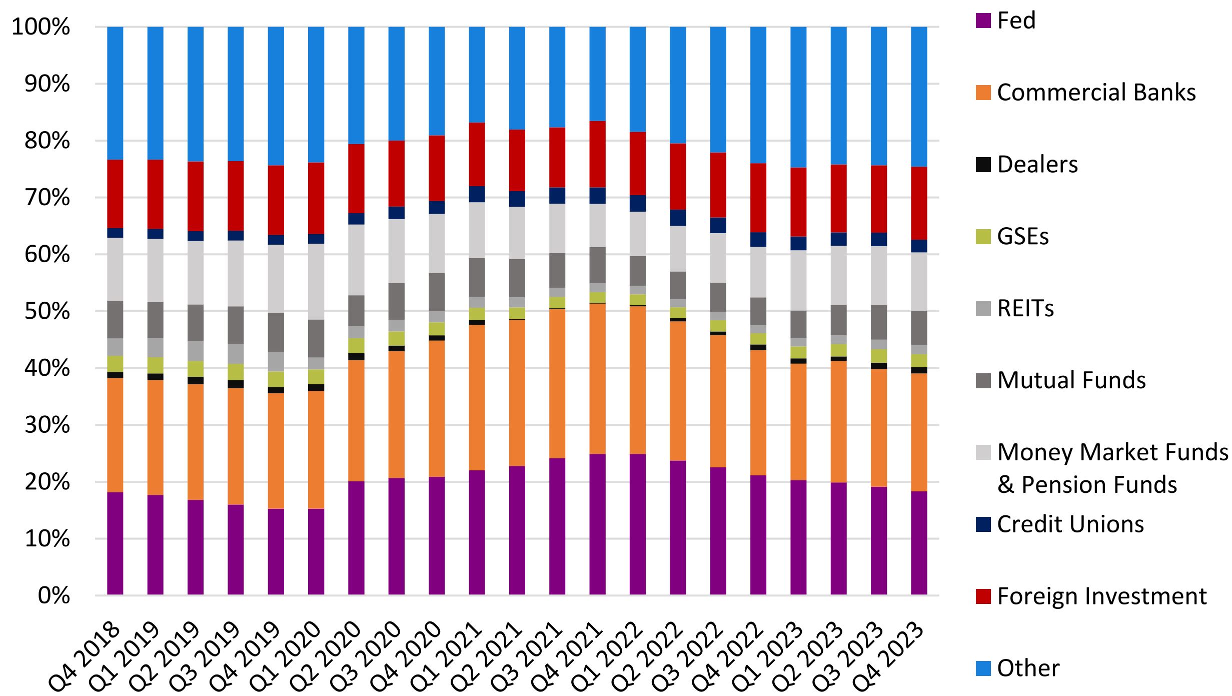
Source: Ginnie Mae Disclosure Files

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

8 MBS OWNERSHIP

As of Q4 2023, the largest holders of agency debt (agency MBS + agency notes and bonds) included commercial banks (21%), the Federal Reserve (18%), and foreign investors (13%). The Federal Reserve's share decreased by 1% QoQ. Out of the approximately $2.53 trillion in holdings as of the end of February 2024, roughly $1.92 trillion was held by the top 25 domestic banks per **Table 11** below.

Figure 32. 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 Q4 2023.

8.1 Commercial Bank Holdings of Agency MBS

Table 11. Commercial Bank Holdings of Agency MBS

	Commercial Bank Holdings ($Billions)								
	Jun-23	***Jul-23***	***Aug-23***	***Sep-23***	***Oct-23***	***Nov-23***	***Dec-23***	***Jan-24***	***Feb-24***
Largest 25 Domestic Banks	1,961.3	1,955.1	1,944.4	1,940.1	1,921.3	1,927.7	1,907.9	1,915.6	1,920.4
Small Domestic Banks	618.2	610.5	602.0	587.2	578.1	572.8	581.8	581.0	579.4
Foreign Related Banks	26.2	24.3	23.2	25.9	26.7	30.1	27.6	29.1	34.1
Total, Seasonally Adjusted	**2,605.7**	**2,589.9**	**2,569.6**	**2,553.2**	**2,526.1**	**2,530.6**	**2,517.3**	**2,525.7**	**2,533.9**

Source: Federal Reserve Bank. Note: Small domestic banks include all domestically chartered commercial banks not included in the top 25. Data as of February 2024.

8.2 Bank and Thrift Residential MBS Holdings

In Q4 2023, MBS holdings at banks and thrifts increased for the first time since Q4 2021 on a QoQ basis. The increase was mostly driven by GSE pass-throughs, Ginnie Mae pass-throughs, and agency CMO holdings. Quarterly increases in Private MBS and Private CMO holdings were marginal, approximately $0.3 billion and $1.4 billion, respectively. Total bank and thrift MBS holdings decreased by approximately 6.7% from Q4 2022 and increased 5.8% from Q3 2023. Out of the $2.26 trillion in MBS holdings at banks and thrifts as of Q4 2023, $1.35 trillion were GSE pass-throughs and $414 billion were Ginnie Mae pass-throughs.

Table 12. 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*
2002	$832.5	$376.1	$101.5	$20.1	$245.0	$89.9	$702.4	$209.7
2003	$899.9	$461.7	$75.1	$19.4	$236.8	$106.9	$775.7	$206.5
2004	$1,011.0	$572.4	$49.3	$20.5	$208.2	$160.6	$879.8	$234.3
2005	$1,033.8	$566.8	$35.9	$29.1	$190.7	$211.2	$897.1	$242.7
2006	$1,124.5	$628.5	$31.1	$42.3	$179.2	$243.3	$983.5	$223.4
2007	$1,149.1	$559.8	$31.6	$26.3	$174.3	$357.2	$971.4	$264.6
2008	$1,218.8	$638.8	$100.4	$12.9	$207.7	$259.0	$1,088.0	$211.7
2009	$1,275.5	$629.2	$155.0	$7.5	$271.2	$212.6	$1,161.7	$184.1
2010	$1,433.4	$600.8	$163.1	$7.3	$397.3	$181.6	$1,233.3	$200.1
2011	$1,566.9	$627.4	$214.8	$3.3	$478.8	$167.7	$1,359.2	$207.6
2012	$1,578.9	$707.9	$242.5	$17.2	$469.3	$138.7	$1,430.6	$148.2
2013	$1,506.6	$706.0	$231.9	$26.1	$432.6	$114.2	$1,363.7	$142.9
2014	$1,539.3	$733.7	$230.5	$20.3	$449.9	$104.9	$1,409.8	$129.5
2015	$1,643.6	$823.1	$292.3	$11.1	$445.4	$71.6	$1,512.7	$130.9
2016	$1,736.9	$930.7	$323.5	$7.4	$419.8	$55.6	$1,576.1	$160.9
2017	$1,844.1	$1,010.8	$367.7	$4.6	$414.0	$47.0	$1,672.9	$171.2
2018	$1,815.0	$980.6	$380.4	$2.7	$416.6	$34.7	$1,635.0	$180.0
1Q19	$1,845.0	$1,001.6	$383.5	$3.1	$422.2	$34.7	$1,673.4	$171.6
2Q19	$1,907.1	$1,037.9	$408.0	$2.9	$421.6	$36.8	$1,727.7	$179.5
3Q19	$1,975.8	$1,079.8	$427.1	$4.7	$428.7	$35.4	$1,786.7	$189.0
2019	$1,985.4	$1,089.4	$426.9	$4.6	$429.0	$35.5	$1,796.3	$189.1
1Q20	$2,107.7	$1,173.4	$448.3	$4.7	$443.7	$37.6	$1,907.0	$200.6
2Q20	$2,195.2	$1,228.9	$441.1	$5.0	$478.1	$42.1	$1,946.4	$248.8
3Q20	$2,310.4	$1,349.5	$415.2	$4.4	$499.5	$41.8	$2,040.6	$269.8
4Q20	$2,520.9	$1,537.5	$390.7	$3.9	$548.7	$40.1	$2,210.2	$310.7
1Q21	$2,690.9	$1,713.8	$374.6	$4.9	$555.4	$42.3	$2,350.9	$340.0
2Q21	$2,781.9	$1,825.8	$352.8	$4.8	$555.5	$43.1	$2,431.8	$350.2
3Q21	$2,858.6	$1,886.8	$353.1	$4.2	$565.5	$49.0	$2,487.3	$371.3
4Q21	$2,906.0	$1,915.5	$352.7	$4.4	$578.0	$55.4	$2,529.8	$376.3
1Q22	$2,799.2	$1,817.7	$368.4	$4.0	$548.6	$60.4	$2,476.1	$323.1
2Q22	$2,623.8	$1,665.9	$369.2	$3.8	$523.0	$61.8	$2,321.2	$302.6
3Q22	$2,431.6	$1,520.2	$352.0	$3.3	$496.7	$59.3	$2,156.2	$275.4
4Q22	$2,423.9	$1,505.6	$371.9	$4.0	$481.7	$60.6	$2,154.5	$269.4
1Q23	$2,356.9	$1,441.2	$386.3	$4.1	$465.2	$60.1	$2,088.3	$268.7
2Q23	$2,280.4	$1,389.4	$383.5	$3.0	$446.2	$58.3	$2,022.5	$257.9
3Q23	$2,137.4	$1,289.3	$372.7	$2.6	$416.8	$55.9	$1,892.9	$244.4
4Q23	$2,260.5	$1,351.1	$414.2	$2.9	$434.9	$57.3	$2,008.9	$251.6
Change:								
3Q23-4Q23	5.8%	4.8%	11.1%	11.3%	4.3%	2.5%	6.1%	2.9%
4Q22-4Q23	-6.7%	-10.3%	11.4%	-26.0%	-9.7%	-5.5%	-6.8%	-6.6%

Source: Inside Mortgage Finance. Notes: Data as of Q4 2023.

Table 13. 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	$429,000.0	$353,435.0	$68,818.0	$6,594.0	$153.0	19.0%
2	Wells Fargo & Company	$234,985.0	$149,863.0	$82,730.0	$2,330.0	$62.0	10.4%
3	JPMorgan Chase & Co.	$161,262.0	$69,016.0	$79,365.0	$498.0	$12,383.0	7.1%
4	Charles Schwab	$147,850.0	$83,326.0	$5,336.0	$59,188.0	$0.0	6.5%
5	Truist Bank	$98,894.0	$50,122.0	$11,231.0	$34,560.0	$2,981.0	4.4%
6	U.S. Bancorp	$97,111.3	$61,113.2	$25,499.7	$10,498.3	$0.1	4.3%
7	Citigroup Inc.	$94,672.0	$66,372.0	$25,588.0	$2,097.0	$615.0	4.2%
8	PNC Bank, National Association	$68,836.7	$58,492.9	$3,870.3	$5,535.5	$938.0	3.0%
9	Capital One Financial Corporation	$63,267.7	$29,843.1	$14,746.7	$18,358.3	$319.6	2.8%
10	Morgan Stanley	$49,296.0	$30,822.0	$6,751.0	$11,676.0	$47.0	2.2%
11	Bank Of New York Mellon Corporation	$41,122.0	$26,607.0	$3,558.0	$9,191.0	$1,766.0	1.8%
12	USAA Federal Savings Bank	$36,810.0	$31,072.0	$1,803.0	$3,935.0	$0.0	1.6%
13	State Street Bank and Trust Company	$36,774.3	$13,208.0	$9,013.0	$12,671.3	$1,882.0	1.6%
14	BMO Harris Bank National Association	$29,103.4	$3,977.6	$5,992.8	$19,133.0	$0.0	1.3%
15	Citizens Bank, National Association	$27,334.7	$12,202.9	$5,936.5	$9,195.3	$0.0	1.2%
16	The Huntington National Bank	$27,020.9	$10,758.6	$8,847.3	$7,295.9	$119.1	1.2%
17	TD Bank USA/TD Bank NA	$25,435.6	$1,447.7	$73.3	$23,886.4	$28.1	1.1%
18	HSBC Bank USA, National Association	$24,277.1	$3,876.7	$15,327.1	$5,072.7	$0.6	1.1%
19	KeyBank National Association	$24,113.6	$3,573.4	$166.8	$20,373.4	$0.0	1.1%
20	Ally Bank	$19,074.0	$11,970.0	$1,750.0	$1,530.0	$3,824.0	0.8%
Total	**Top 20**	**$1,736,240.2**	**$1,071,099.1**	**$376,403.6**	**$263,619.1**	**$25,118.5**	**76.8%**

Source: Inside Mortgage Finance. Notes: Data as of Q4 2023.

8.3 SOMA Holdings

FOMC and Economic Highlights:

- Federal Open Market Committee Meeting 1/31/2024 Press Release:
  - *"The Committee decided to maintain the target range for the federal funds rate at 5-1/4 to 5-1/2 percent."*
  - *"The Committee does not expect it will be appropriate to reduce the target range until it has gained greater confidence that inflation is moving sustainably toward 2 percent."*
  - *"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 believe that our policy rate is likely at its peak for this tightening cycle and that, if the economy evolves broadly as expected, it will likely be appropriate to begin dialing back policy restraint at some point this year."*
  - *"Growth is solid to strong over the course of last year."*
  - *"We've had just about two years now of unemployment under 4%. That hasn't happened in 50 years."*
  - *"We've got six months of good inflation data and an expectation that there's more to come."*
  - *"Lets be honest. This is a good economy."*
  - *"…overall, this is a pretty good picture. It is a good picture."*
- On 10/19/23, the UST 10YR briefly traded at 5.001% for the first time since 2007. Since then, the yield has returned to pre-peak levels. As of 2/29/24, the UST 10YR yield closed at 4.25% while the Ginnie II 5% coupon yield closed at 5.73%, a spread of 148 bps. This is down from a peak of 205 bps in May 2023.
- Per the March 8, 2024 jobs report, 275,000 new jobs were created and the unemployment rate increased to 3.9% in February 2024.

SOMA Portfolio Highlights (January 31, 2024 vs. February 28, 2024)

- SOMA holdings of domestic securities totaled $6.96 trillion on Feb 29 (a decrease of $44.9 billion or -0.64% from Jan 31). $31.0 billion (69% of the total decrease) was in U.S. Treasury holdings and $13.9 billion (31% of the total decrease) was in Agency MBS.
- Since the institution of redemption caps in June 2022, SOMA holdings have decreased by $1.436 trillion. The total reduction of holdings of U.S. Treasuries was $1.132 trillion and $0.304 trillion for Agency MBS. This represents 92.1% and 42.3% 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 $13.9 billion monthly decrease was primarily due to MBS principal repayments rather than outright sales and was comprised of a $5.9 billion decrease in Fannie Mae holdings, a $5.0 billion decrease in Freddie Mac holdings, and a $3.0 billion decrease in Ginnie Mae holdings. Since the Fed's QT program began in June 2022, there have only been 19 outright sales of Agency MBS specified pools, totaling $552 million.
- While Ginnie Mae MBS comprise 26.2% of total Agency MBS outstanding, the SOMA Ginnie Mae allocation is underweighted at only 20.6%.

- SOMA Agency MBS holdings include 15-yr, 30-yr, and Other securities with, 30-yr comprising around 88% of total Agency MBS holdings. Only 30-yr Ginnie Mae I & II MBS are held by SOMA.
- Over 99% of SOMA Agency MBS holdings have coupons of 4.5% or lower with an average WAC of 2.507%.
- There were no significant changes in Agency MBS holdings by coupon rate distribution in February.
- The redemption cap for SOMA's Agency MBS holdings is set at $35 billion per month. The reduction of $13.9 billion in Agency MBS represents 40% of the monthly liquidation cap.

Table 14. SOMA Holdings as of January 3, 2024 and February 28, 2024 ($ Billions)

Holdings by Security Type	January 31, 2024		February 28, 2024		Month-Over-Month	
	SOMA Holdings	% Share	SOMA Holdings	% Share	$ Change	% Change [4]
U.S. Treasuries	$4,581.5	65.44%	$4,550.5	65.42%	-$31.0	-0.68%
Federal Agency Debt	$2.3	0.03%	$2.3	0.03%	$0.0	0.00%
Agency MBS	$2,408.9	34.41%	$2,395.0	34.43%	-$13.9	-0.58%
Agency Commercial MBS	$8.2	0.12%	$8.2	0.12%	$0.0	-0.12%
Total SOMA Holdings	**$7,001.0**	**100.0%**	**$6,956.0**	**100.0%**	**-$44.9**	**-0.64%**

Table 15. SOMA Agency MBS Holdings Distribution ($ Billions)

Agency	Singly-Family AMBS Outstanding January 1, 2024	% AMBS Outstanding	SOMA AMBS Holdings January 31, 2024	% SOMA Holdings	SOMA AMBS Holdings February 28, 2024	% SOMA Holdings
Fannie Mae	$3,577.3	40.4%	$991.7	41.2%	$985.8	41.2%
Freddie Mac	$2,950.1	33.3%	$920.8	38.2%	$915.7	38.2%
Ginnie Mae	$2,319.9	26.2%	$496.5	20.6%	$493.5	20.6%
Total	**$8,847.3**	**100.0%**	**$2,408.9**	**100.0%**	**$2,395.0**	**100.0%**

Table 16. SOMA Agency MBS Liquidations from January 31, 2024 to February 28, 2024 ($ Billions)

	MBS Holdings as of 1.31.24	MBS Holdings 2.28.24	Liquidated Amount	Liquidation Cap [5]	% of Liquidation Cap
Total	$2,408.9	$2,395.0	$13.9	$35.0	40%

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.

[4] *Table 14 illustrates figures in $ billions, any change less than $50 million will be expressed as a "$0.0" change in the "$ Change" column.*

[5] *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

As of month-end January 2024, foreign ownership of MBS represented approximately $1.36 trillion in Agency MBS, up approximately $153 billion from January 2023. 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 33. Agency MBS Owned by Foreign Entities Ex-Fed Holdings and CMO's (USD Billions)

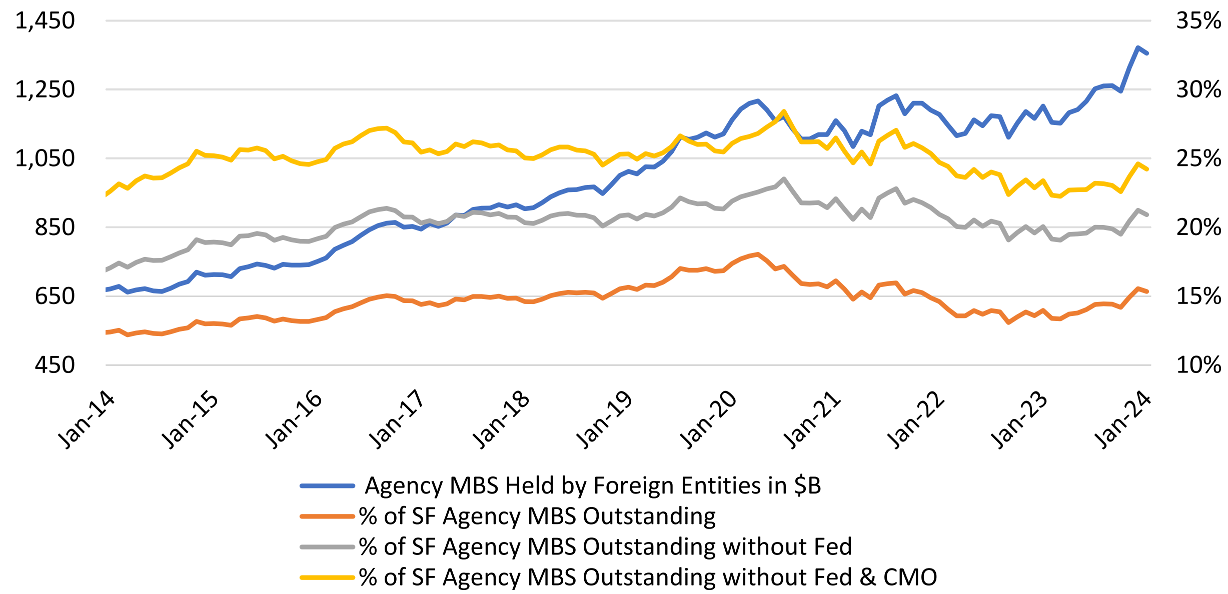
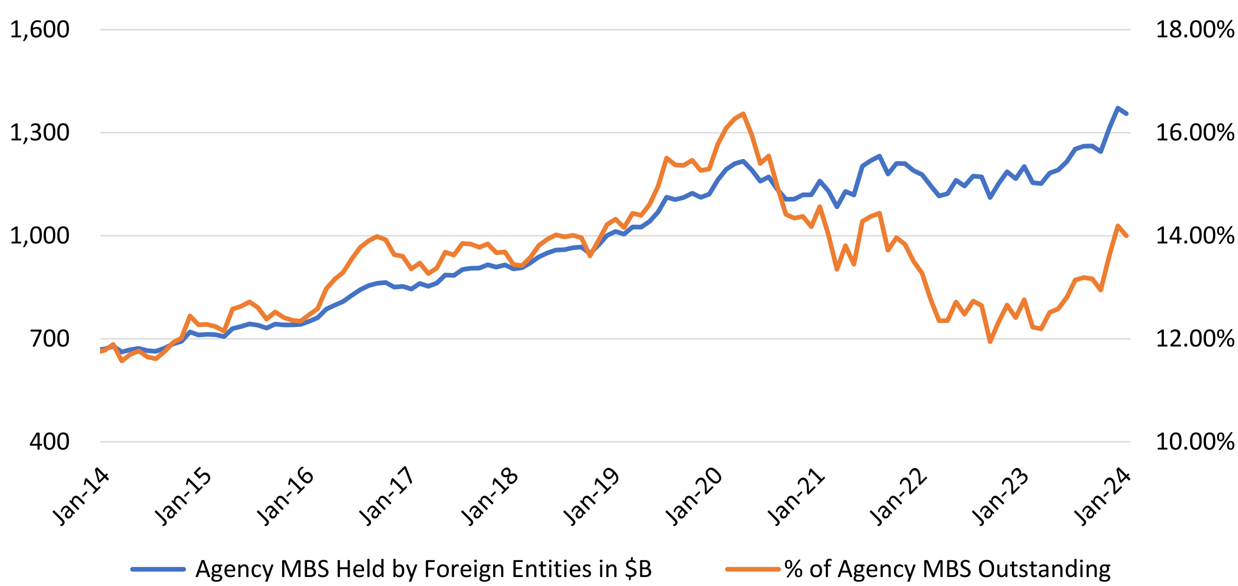


Figure 34. Agency MBS Owned by Foreign Entities (USD Billions)



Sources: TIC and Recursion, as of January 2024.

8.5 Foreign Ownership of Agency Debt and Agency MBS

The largest holders of Agency MBS were China, Japan, and Taiwan. As of December 2023, these three owned roughly 52% of all foreign owned Agency MBS. Between December 2022 and December 2023, China and Taiwan increased their Agency MBS holdings while Japan's holdings decreased. China's holdings increased by $19.9 billion, Taiwan's holdings increased by $1.3 billion, and Japan's holdings decreased by $19.0 billion.

Table 17. All Agency Debt (QoQ)

Country	*Level of Holdings ($ Millions)*				*Change in Holdings ($ Millions)*			
	3/1/2023	**6/1/2023**	**9/1/2023**	**12/1/2023**	**Q1 2023**	**Q2 2023**	**Q3 2023**	**Q4 2023**
China	263,892	269,980	255,110	271,478	12,300	6,088	-14,870	16,368
Japan	287,051	253,357	252,463	259,059	8,982	-33,694	-894	6,596
Taiwan	212,533	208,226	201,010	211,610	2,224	-4,307	-7,216	10,600
Canada	105,527	105,330	116,642	133,725	8,293	-197	11,312	17,083
United Kingdom	41,101	55,682	90,017	120,148	-20,292	14,581	34,335	30,131
Luxembourg	51,202	40,971	42,656	46,054	3,962	-10,231	1,685	3,398
Cayman Islands	*29,485*	*30,398*	*37,089*	*42,342*	*-1,456*	*913*	*6,691*	*5,253*
Ireland	25,099	36,766	39,697	39,543	2,621	11,667	2,931	-154
South Korea	38,131	36,737	36,508	38,381	1,894	-1,394	-229	1,873
France	22,578	20,411	24,287	25,301	2,969	-2,167	3,876	1,014
Other	196,641	208,190	218,177	235,604	-28,825	11,549	9,987	17,427
Total	**1,273,240**	**1,266,048**	**1,313,656**	**1,423,245**	**-7,328**	**-7,192**	**47,608**	**109,589**

Table 18. All Agency Debt (YoY)

Country	*Level of Holdings ($ Millions)*		
	12/1/2022	**12/1/2023**	***YoY Change in Holdings ($ Millions)***
China	251,592	271,478	19,886
Japan	278,069	259,059	-19,010
Taiwan	210,309	211,610	1,301
Canada	97,234	133,725	36,491
United Kingdom	61,393	120,148	58,755
Luxembourg	47,240	46,054	-1,186
Cayman Islands	*30,941*	*42,342*	*11,401*
Ireland	*22,478*	*39,543*	*17,065*
South Korea	36,237	38,381	2,144
France	19,609	25,301	5,692
Other	225,466	235,604	10,138
Total	**1,280,568**	**1,423,245**	**142,677**

Source: Treasury International Capital (TIC). Note: Level of agency debt Holdings by month data as of Q4 2023. Agency MBS as of December 2023. Table 16 includes the top 10 holders of agency debt listed as of December 2023.

9 FIXED INCOME LIQUIDITY INDICATORS

The Agency MBS average daily trading volume YTD as of month-end February 2024 was $291 billion, which was up from a monthly average of $255 billion for calendar year 2023. As of month-end February 2024, Agency MBS average daily trading volume decreased 11.7% MoM. *See footnote below for update on "Average Daily Turnover by Sector" data.*

Figure 35. Average Daily Trading Volume by Sector

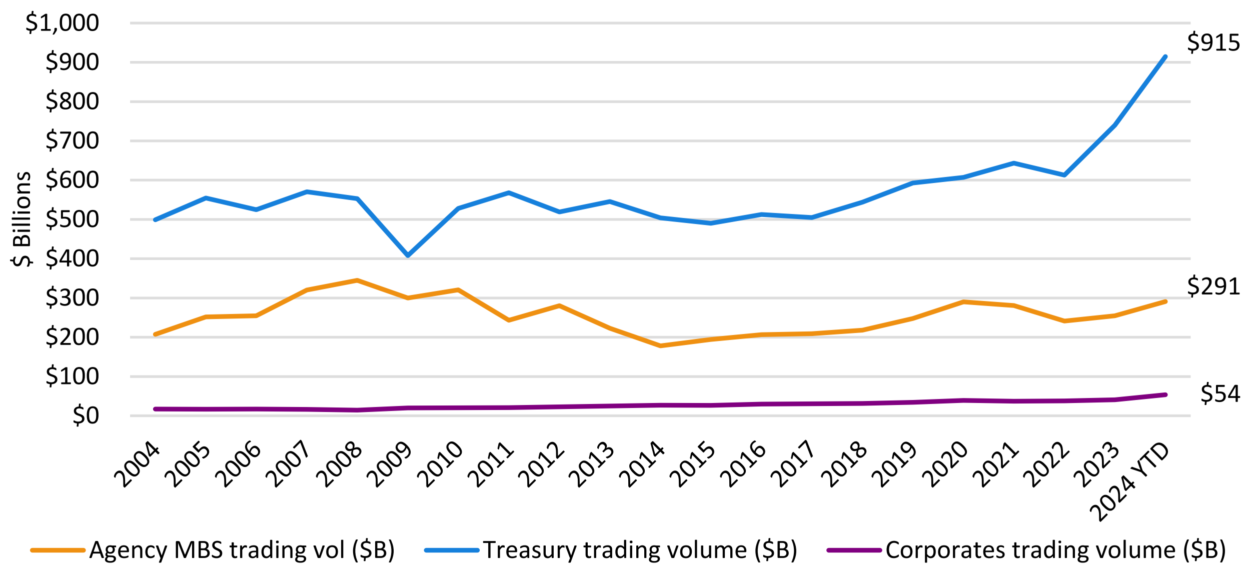
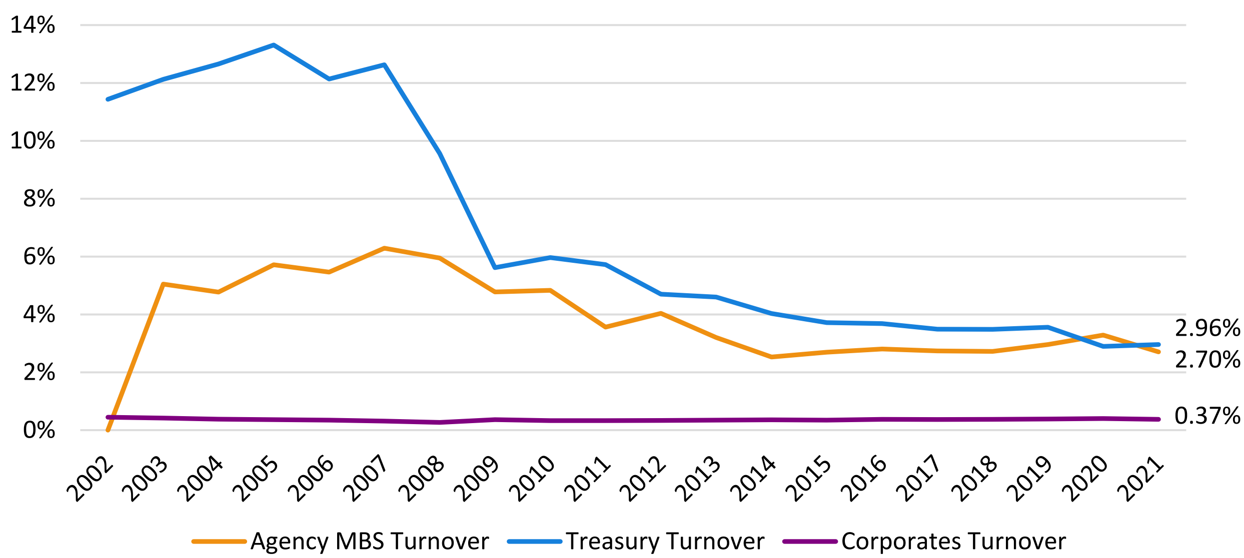


Figure 36. Average Daily Turnover by Sector



Source: SIFMA. Note: Data as of February 2024 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 19, 20, and 21 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 February 2024. The distribution statistics capture some key differences in the populations served by the agencies.

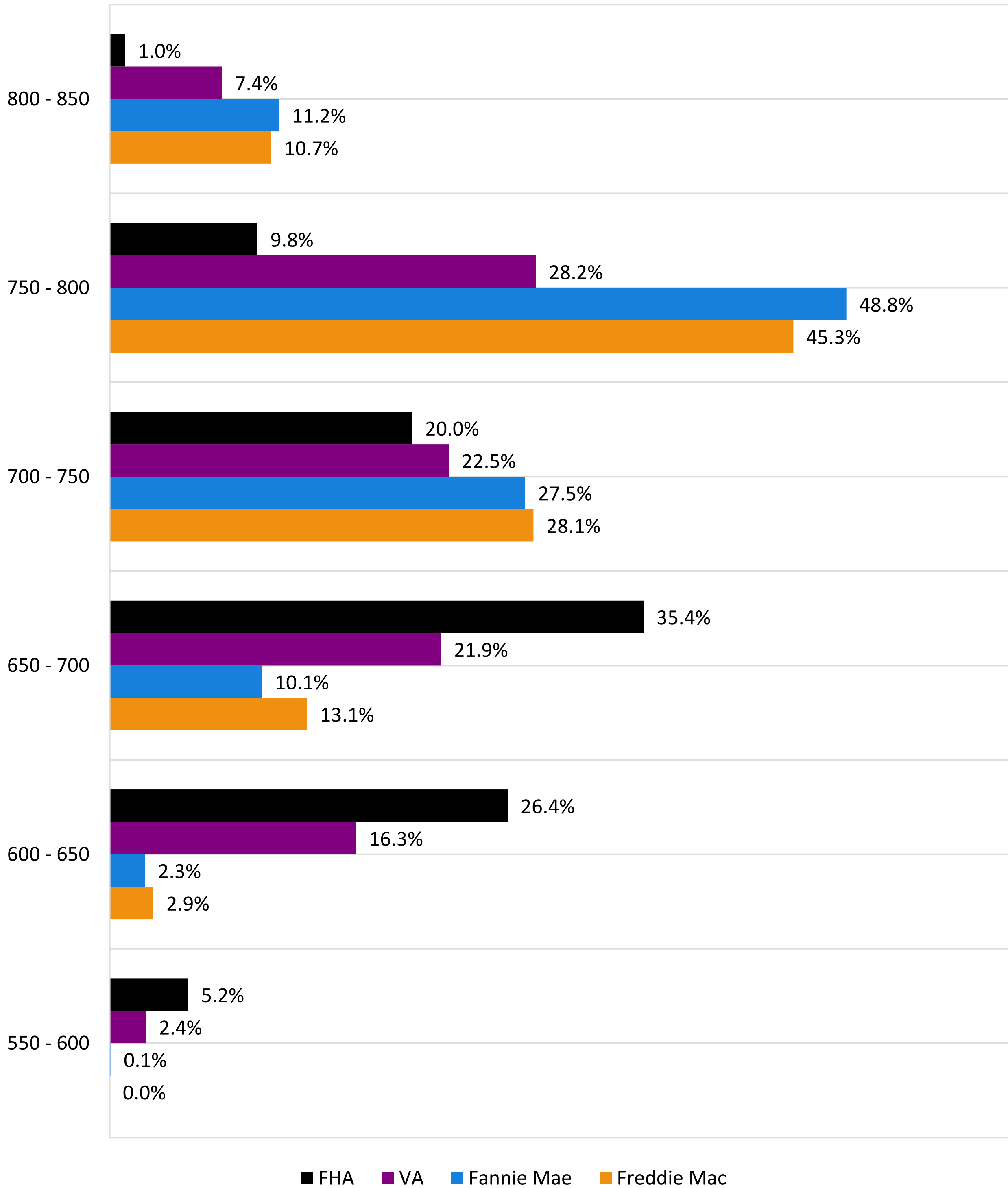
10.1 Credit Scores

Table 19. Share of Loans by FICO Score

Purchase FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	158,890	652	695	745	781	799	735
Fannie	49,356	703	734	766	790	802	759
Freddie	45,697	691	725	762	788	802	753
Ginnie	63,837	629	657	698	750	785	703
Refi FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	42,194	622	655	703	756	788	702
Fannie	12,197	661	698	742	777	798	735
Freddie	10,456	664	697	740	776	797	734
Ginnie	19,541	594	628	662	701	746	665
All FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	201,084	643	685	738	777	798	728
Fannie	61,553	693	727	763	788	801	754
Freddie	56,153	684	720	759	786	801	750
Ginnie	83,378	621	649	689	740	780	694
Purchase FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	63,837	629	657	698	750	785	703
FHA	39,557	625	650	683	725	762	688
VA	22,213	639	682	739	781	800	728
Other	2,067	636	662	704	740	768	702
Refi FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	19,541	594	628	662	701	746	665
FHA	11,616	588	622	653	686	719	653
VA	7,913	607	640	680	728	769	682
Other	12	650	681	742	787	801	730
All FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	83,378	621	649	689	740	780	694
FHA	51,173	617	643	676	717	756	680
VA	30,126	629	666	722	772	797	716
Other	2,079	636	662	704	740	769	702

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

Figure 37. FICO Distributions by Agency



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

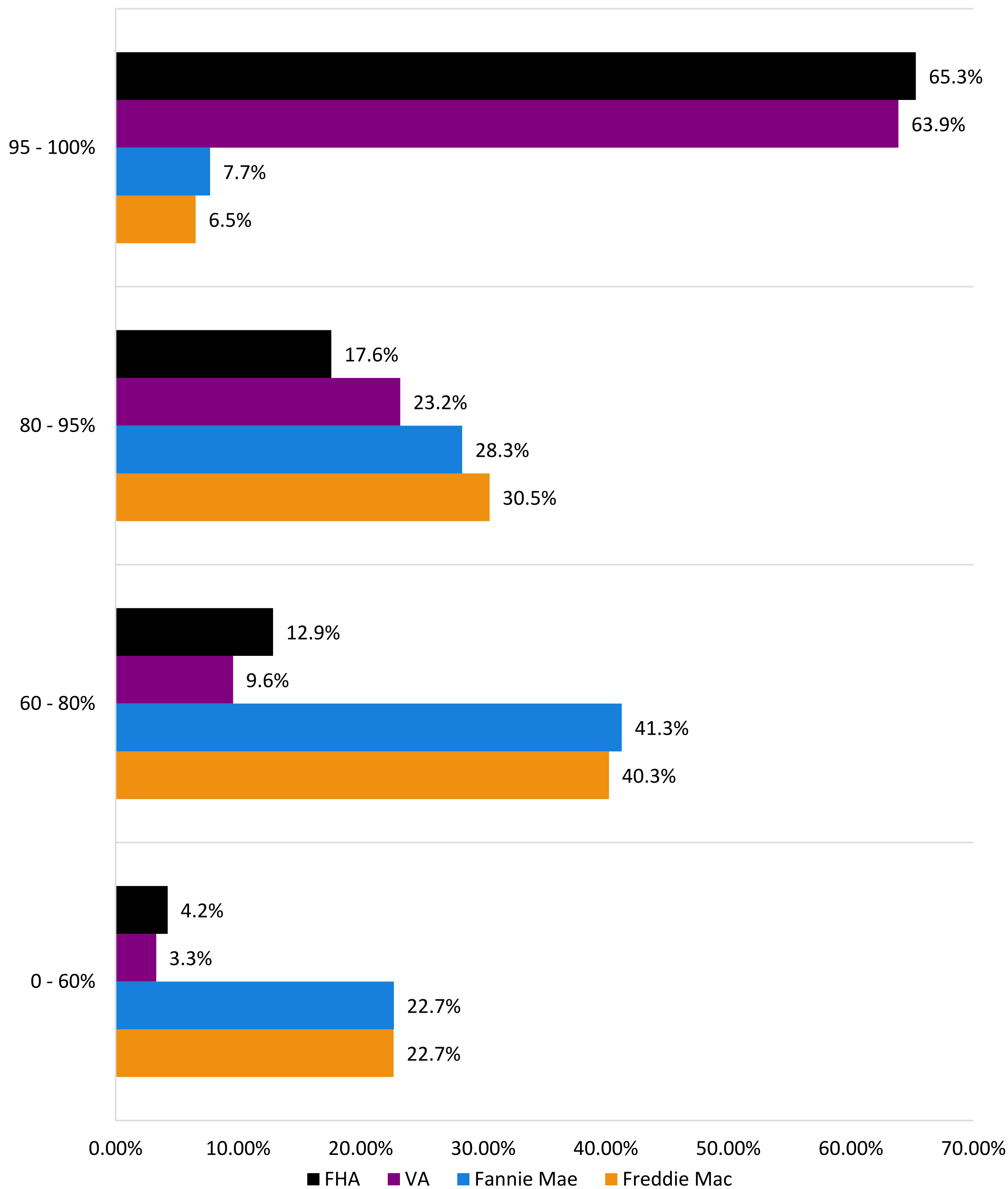
10.2 Loan-to-Value (LTV)

Table 20. Share of Loans by LTV

Names	Number of Loans	P10	P25	Median	P75	P90	Mean
Purchase LTV							
All	159,113	64	80	94	97	100	86
Fannie	49,406	55	75	80	95	95	79
Freddie	45,711	52	73	80	95	95	79
Ginnie	63,996	90	97	98	100	100	96
Refi LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	45,445	36	54	72	81	98	68
Fannie	12,198	28	42	58	70	79	55
Freddie	10,456	28	43	60	72	80	57
Ginnie	22,791	59	73	81	96	100	81
All LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	204,558	53	75	90	97	100	82
Fannie	61,604	45	64	80	90	95	75
Freddie	56,167	44	65	80	90	95	75
Ginnie	86,787	76	90	98	99	100	92
Purchase LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	63,996	90	97	98	100	100	96
FHA	39,645	92	97	98	98	98	96
VA	22,251	84	99	100	100	102	96
Other	2,100	91	98	100	101	101	97
Refi LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	22,791	59	73	81	96	100	81
FHA	12,647	52	67	79	81	95	74
VA	10,127	72	84	93	100	102	90
Other	17	67	71	75	83	94	77
All LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	86,787	76	90	98	99	100	92
FHA	52,292	73	85	97	98	98	90
VA	32,378	80	91	100	100	102	94
Other	2,117	90	98	100	101	101	97

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

Figure 38. Loan-to Value by Agency



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

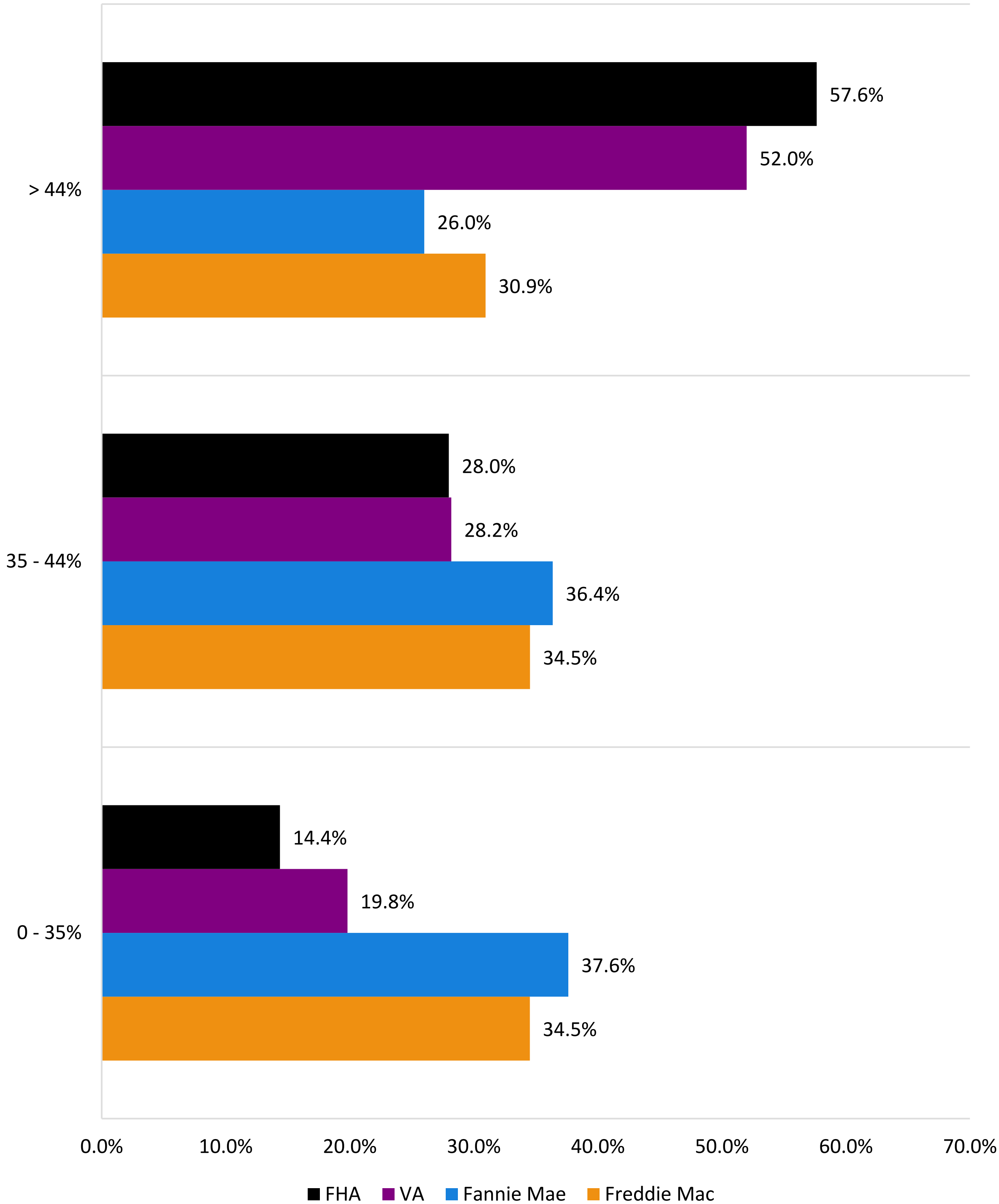
10.3 Debt-to-Income (DTI)

Table 21. Share of Loans by DTI

Purchase DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	158,800	27	34	42	48	51	41
Fannie	49,406	24	32	39	45	48	38
Freddie	45,711	25	32	40	46	49	38
Ginnie	63,683	32	39	45	51	55	44
Refi DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	38,781	25	33	41	47	51	39
Fannie	12,198	23	30	38	43	47	36
Freddie	10,456	25	32	40	46	49	38
Ginnie	16,127	29	36	44	50	55	43
All DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	197,581	27	34	42	48	51	40
Fannie	61,604	24	31	39	45	48	37
Freddie	56,167	25	32	40	46	49	38
Ginnie	79,810	31	38	45	51	55	44
Purchase DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	63,683	32	39	45	51	55	44
FHA	39,639	34	40	46	52	55	45
VA	21,946	30	37	45	51	56	44
Other	2,098	27	32	36	40	42	35
Refi DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	16,127	29	36	44	50	55	43
FHA	10,876	29	37	44	50	55	43
VA	5,235	27	35	43	50	54	42
Other	16	31	33	38	39	42	37
All DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	79,810	31	38	45	51	55	44
FHA	50,515	33	39	46	51	55	45
VA	27,181	30	37	45	51	56	44
Other	2,114	27	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 39. 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 December 2022 – February 2023 to the three-month range of December 2023 – February 2024, the share of high-LTV agency loans with:

- FICO scores above 750 increased by approximately 10.9%.
- DTIs below 35% decreased by approximately 10.7%.

Ginnie Mae maintains its key role of expanding credit access to low-to-moderate income borrowers as it continues to dominate high-LTV lending, with 71.23% of its issuances between December 2023 – February 2024 having LTVs of 95 or above, compared to 21.81% for the GSEs.

Table 22. Share of Loans with LTV > 95

	Ginnie Mae	*GSE*	*All*
Dec 2022 - Feb 2023	70.99%	23.91%	41.33%
Dec 2023 - Feb 2024	71.23%	21.81%	41.78%

Table 23. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Dec 2022 - Feb 2023)

	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	2.01%	3.02%	4.23%	6.30%	0.06%	15.61%
35-45	5.70%	8.62%	10.36%	11.25%	0.05%	35.98%
≥45	8.26%	14.01%	13.05%	11.54%	0.06%	46.91%
NA	0.29%	0.21%	0.15%	0.19%	0.67%	1.50%
All	**16.25%**	**25.86%**	**27.79%**	**29.27%**	**0.83%**	**100.00%**

Table 24. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Dec 2023 - Feb 2024)

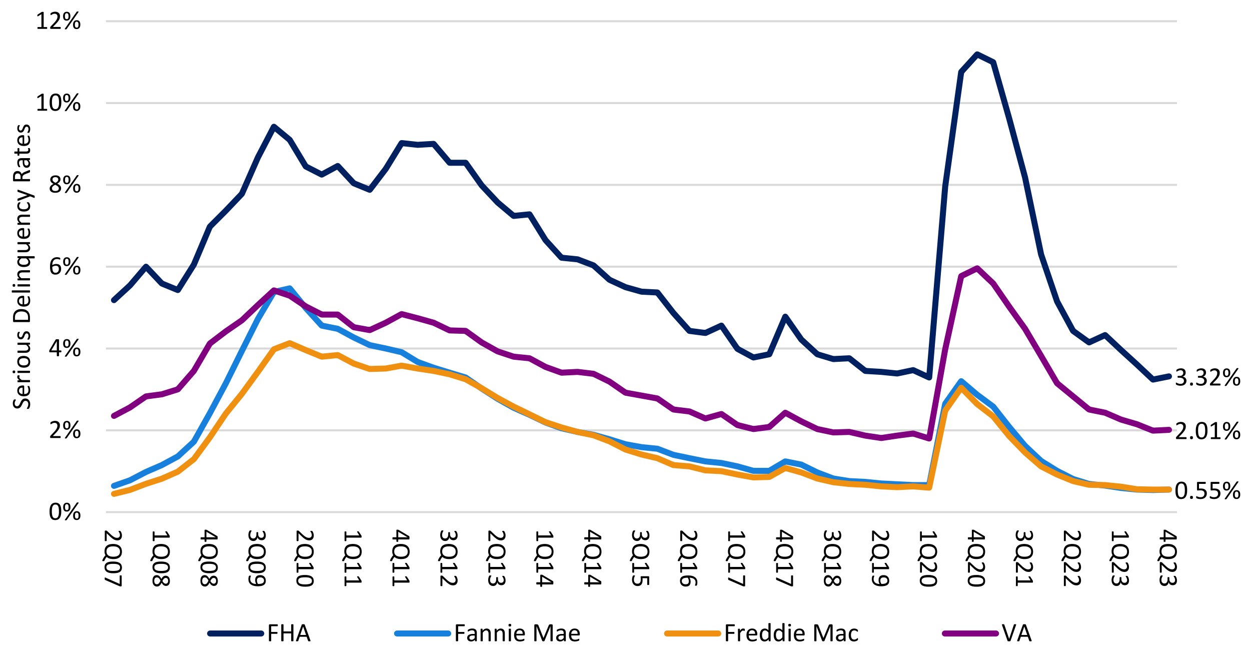
	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	1.58%	2.40%	3.61%	6.28%	0.07%	13.93%
35-45	4.91%	7.50%	9.53%	12.03%	0.07%	34.05%
≥45	7.39%	13.46%	14.36%	13.78%	0.09%	49.07%
NA	0.55%	0.45%	0.34%	0.38%	1.23%	2.95%
All	**14.42%**	**23.81%**	**27.84%**	**32.47%**	**1.46%**	**100.00%**

Sources: Recursion and Ginnie Mae. Data as of February 2024.

10.5 Serious Delinquency Rates

Serious delinquency rates for Single-Family VA and FHA loans rose in Q4 2023. From Q3 2023 to Q4 2023, FHA's serious delinquencies rose 8 bps to 3.32% while VA's delinquency rates saw a 2 bp increase to 2.01%. Fannie and Freddie's serious delinquencies saw less movement than FHA and VA in Q4 2023. Fannie Mae's serious delinquency rate increased 1 bp and Freddie's rate remained constant from Q3 2023 to Q4 2023, both sitting at 0.55%. The trend in serious delinquency rates is consistent with the decrease in the number of loans in forbearance captured in Section 11.

Figure 40. 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 Q4 2023.

10.6 Credit Box

The first-time homebuyer share for agency purchase loans was 56.7% as of month-end February 2024, an increase from 56.1% in January 2024 and up from 54.7% in February 2023. Freddie Mac and Fannie Mae's first-time homebuyer shares, 48.0% and 48.5%, respectively, as of month-end February 2024, increased 3.4% and 4.0%, respectively, YoY. Ginnie Mae's first-time homebuyer share increased 0.6% YoY. **Table 25** shows that based on mortgages originated as of month-end February 2024, 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 slightly higher mortgage rates than Ginnie Mae repeat buyers.

Figure 41. First-Time Homebuyer Share: Purchase Only Loans

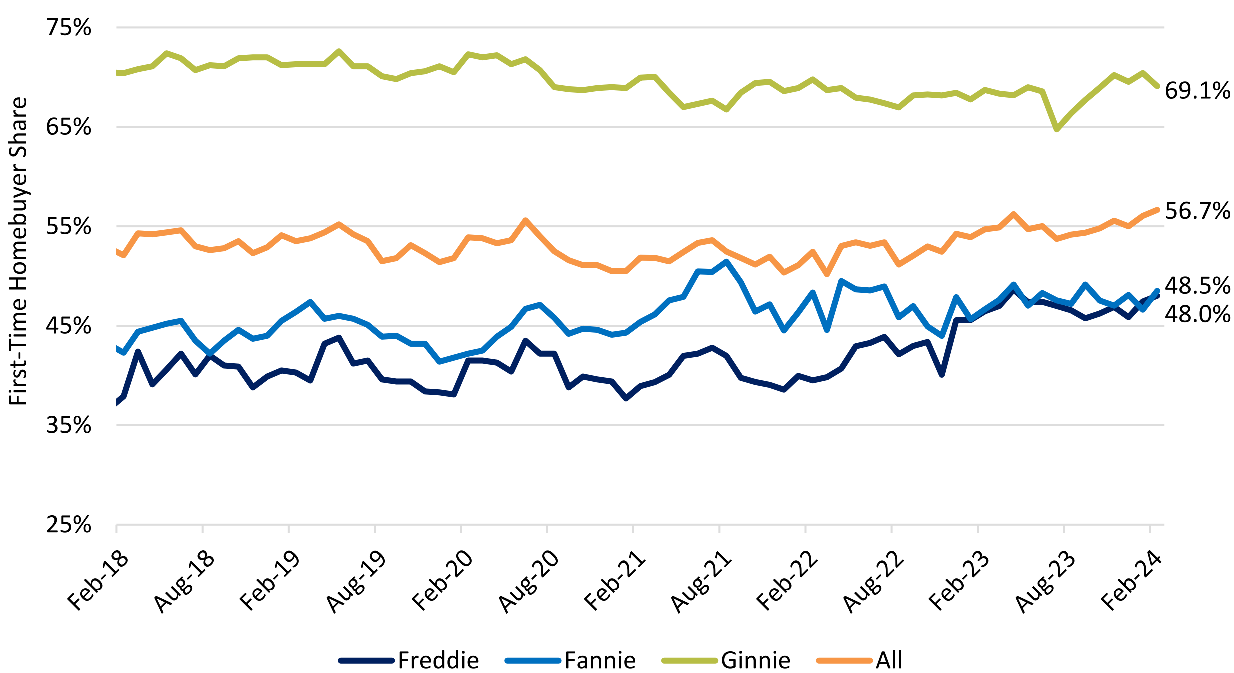


Table 25. Agency First-Time Homebuyer Share Summary

	Fannie Mae		Freddie Mac		Ginnie Mae		All	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$341,634	$357,019	$314,757	$328,061	$319,665	$376,078	$324,310	$352,510
Credit Score	753	764	745	761	696	717	723	750
LTV (%)	84.4%	74.6%	84.1%	73.7%	96.8%	93.9%	90.4%	79.8%
DTI (%)	37.3%	38.0%	38.2%	38.1%	44.1%	45.4%	40.8%	40.1%
Loan Rate (%)	6.8%	6.9%	6.8%	6.9%	6.5%	6.4%	6.7%	6.7%

Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of February 2024

In the Ginnie Mae purchase market, 78.2% of FHA loans, 51.5% of VA loans, and 83.3% of "Other" loans provided financing for first-time home buyers as of month-end February 2024. The share of first-time home buyers in the Ginnie Mae purchase market decreased MoM for FHA and "Other" loans, while increasing for VA loans. **Table 26** shows that based on mortgages originated as of month-end February 2024; 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 14.7% smaller loans, had a 24-point lower credit score, and a 4.2% higher LTV than VA repeat buyers. VA repeat buyers faced a slightly lower loan rate than VA first-time buyers.

FHA's first-time homebuyers are much more like their repeat buyers, with only 2.2% smaller loans and 2.4% 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.

Figure 42. First-time Homebuyer Share: Ginnie Mae Breakdown

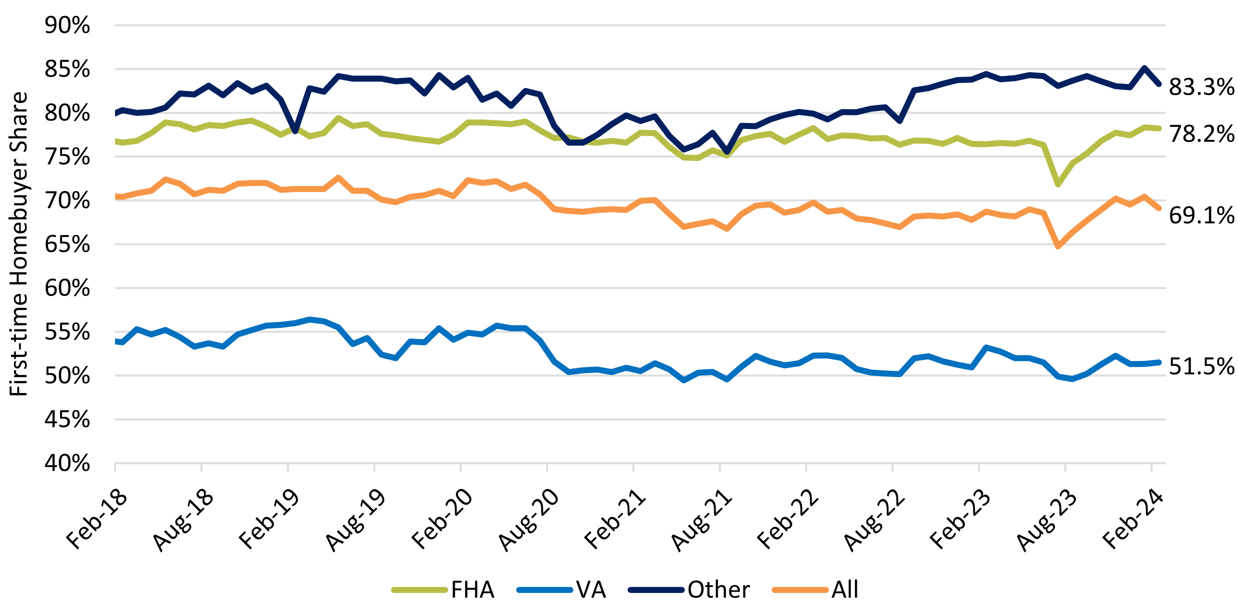


Table 26. Ginnie Mae First-Time Homebuyer Share Breakdown Summary

	FHA		VA		Other		Total	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$310,103	$317,118	$365,962	$428,965	$185,880	$200,114	$319,665	$376,078
Credit Score	688	688	717	741	700	707	696	717
LTV (%)	96.3%	93.9%	98.1%	93.9%	97.5%	96.8%	96.8%	93.9%
DTI (%)	44.8%	46.3%	43.3%	44.9%	35.2%	36.6%	44.1%	45.4%
Loan Rate (%)	6.6%	6.5%	6.4%	6.3%	6.7%	6.5%	6.5%	6.4%

Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of February 2024. 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 February 2024 was 735, which represents an 8-point increase from February 2023. Ginnie Mae median FICO scores increased 13 points from 671 in February 2023 to 684 as of month-end February 2024. As of month-end February 2024, average FICO scores for refinances increased for Ginnie Mae and Freddie Mac borrowers by 8 and 15 points YoY, respectively.

Figure 43. FICO Scores for All Loans

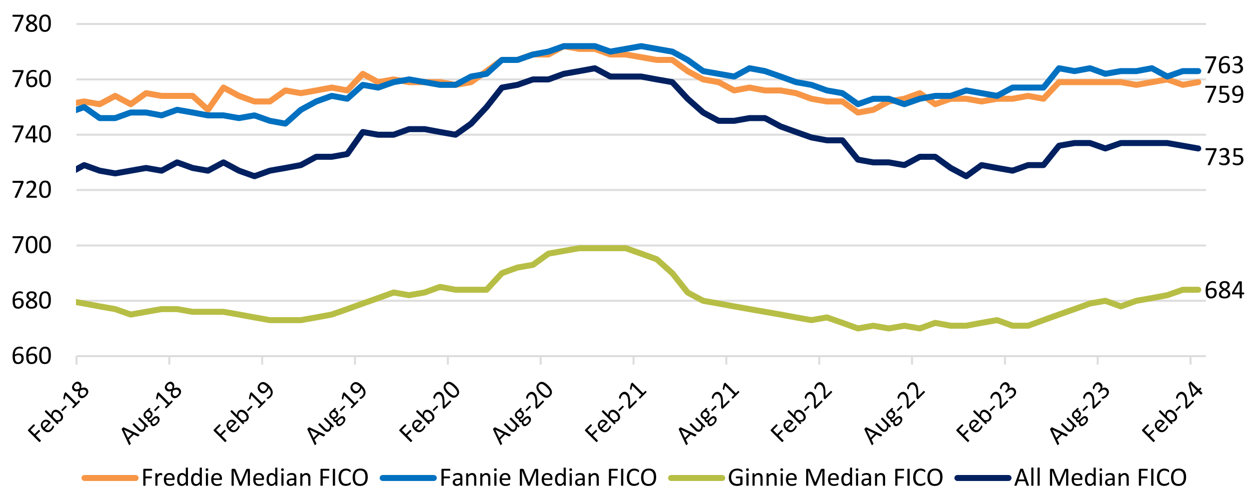


Figure 44. FICO Scores for Purchase Loans

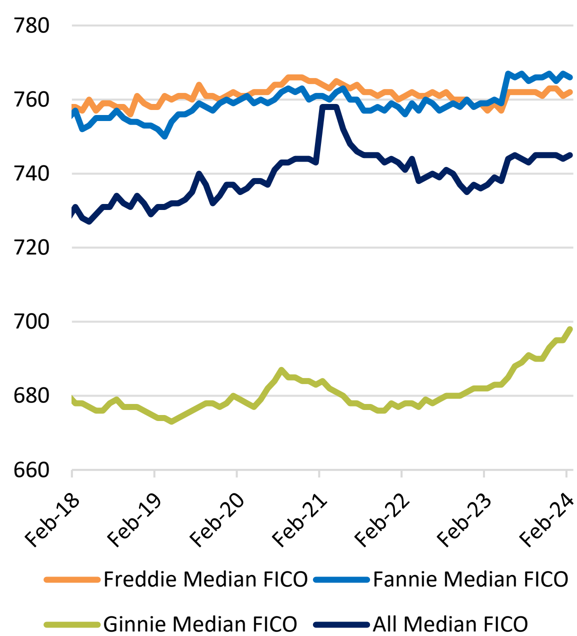
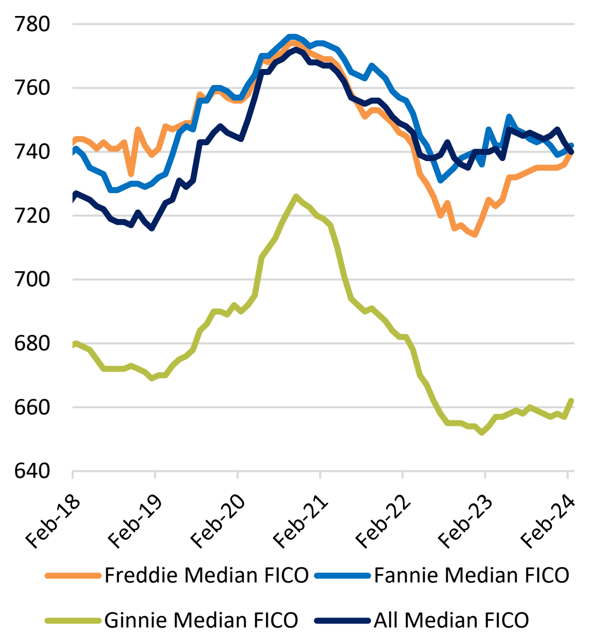


Figure 45. FICO Scores for Refinance Loans



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

In February 2024, the median LTV for Ginnie Mae loans was 97.1% 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 1.1% decrease in LTV from February 2023 to February 2024. In February 2024, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.0%, 40.0%, and 39.0%, respectively. In February 2023, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 44.7%, 39.0%, and 40.0%, respectively.

Figure 46. LTV Ratio for All Loans

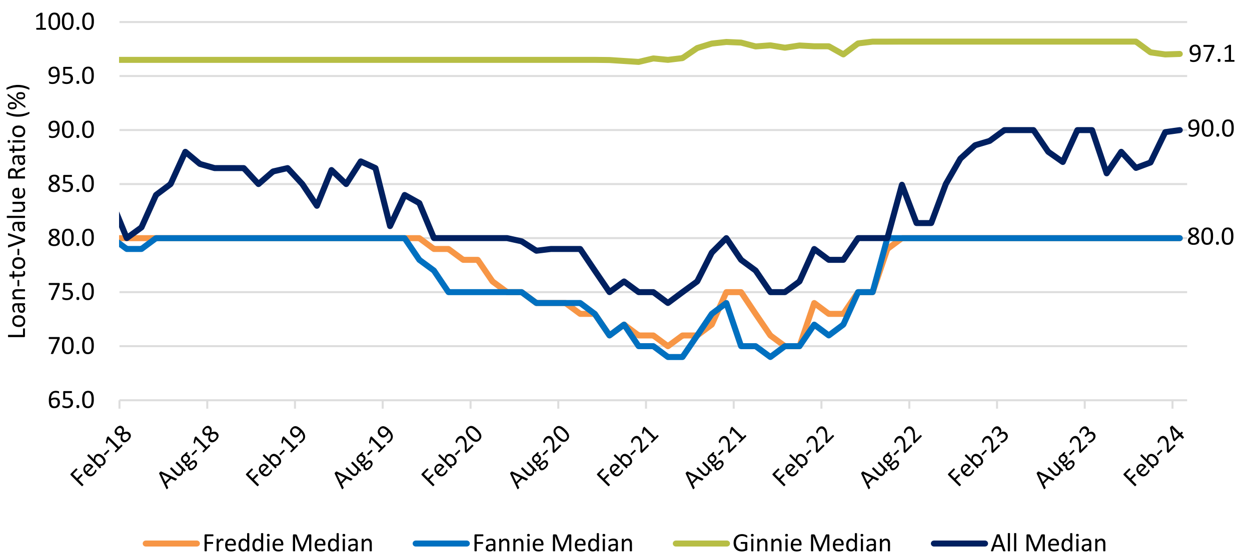
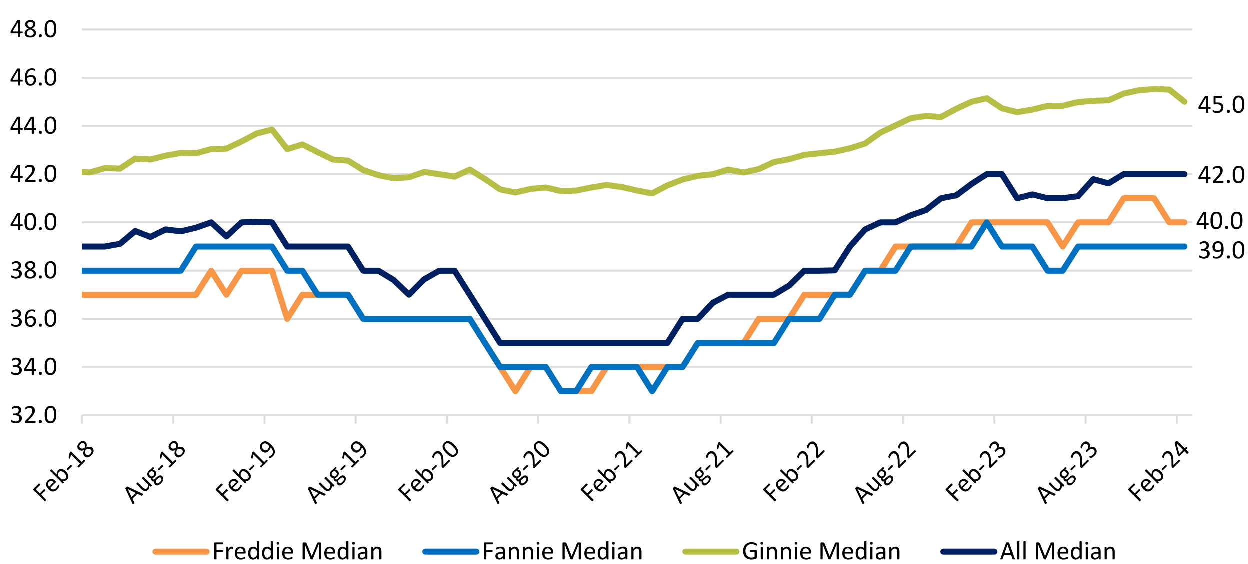


Figure 47. DTI Ratio for All Loans



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

11 FORBEARANCE TRENDS

At the end of February 2024, 30,705 Ginnie Mae loans were in forbearance. The number of loans in forbearance removed from MBS pools in January were 160 while 30,545 loans in forbearance remained in pools. The number of loans in forbearance and loans in forbearance that remained in pools increased 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 27-29. Forbearance Snapshot

All Loans in Forbearance – February 2024						
	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	649	4.3	$187,573	74.5	76.3	30,705
Bank	670	4.1	$137,283	80.2	83.1	7,337
Nonbank	646	4.3	$206,095	73.5	75.1	23,315
FHA	649	4.3	$182,075	76.6	77.1	26,489
Bank	669	4.2	$134,916	82.4	83.5	6,399
Nonbank	645	4.4	$199,010	75.5	75.9	20,043
VA	648	4.3	$271,645	59.8	68.7	3,165
Bank	676	3.6	$185,300	59.4	78.3	637
Nonbank	645	4.4	$292,739	59.8	67.5	2,524

Loans in Forbearance and Removed from Pools – February 2024						
	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	649	5.3	$193,579	80.4	80.7	160
Bank	684	6.1	$123,164	93.7	90.0	62
Nonbank	637	4.9	$235,615	75.3	77.6	98
FHA	645	5.6	$189,598	82.4	81.3	136
Bank	682	6.4	$119,769	93.6	89.8	58
Nonbank	629	5.3	$238,686	77.1	77.8	78
VA	669	3.4	$233,680	59.8	72.4	19
Bank	738	3.7	$251,277	N/A	N/A	3
Nonbank	665	3.3	$224,958	59.8	72.4	16

Loans in Forbearance that Remain in Pools – February 2024						
	FICO Score*	Note Rate*	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	649	4.3	$187,518	74.5	76.3	30,545
Bank	670	4.1	$137,425	80.1	83.1	7,275
Nonbank	646	4.3	$205,998	73.5	75.0	23,217
FHA	649	4.3	$182,027	76.6	77.1	26,353
Bank	669	4.2	$135,047	82.3	83.4	6,341
Nonbank	646	4.4	$198,980	75.5	75.9	19,965
VA	648	4.3	$271,702	59.8	68.7	3,146
Bank	676	3.6	$185,177	59.4	78.3	634
Nonbank	645	4.4	$292,908	59.8	67.5	2,508

*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 February 2024; *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 30.** The top 30 firms collectively own 87.83% of Ginnie Mae MSRs (see Cumulative Share). Twenty-two of these top 30 are non-depository institutions, the remaining eight are depository institutions. As of February 2024, over half (53.79%) of the Ginnie Mae MSRs are owned by the top six firms.

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

MSR Holder	*Current*	*Rank Year prior*	*Change*	*UPB ($)*	*Share*	*Cumulative Share*	*CPR*	*CDR*
Lakeview Loan Servicing	1	1	↔	$313,624,795,917	13.4%	13.43%	6.16%	0.95%
DBA Freedom Mortgage	2	2	↔	$297,543,722,685	12.7%	26.18%	7.57%	0.91%
PennyMac Loan Service	3	3	↔	$274,801,735,080	11.8%	37.94%	6.81%	1.31%
Newrez LLC	4	5	↑	$128,829,795,518	5.5%	43.46%	5.73%	0.64%
Mr. Cooper (Nationstar)	5	4	↓	$126,982,898,302	5.4%	48.90%	7.26%	1.29%
Carrington Mortgage	6	8	↑	$114,131,846,574	4.9%	53.79%	5.83%	0.69%
Rocket Mortgage (Quicken Loans)	7	7	↔	$110,528,630,110	4.7%	58.52%	7.64%	0.21%
Wells Fargo Bank	8	6	↓	$97,479,545,048	4.2%	62.70%	5.02%	0.32%
Planet Home Lending	9	11	↑	$69,303,240,360	3.0%	65.67%	7.66%	0.38%
United Wholesale Mortgage	10	10	↔	$61,999,564,569	2.7%	68.32%	9.41%	1.36%
U.S. Bank	11	9	↓	$56,658,984,232	2.4%	70.75%	4.85%	0.90%
LoanDepot	12	12	↔	$40,452,749,358	1.7%	72.48%	7.31%	1.17%
Navy Federal Credit Union	13	15	↑	$31,752,994,388	1.4%	73.84%	4.76%	0.22%
Mortgage Research Center	14	13	↓	$28,035,256,706	1.2%	75.04%	19.12%	0.57%
M&T Bank	15	N/A	↑	$27,035,448,535	1.2%	76.20%	4.38%	0.23%
Guild Mortgage Company	16	16	↔	$24,551,572,562	1.1%	77.25%	4.77%	0.43%
The Money Source	17	17	↔	$22,668,097,291	1.0%	78.22%	5.66%	0.73%
CrossCountry Mortgage	18	19	↑	$21,826,348,818	0.9%	79.16%	7.87%	1.25%
AmeriHome Mortgage	19	14	↓	$21,337,921,054	0.9%	80.07%	8.76%	1.27%
Movement Mortgage	20	22	↑	$21,168,857,477	0.9%	80.98%	6.10%	1.15%
New American Funding	21	20	↓	$20,578,473,877	0.9%	81.86%	6.67%	0.71%
Truist Bank	22	18	↓	$20,432,947,682	0.9%	82.73%	5.35%	0.88%
CMG Mortgage	23	23	↔	$19,493,761,542	0.8%	83.57%	6.70%	1.90%
PHH Mortgage Corporation	24	26	↑	$19,147,160,498	0.8%	84.39%	5.55%	0.82%
Idaho Housing and Finance	25	24	↓	$18,003,364,474	0.8%	85.16%	3.99%	1.01%
Village Capital and Investment, LLC	26	21	↓	$15,152,149,534	0.6%	85.81%	26.15%	4.66%
Citizens Bank	27	25	↓	$13,983,704,496	0.6%	86.41%	5.07%	0.57%
MidFirst Bank	28	28	↔	$11,528,024,256	0.5%	86.90%	7.71%	2.97%
Flagstar Bank	29	27	↓	$11,339,895,382	0.5%	87.39%	6.91%	1.61%
Sun West Mortgage	30	30	↔	$10,352,682,506	0.4%	87.83%	7.33%	0.20%

Sources: Deloitte, Recursion. Notes: Data as of February 2024.

13 AGENCY NONBANK ORIGINATORS

Total agency nonbank origination share increased as of month-end February 2024 by approximately 1.7% MoM. The increase in nonbank origination share was driven by an increase in Freddie Mac and Fannie Mae, up 0.4% MoM and 1.4% MoM, respectively. The Ginnie Mae nonbank share rose to 92.9% as of February 2024 and has remained consistently higher than the GSEs, largely driven by origination share of refinance mortgage loans.

Figure 48. Agency Nonbank Originator Share (All, Purchase, Refi)

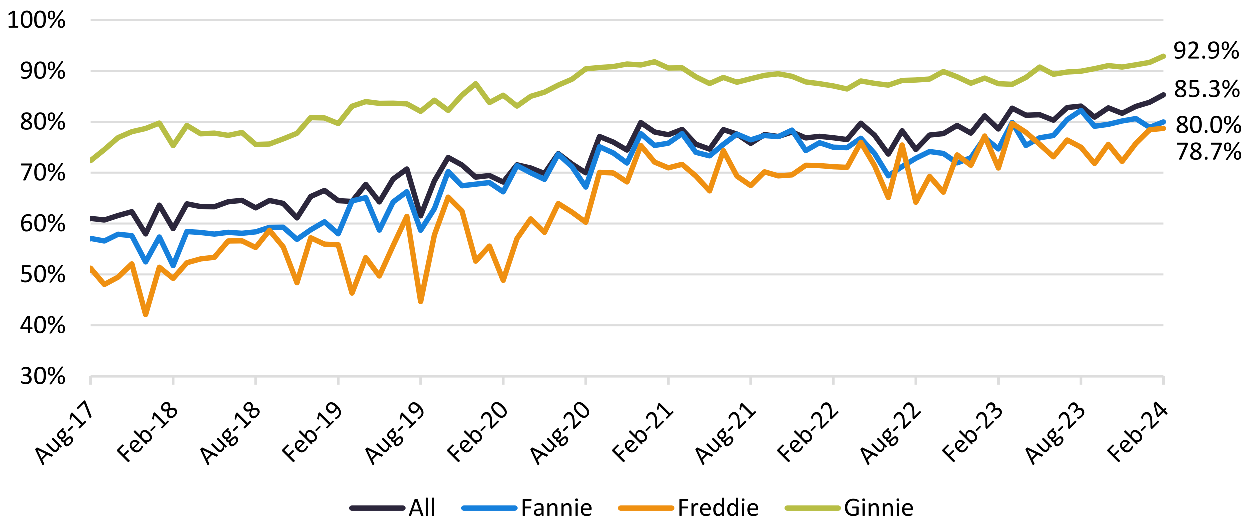


Figure 49. Nonbank Origination Share:

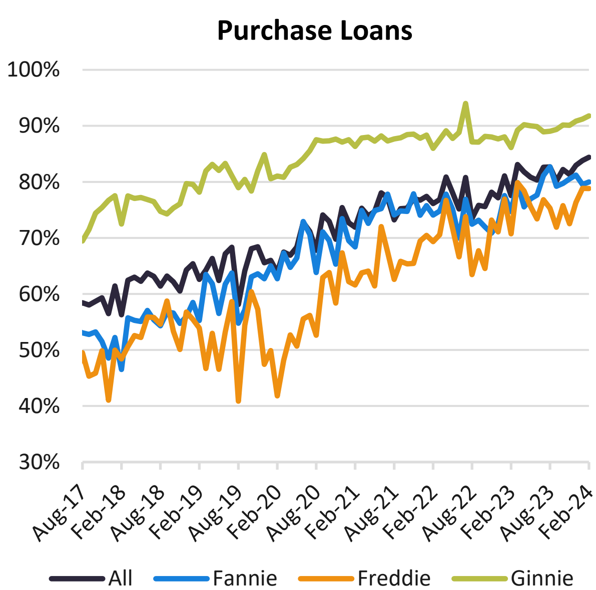
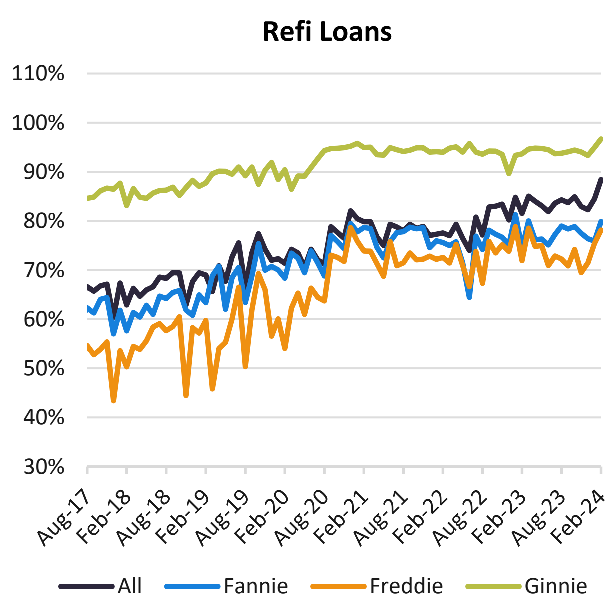


Figure 50. Nonbank Origination Share:



Source: Recursion. Notes: Data as of February 2024.

Ginnie Mae's total nonbank originator share remained relatively stable as of month-end February 2024. Ginnie Mae continues to have a high proportion of nonbank originations, with a rate of 92.9% in February 2024. The percentage of Ginnie Mae's "Other" nonbank refinanced loans increased to 77.1% in February 2024.

Figure 51. Ginnie Mae Nonbank Originator Share (All, Purchase, Refi)

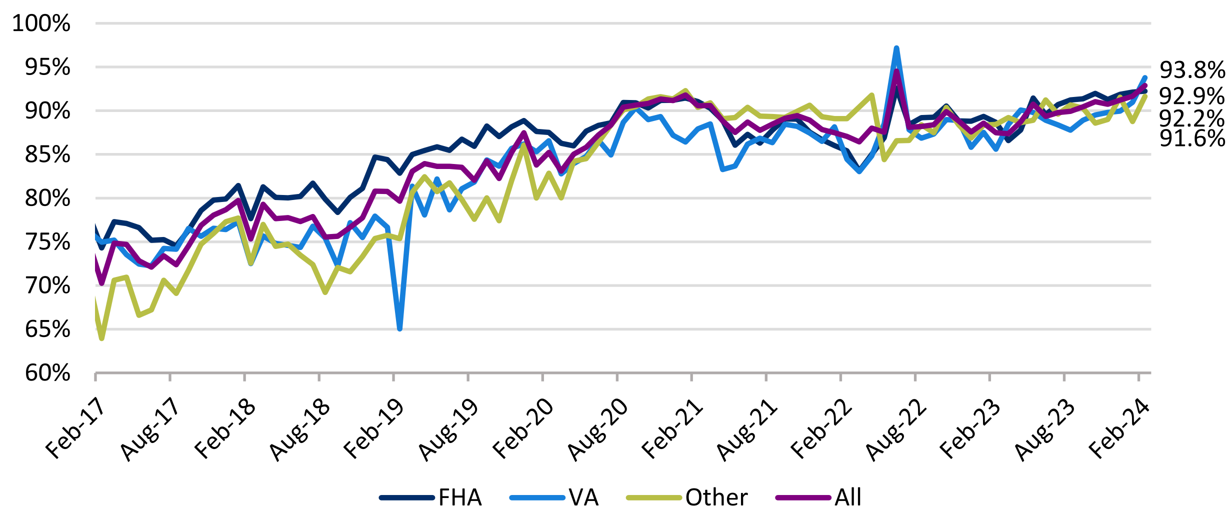


Figure 52. Ginnie Mae Nonbank Share: Purchase Loans

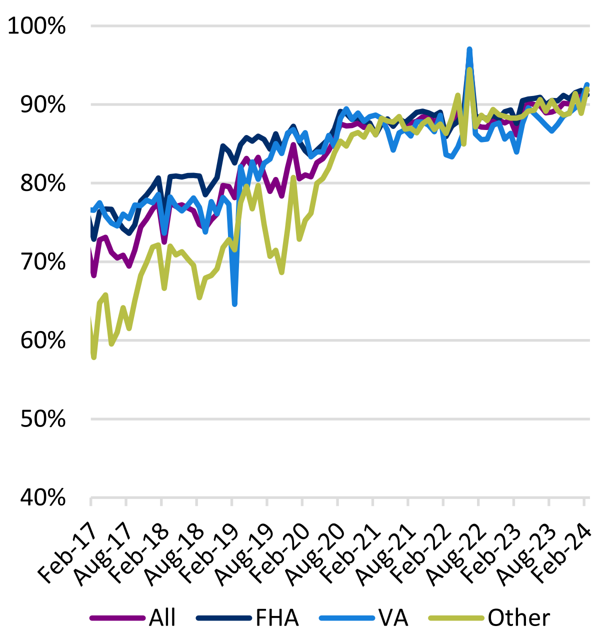
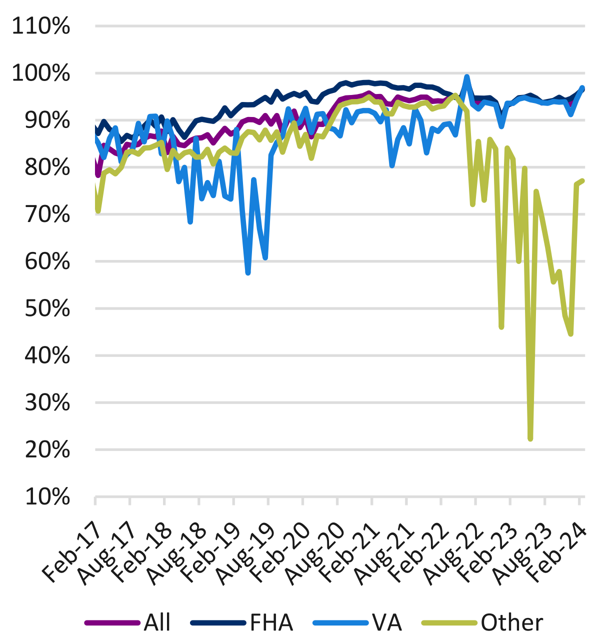


Figure 53. Ginnie Mae Nonbank Share: Refi Loans



Source: Recursion. Notes: Data as of February 2024.

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 increased to 20 from January 2024 to February 2024. The agency median FICO score decreased to 735 in February 2024.

Figure 54. Agency FICO: Bank vs. Nonbank

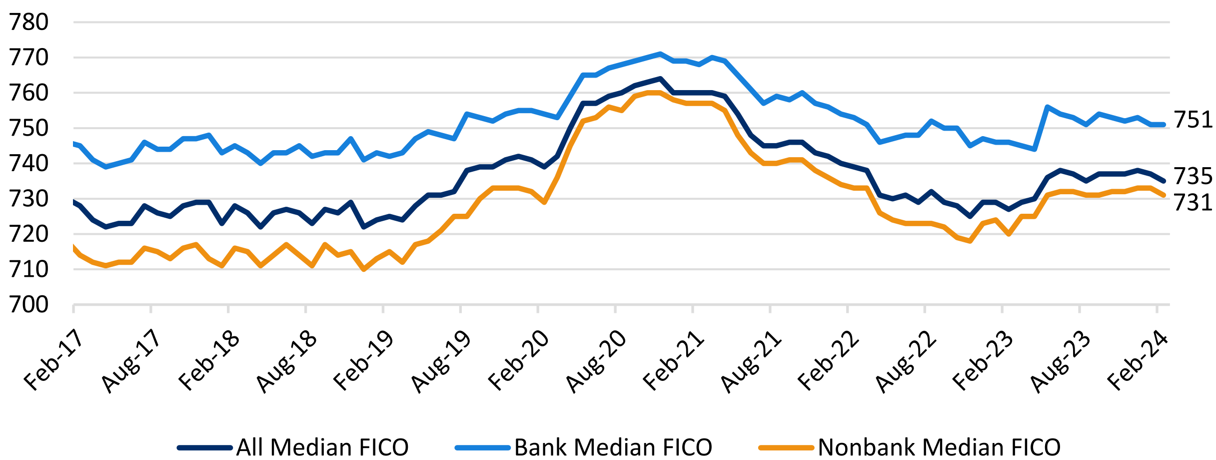


Figure 55. GSE FICO: Bank vs. Nonbank

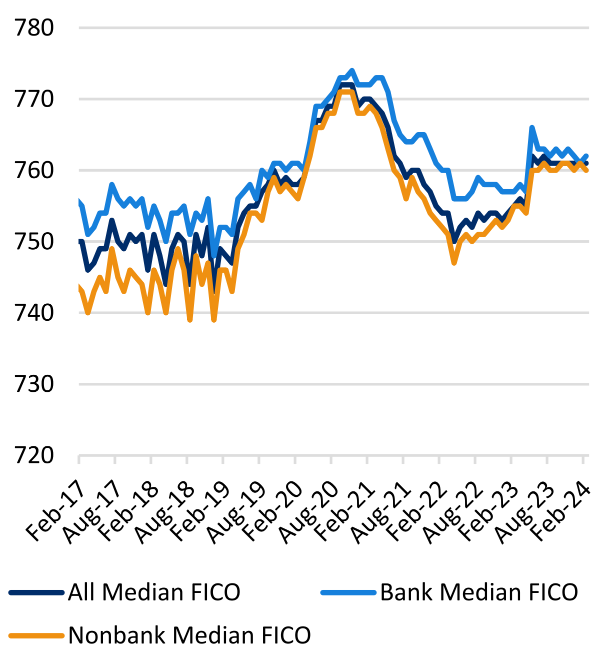
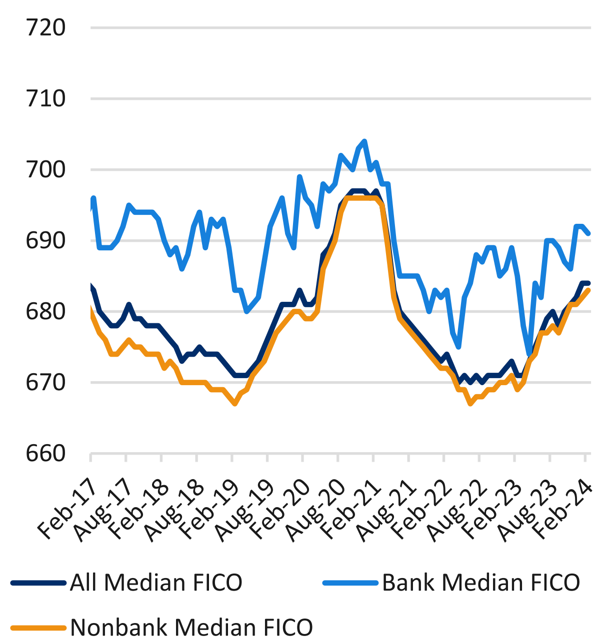


Figure 56. Ginnie Mae FICO: Bank vs. Nonbank



Source: Recursion: Notes: Data as of February 2024.

The median LTV for all GSE originators remained the same as of month-end February 2024 at 80.0%. Ginnie Mae median bank and nonbank LTV remained flat at 98.2% and 97.0%, respectively. Ginnie Mae median DTI decreased slightly to 45.1% through February 2024 in nonbank originations.

Figure 57. GSE LTV: Bank vs. Nonbank

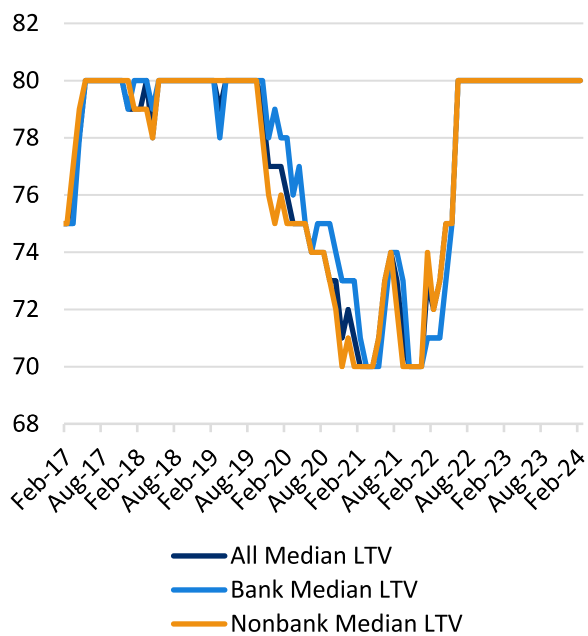


Figure 58. Ginnie Mae LTV: Bank vs. Nonbank

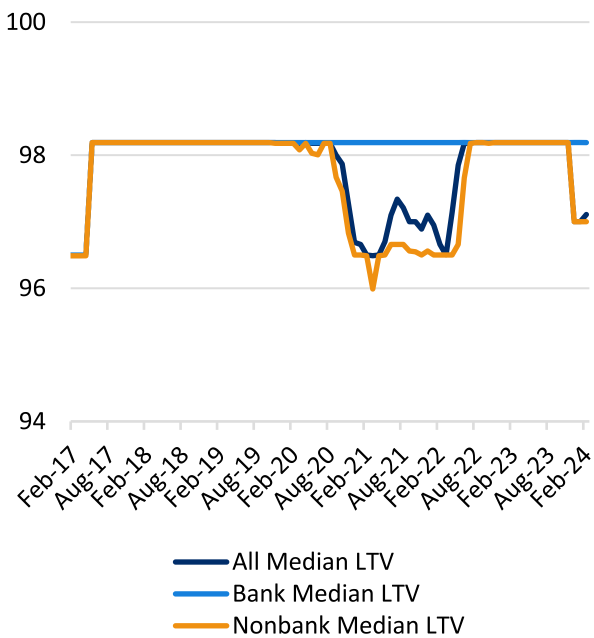


Figure 59. GSE DTI: Bank vs. Nonbank

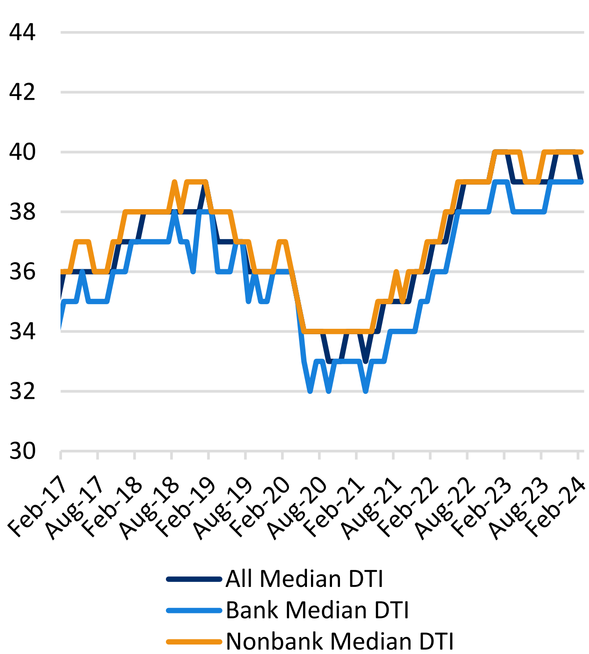
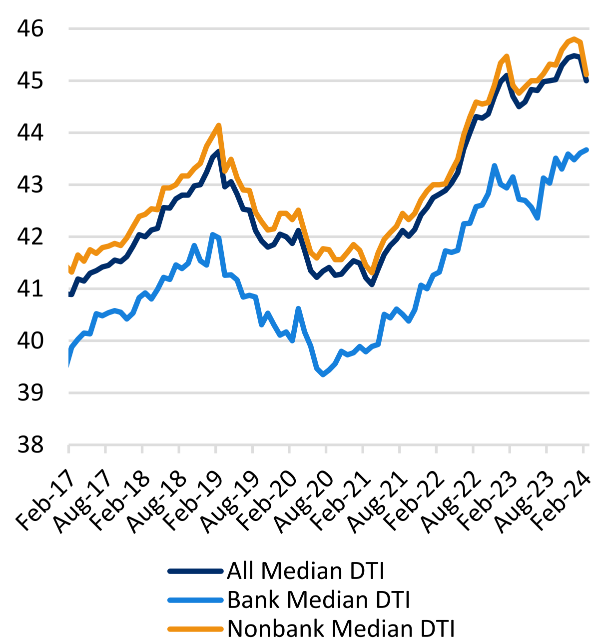


Figure 60. Ginnie Mae DTI: Bank vs. Nonbank



Source: Recursion. Notes: Data as of February 2024.

As of month-end February 2024, the median FICO score for Ginnie Mae bank decreased 1 point to 691 and nonbank increased 1 point to 683. The median FICO score for all Ginnie originations remained constant at 684. The gap between banks and nonbanks is most apparent in "Other" lending (14-point spread).

Figure 61. Ginnie Mae FICO Score: Bank vs. Nonbank

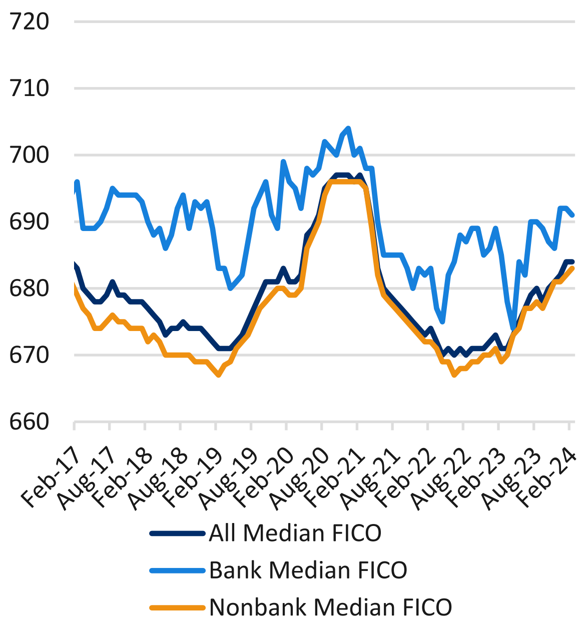


Figure 62. Ginnie Mae FHA FICO Score: Bank vs. Nonbank

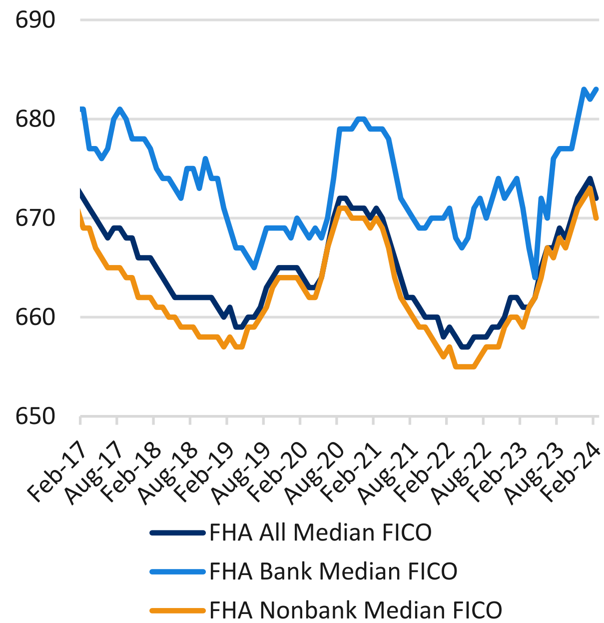


Figure 63. Ginnie Mae VA FICO Score: Bank vs. Nonbank

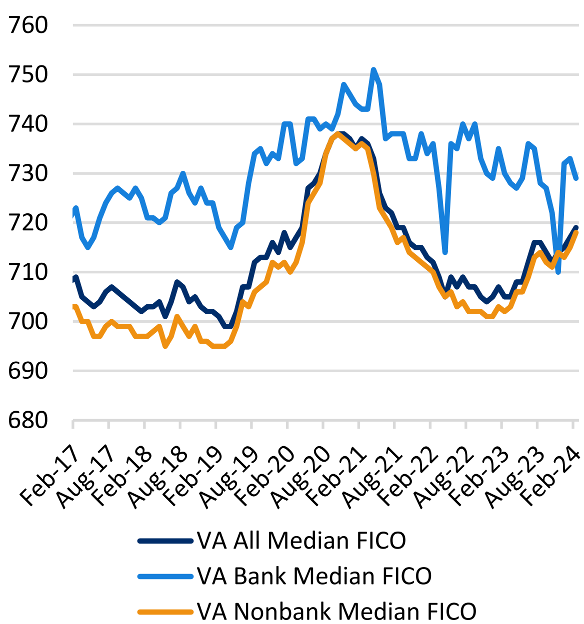
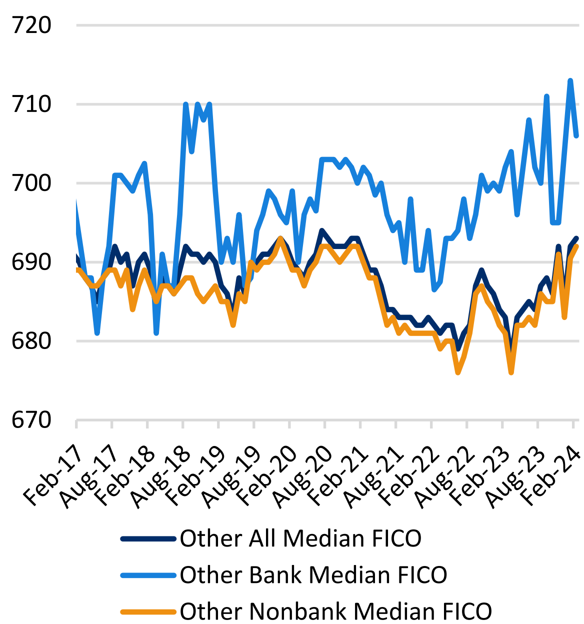


Figure 64. Ginnie Mae Other FICO Score: Bank vs. Nonbank



Source: Recursion. Notes: Data as of February 2024.

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 65. Ginnie Mae DTI: Bank vs. Nonbank

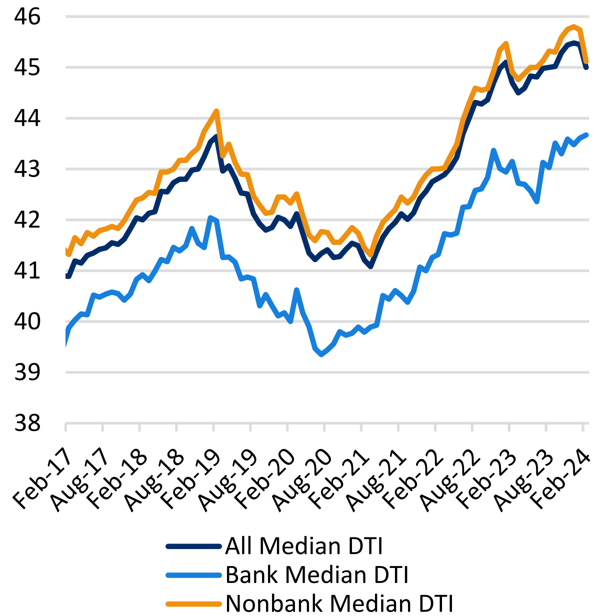


Figure 66. Ginnie Mae FHA DTI: Bank vs. Nonbank

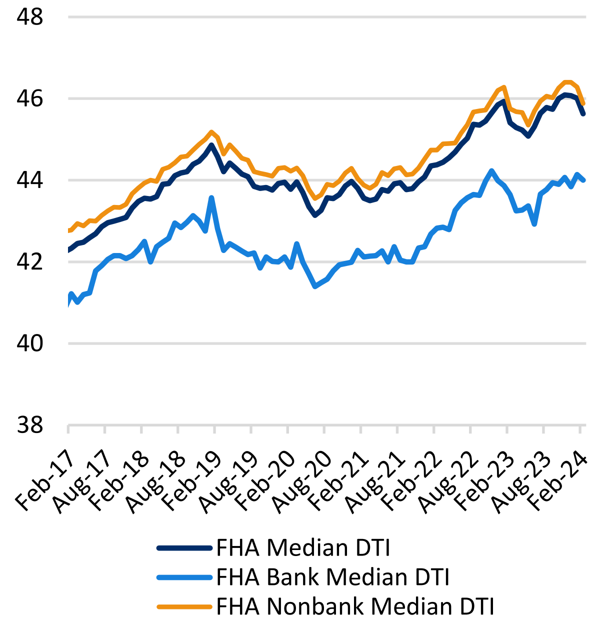


Figure 67. VA DTI: Bank vs. Nonbank

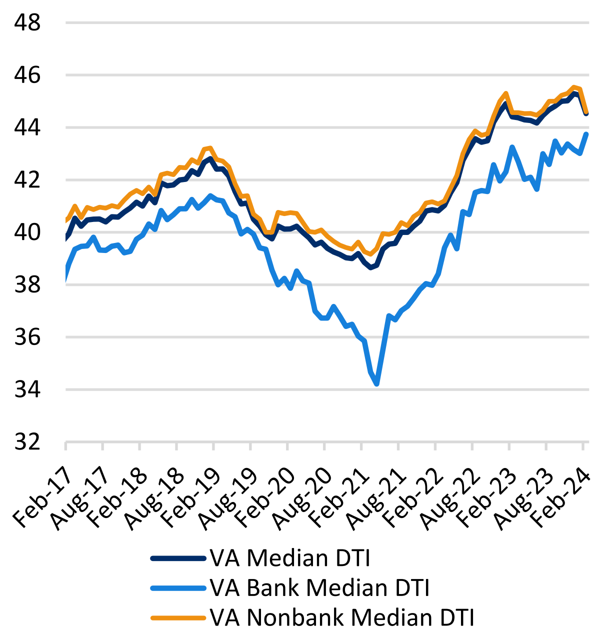
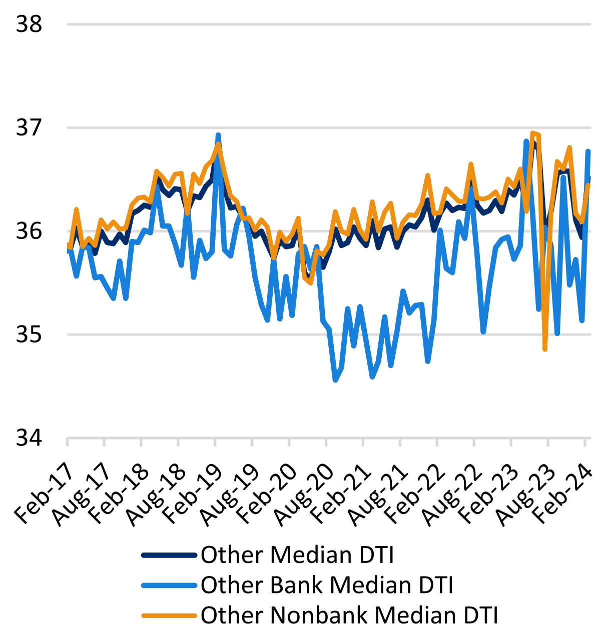


Figure 68. Other DTI: Bank vs. Nonbank



Source: Recursion. Notes: Data as of February 2024.

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.

May 2021	•LMI “Social” Disclosures (% of loans in LMI Areas)
June 2021	•Disclosures reveal approximately $259 billion of Outstanding Ginnie Mae MBS categorized as LMI area loans as defined by HUD’s CDBG Program
November 2021	•Green “Environmental” Status Disclosures Announced identifies Green properties within Multifamily Pools.
March 2022	•Full implementation of Green Status Field into Multifamily Disclosures
April 2022	•Introduction of Affordable Status Disclosure for Multifamily properties
February 2023	•Low-Moderate Income Borrower (LMIB) Disclosure Announced
September 2023	•Social Bond Program Introduced
December 2023	•ESG Page Enhancement for Platinum Pool Search Results

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 31. ESG Metrics – MBS Portfolio (February 2024)

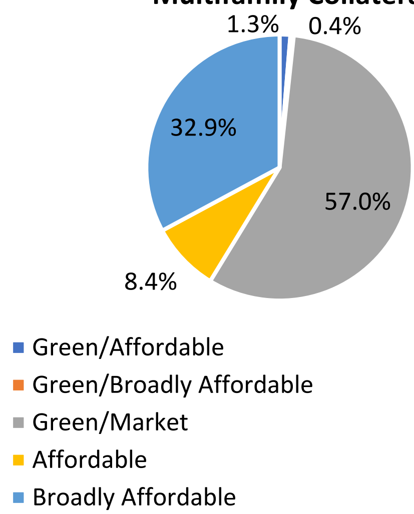
Ginnie Mae's ESG Metrics – MBS Portfolio as of February 2024				
	Targeted Population	**Positive Outcomes**	**Our Commitment**	
Social - Affordable	FHA Borrowers – 6,931,821 VA Borrowers – 3,609,886 RHS Borrowers – 781,685 PIH Borrowers – 23,818	**Loans under $200K** 6,522,841 Loans **First-Time Home Buyers** 4,248,760 Loans **Down Payment Assistance** 697,557 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)	3,241,956 Loans		Single Family
Social - Affordable	LMI Majority Census Tract Loans	1,742,947 Loans		Single Family
Social - Affordable	Borrowers Facing Difficulties	791,060 modifications with over 720,151 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	279,831 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)	1.315 million apartment homes 493,354 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	4,952 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 32. UPB by ESG Status

ESG Status	UPB	%
Green/Affordable	1,088,520,528	0.7%
Green/Broadly Affordable	342,639,855	0.2%
Green/Market	47,670,175,300	31.6%
Green Total	49,101,335,683	32.5%
Affordable [6]	7,042,465,692	4.7%
Broadly Affordable[6]	27,476,312,340	18.2%
Affordable Total	35,949,938,415	23.8%
ESG Total	83,620,113,715	55.4%
Total	**151,053,800,986**	**100.0%**

Figure 69. 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 55.4% of Ginnie Mae's Multifamily collateral is considered ESG.

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% of the AMI 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 to expand 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 its Platinum pool securities including UPB amount and UPB percentage.

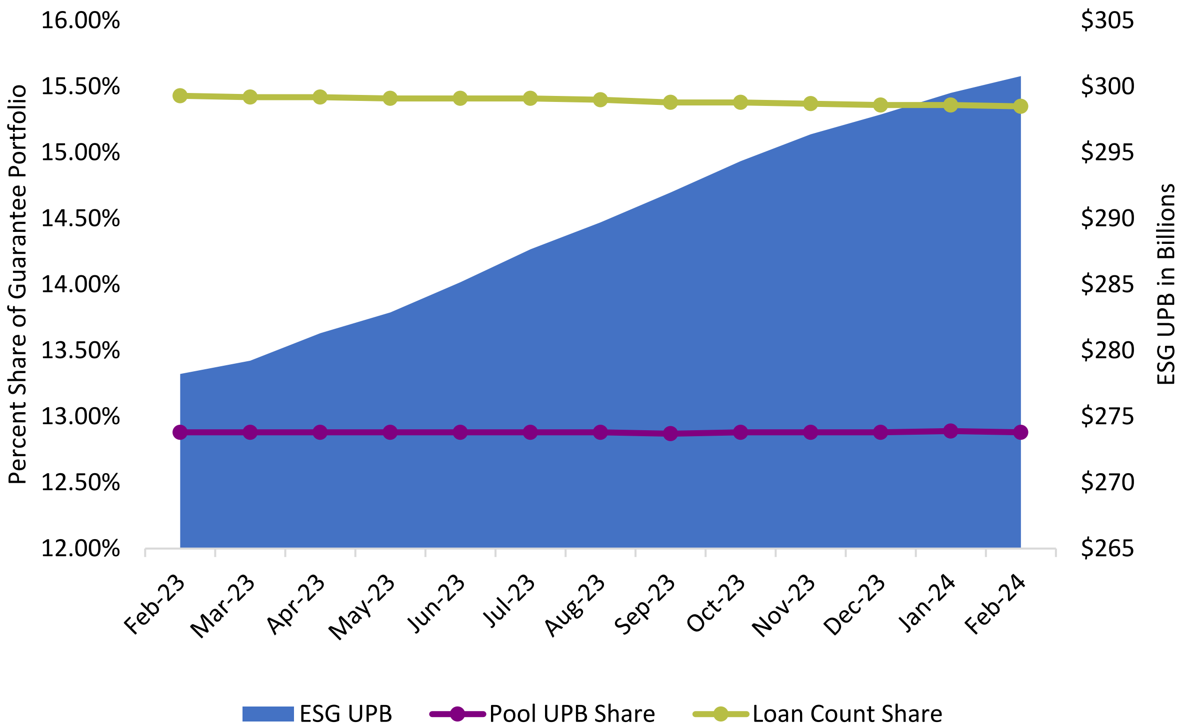
Sources: Ginnie Mae Disclosures as of February 2024, https://www.hud.gov/program_offices/housing/mfh/green

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

15.3.1 Low-to-Moderate Income Borrowers

Roughly $301 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 70. ESG Share of the Outstanding SF Portfolio



Source: Ginnie Mae Disclosures as of February 2024

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 33. Percent LMI by Pool Share

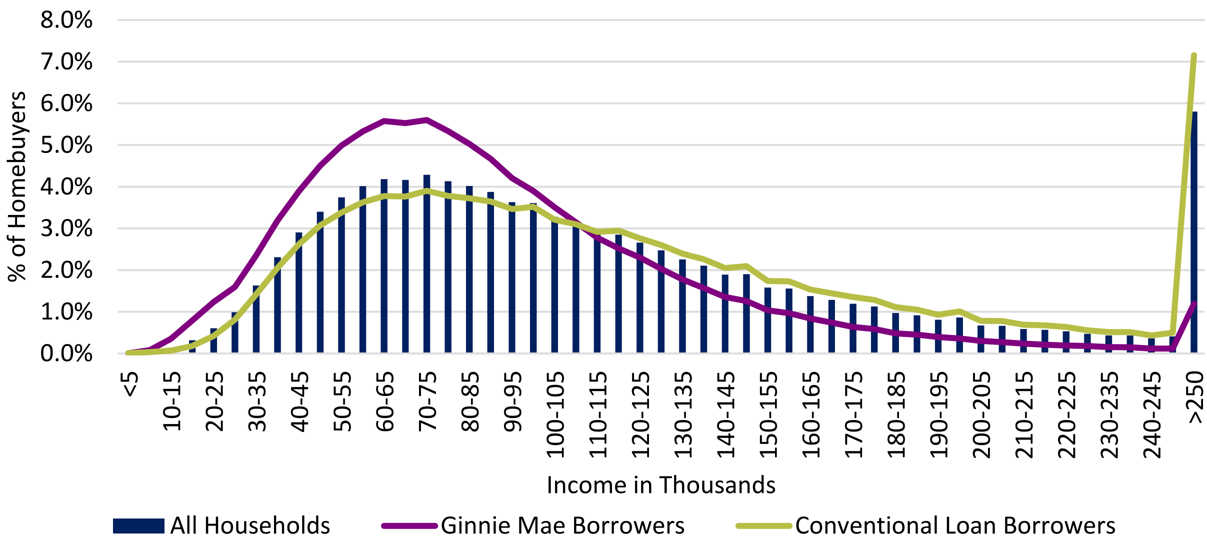
Metric	LMI Pool Share >50%	LMI Pool Share 20% - 50%	LMI Share < 20%	All Pools
Total UPB ($ billions)	$8.5	$204.1	$2073.1	$2,285.7
Average Original Loan Size	$178,106	$193,334	$339,327	$325,695
Credit Score (Median)	674	675	679	677
DTI (Median)	40%	40%	40%	40%
LTV (Median)	97%	96%	95%	96%
Interest Rate (WA)	4.82%	4.65%	3.94%	4.01%

Source: Ginnie Mae Disclosures as of February 2024

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 71. 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 Q4 2023. Notably, the East North Central, East South Central, and Middle Atlantic regions saw close to a 2.00% increase in home price appreciation (HPI) QoQ. The West South-Central region saw the smallest QoQ increase in HPI of 0.52%. The New England region has appreciated more than any other region over the past year, appreciating by 10.26% from Q4 2022 to Q4 2023.

Figure 72. Regional HPI Trend Analysis Q/Q

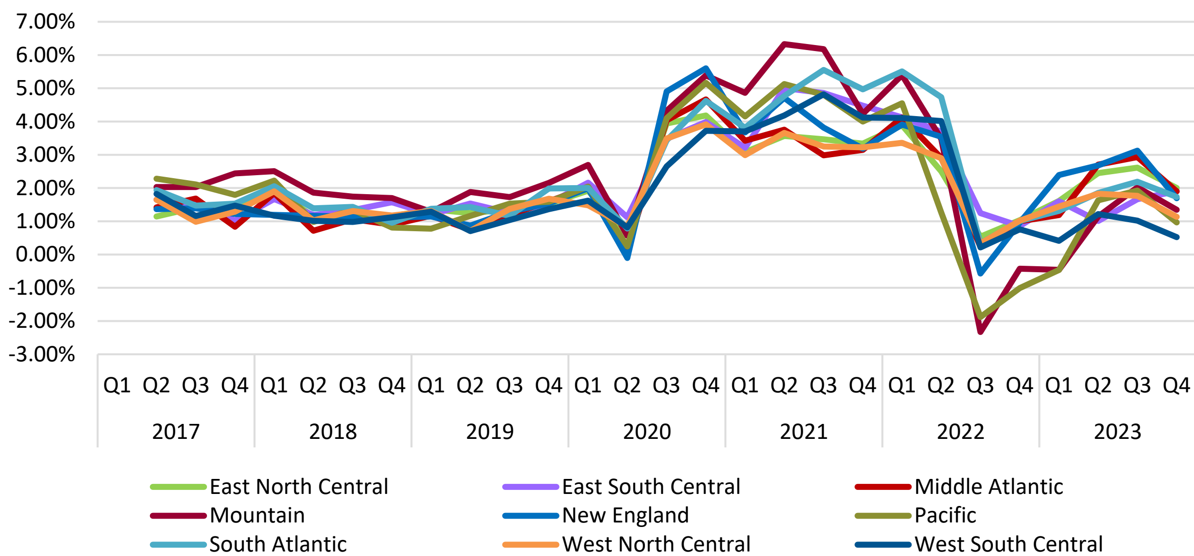
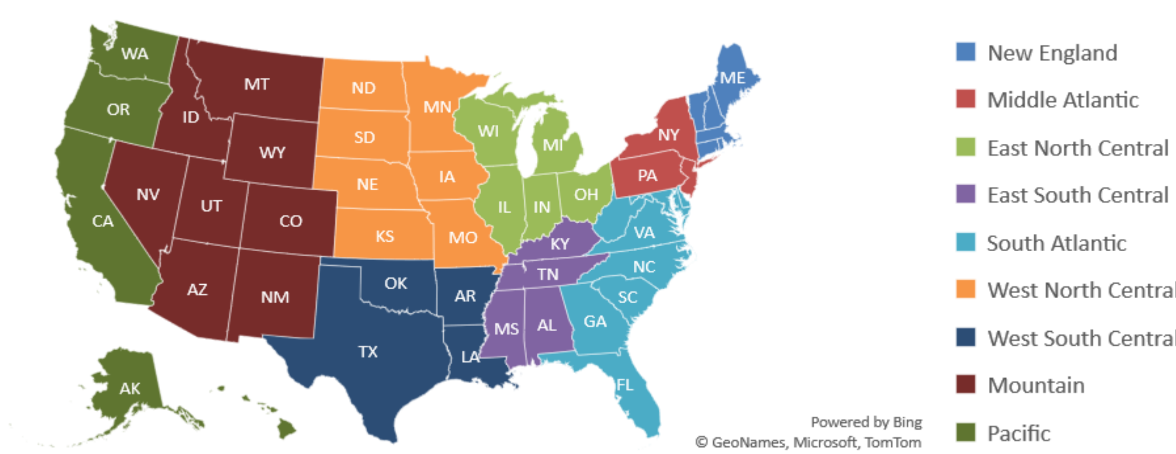


Figure 73. FHFA U.S. Census Subregions as defined by the U.S. Census Bureau



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 February 2024, YoY inflation was 3.2%, increasing from 3.1% in the month prior. Nationally, rents are up 2.25% YoY as of month-end February 2024. The MoM change in rents from January 2024 to February 2024 increased by 0.87%. YoY Wage growth decelerated for the first time in five months, declining 0.1% to 5.1% at month-end February 2024. Month-end December 2023 reporting data shows YoY home price appreciation decelerated to 5.5% from a 5.7% YoY change in December 2022.

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

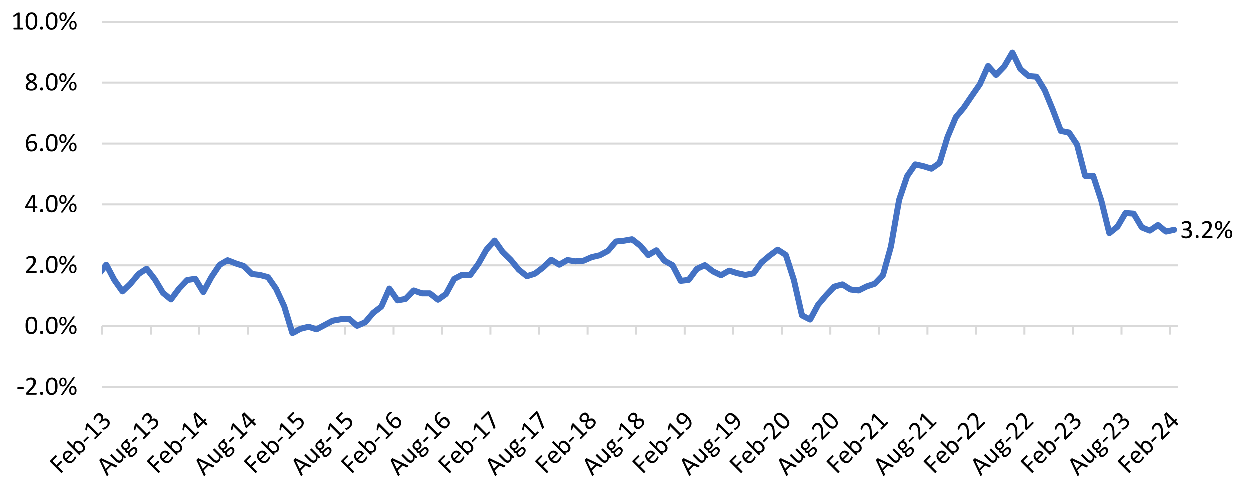
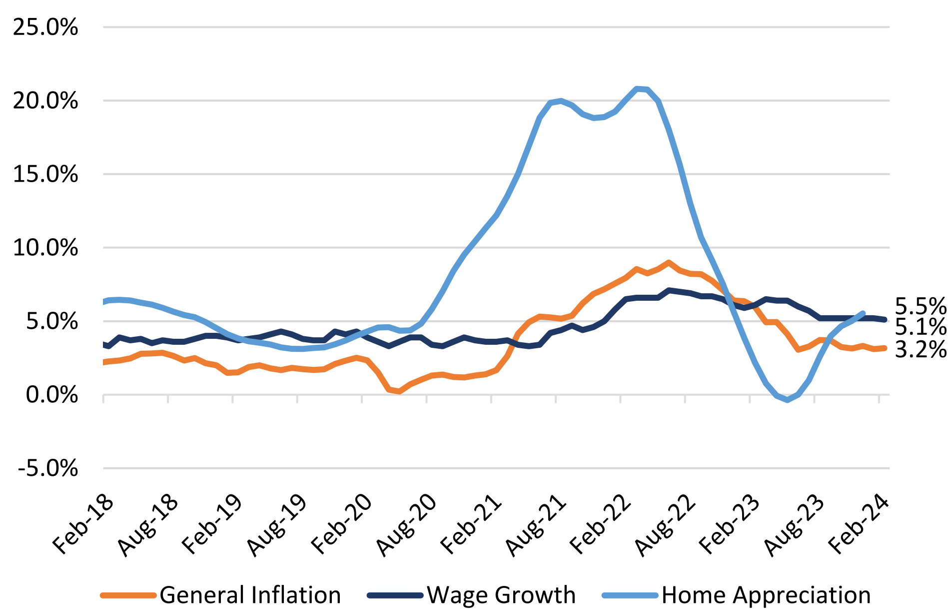


Figure 75. Asset Price Appreciation vs. Wage Increases



Metric	*Statistic*
General Inflation	*3.2%*
Home Price Appreciation *(YoY)*	*5.5%*
Rental Price Appreciation *(Median Rent Change YoY)*	*2.25 %*
Wage Growth	*5.1%*

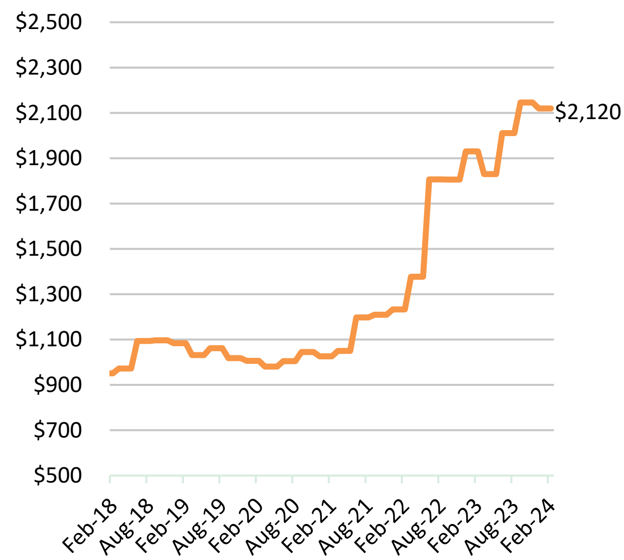
Sources: Bureau of Labor Statistics – Consumer Price Index; Federal Reserve Bank of Atlanta, Research and Data - Wage-Growth Data; Rent.com - Rental Price Appreciation; S&P/Case-Schiller U.S. National Home Price Index – Home Price Appreciation.

16.2.1 Housing Affordability – Affordability Index

As of month-end February 2024, the Homebuyer Affordability Fixed Mortgage Index (HAFM) was 101.9 and the First-Time Homebuyer Monthly Payment (FTMP), which represents the median payment for first-time homebuyers, was $2,120. This marks a 6.8% decrease in the Homebuyer Affordability Fixed Mortgage Index and an 9.8% increase in monthly payments for first-time homebuyers from February 2023 to February 2024. HAFM has decreased 45.7% and FTMP has increased 106.6% since January 2021.

Figure 76. Homebuyer Affordability Index

Figure 77. First-Time Homebuyer Monthly

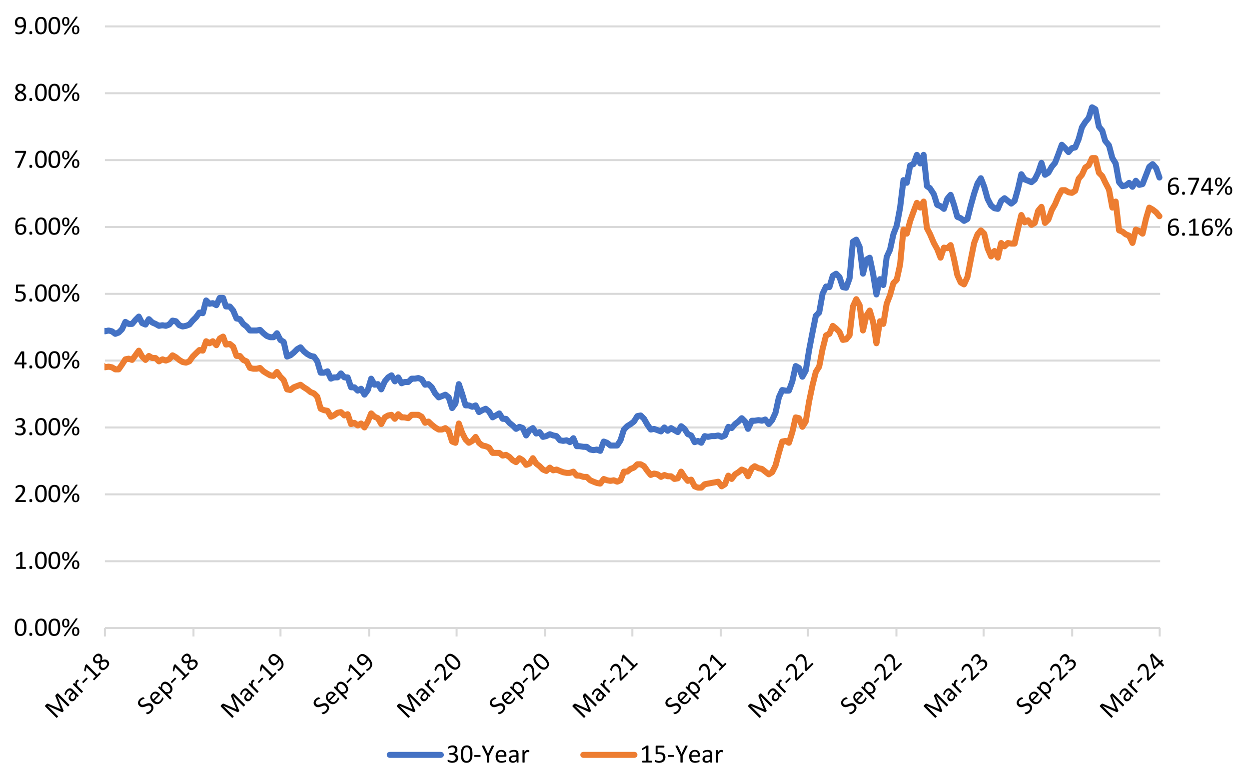


Source: Bloomberg as of February 2024. Note: Housing Affordability Index: Value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signifies that a family earning the median income has more than enough income 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 March 20, 2024, at a range of 5.25% and 5.50% per the FOMC [7]. As of March 15, 2024, the average 30-year and 15-year fixed rate mortgage rates were 6.74% and 6.16%, respectively. The average 30-year fixed rate mortgage rate decreased 3 bps and the average 15-year fixed rate mortgage rate increased 4 bps MoM from February 15, 2024.

Figure 78. Average Fixed Rate Mortgage Rates



Source: FRED data as of March 2024

[7] *Federal Reserve Board - Federal Reserve issues FOMC statement*

16.3 Housing Inventory

As of February 2024, there were 8.4 months of housing inventory on the market, increasing 1.2% MoM from 8.3 months in January 2024. As housing affordability continues to remain low (See above Section 16.2.1) Single-Family home sales are unlikely to play a large role in the resolution of the housing shortfall. **Figures 80 and 81** show Single-Family and Multifamily Housing metrics, including the number of permits, starts, and completions. From February 2023 to February 2024, the number of Single-Family completions fell 7.5%, while the number of starts and permits increased 27.4% and 30.8%, respectively. Multifamily metrics show that from February 2023 to February 2024, the number of completions increased 29.9%, while the number of starts and permits decreased 23.7% and 22.5%, respectively.

Figure 79. Single-Family Housing Inventory

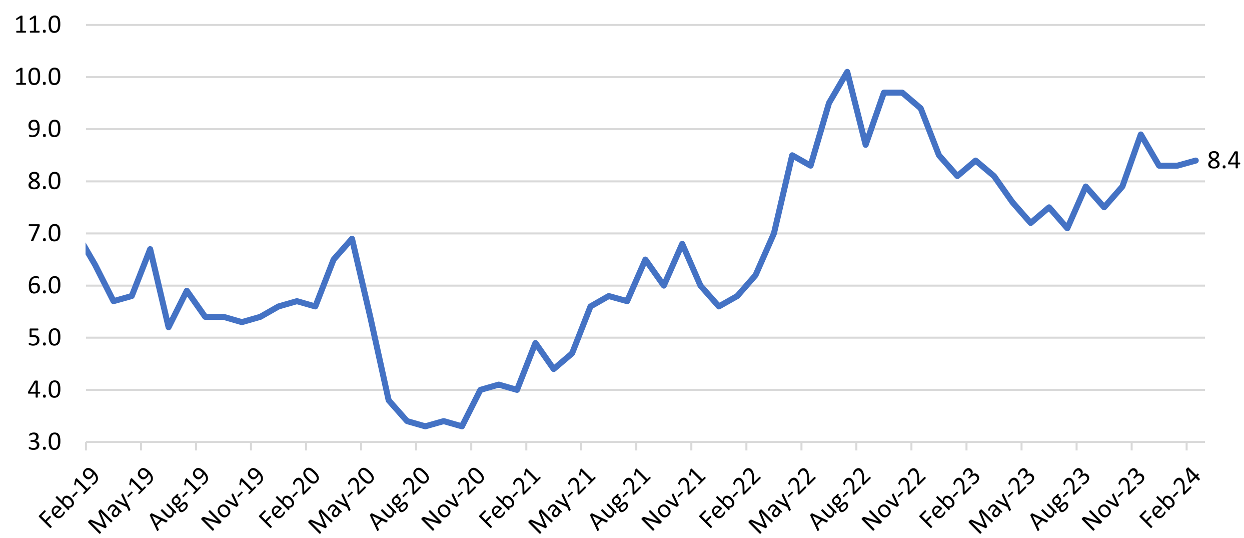


Figure 80. Single-Family Construction Metrics: Permits, Starts, Completions

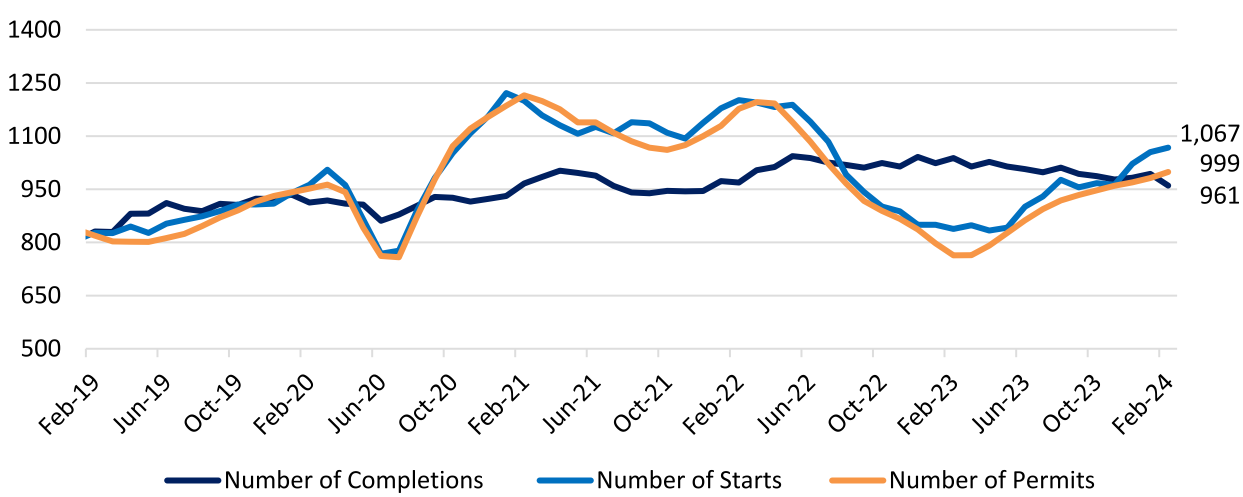
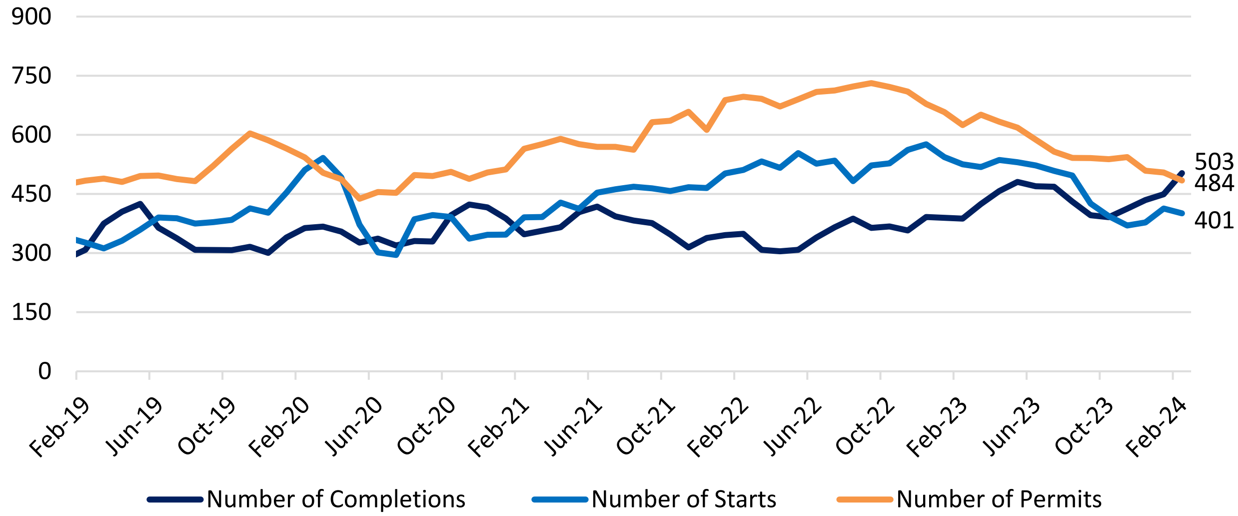


Figure 81. Multifamily Constructions Metrics: Permits, Starts, Completions



Source: FRED. Figure 80: data as of February 2024. New Residential Construction, U.S. Census Bureau. Figure 80 & 81: data as of February 2024.
Note: Figures 80 & 81 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 decreased from $45.5 trillion in Q3 2023 to $44.8 trillion in Q4 2023. The total value of the US housing market is up approximately 136% from its trough in 2011. From Q4 2022 to Q4 2023 mortgage debt outstanding increased from $12.5 trillion to $13.1 trillion and household equity increased from $30.9 trillion to $31.8 trillion. Agency Single-Family MBS continues to account for a growing percentage of the total mortgage debt outstanding, at roughly $9.1 trillion in Q4 2023 it represents more than 65% of total mortgage debt, up from just 52% in 2011.

Figure 82. Value of the U.S. Housing Market

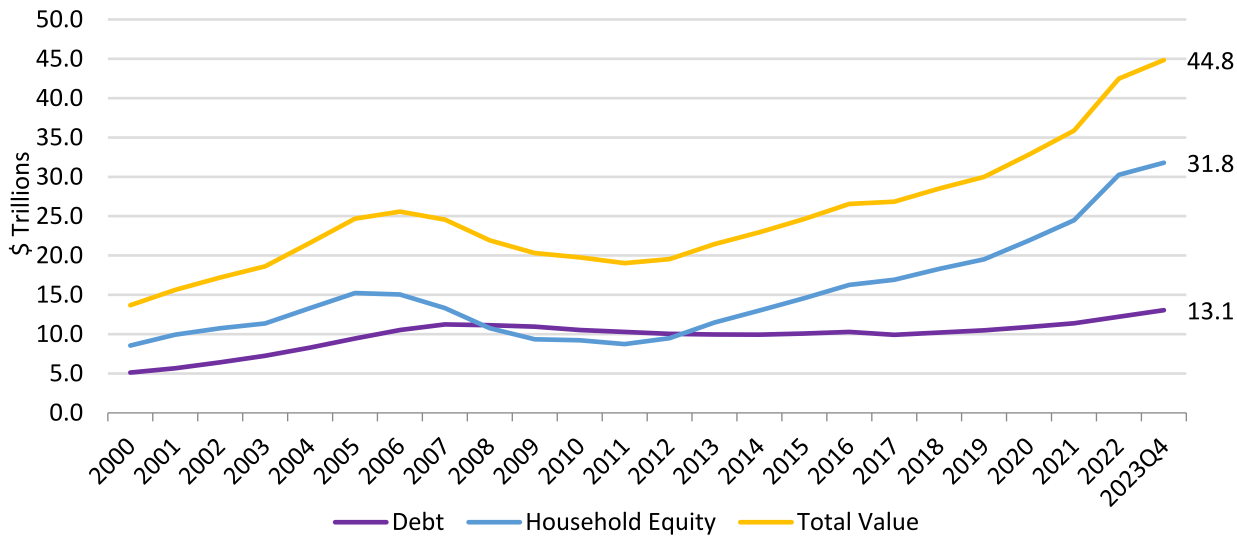
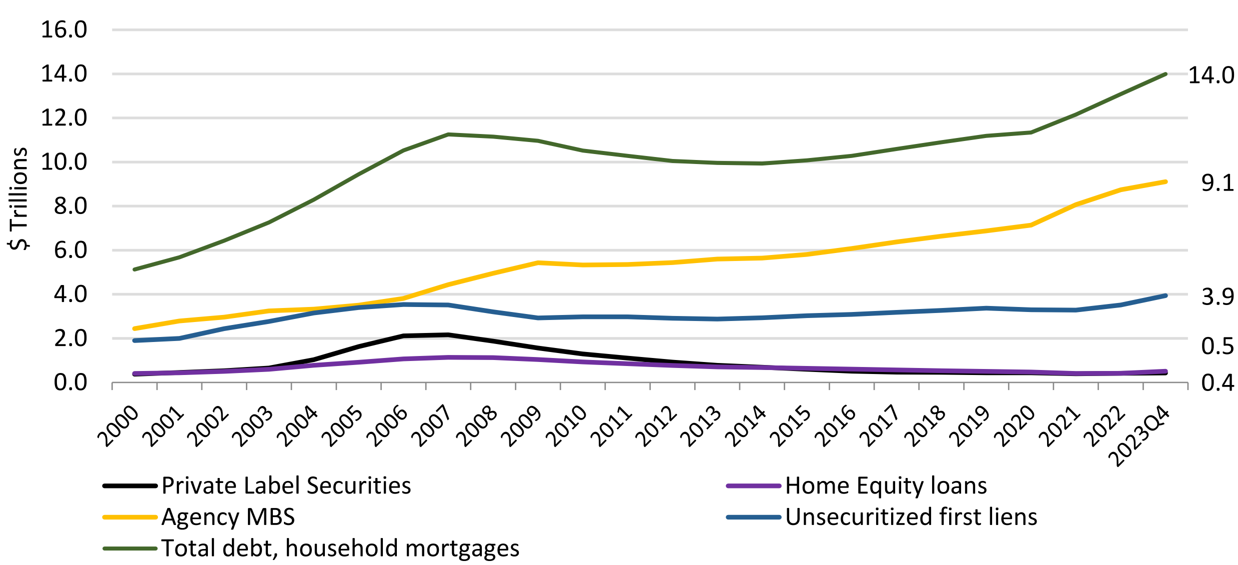


Figure 83. Size of the U.S. Residential Mortgage Market



Source: Federal Reserve Flow of Funds Data as of Q4 2023. Total debt in figure 83 includes additional Nonfinancial corporate/noncorporate business mortgages which is not included in the calculation for "debt" for figure 82.

17 DISCLOSURE

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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.

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