Ginnie Mae
Our Guaranty Matters

GLOBAL MARKETS ANALYSIS REPORT

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

April 2024

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

The April 2024 *Highlights* discusses the changing macroeconomic environment with respect to inflation, rate cuts, and the Fed's quantitative tightening (QT) program. The *Highlights* section examines how the Fed's actions, primarily QT, are changing the makeup of bank holdings as Treasury runoff far exceeds Agency MBS runoff and how the Fed's runway with QT is becoming limited as bank reserves dry up.

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 leading 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 decreased for families purchasing median priced homes. Accordingly, the new homebuyer monthly payment figure shows how monthly payments have been increasing for first-time homebuyers.

Highlights

The macroeconomic backdrop as of April 2024 looks vastly different than it did to begin the year as inflation continues to remain stubbornly high and expectations for the Fed to cut rates multiple times in 2024 have been subdued. The Federal Reserve's (Fed) quantitative tightening (QT) program has reduced the market's abundance of excess reserves as more than $1.5 trillion of securities, of which roughly $1.2 trillion have been U.S. treasuries and approximately $300 billion have been Agency MBS, have rolled off the Fed's balance sheet since the start of QT in June 2022.

Entering the new year, the market was very optimistic about the possibility of a "soft landing" scenario. The market firmly believed that the Fed was done hiking rates and were likely to cut rates upwards of six times in 2024. Additionally, the Fed's quarterly release of their Summary of Economic Projections (SEP) in December 2023 and March 2024 indicated that the Fed had penciled in 3 rate cuts for the year, giving the market heightened expectations that the Fed would reduce rates more if inflation decelerated towards the Fed's target at a faster pace than the Fed forecasted. However, inflation has proven to be much sticker than anticipated, with the Consumer Price Index accelerating at a 3.5% unadjusted 12-month pace ending in March 2024, forcing market participants to reduce rate cut expectations to just one or two rate cuts this year. Some investors and economists believe that there's a chance of no cuts at all this year and even potentially a rate hike, revising prior thinking from a "soft landing" to a "higher for longer" stance. The next SEP release will come at the Fed's June 12th meeting and will be highly anticipated to see if the Fed walks back any rate cuts this year.

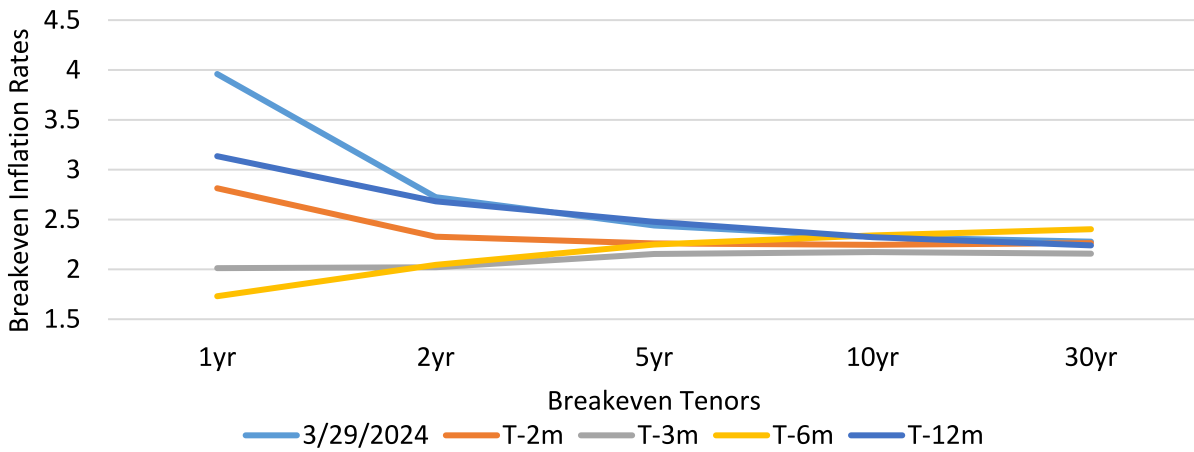
Fed Chairman Jerome Powell confirmed the changing macroeconomic backdrop on April 16, when he signaled that "policymakers would wait longer than previously anticipated to cut rates following a series of surprisingly high inflation readings"[1]. Inflation prints thus far this year have continuously surpassed expectations as MoM inflation YTD has been 0.31%, 0.44%, and 0.38%[2], respectively. If inflation continues at the pace realized in Q1, the annualized pace for the year would be roughly 4.5%, far exceeding the Fed's target rate of 2.0%. Core inflation has remained elevated, including shelter prices, which make up roughly a third of the consumer price index and have continued to accelerate at a greater than 5.0% annual pace. With the addition of escalating oil prices due to conflict in the Middle East, inflation expectations have increased substantially in the previous six months.

Heightened inflation expectations become problematic for the Fed because as higher inflation gets repriced into the market, real yields decrease which limit the effects of the Fed's restrictive monetary policy efforts. **Figure 1**, *Inflation Breakeven Rates*, below illustrates the change in market expectations for inflation.

[1] *https://www.bloomberg.com/news/articles/2024-04-19/fed-s-rate-cut-delay-explained-what-it-means-for-us-and-world*

[2] *https://www.bls.gov/news.release/cpi.nr0.htm*

Figure 1. Inflation Breakeven Rates



The Fed's SOMA portfolio has fallen to roughly $6.8 trillion from over $8.4 trillion in 2022. **Section 8.3**, *SOMA Holdings,* illustrates the monthly runoff by asset class. The Fed is widely expected to begin tapering its treasury QT program in the second half of this year as the Reverse Repurchase (RRP) facility, which acts as a proxy for excess bank reserves in the system, has fallen from over $2.4 trillion to near $400 billion over the course of the Fed's QT. The mechanics of QT replace bank reserves with treasury collateral as the Fed opts to let on-balance sheet treasury securities mature without reinvesting the proceeds into newly issued treasury securities. The product of QT is that banks and other asset managers have to take down this increased supply of treasury collateral due to the Fed's absence, ultimately decreasing the system's reserves. As the ownership of these securities move from the Fed to the market, yields typically increase as market participants require a higher yield in order to take down the additional supply.

In totality, treasury QT has far exceeded Agency MBS QT since 2022, as seen in **Section 8.3**, *SOMA Holdings.* This is partly due to the design of the QT program allowing higher levels of treasury collateral to run off each month than Agency MBS, $60 billion compared to $35 billion, respectively. However, the main reason treasury run off has exceeded Agency MBS run off is because in an elevated interest rate environment, MBS collateral prepayments are subdued, leading to decreased Agency MBS runoff, well below the Fed's redemption cap of $35 billion.

As a result, the majority of bank reserves have been replaced with treasury collateral rather than Agency MBS. **Section 8.1**, *Commercial Bank Holdings of Agency MBS*, shows that domestic banks have reduced their Agency MBS holdings as the RRP facility, and therefore bank reserves, continues to drain and the supply of treasury collateral increases on the back of sustained QT and increased levels of treasury issuance. Since July 2023 large domestic banks have decreased their holdings of Agency MBS by $35.5 billion while small domestic banks have decreased their holdings of Agency MBS by $27.1 billion.

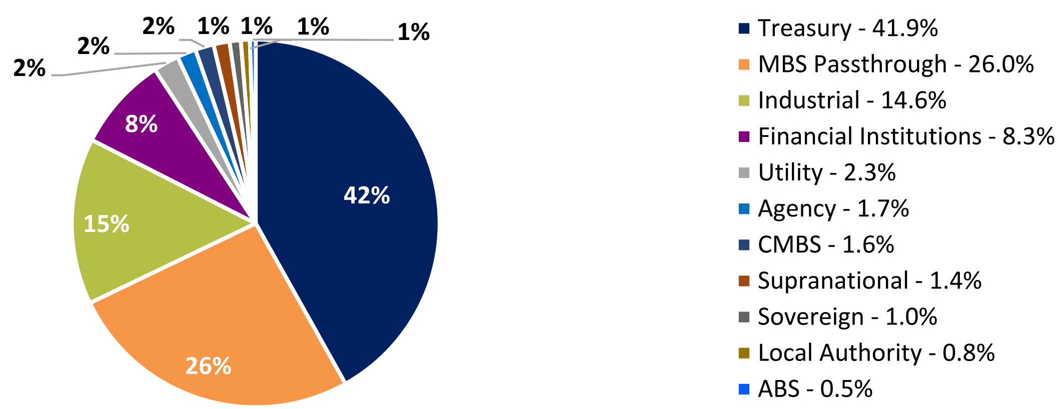
Source: Bloomberg

1 US AGGREGATE AND GLOBAL INDICES

1.1 Bloomberg US Aggregate and Global Indices

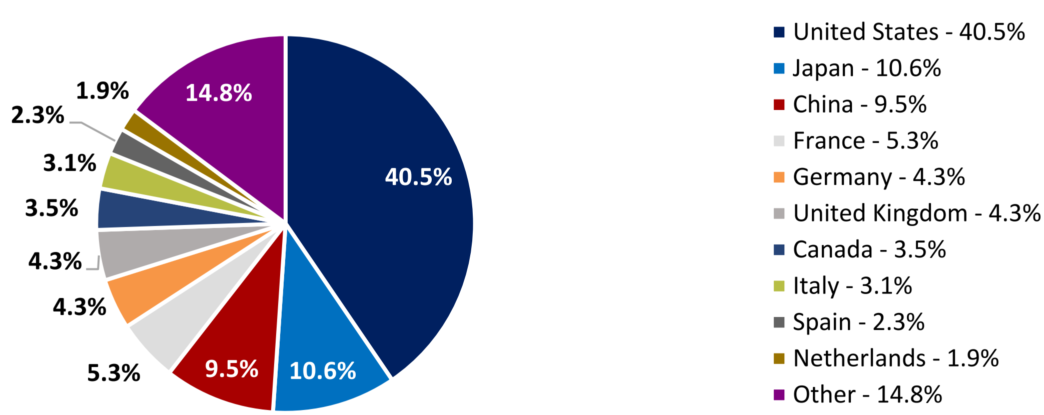
At month-end March, U.S. Treasuries contributed 41.9% to the Bloomberg U.S. Aggregate Index, showing no change from the prior month. U.S. Agency MBS Passthrough (Ginnie Mae, Fannie Mae, and Freddie Mac) contributed 26.0%, down 0.2% from the month prior. Industrials represented 14.6% of the index as of month-end March, increasing approximately 0.2% from the month prior. All other changes in the U.S. Aggregate Index were no larger than 0.1%.

Figure 2. Bloomberg U.S. Aggregate Index



In the Bloomberg Global Aggregate Index by Country, the U.S. share of fixed income remained the largest share of total outstanding issuance, representing 40.5% of the total index, up approximately 0.1% from the prior month. Japan's share of fixed income was the second largest at 10.6%, decreasing 0.2% from the prior month. China's share of fixed income represented the third largest share of the index, remaining constant from the month prior at 9.5%. All other countries listed remained stable compared to the prior month with no changes larger than 0.1%.

Figure 3. Bloomberg Global Aggregate Index by Country



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

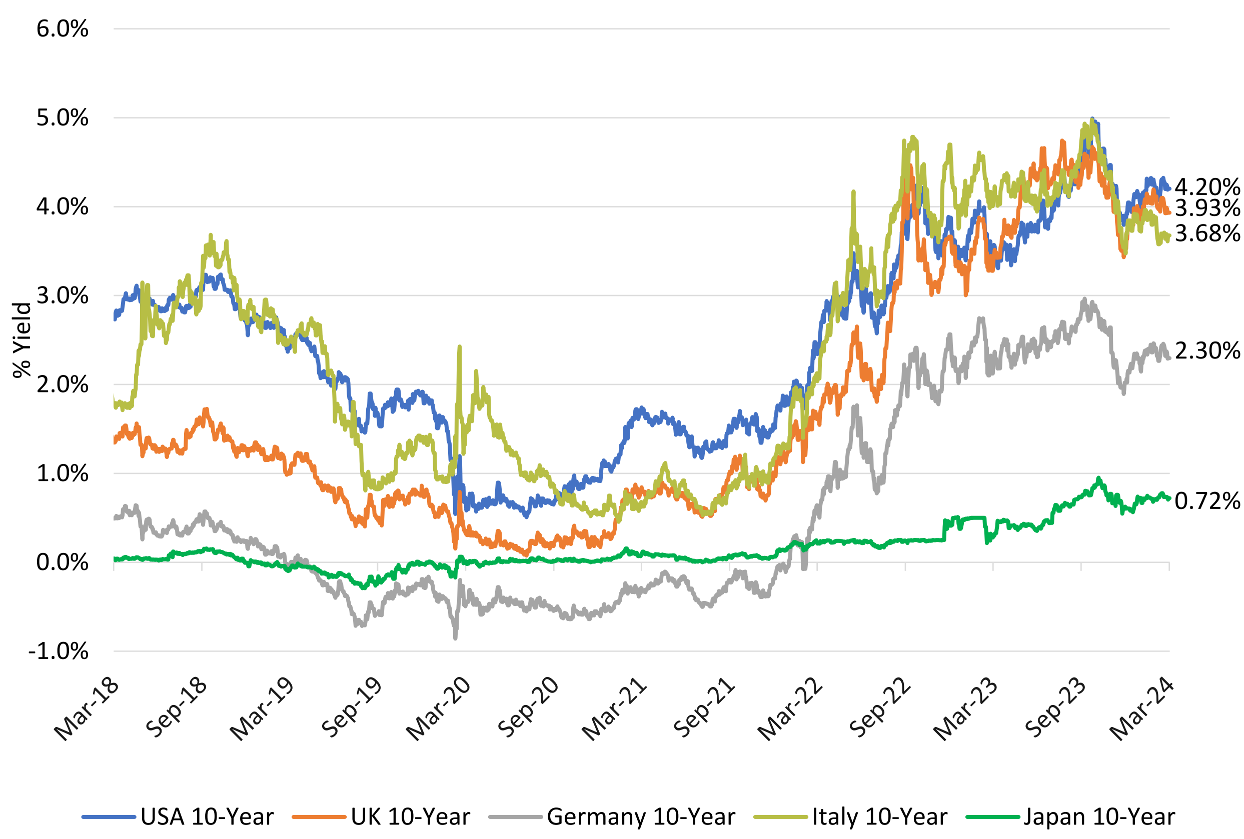
2 SOVEREIGN DEBT PRODUCT PERFORMANCE COMPARISONS

2.1 Global 10-Year Treasury Yields (Unhedged)

The U.S. 10-year Treasury yield moved to 4.20% at month-end March 2024, a MoM decrease of 5 bps. Since October 2023, 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, decreased from the slight uptick in the first couple months of 2024.

- The yield on the UK 10-year note decreased to 3.93% at month-end March, a MoM decrease of 19 bps.
- The yield on the German 10-year note decreased to 2.30% at month-end March, a MoM decrease of 11 bps.
- The yield on the Italian 10-year note decreased to 3.68% at month-end March, a MoM increase of 16 bps.
- The yield on the Japanese 10-year note increased to 0.72% at month-end March, a MoM increase of 2 bps.

Figure 4. Global 10-Year Treasury Yields



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

2.2 U.S. Treasury Hedged Yields

The yield for the 10-year Treasury, hedged in Japanese Yen (JPY) stood at -0.76% at month-end March, a 7 bp increase from month-end February.

The yield for the 10-year Treasury, hedged in Euros (EUR) stood at 2.56% at month-end March, a 11 bp decrease from month-end February.

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

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

Source: Bloomberg. Notes: Data as of March 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

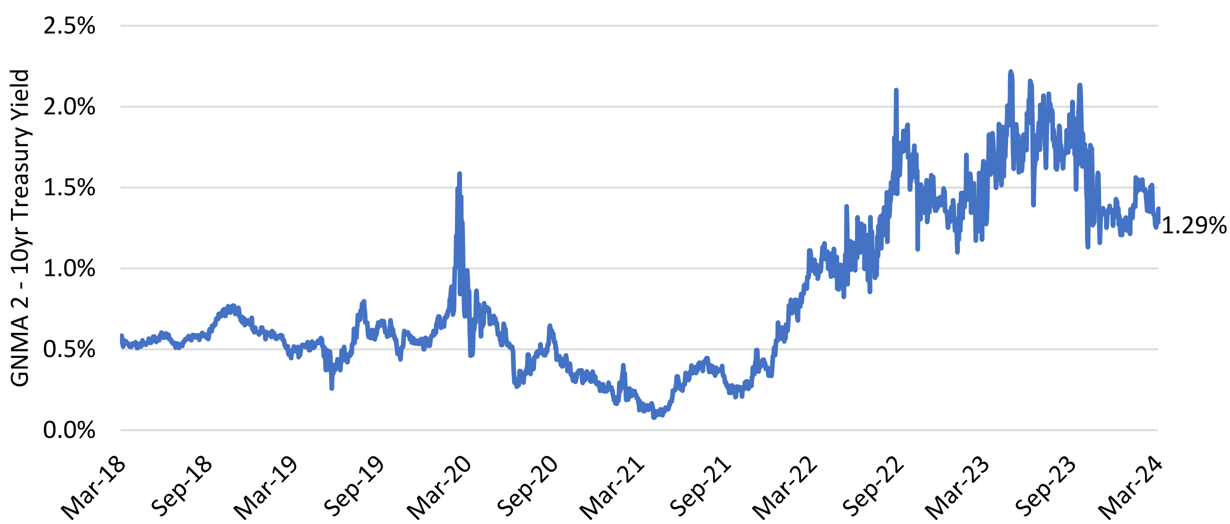
3 FIXED INCOME PRODUCT PERFORMANCE COMPARISONS

3.1 Ginnie Mae Yields – USD

Ginnie Mae II yields were 5.19% at month-end January, increased 54 bp to 5.73% at month-end February, then decreased 24 bps to 5.49% at month-end March. The Ginnie Mae II spread over the U.S. 10-year Treasury yield decreased 12 bps from 141 bps in March 2023 to 129 bps over the U.S. 10-year Treasury yield as of month-end March 2024.

Figure 7. Ginnie Mae II SF Yield, USD

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



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

3.2 Ginnie Mae Hedged Yields

- The yield for Ginnie Mae II's, hedged in Japanese Yen stood at 0.52% at month-end March, a 13 bp decrease from month-end February.
- The yield for Ginnie Mae II's, hedged in Euros stood at 3.84% at month-end March, a 31 bp decrease from month-end February.

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

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

Source: Bloomberg. Notes: Data as of March 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 decreased 2 bps MoM, to 0.43%, as of month-end March. The U.S. Intermediate Credit OAS decreased 6 bps to 0.72% from month-end February to month-end March. The yield differential between U.S. Intermediate Credit and GNMA II 30-year OAS decreased 4 bps to 0.29% at month-end March.

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

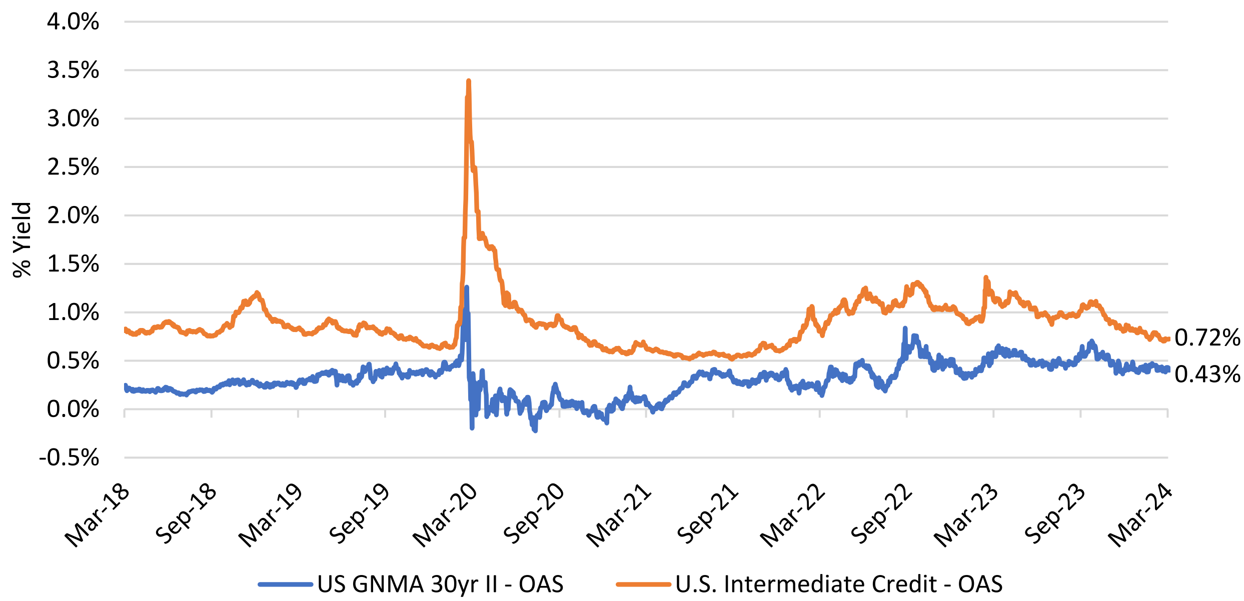


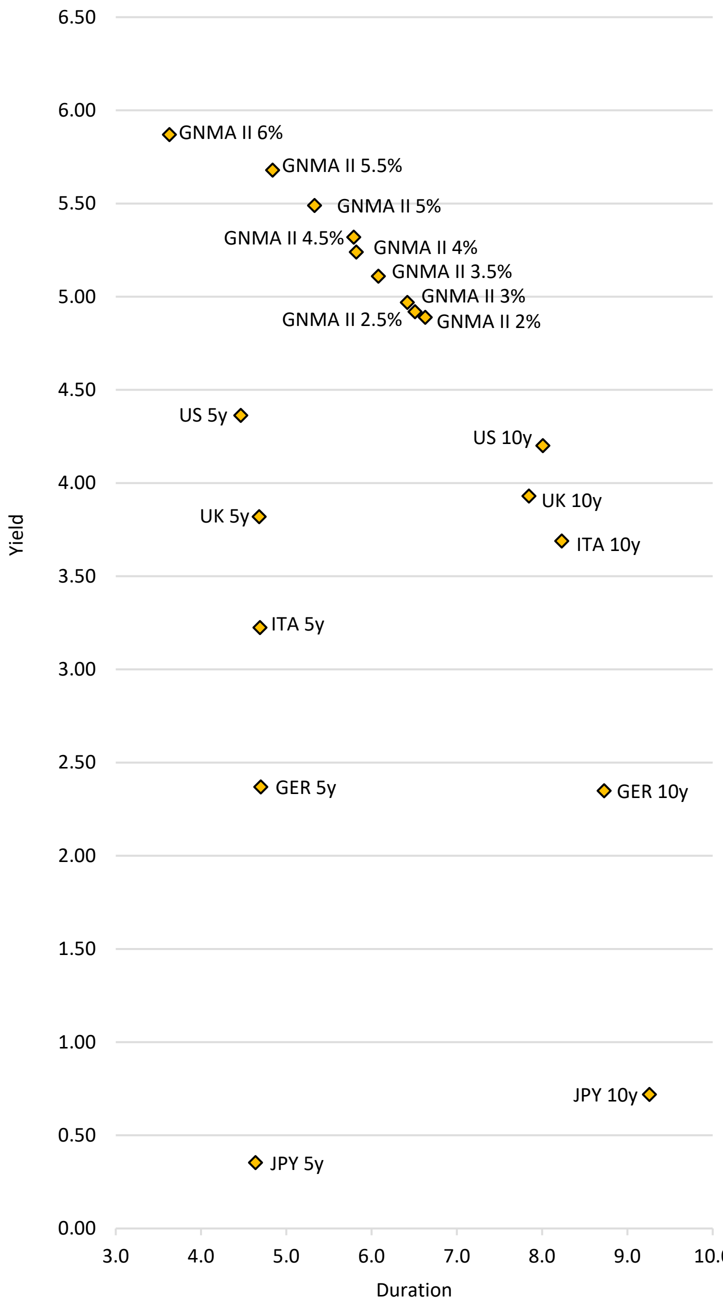
Figure 12. Spread between U.S. Intermediate Credit and U.S. GNMA II 30yr MBS OAS

Source: Bloomberg. Note: Data as of March 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 13. Yield vs. Duration



Security	Duration	Yield
U.S. 5y	4.47	4.36
U.S. 10y	8.01	4.20
JPY 5y	4.64	0.35
JPY 10y	9.26	0.72
GER 5y	4.70	2.37
GER 10y	8.73	2.35
ITA 5y	4.69	3.23
ITA 10y	8.23	3.69
UK 5y	4.68	3.82
UK 10y	7.84	3.93
GNMA II 2%	6.63	4.89
GNMA II 2.5%	6.51	4.92
GNMA II 3%	6.42	4.97
GNMA II 3.5%	6.08	5.11
GNMA II 4%	5.82	5.24
GNMA II 4.5%	5.79	5.32
GNMA II 5%	5.33	5.49
GNMA II 5.5%	4.84	5.68
GNMA II 6%	3.63	5.87
GNMA II 6.5%	2.72	5.94

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 March 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 0.8% from February 2024 to March 2024. Similarly, Fannie Mae CPRs increased by 0.7% and Ginnie Mae CPRs increased by 0.2% from February 2024 to March 2024. ARM prepayments increased 1.9% for Freddie Mac, 0.8% for Fannie Mae, and 3.8% for Ginnie Mae.

Figure 14. Fixed Rate Aggregate 1-Month CPR

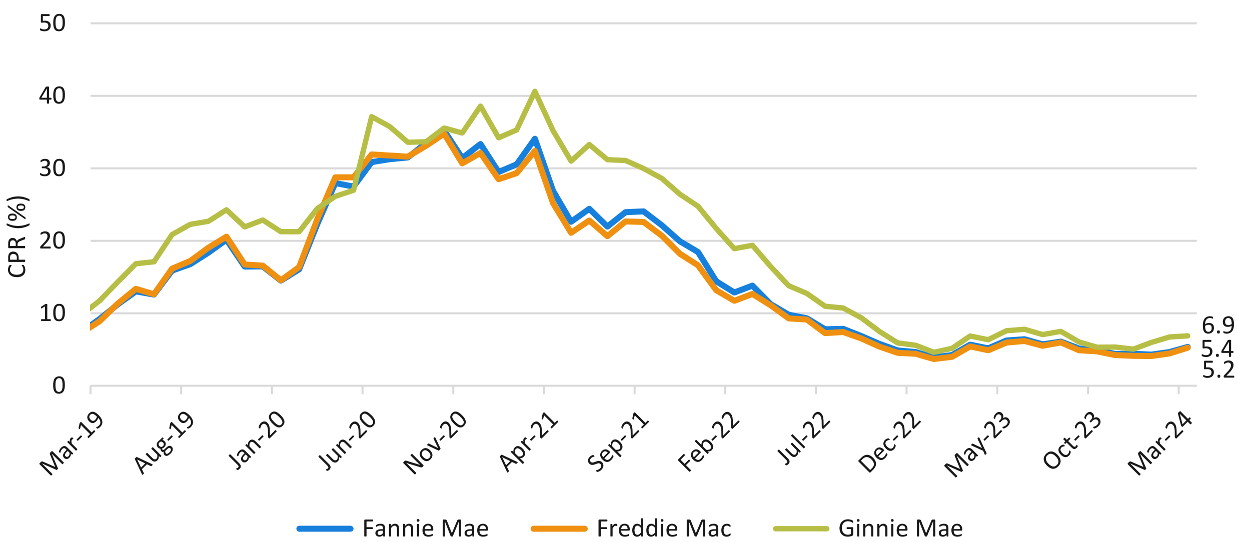
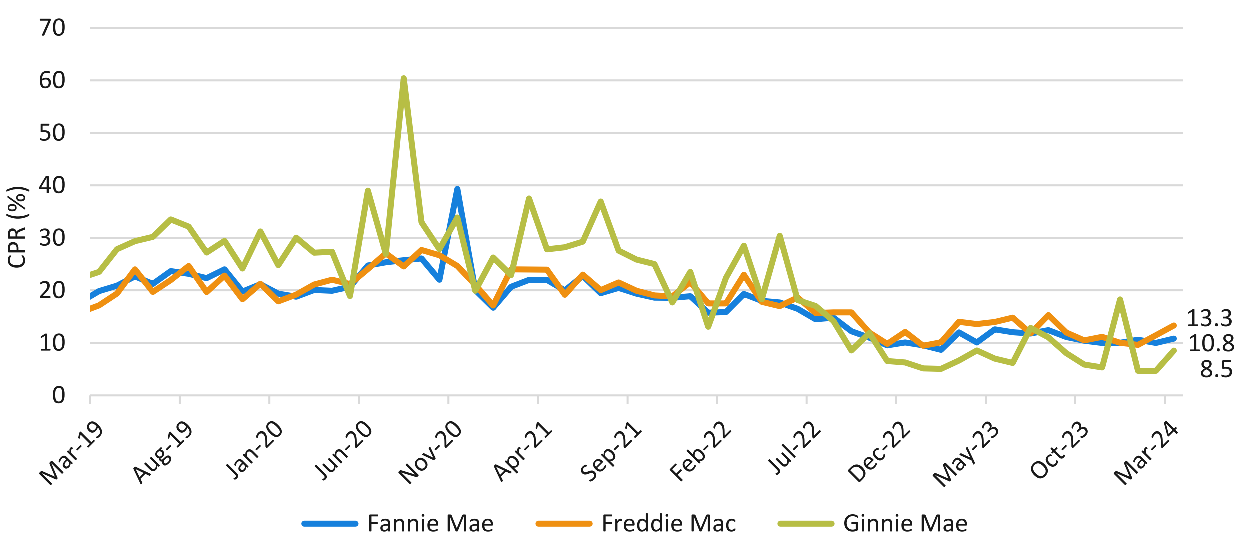


Figure 15. ARM Aggregate 1-Month CPR



Source: Recursion. Note: Data as of March 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 March 2024 after slightly overtaking Ginnie Mae in September 2022.

Figure 16. Fixed Rate Aggregate CDR

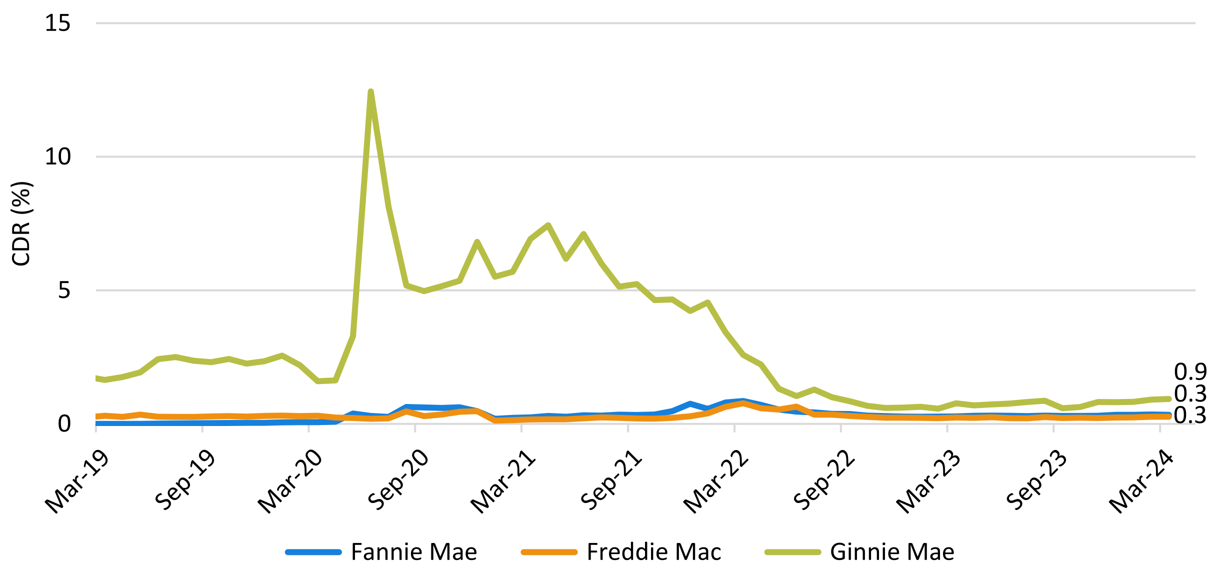
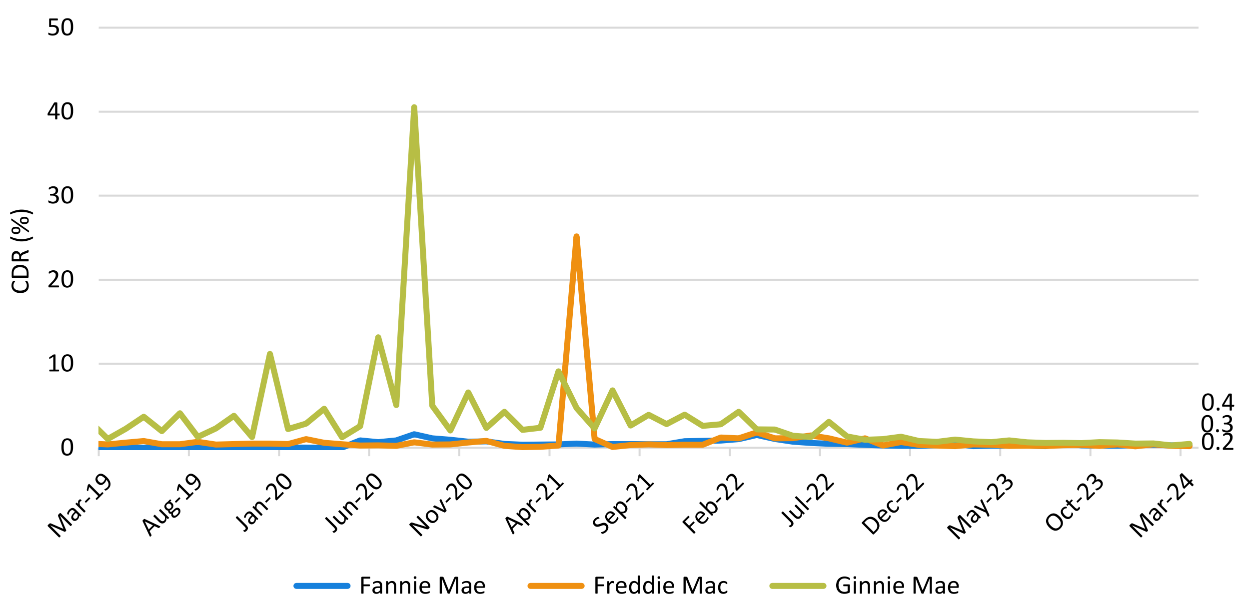


Figure 17. ARM Aggregate CDR



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

4.3 Voluntary Prepayment Rates (CRR)

Fixed rate voluntary prepayments were higher for Ginnie Mae than Fannie Mae and Freddie Mac. Fannie Mae and Freddie Mac saw increases of 0.7% and 0.8%, respectively, in fixed rate aggregate CRR. Freddie Mac saw a 1.9% increase in ARM aggregate CRR while Fannie Mae saw a 0.8% increase. Ginnie Mae fixed rate aggregate CRR increased by 0.1% and ARM aggregate CRR increased by 3.7%.

Figure 18. Fixed Rate Aggregate CRR

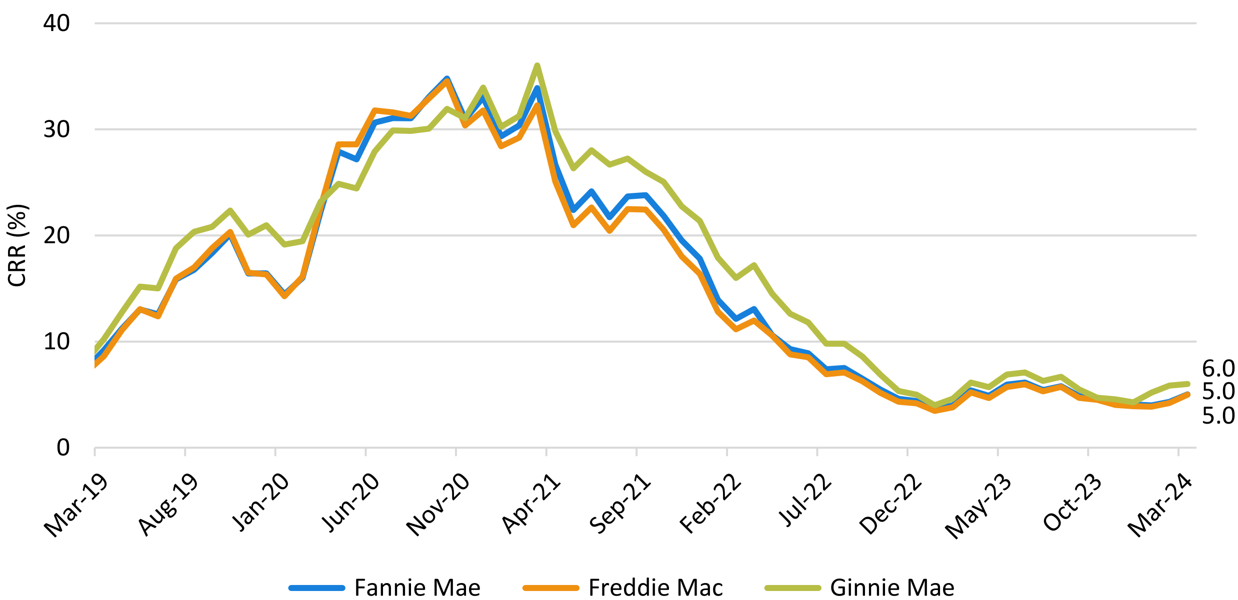
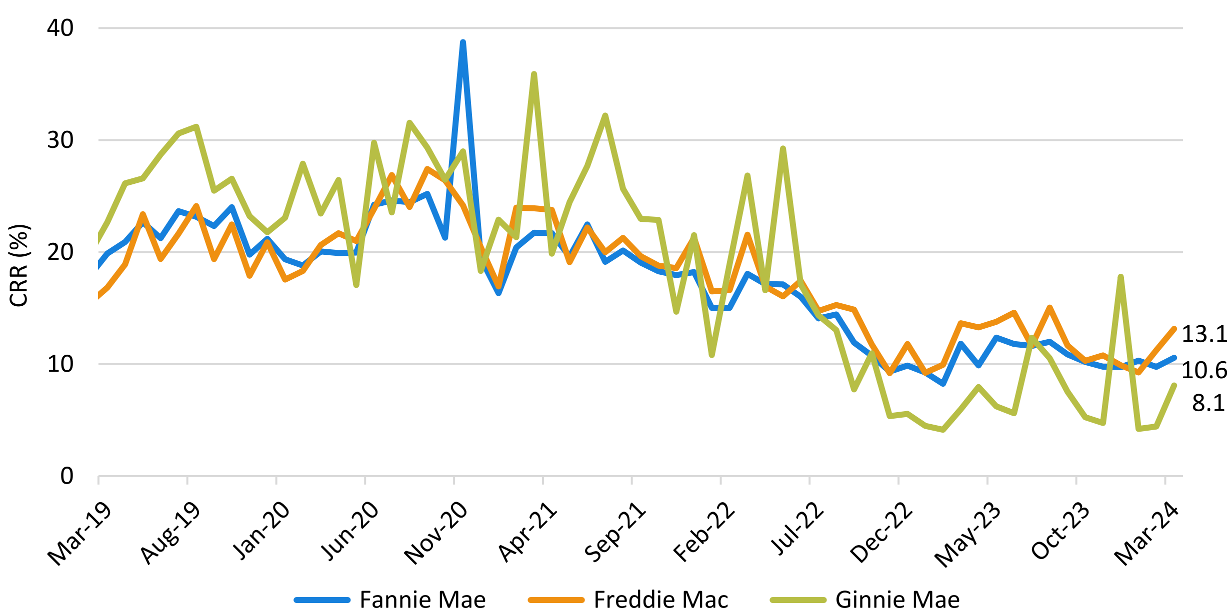


Figure 19. ARM Aggregate CRR



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

5 SINGLE-FAMILY MBS PASS-THROUGH ISSUANCE

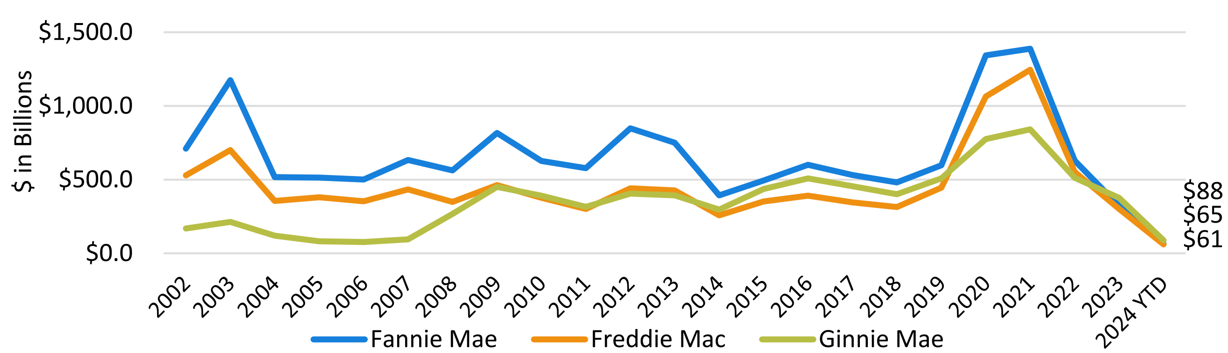
5.1 Gross Issuance of Agency MBS

In March 2024, total gross MBS issuance increased by approximately $10.1 billion MoM. Freddie Mac and Fannie Mae saw MoM increases of $7.6 billion and $0.8 billion, respectively. Ginnie Mae saw a $1.6 billion MoM increase in gross issuance.

Table 1. 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	$65.1	$60.6	$125.8	$87.9	$213.7

Figure 20. Agency Gross Issuance

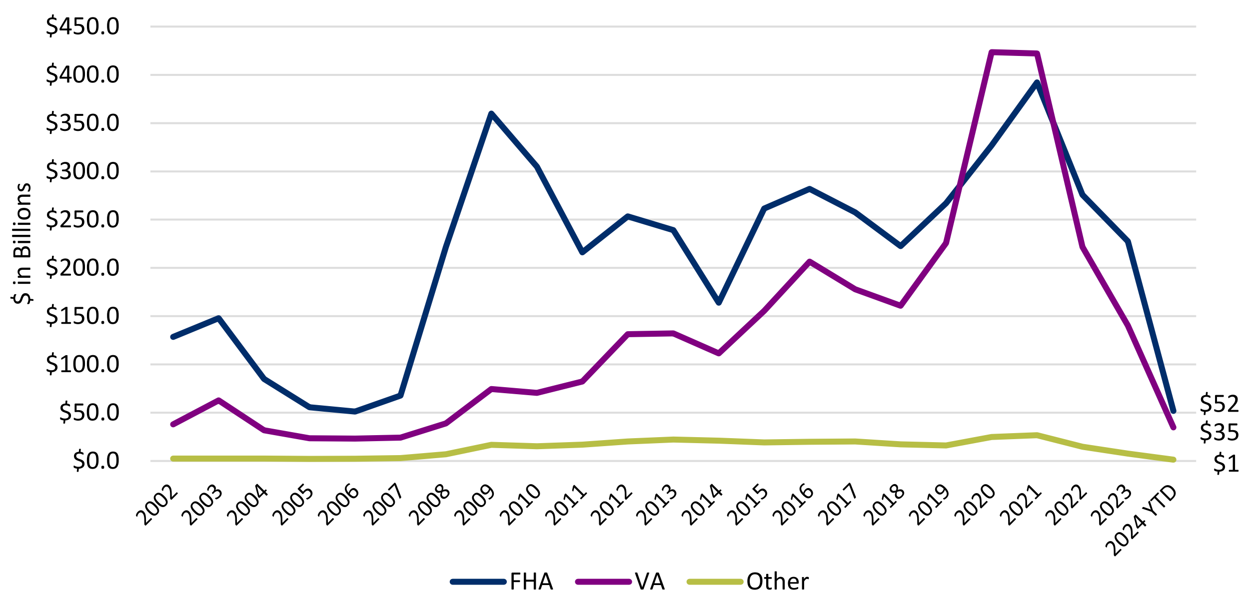


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

Table 2. Ginnie Mae Gross Issuance Collateral Composition ($ in billions)

Issuance Year	FHA	VA	Other	Total
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	$51.8	$34.8	$1.4	$87.9

Figure 21. Ginnie Mae Gross Issuance



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

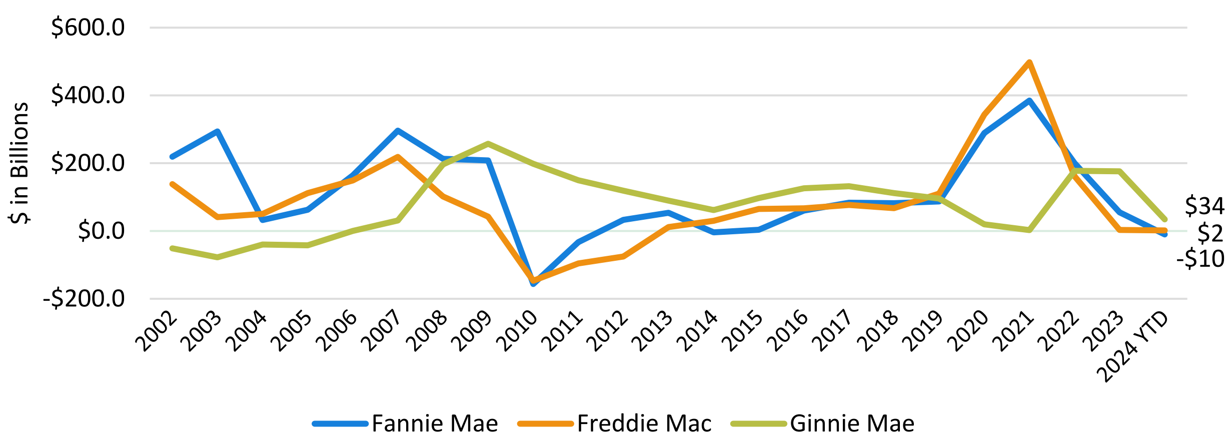
5.2 Net Issuance of Agency MBS

Agency Net Issuance as of month-end March was $25.7 billion for 2024 YTD, shown in **Table 3.** Ginnie Mae has the largest net issuance YTD, totaling $34.1 billion as of month-end March 2024. Since 2022, FHA net issuance has outpaced VA net issuance, as shown in **Table 4 and Figure 23.**

Table 3. Agency Net Issuance ($ in billions)

Issuance Year	Fannie Mae	Freddie Mac	GSE	Ginnie Mae	Total
2002	$218.9	$138.3	$357.2	-$51.2	$306.1
2003	$293.7	$41.1	$334.9	-$77.6	$257.3
2004	$32.3	$50.2	$82.5	-$40.1	$42.4
2005	$62.5	$111.7	$174.2	-$42.2	$132.0
2006	$164.3	$149.3	$313.6	$0.2	$313.8
2007	$296.1	$218.8	$514.9	$30.9	$545.7
2008	$213.0	$101.8	$314.8	$196.4	$511.3
2009	$208.1	$42.5	$250.6	$257.4	$508.0
2010	-$156.4	-$146.8	-$303.2	$198.3	-$105.0
2011	-$32.6	-$95.8	-$128.4	$149.6	$21.2
2012	$32.9	-$75.3	-$42.4	$119.1	$76.8
2013	$53.5	$11.8	$65.3	$89.6	$154.9
2014	$-4.0	$30.0	$26.0	$61.6	$87.7
2015	$3.5	$65.0	$68.4	$97.3	$165.7
2016	$60.5	$66.8	$127.4	$126.1	$253.5
2017	$83.7	$77.0	$160.7	$132.3	$293.0
2018	$81.9	$67.6	$149.4	$112.0	$261.5
2019	$87.4	$110.3	$197.7	$95.7	$293.5
2020	$289.3	$343.5	$632.8	$19.9	$652.7
2021	$384.9	$498.0	$882.9	$2.7	$885.6
2022	$200.4	$161.5	$361.9	$177.4	$539.4
2023	$55.3	$3.3	$58.6	$176.3	$235.0
2024 YTD	-$10.0	$1.6	-$8.4	$34.1	$25.7

Figure 22. Agency Net Issuance

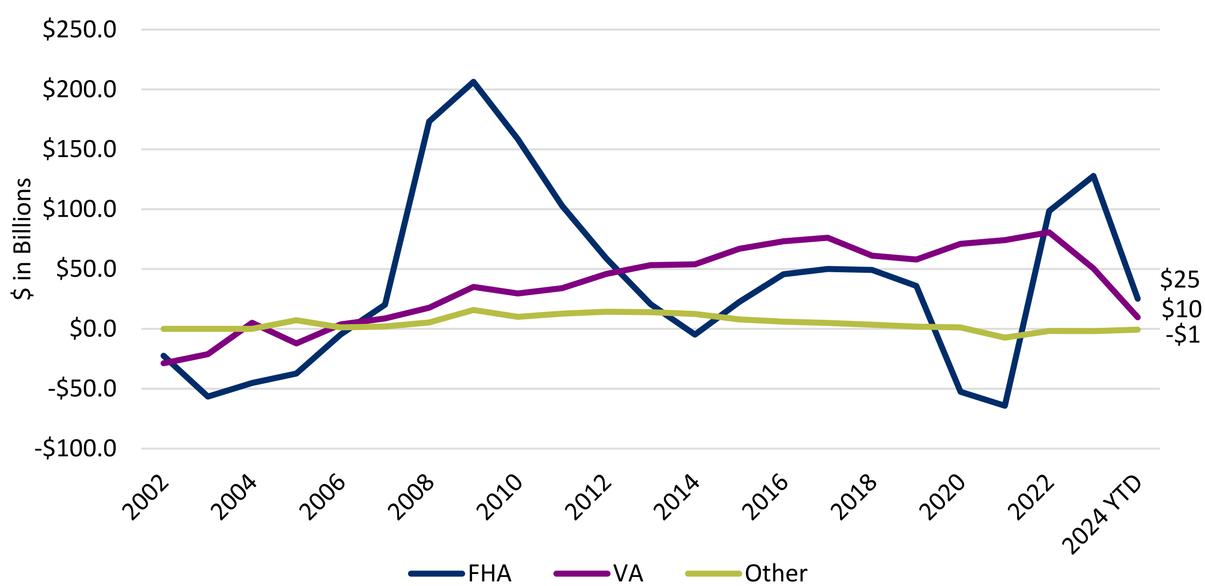


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

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

Issuance Year	FHA	VA	Other	Total
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	$25.1	$9.7	-$0.7	$34.1

Figure 23. Ginnie Mae Net Issuance



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

5.3 Monthly Issuance Breakdown

Agency net issuance for the month of March was approximately $10.7 billion, which represents an approximate $5.2 billion increase MoM. Ginnie Mae net issuance was $12.4 billion in March, a $1.1 billion increase from February. Ginnie Mae's $31.2 billion of gross issuance in March, seen in **Table 5**, was approximately $0.1 billion below the average monthly issuance in 2023.

Table 5. Agency Issuance ($ in billions)

	Agency Gross Issuance Amount (in $ Billions)					*Agency Net Issuance Amount (in $ Billions)*				
Month	***Fannie Mae***	***Freddie Mac***	***Ginnie Mae***	***GSEs***	***Total***	***Fannie Mae***	***Freddie Mac***	***Ginnie Mae***	***GSEs***	***Total***
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
Mar-24	$21.3	$25.3	$31.2	$46.6	$77.8	-$5.5	$3.9	$12.4	-$1.7	$10.7

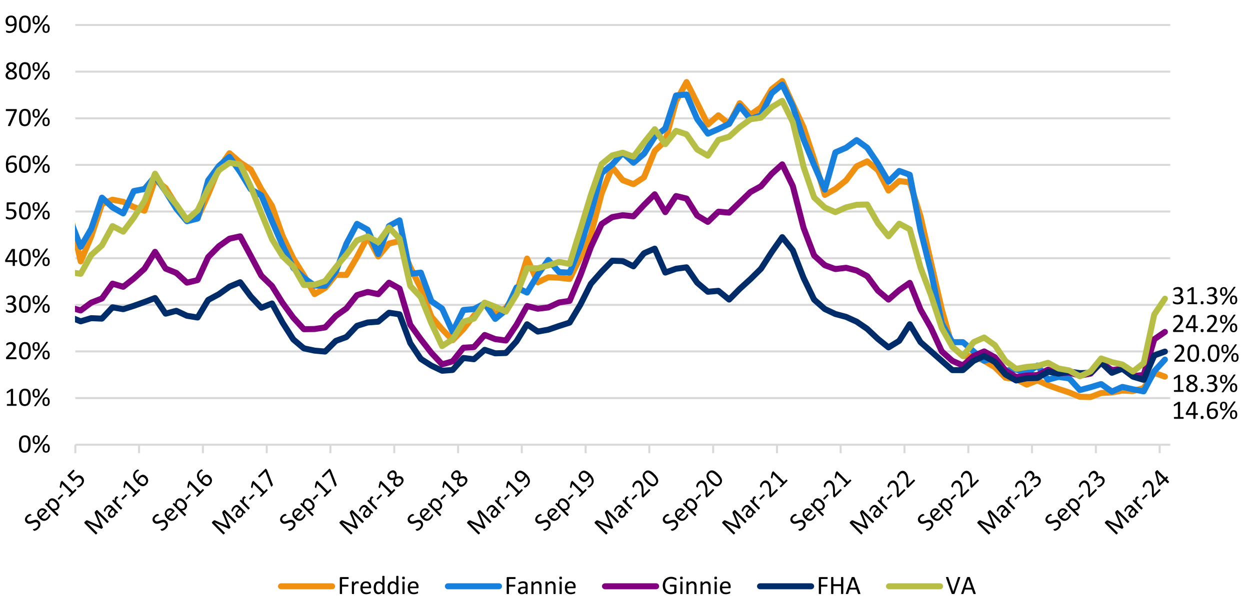
Sources: Beginning May 2021, data for Gross and Net Issuance was sourced from Fannie Mae, Freddie Mac, and Ginnie Mae loan level disclosure files. Net issuance is defined here as the difference between prior period UPB and current period UPB. Data as of March 2024. Beginning with the October 2021 GMAR, the Fannie Mae and Freddie Mac net issuance data have been updated to reflect the current UPB of the portfolios. July 2021 through April 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 7.0% MoM for Ginnie Mae as of month-end March 2024.

- Freddie Mac's refinance percentage decreased to 14.6% in March, down from 15.4% in February.
- Fannie Mae's refinance percentage increased to 18.3% in March, up from 15.8% in February.
- Ginnie Mae's refinance percentage increased to 24.2% in March, up from 22.6% in February.
- FHA's refinance percentage increased to 20.0% in March, up from 19.1% in February.
- VA's refinance percentage increased to 31.3% in March, up from 27.9% in February.

Figure 24. Percent Refinance at Issuance – Single-Family



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

6 AGENCY SINGLE-FAMILY MBS OUTSTANDING

6.1 Outstanding Single-Family Agency MBS

As of month-end March 2024, outstanding Single-Family MBS in the Agency market totaled $8.863 trillion: 40.3% Fannie Mae, 33.3% Freddie Mac, and 26.4% Ginnie Mae MBS. Over the past twelve months, Freddie Mac's and Ginnie Mae's total outstanding MBS increased by approximately 1.9% and 8.3%, 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 $615 billion and $1.2 trillion, respectively.

Ginnie Mae's MBS collateral composition has changed over time as shown in **Figure 26**. In March 2019, 59.6% of Ginnie Mae's outstanding collateral was FHA and 34.4% was VA. As of month-end March 2024, FHA collateral comprised 54.6% of Ginnie Mae MBS outstanding, and VA collateral comprised 41.0% of Ginnie Mae MBS outstanding.

Figure 25. Outstanding Agency Mortgage-Backed Securities

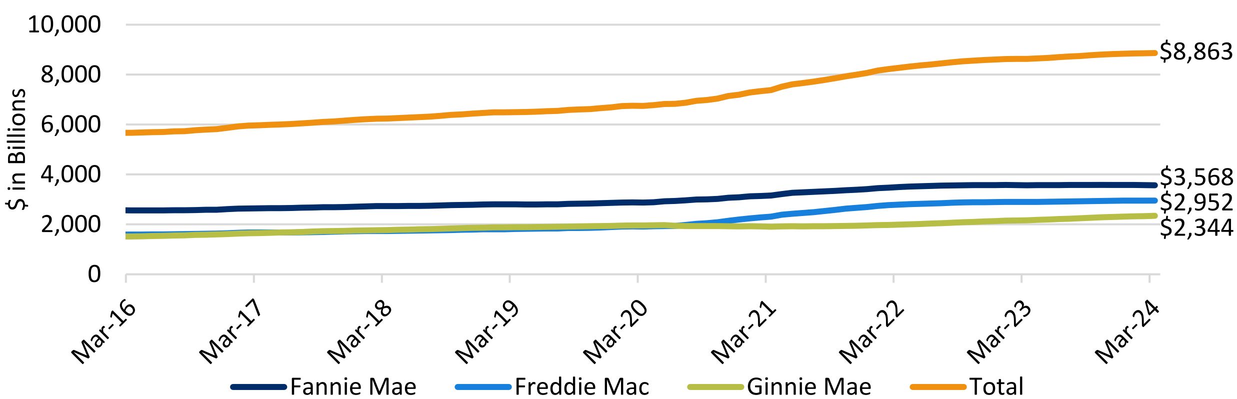
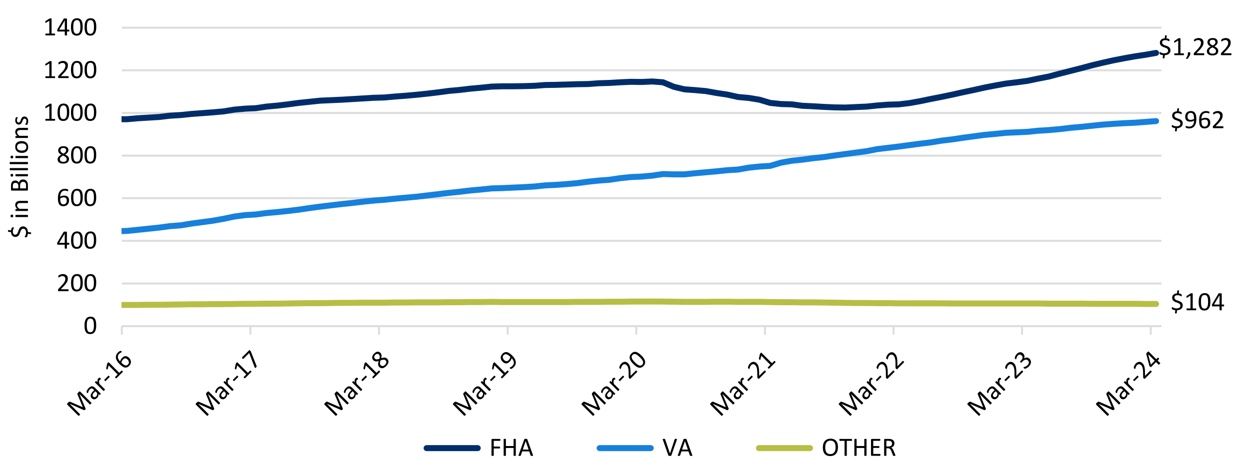


Figure 26. Composition of Outstanding Ginnie Mae Mortgage-Backed Securities



Source: Recursion. Note: Data as of March 2024. Note: Data rounded to nearest billion; GNMA composition may not add up to total outstanding amount due to rounding.

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 27. First Lien Origination Volume

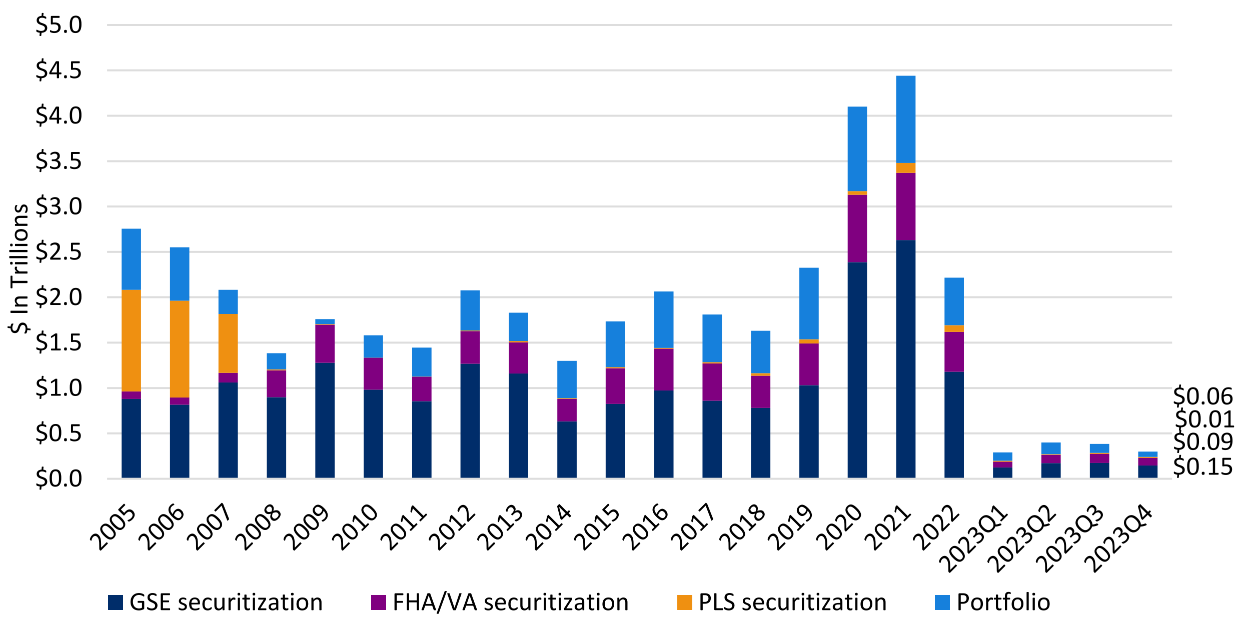
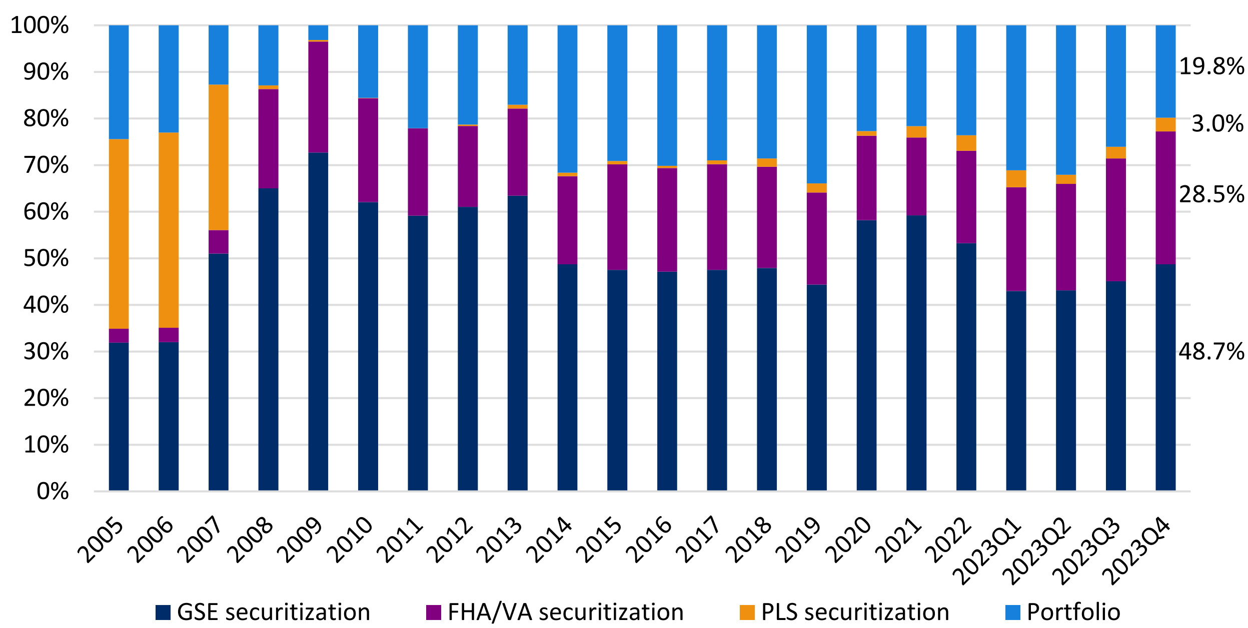


Figure 28. First Lien Origination Share



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 (22%). The highest Ginnie Mae outstanding share is in Mississippi and Alaska (49%) and the lowest in the District of Columbia (14%).

Table 6. Agency Issuance Breakdown by State

	Agency Issuance (past 1 year)				Agency Outstanding (past 1 year)			
National	GNMA Share by UPB	GNMA Loan Count	GNMA Avg. Loan Size (000)	GSE Avg. Loan Size (000)	GNMA Share by UPB	GNMA Loan Count	GNMA Avg. Loan Size (000)	GSE Avg. Loan Size (000)
	38%	**1,458,818**	**303.14**	**306.84**	**27%**	**11,241,960**	**211.72**	**211.36**
AK	60%	3,717	358.08	311.25	49%	37,934	264.28	219.18
AL	54%	35,750	238.40	248.16	42%	249,080	164.47	178.46
AR	48%	18,480	205.08	238.43	40%	142,007	138.20	162.72
AZ	40%	45,160	343.93	344.74	26%	294,118	232.81	228.27
CA	34%	84,277	480.21	476.47	18%	720,942	337.26	318.08
CO	36%	30,794	423.90	412.01	25%	224,248	303.34	279.20
CT	33%	11,164	286.32	295.08	26%	109,155	205.72	208.64
DC	22%	1,040	525.01	442.77	14%	9,380	391.78	346.09
DE	39%	6,328	292.25	309.69	32%	54,326	209.07	212.37
FL	43%	143,208	324.95	320.99	33%	910,307	224.79	216.05
GA	46%	78,556	282.31	311.93	35%	523,193	190.63	210.08
HI	46%	3,362	638.81	531.11	33%	34,637	473.85	356.32
IA	32%	10,896	198.31	206.66	23%	85,950	138.87	148.01
ID	36%	9,143	349.34	333.30	25%	67,303	231.33	225.10
IL	29%	43,813	222.66	255.05	23%	381,526	163.52	179.05
IN	39%	38,499	207.68	222.74	31%	290,167	140.51	152.66
KS	39%	12,596	207.88	232.78	30%	98,921	145.01	164.32
KY	48%	23,818	212.24	225.71	36%	172,613	149.34	156.35
LA	54%	25,713	213.29	238.81	42%	211,154	160.73	176.33
MA	28%	13,331	402.94	400.66	17%	118,763	291.93	267.07
MD	45%	33,343	360.27	348.40	34%	303,394	269.44	248.51
ME	35%	4,547	270.19	288.80	27%	39,132	183.71	192.96
MI	28%	33,723	200.79	224.70	21%	284,804	138.10	156.81
MN	24%	16,574	268.63	287.16	18%	163,096	186.84	198.42
MO	39%	31,729	214.51	232.21	30%	252,152	147.49	162.83
MS	60%	16,818	214.87	227.14	49%	128,115	149.37	161.40
MT	34%	3,685	335.87	329.58	24%	33,006	217.40	217.69
NC	41%	64,404	277.95	306.06	30%	434,953	186.19	205.09
ND	37%	1,942	254.89	251.48	25%	17,356	195.56	182.23
NE	37%	7,847	238.31	238.01	27%	66,536	155.85	161.63
NH	29%	4,227	343.08	331.94	23%	39,206	232.80	216.44
NJ	31%	26,860	350.78	366.77	22%	240,104	247.49	254.38
NM	49%	12,163	263.79	276.71	39%	98,980	174.02	179.92
NV	44%	20,048	367.40	349.24	32%	141,628	258.98	237.65
NY	27%	30,083	319.36	346.46	21%	315,186	216.19	248.39
OH	37%	53,158	201.98	213.67	30%	438,467	135.39	150.17
OK	50%	24,448	216.99	231.90	43%	195,228	146.98	163.90
OR	30%	13,528	371.68	379.49	20%	115,418	261.88	254.11
PA	31%	41,430	216.43	260.22	26%	399,065	152.02	182.44
RI	45%	4,279	361.20	327.26	32%	37,363	243.03	213.03
SC	46%	39,414	274.33	276.39	36%	250,653	192.76	194.39
SD	42%	3,837	260.65	253.08	31%	30,320	179.51	177.22
TN	42%	41,597	283.69	301.02	32%	281,151	186.90	207.76
TX	41%	167,607	292.21	324.34	33%	1,168,983	194.13	217.19
UT	34%	15,066	404.00	401.39	20%	102,069	275.98	265.77
VA	48%	52,120	352.62	346.09	37%	460,204	262.01	249.32
VI	25%	68	420.03	444.06	24%	800	263.55	305.86
VT	24%	1,244	262.74	279.89	19%	12,427	184.15	181.47
WA	32%	27,485	423.63	433.49	22%	240,524	294.06	290.44
WI	27%	14,923	227.66	241.01	18%	127,573	160.94	162.80
WV	55%	7,896	208.22	198.88	45%	62,755	148.36	144.94
WY	47%	3,080	291.06	280.43	36%	25,588	210.80	201.22

Source: Recursion. Note: Outstanding balance based on loan balance as of March 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 March 2024, the weighted average coupon (WAC) on outstanding Ginnie Mae MBS increased slightly from 3.56% in February 2024 to 3.59% as seen in **Figure 29**. **Figure 30** illustrates that loans originated since 2019 account for approximately 82% of Ginnie Mae MBS collateral outstanding.

Figure 29. Outstanding Ginnie Mae MBS Balance, by Coupon

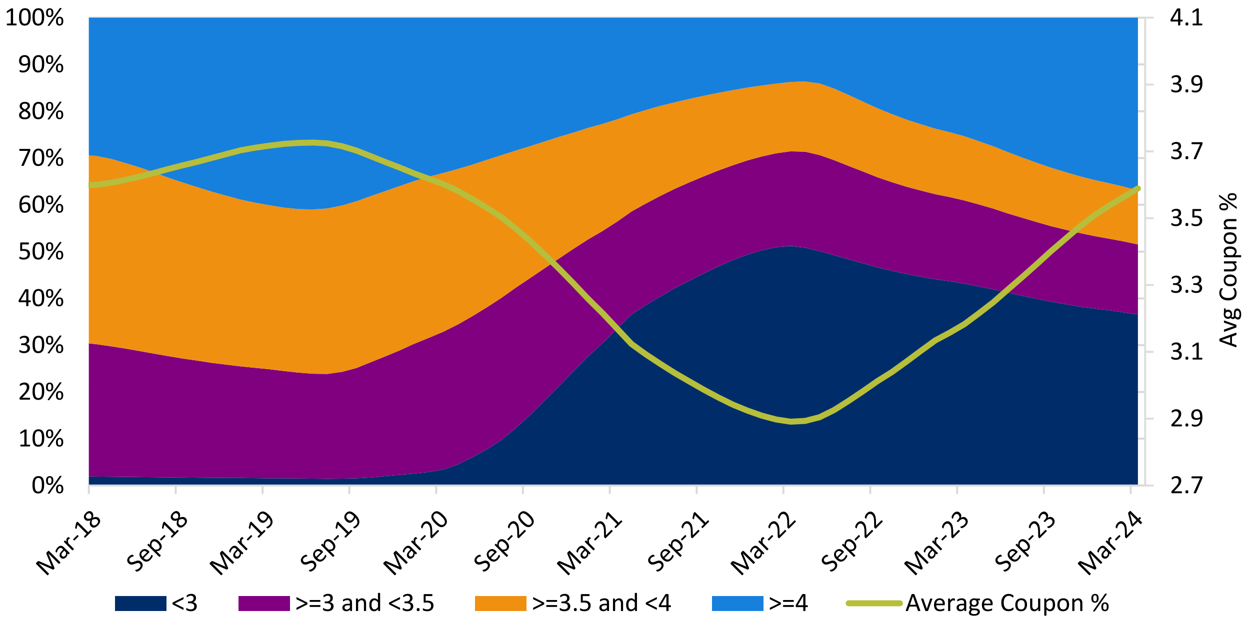
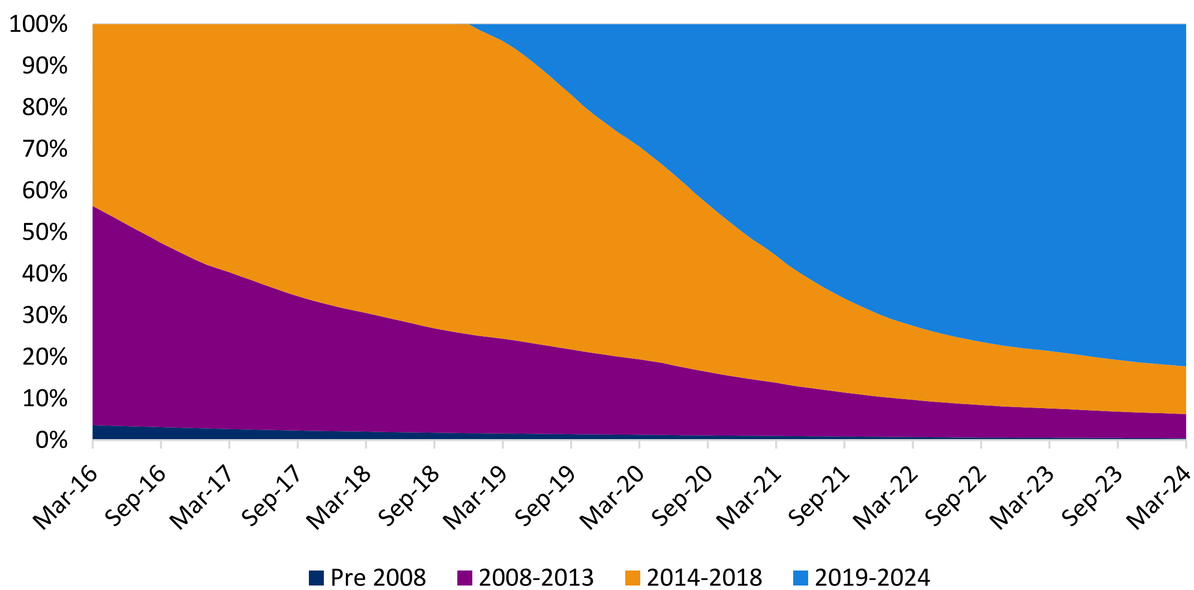


Figure 30. Outstanding Ginnie Mae MBS Balance, by Vintage



Source: Recursion. Note: March 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 $10.7 billion. This represents a 25.9% MoM decrease from $14.4 billion in February 2024, and a 37.5% increase YoY from $7.8 billion in March 2023. Approximately $255.7 million of the March 2024 issuance volume were Multifamily MBS having coupons over 5.0%, and approximately $8.8 billion were Single-Family MBS having coupons over 5.0%. Roughly $231.7 million of previously securitized REMICs were re-securitized into new REMIC deals in March.

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

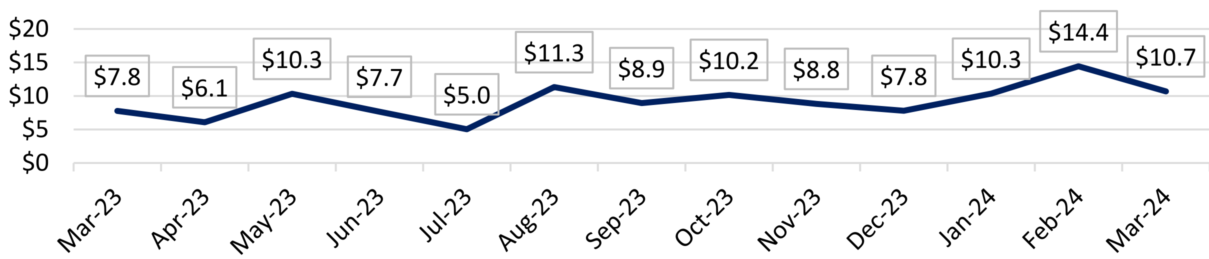


Table 7. March 2024 REMIC Collateral Coupon Distribution

Net Coupon (%)	Approx. Ginnie Mae MBS amount securitized into REMIC Deals ($MM)	% Breakdown of REMIC Collateral by coupon
Multifamily		
ReREMIC	14.7	2.4%
3.501-4.001	128.1	20.6%
4.001-4.501	123.0	19.8%
4.501-5.001	100.0	16.1%
5.001-5.501	230.4	37.1%
5.501-6.001	25.3	4.1%
Subtotal	**621.5**	**100.0%**
Single-Family		
ReREMIC	217.0	2.2%
<2.001	89.6	0.9%
3.001-3.501	294.5	2.9%
3.501-4.001	136.4	1.4%
4.001-4.501	492.1	4.9%
4.501-5.001	42.5	0.4%
5.001-5.501	1,461.1	14.5%
5.501-6.001	3,746.8	37.2%
6.001-6.501	2,164.4	21.5%
6.501-7.001	1,269.2	12.6%
>7.001	155.8	1.5%
Subtotal	**10,069.4**	**100.0%**
Grand Total [3]	**10,690.9**	**100.0%**

Source: Ginnie Mae Disclosure Files

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

7.2 REMIC Market Snapshot

- In March 2024, Freddie Mac and Fannie Mae saw increases in their single-family REMIC issuance collateral coupon of 4 basis points and 21 basis points, respectively. Ginnie Mae saw a decrease of 30 basis points in their single-family REMIC issuance collateral coupon.
- In March 2024, Ginnie Mae and Fannie Mae saw increases of 8 basis points and 56 basis points, respectively, in their multifamily REMIC issuance collateral coupon. Freddie Mac's multifamily REMIC issuance collateral coupon decreased 145 basis points to 4.66%.
- In March 2024, Ginnie Mae's total single-family, multifamily, and HMBS REMIC issuance totaled $11.33 billion, a 24.3% or $3.63 billion decrease month-over-month.
- In March 2024, total single-family and multifamily issuance across the three Agencies decreased 19.9% or $5.22 billion from February.

Figure 32. March 2024 REMIC Issuance by Agency ($Billion)

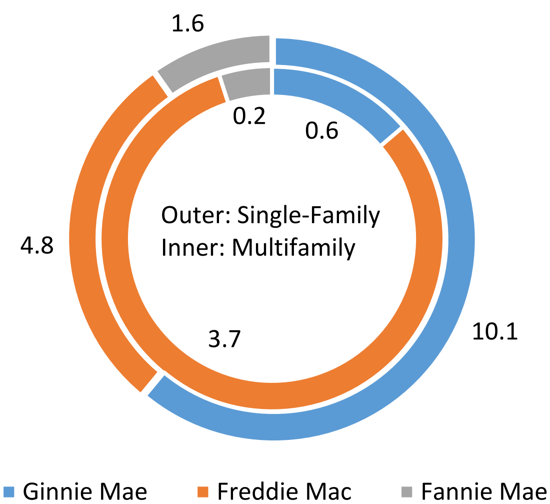


Table 8. Monthly REMIC Issuance by Agency

	SF REMIC Issuance Volume ($B)	*% of SF REMIC Issuance Volume*	*Number of SF REMIC Transactions*	*MF REMIC Issuance Volume ($B)*	*% of MF REMIC Issuance Volume*	*Number of MF REMIC Transactions*
Ginnie Mae	$10.07	61.0%	12	$0.62	13.8%	6
Freddie Mac	$4.83	29.3%	13	$3.67	81.3%	6
Fannie Mae	$1.61	9.8%	7	$0.22	5.0%	1
Total [4]	**$16.51**	**100%**	**32**	**$4.51**	**100%**	**13**

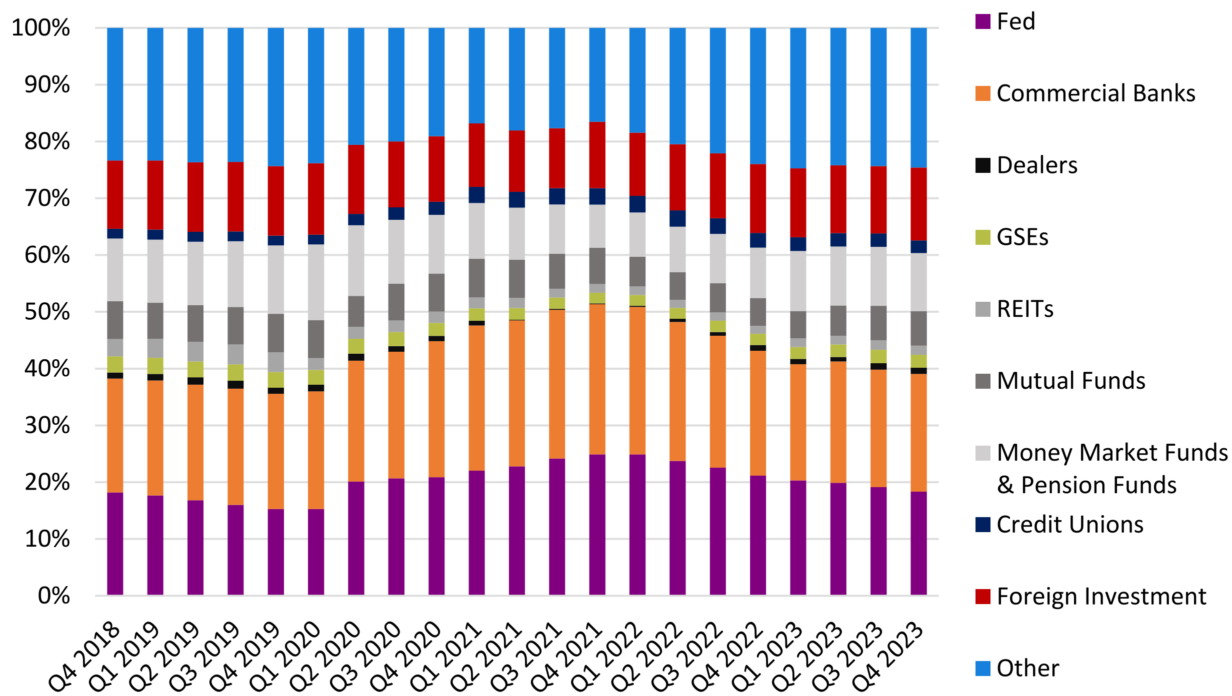
Source: Ginnie Mae Disclosure Files

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

8 MBS OWNERSHIP

As of Q4 2023p, 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 9** below.

Figure 33. Who Owns Total Agency Debt?



Source: Federal Reserve Flow of Funds. Note: The "other" category includes primarily life insurance companies, state and local governments, households, and nonprofits. Data as of Q4 2023.

8.1 Commercial Bank Holdings of Agency MBS

Table 9. Commercial Bank Holdings of Agency MBS

	Commercial Bank Holdings ($Billions)								
	Jul-23	***Aug-23***	***Sep-23***	***Oct-23***	***Nov-23***	***Dec-23***	***Jan-24***	***Feb-24***	***Mar-24***
Largest 25 Domestic Banks	1,955.1	1,944.4	1,940.1	1,921.3	1,927.7	1,907.9	1,915.6	1,920.4	1,919.6
Small Domestic Banks	610.5	602.0	587.2	578.1	572.8	581.8	581.0	579.4	583.4
Foreign Related Banks	24.3	23.2	25.9	26.7	30.1	27.6	29.1	34.1	30.7
Total, Seasonally Adjusted	**2,589.9**	**2,569.6**	**2,553.2**	**2,526.1**	**2,530.6**	**2,517.3**	**2,525.7**	**2,533.9**	**2,533.7**

Source: Federal Reserve Bank. Note: Small domestic banks include all domestically chartered commercial banks not included in the top 25. Data as of March 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 10. Bank and Thrift Residential MBS Holdings

	All Banks & Thrifts ($ in billions)						*All MBS ($ in billions)*	
Year	*Total*	*GSE PT*	*GNMA PT*	*Private MBS*	*Agency CMO*	*Private CMO*	*Banks*	*Thrifts*
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 11. Top 20 Bank and Thrift Residential MBS Investors ($ in millions)

Rank	Institution	Total	GSE PT	GNMA PT	Agency CMO	Non-Agency	Share
1	Bank Of America Corporation	$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 3/20/2024 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:
  - *There isn't much runoff among MBS, in MBS right now, but there is in Treasuries and we're talking about going to a lower pace."*
  - *"So, the labor market is, it's in good shape, you do see things like the low hiring rate and people have made the argument that if layoffs were to increase, that would mean that the net would be fairly quick increases in unemployment. So that's something we're watching…"*
  - *"I guess I'd put it this way; the, if you look at the incoming inflation data that we've had for January and February, I think very broadly that suggests that we are right to wait until we're more confident."*
- Inflation increased by 0.4% in March on a seasonally adjusted basis and increased 3.5% over the past 12 months before seasonal adjustment, per the April 10, 2024 CPI report.

SOMA Portfolio Highlights (February 28, 2024 vs. March 27, 2024)

- SOMA holdings of domestic securities totaled $6.9 trillion on Mar 27 (a decrease of $60.2 billion or -0.87% from Feb 28). $45.4 billion (75% of the total decrease) was in U.S. Treasury holdings and $14.8 billion (25% of the total decrease) was in Agency MBS.
- Since the institution of redemption caps in June 2022, SOMA holdings have decreased by $1.496 trillion. The total reduction of holdings of U.S. Treasuries was $1.177 trillion and $0.318 trillion for Agency MBS. This represents 91.3% 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 $14.8 billion monthly decrease was primarily due to MBS principal repayments rather than outright sales and was comprised of a $6.2 billion decrease in Fannie Mae holdings, a $5.3 billion decrease in Freddie Mac holdings, and a $3.3 billion decrease in Ginnie Mae holdings. Since the Fed's QT program began in June 2022, there have only been 20 outright sales of Agency MBS specified pools, totaling $619 million.
- Over 99% of SOMA Agency MBS holdings have coupons of 4.5% or lower with an average WAC of 2.506%.
- The redemption cap for SOMA's Agency MBS holdings is set at $35 billion per month. The reduction of $14.8 billion in Agency MBS represents 42% of the monthly liquidation cap.

Table 12. SOMA Holdings as of February 28, 2024 and March 27, 2024 ($ Billions)

Holdings by Security Type	*February 28, 2024*		*March 27, 2024*		*Month-Over-Month*	
	SOMA Holdings	*% Share*	*SOMA Holdings*	*% Share*	*$ Change*	*% Change* [5]
U.S. Treasuries	$4,550.5	65.42%	$4,505.1	65.33%	-$45.4	-1.00%
Federal Agency Debt	$2.3	0.03%	$2.3	0.03%	$0.0	0.00%
Agency MBS	$2,395.0	34.43%	$2,380.2	34.52%	-$14.8	-0.62%
Agency Commercial MBS	$8.2	0.12%	$8.2	0.12%	$0.0	-0.19%
Total SOMA Holdings	**$6,956.0**	**100.0%**	**$6,895.8**	**100.0%**	**-$60.2**	**-0.87%**

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

Agency	Singly-Family AMBS Outstanding March 1, 2024	% AMBS Outstanding	SOMA AMBS Holdings February 28, 2024	% SOMA Holdings	SOMA AMBS Holdings March 27, 2024	% SOMA Holdings
Fannie Mae	$3,573.1	40.4%	$985.8	41.2%	$979.6	41.2%
Freddie Mac	$2,948.5	33.3%	$915.7	38.2%	$910.4	38.2%
Ginnie Mae	$2,331.2	26.3%	$493.5	20.6%	$490.3	20.6%
Total	**$8,852.7**	**100.0%**	**$2,395.0**	**100.0%**	**$2,380.2**	**100.0%**

Table 14. SOMA Agency MBS Liquidations from February 28, 2024 to March 27, 2024 ($ Billions)

	MBS Holdings as of 2.28.24	*MBS Holdings 3.27.24*	*Liquidated Amount*	*Liquidation Cap* [6]	*% of Liquidation Cap*
Total	$2,395.0	$2,380.2	$14.8	$35.0	42%

Source: New York FED SOMA Holdings https://www.newyorkfed.org/markets/soma-holdings as of March 2024. 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.

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

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

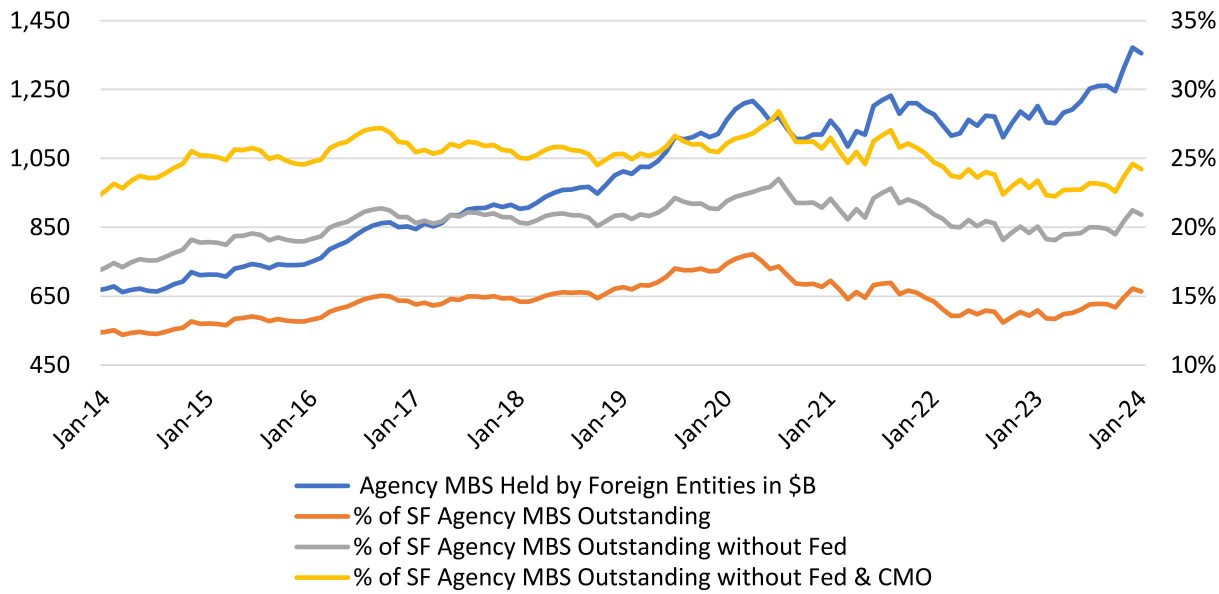
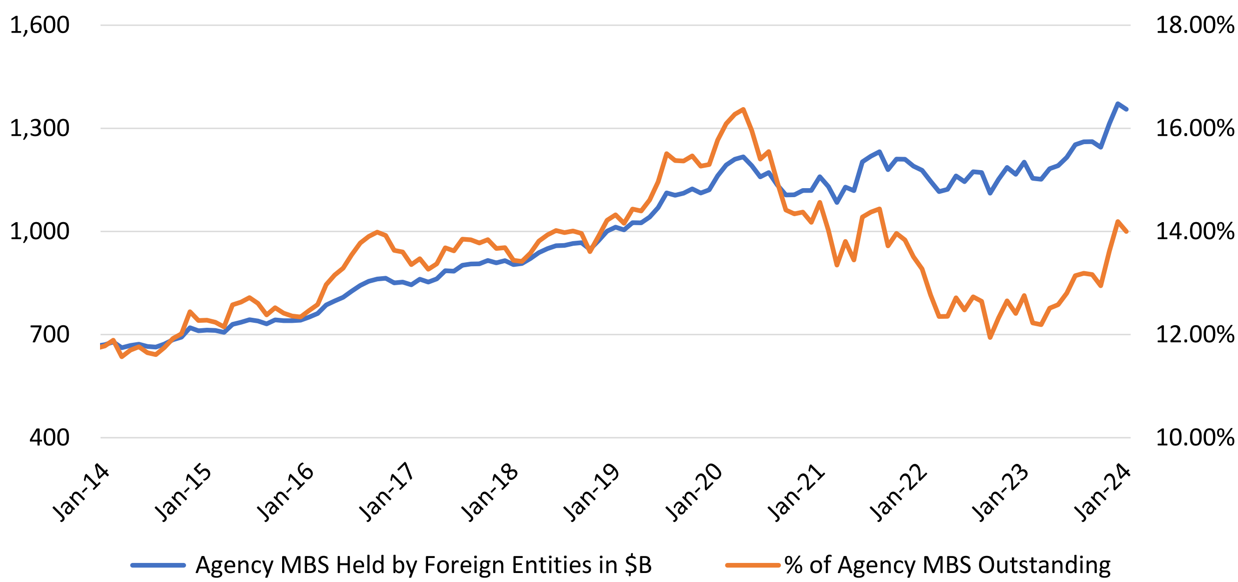


Figure 35. Agency MBS Owned by Foreign Entities (USD Billions)



Sources: TIC and Recursion, as of 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 15. 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 16. 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 March 2024 was $293 billion, which was up from a monthly average of $255 billion for calendar year 2023. As of month-end March 2024, Agency MBS average daily trading volume increased 8.5% MoM. *See footnote below for update on "Average Daily Turnover by Sector" data.*

Figure 36. Average Daily Trading Volume by Sector

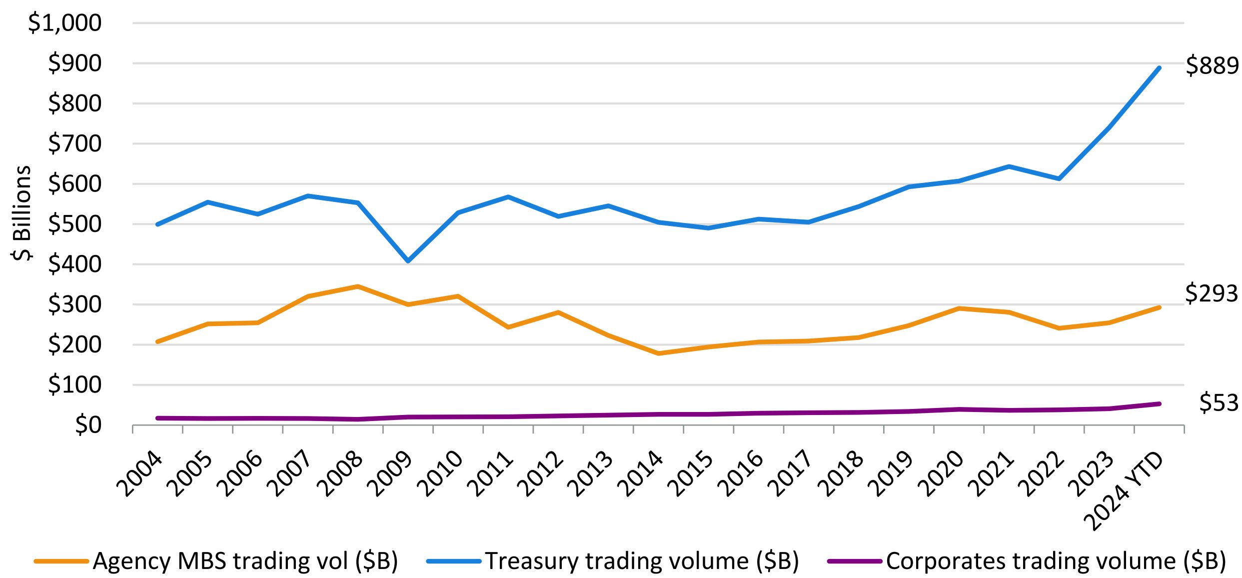
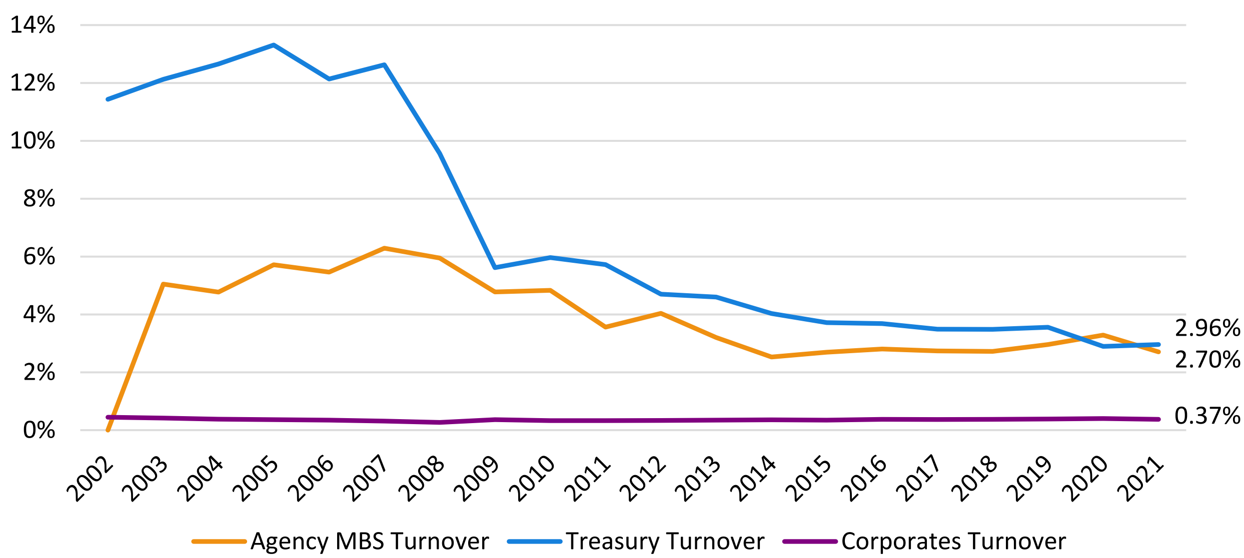


Figure 37. Average Daily Turnover by Sector



Source: SIFMA. Note: Data as of March 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 17, 18, and 19 below outline the population distributions of FICOs, DTIs, and LTVs between the agencies and between FHA, VA, and other Ginnie Mae loan sources as of month-end March 2024. The distribution statistics capture some key differences in the populations served by the agencies.

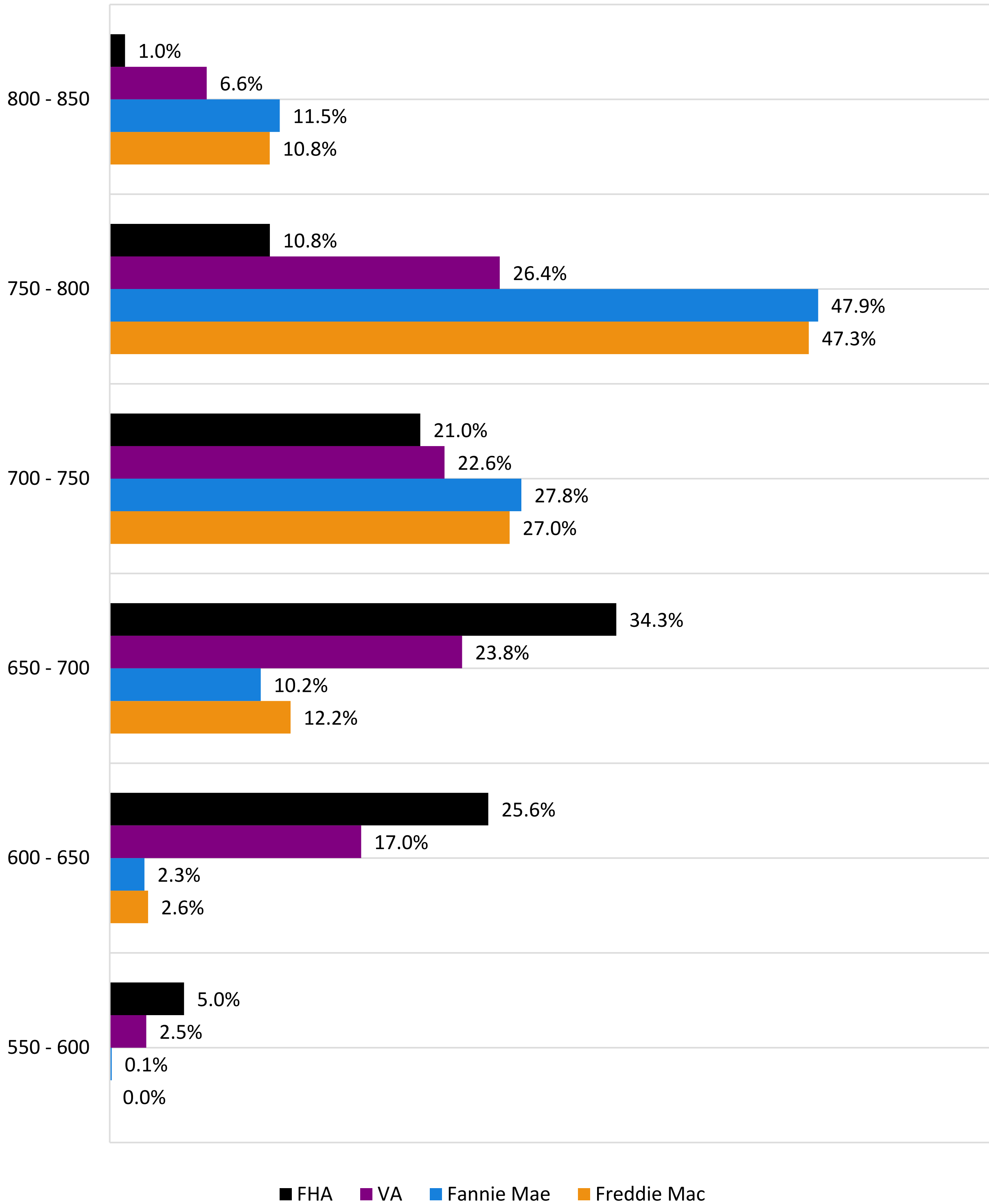
10.1 Credit Scores

Table 17. Share of Loans by FICO Score

			Purchase FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	179,016	654	699	747	782	799	736
Fannie	51,283	704	734	766	790	802	759
Freddie	61,939	692	728	764	789	802	755
Ginnie	65,794	629	657	699	748	784	702
			Refi FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	50,458	627	661	709	761	790	708
Fannie	15,577	663	700	744	779	799	736
Freddie	13,382	667	701	744	778	797	737
Ginnie	21,499	599	632	666	704	747	668
			All FICO				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	229,474	646	688	741	779	798	730
Fannie	66,860	692	727	762	788	802	753
Freddie	75,321	686	723	761	787	801	752
Ginnie	87,293	622	650	689	739	779	694
			Purchase FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	65,794	629	657	699	748	784	702
FHA	42,125	626	651	686	729	765	690
VA	21,527	636	676	735	778	799	725
Other	2,142	635	662	703	741	770	702
			Refi FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	21,499	599	632	666	704	747	668
FHA	12,572	593	626	656	689	725	657
VA	8,918	610	645	681	727	769	684
Other	9	623	644	683	729	786	689
			All FICO: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	87,293	622	650	689	739	779	694
FHA	54,697	619	645	678	721	759	683
VA	30,445	628	663	716	768	795	713
Other	2,151	635	661	702	741	770	702

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

Figure 38. FICO Distributions by Agency



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

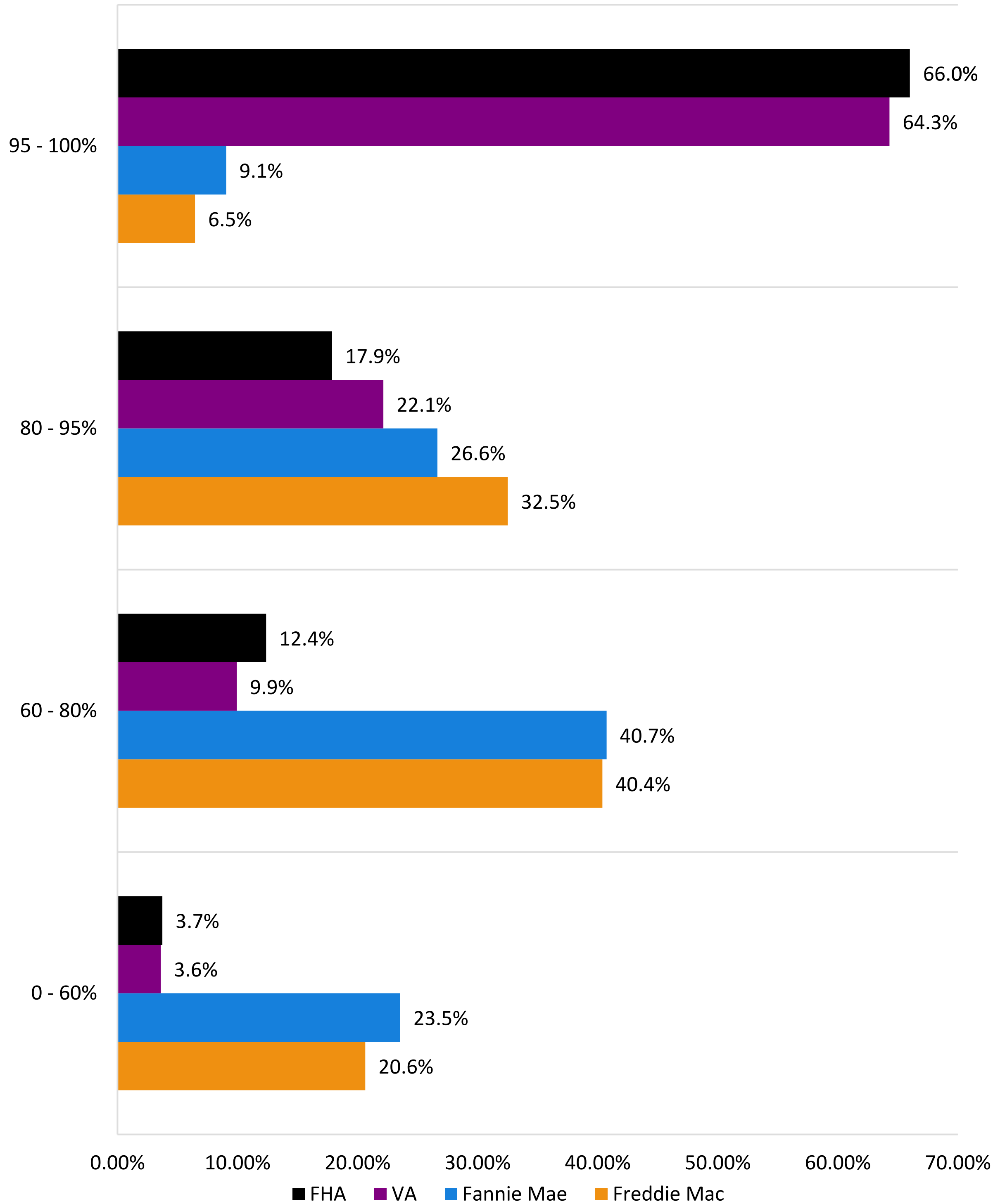
10.2 Loan-to-Value (LTV)

Table 18. Share of Loans by LTV

Purchase LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	179,258	64	80	93	97	100	86
Fannie	51,379	57	75	80	95	97	80
Freddie	61,959	55	75	80	95	95	80
Ginnie	65,920	90	97	98	100	100	96
Refi LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	53,976	36	54	71	81	98	68
Fannie	15,592	29	43	59	70	79	56
Freddie	13,382	29	44	60	74	80	58
Ginnie	25,002	61	74	81	97	100	82
All LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	233,234	53	75	88	97	99	82
Fannie	66,971	44	63	80	90	95	74
Freddie	75,341	46	67	80	92	95	76
Ginnie	90,922	76	90	98	99	100	92
Purchase LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	65,920	90	97	98	100	100	96
FHA	42,181	92	97	98	98	98	96
VA	21,573	85	100	100	100	102	96
Other	2,166	92	98	100	101	101	98
Refi LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	25,002	61	74	81	97	100	82
FHA	13,800	55	69	80	81	97	75
VA	11,189	71	84	94	100	102	90
Other	13	67	78	85	94	100	84
All LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	90,922	76	90	98	99	100	92
FHA	55,981	74	86	97	98	98	91
VA	32,762	79	91	100	100	102	94
Other	2,179	92	98	100	101	101	98

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

Figure 39. Loan-to Value by Agency



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

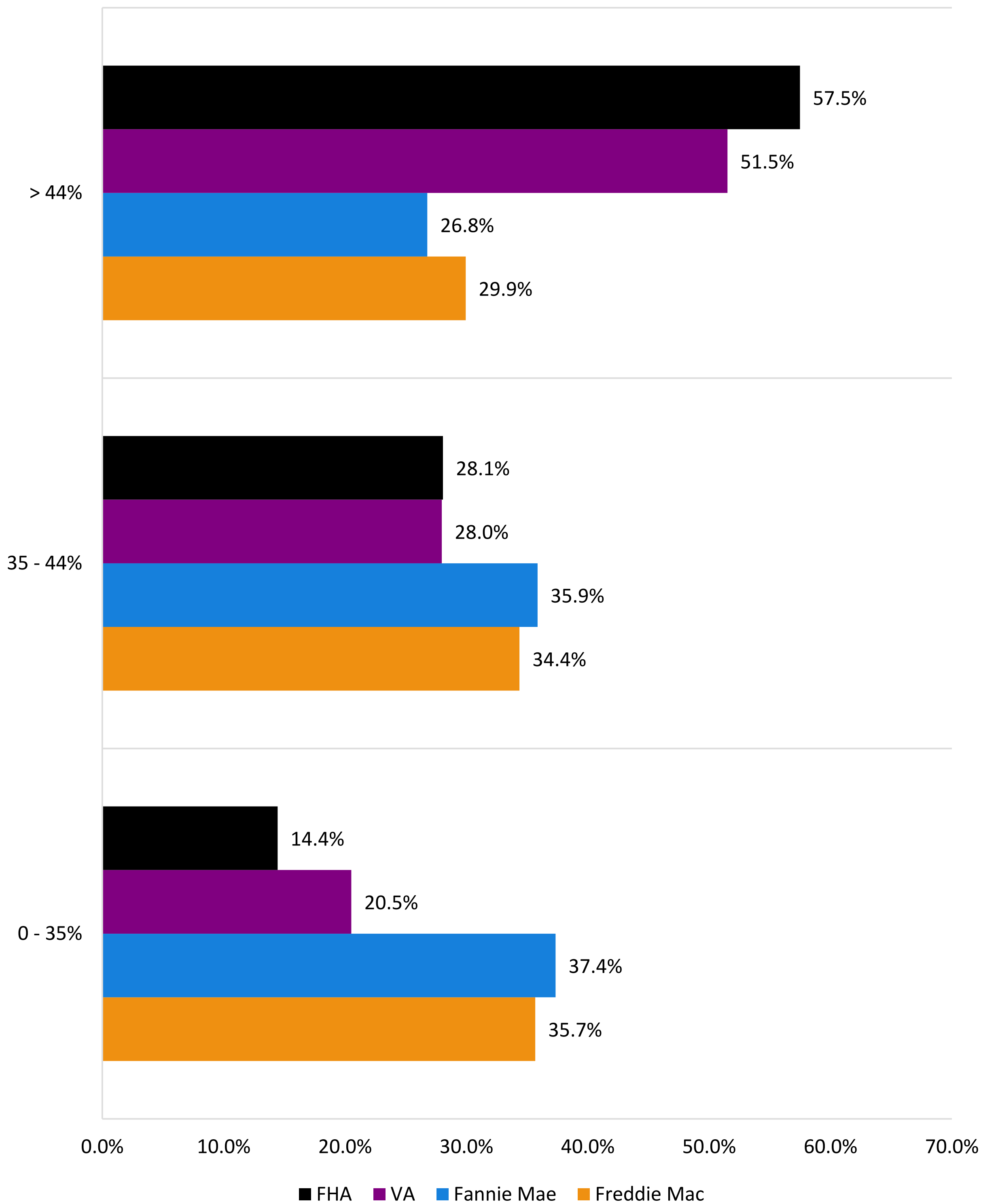
10.3 Debt-to-Income (DTI)

Table 19. Share of Loans by DTI

			Purchase DTI				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	178,976	27	34	42	48	51	40
Fannie	51,379	25	32	40	45	49	38
Freddie	61,959	25	32	40	46	49	38
Ginnie	65,638	32	39	45	51	55	44
			Refi DTI				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	46,330	24	32	40	46	50	39
Fannie	15,592	22	29	38	43	47	36
Freddie	13,382	24	31	40	46	49	38
Ginnie	17,356	28	36	44	50	55	43
			All DTI				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	225,306	26	34	42	47	51	40
Fannie	66,971	24	31	39	45	48	38
Freddie	75,341	25	32	40	46	49	38
Ginnie	82,994	31	38	45	51	55	44
			Purchase DTI: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	65,638	32	39	45	51	55	44
FHA	42,175	34	40	46	52	55	45
VA	21,301	31	38	45	51	56	44
Other	2,162	27	32	36	40	42	35
			Refi DTI: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	17,356	28	36	44	50	55	43
FHA	11,646	30	37	44	51	55	43
VA	5,698	25	34	43	50	54	41
Other	12	24	31	36	39	40	33
			All DTI: Ginnie Mae Breakdown by Source				
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	82,994	31	38	45	51	55	44
FHA	53,821	33	39	46	52	55	45
VA	26,999	29	37	44	51	56	43
Other	2,174	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 40. Debt-to Income by Agency



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

10.4 High LTV Loans: Ginnie Mae vs. GSEs

Comparing the three-month range of January 2023 – March 2023 to the three-month range of January 2024 – March 2024, the share of high-LTV agency loans with:

- FICO scores above 750 increased by approximately 11.0%.
- DTIs below 35% decreased by approximately 9.5%.

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 71.24% of its issuances between January 2024 – March 2024 having LTVs of 95 or above, compared to 22.02% for the GSEs.

Table 20. Share of Loans with LTV > 95

	Ginnie Mae	*GSE*	*All*
Jan 2023 - Mar 2023	71.16%	24.17%	41.83%
Jan 2024 - Mar 2024	71.24%	22.02%	42.27%

Table 21. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Jan 2023 - Mar 2023)

	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	2.11%	3.03%	4.19%	6.38%	0.06%	15.77%
35-45	5.84%	8.69%	10.31%	11.36%	0.06%	36.26%
≥45	8.19%	13.75%	12.90%	11.50%	0.05%	46.40%
NA	0.30%	0.22%	0.16%	0.20%	0.69%	1.57%
All	**16.44%**	**25.69%**	**27.57%**	**29.44%**	**0.86%**	**100.00%**

Table 22. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Jan 2024 - Mar 2024)

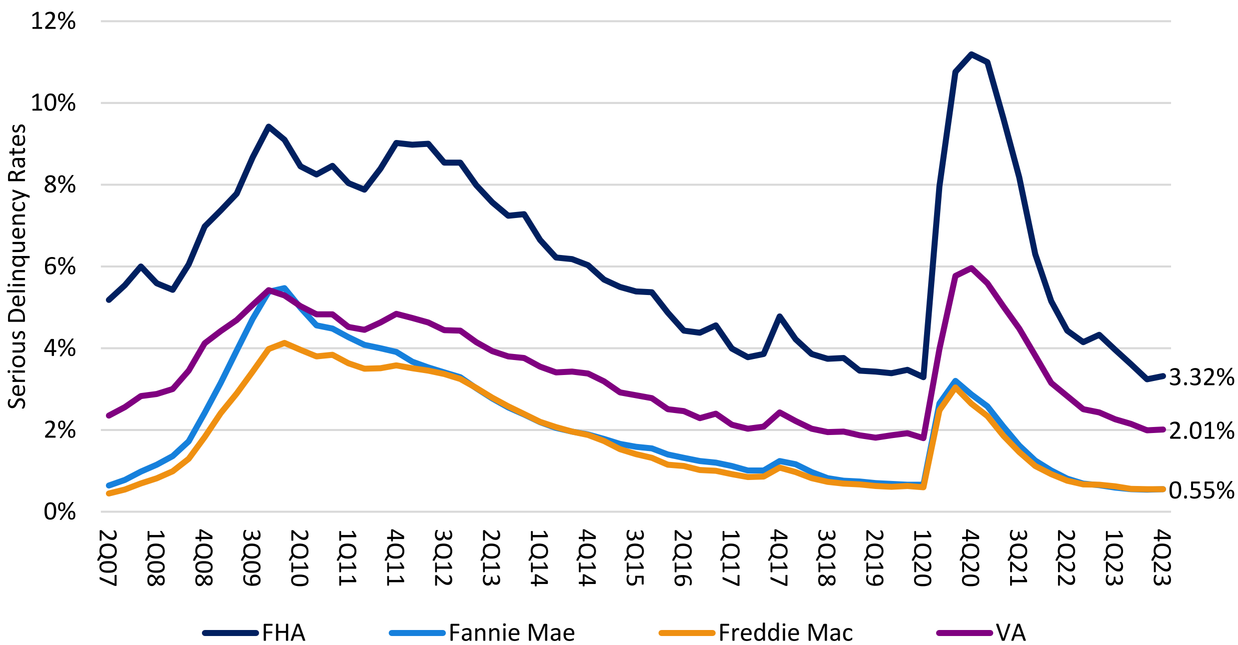
	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	1.55%	2.43%	3.71%	6.51%	0.08%	14.27%
35-45	4.89%	7.29%	9.42%	12.16%	0.07%	33.83%
≥45	7.09%	12.73%	13.74%	13.49%	0.09%	47.14%
NA	0.80%	0.76%	0.56%	0.52%	2.12%	4.76%
All	**14.33%**	**23.22%**	**27.42%**	**32.68%**	**2.35%**	**100.00%**

Sources: Recursion and Ginnie Mae. Data as of March 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 41. Serious Delinquency Rates: Single-Family Loans



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

Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Data as of Q4 2023.

10.6 Credit Box

The first-time homebuyer share for agency purchase loans was 56.8% as of month-end March 2024, an increase from 56.7% in February 2024 and up from 54.9% in March 2023. Ginnie Mae's first-time homebuyer share, 69.6% as of month-end March 2024, increased 1.9% YoY. Freddie Mac and Fannie Mae's first-time homebuyer shares, 48.1% and 51.0%, respectively, as of month-end March 2024, increased 2.3% and 7.1% YoY. **Table 23** shows that based on mortgages originated as of month-end March 2024 the average GSE first-time homebuyer was more likely to have a higher credit score, lower LTV, and higher interest rate compared to an average 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 42. First-Time Homebuyer Share: Purchase Only Loans

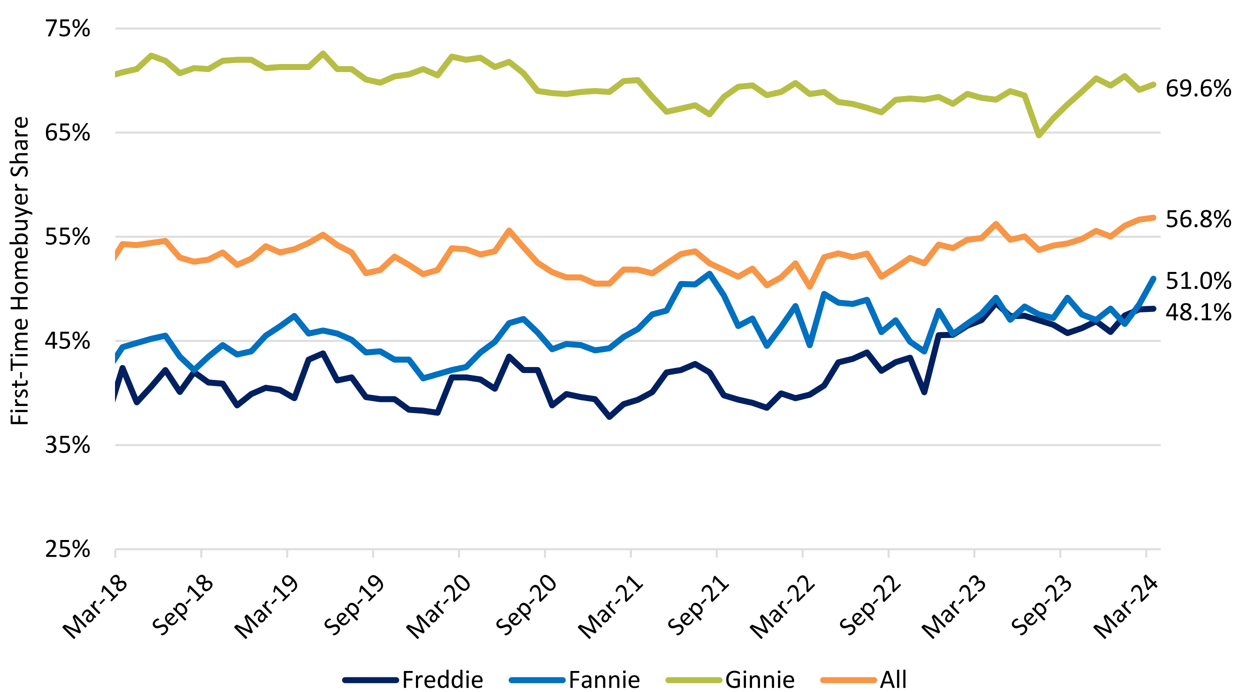


Table 23. Agency First-Time Homebuyer Share Summary

	Fannie Mae		Freddie Mac		Ginnie Mae		All	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$337,189	$344,717	$336,663	$350,506	$319,167	$367,831	$328,916	$353,106
Credit Score	753	764	748	761	696	716	726	750
LTV (%)	85.5%	74.6%	84.7%	75.1%	96.9%	94.2%	90.4%	79.9%
DTI (%)	37.8%	37.9%	37.7%	38.2%	44.0%	45.4%	40.6%	40.0%
Loan Rate (%)	6.5%	6.6%	6.7%	6.7%	6.3%	6.2%	6.5%	6.6%

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

In the Ginnie Mae purchase market, 77.9% of FHA loans, 52.1% of VA loans, and 84.0% of "Other" loans provided financing for first-time home buyers as of month-end March 2024. The share of first-time home buyers in the Ginnie Mae purchase market decreased MoM for FHA, while VA and "Other" loans increased MoM.

Table 24 shows that based on mortgages originated as of month-end March 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 15.6% smaller loans, had a 25-point lower credit score, and a 4.3% higher LTV than VA repeat buyers. VA repeat buyers faced a slightly lower interest rate than VA first-time buyers. FHA's first-time homebuyers are much more like their repeat buyers, with only 2.4% smaller loans and 2.1% 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 43. First-time Homebuyer Share: Ginnie Mae Breakdown

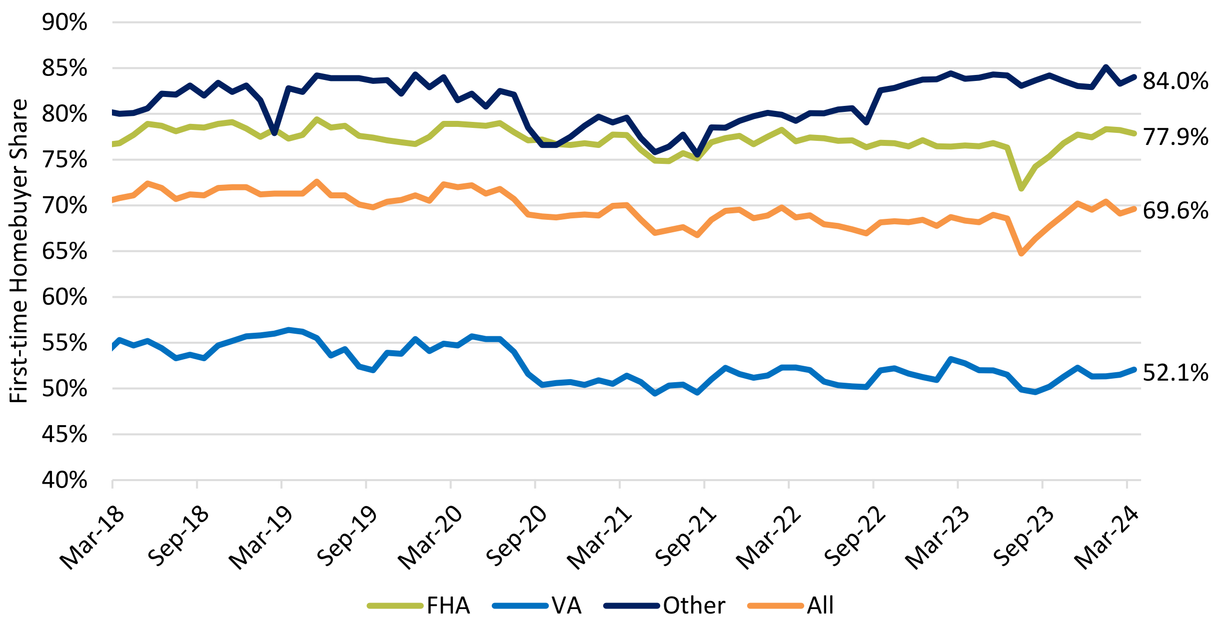


Table 24. Ginnie Mae First-Time Homebuyer Share Breakdown Summary

	FHA		VA		Other		Total	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$316,354	$324,000	$348,340	$412,911	$189,920	$204,038	$319,167	$367,831
Credit Score	690	692	713	738	702	705	696	716
LTV (%)	96.4%	94.3%	98.4%	94.1%	97.8%	97.2%	96.9%	94.2%
DTI (%)	44.8%	46.4%	43.1%	44.9%	35.1%	35.5%	44.0%	45.4%
Loan Rate (%)	6.3%	6.3%	6.2%	6.1%	6.4%	6.3%	6.3%	6.2%

Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of March 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 March 2024 was 738, which represents a 9-point increase from March 2023. Ginnie Mae median FICO scores increased 13 points from 671 in March 2023 to 684 as of month-end March 2024. As of month-end March 2024, average FICO scores for refinances increased for Ginnie Mae and Freddie Mac borrowers by 9 and 21 points YoY, respectively.

Figure 44. FICO Scores for All Loans

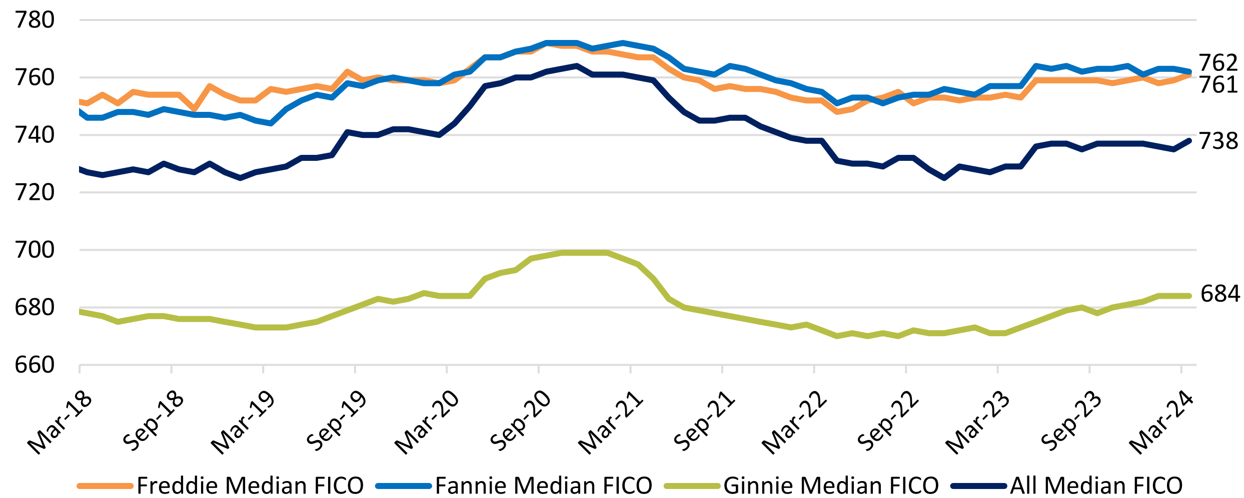


Figure 45. FICO Scores for Purchase Loans

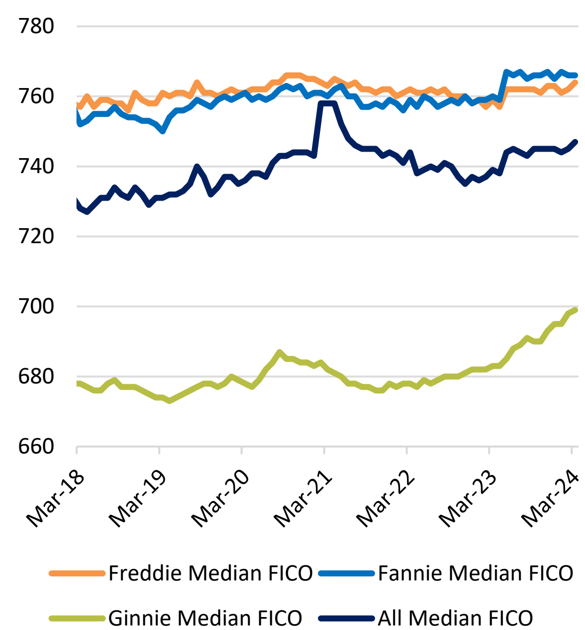
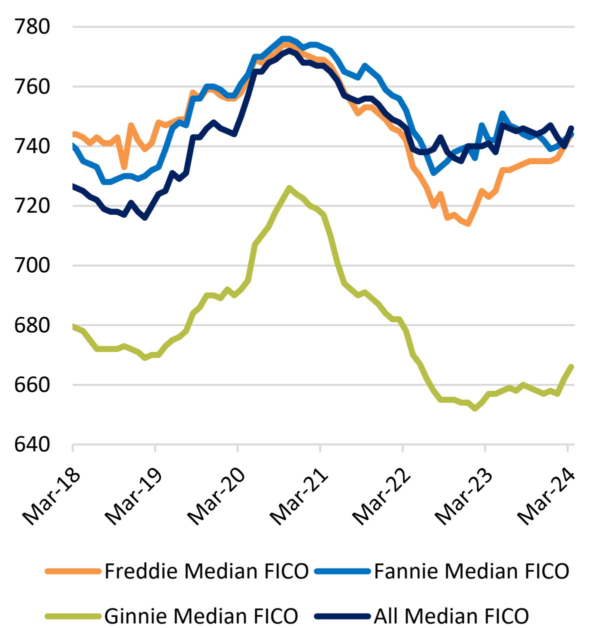


Figure 46. FICO Scores for Refinance Loans



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

In March 2024, the median LTV for Ginnie Mae loans was 98.0% compared to 80.0% for Fannie Mae and Freddie Mac, owing primarily to the lower down-payment requirements for government loan programs. Fannie Mae and Freddie Mac saw their LTV ratios remain flat YoY, while Ginnie Mae saw a 0.2% decrease in LTV from March 2023 to March 2024. In March 2024, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.0%, 40.0%, and 39.0%, respectively. In March 2023, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 44.6%, 39.0%, and 40.0%, respectively.

Figure 47. LTV Ratio for All Loans

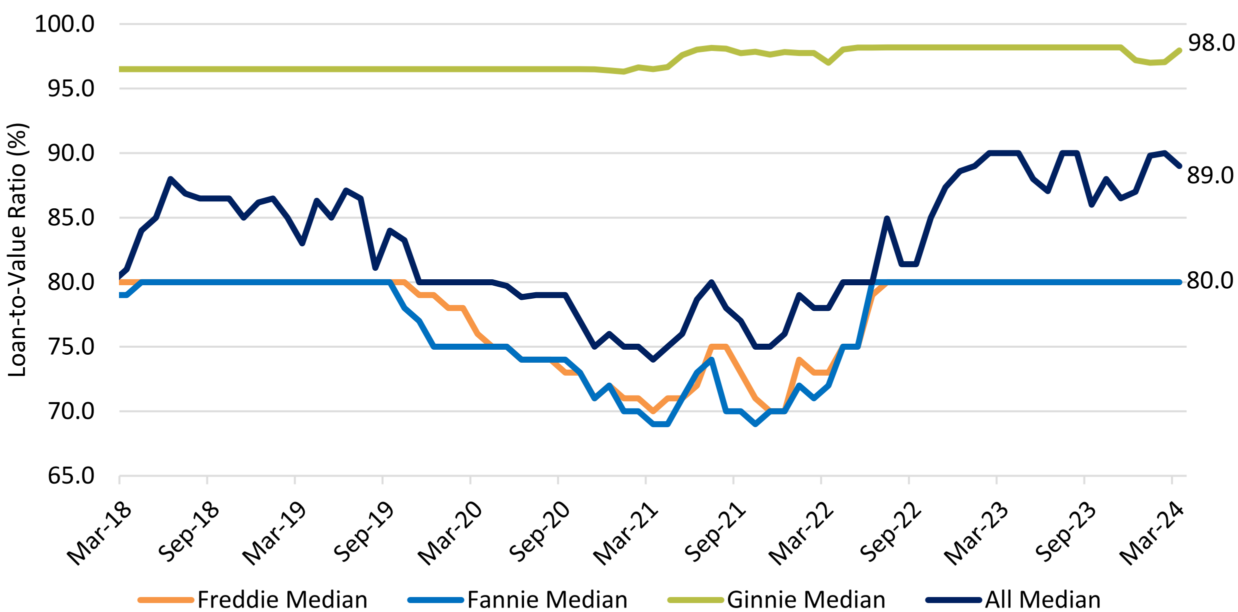
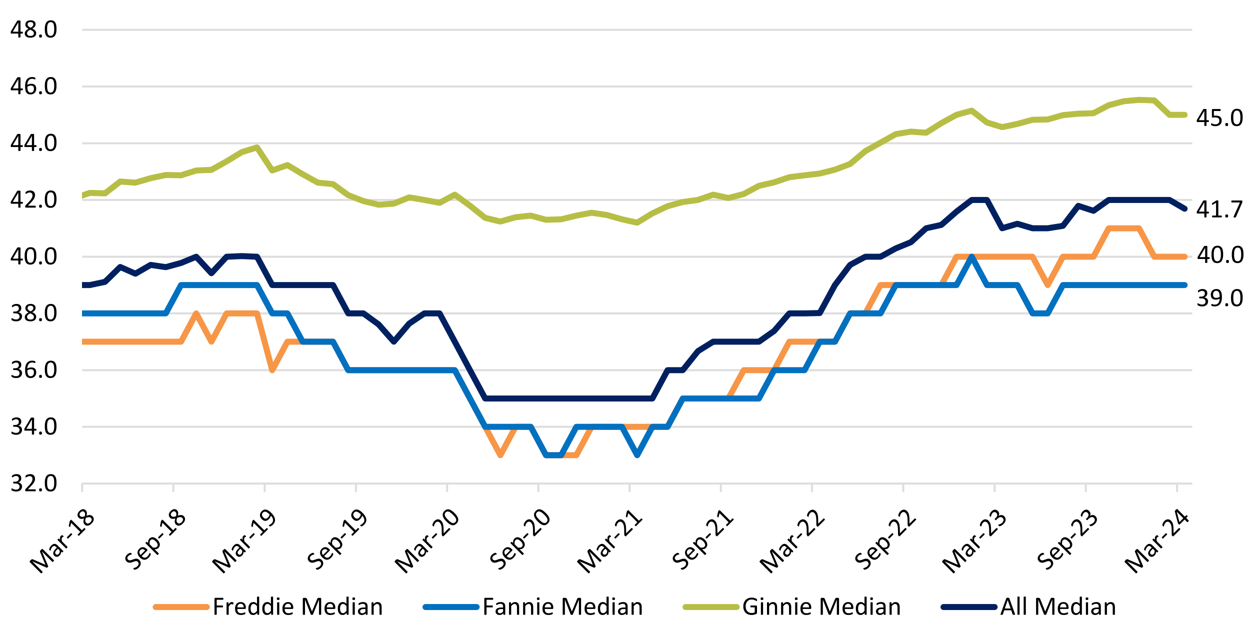


Figure 48. DTI Ratio for All Loans



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

11 FORBEARANCE TRENDS

At the end of March 2024, 29,871 Ginnie Mae loans were in forbearance. The number of loans in forbearance removed from MBS pools in March was 166 while 29,705 loans in forbearance remained in pools. The number of loans in forbearance increased MoM and loans in forbearance that remained in pools decreased MoM. The median current principal balance for Ginnie Mae, FHA, and VA was higher for loans in forbearance originated by nonbanks than banks in all subsets.

Tables 25-27. Forbearance Snapshot

All Loans in Forbearance – March 2024						
	FICO Score*	Note Rate (%) *	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	650	4.3	$187,540	74.8	75.8	29,871
Bank	670	4.2	$138,193	79.9	83.0	7,351
Nonbank	646	4.4	$206,475	73.8	74.5	22,475
FHA	649	4.4	$182,223	76.9	77.2	25,784
Bank	669	4.2	$135,599	82.0	83.4	6,427
Nonbank	646	4.4	$199,335	75.9	75.9	19,315
VA	651	4.3	$271,508	59.5	66.0	3,094
Bank	675	3.7	$183,280	58.8	78.1	622
Nonbank	648	4.4	$294,166	59.5	64.4	2,469

Loans in Forbearance and Removed from Pools – March 2024						
	FICO Score*	Note Rate (%) *	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	659	5.1	$180,998	75.0	77.6	166
Bank	679	5.8	$121,086	82.2	96.0	79
Nonbank	650	4.7	$238,216	70.6	69.9	86
FHA	656	5.5	$172,490	74.7	87.1	144
Bank	679	5.9	$121,628	81.6	95.8	74
Nonbank	643	5.2	$232,600	69.8	82.1	69
VA	673	3.2	$256,271	77.8	41.7	20
Bank	648	3.7	$198,414	100.0	100.0	3
Nonbank	674	3.2	$302,428	75.1	38.4	17

Loans in Forbearance that Remain in Pools – March 2024						
	FICO Score*	Note Rate (%) *	Current Principal Balance Median	First Time Homebuyer Share (%)	Purchase Share (%)	Loan Count
Ginnie	650	4.3	$187,573	74.8	75.8	29,705
Bank	670	4.1	$138,296	79.8	82.9	7,272
Nonbank	646	4.4	$206,351	73.8	74.5	22,389
FHA	649	4.4	$182,286	77.0	77.1	25,640
Bank	669	4.2	$135,691	82.1	83.3	6,353
Nonbank	646	4.4	$199,238	75.9	75.9	19,246
VA	651	4.3	$271,624	59.4	66.1	3,074
Bank	675	3.7	$183,045	58.6	78.1	619
Nonbank	648	4.4	$294,154	59.4	64.6	2,452

*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 March 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 28.** The top 30 firms collectively own 88.0% 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 March 2024, over half (53.9%) of the Ginnie Mae MSRs are owned by the top six firms.

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

MSR Holder	*Current*	*Rank Year prior*	*Change*	*UPB ($)*	*Share*	*Cumulative Share*	*CPR*	*CDR*
Lakeview Loan Servicing	1	1	⟷	$319,741,379,845	13.6%	13.6%	6.71%	1.09%
DBA Freedom Mortgage	2	2	⟷	$299,561,274,961	12.8%	26.4%	7.07%	0.64%
PennyMac Loan Service	3	3	⟷	$275,952,217,992	11.8%	38.1%	6.74%	1.14%
Newrez LLC	4	5	↑	$129,636,671,926	5.5%	43.7%	6.55%	1.02%
Mr. Cooper (Nationstar)	5	4	↓	$126,860,421,034	5.4%	49.1%	7.25%	1.27%
Carrington Mortgage	6	8	↑	$113,527,532,782	4.8%	53.9%	6.53%	0.93%
Rocket Mortgage	7	7	⟷	$111,592,558,272	4.8%	58.7%	8.37%	0.30%
Wells Fargo Bank	8	6	↓	$96,756,543,326	4.1%	62.8%	5.74%	0.26%
Planet Home Lending	9	11	↑	$70,289,932,680	3.0%	65.8%	7.13%	0.32%
United Wholesale Mortgage	10	10	⟷	$64,977,981,950	2.8%	68.5%	7.92%	1.36%
U.S. Bank	11	9	↓	$56,658,569,708	2.4%	71.0%	6.01%	1.42%
LoanDepot	12	12	⟷	$37,583,721,196	1.6%	72.6%	7.82%	1.11%
Navy Federal Credit Union	13	15	↑	$32,183,066,173	1.4%	73.9%	5.48%	0.14%
Mortgage Research Center	14	13	↓	$28,797,806,369	1.2%	75.2%	10.43%	0.57%
M&T Bank	15	N/A	↑	$26,876,907,160	1.1%	76.3%	5.35%	0.42%
Guild Mortgage Company	16	16	⟷	$24,668,303,344	1.1%	77.4%	5.30%	0.43%
The Money Source	17	17	⟷	$22,574,819,059	1.0%	78.3%	6.24%	0.83%
AmeriHome Mortgage	18	14	↓	$22,330,886,546	1.0%	79.3%	8.38%	2.10%
CrossCountry Mortgage	19	19	⟷	$22,043,348,121	0.9%	80.2%	8.34%	2.45%
Movement Mortgage	20	22	↑	$21,395,921,872	0.9%	81.1%	6.46%	0.59%
New American Funding	21	20	↓	$20,766,441,461	0.9%	82.0%	6.51%	0.64%
Truist Bank	22	18	↓	$20,390,296,469	0.9%	82.9%	6.66%	1.24%
CMG Mortgage	23	23	⟷	$19,554,516,722	0.8%	83.7%	7.64%	1.83%
PHH Mortgage Corporation	24	26	↑	$19,528,354,948	0.8%	84.5%	5.70%	0.90%
Idaho Housing and Finance	25	24	↓	$18,157,068,679	0.8%	85.3%	4.29%	0.85%
Village Capital and Investment	26	21	↓	$15,826,085,643	0.7%	86.0%	21.83%	3.61%
Citizens Bank	27	25	↓	$13,935,664,767	0.6%	86.6%	5.43%	0.29%
Flagstar Bank	28	27	↓	$11,473,492,926	0.5%	87.1%	6.73%	1.10%
MidFirst Bank	29	28	↓	$11,413,784,460	0.5%	87.6%	7.69%	2.44%
Sun West Mortgage	30	30	⟷	$10,390,829,740	0.4%	88.0%	6.72%	0.31%

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

13 AGENCY NONBANK ORIGINATORS

Total agency nonbank origination share decreased as of month-end March 2024 by approximately 0.9% MoM. The decrease in nonbank origination share was driven by a decrease in Freddie Mac and Fannie Mae, down 0.8% MoM and 1.3% MoM, respectively. The Ginnie Mae nonbank share rose to 93.6% as of March 2024 and has remained consistently higher than the GSEs.

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

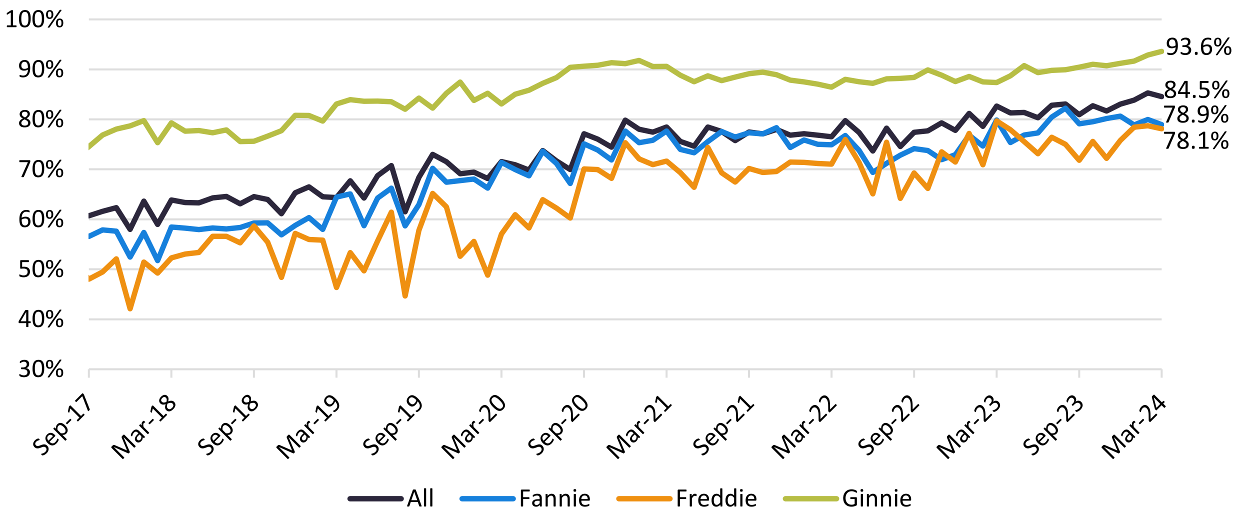


Figure 50. Nonbank Origination Share:

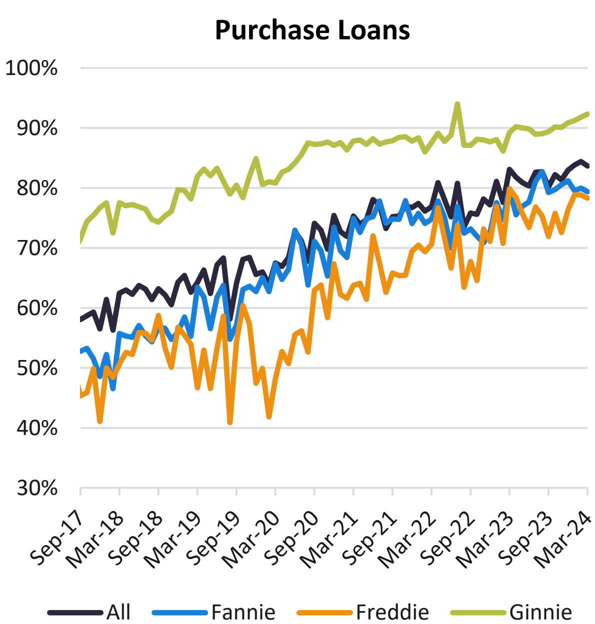
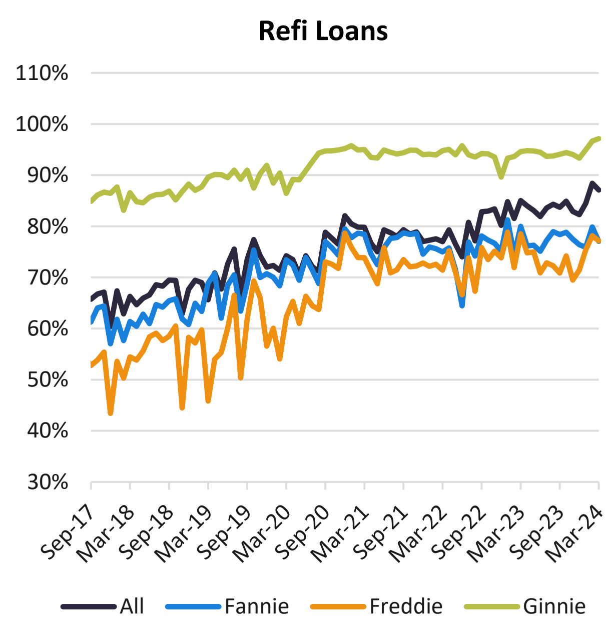


Figure 51. Nonbank Origination Share:



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

Ginnie Mae's total nonbank originator share remained relatively stable as of month-end March 2024. Ginnie Mae continues to have a high proportion of nonbank originations, with a rate of 93.6% in March 2024. The percentage of Ginnie Mae's "Other" nonbank refinanced loans increased to 87.7% in March 2024.

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

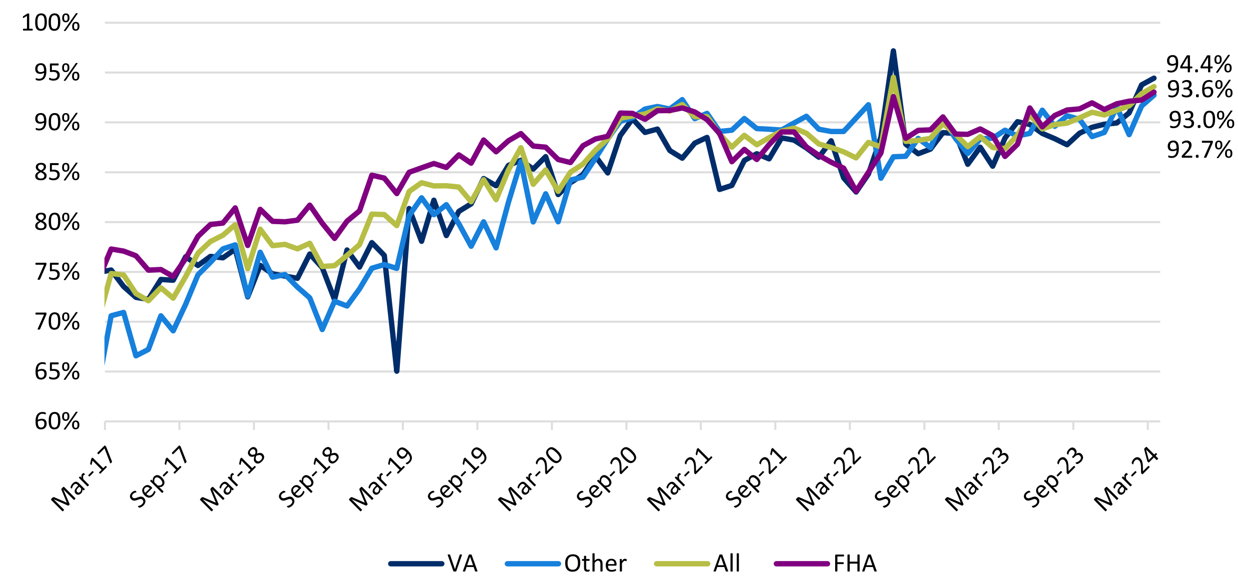


Figure 53. Ginnie Mae Nonbank Share: Purchase Loans

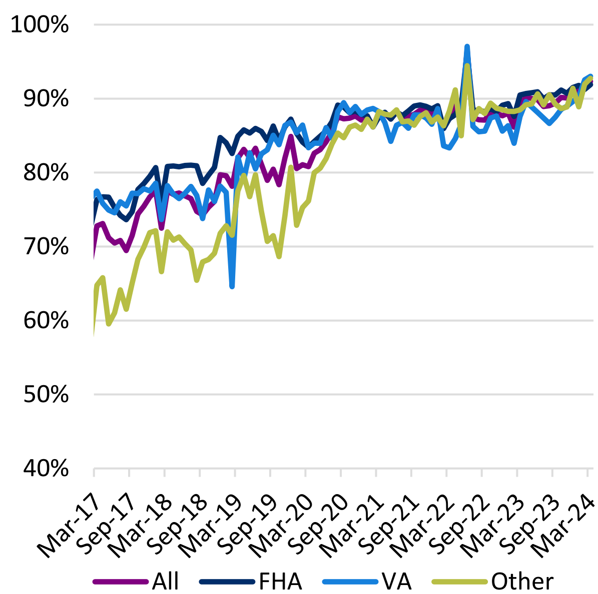
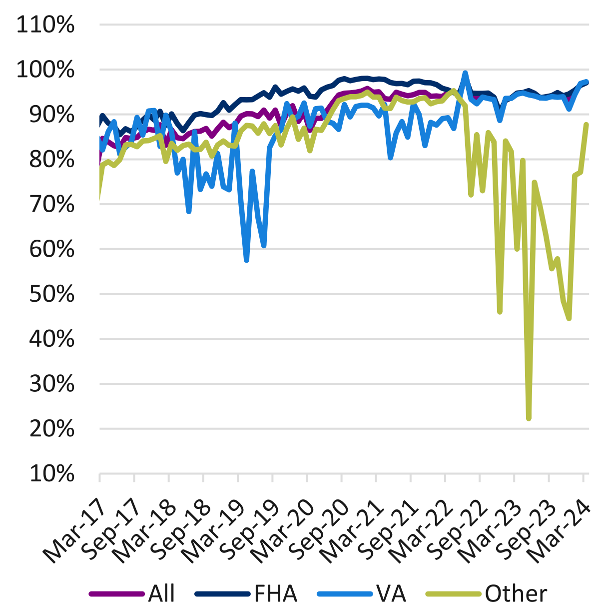


Figure 54. Ginnie Mae Nonbank Share: Refi Loans



Source: Recursion. Notes: Data as of March 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 21 from February 2024 to March 2024. The agency median FICO score increased to 738 in March 2024.

Figure 55. Agency FICO: Bank vs. Nonbank

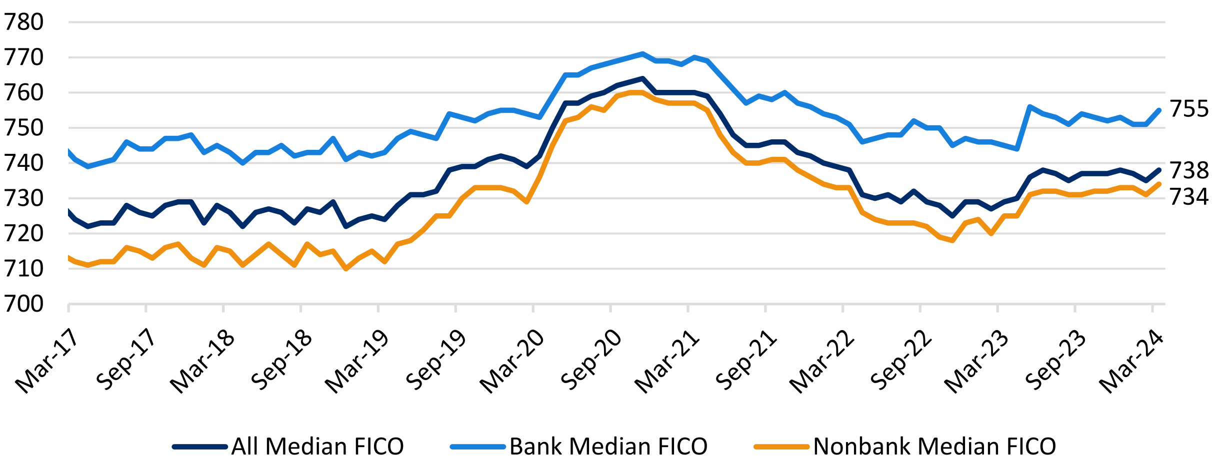


Figure 56. GSE FICO: Bank vs. Nonbank

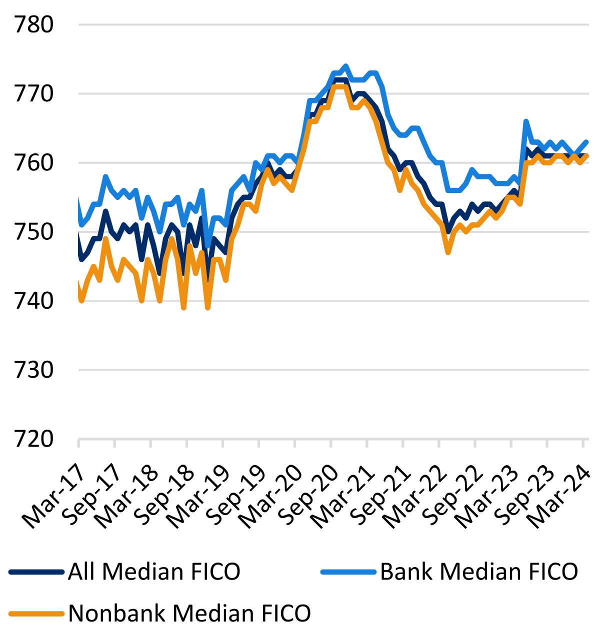
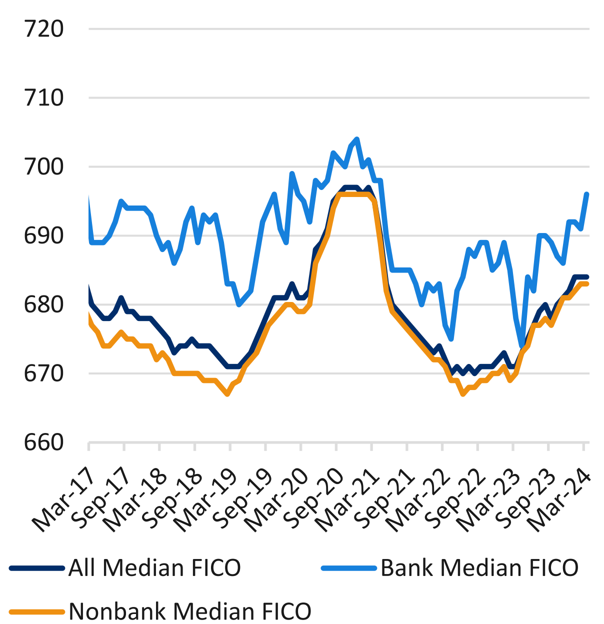


Figure 57. Ginnie Mae FICO: Bank vs. Nonbank



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

The median LTV for all GSE originators remained the same as of month-end March 2024 at 80.0%. Ginnie Mae median bank LTV remained flat at 98.2%, while nonbank LTV increased slightly to 97.2% as of month-end March 2024. Ginnie Mae median DTI remained constant at 45.1% through March 2024 in nonbank originations.

Figure 58. GSE LTV: Bank vs. Nonbank

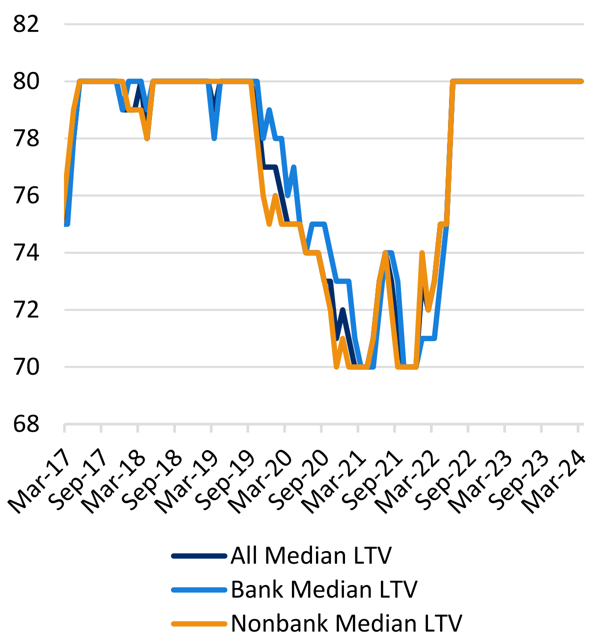


Figure 59. Ginnie Mae LTV: Bank vs. Nonbank

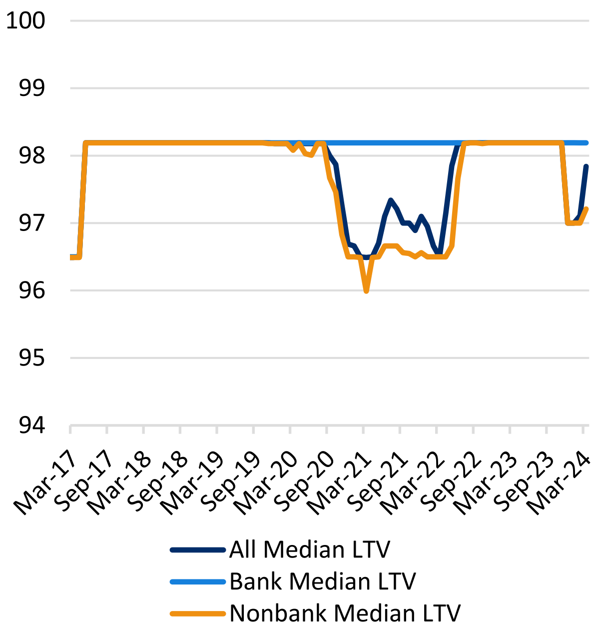


Figure 60. GSE DTI: Bank vs. Nonbank

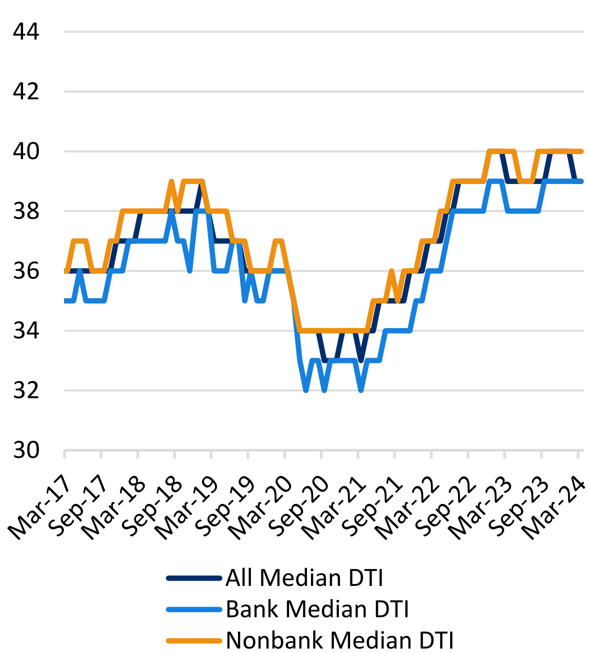
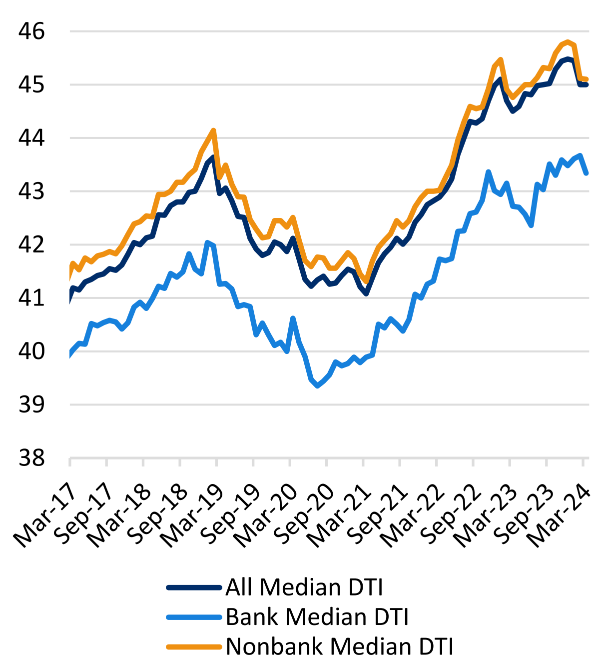


Figure 61. Ginnie Mae DTI: Bank vs. Nonbank



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

As of month-end March 2024, the median FICO score for Ginnie Mae bank originations increased 5 points to 696 and nonbank remained flat at 683. The median FICO score for all Ginnie originations remained constant at 684. The gap between banks and nonbanks is most apparent in "VA" lending (21-point spread).

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

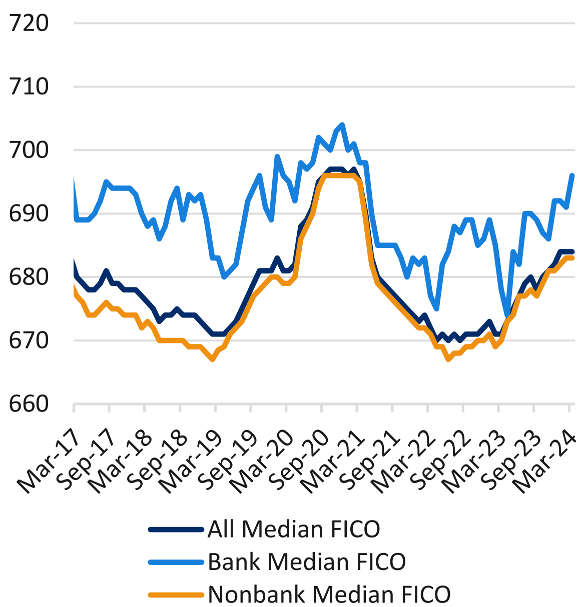


Figure 63. Ginnie Mae FHA FICO Score: Bank vs. Nonbank

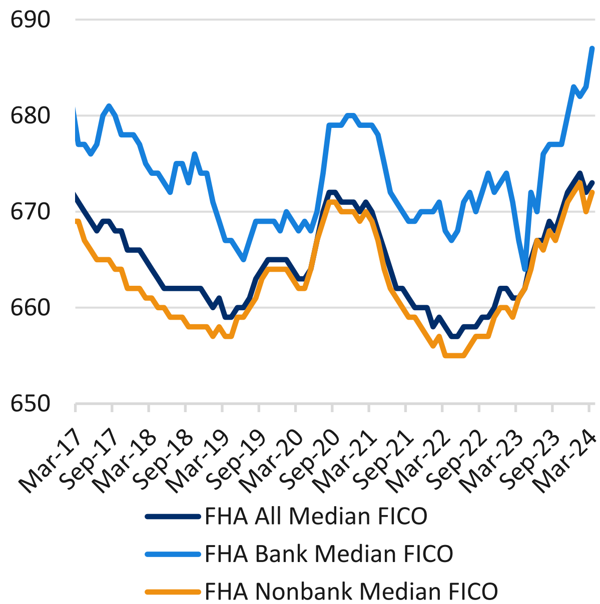


Figure 64. Ginnie Mae VA FICO Score: Bank vs. Nonbank

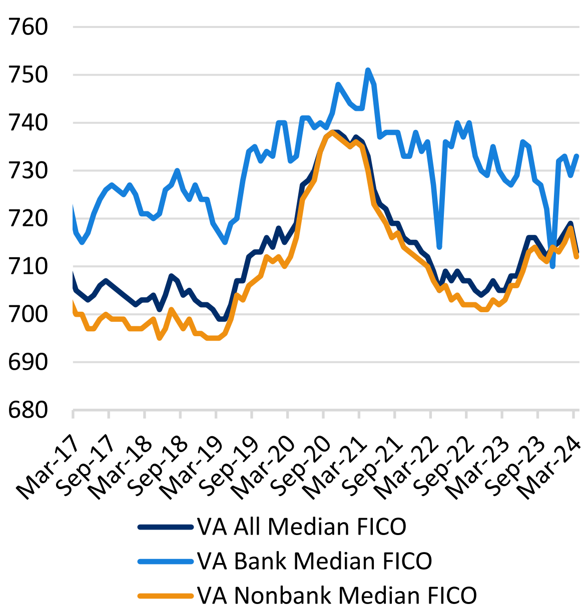
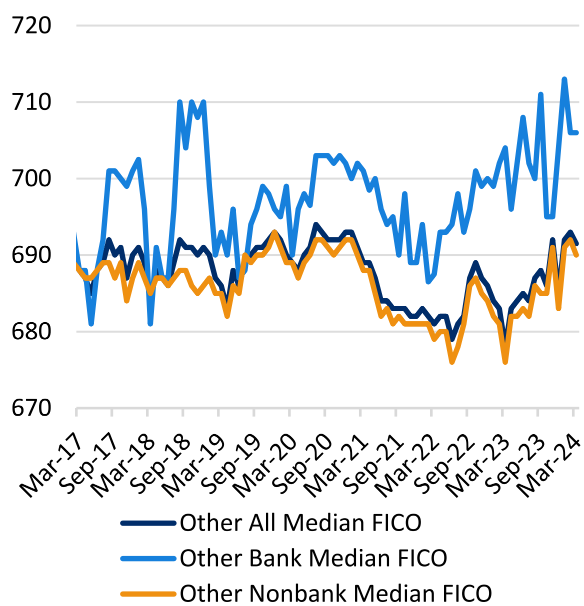


Figure 65. Ginnie Mae Other FICO Score: Bank vs. Nonbank



Source: Recursion. Notes: Data as of March 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 66. Ginnie Mae DTI: Bank vs. Nonbank

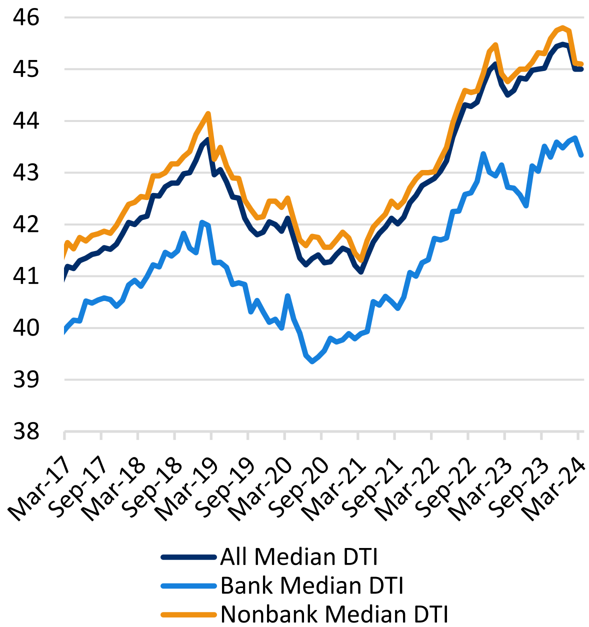


Figure 67. Ginnie Mae FHA DTI: Bank vs. Nonbank

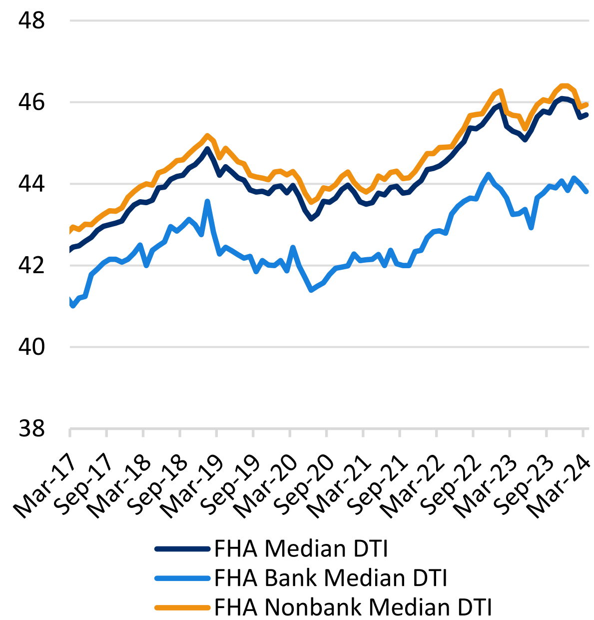


Figure 68. VA DTI: Bank vs. Nonbank

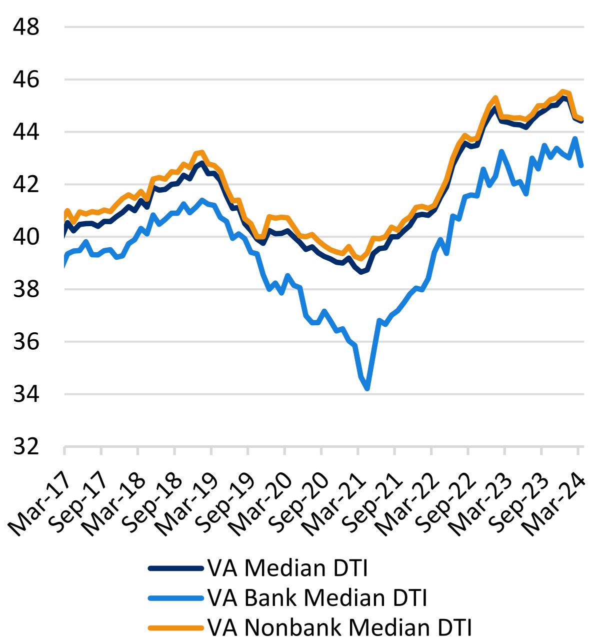
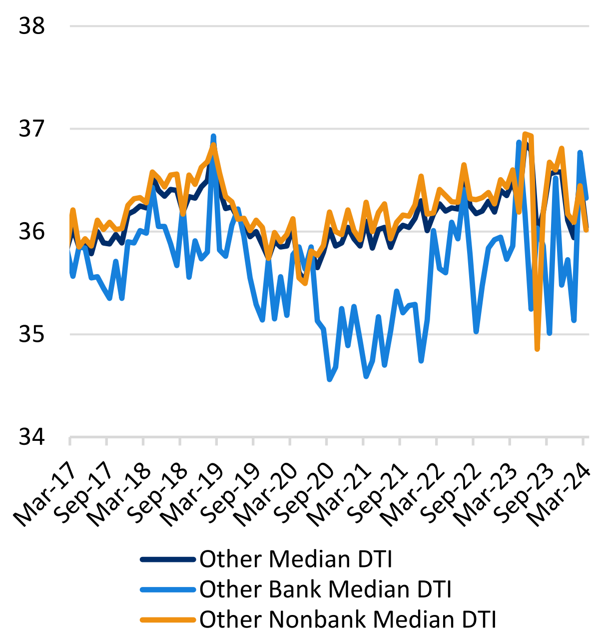


Figure 69. Other DTI: Bank vs. Nonbank



Source: Recursion. Notes: Data as of March 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 29. ESG Metrics – MBS Portfolio (March 2024)

Ginnie Mae's ESG Metrics – MBS Portfolio as of March 2024

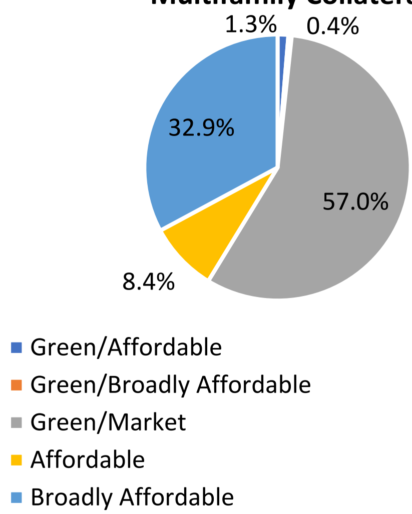
	Targeted Population	Positive Outcomes	Our Commitment	
Social - Affordable	FHA Borrowers – 6,953,703 VA Borrowers – 3,618,967 RHS Borrowers – 780,267 PIH Borrowers – 23,796	**Loans under $200K** 6,518,948 Loans **First-Time Home Buyers** 4,274,150 Loans **Down Payment Assistance** 697,403 Loans	Ginnie 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
	Low-to-Moderate Income Borrowers (LMI)	3,233,932 Loans		
	LMI Majority Census Tract Loans	1,745,900 Loans		
	Borrowers Facing Difficulties	791,452 modifications with over 736,330 in partial claims	Ginnie Mae has been integral to the federal actions to prevent foreclosure for homeowners experiencing financial hardship.	
	Senior Citizens Aging in Place	277,779 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
	Multifamily Housing (MF)	1.314 million apartment homes 493,017 healthcare living units	Affordable rental housing is in critically short supply. Government lending and subsidy programs support preservation and creation of new affordable housing units nationwide.	Multi-Family
	MF Affordable	4,974 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.	
Green	MF Green			

15.2 Environmental

Table 30. UPB by ESG Status

ESG Status	UPB	%
Green/Affordable	1,087,857,644	0.7%
Green/Broadly Affordable	342,306,850	0.2%
Green/Market	47,900,336,318	31.6%
Green Total	49,330,500,812	32.6%
Affordable [7]	7,035,007,643	4.6%
Broadly Affordable[6]	27,649,871,189	18.3%
Affordable Total	36,115,043,325	23.8%
ESG Total	84,015,379,644	55.5%
Total	**151,471,968,046**	**100.0%**

Figure 70. Composition of Ginnie Mae Green Status and Affordable Multifamily Collateral



Much of Ginnie Mae's environmental impact is made through its Multifamily programs. Approximately 32% of Ginnie Mae collateral are "Green"-certified, as defined by the multiple organizations that sponsor and maintain green building certifications, including the U.S. Green Building Council, Energy Star, Greenpoint, and the National Green Building Standard, just to name a few. Additionally, over 23% of Ginnie Mae Multifamily collateral is "Affordable" or "Broadly Affordable". In total 55.5% 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.

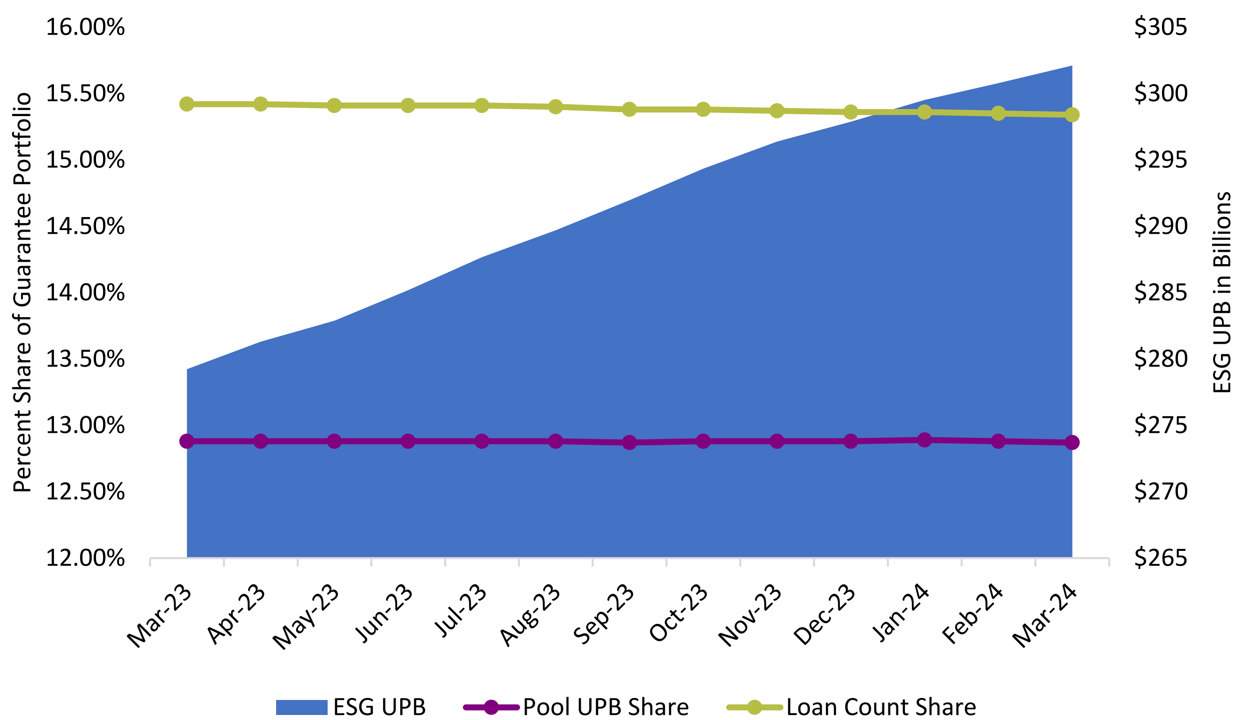
Sources: Ginnie Mae Disclosures as of March 2024, https://www.hud.gov/program_offices/housing/mfh/green

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

15.3.1 Low-to-Moderate Income Borrowers

Roughly $302 billion of Ginnie Mae Single-Family collateral and over 1.7 million loans outstanding have been issued to low to moderate income borrowers. Total ESG UPB increased by approximately $23 billion YoY.

Figure 71. ESG Share of the Outstanding SF Portfolio



Source: Ginnie Mae Disclosures as of March 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 31. Percent LMI by Pool Share

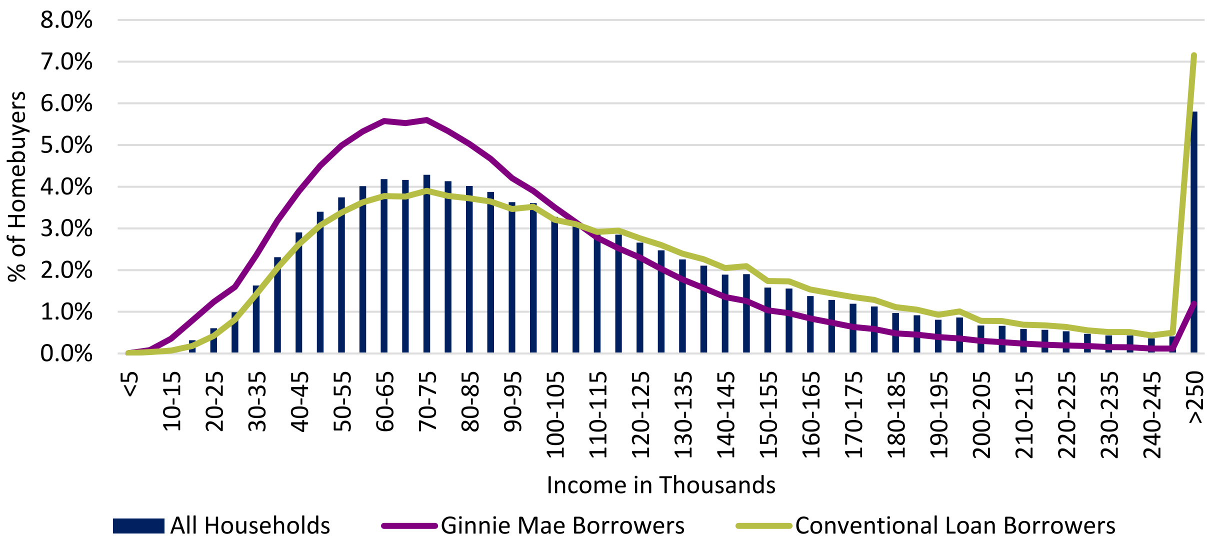
Metric	LMI Pool Share >50%	LMI Pool Share 20% - 50%	LMI Share < 20%	All Pools
Total UPB ($ billions)	$8.5	$205.1	$2,083.1	$2,296.7
Average Original Loan Size	$179,757	$194,385	$340,433	$326,795
Credit Score (Median)	674	675	679	677
DTI (Median)	41%	40%	41%	40%
LTV (Median)	97%	96%	95%	96%
Interest Rate (WA)	4.84%	4.68%	3.96%	4.03%

Source: Ginnie Mae Disclosures as of March 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 72. Income Distribution of Homebuyers Served Under Ginnie Mae Program



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

U.S. HOUSING MARKET

16 HOUSING AFFORDABILITY

16.1 Housing Affordability – Home Price Appreciation

Home prices increased in all regions in 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 73. Regional HPI Trend Analysis Q/Q

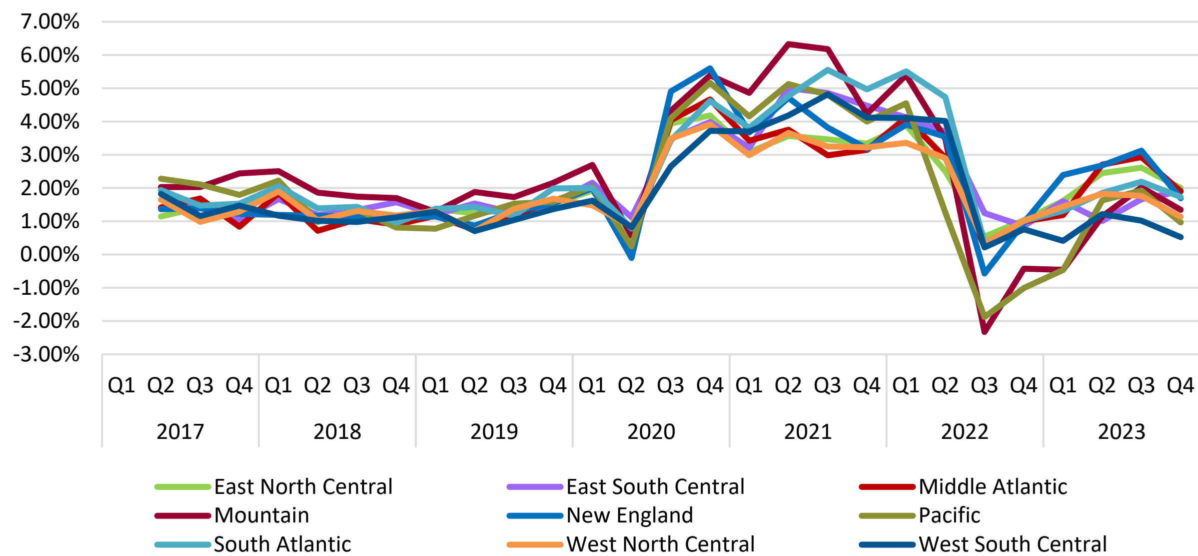
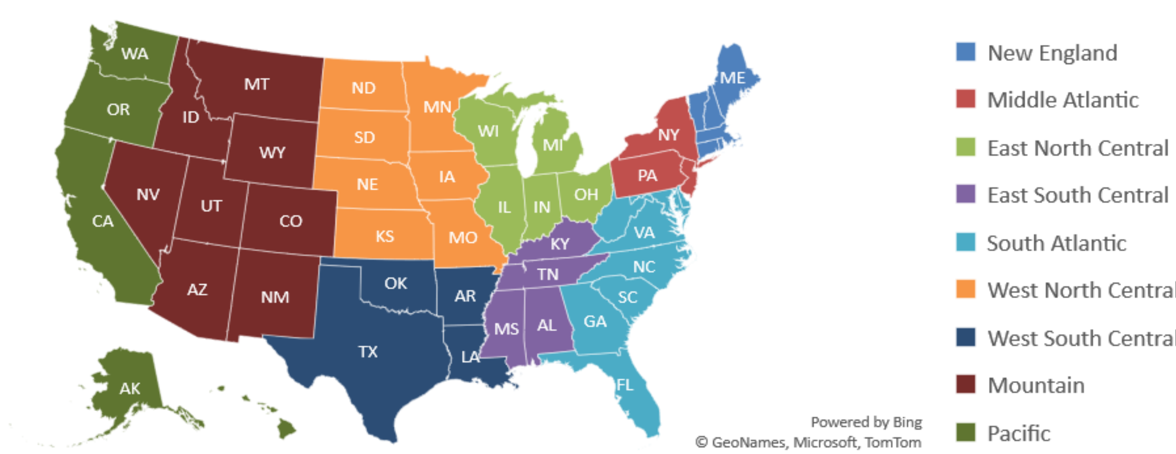


Figure 74. FHFA U.S. Census Subregions as defined by the U.S. Census Bureau



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

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

As of month-end March 2024, YoY inflation was 3.5%, increasing from 3.2% in the month prior. Nationally, rents are up 0.77% YoY as of month-end March 2024. The MoM change in rents from February 2024 to March 2024 increased by 0.30%. YoY change in wage growth declined for the second consecutive month, printing at 4.9% at month-end March 2024. Month-end January 2024 reporting data shows YoY home price appreciation increase to 6.0% from a 3.8% YoY change in January 2023.

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

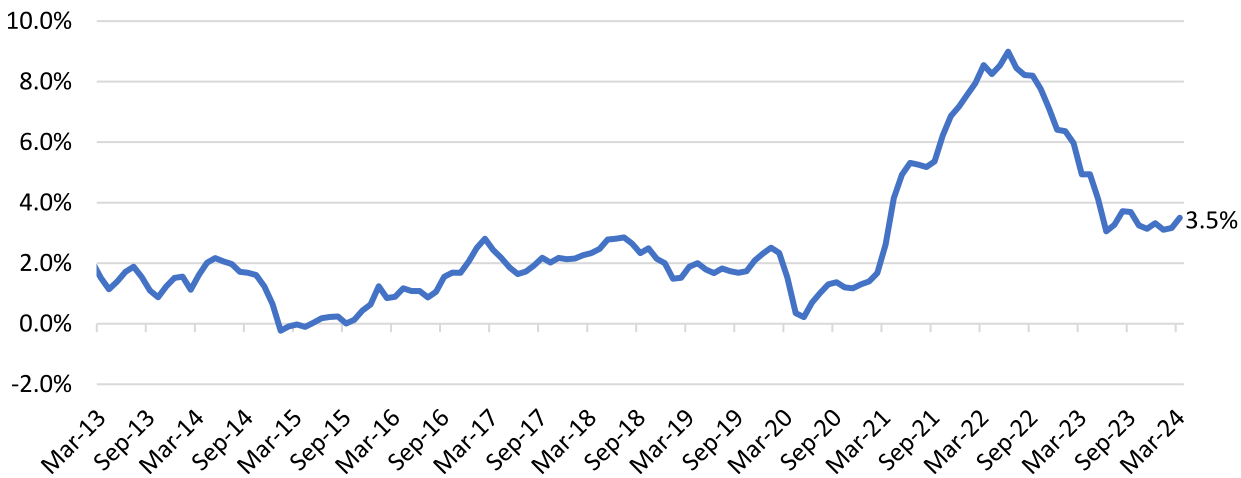
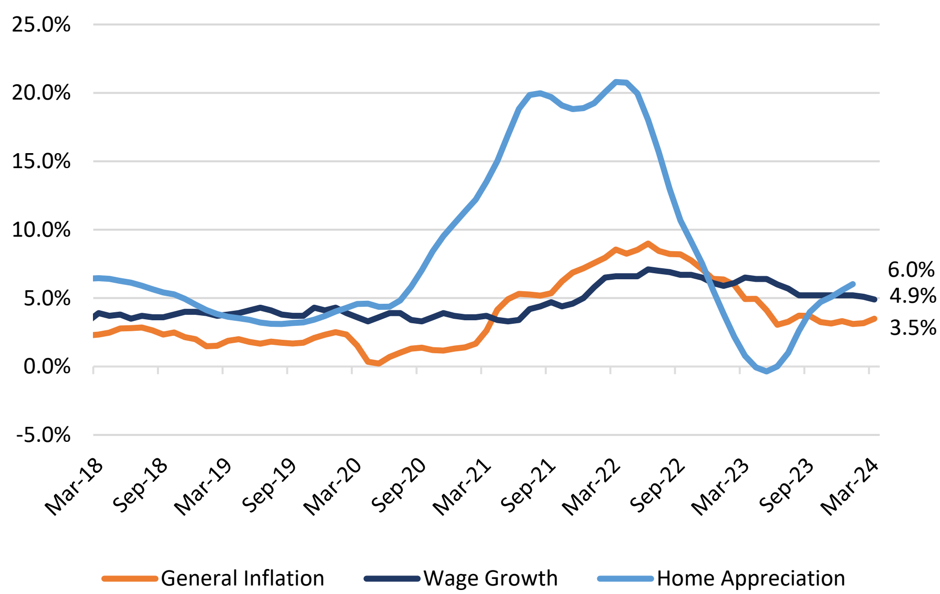


Figure 76. Asset Price Appreciation vs. Wage Increases



Metric	*Statistic*
General Inflation	*3.5%*
Home Price Appreciation *(YoY)*	*6.0%*
Rental Price Appreciation *(Median Rent Change YoY)*	*0.77%*
Wage Growth	*4.9%*

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 March 2024, the Homebuyer Affordability Fixed Mortgage Index (HAFM) was 105.5 and the First-Time Homebuyer Monthly Payment (FTMP), which represents the median payment for first-time homebuyers, was $2,120. This marks a 1.9% increase in the Homebuyer Affordability Fixed Mortgage Index and an 15.9% increase in monthly payments for first-time homebuyers from March 2023 to March 2024. HAFM has decreased 43.8% and FTMP has increased 106.6% since January 2021.

Figure 77. Homebuyer Affordability Index

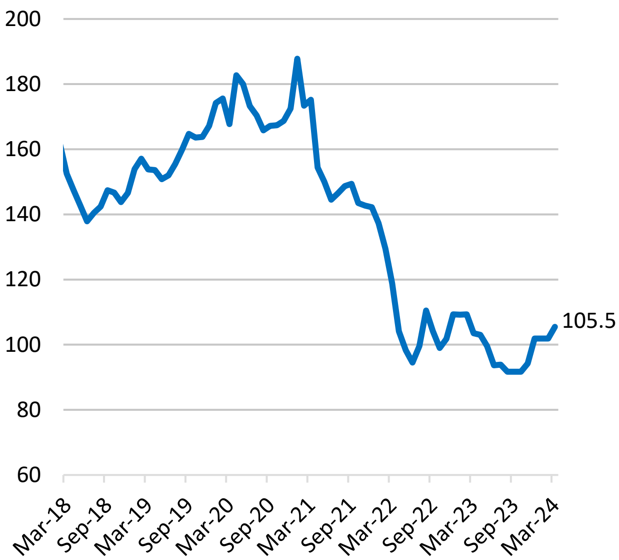
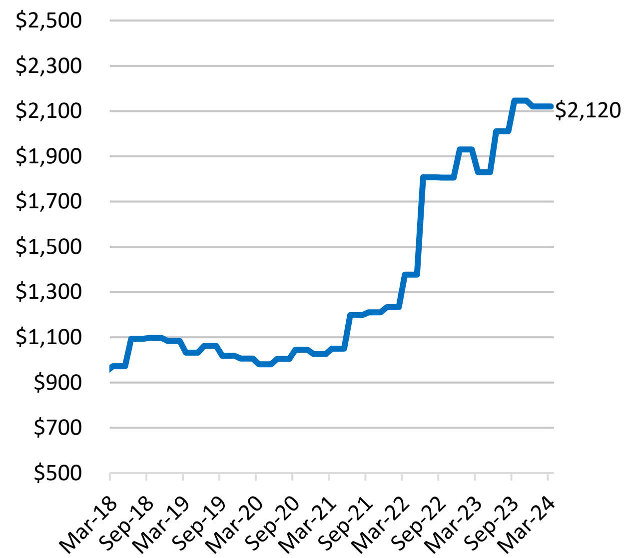


Figure 78. First-Time Homebuyer Monthly



Source: Bloomberg as of March 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 rate on March 20, 2024, at a range of 5.25% and 5.50% per the FOMC [8]. As of April 18, 2024, the average 30-year and 15-year fixed rate mortgage rates were 7.10% and 6.39%, respectively. The average 30-year fixed rate mortgage rate increased 36 bps and the average 15-year fixed rate mortgage rate increased 23 bps MoM from March 14, 2024.

Figure 79. Average Fixed Rate Mortgage Rates

Source: FRED data as of April 2024

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

16.3 Housing Inventory

As of March 2024, there were 8.3 months of housing inventory on the market, decreasing 1.2% MoM from 8.4 months in February 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 81 and 82** show Single-Family and Multifamily Housing metrics, including the number of permits, starts, and completions. From March 2023 to March 2024, the number of Single-Family completions fell 2.1%, while the number of starts and permits increased 27.7% and 33.2%, respectively. Multifamily metrics show that from March 2023 to March 2024, the number of completions increased 36.2%, while the number of starts and permits decreased 23.7% and 25.6%, respectively.

Figure 80. Single-Family Housing Inventory

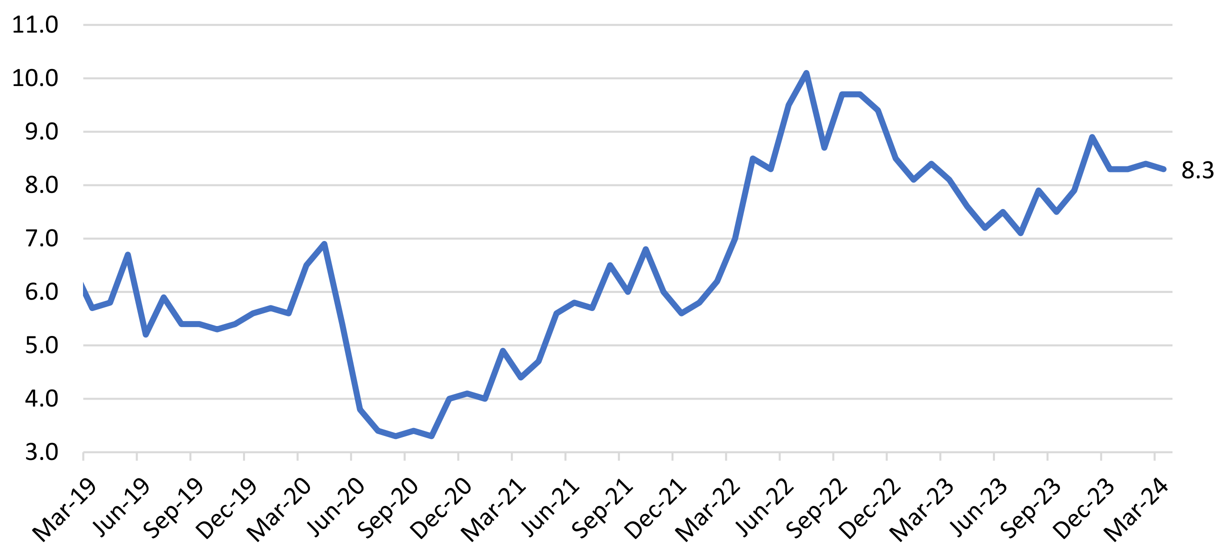


Figure 81. Single-Family Construction Metrics: Permits, Starts, Completions

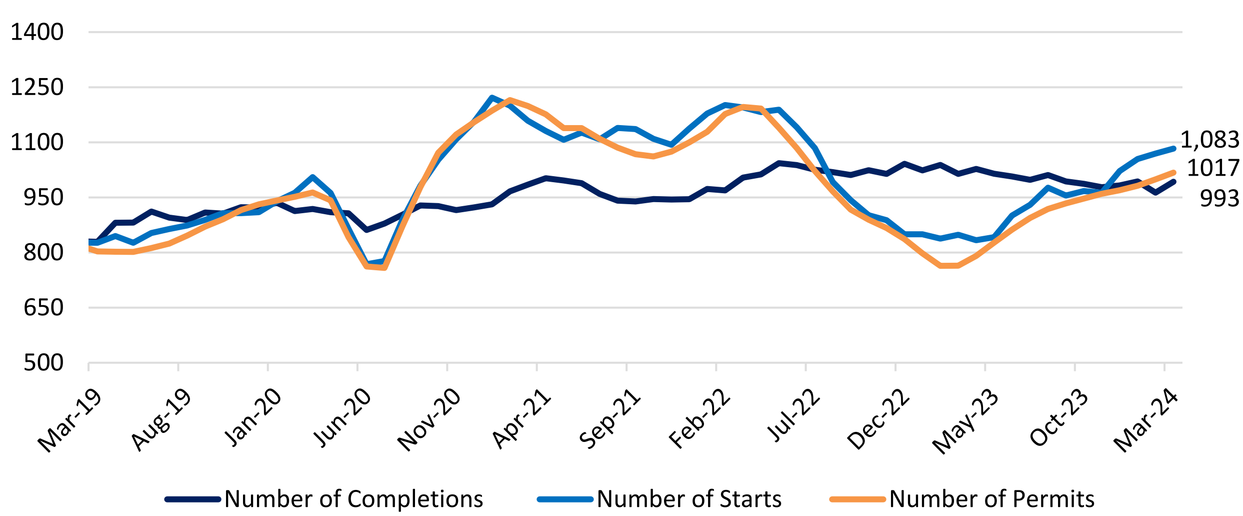
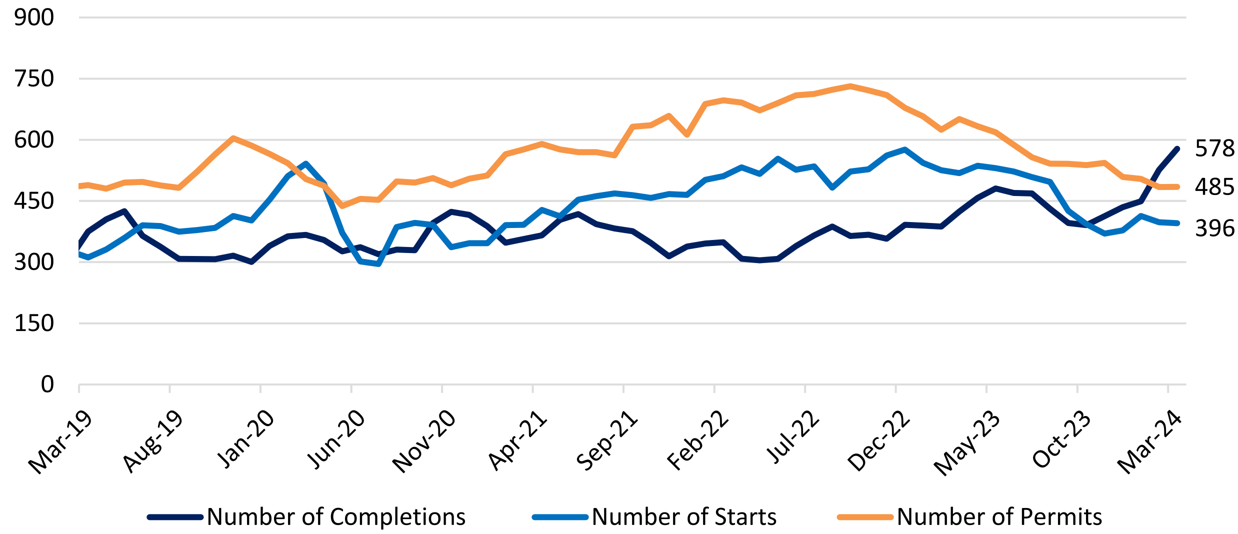


Figure 82. Multifamily Constructions Metrics: Permits, Starts, Completions



Source: FRED. Figure 80: data as of March 2024. New Residential Construction, U.S. Census Bureau. Figure 81 & 82: data as of March 2024.
Note: Figures 81 & 82 are calculated using a 3-month moving average to identify underlying trends in construction metrics.

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

The total value of the Single-Family housing market 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 83. Value of the U.S. Housing Market

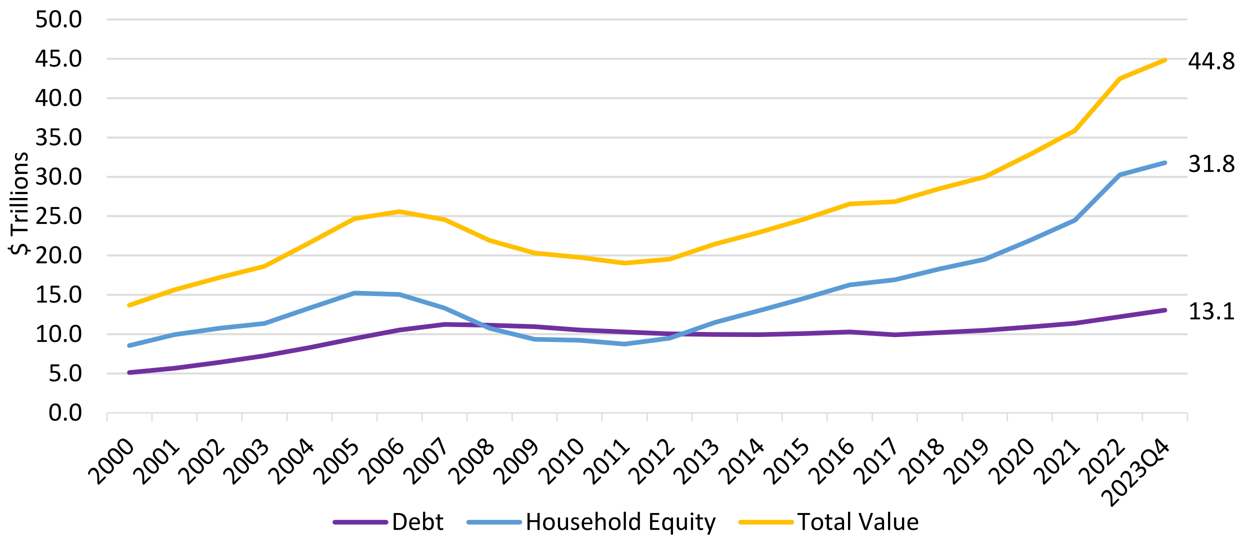
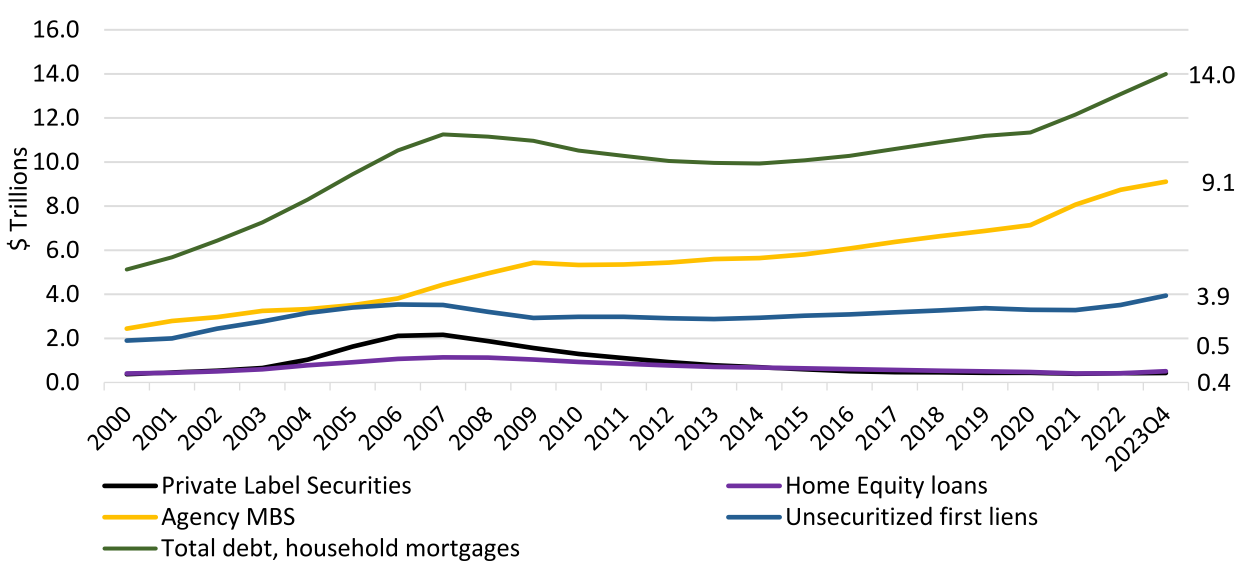


Figure 84. Size of the U.S. Residential Mortgage Market



Source: Federal Reserve Flow of Funds Data as of Q4 2023. Total debt in figure 84 includes additional Nonfinancial corporate/noncorporate business mortgages which is not included in the calculation for "debt" for figure 83.

17 DISCLOSURE

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