GLOBAL MARKETS ANALYSIS REPORT

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

November 2024

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

The November 2024 *Highlights* dives into Agency collateralized mortgage obligations (CMOs), examining trends in issuance volume by coupon type among Ginnie Mae and the government-sponsored entities (GSEs). Reason behind trends in coupon types are discussed as recent floating rate coupon issuance reached its highest level in over two years. The *Highlights* capture growth trends in Agency CMO issuance volume and uncover Ginnie Mae's leading share over the past two years.

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

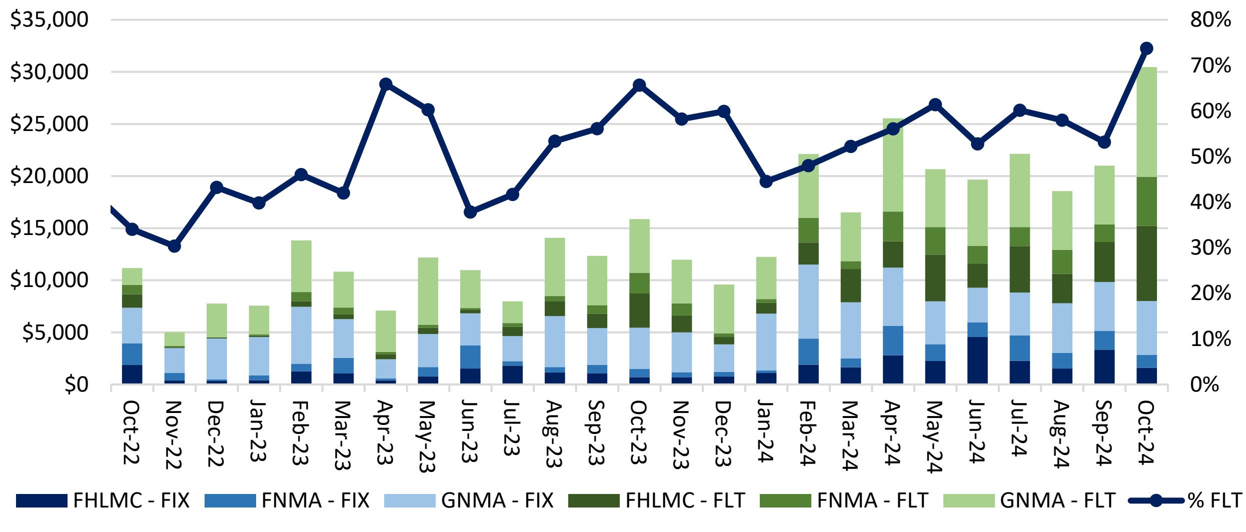
- The Fixed Income Product Performance Comparisons section shows that Ginnie Mae's MBS continue to offer attractive yields relative to sovereigns with comparable durations globally.
- The Single-Family MBS Pass-Through Issuance section captures the leading role government lending/mortgage insurance programs are playing in the post-pandemic mortgage market. Gross and net issuance of Single-Family Ginnie Mae pass-throughs exceed that of both Fannie Mae and Freddie Mac.
- The SOMA Holdings section captures the Federal Reserve's (Fed) Chairman Jerome Powell's comments regarding the Fed's decision to lower the policy rate as well as recent activity in the Systems Open Market Account (SOMA) portfolio.
- 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 increased for first-time homebuyers.

Highlights

CMOs, also known as Real-Estate Mortgage Investment Conduits (REMIC), are a type of multiclass security that pools mortgage loans, mortgage-backed securities (MBS), or other structured mortgage-backed securities into distinct tranches. These securities were developed within a tax structure that address limitations of traditional mortgage pass-through instruments by offering a wider range of investment terms and risk profiles. CMO tranches are structured to align with specific investor objectives, providing enhanced customization and predictability of cash flows. The highly customizable nature of CMOs has led to increasingly varied and complex structures with multiple tranches, each having unique characteristics that may be interdependent with other tranches in the offering.

Recently, the issuance of CMOs with floating-rate coupons has experienced a notable increase. Floating rate coupons are tied in a fixed relationship to a predetermined interest rate index such as 30-day average SOFR. The floating rate provides the investor an ability to mitigate interest rate risk (IRR) in their portfolio as the security resets its interest rate each month. Both floaters and inverse floaters play critical roles in managing portfolio exposure to rate fluctuations. The increased issuance of floating-rate coupons may be attributed to a heightened ambiguity in the macroeconomic environment, as market participants hedge against the uncertainties on the future path of interest rates.

Figure 1. Agency CMO Gross Issuance by Coupon Type ($M)



Source: Recursion

Figure 1 shows Agency CMO gross issuance over the past two years for Ginnie Mae, Freddie Mac, and Fannie Mae, split by coupon type. Since October 2022 to October 2024 approximately $367 billion gross issuance of Agency CMOs were issued. Ginnie Mae's share of gross issuance accounts for over 61% or $224 billion of total gross issuance over the past two years. Average monthly issuance for all Agency CMOs from October 2022 to October 2023 was around $10.5 billion, while the average monthly issuance for October 2023 to October 2024 was around $18.9 billion.

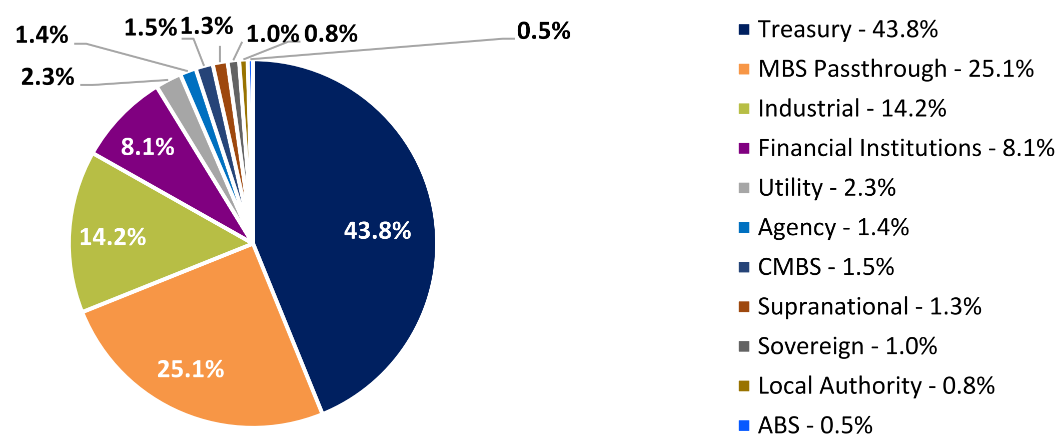
The growth in CMO gross issuance was also accompanied by a growth in the share of floating rate coupons. The line in the chart above shows how floater issuance has grown as a percent of overall issuance. As of October 2024, approximately 73% of all issuances were structured into floating coupons. Ginnie Mae's share of floater issuance was approximately half of the total floater issuance for October 2024. For more information on Agency CMO issuance, see Section 7.0 – Agency REMIC Securities.

1 US AGGREGATE AND GLOBAL INDICES

1.1 Bloomberg US Aggregate and Global Indices

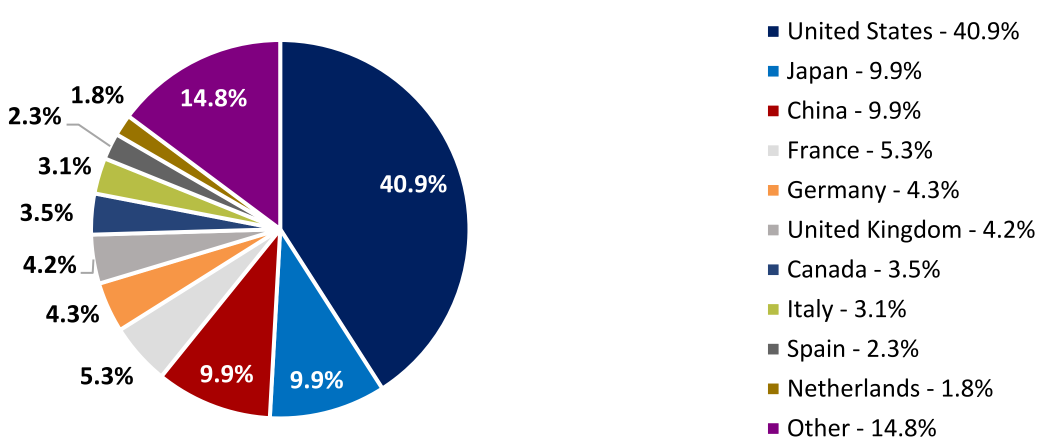
At month-end October, U.S. Treasuries contributed 43.8% to the Bloomberg U.S. Aggregate Index, increasing approximately 0.2% from the prior month. U.S. Agency MBS Passthrough (Ginnie Mae, Fannie Mae, and Freddie Mac) contributed 25.1%, decreasing approximately 0.2% from the prior month. All other changes 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 40.9% of the total index, increasing approximately 0.5% from the prior month. Japan's share of fixed income was the second largest with 9.9% at month end of October 2024. China's share was the third largest at 9.9% as of month end October 2024. Japan's share of fixed income decreased from the prior month by 0.5% and China's share of fixed income increased by 0.2% from the prior month. 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 October 2024. Figures in charts may not add to 100% due to rounding

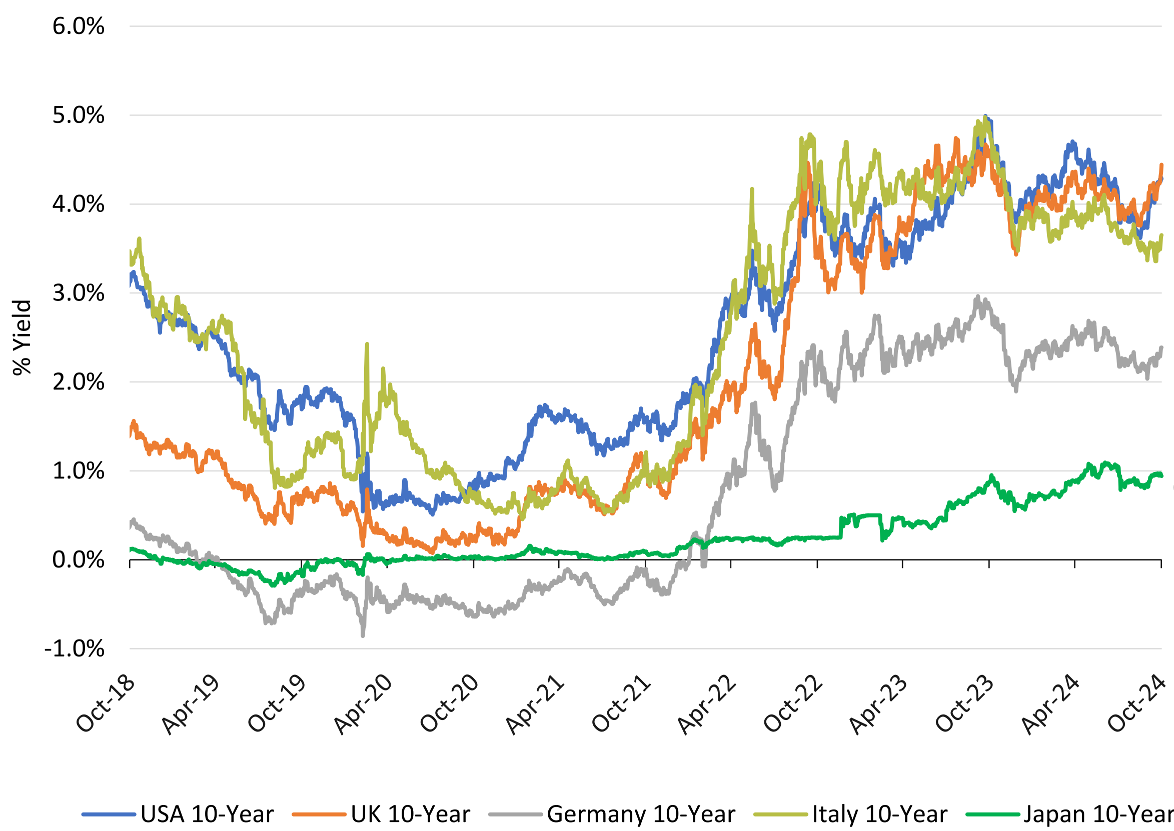
2 SOVEREIGN DEBT PRODUCT PERFORMANCE COMPARISONS

2.1 Global 10-Year Treasury Yields (Unhedged)

The U.S. 10-year Treasury yield moved to 4.29% at month-end October 2024, a month to month (MtM) increase of 50 bps. In August 2024, U.S. 10-year Treasury note rates dropped below UK 10-year note rates, marking the first time since October of 2023 that U.S. 10-year was not the highest government yield amongst the countries listed below. The UK, German, Italian and Japanese month-end yields all increased from the previous month.

- The yield on the UK 10-year note increased to 4.44% at month-end October, a MtM increase of 44 bps.
- The yield on the German 10-year note increased to 2.39% at month-end October, a MtM increase of 27 bps.
- The yield on the Italian 10-year note increased to 3.65% at month-end October, a MtM increase of 20 bps.
- The yield on the Japanese 10-year note increased to 0.94% at month-end October, a MtM increase of 9 bps.

Figure 4. Global 10-Year Treasury Yields



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

2.2 U.S. Treasury Hedged Yields

The yield for the 10-year Treasury, hedged in Japanese Yen (JPY) stood at 0.30% at month-end October, a 21 bp increase from month-end September.

The yield for the 10-year Treasury, hedged in Euros (EUR) stood at 2.54% at month-end October, a 6 bp increase from month-end September.

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

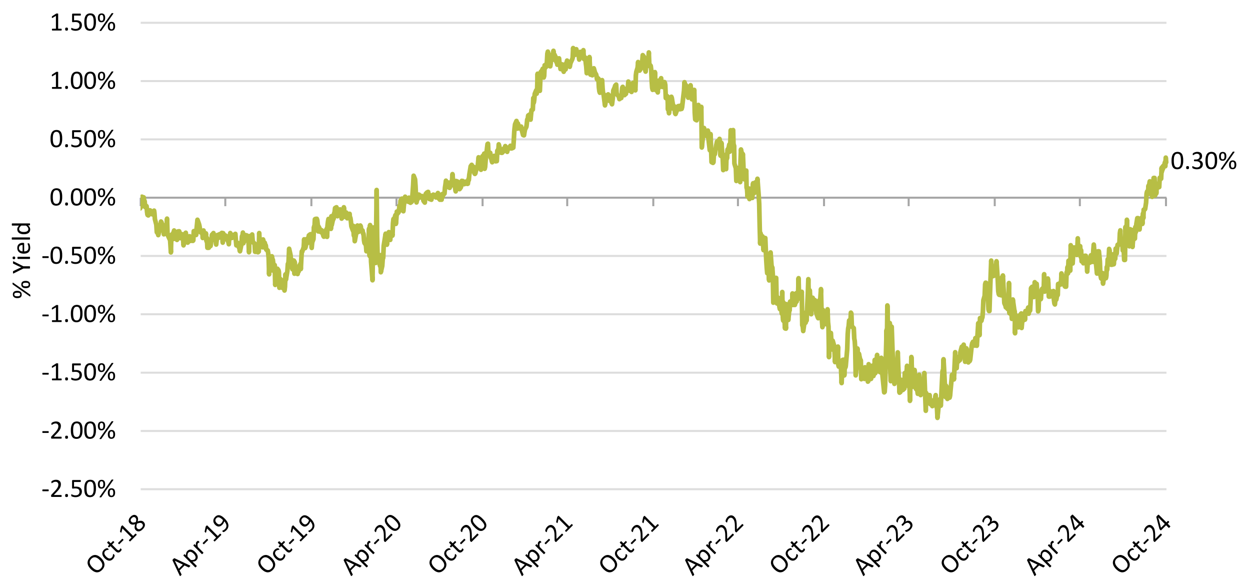
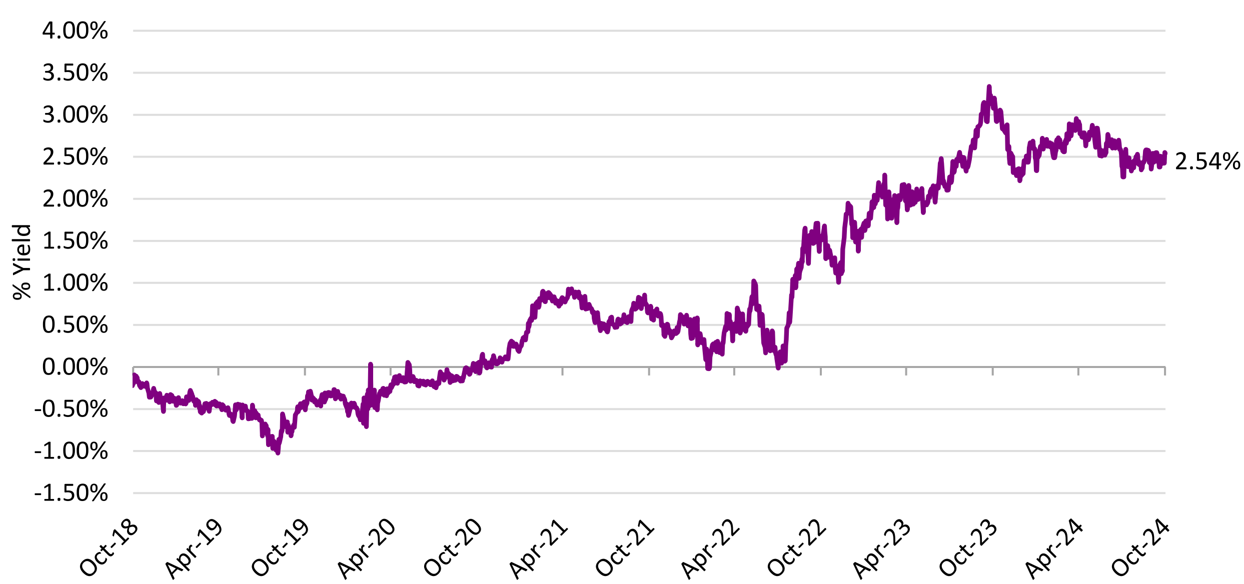


Figure 6. U.S. 10 yr Total Return Hedged, 1 yr EUR



Source: Bloomberg. Notes: Data as of October 2024. The 10 yr Total Return Hedged Yields are calculated by taking the 10 yr treasury yield and subtracting the 1 yr hedge cost for JPY and EUR.

SECONDARY MORTGAGE MARKET

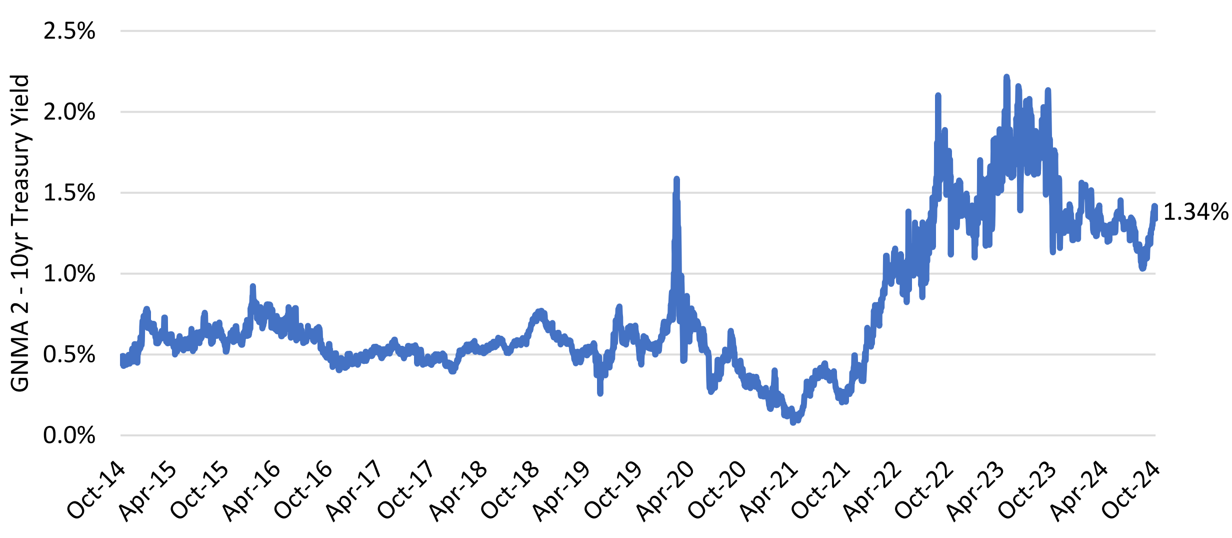
3 FIXED INCOME PRODUCT PERFORMANCE COMPARISONS

3.1 Ginnie Mae Yields – USD

Ginnie Mae II yields were 5.05% at month end August, then decreased 21 bps to 4.84% at month end September, then increased 88 bps to 5.72% at month end October. The Ginnie Mae II spread over the U.S. 10-year Treasury yield decreased 26 bps from 1.60% in October 2023 to 1.34% over the U.S. 10-year Treasury yield as of month-end October 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 October 2024.

3.2 Ginnie Mae Hedged Yields

The yield for Ginnie Mae II's hedged in Japanese Yen stood at 1.72% at month-end October, a 50 bp increase from month-end September. The hedged yield is approximately 78 bps higher than the Japanese 10-year yield as of month-end October 2024.

The yield for Ginnie Mae II's, hedged in Euros stood at 3.96% at month-end October, a 35 bp increase from month-end September. The hedged yield is approximately 157 bps higher than the German 10-year yield, and 31 bps higher than the Italian 10-year yield as of month-end October.

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

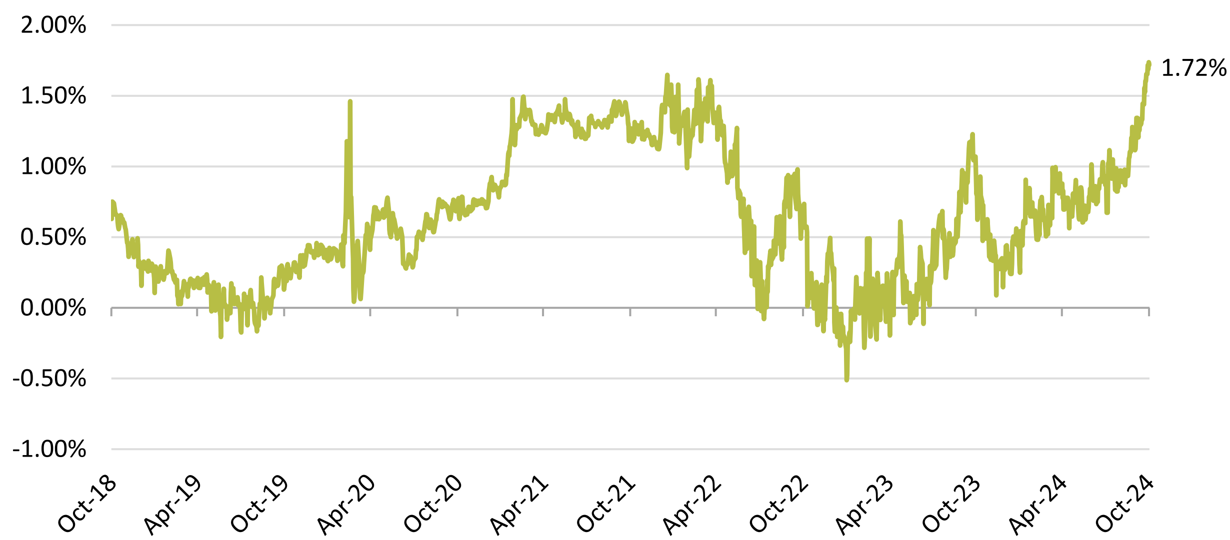
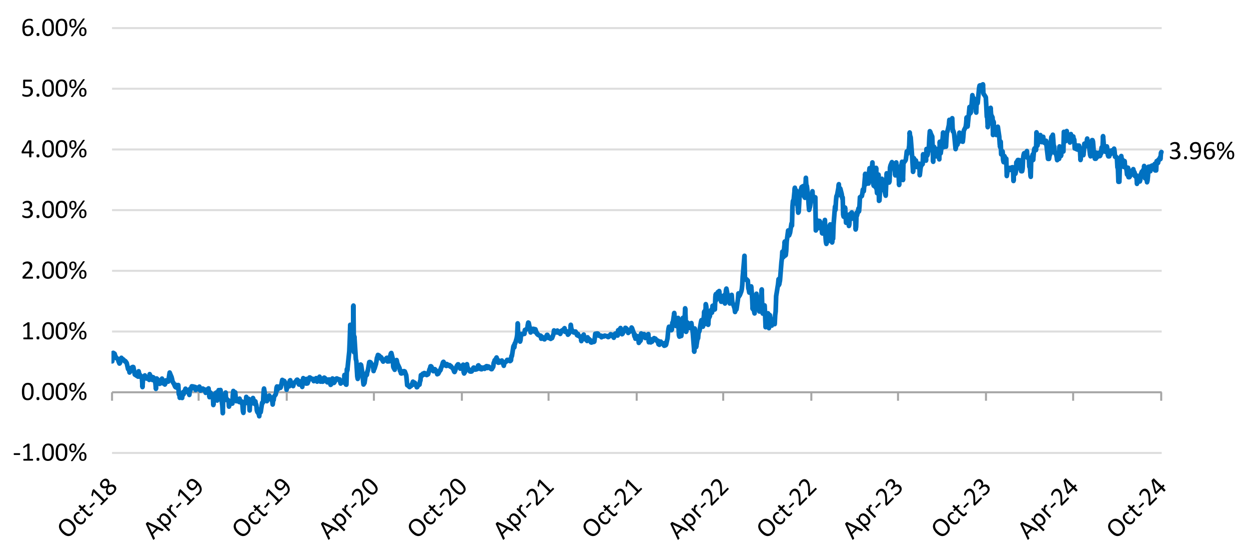


Figure 10. Ginnie Mae II Hedged, 1 yr. EUR



Source: Bloomberg. Notes: Data as of October 2024. The Ginnie Mae II Hedged Yields are calculated by taking the Ginnie Mae II Yield and subtracting the 1yr hedge cost for JPY and EUR.

3.3 Ginnie Mae Yield Spreads – Intermediate Credit

The GNMA II 30-year OAS increased 3 bps to 0.49%, as of month-end October. The U.S. Intermediate Credit OAS decreased 5 bps to 0.67% from month-end September to month-end October. The yield differential between U.S. Intermediate Credit and GNMA II 30-year OAS decreased 8 bps to 0.18% at month-end October.

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

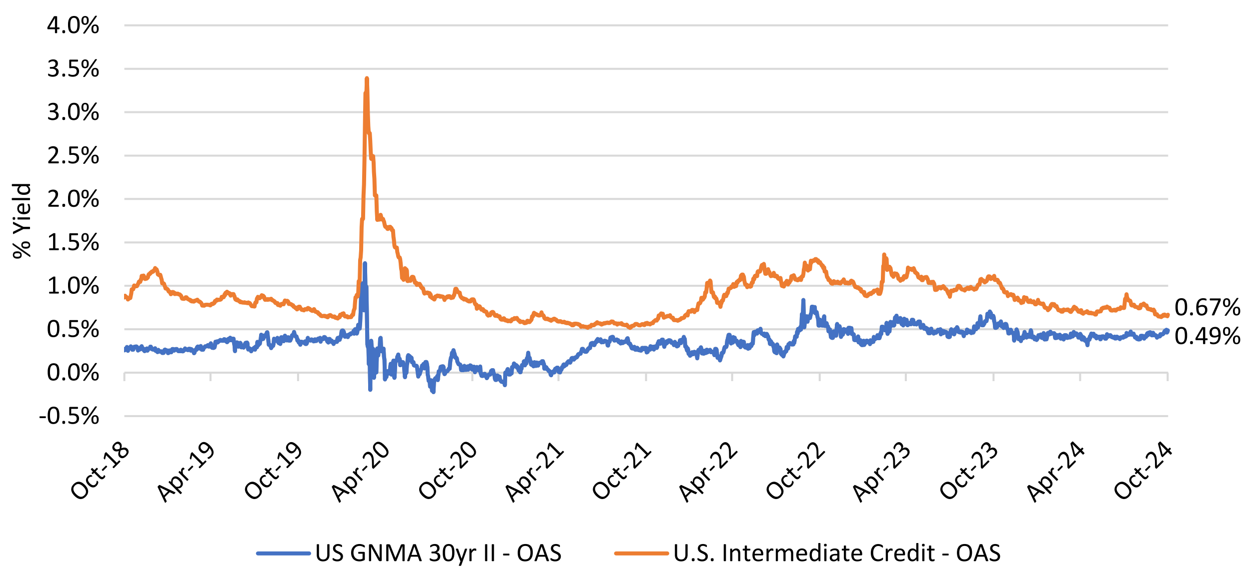


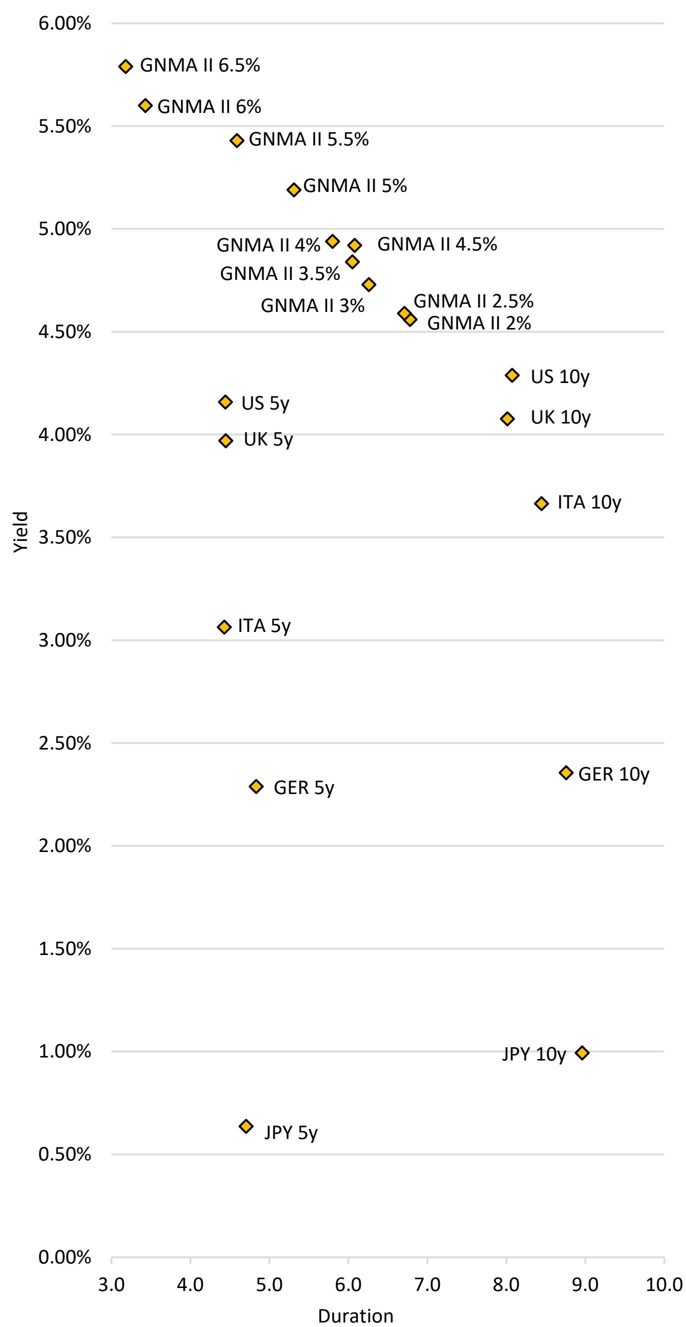
Figure 12. Spread between U.S. Intermediate Credit and U.S. GNMA II 30yr MBS OAS

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

3.4 Global Treasury Yield Per Duration

Ginnie Mae MBS continues to offer a higher yield in comparison to other government fixed income securities of various tenors with similar or longer duration.

Figure 13. Yield vs. Duration



Security	Duration	Yield (%)
U.S. 5y	4.44	4.16
U.S. 10y	8.07	4.29
JPY 5y	4.70	0.64
JPY 10y	8.96	0.99
GER 5y	4.83	2.29
GER 10y	8.76	2.36
ITA 5y	4.43	3.06
ITA 10y	8.45	3.66
UK 5y	4.45	3.97
UK 10y	8.01	4.08
GNMA II 2%	6.78	4.56
GNMA II 2.5%	6.71	4.59
GNMA II 3%	6.26	4.73
GNMA II 3.5%	6.05	4.84
GNMA II 4%	5.80	4.94
GNMA II 4.5%	6.08	4.92
GNMA II 5%	5.31	5.19
GNMA II 5.5%	4.59	5.43
GNMA II 6%	3.43	5.60
GNMA II 6.5%	3.18	5.79

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 October 2024. Yields are in base currency of security, unhedged and rounded to nearest bp.

4 PREPAYMENTS

4.1 Aggregate Prepayments (CPR)

Freddie Mac's fixed rate aggregate prepayment speeds increased by 2.0% MtM from September 2024 to October 2024. Similarly, Fannie Mae CPRs increased by 1.8% MtM and Ginnie Mae CPRs increased by 2.0% MtM. ARM prepayments saw increases of 4.6% MtM for Freddie Mac and 1.5% MtM for Fannie Mae, and a decrease of 1.5% MtM for Ginnie Mae.

Figure 14. Fixed Rate Aggregate 1-Month CPR

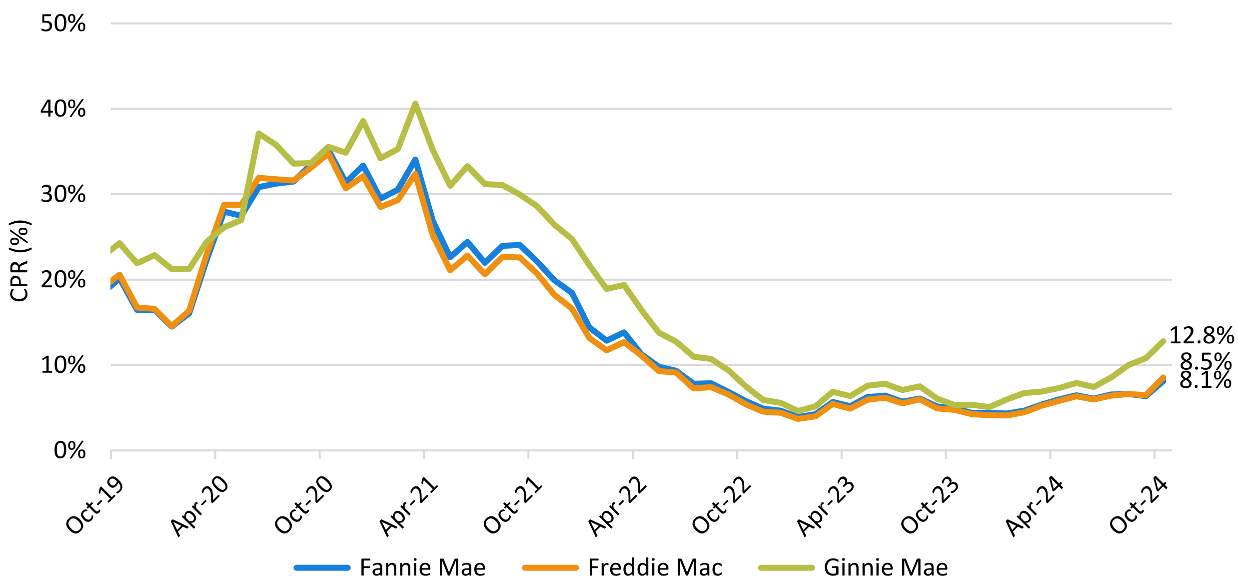
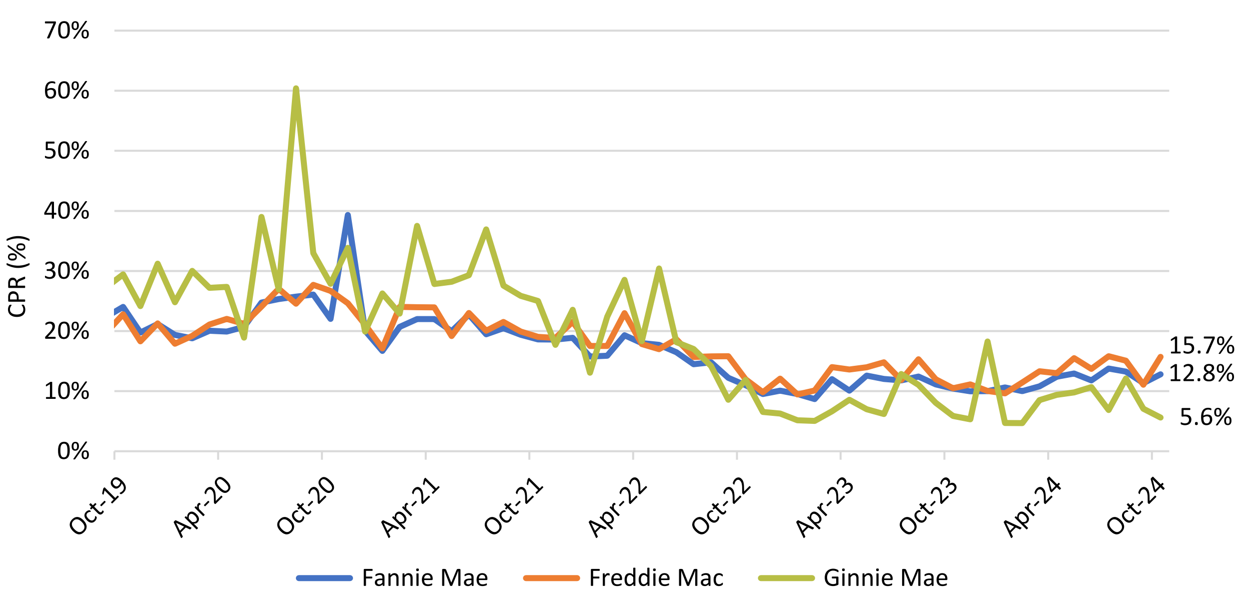


Figure 15. ARM Aggregate 1-Month CPR



Source: Recursion. Note: Data as of October 2024. Figures are rounded to the nearest tenth.

4.2 Involuntary Prepayments (CDR)

Fixed rate involuntary prepayments 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 October 2024 after slightly overtaking Ginnie Mae in September 2022.

Figure 16. Fixed Rate Aggregate CDR

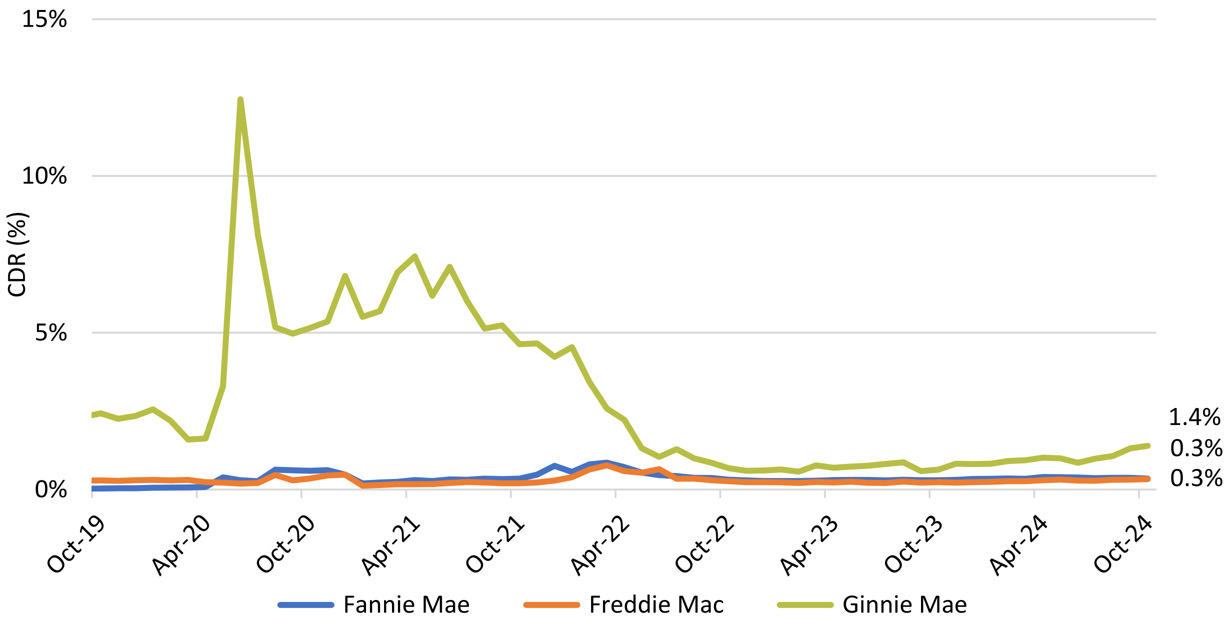
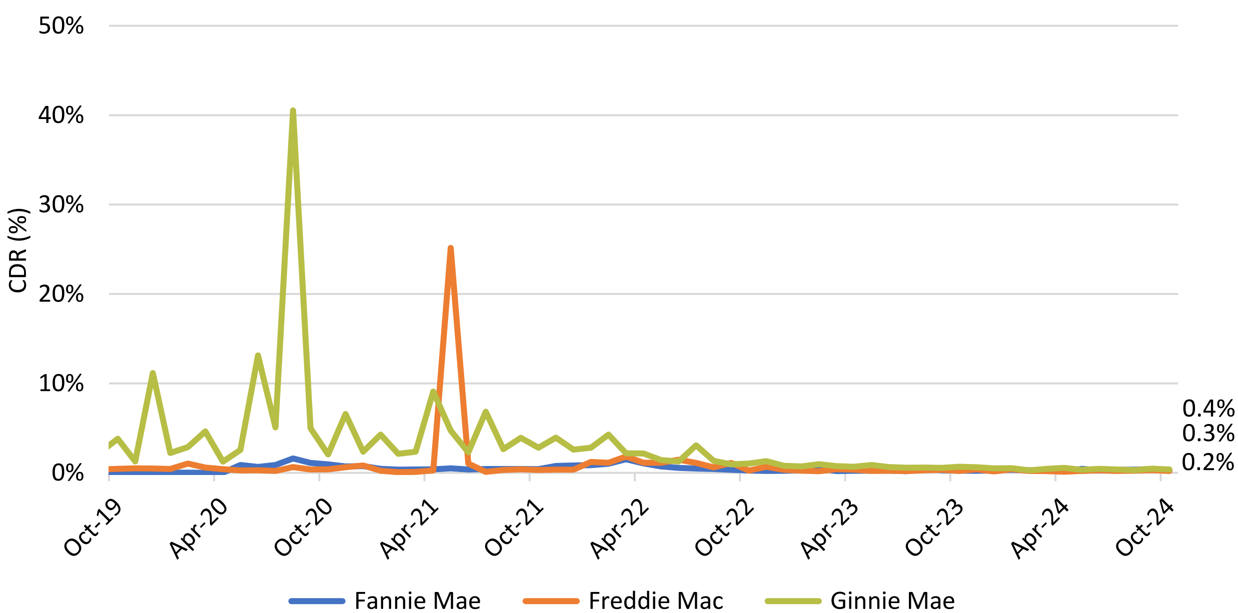


Figure 17. ARM Aggregate CDR



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

4.3 Voluntary Prepayment Rates (CRR)

Fixed rate voluntary prepayments were higher for Ginnie Mae than Fannie Mae and Freddie Mac. Fannie Mae saw an increase of 1.8% MtM and Ginnie Mae saw an increase of 2.0% MtM in fixed rate aggregate CRR. Fannie Mae saw an increase of 1.6% MtM in ARM aggregate CRR, and Ginnie Mae saw a 1.4% decrease MtM. Freddie Mac's fixed rate aggregate CRR increased by 2.0% MtM while ARM aggregate CRR increased by 4.7% MtM.

Figure 18. Fixed Rate Aggregate CRR

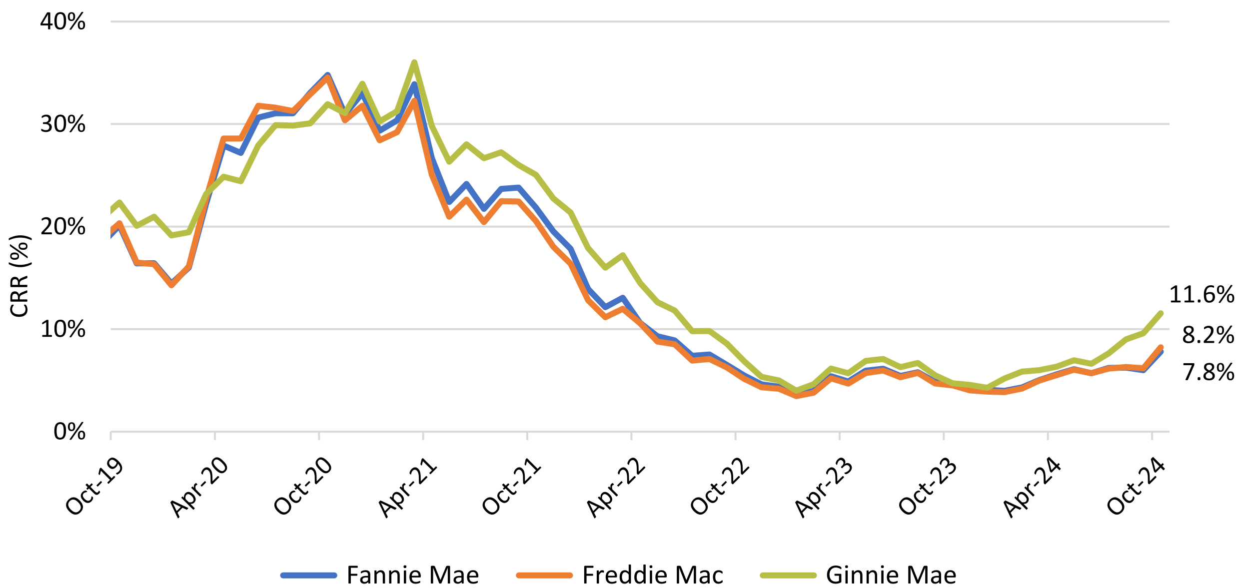
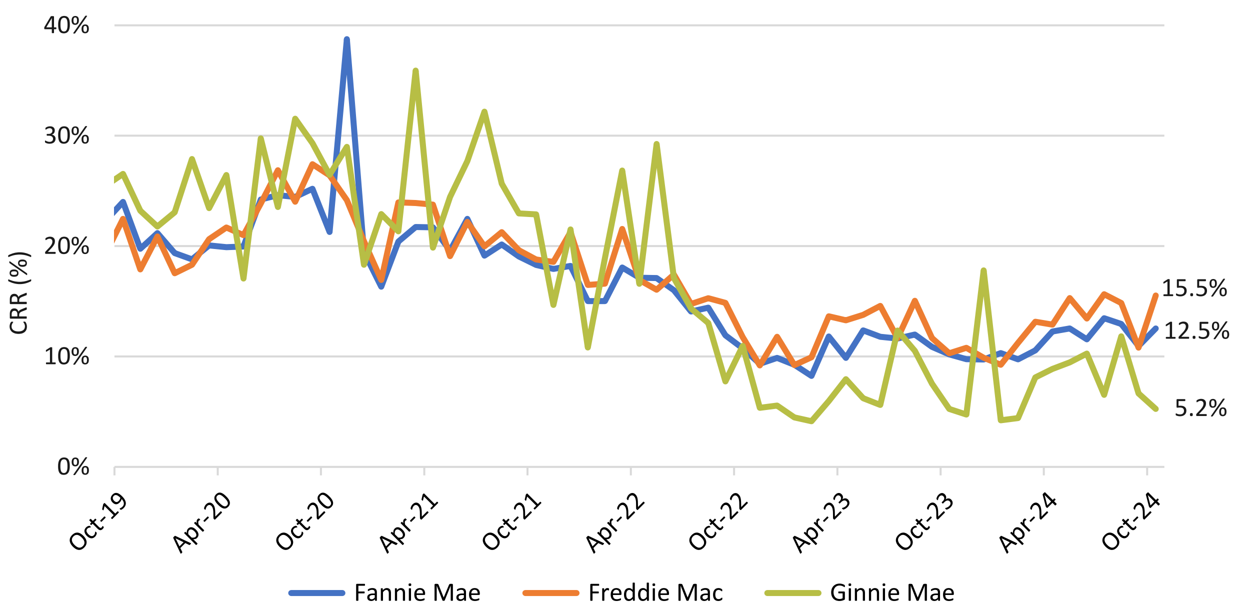


Figure 19. ARM Aggregate CRR



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

5 SINGLE-FAMILY MBS PASS-THROUGH ISSUANCE

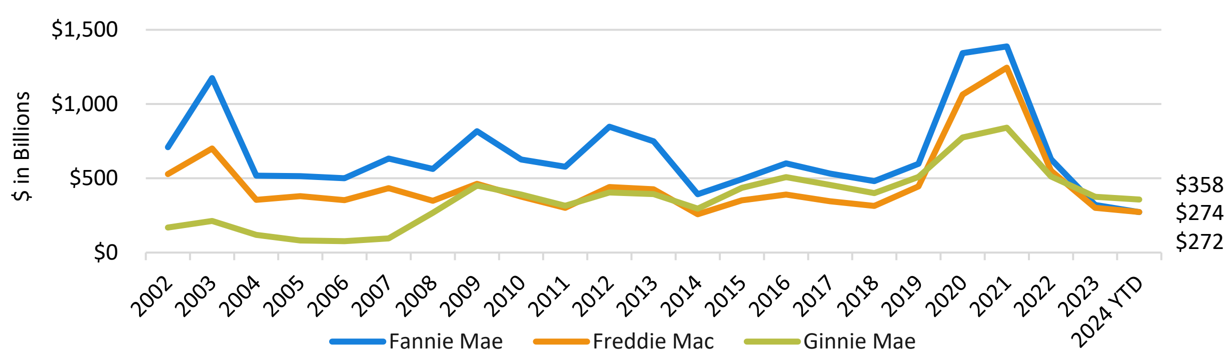
5.1 Gross Issuance of Agency MBS

In October 2024, total gross MBS issuance was approximately $109.7 billion. Of the $109.7 billion total gross issuance in October, Freddie Mac and Fannie Mae issued $36.1 and $29.9 billion, respectively. Ginnie Mae's gross issuance for October was $43.7 billion. Ginnie Mae's October YTD and monthly gross issuance exceeded that of both Fannie and Freddie.

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	$272.4	$273.6	$546.0	$357.6	$903.6

Figure 20. Agency Gross Issuance

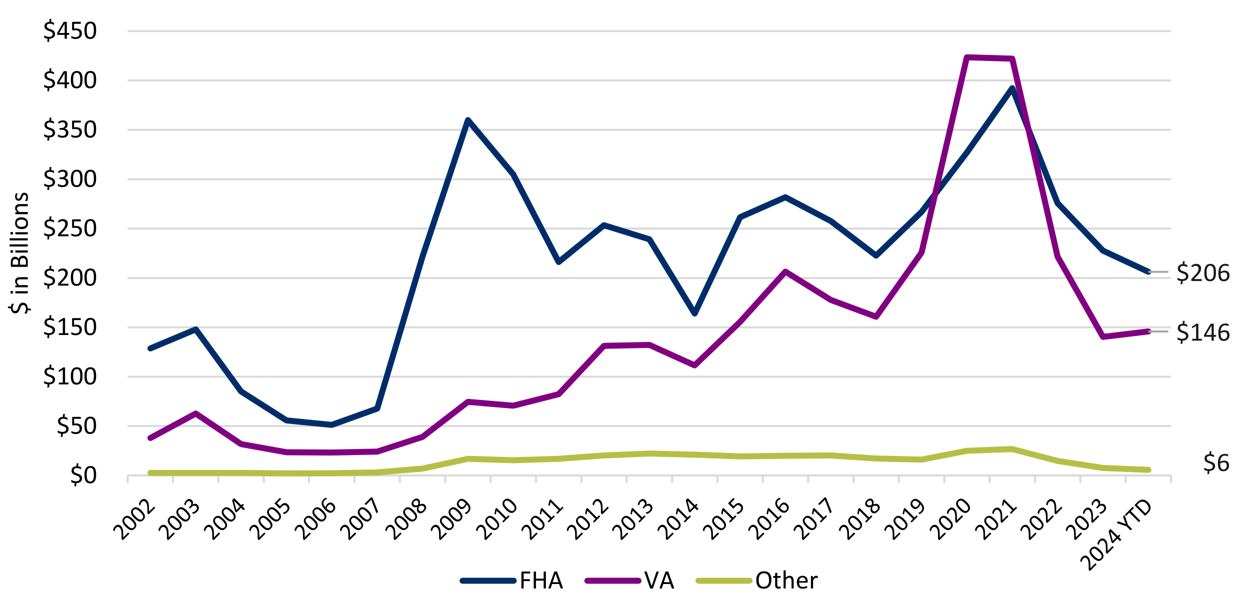


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

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	$206.2	$145.8	$5.7	$357.6

Figure 21. Ginnie Mae Gross Issuance



Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "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.

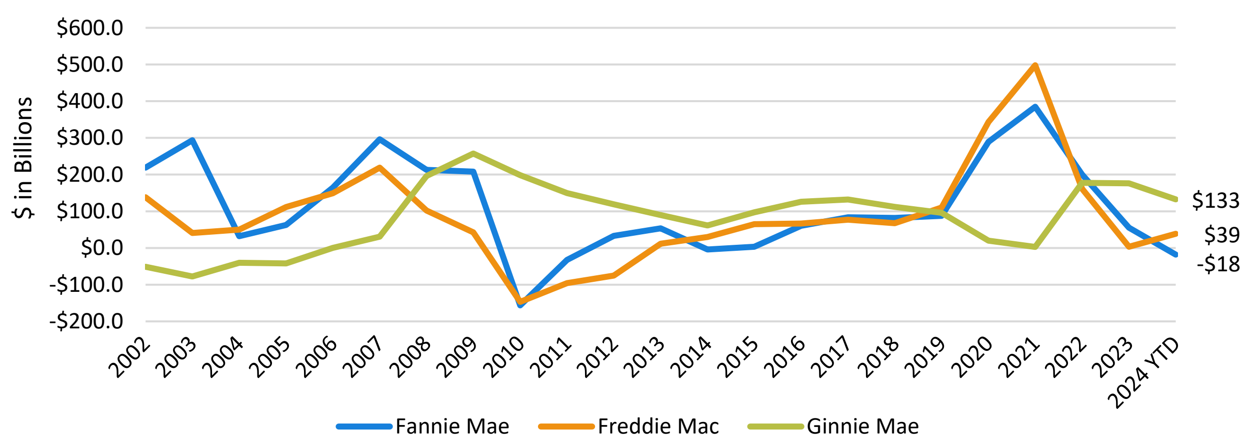
5.2 Net Issuance of Agency MBS

Agency Net Issuance as of month-end October was $152.9 billion for 2024 YTD, as shown in **Table 3.** Ginnie Mae has the largest net issuance YTD, totaling $132.5 billion as of month-end October 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 Total	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	-$18.2	$38.6	$20.4	$132.5	$152.9

Figure 22. Agency Net Issuance

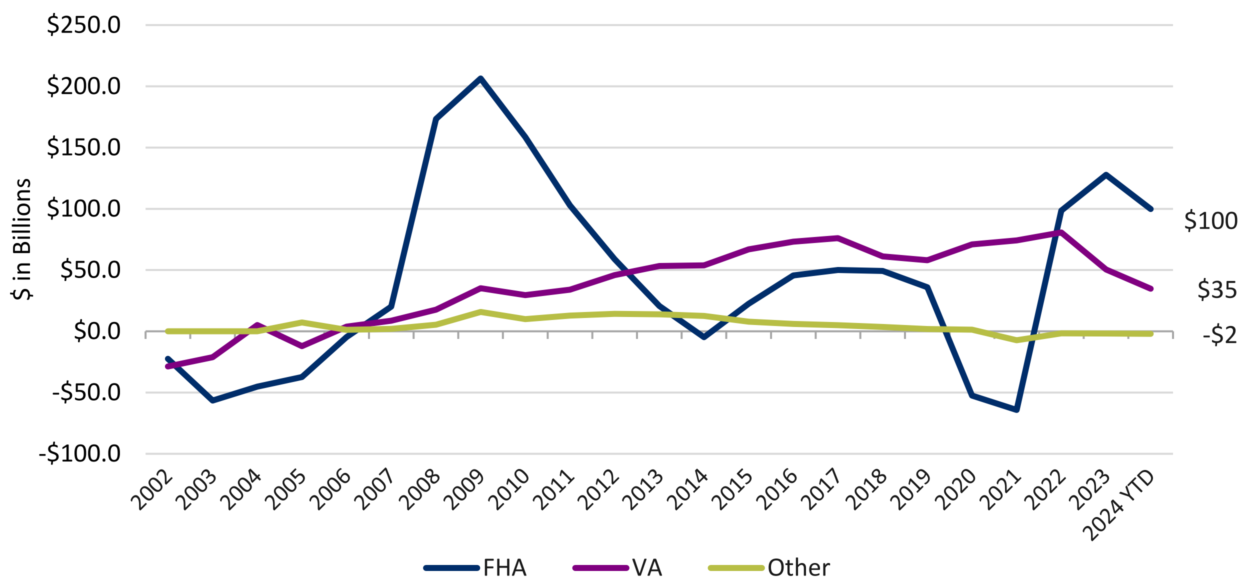


Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "GSE Total", the values are rounded after the exact underlying values are summed. As a result, some sums may not appear to match the sum of their rounded component values.

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	$99.8	$34.8	-$2.1	$132.5

Figure 23. Ginnie Mae Net Issuance



Source: Recursion. Note: Numbers are rounded to the nearest hundred million. For sums, like "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 October was approximately $10.5 billion, which represents an approximate $7.0 billion decrease MtM. Ginnie Mae net issuance was $10.7 billion in October, a $4.4 billion decrease from September. Ginnie Mae's $43.7 billion gross issuance in October, seen in **Table 5**, was approximately $12.4 billion above 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
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
Apr-24	$25.0	$26.3	$33.8	$51.4	$85.2	-$3.8	$3.4	$14.1	-$0.3	$13.8
May-24	$26.6	$29.0	$35.7	$55.6	$91.4	-$3.7	$4.5	$14.5	$0.7	$15.3
Jun-24	$33.3	$27.3	$35.3	$60.6	$95.9	$4.2	$3.9	$15.0	$8.1	$23.1
Jul-24	$32.6	$26.6	$38.2	$59.2	$97.4	$1.9	$2.0	$15.4	$3.9	$19.3
Aug-24	$34.4	$35.7	$39.8	$70.0	$109.8	$3.5	$10.5	$13.6	$14.0	$27.6
Sep-24	$25.4	$31.9	$43.3	$57.3	$100.6	-$4.6	$7.1	$15.1	$2.5	$17.6
Oct-24	$29.9	$36.1	$43.7	$66.0	$109.7	-$5.7	$5.6	$10.7	-$0.1	$10.5

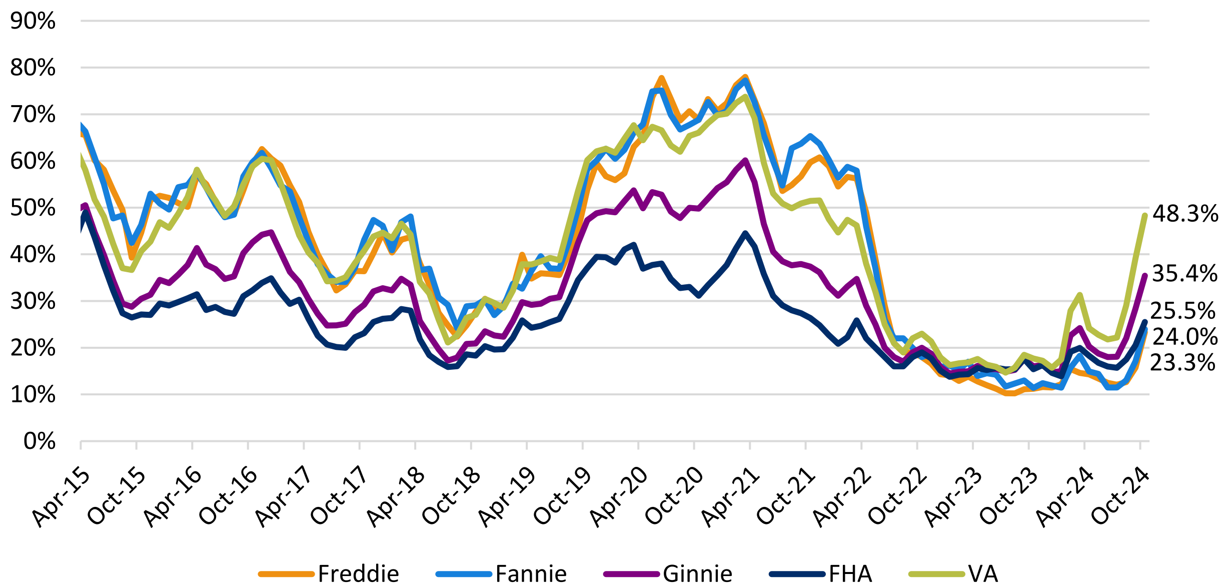
Sources: Data for Gross and Net Issuance was sourced from Fannie Mae, Freddie Mac, and Ginnie Mae loan level disclosure files. Net issuance is defined here as the difference between prior period UPB and current period UPB. Data as of October 2024. Beginning with the October 2021 GMAR, the Fannie Mae and Freddie Mac net issuance data is updated to reflect the current UPB of the portfolios. September 2021 through October 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 24.7% MoM for Ginnie Mae as of month-end October 2024.

- Freddie Mac's refinance percentage increased to 23.3% in October, up from 15.7% in September.
- Fannie Mae's refinance percentage increased to 24.0% in October, up from 17.1% in September.
- Ginnie Mae's refinance percentage increased to 35.4% in October, up from 28.4% in September.
- FHA's refinance percentage increased to 25.5% in October, up from 20.5% in September.
- VA's refinance percentage increased to 48.3% in October, up from 39.2% in September.

Figure 24. Percent Refinance at Issuance – Single-Family



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

6 AGENCY SINGLE-FAMILY MBS OUTSTANDING

6.1 Outstanding Single-Family Agency MBS

As of month-end October 2024, outstanding Single-Family MBS in the Agency market totaled $8.99 trillion: 39.6% Fannie Mae, 33.2% Freddie Mac, and 27.2% Ginnie Mae MBS. Over the past twelve months, Freddie Mac's total outstanding MBS increased by approximately 1.7%, and Ginnie Mae's increased by 7.0%. Fannie Mae's total outstanding MBS decreased by 0.6%. Fannie Mae's outstanding MBS remains larger than Freddie Mac's and Ginnie Mae's outstanding MBS by approximately $570 billion and $1.1 trillion, respectively.

Ginnie Mae's MBS collateral composition has changed over time as shown in **Figure 26.** In October 2019, 58.9% of Ginnie Mae's outstanding collateral was FHA and 35.2% was VA. As of month-end October 2024, FHA collateral comprised 55.5% of Ginnie Mae MBS outstanding, and VA collateral comprised 40.4% of Ginnie Mae MBS outstanding.

Figure 25. Outstanding Agency Mortgage-Backed Securities

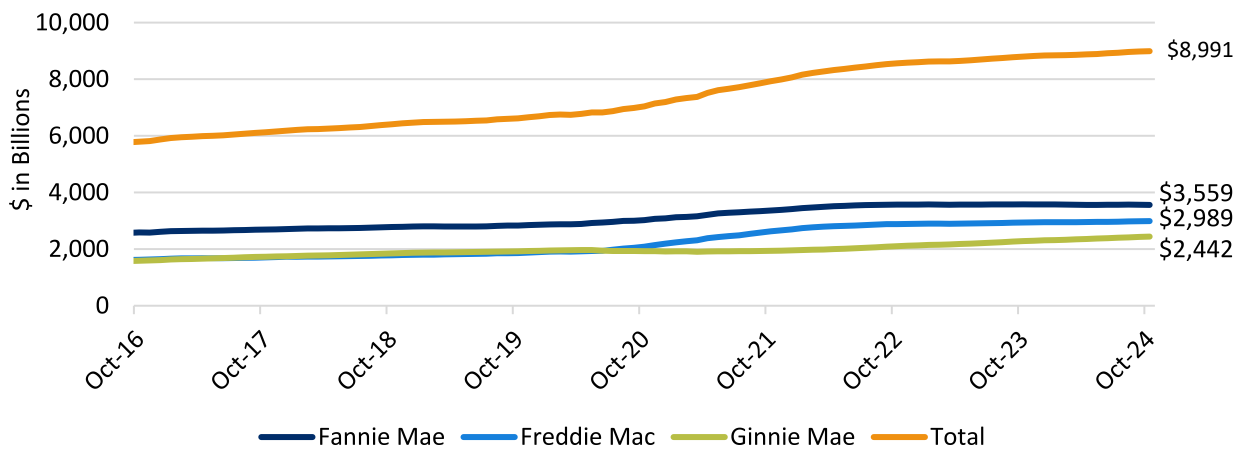
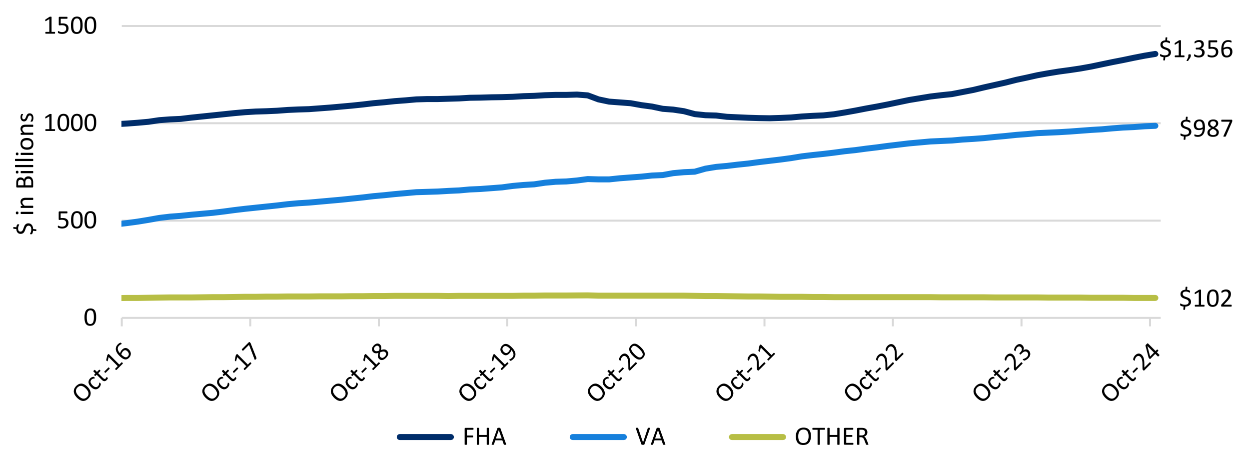


Figure 26. Composition of Outstanding Ginnie Mae Mortgage-Backed Securities



Source: Recursion. Note: Data as of October 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 increased in Q2 2024, with approximately $435 billion in originations, which represents an increase in issuance of 33.8% from Q1 2024. Ginnie Mae's share of total origination decreased from 27.0% to 23.5% in Q2 2024, while portfolio origination increased from 29.9% to 34.5%.

Figure 27. First Lien Origination Volume

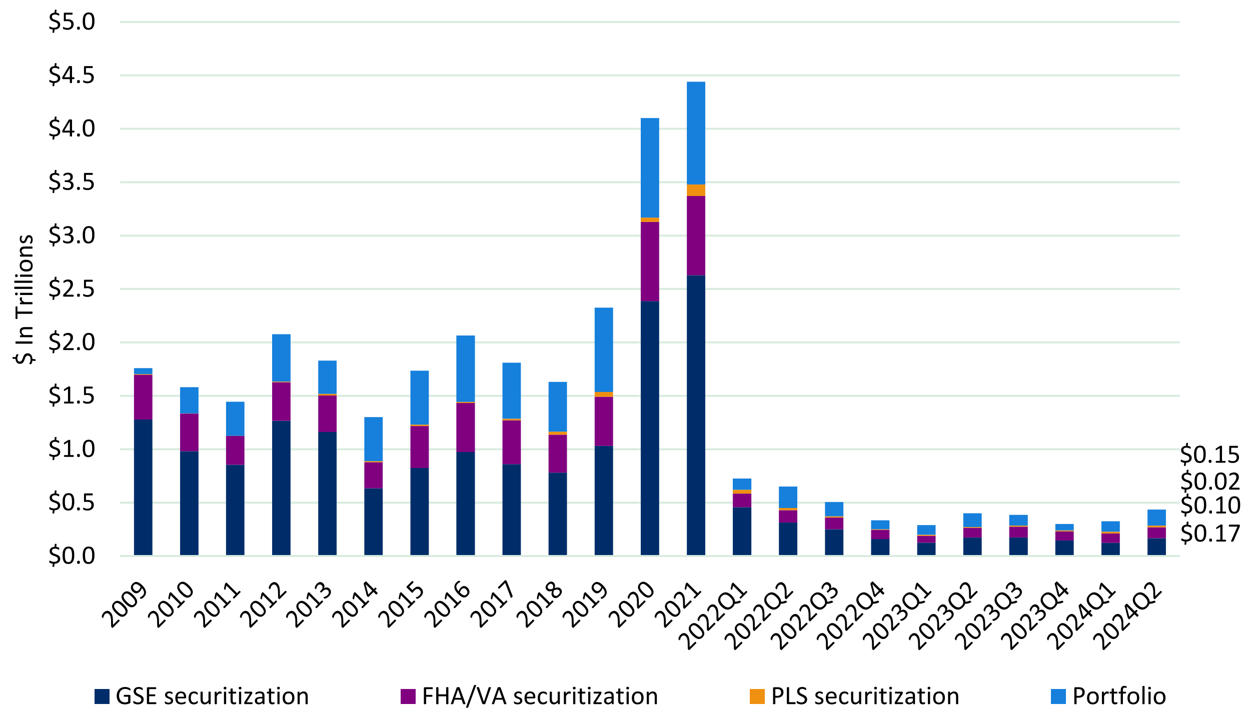
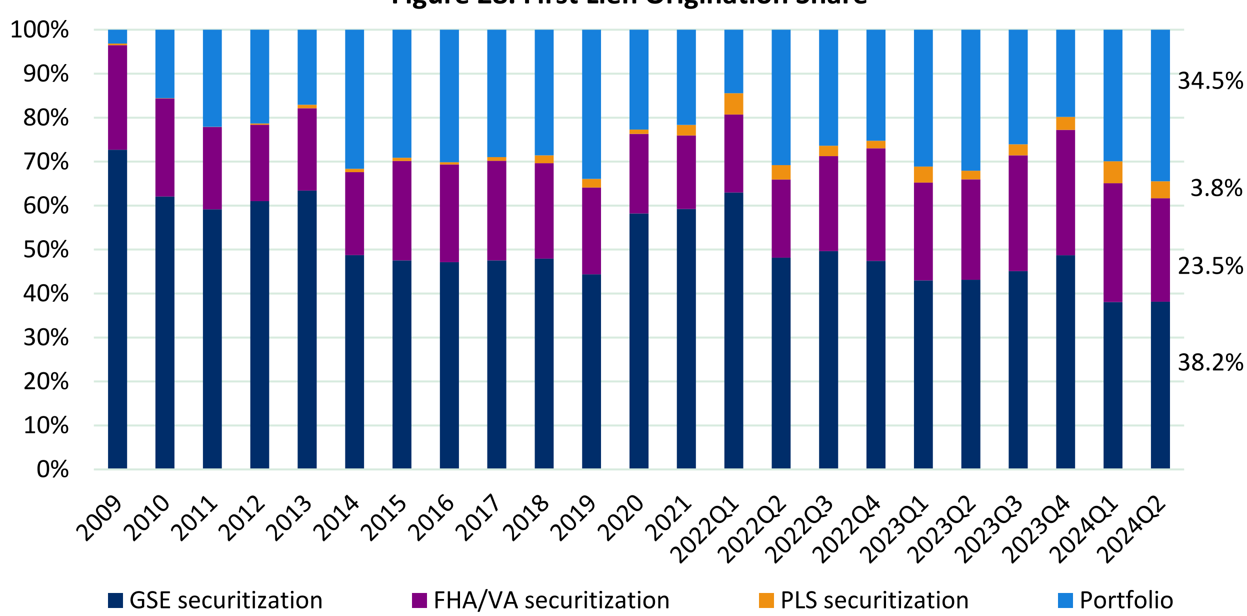


Figure 28. First Lien Origination Share



Source: Inside Mortgage Finance. Note: Data as of Q2 2024.

6.3 Agency Issuance and Agency Outstanding by State

Ginnie Mae MBS represents approximately 39% of new Agency issuance over the past year, roughly 11% higher than Ginnie Mae's 28% share of Agency outstanding. The share of Ginnie Mae's new Agency issuance varies across states, with the largest share by UPB being in Mississippi (61%) and the smallest in the District of Columbia (22%). The highest Ginnie Mae outstanding share is in Mississippi (50%) 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)			
	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)
National	**39%**	**1,525,512**	**319.86**	**317.20**	**28%**	**11,464,129**	**215.76**	**212.30**
AK	60%	3,893	373.42	320.82	49%	37,822	266.16	218.89
AL	56%	38,206	250.30	251.32	43%	255,876	169.03	179.23
AR	48%	19,812	218.06	245.47	41%	144,663	141.83	164.51
AZ	43%	48,884	357.28	353.99	28%	305,430	240.09	229.46
CA	34%	90,743	503.64	493.73	18%	737,010	342.30	317.07
CO	38%	32,657	439.57	419.96	25%	228,544	309.45	280.33
CT	30%	10,501	310.33	314.70	26%	109,187	207.67	209.46
DC	22%	966	556.37	473.01	14%	9,529	396.47	344.63
DE	39%	6,431	307.44	318.66	32%	55,080	211.67	213.39
FL	46%	149,595	338.10	329.01	35%	944,238	231.52	218.09
GA	47%	79,351	297.16	322.95	36%	534,072	195.93	211.89
HI	46%	3,509	660.07	549.64	33%	35,013	475.16	356.08
IA	32%	11,379	210.67	213.60	24%	87,092	141.74	148.54
ID	39%	10,565	365.80	339.33	26%	69,401	239.29	226.73
IL	27%	42,618	237.02	268.29	23%	384,031	165.24	179.92
IN	39%	40,345	223.15	228.07	32%	294,310	144.57	154.11
KS	39%	13,232	222.00	238.67	30%	99,740	148.39	165.19
KY	48%	25,287	225.41	231.93	37%	175,922	152.87	157.33
LA	55%	26,019	222.43	240.58	43%	215,866	162.65	175.77
MA	26%	13,651	429.82	426.80	17%	120,003	295.82	267.88
MD	45%	34,494	383.81	363.35	35%	307,004	272.08	248.64
ME	34%	4,964	285.66	303.73	27%	39,409	187.02	194.71
MI	28%	33,985	216.61	234.90	21%	286,365	140.56	157.32
MN	24%	17,379	284.03	293.67	19%	163,746	189.52	199.18
MO	38%	33,326	228.92	241.75	30%	254,732	150.65	163.85
MS	61%	17,613	224.42	228.40	50%	131,188	152.55	161.77
MT	37%	4,111	361.67	336.28	25%	33,358	223.40	218.71
NC	42%	69,551	291.85	313.68	31%	445,097	191.64	206.87
ND	38%	2,213	271.28	261.26	26%	17,559	198.65	182.04
NE	37%	8,481	252.61	243.77	28%	67,092	160.11	162.67
NH	28%	4,450	368.01	351.71	23%	39,235	236.56	218.63
NJ	29%	26,379	377.14	392.13	22%	241,170	251.07	255.65
NM	51%	12,638	281.27	285.50	40%	100,423	178.36	181.22
NV	46%	21,111	386.15	358.39	33%	145,823	265.16	239.05
NY	25%	27,903	341.95	357.75	21%	315,963	219.49	249.40
OH	36%	54,705	218.17	224.01	30%	442,267	138.55	151.66
OK	51%	25,911	229.22	232.61	43%	198,498	150.65	164.86
OR	32%	15,118	385.60	389.49	21%	118,139	266.77	255.09
PA	29%	40,281	231.96	270.60	26%	401,133	153.78	183.49
RI	43%	4,466	386.49	349.88	32%	37,896	248.43	214.41
SC	48%	42,279	286.86	282.71	37%	258,917	197.61	195.46
SD	43%	4,338	275.13	257.81	32%	30,771	184.29	177.88
TN	44%	45,362	299.66	308.45	33%	287,616	193.48	210.03
TX	43%	175,910	305.01	327.93	34%	1,212,997	200.08	219.21
UT	37%	17,048	417.60	411.50	21%	105,999	284.65	267.04
VA	48%	54,431	373.98	362.85	37%	463,853	265.24	249.98
VI	23%	60	417.18	446.92	24%	802	266.85	307.83
VT	23%	1,247	280.58	293.36	19%	12,404	185.52	182.81
WA	34%	30,363	440.93	444.70	23%	243,988	299.10	291.54
WI	26%	15,967	247.01	252.63	18%	128,069	163.76	163.47
WV	55%	8,230	224.05	204.91	46%	63,873	151.18	145.45
WY	49%	3,554	309.89	287.37	37%	25,914	214.68	201.42

Source: Recursion. Note: Outstanding balance based on loan balance as of October 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 October 2024, the weighted average coupon (WAC) on outstanding Ginnie Mae MBS increased from 3.77% in September 2024 to 3.78% as seen in **Figure 29**. **Figure 30** illustrates that loans originated since 2019 account for approximately 84% of Ginnie Mae MBS collateral outstanding.

Figure 29. Outstanding Ginnie Mae MBS Balance, by Coupon

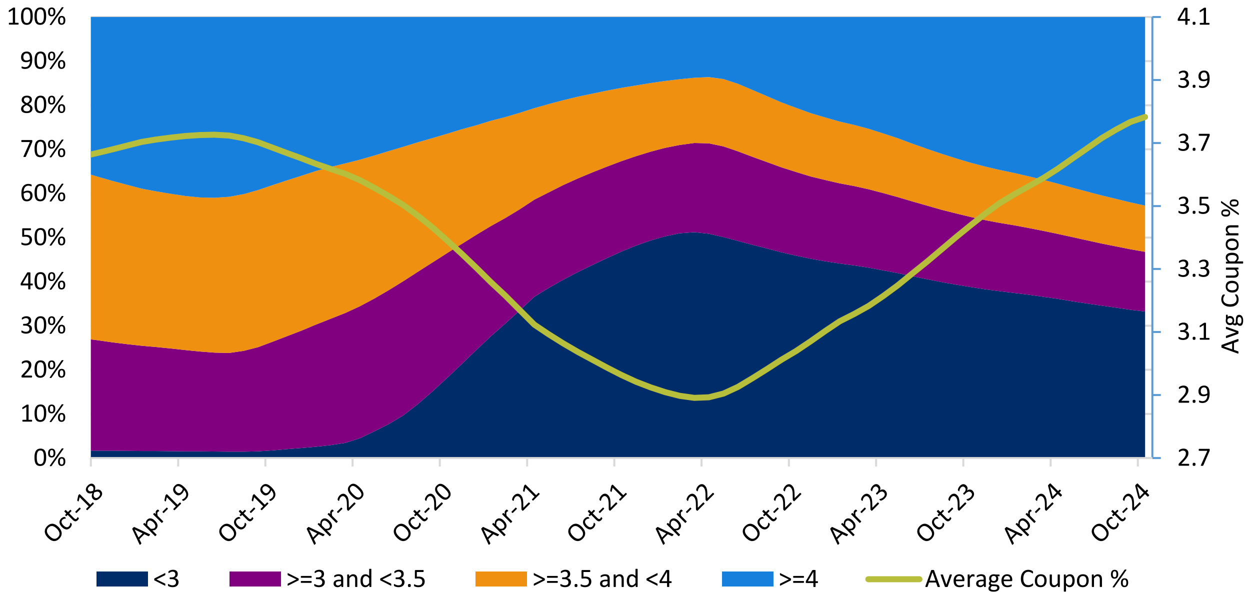
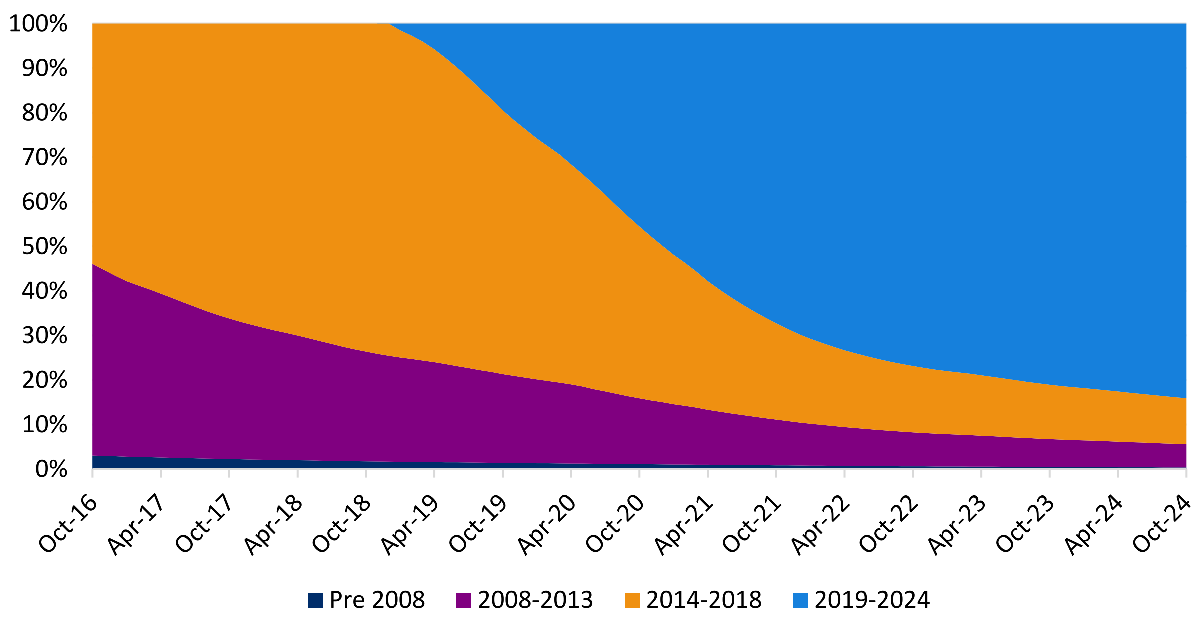


Figure 30. Outstanding Ginnie Mae MBS Balance, by Vintage



Source: Recursion. Note: October 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 Single-Family and Multifamily Real Estate Mortgage Investment Conduit (REMIC) issuance volume for the month of October was approximately $16.8 billion. This represents a 51.97% MoM increase from $11.1 billion in September 2024, and a 65.38% increase YoY from $10.2 billion in October 2023. Approximately $681.1 million of the October 2024 issuance volume were Multifamily MBS having coupons over 5.0%, and approximately $14.5 billion were Single-Family MBS having coupons over 5.0%.

Figure 31. Ginnie Mae Single-Family and Multifamily REMIC Issuance ($B)

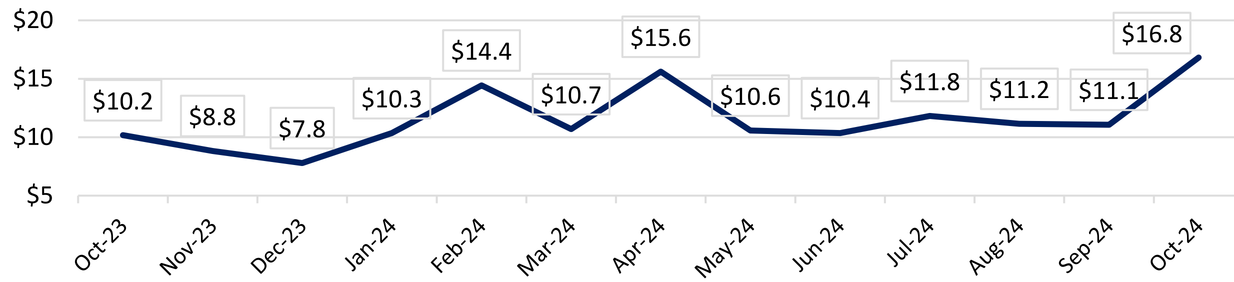


Table 7. October 2024 REMIC Issuance Breakdown

Net Coupon (%)	Principal ($MM) for MBS Deals	Principal ($MM) for Re-REMIC Deals	Principal % for MBS Deals	Principal % for Re-REMIC Deals
Multifamily				
<2.01	-	$43.6	-	3.9%
3.01-3.51	$121.7	-	10.9%	-
4.01-5.01	273.6	-	24.4%	-
5.01-6.01	$681.1	-	60.8%	-
Subtotal	**$1,076.4**	**$43.6**	**96.1%**	**3.9%**
Single-Family				
<2.01	-	$65.9	-	0.4%
2.01-2.51	$59.2	$5.0	0.4%	0.0%
2.51-3.01	$83.2	$16.0	0.5%	0.1%
3.01-3.51	$99.5	-	0.6%	-
3.51-4.01	$316.0	-	2.0%	-
4.01-4.51	-	$61.6	-	0.4%
4.51-5.01	$34.4	$70.1	0.2%	0.4%
5.01-5.51	$3,549.6	$210.7	22.6%	1.3%
5.51-6.01	$5,380.9	$103.3	34.3%	0.7%
6.01-6.51	$4,438.4	$38.6	28.3%	0.2%
6.51-7.01	$929.3	$26.8	5.9%	0.2%
>7.01	$210.1	-	1.3%	-
Subtotal	**$15,100.7**	**$598.1**	**96.2%**	**3.8%**
Grand Total [1]	**$16,177.0**	**$641.7**	**96.2%**	**3.8%**

Source: Ginnie Mae Disclosure Files. Note: Data excludes principal amount for notional deals

[1] *Totals may not sum due to rounding. Percents calculated using weighted average.*

7.2 REMIC Market Snapshot

- In October 2024, Ginnie Mae's total Single-Family, Multifamily, and HMBS REMIC issuance totaled $17.4 billion, a 48.9% or $5.7 billion increase MoM.
- In October 2024, total Single-Family and Multifamily issuance across the three Agencies increased 40.0% or $9.9 billion MoM.
- In October 2024, Ginnie Mae saw a decrease in their Single-Family REMIC issuance collateral coupon of 4 bps, while Fannie Mae and Freddie Mac saw an increase of 51 and 30 bps, respectively.
- In October 2024, Freddie Mac saw an increase in their Multifamily REMIC issuance collateral coupon of 49 bps. Ginnie Mae saw a decrease of 59 bps in their Multifamily REMIC issuance collateral coupon. Fannie Mae saw an increase of 42 bps since their last Multifamily REMIC issued in July 2024.

Figure 32. October 2024 REMIC Issuance by Agency ($B)

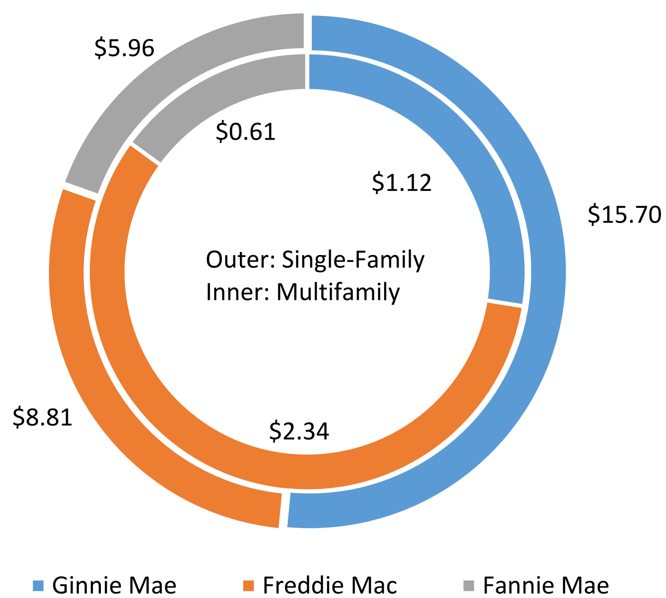


Table 8. October 2024 REMIC Issuance by Agency

	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	$15.70	52%	12	$1.12	28%	9
Freddie Mac	$8.81	29%	10	$2.34	57%	6
Fannie Mae	$5.96	20%	10	$0.61	15%	1
Total [2]	**$30.47**	**100%**	**32**	**$4.07**	**100%**	**16**

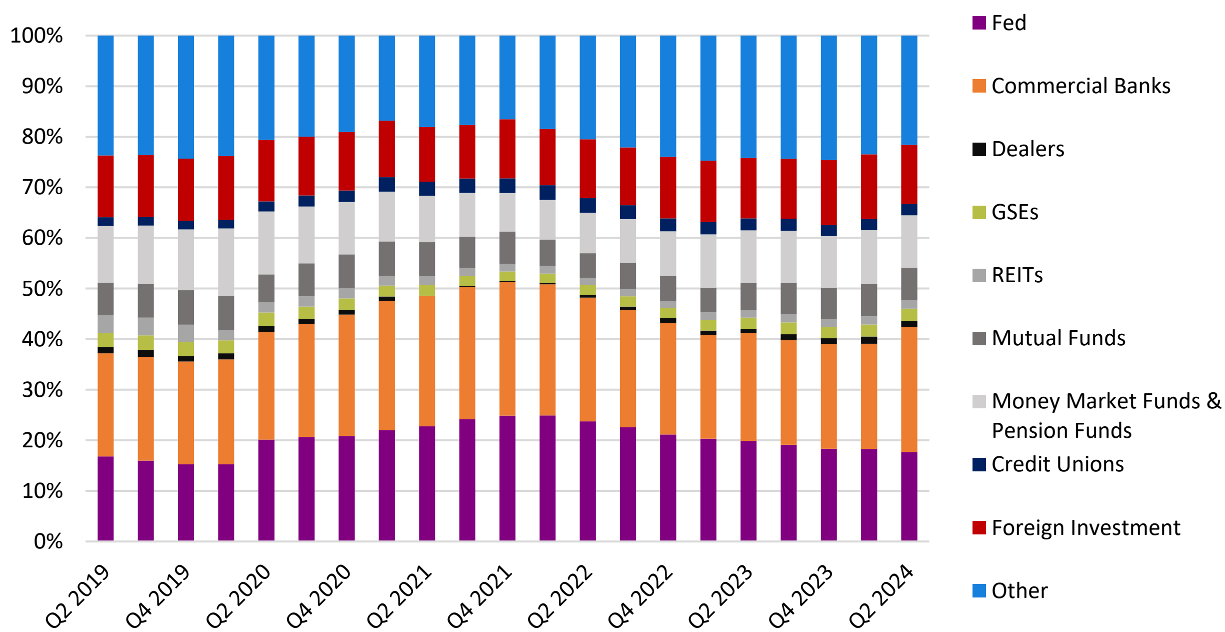
Source: Relay & FDS files posted to Ginnie Mae, Fannie Mae, and Freddie Mac

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

8 MBS OWNERSHIP

In Q2 2024, the largest holders of Agency debt (Agency MBS plus Agency notes and bonds) included commercial banks (25%), the Federal Reserve (18%), and foreign investors (12%). The Federal Reserve's share roughly held even quarter over quarter (QoQ). Out of the approximately $2.65 trillion in holdings as of the end of October 2024, roughly $1.99 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 Q2 2024.

8.1 Commercial Bank Holdings of Agency MBS

Table 9. Commercial Bank Holdings of Agency MBS

	Commercial Bank Holdings ($Billions)								
	Feb-24	***Mar-24***	***Apr-24***	***May-24***	***Jun-24***	***Jul-24***	***Aug-24***	***Sep-24***	***Oct-24***
Largest 25 Domestic Banks	$1,920.4	$1,919.6	$1,912.7	$1,913.1	$1,946.1	$1,957.4	$1,975.1	$1,549.5	$1,994.3
Small Domestic Banks	$579.4	$583.4	$591.3	$586.6	$591.0	$596.1	$601.1	$612.9	$621.1
Foreign Related Banks	$34.1	$30.7	$29.5	$30.4	$31.2	$30.6	$33.9	$36.3	$37.3
Total, Seasonally Adjusted	**$2,533.9**	**$2,533.7**	**$2,533.5**	**$2,530.1**	**$2,568.3**	**$2,584.1**	**$2,610.1**	**$2,198.7**	**$2,652.7**

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

8.2 Bank and Thrift Residential MBS Holdings

Total MBS holdings at banks and thrifts decreased approximately 0.4% from Q1 2024 to Q2 2024. Although total MBS holdings at banks and thrifts decreased in Q2 2024, Ginnie Mae PT and Agency CMO holdings increased 4.3% and 1.6% QoQ, respectively. Ginnie Mae PT holdings also marked the largest increase over the past year, increasing 14.3% from Q2 of 2023. Out of the $2.22 trillion in MBS holdings at banks and thrifts as of Q2 2024, $1.28 trillion were GSE pass-throughs and $438 billion were Ginnie Mae pass-throughs. Private MBS holdings showed the largest percentage decrease of 29.0% from Q2 2023 to Q2 2024.

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
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
1Q24	$2,231.8	$1,312.1	$420.0	$2.2	$440.8	$56.7	$1,985.1	$246.7
2Q24	$2,222.6	$1,281.3	$438.2	$2.2	$448.2	$52.7	$1,980.3	$242.0
Change:								
1Q24-2Q24	-0.4%	-2.3%	4.3%	-0.1%	1.6%	-7.1%	-0.2%	-1.9%
2Q23-2Q24	-2.5%	-7.8%	14.3%	-29.0%	0.4%	-9.6%	-2.1%	-6.2%

Note: Data represent fair value of assets in held-to-maturity and available-for-sale account. Thrift MBS holdings prior to June 2009 include commercial MBS. Totals may not sum due to rounding. Source: Inside Mortgage Finance. Notes: Data as of Q2 2024.

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	$405,363	$328,072	$63,847	$13,250	$194	18.24%
2	Wells Fargo & Company	$253,562	$147,224	$104,132	$2,147	$59	11.41%
3	JPMorgan Chase & Co.	$145,081	$79,058	$54,416	$470	$11,137	6.53%
4	Charles Schwab	$135,802	$76,179	$4,887	$54,736	$0	6.11%
5	U.S. Bancorp	$94,144	$56,825	$27,457	$9,862	$0	4.24%
6	Citigroup Inc.	$91,714	$61,234	$27,811	$1,953	$716	4.13%
7	Truist Bank	$82,781	$31,967	$22,562	$28,252	$0	3.73%
8	PNC Bank, National Association	$65,996	$53,784	$3,580	$7,782	$850	2.97%
9	Capital One Financial Corporation	$62,120	$29,290	$13,663	$18,864	$303	2.80%
10	Morgan Stanley	$47,903	$28,525	$8,232	$11,026	$120	2.16%
11	Bank Of New York Mellon Corp	$42,550	$27,046	$4,448	$9,386	$1,670	1.91%
12	State Street Bank and Trust Company	$35,827	$12,229	$9,451	$11,769	$2,378	1.61%
13	USAA Federal Savings Bank	$34,269	$28,851	$1,656	$3,762	$0	1.54%
14	Citizens Bank, National Association	$28,662	$12,615	$6,757	$9,289	$0	1.29%
15	BMO Harris Bank National Association	$26,829	$3,659	$5,527	$17,643	$0	1.21%
16	The Huntington National Bank	$25,160	$10,052	$8,174	$6,821	$113	1.13%
17	KeyBank National Association	$24,183	$3,338	$1,045	$19,800	$0	1.09%
18	TD Bank USA/TD Bank NA	$24,075	$1,334	$68	$22,673	$0	1.08%
19	HSBC Bank USA, National Association	$23,199	$3,587	$14,913	$4,699	$1	1.04%
20	Regions Bank	$20,033	$14,982	$2,948	$2,103	$0	0.90%
Total	Top 20	$1,669,252	$1,009,850	$385,574	$256,287	$17,541	75.1%

Source: Inside Mortgage Finance. Totals may not sum due to rounding. Notes: Data as of Q2 2024.

8.3 SOMA Holdings

FOMC and Economic Highlights:

- FOMC Meeting November 7, 2024 Press Release:
  - *"In support of its goals, the Committee decided to lower the target range for the federal funds rate by 1/4 percentage point to 4-1/2 to 4-3/4 percent."*
  - *"Recent indicators suggest that economic activity has continued to expand at a solid pace. Since earlier in the year, labor market conditions have generally eased, and the unemployment rate has moved up but remains low. Inflation has made progress toward the Committee's 2 percent objective but remains somewhat elevated."*
  - *"The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals."*
- During his Postmeeting Press Conference on November 7, 2024 , Federal Reserve Chair Powell discussed the rate cut decision, the approach to considering further rate cuts, and outlook for the economy/inflation. He declined to "talk about anything that relates directly or indirectly to the election."
  - *"The economy is strong overall and has made significant progress toward our goals over the past two years. The labor market has cooled from its formerly overheated state and remains solid. Inflation has eased substantially from a peak of 7 percent to 2.1 percent as of September. We are committed to maintaining our economy's strength by supporting maximum employment and returning inflation to our 2 percent goal."*
  - *"We continue to be confident that with an appropriate recalibration of our policy stance, strength in the economy and the labor market can be maintained, with inflation moving sustainably down to 2 percent."*
  - *"We also decided to continue to reduce our securities holdings."*
  - *"Payroll job gains have slowed from earlier in the year, averaging 104 thousand per month over the past three months. This figure would have been somewhat higher were it not for the effects of labor strikes and hurricanes on employment in October."*
- The next FOMC meetings is scheduled for December 17th - 18th.
  - On November 6, 2024, the UST 10YR yield closed at 4.426%, while the Ginnie Mae II 30-year 5.5% coupon yield closed at 5.60% and the 6.0% coupon yield closed at 5.76%, a spread of 117 bps and 133 bps, respectively.
  - PCE inflation decreased to +2.1% and core PCE inflation, which is the Fed benchmark, stayed constant at +2.7% in September 2024, per the October 31, 2024 Core PCE report.
  - Per the November 1, 2024 jobs report, 12,000 new jobs were created and the unemployment rate was unchanged at 4.1% in October 2024. Jobs added in August were revised significantly down to 78,000 from 159,000 and September's were revised down to 223,000 from 254,000. The relatively low unemployment rate, despite the reduction in new jobs, is an indication that the economy is maintaining its course towards a soft landing.

SOMA Portfolio Highlights (September 25, 2024 versus October 30, 2024):

- SOMA holdings of domestic securities totaled \$6.5 trillion on October 30th (a decrease of \$42.1 billion or -0.64% from September 25th). \$26.0 billion (62% of the total decrease) was in U.S. Treasury holdings and \$16.1 billion (38% of the total decrease) was in Agency MBS.
- Since the institution of redemption caps in June 2022, SOMA holdings have decreased by \$1.883

trillion. The total reduction of holdings of U.S. Treasuries was $1.442 trillion and $0.441 trillion for Agency MBS. This represents 95.5% and 45.8% of the total redemption cap over the period for U.S. Treasuries and Agency MBS, respectively. Beginning in June 2024, the Fed reduced its redemption cap for U.S. Treasuries from $60 billion to $25 billion per month. The cap remained unchanged for Agency MBS.

- Agency MBS comprise about 35% of the total SOMA portfolio. The $16.1 billion monthly decrease was primarily due to MBS principal repayments rather than outright sales and was comprised of a $6.7 billion decrease in Fannie Mae holdings, a $5.9 billion decrease in Freddie Mac holdings, and a $3.5 billion decrease in Ginnie Mae holdings. Since the Fed's QT program began in June 2022, there have only been 27 outright sales of Agency MBS specified pools, totaling $877 million.
- Over 99% of SOMA MBS holdings have coupons of 4.5% or lower with an average WAC of 2.504%.
- The redemption cap for SOMA's Agency MBS holdings is set at $35 billion per month. The reduction of $16.1 billion in Agency MBS represents 46% of the monthly liquidation cap.

Table 12. SOMA Holdings as of September 25, 2024 and October 30, 2024 ($ Billions)

Holdings by Security Type	*September 25, 2024*		*October 30, 2024*		*Month-Over-Month*	
	SOMA Holdings	*% Share*	*SOMA Holdings*	*% Share*	*$ Change*	*% Change[3]*
U.S. Treasuries	$4,266.7	65.15%	$4,240.7	65.15%	-$26.0	-0.61%
Federal Agency Debt	$2.3	0.04%	$2.3	0.04%	$0.0	0.00%
Agency MBS	$2,274.0	34.71%	$2,257.9	34.69%	-$16.1	-0.71%
Agency Commercial MBS	$8.1	0.12%	$8.1	0.12%	$0.0	-0.11%
Total SOMA Holdings	**$6,551.1**	**100.0%**	**$6,509.0**	**100.0%**	**-$42.1**	**-0.64%**

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

Agency	*October 1, 2024*		*September 25, 2024*		*October 30, 2024*	
	Singly-Family AMBS Outstanding	*% AMBS Outstanding*	*SOMA AMBS Holdings*	*% SOMA Holdings*	*SOMA AMBS Holdings*	*% SOMA Holdings*
Fannie Mae	$3,565.1	39.7%	$935.2	41.1%	$928.5	41.1%
Freddie Mac	$2,983.7	33.2%	$871.6	38.3%	$865.7	38.3%
Ginnie Mae	$2,431.3	27.1%	$467.2	20.5%	$463.6	20.5%
Total	**$8,980.1**	**100.0%**	**$2,274.0**	**100.0%**	**$2,257.9**	**100.0%**

Table 14. SOMA Agency MBS Liquidations from September 25, 2024 to October 30, 2024 ($ Billions)

	MBS Holdings September 25, 2024	*MBS Holdings October 30, 2024*	*Liquidated Amount*	*Liquidation Cap[4]*	*% of Liquidation Cap*
Total	$2,274.0	$2,257.9	$16.1	$35.0	46%

Source: New York FED SOMA Holdings https://www.newyorkfed.org/markets/soma-holdings as of October 30, 2024.

[3] *Figures in $ billions, any change less than $50 million will be expressed as a "$0.0" change in the "$ Change" column.*
[4] *The Liquidation cap is per calendar month. This analysis covers a four-week period to maintain consistency with other analyses in this report.*

8.4 Foreign Ownership of MBS

As of month-end August 2024, foreign ownership of MBS represented approximately $1.31 trillion in Agency MBS, up approximately $96 billion from August 2023. Total foreign ownership of Agency MBS represents roughly 15% of total Agency MBS outstanding. Total foreign ownership excluding Fed Holdings and CMOs represents roughly 23% of total Agency MBS available.

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

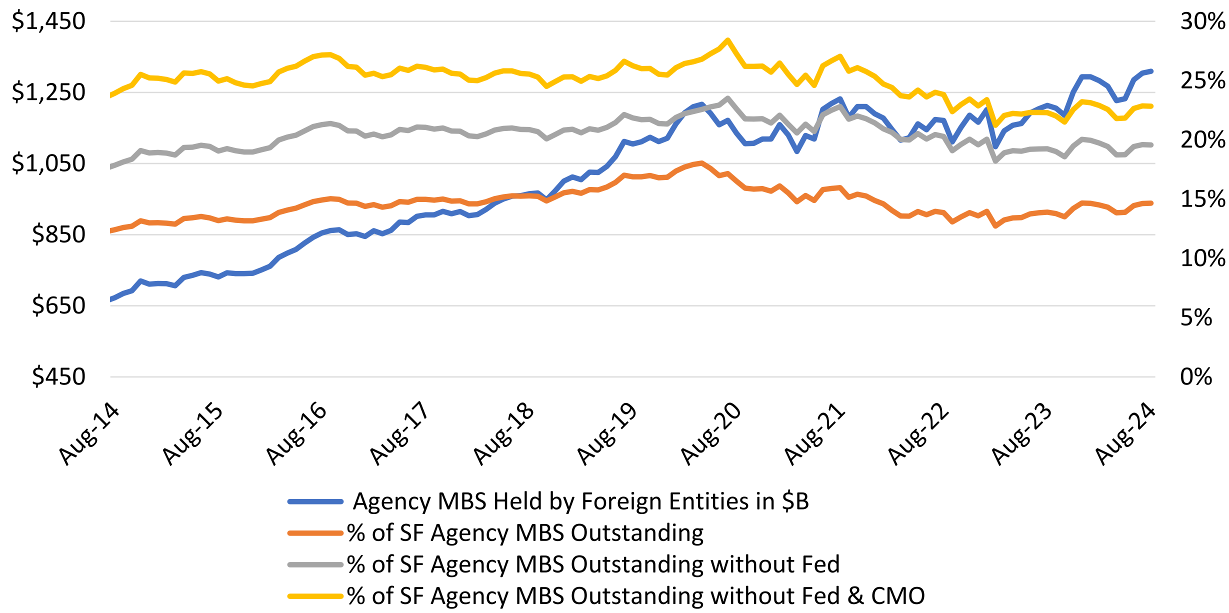
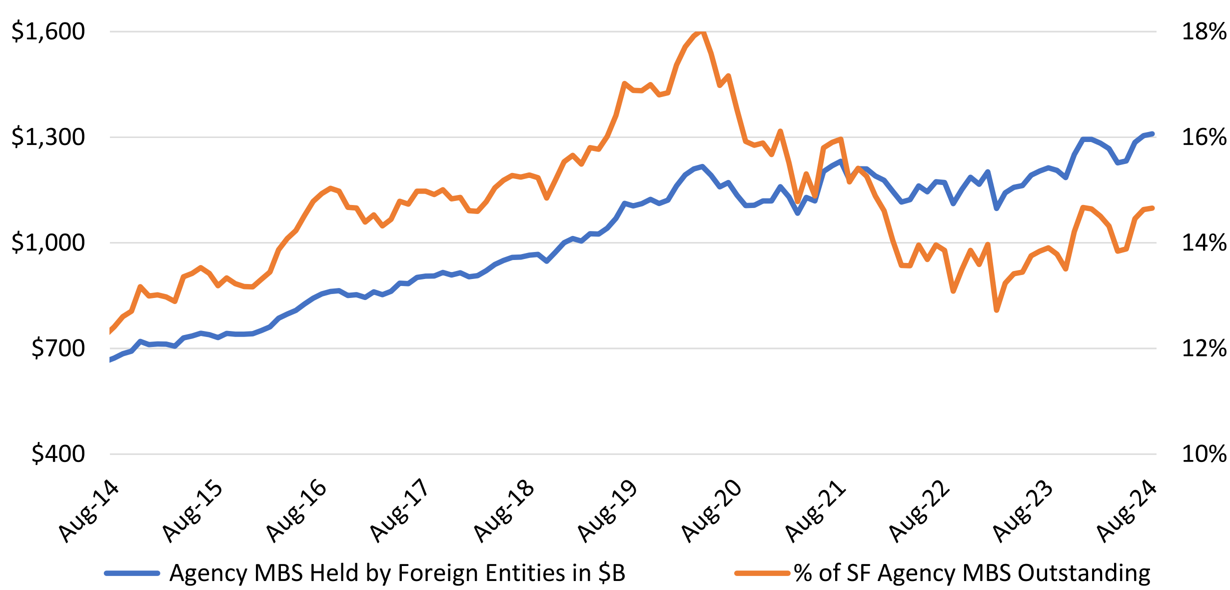


Figure 35. Agency MBS Owned by Foreign Entities (USD Billions)



Sources: TIC and Recursion, as of November 2024.

8.5 Foreign Ownership of Agency Debt

The largest holders of Agency Debt were Japan, China, and Taiwan. As of June 2024, these three owned roughly 51% of all foreign owned Agency Debt. Between June 2023 and June 2024, Japan, China, and Taiwan decreased their Agency Debt holdings. Japan's holdings decreased by $9.4 billion, China's holdings decreased by $36.0 billion, and Taiwan's holdings decreased by $14.0 billion.

Table 15. All Agency Debt (QoQ)

Country	*Level of Holdings ($ Millions)*				*Change in Holdings ($ Millions)*			
	9/1/2023	**12/1/2023**	**3/1/2024**	**6/1/2024**	**Q3 2023**	**Q4 2023**	**Q1 2024**	**Q2 2024**
Japan	$252,463	$259,059	$248,603	$244,007	($894)	$6,596	($10,456)	($4,596)
China	$255,110	$271,478	$255,977	$233,934	($14,870)	$16,368	($15,501)	($22,043)
Taiwan	$201,010	$211,610	$199,560	$194,253	($7,216)	$10,600	($12,050)	($5,307)
Canada	$116,642	$133,725	$129,900	$157,880	$11,312	$17,083	($3,825)	$27,980
Luxembourg	$42,656	$46,054	$48,677	$52,756	$1,685	$3,398	$2,623	$4,079
United Kingdom	$90,017	$120,148	$39,768	$47,710	$34,335	$30,131	($80,380)	$7,942
Cayman Islands	$37,089	$42,342	$41,961	$40,740	$6,691	$5,253	($381)	($1,221)
Ireland	$39,697	$39,543	$41,497	$37,289	$2,931	($154)	$1,954	($4,208)
South Korea	$36,508	$38,381	$36,519	$36,129	($229)	$1,873	($1,862)	($390)
France	$23,557	$24,713	$24,154	$27,183	$3,887	$1,156	($559)	$3,029
Other	$218,907	$236,192	$244,081	$254,793	$9,976	$17,285	$7,889	$10,712
Total	**$1,313,656**	**$1,423,245**	**$1,310,697**	**$1,326,674**	**$47,608**	**$109,589**	**($112,548)**	**$15,977**

Table 16. All Agency Debt (YoY)

Country	*Level of Holdings ($ Millions)*		
	6/1/2023	**6/1/2024**	***YoY Change in Holdings ($ Millions)***
Japan	$253,357	$244,007	($9,350)
China	$269,980	$233,934	($36,046)
Taiwan	$208,226	$194,253	($13,973)
Canada	$105,330	$157,880	$52,550
Luxembourg	$40,971	$52,756	$11,785
United Kingdom	$55,682	$47,710	($7,972)
Cayman Islands	$30,398	$40,740	$10,342
Ireland	$36,766	$37,289	$523
South Korea	$36,737	$36,129	($608)
France	$19,670	$27,183	$7,513
Other	$208,931	$254,793	$45,862
Total	**$1,266,048**	**$1,326,674**	**$60,626**

Source: Treasury International Capital (TIC). Note: Level of agency debt Holdings by month data as of Q2 2024. Table 15 includes the top 10 holders of Agency Debt listed as of June 2024.

9 FIXED INCOME LIQUIDITY INDICATORS

YTD average daily trading volume for Agency MBS was $302 billion as of month-end October 2024, which indicates an increase from the daily average of $255 billion for calendar year 2023. On a monthly basis, Agency MBS average daily trading volume decreased from $353 billion in September 2024 to $351 billion in October 2024. *See footnote below for update on "Average Daily Turnover by Sector" data.*

Figure 36. Average Daily Trading Volume by Sector

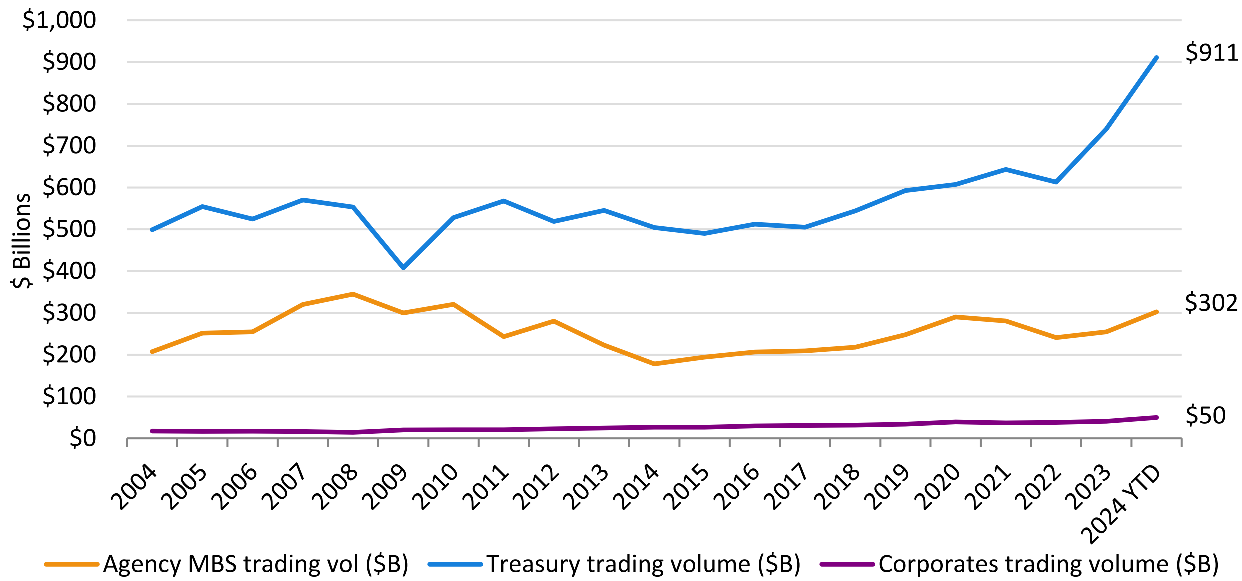
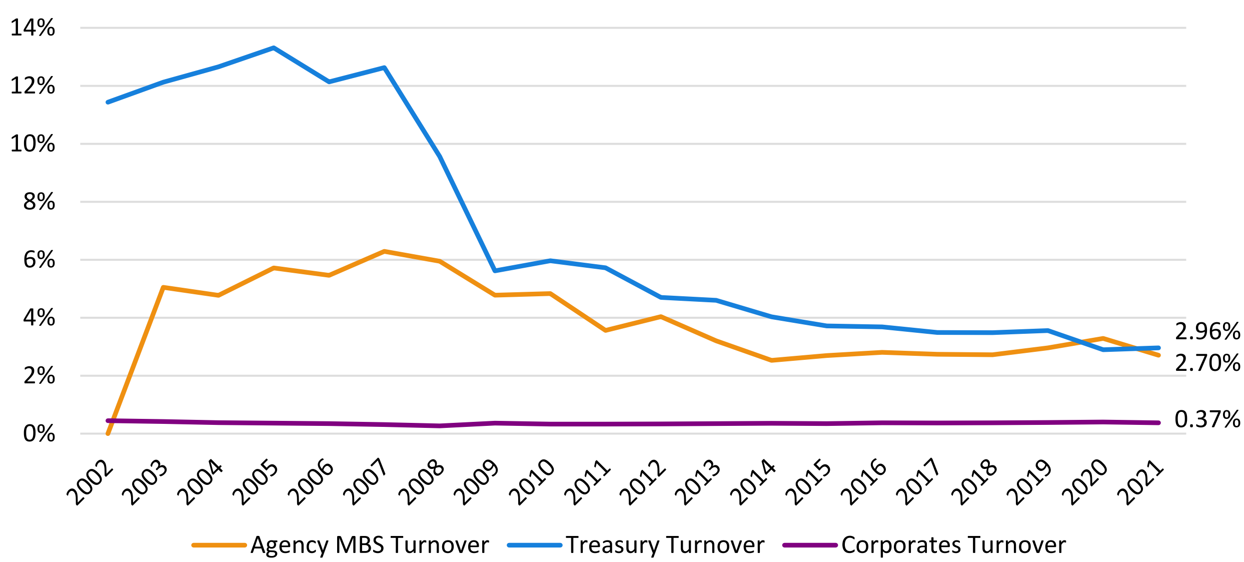


Figure 37. Average Daily Turnover by Sector



Source: SIFMA. Note: Data as of October 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 October 2024. The distribution statistics capture some key differences in the populations served by the agencies.

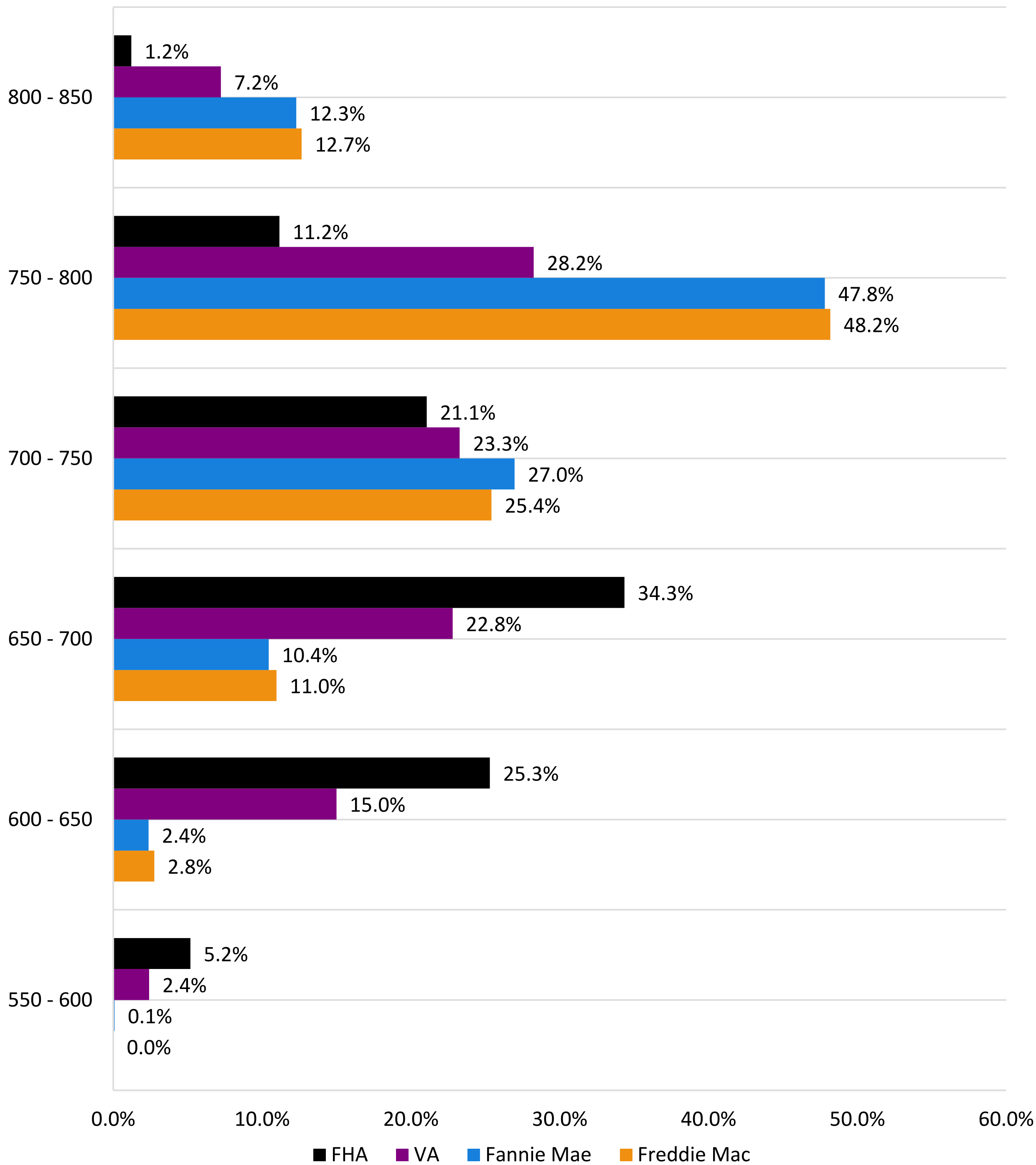
10.1 Credit Scores

Table 17. Share of Loans by FICO Score

Purchase FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	219,544	656	701	750	784	801	738
Fannie	68,423	702	734	766	790	803	758
Freddie	73,985	694	731	767	791	804	757
Ginnie	77,136	628	657	699	750	786	703
Refi FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	85,756	633	670	724	771	795	717
Fannie	23,955	668	706	752	783	800	742
Freddie	25,192	674	713	756	784	800	746
Ginnie	36,609	605	640	678	726	771	682
All FICO							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	311,894	644	688	742	780	799	730
Fannie	92,378	691	727	763	789	802	754
Freddie	99,177	688	727	765	790	803	754
Ginnie	120,339	619	648	688	741	780	693
Purchase FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	77,136	628	657	699	750	786	703
FHA	49,312	624	650	685	730	766	690
VA	24,859	641	680	739	780	800	728
Other	2,965	632	662	704	742	774	703
Refi FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	36,609	605	640	678	726	771	682
FHA	18,082	594	629	661	697	736	663
VA	18,494	620	655	700	752	786	701
Other	33	635	653	697	750	772	701
All FICO: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	120,339	619	648	688	741	780	693
FHA	72,885	612	641	675	718	758	679
VA	44,191	630	666	720	770	796	715
Other	3,263	631	657	700	739	772	699

Data as of October 2024. 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



Data as of October 2024. Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.

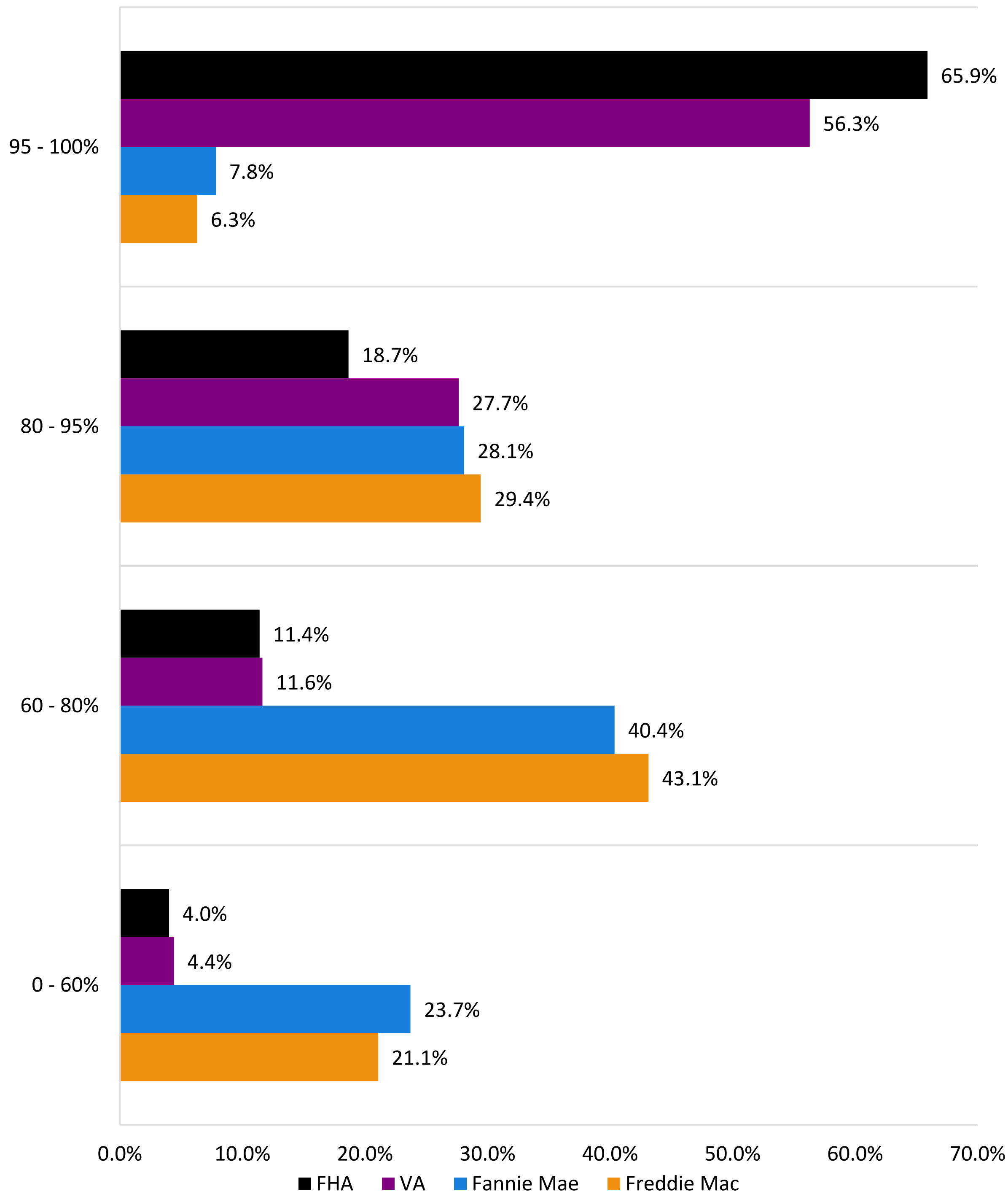
10.2 Loan-to-Value (LTV)

Table 18. Share of Loans by LTV

Purchase LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	219,873	62	80	92	98	99	85
Fannie	68,504	54	75	80	95	97	79
Freddie	74,010	54	75	80	95	95	79
Ginnie	77,359	91	97	98	100	100	96
Refi LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	92,679	41	59	75	89	99	72
Fannie	23,957	31	47	60	75	80	60
Freddie	25,194	35	51	67	75	81	62
Ginnie	43,528	63	77	87	99	101	85
All LTV							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	320,514	53	74	86	97	99	82
Fannie	92,461	44	63	80	90	95	74
Freddie	99,204	47	66	80	90	95	75
Ginnie	128,849	76	89	98	99	100	92
Purchase LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	77,359	91	97	98	100	100	96
FHA	49,461	92	97	98	98	98	96
VA	24,901	83	100	100	100	102	96
Other	2,997	93	98	101	101	101	98
Refi LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	43,528	63	77	87	99	101	85
FHA	18,873	56	70	81	81	98	77
VA	24,618	73	86	95	100	103	91
Other	37	67	80	98	101	102	89
All LTV: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	128,849	76	89	98	99	100	92
FHA	75,004	74	85	98	98	98	91
VA	50,534	77	90	100	100	102	94
Other	3,311	92	98	101	101	101	98

Data as of October 2024. 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



Data as of October 2024. Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files.

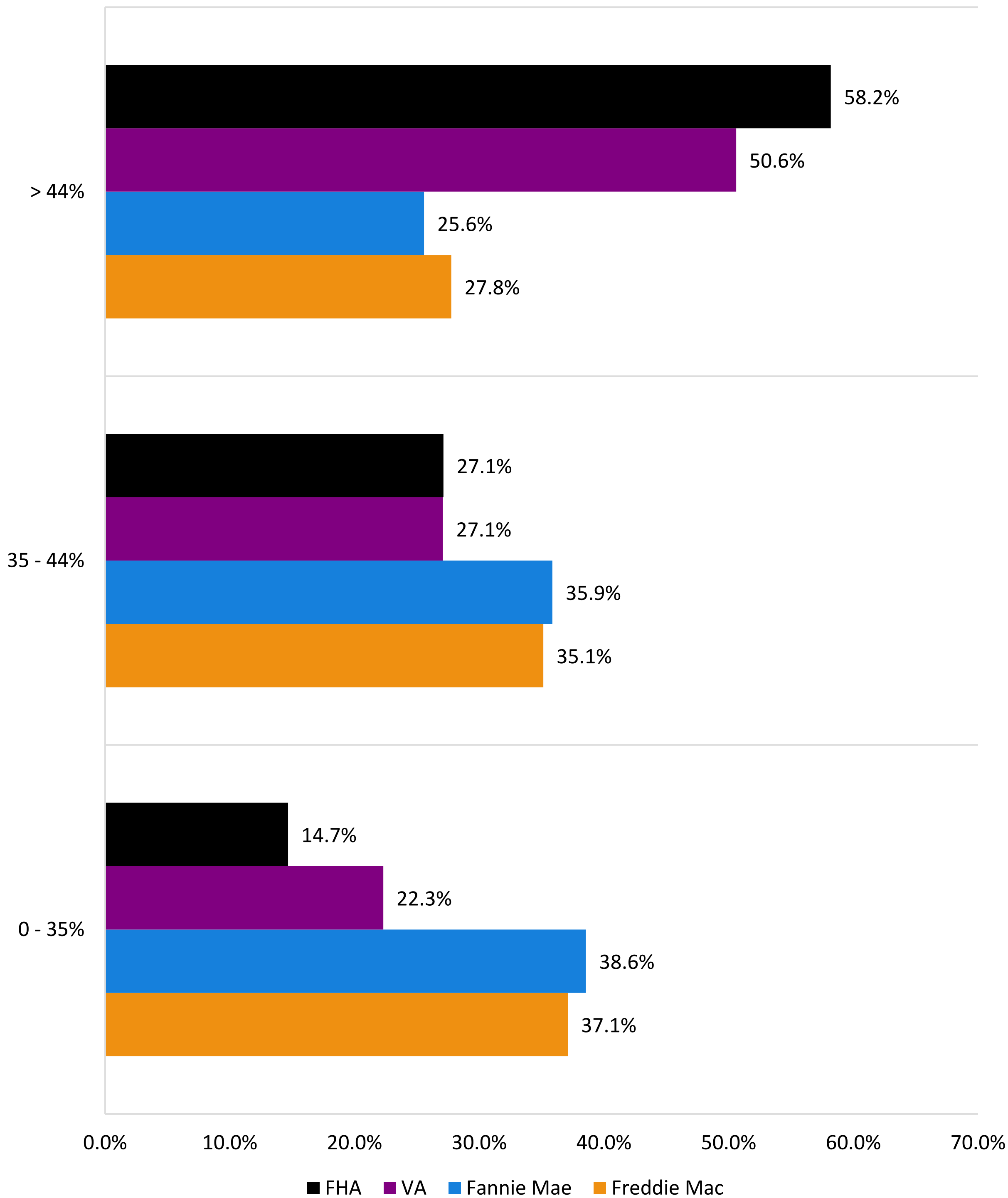
10.3 Debt-to-Income (DTI)

Table 19. Share of Loans by DTI

Names	Number of Loans	P10	P25	Median	P75	P90	Mean
Purchase DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	219,543	26	34	42	47	50	40
Fannie	68,504	24	31	39	45	49	38
Freddie	74,010	25	32	40	46	49	38
Ginnie	77,029	32	38	45	51	55	44
Refi DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	71,486	24	31	39	45	50	38
Fannie	23,957	23	30	38	43	47	36
Freddie	25,194	23	30	38	44	48	36
Ginnie	22,335	28	35	44	50	55	42
All DTI							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	297,421	26	33	41	47	50	40
Fannie	92,461	24	31	39	45	48	37
Freddie	99,204	24	31	39	45	49	38
Ginnie	105,756	31	38	45	51	55	44
Purchase DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	77,029	32	38	45	51	55	44
FHA	49,448	34	40	46	52	55	45
VA	24,584	30	37	45	51	56	44
Other	2,997	27	32	36	40	42	35
Refi DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	22,335	28	35	44	50	55	42
FHA	14,979	29	37	44	50	55	43
VA	7,330	25	33	42	50	54	41
Other	26	18	22	28	33	39	28
All DTI: Ginnie Mae Breakdown by Source							
Names	**Number of Loans**	**P10**	**P25**	**Median**	**P75**	**P90**	**Mean**
All	105,756	31	38	45	51	55	44
FHA	69,853	32	39	46	51	55	45
VA	32,665	29	36	44	51	56	43
Other	3,238	27	32	36	40	42	35

Data as of October 2024. 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



Data as of October 2024. 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 August 2023 – October 2023 to the three-month range of August 2024 – October 2024, the share of high-LTV agency loans with:

- FICO scores above 750 increased by approximately 4.4%.
- DTIs below 35% decreased by approximately 4.6%.

Ginnie Mae maintains its key role of expanding credit access to low-to-moderate income borrowers as it continues to dominate high-LTV lending, with 70.63% of its issuances between August 2024 – October 2024 having LTVs of 95 or above, compared to 22.92% for the GSEs.

Table 20. Share of Loans with LTV > 95

	Ginnie Mae	*GSE*	*All*
Aug 2023 – Oct 2023	69.35%	21.22%	40.27%
Aug 2024 – Oct 2024	70.63%	22.92%	41.20%

Table 21. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Aug 2023 – Oct 2023)

	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	1.68%	2.70%	3.89%	6.63%	0.05%	14.95%
35-45	5.11%	7.86%	9.82%	12.09%	0.04%	34.93%
≥45	7.76%	13.70%	14.22%	13.06%	0.11%	48.85%
NA	0.28%	0.23%	0.16%	0.20%	0.40%	1.28%
All	**14.83%**	**24.49%**	**28.10%**	**31.98%**	**0.60%**	**100.00%**

Table 22. Agency Market Share by DTI and FICO for Loans with LTV > 95 (Aug 2024 – Oct 2024)

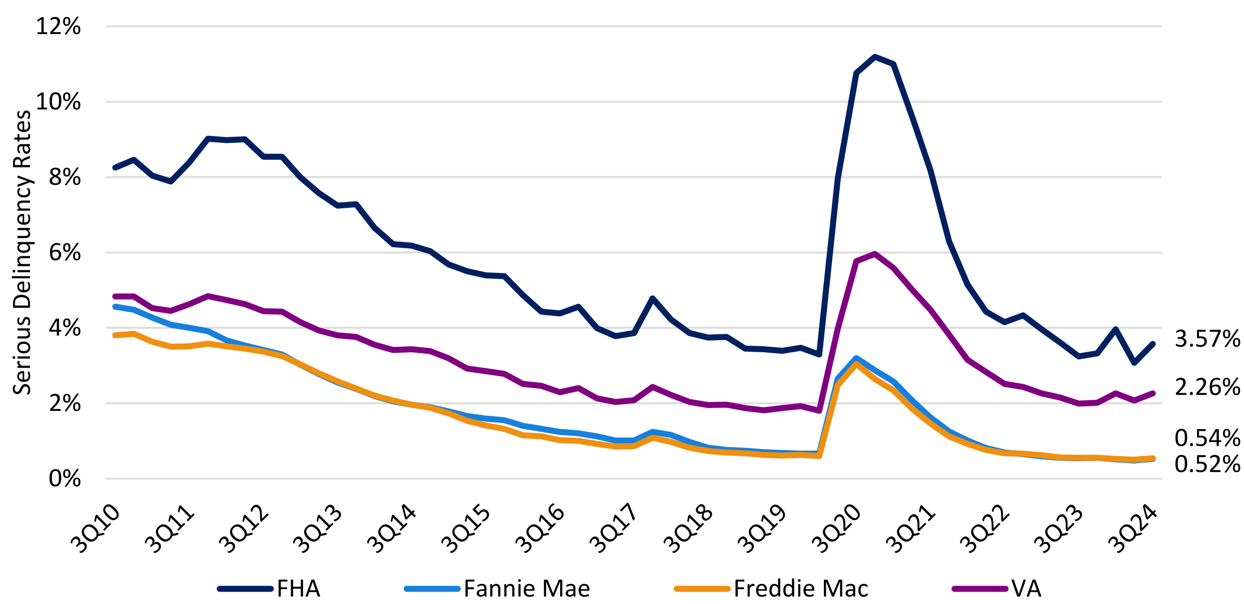
	FICO					
DTI	**<650**	**650-700**	**700-750**	**≥750**	**NA**	**All**
<35	1.42%	2.25%	3.58%	6.95%	0.07%	14.27%
35-45	4.38%	6.64%	8.97%	12.08%	0.07%	32.15%
≥45	6.77%	11.76%	12.92%	12.87%	0.17%	44.50%
NA	1.14%	1.27%	1.27%	1.47%	3.94%	9.09%
All	**13.70%**	**21.92%**	**26.74%**	**33.38%**	**4.26%**	**100.00%**

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

10.5 Serious Delinquency Rates

Serious delinquency rates for Single-Family VA and FHA loans rose in Q3 2024. From Q2 2024 to Q3 2024, FHA's serious delinquencies rose 50 bps to 3.57% and VA's delinquency rates saw a 19 bp increase to 2.26%. Fannie and Freddie's serious delinquencies saw less movement than FHA and VA in Q3 2024. Fannie Mae and Freddie Mac serious delinquency rates both increased 4 bps from Q2 2024 to Q3 2024, sitting at 0.52% and 0.54%, respectively. The trend in serious delinquency rates is consistent with the decrease in the number of loans in forbearance since the 2020 pandemic.

Figure 41. Serious Delinquency Rates: Single-Family Loans



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

Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Data as of Q3 2024.

10.6 Credit Box

The first-time homebuyer shares for agency purchase loans was 57.0% as of month-end October 2024, a decrease from 57.9% in September 2024 and up from 54.8% in October 2023. Ginnie Mae's first-time homebuyer share, 71.9% as of month-end October 2024, increased 3.0% YoY. Freddie Mac and Fannie Mae's first-time homebuyer shares were 46.5% and 51.5%, respectively, as of month-end October 2024. Freddie Mac's share of first-time borrowers increased 0.3% and Fannie Mae's increased 3.9% YoY.

Table 23 shows that based on mortgages originated as of month-end October 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

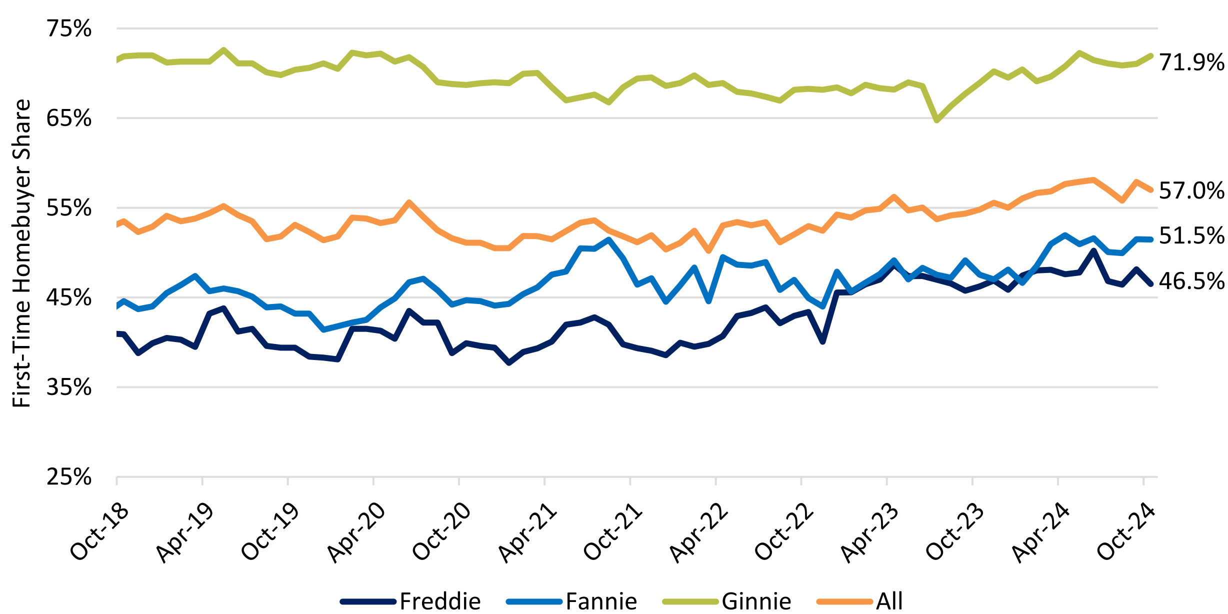


Table 23. Agency First-Time Homebuyer Share Summary

	Fannie Mae		Freddie Mac		Ginnie Mae		All	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$329,766	$336,576	$357,155	$386,983	$324,995	$387,813	$335,169	$369,446
Credit Score	753	764	749	764	696	720	727	754
LTV	84.5%	73.8%	84.4%	74.8%	97.2%	93.8%	90.1%	78.8%
DTI	37.5%	37.6%	37.8%	38.0%	44.0%	45.3%	40.5%	39.5%
Loan Rate	6.3%	6.4%	6.4%	6.5%	6.1%	5.9%	6.2%	6.3%

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

In the Ginnie Mae purchase market, 80.7% of FHA loans, 52.5% of VA loans, and 89.2% of "Other" loans provided financing for first-time home buyers as of month-end October 2024. The share of first-time home buyers in the Ginnie Mae purchase market decreased MtM for FHA and VA loan types and increased 1.7% for "Other" loans.

Table 24 shows that based on mortgages originated as of month-end October 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 16.2% smaller loans, had a 27.2-point lower credit score, and a 5.1% higher LTV than VA repeat buyers. VA repeat buyers faced a slightly lower interest rate than VA first-time homebuyers. FHA's first-time homebuyers are much more like their repeat buyers, with only 5.3% smaller loans and 2.5% 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

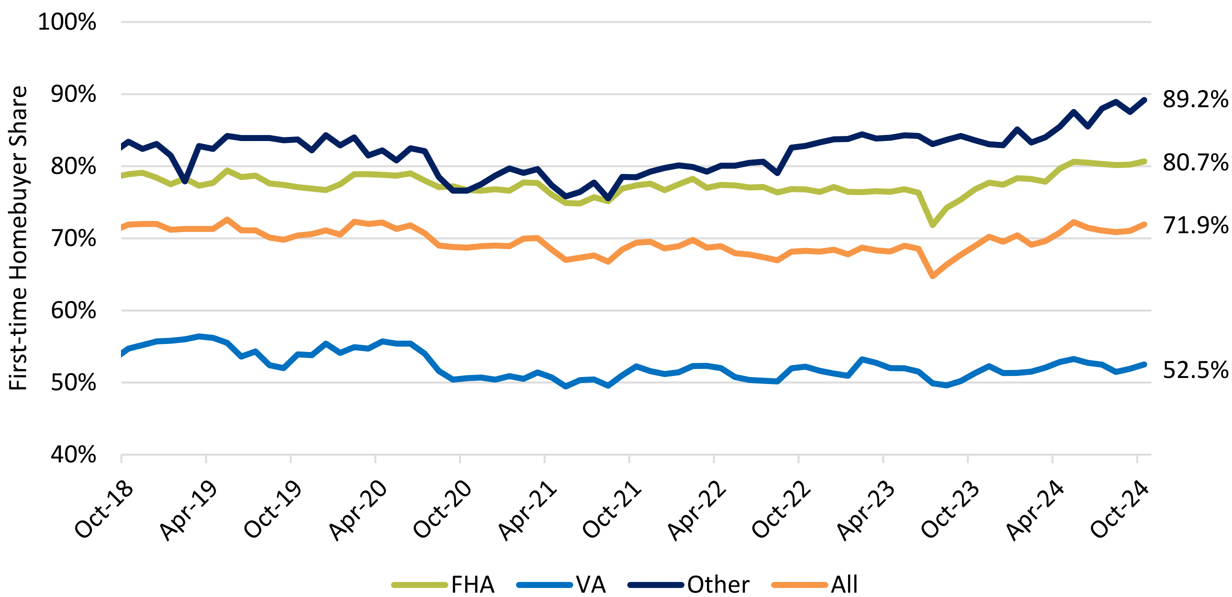


Table 24. Ginnie Mae First-Time Homebuyer Share Breakdown Summary

	FHA		VA		Other		Total	
	First-Time	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*	*First-Time*	*Repeat*
Loan Amount $	$321,439	$339,258	$361,662	$431,759	$198,652	$217,154	$324,995	$387,813
Credit Score	690	692	715	742	702	711	696	720
LTV (%)	96.8	94.3	98.4	93.2	98.0	97.6	97.2	93.8
DTI (%)	44.9	46.6	43.1	44.5	35.2	36.4	44.0	45.3
Loan Rate (%)	6.1	6.0	6.0	5.9	6.2	6.1	6.1	5.9

Sources: Fannie Mae, Freddie Mac, and Ginnie Mae disclosure files as of October 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 October 2024 was 742, which represents a 5-point increase from October 2023. Ginnie Mae median FICO scores increased 8 points from 680 in October 2023 to 688 as of month-end October 2024. As of month-end October 2024, median FICO scores for refinances increased for Ginnie Mae and Freddie Mac borrowers by 20 and 21 points YoY, respectively. Median FICO scores for Fannie refinances only increased 8 points from October 2023 to October 2024.

Figure 44. FICO Scores for All Loans

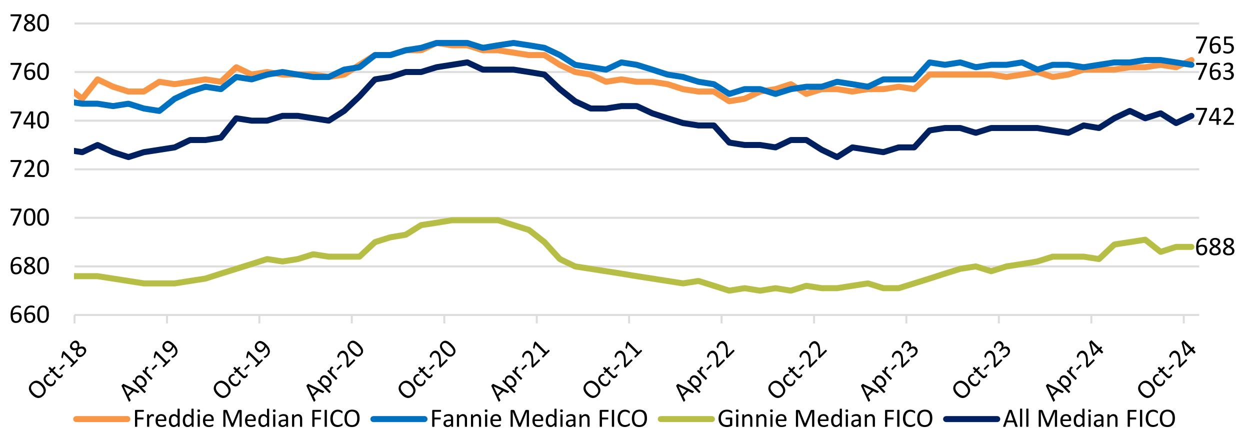


Figure 45. FICO Scores for Purchase Loans

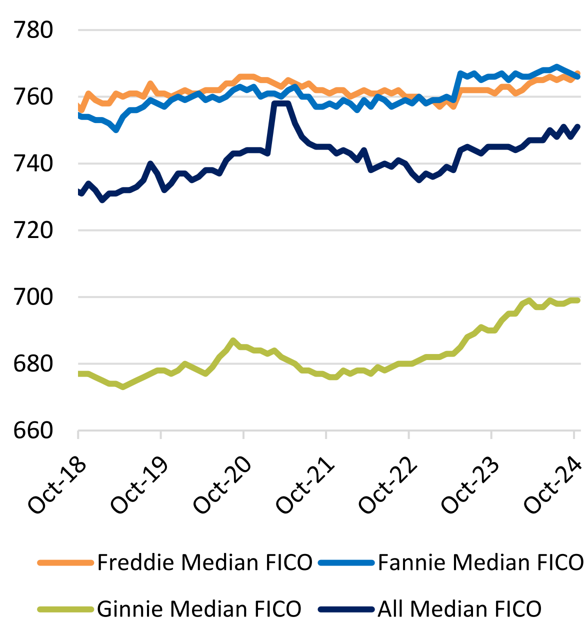
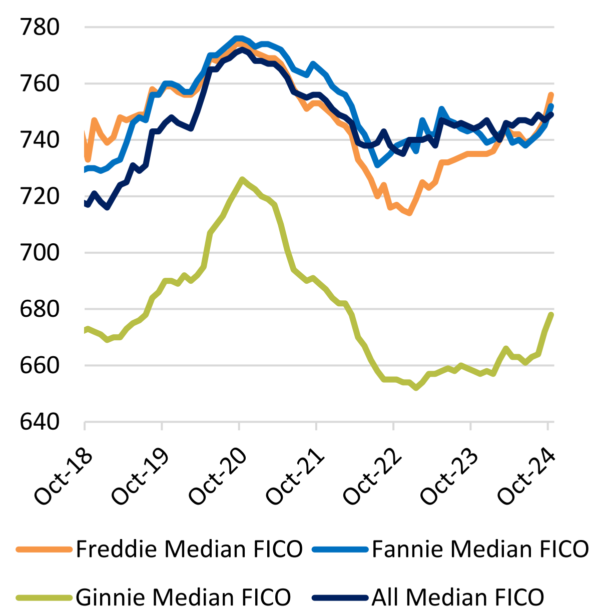


Figure 46. FICO Scores for Refinance Loans



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

In October 2024, the median LTV for Ginnie Mae loans was 98.2% compared to 80.0% for Fannie Mae and Freddie Mac, owing primarily to the lower down-payment requirements for government loan programs. Fannie Mae, Freddie Mac, and Ginnie Mae noted their LTV ratios remain flat YoY from October 2023 to October 2024. In October 2024, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.0%, 39.0%, and 39.0%, respectively. In October 2023, median DTIs for Ginnie Mae, Freddie Mac, and Fannie Mae were 45.3%, 41.0%, and 39.0%, respectively.

Figure 47. LTV Ratio for All Loans

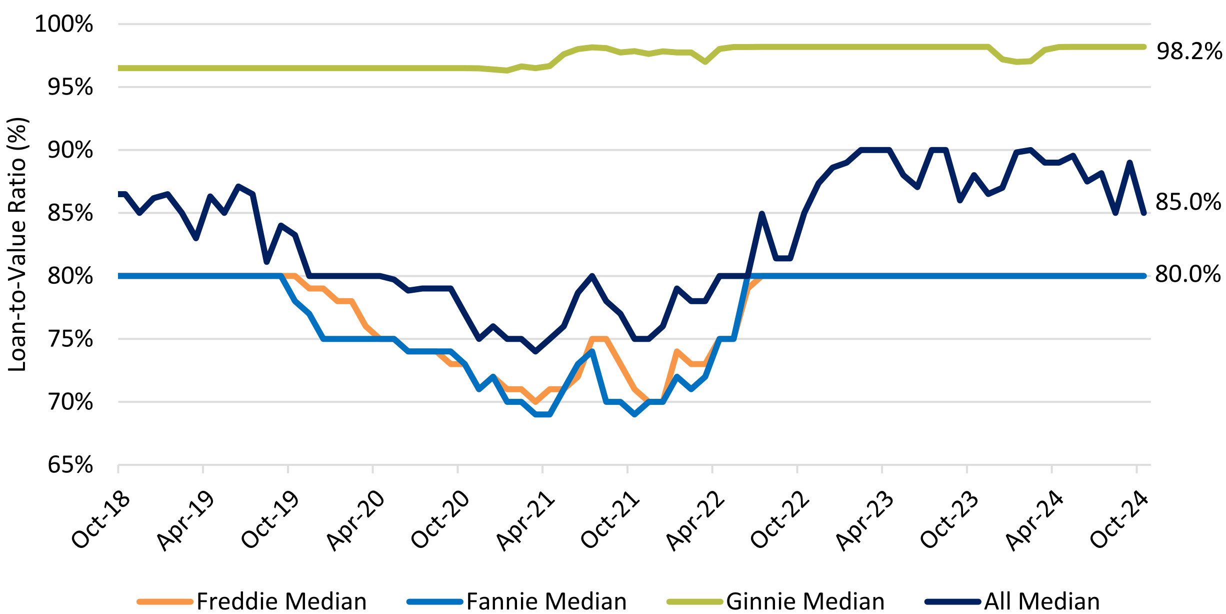
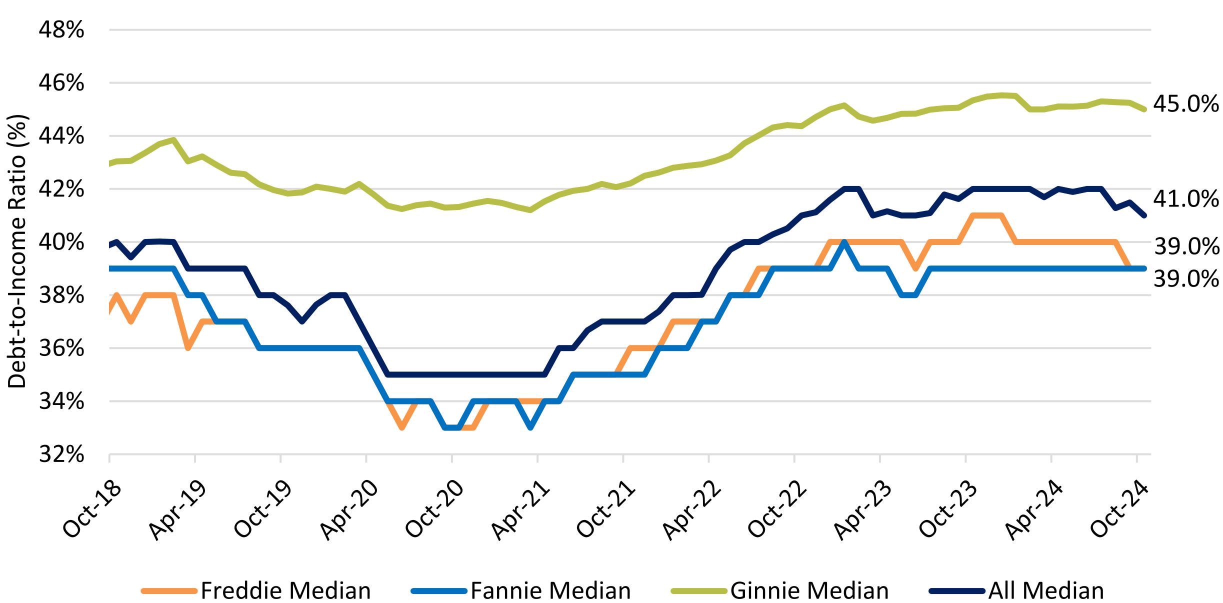


Figure 48. DTI Ratio for All Loans



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

11 FORBEARANCE TRENDS

At the end of October 2024, 72,694 Ginnie Mae loans were in forbearance. The number of loans in forbearance removed from MBS pools in October 2024 was 325 while 72,369 loans in forbearance remained in pools. The number of loans in forbearance, both the number of loans that remained in pools, and the number of loans removed from MBS pools increased for Ginnie Mae. 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 – October 2024						
	FICO Score*	**Note Rate (%) ***	**Current Principal Balance Median**	**First Time Homebuyer Share (%)**	**Purchase Share (%)**	**Loan Count**
Ginnie	655	4.5%	$214,988	72.1%	74.9%	72,694
Bank	673	4.5%	$159,656	80.6%	88.3%	8,196
Nonbank	653	4.5%	$222,410	71.1%	73.7%	64,463
FHA	652	4.6%	$204,464	76.6%	79.5%	55,164
Bank	671	4.6%	$157,362	84.7%	89.3%	7,364
Nonbank	650	4.6%	$212,055	75.6%	78.4%	47,768
VA	663	4.4%	$272,560	55.8%	61.6%	15,311
Bank	687	4.5%	$240,240	49.7%	79.9%	600
Nonbank	662	4.4%	$274,000	56.1%	60.8%	14,709

Loans in Forbearance and Removed from Pools – October 2024						
	FICO Score*	**Note Rate (%) ***	**Current Principal Balance Median**	**First Time Homebuyer Share (%)**	**Purchase Share (%)**	**Loan Count**
Ginnie	648	5.4%	$194,284	63.0%	68.3%	325
Bank	646	5.2%	$105,681	53.8%	91.9%	24
Nonbank	648	5.5%	$205,341	63.3%	67.6%	301
FHA	639	5.7%	$185,580	66.5%	74.7%	266
Bank	654	5.3%	$109,913	56.5%	91.5%	21
Nonbank	638	5.8%	$189,914	67.0%	74.0%	245
VA	678	4.6%	$280,193	46.7%	48.5%	57
Bank	495	3.5%	$130,477	N/A	N/A	1
Nonbank	680	4.6%	$280,347	46.7%	48.5%	56

Loans in Forbearance that Remain in Pools – October 2024						
	FICO Score*	**Note Rate (%) ***	**Current Principal Balance Median**	**First Time Homebuyer Share (%)**	**Purchase Share (%)**	**Loan Count**
Ginnie	655	4.5%	$215,035	72.1%	74.9%	72,369
Bank	673	4.5%	$159,958	80.7%	88.3%	8,172
Nonbank	653	4.5%	$222,460	71.1%	73.7%	64,162
FHA	652	4.6%	$204,579	76.7%	79.5%	54,898
Bank	671	4.6%	$157,555	84.7%	89.3%	7,343
Nonbank	650	4.6%	$212,165	75.6%	78.4%	47,523
VA	663	4.4%	$272,511	55.8%	61.6%	15,254
Bank	688	4.5%	$240,881	49.7%	79.9%	599
Nonbank	662	4.4%	$273,970	56.1%	60.9%	14,653

*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 October 2024; *Averages weighted by remaining principal balance of the loans.*

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 are shown in **Table 28.** The top 30 firms collectively own 88.97% 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 October 2024, over half (52.00%) of the Ginnie Mae MSRs are owned by the top five 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	↔	$369,533,895,905	15.1%	15.11%	13.95%	1.39%
DBA Freedom Mortgage	2	2	↔	$355,221,977,495	14.5%	29.63%	12.93%	0.81%
PennyMac Loan Service	3	3	↔	$287,303,251,896	11.7%	41.38%	14.12%	2.65%
Newrez LLC	4	5	↑	$134,181,534,123	5.5%	46.87%	14.20%	1.41%
Mr. Cooper (Nationstar)	5	4	↓	$125,572,526,472	5.1%	52.00%	9.98%	1.86%
Carrington Mortgage	6	7	↑	$114,644,199,362	4.7%	56.69%	8.85%	1.12%
Rocket Mortgage	7	6	↓	$114,141,738,840	4.7%	61.35%	15.11%	0.28%
Wells Fargo Bank	8	8	↔	$90,402,911,957	3.7%	65.05%	6.49%	0.34%
Planet Home Lending	9	9	↔	$74,086,705,989	3.0%	68.08%	14.56%	0.62%
U.S. Bank	10	10	↔	$57,193,131,134	2.3%	70.42%	8.78%	0.87%
United Wholesale Mortgage	11	11	↔	$41,159,447,850	1.7%	72.10%	5.70%	1.01%
LoanDepot	12	12	↔	$38,904,822,552	1.6%	73.69%	14.38%	2.00%
Navy Federal Credit Union	13	13	↔	$33,149,724,247	1.4%	75.05%	8.81%	0.39%
Mortgage Research Center	14	14	↔	$32,738,513,579	1.3%	76.38%	30.79%	0.52%
Guild Mortgage Company	15	16	↑	$25,655,723,489	1.0%	77.43%	12.32%	0.78%
M&T Bank	16	15	↓	$25,652,875,468	1.0%	78.48%	6.24%	0.50%
CrossCountry Mortgage	17	18	↑	$24,791,942,653	1.0%	79.50%	17.88%	2.39%
The Money Source	18	17	↓	$22,601,641,915	0.9%	80.42%	11.45%	3.19%
CMG Mortgage	19	22	↑	$22,290,885,066	0.9%	81.33%	11.38%	1.76%
New American Funding	20	21	↑	$21,729,627,747	0.9%	82.22%	15.01%	2.78%
Village Capital & Investment	21	28	↑	$20,618,362,066	0.8%	83.06%	41.43%	6.95%
Movement Mortgage	22	20	↓	$20,398,003,793	0.8%	83.90%	18.00%	0.72%
Truist Bank	23	19	↓	$19,820,821,470	0.8%	84.71%	9.09%	1.55%
Idaho Housing and Finance	24	25	↑	$19,662,280,844	0.8%	85.51%	5.88%	1.08%
AmeriHome Mortgage	25	23	↓	$18,677,340,967	0.8%	86.27%	18.26%	2.72%
PHH Mortgage Corporation	26	24	↓	$18,106,199,979	0.7%	87.02%	11.85%	0.81%
Citizens Bank	27	27	↔	$13,493,860,328	0.6%	87.57%	7.53%	0.22%
Flagstar Bank	28	26	↓	$13,071,667,203	0.5%	88.10%	15.38%	1.16%
Sun West Mortgage	29	30	↑	$10,651,212,656	0.4%	88.54%	12.82%	0.62%
MidFirst Bank	30	29	↓	$10,642,453,993	0.4%	88.97%	7.71%	2.55%

Sources: Ginnie Mae, Recursion. Notes: Data as of October 2024.

13 AGENCY NONBANK ORIGINATORS

Total Agency nonbank origination shares increased as of month-end October 2024 by approximately 0.3% MoM. The increase in nonbank origination share was driven by increases in Fannie Mae, up 2.6% MoM, Ginnie Mae up 0.2% MoM, and Freddie Mac up 0.8% MoM. The Ginnie Mae nonbank share increased to 94.5% as of October 2024 and has remained consistently higher than the GSEs.

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

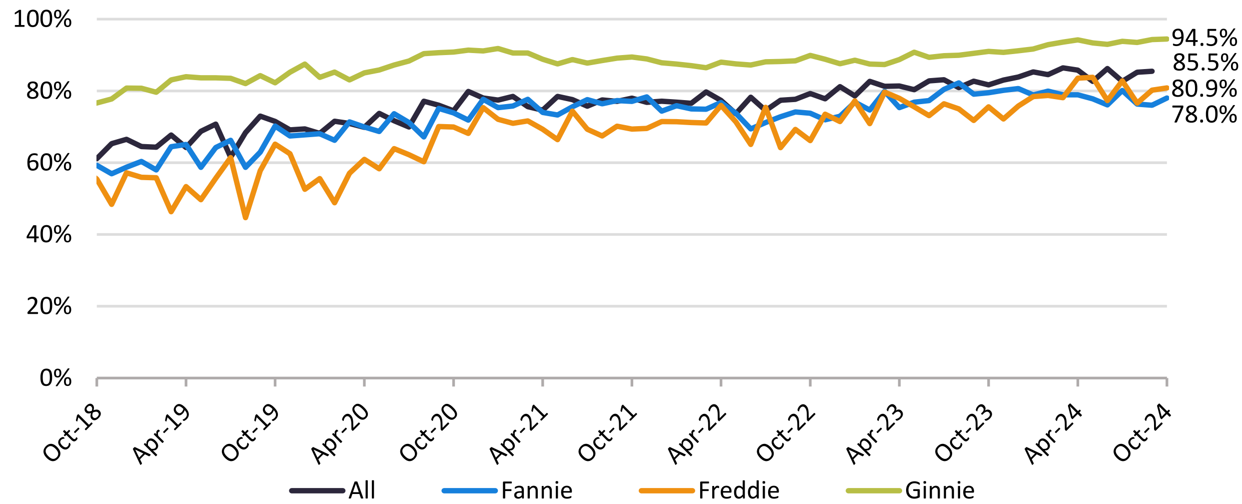


Figure 50. Nonbank Origination Share:

Purchase Loans

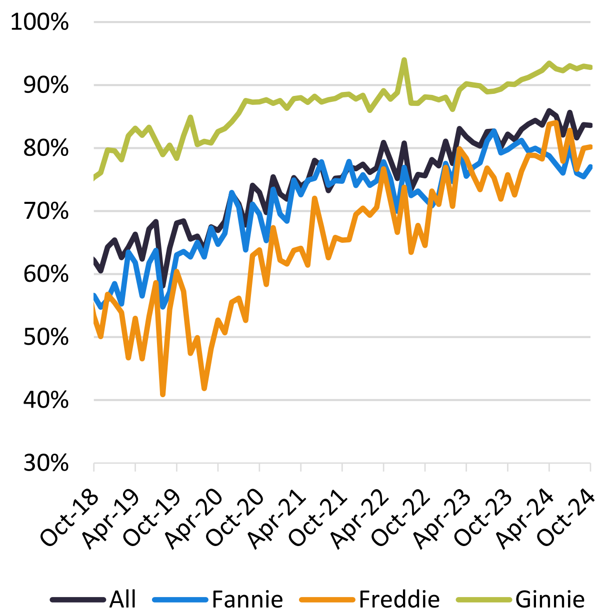
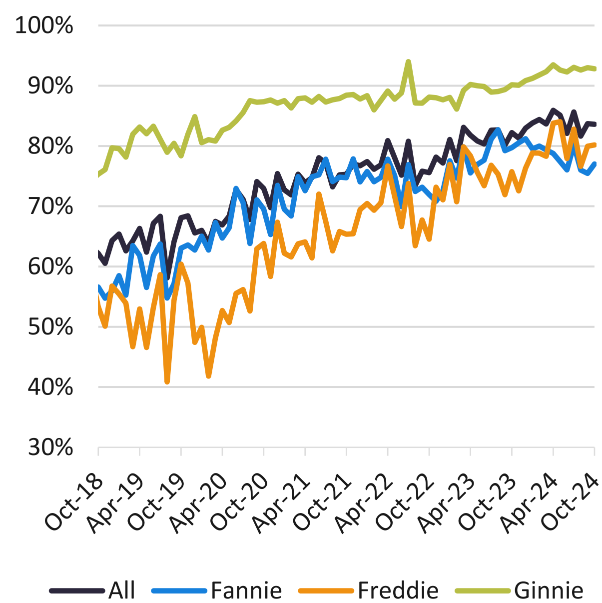


Figure 51. Nonbank Origination Share:

Refi Loans



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

Ginnie Mae's total nonbank originator share remained relatively stable as of month-end October 2024. Ginnie Mae continues to have a high proportion of nonbank originations, with a rate of 94.5% in October 2024. The percentage of Ginnie Mae's "Other" nonbank refinanced loans increased to 95.7% in October 2024.

Figure 52. Ginnie Mae Nonbank Origination Share by Product (All, Purchase, Refi)

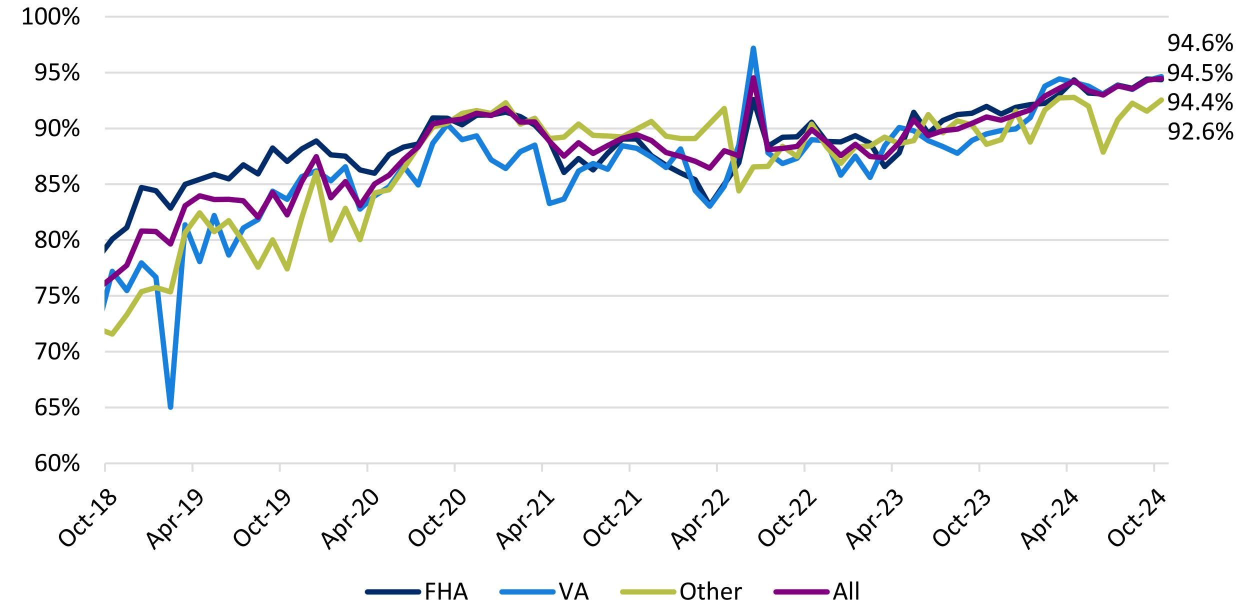


Figure 53. Ginnie Mae Nonbank Share: Purchase Loans

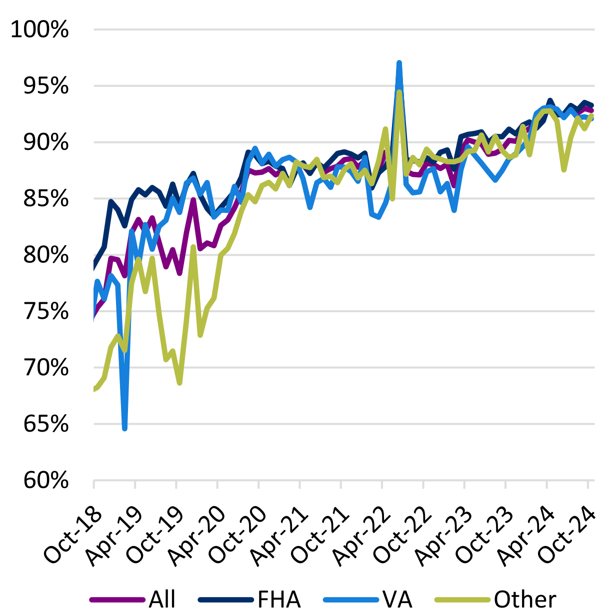
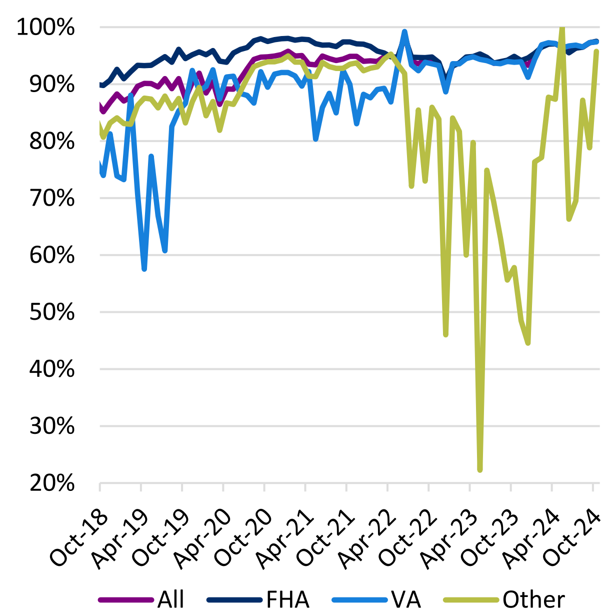


Figure 54. Ginnie Mae Nonbank Share: Refi Loans



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

14 BANK VS. NONBANK ORIGINATORS HISTORICAL CREDIT BOX, GINNIE MAE VS. GSE

14.1 (FICO, LTV, DTI)

The mortgage loan originations of nonbanks continue to have a consistently lower median FICO score than their bank counterparts across all Agencies. The spread between nonbank and bank FICO scores decreased 4 points from 25 to 21 points from September 2024 to October 2024. The Agency median FICO score increased to 742 in October 2024.

Figure 55. Agency FICO: Bank vs. Nonbank

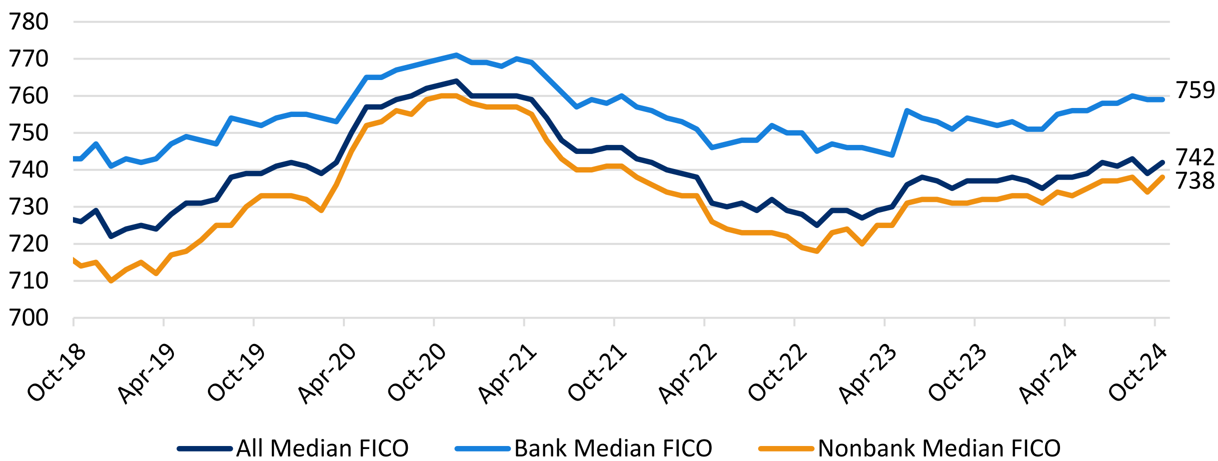


Figure 56. GSE FICO: Bank vs. Nonbank

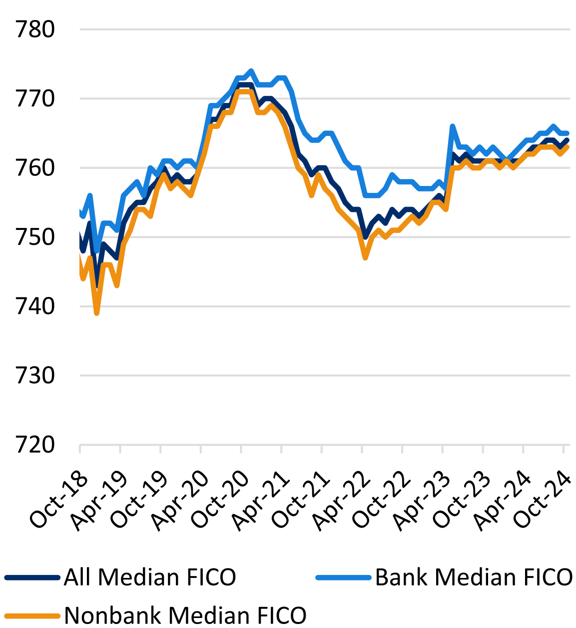
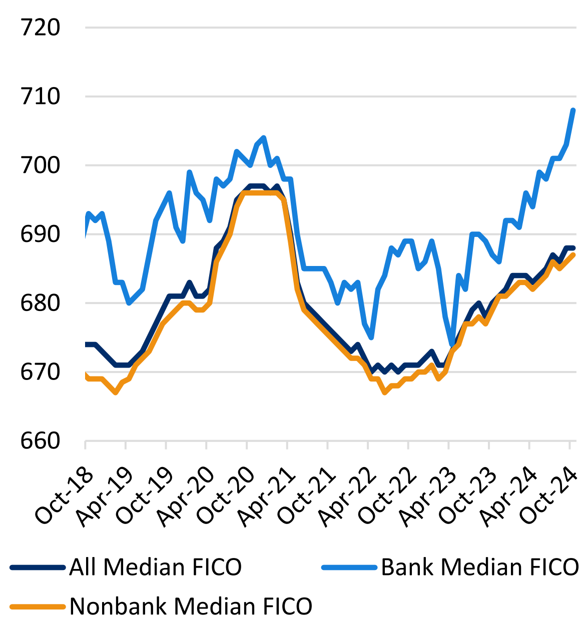


Figure 57. Ginnie Mae FICO: Bank vs. Nonbanks



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

The median LTV for all GSE originators remained the same as of month-end October 2024 at 80.0%. Ginnie Mae's median bank and nonbank LTV remained flat at 98.2% as of month-end October 2024. Ginnie Mae's median DTI decreased to 45.1% in October 2024 in nonbank originations.

Figure 58. GSE LTV: Bank vs. Nonbank

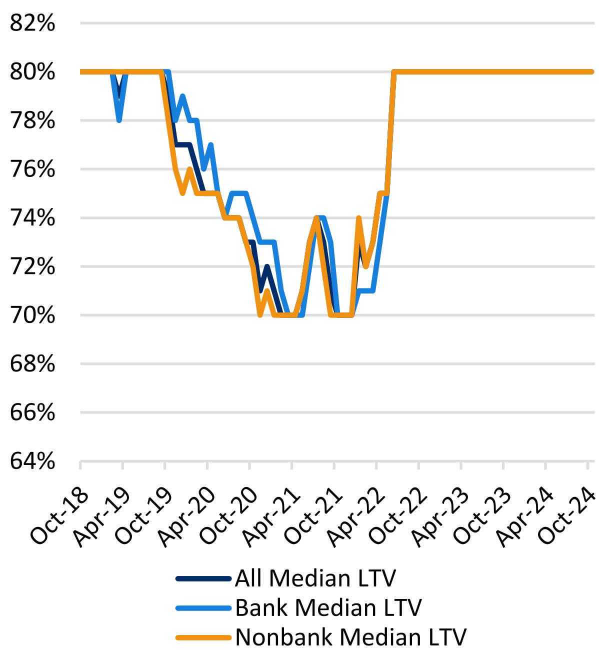


Figure 59. Ginnie Mae LTV: Bank vs. Nonbank

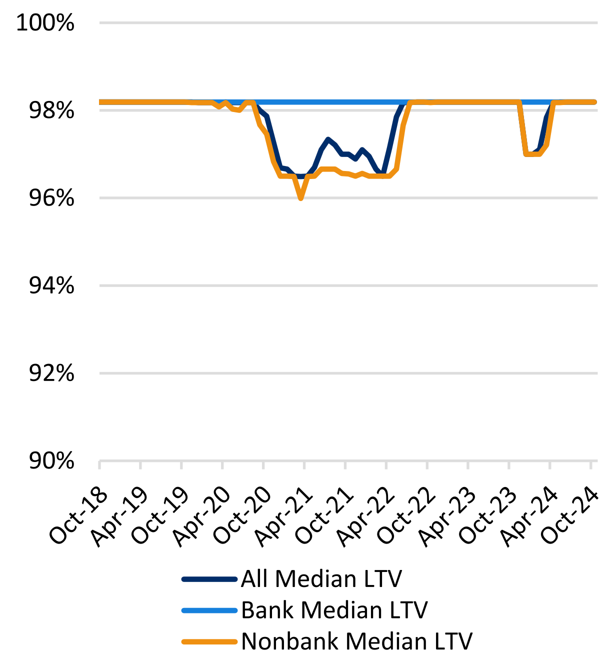


Figure 60. GSE DTI: Bank vs. Nonbank

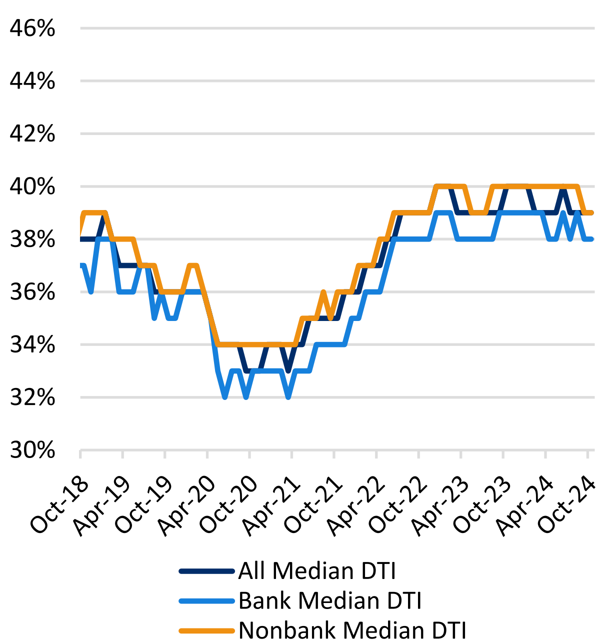
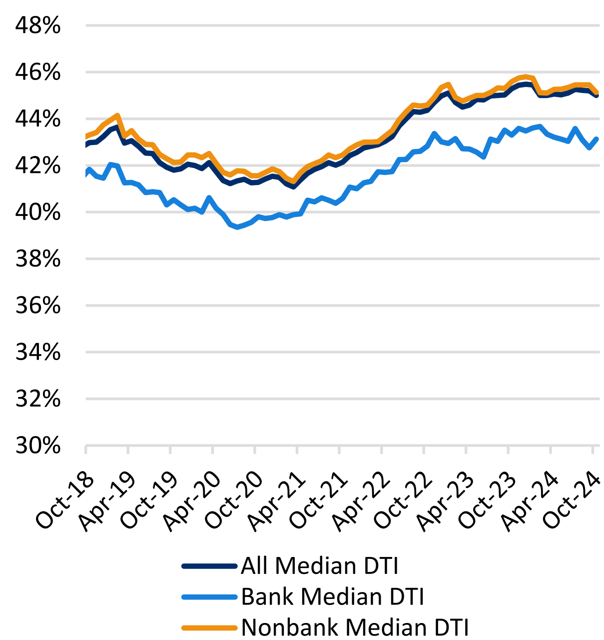


Figure 61. Ginnie Mae DTI: Bank vs. Nonbank



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

As of month-end October 2024, the median FICO score for Ginnie Mae bank originations increased 5 points to 708 points MtM and nonbank increased 1 point to 687 points MtM. The median FICO score for all Ginnie originations stayed at 688 points. The gap between banks and nonbanks is most apparent in "VA" lending (32-point spread).

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

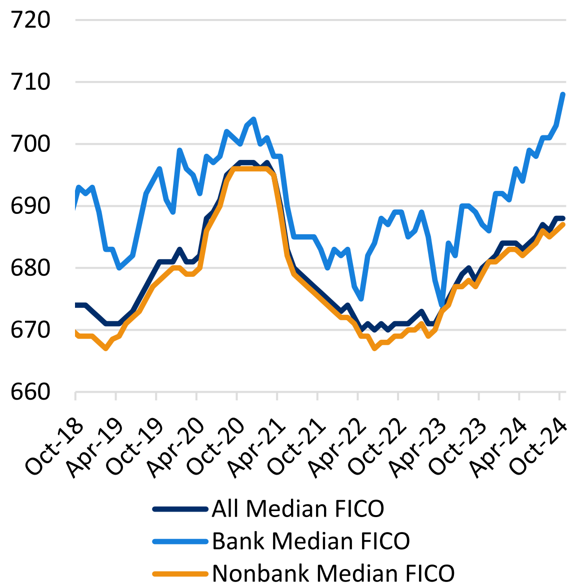


Figure 63. Ginnie Mae FHA FICO Score: Bank vs. Nonbank

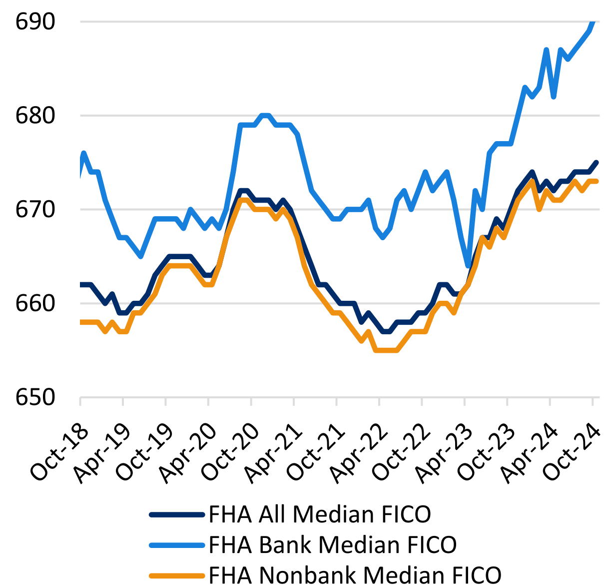


Figure 64. Ginnie Mae VA FICO Score: Bank vs. Nonbank

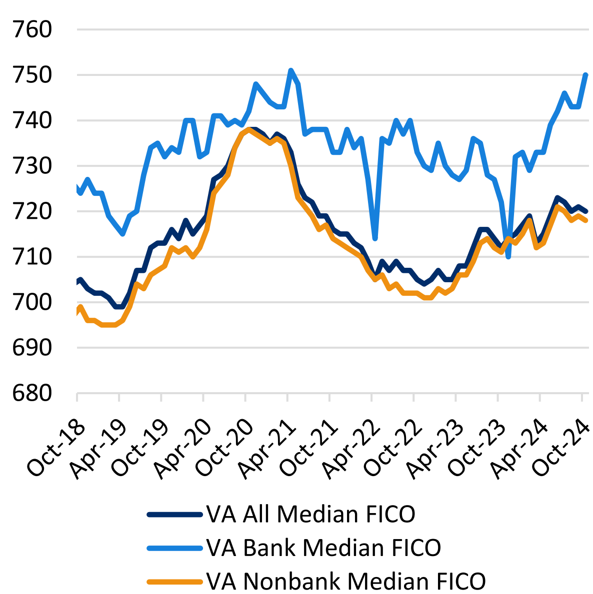
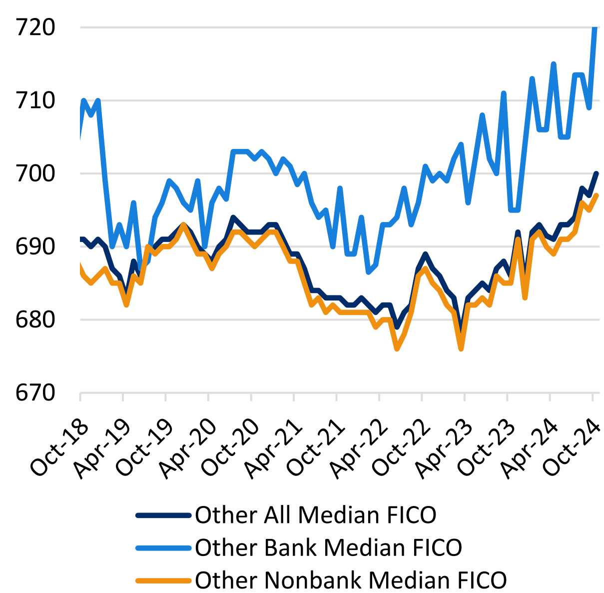


Figure 65. Ginnie Mae Other FICO Score: Bank vs. Nonbank



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

Median DTI for Ginnie Mae's 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

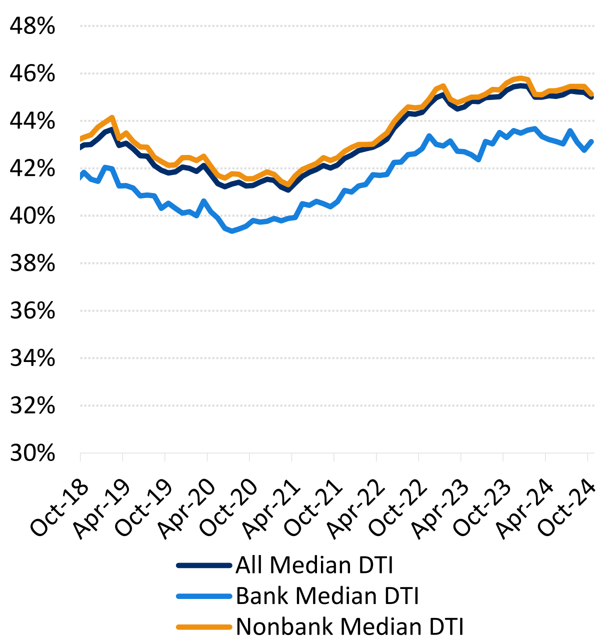


Figure 67. Ginnie Mae FHA DTI: Bank vs. Nonbank

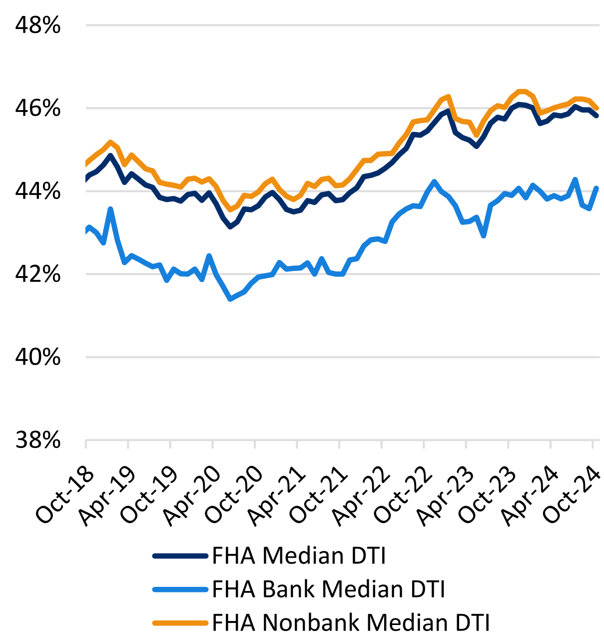


Figure 68. VA DTI: Bank vs. Nonbank

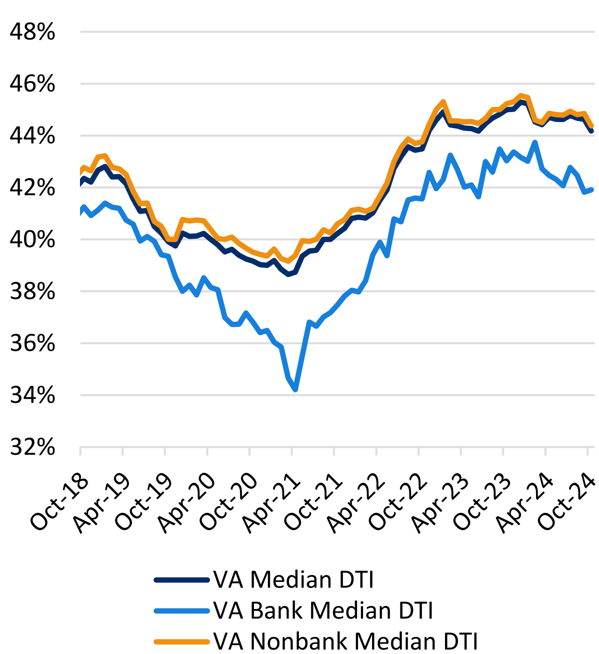
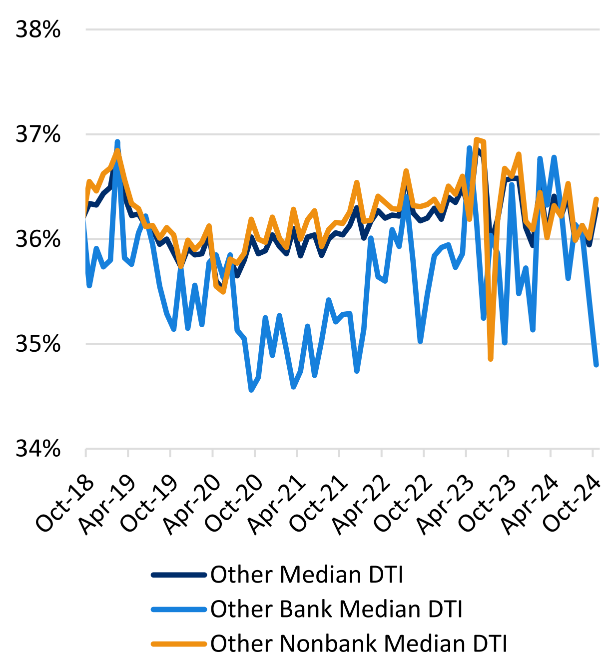


Figure 69. Other DTI: Bank vs. Nonbank



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

15 ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

Ginnie Mae MBS 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 revealed approximately $259 billion of Outstanding Ginnie Mae MBS categorized as LMI area loans as defined by HUD's CDBG
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
August 2024	LMIB Disclosure charts added to ESG.

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 (October 2024)

<table>
<tr><th colspan="5">Ginnie Mae Impact MBS Metrics – Guaranteed Portfolio as of October 2024</th></tr>
<tr><th></th><th>Targeted Population</th><th>Positive Outcomes</th><th>Our Commitment</th><th></th></tr>
<tr><td rowspan="7">Social - Affordable</td><td>FHA Borrowers – 7,139.013
VA Borrowers – 3,665,822
RHS Borrowers – 779,159
PIH Borrowers – 23,822</td><td>Loans under $200K
6,476,773 Loans
First-Time Home Buyers
4,491,817 Loans
Down Payment Assistance
704,309 Loans
Rural
Single Family – 1,755,589 Loans
HECM – 1,513,506 Loans</td><td rowspan="3">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.

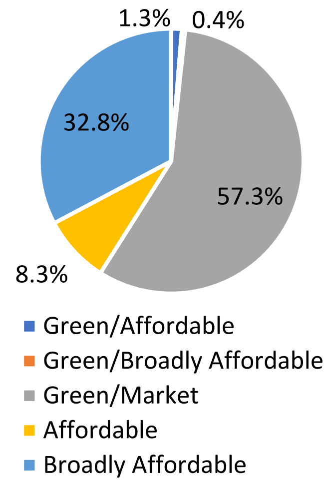
Ginnie Mae securitization collateral selection is restricted to agency insured mortgages from the following United States Government Agencies. These agencies are the: Federal Housing Administration (FHA), Department of Veterans Affairs (VA), United States Department of Agriculture's Rural Housing Service (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.</td><td rowspan="4">Single Family</td></tr>
<tr><td>Low-to-Moderate Income Borrowers (LMI)</td><td>3,291,929 Loans</td></tr>
<tr><td>LMI Majority Census Tract Loans</td><td>1,775,091 Loans</td></tr>
<tr><td>Borrowers Facing Difficulties</td><td>785,463 modifications with over 809,017 in partial claims</td><td>Ginnie Mae has been integral to the federal actions to prevent foreclosure for homeowners experiencing financial hardship.</td></tr>
<tr><td>Senior Citizens Aging in Place</td><td>266,269 Home Equity Convertible Mortgages (HECM) or Reverse</td><td>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.</td><td>HECM</td></tr>
<tr><td>Multifamily Housing (MF)</td><td>1.325 million apartment homes
495,030 healthcare living units</td><td>Affordable rental housing is in critically short supply. Government lending and subsidy programs support preservation and creation of new affordable housing units nationwide.</td><td rowspan="3">Multi-Family</td></tr>
<tr><td>MF Affordable</td><td rowspan="2">5,090 MF loans are either Green, Affordable, or both</td><td rowspan="2">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.</td></tr>
<tr><td>Green</td><td>MF Green</td></tr>
</table>

15.2 Environmental

Table 30. UPB by ESG Status – Multifamily Portfolio

ESG Status	UPB	%
Green/Affordable	$1,118,111,014	0.7%
Green/Broadly Affordable	$352,882,928	0.2%
Green/Market	$49,267,074,017	31.9%
Green Total	$50,738,067,959	32.9%
Affordable[5]	$7,105,490,327	4.6%
Broadly Affordable[9]	$28,178,229,162	18.3%
Affordable Total	$36,754,713,431	23.8%
ESG Total[6]	$86,021,787,448	55.7%
Grand Total	**$154,344,370,663**	**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. Around 33.0% 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, roughly 23.9% of Ginnie Mae Multifamily collateral is "Affordable" or "Broadly Affordable". In total 55.9% 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 October 2024, https://www.hud.gov/program_offices/housing/mfh/green

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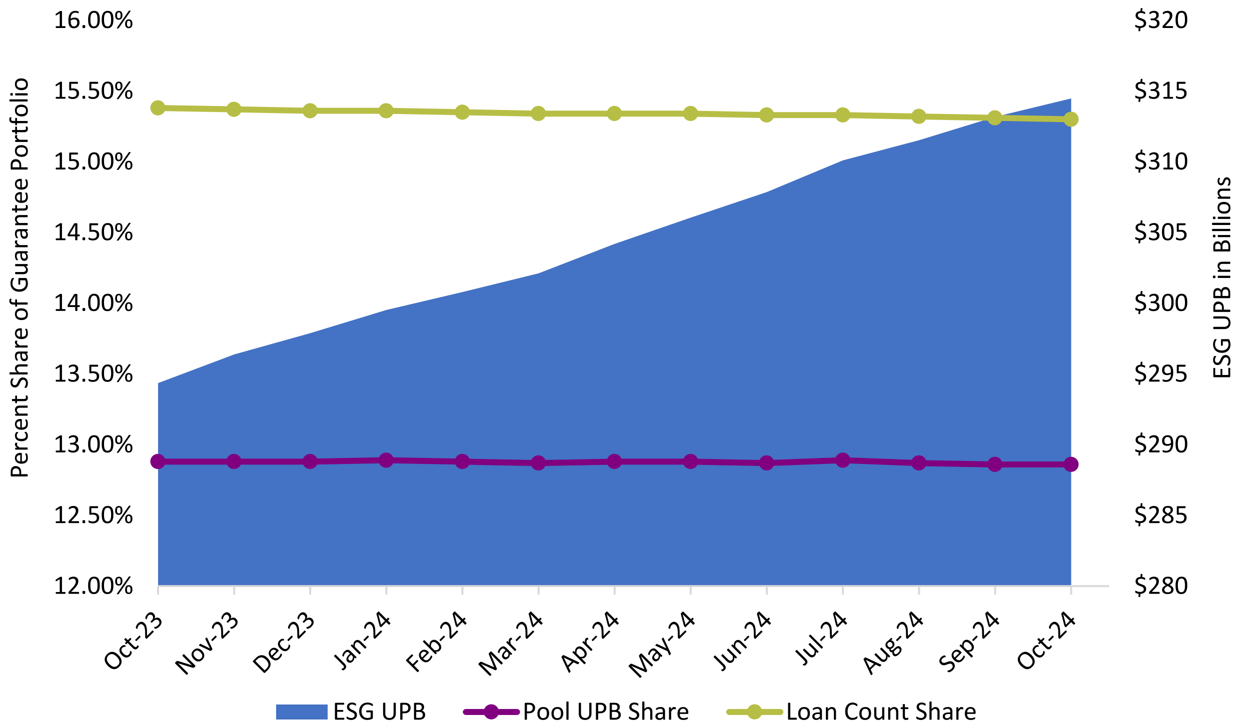
[5] "Affordable" and "Broadly Affordable" removes "Green/Affordable" and "Green/Broadly Affordable" from the UPB total. Affordable total includes both Green and Not Green.

[6] ESG Total includes Green/Market & Affordable Total.

15.3.1 Low-to-Moderate Income Borrowers

Roughly $314 billion of Ginnie Mae Single-Family collateral and over 1.77 million loans outstanding have been issued to LMI borrowers. Total ESG UPB increased by approximately $20 billion YoY.

Figure 71. ESG Share of the Outstanding SF Portfolio



Source: Ginnie Mae Disclosures as of October 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, 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

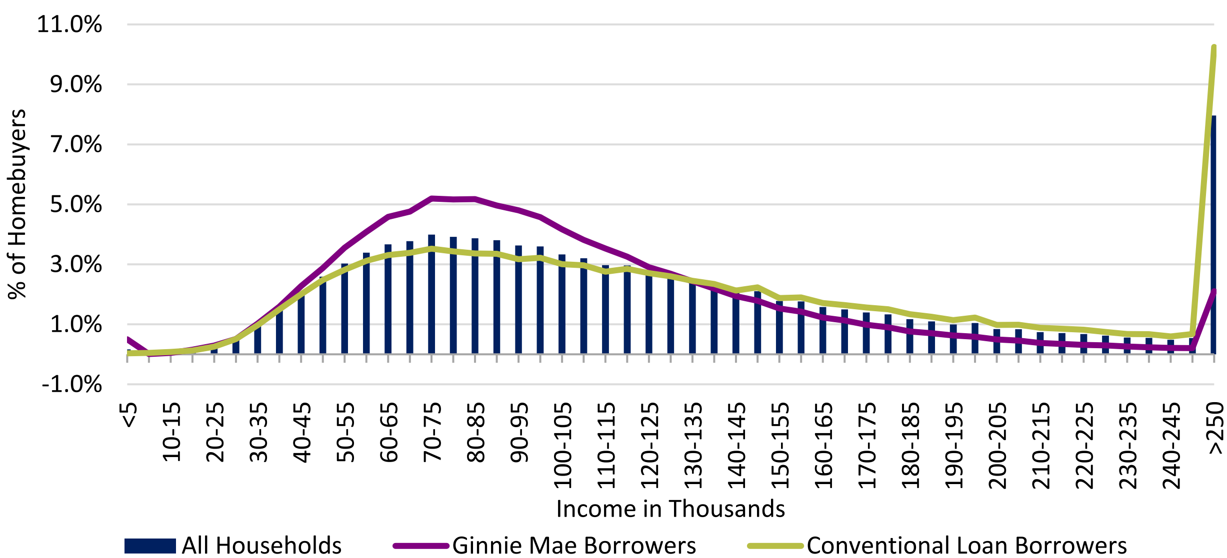
Metric	LMI Pool Share >50%	LMI Pool Share 20% - 50%	LMI Share < 20%	All Pools
Total UPB ($ billions)	$9.22	$215.6	$2,162.9	$2,387.7
Average Original Loan Size	$190,376	$203,116	$349,033	$335,246
Credit Score (Median)	674	675	680	677
DTI (Median)	41%	41%	41%	41%
LTV (Median)	97%	96%	95%	96%
Interest Rate (WA)	4.99%	4.87%	4.16%	4.23%

Source: Ginnie Mae Disclosures as of October 2024

15.3.2 Purchase and Refinance Origination by Income Bracket

Over 36.6% of all purchase and refinance loan originations guaranteed by Ginnie Mae are to households with income less than $80,000 compared to 27.6% of the GSE's Single-Family guarantee portfolio. Additionally, around 73.8% of these loan originations guaranteed by Ginnie Mae are to households with income less than $125,000 compared to 55.0% at the GSEs.

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



Source: Home Mortgage Disclosure Act (HMDA) data as of 2023

U.S. HOUSING MARKET

16 HOUSING AFFORDABILITY

16.1 Housing Affordability – Home Price Appreciation

Quarterly home prices increased in seven of the nine regions in Q3 2024. The East North Central and New England regions both saw the largest quarterly appreciation in the home price index (HPI) of 1.56% each from Q2 to Q3 2024. The South Atlantic and West South Central regions saw QoQ decreases in HPI of around 0.02% and 0.04%, respectively. The East North Central region has appreciated more than any other region over the past year, increasing 6.77% from Q3 2023 to Q3 2024. The United States collectively saw a 4.34% increase of YoY HPI from 2023 Q3 to 2024 Q3; down from a 5.88% increase of YoY HPI in Q2 2023.

Figure 73. Regional HPI Trend Analysis QoQ

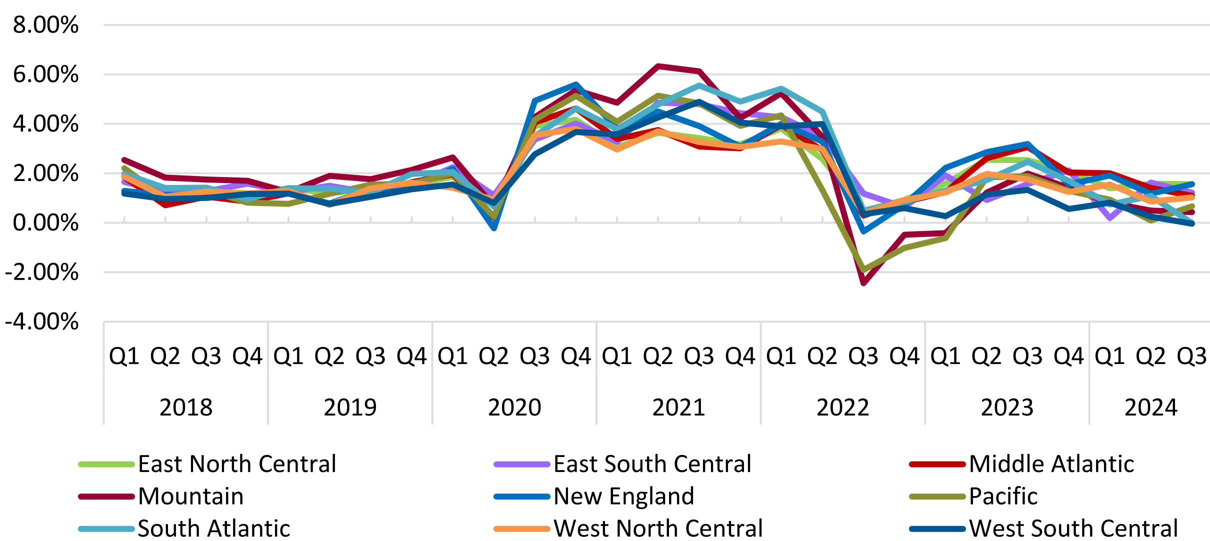
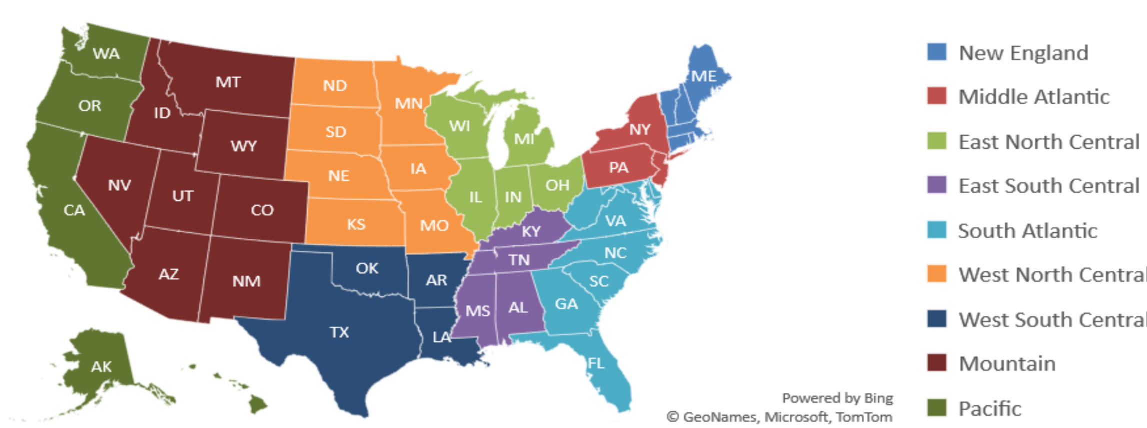


Figure 74. FHFA U.S. Census Subregions as defined by the U.S. Census Bureau



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 October 2024, YoY CPI inflation was 2.6%, increasing from 2.4% in the month prior. Nationally, rents are up 0.2% YoY as of month-end October 2024 while the MoM change in median rents decreased by 0.6%. YoY change in wage growth in October increased 4.6%, following a 4.7% YoY increase in the month prior. Month-end August 2024 adjusted reporting data shows home price appreciation increased 4.3% YoY.

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

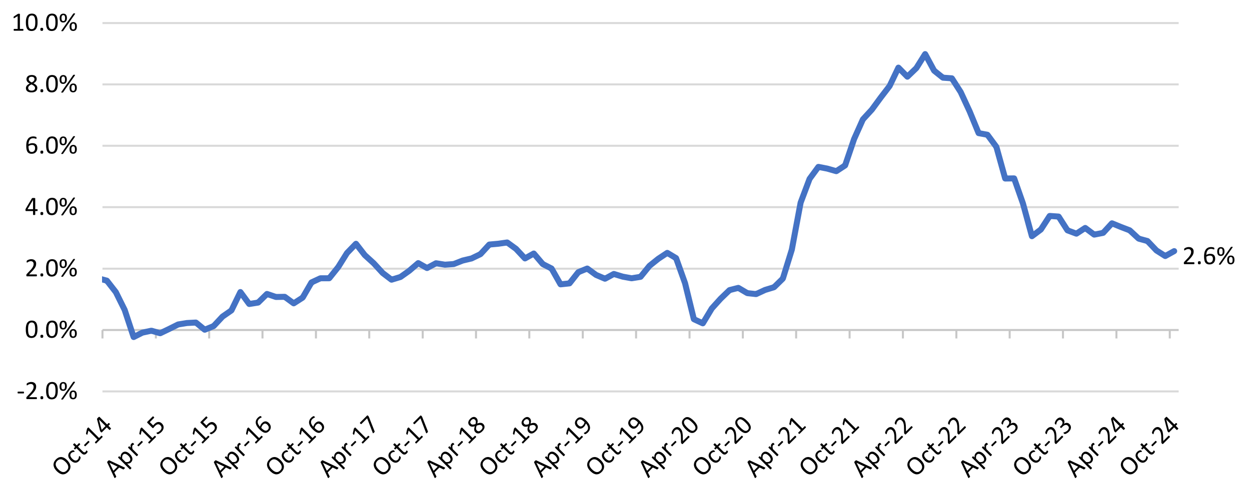
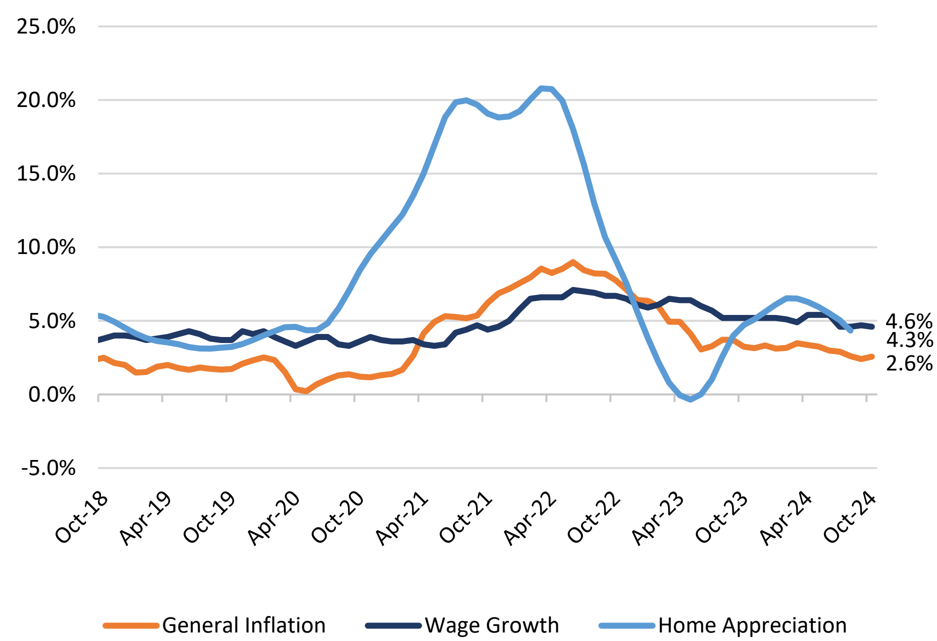


Figure 76. Asset Price Appreciation vs. Wage Increases



Metric	*Statistic*
General Inflation	*2.6%*
Home Price Appreciation *(YoY)*	*4.3%*
Rental Price Appreciation *(Median Rent Change YoY)*	*0.2%*
Wage Growth	*4.6%*

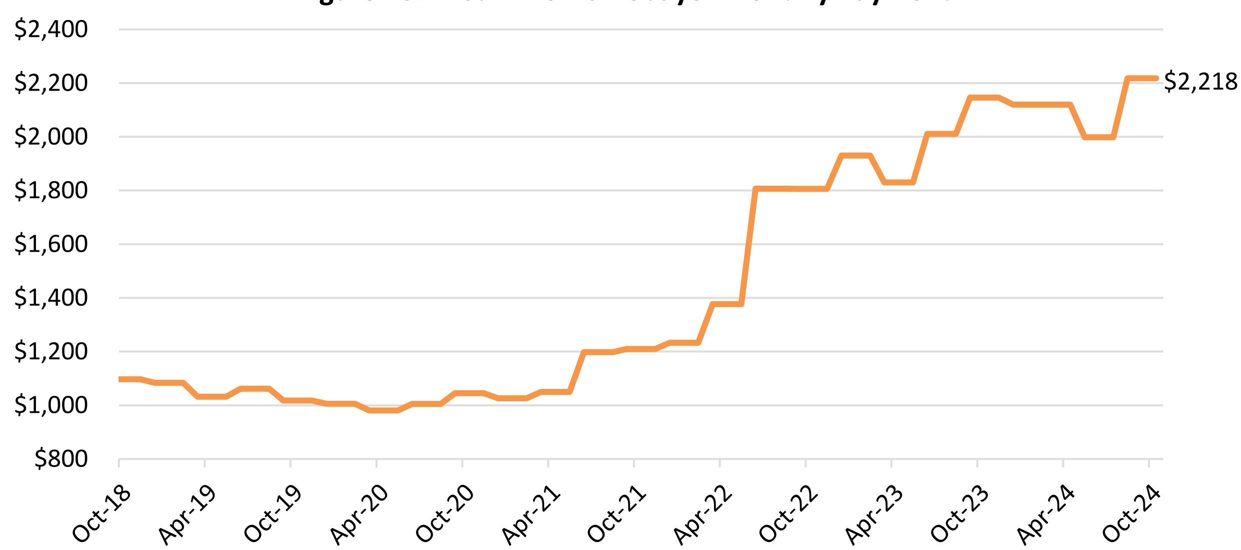
Sources: Bureau of Labor Statistics – Consumer Price Index; Federal Reserve Bank of Atlanta, Research and Data - Wage-Growth Data (currently undergoing maintenance); Redfin.com - Rental Price Appreciation; S&P/Case-Schiller U.S. National Home Price Index – Home Price Appreciation.

16.2.1 Housing Affordability – Affordability Index

As of month-end October 2024, the Homebuyer Affordability Fixed Mortgage Index (HAFM) was 98.6 and the First-Time Homebuyer Monthly Payment (FTMP), which represents the median payment for first-time homebuyers, was $2,218. The HAFM Index increased 7.52% YoY and monthly payments for first-time homebuyers increased approximately 3.36% YoY. HAFM has decreased 47.5% and FTMP has increased 116.2% since January 2021.

Figure 77. Homebuyer Affordability Fixed Mortgage Index

Figure 78. First-Time Homebuyer Monthly Payment

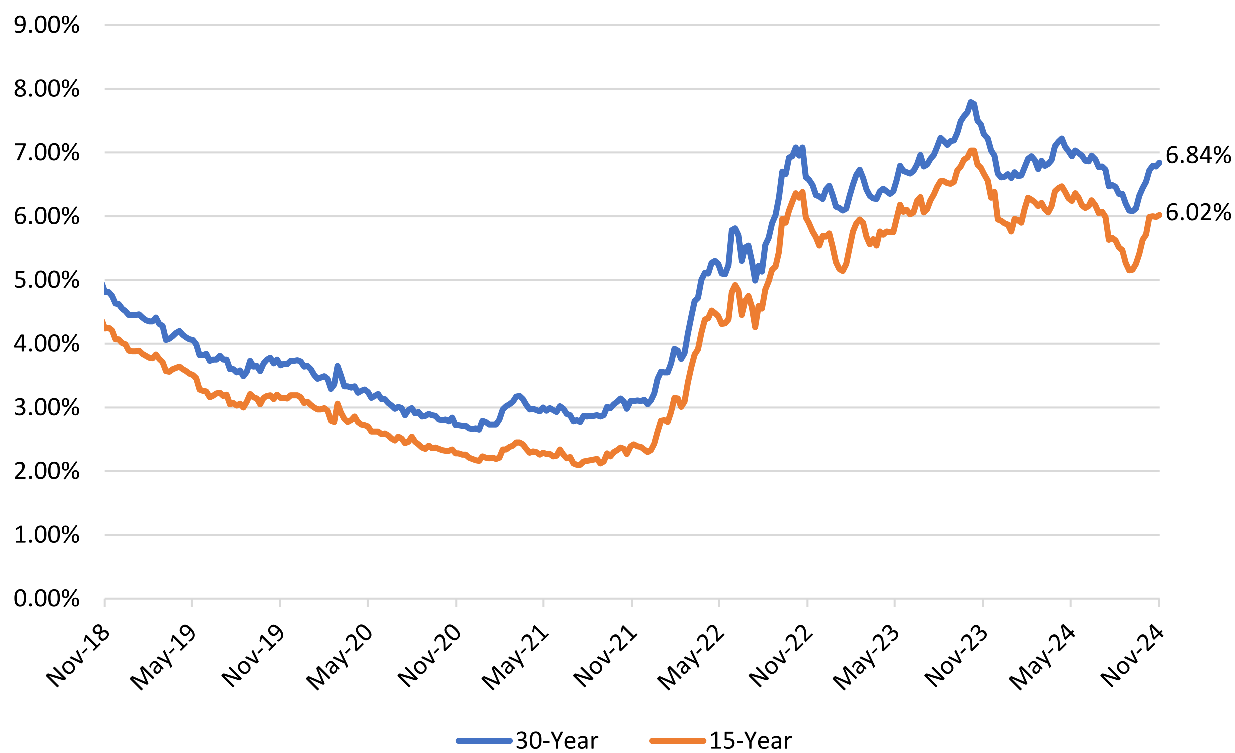


Source: Bloomberg as of October 2024. Note: Housing Affordability Index: Value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signifies that a family earning the median income has more than enough income 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 Fed lowered the Federal Funds target rate on November 7, 2024, to a range of 4.5% and 4.75% per the FOMC[7]. As of November 21, 2024, the average 30-year and 15-year fixed rate mortgage rates were 6.84% and 6.02%, respectively. The average 30-year fixed rate mortgage rate increased 30 bps and the average 15-year fixed rate mortgage rate increased 31 bps from October 24, 2024.

Figure 79. Average Fixed Rate Mortgage Rates



Source: FRED data as of November 2024

[7] *FOMC Statement - Nov 2024*

16.3 Housing Inventory

As of October 2024, there were 9.5 months of new housing inventory on the market, increasing 25.0% MoM from an adjusted 7.6 months in September 2024. **Figures 81 and 82** show Single-Family and Multifamily annualized housing metrics, including the number of permits, starts, and completions. From October 2023 to October 2024, the number of Single-Family completions rose approximately 6.0% while the number of starts and permits declined 0.2% and 1.2%, respectively. Multifamily metrics show that from October 2023 to October 2024, the number of completions rose 60.2%, while the number of starts and permits decreased 15.3% and 15.2%, respectively.

Figure 80. Single-Family Housing Inventory

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

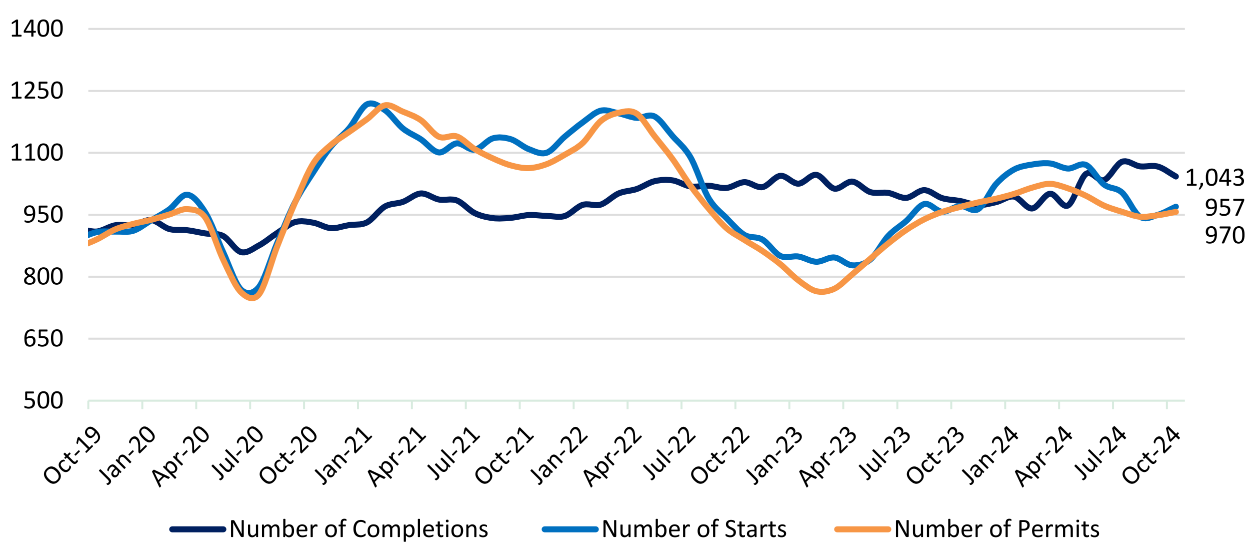
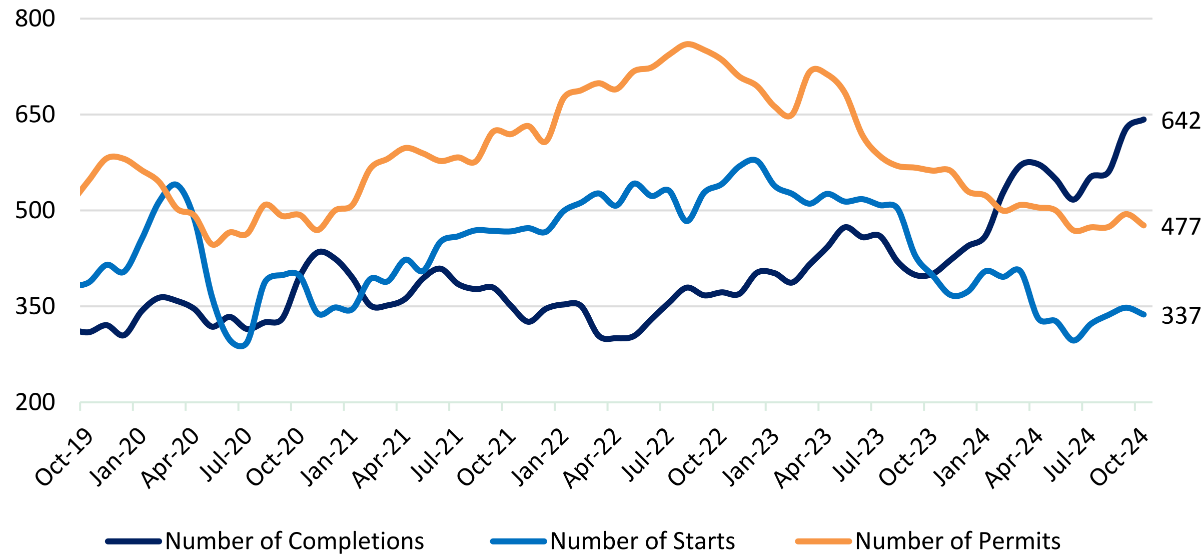


Figure 82. Multifamily Constructions Metrics: Permits, Starts, Completions



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

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

The total value of the Single-Family housing market increased from $46.4 trillion in Q1 2024 to $48.2 trillion in Q2 2024. The total value of the US housing market is up approximately 153% from its low in 2011. From Q2 2023 to Q2 2024 mortgage debt outstanding increased from approximately $12.9 trillion to $13.1 trillion and household equity increased from $31.6 trillion to $35.1 trillion. Agency Single-Family MBS continues to account for a growing percentage of the total mortgage debt outstanding, at roughly $9.2 trillion in Q2 2024 it represents more than 65% of total mortgage debt, up from just 52% in 2011.

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

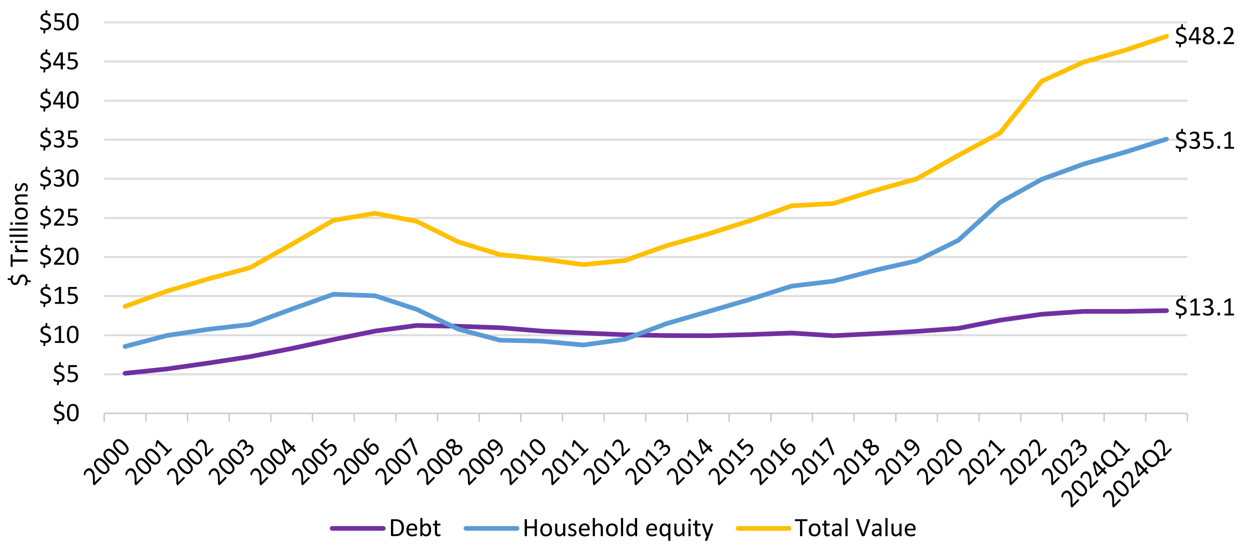
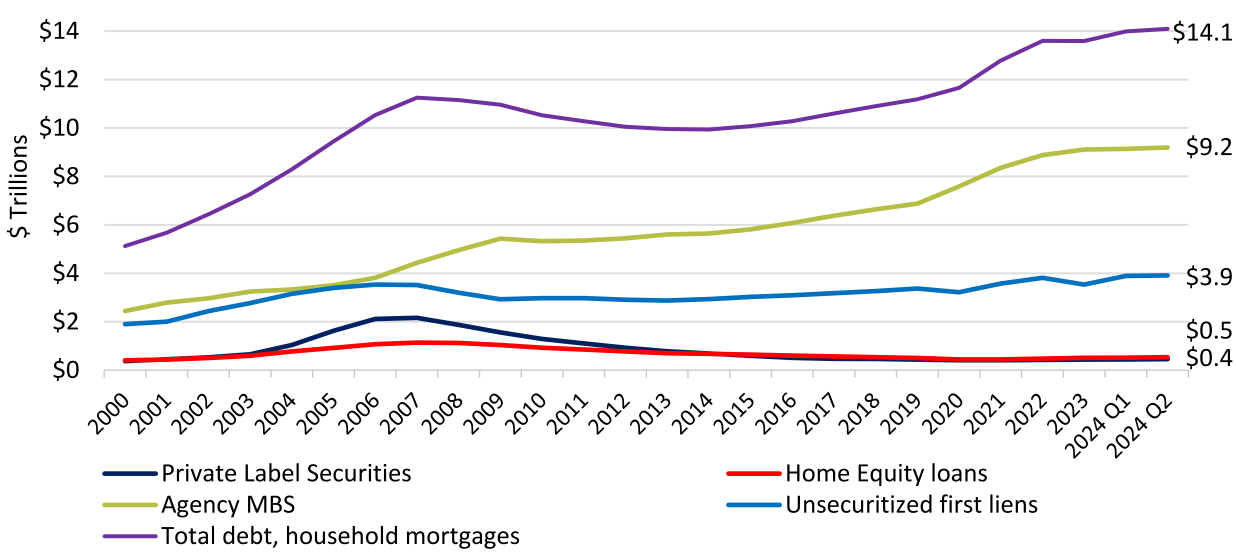


Figure 84. Size of the U.S. Residential Mortgage Market



Source: Federal Reserve Flow of Funds Data as of Q2 2024. Total debt in figure 84 includes additional Nonfinancial corporate/noncorporate business mortgages which is not included in the calculation for "debt" for figure 83. Figures are rounded to nearest hundred billion.

17 DISCLOSURE

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