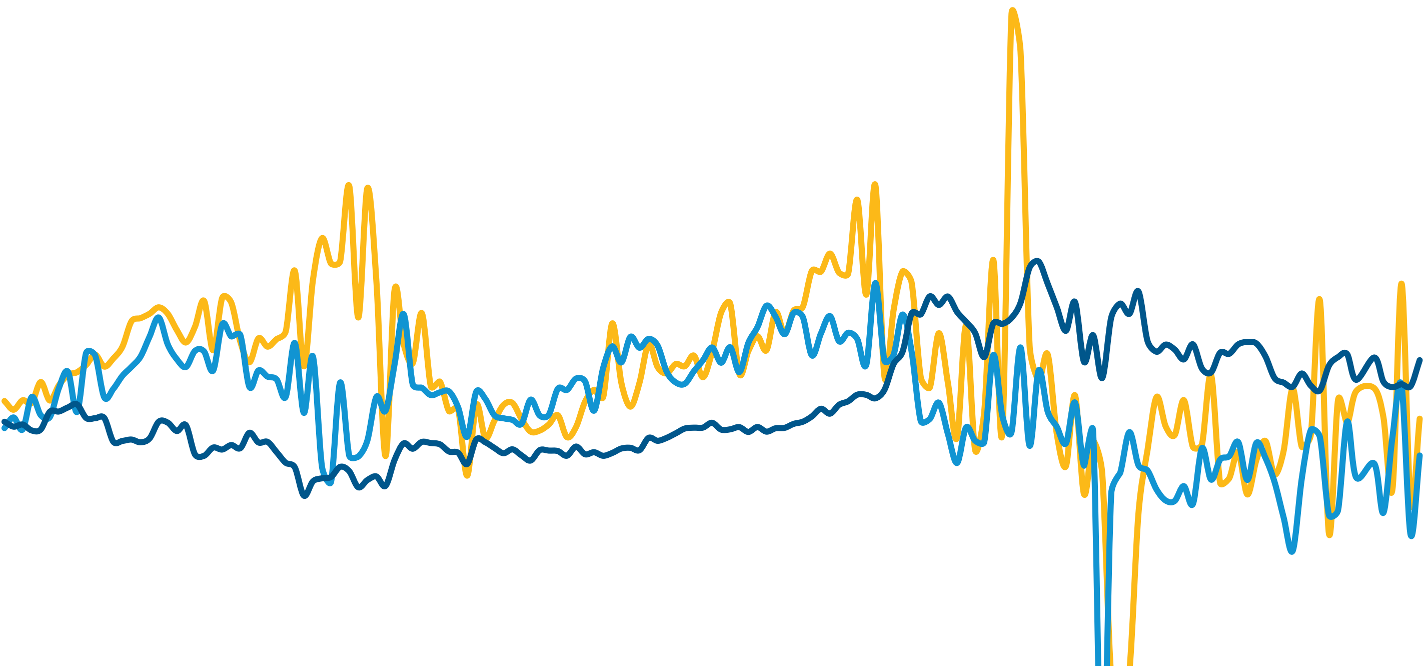
HOUSING FINANCE POLICY CENTER



HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

April 2020

URBAN INSTITUTE · ELEVATE · THE · DEBATE

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.

HOUSING FINANCE POLICY CENTER STAFF

Laurie Goodman
Center Vice President

Alanna McCargo
Center Vice President

Jim Parrott
Nonresident Fellow

Jun Zhu
Nonresident Fellow

Sheryl Pardo
Associate Director of Communications

Karan Kaul
Senior Research Associate

Michael Neal
Senior Research Associate

Jung Choi
Research Associate

Sarah Strochak
Research Analyst

John Walsh
Research Assistant

Caitlin Young
Research Assistant

Alison Rincon
Director, Center Operations

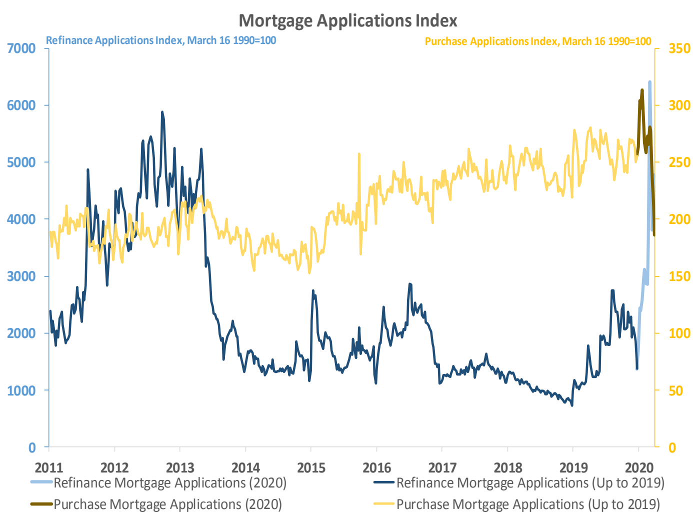
CONTENTS

INTRODUCTION

COVID-19 Flips 2020 Mortgage Market Expectations

In a remarkably short time period, COVID-19 has dramatically altered the course of broad mortgage market metrics. At the end of 2019, trends in mortgage applications suggested that, over the course of 2020, purchase mortgage originations would rise and refinance originations would decrease. As the full effect of COVID-19 became more apparent, refinancing applications leaped, purchase applications plummeted, and the mortgage market expectations established at the beginning of this year were reversed.

Historical and forecasted originations by Fannie Mae, Freddie Mac and the Mortgage Bankers Association (MBA) are shown on page 19 of this Chartbook. To measure changes in mortgage market expectations, we average Fannie Mae's and the MBA's January estimates, along with Freddie Mac's December estimate, of 2019 mortgage originations as well as their forecast of originations in 2020. We then compare what they thought would happen in 2020 with the projections in their most recent April forecasts.



Source: Mortgage Bankers Association.

Over 2019, purchase mortgage applications held largely steady, supported by lower mortgage rates and strong labor market conditions (figure above). It was expected that rates would stay low and the economy would remain strong, raising purchase mortgage originations in 2020 (table below). By contrast, refinancing originations were expected to be lower in 2020, since refinance applications had begun to decline in the latter half of 2019 (figure above).

The impact of COVID-19 was first manifested by the drop in Treasury and mortgage rates in January, with primary mortgage rates falling. Lower rates along with still strong labor market conditions and housing equity growth boosted applications for both purchase and refinance mortgages by 11 and 88 percent respectively over the first month of this year.

As COVID-19's impact became clearer, purchase mortgage applications plunged, falling 36 percent since February to a level last seen in 2015 (figure above). Refinance applications rose 116 percent to the highest level since at least 2011. Although refinance applications have receded in recent weeks, they remain elevated. Amidst these developments, mortgage market expectations have reversed, purchase origination volume is now expected to fall in 2020 while refinance volume is expected to be higher (table above).

COVID-19's impact goes well beyond simply reversing expectations for the mortgage market. COVID-19 has infected nearly every part of the mortgage market's structure, from lending standards in the primary market to investor liquidity in the secondary market, particularly in the non-agency sector, and the health of independent mortgage banks which account for about two-thirds of new agency origination.

The federal policy response has been swift, with Congressional action through the CARES Act providing borrower forbearance and the Federal Reserve purchasing large amounts of agency mortgage-backed securities. However, further actions are needed, including a servicing advance facility to aid the independent mortgage bankers as they struggle to access the funding that is needed to continue to make payments to investors in the wake of widespread forbearance, as well as a financing facility for non-agency securities.

INSIDE THIS ISSUE

- The Urban Institute's Housing Credit Availability Index stood at 5.3 percent in Q4 2019, unchanged from Q3 2014 (Page 13).
- CAS and STACR spreads widened significantly in March 2020, reflecting investor expectations of higher defaults and credit losses owing to COVID-19 (Page 28).
- The Federal Reserve, as part of its efforts to stabilize the financial markets, purchased $292.2 billion in Agency MBS in March 2020, 178.2% of gross issuance and the largest volume of purchases in a single month (Page 31).

Forecast of Mortgage Originations, Billions of Dollars						
Forecast Month	2019			2020		
	Total	Purchase	Refinance	Total	Purchase	Refinance
Dec. 2019/Jan. 2020	$2,120	$1,266	$853	$1,986	$1,336	$650
April 2020	$2,282	$1,279	$1,003	$2,432	$1,148	$1,311
Year-over-Year Change						
Forecast Month	2019			2020		
				Total	Purchase	Refinance
Dec. 2019/Jan. 2020				-6%	6%	-24%
April 2020				7%	-10%	31%

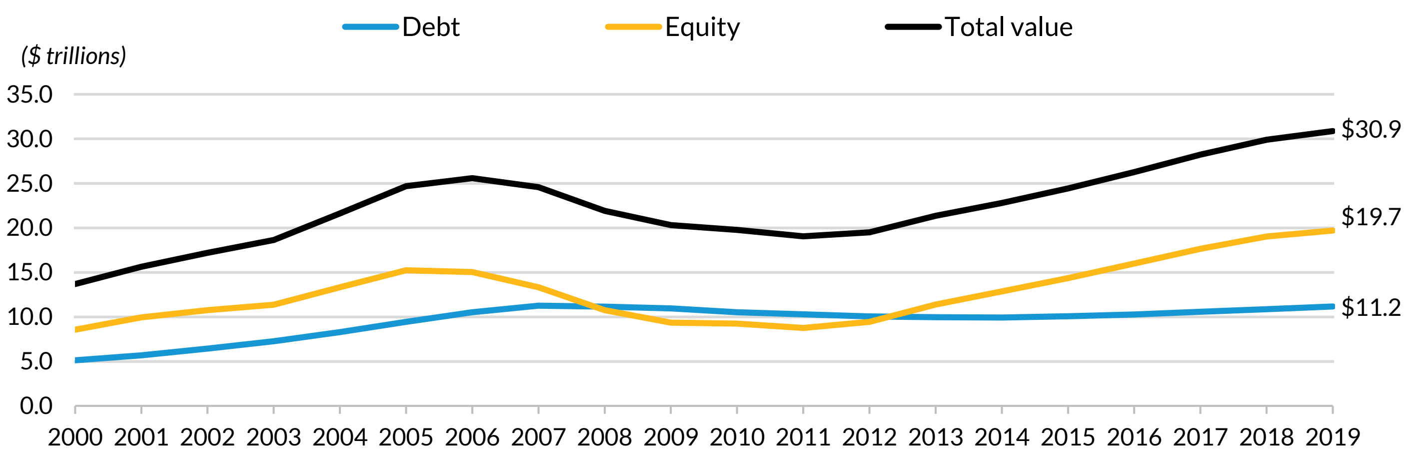
Source: Author's calculations from Fannie Mae, Freddie Mac, and MBA.

OVERVIEW

MARKET SIZE OVERVIEW

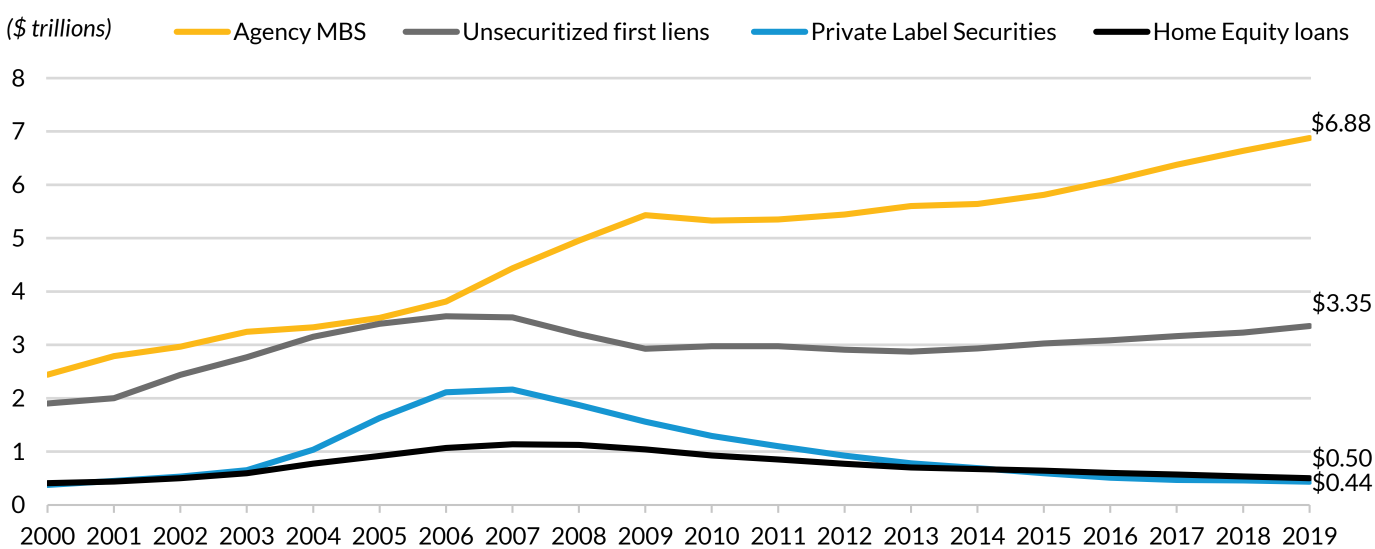
The Federal Reserve's Flow of Fund Report has indicated a gradually increasing total value of the housing market, driven primarily by growing home equity since 2012. The Q4 2019 numbers show that while total home equity was steady this quarter at $19.7 trillion, mortgage debt outstanding grew slightly from $11.1 trillion in Q3 to $11.2 trillion in Q4 2019, bringing the total value of the housing market to $30.9 trillion, 20.7 percent higher than the pre-crisis peak in 2006. Agency MBS account for 61.6 percent of the total mortgage debt outstanding, private-label securities make up 3.9 percent, and unsecuritized first liens make up 30.0 percent. Home equity loans comprise the remaining 4.5 percent of the total.

Value of the US Single Family Housing Market



Sources: Federal Reserve Flow of Funds and Urban Institute. Last updated April 2020.
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

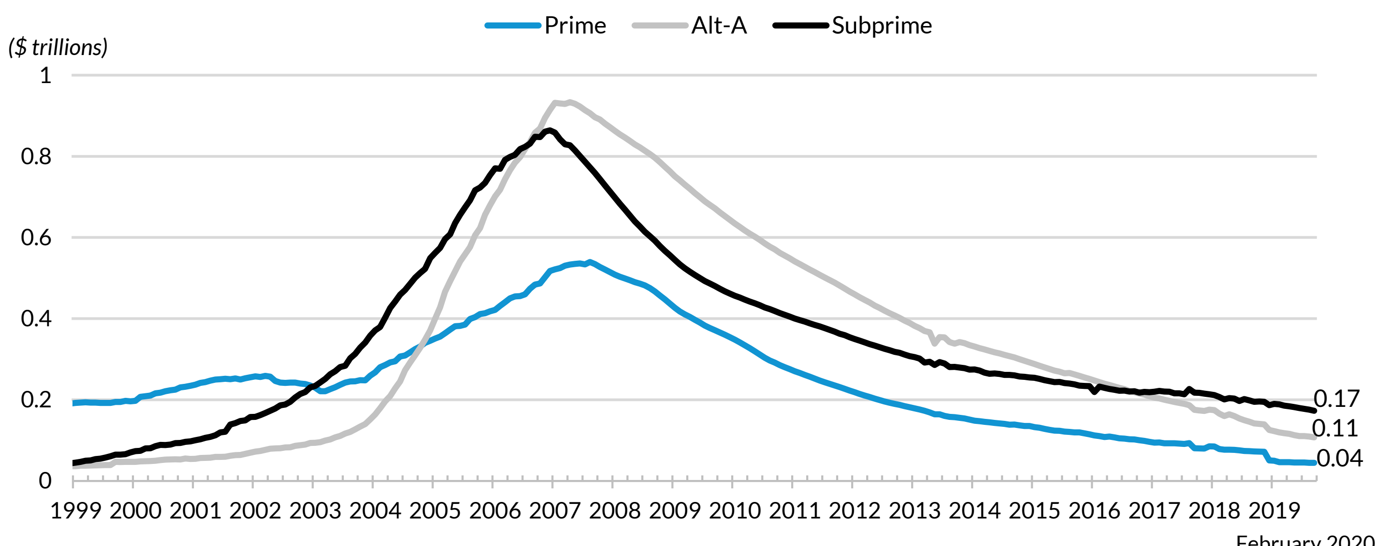


Sources: Federal Reserve Flow of Funds, eMBS and Urban Institute. *Last updated April 2020.*
Note: Unsecuritized first liens includes loans held by commercial banks, GSEs, savings institutions, credit unions and other financial companies

MARKET SIZE OVERVIEW

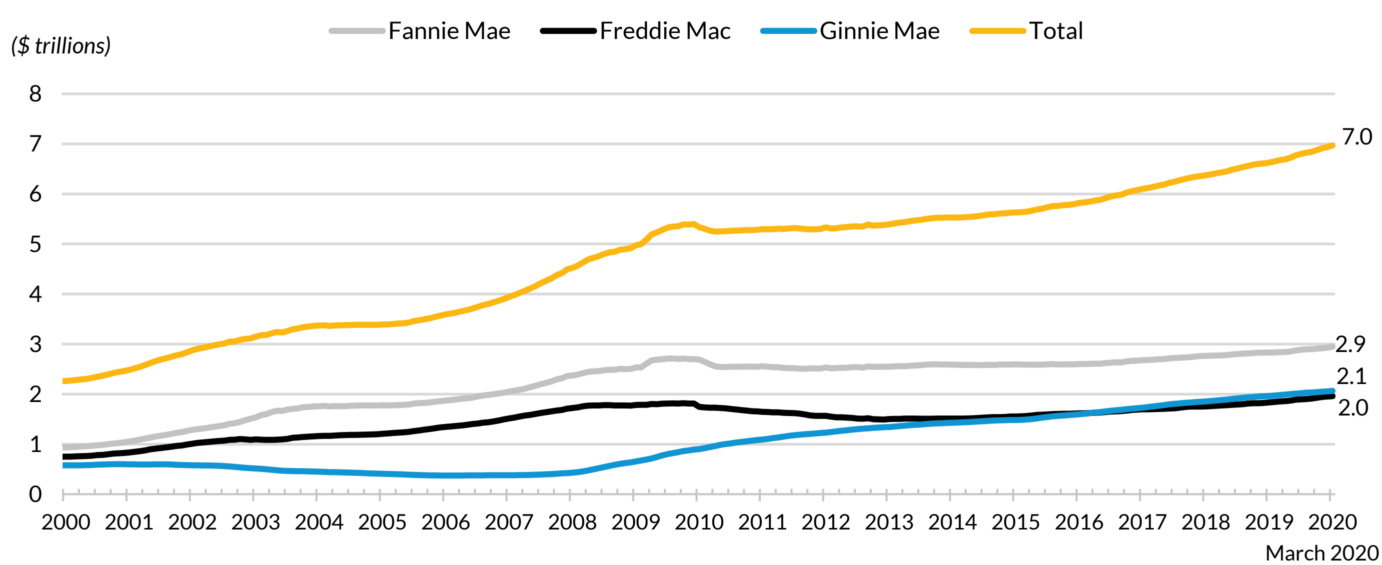
As of February 2020, our sample of first lien mortgage debt in the private-label securitization market totaled $325 billion and was split among prime (13.7 percent), Alt-A (33.1 percent), and subprime (53.3 percent) loans. In March 2020, outstanding securities in the agency market totaled $7.0 trillion, 42.3 percent of which was Fannie Mae, 28.1 percent Freddie Mac, and 29.6 percent Ginnie Mae. Ginnie Mae has had more outstanding securities than Freddie Mac since June 2016.

Private-Label Securities by Product Type



Sources: CoreLogic, Black Knight and Urban Institute.

Agency Mortgage-Backed Securities



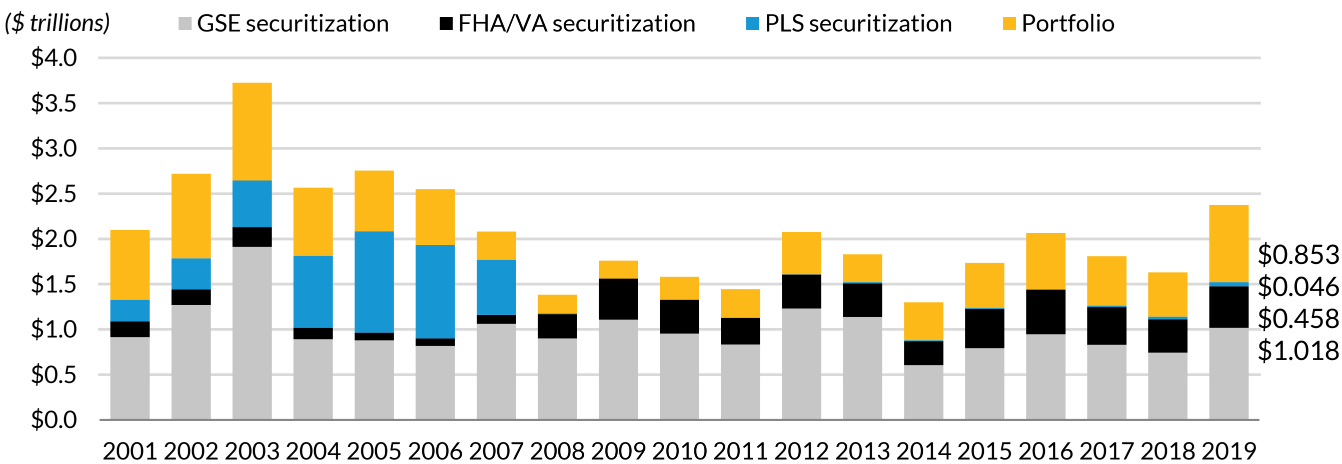
Sources: eMBS and Urban Institute.

OVERVIEW

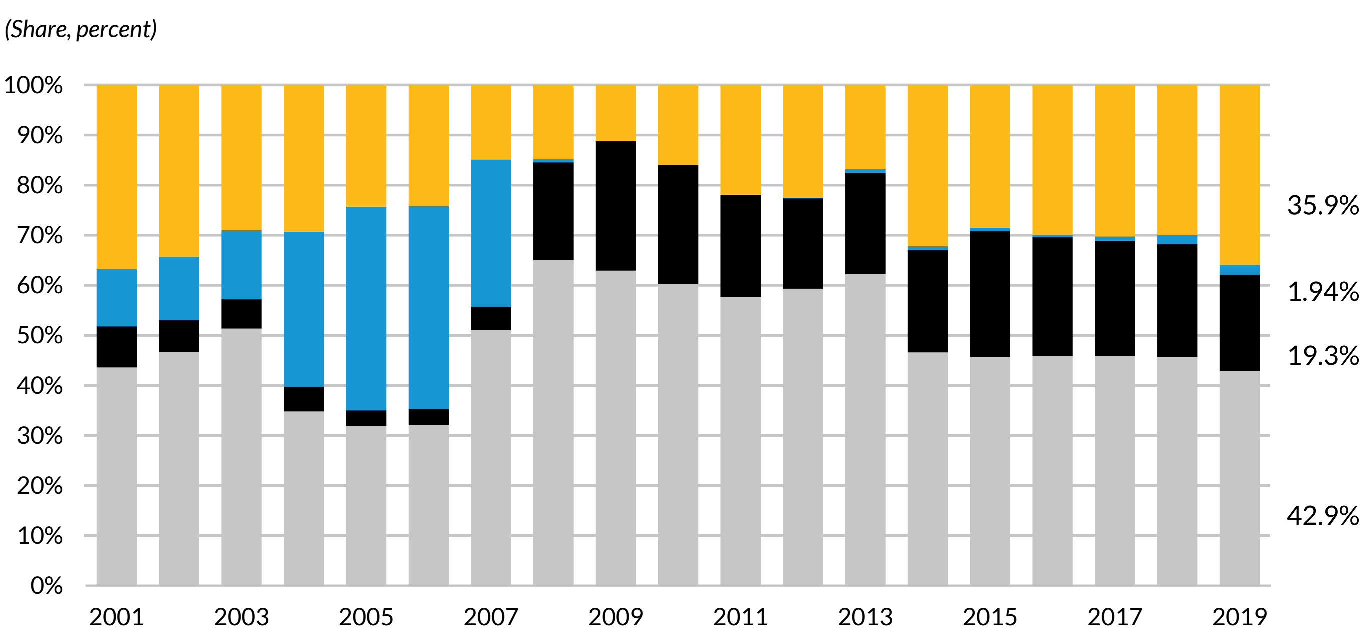
ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

For full-year 2019, first lien originations totaled $2.38 trillion, up from the full year 2018 volume of $1.63 trillion. The share of portfolio originations was 35.9 percent in 2019, a significant jump from the 30.0 percent share in 2018. The 2019 GSE share was down at 42.9 percent, compared to 45.7 percent for the full year 2018. The FHA/VA share fell to 19.3 percent in 2019, as compared to 22.6 percent in 2018. Private label securitization comprised 1.9 percent of origination volume in both 2019 and 2018, it remains a fraction of its share in the pre-bubble years.



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2020.*

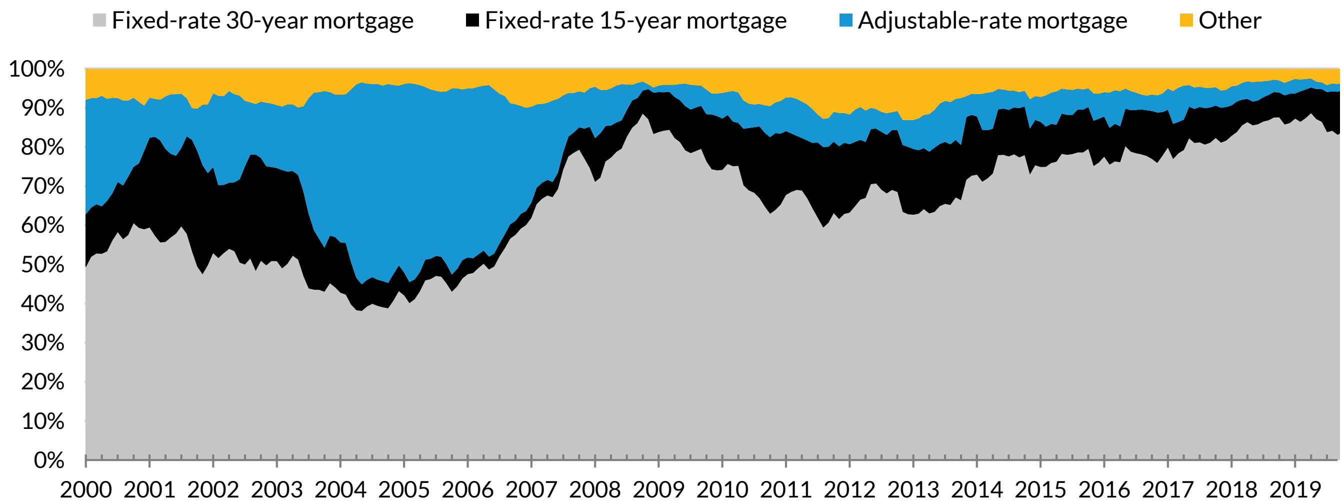


Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2020.*

PRODUCT COMPOSITION AND REFINANCE SHARE

The 30-year fixed-rate mortgage continues to remain the bedrock of the US housing finance system, accounting for 81 percent of new originations in February 2020. This share has increased over the last decade as the share of other products has shrunk. The 15-year fixed-rate mortgage, predominantly a refinance product, accounted for 10.8 percent of new originations in February 2020, while the ARM share accounted for 3.4 percent. Since late 2018, while there has been some month-to-month variation, the refinance share (bottom chart) has generally grown for both the GSEs and Ginnie Mae as interest rates have dropped. As rates have continued to drop in the wake of COVID-19, we expect the refinance share to continue to climb.

Product Composition

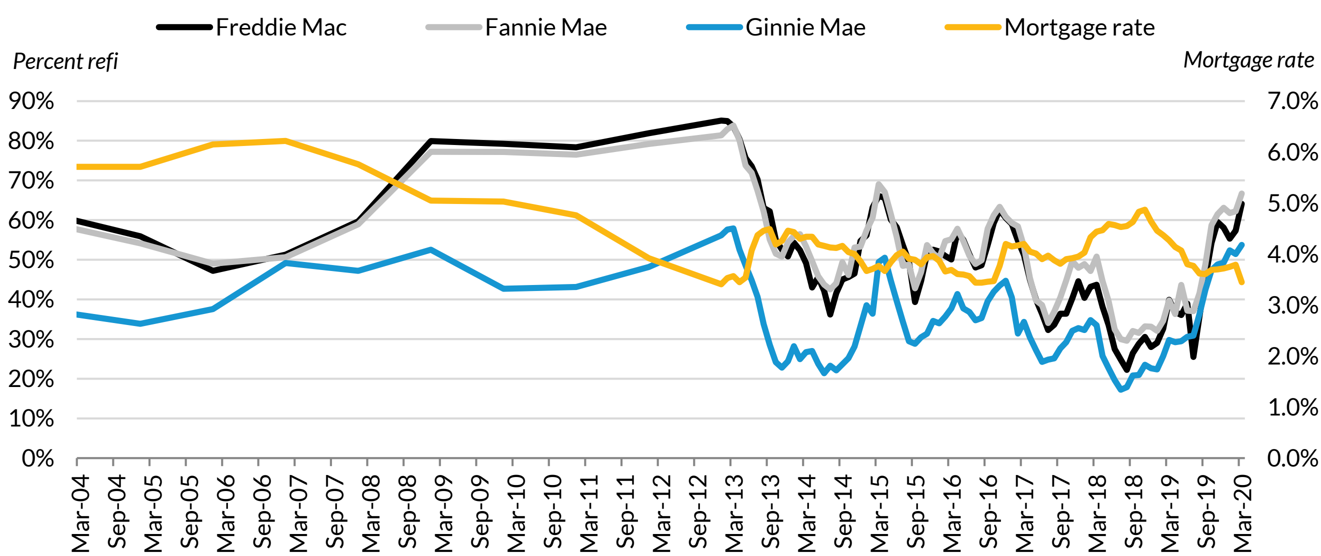


Sources: Black Knight, eMBS, HMDA, SIFMA and Urban Institute.

February 2020

Note: Includes purchase and refinance originations.

Percent Refi at Issuance



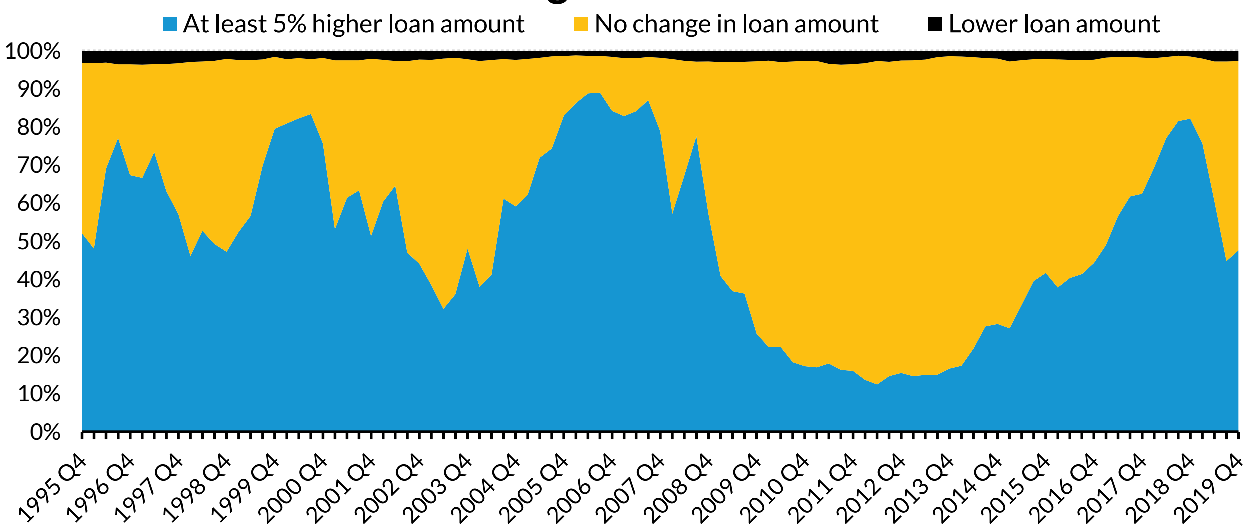
Sources: eMBS and Urban Institute.

Note: Based on at-issuance balance. Figure based on data from March 2020.

CASH-OUT REFINANCES

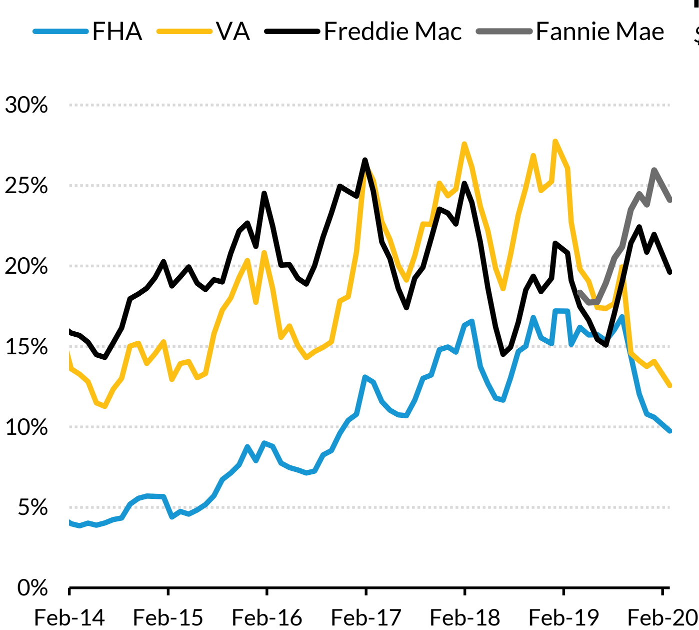
When mortgage rates are low, the share of cash-out refinances tends to be relatively smaller, as refinancing allows borrowers to save money by taking advantage of lower rates. But when rates are high, the cash-out refinance share is higher since the rate reduction incentive is gone and the only reason to refinance is to take out equity. The cash-out share of all refinances grew from 45 percent in the third quarter of 2019 to 48 percent in the fourth quarter. While the cash-out refinance share for conventional mortgages may seem high at 48 percent, equity take-out volumes are substantially lower than during the bubble years. The cash-out refi share of all agency lending has fallen in the first two months of 2020, likely due to the increased rate refinance activity from borrowers taking advantage of historically low rates.

Loan Amount after Refinancing



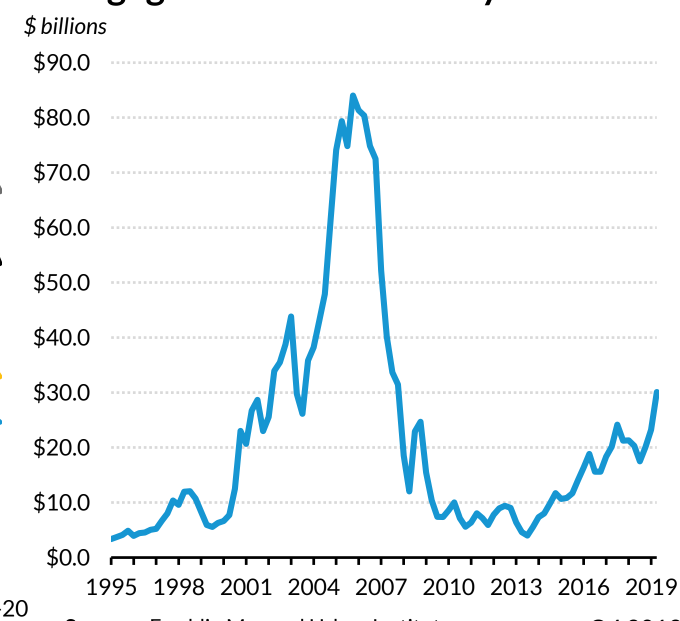
Sources: Freddie Mac and Urban Institute.
Note: Estimates include conventional mortgages only.

Cash-out Refi Share of All Originations



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

Equity Take-Out from Conventional Mortgage Refinance Activity



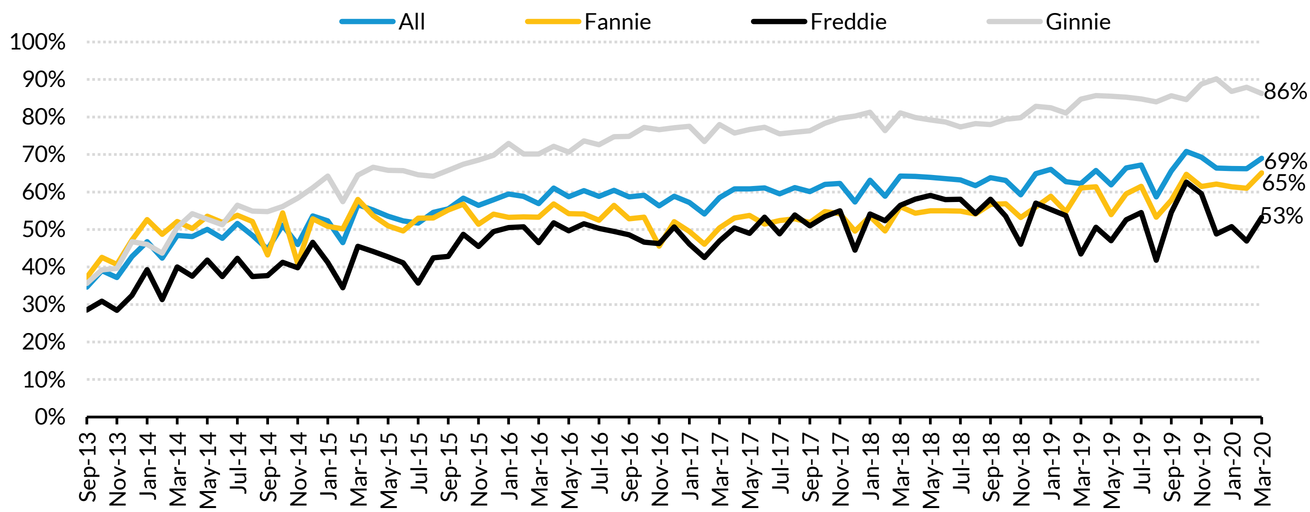
Sources: Freddie Mac and Urban Institute.
Note: These quarterly estimates include conventional mortgages only.

OVERVIEW

AGENCY NONBANK ORIGINATION SHARE

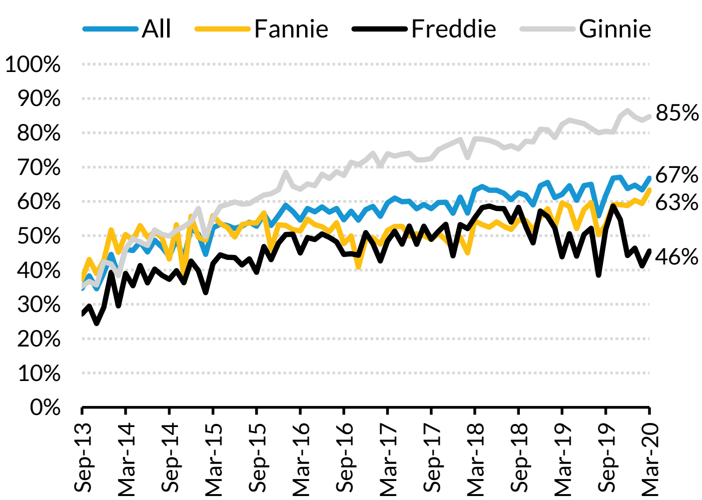
The nonbank share for agency originations has been rising steadily since 2013, standing at 69 percent in March 2020. The Ginnie Mae nonbank share has been consistently higher than the GSEs, falling slightly in March 2020 to 86 percent. Fannie and Freddie's nonbank shares both grew in March 2020 to 65 and 53 percent, respectively (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.

Nonbank Origination Share: All Loans



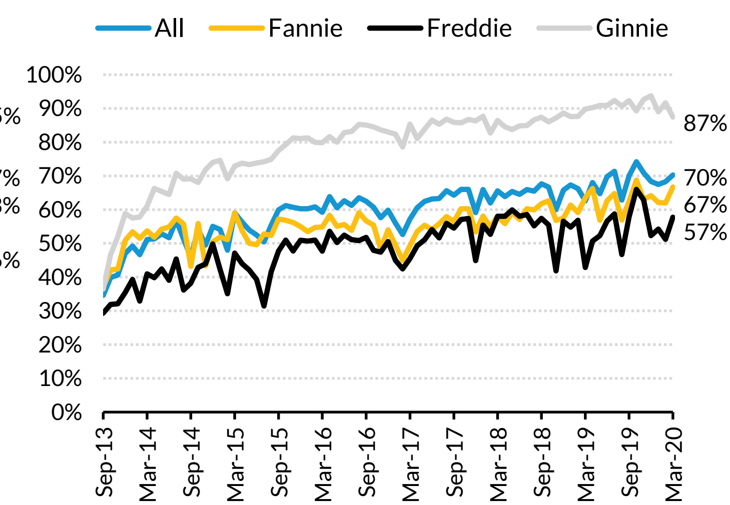
Sources: *eMBS and Urban Institute.*

Nonbank Origination Share: Purchase Loans



Sources: *eMBS and Urban Institute.*

Nonbank Origination Share: Refi Loans

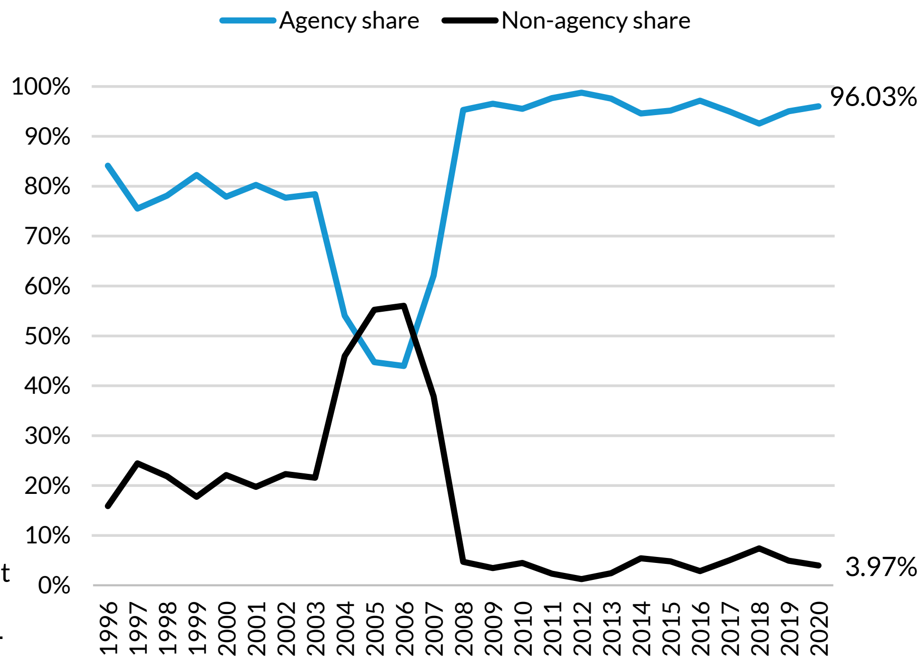


Sources: *eMBS and Urban Institute.*

SECURITIZATION VOLUME AND COMPOSITION

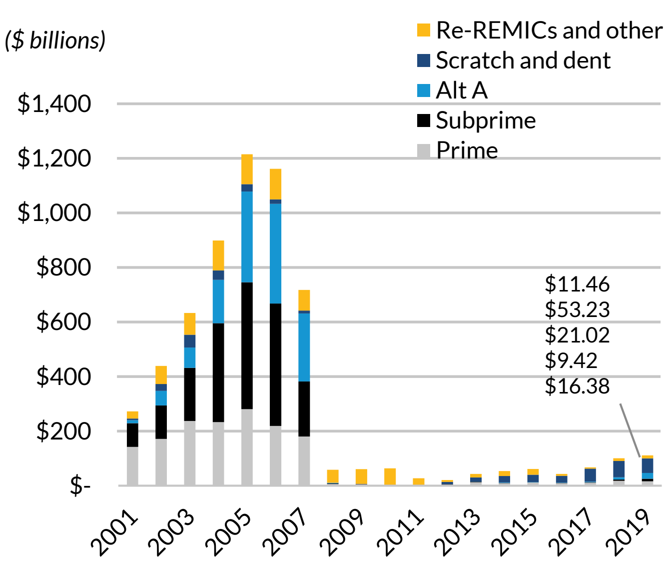
Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations has increased gradually over the post-crisis years, from 1.83 percent in 2012 to 5.0 percent in 2019. Through March of 2020, the non-agency share was 3.97 percent, and we expect it to go lower in the months ahead, as the non-agency market has been largely dormant due to dislocations caused by COVID-19. Non-agency securitization volume totaled $111.52 billion in 2019,an increase relative to 2018's $100.55 billion total. But there is a change in the mix. Alt-A and subprime securitizations have grown, while scratch and dent securitizations have fallen since the same period last year. Non-agency securitizations continue to be tiny compared to pre-crisis levels.



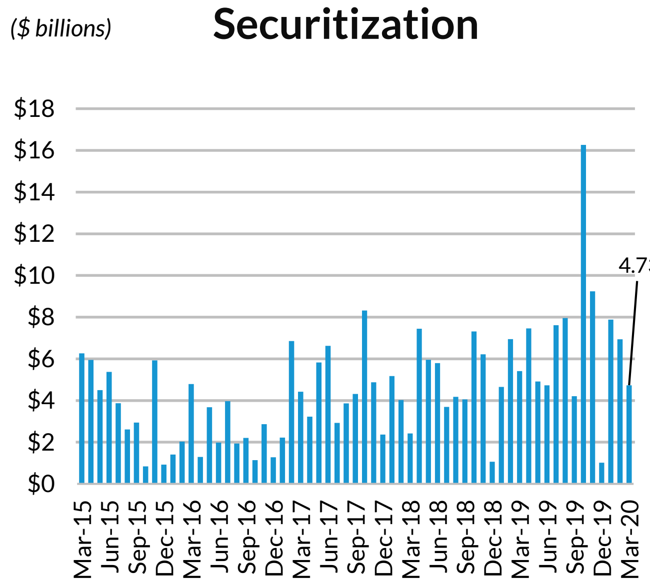
Sources: Inside Mortgage Finance and Urban Institute.
Note: Based on data from March 2020. Monthly non-agency volume is subject to revision.

Non-Agency MBS Issuance



Sources*:* Inside Mortgage Finance and Urban Institute.

Monthly Non-Agency Securitization

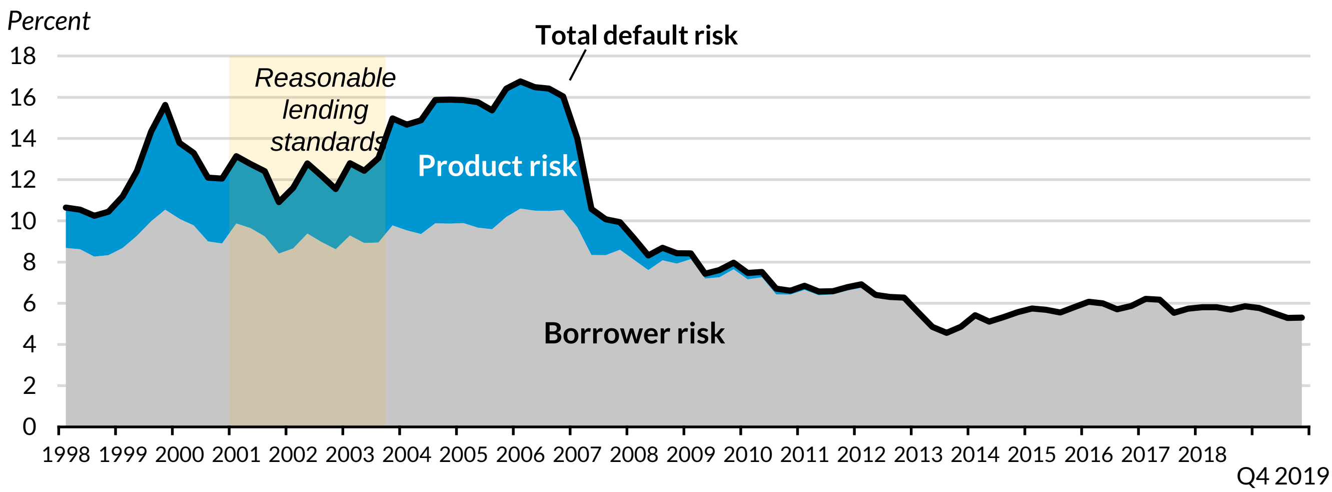


Sources: Inside Mortgage Finance and Urban Institute.

CREDIT BOX
HOUSING CREDIT AVAILABILITY INDEX

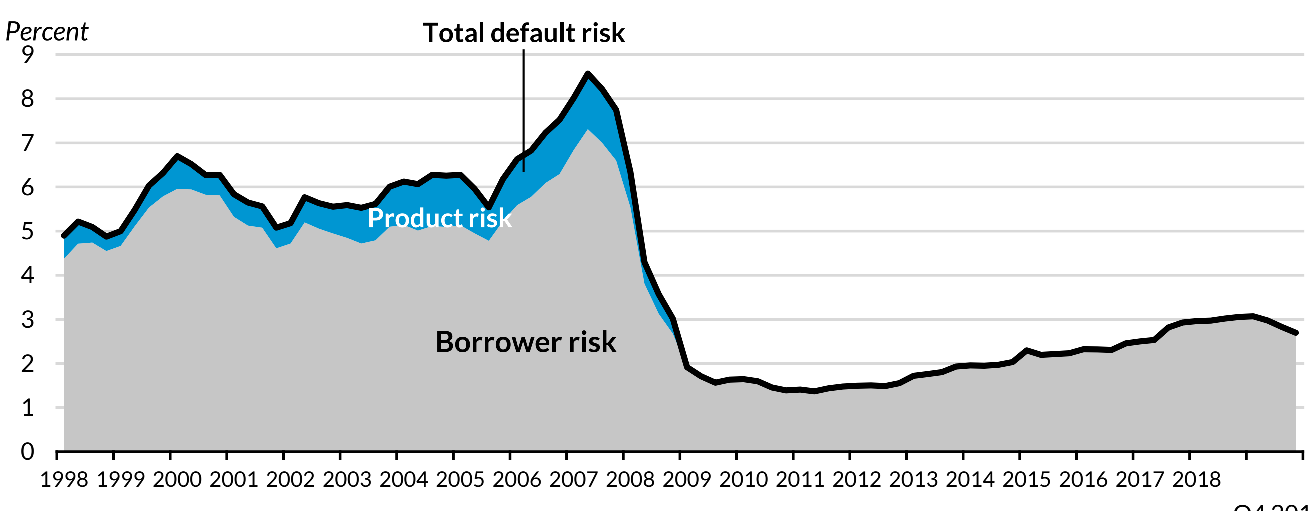
The Urban Institute's Housing Credit Availability Index (HCAI) assesses lenders' tolerance for both borrower risk and product risk, calculating the share of owner-occupied purchase loans that are likely to go 90+ days delinquent over the life of the loan. The HCAI Index stood at 5.3 percent in Q4 2019, unchanged from the previous quarter. There was a small drop in credit availability in all three channels, and a small increase in the market share of the government channel, which is relatively higher risk than the other channels. More information about the HCAI is available here.

All Channels



GSE Channel

The GSE market has expanded the credit box proportionately more than the government channel in recent years, although the GSE box is still much narrower. In Q3 2018, the index reached 3 percent for the first time since 2008, and then continued to increase in the following two quarters, reaching 3.07 percent in Q1 2019. HCAI declined in Q2, Q3 and Q4 of 2019, standing at 2.70 percent in Q4 2019..

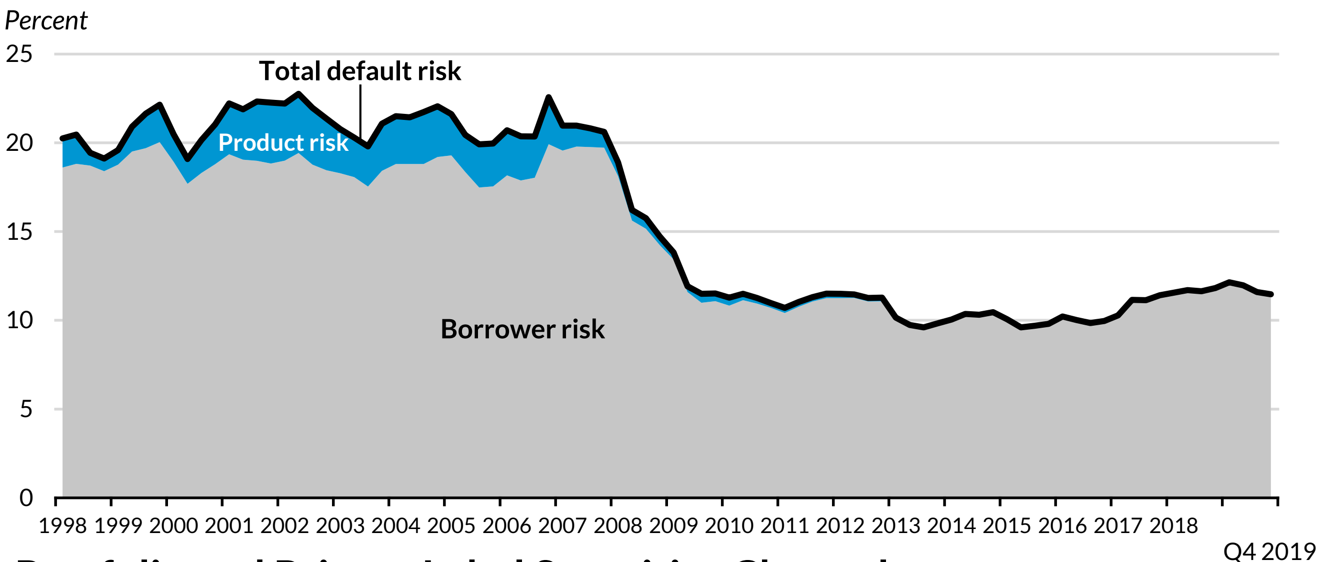


Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.
Note: Default is defined as 90 days or more delinquent at any point. *Last updated April 2020.*

CREDIT BOX
HOUSING CREDIT AVAILABILITY INDEX

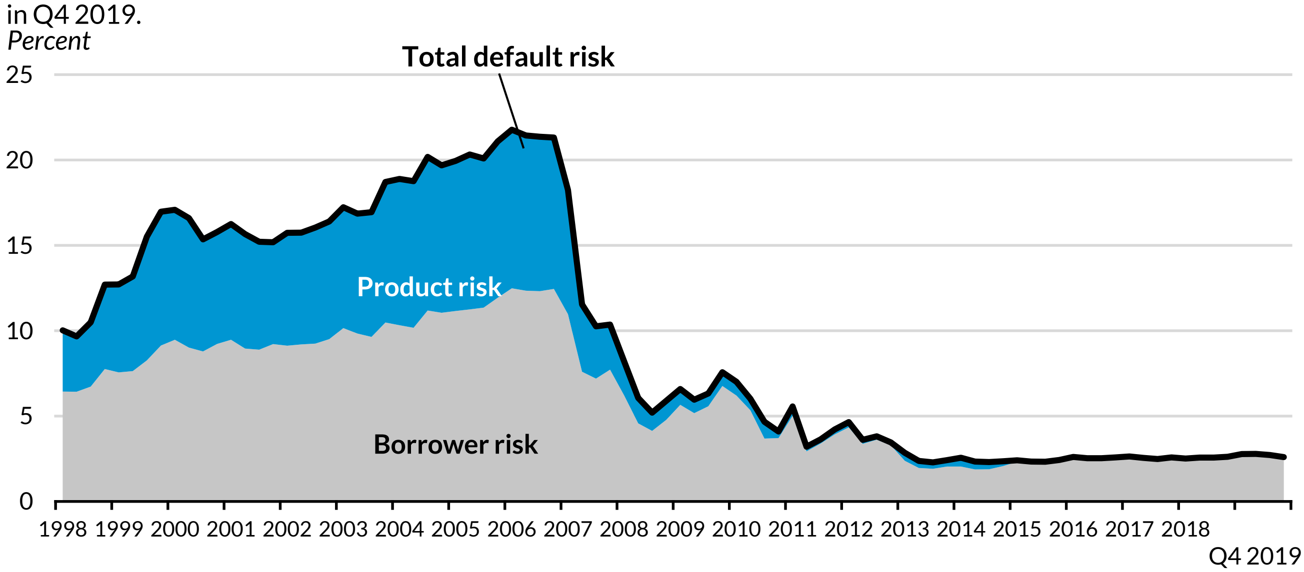
Government Channel

The total default risk the government channel is willing to take bottomed out at 9.6 percent in Q3 2013. It has gradually increased since then, although it was down slightly at 11.46 percent in Q4 2019, from 11.6 percent in Q3 2019.



Portfolio and Private Label Securities Channels

The portfolio and private-label securities (PP) channel took on more product risk than the government and GSE channels during the bubble. After the crisis, PP channel's product and borrower risks dropped sharply. The numbers have stabilized since 2013, with product risk fluctuating below 0.6 percent and borrower risk in the 2.0-3.0 percent range. Borrower risk decreased in the fourth quarter of 2019, and now stands at 2.59 percent, down from 2.72 percent in Q3 2019. Total risk in the portfolio and private-label securities channel stood at 2.60 percent in Q4 2019.



Sources: eMBS, CoreLogic, HMDA, IMF, and Urban Institute.
Note: Default is defined as 90 days or more delinquent at any point. *Last updated April 2020.*

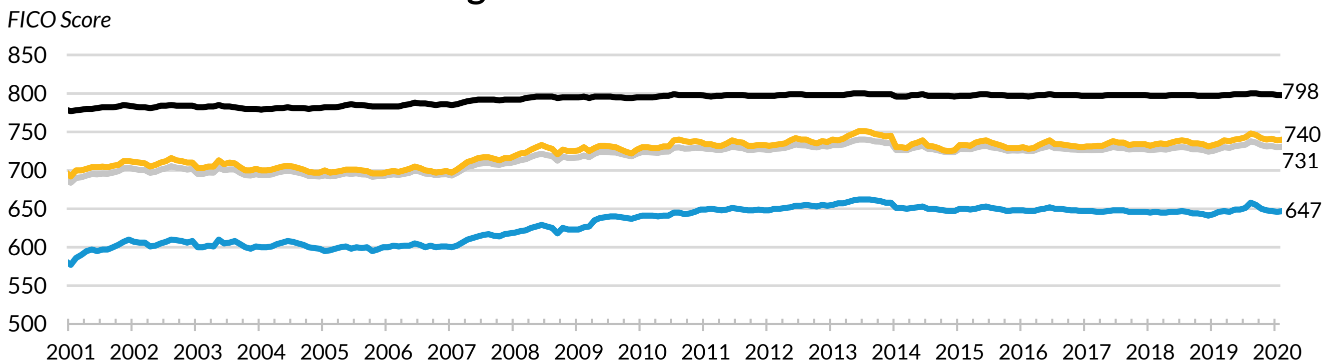
CREDIT BOX

CREDIT AVAILABILITY FOR PURCHASE LOANS

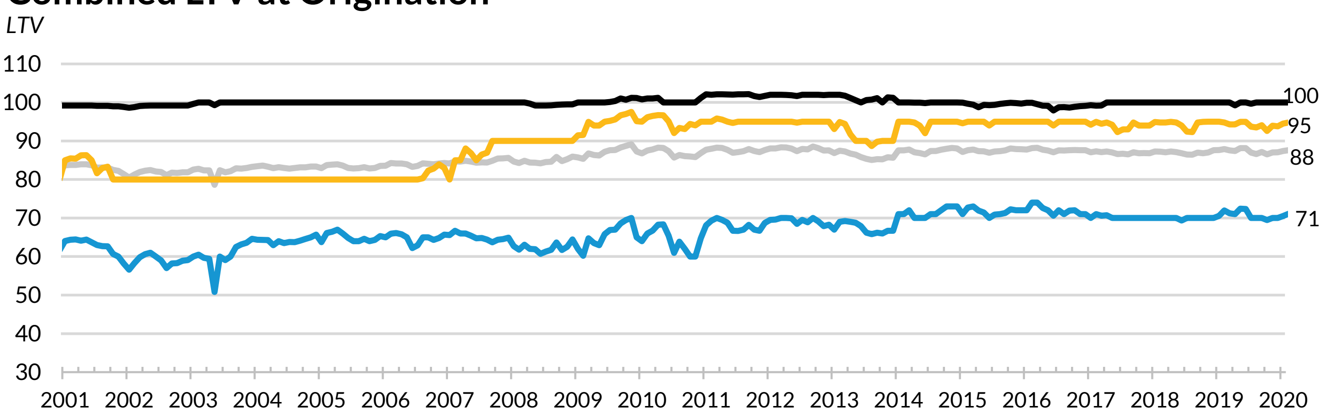
Access to credit remains tight, especially for lower FICO borrowers. The median FICO for current purchase loans is about 40 points higher than the pre-crisis level of around 700. The 10th percentile, which represents the lower bound of creditworthiness to qualify for a mortgage, was 647 in February 2020, which is high compared to low-600s pre-bubble. The median LTV at origination of 95 percent also remains high, reflecting the rise of FHA and VA lending. Although current median DTI of 39 percent exceeds the pre-bubble level of 36 percent, higher FICO scores serve as a strong compensating factor. Since this data is from February 2020, it does not reflect any of the subsequent credit tightening due to the effects of COVID-19.

Mean 90th percentile 10th percentile Median

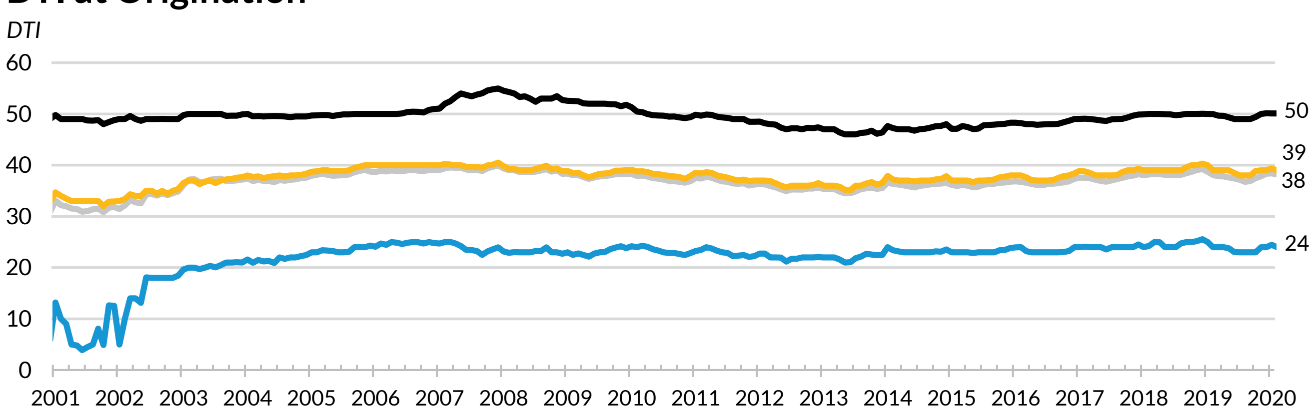
Borrower FICO Score at Origination



Combined LTV at Origination



DTI at Origination



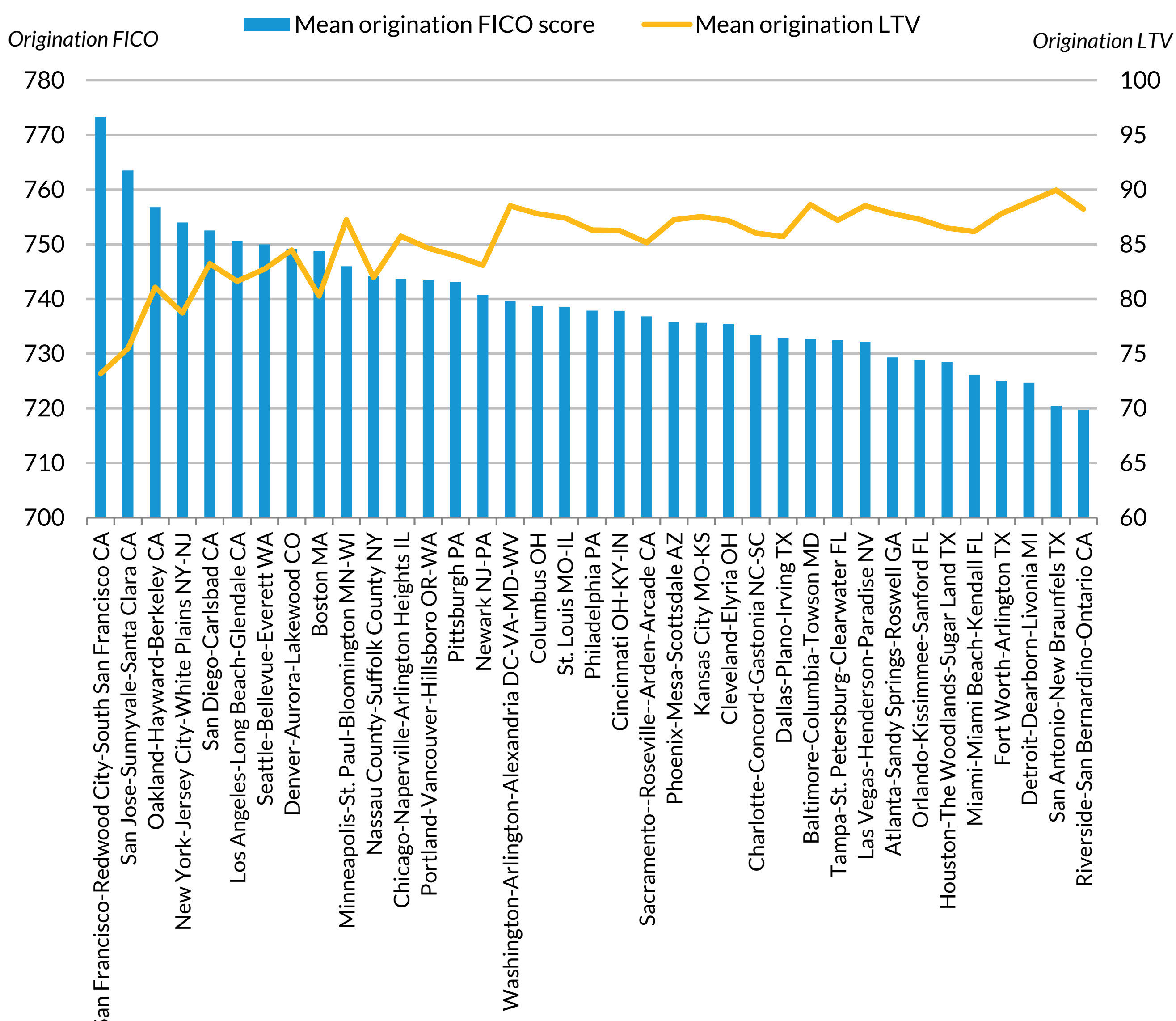
Sources: Black Knight, eMBS, HMDA, SIFMA, CoreLogic and Urban Institute.
Note: Includes owner-occupied purchase loans only. DTI data prior to April 2018 is from CoreLogic; after that date, it is from Black Knight. Data as of February 2020.

CREDIT BOX

CREDIT AVAILABILITY BY MSA FOR PURCHASE LOANS

Credit has been tight for all borrowers with less-than-stellar credit scores—especially in MSAs with high housing prices. For example, the mean origination FICO for borrowers in San Francisco-Redwood City-South San Francisco, CA is approximately 773. Across all MSAs, lower average FICO scores tend to be correlated with high average LTVs, as these MSAs rely heavily on FHA/VA financing.

Origination FICO and LTV



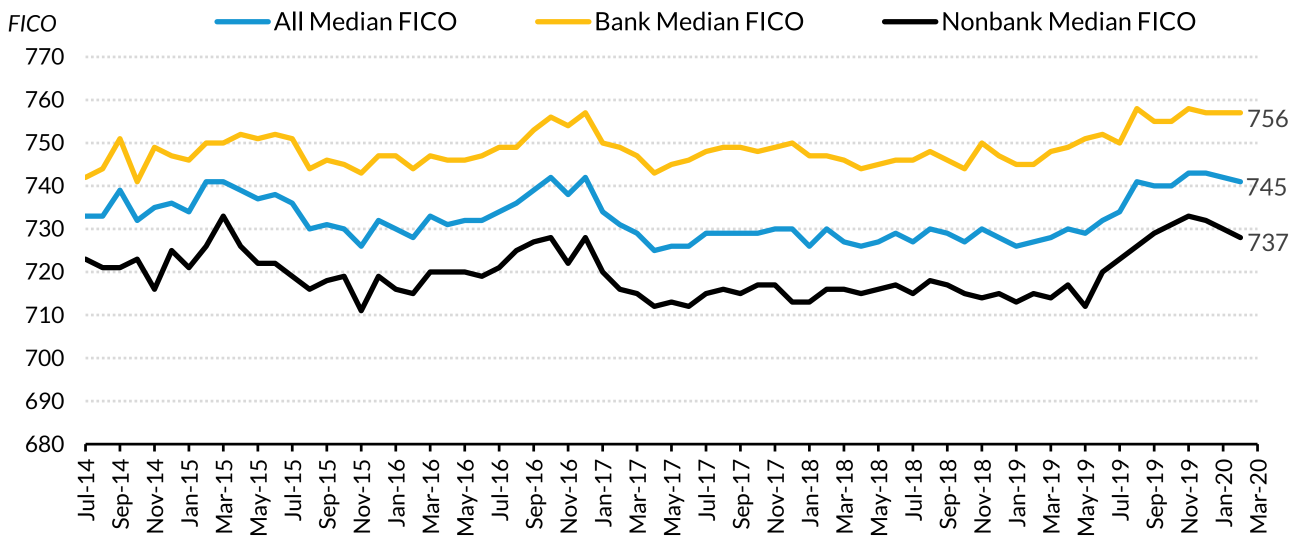
Sources: Black Knight, eMBS, HMDA, SIFMA and Urban Institute.
Note: Includes owner-occupied purchase loans only. Data as of February 2020.

CREDIT BOX

AGENCY NONBANK CREDIT BOX

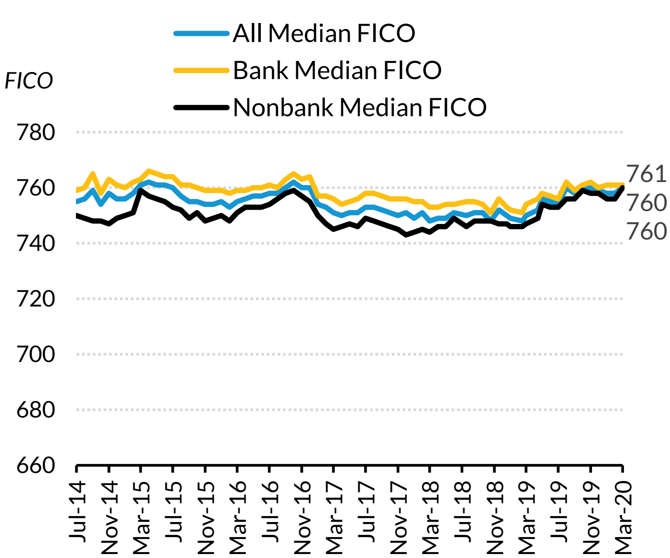
Nonbank originators have played a key role in expanding access to credit. In the GSE space, FICO scores for banks and nonbanks have nearly converged; the differential is much larger in the Ginnie Mae space. FICO scores for banks and nonbanks in both GSE and Ginnie Mae segments increased over the course of 2019 and early 2020, due to increased refi activity; this activity is skewed toward higher FICO scores. Comparing Ginnie Mae FICO scores today versus five years ago (late 2014), FICO scores have risen significantly for the banks, while those of the non-banks were roughly constant; this reflects a sharp cut-back in FHA lending by many banks. As pointed out on page 11, banks comprise only about 14 percent of Ginnie Mae originations.

Agency FICO: Bank vs. Nonbank



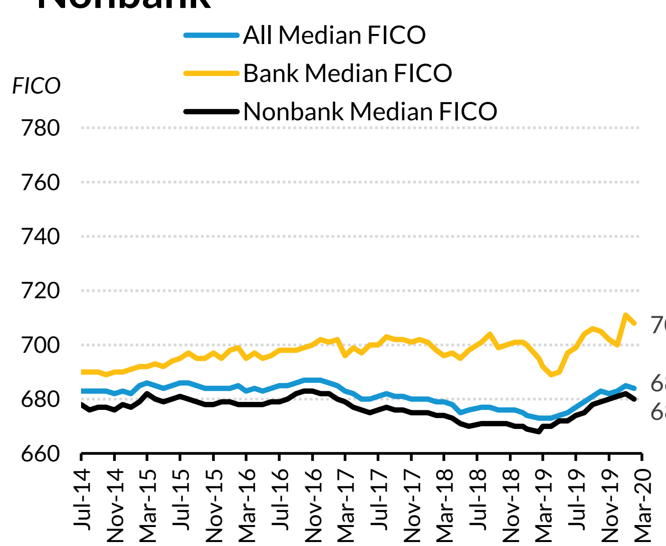
Sources: *eMBS and Urban Institute.*

GSE FICO: Bank vs. Nonbank



Sources: *eMBS and Urban Institute.*

Ginnie Mae FICO: Bank vs. Nonbank

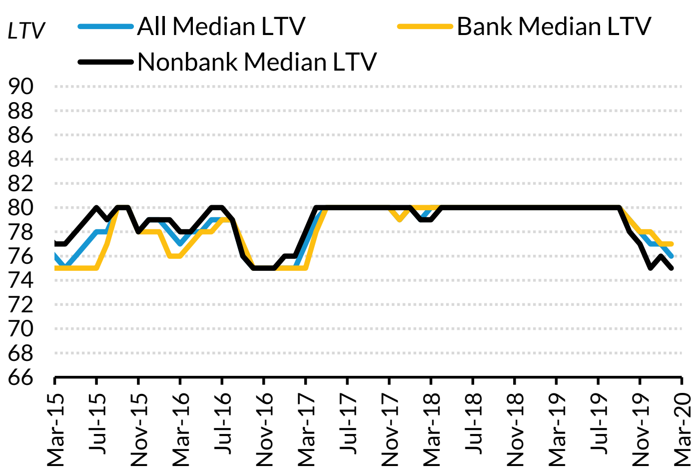


Sources: *eMBS and Urban Institute.*

AGENCY NONBANK CREDIT BOX

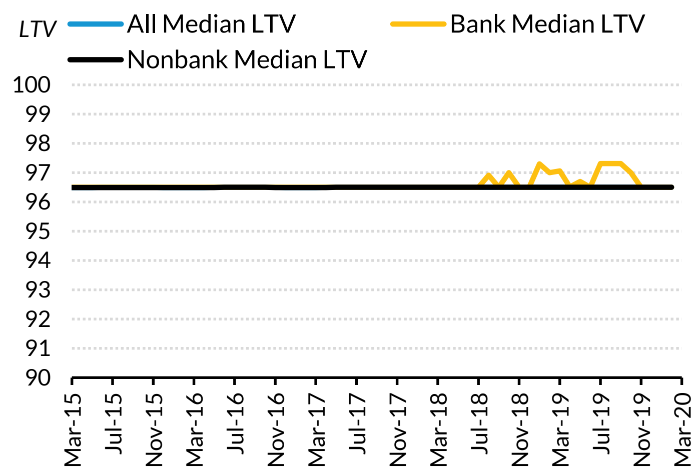
The median LTVs for nonbank and bank originations are comparable, while the median DTI for nonbank loans is higher than for bank loans. From early 2017 to early 2019, there was a sustained increase in DTIs, which has partially reversed beginning in the spring of 2019. This is true for both Ginnie Mae and the GSEs, for banks and nonbanks. As interest rates increased, DTIs rose, because borrower payments were driven up relative to incomes. As rates fell during most of 2019 and thus far in 2020, DTIs fell as borrower payments declined relative to incomes.

GSE LTV: Bank vs. Nonbank



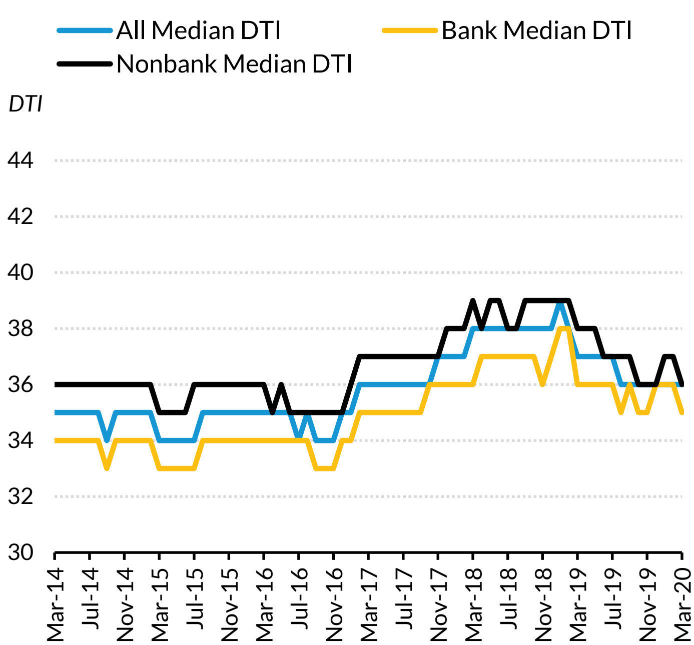
Sources: *eMBS and Urban Institute.*

Ginnie Mae LTV: Bank vs. Nonbank



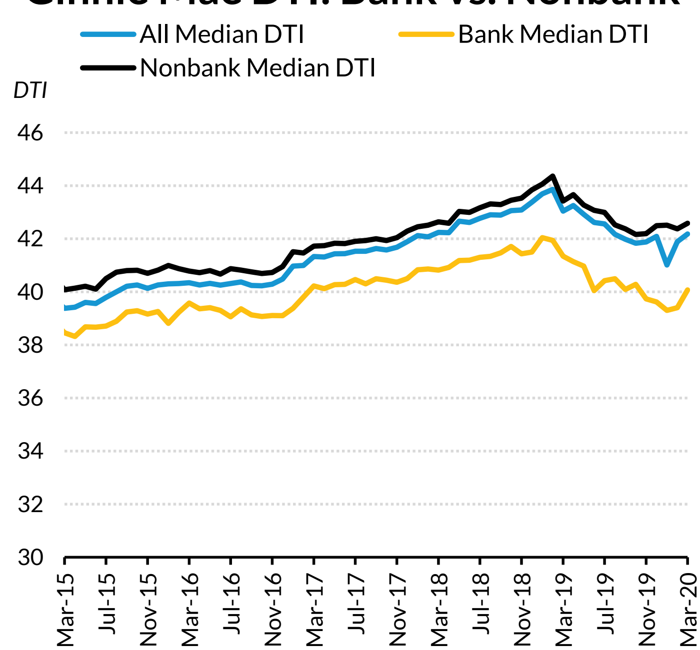
Sources: *eMBS and Urban Institute.*

GSE DTI: Bank vs. Nonbank



Sources: *eMBS and Urban Institute.*

Ginnie Mae DTI: Bank vs. Nonbank



Sources: *eMBS and Urban Institute.*

MORTGAGE ORIGINATION PROJECTIONS

Fannie Mae, Freddie Mac and the MBA estimate 2020 origination volume to be between $2.35 and $2.52 trillion, higher than the $1.68-$1.77 trillion in 2018 and the $2.17 to $2.37 trillion in 2019. The increase in the 2020 origination volume is due to expectations of very strong refinance activity. All three groups expect the refinance share to be 8-12 percent higher than in 2019, based on continued low rates in the wake of COVID-19.

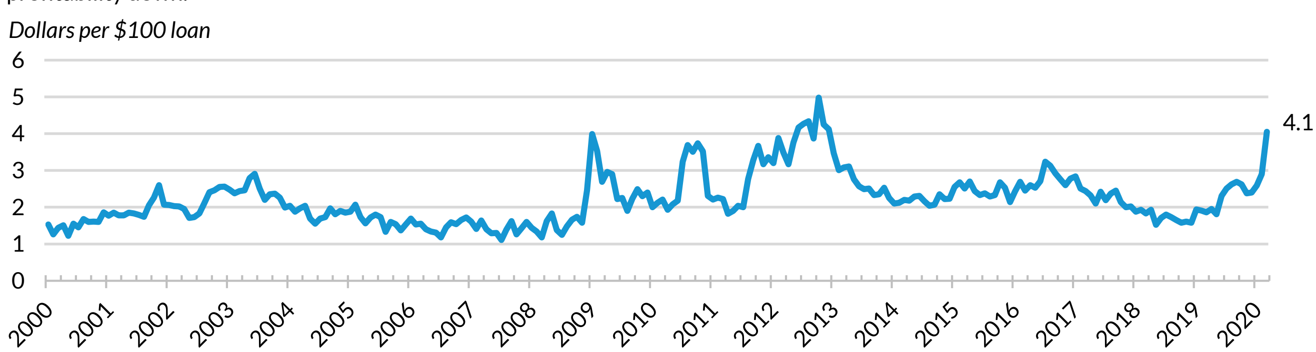
Total Originations and Refinance Shares

Period	Originations ($ billions)			Refi Share (percent)		
	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	FNMA estimate	FHLMC estimate	MBA estimate
2019 Q1	334	355	325	32	37	30
2019 Q2	540	565	501	33	36	29
2019 Q3	716	700	651	47	47	42
2019 Q4	708	755	696	55	58	55
2020 Q1	618	607	563	58	58	54
2020 Q2	700	541	798	61	60	54
2020 Q3	613	626	600	53	48	50
2020 Q4	589	578	495	51	48	32
2016	2052	2125	1891	49	47	49
2017	1826	1810	1760	36	37	35
2018	1766	1700	1677	30	32	28
2019	2298	2375	2173	44	46	41
2020	2520	2351	2426	56	56	49
2021	2459	2369	1899	47	44	26

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 2016, 2017, 2018 and 2019 were 3.8, 4.0, 4.6, and 3.9 percent. For 2020, the respective projections for Fannie, Freddie, and MBA are 3.3, 3.3, and 3.4 percent.

Originator Profitability and Unmeasured Costs

In March 2020, Originator Profitability and Unmeasured Costs (OPUC) stood at $4.05 per $100 loan, up substantially from $2.59 in January 2020. Increased profitability reflects lender capacity constraints amidst strong refi demand. Additionally, Fed's massive purchases of agency MBS in March pushed down secondary yields, thus widening the spread to primary rates. We would expect OPUC to remain elevated for some time, potentially rise further, if refi demand remains strong and the Fed continues to buy large quantities of MBS. 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.

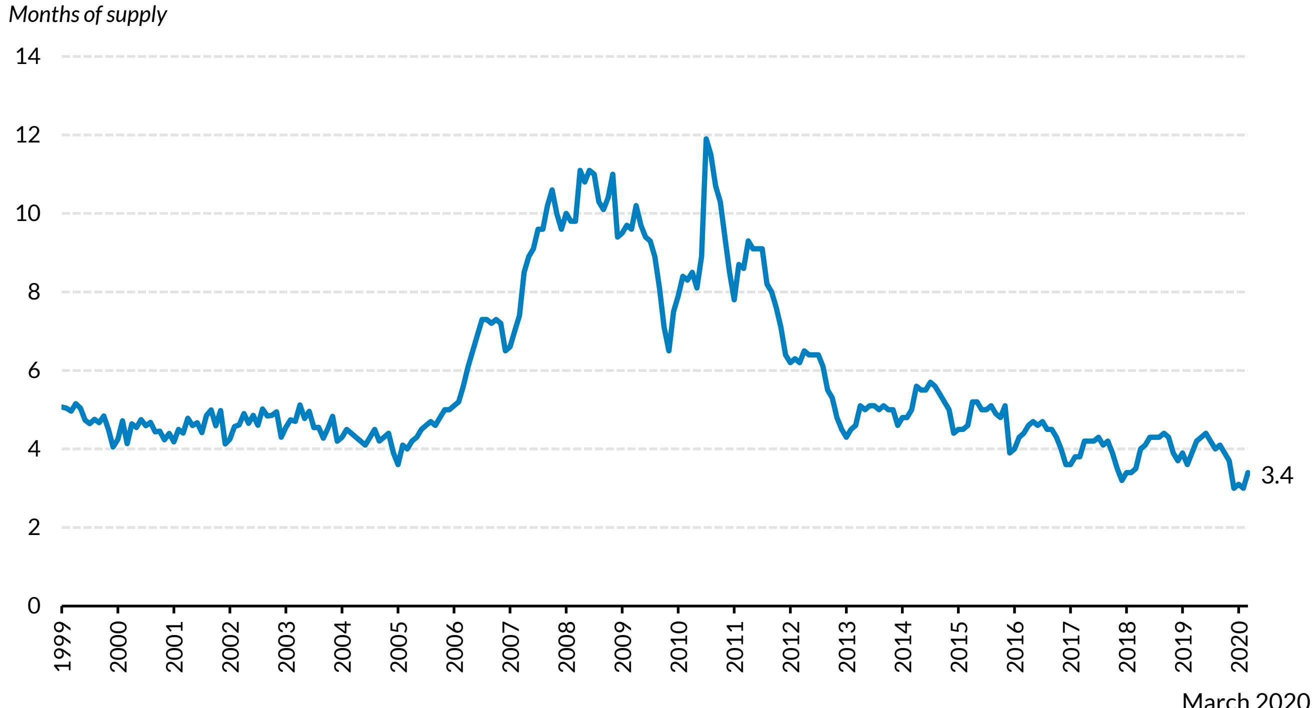


Sources: Federal Reserve Bank of New York, updated monthly and available at this link: http://www.ny.frb.org/research/epr/2013/1113fust.html and Urban Institute. Last updated March 2020.
Note: OPUC is a is a monthly (4-week moving) average as discussed in Fuster et al. (2013).

HOUSING SUPPLY

Strong demand for housing in recent years, coupled with historically low new home construction has led to a low—3.4 months—supply of for-sale homes in March 2020. This level is below the 3.9 months in March 2019. Pre-crisis it averaged 4.6 months. Fannie Mae, Freddie Mac, the MBA, and the NAHB forecast 2020 housing starts to be 1.17 to 1.28 million units, slightly behind 2019 levels. Fannie Mae, Freddie Mac, and the MBA predict total home sales of 5.10 to 5.96 million units in 2020, also below 2019 levels.

Months of Supply



Source: National Association of Realtors and Urban Institute. Data as of March 2020.

Housing Starts and Homes Sales

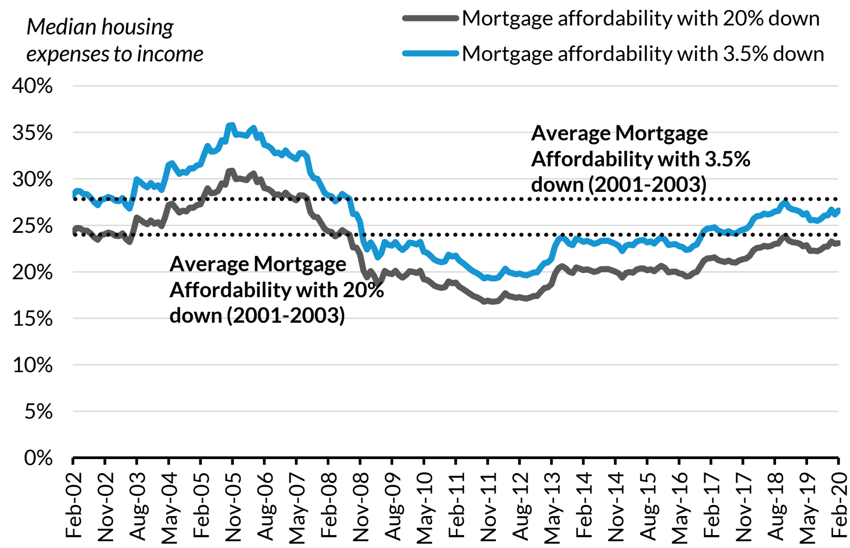
Year	Housing Starts, thousands				Home Sales. thousands			
	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Total, NAHB estimate	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Total, NAHB estimate*
2016	1174	1170	1177	1177	6011	6010	6001	5385
2017	1203	1200	1208	1208	6123	6120	6158	5522
2018	1250	1250	1250	1250	5957	5960	5956	5357
2019	1290	1250	1298	1300	6022	6000	6022	5437
2020	1169	1280	1197	1230	5139	5100	5956	4890
2021	1258	N/A	1380	1341	5894	6100	6545	5562

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. *NAHB home sales estimate is for single-family structures only, it excludes condos and co-ops. Other figures include all single-family sales.

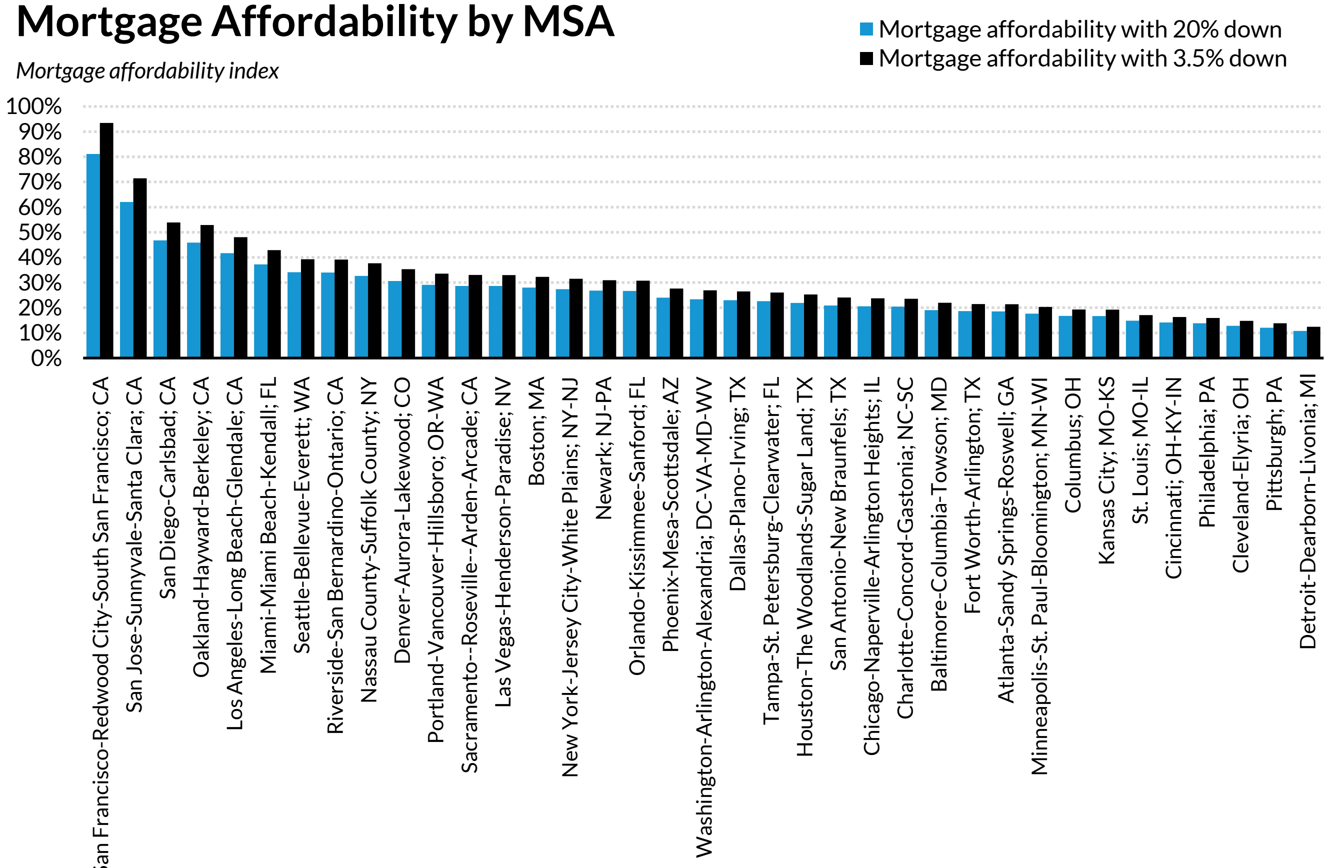
HOUSING AFFORDABILITY

National Mortgage Affordability Over Time

Home prices remain affordable by historic standards, despite price increases over the last 7 years, as interest rates remain relatively low in an historic context. As of February 2020, with a 20 percent down payment, the share of median income needed for the monthly mortgage payment stood at 23.1 percent; with 3.5 down, it is 26.6 percent. Since February 2019, the median housing expenses to income ratio has been slightly lower than the 2001-2003 average. As shown in the bottom picture, mortgage affordability varies widely by MSA.



Mortgage Affordability by MSA



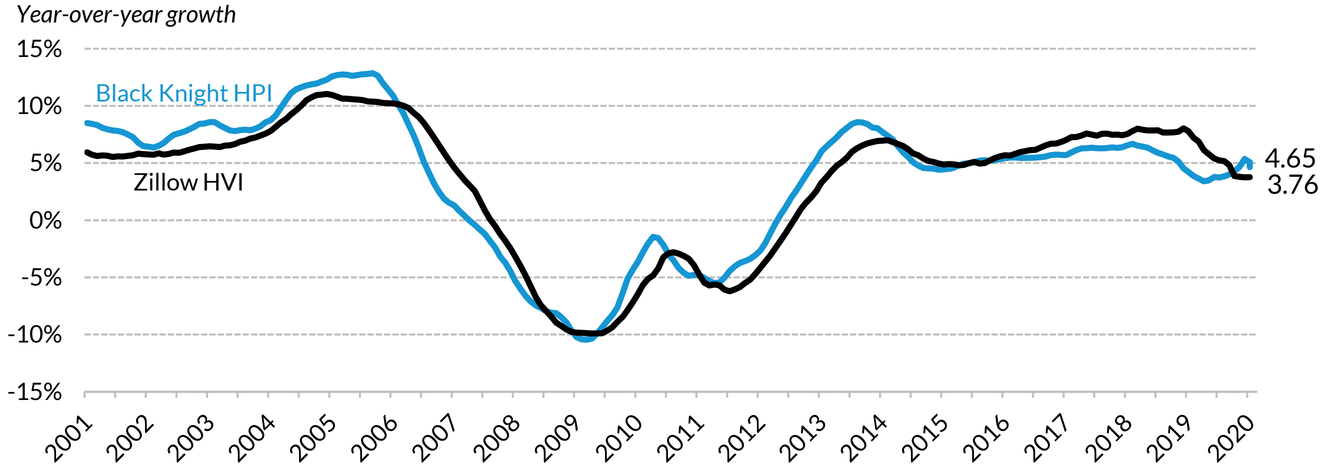
Sources: National Association of Realtors, US Census Bureau, Current Population Survey, American Community Survey, Moody's Analytics, Freddie Mac Primary Mortgage Market Survey, and the Urban Institute.

Note: Mortgage affordability is the share of median family income devoted to the monthly principal, interest, taxes, and insurance payment required to buy the median home at the Freddie Mac prevailing rate *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 Q2 2019.

HOME PRICE INDICES

National Year-Over-Year HPI Growth

Year-over-year home price appreciation was 3.76 percent in January 2020, same as December 2019, as measured by Zillow's hedonic index. According to Black Knight's repeat sales index, year-over-year home price appreciation declined slightly to 4.65 percent in February 2020. Although housing affordability remains constrained, especially at the lower end of the market, recent declines in rates serve as a partial offset. These numbers do not reflect the effect of the pandemic. With purchase activity down considerably, as no one can shop for a home in the traditional way, it is reasonable to assume prices would soften in the months ahead.



Sources: Black Knight, Zillow, and Urban Institute. **Note:** Data as of January 2020 for Zillow and February 2020 for Black Knight.

Changes in Black Knight HPI for Top MSAs

After rising 55.4 percent from the trough, national house prices are now 15.9 percent higher than pre-crisis peak levels. At the MSA level, ten of the top 15 MSAs have exceeded their pre-crisis peak HPI: New York, NY; Los Angeles, CA; Atlanta, GA; Houston, TX; Dallas, TX; Minneapolis, MN; Seattle, WA; Denver, CO, San Diego, CA, and Anaheim, CA. Two MSAs particularly hard hit by the boom and bust—Chicago, IL and Riverside, CA—are 11.3 and 7.1 percent, respectively, below peak values.

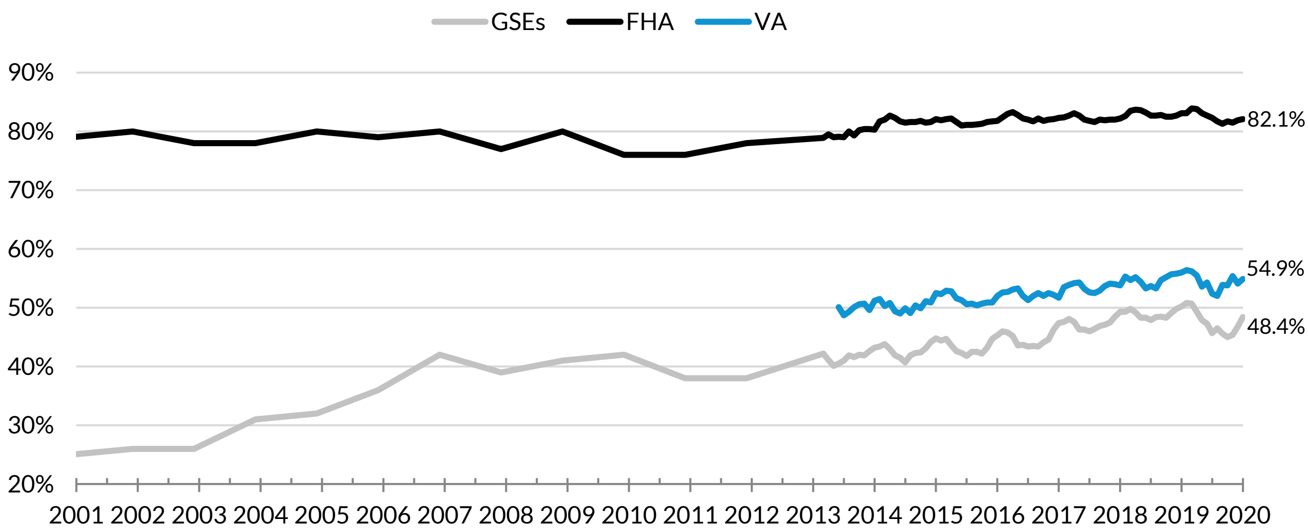
MSA	HPI changes (%)			% above peak
	2000 to peak	Peak to trough	Trough to current	
United States	75.3	-25.4	55.4	15.9
New York-Jersey City-White Plains, NY-NJ	127.9	-22.5	45.3	12.6
Los Angeles-Long Beach-Glendale, CA	179.6	-38.1	90.3	17.7
Chicago-Naperville-Arlington Heights, IL	67.1	-38.4	44.0	-11.3
Atlanta-Sandy Springs-Roswell, GA	32.4	-35.3	81.0	17.1
Washington-Arlington-Alexandria, DC-VA-MD-WV	148.9	-28.3	38.9	-0.5
Houston-The Woodlands-Sugar Land, TX	29.3	-6.6	48.3	38.6
Phoenix-Mesa-Scottsdale, AZ	113.1	-51.1	101.6	-1.5
Riverside-San Bernardino-Ontario, CA	175.0	-51.6	92.1	-7.1
Dallas-Plano-Irving, TX	26.4	-7.2	68.3	56.2
Minneapolis-St. Paul-Bloomington, MN-WI	69.1	-30.6	60.8	11.6
Seattle-Bellevue-Everett, WA	90.5	-33.1	108.9	39.7
Denver-Aurora-Lakewood, CO	34.1	-12.1	92.7	69.3
Baltimore-Columbia-Towson, MD	123.1	-24.4	21.1	-8.5
San Diego-Carlsbad, CA	148.3	-37.5	81.3	13.2
Anaheim-Santa Ana-Irvine, CA	163.1	-35.2	67.2	8.3

Sources: Black Knight HPI and Urban Institute. Data as of February 2020.
Note: This table includes the largest 15 Metropolitan areas by mortgage count.

FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

In February 2020, the FTHB share for FHA, which has always been more focused on first time homebuyers, grew slightly to 82.1 percent. The FTHB share of VA lending increased in February, to 54.9 percent. The GSE FTHB share in February was up from January to 48.4 percent. The bottom table shows that based on mortgages originated in February 2020, the average FTHB was more likely than an average repeat buyer to take out a smaller loan, have a lower credit score, and higher LTV, thus



Sources: eMBS, Federal Housing Administration (FHA) and Urban Institute.

February 2020

Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

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

	GSEs		FHA		GSEs and FHA	
Characteristics	First-time	Repeat	First-time	Repeat	First-time	Repeat
Loan Amount ($)	258,893	280,248	227,145	241,204	244,826	273,740
Credit Score	745	757	673	677	714	744
LTV (%)	87	80	95	94	91	82
DTI (%)	35	36	43	44	39	38
Loan Rate (%)	3.92	3.85	3.9	3.81	3.91	3.84

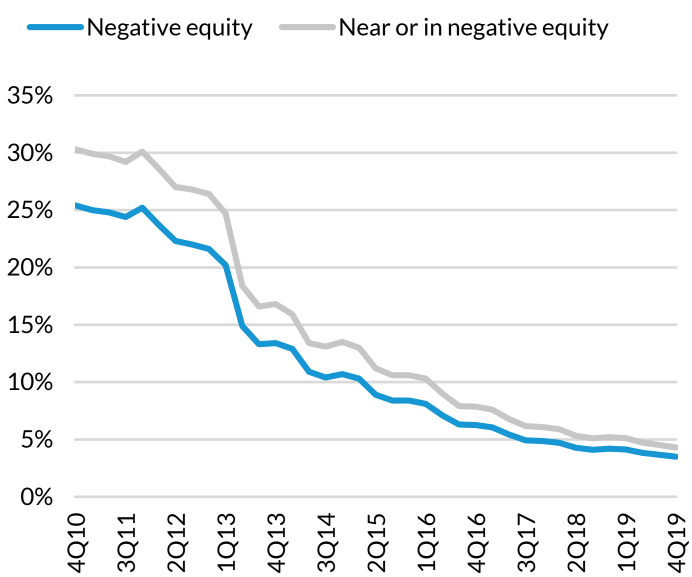
Sources: eMBS and Urban Institute.
Note: Based on owner-occupied purchase mortgages originated in February 2020.

STATE OF THE MARKET

DELINQUENCIES AND LOSS MITIGATION ACTIVITY

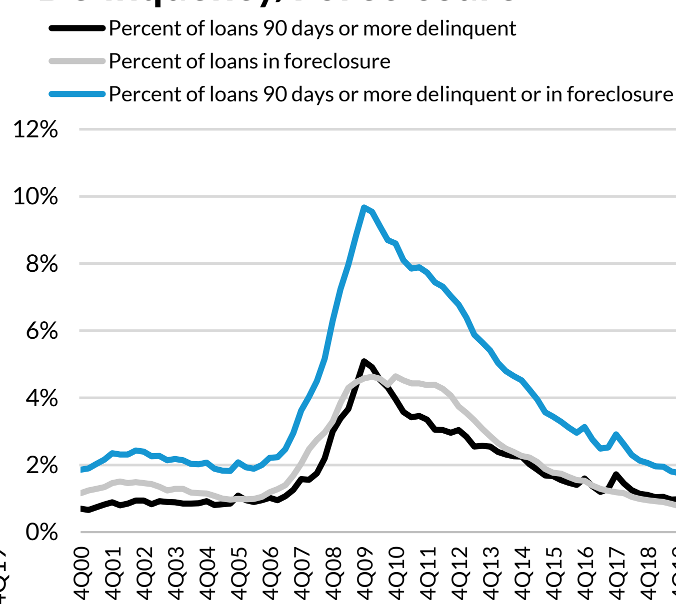
Loans in and near negative equity continued to decline in 4Q 2019; 3.5 percent now have negative equity, an additional 0.8 percent have less then 5 percent equity. Loans that are 90 days delinquent or in foreclosure have also been in a long decline, falling to 1.76 percent in the fourth quarter of 2019. New loan modifications and liquidations (bottom) have continued to decline. Since Q3, 2007, total loan modifications (HAMP and proprietary) are roughly equal to total liquidations. Hope Now reports show 8,644,182 borrowers received a modification from Q3 2007 to Q3 2019, compared with 8,871,863 liquidations in the same period.

Negative Equity Share



Sources: CoreLogic and Urban Institute.
Note: Loans with negative equity refer to loans above 100 percent LTV. Loans near negative equity refer to loans above 95 percent LTV. *Last updated March 2020.*

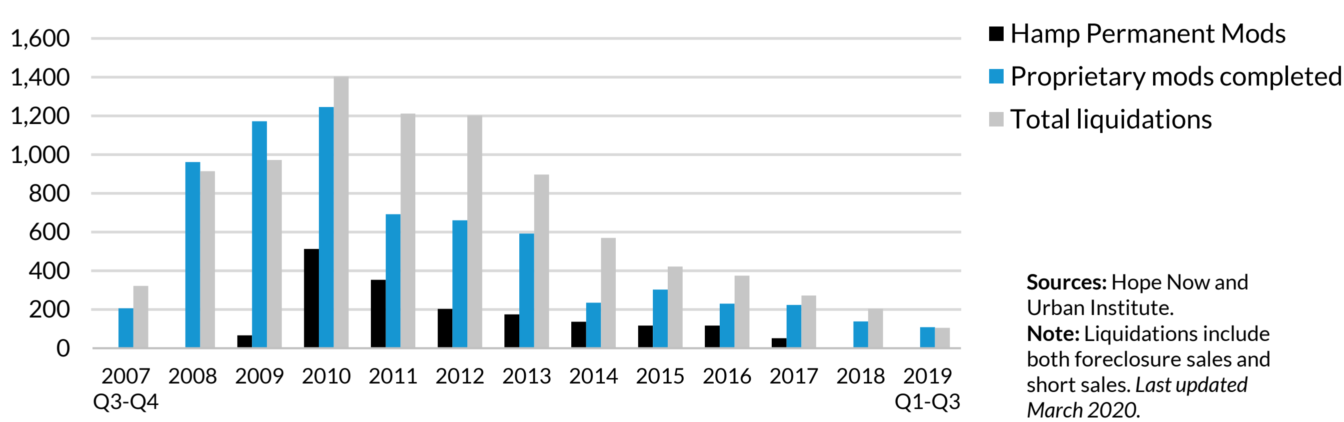
Loans in Serious Delinquency/Foreclosure



Sources: Mortgage Bankers Association and Urban Institute. *Last updated February 2020.*

Loan Modifications and Liquidations

Number of loans (thousands)



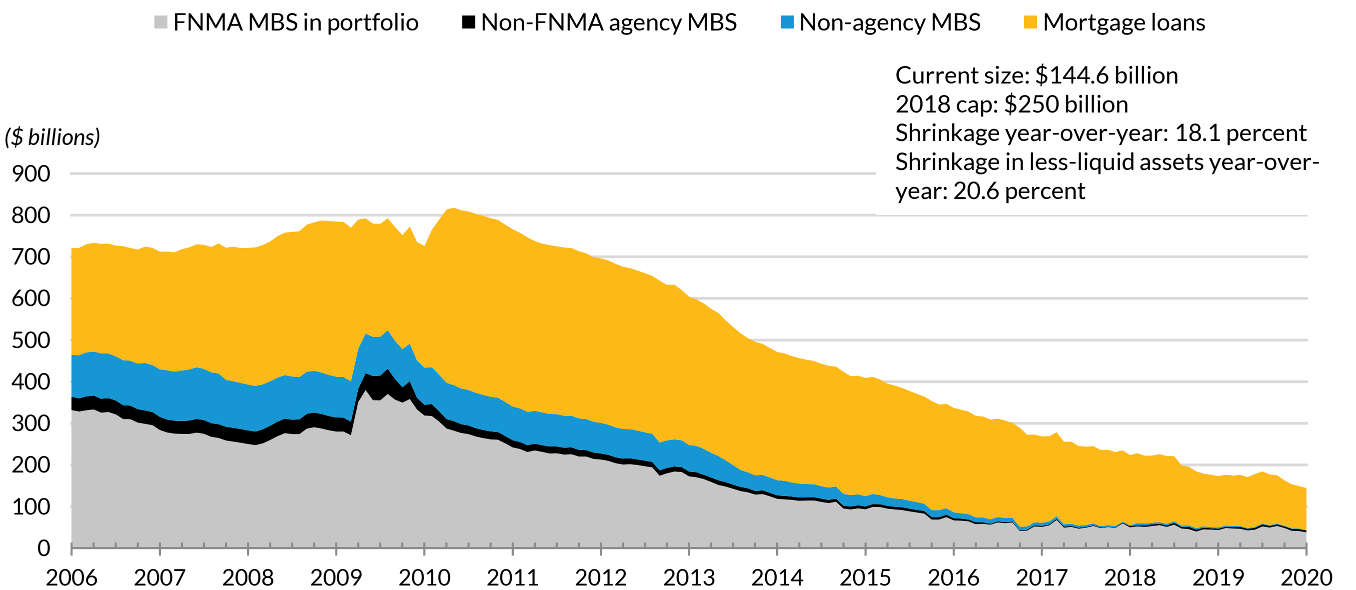
Sources: Hope Now and Urban Institute.
Note: Liquidations include both foreclosure sales and short sales. *Last updated March 2020.*

GSES UNDER CONSERVATORSHIP

GSE PORTFOLIO WIND-DOWN

Both GSEs continue to contract their retained portfolios. Since February 2019, Fannie Mae has contracted by 18.1 percent and Freddie Mac by 7.6 percent. They are shrinking their less-liquid assets (mortgage loans and non-agency MBS) faster than they are shrinking their entire portfolio. The Fannie Mae and Freddie Mac portfolios are now both well below the $250 billion maximum portfolio size; they were required to reach this terminal level by year end 2018. Fannie met the target in 2017, Freddie met the target in February 2018.

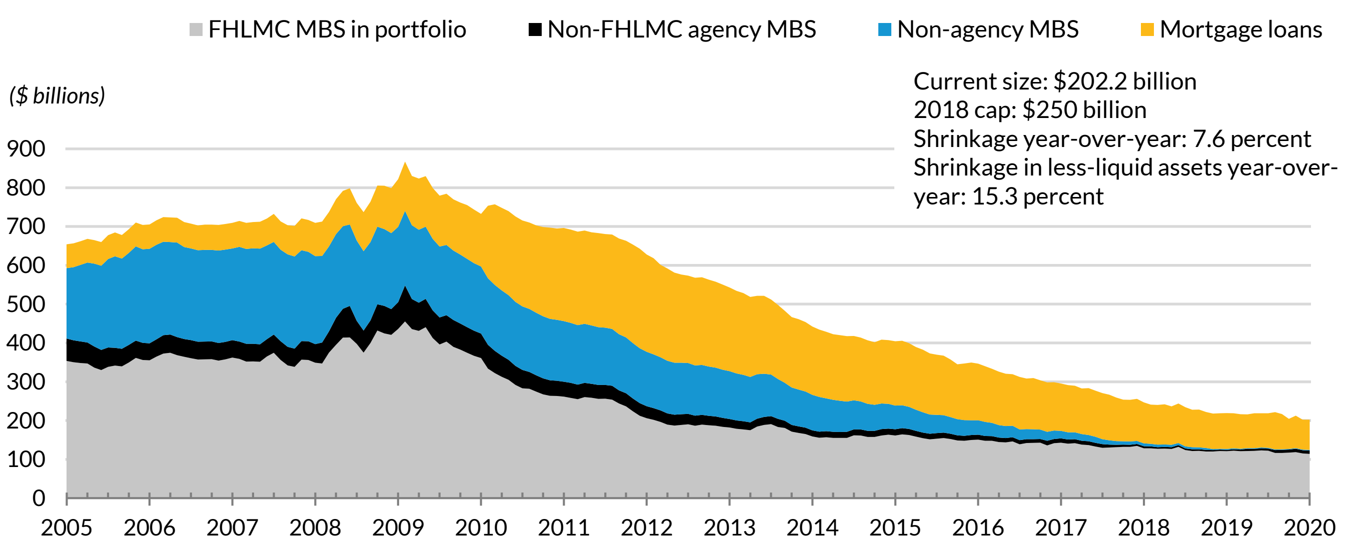
Fannie Mae Mortgage-Related Investment Portfolio Composition



Sources: Fannie Mae and Urban Institute.

February 2020

Freddie Mac Mortgage-Related Investment Portfolio Composition



Sources: Freddie Mac and Urban Institute.

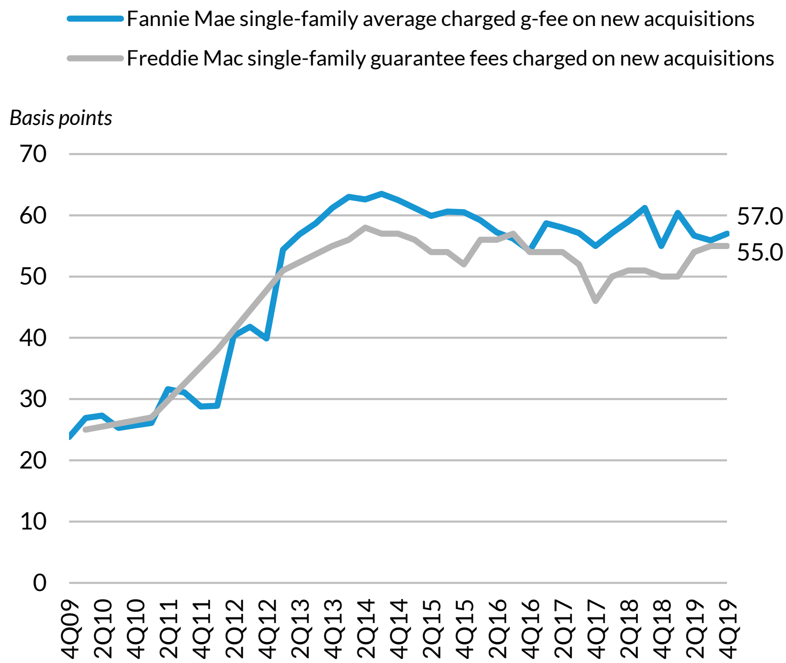
February 2020

EFFECTIVE GUARANTEE FEES

Guarantee Fees Charged on New Acquisitions

Fannie Mae's average g-fees charged on new acquisitions rose from 55.9 bps in Q3 2019 to 57.0 bps in Q4, while Freddie's remained constant at 55.0 bps. After closing in to less than 1 bp apart in Q3 for the first time in the last three years, the g-fees separated to 2 bps in Q4 2019. 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 2020.



Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

	LTV (%)								
Credit Score	≤60	60.01 – 70	70.01 – 75	75.01 – 80	80.01 – 85	85.01 – 90	90.01 – 95	95.01 – 97	>97
> 740	0.00	0.25	0.25	0.50	0.25	0.25	0.25	0.75	0.75
720 – 739	0.00	0.25	0.50	0.75	0.50	0.50	0.50	1.00	1.00
700 – 719	0.00	0.50	1.00	1.25	1.00	1.00	1.00	1.50	1.50
680 – 699	0.00	0.50	1.25	1.75	1.50	1.25	1.25	1.50	1.50
660 – 679	0.00	1.00	2.25	2.75	2.75	2.25	2.25	2.25	2.25
640 – 659	0.50	1.25	2.75	3.00	3.25	2.75	2.75	2.75	2.75
620 – 639	0.50	1.50	3.00	3.00	3.25	3.25	3.25	3.50	3.50
< 620	0.50	1.50	3.00	3.00	3.25	3.25	3.25	3.75	3.75
Product Feature (Cumulative)									
Investment Property	2.125	2.125	2.125	3.375	4.125	4.125	4.125	4.125	4.125

Sources: Fannie Mae and Urban Institute.
Last updated March of 2019.

GSE RISK-SHARING TRANSACTIONS

Fannie Mae and Freddie Mac have been laying off back-end credit risk through CAS and STACR deals and through reinsurance transactions. They have also done front-end transactions with originators and reinsurers, and experimented with deep mortgage insurance coverage with private mortgage insurers. FHFA's 2020 scorecard requires the GSEs to transfer a significant amount of credit risk to private markets. This is a departure from the 2019 scorecard, which required risk transfer specifically on 90% of new acquisitions. Fannie Mae's CAS issuances since inception total $1.65 trillion; Freddie's STACR totals $1.47 trillion. Note that there has been no new issuance since the massive spread widening in March 2020.

Fannie Mae – Connecticut Avenue Securities (CAS)

Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
2013	CAS 2013 deals	$26,756	$675	2.5
2014	CAS 2014 deals	$227, 234	$5,849	2.6
2015	CAS 2015 deals	$187,126	$5,463	2.9
2016	CAS 2016 deals	$236,459	$7,392	3.1
2017	CAS 2017 deals	$264,697	$8,707	3.3
2018	CAS 2018 deals	$205,900	$7,314	3.6
January 2019	CAS 2019 - R01	$28,000	$960	3.4
February 2019	CAS 2019 - R02	$27,000	$1,000	3.7
April 2019	CAS 2019 - R03	$21,000	$857	4.1
June 2019	CAS 2019 - R04	$25,000	$1,000	4.0
July 2019	CAS 2019 - R05	$24,000	$993	4.1
October 2019	CAS 2019 - R06	$33,000	$1,300	3.9
October 2019	CAS 2019 - R07	$26,600	$998	3.8
November 2019	CAS 2019 - HRP1	$106,800	$963	0.9
January 2020	CAS 2020 - R01	$29,000	$1,030	3.6
February 2020	CAS 2020 - R02	$29,000	$1,134	3.9
March 2020	CAS 2020 - SBT1	$152,000	$966	0.6
Total		**$1,649,572**	**$46,601**	**2.8**

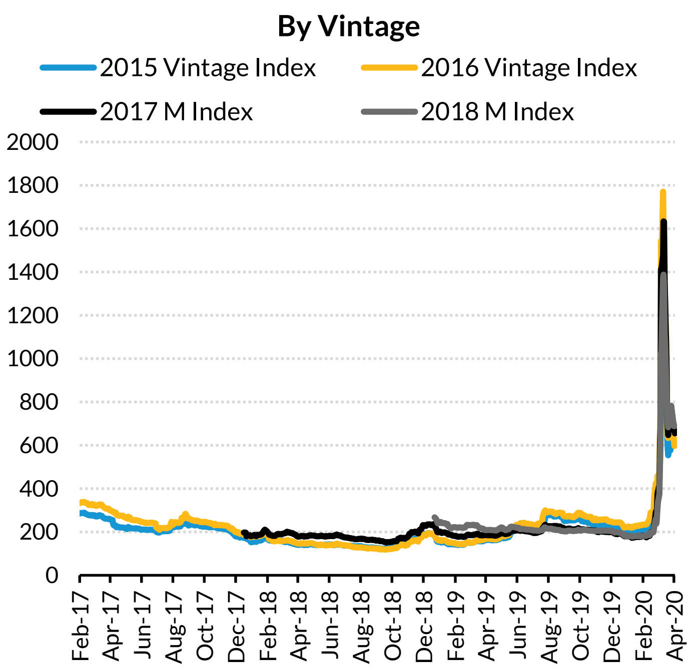
Freddie Mac – Structured Agency Credit Risk (STACR)

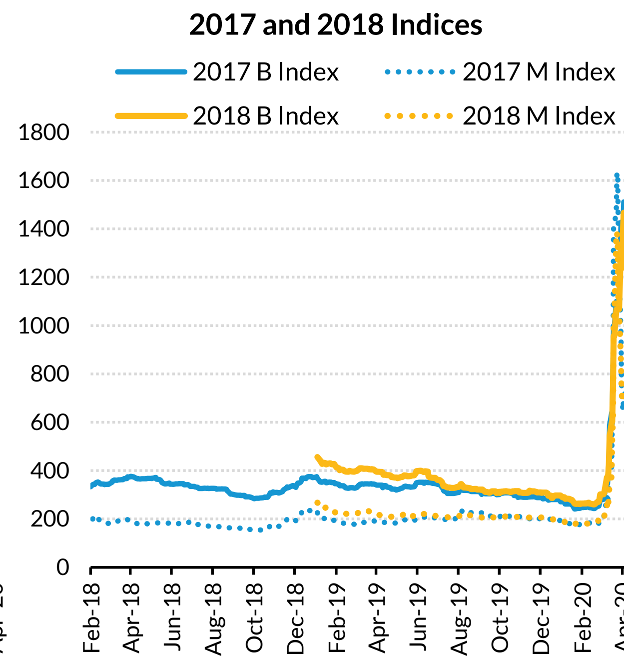
Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
2013	STACR 2013 deals	$57,912	$1,130	2.0
2014	STACR 2014 deals	$147,120	$4,916	3.3
2015	STACR 2015 deals	$209,521	$6,658	3.2
2016	STACR 2016 deals	$183,421	$5,541	2.8
2017	STACR 2017 deals	$248, 821	$5,663	2.3
2018	STACR 2018 deals	$216,581	$6,055	2.8
January 2019	STACR Series 2019 – DNA1	$24,600	$714	2.9
February 2019	STACR Series 2019 – HQA1	$20,760	$640	3.1
March 2019	STACR Series 2019 – DNA2	$20,500	$608	3.0
May 2019	STACR Series 2019 – HQA2	$19,500	$615	3.2
May 2019	STACR Series 2019 – FTR1	$44,590	$140	0.3
June 2019	STACR Series 2019 – HRP1	$5,782	$281	4.9
July 2019	STACR Series 2019 – DNA3	$25,533	$756	3.0
August 2019	STACR Series 2019 – FTR2	$11,511	$284	2.5
September 2019	STACR Series 2019 – HQA3	$19,609	$626	3.2
October 2019	STACR Series 2019 – DNA4	$20,550	$589	2.9
November 2019	STACR Series 2019 – HQA4	$13,399	$432	3.2
December 2019	STACR Series 2019 – FTR3	$22,508	$151	0.7
December 2019	STACR Series 2019 – FTR4	$22,263	$111	0.5
January 2020	STACR Series 2020 – DNA1	$29,641	$794	2.7
February 2020	STACR Series 2020 – HQA1	$24,268	$738	3.0
February 2020	STACR Series 2020 – DNA2	$43,596	$1,169	2.7
March 2020	STACR Series 2020 – HQA2	$35,066	$1,006	2.9
Total		**$1,467,052**	**$39,617**	**2.2**

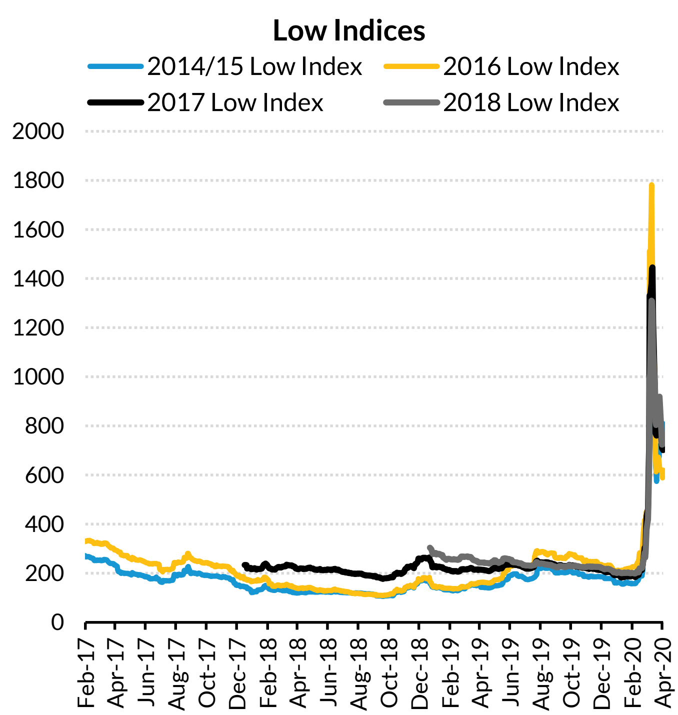
Sources: Fannie Mae, Freddie Mac and Urban Institute. **Note**: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

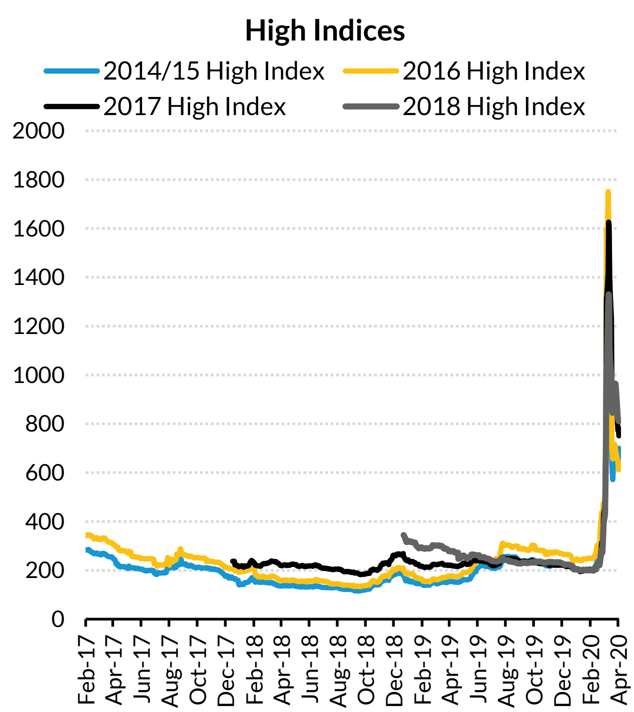
GSES UNDER CONSERVATORSHIP
GSE RISK-SHARING INDICES

The figures below show the spreads on the 2015, 2016, 2017 and 2018 indices, as priced by dealers. Note the substantial spread widening in March 2020. This reflects investor expectations of higher defaults and potential credit losses owing to COVID-19. The 2015 and 2016 indices consist of the bottom mezzanine tranche in each deal, weighted by the original issuance amount; the equity tranches were not sold in these years. The 2017 and 2018 indices contain both the bottom mezzanine tranche as well as the equity tranche (the B tranche), in all deals when the latter was sold.







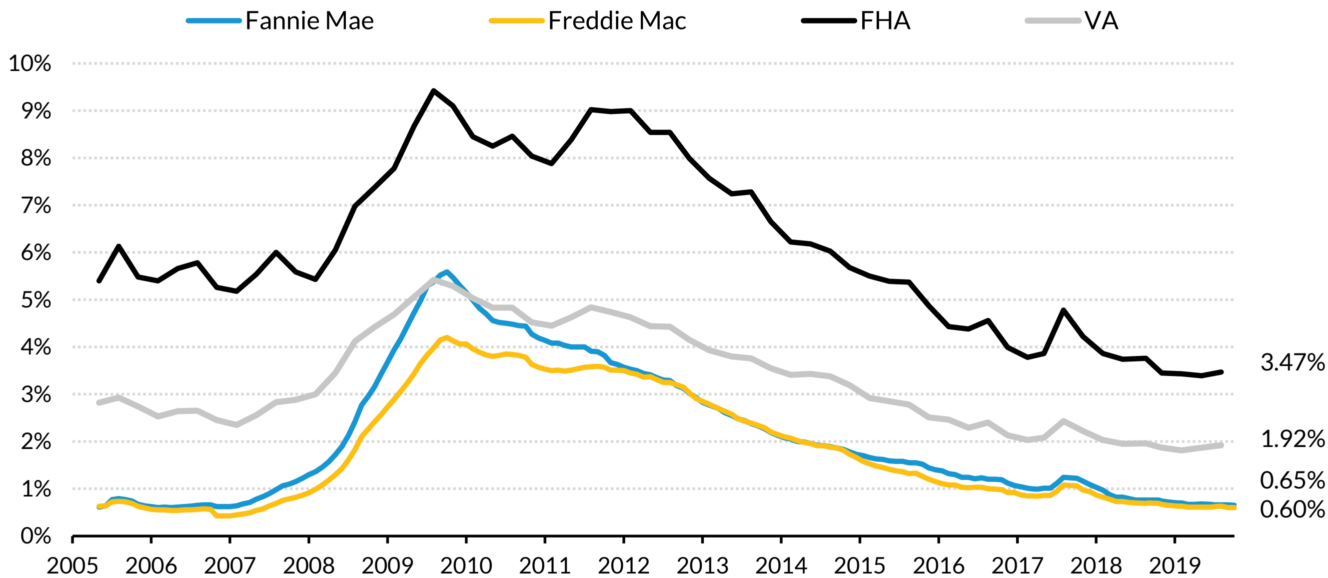


Sources: Vista Data Services and Urban Institute.
Note: Data as of April 15, 2020.

SERIOUS DELINQUENCY RATES

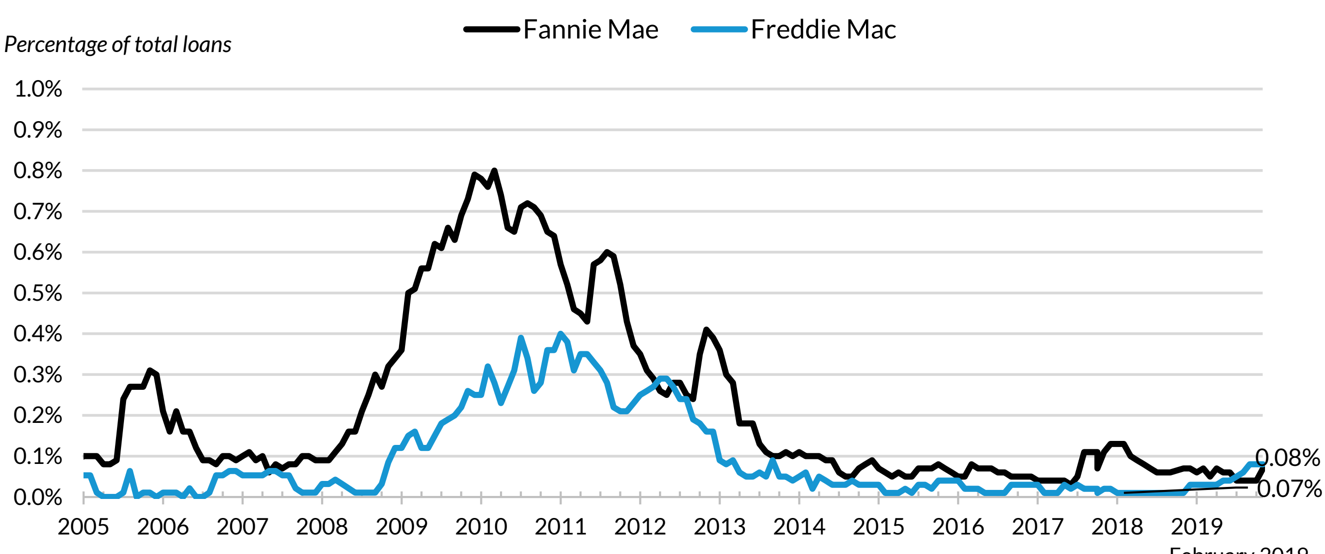
Serious delinquency rates for single-family GSE loans, FHA loans and VA loans grew slightly in Q4 2019, in line with the seasonal pattern. GSE delinquencies remain just above their 2006-2007 level, while FHA and VA delinquencies (which are higher than their GSE counterparts) are well below 2006-2007 levels. GSE multifamily delinquencies have declined post-crisis and remain very low.

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. Not seasonally adjusted. FHA and VA delinquencies are reported on a quarterly basis, last updated February 2020. GSE delinquencies are reported monthly, last updated April 2020.

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 ISSUANCE

AGENCY GROSS AND NET ISSUANCE

Agency gross issuance was $480.1 billion through the first three months of 2020, more than double the volume through March 2019. The sharp increase is due to the refinance wave, which did not begin in earnest until Q2, 2019. Net issuance (which excludes repayments, prepayments, and refinances on outstanding mortgages) totaled $91.6 billion in the first three months of 2020, up 419.7 percent from the same period in 2019.

Agency Gross Issuance

Issuance Year	GSEs	Ginnie Mae	Total
2001	$885.1	$171.5	$1,056.6
2002	$1,238.9	$169.0	$1,407.9
2003	$1,874.9	$213.1	$2,088.0
2004	$872.6	$119.2	$991.9
2005	$894.0	$81.4	$975.3
2006	$853.0	$76.7	$929.7
2007	$1,066.2	$94.9	$1,161.1
2008	$911.4	$267.6	$1,179.0
2009	$1,280.0	$451.3	$1,731.3
2010	$1,003.5	$390.7	$1,394.3
2011	$879.3	$315.3	$1,194.7
2012	$1,288.8	$405.0	$1,693.8
2013	$1,176.6	$393.6	$1,570.1
2014	$650.9	$296.3	$947.2
2015	$845.7	$436.3	$1,282.0
2016	$991.6	$508.2	$1,499.8
2017	$877.3	$455.6	$1,332.9
2018	$795.0	$400.6	$1,195.3
2019	$1,042.6	$508.6	$1,551.2
2020 YTD	$319.9	$160.2	$480.1
2020 YTD % Change YOY	104.2%	102.6%	103.7%
2020 Ann.	$1,279.6	$640.9	$1,920.6

Agency Net Issuance

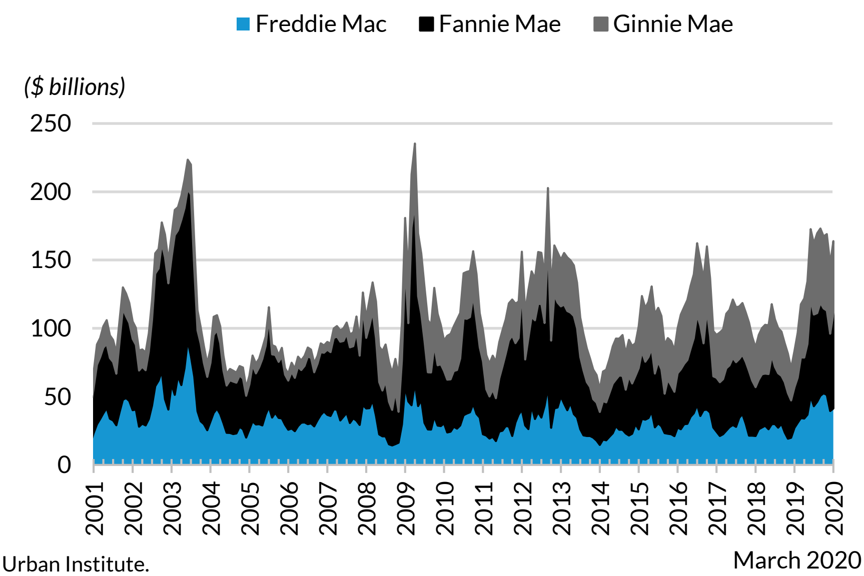
Issuance Year	GSEs	Ginnie Mae	Total
2001	$368.40	-$9.90	$358.50
2002	$357.20	-$51.20	$306.10
2003	$334.90	-$77.60	$257.30
2004	$82.50	-$40.10	$42.40
2005	$174.20	-$42.20	$132.00
2006	$313.60	$0.20	$313.80
2007	$514.90	$30.90	$545.70
2008	$314.80	$196.40	$511.30
2009	$250.60	$257.40	$508.00
2010	-$303.20	$198.30	-$105.00
2011	-$128.40	$149.60	$21.20
2012	-$42.40	$119.10	$76.80
2013	$69.10	$87.90	$157.00
2014	$30.5	$61.6	$92.1
2015	$75.1	$97.3	$172.5
2016	$127.4	$125.8	$253.1
2017	$168.5	$131.3	$299.7
2018	$149.4	$112.0	$261.5
2019	$197.8	$95.7	$293.5
2020 YTD	$67.1	$24.5	$91.6
2020 YTD % Change YOY	167.2%	26.2%	105.7%
2020 Ann.	$268.4	$97.9	$366.4

Sources: eMBS and Urban Institute.
Note: Dollar amounts are in billions. Data as of March 2020.

AGENCY GROSS ISSUANCE & FED PURCHASES

Monthly Gross Issuance

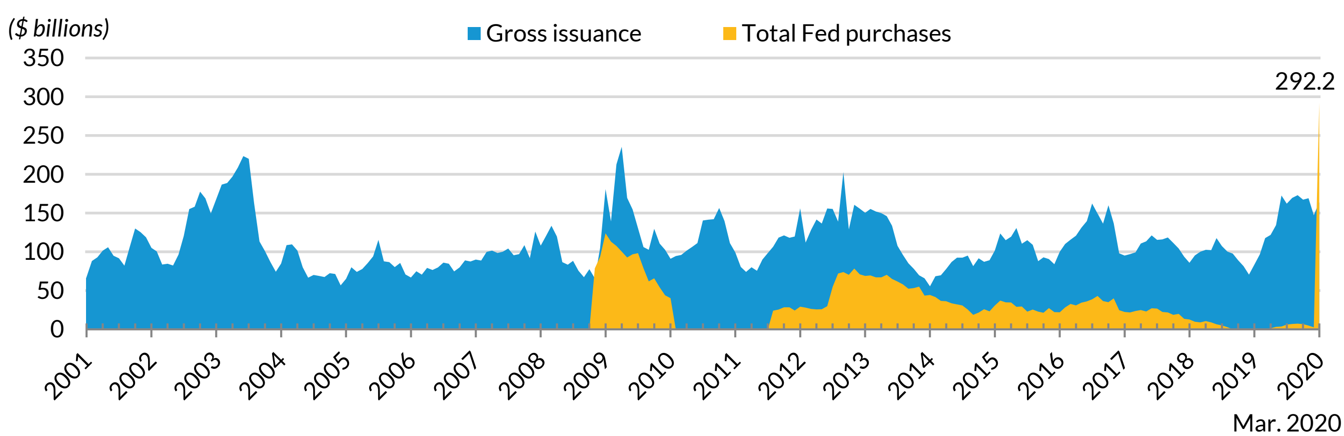
While FHA, VA and GSE lending have dominated the mortgage market since the crisis, there has been a change in the mix. The Ginnie Mae share of new issuances has risen from a precrisis level of 10-12 percent to 32.4 percent in March 2020. This share increase reflected both increases in the purchase share and in the refi share.



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

Fed Absorption of Agency Gross Issuance

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. This resulted in the largest single month of Fed purchases ever—in March 2020, the Fed purchased a total or $292.2 billion, corresponding to a Fed absorption of gross issuance of 178.2 percent. Prior to this, the Fed was winding down its MBS portfolio. From Oct 2014 to Sep 2017, the Fed ended its Great Recession era MBS purchase program, but was reinvesting funds from mortgages and agency debt into the mortgage market, absorbing 20-30 percent of agency gross issuance. The portfolio wind down started in October 2017, with the Fed allowing a pre-established amount of MBS to run off each month. From Oct 2017 to Sep 2018, the Fed was still reinvesting, but by less than the prepayments and repayments. In Oct 2018, the amount of MBS permitted to run off each month hit the $20 billion cap, leading to very small purchase volume between Q4 2018 and February 2020.

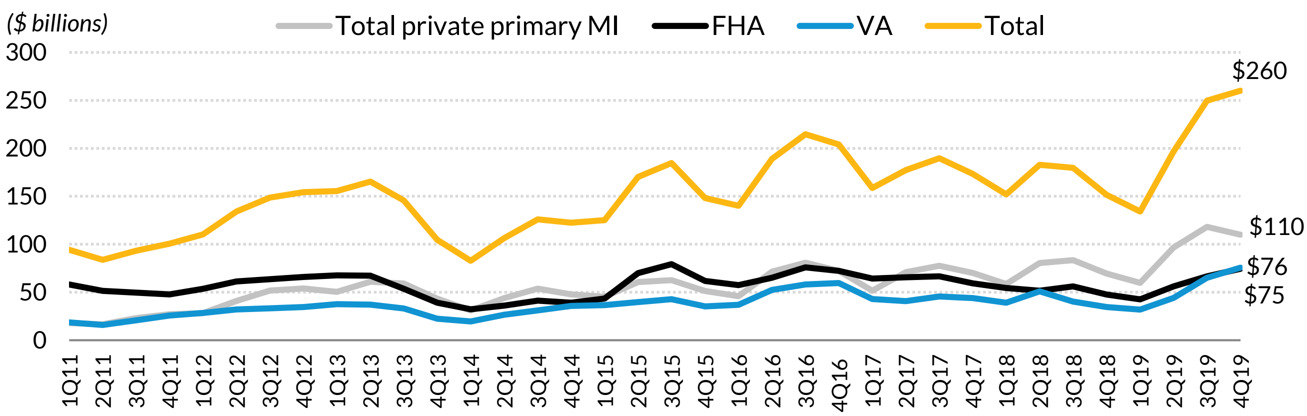


Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

AGENCY ISSUANCE
MORTGAGE INSURANCE ACTIVITY

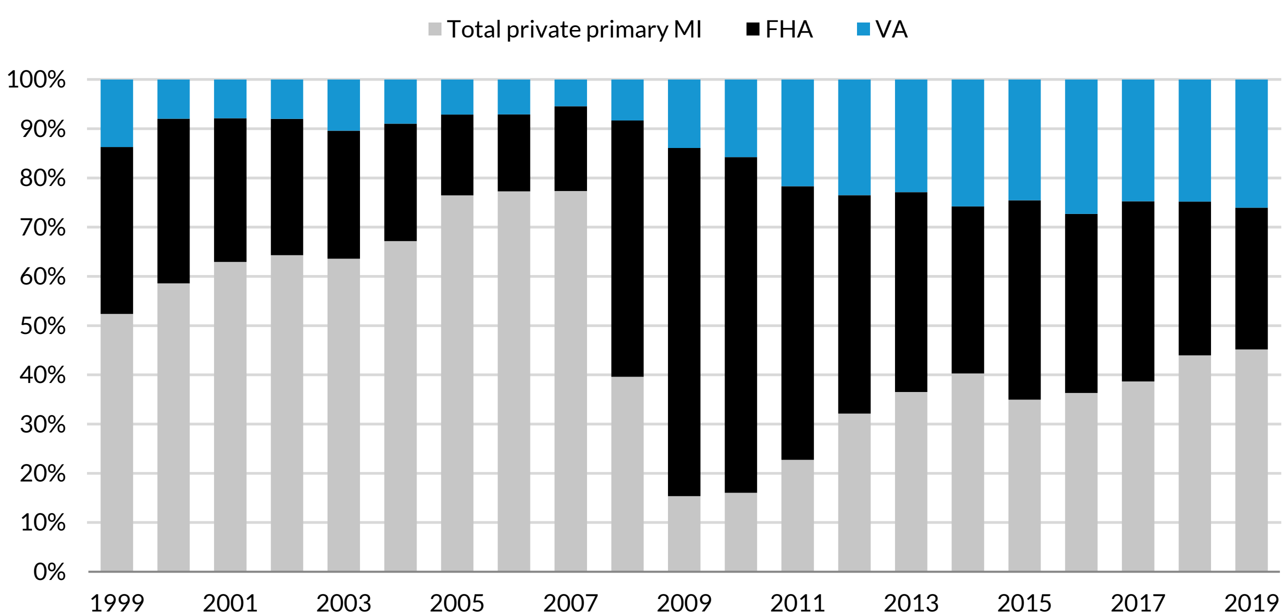
MI Activity

Mortgage insurance activity via the FHA, VA and private insurers increased from $151 billion in Q4 2018 to $260 billion in Q4 2019, a 71.8 percent increase. In the fourth quarter of 2019, private mortgage insurance written decreased by $8.18 billion, FHA increased by $8.00 billion and VA increased by $10.61 billion from the previous quarter. During this period, the VA share grew from 26.1 to 29.1 percent and the FHA share also grew, from 26.6 to 28.6 percent. The private mortgage insurers share fell significantly, from 47.3 to 42.3 percent compared to the previous quarter.



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2020.*

MI Market Share



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2020.*

MORTGAGE INSURANCE ACTIVITY

FHA premiums rose significantly in the years following the housing crash, with annual premiums rising from 50 to 135 basis points between 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 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 720 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

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

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

Assumptions	
Property Value	$250,000
Loan Amount	$241,250
LTV	96.5
Base Rate	
Conforming	3.45
FHA	3.63

FICO	620 - 639	640 - 659	660 - 679	680 - 699	700 - 719	720 - 739	740 - 759	760 +
FHA MI Premiums								
FHA UFMIP	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
FHA MIP	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PMI								
GSE LLPA*	3.50	2.75	2.25	1.50	1.50	1.00	0.75	0.75
PMI Annual MIP	1.86	1.65	1.54	1.21	0.99	0.87	0.70	0.58
Monthly Payment								
FHA	$1,291	$1,291	$1,291	$1,291	$1,291	$1,291	$1,291	$1,291
PMI	$1,547	$1,483	$1,448	$1,361	$1,316	$1,279	$1,238	$1,213
PMI Advantage	-$256	-$192	-$156	-$69	-$25	$13	$53	$78

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 March 2020.
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 information on upcoming events.

Projects

The Mortgage Servicing Collaborative

Housing Credit Availability Index (HCAI)

Access and Affordability

Home Mortgage Disclosure Act Projects

Mortgage Markets COVID-19 Collaborative

Reducing the Racial Homeownership Gap

Global Markets Analysis Report

Publications

The Impact of the Coronavirus on Mortgage Refinancings
Authors: Laurie Goodman, Aaron Klein
Date: April 15, 2020

Avoiding a COVID-19 Disaster for Renters and the Housing Market
Authors: Laurie Goodman, Dan Magder
Date: April 13, 2020

Community Reinvestment Act April 8, 2020 Comment Letter
Authors: Laurie Goodman, Ellen Seidman, Jun Zhu
Date: April 10, 2020

A Liquidity Vehicle for Mortgage Servicing Advances Is in Consumers' Best Interest
Authors: Karan Kaul
Date: April 9, 2020

The Potential and Limits of Black-owned Banks
Authors: Michael Neal, John Walsh
Date: March 17, 2020

The Termination of LIBOR: An Update on Implications for the Mortgage Market
Authors: Laurie Goodman, Ed Golding
Date: March 4, 2020

Housing Supply Chartbook
Authors: Michael Neal, Laurie Goodman, Cait Young
Date: January 16, 2020

Blog Posts

The Pandemic is Shrinking the Mortgage Credit Box
Authors: Michael Neal, Laurie Goodman
Date: April 17, 2020

COVID-19 Policy Responses Must Consider the Pandemic's Impact on Young Renters and Renters of Color
Authors: Jung Choi, Jun Zhu, Laurie Goodman
Date: April 7, 2020

The CARES Act Eviction Moratorium Covers All Federally Financed Rentals—That's One in Four US Rental Units
Authors: Laurie Goodman, Karan Kaul, Michael Neal
Date: April 2, 2020

The Price Tag for Keeping 29 Million Families in Their Homes: $162 Billion
Authors: Karan Kaul, Laurie Goodman
Date: March 27, 2020

We Must Act Quickly to Protect Millions of Vulnerable Renters
Authors: Jung Choi, Laurie Goodman, Jun Zhu
Date: March 25, 2020

Is the 2020 Toolkit for Helping Homeowners in Crisis Better Than What We Had in 2008?
Authors: Karan Kaul, Laurie Goodman
Date: March 20, 2020

Institutional Investors Brought Higher Home Prices and Lower Vacancies to the Housing Recovery
Authors: Cait Young
Date: March 5, 2020

However You Measure It, Parents of White College Graduates Are about 10 Times Wealthier Than Their Black Counterparts
Authors: Jung Choi
Date: February 28, 2020

Why Do Black College Graduates Have a Lower Homeownership Rate Than White People Who Dropped Out of High School?
Authors: Jung Choi, Laurie Goodman
Date: February 27, 2020

Evidence Shows Military Service Reduces the Racial Homeownership Gap
Authors: Sarah Strochak, Jung Choi, Laurie Goodman
Date: February 26, 2020

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 April 2020

Organizations
400 Capital Management
AGNC Investment Corp.
Arch Capital Group
Assurant
Bank of America
Citizens Bank
Ellington Management Group
FICO
Genworth Mortgage Insurance
Housing Policy Council
Ivory Homes
MGIC
Mortgage Bankers Association
Mr. Cooper
National Association of Home Builders
National Association of Realtors
National Foundation for Credit Counseling
Ocwen
Pretium Partners
Pulte Home Mortgage
Quicken Loans
RiskSpan
Two Harbors Investment Corp.
Union Home Mortgage
U.S. Mortgage Insurers
VantageScore
Wells Fargo

Individuals
Kenneth Bacon
Jay & Alanna McCargo
Mary Miller
Jim Millstein
Shekar Narasimhan
Faith Schwartz
Mark & Ava Zandi

Data Partners
Black Knight, Inc.
CoreLogic
Experian
First American
Moody's Analytics