# Global Markets Analysis Report

A MONTHLY PUBLICATION OF GINNIE MAE'S
OFFICE OF CAPITAL MARKETS

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**2020**


Ginnie Mae
Our Guaranty Matters

PREPARED FOR GINNIE MAE
BY STATE STREET GLOBAL ADVISORS
URBAN INSTITUTE, HOUSING FINANCE POLICY CENTER

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# HIGHLIGHTS

**The impact of COVID-19 forbearances on delinquencies and loan buyouts.**

Four months have elapsed since the COVID-19 economic shock hit the US economy and disrupted households and businesses. This prompted Congress to pass the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which, among other things, gave borrowers of federally- backed mortgages the right to receive up to 12 months of payment forbearance, provided they are affected by COVID-19. The scale of this program is monumental, making up to 33.4 million loans with an unpaid principal balance of $7 trillion eligible for forbearance.

According to the Mortgage Bankers Association, 4.1 million homeowners, about 8.2 percent of all borrowers were in forbearance in the first week of July. While that number is high, it slightly below the peak level a month ago, when 8.5 percent of all borrowers, or 4.3 million households, were in forbearance. The downward trend is apparent for Ginnie Mae loans too, where the share of borrowers in forbearance fell from 11.8 percent in the first week of June to 10.5 percent in the first week of July. These decreases are the result of two factors: fewer borrowers becoming newly delinquent as the economy reopened, and some borrowers exiting forbearance.

The favorable effect of fewer new delinquencies is that it reduces the supply of loans progressing to 90 days or more delinquent. Note that forbearance is treated as a delinquency for the pool but not for consumer credit reporting purposes. Similarly, many borrowers in forbearance continue to remain current. Ginnie issuers have the option to buy delinquent loans from the pool once the borrower has missed three payments. To minimize the risk of an issuer strategically buying out loans that they know will cure on their own or be brought current by a partial claim, GNMA recently implemented a new COVID-19 policy that restricts re-pooling of re-performing loans that were previously in forbearance from being securitized into existing Ginnie Mae pool types. Moving forward such loans will be eligible collateral only for a new pool type (which has not yet been formally launched) and only after the borrower has made six timely monthly payments.

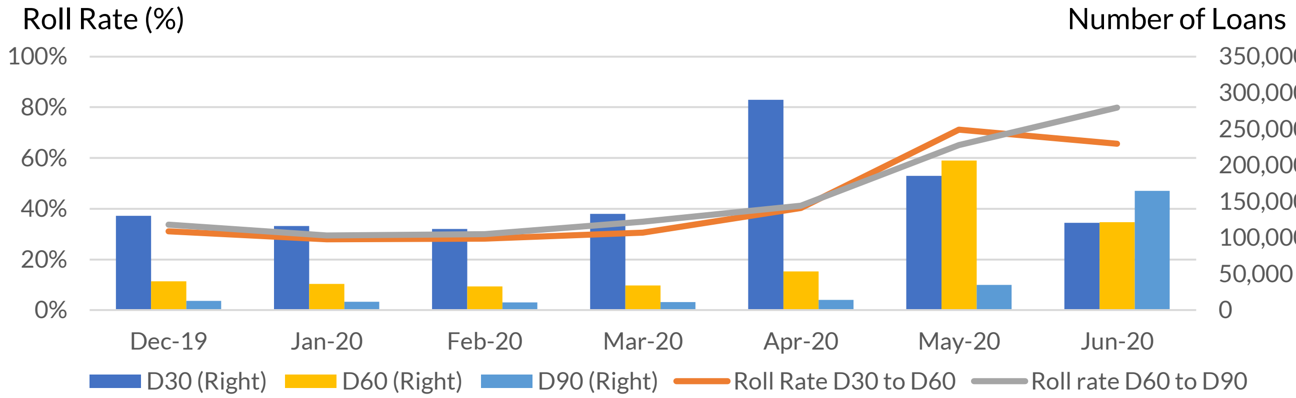
This policy does not prevent issuers from loan buyout; rather it limits re-pooling eligibility to a new pool type, and only after a seasoning period, thus allowing the market to directly determine the value of re-performing loans. Because of differences in buyout behavior between depositories and nondepositories, it remains to be seen how they will respond to the new policy. Specifically, it is uncertain whether depositories will continue their traditional policy of buying out delinquent loans. As figure 1 shows, the decline in new delinquencies in May and June has reduced the rolling supply of 30 to 60 day delinquencies. Top panel shows the number of Ginnie Mae loans originated by depository issuers that were 30, 60, or 90 days delinquent on the right-hand axis. Left-hand scale shows the D30-to-D60 and D60-to-D90 roll rates. Bottom panel shows the same data for nondepositories.

The 30-day delinquency count for depository and nondepository loans increased substantially in April, followed by declines in May and June. Note that June D30 count was consistent with pre-COVID levels. As loans moved from 30 to 60 days delinquent, we saw a big uptick in the D60 count in May. This represented D30-to-D60 roll rates of 71.1 and 63.8 respectively for depositories and nondepositories. The D30-to-D60 roll rates were lower in June, reflecting improving forbearing trends, although the D60-to-D90 roll rates continued to climb.

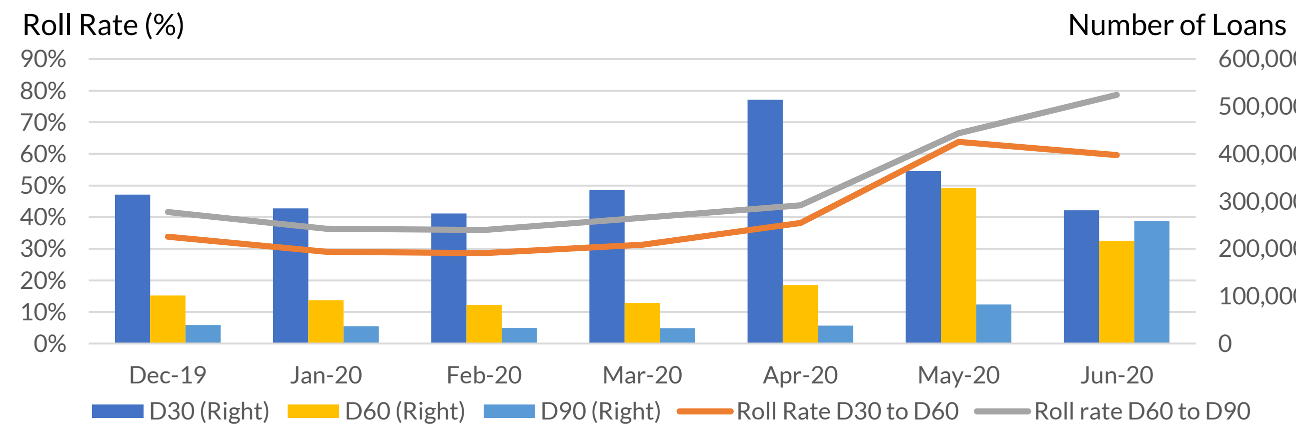
# HIGHLIGHTS

**Figure 1: Roll Rates and Delinquency counts for Ginnie Mae Loans**

*Depositories*




*Nondepositories*




*Source: eMBS and Urban Institute*

While the shrinking pool of new delinquencies, if sustained, will limit the loans eligible for buyout in future months, significant uncertainty remains due to the uptick in COVID-19 cases in certain states in June and July among other factors.



***Highlights this month*:**

- According to the Federal Reserve's Flow of Funds, total agency MBS outstanding surpassed $7 trillion in Q1 2020 for the first time (page 13).

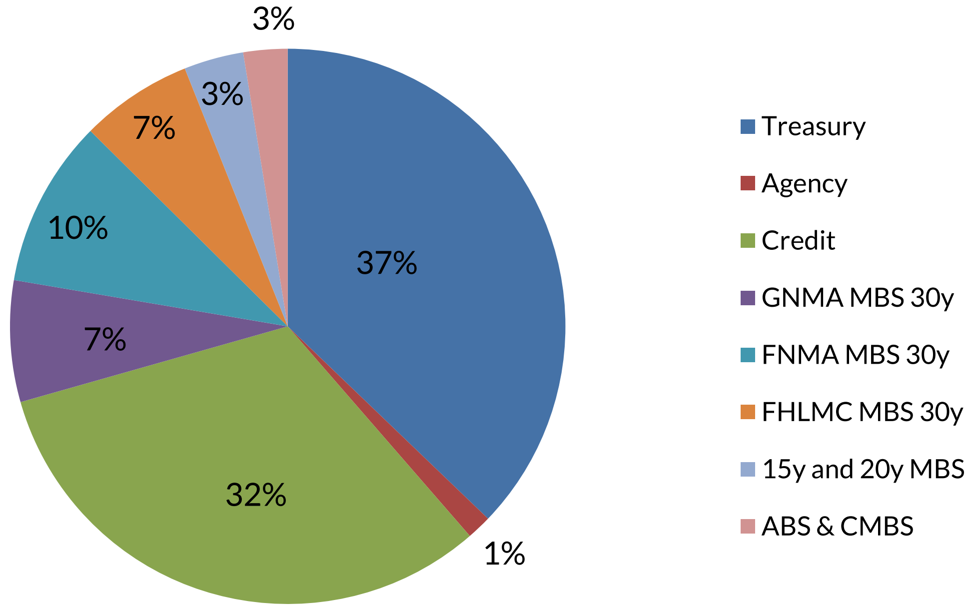
- Median FICO scores for loans originated by nonbanks climbed to 753 in May 2020, up 23 points on the year from 730 in January 2020 (page 37).

- The share of agency MBS owned by foreign entities reached an all time high of 17 percent in March 2020 (Page 54).

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

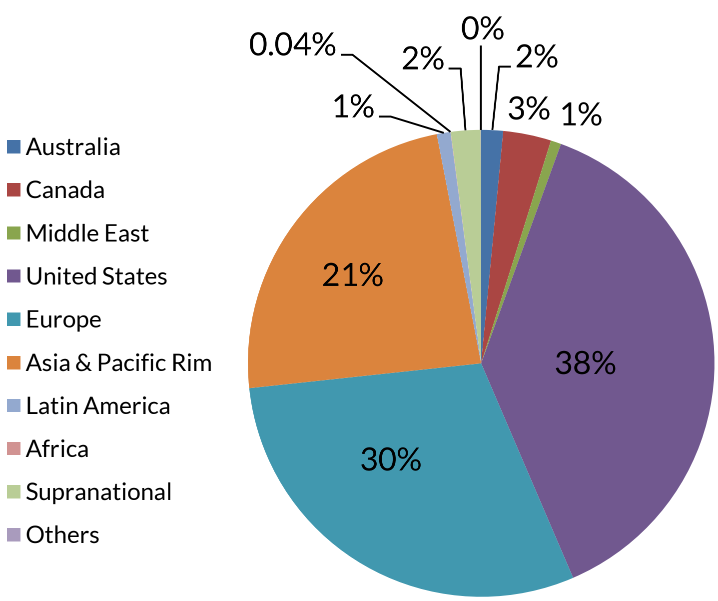
US MBS (Ginnie Mae, Fannie Mae, and Freddie Mac) comprise 27 percent of the Barclays US Aggregate Index- less than either the US Treasury share (37 percent) or the US Credit share (32 percent). Fannie Mae 30-year MBS accounts for 10 percent of the overall index, the largest MBS component, while Ginnie Mae 30-year MBS and Freddie Mac 30-year MBS both comprise 7 of the market. Mortgages with terms of 15 and 20 years comprise the remaining balance (3 percent) of the Barclays US Aggregate Index. US securities are the single largest contributor to the Barclays Global Aggregate, accounting for 38 percent of the global total. US MBS comprises 11 percent of the global aggregate.

**Barclays US Aggregate Index**



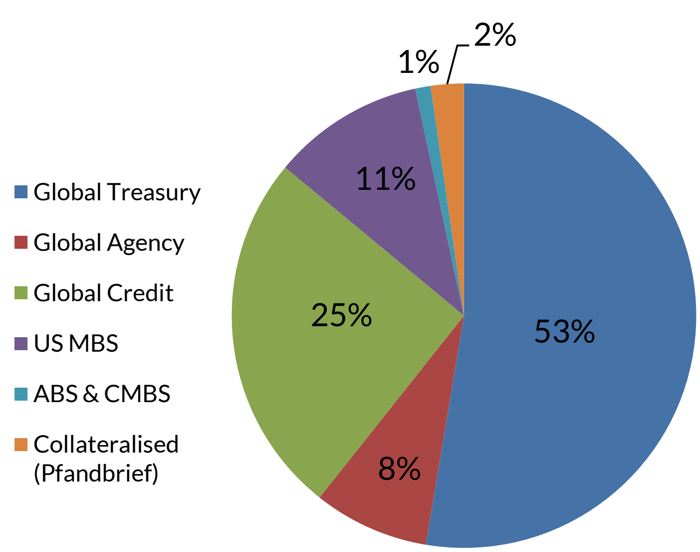

***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note:*** *Data as of June 2020.*
***Note****: Numbers in chart may not add to 100 percent due to rounding.*

**Barclays Global Aggregate Index by Country**




***Sources:*** *Bloomberg and State Street Global Advisors.*
***Note:*** *Data as of June 2020.*

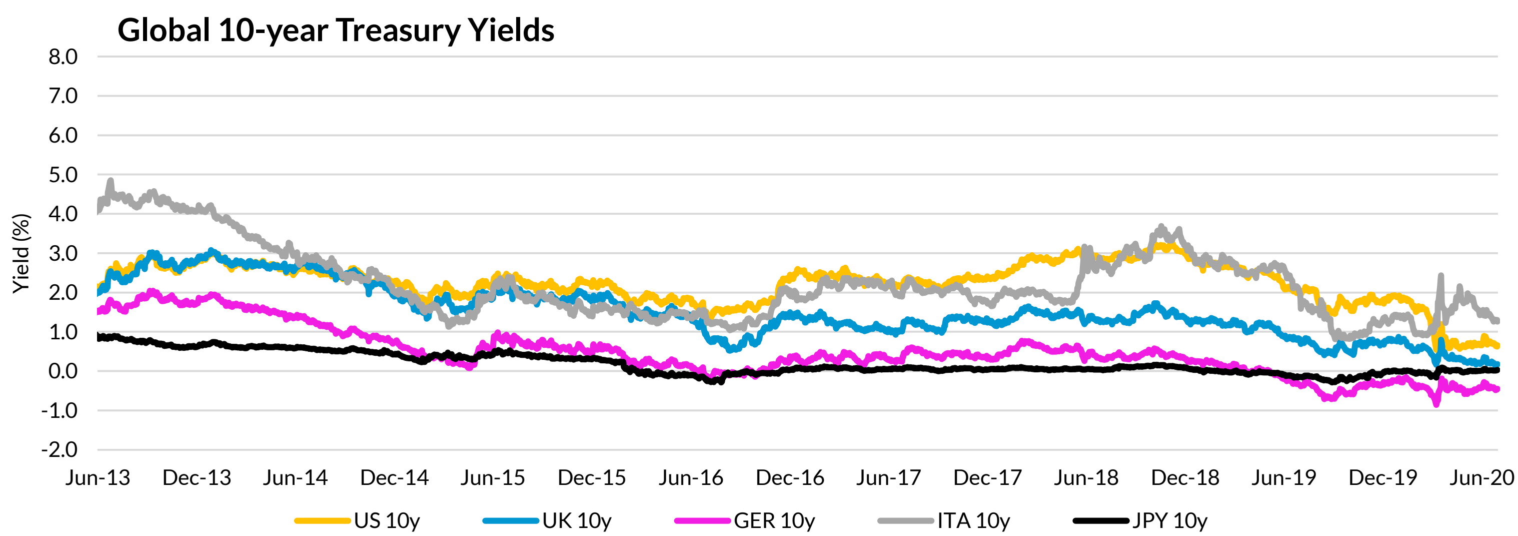
**Barclays Global Aggregate Index by Sector**



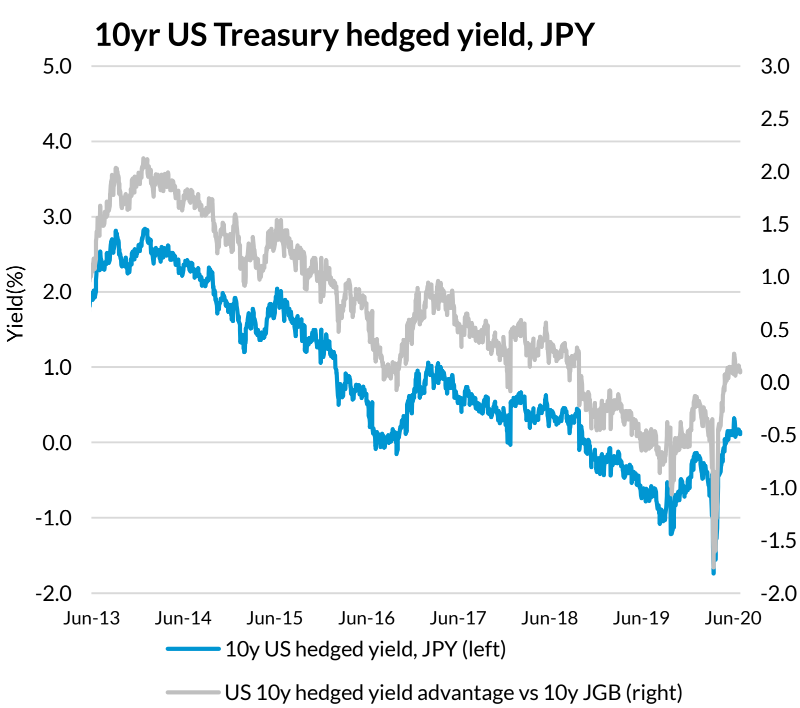

***Sources:*** *Bloomberg and State Street Global Advisors*
***Note:*** *Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

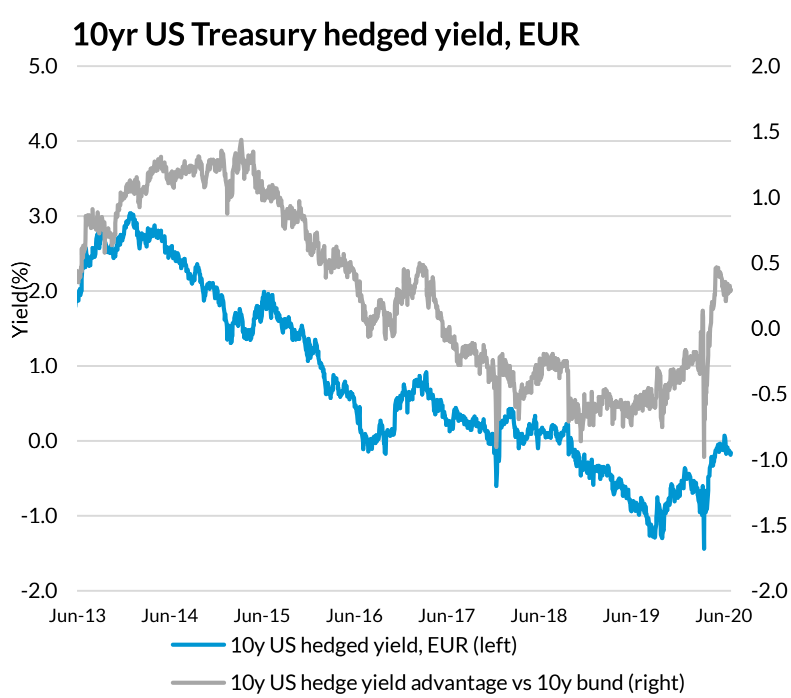
After experiencing COVID-19 related volatility in March and April of this year, government bond yields across the globe stabilized. In June 2020, the yield on the 10-year treasury grew ever so slightly by less than 1 bp to 0.66 percent. After widening from the pack in March and April, the Italian 10-year note fell 29 basis point in May and 21 basis points in June to yield 1.26 percent. The yield on the UK 10-year bond fell slightly by 1 bp to 0.17 percent, the Japanese 10-year government bond yield increased by 2 bps to 0.03 percent, and the German 10-year yield was static at 0.45 percent in June. At the end of June, the hedged yield differential between the 10-year Treasury and the 10-year JGB stood at 12 bps, an increase of 3 bps since May 2020. The hedged yield differential between the 10-year Treasury and the 10-year Bund stood at 29 bps, a decline of 3 bps since the end of May 2020.




***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note:*** *Data as of June 2020.*



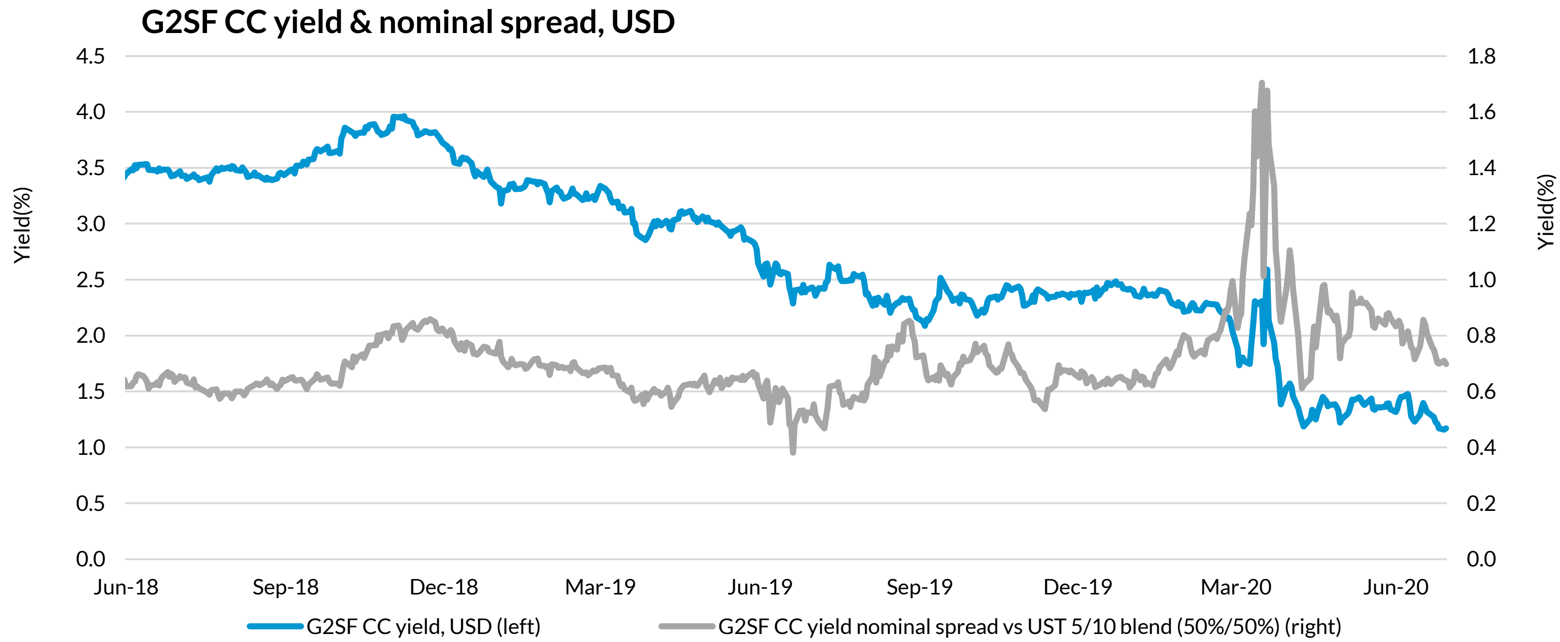

***Sources:*** *Bloomberg and State Street Global Advisors.*
***Note:*** *Data as of June 2020.*



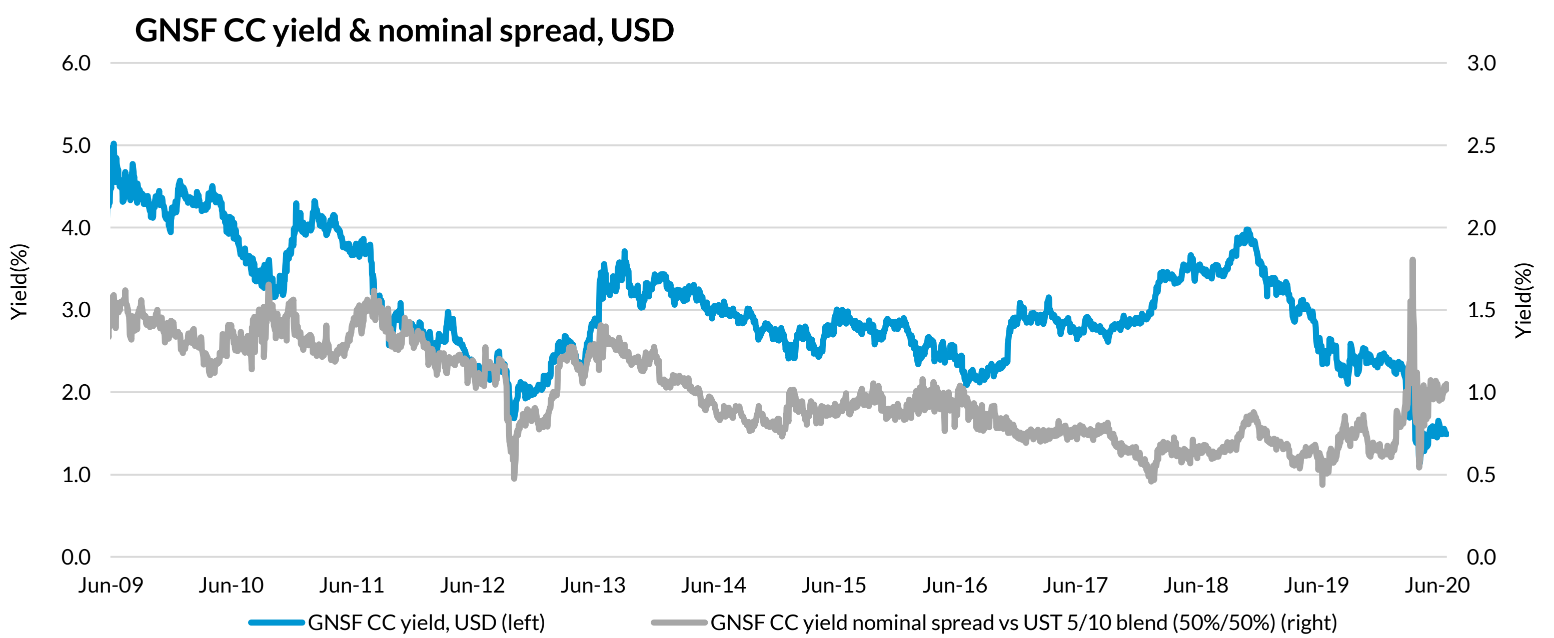

***Sources:*** *Bloomberg and State Street Global Advisors*
***Note:*** *Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

Nominal yields fell in June 2020, with GNMA II yields falling 17 bps to 1.17% and GNMA I yields down 4 bps to 1.49% respectively. At the end of June, current coupon Ginnie Mae securities outyield their Treasury counterparts (relative to the average of 5- and 10-year Treasury yields) by 70 bps on the G2SF and 102 bps on the GNSF, a decrease of 17 and 4 bps respectively since last month.




***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note****: Data as of June 2020.*

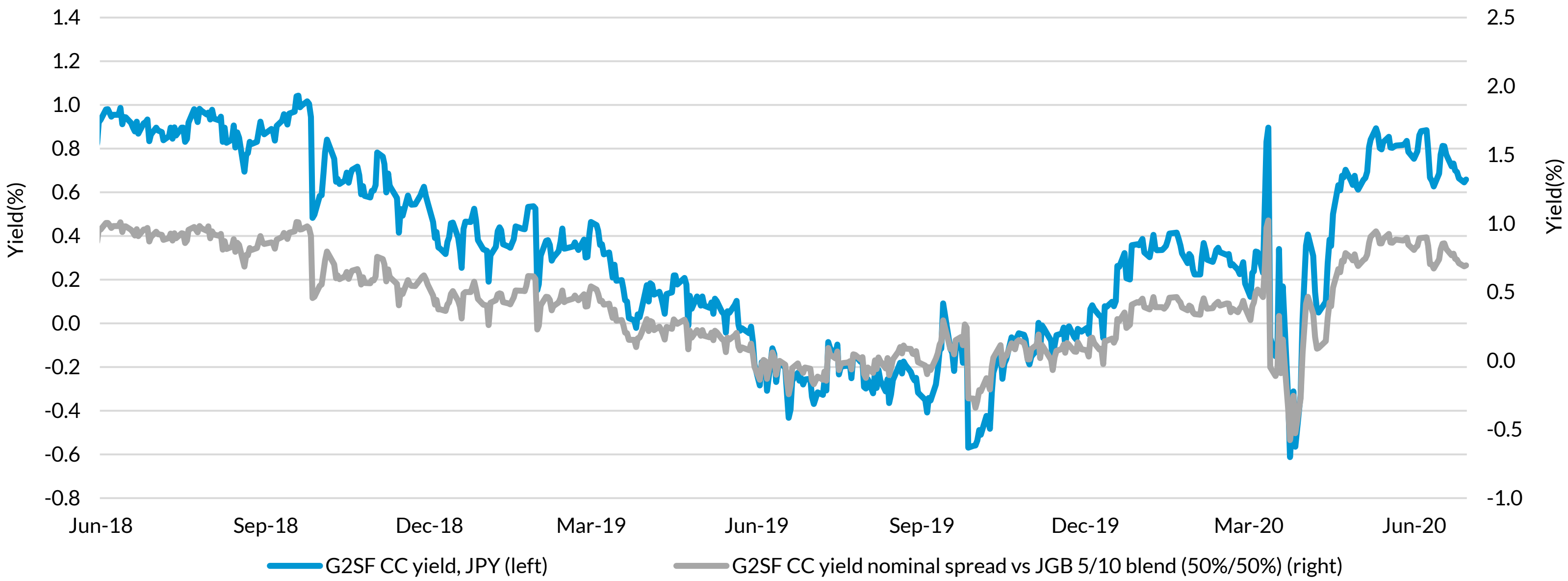



***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note:*** *Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

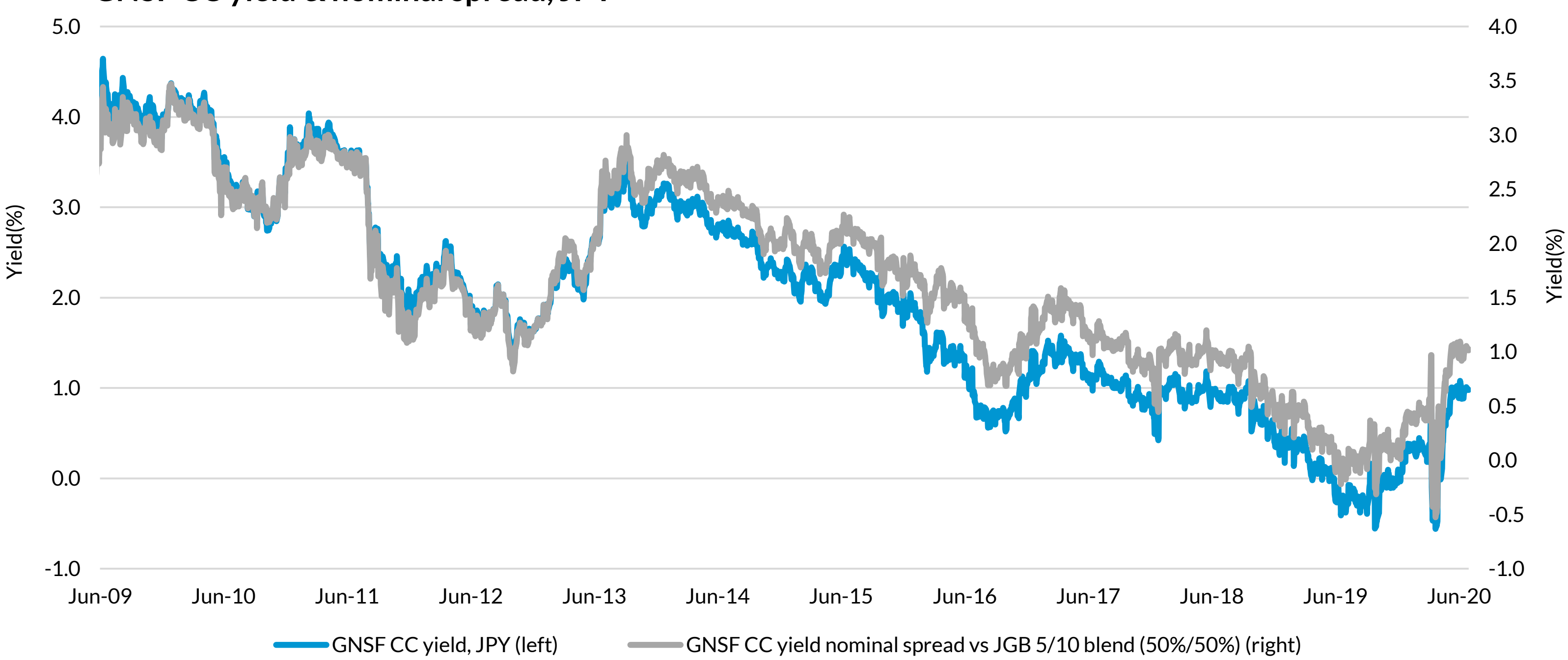
If Ginnie Mae securities are hedged into Japanese Yen, they look favorable on a yield basis versus the JGB 5/10 blend at the end of June. More precisely, hedged into Japanese yen, the G2SF and GNSF have a 69 and 101 bp yield versus the JGB 5/10 blend. This represents a 15 and 2 bp tightening for G2SF and GNSF, respectively, since the end of May 2020.

### G2SF CC yield & nominal spread, JPY




***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note:*** *Data as of June 2020.*

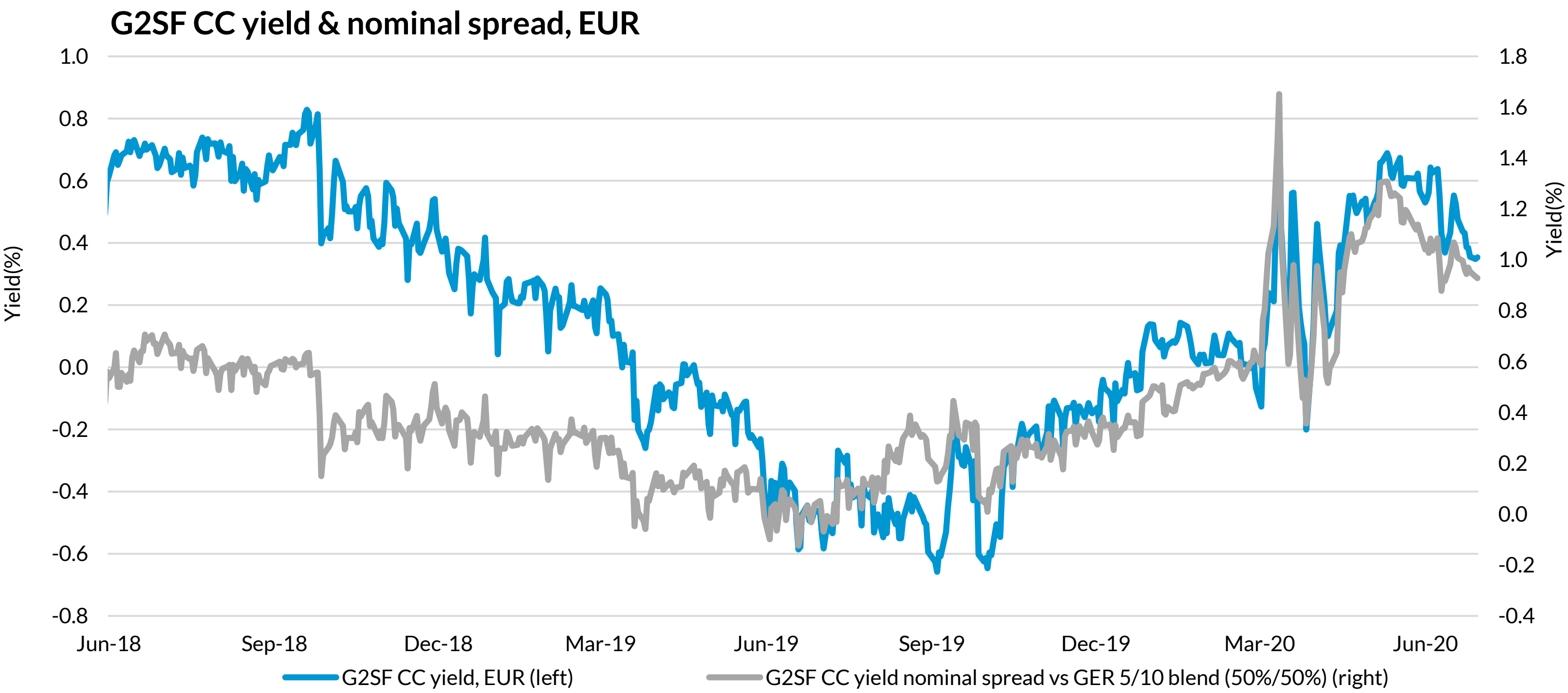
### GNSF CC yield & nominal spread, JPY



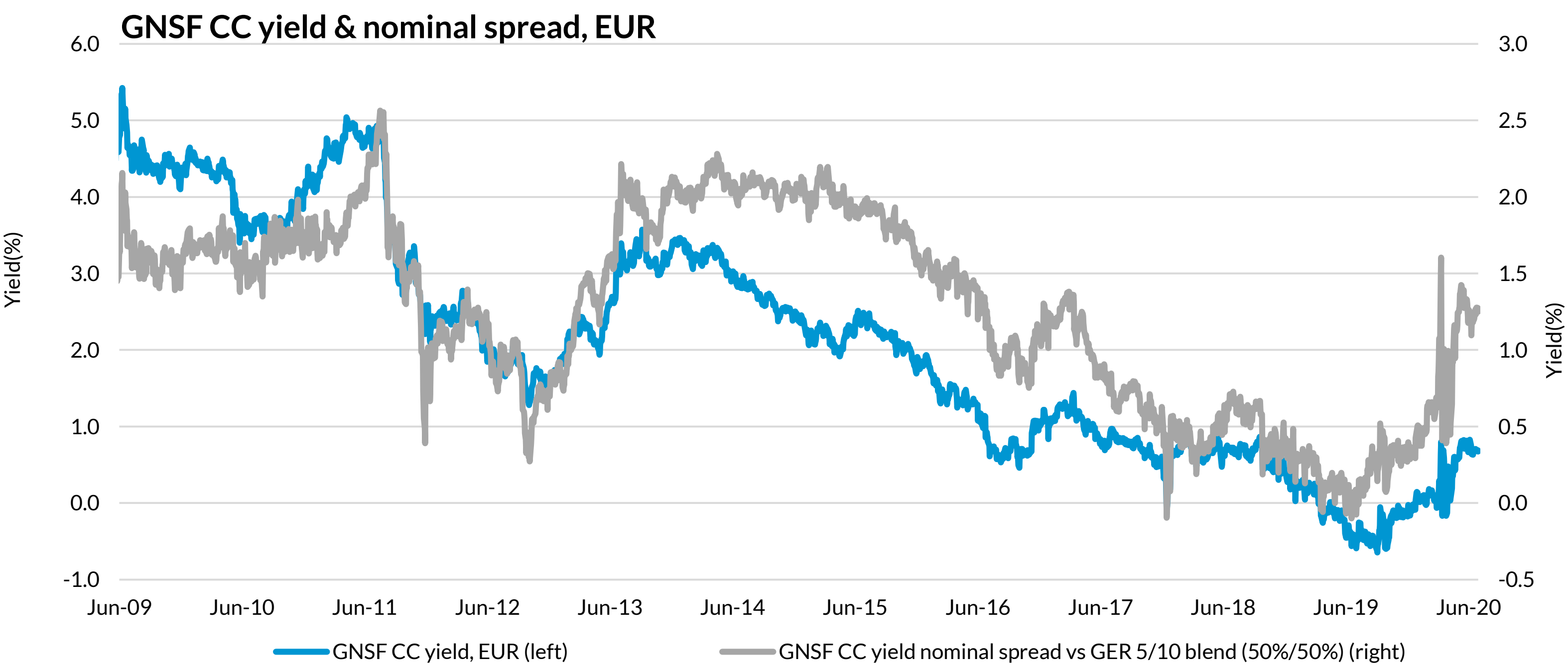

***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note:*** *Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

If Ginnie Mae securities are hedged into Euros, they look favorable on a yield basis versus the German 5/10 Blend. The figures below show that at the end of June, the current coupon G2SF and GNSF hedged into euros have a 93 and 125 bp higher yield than the average of the German 5/10, respectively. This represents an 18 bp decrease for the G2SF and a 6 bp decrease for the GNSF since the end of May 2020.




***Sources:** Bloomberg and State Street Global Advisors. **Note:** Data as of June 2020.*

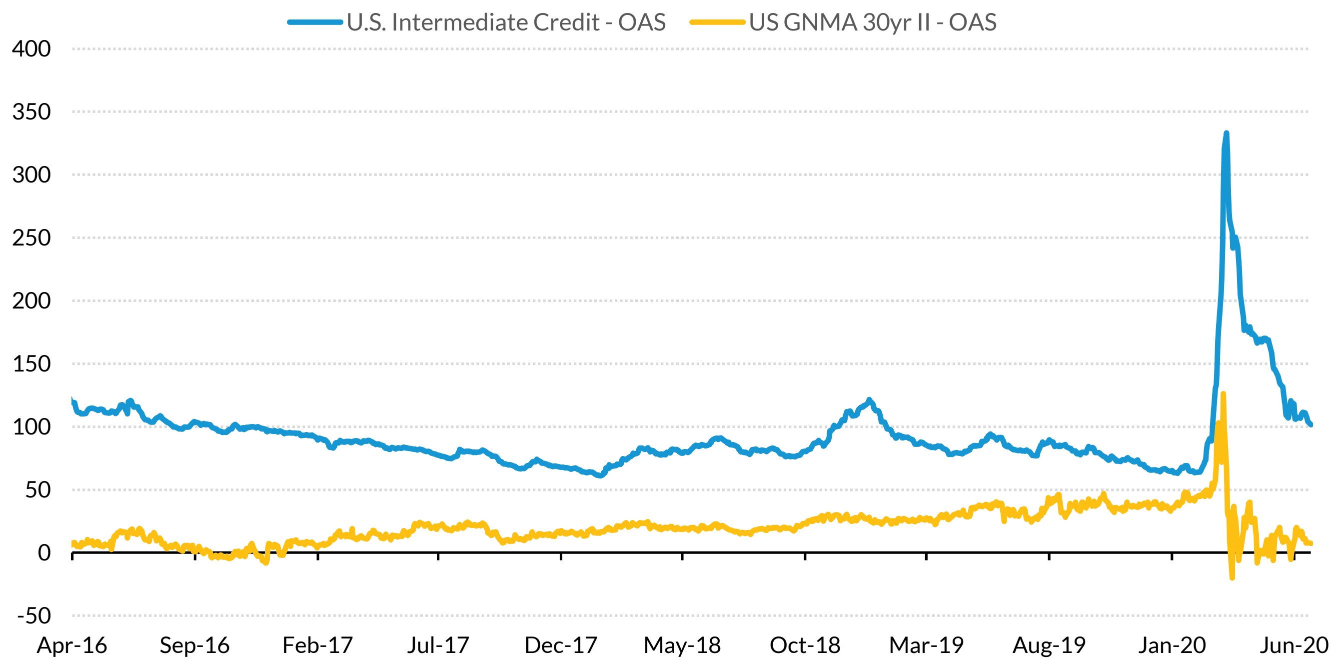



***Sources:** Bloomberg and State Street Global Advisors. **Note:** Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

After tightening steadily from early 2016 to Jan 2020, the spread between US Intermediate Credit and GNMA II 30 year OAS skyrocketed in Feb 2020 in response to the COVID-19 panic. This was followed by substantial tightening over the period March-June 2020. The OAS on intermediate credit partially recovered from its enormous widening early in the year, while the Ginnie Mae II 30-year fell to multi-year lows. Despite this tightening, the spread between the two remains much elevated, ending June 2020 at 94 basis points in comparison to 21 basis points at the end of Jan, reflecting heightened investor concern about corporate credit risk.

## G2 30 MBS versus Intermediate Credit




***Sources:** State Street Global Advisors. **Note:** Data as of June 2020.*

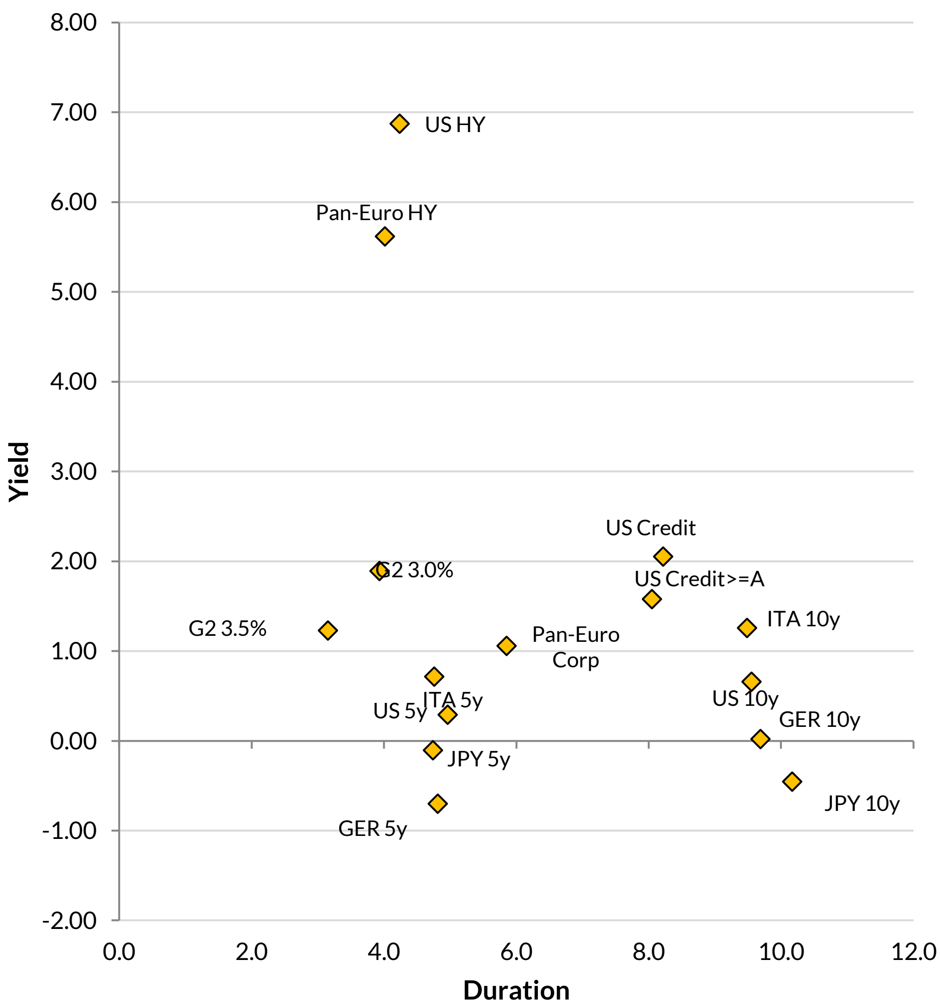
## Spread between Intermediate credit and 30-year GNMA MBS OAS


***Sources:** State Street Global Advisors. **Note:** Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

US MBS yields are about the same or higher than most government securities with the same or longer durations. The only asset class with significantly more yields are the US and Pan-Euro high yield and credit indices. Duration, a measure of sensitivity to interest rate changes, does not fully capture the volatility of the high yield asset classes, as there is a large credit component, which has moved front and center in light of COVID-19.

## Yield versus duration




| Security | Duration | Yield |
|---|---|---|
| US 5y | 5.0 | 0.29 |
| US 10y | 9.6 | 0.66 |
| GNMA II 3.0% | 3.9 | 1.89 |
| GNMA II 3.5% | 3.2 | 1.23 |
| JPY 5y | 4.7 | -0.11 |
| JPY 10y | 9.7 | 0.02 |
| GER 5y | 4.8 | -0.70 |
| GER 10y | 10.2 | -0.46 |
| ITA 5y | 4.8 | 0.71 |
| ITA 10y | 9.5 | 1.26 |
| US credit | 8.2 | 2.05 |
| US credit >= A | 8.0 | 1.58 |
| US HY | 4.2 | 6.87 |
| Pan-Euro Corp | 5.9 | 1.06 |
| Pan-Euro HY | 4.0 | 5.62 |

***Sources:*** *Bloomberg and State Street Global Advisors.* ***Note****: Yields are in base currency of security and unhedged. Data as of June 2020.*

# Relative Attractiveness of US Fixed Income and Ginnie Mae MBS

The average return on the Ginnie Mae index over the past decade is less than other indices. However, the standard deviation of the Ginnie Mae index is the lowest of any sector, as it has the least price volatility over a 1, 3, 5 and 10 year horizon. The result: The Sharpe Ratio, or excess return per unit of risk for the Ginnie Mae index is highest among all indices over a 1, 3, 5 and 10-year horizon.

| | Average Return (Per Month) | | | | | |
|---|---|---|---|---|---|---|
| Time Period | US MBS Ginnie Mae | US Treasury | US Credit Corp | Pan Euro Credit Corp | US High Yield* | Pan Euro High Yield* |
| 1 year | 0.44 | 0.84 | 0.80 | 0.08 | 0.08 | -0.06 |
| 3 year | 0.31 | 0.46 | 0.53 | 0.18 | 0.30 | 0.16 |
| 5 year | 0.25 | 0.34 | 0.49 | 0.17 | 0.42 | 0.25 |
| 10 year | 0.25 | 0.28 | 0.45 | 0.34 | 0.56 | 0.56 |

| | Average Excess Return (Per Month) | | | | | |
|---|---|---|---|---|---|---|
| Time Period | US MBS Ginnie Mae | US Treasury | US Credit Corp | Pan Euro Credit Corp | US High Yield* | Pan Euro High Yield* |
| 1 year | 0.35 | 0.75 | 0.71 | 0.14 | -0.01 | -0.01 |
| 3 year | 0.18 | 0.33 | 0.40 | 0.24 | 0.17 | 0.21 |
| 5 year | 0.16 | 0.25 | 0.39 | 0.23 | 0.33 | 0.31 |
| 10 year | 0.20 | 0.24 | 0.41 | 0.37 | 0.51 | 0.58 |

| | Standard Deviation | | | | | |
|---|---|---|---|---|---|---|
| Time Period | US MBS Ginnie Mae | US Treasury | US Credit Corp | Pan Euro Credit Corp | US High Yield* | Pan Euro High Yield* |
| 1 year | 0.52 | 1.54 | 2.93 | 2.73 | 4.02 | 4.71 |
| 3 year | 0.66 | 1.21 | 1.89 | 1.62 | 2.51 | 2.82 |
| 5 year | 0.60 | 1.12 | 1.61 | 1.44 | 2.27 | 2.40 |
| 10 year | 0.65 | 1.05 | 1.44 | 1.39 | 2.02 | 2.02 |

| | Sharpe Ratio | | | | | |
|---|---|---|---|---|---|---|
| Time Period | US MBS Ginnie Mae | US Treasury | US Credit Corp | Pan Euro Credit Corp | US High Yield | Pan Euro High Yield* |
| 1 year | 0.67 | 0.49 | 0.24 | 0.05 | 0.00 | 0.00 |
| 3 year | 0.28 | 0.27 | 0.21 | 0.15 | 0.07 | 0.08 |
| 5 year | 0.27 | 0.22 | 0.25 | 0.16 | 0.14 | 0.13 |
| 10 year | 0.32 | 0.22 | 0.28 | 0.27 | 0.25 | 0.29 |

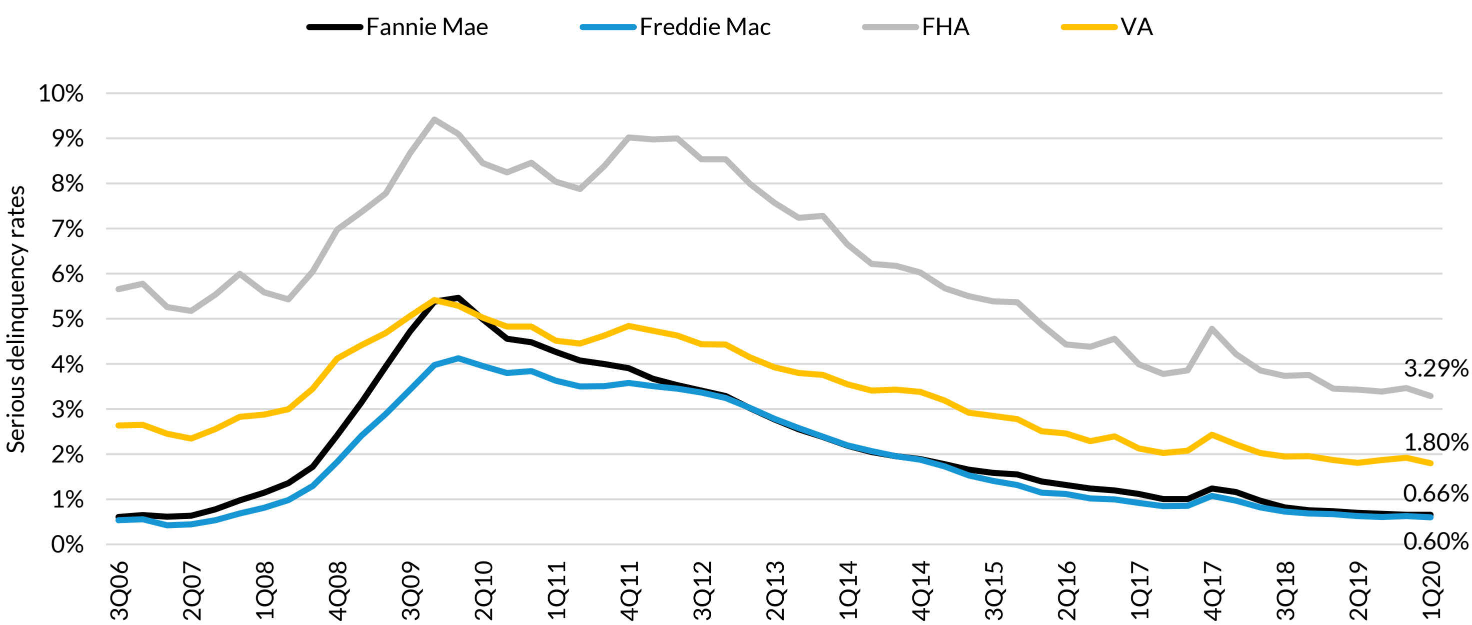
**Assumes 2% capitalization max per issuer on high yield indices*

***Sources:*** *Barclays Indices, Bloomberg and State Street Global Advisors* ***Note:*** *Data as of June 2020.*

# State of the US Housing Market

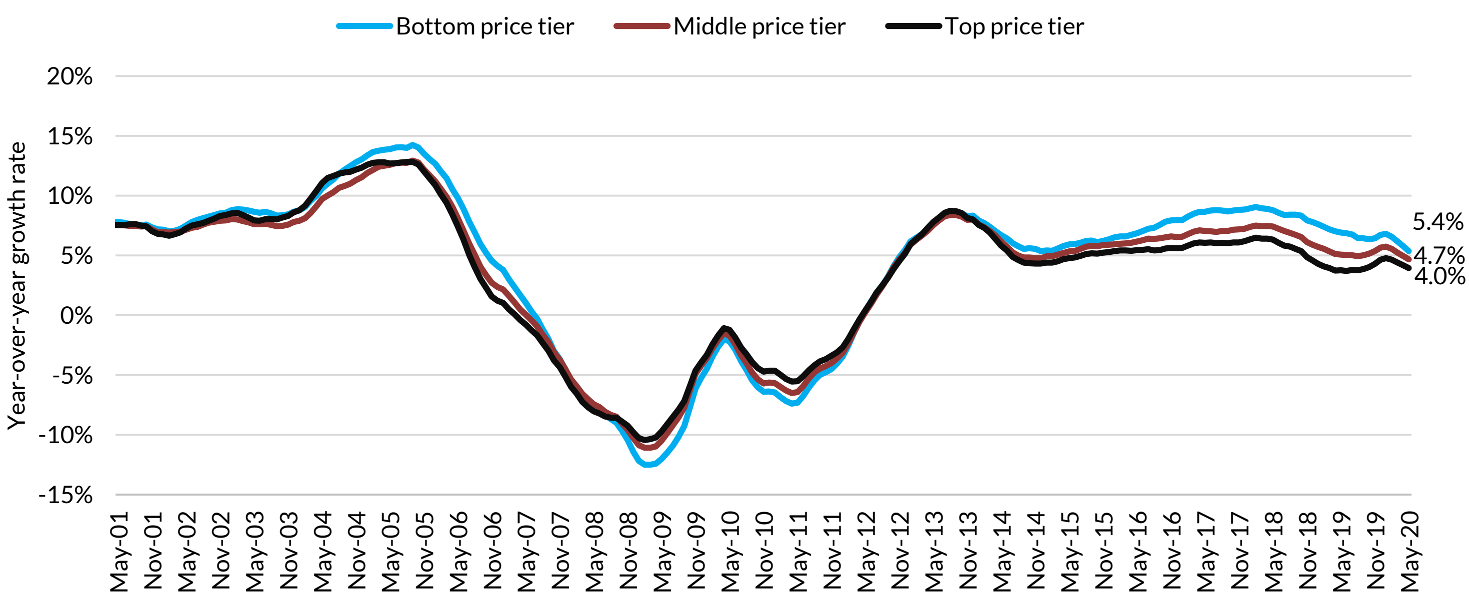
Serious delinquency rates for single-family GSE loans, FHA loans and VA loans all decreased in Q1 2020; the impact of COVID-19 will not be evident until Q2 numbers are released. In Q1, GSE delinquencies remained above their 2006-2007 level, while FHA and VA delinquencies (which are higher than their GSE counterparts) are well below 2006-2007 levels. The bottom chart shows nationwide house prices for the bottom, middle and the top quintiles by price. House prices have risen most at the lower end of the market where Ginnie Mae plays a major role. Prices at the lower end of the market rose by 5.4 percent for 12 months ended May 2020, much higher than the 4.0 percent for the top end of the market. Year-over-year price growth in May was lower than April for all price tiers.

## Serious Delinquency Rates: Single-Family Loans




***Sources:*** *Fannie Mae, Freddie Mac, MBA Delinquency Survey and Urban Institute.*
***Note:*** *Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Data as of Q1 2020.*

## National Year-Over-Year HPI Growth




***Sources:*** *Black Knight and Urban Institute.* ***Note:*** *Black Knight divides home prices in each region into quintiles; this figure shows the performance of the bottom, middle and top quintiles. Data as of May 2020.*

# State of the US Housing Market

Nationally, nominal home prices have increased by 58.8 percent since the trough, and now exceed their pre-crisis peak valuation on a nominal basis by 18.6 percent. The picture is very different across states, with many states well in excess of the prior peak, while Connecticut remains 11.1 percent below peak level.

| | HPI Changes | | | | |
|---|---|---|---|---|---|
| **State** | **2000 to Peak** | **Peak to Trough** | **Trough to Current** | **YOY** | **Current HPI % Above Peak** |
| National | 75.1% | -25.3% | 58.8% | 3.9% | 18.6% |
| Alabama | 36.3% | -15.2% | 35.7% | 5.1% | 15.1% |
| Alaska | 69.5% | -3.0% | 26.1% | 2.7% | 22.3% |
| Arizona | 110.0% | -47.8% | 90.6% | 6.8% | -0.6% |
| Arkansas | 41.5% | -9.8% | 27.5% | 3.2% | 15.1% |
| California | 154.9% | -43.3% | 96.8% | 3.7% | 11.6% |
| Colorado | 40.3% | -12.9% | 86.0% | 3.6% | 62.0% |
| Connecticut | 92.2% | -24.7% | 18.0% | 2.3% | -11.1% |
| Delaware | 94.9% | -23.5% | 34.0% | 4.9% | 2.5% |
| District of Columbia | 174.7% | -13.6% | 61.6% | 4.0% | 39.5% |
| Florida | 128.4% | -46.8% | 77.8% | 5.4% | -5.5% |
| Georgia | 38.4% | -31.4% | 70.4% | 4.2% | 16.8% |
| Hawaii | 163.0% | -22.6% | 55.1% | 3.8% | 20.1% |
| Idaho | 71.8% | -28.8% | 98.8% | 9.6% | 41.6% |
| Illinois | 61.6% | -34.4% | 41.1% | 0.7% | -7.5% |
| Indiana | 21.5% | -7.8% | 39.8% | 4.5% | 28.8% |
| Iowa | 28.2% | -4.7% | 28.7% | 2.2% | 22.7% |
| Kansas | 34.6% | -9.2% | 45.4% | 3.4% | 32.0% |
| Kentucky | 29.5% | -7.6% | 35.6% | 3.2% | 25.3% |
| Louisiana | 48.7% | -5.1% | 25.8% | 2.2% | 19.4% |
| Maine | 82.1% | -12.3% | 43.4% | 5.7% | 25.7% |
| Maryland | 129.3% | -28.6% | 30.4% | 2.4% | -6.9% |
| Massachusetts | 92.4% | -22.4% | 59.5% | 3.5% | 23.7% |
| Michigan | 23.8% | -39.4% | 81.5% | 2.6% | 10.0% |
| Minnesota | 66.4% | -27.8% | 60.4% | 3.0% | 15.9% |
| Mississippi | 41.0% | -13.8% | 31.8% | 4.2% | 13.6% |
| Missouri | 42.6% | -15.3% | 40.4% | 3.9% | 18.9% |
| Montana | 82.2% | -11.3% | 56.9% | 5.0% | 39.3% |
| Nebraska | 26.7% | -6.6% | 45.6% | 3.2% | 36.0% |
| Nevada | 127.0% | -59.1% | 127.2% | 3.1% | -7.0% |
| New Hampshire | 90.7% | -23.1% | 45.9% | 5.1% | 12.2% |
| New Jersey | 117.9% | -28.0% | 30.4% | 3.1% | -6.1% |
| New Mexico | 66.8% | -16.4% | 31.4% | 7.1% | 9.8% |
| New York | 98.4% | -15.2% | 44.8% | 4.2% | 22.8% |
| North Carolina | 40.7% | -15.7% | 41.5% | 4.5% | 19.3% |
| North Dakota | 53.3% | -3.9% | 57.7% | 3.2% | 51.6% |
| Ohio | 21.1% | -18.3% | 41.6% | 3.9% | 15.6% |
| Oklahoma | 37.3% | -2.4% | 23.7% | 4.5% | 20.7% |
| Oregon | 81.9% | -28.1% | 85.6% | 4.0% | 33.5% |
| Pennsylvania | 70.1% | -11.7% | 27.9% | 2.4% | 12.9% |
| Rhode Island | 130.7% | -34.2% | 59.1% | 6.9% | 4.7% |
| South Carolina | 44.9% | -19.4% | 40.3% | 4.7% | 13.0% |
| South Dakota | 45.3% | -4.0% | 47.0% | 1.2% | 41.2% |
| Tennessee | 35.0% | -11.8% | 50.9% | 5.3% | 33.0% |
| Texas | 33.5% | -5.8% | 55.9% | 3.7% | 46.9% |
| Utah | 54.8% | -22.1% | 84.2% | 6.0% | 43.6% |
| Vermont | 83.5% | -7.5% | 39.0% | 6.4% | 28.6% |
| Virginia | 99.6% | -22.8% | 31.5% | 3.7% | 1.6% |
| Washington | 85.2% | -28.7% | 97.6% | 6.0% | 40.8% |
| West Virginia | 42.4% | -6.5% | 29.0% | 4.5% | 20.6% |
| Wisconsin | 44.6% | -16.3% | 39.1% | 2.3% | 16.4% |
| Wyoming | 77.4% | -5.7% | 34.7% | 5.0% | 27.0% |

***Sources:*** *Black Knight and Urban Institute.* ***Note:*** *HPI data as of May 2020. Negative sign indicates that state is above earlier peak. Peak refers to the month when HPI reached the highest level for each state/US during the housing boom period, ranging from 09/2005 to 09/2008. Trough represents the month when HPI fell to the lowest level for each state/US after the housing bust, ranging from 01/2009 to 03/2012. Current is 05/2020, the latest HPI data period.*

# State of the US Housing Market

Ginnie Mae MBS constitute 28.1 percent of outstanding agency issuance by loan balance and 31.8 percent of new issuance over the past year. However, the Ginnie Mae share varies widely across states, with the share of outstanding (by loan balance) as low as 13.9 percent in the District of Columbia and as high as 49.7 percent in Alaska. In general, the Ginnie Mae share is higher in states with lower home prices.

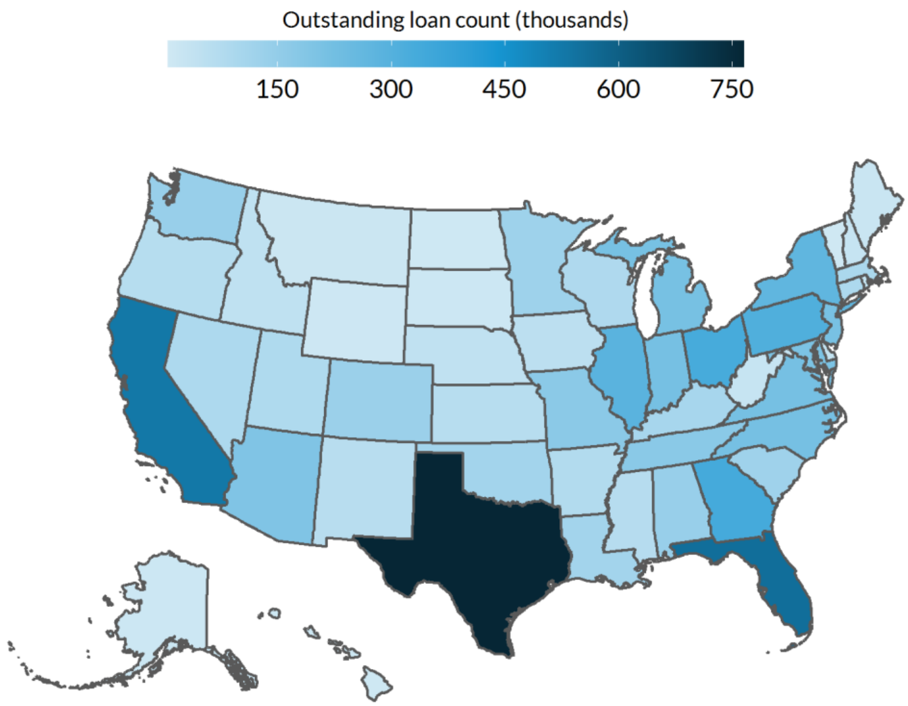
| | Agency Issuance (past 1 year) | | | | Agency Outstanding | | | |
|---|---|---|---|---|---|---|---|---|
| State | GNMA Share | GNMA Loan Count | GNMA Avg. Loan Size (000) | GSE Avg. Loan Size (000) | GNMA Share | GNMA Loan Count | GNMA Avg. Loan Size (000) | GSE Avg. Loan Size (000) |
| National | 31.8% | 2,469,999 | 246.0 | 266.7 | 28.1% | 11,532,687 | 164.7 | 193.1 |
| Alabama | 44.4% | 44,334 | 186.5 | 208.9 | 42.6% | 240,855 | 128.9 | 154.8 |
| Alaska | 53.2% | 7,017 | 302.0 | 270.9 | 49.7% | 38,933 | 232.1 | 200.7 |
| Arizona | 32.0% | 92,666 | 241.3 | 247.8 | 27.2% | 320,909 | 167.0 | 186.0 |
| Arkansas | 42.4% | 23,808 | 160.1 | 187.5 | 42.4% | 141,298 | 111.4 | 140.1 |
| California | 25.3% | 231,550 | 386.0 | 379.0 | 18.3% | 791,564 | 267.7 | 275.6 |
| Colorado | 31.1% | 77,692 | 324.9 | 314.0 | 23.8% | 240,107 | 224.4 | 234.7 |
| Connecticut | 31.5% | 19,910 | 230.6 | 250.8 | 28.3% | 111,748 | 181.9 | 189.4 |
| Delaware | 38.1% | 10,885 | 234.3 | 248.9 | 34.2% | 52,999 | 179.5 | 186.9 |
| District of Columbia | 17.0% | 2,019 | 465.4 | 417.8 | 13.9% | 10,030 | 300.1 | 309.6 |
| Florida | 40.8% | 211,111 | 235.9 | 233.4 | 33.4% | 861,092 | 169.0 | 176.3 |
| Georgia | 40.1% | 111,801 | 209.4 | 238.6 | 36.1% | 525,505 | 144.6 | 174.5 |
| Hawaii | 44.8% | 9,799 | 542.0 | 431.7 | 27.7% | 32,335 | 384.2 | 321.4 |
| Idaho | 30.6% | 19,540 | 242.9 | 240.1 | 27.7% | 79,556 | 159.1 | 176.9 |
| Illinois | 23.6% | 70,238 | 196.2 | 226.8 | 23.2% | 378,321 | 140.8 | 162.5 |
| Indiana | 34.9% | 59,892 | 163.8 | 182.7 | 34.8% | 310,670 | 111.7 | 129.5 |
| Iowa | 23.6% | 15,795 | 165.2 | 188.3 | 24.1% | 88,186 | 114.5 | 133.7 |
| Kansas | 33.6% | 18,546 | 174.9 | 202.4 | 33.6% | 106,792 | 120.4 | 141.7 |
| Kentucky | 37.6% | 33,245 | 169.4 | 190.2 | 36.9% | 171,455 | 121.6 | 135.7 |
| Louisiana | 42.8% | 35,378 | 186.5 | 215.8 | 40.4% | 192,705 | 137.6 | 161.1 |
| Maine | 32.8% | 8,960 | 205.5 | 227.0 | 30.0% | 41,611 | 152.6 | 164.6 |
| Maryland | 42.8% | 67,606 | 311.1 | 302.4 | 36.5% | 309,428 | 230.1 | 222.2 |
| Massachusetts | 21.0% | 31,348 | 323.2 | 328.0 | 17.4% | 125,970 | 238.6 | 235.4 |
| Michigan | 22.4% | 59,060 | 167.6 | 196.7 | 23.0% | 311,385 | 113.8 | 138.0 |
| Minnesota | 22.3% | 35,892 | 223.1 | 239.2 | 21.6% | 191,149 | 157.0 | 174.9 |
| Mississippi | 50.6% | 20,849 | 169.9 | 192.5 | 48.8% | 118,088 | 121.2 | 144.0 |
| Missouri | 32.0% | 50,754 | 173.1 | 199.9 | 32.7% | 269,077 | 120.9 | 142.0 |
| Montana | 30.2% | 7,876 | 244.0 | 247.4 | 26.9% | 37,178 | 170.7 | 182.4 |
| Nebraska | 31.9% | 13,079 | 187.9 | 193.1 | 31.0% | 74,539 | 123.5 | 139.7 |
| Nevada | 38.6% | 42,744 | 279.9 | 261.3 | 31.0% | 144,469 | 192.4 | 199.3 |
| New Hampshire | 30.1% | 10,470 | 260.3 | 254.0 | 26.7% | 45,402 | 194.3 | 185.6 |
| New Jersey | 27.7% | 52,097 | 277.7 | 301.7 | 25.2% | 253,430 | 210.0 | 222.7 |
| New Mexico | 42.2% | 17,236 | 203.1 | 214.3 | 40.3% | 99,776 | 141.1 | 155.8 |
| New York | 24.2% | 49,173 | 272.3 | 304.3 | 23.8% | 340,754 | 187.3 | 218.8 |
| North Carolina | 34.7% | 91,200 | 208.0 | 235.1 | 31.3% | 438,982 | 142.2 | 170.7 |
| North Dakota | 26.8% | 3,503 | 231.0 | 226.2 | 24.6% | 17,155 | 168.0 | 168.3 |
| Ohio | 32.7% | 79,247 | 163.0 | 180.3 | 33.4% | 460,005 | 112.5 | 129.1 |
| Oklahoma | 45.5% | 30,794 | 171.9 | 191.9 | 46.1% | 199,282 | 120.0 | 142.4 |
| Oregon | 27.5% | 34,479 | 289.7 | 289.6 | 21.0% | 128,030 | 202.6 | 214.6 |
| Pennsylvania | 30.8% | 70,436 | 186.0 | 221.3 | 30.6% | 424,769 | 135.9 | 160.6 |
| Rhode Island | 35.3% | 8,353 | 255.4 | 250.2 | 31.5% | 37,625 | 190.8 | 186.8 |
| South Carolina | 40.8% | 54,264 | 209.3 | 221.6 | 35.2% | 233,359 | 148.3 | 164.7 |
| South Dakota | 33.7% | 6,515 | 199.5 | 211.1 | 33.5% | 31,441 | 144.1 | 154.0 |
| Tennessee | 38.6% | 63,149 | 211.6 | 231.9 | 36.4% | 301,073 | 140.5 | 170.1 |
| Texas | 35.9% | 210,521 | 224.2 | 242.1 | 33.3% | 1,109,418 | 145.2 | 180.0 |
| Utah | 24.6% | 35,556 | 281.2 | 285.4 | 23.1% | 125,888 | 195.8 | 218.8 |
| Vermont | 25.9% | 2,565 | 209.5 | 223.7 | 20.0% | 13,132 | 164.3 | 159.9 |
| Virginia | 43.5% | 98,253 | 305.5 | 304.6 | 38.0% | 458,454 | 219.3 | 221.0 |
| Washington | 29.7% | 73,829 | 328.0 | 332.7 | 24.3% | 273,774 | 223.1 | 239.5 |
| West Virginia | 50.1% | 10,738 | 172.3 | 175.3 | 44.8% | 56,398 | 126.3 | 128.6 |
| Wisconsin | 20.8% | 28,251 | 189.6 | 204.4 | 19.1% | 139,218 | 133.7 | 144.0 |
| Wyoming | 41.0% | 5,976 | 235.0 | 242.8 | 37.6% | 27,368 | 177.3 | 179.9 |

***Sources:*** *eMBS and Urban Institute.* ***Note:*** *Ginnie Mae outstanding share are based on loan balance as of May 2020. Ginnie Mae issuance is based on the last 12 months, from May 2019 to May 2020.`*

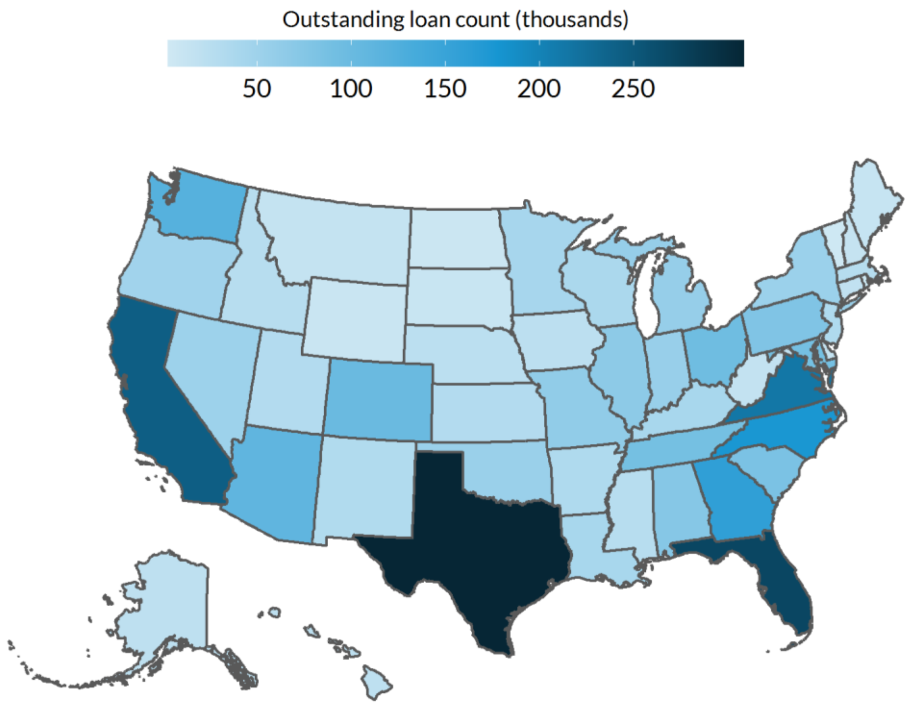
# FHA and VA Outstanding Loan Count

Texas , Florida, and California are the top 3 states for FHA and VA lending as measured by the number of loans outstanding. As of May 2020, TX has 760,000 million FHA and 310,000 VA loans outstanding, FL had 550,000 FHA and 270,000 VA loans outstanding, and CA had 530,000 FHA and 240,000 VA loans outstanding. Virginia ranks 4th for number of VA loans outstanding and 13th for number of FHA loans outstanding.

## FHA Outstanding Loan Count by State



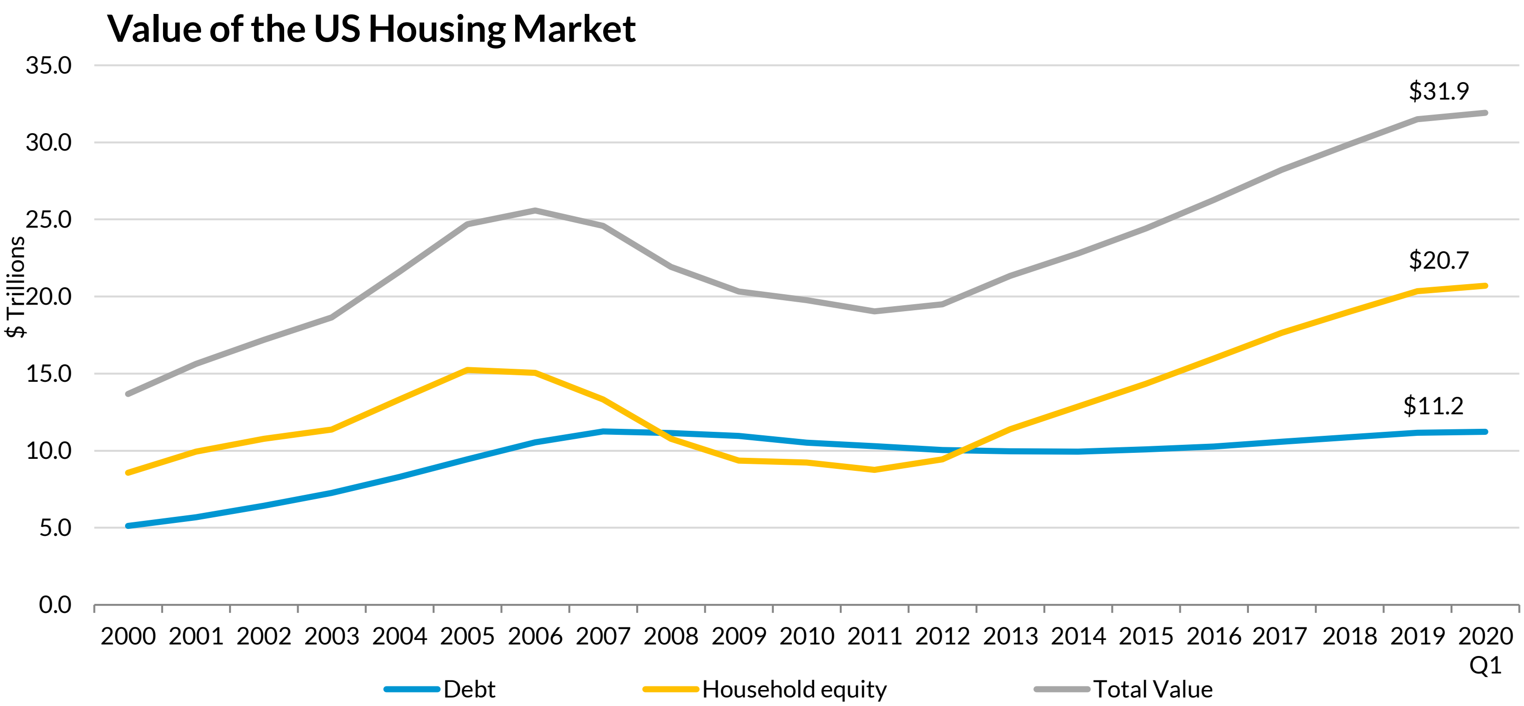

## VA Outstanding Loan Count by State

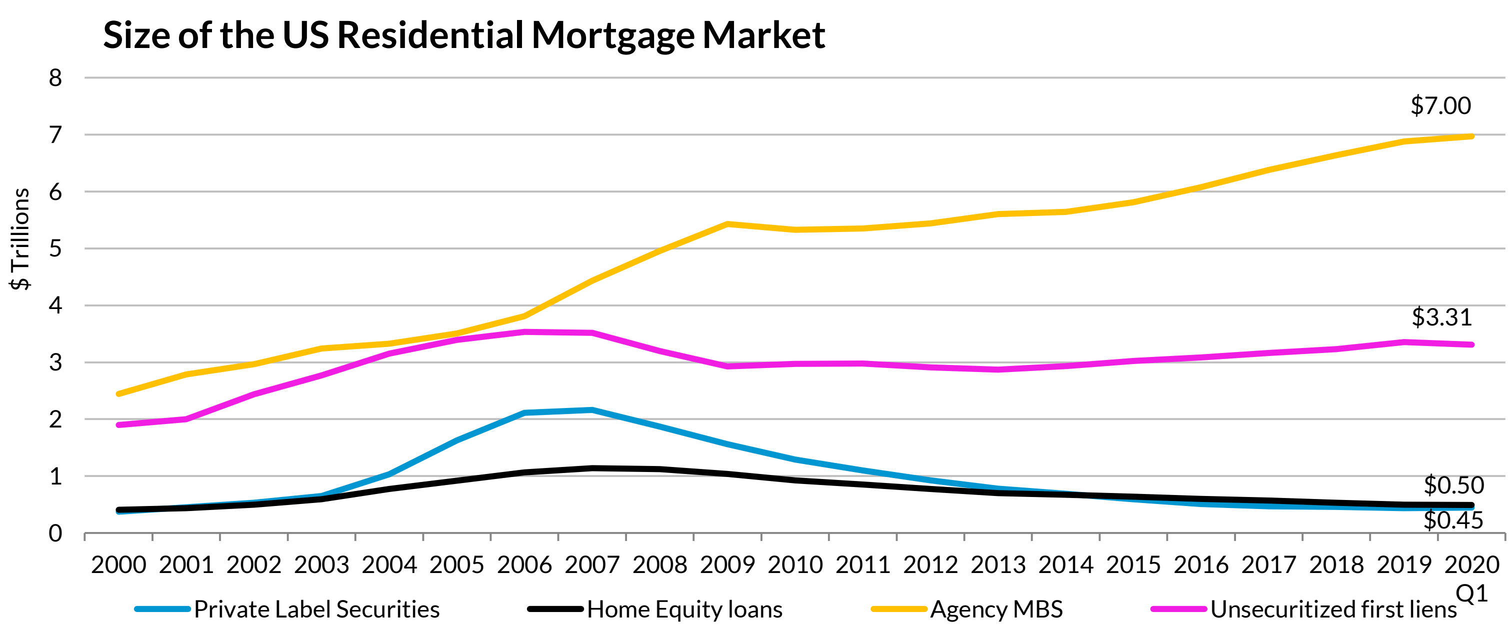



***Sources:*** *eMBS and Urban Institute.* ***Note:*** *Ginnie Mae outstanding share are based on loan balance as of May 2020.*

# State of the US Housing Market

The Federal Reserve's Flow of Fund Report has indicated a gradually increasing total value of the housing market, driven primarily by growing home equity since 2012. The Q1 2020 numbers show that while mortgage debt outstanding was steady this quarter at $11.2 trillion, total home equity grew slightly from $20.3 trillion in Q4 2019 to $20.7 trillion in the first quarter of 2020, bringing the total value of the housing market to $31.9 trillion, 24.8 percent higher than the pre-crisis peak in 2006. Agency MBS account for 62.1 percent of the total mortgage debt outstanding, private-label securities make up 4.0 percent, and unsecuritized first liens make up 30.0 percent. Home equity loans comprise the remaining 4.4 percent of the total.



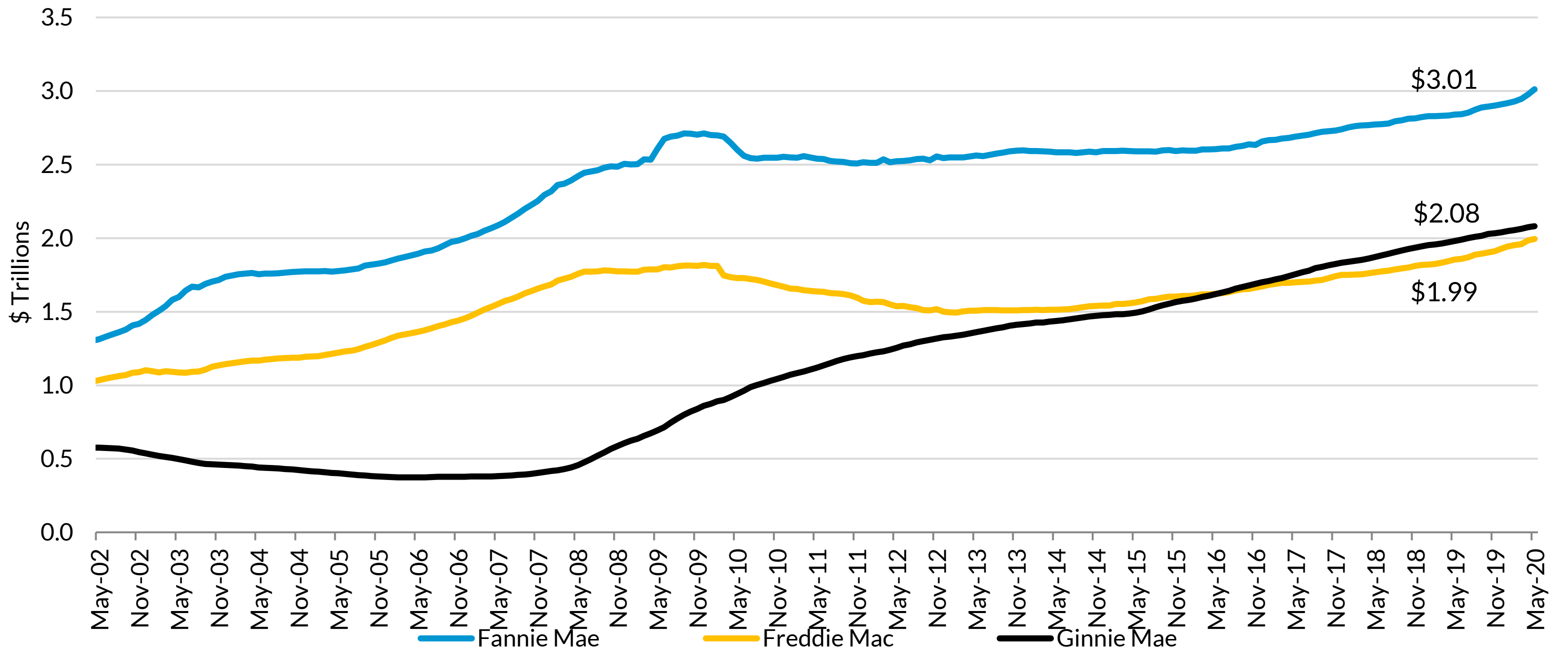




**Sources:** *Federal Reserve Flow of Funds, eMBS and Urban Institute. Last updated July 2020.*
**Note Top**: *Single family includes 1-4 family mortgages. The home equity number is grossed up from Fed totals to include the value of households and the non-financial business sector.* **Note Bottom**: *Unsecuritized first liens includes loans held by commercial banks, GSEs, savings institutions, credit unions and other financial companies.*

# State of the US Housing Market

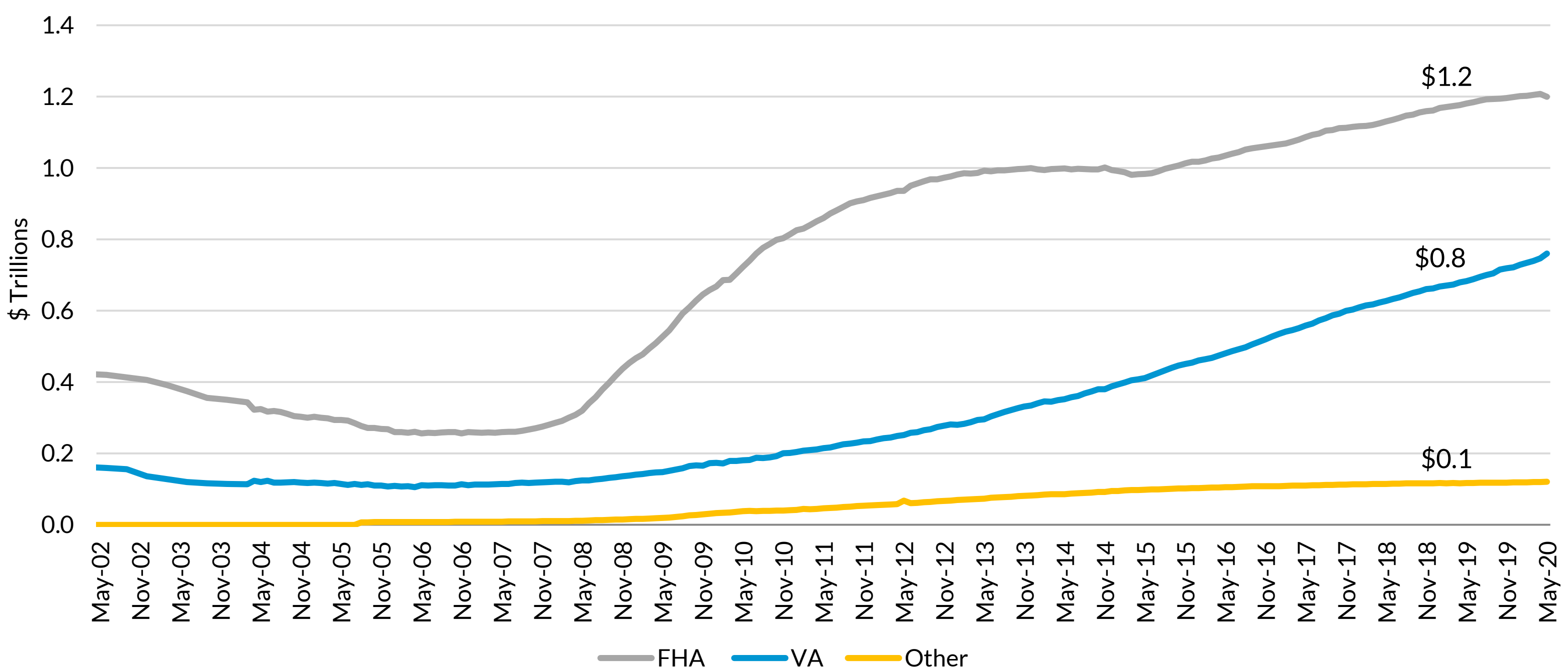
As of May 2020, outstanding securities in the agency market totaled $7.09 trillion: 42.5 percent Fannie Mae, 28.1 percent Freddie Mac, and 29.4 percent Ginnie Mae MBS. Ginnie Mae has more outstandings than Freddie Mac. Within the Ginnie Mae market, both FHA and VA have grown very rapidly since 2009. FHA comprises 57.7 percent of total Ginnie Mae MBS outstanding, while VA comprises 37.0 percent.

## Outstanding Agency Mortgage-Backed Securities




**Sources:** *eMBS and Urban Institute* **Note:** *Data as of May 2020.*

## Outstanding Ginnie Mae Mortgage-Backed Securities

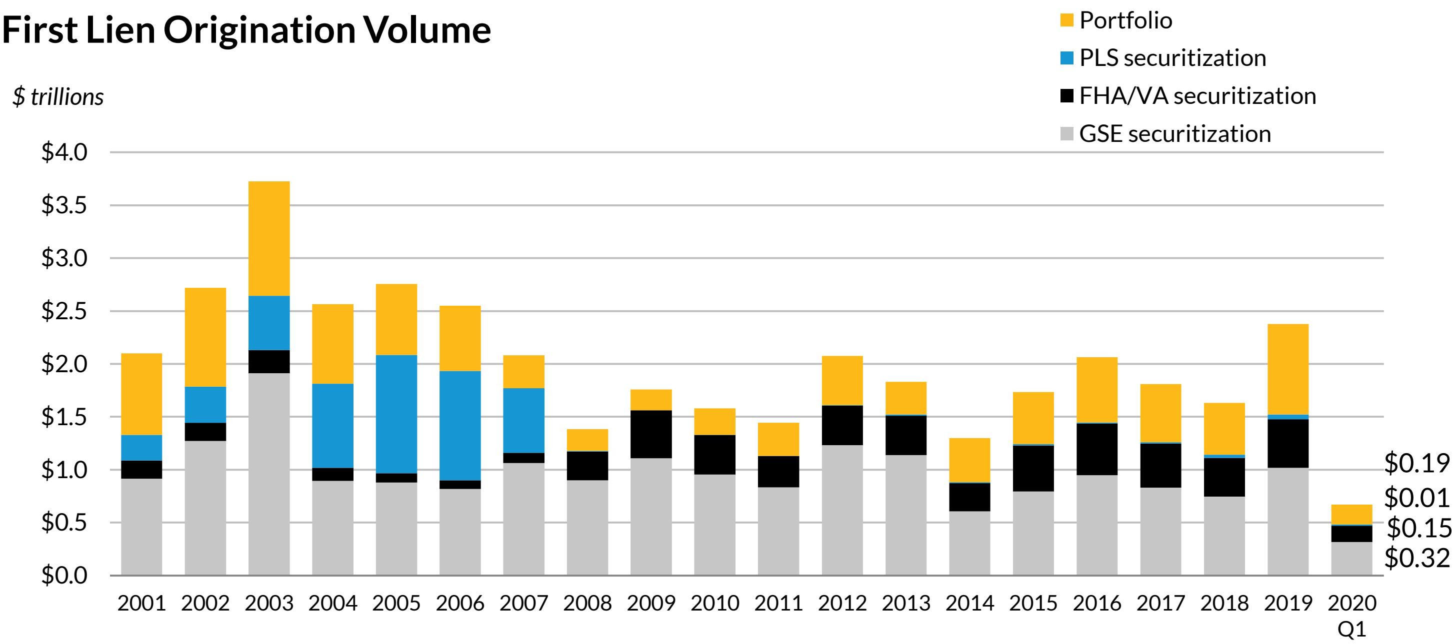



**Sources**: *eMBS and Urban Institute.* **Note:** *Data as of May 2020.*

# State of the US Housing Market

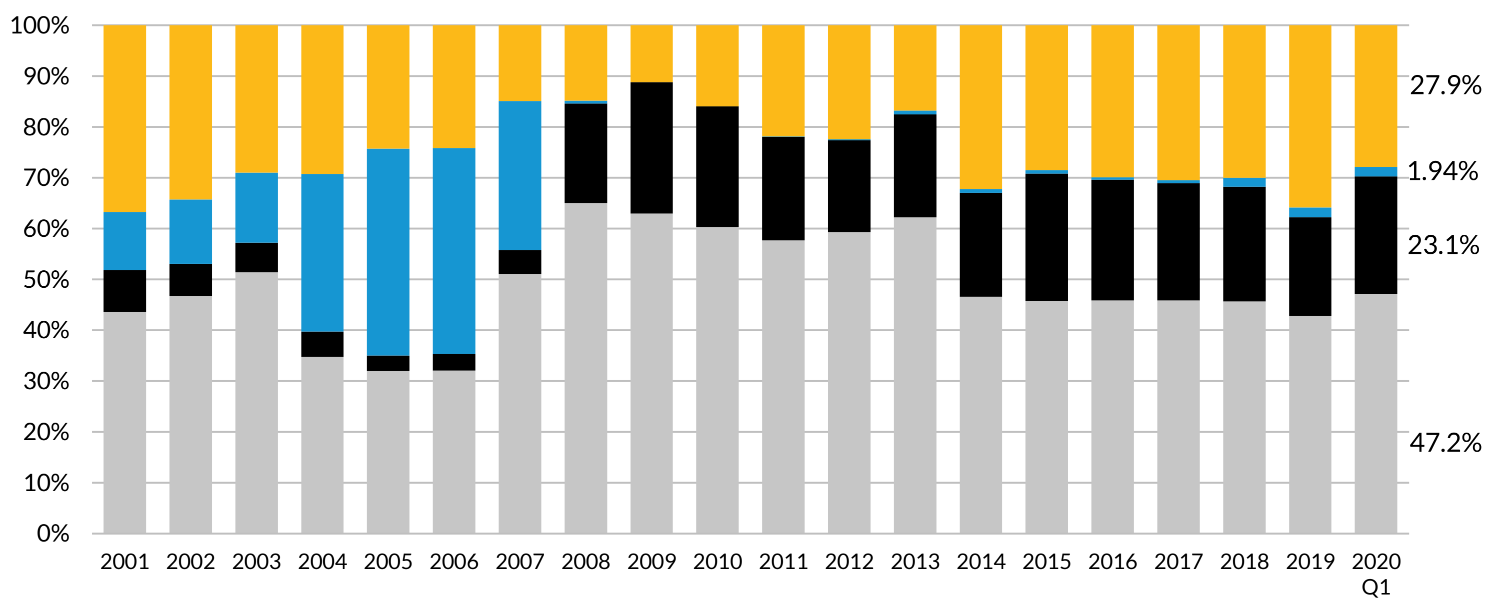
In the first quarter of 2020, first lien originations totaled $670 billion, up from the Q1 2019 volume of $355 billion. The share of portfolio originations was 27.9 percent in Q1 2020, a significant decline from the 37.3 percent share in the same period 2019. The Q1 2020 GSE share stands at 47.2 percent, up from 39.6 percent in Q1 2019. The FHA/VA share grew to 23.1 percent, compared to 21.0 percent last year. Private-label securitization currently tallies 1.94 percent, down from 2.9 percent one year ago, and a fraction of its share in the pre-bubble years.

## First Lien Origination Volume




**Sources**: *Inside Mortgage Finance and Urban Institute.* ***Note:*** *Data as of Q1 2020.*

## First Lien Origination Share




**Sources**: *Inside Mortgage Finance and Urban Institute.* ***Note:*** *Data as of Q1 2020.*

# US Agency Market, Originations

Despite the rise in portfolio origination, agency gross issuance was a robust $1.55 trillion in 2019, the strongest year for agency gross issuance since 2013. This reflected primarily strong borrower incentives to refinance, further buoyed by improved home purchase affordability. And this strong issuance trend continued through the first five months of 2020, with gross issuance of $975.1 billion, up 116.6 percent from the same period in 2019. Ginnie Mae gross issuance was up by 87.3 percent and GSE gross issuance was up by 131.4 percent. Within the Ginnie Mae market, FHA was up by 52.6 percent and VA origination was up by 137.8 percent.

| Agency Gross Issuance | | | | | |
|---|---|---|---|---|---|
| Issuance Year | Fannie Mae | Freddie Mac | GSE Total | Ginnie Mae | Total |
| 2000 | $202.8 | $157.9 | $360.6 | $102.2 | $462.8 |
| 2001 | $506.9 | $378.2 | $885.1 | $171.5 | $1,056.6 |
| 2002 | $710.0 | $529.0 | $1,238.9 | $169.0 | $1,407.9 |
| 2003 | $1,174.4 | $700.5 | $1,874.9 | $213.1 | $2,088.0 |
| 2004 | $517.5 | $355.2 | $872.6 | $119.2 | $991.9 |
| 2005 | $514.1 | $379.9 | $894.0 | $81.4 | $975.3 |
| 2006 | $500.2 | $352.9 | $853.0 | $76.7 | $929.7 |
| 2007 | $633.0 | $433.3 | $1,066.2 | $94.9 | $1,161.1 |
| 2008 | $562.7 | $348.7 | $911.4 | $267.6 | $1,179.0 |
| 2009 | $817.1 | $462.9 | $1,280.0 | $451.3 | $1,731.3 |
| 2010 | $626.6 | $377.0 | $1,003.5 | $390.7 | $1,394.3 |
| 2011 | $578.2 | $301.2 | $879.3 | $315.3 | $1,194.7 |
| 2012 | $847.6 | $441.3 | $1,288.8 | $405.0 | $1,693.8 |
| 2013 | $749.9 | $426.7 | $1,176.6 | $393.6 | $1,570.2 |
| 2014 | $392.9 | $258.0 | $650.9 | $296.3 | $947.2 |
| 2015 | $493.9 | $351.9 | $845.7 | $436.3 | $1,282.0 |
| 2016 | $600.5 | $391.1 | $991.6 | $508.2 | $1,499.8 |
| 2017 | $531.3 | $345.9 | $877.3 | $455.6 | $1,332.9 |
| 2018 | $480.9 | $314.1 | $795.0 | $400.6 | $1,195.3 |
| 2019 | $597.4 | $445.2 | $1,042.6 | $508.6 | $1,551.2 |
| 2020 YTD | $413.6 | $279.2 | $692.8 | $282.4 | $975.1 |
| 2020 % Change YOY | 146.4% | 112.3% | 131.4% | 87.3% | 116.6% |
| 2020 Ann. | $992.6 | $670.0 | $1,662.6 | $677.7 | $2,340.3 |

| Ginnie Mae Breakdown: Agency Gross Issuance | | | | |
|---|---|---|---|---|
| Issuance Year | FHA | VA | Other | Total |
| 2000 | $80.2 | $18.8 | $3.2 | $102.2 |
| 2001 | $133.8 | $34.7 | $3.1 | $171.5 |
| 2002 | $128.6 | $37.9 | $2.5 | $169.0 |
| 2003 | $147.9 | $62.7 | $2.5 | $213.1 |
| 2004 | $85.0 | $31.8 | $2.5 | $119.2 |
| 2005 | $55.7 | $23.5 | $2.1 | $81.4 |
| 2006 | $51.2 | $23.2 | $2.3 | $76.7 |
| 2007 | $67.7 | $24.2 | $3.0 | $94.9 |
| 2008 | $221.7 | $39.0 | $6.9 | $267.6 |
| 2009 | $359.9 | $74.6 | $16.8 | $451.3 |
| 2010 | $304.9 | $70.6 | $15.3 | $390.7 |
| 2011 | $216.1 | $82.3 | $16.9 | $315.3 |
| 2012 | $253.4 | $131.3 | $20.3 | $405.0 |
| 2013 | $239.2 | $132.2 | $22.2 | $393.6 |
| 2014 | $163.9 | $111.4 | $21.0 | $296.3 |
| 2015 | $261.5 | $155.6 | $19.2 | $436.3 |
| 2016 | $281.8 | $206.5 | $19.9 | $508.2 |
| 2017 | $257.6 | $177.8 | $20.2 | $455.6 |
| 2018 | $222.6 | $160.8 | $17.2 | $400.6 |
| 2019 | $266.9 | $225.7 | $16.0 | $508.6 |
| 2020 YTD | $130.0 | $144.2 | $8.3 | $282.4 |
| 2020 % Change YOY | 52.6% | 137.8% | 65.8% | 87.3% |
| 2020 Ann. | $312.0 | $346.0 | $19.8 | $677.7 |

**Sources**: *eMBS and Urban Institute (top and bottom).*
**Note :** *Dollar amounts are in billions. "Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. All data is as of May 2020.*

# US Agency Market, Originations

2019 was a robust year for net agency issuance, with $293.5 billion of net new supply, 32.6 percent of this Ginnie Mae. This trend continued into the fifth month of 2020, with net agency issuance totaling $208.9 billion, up 130.0 percent compared with the first five months of 2019. Ginnie Mae net issuance was $40.3 billion, comprising 19.3 percent of total agency net issuance. Ginnie Mae net issuance in the first five months of 2020 was comprised of 94.3 percent VA, 1.1 percent FHA and 4.6 percent other.

**Agency Net Issuance**

| Issuance Year | Fannie Mae | Freddie Mac | GSE Total | Ginnie Mae | Total |
|---|---|---|---|---|---|
| 2000 | $92.0 | $67.8 | $159.8 | $29.3 | $189.1 |
| 2001 | $216.6 | $151.8 | $368.4 | -$9.9 | $358.5 |
| 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 | $172.5 |
| 2016 | $60.5 | $66.8 | $127.4 | $126.1 | $261.6 |
| 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 | $197.8 | $95.7 | $293.5 |
| 2020 YTD | $102.1 | $66.5 | $168.5 | $40.3 | $208.9 |
| 2020 % Change YOY | 499.8% | 81.1% | 213.7% | 8.7% | 130.0% |
| 2020 Ann. | $244.9 | $159.5 | $404.5 | $96.8 | $501.3 |

**Ginnie Mae Breakdown: Net Issuance**

| Issuance Year | FHA | VA | Other | Total |
|---|---|---|---|---|
| 2000 | $29.0 | $0.3 | $0.0 | $29.3 |
| 2001 | $0.7 | -$10.6 | $0.0 | -$9.9 |
| 2002 | -$22.5 | -$28.7 | $0.0 | -$51.2 |
| 2003 | -$56.5 | -$21.1 | $0.0 | -$77.6 |
| 2004 | -$45.2 | $5.1 | $0.0 | -$40.1 |
| 2005 | -$37.3 | -$12.1 | $7.2 | -$42.2 |
| 2006 | -$4.7 | $3.8 | $1.2 | $0.2 |
| 2007 | $20.2 | $8.7 | $2.0 | $30.9 |
| 2008 | $173.3 | $17.7 | $5.4 | $196.4 |
| 2009 | $206.4 | $35.1 | $15.8 | $257.4 |
| 2010 | $158.6 | $29.6 | $10.0 | $198.3 |
| 2011 | $102.8 | $34.0 | $12.8 | $149.6 |
| 2012 | $58.9 | $45.9 | $14.3 | $119.1 |
| 2013 | $20.7 | $53.3 | $13.9 | $87.9 |
| 2014 | -$4.8 | $53.9 | $12.5 | $61.6 |
| 2015 | $22.5 | $66.9 | $7.9 | $97.3 |
| 2016 | $45.6 | $73.2 | $6.0 | $124.9 |
| 2017 | $50.1 | $76.1 | $5.0 | $131.3 |
| 2018 | $49.2 | $61.2 | $3.5 | $113.9 |
| 2019 | $35.9 | $58.0 | $1.9 | $95.7 |
| 2020 YTD | $0.4 | $38.0 | $1.9 | $40.3 |
| 2020 % Change YOY | -97.5% | 102.2% | 470.3% | 8.7% |
| 2020 Ann. | $1.1 | $91.3 | $4.5 | $96.8 |

**Sources**: *eMBS and Urban Institute.* ***Note :*** *Dollar amounts are in billions. "Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. All data is as of May 2020.*

# US Agency Market, Originations

Agency gross issuance moves inversely to interest rates, generally declining as interest rates rise, increasing when interest rates fall, but the seasonal trend is also very strong. This table allows for a comparison with the same month in previous years. The May 2020 gross agency issuance of $255.7 billion is the highest single month since this data has been available, as lower rates gave borrowers a stronger incentive to refinance, contributing to a sharp increase.

## Monthly Agency Issuance

| | Gross Issuance | | | | Net Issuance | | | |
|---|---|---|---|---|---|---|---|---|
| Date | Fannie Mae | Freddie Mac | Ginnie Mae | Total | Fannie Mae | Freddie Mac | Ginnie Mae | Total |
| Jan-17 | $55.6 | $38.5 | $42.6 | $136.6 | $8.5 | $10.7 | $10.3 | $29.5 |
| Feb-17 | $37.6 | $27.4 | $33.1 | $98.1 | $2.5 | $6.5 | $9.4 | $18.5 |
| Mar-17 | $39.5 | $24.4 | $31.3 | $95.2 | $9.7 | $6.2 | $9.7 | $25.6 |
| Apr-17 | $39.3 | $21.2 | $36.4 | $97.0 | $3.3 | $0.4 | $11.7 | $15.4 |
| May-17 | $40.3 | $22.6 | $36.4 | $99.3 | $7.7 | $2.7 | $13.3 | $23.8 |
| Jun-17 | $45.7 | $25.1 | $39.9 | $110.7 | $7.9 | $2.4 | $13.3 | $23.5 |
| Jul-17 | $45.3 | $27.6 | $40.6 | $113.5 | $5.6 | $3.5 | $12.3 | $21.5 |
| Aug-17 | $49.1 | $29.3 | $42.8 | $121.1 | $12.0 | $6.7 | $15.4 | $34.1 |
| Sep-17 | $47.3 | $27.9 | $40.2 | $115.5 | $7.7 | $3.8 | $10.6 | $22.0 |
| Oct-17 | $42.9 | $34.6 | $38.4 | $115.9 | $5.5 | $12.5 | $11.0 | $28.9 |
| Nov-17 | $43.5 | $37.2 | $37.8 | $118.5 | $3.9 | $13.6 | $8.3 | $25.8 |
| Dec-17 | $45.3 | $30.0 | $36.2 | $111.5 | $9.2 | $8.1 | $7.0 | $24.4 |
| Jan-18 | $47.4 | $21.4 | $35.2 | $104.0 | $12.1 | $0.2 | $7.7 | $20.0 |
| Feb-18 | $40.3 | $21.5 | $31.9 | $93.7 | $8.3 | $2.2 | $7.1 | $17.6 |
| Mar-18 | $35.6 | $21.3 | $29.0 | $85.9 | $4.9 | $3.0 | $6.3 | $14.1 |
| Apr-18 | $36.3 | $26.2 | $32.7 | $95.2 | $1.7 | $6.0 | $8.8 | $16.5 |
| May-18 | $38.9 | $27.5 | $33.7 | $100.1 | $5.1 | $7.2 | $10.5 | $22.8 |
| Jun-18 | $38.2 | $28.8 | $35.6 | $102.5 | $2.5 | $6.8 | $10.3 | $19.6 |
| Jul-18 | $40.3 | $26.2 | $35.6 | $102.1 | $4.2 | $3.7 | $10.4 | $18.3 |
| Aug-18 | $50.4 | $29.9 | $37.5 | $117.8 | $15.8 | $7.9 | $12.5 | $36.1 |
| Sep-18 | $41.8 | $30.1 | $34.8 | $106.6 | $5.9 | $6.2 | $9.0 | $21.1 |
| Oct-18 | $39.8 | $27.4 | $33.2 | $100.3 | $9.7 | $7.1 | $11.4 | $28.2 |
| Nov-18 | $35.1 | $30.1 | $32.4 | $97.6 | $3.6 | $11.0 | $9.8 | $24.4 |
| Dec-18 | $36.9 | $23.9 | $28.4 | $89.1 | $8.2 | $6.4 | $8.2 | $22.8 |
| Jan-19 | $33.3 | $19.2 | $29.0 | $81.6 | $5.9 | $2.5 | $9.2 | $17.6 |
| Feb-19 | $27.3 | $19.9 | $23.5 | $70.7 | $1.4 | $3.4 | $4.6 | $9.3 |
| Mar-19 | $29.6 | $27.3 | $26.6 | $83.5 | $1.8 | $10.3 | $5.6 | $17.6 |
| Apr-19 | $33.1 | $30.8 | $32.9 | $96.8 | $1.3 | $10.8 | $8.3 | $20.4 |
| May-19 | $44.5 | $34.3 | $38.8 | $117.6 | $6.7 | $9.8 | $9.4 | $26.0 |
| Jun-19 | $44.6 | $34.0 | $43.3 | $121.9 | $1.9 | $5.9 | $9.0 | $16.8 |
| Jul-19 | $51.7 | $36.9 | $45.9 | $134.5 | $10.9 | $10.1 | $11.0 | $32.0 |
| Aug-19 | $71.1 | $50.4 | $51.2 | $172.6 | $20.8 | $17.1 | $8.7 | $46.6 |
| Sep-19 | $67.1 | $43.0 | $52.0 | $162.1 | $14.1 | $7.5 | $6.5 | $28.0 |
| Oct-19 | $65.0 | $46.2 | $58.4 | $169.6 | $7.4 | $7.1 | $11.9 | $26.5 |
| Nov-19 | $68.1 | $50.7 | $54.3 | $173.1 | $5.2 | $8.6 | $4.1 | $18.0 |
| Dec-19 | $62.1 | $52.5 | $52.7 | $167.3 | $10.1 | $17.3 | $7.4 | $34.7 |
| Jan-20 | $61.7 | $51.4 | $56.0 | $169.0 | $9.1 | $16.5 | $8.6 | $34.2 |
| Feb-20 | $56.5 | $39.5 | $51.2 | $147.2 | $9.4 | $7.9 | $7.1 | $24.4 |
| Mar-20 | $69.5 | $41.1 | $53.0 | $163.9 | $17.9 | $6.3 | $8.8 | $33.0 |
| Apr-20 | $101.6 | $76.3 | $61.4 | $239.3 | $30.5 | $27.5 | $10.2 | $68.2 |
| May-20 | $124.3 | $70.6 | $60.8 | $255.7 | $35.2 | $8.2 | $5.7 | $49.1 |

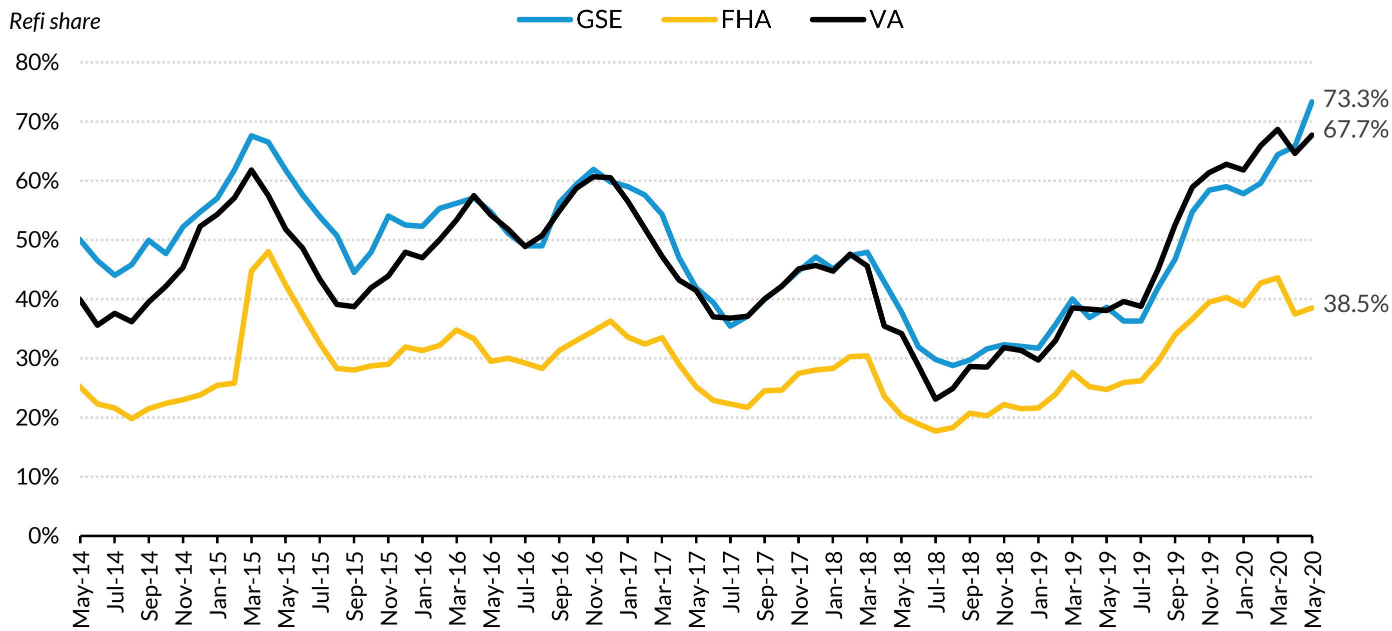
**Sources:** eMBS and Urban Institute.

***Note :*** *Dollar amounts are in billions. "Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. All data is as of May 2020.*

# US Agency Market, Originations

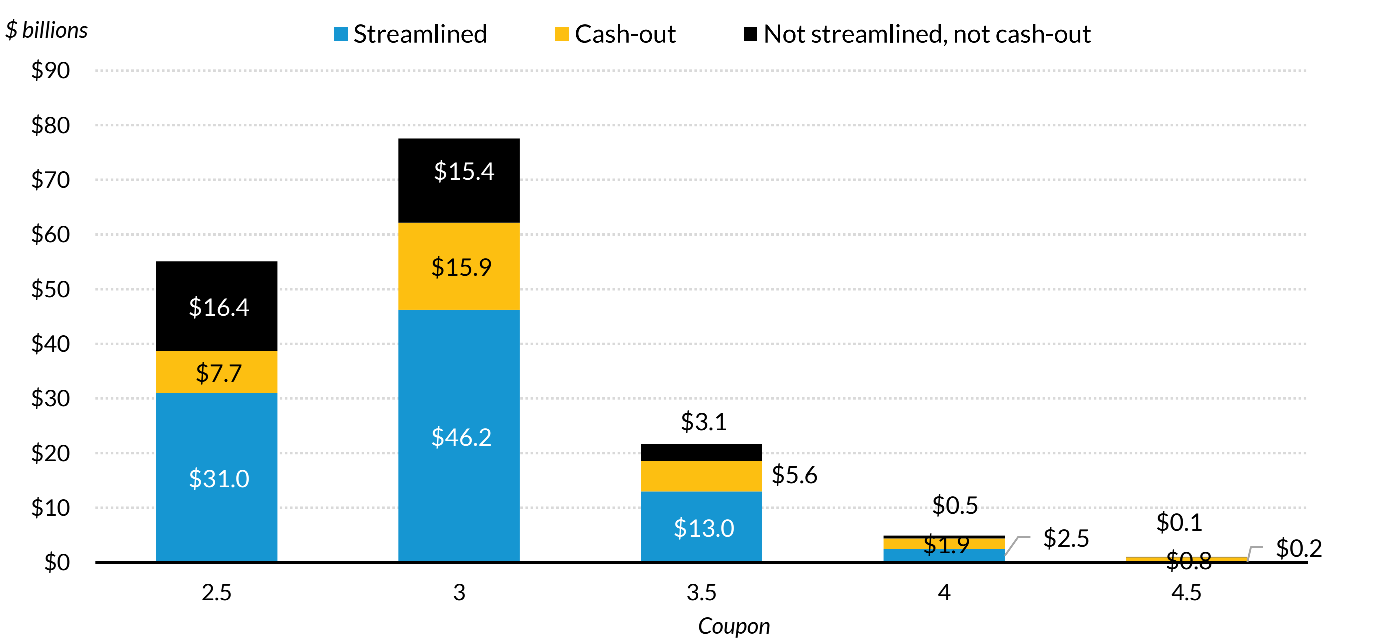
The FHA refinance share stood at 38.5 percent in May 2020, below the 73.3 percent refi share for GSE originations and the 67.7 percent share for the VA. Refinances as a share of all originations grew during most of 2019 as interest rates were low. They grew through the first three months of 2020, as rates dropped further, but fell for FHA and VA lending in April. They continued to grow in May. The bottom section shows that nearly all of 2020 YTD Ginnie Mae refinances, predominantly streamlined, were securitized in lower coupon pools. Cash-out refinances are typically securitized in higher coupons, but their volume has fallen sharply in recent months due to restrictions Ginnie Mae put in place in late 2019, to combat the “churning” problem.

## Percent Refi at Issuance




**Sources**: *eMBS and Urban Institute.* **Note**: *Based on at-issuance balance. Data as of May 2020.*

## Ginnie Mae Refinance Issuance by Type: 2020 YTD

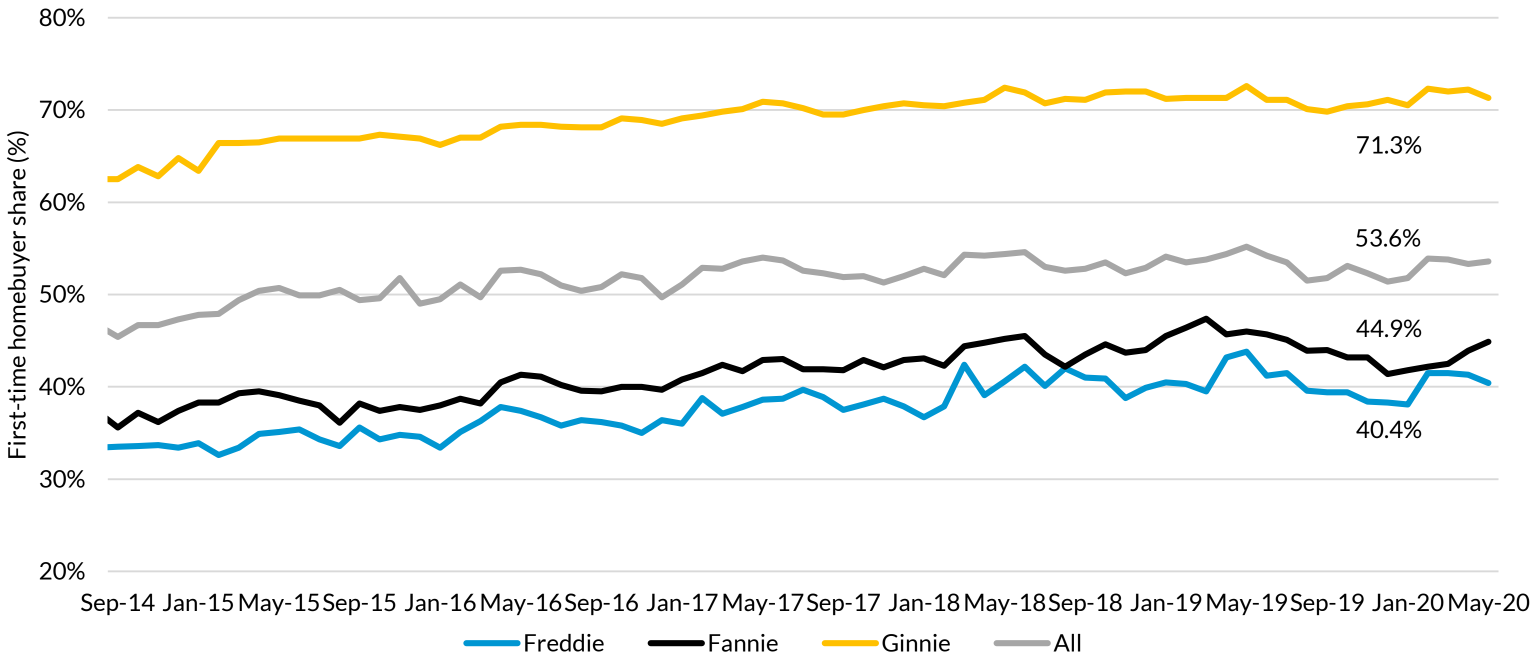



**Sources**: *eMBS and Urban Institute.*
**Note**: *Based on at-issuance balance. Data as of May 2020.*

# Credit Box

The first time homebuyer share of Ginnie Mae purchase loans was 71.3 percent in May 2020, down slightly from its historical high in May 2019. First time homebuyers comprise a significantly higher share of the Ginnie Mae purchase market than of the GSE purchase market, with first time homebuyers accounting for 44.9 percent and 40.4 percent of Fannie Mae and Freddie Mac purchase originations respectively. The bottom table shows that based on mortgages originated in May 2020, the average first-time homebuyer was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, a much higher LTV, a similar DTI, and pay a slightly higher rate.

## First Time Homebuyer Share: Purchase Only Loans




**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

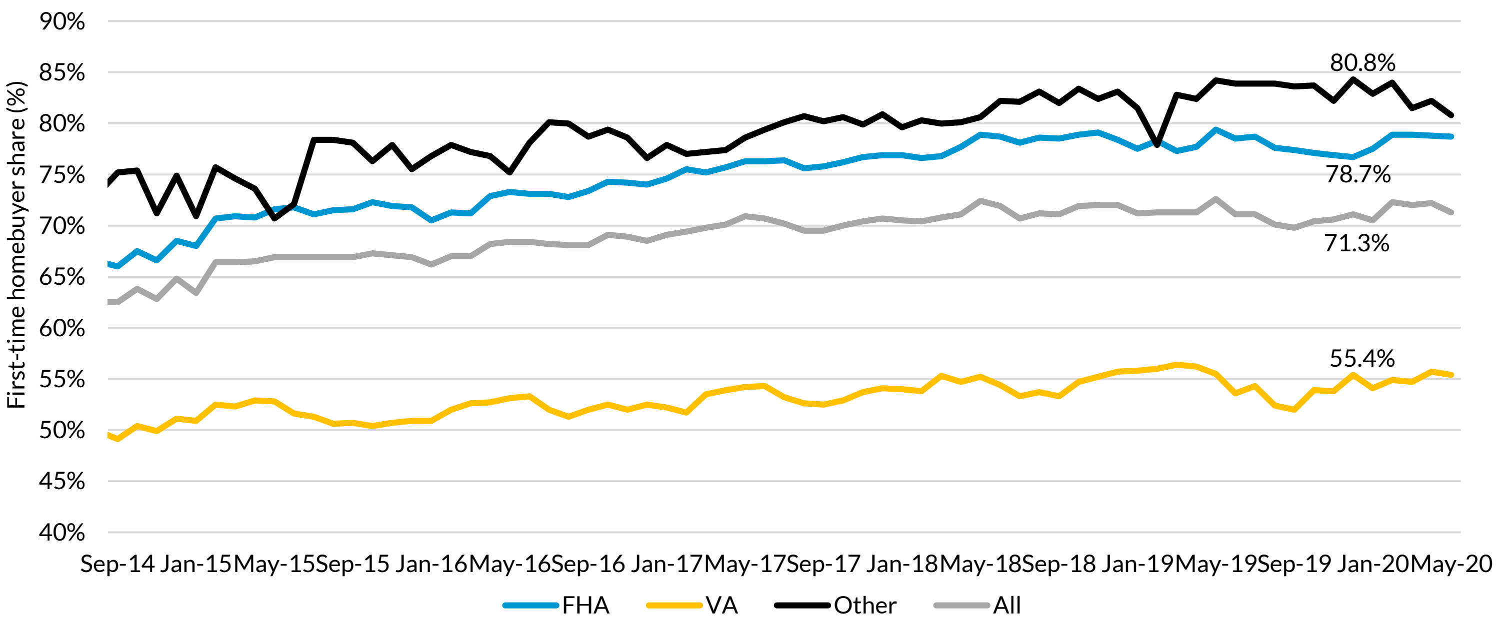
| | Fannie Mae | | Freddie Mac | | Ginnie Mae | | All | |
|---|---|---|---|---|---|---|---|---|
| | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat |
| Loan Amount ($ ) | 264,786 | 292,099 | 264,068 | 293,400 | 229,457 | 287,060 | 247,167 | 291,302 |
| Credit Score | 746.6 | 758.5 | 745.2 | 757.5 | 681.7 | 704.6 | 714.2 | 743.4 |
| LTV (%) | 87.5 | 80.0 | 88.4 | 80.0 | 97.0 | 96.0 | 92.5 | 84.4 |
| DTI (%) | 34.1 | 35.3 | 34.3 | 35.7 | 41.1 | 42.1 | 37.6 | 37.3 |
| Loan Rate (%) | 3.5 | 3.5 | 3.5 | 3.5 | 3.6 | 3.4 | 3.6 | 3.5 |

**Sources**: *eMBS and Urban Institute.*
**Note**: *In May 2017 Ginnie Mae began disclosing issuer-reported LTV for FHA loans, which includes the financed upfront mortgage insurance premium. To make it consistent with the previously reported LTV, we removed the financed upfront mortgage insurance premium by subtracting 169 bps from this new issuer-reported LTV. Data as of May 2020.*

# Credit Box

Within the Ginnie Mae purchase market, 78.7 percent of FHA loans, 55.4 percent of VA loans and 80.8 percent of other loans represent financing for first-time home buyers in May 2020. The bottom table shows that based on mortgages originated in May 2020, the average first-time homebuyer was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, higher LTV, similar DTI and pay a higher rate.

## First Time Homebuyer Share: Ginnie Mae Breakdown




**Sources**: *eMBS and Urban Institute.* **Note**: *Includes only purchase loans. Data as of May 2020.*

| | FHA | | VA | | Other | | Ginnie Mae Total | |
|---|---|---|---|---|---|---|---|---|
| | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat | First-Time | Repeat |
| Loan Amount ($) | 220,368 | 244,400 | 279,958 | 337,193 | 162,091 | 175,035 | 229,457 | 287,060 |
| Credit Score | 671.4 | 675.7 | 702.3 | 729.7 | 695.2 | 700.9 | 681.7 | 704.6 |
| LTV (%) | 95.6 | 94.3 | 99.7 | 97.0 | 99.3 | 99.2 | 97.0 | 96.0 |
| DTI (%) | 42.6 | 43.8 | 39.8 | 41.4 | 34.9 | 35.5 | 41.1 | 42.1 |
| Loan Rate (%) | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.6 | 3.6 | 3.4 |

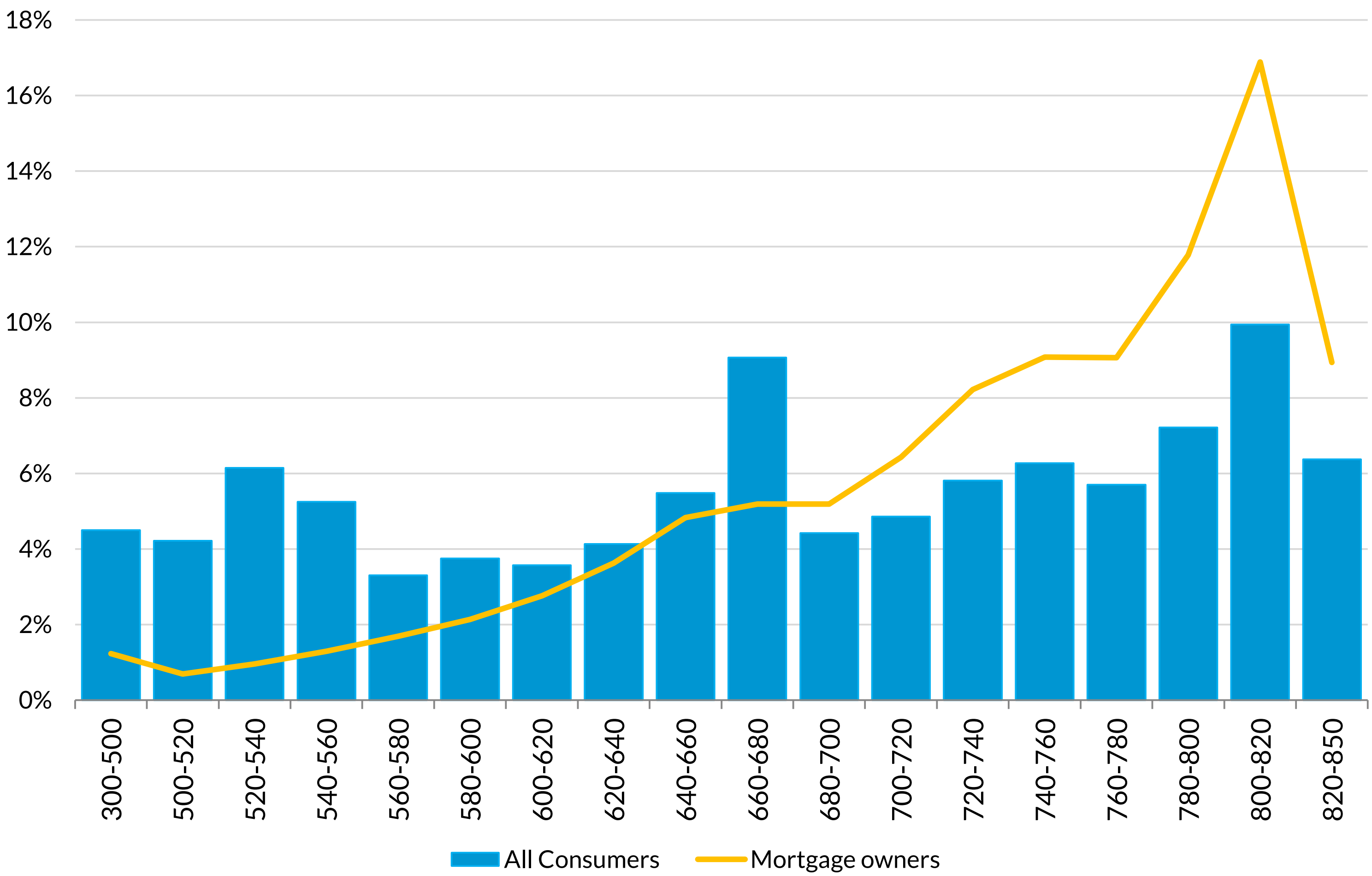
**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020. "Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. In May 2017 Ginnie Mae began disclosing issuer-reported LTV for FHA loans, which includes the financed upfront mortgage insurance premium. To make it consistent with the previously reported LTV, we removed the financed upfront mortgage insurance premium by subtracting 169 bps from this new issuer-reported LTV.*

# Credit Box

Consumers who have a mortgage are concentrated at the high end of the general credit score spectrum. The top table shows that the median FICO score for all consumers (682) is equal to the 25th percentile of those with a mortgage (682).

## FICO Score Distribution: Mortgage Owners vs All Consumers

| All Consumers- Percentiles | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Minimum | P5 | P10 | P25 | P50 | P75 | P90 | P95 | Maximum |
| 300 | 503 | 524 | 587 | 682 | 774 | 813 | 822 | 839 |
| **Mortgage Owners- Percentiles** | | | | | | | | |
| Minimum | P5 | P10 | P25 | P50 | P75 | P90 | P95 | Maximum |
| 300 | 570 | 615 | 682 | 752 | 801 | 818 | 824 | 839 |




**Sources**: *Credit Bureau Data and Urban Institute.*
**Note:** *Data as of August 2017.*

# May 2020 Credit Box at a Glance

In May 2020, the median Ginnie Mae FICO score was 690 versus 767 for both Fannie Mae and Freddie Mac. Note that the FICO score for the 10th percentile was 626 for Ginnie Mae, versus 700 for Fannie Mae and 697 for Freddie Mac. Within the Ginnie Mae market, FHA loans have a median FICO score of 667, VA loans have a median FICO score of 727 and other loans have a median FICO score of 693.

**Purchase FICO**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 288,811 | 646 | 712 | 738 | 778 | 798 | 729 |
| Fannie | 113,975 | 693 | 733 | 760 | 791 | 802 | 753 |
| Freddie | 68,178 | 694 | 727 | 762 | 789 | 802 | 754 |
| Ginnie | 106,658 | 624 | 647 | 679 | 727 | 773 | 688 |

**Refi FICO**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 583,054 | 685 | 725 | 765 | 790 | 803 | 753 |
| Fannie | 321,544 | 703 | 736 | 770 | 791 | 804 | 761 |
| Freddie | 179,404 | 699 | 734 | 769 | 791 | 804 | 759 |
| Ginnie | 82,106 | 632 | 663 | 707 | 761 | 792 | 709 |

**All FICO**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 871,865 | 667 | 712 | 757 | 787 | 802 | 745 |
| Fannie | 435,519 | 700 | 733 | 767 | 791 | 804 | 759 |
| Freddie | 247,582 | 697 | 732 | 767 | 791 | 804 | 758 |
| Ginnie | 188,764 | 626 | 652 | 690 | 744 | 784 | 697 |

**Purchase FICO: Ginnie Mae Breakdown By Source**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 106,658 | 624 | 647 | 679 | 727 | 773 | 688 |
| FHA | 62,353 | 620 | 640 | 666 | 700 | 740 | 672 |
| VA | 34,715 | 633 | 664 | 716 | 768 | 795 | 715 |
| Other | 9,590 | 640 | 658 | 691 | 731 | 765 | 696 |

**Refi FICO: Ginnie Mae Breakdown By Source**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 82,106 | 632 | 663 | 707 | 761 | 792 | 709 |
| FHA | 26,568 | 614 | 641 | 668 | 700 | 739 | 671 |
| VA | 54,553 | 648 | 686 | 734 | 776 | 798 | 727 |
| Other | 985 | 652 | 673 | 714 | 756 | 782 | 714 |

**All FICO: Ginnie Mae Breakdown By Source**

| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
|---|---|---|---|---|---|---|---|
| All | 188,764 | 626 | 652 | 690 | 744 | 784 | 697 |
| FHA | 88,921 | 618 | 640 | 667 | 700 | 739 | 672 |
| VA | 89,268 | 641 | 677 | 727 | 774 | 797 | 722 |
| Other | 10,575 | 641 | 660 | 693 | 733 | 768 | 698 |

**Sources**: *eMBS and Urban Institute.* **Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# May 2020 Credit Box at a Glance

In May 2020, the median loan-to-value ratio (LTV) was 96.5 percent for Ginnie Mae and 75 percent for both Fannie Mae and Freddie Mac. The 90th percentile was 100.4 percent for Ginnie Mae, and 94 percent for both Freddie and Fannie. Within the Ginnie Mae market, the median LTV was 96.5 for FHA, 96.6 for VA and 100.9 for other programs.

| Purchase LTV | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 289,458 | 74.0 | 80.0 | 95.0 | 96.5 | 100.0 | 88.1 |
| Fannie | 114,087 | 66.0 | 80.0 | 85.0 | 95.0 | 97.0 | 83.3 |
| Freddie | 68,275 | 65.0 | 80.0 | 80.0 | 95.0 | 95.0 | 82.5 |
| Ginnie | 107,096 | 94.3 | 96.5 | 96.5 | 100.0 | 101.0 | 96.7 |
| **Refi LTV** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 608,234 | 48.0 | 60.0 | 74.0 | 80.9 | 93.0 | 71.1 |
| Fannie | 321,556 | 46.0 | 58.0 | 70.0 | 79.0 | 85.0 | 67.6 |
| Freddie | 179,446 | 45.0 | 58.0 | 70.0 | 79.0 | 84.0 | 67.3 |
| Ginnie | 107,232 | 71.2 | 81.4 | 91.2 | 97.6 | 100.0 | 88.0 |
| **All LTV** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 897,692 | 52.0 | 66.0 | 79.7 | 92.4 | 97.0 | 76.6 |
| Fannie | 435,643 | 49.0 | 60.0 | 75.0 | 80.0 | 94.0 | 71.7 |
| Freddie | 247,721 | 48.0 | 61.0 | 75.0 | 80.0 | 94.0 | 71.5 |
| Ginnie | 214,328 | 79.0 | 89.9 | 96.5 | 99.0 | 100.4 | 92.3 |

| Purchase LTV: Ginnie Mae Breakdown By Source | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 107,096 | 94.3 | 96.5 | 96.5 | 100.0 | 101.0 | 96.7 |
| FHA | 62,698 | 94.3 | 96.5 | 96.5 | 96.5 | 96.5 | 95.3 |
| VA | 34,769 | 93.8 | 100.0 | 100.0 | 100.0 | 102.3 | 98.5 |
| Other | 9,629 | 95.6 | 99.2 | 101.0 | 101.0 | 101.0 | 99.3 |
| **Refi LTV: Ginnie Mae Breakdown By Source** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 107,232 | 71.2 | 81.4 | 91.2 | 97.6 | 100.0 | 88.0 |
| FHA | 36,615 | 75.0 | 81.4 | 92.1 | 97.0 | 98.2 | 88.3 |
| VA | 69,576 | 69.0 | 81.7 | 90.5 | 98.4 | 100.5 | 87.7 |
| Other | 1,041 | 82.9 | 92.3 | 98.5 | 100.9 | 101.8 | 94.9 |
| **All LTV: Ginnie Mae Breakdown By Source** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 214,328 | 79.0 | 89.9 | 96.5 | 99.0 | 100.4 | 92.3 |
| FHA | 99,313 | 81.4 | 93.2 | 96.5 | 96.5 | 97.2 | 92.7 |
| VA | 104,345 | 73.8 | 86.0 | 96.6 | 100.0 | 102.0 | 91.3 |
| Other | 10,670 | 94.2 | 98.8 | 100.9 | 101.0 | 101.1 | 98.9 |

**Sources**: *eMBS and Urban Institute.* **Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. In May 2017 Ginnie Mae began disclosing issuer-reported LTV for FHA loans, which includes the financed upfront mortgage insurance premium. To make it consistent with the previously reported LTV, we removed the financed upfront mortgage insurance premium by subtracting 169 bps from this new issuer-reported LTV. Data as of May 2020.*

# May 2020 Credit Box at a Glance

In May 2020, the median Ginnie Mae debt-to-income ratio (DTI) was 41.4 percent, considerably higher than the 34.0 percent median DTI for both Freddie Mac and Fannie Mae. The 90th percentile for Ginnie Mae was 53.8 percent, also much higher than the 45.0 and 46.0 percent DTI for Fannie Mae and Freddie Mac, respectively. Within the Ginnie Mae market, the median FHA DTI ratio was 43.5 percent, versus 39.7 percent for VA and 35.4 percent for other lending programs.

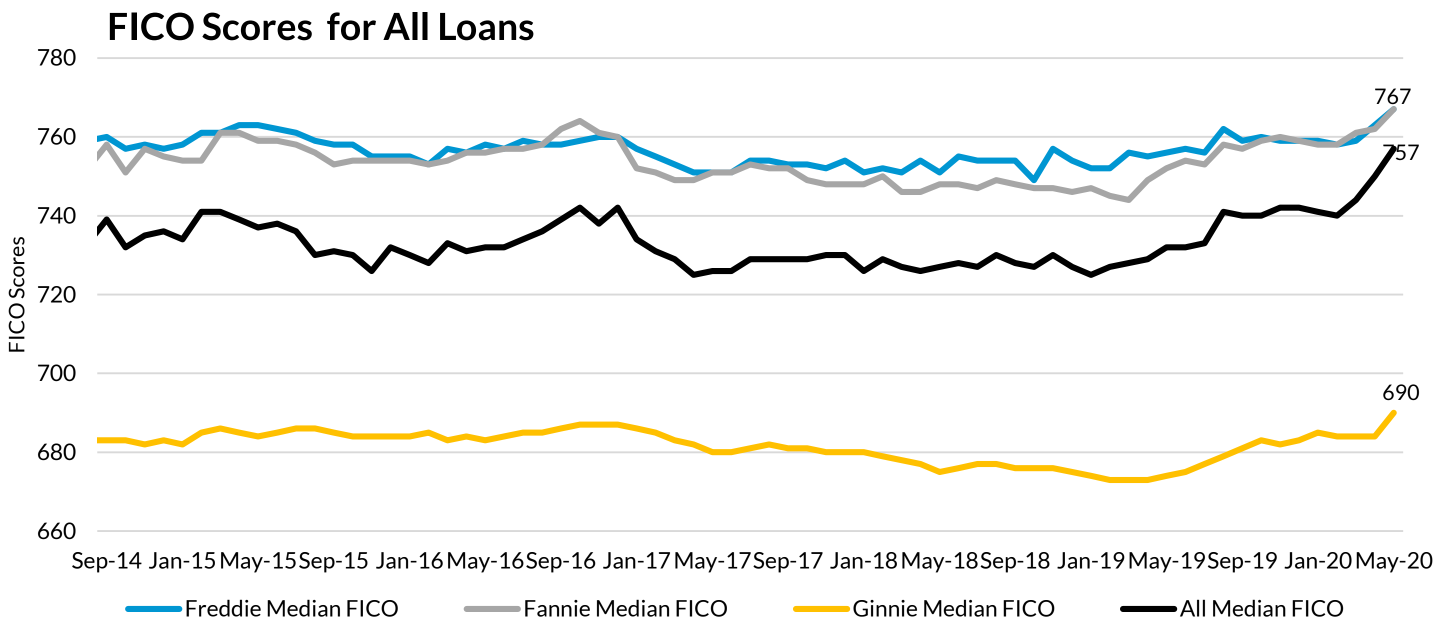
| Purchase DTI | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 289,001 | 23.2 | 30.2 | 38.0 | 44.7 | 49.1 | 37.3 |
| Fannie | 114,081 | 22.0 | 28.0 | 36.0 | 43.0 | 47.0 | 35.0 |
| Freddie | 68,273 | 21.0 | 28.0 | 36.0 | 42.0 | 46.0 | 34.7 |
| Ginnie | 106,647 | 28.3 | 34.9 | 42.0 | 48.6 | 53.9 | 41.4 |
| **Refi DTI** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 536,305 | 19.0 | 25.0 | 33.0 | 41.0 | 46.0 | 32.9 |
| Fannie | 321,547 | 19.0 | 25.0 | 33.0 | 40.0 | 45.0 | 32.4 |
| Freddie | 179,442 | 19.0 | 25.0 | 33.0 | 41.0 | 45.0 | 32.5 |
| Ginnie | 35,316 | 23.3 | 31.3 | 39.4 | 47.4 | 53.4 | 38.8 |
| **All DTI** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 825,306 | 20.0 | 27.0 | 35.0 | 42.2 | 47.0 | 34.4 |
| Fannie | 435,628 | 20.0 | 26.0 | 34.0 | 41.0 | 46.0 | 33.1 |
| Freddie | 247,715 | 20.0 | 26.0 | 34.0 | 41.0 | 45.0 | 33.1 |
| Ginnie | 141,963 | 27.1 | 33.9 | 41.4 | 48.4 | 53.8 | 40.7 |

| Purchase DTI: Ginnie Mae Breakdown By Source | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 106,647 | 28.3 | 34.9 | 42.0 | 48.6 | 53.9 | 41.4 |
| FHA | 62,669 | 30.2 | 36.8 | 43.8 | 49.8 | 54.3 | 42.8 |
| VA | 34,382 | 26.5 | 33.3 | 41.0 | 48.0 | 53.7 | 40.5 |
| Other | 9,596 | 25.6 | 30.7 | 35.7 | 40.0 | 43.0 | 35.0 |
| **Refi DTI: Ginnie Mae Breakdown By Source** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 35,316 | 23.3 | 31.3 | 39.4 | 47.4 | 53.4 | 38.8 |
| FHA | 15,979 | 27.5 | 34.0 | 42.2 | 49.3 | 54.2 | 41.2 |
| VA | 18,662 | 21.4 | 29.4 | 36.8 | 45.4 | 52.4 | 37.1 |
| Other | 675 | 13.5 | 18.5 | 27.4 | 35.9 | 41.6 | 27.7 |
| **All DTI: Ginnie Mae Breakdown By Source** | | | | | | | |
| | Number of Loans | P10 | P25 | Median | P75 | P90 | Mean |
| All | 141,963 | 27.1 | 33.9 | 41.4 | 48.4 | 53.8 | 40.7 |
| FHA | 78,648 | 29.6 | 36.3 | 43.5 | 49.7 | 54.3 | 42.5 |
| VA | 53,044 | 24.6 | 32.0 | 39.7 | 47.3 | 53.3 | 39.3 |
| Other | 10,271 | 24.4 | 30.0 | 35.4 | 40.0 | 42.9 | 34.5 |

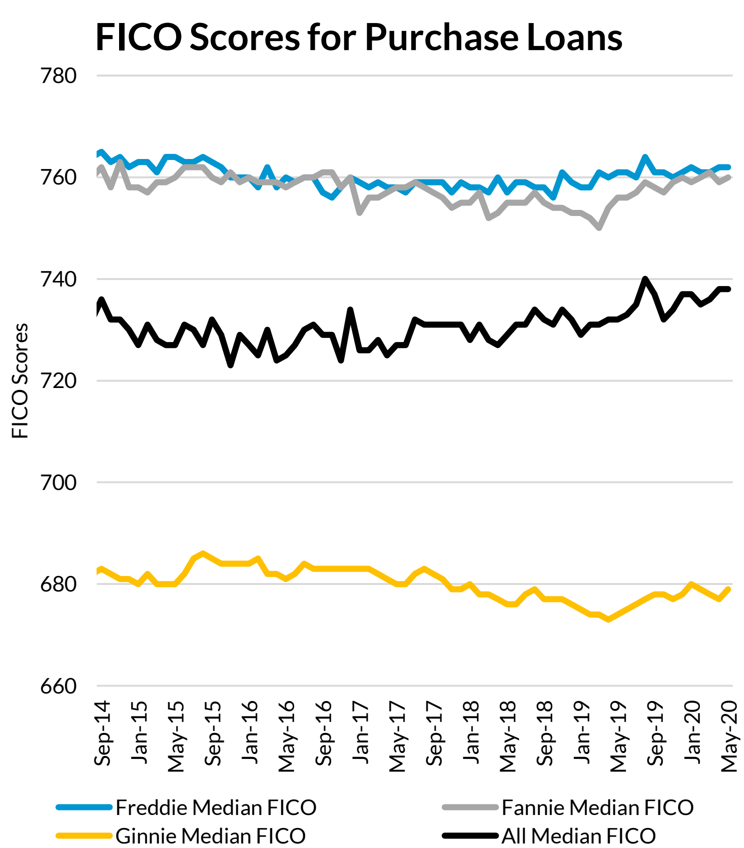
**Sources**: *eMBS and Urban Institute.* **Note**: *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# Credit Box: Historical

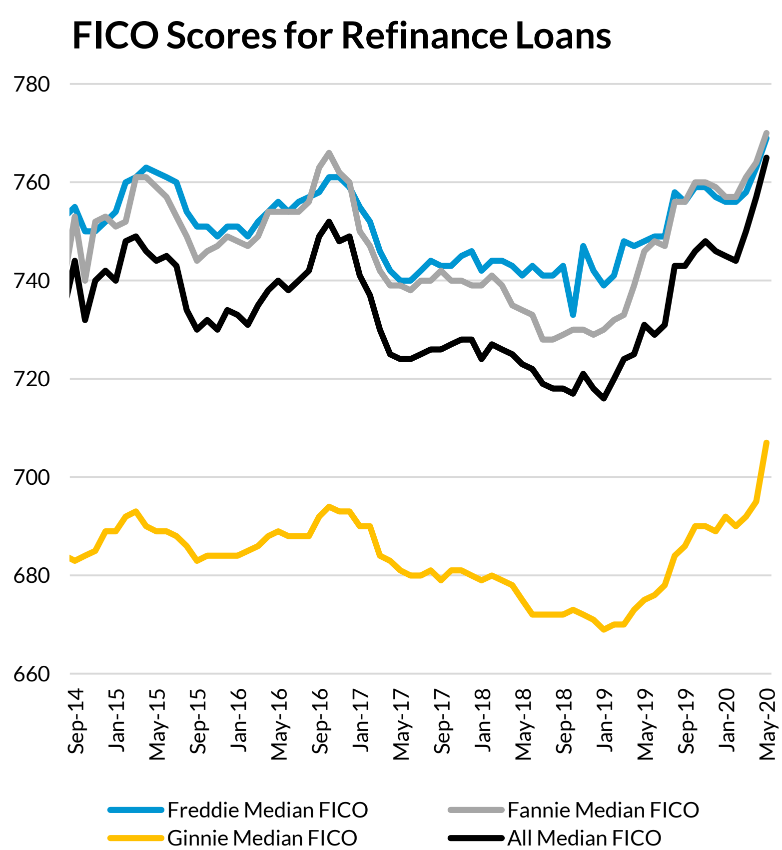
The median FICO score for all agency loans originated in May 2020 was 757, up considerably since the start of last year, owing to the refinance wave, which higher FICO borrowers take advantage of with greater frequency. In addition, the increases in refinance activity have been much more dramatic at the GSEs than at Ginnie Mae, shifting the composition toward higher FICO scores borrowers. Note since early 2019, the median FICO scores for Fannie, Freddie and Ginnie borrowers have moved up for both purchase and refinance loans. The difference between Ginnie Mae and GSE borrower FICOs is slightly wider for purchase loans than for refi loans.




**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*




**Sources**: *eMBS and Urban Institute.* **Note:** *Data as of May 2020.*

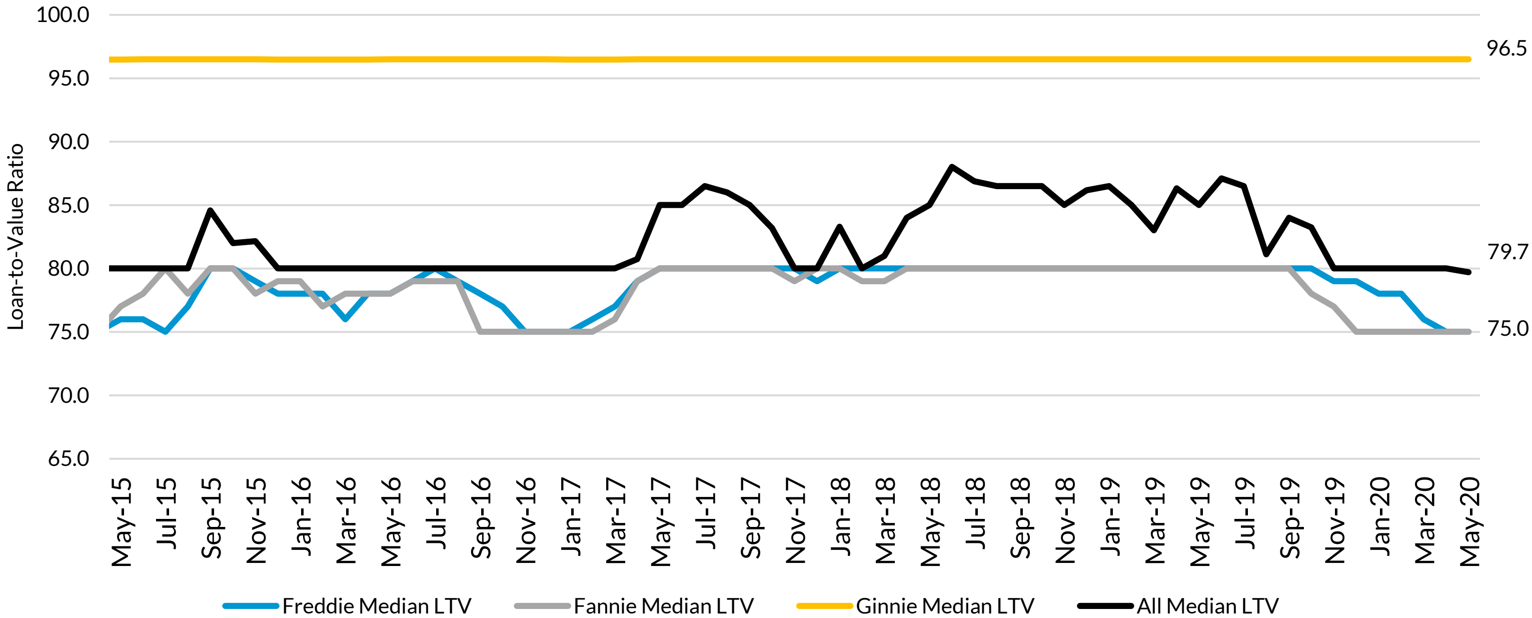



**Sources**: *eMBS and Urban Institute.* **Note:** *Data as of May 2020.*

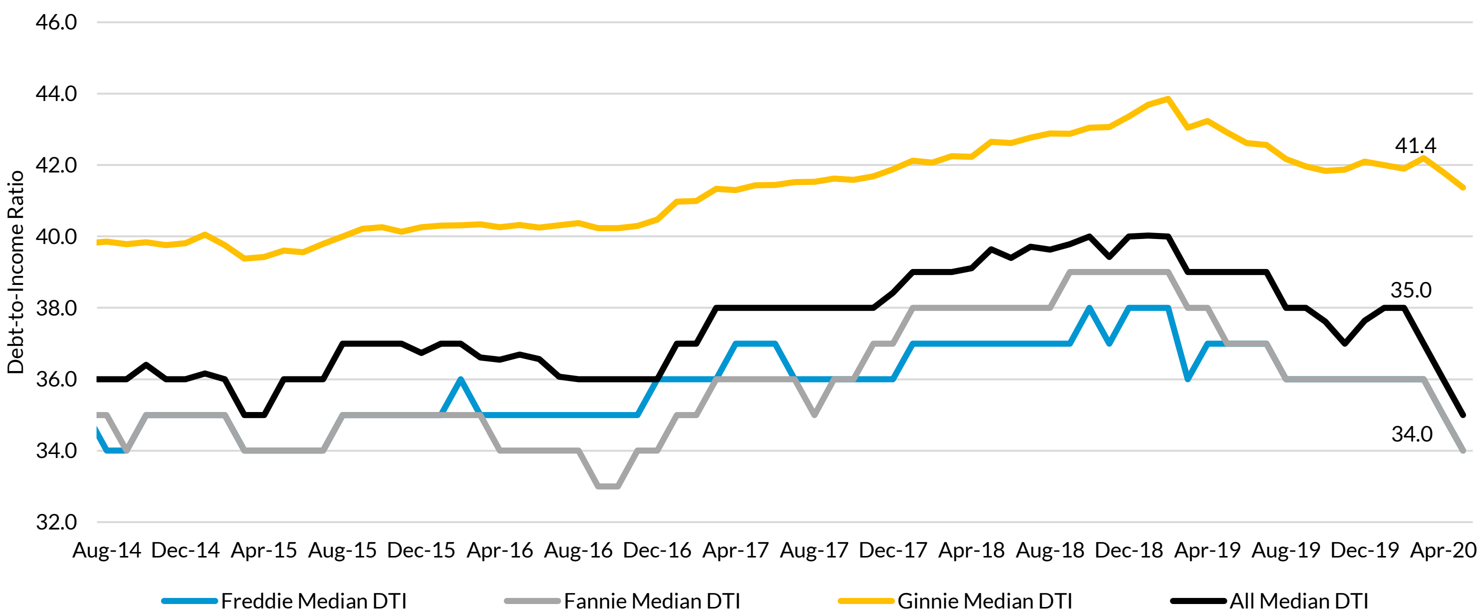
# Credit Box: Historical

Median LTVs for Ginnie Mae loans have historically been at 96.5 percent, much higher than the 75–79.7 LTVs for the GSEs. Median debt-to-income ratios for Ginnie Mae loans have historically been in the low 40s, considerably higher than for the GSEs. DTIs increased in the 2017-2018 period for both Ginnie Mae and GSE loans, with the movement more pronounced for Ginnie Mae. Increases in DTI are very typical in an environment of rising interest rates and rising home prices. All three agencies witnessed measurable declines in DTI, beginning in early 2019, driven by lower interest rates.

## LTV Ratio for All Loans




## DTI Ratio for All Loans

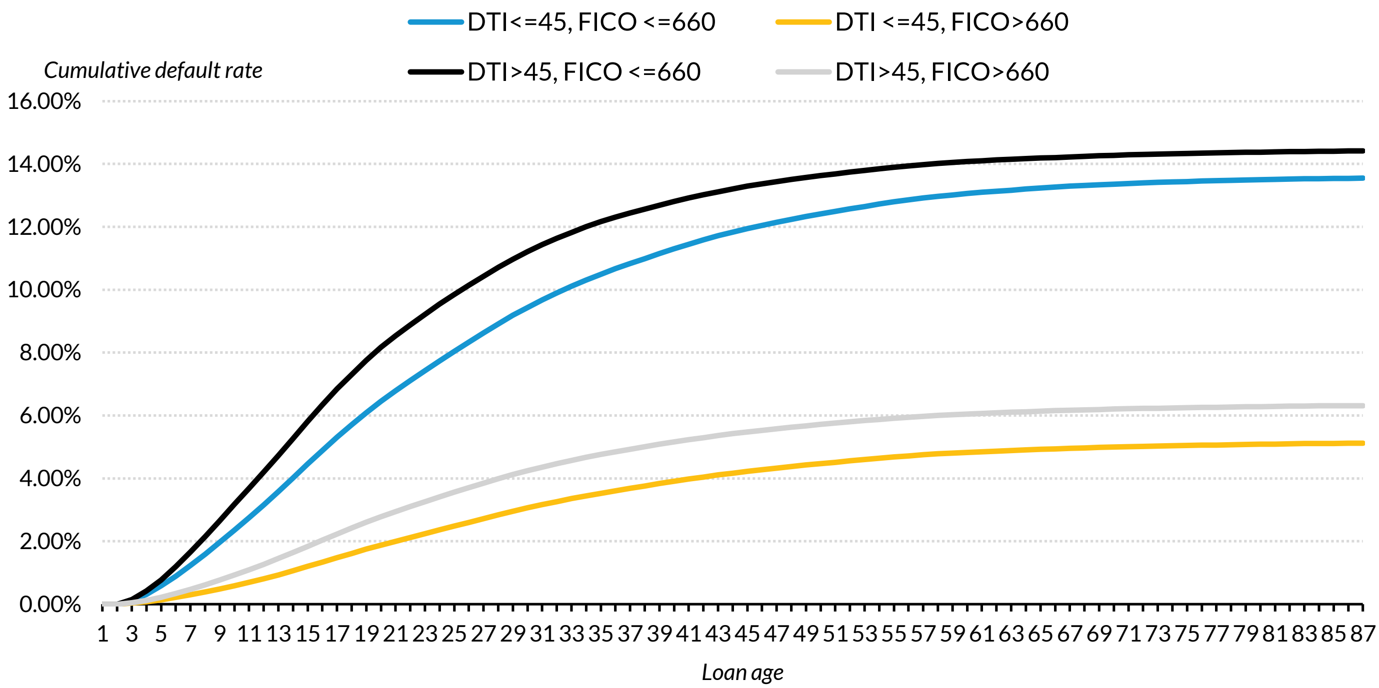



**Sources**: *eMBS and Urban Institute.* **Note:** *In May 2017 Ginnie Mae began disclosing issuer-reported LTV for FHA loans, which includes the financed upfront mortgage insurance premium. To make it consistent with the previously reported LTV, we removed the financed upfront mortgage insurance premium by subtracting 169 bps from this new issuer-reported LTV. Sources and note apply to all three graphs. Data as of May 2020.*

# Credit Box: Historical

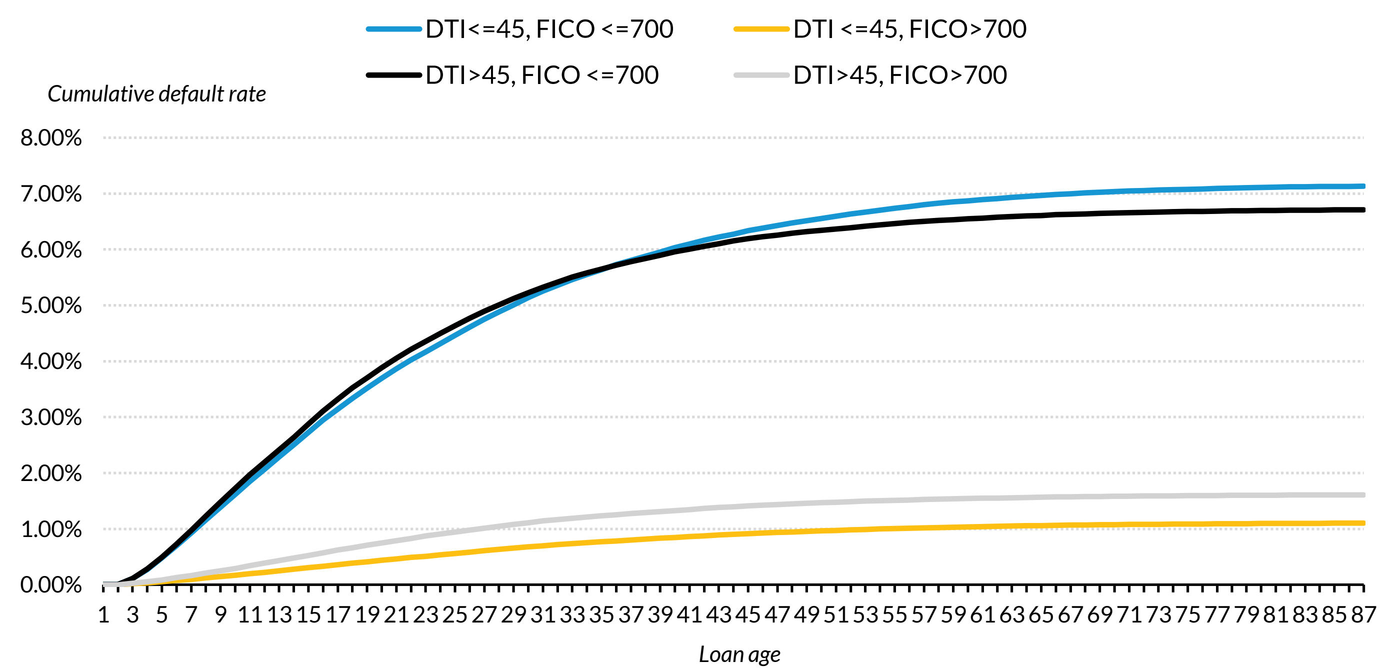
DTI is a much weaker predictor of performance than FICO score. The top chart shows FHA borrowers with higher DTIs do default more than those with lower DTIs, but the differences are modest, as evidenced by the fact that the black line is very close to the blue line and the grey line is not that much above the yellow line. By contrast, FICO makes a much larger difference, as can be seen by comparing the blue line to the yellow line or the black line to the gray line. And low DTI/low FICO borrowers default much less than high DTI/high FICO borrowers, as can be seen by comparing the blue line to the gray line. The bottom chart, for VA borrowers illustrates the same point; DTI is a much weaker predictor of loan performance than credit score.

## FHA Cumulative Default Rate by DTI and FICO




**Sources**: *eMBS and Urban Institute.* **Note:** Defaults = 180 days delinquent. *Data as of May 2020.*

## VA Cumulative Default Rate by DTI and FICO

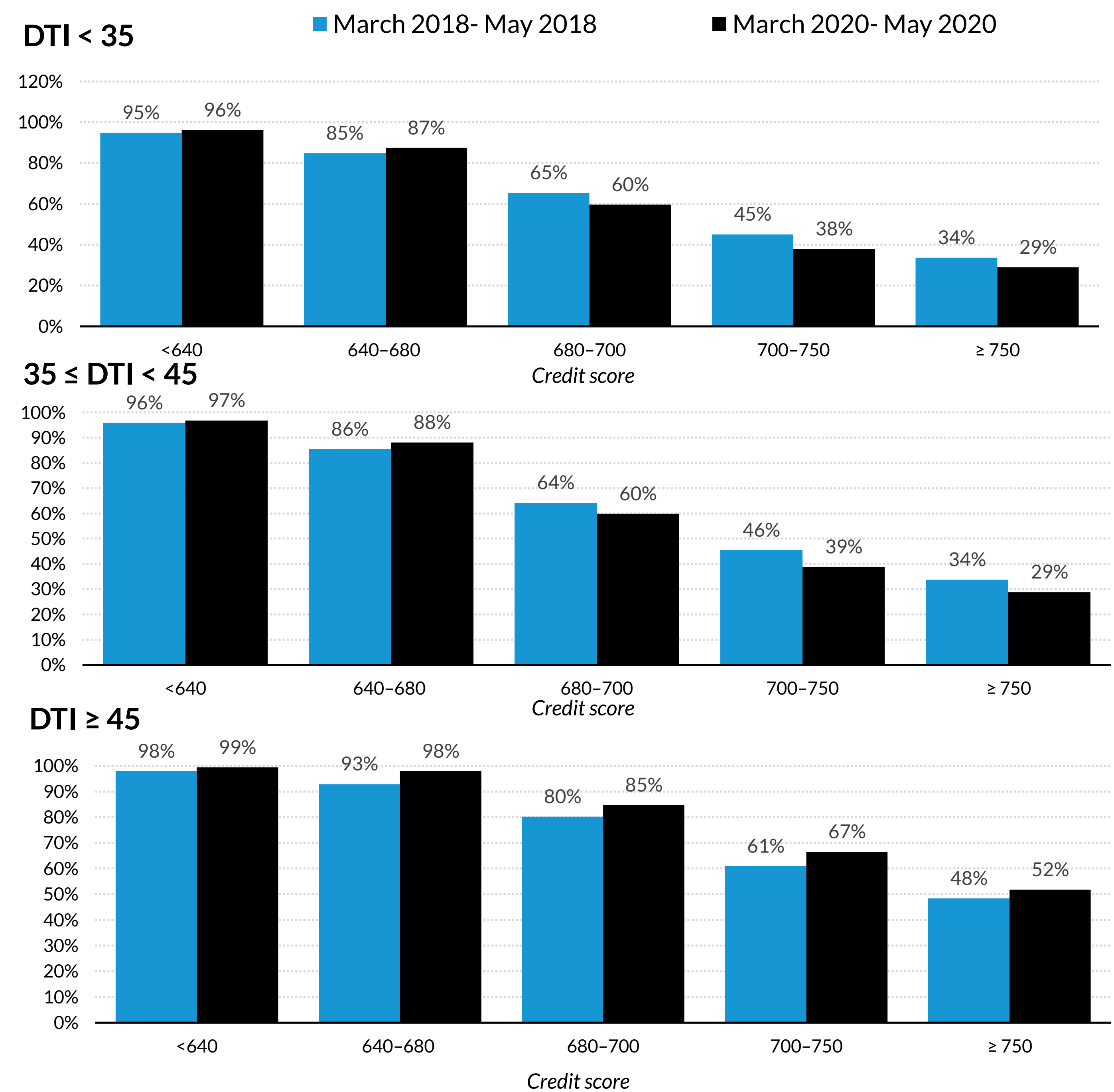



**Sources**: *eMBS and Urban Institute.* **Note:** Defaults = 180 days delinquent. *Data as of May 2020.*

# Credit Box: Historical

This table shows Ginnie Mae's share of agency high-LTV lending by DTI and FICO. In each DTI bucket, Ginnie Mae's share is more concentrated in lower FICO scores than in higher FICO scores. In March 2020- May 2020, Ginnie Mae accounted for 96 percent of agency issuance for DTIs under 35 and FICOs below 640, compared to just 29 percent for DTIs below 35 and FICO 750 and higher. The Ginnie/GSE split in the 35-45 DTI bucket looks a lot like the below 35 percent DTI bucket. In March 2020– May 2020, Ginnie Mae's share of issuance was higher for DTIs of 45 and above, as compared with the two lower DTI buckets. Ginnie Mae share of loans with a DTI of 45 and above and a FICO of 680-700 was 85 percent; it was 60 percent for the same FICO in the lower DTI buckets. Comparing this period to 2 years earlier, it is clear the GSEs have stepped up their higher LTV lending for borrowers with FICOs of 680 or higher for DTIs less than 45 (the less than 35 and the 35-45 buckets).

## Ginnie Mae Share of Agency Market by DTI and FICO for Loans with LTV ≥ 95




***Sources:*** *eMBS and Urban Institute.*

# High LTV Loans: Ginnie Mae vs. GSEs

Ginnie Mae dominates high-LTV lending, with 68.2 percent of its issuances in the March 2020- May 2020 period having LTVs of 95 or above, compared to 11.1 percent for the GSEs. The GSEs have decreased their high-LTV lending share from 18.7 percent in March 2018– May 2018. Ginnie Mae's high-LTV lending is also down, but by less than the GSE share, over the same period from 70.2 percent. The share of high-LTV agency loans going to highest FICO borrowers (i.e. above 750) has increased from the March 2018-May 2018 period to the March 2020-May 2020 period, as has the share of lower DTI borrowers (below 35).

### Share of Loans with LTV ≥ 95

| | Ginnie Mae | GSE | All |
|---|---|---|---|
| March 2018- May 2018 | 70.2% | 18.7% | 35.6% |
| March 2020- May 2020 | 68.2% | 11.1% | 22.3% |

### Agency Market Share by DTI and FICO for Loans with LTV ≥ 95

**March 2018-May2018**

| | FICO | | | | | |
|---|---|---|---|---|---|---|
| **DTI** | <640 | 640–680 | 680–700 | 700–750 | ≥ 750 | All |
| < 35 | 2.9% | 5.0% | 2.7% | 7.0% | 8.6% | 26.2% |
| 35 –45 | 5.5% | 9.4% | 4.8% | 10.9% | 9.3% | 40.0% |
| ≥ 45 | 4.8% | 9.2% | 4.5% | 9.2% | 6.3% | 33.8% |
| All | 13.2% | 23.6% | 12.0% | 27.0% | 24.2% | 100.0% |

**March 2020-May 2020**

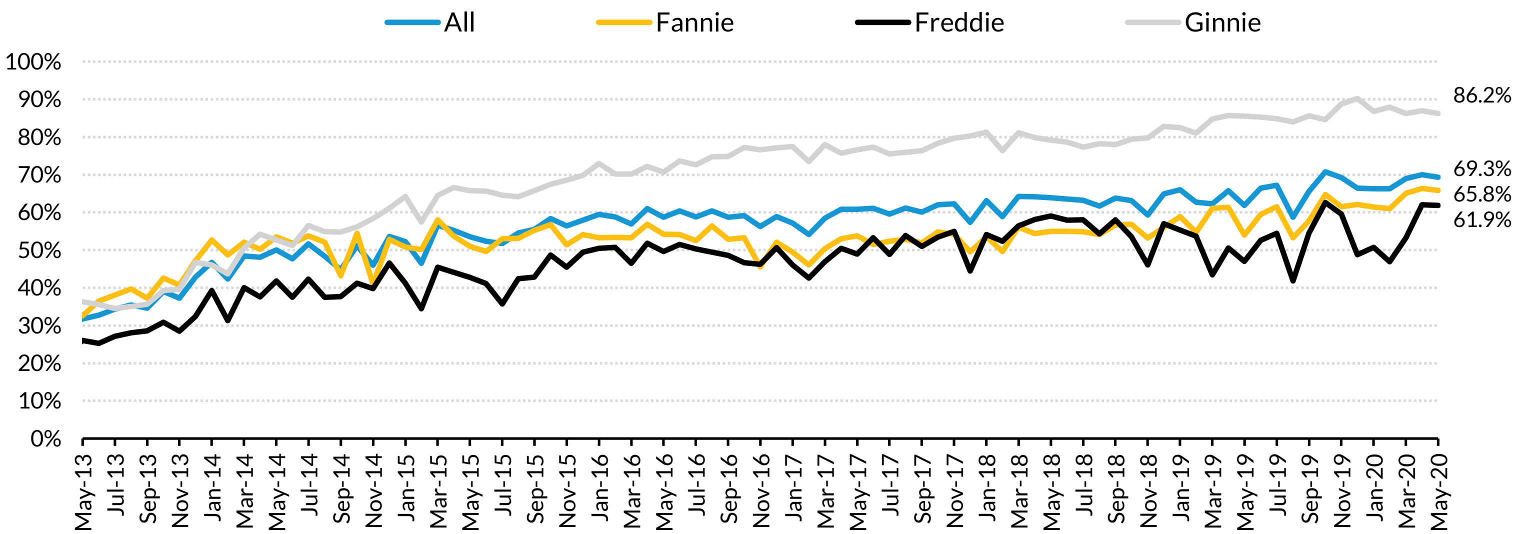
| | FICO | | | | | |
|---|---|---|---|---|---|---|
| **DTI** | <640 | 640–680 | 680–700 | 700–750 | ≥ 750 | All |
| < 35 | 2.7% | 4.6% | 2.7% | 8.3% | 11.6% | 30.0% |
| 35 –45 | 4.8% | 8.0% | 4.6% | 12.0% | 11.4% | 40.8% |
| ≥ 45 | 4.2% | 7.5% | 3.7% | 7.9% | 6.0% | 29.2% |
| All | 11.8% | 20.2% | 11.0% | 28.1% | 28.9% | 100.0% |

***Sources:*** *eMBS and Urban Institute.*

# Nonbank Originators

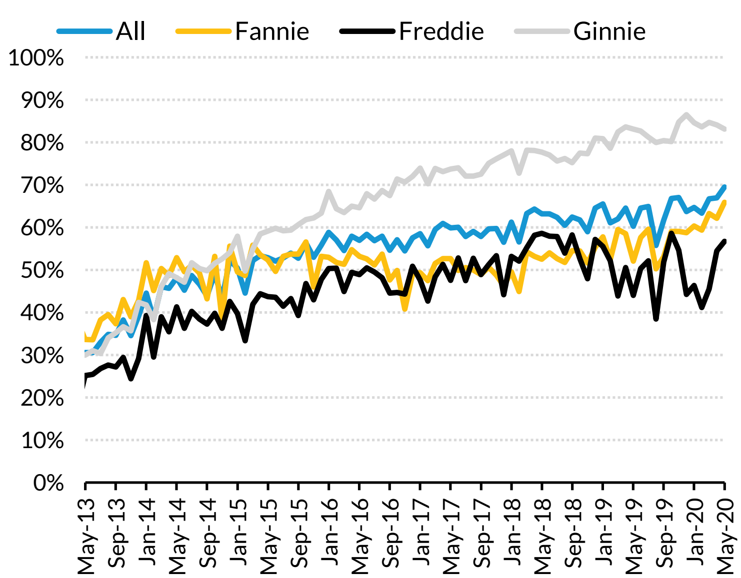
The nonbank origination share has been rising steadily for all three agencies since 2013. The Ginnie Mae nonbank share has been consistently higher than the GSEs, standing at 86.2 percent in May 2020, down from a record high of 90.2 percent at the end of 2019. Freddie's nonbank share fell ever so slightly to 61.9 percent, while Fannie's nonbank fell to 65.8 percent in May (note that these numbers can be volatile on a month-to-month basis). Ginnie Mae, Fannie Mae and Freddie Mac all have higher nonbank origination shares for refi activity than for purchase activity. Freddie Mac's nonbank share is the lowest among the three agencies for both purchase and refinance loans.

## Nonbank Origination Share: All Loans

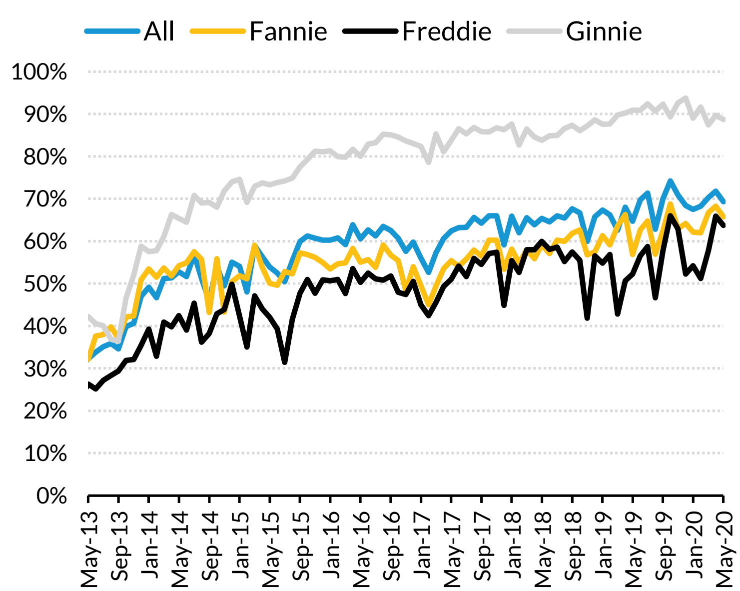



**Sources**: *eMBS and Urban Institute*
**Note:** *Data as of May 2020.*

## Nonbank Origination Share: Purchase Loans




## Nonbank Origination Share: Refinance Loans

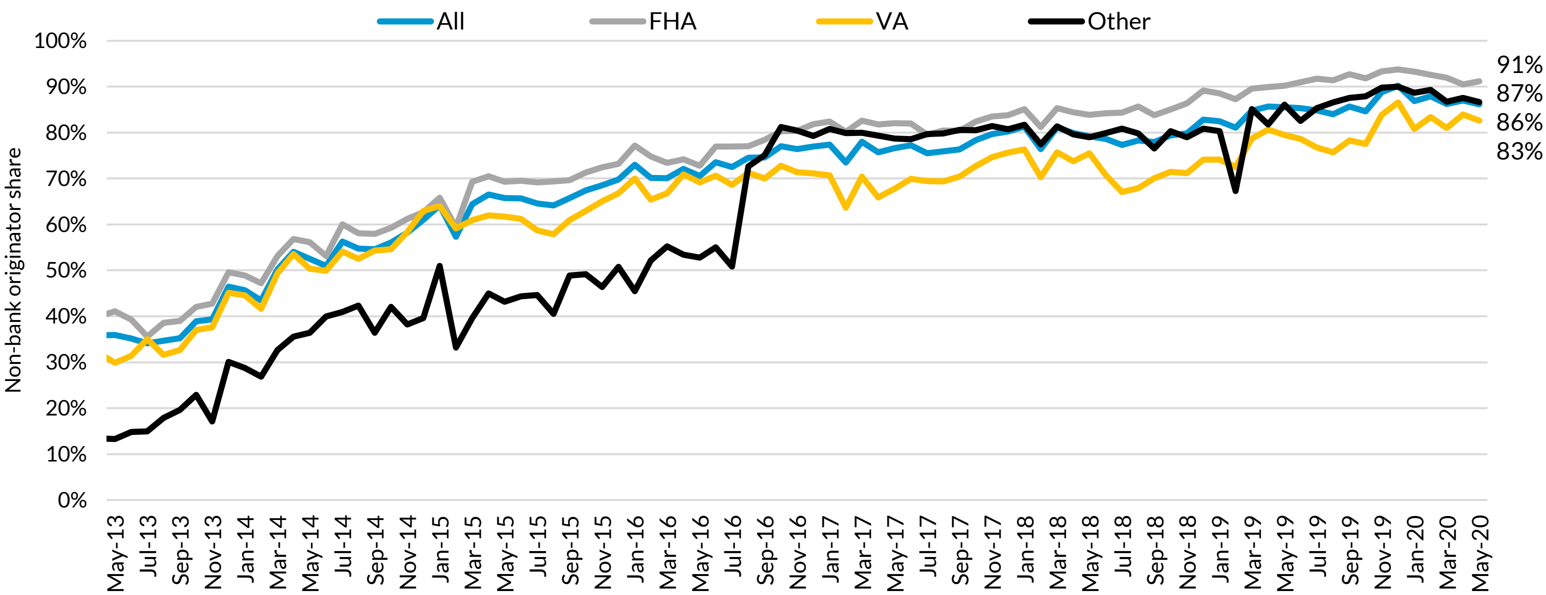



**Sources**: *eMBS and Urban Institute.* **Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# Ginnie Mae Nonbank Originators

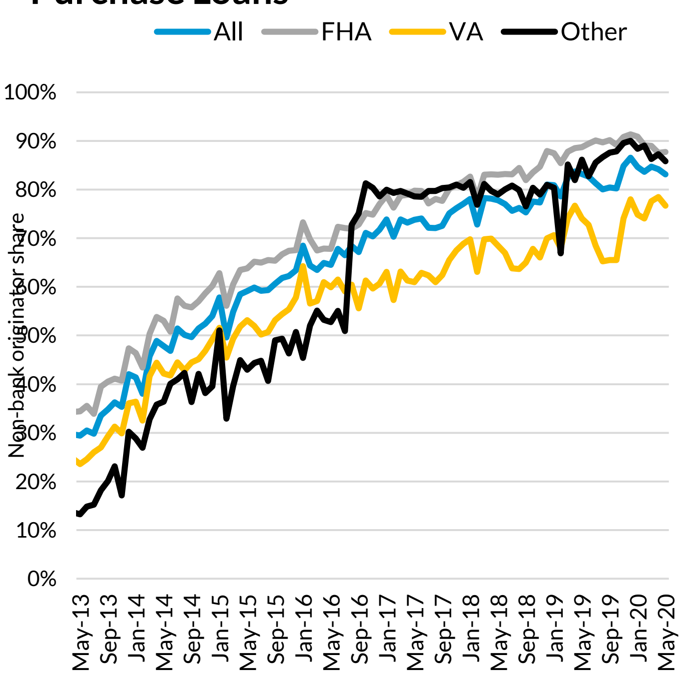
In May 2020, Ginnie Mae's nonbank share fell slightly to 86.2 percent. The nonbank originator share for FHA grew slightly to 91.2 percent in May, compared to 90.5 percent previous month. The nonbank originator share for VA was lower than last month at 82.6 percent and the nonbank originator share for other loans, which can fluctuate quite a bit month to month, fell to 86.6 percent.

## Ginnie Mae Nonbank Originator Share: All Loans

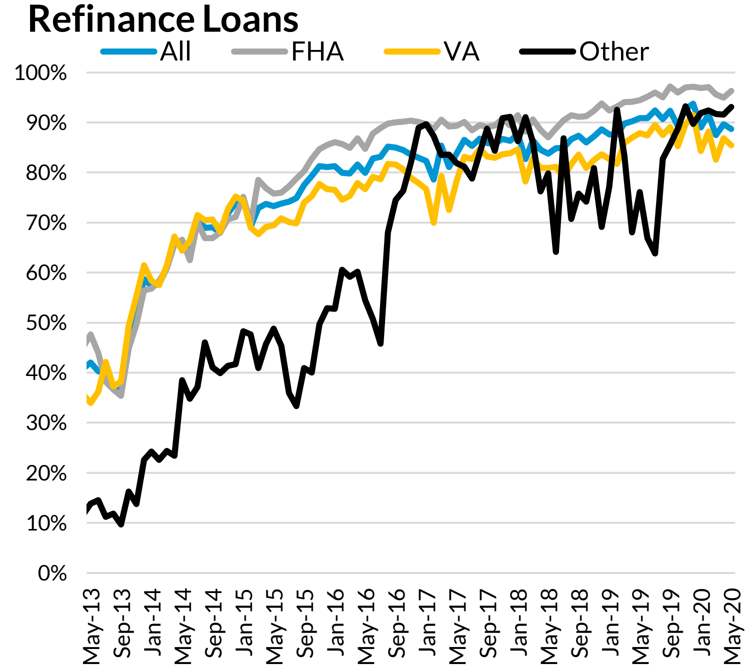



**Sources**: *eMBS and Urban Institute*
**Note:** *Data as of May 2020.*

## Ginnie Mae Nonbank Share: Purchase Loans




## Ginnie Mae Nonbank Share: Refinance Loans

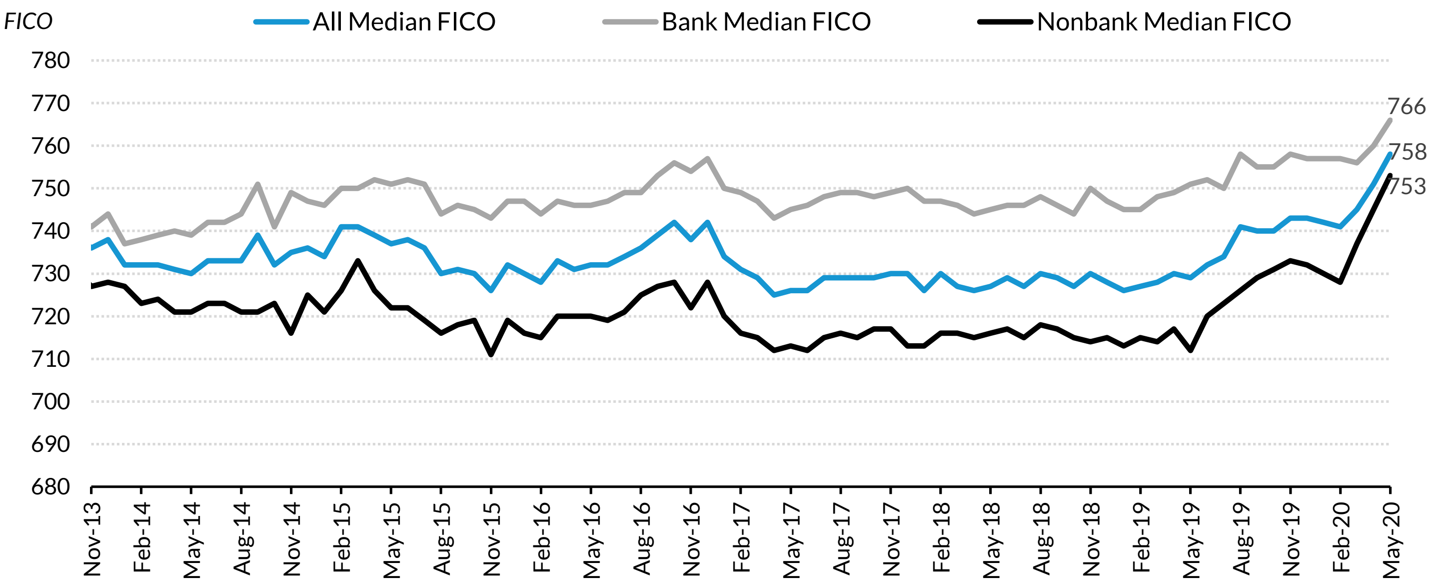



**Sources**: *eMBS and Urban Institute.* **Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# Nonbank Credit Box

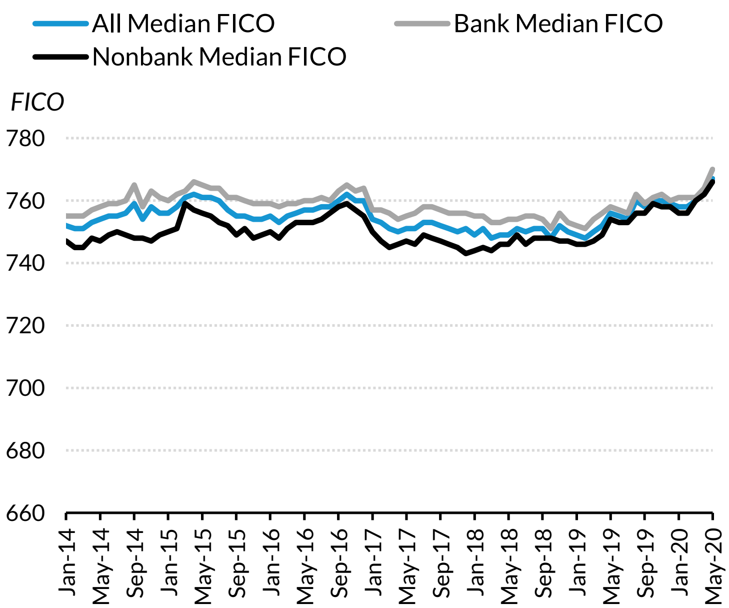
Nonbank originators have played a key role in opening up access to credit. FICO scores for loans originated by nonbanks are lower than their bank counterparts. Within the GSE space, where the differentials between banks and non-banks are small, FICO scores for both have increased since early 2014. The sharp rise in bank and non-bank FICOs reflects an increase in GSE refinance activity, producing a shift in their business mix toward higher FICO activities. Within the Ginnie Mae space, FICO scores for bank originations are measurably higher since early 2014 while nonbank FICOs have are up only slightly. This largely reflects the sharp cut-back in FHA lending by many banks.

## Agency FICO: Bank vs. Nonbank



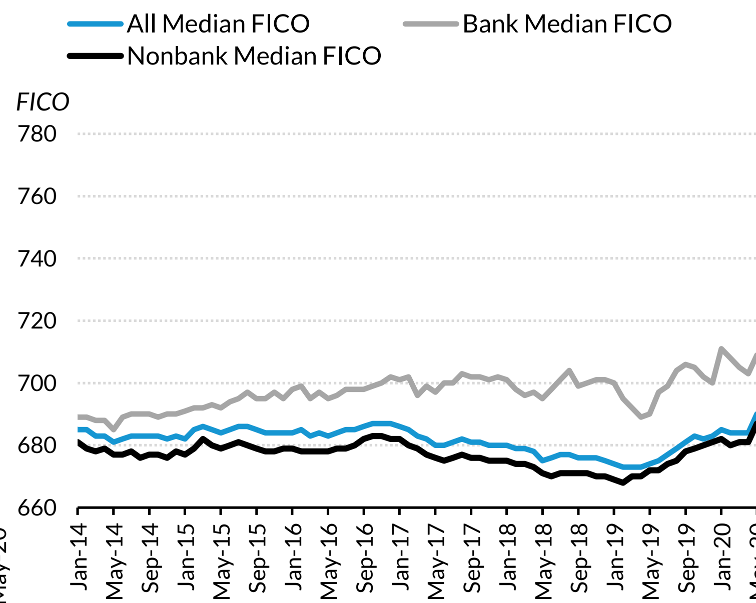

**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

## GSE FICO: Bank vs. Nonbank




**Sources**: *eMBS and Urban Institute.*
**Note**: *Data as of May 2020.*

## Ginnie Mae FICO: Bank vs. Nonbank

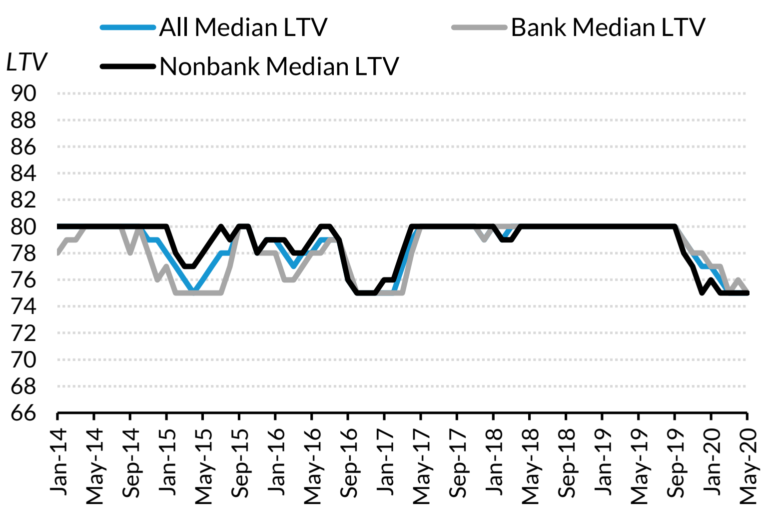



**Sources**: *eMBS and Urban Institute.*
**Note**: *Data as of May 2020.*

# Nonbank Credit Box

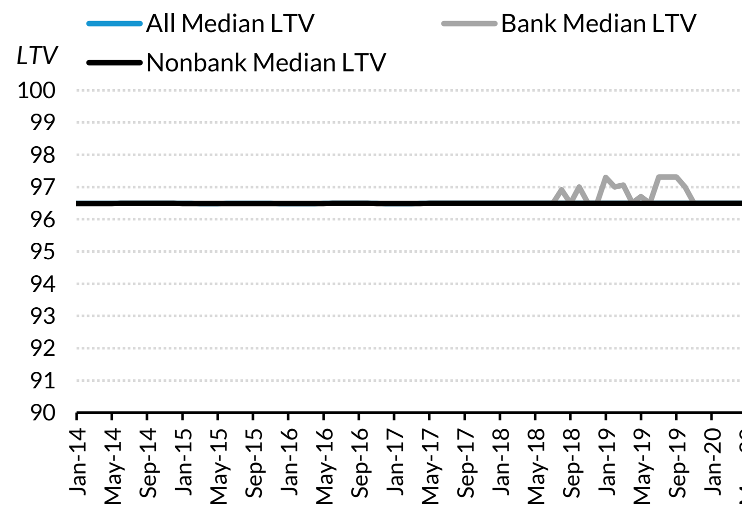
The median LTVs for nonbank and bank originations are comparable, while the median DTI for nonbank loans is higher than for bank loans, indicating that nonbanks are more accommodating in both this and the FICO dimension. Between early 2017 and early 2019, there was a substantial increase in DTIs, which has mostly reversed over the subsequent months. This is true for both Ginnie Mae and the GSEs, for banks and nonbanks. As interest rates increased, DTIs rose, because borrower payments were driven up relative to incomes. With the fall in interest rates in 2019 and 2020, DTIs have dropped.

## GSE LTV: Bank vs. Nonbank



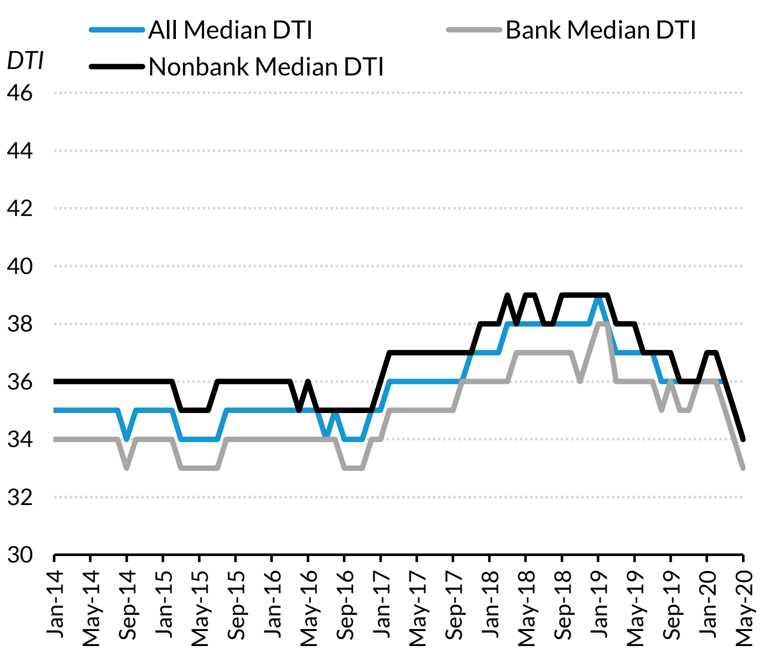

**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

## Ginnie Mae LTV: Bank vs. Nonbank



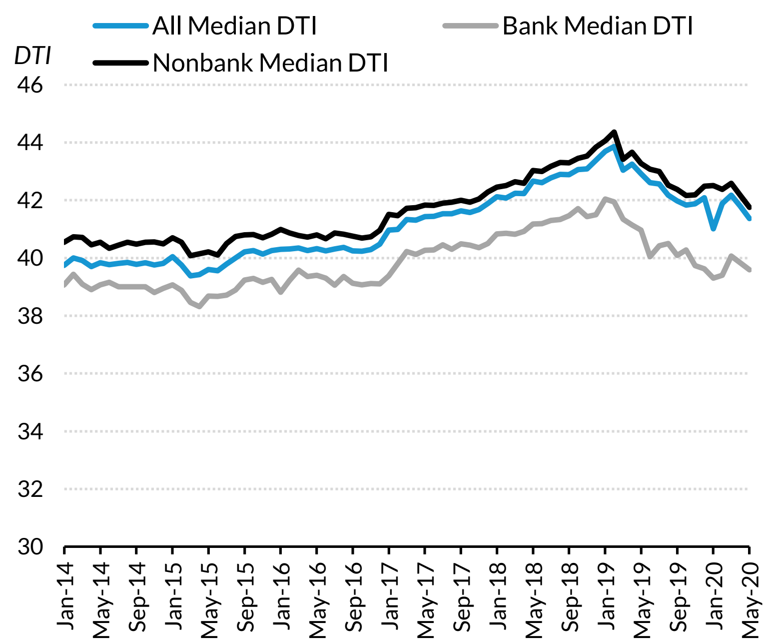

**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

## GSE DTI: Bank vs. Nonbank




**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

## Ginnie Mae DTI: Bank vs. Nonbank

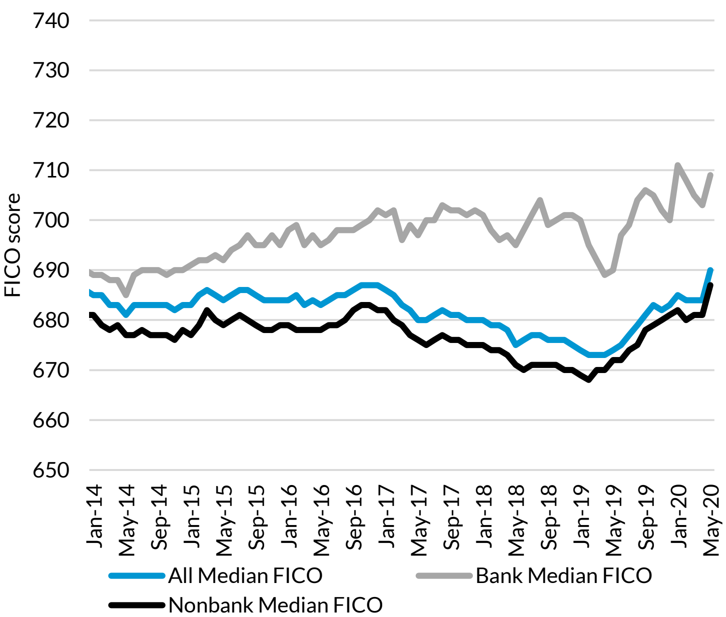



**Sources**: *eMBS and Urban Institute.* **Note**: *Data as of May 2020.*

# Ginnie Mae Nonbank Originators: Credit Box

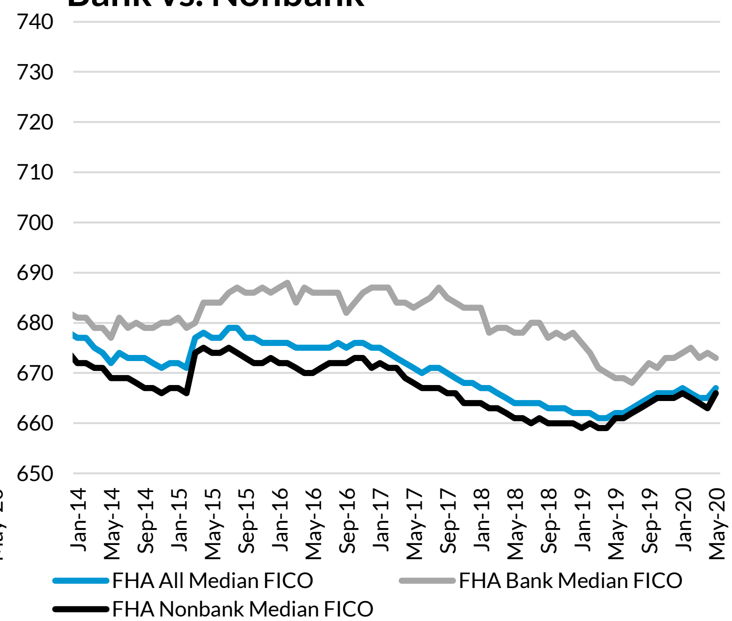
The median FICO score for Ginnie Mae bank and nonbank originators climbed in May 2020; however bank FICOs remain 22 points above non-banks. The gap between banks and non-banks is very apparent for FHA and VA lending.

## Ginnie Mae FICO Scores: Bank vs. Nonbank



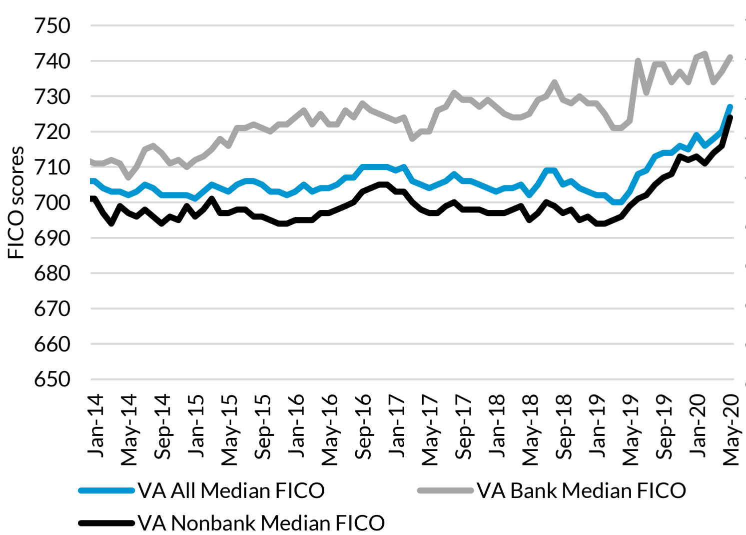

**Sources**: *eMBS and Urban Institute* **Note:** *Data as of May 2020.*

## Ginnie Mae FHA FICO Scores: Bank vs. Nonbank



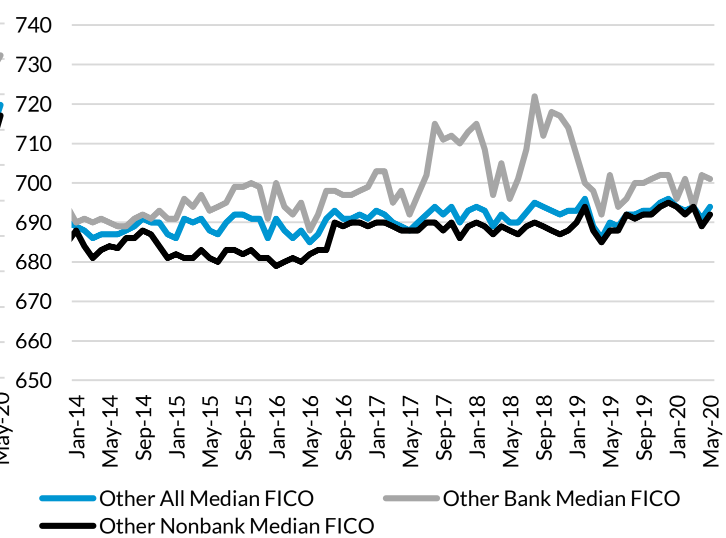

**Sources**: *eMBS and Urban Institute* **Note:** *Data as of May 2020.*

## Ginnie Mae VA FICO Scores: Bank vs. Nonbank




**Sources**: *eMBS and Urban Institute*
**Note:** *Data as of May 2020.*

## Ginnie Mae Other FICO Scores: Bank vs. Nonbank

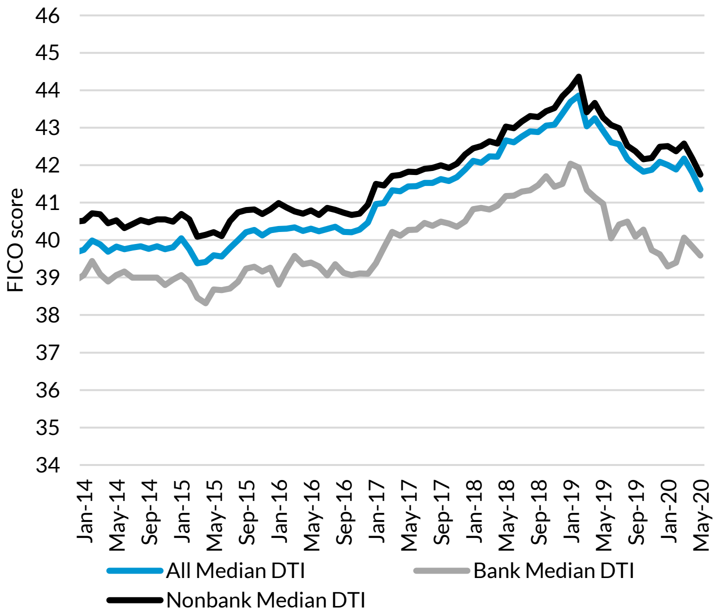



**Sources**: *eMBS and Urban Institute*
**Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# Ginnie Mae Nonbank Originators: Credit Box

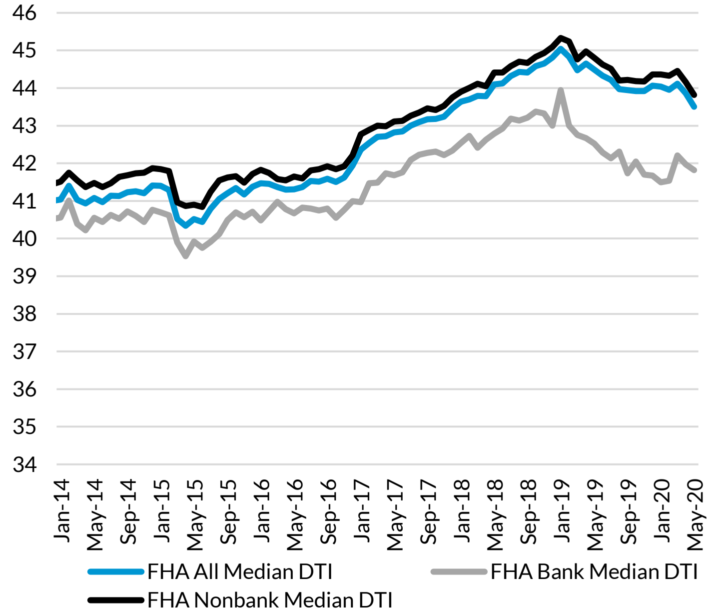
An analysis of borrowers' DTI ratios for bank versus non-bank originators indicates that the former have a lower median DTI. The DTIs for FHA and VA borrowers experienced notable increases during 2017 and 2018 for both banks and nonbank originators, while the Other origination DTIs stayed relatively flat. Rising DTIs are expected in a rising rate environment. After peaking in January 2019, Ginnie DTIs have reverted to 2017 levels, as rates have declined.

## Ginnie Mae DTI: Bank vs. Nonbank



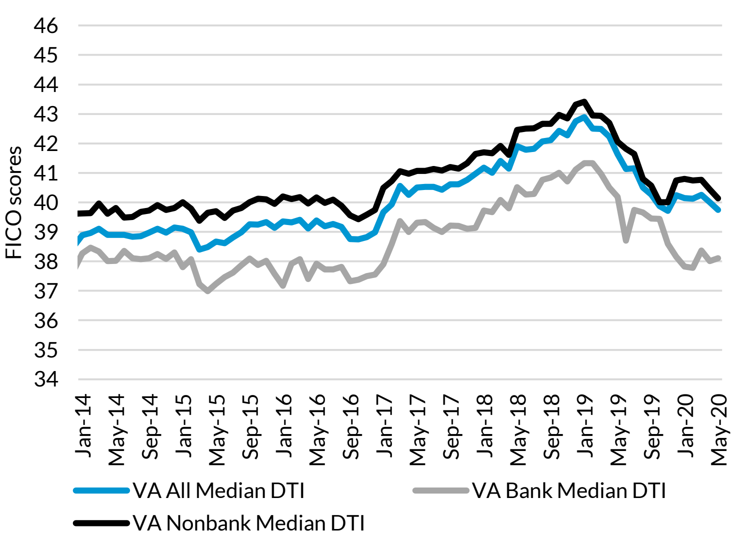

**Sources**: *eMBS and Urban Institute* **Note:** *Data as of May 2020.*

## Ginnie Mae FHA DTI: Bank vs. Nonbank



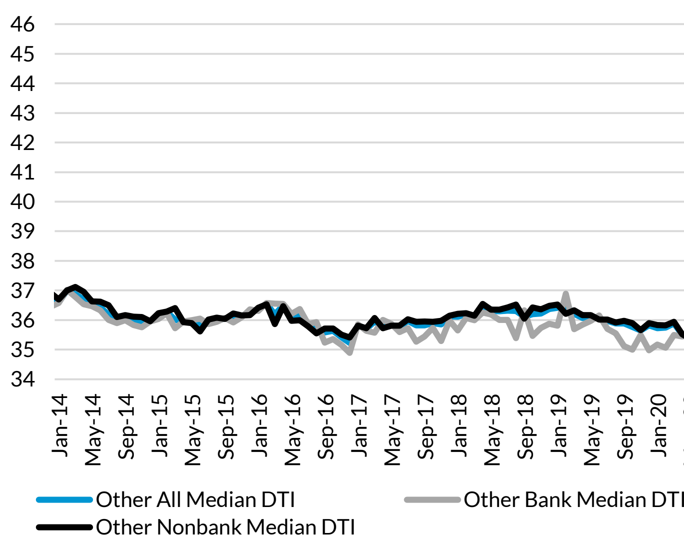

**Sources**: *eMBS and Urban Institute* **Note:** *Data as of May 2020.*

## Ginnie Mae VA DTI: Bank vs. Nonbank




**Sources**: *eMBS and Urban Institute*
**Note:** *Data as of May 2020.*

## Ginnie Mae Other DTI: Bank vs. Nonbank




**Sources**: *eMBS and Urban Institute*
**Note:** *"Other" refers to loans insured by HUD's Office of Public and Indian Housing and the Department of Agriculture's Rural Development. Data as of May 2020.*

# Holders of Ginnie Mae MSRs

This table shows 30 largest owners of mortgage servicing rights (MSR) by UPB for Ginnie Mae securitizations. As of May 2020, over half (52.5 percent) of the Ginnie Mae MSRs are owned by the top six firms. The top 30 firms collectively own 85.4 percent. Eighteen of these 30 are non-depositories, the remaining 12 are depository institutions.

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

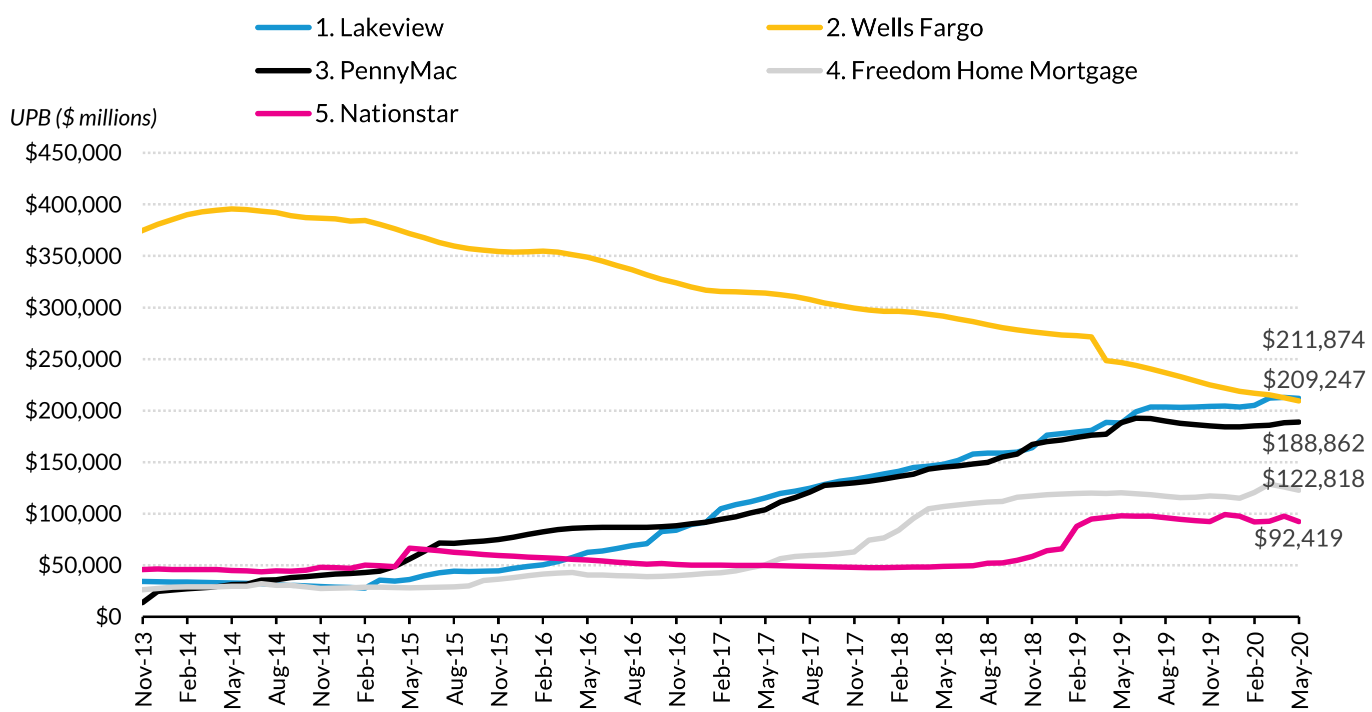
| Rank | MSR Holder | UPB ($ millions) | Share | Cumulative Share |
|---|---|---|---|---|
| 1 | **Lakeview** | $211,874 | 12.5% | 12.5% |
| 2 | **Wells Fargo** | $209,247 | 12.3% | 24.8% |
| 3 | **PennyMac** | $188,862 | 11.1% | 36.0% |
| 4 | **Freedom Home Mortgage** | $122,818 | 7.2% | 43.2% |
| 5 | **Nationstar** | $97,684 | 5.4% | 48.6% |
| 6 | **Quicken Loans** | $65,442 | 3.9% | 52.5% |
| 7 | **US Bank** | $56,979 | 3.4% | 55.9% |
| 8 | **Carrington Mortgage** | $51,922 | 3.1% | 58.9% |
| 9 | **Newrez** | $47,044 | 2.8% | 61.7% |
| 10 | **USAA Federal Savings Bank** | $39,106 | 2.3% | 64.0% |
| 11 | **Truist Bank** | $34,059 | 2.0% | 66.0% |
| 12 | **Caliber Home Loans** | $32,086 | 1.9% | 67.9% |
| 13 | **Navy Federal Credit Union** | $29,141 | 1.7% | 69.6% |
| 14 | **Amerihome Mortgage** | $26,552 | 1.6% | 71.2% |
| 15 | **The Money Source** | $21,322 | 1.3% | 72.4% |
| 16 | **JP Morgan Chase** | $20,682 | 1.2% | 73.7% |
| 17 | **Home Point Financial Corporation** | $19,762 | 1.2% | 74.8% |
| 18 | **Midfirst Bank** | $19,484 | 1.1% | 76.0% |
| 19 | **M&T Bank** | $17,381 | 1.0% | 77.0% |
| 20 | **Roundpoint** | $16,904 | 1.0% | 78.0% |
| 21 | **Loan Depot** | $16,219 | 1.0% | 78.9% |
| 22 | **Guild Mortgage** | $16,069 | 0.9% | 79.9% |
| 23 | **PHH Mortgage** | $14,155 | 0.8% | 80.7% |
| 24 | **Citizens Bank** | $13,558 | 0.8% | 81.5% |
| 25 | **Flagstar Bank** | $12,070 | 0.7% | 82.2% |
| 26 | **Pingora** | $11,669 | 0.7% | 82.9% |
| 27 | **Planet Home Lending** | $11,583 | 0.7% | 83.6% |
| 28 | **Fifth Third Bank** | $10,160 | 0.6% | 84.2% |
| 29 | **Bank of America** | $10,059 | 0.6% | 84.8% |
| 30 | **New American** | $9,932 | 0.6% | 85.4% |

**Sources**: *eMBS and Urban Institute.* **Note:** *Data as of May 2020.*

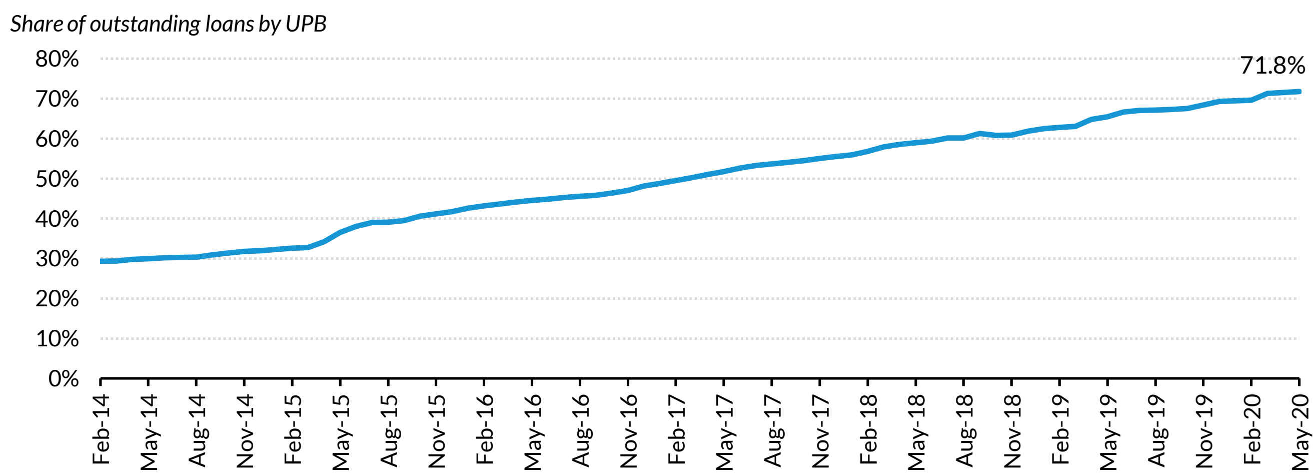
# Holders of Ginnie Mae MSRs

The composition of the largest owners of Ginnie Mae MSR has evolved quite a bit over time. In December 2013, Wells Fargo and JP Morgan Chase were the two largest owners of Ginnie Mae MSRs, holding $375 billion and $139 billion in servicing UPB respectively. In May 2020, Wells Fargo's holdings of MSRs fell to $209.2 billion, below the $211.9 billion held by Lakeview (a nonbank). PennyMac, Freedom Home Mortgage, and Nationstar (all nonbanks) make up the remainder of the top five largest holders of MSRs, owning $189 billion, $123 billion, and $92 billion respectively as of May 2020. Nonbanks collectively owned servicing rights for 71.8 percent of all outstanding unpaid principal balance guaranteed by Ginnie Mae in May 2020. In December 2013, the nonbank share was much smaller at 27.7 percent.

## Top 5 MSR Holders: Outstanding Ginnie Mae Loans by UPB



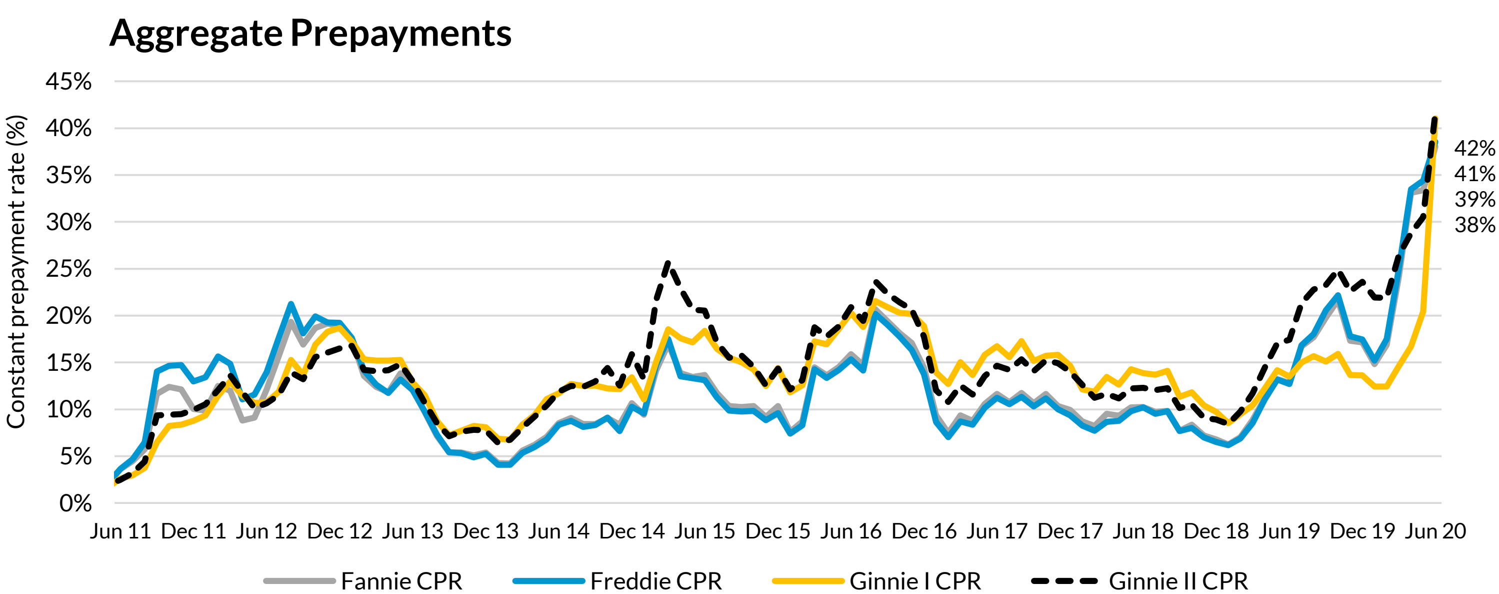

## Share of Ginnie Mae MSRs held by Nonbanks



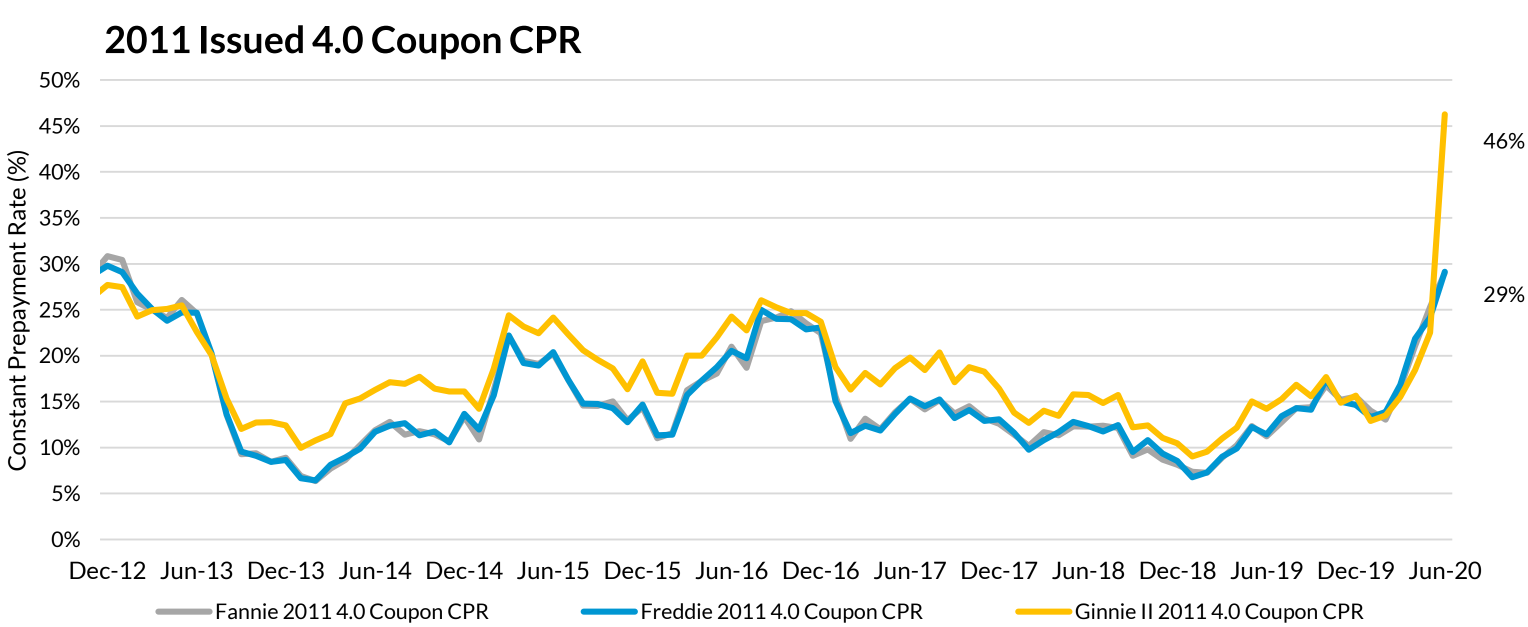

**Sources**: *eMBS and Urban Institute.* **Note:** *Data as of May 2020.*

# Prepayments

While prepayment speeds on all securities have risen since early 2019, the speed increase has been especially dramatic in 2020, with speeds on both Ginnie II and GSE securities rising rapidly due to a sharp drop in rates. At this point, the speeds on Ginnie II securities have largely converged with those on GSE securities. The faster Ginnie speeds from 2013-early 2020 reflected the growing share of VA loans, which tend to prepay faster than either FHA or GSE loans. In addition, FHA puts fewer restrictions on streamlined refinances, and some of the upfront mortgage insurance premium can also be applied to the refinanced loan.




**Sources**: *Credit Suisse and Urban Institute*. **Note:** *Data as of June 2020.*

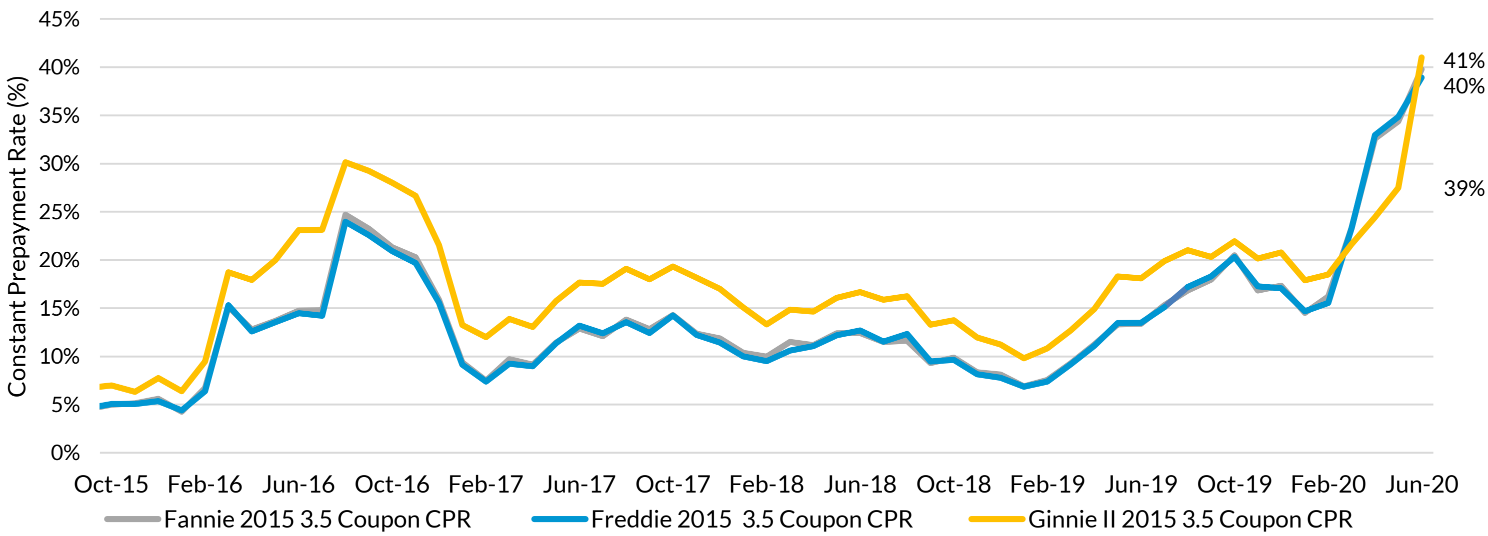



**Sources**: *Credit Suisse and Urban Institute.* **Note:** *Data as of June 2020.*

# Prepayments

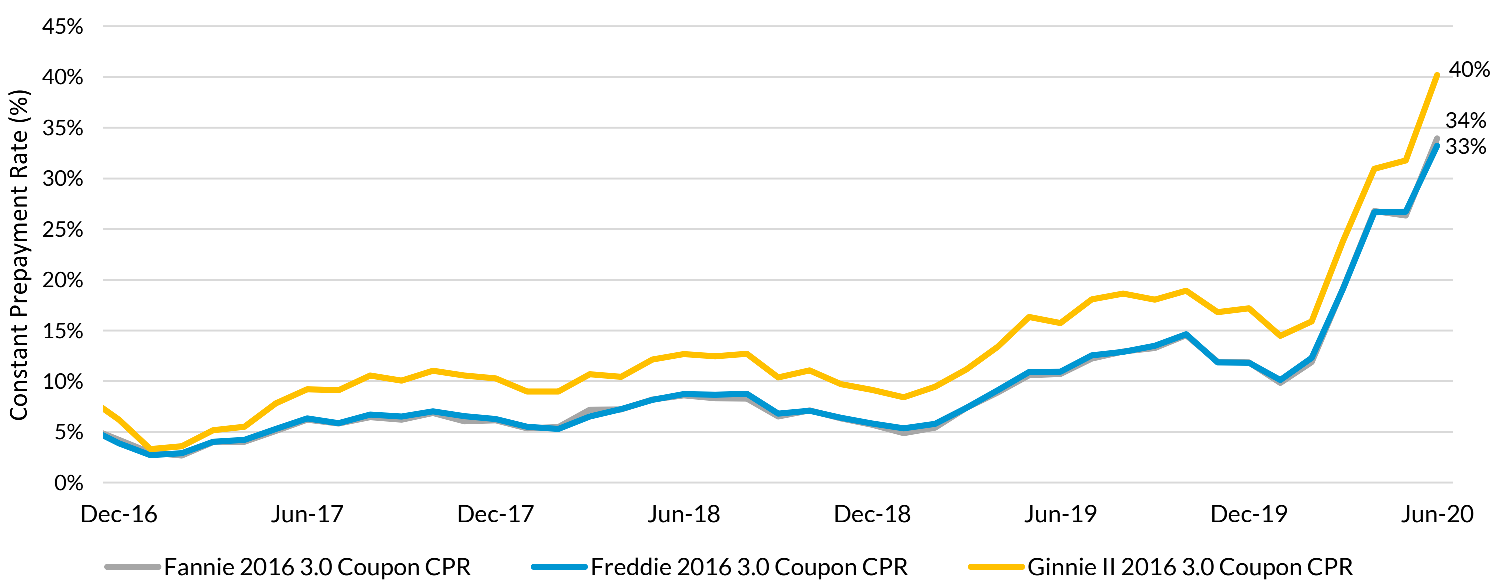
Speeds on the 2015 3.5s and the 2016 3.0s, the largest coupon cohorts of those vintage years, have been increasing since early 2019.; the speed increases have been especially dramatic in 2020 due to a sharp drop in rates, with speeds on both Ginnie II and GSE securities rising rapidly. The speeds on the 2015-issued Ginnie 3.5s have largely converged with their conventional counterparts, although the speeds on the 2016-issued Ginnie Mae 3.0s remain faster than their conventional counterparts. The faster historical speeds on the GinnieMae cohorts reflect the fact that 2015 and 2016 Ginnie originations consist of a large component of VA loans, which prepay faster than either FHA or GSE loans. The FHA streamlined programs are likely another contributor to the historically faster speeds.

## 2015 Issued 3.5 Coupon CPR




**Sources**: *Credit Suisse and Urban Institute*. **Note:** *Data as of June 2020.*

## 2016 Issued 3.0 Coupon CPR

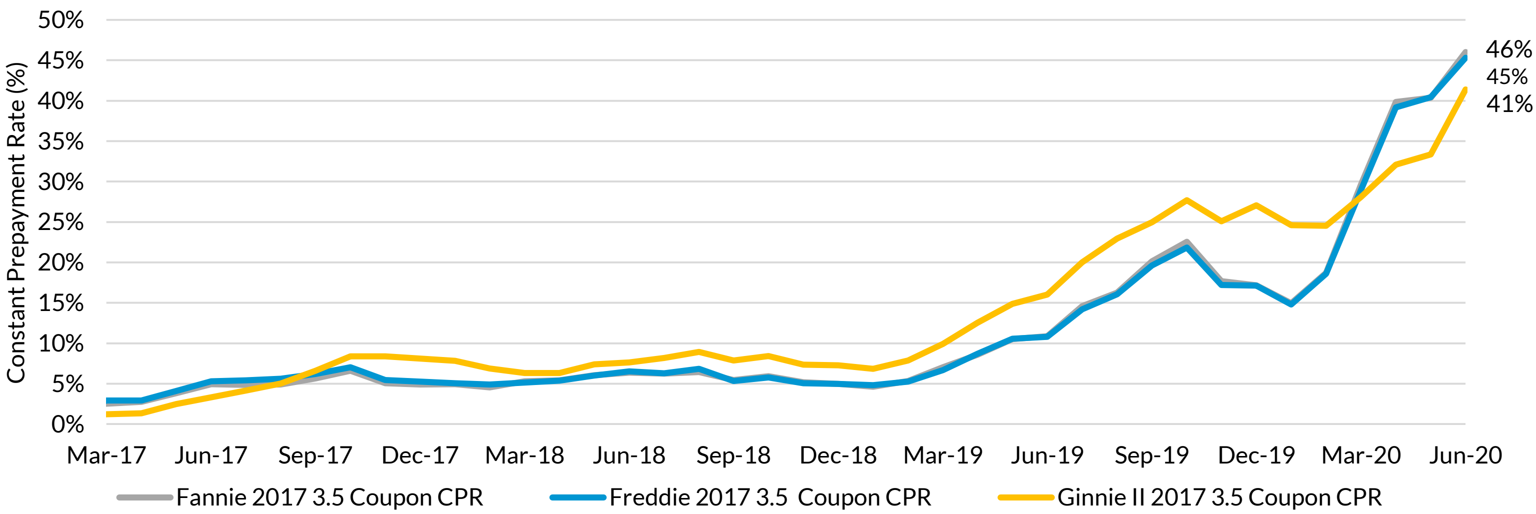



**Sources**: *Credit Suisse and Urban Institute*. **Note:** *Data as of June 2020.*

# Prepayments

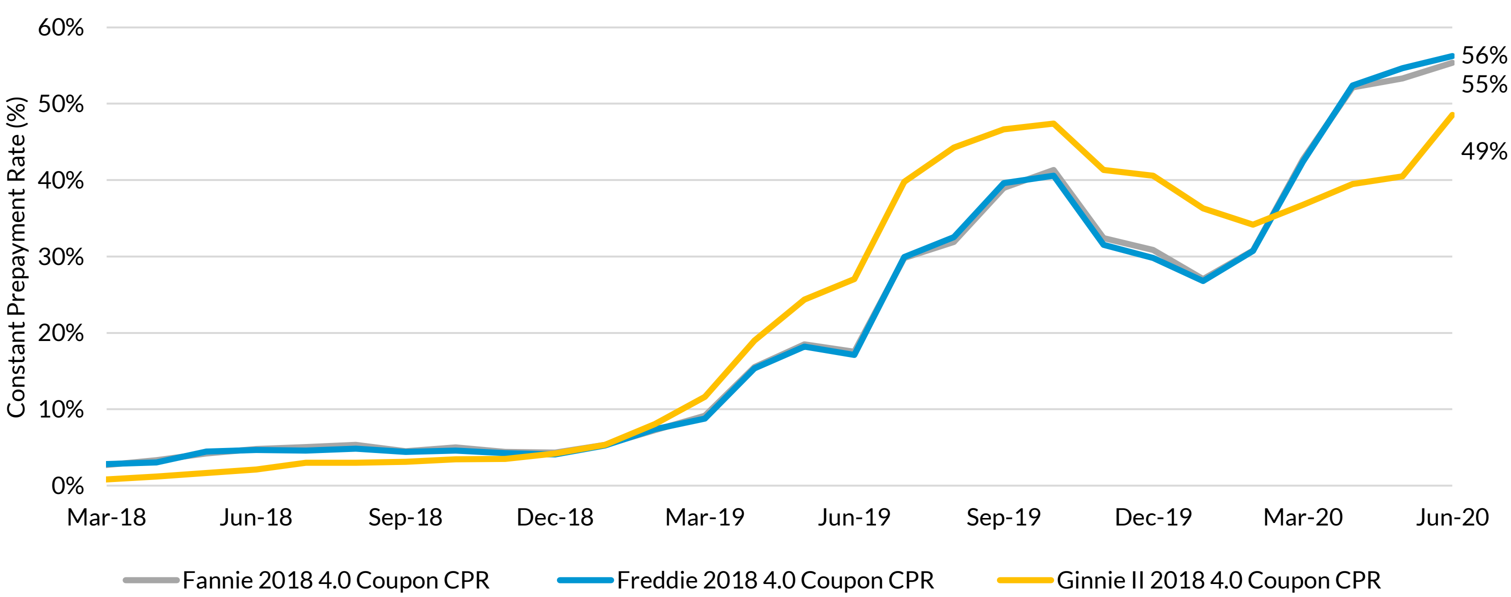
The charts below show the behavior of the 2017-issued 3.5s and the 2018-issued 4.0s, the largest coupon cohorts of those vintage years. Despite slower seasoning, 2017 Ginnie II 3.5s were prepaying faster than their conventional counterparts from late 2017 to March 2020, due primarily to fast VA prepayment speeds. Similarly, the 2018 Ginnie II 4.0s prepaid more slowly than their conventional counterparts until January of 2019. In 2019, speeds of 2018 4.0s and 2017 3.5s accelerated, and Ginnie II speeds accelerated more than their conventional counterparts. However, in early 2020 conventional speeds accelerated more than Ginnie speeds. Since March 2020, conventional speeds have exceeded those of the Ginnie cohorts.

## 2017 Issued 3.5 Coupon CPR




**Sources**: *Credit Suisse and Urban Institute.* **Note:** *Data as of June 2020.*

## 2018 Issued 4.0 Coupon CPR

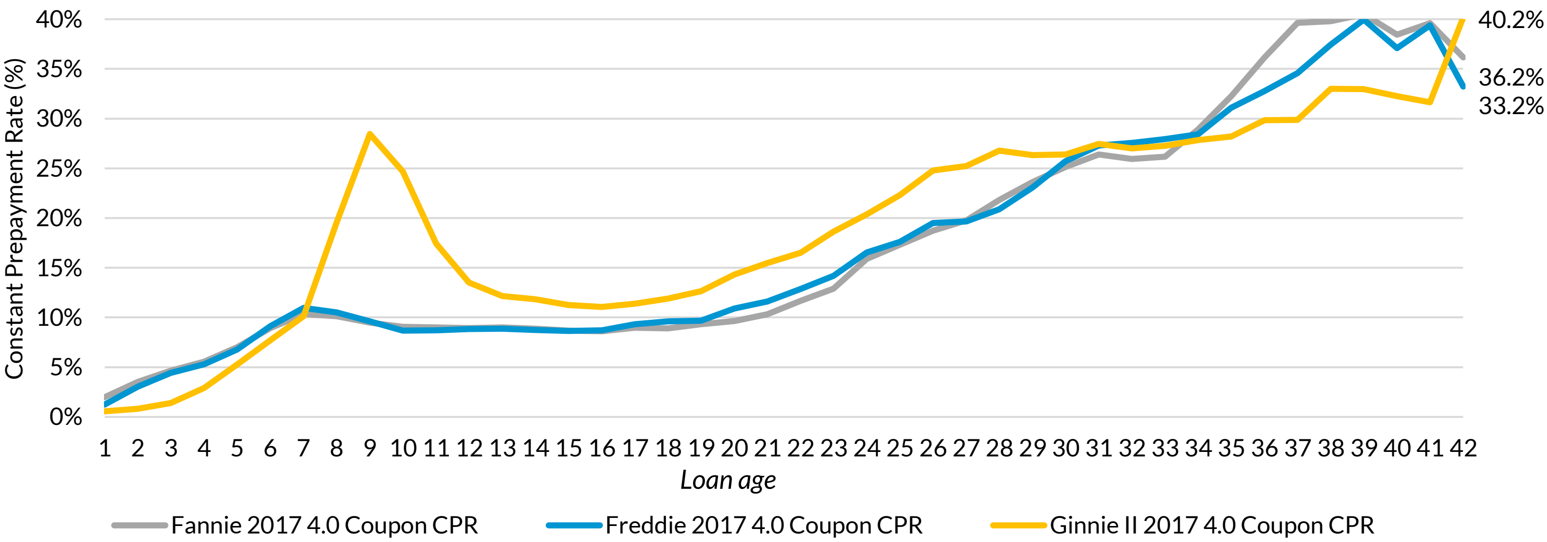



**Sources**: *Credit Suisse and Urban Institute.* **Note:** *Data as of June 2020.*

# Prepayments

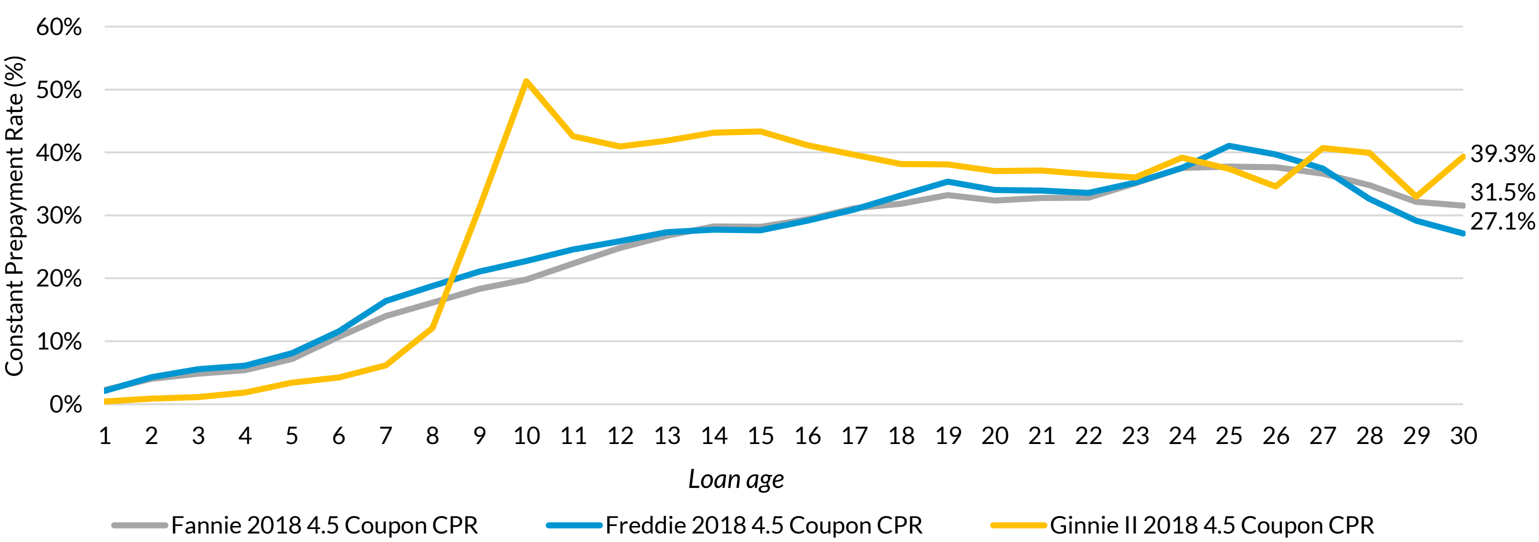
The charts below show the prepayment speeds by loan age for 2017 Ginnie II 4.0s and 2018 Ginnie II 4.5s—the cohorts 50 basis points above the largest coupon cohort for those years. Prepayment speeds on the 2017 Ginnie II 4.0s jumped up sharply at the 7-9 month loan age, reflecting abuse of the VA Streamlined Refi program (IRRRL). The 2018 Ginnie II 4.5s do not show increased speeds until the 9-10 month point; reflecting both the effect of lower rates and the actions taken by both Ginnie Mae and the VA in H1 2018 to curb this abuse. Ginnie Mae actions have included suspending a few servicers whose VA prepayment speeds are especially high from selling VA loans into Ginnie Mae II securities, as well as rewriting the pooling requirements so that if loans that do not meet the seasoning requirement are refinanced, the new loan is ineligible for securitization. Ginnie's latest action on this front became effective for securities issued on or after Nov 1 2019. It bars the securitization of over 90% LTV cash-out refinances into Ginnie I and Ginnie II pools (custom pools excepted). In addition, VA has implemented a net tangible benefit test, requiring the lender to show the borrower has obtained a benefit from the refinance. The recent experience of these cohorts indicates that, as a result of the cumulative actions taken in response to "churning" plus the acceleration of speeds in the conventional market in response to lower rates, Ginnie Mae and conventional speeds have converged to a degree.

## 2017 Issued 4.0 Coupon CPR, by Loan Age




**Sources**: *Credit Suisse and Urban Institute*. **Note:** *Data as of June 2020.*

## 2018 Issued 4.5 Coupon CPR, by Loan Age

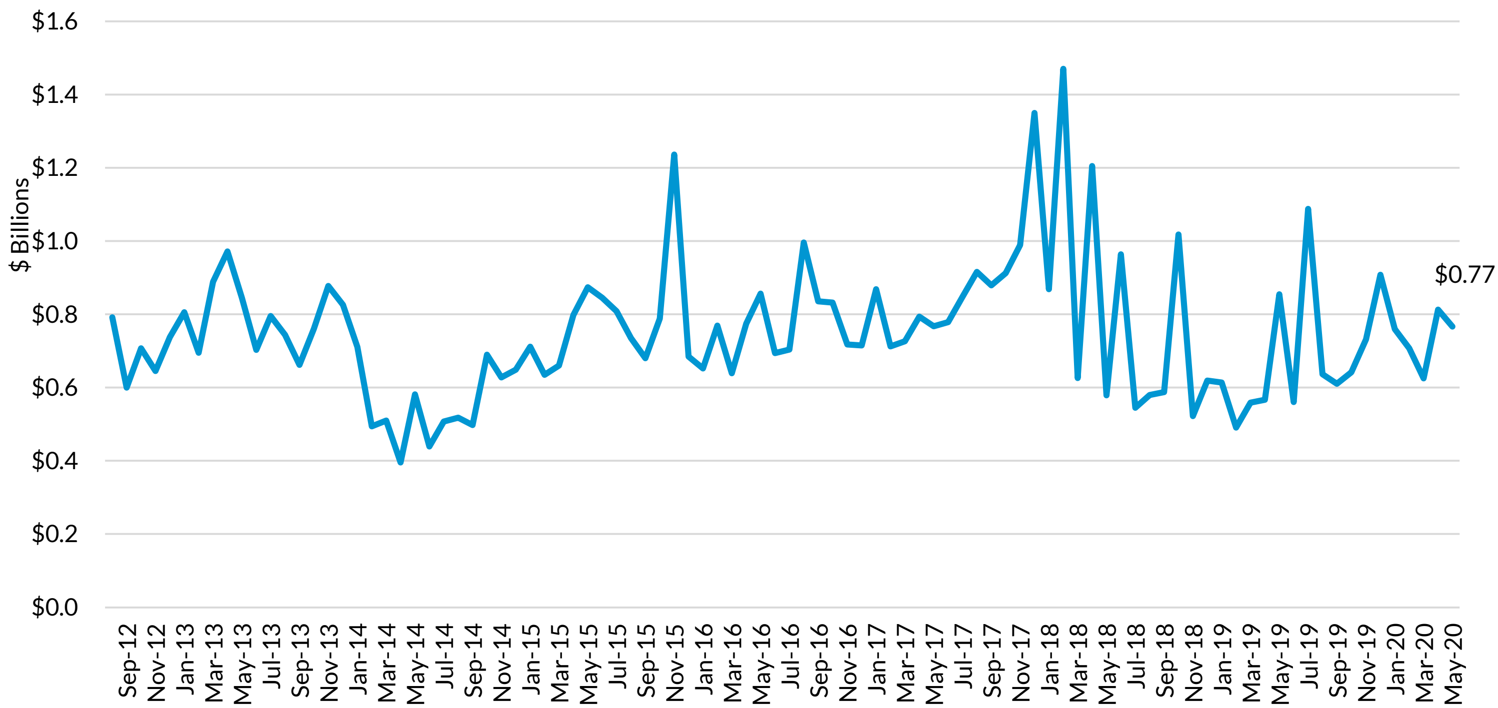



**Sources**: *Credit Suisse and Urban Institute*. **Note:** *Data as of June 2020.*

# Other Ginnie Mae Programs Reverse Mortgage Volumes

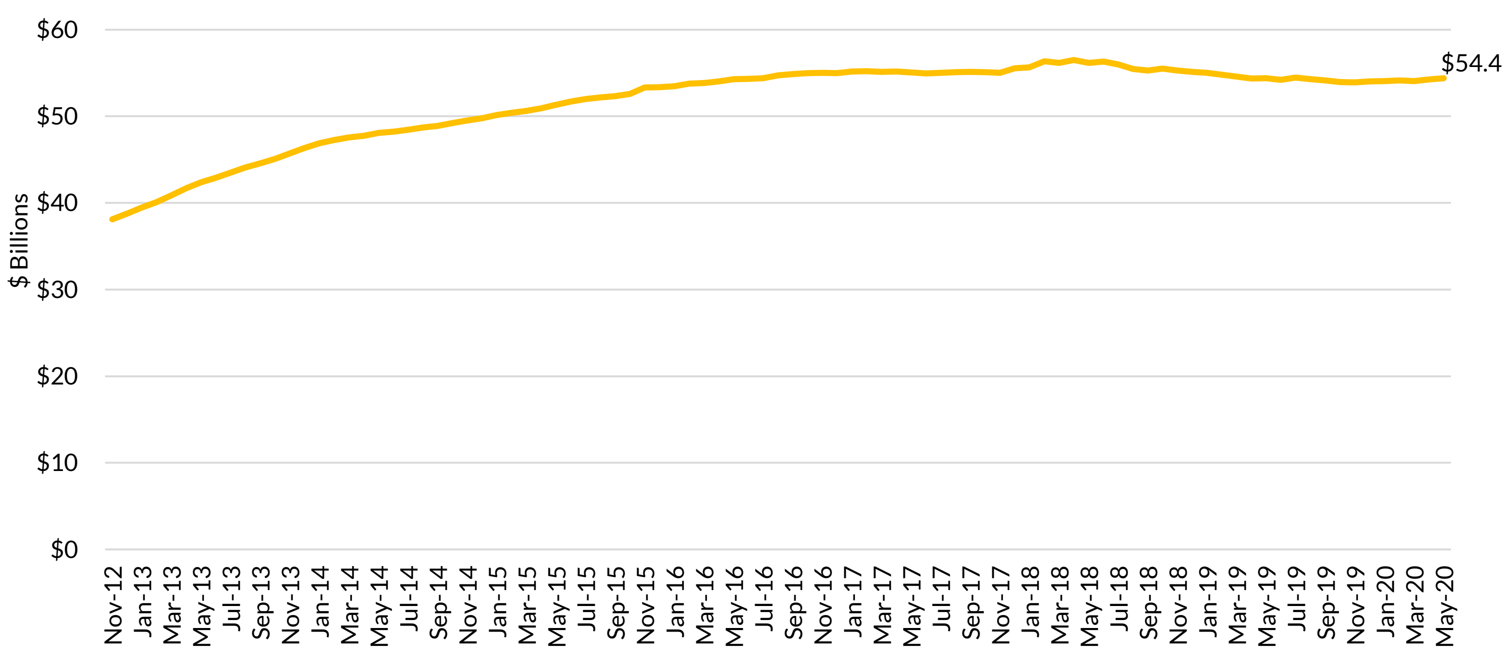
Ginnie Mae reverse mortgage issuance has been volatile over the past two years, but has been generally declining since early 2018 largely due to the implementation of the new, lower principal limit factors. May was no exception, with issuance falling to $0.77 billion. In May 2020, outstanding reverse mortgage securities totaled $54.4 billion, lower compared to recent past, reflecting a lower volume of new issuances relative to paydowns.

## HMBS Issuance Volume




**Sources**: *Ginnie Mae and Urban Institute.* ***Note:*** *Data as of May 2020.*

## HMBS Outstanding

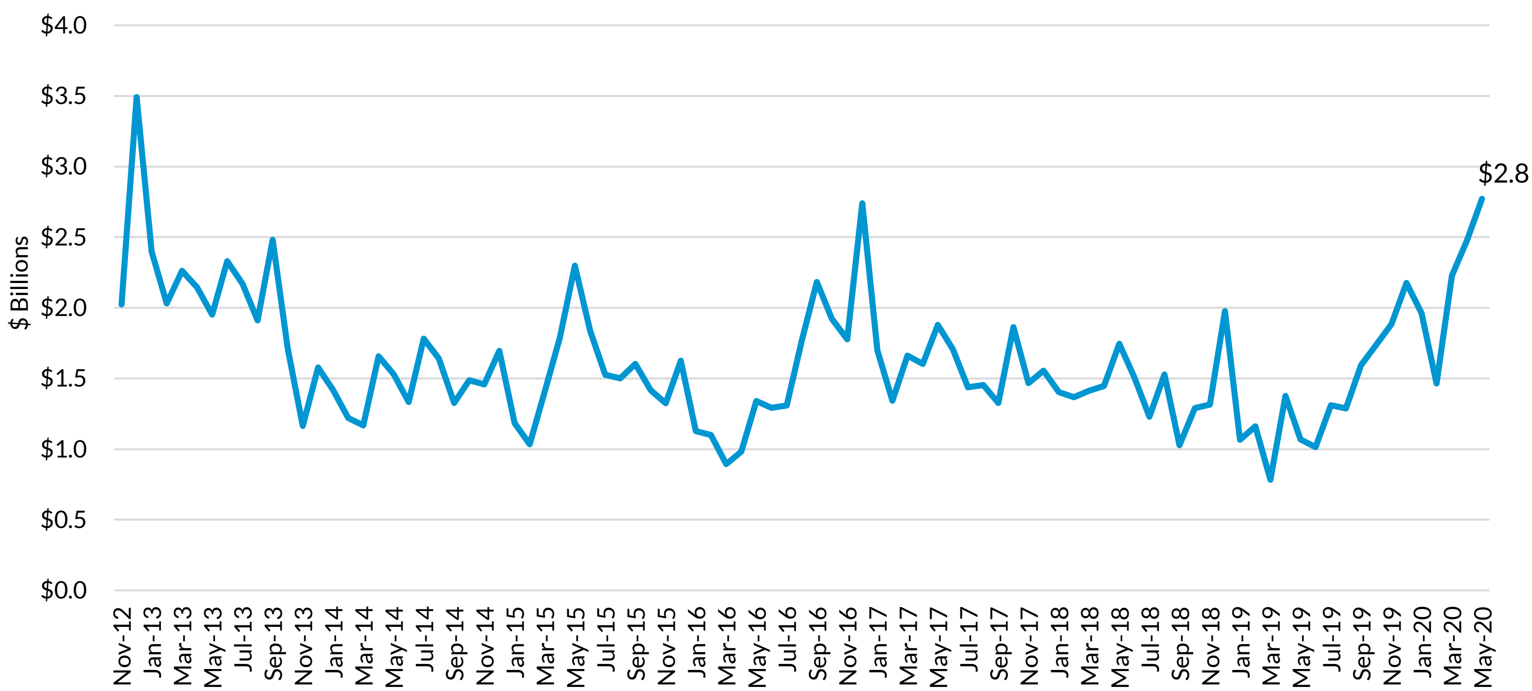



**Sources**: *Ginnie Mae and Urban Institute.* ***Note:*** *Data as of May 2020.*

# Other Ginnie Mae Programs Multifamily Market

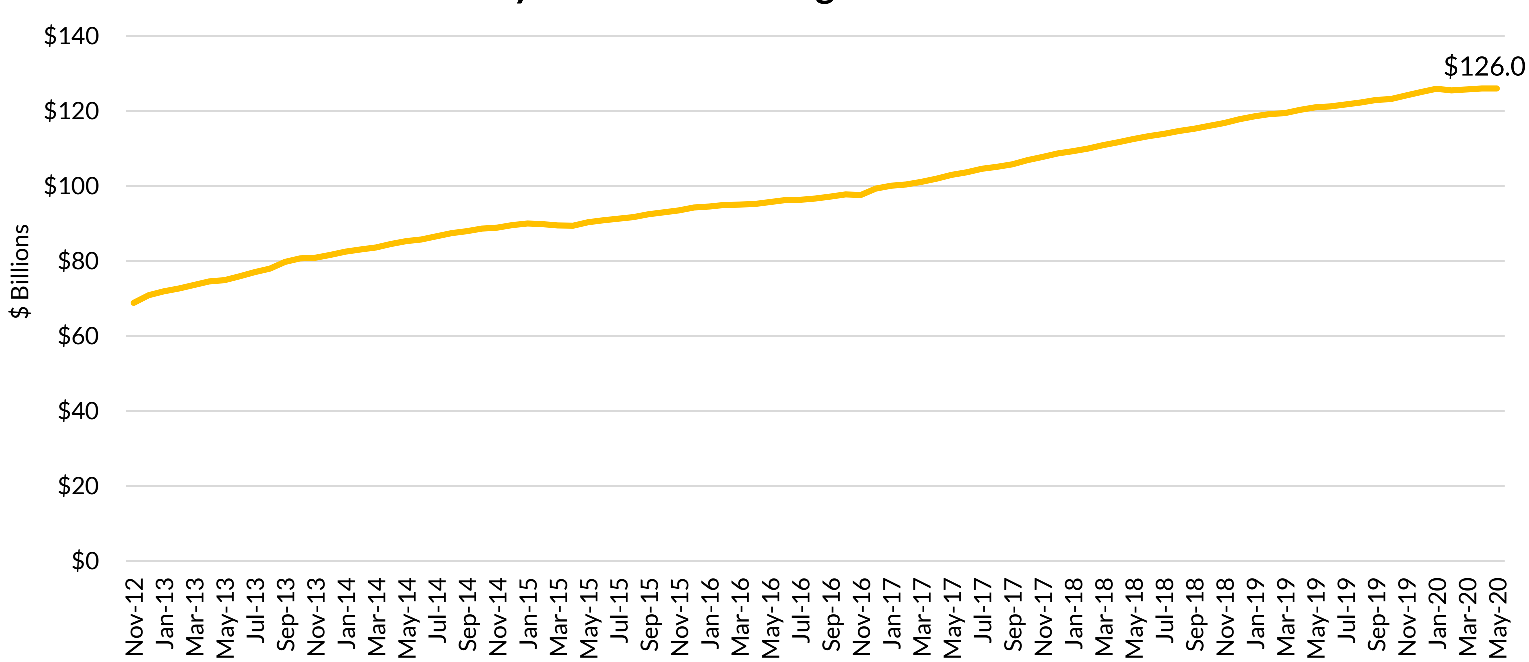
Ginnie Mae multifamily issuance volume in May 2020 totaled $2.8 billion, a second consecutive increase from the prior month. Outstanding multifamily securities totaled $126.0 billion as of the fifth month of 2020.

## Ginnie Mae Multifamily MBS Issuance




**Sources**: *Ginnie Mae and Urban Institute.* ***Note****: Data as of May 2020.*

## Ginnie Mae Multifamily MBS Outstanding

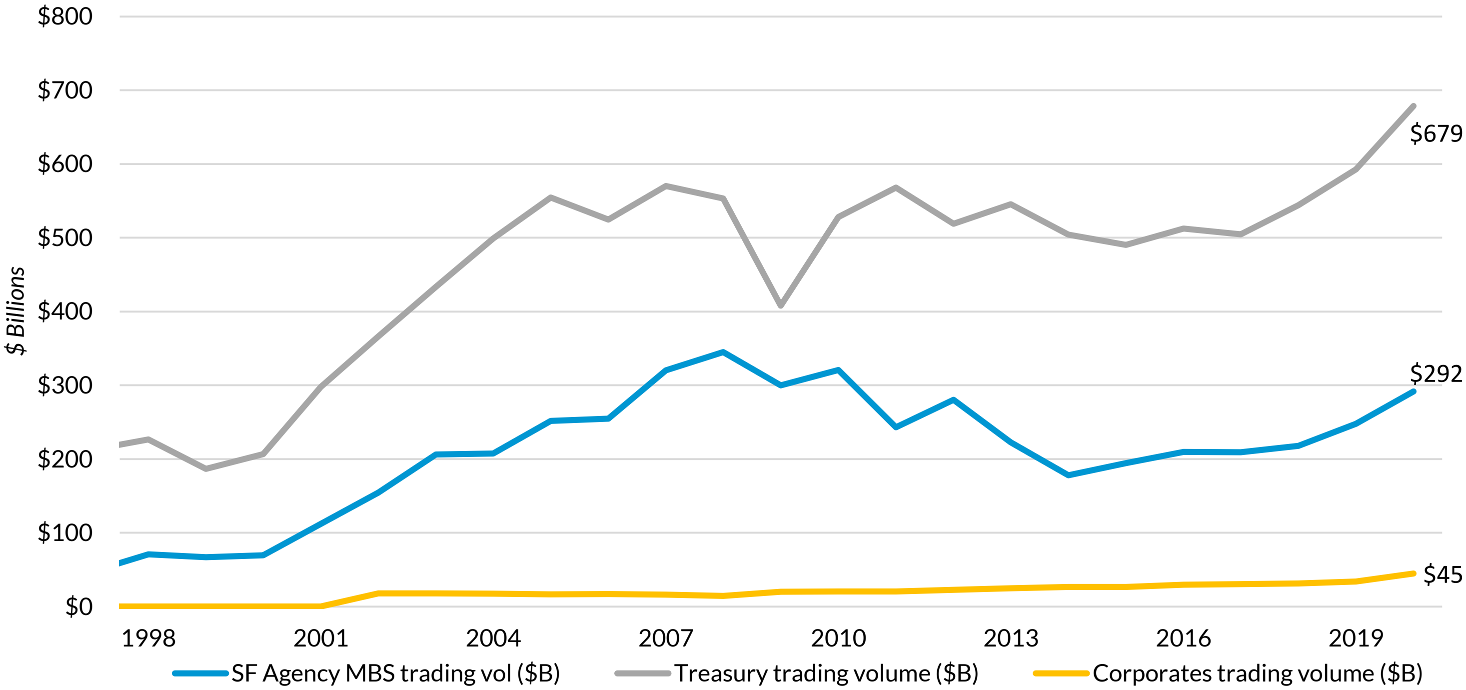



**Sources**: *Ginnie Mae and Urban Institute.* ***Note****: Data as of May 2020.*

# Market Conditions

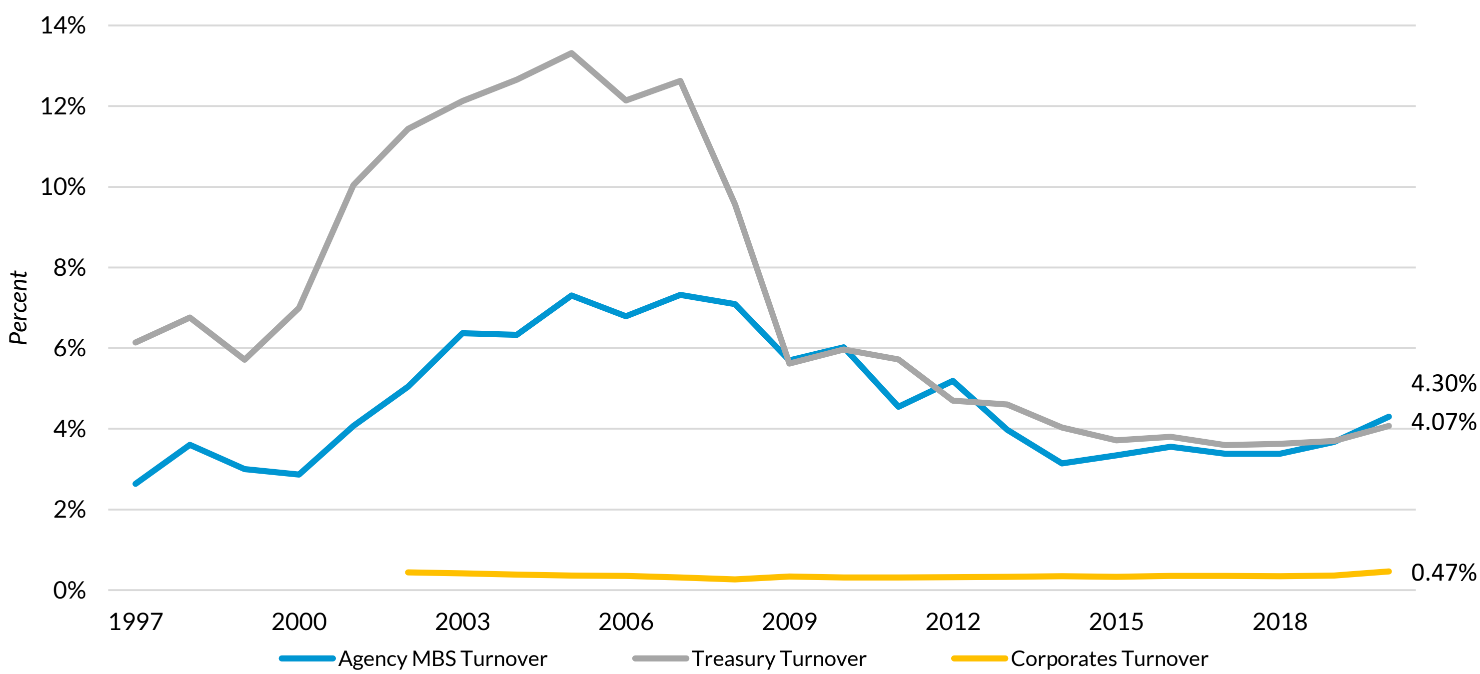
Agency MBS trading volume is $292 billion/day on average for the first five months of 2020, more robust than in the 2014-2019 period, but still below the pre-crisis peak of $345 billion in 2008. Average daily trading volume for Treasuries now exceed the pre-crisis peak. Agency MBS turnover in 2020 YTD (through May) has also been higher than the 2014-2019 period; in 2020, average daily MBS turnover was 4.30 percent, above the 2019 average of 3.67 percent. Note that agency MBS turnover in the first five months of 2020 has been higher than US Treasury turnover, a rare occurrence. Both average daily mortgage and Treasury turnover are down from their pre-crisis peaks. Corporate turnover is miniscule relative to either Agency MBS or Treasury turnover.

## Average Daily Fixed Income Trading Volume by Sector




**Sources**: *SIFMA and Urban Institute.* ***Note:*** *Data as of May 2020.*

## Average Daily Turnover by Sector

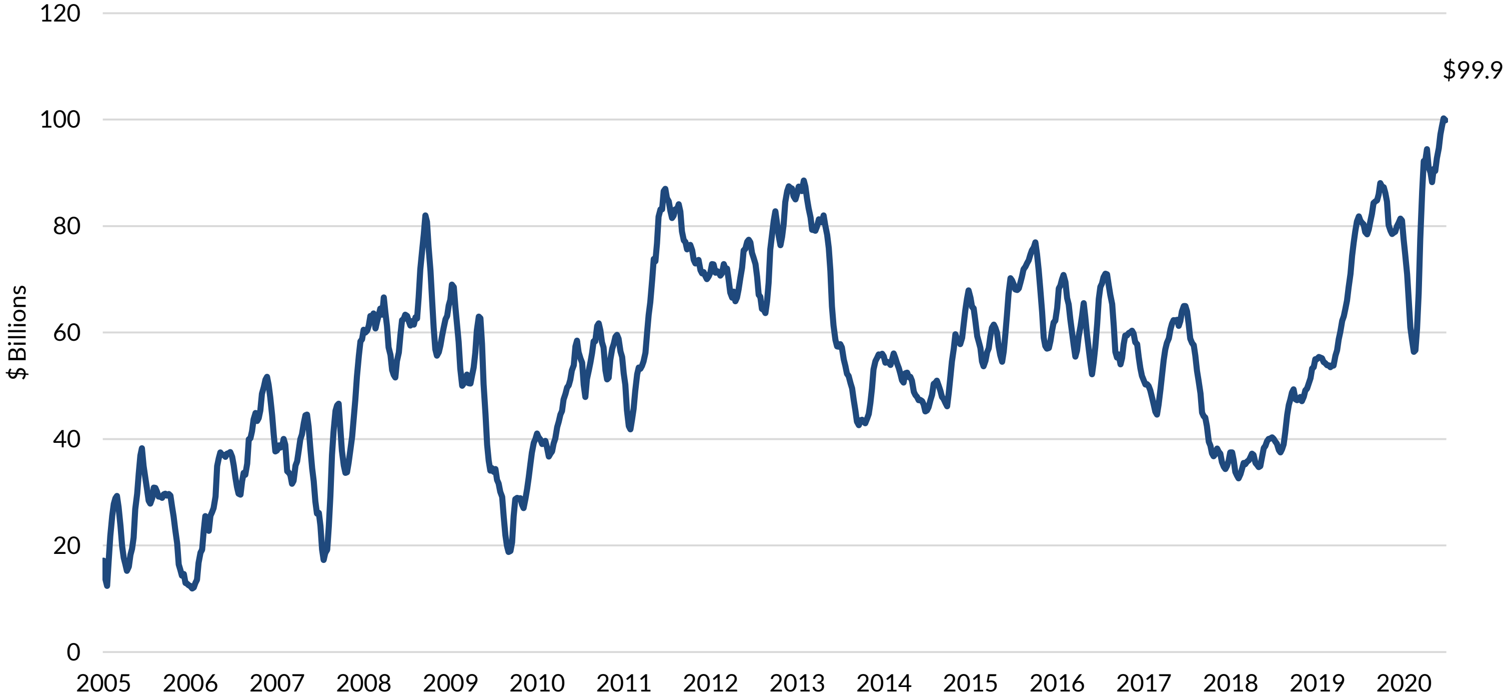



**Sources**: *SIFMA and Urban Institute.* ***Note:*** *Data as of May 2020.*

# Market Conditions

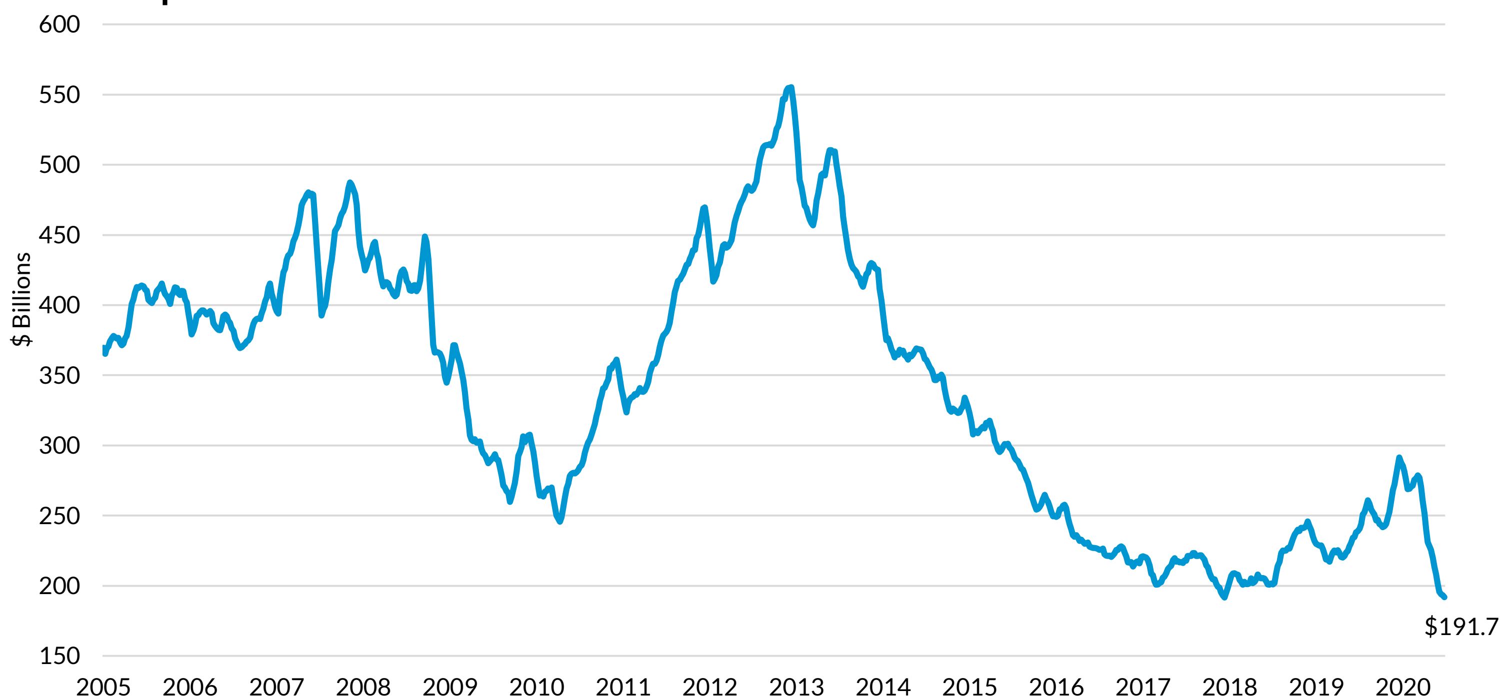
Dealer net positions are at a post-crisis high; they now exceed their pre-crisis levels. By contrast, dealer gross positions have fallen dramatically. The volume of repurchase activity is as low as it has been since 2005. The large decline through time reflects banks cutting back on lower margin businesses.

## Dealer Net Positions: Federal Agency and GSE MBS




**Sources:** *Federal Reserve Bank of New York Primary Dealer Statistics and Urban Institute.* **Note:** *Data as of May 2020.*

## Repo Volume: Securities In

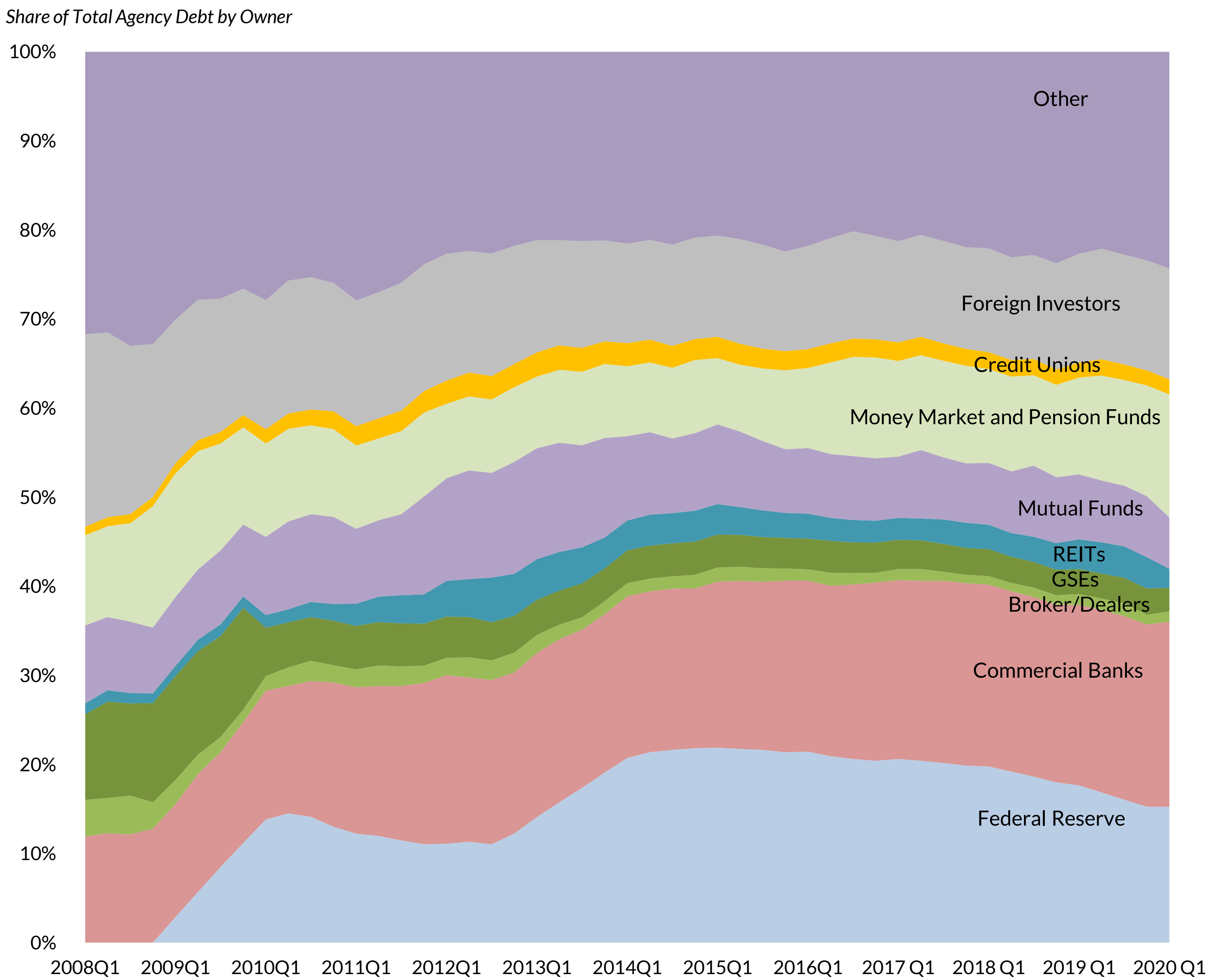



**Sources:** *Federal Reserve Bank of New York Primary Dealer Statistics and Urban Institute.* **Note:** *Data as of May 2020.*

# MBS Ownership

The largest holders of agency debt (Agency MBS + Agency notes and bonds) include the Federal Reserve (15 percent), commercial banks (21 percent) and foreign money market funds & pension funds (14 percent). The broker/dealer and GSE shares are a fraction of what they once were.

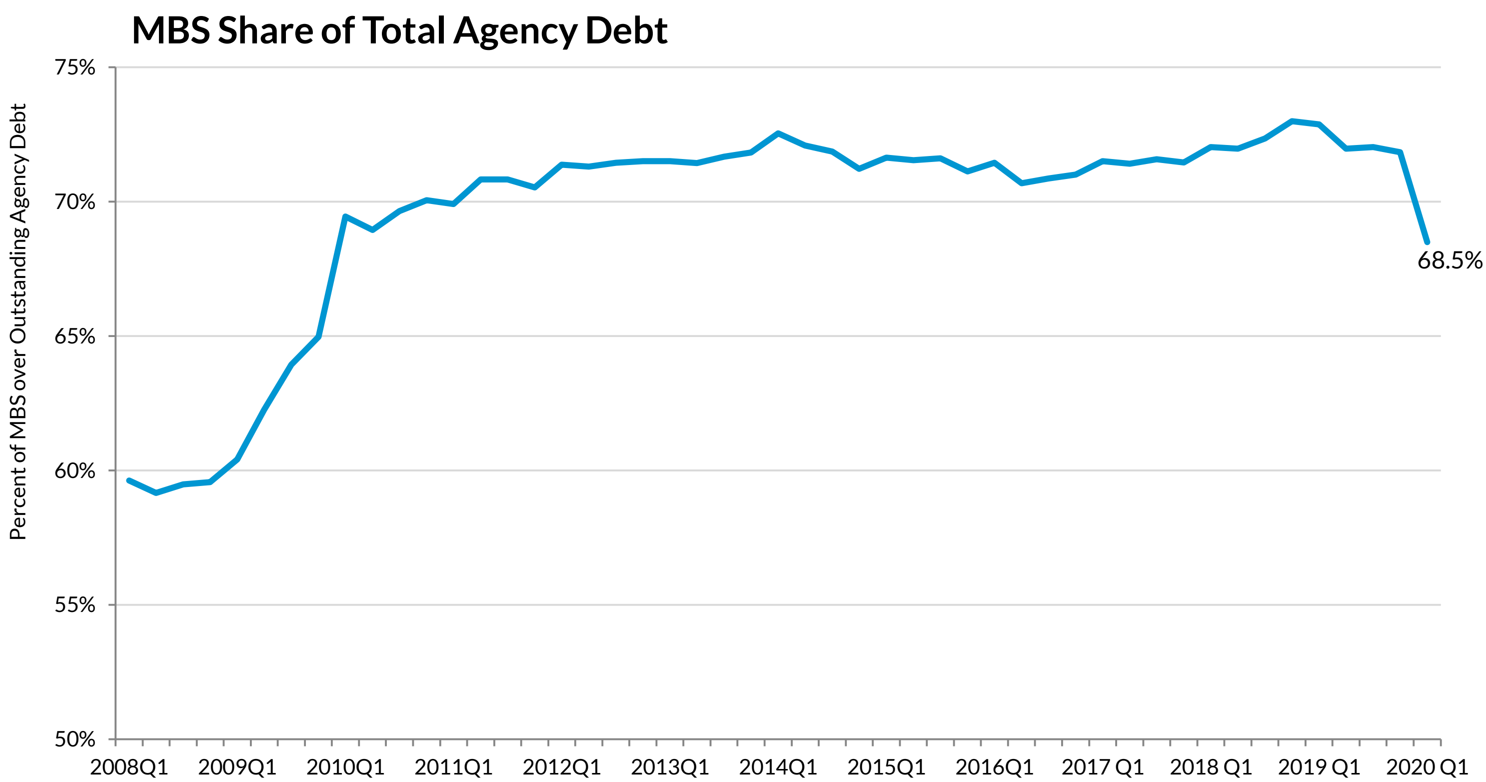
## Who owns Total Agency Debt?




**Sources:** *Federal Reserve Flow of Funds and Urban Institute.* **Note***: The "other" category includes primarily life insurance companies, state and local govts, households, and nonprofits. Data as of Q1 2020.*

# MBS Ownership

As Fannie and Freddie reduce the size of their retained portfolio post 2008, fewer agency notes and bonds were required to fund that activity. As a result, the MBS share of total agency debt increased over time. Commercial banks are now the largest holders of Agency MBS. Out of their $2.2 trillion in holdings as of the end of June 2020, $1.6 trillion was held by the top 25 domestic banks.




***Sources**: Federal Reserve Flow of Funds and Urban Institute. **Note**: The MBS share of agency debt unexpectedly dropped in Q1 2020 due to a higher than usual, $400 billion discrepancy between agency assets and liabilities, as reported by Fed flow of funds. Data as of Q1 2020.*

| ` | Commercial Bank Holdings ($Billions) | | | | | | | | Week Ending | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | May-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun 3 | Jun 10 | Jun 17 | Jun 24 |
| Largest 25 Domestic Banks | 1438.8 | 1530.9 | 1511.8 | 1532.7 | 1,541.5 | 1587.7 | 1624.7 | 1623.9 | 1626.8 | 1625.3 | 1616.1 | 1615.6 |
| Small Domestic Banks | 496.0 | 521.1 | 532.0 | 535.4 | 538.6 | 546.3 | 549.5 | 549.7 | 552.1 | 552.0 | 558.4 | 562.6 |
| Foreign Related Banks | 28.3 | 38.2 | 39.5 | 38.2 | 39.7 | 43.4 | 44.9 | 42.2 | 44.3 | 41.5 | 42.3 | 43.3 |
| Total, Seasonally Adjusted | 1963.1 | 2090.2 | 2083.3 | 2106.3 | 578.3 | 2177.4 | 2219.1 | 2215.8 | 2223.2 | 2218.8 | 2216.8 | 2221.5 |

***Sources**: Federal Reserve Bank and Urban Institute. **Note**: Small domestic banks includes all domestically chartered commercial banks not included in the top 25. Data as of June 2020.*

# MBS Ownership

Out of the $2.1 trillion in MBS holdings at banks and thrifts as of Q1 2020, $1.6 trillion was agency pass-throughs: $1.2 trillion in GSE pass-throughs and $448 billion in Ginnie Mae pass-throughs. Another $444 billion was agency CMOs, while non-agency holdings totaled $42 billion. In Q1, 2020, MBS holdings at banks and thrifts increased for the sixth consecutive quarter. The increase was driven by both GSE and Ginnie Mae pass-throughs, with GSEs contributing the most.

## Bank and Thrift Residential MBS Holdings

| | All Banks & Thrifts ($Billions) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total | Agency MBS PT | GSE PT | GNMA PT | Agency CMO | Private MBS PT | Private CMO |
| 2000 | $683.90 | $392.85 | $234.01 | $84.26 | $198.04 | $21.57 | $71.43 |
| 2001 | $810.50 | $459.78 | $270.59 | $109.53 | $236.91 | $37.62 | $76.18 |
| 2002 | $912.36 | $557.43 | $376.11 | $101.46 | $244.98 | $20.08 | $89.88 |
| 2003 | $982.08 | $619.02 | $461.72 | $75.11 | $236.81 | $19.40 | $106.86 |
| 2004 | $1,113.89 | $724.61 | $572.40 | $49.33 | $208.18 | $20.55 | $160.55 |
| 2005 | $1,139.68 | $708.64 | $566.81 | $35.92 | $190.70 | $29.09 | $211.25 |
| 2006 | $1,207.09 | $742.28 | $628.52 | $31.13 | $179.21 | $42.32 | $243.28 |
| 2007 | $1,236.00 | $678.24 | $559.75 | $31.58 | $174.27 | $26.26 | $357.24 |
| 2008 | $1,299.76 | $820.12 | $638.78 | $100.36 | $207.66 | $12.93 | $259.04 |
| 2009 | $1,345.74 | $854.40 | $629.19 | $155.00 | $271.17 | $7.53 | $212.64 |
| 2010 | $1,433.38 | $847.13 | $600.80 | $163.13 | $397.30 | $7.34 | $181.61 |
| 2011 | $1,566.88 | $917.10 | $627.37 | $214.81 | $478.82 | $3.28 | $167.70 |
| 2012 | $1,578.86 | $953.76 | $707.87 | $242.54 | $469.27 | $17.16 | $138.67 |
| 2013 | $1,506.60 | $933.73 | $705.97 | $231.93 | $432.60 | $26.11 | $114.15 |
| 2014 | $1,539.32 | $964.16 | $733.71 | $230.45 | $449.90 | $20.33 | $104.94 |
| 2015 | $1,643.56 | $1,115.40 | $823.10 | $292.30 | $445.39 | $11.14 | $71.63 |
| 2016 | $1,736.93 | $1,254.13 | $930.67 | $323.46 | $419.80 | $7.40 | $55.60 |
| 1Q17 | $1,762.38 | $1,280.63 | $950.72 | $329.91 | $419.34 | $7.03 | $55.39 |
| 2Q17 | $1,798.66 | $1,320.59 | $985.12 | $335.47 | $417.89 | $6.38 | $53.79 |
| 3Q17 | $1,838.93 | $1,364.75 | $1,012.89 | $351.86 | $418.08 | $5.65 | $50.45 |
| 4Q17 | $1,844.15 | $1,378.53 | $1,010.83 | $367.70 | $413.97 | $4.63 | $47.01 |
| 1Q18 | $1,809.98 | $1,352.28 | $991.57 | $360.71 | $412.37 | $3.92 | $41.37 |
| 2Q18 | $1,806.58 | $1,345.80 | $976.92 | $368.88 | $414.41 | $7.45 | $38.92 |
| 3Q18 | $1,794.39 | $1,339.72 | $966.52 | $373.21 | $416.20 | $2.42 | $36.04 |
| 4Q18 | $1,814.97 | $1,361.00 | $980.56 | $380.43 | $419.59 | $2.69 | $34.69 |
| 1Q19 | $1,844.99 | $1,385.10 | $1,001.61 | $383.49 | $422.18 | $3.06 | $34.65 |
| 2Q19 | $1,907.13 | $1,445.91 | $1,037.93 | $407.97 | $421.56 | $2.90 | $36.76 |
| 3Q19 | $1,975.78 | $1,506.92 | $1,079.82 | $427.10 | $428.69 | $4.74 | $35.44 |
| 4Q19 | $1,985.38 | $1,516.26 | $1,089.41 | $426.85 | $428.99 | $4.62 | $35.52 |
| 1Q20 | $2,107.66 | $1,621.00 | $1,173.36 | $448.34 | $443.73 | $4.65 | $37.56 |

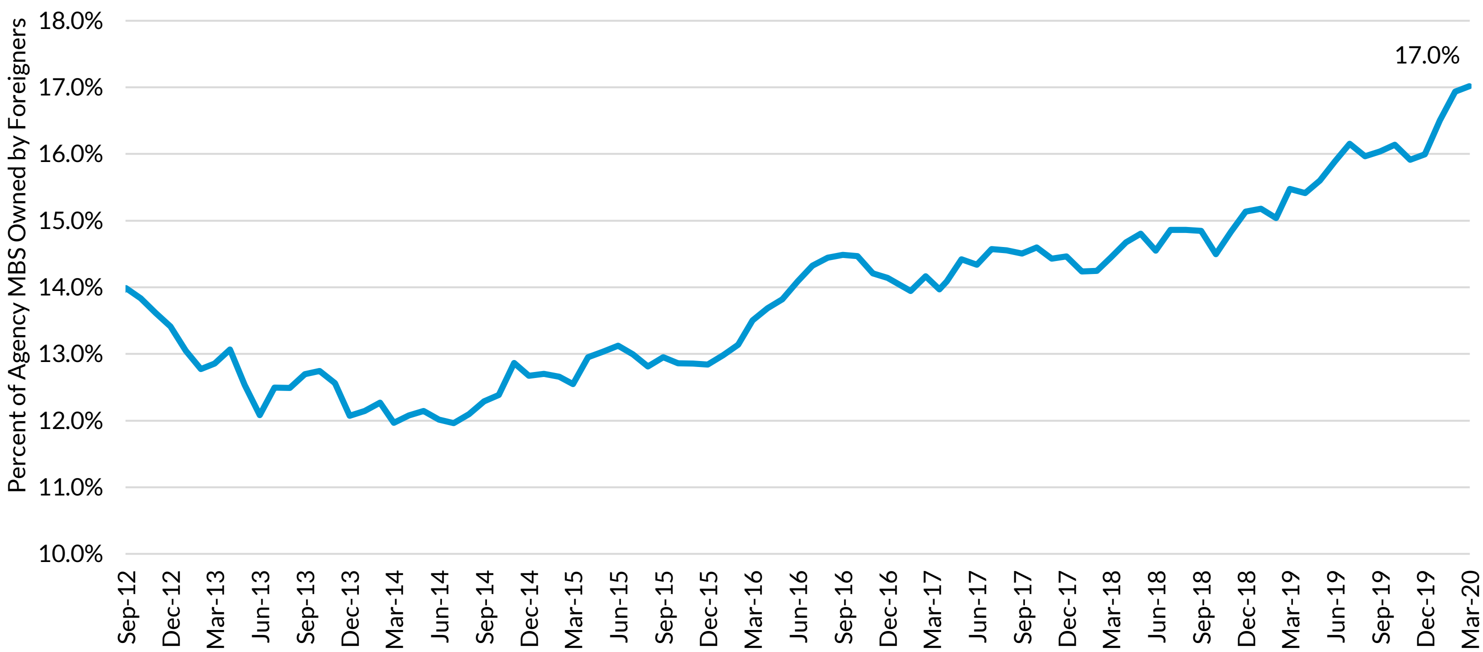
| | Top Bank & Thrift Residential MBS Investors | Total ($MM) | GSE PT ($MM) | GNMA PT ($MM) | Agency REMIC ($MM) | Non-Agency ($MM) | Market Share |
|---|---|---|---|---|---|---|---|
| 1 | Bank of America Corporation | $335,750.0 | $194,646.0 | $130,682.0 | $10,091.0 | $331.0 | 15.9% |
| 2 | Wells Fargo & Company | $266,444.0 | $191,354.0 | $66,340.0 | $7,974.0 | $776.0 | 12.6% |
| 3 | JP Morgan Chase & Co. | $196,384.0 | $121,504.0 | $59,194.0 | $243.0 | $15,443.0 | 9.3% |
| 4 | Charles Schwab Bank | $94,398.0 | $58,319.0 | $17,859.0 | $18,220.0 | $0.0 | 4.5% |
| 5 | U S. Bancorp. | $93,918.2 | $54,633.0 | $23,047.1 | $16,237.6 | $0.6 | 4.5% |
| 6 | Citigroup Inc. | $82,239.0 | $69,418.0 | $4,520.0 | $6,450.0 | $1,851.0 | 3.9% |
| 7 | Truist Bank | $72,028.0 | $23,559.0 | $20,895.0 | $27,276.0 | $298.0 | 3.4% |
| 8 | Capital One Financial Corporation | $65,121.8 | $26,905.3 | $14,199.2 | $23,352.8 | $664.5 | 3.1% |
| 9 | Bank of New York Mellon Corp. | $58,618.0 | $37,536.0 | $4,620.0 | $14,914.0 | $1,548.0 | 2.8% |
| 10 | PNC Bank, National Association | $54,282.2 | $44,217.0 | $6,230.8 | $2,191.9 | $1,642.6 | 2.6% |
| 11 | State Street Bank and Trust Company | $42,531.8 | $23,818.0 | $9,702.0 | $6,809.8 | $2,202.0 | 2.0% |
| 12 | Morgan Stanley | $29,812.0 | $18,305.0 | $6,128.0 | $5,379.0 | $0.0 | 1.4% |
| 13 | HSBC Banks USA, National Association | $28,639.7 | $6,528.6 | $13,382.6 | $8,726.3 | $2.2 | 1.4% |
| 14 | Ally Bank | $24,855.0 | $15,601.0 | $2,294.0 | $4,075.0 | $2,885.0 | 1.2% |
| 15 | E*TRADE Bank | $24,479.4 | $11,640.3 | $4,065.9 | $8,773.2 | $0.0 | 1.2% |
| 16 | TD Bank | $22,299.7 | $1,794.6 | $183.0 | $20,060.2 | $261.9 | 1.1% |
| 17 | Citizens Bank | $22,267.9 | $11,694.3 | $3,911.9 | $6,050.4 | $611.3 | 1.1% |
| 18 | KeyBank National Association | $19,504.8 | $1,307.7 | $640.1 | $17,556.9 | $0.0 | 0.9% |
| 19 | USAA Federal Savings Bank | $19,026.0 | $16,621.0 | $2,278.3 | $126.7 | $0.0 | 0.9% |
| 20 | Regions Bank | $17,168.0 | $11,484.0 | $3,257.0 | $2,426.0 | $1.0 | 0.80% |
| | **Total Top 20** | **$1,569,768** | **$940,886** | **$393,430** | **$206,934** | **$28,518** | **73.81%** |

***Sources:*** *Inside Mortgage Finance and Urban Institute.* ***Note:*** *Data as of Q1 2020.*

# MBS Ownership

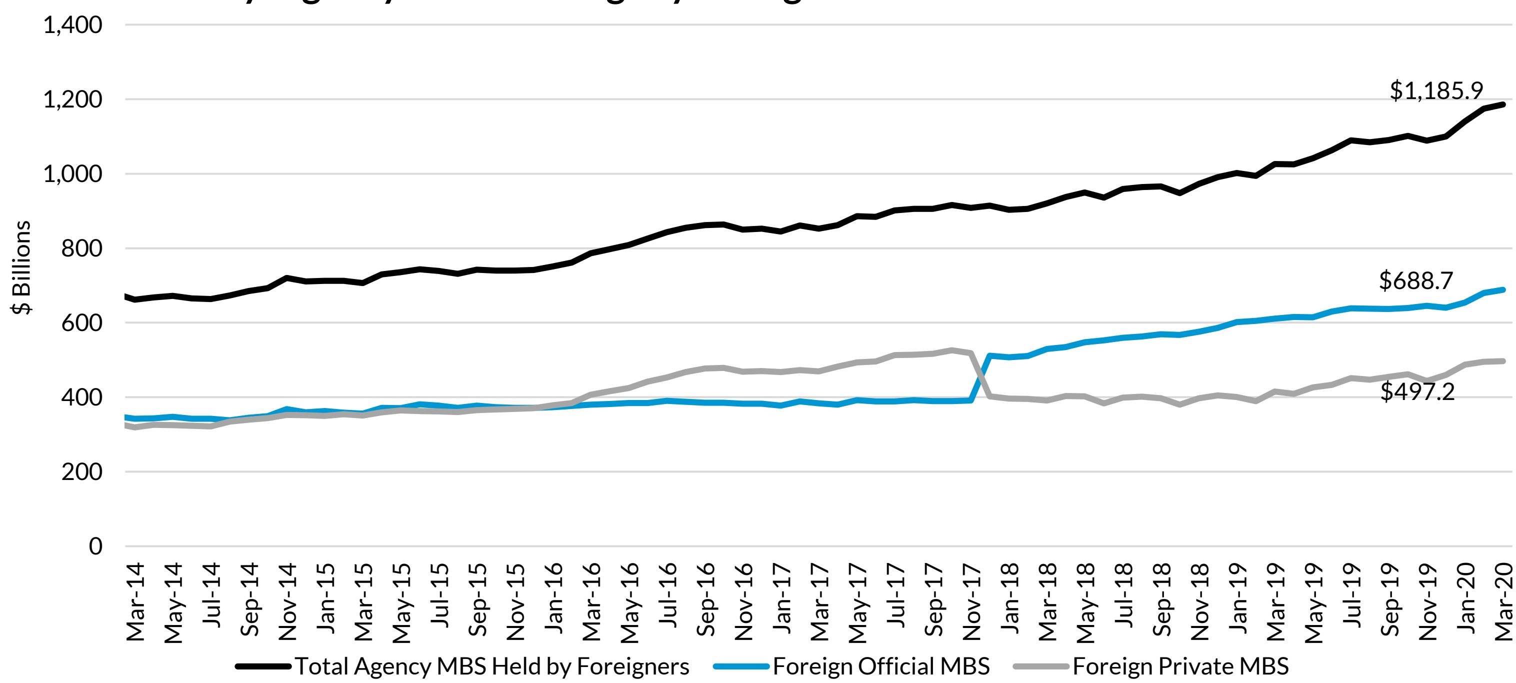
Foreign investors held 17.0 percent of agency MBS in March 2020, up from a low of 12.0 percent in July 2014. For the month of March 2020, this represents $1.19 trillion in Agency MBS, $497 billion held by foreign private institutions and $689 billion held by foreign institutions.

## Foreign Share of Agency MBS




***Sources**: SIFMA and Treasury International Capital (TIC). **Note**: Data as of March 2020.*

## Monthly Agency MBS Holdings by Foreigners




***Sources**: Treasury International Capital (TIC) and Urban Institute. **Note**: Data as of March 2020. In December 2017, there was a data correction that moved about $120 billion from privately held U.S. agency bonds to officially held U.S. agency bonds; this resulted in a series break at December 2017 in the split between the portion held by foreign private and the portion held by foreign official.*

# MBS Ownership

The largest foreign holders of Agency MBS are Japan, Taiwan, and China; these three comprise over 70 percent of all foreign holdings. Between June 2019 and March 2020, we estimate China has increased their agency MBS holdings by $33.9 billion, Japan has increased their holdings by $25.6 billion and Taiwan has increased their holdings by $0.36 billion.

## Agency MBS+ Agency Debt

| | Level of Holdings ($Millions)* | | | | Change in Holdings ($Millions)* | | |
|---|---|---|---|---|---|---|---|
| Country | Jun-19 | Sep-19 | Dec-19 | Mar-20 | Q3 2019 | Q4 2019 | Q1 2020 |
| Japan | 297,016 | 311,047 | 305,332 | 322,155 | 14,031 | -5,715 | 16,823 |
| Taiwan | 265,524 | 263,018 | 261,740 | 269,133 | -2,506 | -1,278 | 7,393 |
| China | 227,357 | 233,783 | 231,753 | 260,479 | 6,426 | -2,030 | 28,726 |
| Luxembourg | 47,646 | 46,641 | 39,015 | 36,789 | -1,005 | -7,626 | -2,226 |
| Ireland | 45,829 | 41,367 | 38,731 | 26,131 | -4,462 | -2,636 | -12,600 |
| South Korea | 42,879 | 41,485 | 40,810 | 40,964 | -1,394 | -675 | 154 |
| Cayman Islands | 34,967 | 29,540 | 31,827 | 27,154 | -5,427 | 2,287 | -4,673 |
| Bermuda | 29,365 | 29,184 | 33,897 | 27,790 | -181 | 4,713 | -6,107 |
| Netherlands | 14,074 | 10,549 | 10,902 | 10,886 | -3,525 | 353 | -16 |
| Malaysia | 12,167 | 15,585 | 16,600 | 21,399 | 3,418 | 1,015 | 4,799 |
| Rest of world | 128,142 | 135,515 | 152,489 | 202,143 | 7,373 | 16,974 | 49,654 |
| Total | 1,144,971 | 1,157,714 | 1,163,096 | 1,245,023 | 12,743 | 5,382 | 81,927 |

## Agency MBS Only (Estimates)

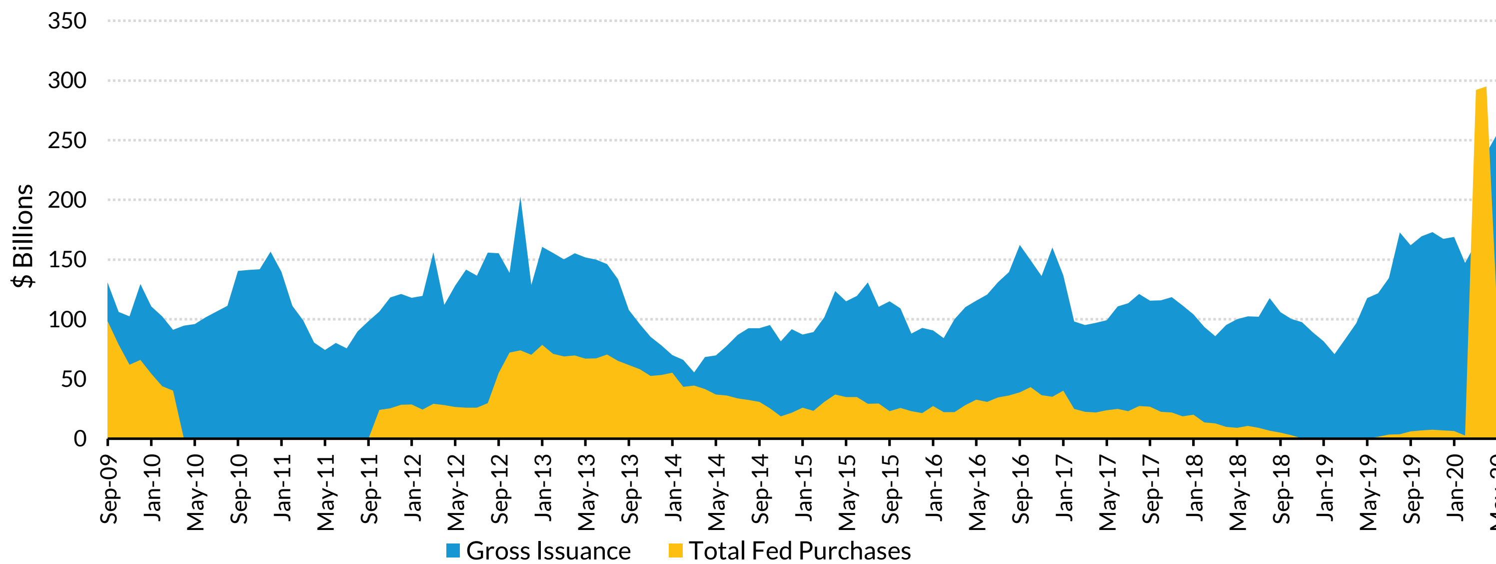
| | Level of Holdings ($Millions)* | | | | Change in Holdings ($Millions)* | | |
|---|---|---|---|---|---|---|---|
| Country | Jun-19 | Sep-19 | Dec-19 | Mar-20 | Q3 2019 | Q4 2019 | Q1 2020 |
| Japan | 293,662 | 307,738 | 302,212 | 319,241 | 14,076 | -5,526 | 17,029 |
| Taiwan | 265,234 | 262,732 | 261,470 | 268,881 | -2,502 | -1,262 | 7,411 |
| China | 221,738 | 228,240 | 226,526 | 255,596 | 6,502 | -1,714 | 29,070 |
| Luxembourg | 43,978 | 43,023 | 35,603 | 33,602 | -955 | -7,420 | -2,001 |
| Ireland | 37,674 | 33,322 | 31,145 | 19,045 | -4,352 | -2,177 | -12,100 |
| South Korea | 34,969 | 33,682 | 33,452 | 34,091 | -1,287 | -230 | 639 |
| Cayman Islands | 29,896 | 24,538 | 27,110 | 22,748 | -5,358 | 2,572 | -4,362 |
| Bermuda | 26,394 | 26,253 | 31,133 | 25,208 | -141 | 4,880 | -5,925 |
| Netherlands | 13,904 | 10,381 | 10,744 | 10,738 | -3,523 | 363 | -6 |
| Malaysia | 11,881 | 15,303 | 16,334 | 21,150 | 3,422 | 1,031 | 4,817 |
| Rest of world | 97,585 | 105,371 | 124,063 | 175,591 | 7,786 | 18,692 | 51,527 |
| Total | 1,076,916 | 1,090,579 | 1,099,788 | 1,185,887 | 13,663 | 9,209 | 86,099 |

***Sources*** *:Treasury International Capital (TIC) and Urban Institute.*
***Note:*** **calculated based on June 2018 report with amount asset backed per country. Revised to include Top 10 holders of MBS listed as of June 2018. Monthly data as of March 2020.*

# MBS Ownership

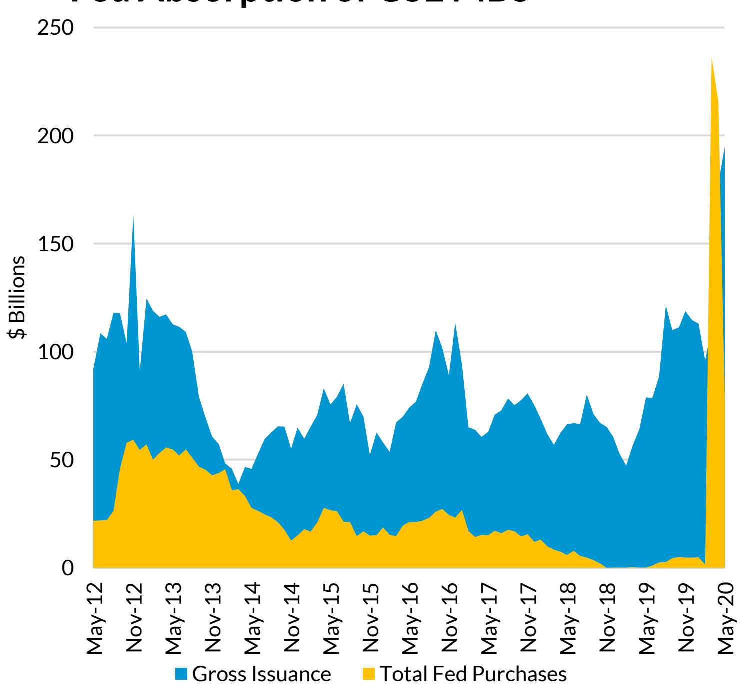
On March 23, 2020, in response to the market dislocations caused by the coronavirus pandemic, the Fed announced they would purchase Treasuries and agency MBS in an amount necessary to support smooth functioning markets. In March the Fed bough $292.2 billion in agency MBS, and April clocked in at $295.1 billion, the largest two months of mortgage purchases ever; and well over 100 percent of gross issuance for each of those two months. Purchases slowed in May to $101.4 billion, 40 percent of monthly issuance, still sizeable from a historical perspective. Prior to the COVID-19 intervention, the Fed was winding down its MBS portfolio from its 2014 prior peak.

## Total Fed Absorption



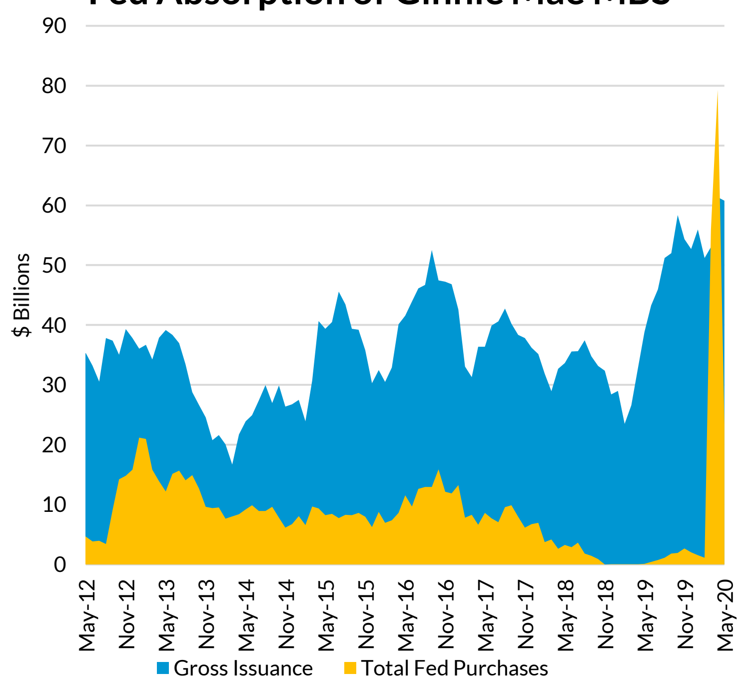

***Sources***: *eMBS, Federal Reserve Bank of New York and Urban Institute.* ***Note:*** *Data as of May 2020.*

## Fed Absorption of GSE MBS




***Sources***: *eMBS, Federal Reserve Bank of New York and Urban Institute.* ***Note:*** *Data as of May 2020.*

## Fed Absorption of Ginnie Mae MBS




***Sources***: *eMBS, Federal Reserve Bank of New York and Urban Institute.* ***Note***: *Data as of May 2020.*

# Disclosures

All the information contained in this document is as of date Indicated unless otherwise noted. The information provided does not constitute investment advice and it should not be relied on as such. All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. The views expressed in this material are the views of the staff of the Urban Institute's Housing Finance Policy Center and State Street Global Advisors as of July 28th, 2020 and are subject to change based on market and other conditions. The views should not be attributed to the Urban Institute, its trustees, or its funders.

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