ABOUT THE CHARTBOOK

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

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

To receive regular updates from the Housing Finance Policy Center, please visit here to sign up for our bi-weekly newsletter.

HFPC NONRESIDENT FELLOWS

David Brickman
Nonresident Fellow

Sarah Gerecke
Nonresident Fellow

Mike Loftin
Nonresident Fellow

Jim Parrott
Nonresident Fellow

Vanessa Perry
Nonresident Fellow

Ellen Seidman
Nonresident Fellow

Michael Stegman
Nonresident Fellow

Ted Tozer
Nonresident Fellow

Jun Zhu
Nonresident Fellow

HOUSING FINANCE POLICY CENTER STAFF

Laurie Goodman
Institute Fellow

Janneke Ratcliffe
Center Vice President

DeQuendre Neeley-Bertrand
Director of Strategic Communications

Karan Kaul
Principal Research Associate

Michael Neal
Principal Research Associate

Jung Choi
Senior Research Associate

Linna Zhu
Research Associate

John Walsh
Research Analyst

Peter Mattingly
Research Analyst

Caitlin Young
Policy Analyst

Daniel Pang
Research Assistant

Liam Reynolds
Research Assistant

Alison Rincon
Director, Center Operations

Reagan Smith
Project Administrator
CONTENTS

Overview

Market Size Overview
Value of the US Residential Housing Market 6
Size of the US Residential Mortgage Market 6
Private Label Securities 7
Agency Mortgage-Backed Securities 7

Origination Volume and Composition
First Lien Origination Volume & Share 8

Mortgage Origination Product Type
Composition (All Originations) 9
Percent Refi at Issuance 9

Cash-Out Refinances
Loan Amount After Refinancing 10
Cash-out Refinance Share of All Originations 10
Total Home Equity Cashed Out 10

Nonbank Origination Share
Nonbank Origination Share: All Loans 11
Nonbank Origination Share: Purchase Loans 11
Nonbank Origination Share: Refi Loans 11

Securitization Volume and Composition
Agency/Non-Agency Share of Residential MBS Issuance 12
Non-Agency MBS Issuance 12
Non-Agency Securitization 12

Credit Box

Housing Credit Availability Index (HCAI)
Housing Credit Availability Index 13
Housing Credit Availability Index by Channel 13-14

Credit Availability for Purchase Loans
Borrower FICO Score at Origination Month 15
Combined LTV at Origination Month 15
DTI at Origination Month 15
Origination FICO and LTV by MSA 16

Nonbank Credit Box
Agency FICO: Bank vs. Nonbank 17
GSE FICO: Bank vs. Nonbank 17
Ginnie Mae FICO: Bank vs. Nonbank 17
GSE LTV: Bank vs. Nonbank 18
Ginnie Mae LTV: Bank vs. Nonbank 18
GSE DTI: Bank vs. Nonbank 18
Ginnie Mae DTI: Bank vs. Nonbank 18

State of the Market

Mortgage Origination Projections & Originator Profitability
Total Originations and Refinance Shares 19
Originator Profitability and Unmeasured Costs 19
**Housing Supply**
- Months of Supply
- Housing Starts and Home Sales

**Housing Affordability**
- National Housing Affordability Over Time
- Affordability Adjusted for MSA-Level DTI

**Home Price Indices**
- National Year-Over-Year HPI Growth
- Changes in CoreLogic HPI for Top MSAs

**First-Time Homebuyers**
- First-Time Homebuyer Share
- Comparison of First-time and Repeat Homebuyers, GSE and FHA Originations

**Delinquencies and Loss Mitigation Activity**
- Negative Equity Share
- Loans in Serious Delinquency/Foreclosure
- Forbearance Rates by Channel

**GSEs under Conservatorship**

**GSE Portfolio Wind-Down**
- Fannie Mae Mortgage-Related Investment Portfolio
- Freddie Mac Mortgage-Related Investment Portfolio

**Effective Guarantee Fees & GSE Risk-Sharing Transactions**
- Effective Guarantee Fees
- Fannie Mae Upfront Loan-Level Price Adjustment
- GSE Risk-Sharing Transactions and Spreads

**Serious Delinquency Rates**
- Serious Delinquency Rates – Fannie Mae, Freddie Mac, FHA & VA
- Serious Delinquency Rates – Single-Family Loans & Multifamily GSE Loans

**Agency Issuance**

**Agency Gross and Net Issuance**
- Agency Gross Issuance
- Agency Net Issuance

**Agency Gross Issuance & Fed Purchases**
- Monthly Gross Issuance
- Fed Absorption of Agency Gross Issuance

**Mortgage Insurance Activity**
- MI Activity & Market Share
- FHA MI Premiums for Typical Purchase Loan
- Initial Monthly Payment Comparison: FHA vs. PMI

**Related HFPC Work**

**Publications and Events**
Rising Rates Likely to Contribute to Higher Construction Costs

In February, consumer inflation, as measured by the Consumer Price Index, reached a 40-year high of 7.5 percent. And relatedly, US labor market conditions have rebounded from the COVID-19 recession, adding 467 thousand jobs in January of this year following 6.4 million jobs added over all of 2021.

Accelerating inflation, combined with strong economic growth, which suggests a steepening Phillips Curve, have paved the way for the Federal Open Markets Committee (FOMC) to tighten policy. It is widely accepted that the FOMC will raise the federal funds rate at its upcoming March meeting. Because housing is largely a debt-financed industry, on both the ownership and the construction sides, an increasingly hawkish policy stance will have important implications for this sector of the economy. We highlight the impact on new home construction.

By itself, an increase in short-term interest rates due to tightening by the FOMC could reverberate across the yield curve, raising longer end mortgage rates. With market-based measures of inflation already exerting upward pressure on longer-term rates, tighter monetary policy including impending Fed balance sheet normalization could further raise these borrower costs.

Higher mortgage rates, when combined with already elevated house prices, may weigh on homebuying demand. And in turn, house price appreciation would be expected to slow, a response also observed during the last rate tightening cycle in 2018 (see page 22 of this chartbook). Although signs this time also point to accelerating growth of employees’ earnings, house prices have already slowed modestly from their most recent peak. However, house prices aren’t expected to fall outright in part because strong labor market conditions remain supportive of homebuying demand.

Higher interest rates will also increase the cost of home construction. Typically, builders and developers rely on debt to finance construction. By virtue of the role that depositories play in construction lending, construction loans are tied to either the bank prime rate or the 10-year Treasury rate. And data illustrates that these rates are closely linked to the FOMC’s federal funds rate (figure 2). As the FOMC tightens policy, financing costs will raise further increasing the cost of construction.

Even without more expensive financing, the cost of residential construction is rising rapidly: supply constraints have increased the cost of raw materials commonly used in construction and construction costs are further exacerbated by the lack of labor.

Historically, single-family builders have contained costs partly by buying and building on smaller lots. And multifamily builders have constructed larger buildings with more units which allows them to spread construction costs over a larger number of income-generating homes. But it’s not clear how much more room builders have to save in these dimensions.

Another way to address rising costs is to encourage more factory-built housing. While this type of construction still requires financing, as well as materials as inputs, the use of labor is reduced and because the homes can be put up more quickly, financing costs will be lower. We will be monitoring new home building closely: if higher costs cannot be contained or cannot be passed off to potential homebuyers then new housing production will be curbed.

---

Figure 1: Federal Funds Rate compared with the 10-year Treasury Rate and Prime Rate, Since 1991

![Figure 1](image-url)
**MARKET SIZE OVERVIEW**

The Federal Reserve's Flow of Funds Report has indicated a gradually increasing total value of the housing market, driven primarily by growing home equity since 2012. Mortgage debt outstanding increased slightly from $12.0 trillion in Q2 2021 to $12.3 trillion in Q3 2021, while total household equity increased from $25.1 trillion to $26.9 trillion. The total value of the housing market reached $39.2 trillion in the third quarter of 2021, 59.1 percent higher than the pre-crisis peak in 2006. Agency MBS account for 66.6 percent of the total mortgage debt outstanding, private-label securities make up 3.2 percent, and home equity loans make up 3.3 percent. Unsecuritized first liens comprise the remaining 26.9 percent with banks making up 18.6 percent, credit unions 4.5 percent, and other non-depositories accounting for 3.7 percent of the total.

**Value of the US Single Family Housing Market**

($ trillions)


Note: 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.

**Composition of the US Single Family Mortgage Market**

($ trillions)


Notes: Unsecuritized First Liens (Other) includes mortgages not held on bank balance sheets.
As of Q3 2021, unsecuritized first liens held outside banks and credit unions totaled $0.46 trillion. In this space, REITs, insurers and retirement funds have experienced particularly robust percentage increases over the last decade. In January 2022, outstanding securities in the agency market totaled $8.4 trillion, 42.0 percent of which was Fannie Mae, 33.3 percent Freddie Mac, and 24.8 percent Ginnie Mae.

**Unsecuritized 1st Liens Held by Non-Depositories**

($trillions)


**Agency Mortgage-Backed Securities**

($trillions)

Sources: eMBS and Urban Institute.
Mortgage origination volume reached another record in 2021, totaling $4.83 trillion, far surpassing the previous record of $4.10 trillion in 2020. The share of portfolio originations was 28.1 percent in 2021, an increase compared to the 22.3 percent share in 2020. The GSE share was lower in 2021 at 54.5 percent, compared to 58.2 percent in 2020. The lower GSE share largely reflects the return of portfolio lending which had pulled back during the pandemic. The FHA/VA share in 2021 stood at 15.2 percent, down from 18.1 percent in 2020. The PLS share was higher in 2021 at 2.2 percent, compared to 1.00 percent in 2020, but remains a fraction of its share pre-2008.

OVERVIEW

PRODUCT COMPOSITION AND REFINANCE SHARE

The 30-year fixed-rate mortgage continues to remain the bedrock of the US housing finance system, accounting for 75.8 percent of new originations in December 2021. The share of 15-year fixed-rate mortgages, predominantly a refinance product, was 14.3 percent of new originations in December 2021. The ARM share accounted for 1.5 percent of new originations. From late 2018 through March 2021, while there was some month-to-month variation, the refi share (bottom chart) generally increased for both the GSEs and for Ginnie Mae as interest rates dropped. Since April 2021, in reaction to slightly higher interest rates, the refi share has dropped. In January 2022, the GSE refi shares are in the 55 to 60 percent range; the Ginnie Mae refi share was 31.2 percent. With interest rates continuing to rise, we expect further drops in the refinance shares in the months ahead.

Product Composition

- Fixed-rate 30-year mortgage
- Fixed-rate 15-year mortgage
- Adjustable-rate mortgage
- Other

Sources: Black Knight, eMBS, HMDA, SIFMA and Urban Institute.
Note: Includes purchase and refinance originations.

Percent Refi at Issuance

Sources: eMBS and Urban Institute.
Note: Based on at-issuance balance. Figure based on data from January 2022.
When mortgage rates are low, the share of cash-out refinance tends to be relatively smaller, as rate/term refinancing allows borrowers to save money by taking advantage of lower rates. But when rates are high, the cash-out refinance share is higher since the rate reduction incentive is gone and the only reason to refinance is to take out equity. The cash-out share of refinances generally declined in 2020, reaching 25 percent in September 2020 due to increased rate refinances amidst historically low rates. As rates have started rising and the bulk of rate-refinance activity behind us, the cash-out share increased to 59.8 percent in January 2022. Despite the increase in the cash-out share, the absolute volume of cash-out refinances is relatively stable.

Cash-out Share of Conventional Refinances

Sources: Freddie Mac, eMBS and Urban Institute.
Note: Data as of December 2021.

Cash-out Refi Share of All Originations

Sources: eMBS and Urban Institute.
Note: Data as of December 2021.

Cash-out Refinance Volume by Agency

Sources: eMBS and Urban Institute.
Note: Data as of December 2021.
OVERVIEW

AGENCY NONBANK ORIGINATION SHARE

The nonbank share for agency originations has been rising steadily since 2013, standing at 75.5 percent in January 2022. The Ginnie Mae nonbank share has been consistently higher than the GSEs, standing at 92.5 percent in January 2022. Fannie and Freddie had nonbank shares of 72.2 percent and 69.7 percent respectively in January 2022. Ginnie and Freddie had higher nonbank origination shares for refi activity than for purchase activity in January 2022, while Fannie had a slightly higher share for purchase activity.

Nonbank Origination Share: All Loans

Nonbank Origination Share: Purchase Loans

Nonbank Origination Share: Refi Loans

Sources: eMBS and Urban Institute.
OVERVIEW

SECURITIZATION VOLUME AND COMPOSITION

Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations increased gradually from 1.83 percent in 2012 to 5.0 percent in 2019. In 2020, the non-agency share dropped to 2.44 percent, reflecting increased agency refinances and less non-agency production due to COVID-19 related dislocation. The market recovered in 2021, with full-year non-agency share rising to 4.32 percent at the end of December, although the share remains lower than 2019. While the share is lower, as agency securitization volume is high due to refi activity, 2021 was the largest year of non-agency securitization since 2008. Securitization volume reached $50.22 billion in Q4 2021, a significant increase relative to the $35.36 billion in Q4 2019 and $19.54 billion in Q4 2020. Annual nonagency securitization volume totaled $167.62 billion in 2021, far surpassing the $91.09 billion total in 2020 and $111.52 billion total in 2019. These number remain small compared to pre-housing market crisis levels.

Sources: Inside Mortgage Finance and Urban Institute.

Note: Based on data from December 2021. Monthly non-agency volume is subject to revision.

Non-Agency MBS Issuance

Monthly Non-Agency Securitization

Sources: Inside Mortgage Finance and Urban Institute.

Note: Data in 2021 is from Q1 through Q4.
The Urban Institute's Housing Credit Availability Index (HCAI) assesses lenders’ tolerance for both borrower risk and product risk, calculating the share of owner-occupied purchase loans that are likely to go 90+ days delinquent over the life of the loan. The HCAI stood at 5.2 percent in Q3 2021, unchanged from Q2 2021, and up from a historic low in Q3 2020 of just below 5.0 percent. Note that we updated the methodology as of Q2 2020, see new methodology here. The slight credit loosening from Q1 2021 to Q3 2021 was primarily led by increased borrower default risk in the government channel. More information about the HCAI is available here.

**All Channels**

**Percent**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total default risk</th>
<th>Reasonable lending standards</th>
<th>Product risk</th>
<th>Borrower risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GSE Channel**

The trend toward greater credit availability in the GSE channel began in Q2 2011. From Q2 2011 to Q1 2020, the total risk taken by the GSE channel doubled, from 1.4 percent to 2.7 percent. This is still very modest by pre-crisis standards. However, accelerated tightening throughout 2020 induced by market conditions due to COVID-19 drove down credit risk to 2.5 percent in Q4 2020. The increase in Q1 2021, to 2.58 percent, marked the first expansion of credit availability in the GSE channel since Q1 2019. In Q3 2021, credit availability increased again back up to 2.70 percent compared to 2.56 percent in Q2 2021.

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

**Note:** Default is defined as 90 days or more delinquent at any point. Last updated February 2022.
Government Channel

The total default risk the government loan channel is willing to take bottomed out at 9.6 percent in Q3 2013. It fluctuated in a narrow range above that number for three years. In the eleven quarters from Q4 2016 to Q1 2019, the risk in the government channel increased significantly from 9.9 to 12.1 percent but has since receded. After declining to 10.4 percent in Q3 2020 due to the pandemic, the government channel has since increased risk to 11.3 percent in Q3 2021; still far below the pre-bubble level of 19 – 23 percent.

Portfolio and Private Label Securities Channels

The portfolio and private-label securities (PP) channel took on more product risk than the government and GSE channels during the last housing bubble. After the crisis, the channel’s product and borrower risks dropped sharply. The numbers have stabilized since 2013, with product risk well below 0.5 percent and total risk largely in the range of 2.3-3.0 percent; it was 2.8 percent in Q3 2021. However, the PP market share plummeted during the COVID-19 crisis, as borrowers increasingly used government or GSE channels or could not obtain a mortgage at all. The PP share has since increased very marginally from Q4 2020 to Q3 2021 but remains a shadow of what it once was.

Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.
Note: Default is defined as 90 days or more delinquent at any point. Last updated February 2022.
Access to credit remains tight, especially for lower FICO borrowers. The median FICO for current purchase loans is about 23 points higher than the pre-housing crisis level of around 722. The 10th percentile, which represents the lower bound of creditworthiness to qualify for a mortgage, was 654 in December 2021, which is still high compared to low-600s pre-bubble. The median LTV at origination of 90 percent also remains high, reflecting the rise of FHA and VA lending. Origination DTIs trended lower over the course of 2020 and early 2021, reflecting the sharp decline in mortgage rates; this has reversed, with a concurrent rise in DTIs.

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

Across all channels, the share of purchase lending to minorities reached a peak of 37.0% in 2006. Following the Great Recession and amidst a period of very tight credit, the minority share of purchase lending declined to a low of 24.5% in 2013. Since then, it has slowly recovered – it stood at 31.4% in 2020. The share of purchase lending to Black borrowers varied widely by channel in 2020. 16.3 percent of FHA loans were originated to Black borrowers compared with 12.8 percent of VA loans, 4.8 percent for GSEs and 4.0 percent of portfolio loans. Similarly, 26.5 percent of FHA purchase loans were originated to Hispanic borrowers in 2020 compared to 13.3 percent of VA loans, 11.2 percent for GSEs, and 10.1 percent of portfolio loans.

Purchase Loan Shares by Race

Source: 2020 Home Mortgage Disclosure Act (HMDA).
Note: Includes purchase loans only.

2020 Purchase Loan Channel Shares by Race

Source: 2020 Home Mortgage Disclosure Act (HMDA).
Note: Includes purchase loans only.
In the GSE space, FICO scores for banks and nonbanks dipped in 2021 and the beginning of 2022 although they remain elevated. The difference between the two stood at 9 points in January 2022, compared to the 24 point gap between bank and nonbank FICOs in the Ginnie space. FICO scores for banks and nonbanks in both GSE and Ginnie Mae segments increased during the Q1 2019 to Q1 2021 period, due to increased refi activity; with refi activity now waning, originators, particularly nonbank originators, have been aggressively competing for new business, and are now more accommodating to borrowers with lower credit scores. Note that there has been a sharp cut-back in FHA lending by banks post-2008. As pointed out on page 11, banks now comprise only about 7 percent of Ginnie Mae originations.

Agency FICO: Bank vs. Nonbank

GSE FICO: Bank vs. Nonbank

Ginnie Mae FICO: Bank vs. Nonbank

Sources: eMBS and Urban Institute.
CREDIT BOX

AGENCY 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, more so in the Ginnie Mae space. From early 2017 to early 2019, there was a sustained increase in DTIs, which has reversed beginning in the spring of 2019. This is true for both Ginnie Mae and the GSEs, for banks and nonbanks. As interest rates in 2017 and 2018 increased, DTIs rose, because borrower payments were driven up relative to incomes. As rates fell during most of 2019 and 2020, DTIs fell as borrower payments declined relative to incomes. Since March 2021, DTIs have increased, reflecting the small rise in rates and steep house price increases, both of which force households to borrow more in relation to income.

GSE LTV: Bank vs. Nonbank

![GSE LTV: Bank vs. Nonbank](image)

Sources: eMBS and Urban Institute.

Ginnie Mae LTV: Bank vs. Nonbank

![Ginnie Mae LTV: Bank vs. Nonbank](image)

Sources: eMBS and Urban Institute.

GSE DTI: Bank vs. Nonbank

![GSE DTI: Bank vs. Nonbank](image)

Sources: eMBS and Urban Institute.

Ginnie Mae DTI: Bank vs. Nonbank

![Ginnie Mae DTI: Bank vs. Nonbank](image)

Sources: eMBS and Urban Institute.
Fannie Mae, Freddie Mac and the MBA estimate 2022 origination volume to be between $2.6 and $3.34 trillion, down from $3.99 to $4.65 trillion in 2021. By most estimates, 2021 was the highest origination year of the 21st century, with volumes surpassing 2020, the year with the previous record. The very robust origination volume in 2020 and 2021 is due to very strong refinance activity. All three groups expect the 2022 refinance share to be 18 to 26 percentage points lower than in 2021.

### Total Originations and Refinance Shares

<table>
<thead>
<tr>
<th>Period</th>
<th>Total, FNMA estimate</th>
<th>Total, FHLMC estimate</th>
<th>Total, MBA estimate</th>
<th>Refi Share (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FNMA estimate</td>
<td>FHLMC estimate</td>
<td>MBA estimate</td>
<td>FNMA estimate</td>
</tr>
<tr>
<td>2020 Q1</td>
<td>736</td>
<td>751</td>
<td>563</td>
<td>61</td>
</tr>
<tr>
<td>2020 Q2</td>
<td>1069</td>
<td>1090</td>
<td>928</td>
<td>67</td>
</tr>
<tr>
<td>2020 Q3</td>
<td>1287</td>
<td>1279</td>
<td>1076</td>
<td>63</td>
</tr>
<tr>
<td>2020 Q4</td>
<td>1282</td>
<td>1321</td>
<td>1261</td>
<td>65</td>
</tr>
<tr>
<td>2021 Q1</td>
<td>1239</td>
<td>1305</td>
<td>1094</td>
<td>70</td>
</tr>
<tr>
<td>2021 Q2</td>
<td>1121</td>
<td>1230</td>
<td>1050</td>
<td>56</td>
</tr>
<tr>
<td>2021 Q3</td>
<td>1101</td>
<td>1195</td>
<td>954</td>
<td>53</td>
</tr>
<tr>
<td>2021 Q4</td>
<td>985</td>
<td>921</td>
<td>893</td>
<td>51</td>
</tr>
<tr>
<td>2017</td>
<td>1826</td>
<td>1810</td>
<td>1760</td>
<td>36</td>
</tr>
<tr>
<td>2018</td>
<td>1766</td>
<td>1700</td>
<td>1677</td>
<td>30</td>
</tr>
<tr>
<td>2019</td>
<td>2462</td>
<td>2432</td>
<td>2253</td>
<td>46</td>
</tr>
<tr>
<td>2020</td>
<td>4374</td>
<td>4441</td>
<td>4108</td>
<td>64</td>
</tr>
<tr>
<td>2021</td>
<td>4447</td>
<td>4651</td>
<td>3991</td>
<td>58</td>
</tr>
<tr>
<td>2022</td>
<td>3166</td>
<td>3269</td>
<td>2600</td>
<td>36</td>
</tr>
<tr>
<td>2023</td>
<td>2915</td>
<td>3143</td>
<td>2526</td>
<td>30</td>
</tr>
</tbody>
</table>

Sources: Fannie Mae, Freddie Mac, Mortgage Bankers Association and Urban Institute.

Note: Shaded boxes indicate forecasted figures. All figures are estimates for total single-family market. Regarding interest rates, the yearly averages for 2017, 2018, 2019 and 2020 were 4.0, 4.6, 3.9, and 3.0 percent. For 2021, the respective projections for Fannie, Freddie, and MBA are 3.0, 3.0, and 3.1 percent. Freddie Mac forecasts are now released quarterly, last updated February 2022.

### Originator Profitability and Unmeasured Costs

In January 2022, Originator Profitability and Unmeasured Costs (OPUC) stood at $2.58 per $100 loan, a decrease from last month. Increased profitability reflects lender capacity constraints amidst strong refi demand. The continued decline reflects the fact that the backlog of refinance has been processed, and originators are competing more aggressively on price. OPUC, formulated and calculated by the Federal Reserve Bank of New York, is a good relative measure of originator profitability. OPUC uses the sales price of a mortgage in the secondary market (less par) and adds two sources of profitability; retained servicing (both base and excess servicing, net of g-fees), and points paid by the borrower. OPUC is generally high when interest rates are low, as originators are capacity constrained due to refinance demand and have no incentive to reduce rates. Conversely, when interest rates are higher and refi activity low, competition forces originators to lower rates, driving profitability down.


Note: OPUC is a is a monthly (4-week moving) average as discussed in Fuster et al. (2013).
STATE OF THE MARKET
HOUSING SUPPLY

Months of supply in January 2022 fell to 1.6, setting a new record low from 1.8 the previous month. Strong demand for housing in recent years, fueled by low mortgage rates, has kept the months supply limited. Fannie Mae, the MBA, and the NAHB forecast 2022 housing starts to be between 1.63 and 1.71 million units; these 2022 forecasts are above 2021 levels. Fannie Mae, Freddie Mac, the MBA, and the NAHB predict total home sales of 6.32 to 7.33 million units in 2022, above 2021 levels.

Months of Supply

Housing Starts and Home Sales

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Starts, thousands</th>
<th>Home Sales, thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total, FNMA estimate</td>
<td>Total, MBA estimate</td>
</tr>
<tr>
<td>2017</td>
<td>1203</td>
<td>1208</td>
</tr>
<tr>
<td>2018</td>
<td>1250</td>
<td>1250</td>
</tr>
<tr>
<td>2019</td>
<td>1290</td>
<td>1295</td>
</tr>
<tr>
<td>2020</td>
<td>1380</td>
<td>1397</td>
</tr>
<tr>
<td>2021</td>
<td>1595</td>
<td>1598</td>
</tr>
<tr>
<td>2022</td>
<td>1611</td>
<td>1706</td>
</tr>
<tr>
<td>2023</td>
<td>1519</td>
<td>1784</td>
</tr>
</tbody>
</table>

Sources: Mortgage Bankers Association, Fannie Mae, Freddie Mac, National Association of Home Builders and Urban Institute.

Note: Shaded boxes indicate forecasted figures; column labels indicate source of estimate. Freddie Mac home sales are now updated quarterly instead of monthly, with the last update in January 2022. *NAHB home sales estimate is for single-family structures only, it excludes condos and co-ops. Other figures include all single-family sales.
Despite historic low interest rates, increases in home prices have pushed affordability to the worst levels since 2008. As of January 2022, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 29.8 percent; with 3.5 percent down it is 34.2 percent. These numbers are well above the 2001-2003 median, and represent a sharp worsening in affordability over the past year. As shown in the bottom picture, mortgage affordability varies widely by MSA.


Note: Mortgage affordability is the share of median family income devoted to the monthly principal, interest, taxes, and insurance payment required to buy the median home at the Freddie Mac prevailing rate 2018 for a 30-year fixed-rate mortgage and property tax and insurance at 1.75 percent of the housing value. Data for the bottom chart as of Q3 2020.
National Year-Over-Year HPI Growth

According to Black Knight’s updated repeat sales index, year-over-year home price appreciation increased to 18.83 percent in December 2021, compared to 18.83 percent the previous month. Year-over-year home price appreciation as measured by Zillow’s hedonic index was 19.58 percent in December 2021, up from 19.32 in November. Although housing affordability remains constrained, especially at the lower end of the market, low rates serve as a partial offset.

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

National Year-Over-Year HPI Growth by Price Tier

House prices escalated significantly in the second half of 2020 and into 2021 across all price tiers. Before the pandemic, lower priced homes appreciated much more than higher priced homes. With higher priced homes also experiencing steep appreciation last year, the gap has disappeared.

Sources: Black Knight and Urban Institute. Note: Black Knight modified the methodology behind their HPI in February 2021, resulting in changes to historic price estimates. Data as of December 2021.
STATE OF THE MARKET
FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

In January 2022, the FTHB share for FHA, which has always been more focused on first time homebuyers, was 84.0 percent. The FTHB share of VA lending in January was 51.6 percent. The GSE FTHB share slightly increased in January relative to December, to 49.3 percent. The bottom table shows that based on mortgages originated in January 2022, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and have a higher LTV, thus paying a higher interest rate.

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

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>GSEs</th>
<th>FHA</th>
<th>GSEs and FHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Amount ($)</td>
<td>320,746</td>
<td>262,169</td>
<td>304,375</td>
</tr>
<tr>
<td>Credit Score</td>
<td>745</td>
<td>670</td>
<td>719</td>
</tr>
<tr>
<td>LTV (%)</td>
<td>87</td>
<td>95</td>
<td>91</td>
</tr>
<tr>
<td>DTI (%)</td>
<td>36</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td>Loan Rate (%)</td>
<td>3.2</td>
<td>3.27</td>
<td>3.2</td>
</tr>
</tbody>
</table>

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

January 2022
Loans in and near negative equity continued to decline in Q3 2021; 2.12 percent now have negative equity, an additional 0.35 percent have less than 5 percent equity. Due to the effects of COVID-19, the share of loans that are 90 days or more delinquent or in foreclosure remained high but declined again by 57 basis points, from 3.40 in Q3 2021 to 2.83 percent in Q4 2021. This number includes loans where borrowers have missed their payments, including loans in COVID-19 forbearance. The bottom chart shows the share of loans in forbearance according to the MBA Weekly Forbearance and Call Volume Survey, launched in March 2020. After peaking at 8.55 percent in early June 2020, the total forbearance rate has declined to 2.06 percent as of October 31st, 2021, the final week of the call survey. The MBA has since moved to conducting a monthly survey with the most recent forbearance rate dropping to 1.41% as of December 31st, 2021. GSE loans have consistently had the lowest forbearance rates, standing at 0.68 percent at the end of December. The most recent forbearance rate for Ginnie Mae loans was 1.63 percent; other (e.g., portfolio and PLS) loans had the highest forbearance rate at 3.43 percent.
The Fannie Mae and Freddie Mac portfolios remain well below the $250 billion size they were required to reach by year-end 2018, or the $225 billion cap mandated in January 2021 by the new Preferred Stock Purchase Agreements (PSPAs). From December 2020 to December 2021, the Fannie portfolio contracted year-over-year by 32.8 percent, and the Freddie portfolio contracted by 39.1 percent. Within the portfolio, both Fannie Mae and Freddie Mac contracted their less-liquid assets (mortgage loans, non-agency MBS), by 43.3 percent and 41.4 percent, respectively, over the same 12 month period.

GSE PORTFOLIO WIND-DOWN

Fannie Mae Mortgage-Related Investment Portfolio Composition

Current size: $109.2 billion
2021 PSPA cap: $225 billion
Shrinkage year-over-year: 32.8 percent
Shrinkage in less-liquid assets year-over-year: 43.3 percent

Freddie Mac Mortgage-Related Investment Portfolio Composition

Current size: $111.01 billion
2021 PSPA cap: $225 billion
Shrinkage year-over-year: 39.1 percent
Shrinkage in less-liquid assets year-over-year: 41.4 percent

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

Fannie Mae and Freddie Mac’s average g-fees charged have largely converged since the first quarter of 2020. Fannie Mae’s average g-fees charged on new acquisitions increased from 57.3 bps in Q3 2021 to 57.6 bps in Q4 2021. Freddie’s also increased from 58.0 bps to 59.0 bps. The gap between the two g-fees was 1.4 bps in Q4 2021. Today’s g-fees are markedly higher than g-fee levels in 2011 and 2012, and have contributed to the GSEs’ earnings; the bottom table shows Fannie Mae LLPAs, which are expressed as upfront charges.

Sources: Fannie Mae, Freddie Mae and Urban Institute. Last updated February 2022.

Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

<table>
<thead>
<tr>
<th>Credit Score</th>
<th>≤60</th>
<th>60.01 - 70</th>
<th>70.01 - 75</th>
<th>75.01 - 80</th>
<th>80.01 - 85</th>
<th>85.01 - 90</th>
<th>90.01 - 95</th>
<th>95.01 - 97</th>
<th>&gt;97</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 740</td>
<td>0.00</td>
<td>0.25</td>
<td>0.25</td>
<td>0.50</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>720 – 739</td>
<td>0.00</td>
<td>0.25</td>
<td>0.50</td>
<td>0.75</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>700 – 719</td>
<td>0.00</td>
<td>0.50</td>
<td>1.00</td>
<td>1.25</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.50</td>
<td>1.50</td>
</tr>
<tr>
<td>680 – 699</td>
<td>0.00</td>
<td>0.50</td>
<td>1.25</td>
<td>1.75</td>
<td>1.50</td>
<td>1.25</td>
<td>1.25</td>
<td>1.50</td>
<td>1.50</td>
</tr>
<tr>
<td>660 – 679</td>
<td>0.00</td>
<td>1.00</td>
<td>2.25</td>
<td>2.75</td>
<td>2.75</td>
<td>2.25</td>
<td>2.25</td>
<td>2.25</td>
<td>2.25</td>
</tr>
<tr>
<td>640 – 659</td>
<td>0.50</td>
<td>1.25</td>
<td>2.75</td>
<td>3.00</td>
<td>3.25</td>
<td>2.75</td>
<td>2.75</td>
<td>2.75</td>
<td>2.75</td>
</tr>
<tr>
<td>620 – 639</td>
<td>0.50</td>
<td>1.50</td>
<td>3.00</td>
<td>3.00</td>
<td>3.25</td>
<td>3.25</td>
<td>3.25</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>&lt; 620</td>
<td>0.50</td>
<td>1.50</td>
<td>3.00</td>
<td>3.00</td>
<td>3.25</td>
<td>3.25</td>
<td>3.25</td>
<td>3.75</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Product Feature (Cumulative)


GSES UNDER CONSERVATORSHIP
GSE RISK-SHARING TRANSACTIONS

Fannie Mae and Freddie Mac have been laying off back-end credit risk through CAS and STACR deals and reinsurance transactions. They have also done front-end transactions with originators and reinsurers and experimented with deep mortgage insurance coverage. Historically, the GSEs have transferred a majority of their credit risk to private markets. Fannie Mae’s CAS issuances since inception total $1.88 trillion; Freddie’s STACR totals $2.39 trillion. After the COVID-19 induced spread widening in March 2020, and the re-proposed capital rules released by FHFA shortly thereafter, Fannie Mae did not issue any deals from Mar 2020 to Sep 2021, while Freddie Mac continued to issue. With the proposed changes in the Capital Rule, and the more positive attitude toward CRT at FHFA, Fannie Mae resumed CAS issuance in October 2021.

### Fannie Mae – Connecticut Avenue Securities (CAS)

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>Reference Pool Size ($ m)</th>
<th>Amount Issued ($m)</th>
<th>% of Reference Pool Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>CAS 2013 deals</td>
<td>$26,756</td>
<td>$675</td>
<td>2.5</td>
</tr>
<tr>
<td>2014</td>
<td>CAS 2014 deals</td>
<td>$227,234</td>
<td>$5,849</td>
<td>2.6</td>
</tr>
<tr>
<td>2015</td>
<td>CAS 2015 deals</td>
<td>$187,126</td>
<td>$5,463</td>
<td>2.9</td>
</tr>
<tr>
<td>2016</td>
<td>CAS 2016 deals</td>
<td>$236,459</td>
<td>$7,392</td>
<td>3.1</td>
</tr>
<tr>
<td>2017</td>
<td>CAS 2017 deals</td>
<td>$264,697</td>
<td>$8,707</td>
<td>3.3</td>
</tr>
<tr>
<td>2018</td>
<td>CAS 2018 deals</td>
<td>$205,900</td>
<td>$7,314</td>
<td>3.6</td>
</tr>
<tr>
<td>2019</td>
<td>CAS 2019 deals</td>
<td>$291,400</td>
<td>$8,071</td>
<td>2.8</td>
</tr>
<tr>
<td>January 2020</td>
<td>CAS 2020 – R01</td>
<td>$29,000</td>
<td>$1,030</td>
<td>3.6</td>
</tr>
<tr>
<td>February 2020</td>
<td>CAS 2020 – R02</td>
<td>$29,000</td>
<td>$1,134</td>
<td>3.9</td>
</tr>
<tr>
<td>March 2020</td>
<td>CAS 2020 – SBT1</td>
<td>$152,000</td>
<td>$966</td>
<td>0.6</td>
</tr>
<tr>
<td>October 2021</td>
<td>CAS 2021 – R01</td>
<td>$72,302</td>
<td>$1,202</td>
<td>1.7</td>
</tr>
<tr>
<td>November 2021</td>
<td>CAS 2021 – R02</td>
<td>$35,117</td>
<td>$984</td>
<td>2.8</td>
</tr>
<tr>
<td>December 2021</td>
<td>CAS 2021 – R03</td>
<td>$34,783</td>
<td>$909</td>
<td>2.6</td>
</tr>
<tr>
<td>January 2022</td>
<td>CAS 2022 – R01</td>
<td>$53,747</td>
<td>$1,506</td>
<td>2.8</td>
</tr>
<tr>
<td>February 2022</td>
<td>CAS 2022 – R02</td>
<td>$44,278</td>
<td>$1,241</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$1,877,799</strong></td>
<td><strong>$52,443</strong></td>
<td><strong>2.8</strong></td>
</tr>
</tbody>
</table>

### Freddie Mac – Structured Agency Credit Risk (STACR)

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>Reference Pool Size ($ m)</th>
<th>Amount Issued ($m)</th>
<th>% of Reference Pool Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>STACR 2013 deals</td>
<td>$57,912</td>
<td>$1,130</td>
<td>2.0</td>
</tr>
<tr>
<td>2014</td>
<td>STACR 2014 deals</td>
<td>$147,120</td>
<td>$4,916</td>
<td>3.3</td>
</tr>
<tr>
<td>2015</td>
<td>STACR 2015 deals</td>
<td>$209,521</td>
<td>$6,658</td>
<td>3.2</td>
</tr>
<tr>
<td>2016</td>
<td>STACR 2016 deals</td>
<td>$183,421</td>
<td>$5,541</td>
<td>2.8</td>
</tr>
<tr>
<td>2017</td>
<td>STACR 2017 deals</td>
<td>$248,821</td>
<td>$5,663</td>
<td>2.3</td>
</tr>
<tr>
<td>2018</td>
<td>STACR 2018 deals</td>
<td>$216,581</td>
<td>$6,055</td>
<td>2.8</td>
</tr>
<tr>
<td>2019</td>
<td>STACR 2019 deals</td>
<td>$271,105</td>
<td>$5,947</td>
<td>2.2</td>
</tr>
<tr>
<td>2020</td>
<td>STACR 2020 deals</td>
<td>$403,591</td>
<td>$10,372</td>
<td>2.6</td>
</tr>
<tr>
<td>2021</td>
<td>STACR 2021 deals</td>
<td>$574,706</td>
<td>$11,024</td>
<td>1.9</td>
</tr>
<tr>
<td>January 2022</td>
<td>STACR Series 22 – DNA1</td>
<td>$33,573</td>
<td>$1,353</td>
<td>4.0</td>
</tr>
<tr>
<td>February 2022</td>
<td>STACR Series 22 – DNA2</td>
<td>$44,961</td>
<td>$1,919</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$2,391,314</strong></td>
<td><strong>$60,578</strong></td>
<td><strong>2.5</strong></td>
</tr>
</tbody>
</table>

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

GSE RISK-SHARING INDICES

The figures below show the spreads on 2017, 2018, 2019, and 2020 indices, as priced by dealers. Note the substantial spread widening in March 2020. This reflected expectations of higher defaults and potential credit losses owing to COVID-19, as well as forced selling. Spreads have tightened back to just below pre-COVID levels for the M tranches but remain above pre-COVID levels for the B tranches. The 2017, 2018, 2019, and 2020 indices contain both the bottom mezzanine tranche as well as the equity tranche, in all deals when the latter was sold. 2020 indices are heavily Freddie Mac as Fannie did not issue any new deals in the last three quarters of 2020.

Sources: Vista Data Services and Urban Institute.
Note: Data as of February 16, 2022.
Serious delinquency rates for single-family GSE loans decreased in December 2021, to 1.25 percent for Fannie Mae and 1.12 percent for Freddie Mac. Serious delinquency rates for FHA loans also decreased in December 2021, to 7.28 percent. In Q3 2021, VA serious delinquency rates declined to 4.48 percent. Note that loans that are in forbearance are counted as delinquent for the purpose of measuring delinquency rates. Fannie multifamily delinquencies increased in December to 0.42 percent, while Freddie multifamily delinquencies also declined at 0.08 percent.

Serious Delinquency Rates—Single-Family Loans

Sources: Fannie Mae, Freddie Mac, Federal Housing Administration, MBA Delinquency Survey and Urban Institute.

Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Not seasonally adjusted. VA delinquencies are reported on a quarterly basis, last updated for Q3 2021. GSE and FHA delinquencies are reported monthly, last updated for December 2021.

Serious Delinquency Rates—Multifamily GSE Loans

Sources: Fannie Mae, Freddie Mac and Urban Institute.

Note: Multifamily serious delinquency rate is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.
Agency gross issuance was $242.8 billion in January 2022, a 28.0 percent decrease from January 2021. This reflects purchase originations slowing into 2022 after a record setting year in 2021, as well as the refinance wave which persisted in 2021. Net issuance (new securities issued less the decline in outstanding securities due to principal pay-downs or prepayments) totaled $73.6 billion in January 2022, a 28.5 percent increase from the volume in January 2021.

### Agency Gross Issuance

<table>
<thead>
<tr>
<th>Issuance Year</th>
<th>GSEs</th>
<th>Ginnie Mae</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>$885.1</td>
<td>$171.5</td>
<td>$1,056.6</td>
</tr>
<tr>
<td>2002</td>
<td>$1,238.9</td>
<td>$169.0</td>
<td>$1,407.9</td>
</tr>
<tr>
<td>2003</td>
<td>$1,874.9</td>
<td>$213.1</td>
<td>$2,088.0</td>
</tr>
<tr>
<td>2004</td>
<td>$872.6</td>
<td>$119.2</td>
<td>$991.9</td>
</tr>
<tr>
<td>2005</td>
<td>$894.0</td>
<td>$81.4</td>
<td>$975.3</td>
</tr>
<tr>
<td>2006</td>
<td>$853.0</td>
<td>$76.7</td>
<td>$929.7</td>
</tr>
<tr>
<td>2007</td>
<td>$1,066.2</td>
<td>$94.9</td>
<td>$1,161.1</td>
</tr>
<tr>
<td>2008</td>
<td>$911.4</td>
<td>$267.6</td>
<td>$1,179.0</td>
</tr>
<tr>
<td>2009</td>
<td>$1,280.0</td>
<td>$451.3</td>
<td>$1,731.3</td>
</tr>
<tr>
<td>2010</td>
<td>$1,003.5</td>
<td>$390.7</td>
<td>$1,394.3</td>
</tr>
<tr>
<td>2011</td>
<td>$879.3</td>
<td>$315.3</td>
<td>$1,194.7</td>
</tr>
<tr>
<td>2012</td>
<td>$1,288.8</td>
<td>$405.0</td>
<td>$1,693.8</td>
</tr>
<tr>
<td>2013</td>
<td>$1,176.6</td>
<td>$393.6</td>
<td>$1,570.1</td>
</tr>
<tr>
<td>2014</td>
<td>$650.9</td>
<td>$296.3</td>
<td>$947.2</td>
</tr>
<tr>
<td>2015</td>
<td>$845.7</td>
<td>$436.3</td>
<td>$1,282.0</td>
</tr>
<tr>
<td>2016</td>
<td>$991.6</td>
<td>$508.2</td>
<td>$1,499.8</td>
</tr>
<tr>
<td>2017</td>
<td>$877.3</td>
<td>$455.6</td>
<td>$1,332.9</td>
</tr>
<tr>
<td>2018</td>
<td>$795.0</td>
<td>$400.6</td>
<td>$1,195.3</td>
</tr>
<tr>
<td>2019</td>
<td>$1,042.6</td>
<td>$508.6</td>
<td>$1,551.2</td>
</tr>
<tr>
<td>2020</td>
<td>$2,407.5</td>
<td>$775.4</td>
<td>$3,182.9</td>
</tr>
<tr>
<td>2021</td>
<td>$2,650.8</td>
<td>$855.3</td>
<td>$3,506.1</td>
</tr>
<tr>
<td>2022</td>
<td>$182.3</td>
<td>$60.5</td>
<td>$242.8</td>
</tr>
</tbody>
</table>

**2022 % Change Over 2021**

-29.6%  
-22.6%  
-28.0%

**2022 Annualized**

$2,187.8  
$726.0  
$2,913.84

### Agency Net Issuance

<table>
<thead>
<tr>
<th>Issuance Year</th>
<th>GSEs</th>
<th>Ginnie Mae</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>$368.40</td>
<td>-$9.90</td>
<td>$358.50</td>
</tr>
<tr>
<td>2002</td>
<td>$357.20</td>
<td>-$51.20</td>
<td>$306.10</td>
</tr>
<tr>
<td>2003</td>
<td>$334.90</td>
<td>-$77.60</td>
<td>$257.30</td>
</tr>
<tr>
<td>2004</td>
<td>$82.50</td>
<td>-$40.10</td>
<td>$42.40</td>
</tr>
<tr>
<td>2005</td>
<td>$174.20</td>
<td>-$42.20</td>
<td>$132.00</td>
</tr>
<tr>
<td>2006</td>
<td>$313.60</td>
<td>$0.20</td>
<td>$313.80</td>
</tr>
<tr>
<td>2007</td>
<td>$514.90</td>
<td>$30.90</td>
<td>$545.70</td>
</tr>
<tr>
<td>2008</td>
<td>$314.80</td>
<td>$196.40</td>
<td>$511.30</td>
</tr>
<tr>
<td>2009</td>
<td>$250.60</td>
<td>$257.40</td>
<td>$508.00</td>
</tr>
<tr>
<td>2010</td>
<td>-$303.20</td>
<td>$198.30</td>
<td>-$105.00</td>
</tr>
<tr>
<td>2011</td>
<td>-$128.40</td>
<td>$149.60</td>
<td>$21.20</td>
</tr>
<tr>
<td>2012</td>
<td>-$42.40</td>
<td>$119.10</td>
<td>$76.80</td>
</tr>
<tr>
<td>2013</td>
<td>$69.10</td>
<td>$87.90</td>
<td>$157.00</td>
</tr>
<tr>
<td>2014</td>
<td>$30.5</td>
<td>$61.6</td>
<td>$92.1</td>
</tr>
<tr>
<td>2015</td>
<td>$75.1</td>
<td>$97.3</td>
<td>$172.5</td>
</tr>
<tr>
<td>2016</td>
<td>$127.4</td>
<td>$125.8</td>
<td>$253.1</td>
</tr>
<tr>
<td>2017</td>
<td>$168.5</td>
<td>$131.3</td>
<td>$299.7</td>
</tr>
<tr>
<td>2018</td>
<td>$149.4</td>
<td>$112.0</td>
<td>$261.5</td>
</tr>
<tr>
<td>2019</td>
<td>$197.8</td>
<td>$95.7</td>
<td>$293.5</td>
</tr>
<tr>
<td>2020</td>
<td>$632.8</td>
<td>$19.9</td>
<td>$652.7</td>
</tr>
<tr>
<td>2021</td>
<td>$753.5</td>
<td>$5.6</td>
<td>$759.1</td>
</tr>
<tr>
<td>2022</td>
<td>$65.8</td>
<td>$7.8</td>
<td>$73.6</td>
</tr>
</tbody>
</table>

**2022 % Change Over 2021**

3.2%  
219.5%  
28.5%

**2022 Annualized**

$789.8  
$93.3  
$883.0

Sources: eMBS and Urban Institute.

Note: Dollar amounts are in billions. Data as of January 2022.
Fed Absorption of Agency Gross Issuance

In Mar 2020, in response to COVID-19 market dislocations, the Fed announced Treasury and agency MBS purchases in an amount necessary to support smooth functioning of markets. In Mar 2020, the Fed bought $292.2 billion in agency MBS, and April 2020 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. After the market stabilized, the Fed slowed its purchases to around $100-$125 billion per month ($40 billion of net new purchases). In Nov 2021, the Fed announced a reduction in net purchases of agency MBS by $5 billion each month starting that month. In Jan 2022, the Fed increased this reduction to $10 billion a month in light of rising inflation; new net purchase of MBS will end in March. In Jan 2022, Fed purchases totaled $76.1 billion, 31.3 percent of monthly gross issuance. As of Jan 2022, total agency MBS owned by the Fed equaled $2.70 trillion, the highest level ever. Prior to the COVID-19 intervention, the Fed was winding down its MBS portfolio from its 2014 prior peak.

Sources: eMBS, Federal Reserve Bank of New York, and Urban Institute.
**MORTGAGE INSURANCE ACTIVITY**

**MI Activity**

In the fourth quarter of 2021, private mortgage insurance written decreased by $47.9 billion, FHA decreased by $8.8 billion, and VA decreased by $39.4 billion relative to Q4 2020. Over the same period (i.e. from Q4 2020 to Q4 2021), the private mortgage insurers share decreased from 45.2 to 43.9 percent, FHA’s share increased from 21.6 to 25.8 percent, and VA’s share decreased from 31.3 to 28.3 percent. For full year 2021, the private mortgage insurers share stood at 44.1 percent, a slight decrease from 44.7 percent in 2020. During this same period, the FHA share increased from 23.8 percent to 25.2 percent, while the VA share decreased from 31.5 percent in 2020 to 30.7 percent in 2021.

**MI Market Share**

*Sources: Inside Mortgage Finance and Urban Institute. Last updated February 2022.*
FHA premiums rose significantly in the years following the housing crash, with annual premiums rising from 50 to 135 basis points between 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 bps cut in annual insurance premiums, making FHA mortgages more attractive than GSE mortgages for the overwhelming majority of borrowers putting down less than 5%. The April 2016 reduction in PMI rates for borrowers with higher FICO scores and April 2018 reduction for lower FICO borrowers has partially offset that. As shown in the bottom table, a borrower putting 3.5 percent down with a FICO of less than 700 will find FHA financing to be more financially attractive, borrowers with FICOs of 720 and above will find GSE execution with PMI to be more attractive.

### FHA MI Premiums for Typical Purchase Loan

<table>
<thead>
<tr>
<th>Case number date</th>
<th>Upfront mortgage insurance premium (UFMIP) paid</th>
<th>Annual mortgage insurance premium (MIP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/2001 - 7/13/2008</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>7/14/2008 - 4/5/2010*</td>
<td>175</td>
<td>55</td>
</tr>
<tr>
<td>10/4/2010 - 4/17/2011</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>4/18/2011 - 4/8/2012</td>
<td>100</td>
<td>115</td>
</tr>
<tr>
<td>4/9/2012 - 6/10/2012</td>
<td>175</td>
<td>125</td>
</tr>
<tr>
<td>6/11/2012 - 3/31/2013a</td>
<td>175</td>
<td>125</td>
</tr>
<tr>
<td>4/1/2013 - 1/25/2015b</td>
<td>175</td>
<td>135</td>
</tr>
<tr>
<td>Beginning 1/26/2015c</td>
<td>175</td>
<td>85</td>
</tr>
</tbody>
</table>

**Sources:** Ginnie Mae and Urban Institute.

**Note:** A typical purchase loan has an LTV over 95 and a loan term longer than 15 years. Mortgage insurance premiums are listed in basis points.

* For a short period in 2008 the FHA used a risk based FICO/LTV matrix for MI.

a Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 150 bps.

b Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 155 bps.

c Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 105 bps.

### Initial Monthly Payment Comparison: FHA vs. PMI

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FHA UFMIP</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
<td>1.75</td>
</tr>
<tr>
<td>FHA MIP</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>GSE LLPA*</td>
<td>3.50</td>
<td>2.75</td>
<td>2.25</td>
<td>1.50</td>
<td>1.50</td>
<td>1.00</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>PMI Annual MIP</td>
<td>1.86</td>
<td>1.65</td>
<td>1.54</td>
<td>1.21</td>
<td>0.99</td>
<td>0.87</td>
<td>0.70</td>
<td>0.58</td>
</tr>
</tbody>
</table>

**Sources:** Genworth Mortgage Insurance, Ginnie Mae, and Urban Institute. FHA rate from MBA Weekly Applications Survey. Conforming rate from Freddie Mac Primary Mortgage Market Survey.

**Note:** Rates as of January 2022.

Mortgage insurance premiums listed in percentage points. Grey shade indicates FHA monthly payment is more favorable, while blue indicates PMI is more favorable. The PMI monthly payment calculation does not include special programs like Fannie Mae's HomeReady and Freddie Mac's Home Possible (HP), both offer more favorable rates for low- to moderate-income borrowers.

LLPA= Loan Level Price Adjustment, described in detail on page 25.
RELATED HFPC WORK
PUBLICATIONS AND EVENTS

Upcoming events:
See our events page for more information on other upcoming and past events.

Projects

State Data to Target Homeowner Assistance Fund Dollars

The Mortgage Servicing Collaborative

Housing Credit Availability Index (HCAI)

Home Mortgage Disclosure Act Projects

Mortgage Markets COVID-19 Collaborative

Reducing the Racial Homeownership Gap

Data Tools Available Online

Tracking Rent Payments to Mom-and-Pop Landlords

Tracking Homeownership Wealth Gaps

Publications

Navigating Rental Payment and Eviction Data During the Pandemic
Authors: Jung Hyun Choi, Laurie Goodman, Daniel Pang
Date: February 16, 2022

Why Do So Few People Buy Affordable Properties at Auction?
Authors: Jung Hyun Choi, Laurie Goodman, Liam Reynolds
Date: February 8, 2022

Should the Community Reinvestment Act Consider Race?
Authors: Laurie Goodman, Linna Zhu, Ellen Seidman, Janneke Ratcliffe, Jun Zhu
Date: January 7, 2022

Utility, Telecommunications, and Rental Data in Underwriting Credit
Authors: Kelly Thompson Cochran, Michael Stegman, Colin Foos
Date: December 20, 2021

The Role of Single-Family Housing Production and Preservation in Addressing the Affordable Housing Supply Shortage
Authors: Karan Kaul, Laurie Goodman, Michael Neal
Date: December 15, 2021

Blog Posts

Who Serves More People of Color in Mortgage Lending: Banks or Nonbanks?
Authors: Linna Zhu, Laurie Goodman, Jun Zhu
Date: February 21, 2022

Will California’s New Zoning Promote Racial and Economic Equity in Los Angeles?
Authors: Linna Zhu, Sarah Gerecke
Date: February 10, 2022

To Ensure Homeowner Assistance Fund Offers Relief to Struggling Native Homeowners, Center Their Needs and Voices
Authors: John Walsh, Michael Neal
Date: February 17, 2022

Three Ways to Support Homeowners in Distress Instead of Cutting Monthly Mortgage Payments
Author: Ted Tozer
Date: February 3, 2022

How Place-Based Special Purpose Credit Programs Can Reduce the Racial Homeownership Gap
Authors: Jung Hyun Choi, Liam Reynolds, Vanessa Perry
Date: February 1, 2022

The Housing Market Needs More Condos. Why Are So Few Being Built
Authors: Michael Neal, Laurie Goodman
Date: January 31, 2022

What Different Denial Rates Can Tell Us About Racial Disparities in the Mortgage Market
Authors: Jung Choi & Peter Mattingly
Date: January 13, 2022

How Can Policymakers Ensure the Homeowner Assistance Fund Reaches People in Need?
Authors: Daniel Pang & Michael Neal
Date: January 12, 2022

California’s New Zoning Law Eases Building Restrictions but Depends on the Financing Industry to Play its Part
Authors: John Walsh & Jung Choi
Date: January 6, 2022
Acknowledgments

The Housing Finance Policy Center (HFPC) was launched with generous support at the leadership level from the Citi Foundation and John D. and Catherine T. MacArthur Foundation. Additional support was provided by The Ford Foundation and The Open Society Foundations.

Ongoing support for HFPC is also provided by the Housing Finance Innovation Forum, a group of organizations and individuals that support high-quality independent research that informs evidence-based policy development. Funds raised through the Forum provide flexible resources, allowing HFPC to anticipate and respond to emerging policy issues with timely analysis. This funding supports HFPC’s research, outreach and engagement, and general operating activities.

The chartbook is funded by these combined sources. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at www.urban.org/support.

Housing Finance Innovation Forum Members as of June 2021

Organizations
400 Capital Management
AGNC Investment Corp.
American Bankers Association
Andrew Davidson & Co.
Arch Capital Group
Auction.com
Bank of America
BlackRock
Caliber Home Loans
Citizens Bank
Ellington Management Group
Enact (formerly Genworth MI)
FICO
Freedom Mortgage
Housing Policy Council
Ivory Homes
MGIC
Mortgage Bankers Association
Movement Mortgage
Mr. Cooper
National Association of Home Builders
National Association of Realtors
National Foundation for Credit Counseling
New American Funding
Ocwen Financial
Pretium Partners
Pulte Home Mortgage
RiskSpan
Rocket Mortgage
SitusAMC
Tilden Park Capital
Union Home Mortgage
U.S. Mortgage Insurers
VantageScore
Wells Fargo
Zillow

Individuals
Kenneth Bacon
Mary Miller
Jim Millstein
Shekar Narasimhan
Andrew Rippert
Faith Schwartz
Carl Shapiro
Bill Young
Mark & Ava Zandi

Data Partners
Avail
Black Knight, Inc.
CoreLogic
First American
Moody’s Analytics