HOUSING FINANCE POLICY CENTER

HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

April 2024

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ABOUT THE CHARTBOOK

The Housing Finance Policy Center's (HFPC) mission is to produce analyses and ideas that promote sound public policy, efficient markets, and access to economic opportunity in the area of housing finance. *At A Glance*, a monthly chartbook and data source for policymakers, academics, journalists, and others interested in the government's role in mortgage markets, is at the heart of this mission.

We welcome feedback from our readers on how we can make *At A Glance* a more useful publication. Please email any comments or questions to ataglance@urban.org.

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CONTENTS

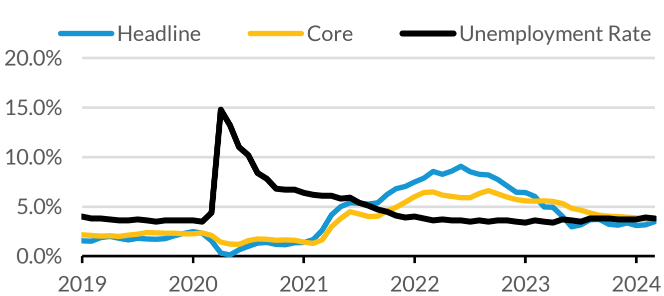
Inflation Will be the Gauge to Watch

In the past two years, mortgage origination activity has been very limited. Following historically low mortgage rates over the 2019-2021 period, mortgage rates soared reaching a peak of 7.8 percent in October 2023 (figure 2). High mortgage rates reduced homebuying affordability and in turn home sales. At the same time, higher mortgage rates disincentivized refinancing, rate-term refinancing in particular.

Higher mortgage rates largely reflect Federal Reserve tightening of its monetary policy, principally by raising the federal funds rate. The Fed's Congressionally mandated monetary policy goals are maximum employment and price stability, which is defined as a 2 percent rate of inflation. While the unemployment rate is low, headline inflation, measured by the Consumer Price Index – Urban Consumers (CPI), exceeded its 2 percent threshold in March 2021 peaking at 9.1 percent in June 2022 (figure 1). Core inflation, which strips out more volatile food and energy prices, peaked at 6.6 percent September 2022. The federal reserve targets the PCE price index, which also showed accelerating inflation in Q1 2024.

In response to inflationary challenges, the mid-point of the federal funds rate rose from 0.125 percent in March 2022 to 5.38 in November 2023. The tighter stance of monetary policy seemed to pay off. Year-over-year change in headline CPI dropped from a high of 9.1 percent in June 2022 to 3.0 percent in June 2023 while core inflation slowed to 4.1 percent by October 2023. Amid the significant deceleration in consumer prices, the Fed communicated plans of reducing its key policy rate in 2024, partly because it also expected inflation to continue to slow toward its 2 percent threshold.

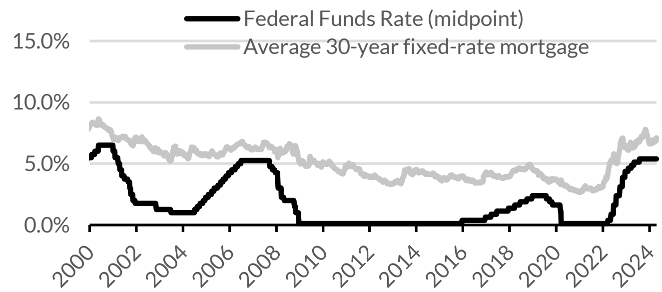
Figure 1: Inflation and Unemployment



Source: US Bureau of Labor Statistics and Moody's Data Analytics.
Note: Headline = all items, Core = all items less food and energy.

The 30-year fixed mortgage interest rate decreased from October 2023 to January 2024 (page 9). This spurred the refinance share of originations to jump several percentage points in February and March 2024 (page 10). The increase in the refi share is consistent with industry forecasts. These forecasts also projected stronger sales and construction activity in 2024 than in 2023 (page 20 & page 21). As a result, housing activity appears to have reached a low in 2023 as many experts looked towards 2024 with hope.

Figure 2: Federal Funds and Mortgage Interest Rates



Source: US Board of Governors of the Federal Reserve System and Freddie Mac.
Note: Data as of April 19, 2024.

Recent data requires a re-evaluation of that set of assumptions. Inflation has not meaningfully changed since June 2023, remaining at a stubborn 3.5 percent headline and 3.8 percent for core as of March 2024 (figure 1). Headline CPI inflation (including food and energy) even shows some early signs of picking up again with small increases over the past two months. The index for shelter contributed significantly to this recent rise as consumers spent 5.7 percent more on housing in March 2024 than a year prior and 0.4 percent more than in the preceding month. Greater construction activity could go a long way towards reducing inflation as supply is the main driver of current unaffordability (page 23). However, amid low home purchase volume, construction starts on new single-family homes plateaued in 2023 (page 22).

The lack of continued progress on inflation has some Fed policy makers questioning the start of interest rate cuts or the number of cuts over 2024 out of concern for its implications for inflation. The most recent Fed projections now suggest a higher federal funds rate in 2025 and 2026 relative to their prediction in December 2023. Despite no change to the federal funds rate itself, relatively more hawkish Fed communication have coincided with a renewed increase in the 30-year fixed mortgage interest rate, from 6.6 percent the week of December 29th to 7.1 percent the week of April 19th (figure 2). Higher mortgage rates could again weigh on the industry, putting into jeopardy the more optimistic forecasts of increased home sales and mortgage originations.

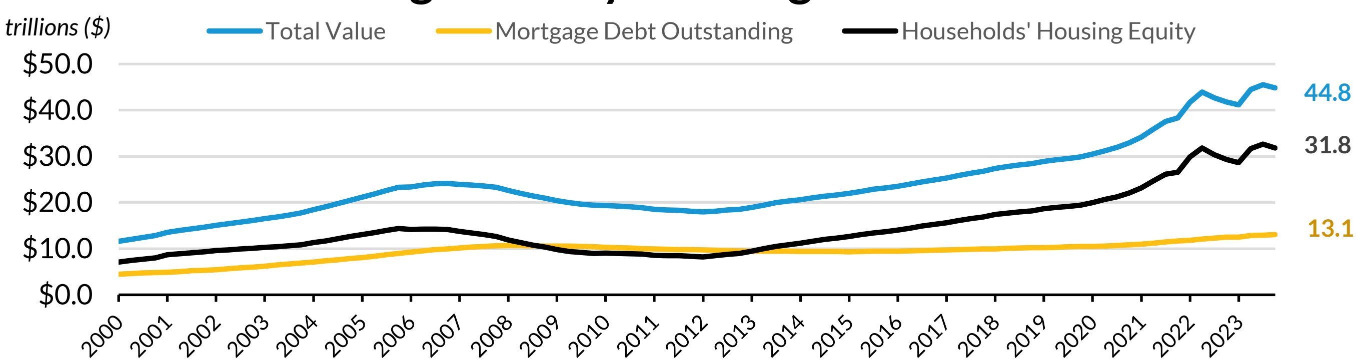
Inside this Issue

- GSE loan-level origination and performance shows higher LTVs and credit scores more recently originated loans.
- Year-over-year house price appreciation is slightly down in March relative to February (page 24).
- Foreign and commercial bank holdings of agency MBS grew 13 and 5 percent over Q4 2023 (page 7).
- Agency net issuance so far in 2024 is 38% lower than net issuance over the same months in 2023 (page 34)

MARKET SIZE OVERVIEW

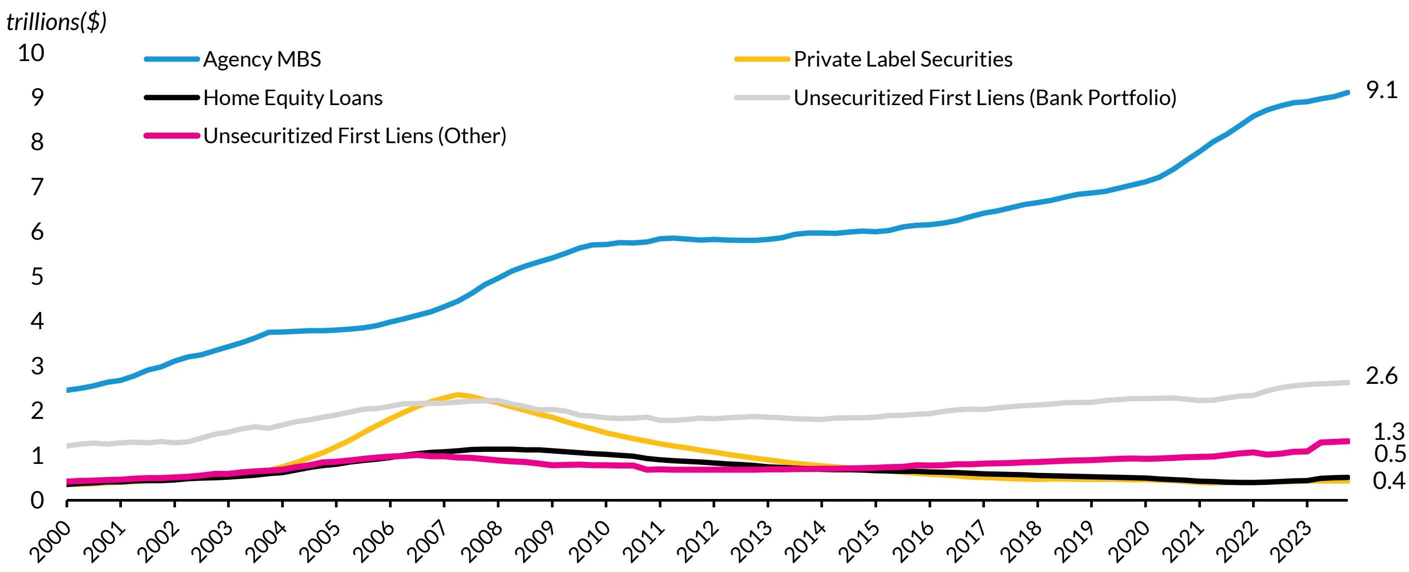
In the fourth quarter of 2023, the total value of the single-family housing market owned by households was $44.8 billion, 7.3 percent higher than a year previous. The rise was driven by an 8.5 percent increase in households' housing equity to $31.8 trillion. Outstanding mortgage debt owed by households increased at a slower rate by 4.6 percent to $13.1 trillion. From the third to fourth quarter of 2023, the total value of the housing market and households' housing equity decreased by 1.5 and 2.5 percent, respectively, while debt owed by households increased 1.0 percent. The total housing market value owned by households in the fourth quarter of 2023 is 85.8 percent above its fourth quarter of 2006 peak. The strong growth in the value of homes owned by households largely reflects households' housing equity, which more than doubled since the fourth quarter of 2006, rising by 124.0 percent. Outstanding mortgage debt owed by households expanded by 31.3 percent during the same time. In the fourth quarter of 2023, agency MBS accounted for 65.1 percent ($9.1 trillion) of total mortgage debt outstanding while home equity loans made up 3.7 percent ($0.51 trillion) and private-label securities made up 3.1 percent ($0.43 trillion). Unsecuritized first liens, both Bank Portfolio and Other, comprise the remaining 28.2 percent ($3.9 trillion) with Banks making up 18.8 percent ($2.6 trillion), and Other accounting for 9.4 percent ($1.3 trillion). Of Other, credit unions account for 4.2 percent ($0.59 trillion), and other non-depositories accounted for 5.2 percent ($0.73 trillion) of the total (not shown).

Value of the US Single Family Housing Market



Sources: Financial Accounts of the United States, Table B.101 and Urban Institute. Data as of Q4 2023.
Note: Single family includes 1-4 family owner-occupied mortgages.

Composition of the US Single Family Mortgage Market

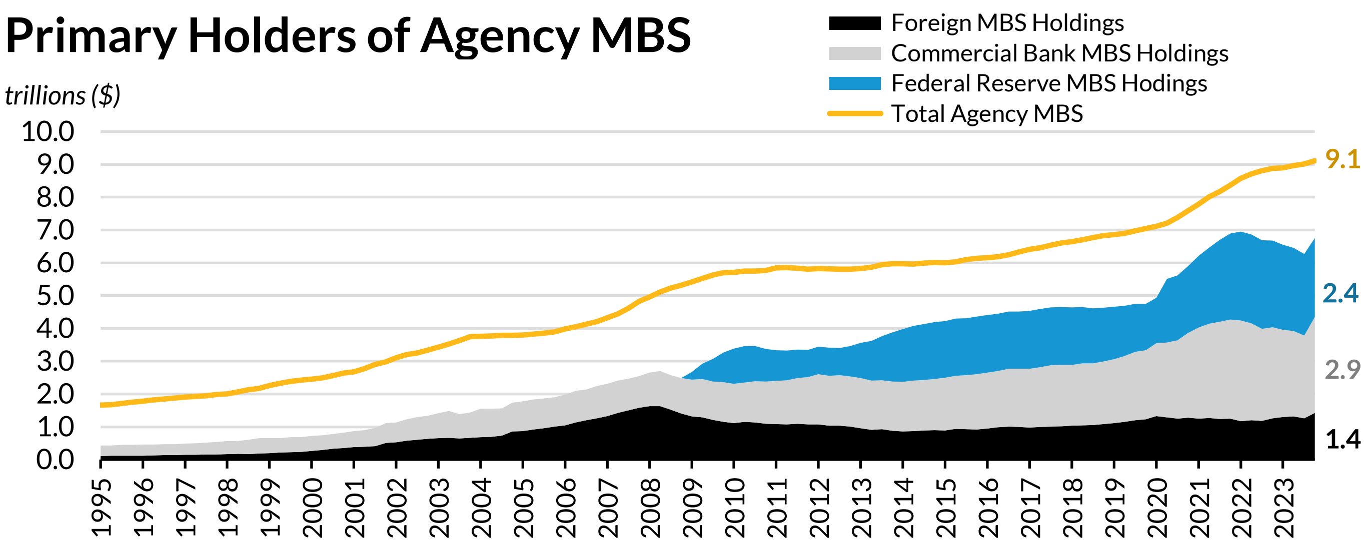


Sources: Financial Accounts of the United States and Urban Institute. Data as of Q4 2023.
Notes: Unsecuritized First Liens (Other) includes mortgages not held on bank balance sheets.

MARKET SIZE OVERVIEW

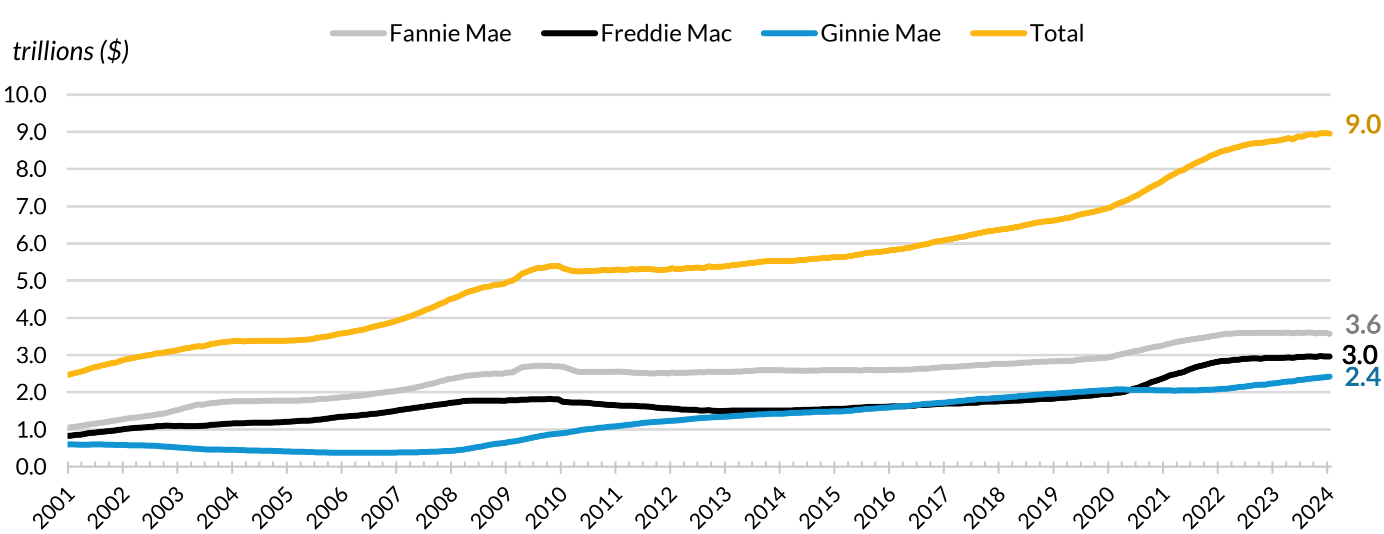
The three largest holders of the $9.1 trillion in outstanding agency MBS are commercial banks ($2.9 trillion), the Federal Reserve ($2.4 trillion) and foreign investors ($1.4 trillion). The foreign investor holdings includes both sovereign as well as private holdings. The Federal Reserve had a noticeable reduction in their holdings over the past year. From Q4 2022 to Q4 2023 Federal Reserve holdings are down by 9 percent, while commercial bank holdings and foreign investor holdings are up by 5 percent and 13 percent, respectively, largely reflecting growth over the fourth quarter of 2023. By the end of January 2024, outstanding securities in the agency market totaled $9.0 trillion according to loan-level data, 40.3 percent ($3.6 trillion) of which was Fannie Mae, 33.2 percent ($3.0 trillion) Freddie Mac, and 26.5 percent ($2.4 trillion) Ginnie Mae. After closing the gap in securitized volume with Freddie Mac in the aftermath of the Great Recession, Ginnie securitized volumes have lagged particularly over the 2020-2022 period; the gap began to close again in 2023.

Primary Holders of Agency MBS



Sources: Financial Accounts of the United States (table L.211), Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Moody's Analytics and Urban Institute Calculations. Data as of Q4 2023.
Note: A small amount (roughly 5%) of foreign MBS holdings is agency debentures. Holders not shown: Households, nonfinancial business, federal, state and local governments, insurance companies, pension and retirement funds, money market and mutual funds, REITs, ABS issuers, brokers,

Agency Mortgage-Backed Securities

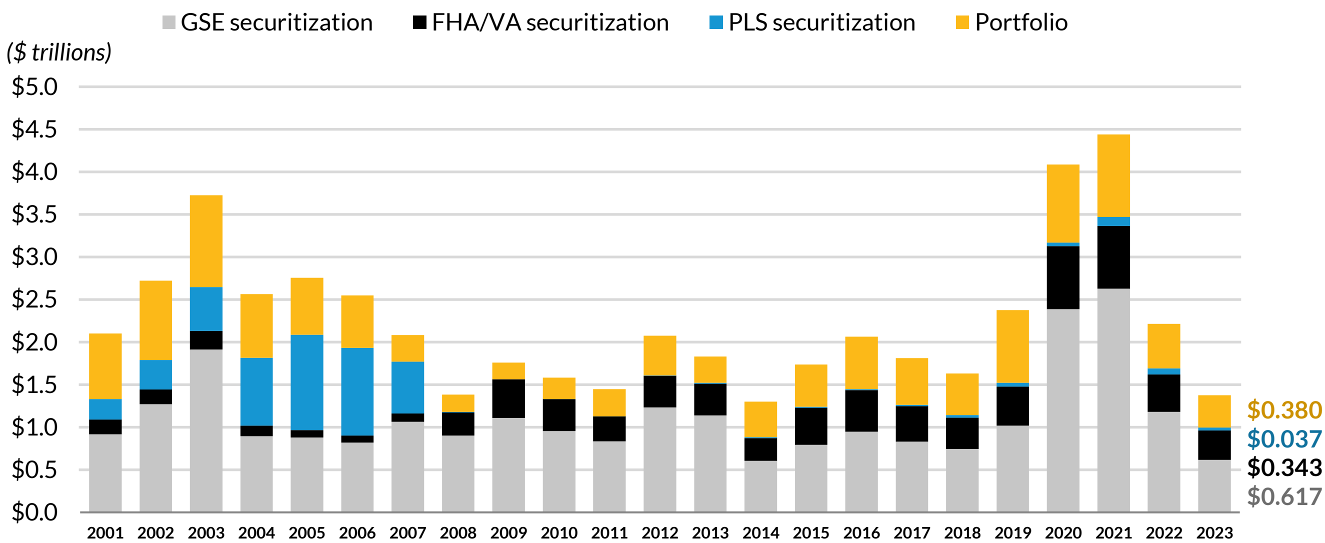


Sources: eMBS and Urban Institute.
Note: Debt between top and bottom charts do not match as top chart includes investor-owned properties. Data as of March 2024.

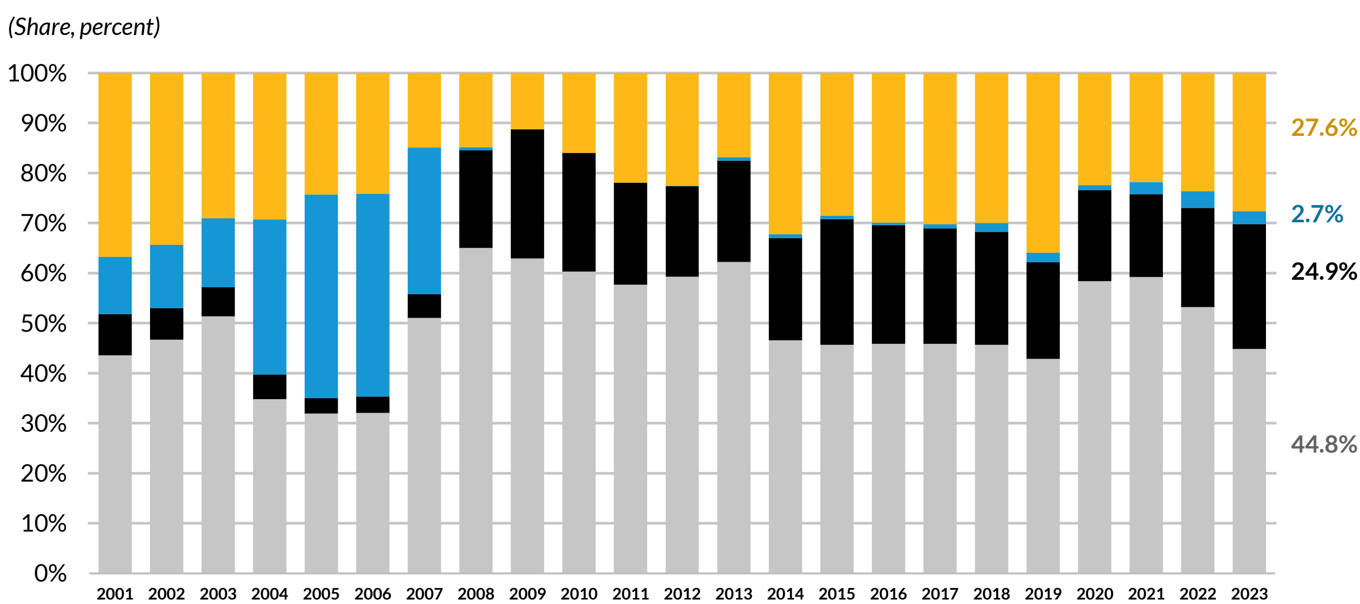
ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

Amid rising interest rates, mortgage origination volume totaled $1.376 trillion for full year 2023, 37.9 percent lower than the $2.215 trillion for full year 2022. The decline in originations largely reflected fewer refinance loans. The GSE share was lower in 2023 at 44.8 percent, compared to 53.2 percent in 2022. And the PLS share was 2.7 percent in 2023. down from 3.3 percent in 2022. In contrast, portfolio originations made up 27.6 percent of total volume in 2023, up from 23.7 percent in 2022 and the FHA/VA share in 2023 stood at 24.9 percent, up from 19.8 percent in 2022. Despite the shift in composition, the total volume of portfolio and FHA/VA originations were 27.5 and 21.8 percent lower in 2023 compared with 2022.



Sources: Inside Mortgage Finance and Urban Institute. Data as of Q4 2023.



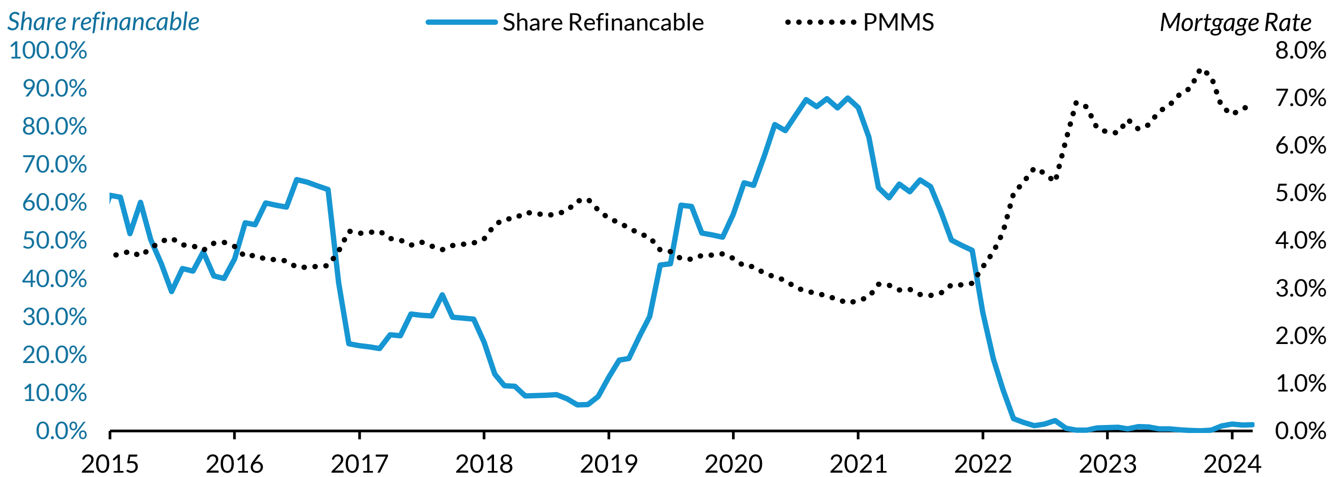
Sources: Inside Mortgage Finance and Urban Institute. Data as of Q4 2023.

OVERVIEW

REFINANCABLE MORTGAGES

After peaking at 4.87 percent in November 2018, mortgage rates began to decline, falling to 2.68 percent in December 2020. Amid falling mortgage rates, the share of agency loans considered refinancable rose from 6.8 percent in October 2018 to 87.4 percent in December 2020. Lower mortgage rates contributed to a burst in refinancings over 2020, 2021 and the first four months of 2022. The share of agency mortgages with a rate less than 3.5 percent expanded significantly, from 11.0 percent in December 2019 to 54.9 percent in April 2022. As mortgage rates rose over 2022 and 2023, the share of agency mortgages considered refinancable plummeted to 3.21 percent in April 2022 and remains low at 1.63 percent in March 2024. Higher mortgage rates contributed to reduced refinancability, with many current borrowers having already refinanced into lower rates, and worse homebuyer affordability. Reduced affordability largely reflects higher mortgage payments and low housing inventory as current homeowners are disincentivized to sell and give up their low-rate mortgages. Mortgage rates fell over November and December but have begun to rise again in 2024. Amid higher rates, the share of outstanding mortgage volume with a rate of 3.5 percent or less has declined by 7.3 percentage points from a high of 54.9 percent in April 2022 to 47.4 percent in March 2024.

Refinancable Share of Agency Loans

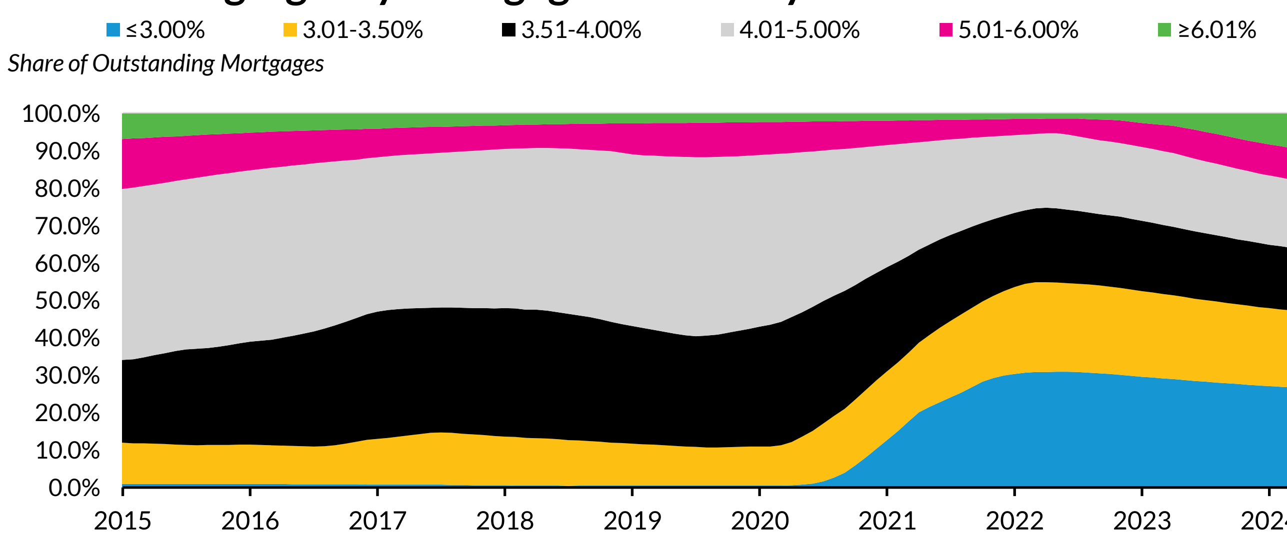


Source: eMBS, Freddie Mac and Urban Institute Calculations

March 2024

Note: Loans are counted as refinancable if the note rate is at least 50 basis points over the mortgage rate reported by Freddie Mac's Primary Mortgage Market Survey.

Outstanding Agency Mortgage Volume by Interest Rate



Source: eMBS, Freddie Mac and Urban Institute Calculations.

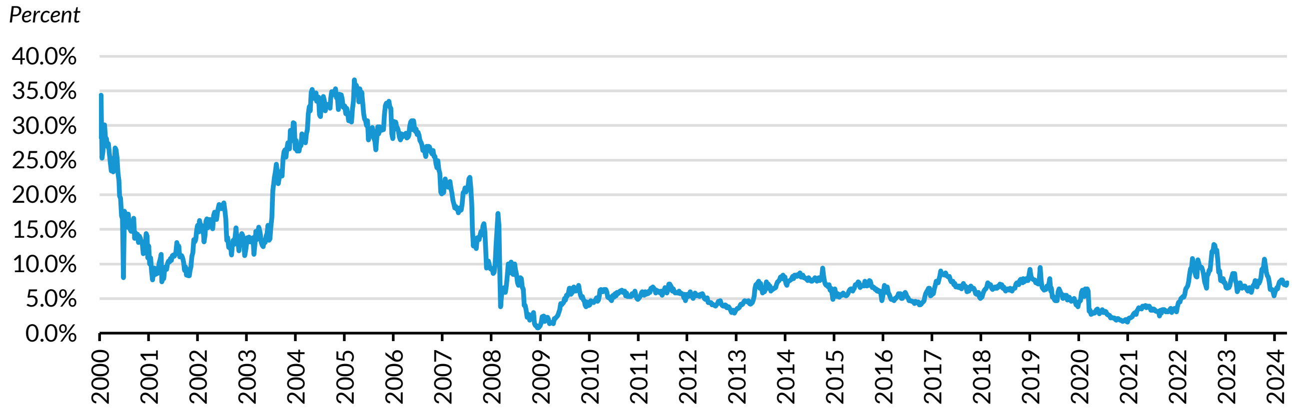
March 2024

OVERVIEW

PRODUCT COMPOSITION AND REFINANCE SHARE

The adjustable-rate share of weekly mortgage applications varied widely in the early to mid-2000s, ranging from a low of 7 percent to a high of over 35 percent. From 2009 to early 2022, the ARM share remained very low, generally between 5 to 8 percent, as ultra-low rates persisted, and product risk was wrung out of the market following the housing bust. However, with rates rising substantially in 2022 and affordability worsening, the ARM share increased from 3.1 percent in the week ending January 7, 2022, to 12.8 percent as of the week ending October 14, 2022. After subsiding to 5.9 percent by July 21, 2023, the ARM share began another ascent peaking at 10.7 percent, but was at 7.3 percent as of April 12, 2024, within its 2009-2018 range.

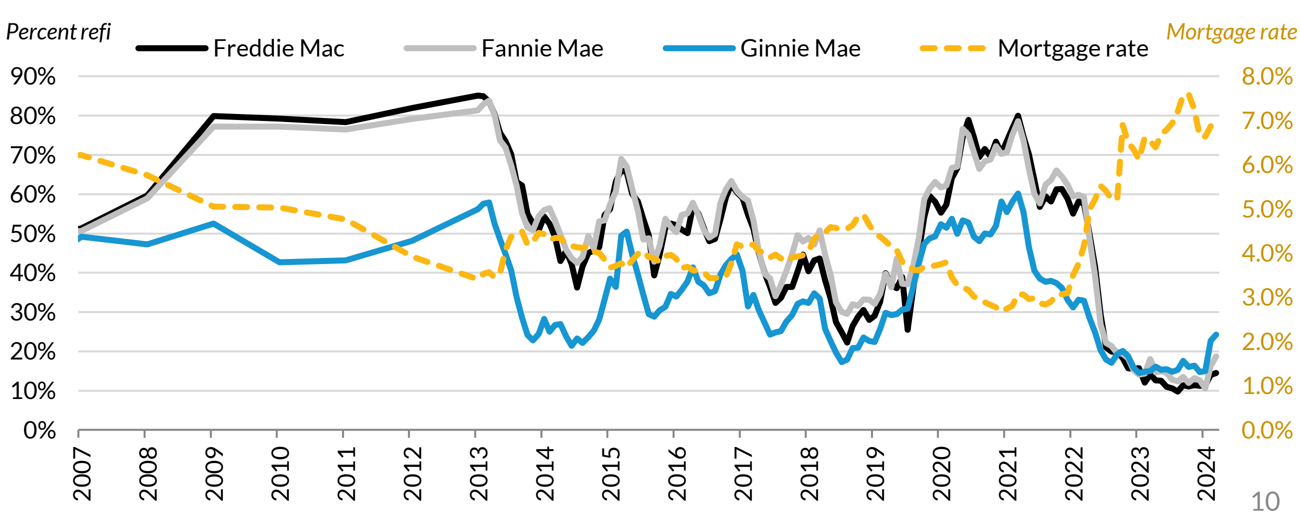
Adjustable-Rate Mortgage Share of Applications



Source: Mortgage Bankers Association (MBA) Weekly Mortgage Applications Survey.
Note: Includes purchase and refinance applications. Data updated through April 12, 2024.

Percent Refi at Issuance

Despite some monthly variation, from late 2018-though March 2021 the percent refi at issuance (refi share) generally increased for both the GSEs and for Ginnie Mae as interest rates dropped. Refinance originations reflect mortgage rates from 6-8 weeks earlier. In response to increasing interest rates, the refi share has declined significantly over 2022, from over half of GSE originations in the beginning of the year to less than 20 percent by the end of 2022. Toward the end of 2023, mortgage rates began to decline, and the agency refi shares pick up noticeably from series lows at the beginning of 2024. By March, the Fannie Mae refi share was 18.7 percent. The Freddie Mac refi share was 14.5 percent, and the Ginnie Mae share was 24.3 percent. We expect these refi shares to drop in the months ahead in response to higher April mortgage rates.

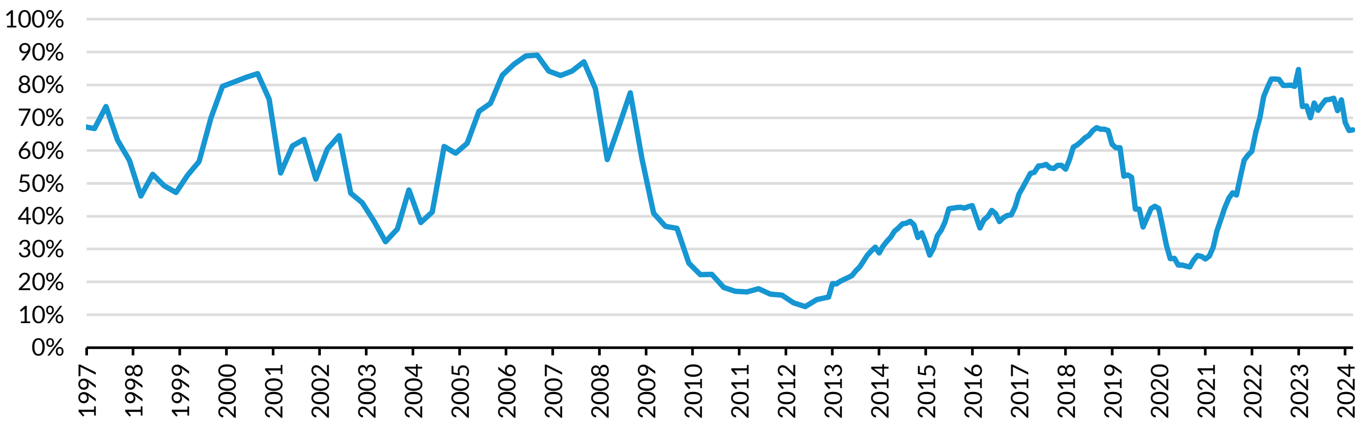


Sources: eMBS and Urban Institute.
Note: Based on at-issuance balance. Figure based on data from March 2024.

CASH-OUT REFINANCES

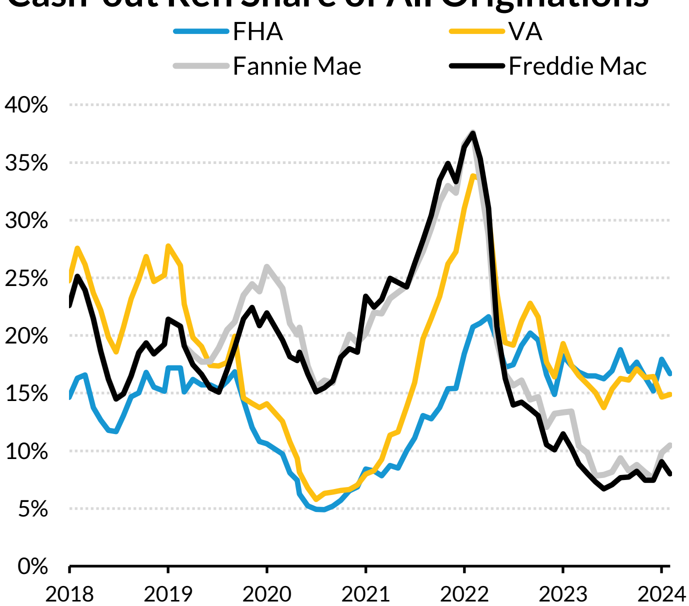
When mortgage rates are low, the share of cash-out refinances tends to be relatively smaller, as rate/term refinancing allows borrowers to save money by taking advantage of lower rates. But when rates are high, the cash-out refinance share is higher since the rate reduction incentive is gone and the only reason to refinance is to take out equity. The cash-out share of refinances generally declined in 2020, reaching 25 percent in September 2020 due to increased rate/term refinances amidst historically low rates. With rates rising dramatically and the bulk of rate/term refinance activity behind us, the cash-out share increased to 84.8 percent as of January 2023. As mortgage rates decreased in late 2023, the cash-out share has broadly declined and is now at 66.3 percent in March 2024. However, while the cash-out share of total refinances remains elevated, the volume of cash-out refinances is low. Moreover, the cash-out refi volume of total originations for Fannie Mae and Freddie Mac lags that of FHA with the cashout share of all originations higher across FHA and VA loans compared to GSE loans. While cash-out refinances may not be the optimal vehicle for home equity extraction, it may be the only way for lower credit borrowers to extract cash from their homes.

Cash-out Share of Conventional Refinances

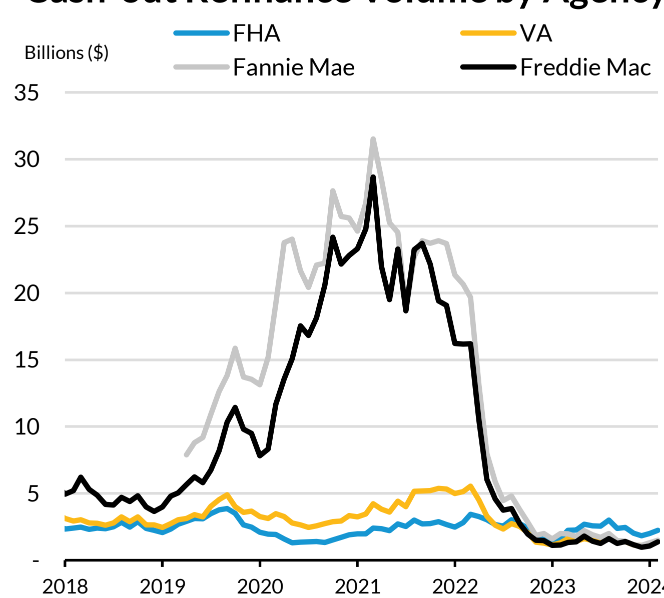


Sources: Freddie Mac, eMBS and Urban Institute.
Note: The cash-out share for conventional market is calculated using Freddie Mac's quarterly refinance statistics from 1995 to 2013. Post 2013 it is calculated monthly using eMBS. Data as of March 2024.

Cash-out Refi Share of All Originations



Cash-out Refinance Volume by Agency



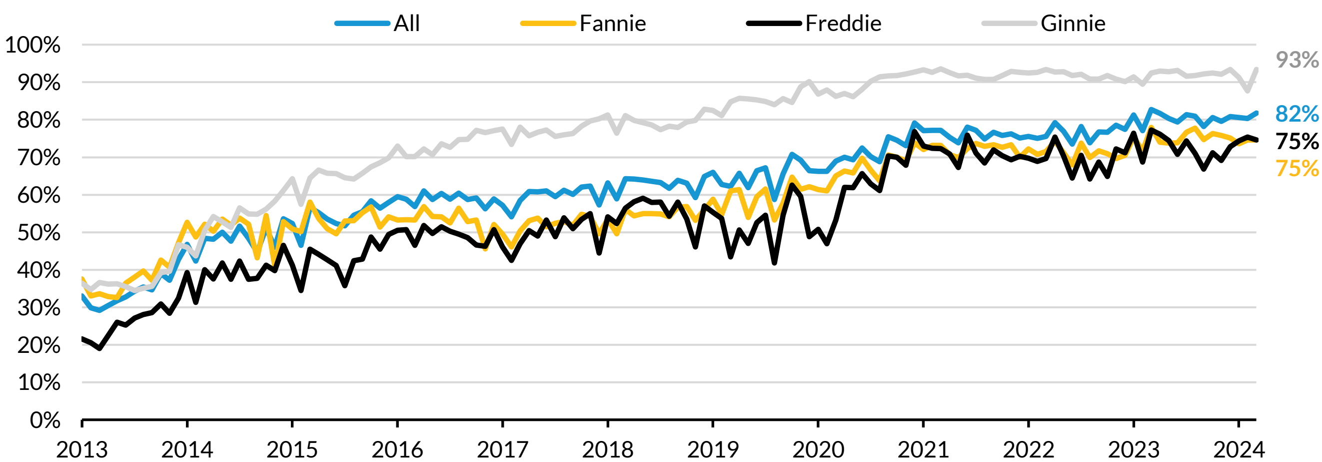
Sources: eMBS and Urban Institute
Note: Data as of February 2024. Fannie Mae started reporting cash-out volume in 2018.

OVERVIEW

AGENCY NONBANK ORIGINATION SHARE

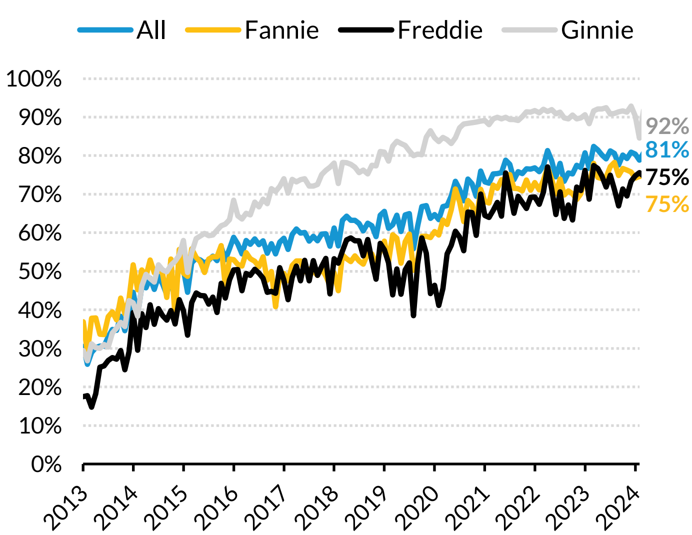
The nonbank share of agency originations has been rising steadily since 2013, standing at 82 percent in March 2024. The Ginnie Mae nonbank share has been consistently higher than the GSEs, standing at 93 percent in March 2024. Both Fannie and Freddie had nonbank shares of 75 percent in March 2024. While the GSE nonbank shares across purchase and refi loans were broadly similar, there was a six-percentage point gap in the Ginnie nonbank share of purchase loans relative to the Ginnie nonbank share of refi loans. Amid falling home values over the fourth quarter but still sizeable housing equity in aggregate, the Ginnie nonbank share of purchase loans dropped noticeably while the Ginne nonbank share of refi loans ticked up modestly.

Nonbank Origination Share: All Loans



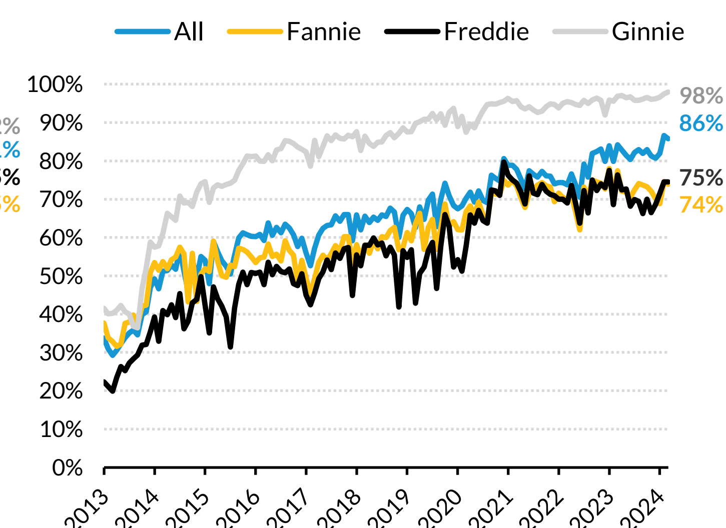
Sources: eMBS and Urban Institute. Data as of March 2024.

Nonbank Origination Share: Purchase Loans



Sources: eMBS and Urban Institute. Data as of March 2024.

Nonbank Origination Share: Refi Loans

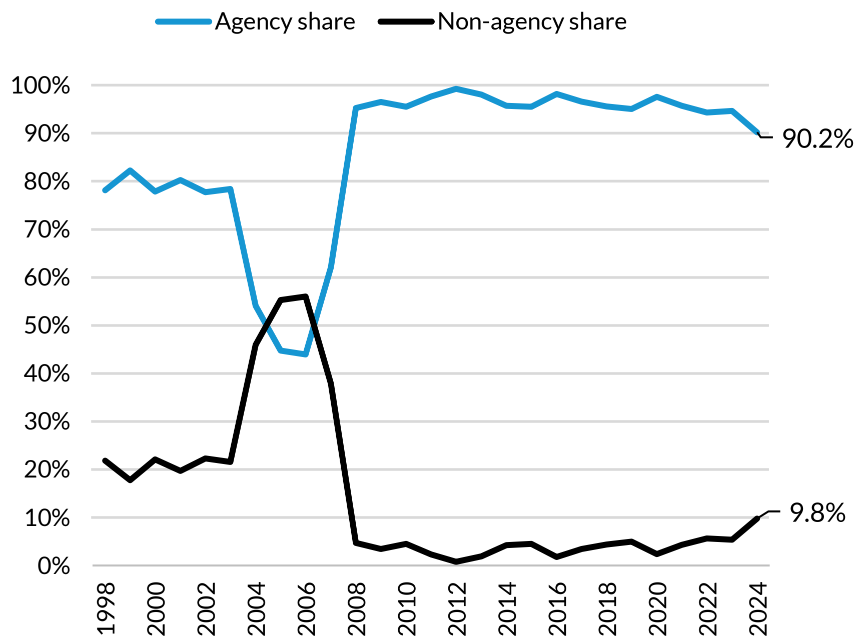


Sources: eMBS and Urban Institute. Data as of March 2024.

OVERVIEW
SECURITIZATION VOLUME AND COMPOSITION

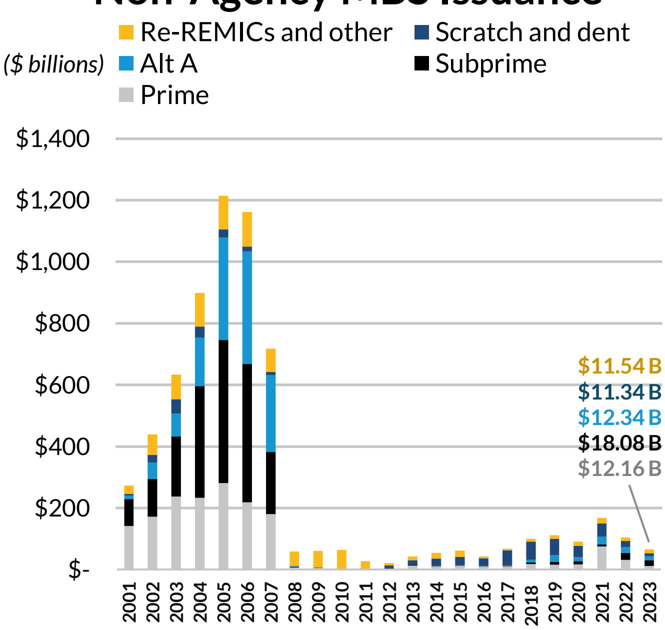
Agency/Non-Agency Share of Residential MBS Issuance

During the housing boom years, the non-agency share of residential MBS issuance rose to more than half of all residential MBS issuance. Amid the collapse in the housing market, the non-agency share contracted to 1.26 percent in 2012. It has remained low since then, oscillating between 2.41 percent and 7.42 percent over this time period. Amid a sharp decline in GSE refi loans and some very modest easing in default risk on portfolio and private label securities, the non-agency share in 2024 through March is above this level at 9.8 percent, its highest level since 2008. Reduced origination volumes have affected this market; in 2023, the volume of non-agency issuance reached $65.5 billion, continuing its decline since a local peak in 2021. That said, with $7.5 billion issued in March 2024, monthly non-agency securitization in 2024 has reached levels last seen in 2022.



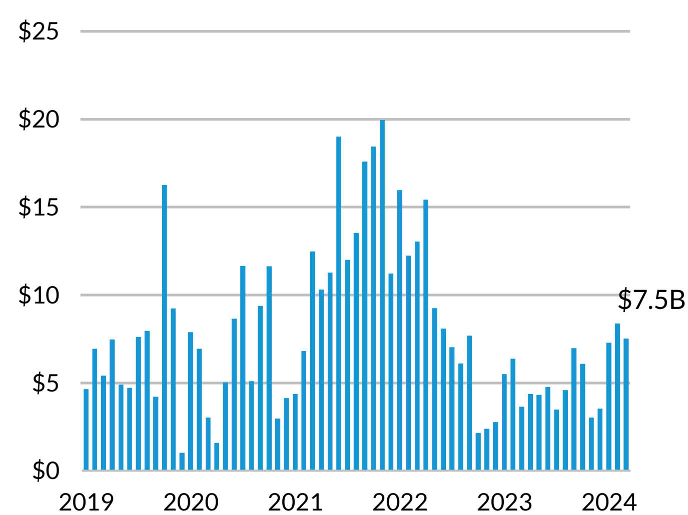
Sources: Inside Mortgage Finance and Urban Institute.
Note: Monthly non-agency volume is subject to revision. Data through March 2024.

Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.
Note: Data through Q4 2023.

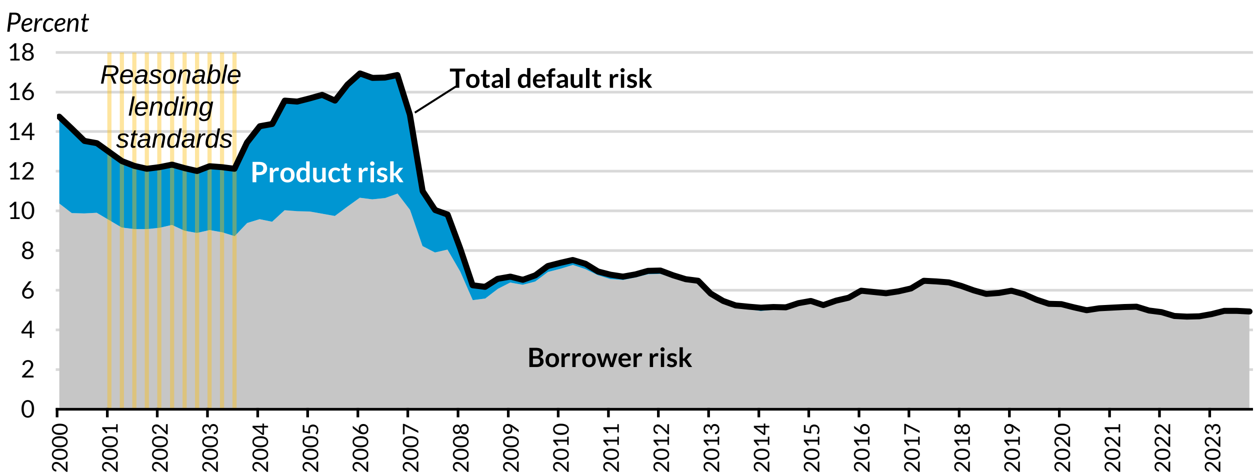
Monthly Non-Agency Securitization



Sources: Inside Mortgage Finance and Urban Institute.
Note: Data though March 2024

CREDIT BOX
HOUSING CREDIT AVAILABILITY INDEX

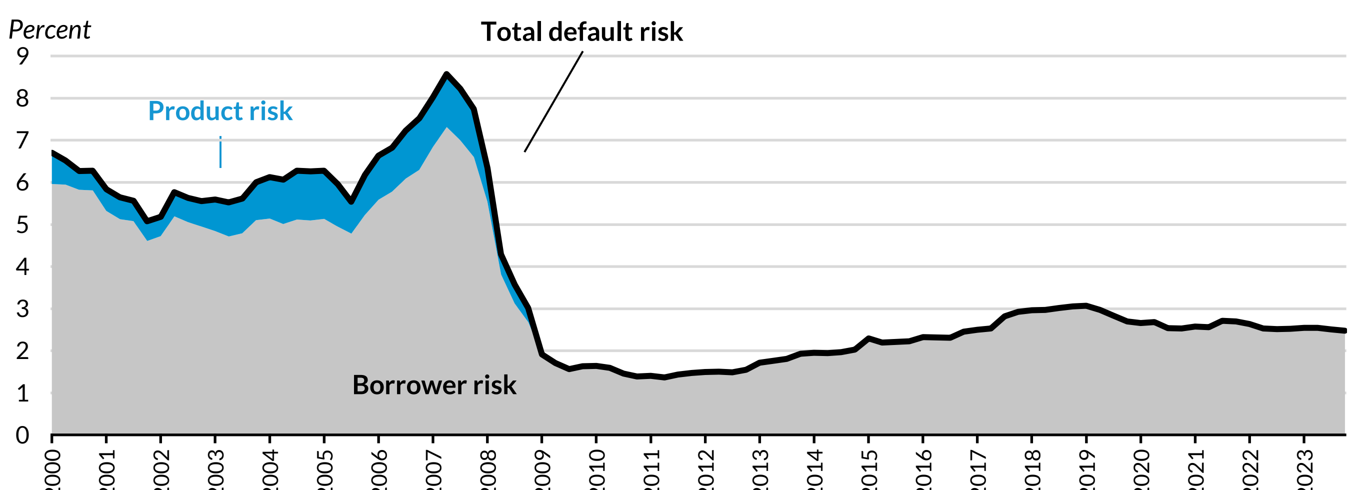
The Urban Institute's Housing Credit Availability Index (HCAI) assesses lenders' tolerance for both borrower risk and product risk, calculating the share of owner-occupied purchase loans that are likely to go 90+ days delinquent over the life of the loan. The HCAI stood at 4.92 percent in Q4 2023, down slightly from Q3 2023, but up year-over-year. The loosening from Q4 2022 to Q4 2023 reflects an increase in default risk driven by a 17 percent increase among portfolio and private label securities. This was mostly offset by a tightening in the government channel, with a nearly seven percent decline in default risk taken year-over-year; the GSE channel was largely unchanged. Note that we updated the methodology as of Q2 2020, see new methodology here. More information about the HCAI is available here.



Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.

GSE Channel

The trend toward greater credit availability in the GSE channel began in Q2 2011. From Q2 2011 to Q1 2019, the total risk taken by the GSE channel more than doubled, from 1.4 percent to 3.1 percent. This is still very modest by pre-crisis standards. However, accelerated tightening throughout 2020 induced by market conditions due to COVID-19 and stay-at-home orders drove down credit risk to 2.5 percent in Q4 2020 where it has largely remained. In Q4 2023, credit availability stood at 2.5 percent.

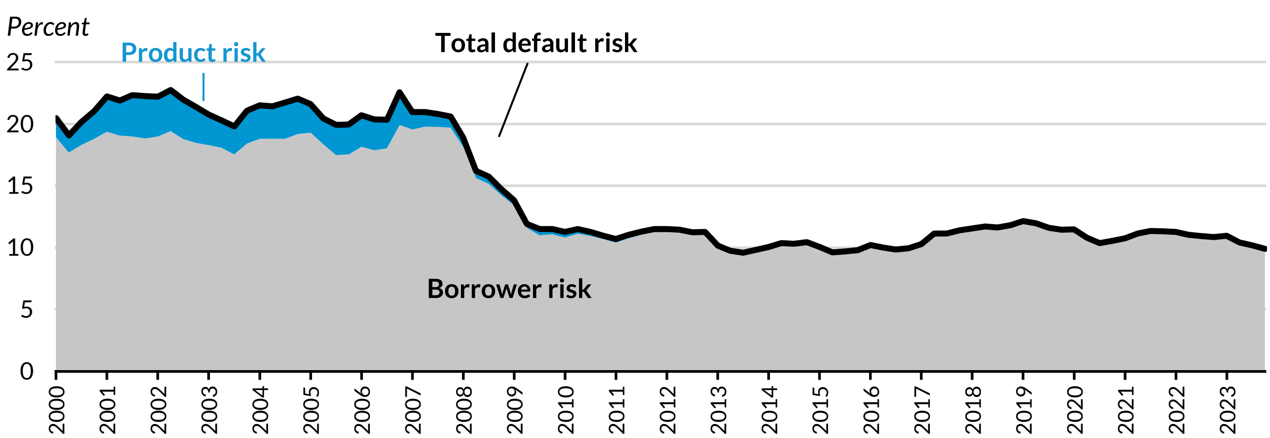


Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.
Note: Default is defined as 90 days or more delinquent at any point. Last updated April 2024.

CREDIT BOX
HOUSING CREDIT AVAILABILITY INDEX

Government Channel

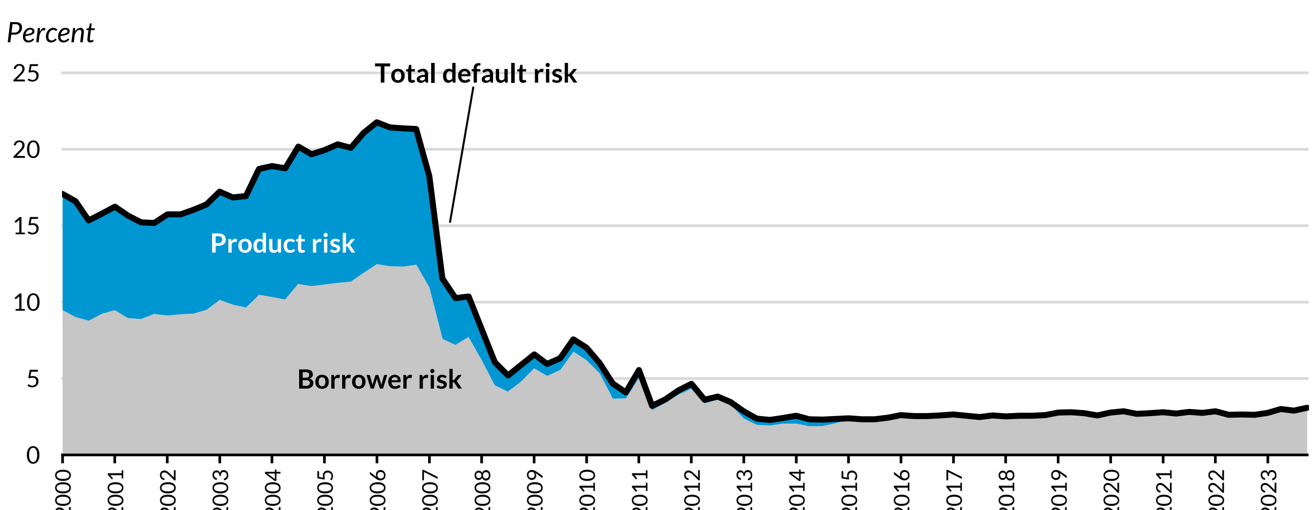
The total default risk the government loan channel is willing to take bottomed out at 9.6 percent in Q3 2013. It fluctuated in a narrow range at or above that number for three years. In the eleven quarters from Q4 2016 to Q1 2019, the risk in the government channel increased from 9.9 to 12.1 percent but has since receded. The government channel stands at 9.9 percent in Q4 2023; far below the pre-bubble level of 19 to 23 percent.



Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.

Portfolio and Private Label Securities Channels

The portfolio and private-label securities (PP) channel took on more product risk than the government and GSE channels during the bubble. After the crisis, the channel's product and borrower risks dropped sharply. The numbers have stabilized since 2013, with product risk well below 0.5 percent and total risk largely in the range of 2.3-3.1 percent. Since 2022, default risk has increased modestly from 2.6 to 3.1 in Q4 2023 but remains a shadow of the default risk taken prior to the Great Financial Crisis.



Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.
Note: Default is defined as 90 days or more delinquent at any point. Last updated April 2024.

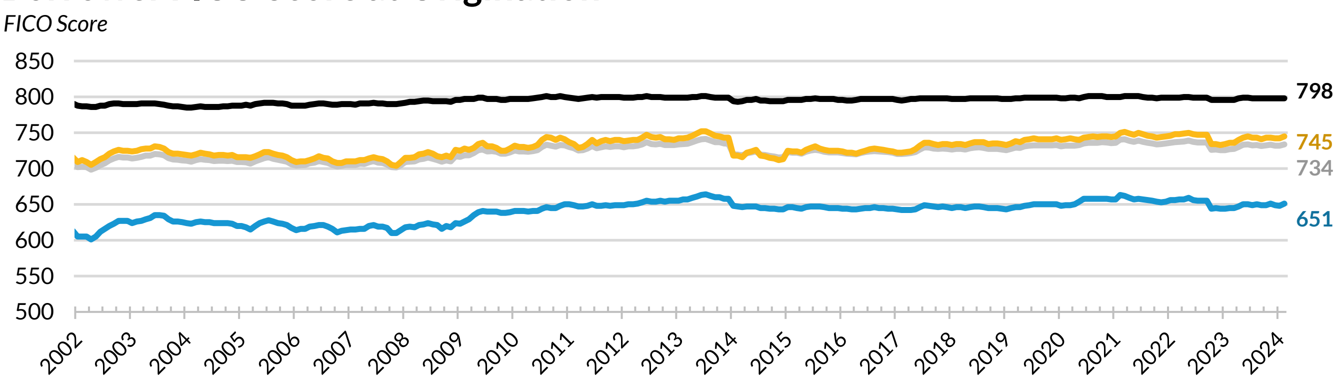
CREDIT BOX

CREDIT AVAILABILITY FOR PURCHASE LOANS

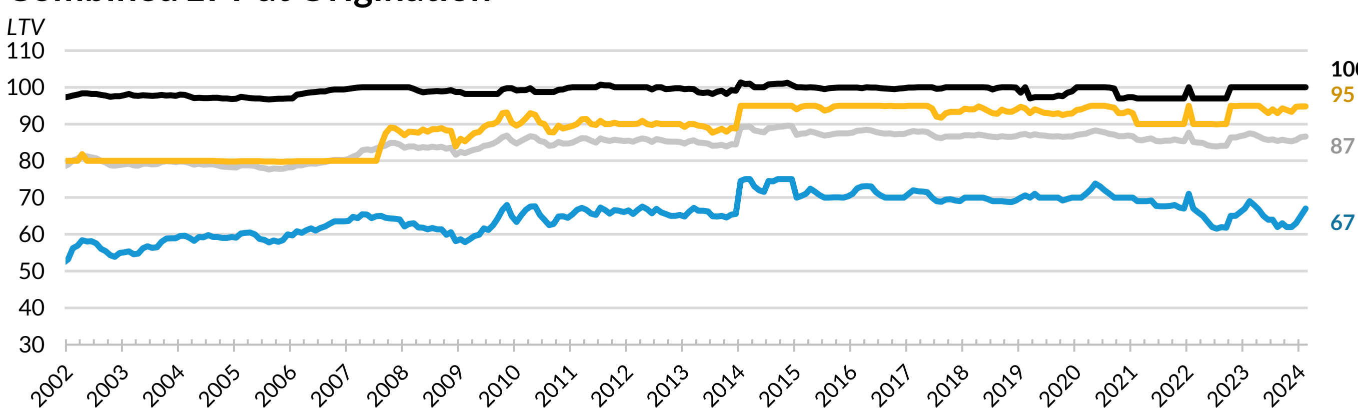
Over 2023 and into early 2024, credit standards have tightened, mostly across the FICO dimension, but remain broadly easier relative to the levels that prevailed in December 2021, just prior to the significant rise in interest rates. Median FICO score at origination in February 2024 was 745, on par with its level in December 2021. Median DTI was 42 percent, which remains above its December 2021 rate of 39 percent. Median LTV sat at 95 percent in February, above its December 2021 level of 90 percent.

Mean 90th percentile 10th percentile Median

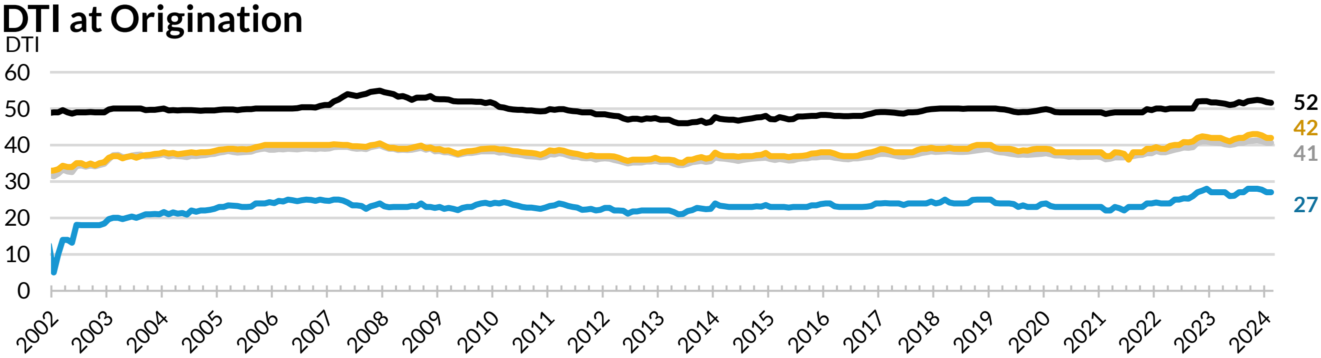
Borrower FICO Score at Origination



Combined LTV at Origination



DTI at Origination

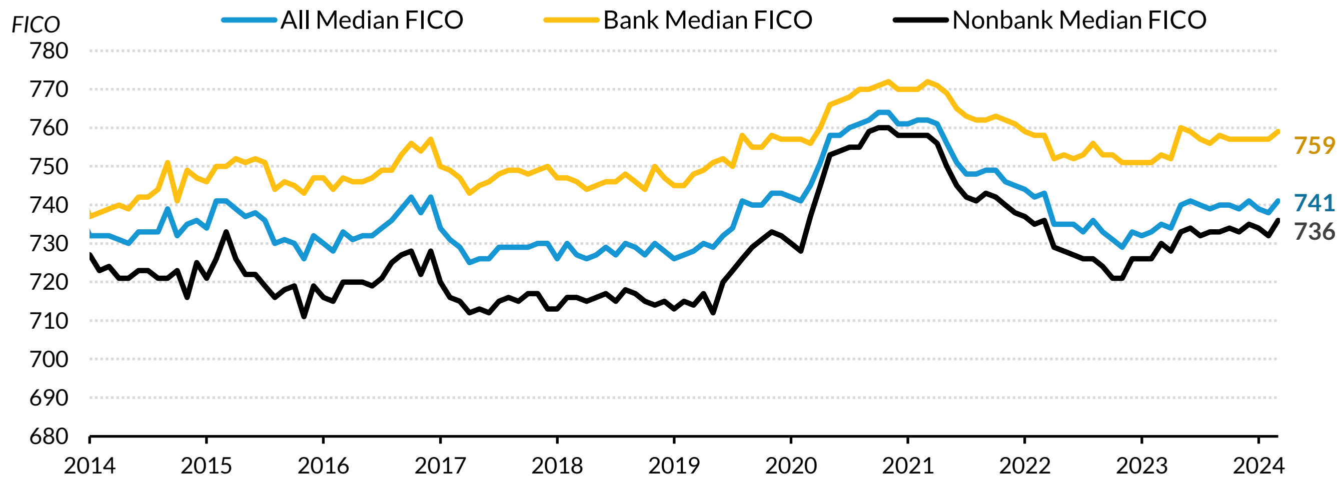


Sources: ICE, eMBS, HMDA, SIFMA, CoreLogic and Urban Institute.
Note: Includes owner-occupied purchase loans only. DTI data prior to April 2018 is from CoreLogic; after that date, it is from ICE.
A back-update to the ICE historical series was made in September 2021 for data starting from 2001 onward. Data as of February 2024.

AGENCY NONBANK CREDIT BOX

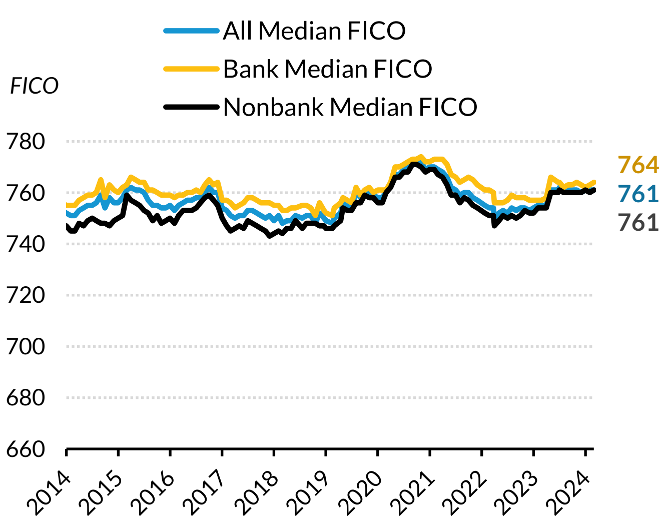
FICO scores for banks and nonbanks in both GSE and Ginnie Mae segments increased from Q1 2019 to Q1 2021 due to increased refi activity in response to lower rates. Then as refi activity tapered over 2021 and 2022, FICO scores fell. Borrowers of refi loans typically have higher FICO scores than borrowers of purchase loans, which boosted median scores amid the most recent refi wave and reduced scores as rates rose. But after falling in 2021 and most of 2022, median FICO scores increased in early 2023 and have remained relatively high at 741 in March 2024, despite a sharp contraction in refinance activity. This likely reflects the fact that with affordability stretched due to the increases in interest rates and home prices, qualification often requires higher FICO scores to compensate. The gap between agency bank and nonbank FICOs reached 23 points in March 2024. The difference between the median FICO on bank and non-bank GSE loans stood at 3 points in March 2024. But across Ginnie Mae loans, the gap currently sits at 30 points. Due to the sharp cut-back in FHA lending by banks post-2008, banks now comprise only about 7 percent of Ginnie Mae originations. Amid lower home values in Q4, Ginnie Mae median FICO among banks soared, but partially retraced this upward movement in March.

Agency FICO: Bank vs. Nonbank



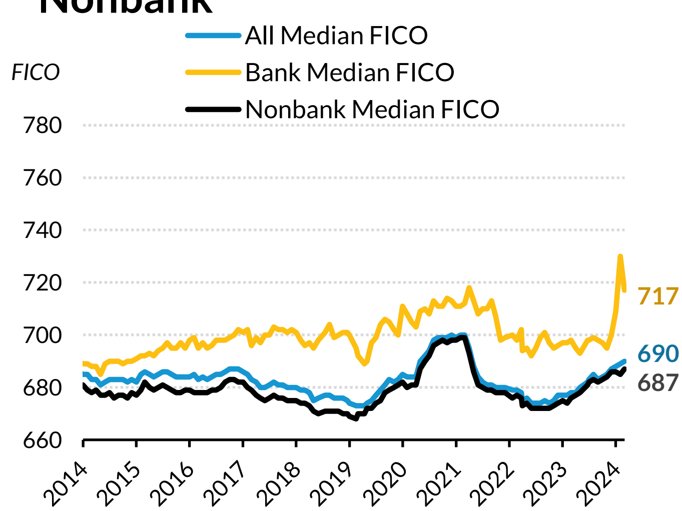
Sources: eMBS and Urban Institute. Data as of March 2024.

GSE FICO: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

Ginnie Mae FICO: Bank vs. Nonbank



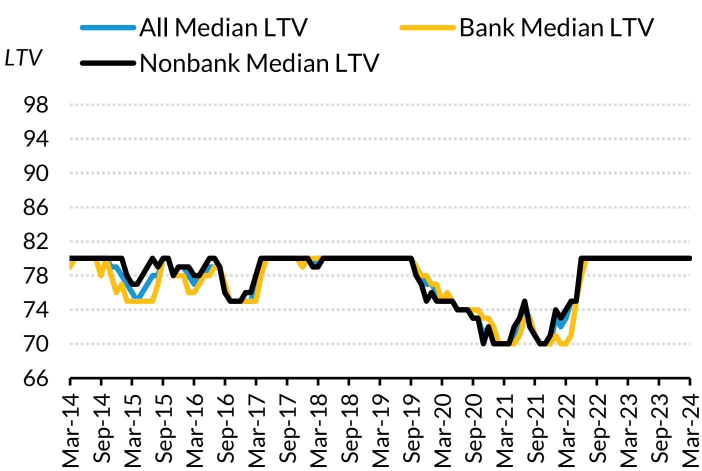
Sources: eMBS and Urban Institute.

CREDIT BOX

AGENCY NONBANK CREDIT BOX

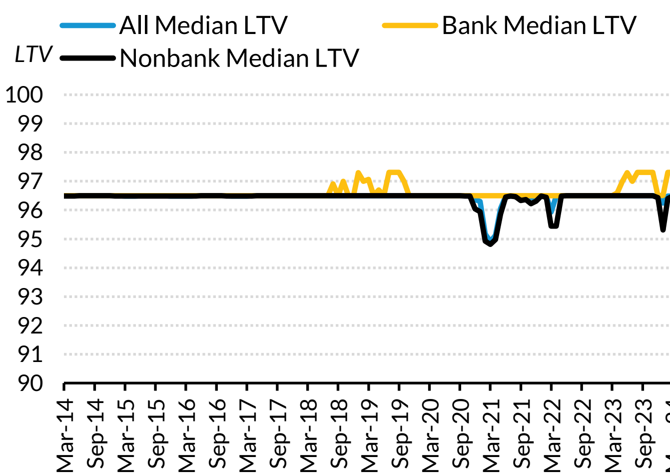
Nonbanks are more expansive in their lending than their bank counterparts, as indicated by higher back-end DTIs in both GSE and Ginnie Mae markets. From early 2017 to early 2019, there was a sustained increase in DTIs, which has reversed beginning in the spring of 2019. This is true for both Ginnie Mae and the GSEs, for banks and nonbanks. As interest rates in 2018 increased, DTIs rose, because borrower payments were driven up relative to incomes. As rates fell during most of 2019 and 2020, DTIs fell as borrower payments declined relative to incomes. Since March 2021, DTIs have increased, reflecting the rise in rates and elevated house price increases, both of which force households to borrow more in relation to income.

GSE LTV: Bank vs. Nonbank



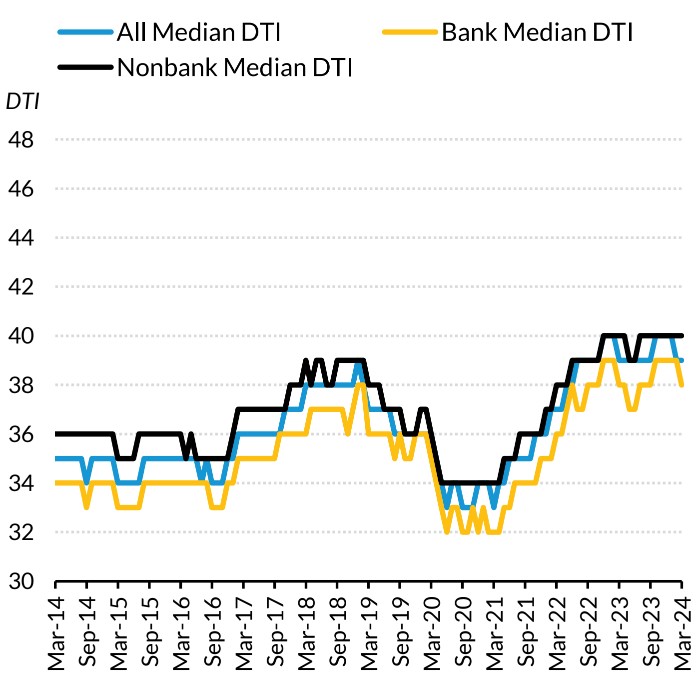
Sources: eMBS and Urban Institute.

Ginnie Mae LTV: Bank vs. Nonbank



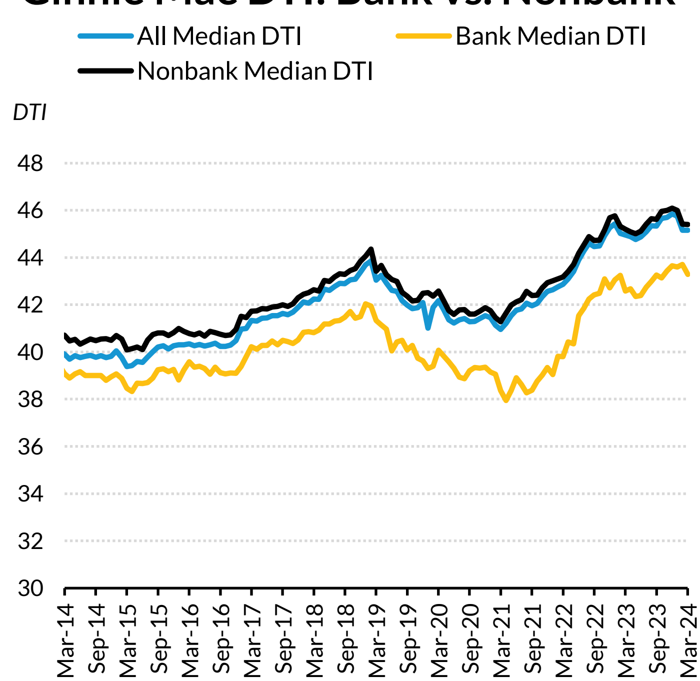
Sources: eMBS and Urban Institute.

GSE DTI: Bank vs. Nonbank



Sources: eMBS and Urban Institute.

Ginnie Mae DTI: Bank vs. Nonbank



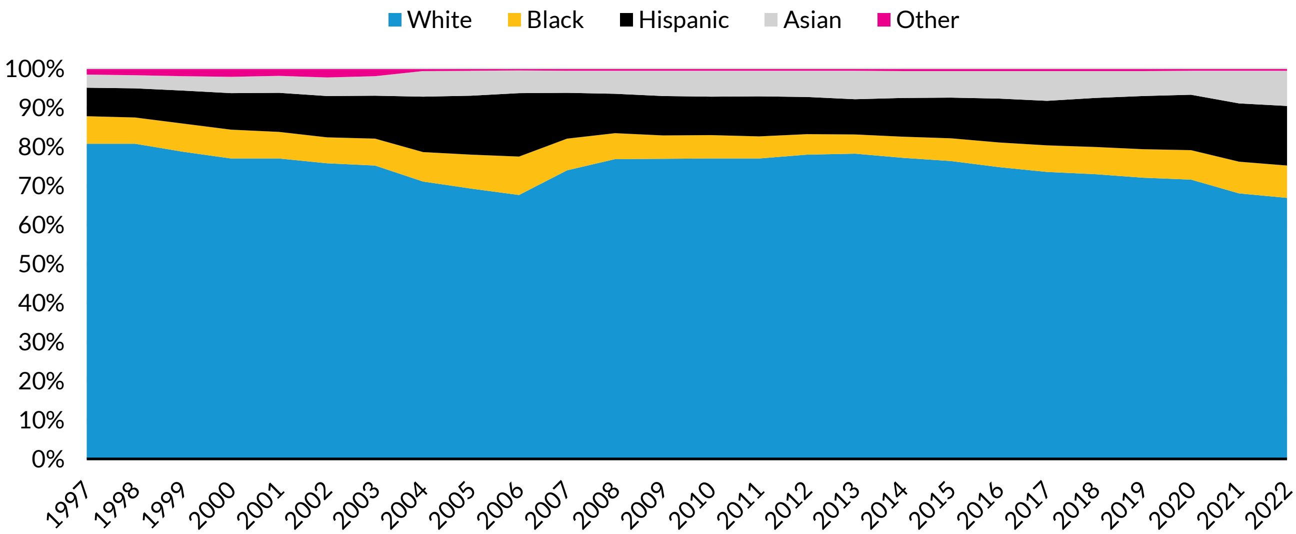
Sources: eMBS and Urban Institute.

Note: Data as of March 2024.

STATE OF THE MARKET
RACIAL & ETHNIC COMPOSITION

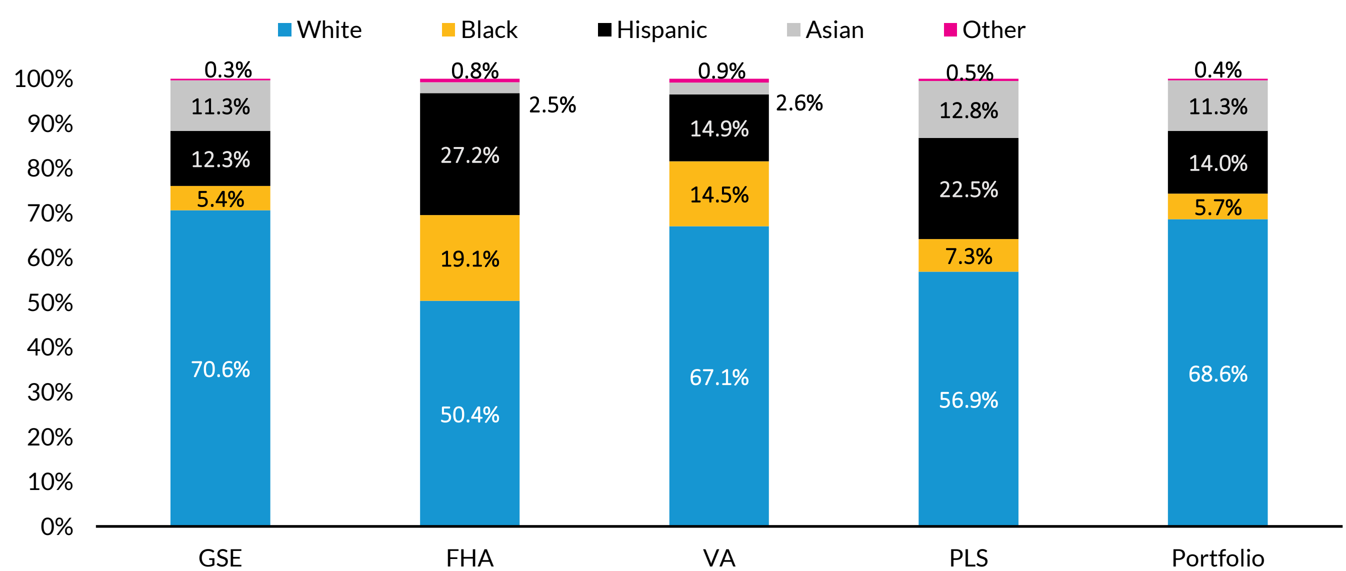
Across all channels, the share of purchase lending to applicants of color reached a peak of 32.3 percent in 2006. Following the Great Recession and amidst a period of very tight credit, the share of purchase loans extended to borrowers of color declined to a low of 21.7% in 2013. Since then, it has slowly recovered. In 2022, the borrower of color share stood at 33.1% in 2022, up from 31.8% in 2021. But the share of purchase lending to borrowers of color varied widely by channel in 2022. At 49.6 percent and 43.1 percent, respectively, borrowers of color accounted for a larger share of FHA and PLS purchase lending. Borrowers of color represented a smaller loans share in the GSE, Portfolio and VA channels, 29.4 percent, 31.4 percent and 32.9 percent, respectively.

2022 Purchase Loan Shares by Race



Source: 1997 to 2022 Home Mortgage Disclosure Act (HMDA).
Note: Includes purchase loans only. Shares based on loan counts

2022 Purchase Loan Channel Shares by Race



Source: 2022 Home Mortgage Disclosure Act (HMDA).
Note: Includes purchase loans only. Shares based on loan counts

STATE OF THE MARKET

MORTGAGE ORIGINATION PROJECTIONS

For the full year of 2023, both Fannie Mae and Mortgage Bankers' Association reported total origination volume was 36.7 to 27.0 percent below its level in 2022, respectively, continuing the decrease from the recent peak established in 2021. The lower full year mortgage originations in 2023 was primarily due to the lower refi share. A second contributing factor, as illustrated on page 21, is fewer home sales in 2023 relative to 2022. However, originations over full year 2024 are expected to exceed their 2023 level but are not projected to return to 2022 levels. Current projections for 2025 predict origination and refinance levels similar to those in 2022.

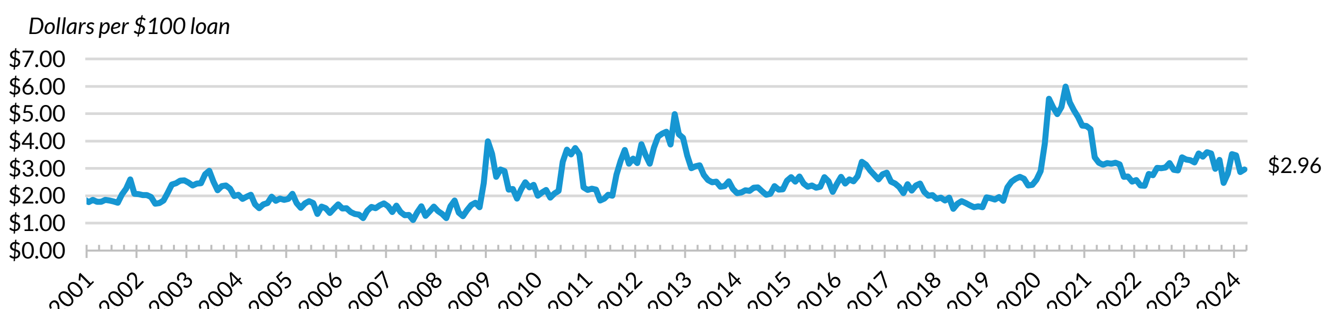
Total Originations and Refinance Shares

	Originations ($ billions)		Refi Share (percent)	
Period	Total, FNMA estimate	Total, MBA estimate	FNMA Estimate	MBA Estimate
2023 Q1	323	333	18	20
2023 Q2	421	463	17	20
2023 Q3	397	444	16	18
2023 Q4	329	399	16	19
2024 Q1	330	377	19	23
2024 Q2	471	439	19	21
2024 Q3	531	508	25	23
2024 Q4	480	491	27	26
2019	2462	2253	46	44
2020	4374	4108	64	64
2021	4570	4436	58	62
2022	2374	2245	31	33
2023	1470	1639	17	19
2024	1813	1815	23	23
2025	2261	2127	29	28

Sources: Fannie Mae, Mortgage Bankers Association and Urban Institute. Data as of April 2024.
Note: Shaded boxes indicate forecasted figures. All figures are estimates for total single-family (1-4 unit) market. Regarding interest rates, the yearly averages for 2017, 2018, 2019, 2020, 2021, and 2022 were 4.0, 4.6, 3.9, 3.0, 3.0, and 5.3 percent.

Originator Profitability and Unmeasured Costs

In March 2024, Originator Profitability and Unmeasured Costs (OPUC) stood at $2.96 per $100 loan, up from $ 2.87 per $100 loan in February. Higher profitability seen in 2020 and early 2021 reflected lender capacity constraints amidst strong refi demand. Reduced profitability in 2022 reflected slower refinance activity, forcing originators to compete more aggressively on price. 2023 profitability reflected less, but still significant competition between mortgage originators. OPUC, formulated and calculated by the Federal Reserve Bank of New York, is a good relative measure of originator profitability. OPUC uses the sales price of a mortgage in the secondary market (less par) and adds two sources of profitability; retained servicing (both base and excess servicing, net of g-fees), and points paid by the borrower. As volumes decline, fixed costs are spread out over fewer loans, overstating the relative profitability. OPUC is generally high when interest rates are low, as originators are capacity constrained due to refinance demand and have no incentive to reduce rates. Conversely, when interest rates are higher and refi activity low, competition forces originators to lower rates, driving profitability down. While higher rates are limiting volume, originators are adapting to the new environment by slashing head counts and fixed costs.



Sources: Federal Reserve Bank of New York, updated monthly and available at this link: http://www.ny.frb.org/research/epr/2013/1113fust.html and Urban Institute. Data as of March 2024.
Note: OPUC is a is a monthly (4-week moving) average as discussed in Fuster et al. (2013).

STATE OF THE MARKET

HOUSING SUPPLY

Months' supply of existing homes, or the inventory of homes as a share of home sales, remains low. However, since 2022, when rates began to rise noticeably, months' supply of existing homes also increased. From December 2021 to March 2024, the inventory of existing homes rose by 43.3 percent while home sales fell by 30.0 percent . Fannie Mae, the MBA, and the NAHB reported housing starts over full year 2023 lagged levels in 2022. In 2024, industry forecasters expect housing starts to be about the same as 2023, with a consensus rebound in 2025. Amid the lack of inventory, and reduced affordability, home sales in 2023 were much lower than in 2022. However, 2023 will likely be the cyclical low point as industry forecasters do not expect further declines in sales in 2024. Forecasts call for higher home sales in 2025 to levels much closer to the pace in 2022.

Months' Supply

Source: National Association of Realtors and Urban Institute. Data as of February 2024.

Housing Starts and Home Sales

	Housing Starts, thousands			Home Sales, thousands		
Year	Total, FNMA estimate	Total, MBA estimate	Total, NAHB estimate	Total, FNMA estimate	Total, MBA estimate	Total, NAHB estimate*
2017	1203	1208	1205	6123	6158	5520
2018	1250	1250	1247	5957	5956	5350
2019	1290	1295	1292	6023	6016	5431
2020	1380	1397	1397	6462	6506	5889
2021	1601	1605	1606	6891	6896	6189
2022	1553	1551	1551	5671	5740	5167
2023	1413	1422	1415	4758	4756	4341
2024	1424	1425	1391	4913	4959	4483
2025	1464	1438	1393	5397	5473	5033

Sources: Fannie Mae, Mortgage Bankers Association and National Association of Home Builders forecasts as of April 2024, and the Urban Institute.

Note: Shaded boxes indicate forecasted figures; column labels indicate source of estimate.

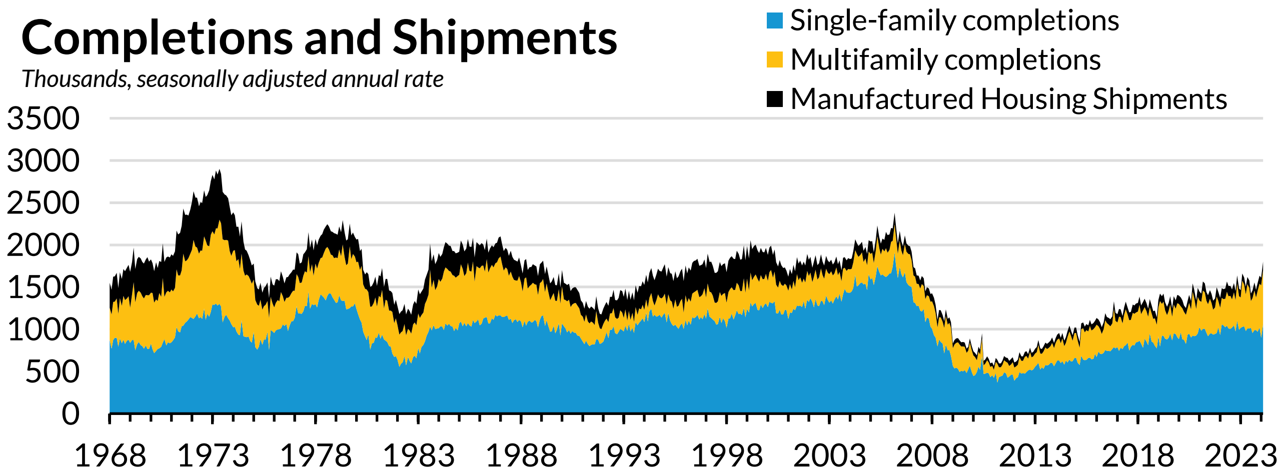
*The NAHB home sales also excludes existing condos and co-ops reported by NAR.

New Residential Production

New residential production, including single-family and multifamily completions as well as manufactured housing shipments, reached a seasonally adjusted annual rate of 1.80 million units in February 2024, 8.3 percent higher than its level in February 2023, 1.66 million units. Since reaching a low of 565 thousand units in January 2011, new production has risen by 219 percent. However, current production is still 14 percent lower than the peak March 2006 level of 2.38 million units. In February 2024, single-family completions are 44.6 percent lower than the March 2006 peak of 1.91 million units. Multifamily completions are 68.9 percent greater than their level in March 2006. Only 4.2 percent of multifamily units completed in 2023 Q4 were built-for-sale, down significantly from its 2007 Q2 peak of 43.9 percent. The share of single-family units built for sale is 73.3 percent, starting to rise after dropping amid high interest rates in early 2023, although still 3.5 percentage points lower than the share built for sale in 2022 Q3. The owner-occupied share of mobile homes fell from 2006 to 2014, but partially recovered in the ensuing years.

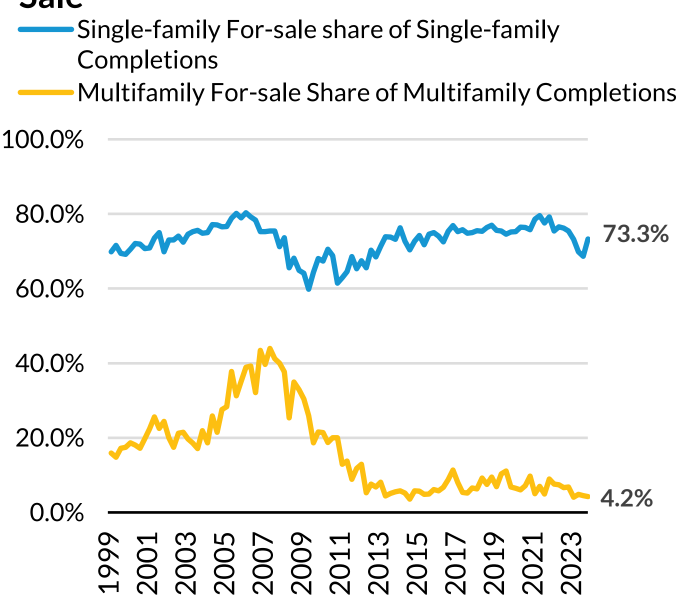
Completions and Shipments

Thousands, seasonally adjusted annual rate



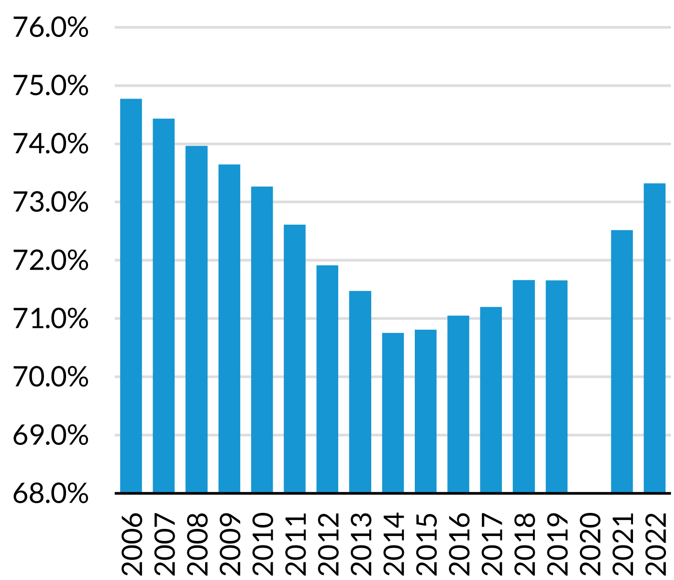
Source: Moody's Analytics, U.S. Census Bureau (BOC) and Urban Institute Calculations February 2024

Share of Residential Completions Built For Sale



Source: U.S. Census Bureau (BOC) and Urban Institute Calculations. Q4 2023

Owner-Occupied Share of Occupied Mobile Homes

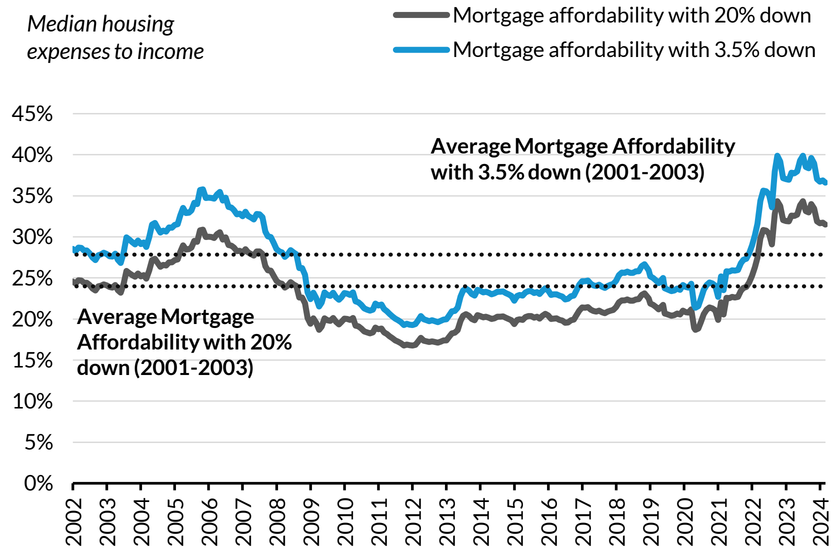


Source: 1-year American Community Survey.
Note: This data is not available for 2020 due to low response rates during the pandemic.

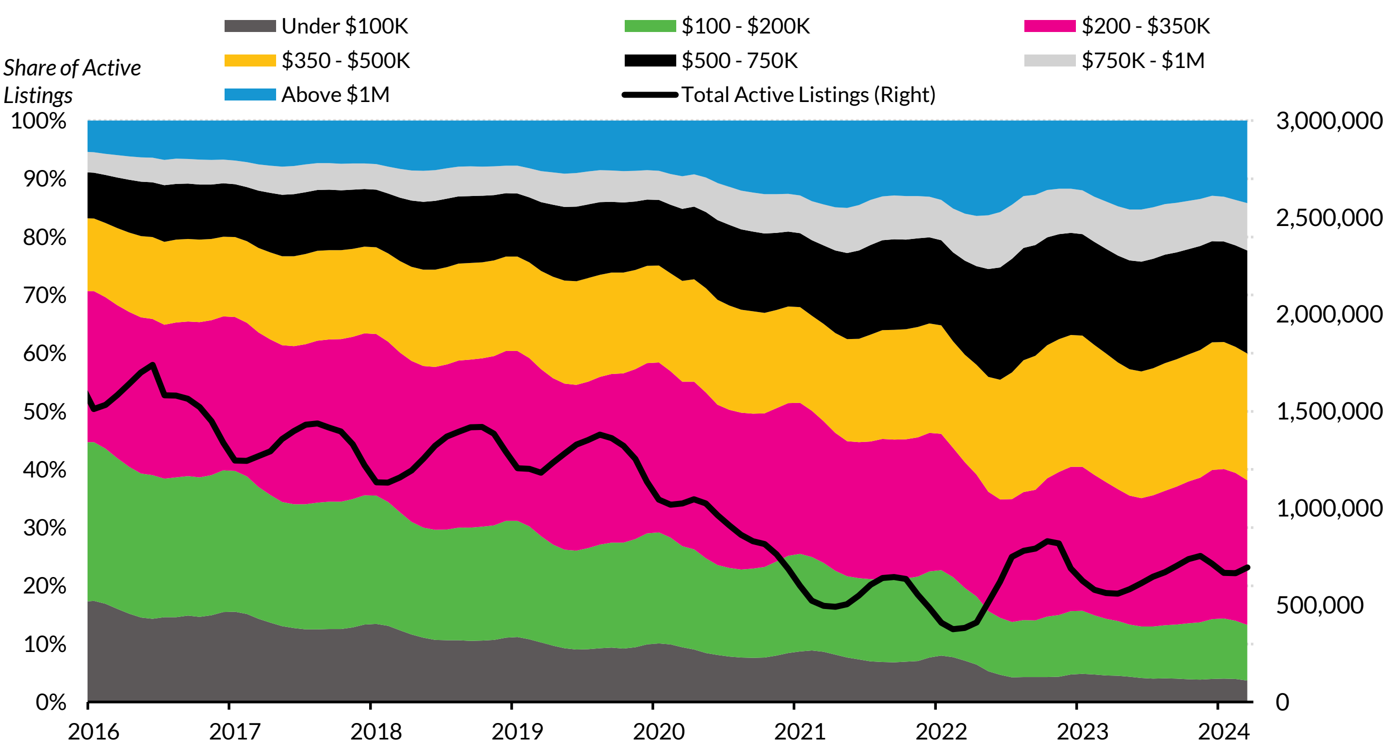
HOUSING AFFORDABILITY

National Mortgage Affordability Over Time

Amid higher mortgage rates, mortgage affordability has improved but remains close to the worst level since the inception of this series in 2002. As of March 2024, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 31.5 percent, higher than the 30.9 percent at the peak of the housing bubble in November 2005; and with 3.5 percent down the housing cost burden is 36.6 percent, also above the 35.8 percent prior peak in November 2005. As shown in the bottom picture, even amid seasonality, active listings remain lower over time and the distribution has shifted markedly towards higher priced homes.



Active Listings by Price Tier Over Time

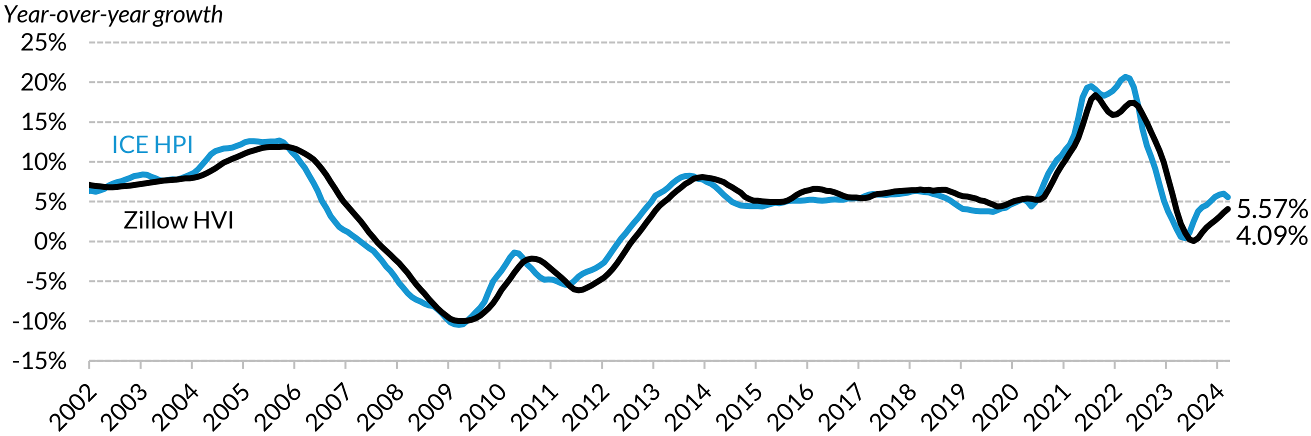


Sources: National Association of Realtors, US Census Bureau, Current Population Survey, American Community Survey, Moody's Analytics, Freddie Mac Primary Mortgage Market Survey, Realtor.com, and the Urban Institute.
Note: Mortgage affordability is the share of median family income devoted to the monthly principal, interest, taxes, and insurance payment required to buy the median home at the Freddie Mac prevailing rate for a 30-year fixed-rate mortgage and property tax and insurance at 1.75 percent of the housing value. Data for the bottom chart provided by Realtor.com as of March 2024.

HOME PRICE INDICES

National Year-Over-Year HPI Growth

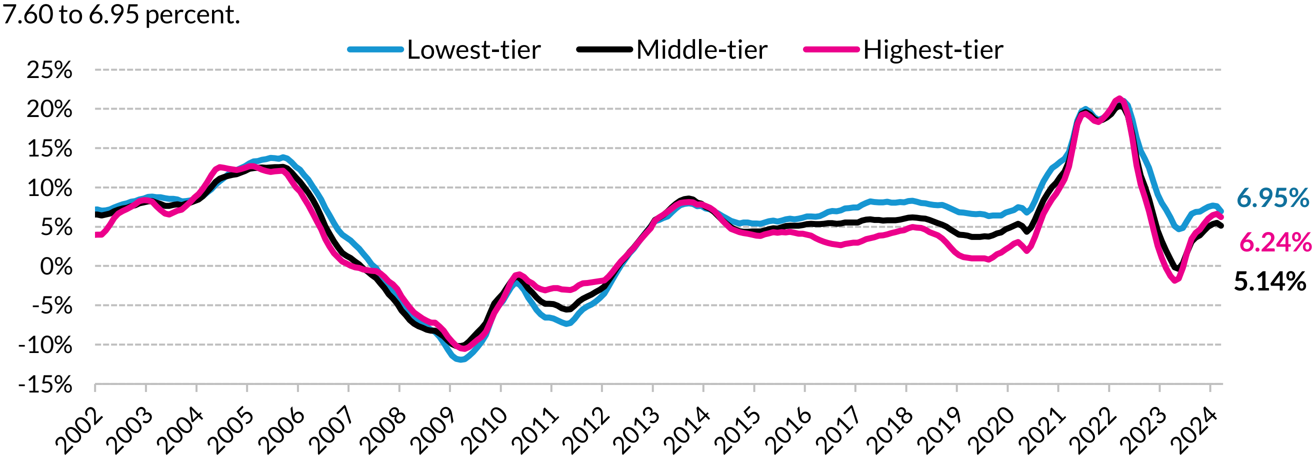
According to ICE's repeat sales index, year-over-year home price appreciation was 5.57 percent in March 2024, down from the previous month's 6.0 percent, the first moderation in year-over year house price appreciation since May 2023. Year-over-year home price appreciation as measured by Zillow's hedonic home value index is still increasing and stands at 4.09 percent in March 2024, up from 3.62 percent in February. Affordability remains low amid the annual increase in home prices combined with elevated interest rates since 2022.



Sources: ICE, Zillow, and Urban Institute.
Note: ICE modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. Data as of March 2024.

National Year-Over-Year HPI Growth by Price Tier

House price growth accelerated in the second half of 2020 into 2022 across all price tiers. With higher-priced homes experiencing steeper appreciation in 2020 and 2021, year-over-year growth in the highest-tier had surpassed the middle and lowest tiers by February 2022. With rates rising sharply in 2022, the rate of appreciation slowed, then dropped for all price tiers. After bottoming at the end of Q1 2023, home prices began to rise. From May 2023 to January 2024, year-over-year house price appreciation increased each month at all tiers. Year-over-year appreciation now shows signs of slowing with appreciation at the highest tier decreasing from 6.65 percent in February to 6.24 percent in March. Over the same period price appreciation for middle-tier priced homes decreased from 5.51 to 5.14 percent and and appreciation at the lowest tier dropped more steeply from 7.60 to 6.95 percent.

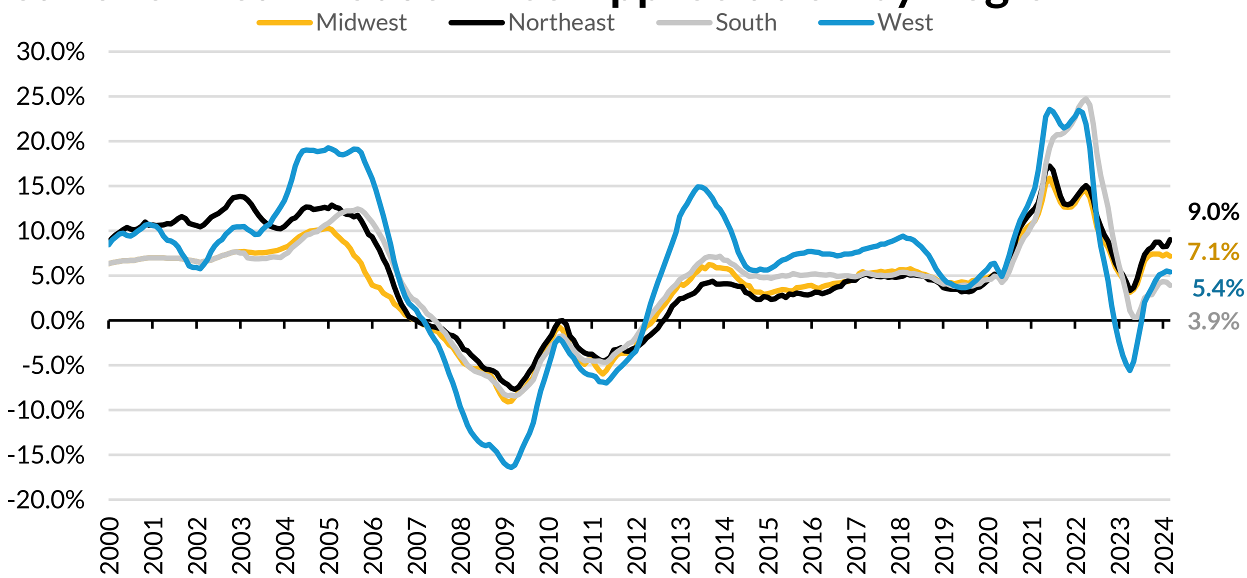


Sources: ICE and Urban Institute.
Note: ICE modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. Data as of March 2024.

REGIONAL HOME PRICE INDICES

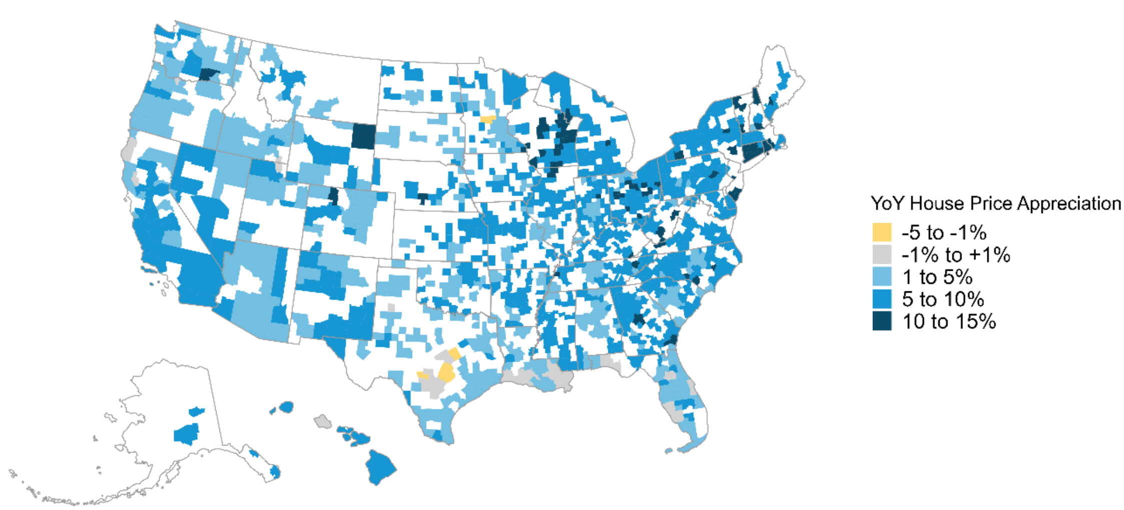
In March 2024, house prices in all regions of the country were higher than their level 12 months ago. The Northeast has the highest appreciation at 9.0 percent , followed closely by the Midwest at 7.4 percent. After lagging the rest of the US since July 2022, the West now has higher appreciation than the South at 5.4 and 3.9 percent, respectively. From 2020 to the first quarter of 2021, home prices rose sharply, led by the South and West. From Q2, 2022 to Q1, 2023, home prices fell for most of the country, with the most dramatic drops in the South and West. While house price performance across the South is traditionally not an outlier region compared to the other three regions of the country, house prices across the West are historically more volatile.

Year over Year House Price Appreciation by Region



Source: ICE and Urban Institute Calculations. Data as of March 2024

Year over Year House Price Appreciation by Metro and Micropolitan Areas

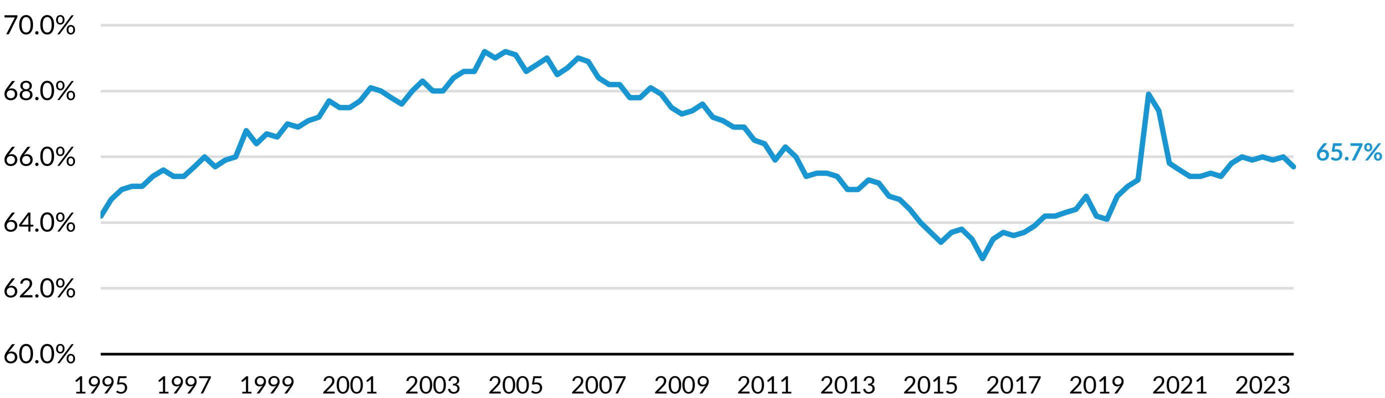


Source: Black Knight and Urban Institute Calculations.
Note: Data as of March 2024.

HOMEOWNERSHIP RATES

In the fourth quarter of 2023, the homeownership rate was at 65.7 percent, close to the rate in the third quarter of 2023, 66.0 percent, and the fourth quarter of 2022, 65.9 percent. After falling to 62.9 percent in the second quarter of 2016, the homeownership rate began to recover, but remains 3.3 percentage points below its Q1 2005 peak of 69.0 percent. By age groups, senior households are more likely to be homeowners relative to younger households. In addition, the homeownership rate for households 65 years old and above is closest to its 2000s peak levels. By race and ethnicity, white households are more likely to be homeowners relative to households of color. However, the homeownership rate among Hispanic households is closest to returning to its 2000s peak.

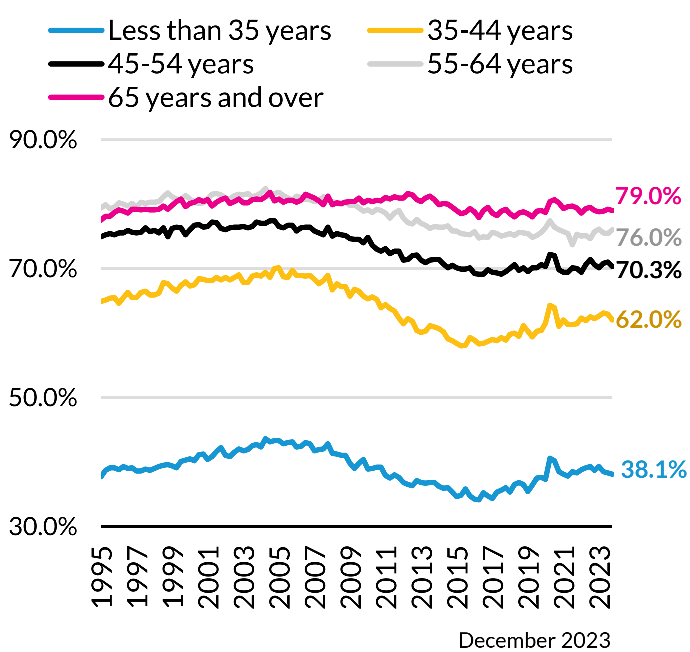
Overall Homeownership Rate



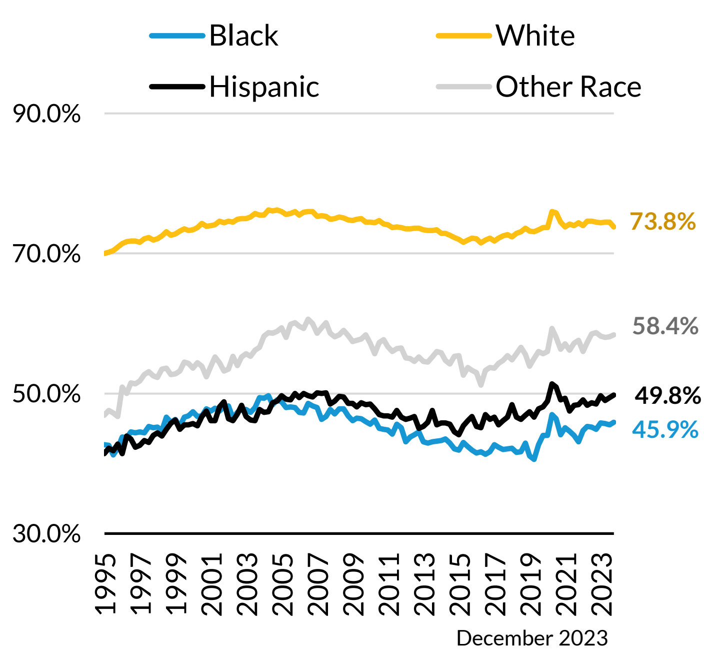
Source: Moody's Analytics, U.S. Census Bureau (BOC) and Urban Institute Calculations.
Note: Data from 2020 and 2021 is poor due to low response rates during the pandemic.

December 2023

Homeownership by Owner Age



Homeownership Rate by Race/Ethnicity



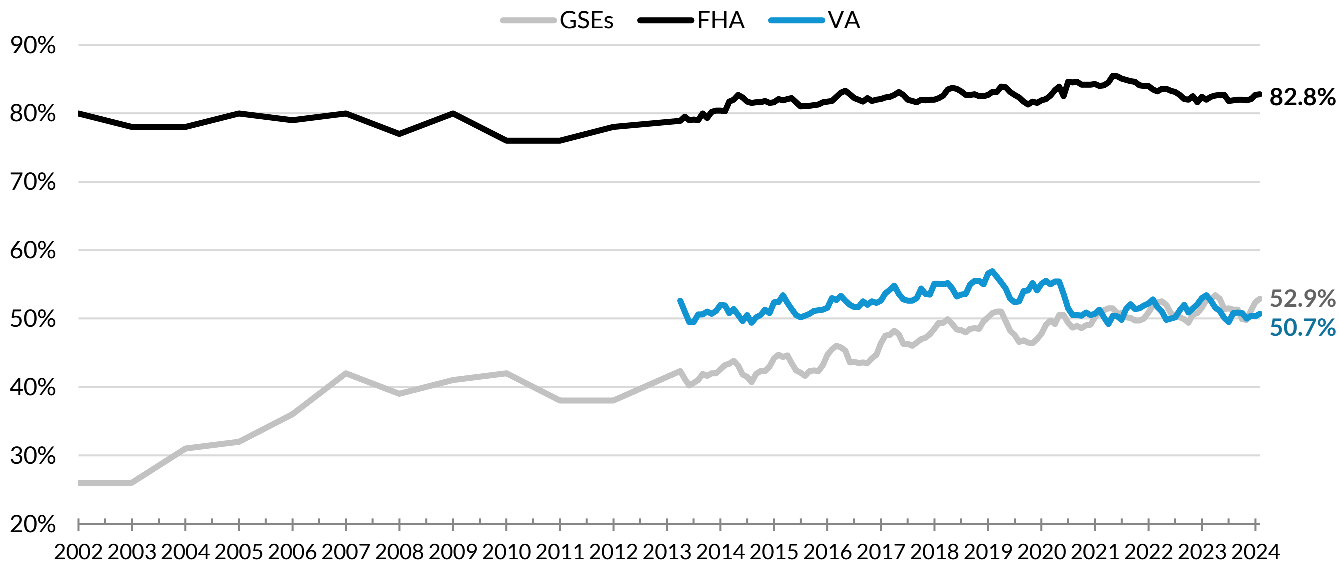
Source: U.S. Census Bureau (BOC) and Urban Institute Calculations.

STATE OF THE MARKET

FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

In February 2024, the first-time homebuyer (FTHB) share for FHA, which has always been more focused on first time homebuyers, was 82.8 percent. The FTHB share of GSE lending in February was 52.9 percent; the VA share was 50.7 percent. The bottom table shows that based on mortgages originated in February 2024, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV.



Sources: eMBS, Federal Housing Administration (FHA), and Urban Institute.
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

February 2024

Comparison of First-Time and Repeat Homebuyers, GSE and FHA Originations

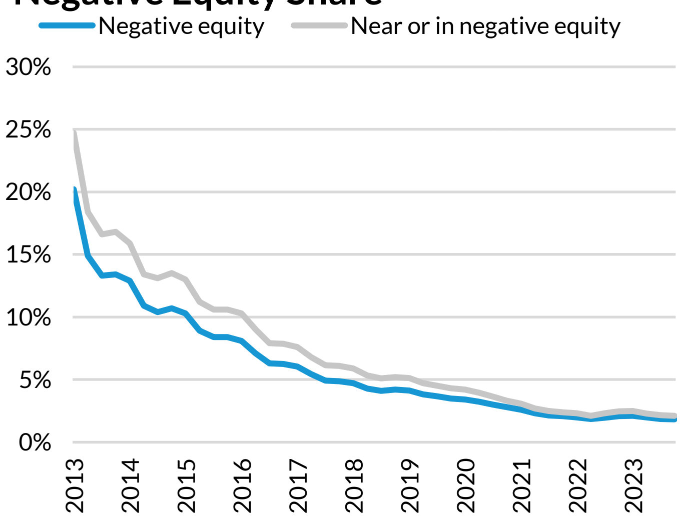
	GSEs		FHA		GSEs and FHA	
Characteristics	First-time	Repeat	First-time	Repeat	First-time	Repeat
Loan Amount ($)	$346,546	$373,589	$321,367	$330,635	$338,907	$374,304
Credit Score	751	762	690	691	725	747
LTV (%)	85	76	95	93	90	82
DTI (%)	37	39	45	46	41	41
Loan Rate (%)	6.55	6.56	6.21	6.24	6.39	6.44

Sources: eMBS and Urban Institute.
Note: Based on owner-occupied purchase mortgages originated in February 2024.

DELINQUENCIES AND LOSS MITIGATION ACTIVITY

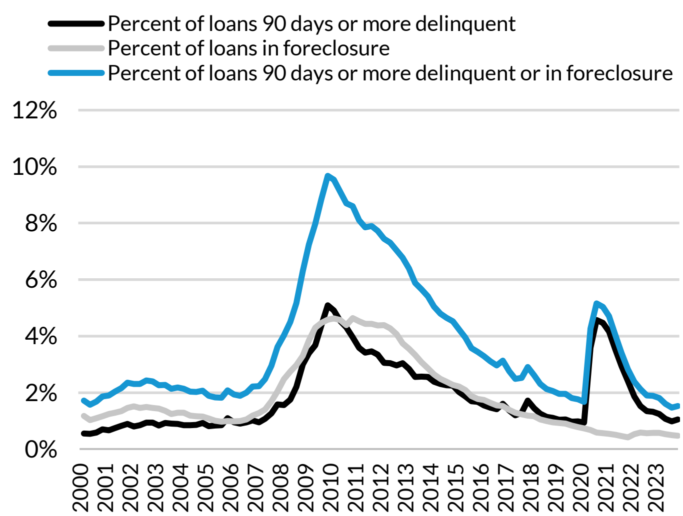
The share of loans in and near negative equity decreased slightly from 2.2 percent in Q3 2023 to 2.1 percent in Q4. In the fourth quarter of 2023, the composition of loans in or near negative equity consisted of approximately 1.8 percent with negative equity, and 0.3 percent between zero and 5 percent equity. The share of loans that are 90 days or more delinquent or in foreclosure increased by 5 basis points, from 1.47 percent in Q3 2023 to 1.52 percent in Q4 2023. This reflects the first increase in the share of mortgages 90 or more days delinquent since 2020; the foreclosure rate is marginally lower than the previous quarter. Serious delinquencies include loans where borrowers have missed their payments, including loans in COVID-19 forbearance. The bottom chart shows the share of loans in forbearance according to the MBA Weekly Forbearance and Call Volume Survey, launched in March 2020. After peaking at 8.55 percent in early June 2020, the total forbearance rate declined to 2.06 percent as of October 31st, 2021, the final week of the call survey. The MBA has since moved to conducting a monthly survey with the most recent forbearance rate remaining flat at 0.22 percent as of March 29, 2024. GSE loans have consistently had the lowest forbearance rates, standing at 0.12 percent at the end of March. The most recent forbearance rate for Other (e.g., portfolio and PLS) loans was 0.31 percent; Ginnie Mae loans had the highest forbearance rate at 0.40 percent.

Negative Equity Share



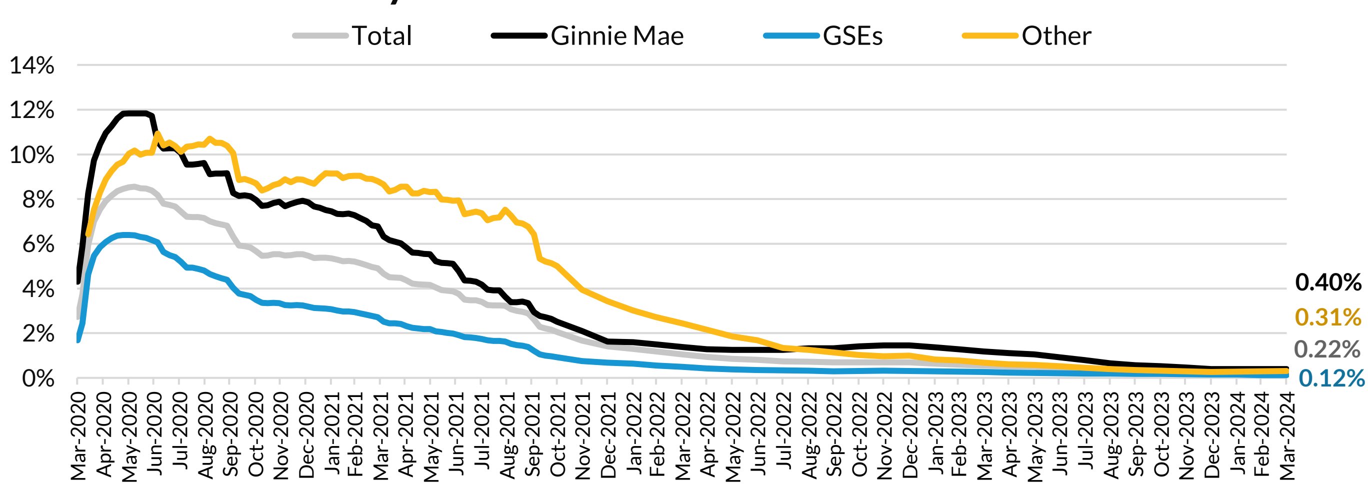
Sources: CoreLogic and Urban Institute.
Note: Loans with negative equity refer to loans above 100 percent LTV. Loans near negative equity refer to loans above 95 percent LTV. *Last updated for December 2023.*

Loans in Serious Delinquency/Foreclosure



Sources: Mortgage Bankers Association and Urban Institute. *Last updated for December 2023.*

Forbearance Rates by Channel

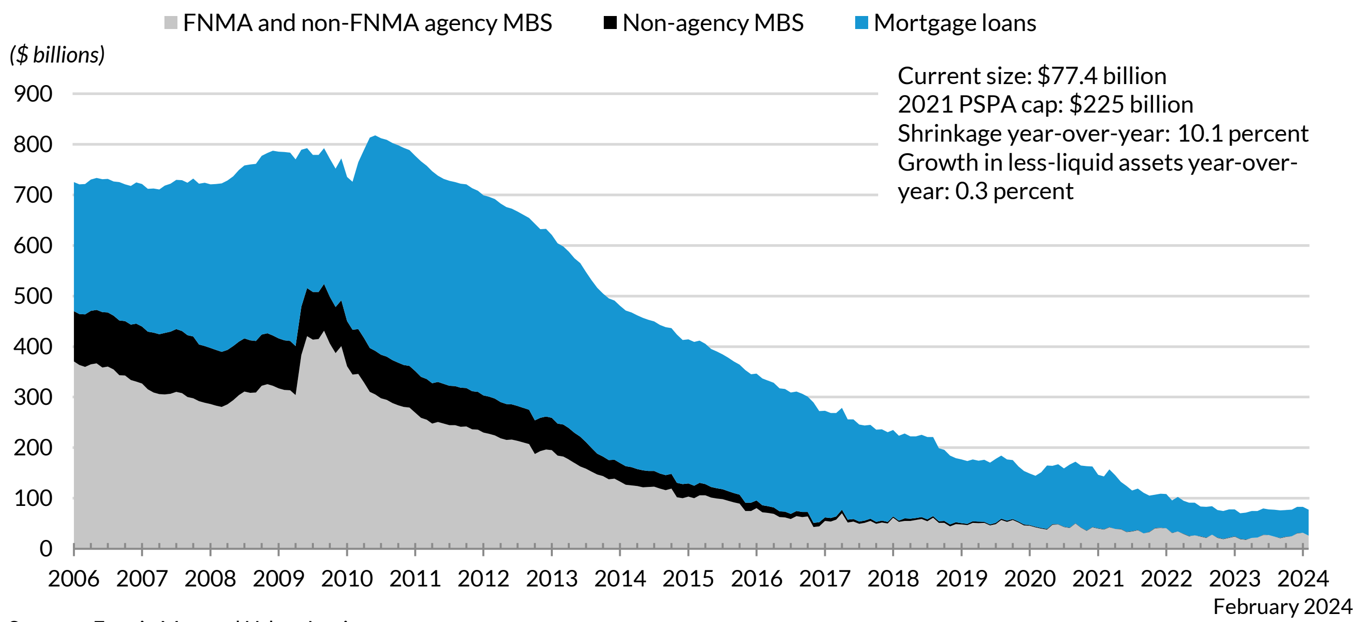


Source: MBA Weekly Forbearance and Call Volume Survey. *Forbearance rates as of March 31, 2024*

GSE PORTFOLIO WIND-DOWN

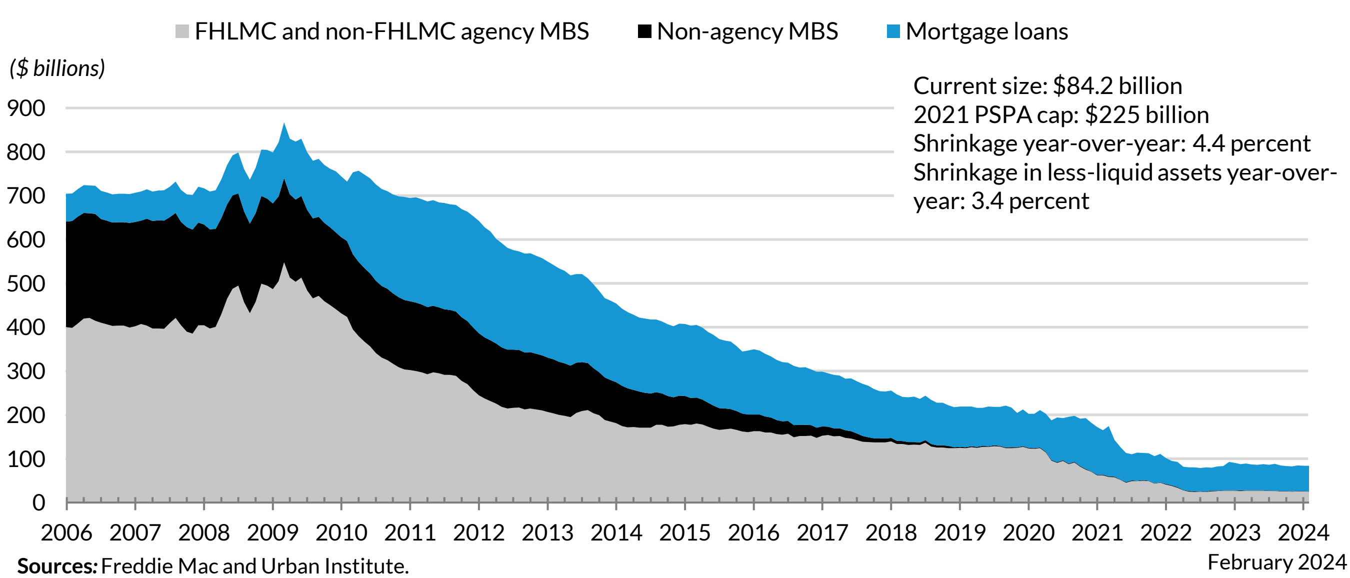
The Fannie Mae and Freddie Mac portfolios remain well below the $225 billion cap mandated in January 2021 by the new Preferred Stock Purchase Agreements (PSPAs), at $77.4 and $84.2 billion, respectively. From February 2023 to February 2024, the Fannie and Freddie portfolios shrank by 10.1 and 4.4 percent, respectively. Within the portfolio, Fannie Mae grew their less-liquid assets (mortgage loans, non-agency MBS), by 0.3 percent while Freddie shrank their less-liquid assets by 3.4 percent over the same 12-month period.

Fannie Mae Mortgage-Related Investment Portfolio Composition



Sources: Fannie Mae and Urban Institute.

Freddie Mac Mortgage-Related Investment Portfolio Composition



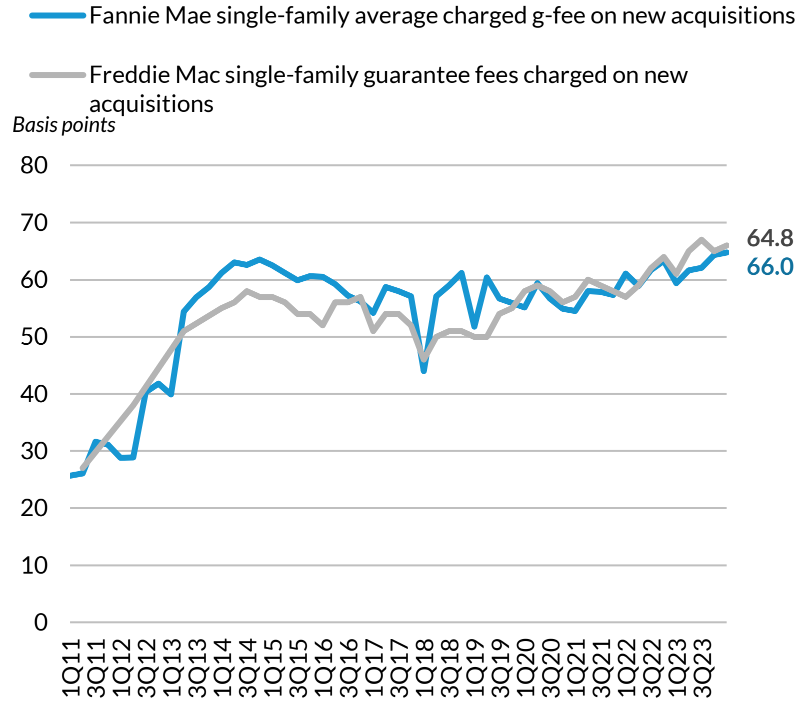
Sources: Freddie Mac and Urban Institute.

Note: Effective March 2021, Freddie Mac doesn't provide FHLMC/non-FHLMC breakout of agency MBS. The above charts were updated in May 2021 to reflect this.

EFFECTIVE GUARANTEE FEES

Guarantee Fees Charged on New Acquisitions

Fannie Mae's average g-fees charged on new acquisitions increased from 64.3 basis points in Q3 2023 to 64.8 basis points in Q4 2023 . Freddie's increased from 65.0 basis points in Q3 2023 to 66.0 basis points in Q4 2023. Today's g-fees are markedly higher than g-fee levels in 2011 and 2012, contributing to the GSEs' earnings amid sharp drops in acquisition volume. The bottom table shows Fannie Mae LLPAs, which are expressed as upfront charges. In October 2022, the GSEs announced the elimination of LLPAs for loans to FTHB's earning up to the AMI, affordable mortgage products such as Home Possible and Home Ready, and for loans supporting the Duty to Serve program. In January 2023, the GSEs released an updated LLPA Adjustment Matrix, effective since May 1, 2023.



Sources: Fannie Mae, Freddie Mae and Urban Institute.
Data as of Q4 2023.

Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

	LTV (%)								
Credit Score	≤60	30.01 – 60	60.01 – 70	70.01 – 75	75.01 – 80	80.01 – 85	85.01 – 90	90.01 – 95	>95
> 779	0.000	0.000	0.000	0.500	0.375	0.375	0.250	0.250	0.125
760 – 779	0.000	0.000	0.000	0.250	0.625	0.625	0.500	0.500	0.250
740 – 759	0.000	0.000	0.125	0.375	0.875	1.000	0.750	0.625	0.500
720 – 739	0.000	0.000	0.250	0.750	1.250	1.250	1.000	0.875	0.750
700 – 719	0.000	0.000	0.375	0.875	1.375	1.500	1.250	1.125	0.875
680 – 699	0.000	0.000	0.625	1.125	1.750	1.875	1.500	1.375	1.125
660 – 679	0.000	0.000	0.750	1.375	1.875	2.125	1.750	1.625	1.250
640 – 679	0.000	0.000	1.125	1.500	2.250	2.500	2.000	1.875	1.500
< 640	0.000	0.125	1.500	2.125	2.750	2.875	2.625	2.250	1.750

Sources: Fannie Mae and Urban Institute.
Last updated January of 2023.

GSE RISK-SHARING TRANSACTIONS

Fannie Mae and Freddie Mac have been laying off back-end credit risk through CAS/STACR and reinsurance transactions and front-end risk via originators, reinsurers and mortgage insurers. Since 2014, the GSEs have transferred the bulk of the credit risk on most of their mortgages to the private markets. Fannie Mae's CAS issuances since inception total $2.22 trillion; Freddie's STACR totals $2.68 trillion. After the COVID-19 spread widening in March 2020, and the re-proposed capital rules released by FHFA shortly thereafter, Fannie Mae did not issue any deals from Mar 2020 to Sep 2021, while Freddie Mac continued to issue. With the changes in the final Capital Rule more CRT friendly, and more positive attitude toward CRT at FHFA, Fannie resumed CAS issuance in October 2021. Since the beginning of 2024, Fannie Mae has issued 3 CAS deals and Freddie Mac has issued 2 STACR deals.

Fannie Mae – Connecticut Avenue Securities (CAS)

Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
2013	CAS 2013 deals	$26,756	$675	2.5
2014	CAS 2014 deals	$222,224	$5,849	2.6
2015	CAS 2015 deals	$187,127	$5,463	2.9
2016	CAS 2016 deals	$236,459	$7,392	3.1
2017	CAS 2017 deals	$264,697	$8,707	3.3
2018	CAS 2018 deals	$205,998	$7,314	3.6
2019	CAS 2019 deals	$290,211	$8,073	2.8
2020	CAS 2020 deals	$58,015	$2,167	3.7
2021	CAS 2021 deals	$142,202	$3,095	2.2
2022	CAS 2022 deals	$325,601	$8,920	2.7
2023	CAS 2023 deals	$191,497	$5,440	2.8
January 2024	CAS 2024 - R01	$19,674	$752	3.8
March 2024	CAS 2024 - R02	$19,061	$751	3.9
April 2024	CAS 2024 - R03	$26,843	$628	2.3
Total		**$2,216,365**	**$65,227**	**2.9%**

Freddie Mac – Structured Agency Credit Risk (STACR)

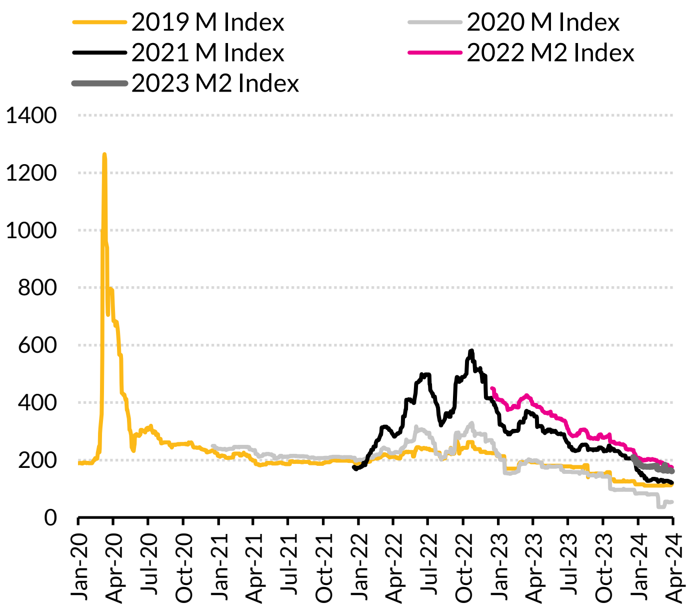
Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
2013	STACR 2013 deals	$57,912	$1,130	2.0
2014	STACR 2014 deals	$147,120	$4,916	3.3
2015	STACR 2015 deals	$179,196	$6,658	3.7
2016	STACR 2016 deals	$183,421	$5,541	3.0
2017	STACR 2017 deals	$248,821	$5,663	2.3
2018	STACR 2018 deals	$243,007	$6,055	2.5
2019	STACR 2019 deals	$181,753	$5,807	3.2
2020	STACR 2020 deals	$403,591	$10,372	2.6
2021	STACR 2021 deals	$574,706	$11,024	1.9
2022	STACR 2022 deals	$327,773	$11,203	3.4
2023	STACR 2023 deals	$87,794	$2,838	3.2
February 2024	STACR Series 2024 - DNA1	$18,798	$572	3.0
March 2024	STACR Series 2024 – DNA2	$23,710	$712	3.0
Total		**$2,677,602**	**$72,491**	**2.7%**

Sources: Fannie Mae, Freddie Mac and Urban Institute. **Note**: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

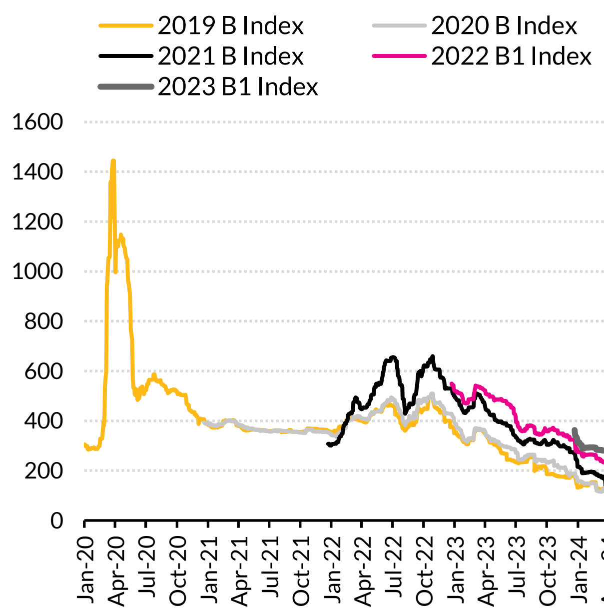
GSE RISK-SHARING INDICES

The figures below show the spreads on 2019, 2020, 2021, 2022 and 2023 indices, as priced by dealers. The spread between 2021 indices and previous vintages 2019 and 2020 widened from February to November 2022 and remained wide through 2023, but not to the same degree of widening that took place during the pandemic. Since December 2023, 2021 indices dropped to align more with previous vintages. However, 2022 indices remain elevated compared to 2019-2021 indices. This pattern reflects lower embedded home price appreciation and therefore higher credit risk on newer vintages. Most 2023 trade at spreads close to 2022 indices, however the high 2023 indices sell at a wider spread than the 2021 and 2022 indices.

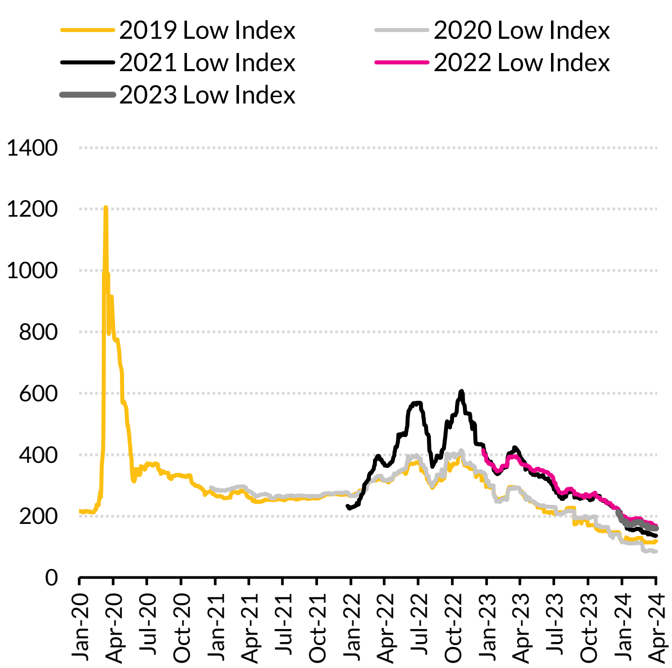
M Indices



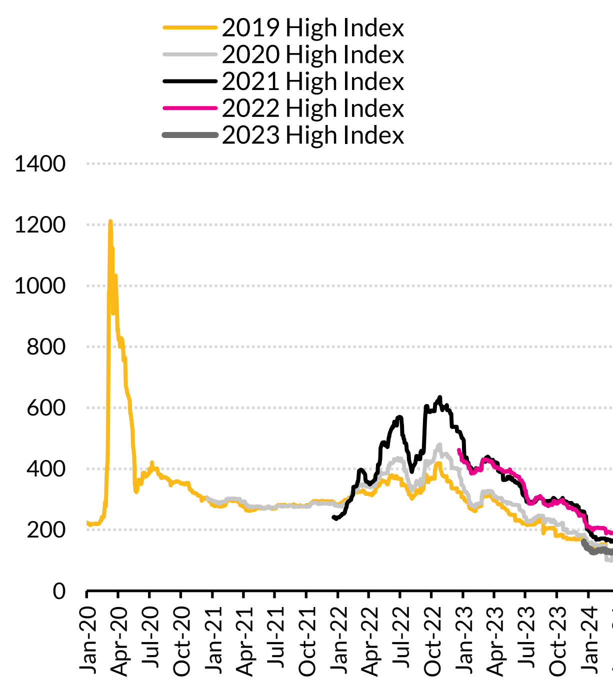
B Indices



Low Indices



High Indices

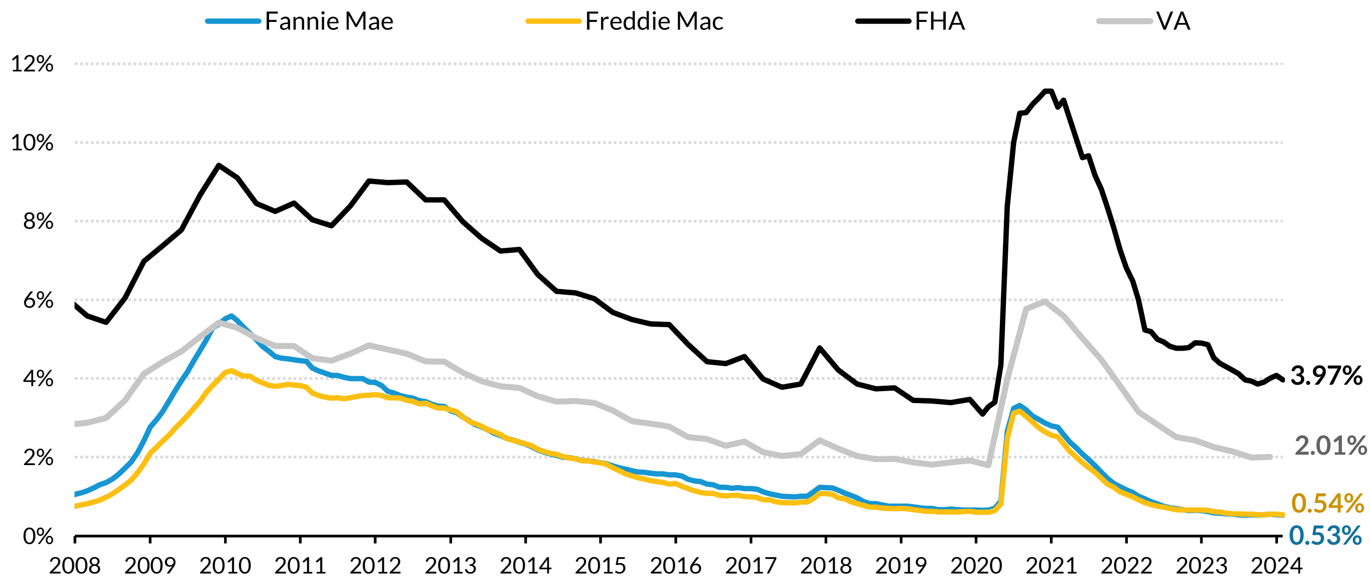


Sources: Vista Data Services and Urban Institute.
Note: Data as of April 12, 2024.

SERIOUS DELINQUENCY RATES

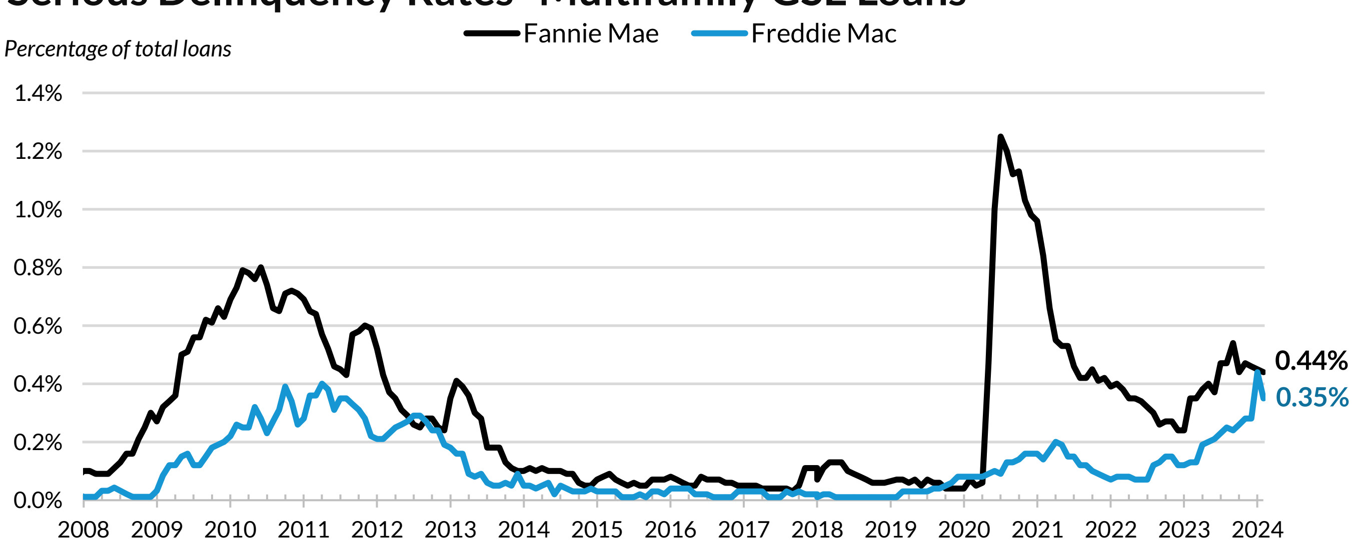
Serious delinquency rates for single family loans have declined to pre-pandemic levels, and seasonal trends now govern changes in delinquencies. In February 2024 Fannie Mae and Freddie Mac single-family loans decreased slightly to 0.53 and 0.54 percent, respectively. Serious delinquency rates for FHA loans, which are higher than those on GSE or VA loans, decreased from 4.08 percent in January 2024 to 3.97 percent in February. In Q4 2023, VA serious delinquency rates increased to 2.01 percent, from 1.99 percent in Q3 2023. Note that loans that are in forbearance are counted as delinquent for the purpose of measuring delinquency rates. Serious delinquency rates on Fannie and Freddie multifamily loans have risen recently amid higher interest rates and reports of lower property values on multifamily properties. In January 2024, Fannie Mae's serious multifamily delinquency rate sits at 0.44 percent, down from 0.54 percent in September. Freddie Mac's serious delinquency rate is at 0.35 percent in February, down from a series high of 0.44 percent in January 2024.

Serious Delinquency Rates–Single-Family Loans



Sources: Fannie Mae, Freddie Mac, Federal Housing Administration, MBA Delinquency Survey and Urban Institute.
Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Not seasonally adjusted. VA delinquencies are reported on a quarterly basis, last updated for Q4 2023. GSE and FHA delinquencies are reported monthly, data as of February 2024.

Serious Delinquency Rates–Multifamily GSE Loans



Sources: Fannie Mae, Freddie Mac and Urban Institute. Data as of February 2024.
Note: Multifamily serious delinquency is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.

AGENCY ISSUANCE

AGENCY GROSS AND NET ISSUANCE

Agency gross issuance totaled $218.7 billion in the first three months of 2024, $129.3 billion by the GSEs and $89.4 billion by Ginnie Mae. These levels are up 4.7 percent from 2023 issuance activity through March. Total 2024 net issuance (new securities issued less the decline in outstanding securities due to principal pay-downs or prepayments) lags 2023 levels. Both the GSEs and Ginnie Mae have been weaker to-date as the $31.0 billion issued in 2024 exceeds the $50.0 billion issued through March 2023.

Agency Gross Issuance

Issuance Year	GSEs	Ginnie Mae	Total
2003	$1,874.9	$213.1	$2,088.0
2004	$872.6	$119.2	$991.9
2005	$894.0	$81.4	$975.3
2006	$853.0	$76.7	$929.7
2007	$1,066.2	$94.9	$1,161.1
2008	$911.4	$267.6	$1,179.0
2009	$1,280.0	$451.3	$1,731.3
2010	$1,003.5	$390.7	$1,394.3
2011	$879.3	$315.3	$1,194.7
2012	$1,288.8	$405.0	$1,693.8
2013	$1,176.6	$393.6	$1,570.1
2014	$650.9	$296.3	$947.2
2015	$845.7	$436.3	$1,282.0
2016	$991.6	$508.2	$1,499.8
2017	$877.3	$455.6	$1,332.9
2018	$795.0	$400.6	$1,195.3
2019	$1,042.6	$508.6	$1,551.2
2020	$2,407.5	$775.4	$3,182.9
2021	$2,650.8	$855.3	$3,506.1
2022	$1,200	$527.4	$1,727.4
2023	$637.9	$382.9	$1,020.7
2024 YTD	$129.3	$89.4	$218.7
YTD 2024 % Change Over 2023	-1.5%	15.2%	4.7%
2024 Annualized	$517.1	$357.6	$874.7

Agency Net Issuance

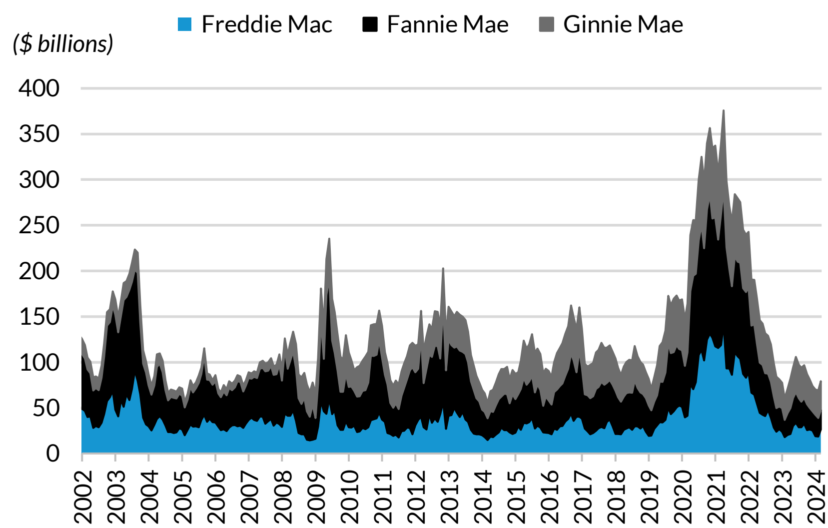
Issuance Year	GSEs	Ginnie Mae	Total
2003	$334.90	-$77.60	$257.30
2004	$82.50	-$40.10	$42.40
2005	$174.20	-$42.20	$132.00
2006	$313.60	$0.20	$313.80
2007	$514.90	$30.90	$545.70
2008	$314.80	$196.40	$511.30
2009	$250.60	$257.40	$508.00
2010	-$303.20	$198.30	-$105.00
2011	-$128.40	$149.60	$21.20
2012	-$42.40	$119.10	$76.80
2013	$69.10	$87.90	$157.00
2014	$30.5	$61.6	$92.1
2015	$75.1	$97.3	$172.5
2016	$127.4	$125.8	$253.1
2017	$168.5	$131.3	$299.7
2018	$149.4	$112.0	$261.5
2019	$197.8	$95.7	$293.5
2020	$632.8	$19.9	$652.7
2021	$753.5	$5.6	$759.1
2022	$276.6	$133.3	$409.3
2023	$38.0	$174.0	$212.0
2024 YTD	-$7.0	$38.0	$31.0
YTD 2024 % Change Over 2023	-151.1%	4.6%	-38.0%
2024 Annualized	-$28.0	$152.0	$124.0

Sources: eMBS and Urban Institute.
Note: Dollar amounts are in billions. Data as of March 2024.

AGENCY GROSS ISSUANCE & FED PURCHASES

Agency issuances by the GSEs and Ginnie Mae totaled 79.3 billion in March 2024, 11.8 percent greater than volume in March 2023. While FHA, VA and GSE lending have dominated the mortgage market since the 2008 housing crisis, there has been a change in the mix. The Ginnie share of new issuances rose from a pre-crisis level of 10-12 percent to 34.8 percent in February 2020, reflecting gains in both purchase and refinance shares. The Ginnie share then declined to a low of 20.4 percent in November 2020, reflecting the more robust ramp up in GSE refinances relative to Ginnie Mae refinances. The Ginnie share then reached a new series high of 43.5 percent in February 2024 and remains relatively high at 39.9 percent in March 2024.

Monthly Gross Issuance

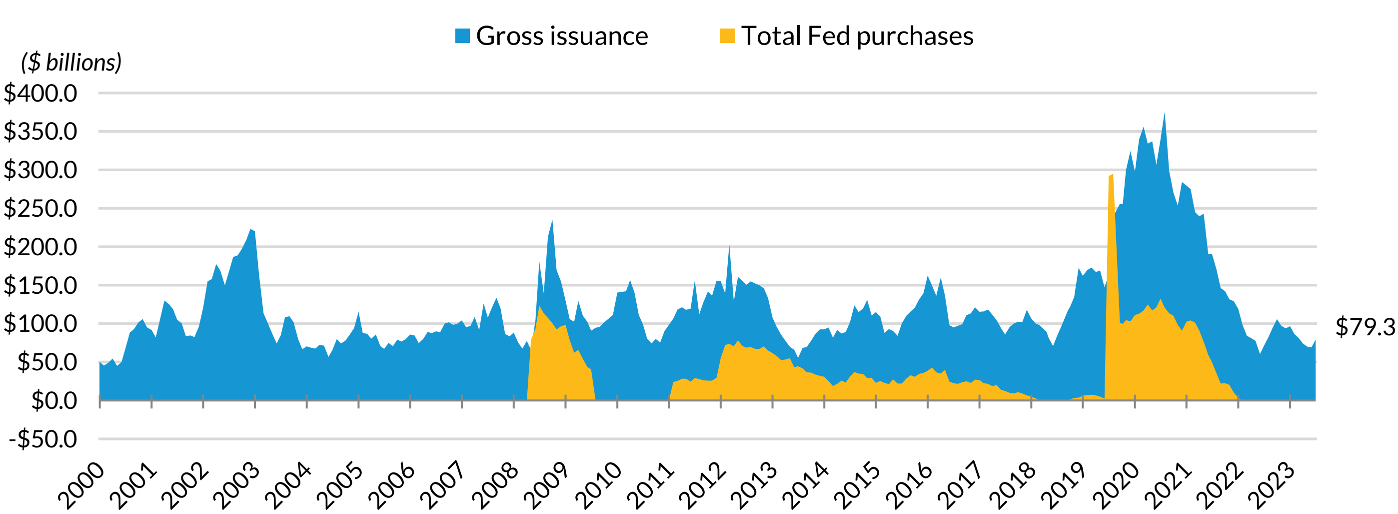


Source: eMBS and Urban Institute Calculations

March 2024

Fed Absorption of Agency Gross Issuance

The Fed's purchases of agency MBS dropped to $0 in November 2022 and has remained negligible since, reflecting their policy of allowing paydowns up to $35 billion to run off. Beginning in June 2022, the Fed allowed up to $17.5 billion to run off each month; the cap on runoffs increased to $35 billion per month in September 2022. The Federal Reserve's portfolio was a critical policy tool during the pandemic. In March of 2020, the Fed announced they would buy mortgages in an amount necessary to support smooth functioning markets; March and April of 2020 were the largest two months of mortgage purchases ever and exceeded total issuance. Once the market stabilized, the Fed began to purchase $40 billion net of MBS each month; this buying plus runoff replacements equated to purchases of $100 to $125 billion per month. In November 2021, the Fed began to reduce purchases, with these purchases ending in March 2022.



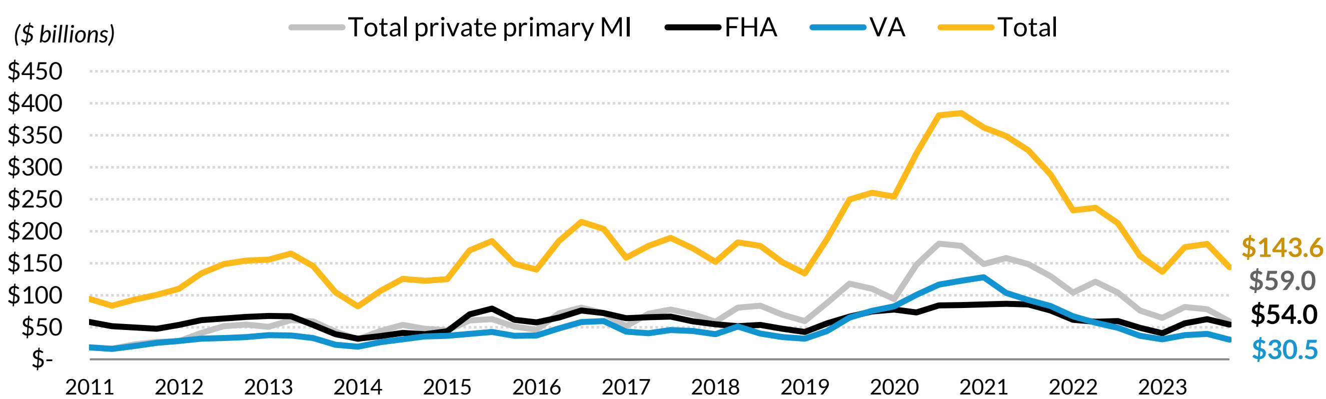
Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

March 2024

MORTGAGE INSURANCE ACTIVITY

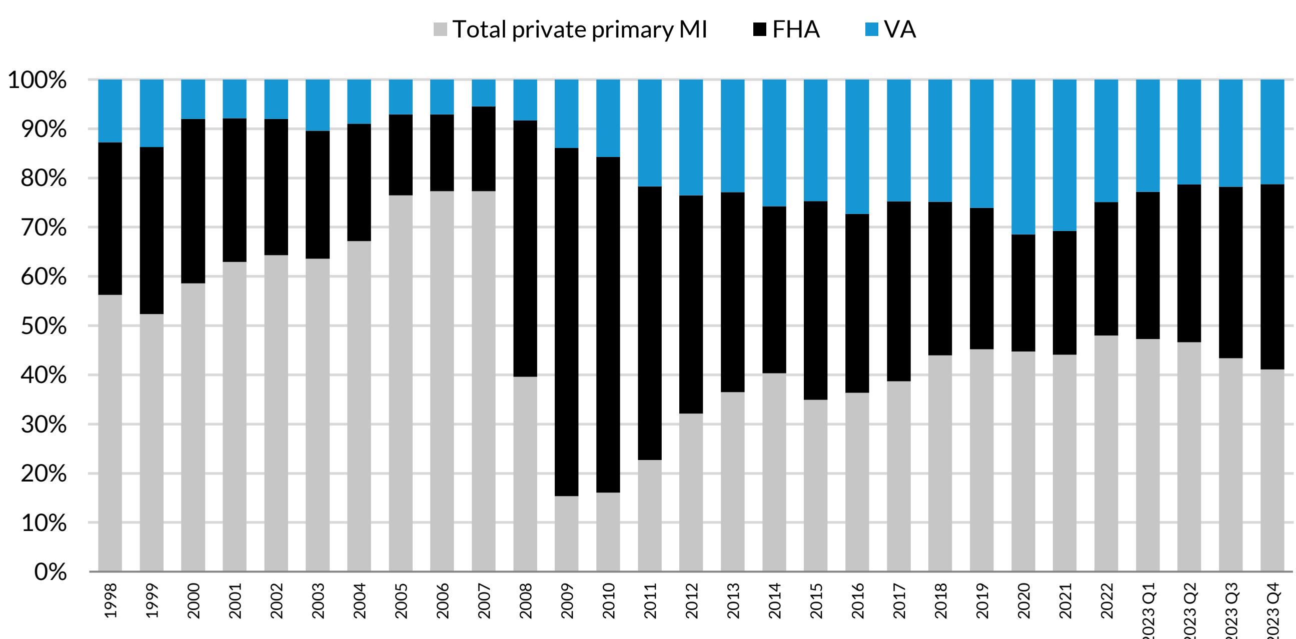
MI Activity

Amid low sales activity in 2023, total mortgage insurance written decreased by 11.3 percent from Q4 2022 to $143.5 billion in Q4 2023. The decrease was driven by a 22.3 percent decrease in private primary and VA mortgage insurance activity and a 16.8 percent decrease from VA. In Q4 2023, private primary mortgage insurance activity stand at $59.0 and $30.5 billion, respectively. From Q4 2022 to Q4 2023, FHA insurance activity increased by 10.1 percent to $54.0 billion. Over the same time period, the private mortgage insurers share decreased from 47.0 to 41.1 percent and VA's share decreased marginally from 22.7 to 21.3 percent. In contrast, FHA's share increased from 30.3 to 37.6 percent.



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2024.*

MI Market Share



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2024.*

MORTGAGE INSURANCE ACTIVITY

FHA premiums rose significantly in the years following the housing crash, with annual premiums rising from 50 to 135 basis points between 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 basis points cut in annual insurance premiums. In February 2023, Vice President Harris announced another 30 basis points cut to FHA insurance premiums, making FHA mortgages more attractive than GSE mortgages for most borrowers putting down less than 5 percent. As shown in the bottom table, a borrower putting 3.5 percent down with a FICO score less than 740 will currently find FHA financing to be more financially attractive, borrowers with FICOs of 760 and above will find GSE execution with PMI to be more attractive. This calculation reflects both the FHA MIP cut and the more favorable GSE LLPAs for LMI borrowers.

FHA MI Premiums for Typical Purchase Loan

Case number date	Upfront mortgage insurance premium (UFMIP) paid	Annual mortgage insurance premium (MIP)
1/1/2001 - 7/13/2008	150	50
7/14/2008 - 4/5/2010*	175	55
4/5/2010 - 10/3/2010	225	55
10/4/2010 - 4/17/2011	100	90
4/18/2011 - 4/8/2012	100	115
4/9/2012 - 6/10/2012	175	125
6/11/2012 - 3/31/2013[a]	175	125
4/1/2013 – 1/25/2015[b]	175	135
1/26/2015 – 3/19/2023[c]	175	85
Beginning 3/20/2023	175	55

Sources: Ginnie Mae and Urban Institute.
Note: A typical purchase loan has an LTV over 95 and a loan term longer than 15 years. Mortgage insurance premiums are listed in basis points.
* For a short period in 2008 the FHA used a risk based FICO/LTV matrix for MI.
[a] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 150 bps.
[b] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 155 bps.
[c] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 105 bps.

Initial Monthly Payment Comparison: FHA vs. GSE with PMI

Assumptions	
Property Value	$300,000
Loan Amount	$289,500
LTV	96.5
Base Rate	
Conforming Base Rate	7.10
FHA Base Rate	7.26

FICO	620 - 639	640 - 659	660 - 679	680 - 699	700 - 719	720 - 739	740 - 759	760 +
FHA MI Premiums								
FHA UFMIP	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
FHA MIP	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
PMI								
PMI Annual MIP	1.50%	1.31%	1.23%	0.98%	0.79%	0.70%	0.58%	0.46%
Monthly Payment								
FHA	$2,112	$2,112	$2,112	$2,112	$2,112	$2,112	$2,112	$2,112
GSE plus PMI	$2,339	$2,293	$2,274	$2,213	$2,167	$2,146	$2,117	$2,088
GSE plus PMI Advantage	-$227	-$181	-$162	-$101	-$56	-$34	-$5	$24

Sources: Enact Mortgage Insurance, Ginnie Mae, and Urban Institute. FHA and 30-year conforming rates from MBA Weekly Applications Survey.
Note: Rates as of April 12, 2024.
Mortgage insurance premiums listed in percentage points. Grey shade indicates FHA monthly payment is more favorable, while blue indicates PMI is more favorable.
The PMI monthly payment calculation is based on the 25 percent coverage that applies to Fannie Mae's HomeReady and Freddie Mac's Home Possible (HP) programs.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FANNIE MAE COMPOSITION

Since 2008, the composition of loans purchased by Fannie Mae has shifted towards borrowers with higher FICO scores. For example, 62.8 percent of loans originated from 2018 to Q3 2023 were for borrowers with FICO scores above 750, compared to 44.2 percent of borrowers from 2005-2008 and 36.7 percent from 1999-2004. At the same time, the composition of Fannie Mae loans has shifted towards borrowers with higher LTVs. For example, 18.9 percent of loans originated from 2018 to Q3 2023 were for borrowers with LTV above 90 percent, compared to 6.4 percent of borrowers from 2005-2008 and 10.0 percent from 1999-2004.

Balance on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	9.3%	15.0%	4.5%	4.5%	33.3%
	700 to 750	9.2%	14.2%	3.4%	3.2%	30.0%
	>750	15.6%	16.1%	2.7%	2.3%	36.7%
	Total	34.0%	45.3%	10.7%	10.0%	100.0%
2005-2008	≤700	10.6%	13.1%	3.8%	2.4%	29.8%
	700 to 750	8.4%	12.7%	3.0%	1.8%	26.0%
	>750	16.9%	21.4%	3.6%	2.2%	44.2%
	Total	36.0%	47.2%	10.4%	6.4%	100.0%
2009-2010	≤700	3.6%	2.9%	0.3%	0.2%	6.9%
	700 to 750	8.2%	10.8%	1.7%	0.8%	21.5%
	>750	32.3%	33.5%	4.0%	1.7%	71.6%
	Total	44.1%	47.2%	6.0%	2.7%	100.0%
2011-2017	≤700	3.5%	5.0%	1.3%	2.1%	12.0%
	700 to 750	5.6%	10.0%	3.2%	5.0%	23.8%
	>750	20.1%	28.0%	7.4%	8.8%	64.2%
	Total	29.2%	42.9%	12.0%	15.9%	100.0%
2018-3Q23	≤700	4.3%	3.8%	1.4%	2.3%	11.7%
	700 to 750	6.6%	8.7%	3.6%	6.5%	25.5%
	>750	22.4%	22.5%	7.7%	10.1%	62.8%
	Total	33.3%	35.0%	12.7%	18.9%	100.0%
Total		33.4%	40.9%	11.5%	14.2%	100.0%

Sources: Fannie Mae and Urban Institute.
Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q3 2023. The percentages are weighted by origination balance. The analysis included only mortgages with original terms of 241-420 months.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FANNIE MAE DEFAULT RATE

While the composition of Fannie Mae loans originated from 2005-2008 were similar to that of 2004 and earlier vintage years, 2005-2008 loans experienced a much higher default rate due to the sharp drop in home values in the Great Recession. Post-2009 originations have pristine credit characteristics and a more favorable home price environment, contributing to very low default rates. Even so, delinquencies on new originations, which jumped in 2020 and 2021 due to COVID-19, have declined meaningfully.

Default Rate on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	4.0%	4.9%	6.5%	7.4%	5.2%
	700 to 750	1.3%	2.0%	3.1%	3.2%	2.1%
	>750	0.5%	0.9%	1.6%	1.8%	0.8%
	Total	1.7%	2.6%	4.2%	4.8%	2.7%
2005-2008	≤700	17.8%	22.0%	28.3%	28.8%	21.9%
	700 to 750	7.5%	11.8%	16.7%	16.1%	11.3%
	>750	2.3%	4.7%	8.7%	9.2%	4.3%
	Total	8.1%	11.4%	18.1%	18.5%	11.4%
2009-2010	≤700	5.3%	7.0%	6.5%	7.6%	6.1%
	700 to 750	1.6%	2.8%	3.2%	3.9%	2.4%
	>750	0.4%	0.9%	1.4%	1.8%	0.7%
	Total	1.0%	1.7%	2.1%	2.8%	1.4%
2011-2017	≤700	5.2%	5.9%	6.9%	9.0%	6.4%
	700 to 750	2.4%	2.7%	3.0%	4.0%	2.9%
	>750	0.8%	0.9%	1.2%	1.7%	1.0%
	Total	1.6%	1.9%	2.3%	3.4%	2.1%
2018-3Q23	≤700	3.1%	4.3%	5.1%	7.1%	4.5%
	700 to 750	1.4%	1.9%	2.4%	3.3%	2.2%
	>750	0.4%	0.6%	0.9%	1.3%	0.7%
	Total	0.9%	1.3%	1.8%	2.7%	1.5%
Total		1.9%	2.8%	3.6%	3.8%	2.7%

Sources: Fannie Mae and Urban Institute.
Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q3 2023, with performance information on these loans also through Q3 2023. Default is defined as more than six months delinquent or disposed of via short sales, third-party sales, deeds-in-lieu of foreclosure, or real estate owned (REO acquisitions). The analysis included only mortgages with original terms of 241-420 months.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FREDDIE MAC COMPOSITION

Since 2008, the composition of loans purchased by Freddie Mac has shifted towards borrowers with higher FICO scores. For example, 58.7 percent of loans originated from 2018 to Q2 2023 were for borrowers with FICO scores above 750, compared to 42.0 percent of borrowers from 2005-2008 and 34.2 percent from 1999-2004. At the same time, the composition of Freddie Mac loans has shifted towards borrowers with higher LTVs. For example, 17.4 percent of loans originated from 2018 to Q3 2023 were for borrowers with LTV above 90 percent, compared to 7.1 percent of borrowers from 2005-2008 and 8.5 percent from 1999-2004.

Balance on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	8.7%	16.7%	4.5%	4.5%	34.3%
	700 to 750	9.9%	16.1%	2.8%	2.6%	31.5%
	>750	15.1%	15.7%	1.9%	1.5%	34.2%
	Total	33.7%	48.5%	9.2%	8.5%	100.0%
2005-2008	≤700	9.5%	14.0%	3.3%	3.1%	29.9%
	700 to 750	9.0%	14.5%	2.5%	2.0%	28.1%
	>750	17.6%	19.8%	2.7%	1.9%	42.0%
	Total	36.1%	48.3%	8.5%	7.1%	100.0%
2009-2010	≤700	3.8%	3.2%	0.3%	0.2%	7.6%
	700 to 750	9.3%	11.8%	1.7%	0.9%	23.7%
	>750	32.8%	31.0%	3.6%	1.4%	68.8%
	Total	46.0%	46.0%	5.5%	2.5%	100.0%
2011-2017	≤700	3.9%	5.0%	1.5%	2.0%	12.4%
	700 to 750	6.9%	12.2%	3.6%	5.3%	28.0%
	>750	18.5%	26.8%	6.6%	7.7%	59.6%
	Total	29.3%	44.0%	11.6%	15.1%	100.0%
2018-2Q23	≤700	5.3%	4.1%	1.6%	2.0%	12.9%
	700 to 750	7.9%	10.0%	4.2%	6.3%	28.4%
	>750	19.6%	21.9%	7.9%	9.2%	58.7%
	Total	32.8%	36.1%	13.7%	17.4%	100.0%
Total		33.6%	41.9%	11.3%	13.2%	100.0%

Sources: Freddie Mac and Urban Institute.
Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q2 2023, with performance data through Q3 2023. The percentages are weighted by origination balance. The analysis included only mortgages with original terms of 241-420 months.

FREDDIE MAC DEFAULT RATE

While the composition of Freddie Mac loans originated from 2005-2008 were similar to that of 2004 and earlier vintage years, 2005-2008 loans experienced a much higher default rate due to the sharp drop in home values in the recession. 2009 and later originations have pristine credit characteristics and a more favorable home price environment, contributing to very low default rates. Even so, delinquencies on new origination, which jumped in 2020 and 2021 due to COVID-19, have declined meaningfully.

Default Rate on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	3.4%	4.7%	7.0%	7.4%	5.0%
	700 to 750	1.2%	1.9%	3.1%	3.2%	1.9%
	>750	0.4%	0.9%	1.7%	2.1%	0.8%
	Total	1.4%	2.5%	4.7%	5.2%	2.6%
2005-2008	≤700	15.5%	20.5%	25.6%	27.7%	20.2%
	700 to 750	6.9%	11.5%	15.4%	15.6%	10.6%
	>750	2.2%	5.1%	8.2%	9.3%	4.3%
	Total	6.9%	11.5%	17.1%	19.2%	10.8%
2009-2011	≤700	4.7%	6.5%	6.3%	6.7%	5.6%
	700 to 750	1.4%	2.6%	2.8%	3.4%	2.2%
	>750	0.4%	0.9%	1.4%	1.6%	0.7%
	Total	1.0%	1.7%	2.1%	2.7%	1.4%
2011-2017	≤700	4.9%	5.3%	6.2%	7.5%	5.6%
	700 to 750	2.4%	2.6%	3.0%	3.8%	2.8%
	>750	0.9%	1.1%	1.3%	1.7%	1.1%
	Total	1.8%	2.0%	2.4%	3.3%	2.2%
2018-2Q23	≤700	2.1%	3.1%	3.8%	4.9%	3.0%
	700 to 750	1.0%	1.5%	1.8%	2.5%	1.6%
	>750	0.4%	0.6%	0.7%	1.1%	0.6%
	Total	0.8%	1.1%	1.4%	2.1%	1.2%
Total		1.9%	3.0%	3.5%	3.8%	2.8%

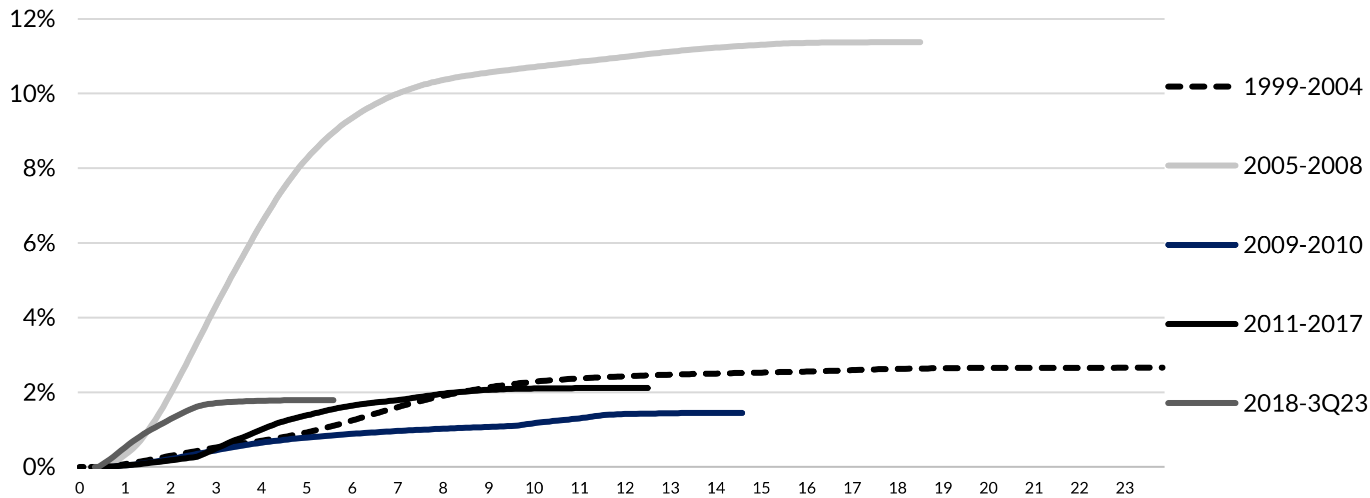
Sources: Freddie Mae and Urban Institute.
Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q2 2023, with performance data through Q3 2023. Default is defined as six months delinquent or disposed of via short sales, third-party sales, deeds-in-lieu of foreclosure, or real estate owned (REO acquisitions). The analysis included only mortgages with original terms of 241-420 months.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

DEFAULT RATE BY VINTAGE

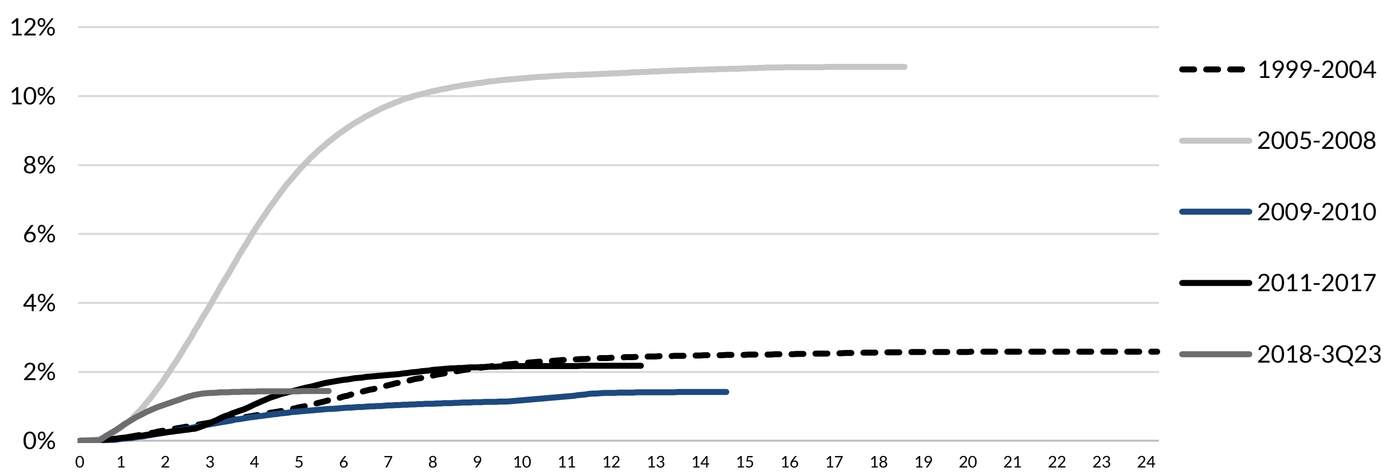
As a result of pristine books of business and a strong housing market, the effect of COVID-19 on GSE delinquencies is a fraction of what it was in the Great Financial Crisis. These charts show cumulative D180 (default) rates as of the end of Q3 2023 for Fannie and Freddie. For Fannie Mae and Freddie Mac's 1999-2004 vintages, cumulative defaults total around 2.5 to 2.7 percent, while cumulative defaults for the 2005-2008 vintages are around 10.4 percent for Freddie originations and 11.4 percent for Fannie originations. While the D180+ rate for the 2018 and later originations are running above 1999-2003 levels, most of these loans have successfully exited COVID-19 forbearance. Relatively few of these D180 borrowers have landed in foreclosure. Given the array of options available for borrowers exiting forbearance, we expect relatively few of these D180+ borrowers will land in foreclosure.

Fannie Mae Cumulative Default Rate by Vintage Year



Sources: Fannie Mae and Urban Institute.
Note: The analysis included only mortgages with original terms of 241-420 months. A default is defined as a delinquency of 180 days or more, a deed-in-lieu, short sale, foreclosure sale or REO sale.

Freddie Mac Cumulative Default Rate by Vintage Year



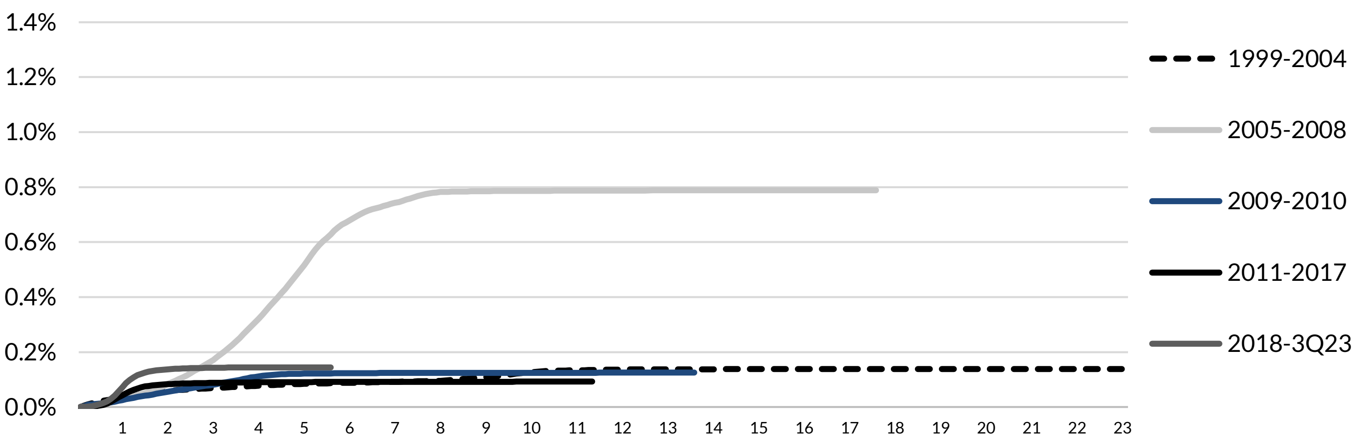
Sources: Freddie Mac and Urban Institute.
Note: The analysis included only mortgages with original terms of 241-420 months. A default is defined as a delinquency of 180 days or more, a deed-in-lieu, short sale, foreclosure sale or REO sale.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

REPURCHASE RATE BY VINTAGE

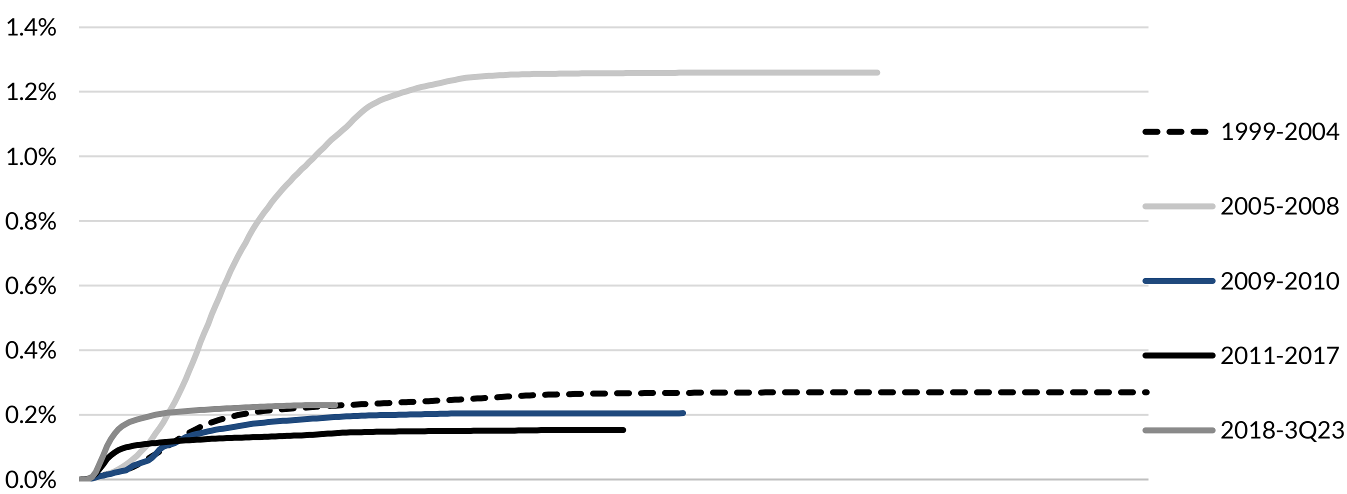
These figures show the cumulative percentage of fixed-rate, full documentation, amortizing 30-year loans of a given vintage that Fannie and Freddie have put back to lenders due to reps and warrants violations. Bubble era vintages were significantly more likely to be put back than either pre- or post-bubble vintages. Note that put-backs are generally quite small, with the exception of the 2005-2008 vintages. These numbers exclude loans put back through global settlements, which are not done at the loan level. In recent years, the GSEs have sharply increased their repurchase activity and become more aggressive in forcing more repurchases earlier in the life of the loan than was the case with earlier vintages. In the first few years of the mortgages' life, there have been more repurchases for the 2018-2022 origination years than there were in the 2005-08 origination years. Even though the number of affected loans is still low, the economic impact is magnified in a high interest rate environment, as originations must repurchase these loans at a loss. As a result, access to credit becomes restricted as originators become less inclined to originate loan types with characteristics found in the repurchase requests.

Fannie Mae Repurchase Rate by Vintage Year



Sources: Fannie Mae and Urban Institute.
Note: The analysis included only mortgages with original terms of 241-420 months.

Freddie Mac Repurchase Rate by Vintage Year



Sources: Freddie Mac and Urban Institute.
Note: The analysis included only mortgages with original terms of 241-420 months.

LOSS SEVERITY

Both Fannie Mae and Freddie Mac's credit data include the status of loans after they experience a credit event (default). A credit event is defined as a delinquency of 180 days or more, a deed-in-lieu, short sale, foreclosure sale or REO sale. We look at each loan that has experienced a credit event and categorize it based on present status—for Fannie Mae loans (top table) 18.10 percent are current, 32.86 percent are prepaid, 6.79 percent are still in the pipeline (not current, not prepaid, not liquidated) and 42.25 percent have already liquidated (deed-in-lieu, short sale, foreclosure sale, REO sale). Freddie Mac's results (bottom table) are very similar. The right side of both tables shows the severity of all loans that have liquidated, broken down by LTV buckets: total Fannie and Freddie severities are around 41 to 42 percent.

Fannie Mae - Liquidation Rates and Severities for D180+ loans

Origination Year	Paths for D180+ Loans (% of total count)				Severity for Liquidated Loans By LTV			
	Paths With No Eventual Loss		Paths With Eventual Loss					
	Current	Prepay*	Still in the Pipeline	% Already Liquidated Loans†	≤60	60-80	>80	Total
1999-2004	6.55%	34.28%	1.83%	57.34%	27.6%	41.0%	26.2%	34.3%
2005-2008	5.98%	29.85%	1.51%	62.66%	40.5%	52.9%	36.5%	47.2%
2009-2010	17.38%	37.11%	5.35%	40.15%	26.7%	37.1%	19.6%	32.7%
2011-2017	39.70%	38.37%	12.86%	9.08%	16.0%	23.5%	10.1%	16.1%
2018-3Q23	45.01%	30.27%	22.73%	1.99%	9.0%	11.8%	6.5%	8.1%
Total	18.10%	32.86%	6.79%	42.25%	36.0%	48.5%	30.8%	41.8%

Freddie Mac - Liquidation Rates and Severities for D180+ loans

Origination Year	Paths for D180+ Loans (% of total count)				Severity for Liquidated Loans By LTV			
	Paths With No Eventual Loss		Paths With Eventual Loss					
	Current	Prepay*	Still In The Pipeline	% Already Liquidated Loans†	≤60	60-80	>80	Total
1999-2004	4.67%	36.84%	1.90%	56.59%	25.5%	39.5%	28.8%	34.8%
2005-2008	4.11%	30.78%	1.48%	63.63%	38.2%	50.0%	37.0%	45.7%
2009-2010	13.06%	37.49%	4.32%	45.13%	22.7%	34.5%	29.7%	31.4%
2011-2017	34.72%	37.43%	10.65%	17.20%	13.5%	21.8%	26.3%	25.2%
2018-3Q23	46.38%	27.97%	24.44%	1.21%	5.8%	10.3%	7.6%	8.5%
Total	15.51%	33.43%	6.16%	44.90%	34.1%	46.6%	32.6%	40.9%

Sources: Fannie Mae, Freddie Mac, and Urban Institute.
Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q3 2023, with performance information on these loans also through Q3 2023. Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q2 2023, with performance information on these loans through Q3 2023. The analysis included only mortgages with original terms of 241-420 months. *Prepay category includes reperforming loan sales. †Already liquidated loans include notes sales.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

LOSS SEVERITY BY CHANNEL

The table below shows the severity of Fannie and Freddie loans that have liquidated, broken down by liquidation channel and vintage year. Foreclosure alternatives, notes sales, short sales, and third party sales have higher defaulted unpaid principal balance (UPB) and much lower loss severities than REO sales. For example, for all Fannie Mae originations, foreclosure alternatives had a mean defaulted UPB of $179,932 and a loss severity of 32.89 percent, versus a mean defaulted UPB of $145,469 and a loss severity of 46.8 percent for REO sales.

Fannie Mae - Loss Severity for Already Liquidated Loans

Origination Year	Number of Loans			Mean defaulted UPB ($)			Severity		
	All	REO	Foreclosure Alternatives*	All	REO	Foreclosure Alternatives	All	REO	Foreclosure Alternatives
1999-2004	210,032	157,417	52,615	110,850	105,572	126,640	34.29%	39.02%	22.47%
2005-2008	329,007	220,353	108,654	183,227	172,571	204,837	47.24%	52.17%	38.80%
2009-2010	23,714	14,620	9,094	170,687	162,434	183,954	32.69%	39.11%	23.59%
2011-2017	21,852	11,438	10,414	157,486	148,169	167,719	16.13%	19.92%	12.46%
2018-3Q23	4,022	1,670	2,352	183,457	163,294	197,773	8.10%	5.77%	9.46%
Total	588,627	405,498	183,129	155,942	145,469	179,132	41.83%	46.80%	32.89%

Freddie Mac - Loss Severity for Already Liquidated Loans

Origination Year	Number of Loans			Mean defaulted UPB ($)			Severity		
	All	REO	Foreclosure Alternatives*	All	REO	Foreclosure Alternatives	All	REO	Foreclosure Alternatives
1999-2004	141,444	94,910	46,534	111,071.3	105,592.6	122,245.4	34.75%	41.77%	22.38%
2005-2008	314,485	170,675	143,810	179,959.8	164,088.0	198,796.6	45.75%	54.38%	37.28%
2009-2010	34,904	15,379	19,525	189,741.5	171,948.6	203,756.2	31.40%	43.09%	23.63%
2011-2017	38,469	13,898	24,571	168,831.7	150,948.4	178,947.0	25.20%	36.08%	20.01%
2018-3Q23	1,666	519	1,147	170,784.9	149,819.3	180,271.5	8.49%	13.96%	6.44%
Total	530,968	295,381	235,587	161,416.7	145,058.7	181,926.5	40.94%	49.77%	32.12%

Sources: Fannie Mae, Freddie Mac and Urban Institute.
Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q3 2023, with performance information on these loans also through Q3 2023. Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q2 2023, with performance information on these loans through Q3 2023. The analysis included only mortgages with original terms of 241-420 months.
*Foreclosure Alternatives include notes sales.

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