FANNIE MAE AND FREDDIE MAC SINGLE-FAMILY GUARANTEE FEES IN 2020

December 2021

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Executive Summary

Section 1601 of the Housing and Economic Recovery Act of 2008 (HERA) requires the Federal Housing Finance Agency (FHFA) to conduct an ongoing study of the guarantee fees charged by Fannie Mae and Freddie Mac (the Enterprises) and to submit a report to Congress each year.[1] HERA requires the report to contain an analysis of the average guarantee fee and a breakdown by product type, risk class, and size. The report also must present an analysis of the costs of providing the guarantee and provide a comparison to the prior year.[2] The report assists Congress in its oversight responsibilities. FHFA issued the first single-family guarantee fee report in 2009.[3]

In this report FHFA discusses the guarantee fees charged in 2020 and provides a three-year perspective with data back to 2018.[4] The major findings in this report are: [5]

- For all loan products combined, the average single-family guarantee fee decreased 2 basis points to 54 basis points in 2020.
- The upfront portion of the guarantee fee, which is based on the credit risk attributes (e.g., loan purpose, loan-to-value (LTV) ratio, and credit score), decreased 2 basis points to 11 basis points on average in 2020.[6]
- The ongoing portion of the guarantee fee, which is based on the product type (fixed-rate or adjustable-rate, and loan term), remained unchanged at 43 basis points on average in 2020.

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[1] See Section 1601 of the Housing and Economic Recovery Act of 2008, Public Law 110-289, 122 Stat 2824 at https://www.congress.gov/110/plaws/publ289/PLAW-110publ289.pdf.
[2] In lieu of presenting costs of providing the guarantee, in this report FHFA presents the difference between the revenue (guarantee fees) received and the estimated cost of guaranteeing a loan for a given target rate of return on capital.
[3] See prior guarantee fee reports at https://go.usa.gov/xP6mE.
[4] FHFA introduced data source and methodology changes to certain tables and figures in the report on 2019. As such, pre-2019 data in the text, tables, and charts in this report on 2020 may not be consistent with data in reports on the years prior to 2019.
[5] Due to rounding, the individual numbers in the text, tables, and charts may not compute exactly to the totals.
[6] Fannie Mae refers to upfront fees as "loan level price adjustments," while Freddie Mac refers to them as "credit fees in price." For the purposes of reporting to FHFA, the Enterprises annualize upfront fees by dividing the upfront fee for a given loan by that loan's specific present value multiplier (PVM). For example, a loan with an upfront fee of 75.15 basis points and a PVM of 6.18 would have an annualized upfront fee of 75.15/6.18 = 12.16 basis points. Depending on the attributes of the loan, a typical new 30-year loan may be expected to have a PVM of about 6 on average, whereas a 15-year loan may be expected to have a PVM closer to 4.

- The average guarantee fee in 2020 on 30-year and 15-year fixed rate loans remained unchanged at 58 basis points and 36 basis points, respectively. The average fee on adjustable-rate mortgage (ARM) loans increased 1 basis point to 57 basis points.

- The average guarantee fee for cash-out refinance loans decreased by 2 basis points to 66 basis points in 2020, while the average fee for purchase loans increased by 2 basis points to 56 basis points. The average fee for rate-term refinance loans remained unchanged at 49 basis points in 2020.

- The average guarantee fee for loans with LTV at or below 70 percent decreased by 1 basis point to 50 basis points in 2020. The average guarantee fee for loans with LTV above 70 percent and at or below 80 percent decreased 2 basis points to 61 basis points. The average guarantee fee for loans with LTV above 80 percent and at or below 90 percent increased 1 basis point to 54 basis points. The average guarantee fee for loans with LTV above 90 percent increased 3 basis points to 54 basis points.

- For each credit score group, the average guarantee fee remained unchanged in 2020. For loans with credit scores below 660, the average guarantee fee was 82 basis points. For loans with credit scores 660–719, the average guarantee fee was 66 basis points. For loans with credit scores at or above 720, the average guarantee fee was 52 basis points.

- The average guarantee fee by seller size was 54 basis points for the large (L) and small (S) seller groups, and 55 basis points for the medium (M) seller group.

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https://www.fhfa.gov/AboutUs/Contact/Pages/General-Questions-and-Comments.aspx

Guarantee Fees: Background

Guarantee fees are intended to cover the credit risk and other administrative and operational costs that the Enterprises incur when they acquire single-family loans from sellers.[7] The Enterprises acquire loans through two channels. A seller may exchange or swap a group of loans for a Fannie Mae or Freddie Mac-guaranteed mortgage-backed security (MBS) collateralized by these loans, which the seller

The Enterprises acquire loans through two channels, MBS swap and cash window.

[7] The term seller refers to an entity that is the ultimate seller of a loan to the Enterprises, which may include mortgage originators that sell directly to the Enterprises or mortgage aggregators that purchase mortgages from other financial institutions and resell the loans to the Enterprises.

may then sell into the secondary market. This is known as the MBS swap acquisition channel. Alternatively, a seller may deliver loans to an Enterprise in return for a cash payment. The Enterprises bundle these loans into MBS and sell the MBS into the secondary market. This is known as the cash window acquisition channel. Larger sellers tend to exchange loans for MBS, while smaller sellers tend to sell loans for cash.

While the private holders of MBS assume market risk (the risk that the price of the security may fall due to changes in market interest rates), the Enterprises assume the credit risk on the loans, guaranteeing that investors receive scheduled principal and interest payments.[8] The Enterprises charge a guarantee fee in exchange for providing this guarantee. Investors are willing to pay a higher price for Enterprise MBS than for private-label MBS because of the guarantee of principal and interest, and because of the liquidity of the MBS markets.

There are two types of guarantee fees: ongoing and upfront. Ongoing fees are factored into each loan's interest rate and collected each month over the life of a loan. Upfront fees are one-time payments made by sellers upon loan delivery to an Enterprise that are similarly factored into the interest rate paid by the borrower and thus recouped by the seller. In this report, FHFA presents the upfront fees in annualized form (see footnote 6).

Ongoing fees are based primarily on the product type, such as whether the loan is a 30-year fixed rate or a 15-year fixed rate loan. Ongoing fees presented in this report include the net gain or loss generated from buy-up/buy-down transactions, in which the Enterprise buys from or sells to the seller a portion of the loan's ongoing interest to allow for loans to be pooled more flexibly during the creation of MBS. Upfront fees are based primarily on specific risk attributes, including but not limited to the following:

Ongoing fees are based primarily on the product type, such as whether the loan is a 30-year fixed rate or a 15-year fixed rate loan.

Upfront fees are based primarily on specific risk attributes.

- Specific product types (adjustable-rate mortgages)

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[8] Although the Enterprises are always the ultimate guarantors of their MBS securities, they may choose to retain the full credit risk or, as part of their credit risk transfer (CRT) programs, pay private entities to bear some of the credit risk. In this report, FHFA excludes loans with front-end risk transfer and seller recourse from the study population due to non-standard guarantee fee pricing. While the Enterprises may transfer risk on other loans in the study population after acquisition, this report does not include the CRT effect in the estimated costs or profitability.

- The LTV ratio
- The borrower's credit score
- Certain occupancy types (investment properties or second homes)
- Certain purposes (cash-out refinances)
- Certain property types (condominiums, multi-units, manufactured homes)
- The level of mortgage insurance coverage relative to requirements
- Whether the loan exceeds the baseline conforming loan limit
- Whether and how much subordinate financing was taken
- Participation in special programs

Ongoing fees are set by the Enterprises. In contrast to ongoing fees, upfront fees have historically been required by FHFA to be charged on loans with specific attributes and are publicly posted on each Enterprise's website.[9] When comparing average guarantee fees between seller volume groups and over time, it is important to consider the effects FHFA-required upfront fees have on total guarantee fees.[10] As the risk attribute mix of loan acquisitions changes over time, the Enterprises accordingly charge different levels of these required upfront fees.

Factors Considered in Calculating Costs

Guarantee fees cover several cost components that the Enterprises expect to incur in providing their guarantee on MBS: 1) the expected default costs that result from the failure of some borrowers to make their payments; 2) the cost of holding capital necessary to protect against potentially much larger unexpected and catastrophic losses that result from the failure of some borrowers to make their payments in a severe stress environment; 3) general and administrative expenses; and 4) 10 basis points allocated to the U.S. Department of the Treasury as required by the Temporary Payroll Tax Cut Continuation Act of 2011 (TCCA).[11]

Of these components, the cost of holding capital is by far the most significant. A firm bearing mortgage credit risk needs enough capital to survive a stressful credit environment, such as what occurred during the most recent housing market crisis. The annual cost of holding capital to protect

[9] See Enterprise upfront fees at https://www.fanniemae.com/content/pricing/llpa-matrix.pdf and http://www.freddiemac.com/singlefamily/pdf/ex19.pdf.
[10] Volume refers to the amount of cumulative loan unpaid principal balance.
[11] Please see the following section, Timeline of Changes in Guarantee Fees, for a brief introduction to the fourth cost component related to the TCCA.

against unexpected losses is equal to the amount of capital required multiplied by the target rate of return on that capital.

This report uses FHFA's Conservatorship Capital Framework (CCF) to identify the amount of capital required in the cost of holding capital.[12] However, in 2022, the Enterprises will move away from the CCF towards the Enterprise Regulatory Capital Framework (ERCF).[13] This change will lead to changes in the amount of capital required both in the aggregate and across credit characteristics. In particular, the ERCF established a credit risk weight floor of 20 percent on single-family mortgage exposures. The risk-weight floor increases capital more significantly for loans with lower credit risk characteristics (e.g., lower LTVs, higher credit scores, lower DTIs) than for loans with higher credit risk characteristics. Consequently, the ERCF results in a flatter return on equity profile and profitability gap profile across the credit risk spectrum than the CCF. Therefore, analysis using the ERCF may produce different results and conclusions.

In 2008 when FHFA placed the Enterprises into conservatorship, it suspended its quarterly classifications of the capital adequacy of each Enterprise. However, in order to maintain a sound pricing framework, FHFA expects each Enterprise to set guarantee fees consistent with the amount of capital they would need to support their guarantee businesses as if they were able to fully retain capital.

Using FHFA's CCF and proprietary data, each Enterprise estimates the total cost of guaranteeing a loan given borrower and loan risk characteristics and a target rate of return on capital. FHFA defines gap as the difference between the revenue (guarantee fees) received and the estimated total cost. The gap serves as the measure of estimated profitability relative to the target rate of return on capital.[14] If the gap on a loan is positive or zero, the Enterprise expects to achieve at

FHFA defines gap as the difference between the revenue (guarantee fees) received and the estimated total cost. The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

[12] FHFA developed the CCF, an aligned risk management framework, to better inform each Enterprise's business decisions during conservatorship. The Enterprises began using the CCF in 2017. During 2020, both Enterprises used the CCF to make their regular business decisions and FHFA used the framework in its role as conservator to assess Enterprise guarantee fees, activities, and operations, and to guard against the Enterprises making competitive decisions that could adversely impact safety and soundness.

[13] FHFA finalized the ERCF in December 2020.

[14] Over time, the Enterprises update the factors that determine cost, so readers should exercise caution when comparing gaps from different time periods. Readers should also note that each Enterprise uses a different model to determine cost, which will have some impact on gaps averaged across Enterprises.

least its target rate of return on capital. If the gap is negative, the Enterprise expects to earn a return on the loan that is below its overall target rate of return on capital. The Enterprises limiting guarantee fees on certain loans to fulfill their affordable housing requirements may result in a negative gap on some business segments.[15] However, the FHFA expects each Enterprise to earn at least the target rate of return on capital over its entire portfolio of loans.

Two main factors contribute to the movement in gaps over time. The first is yearly changes to each Enterprise's cost estimation model and capital-related assumptions.[16] The second is changes in loan mix, as the Enterprises acquire a greater or fewer number of loans in different risk categories each year.

Timeline of Changes in Guarantee Fees

Faced with deteriorating conditions in the housing market, each Enterprise implemented a guarantee fee increase in March 2008 to better align fees with credit risk. Specifically, the Enterprises increased ongoing fees and introduced two new upfront fees: a fee based on a borrower's LTV ratio and credit score, and an adverse market charge. Later in 2008, the Enterprises refined their LTV ratio and credit score-based upfront fees, and in subsequent years gradually raised their fees to better reflect credit risk.

On December 23, 2011, the President signed into law the Temporary Payroll Tax Cut Continuation Act of 2011 (TCCA) to fund an extension of the payroll tax cut. To comply with the TCCA, in late December 2011 FHFA directed the Enterprises to increase the ongoing fees for all loans by 10 basis points effective with April 2012 deliveries.[17]

In August 2012, FHFA directed the Enterprises to increase their guarantee fees by an additional 10 basis points on average to more fully compensate taxpayers for bearing credit risk. The increase

[15] The Federal Housing Enterprises Financial Safety and Soundness Act, as amended by HERA, requires FHFA "to ensure that the operations and activities of each regulated entity foster liquid, efficient, competitive, and resilient national housing finance markets (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities)."
[16] Please note that the gap values presented for 2018 in this report do not match the gap values presented for the same year in the Annual G-fee Report on 2018. This is due to an Enterprise having made corrections to the calculation of estimated cost under FHFA's Conservatorship Capital Framework.
[17] The Enterprises collect the TCCA fee and pass it through to the U.S. Department of the Treasury. For the purposes of reporting to FHFA, the Enterprises include the 10-basis point TCCA fee in both the guarantee fee and model fee (estimated total cost). The gaps shown in this report do not reflect the benefit of the 10-basis point fee because it is both an income and an expense item.

was allocated in a way that more closely aligned the gaps of 15-year and 30-year loans and reduced differences in the ongoing fees of small volume sellers and large volume sellers. This change was effective with December 2012 deliveries.

FHFA announced another guarantee fee change in December 2013 that would have increased ongoing fees by 10 basis points and made other changes to the fee structure. However, in January 2014, FHFA suspended implementation of the change pending further review. In April 2015, FHFA completed its further review of the adequacy of the Enterprises' guarantee fees and found no compelling economic reason to change the overall level of fees. However, FHFA directed the Enterprises to make certain minor and targeted fee adjustments effective with September 2015 deliveries:

- Because of improvements in the housing market, FHFA removed the 25-basis point upfront adverse market charge, in place since 2008.

- To offset the revenue lost from the removal of the adverse market charge, FHFA made targeted increases in upfront fees for a subset of loans, including some higher-risk loan segments (cash-out refinances, jumbo conforming loans, investment properties, and loans with secondary financing) and those with both high credit scores and low LTV ratios.

FHFA did not increase fees for low credit scores or high LTV ratios. An important factor that contributed to FHFA's determination to leave the upfront fees the same for higher LTV ratios was FHFA's separate action in April 2015 to finalize new standards for mortgage insurers – the Private Mortgage Insurer Eligibility Requirements (PMIERs). On loans with down payments less than 20 percent, the Enterprises' charters require them to share credit risk with the private sector through charter-eligible credit enhancements. The finalized PMIERs provide modest cost savings to the Enterprises by reducing mortgage insurer counterparty exposure. Overall, the changes to guarantee fees implemented with September 2015 deliveries were approximately revenue neutral and resulted in little or no change in loan interest rates for most borrowers.

In 2016, as part of its regular monitoring of guarantee fees, FHFA observed that the average of ongoing fees charged by the two Enterprises was declining. FHFA directed the Enterprises in July 2016 to set minimum ongoing guarantee fees by product type, effective in November 2016, consistent with its responsibility to ensure the safety and soundness of the Enterprises. Between September 2018 and February 2019, both Enterprises implemented a 25-basis point upfront fee on second homes.

In April of 2020, following the start of the COVID-19 pandemic, FHFA allowed the Enterprises to purchase loans already in forbearance, which previously would not have been deliverable, with an upfront fee add-on of 500 basis points for first-time home buyers and 700 basis points for all others. After multiple extensions, this expired with loans closed through December 31, 2020. In August of the same year, FHFA directed the Enterprises to introduce a 50-basis point upfront Adverse Market Refinance Fee on cash-out and rate-term refinances effective on December 1, 2020. The intent of this fee was to cover projected COVID-19 losses of at least $6 billion at the Enterprises. The Enterprises excluded from the fee loans with principal balance at or below $125,000, those associated with Fannie Mae's HomeReady and Freddie Mac's Home Possible (low down payment financing products), and construction-to-permanent loans meeting certain criteria.[18]

In July of 2021 (following the year studied in this report), FHFA announced that the Enterprises would eliminate the Adverse Market Refinance Fee for loan deliveries effective August 1, 2021, because of the success of FHFA's and the Enterprises' COVID-19 policies in reducing the impact of the pandemic. In November of the same year, the Infrastructure Investment and Jobs Act extended to 2032 the existing 10-basis point ongoing TCCA fee. This fee was previously due to expire in 2022. The Enterprises remit the proceeds from this fee to the U.S. Department of the Treasury.

Table 1 shows a timeline of the major changes to guarantee fees dating back to 2008.

Table 1: Timeline of Changes in Fees

Date	Change
March 2008	The Enterprises increased ongoing fees and added two new upfront fees: a fee based on the borrower's LTV ratio and credit score, and a 25-basis point adverse market charge.
Late 2008 through 2011	The Enterprises gradually raised fees and refined their upfront fee schedules.
December 2011	Pursuant to the Temporary Payroll Tax Cut Continuation Act of 2011, FHFA directed the Enterprises to increase the ongoing fee for all loans by 10 basis points. The Enterprises pay this fee to the U.S. Department of the Treasury. This fee increase was effective with April 2012 deliveries and will expire after 10 years.

[18] See the descriptions for HomeReady and Home Possible at https://singlefamily.fanniemae.com/originating-underwriting/mortgage-products/homeready-mortgage and https://sf.freddiemac.com/working-with-us/origination-underwriting/mortgage-products/home-possible, respectively.

August 2012	FHFA directed the Enterprises to raise fees by an additional 10 basis points on average to better compensate for credit risk exposure. FHFA raised fees more on loans with terms longer than 15 years than on shorter-term loans to better align the gaps and made fees more uniform across sellers with varying loan delivery volumes. These changes were effective with December 2012 MBS deliveries.
December 2013	FHFA directed the Enterprises to increase ongoing fees by 10 basis points, change upfront fees to better align pricing with credit risk characteristics, and remove the 25-basis point adverse market charge for all but four states. However, in January 2014, FHFA suspended the implementation of these changes pending review.
April 2015	FHFA completed its fee review and directed the Enterprises to eliminate the adverse market charge in all markets and add targeted increases for specific loan groups effective with September 2015 deliveries. These changes were approximately revenue-neutral with little or no impact for most borrowers.
July 2016	Based on findings from FHFA's quarterly guarantee fee reviews, the Agency directed the Enterprises to set minimum ongoing guarantee fees by product type, effective in November 2016, consistent with FHFA's responsibility to ensure the safety and soundness of the Enterprises.
September 2018 & March 2019	The Enterprises implemented a 25-basis point upfront fee for loans on second homes where LTV exceeds 85 percent.
April 2020	FHFA allowed the Enterprises to purchase loans in forbearance, with an upfront fee add-on of 500 basis points for first-time home buyers and 700 basis points for all others, effective for loans closed through December 31, 2020, following multiple extensions.
August 2020	FHFA directed the Enterprises to introduce a 50-basis point upfront Adverse Market Refinance Fee, effective December 1, 2020, for cash-out and rate-term refinances. The Enterprises excluded loans with principal balance less than or equal to $125,000, those associated with HomeReady/Home Possible, and construction-to-permanent loans meeting certain criteria.
Changes Following the Year Studied	
July 2021	FHFA announced that the Enterprises would eliminate the Adverse Market Refinance Fee for loan deliveries effective August 1, 2021.
November 2021	The Infrastructure Investment and Jobs Act extended to 2032 the existing 10-basis point ongoing fee arising from the Temporary Payroll Tax Cut Continuation Act of 2011, which was due to expire in 2022. The Enterprises remit the proceeds from this fee to the U.S. Department of the Treasury.

Guarantee Fee Results for 2020

This report uses data on single-family loans acquired from 2018 through 2020 to exhibit for each year the average guarantee fee and the average gap between the guarantee fee and the estimated total cost of providing the guarantee. In addition, the report includes a breakdown by product type, risk class (loan purpose, LTV ratio, and credit score), and seller delivery volume. The breakdowns allow for attributing changes in the average guarantee fee and the average gap to changes over time in the acquisition composition. Because this report uses economic concepts, rather than accounting data, to analyze guarantee fees, this report differs from the published financial statements of the Enterprises which are prepared in accordance with Generally Accepted Accounting Principles.

I. Average Guarantee Fee

Table 2 presents the total study population of this report in terms of loan and dollar volume. The study population consists of single-family mortgages acquired by the Enterprises under their standard underwriting and delivery guidelines each year over the three-year period from 2018 through 2020.[19] Despite the first quarter recession brought on by the COVID-19 pandemic, the dollar volume of acquisitions increased by 151 percent from 2019 to 2020 because of historically low interest rates experienced in 2020.

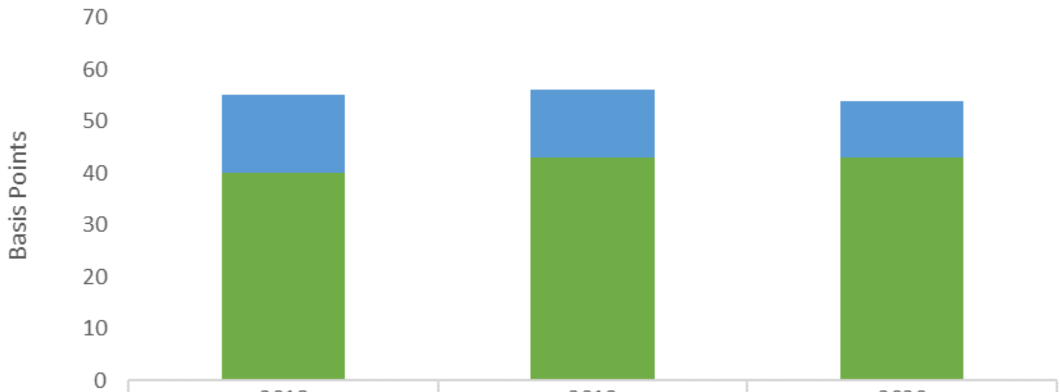
Table 2: Total Study Population – Loan and Dollar Volume

	2018	2019	2020	Change 2019 to 2020
Dollars (in Billions)	$692	$955	$2,398	$1,443
Loans (in Millions)	3.0	3.7	8.4	4.7

[19] The study population excludes loans associated with bulk purchase transactions, the Home Affordable Refinance Program, manufactured housing, and the Federal Housing Administration. It also excludes other loans outside standard guarantee fee pricing guidelines. See footnote 8 for examples of loans with non-standard guarantee fee pricing.

The average guarantee fee was 54 basis points in 2020, 2 basis points lower than that of 2019. Chart 1 shows the average guarantee fee, broken into ongoing and upfront, in 2018–2020. The decrease in the average guarantee fee was driven by the upfront component, which also decreased by 2 basis points (or 15 percent); the ongoing component remained unchanged at 43 basis points.

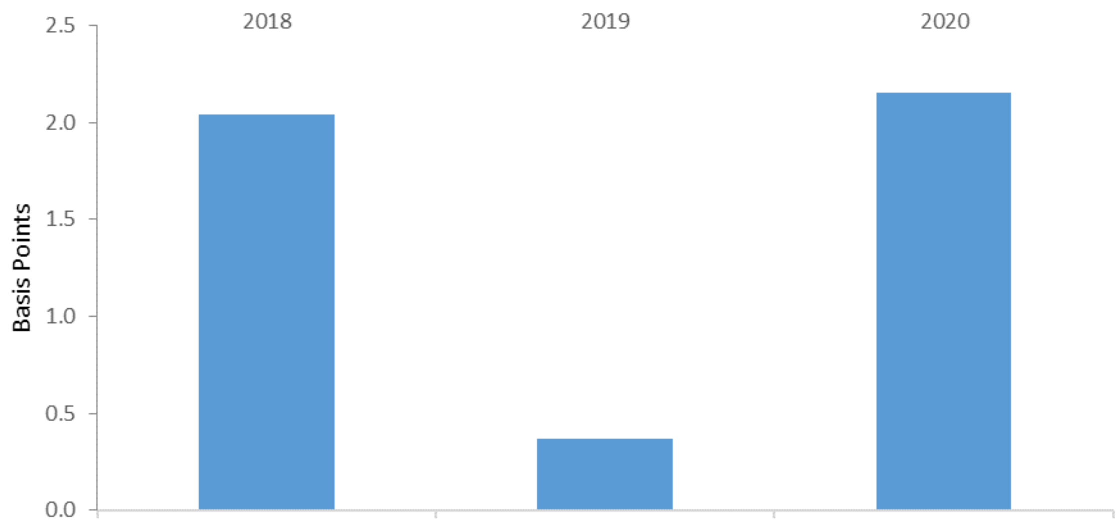
Chart 1: Average Guarantee Fee



	2018	2019	2020
Total	55	56	54
Upfront	15	13	11
Ongoing	40	43	43

Chart 2 below shows the average yearly gap from 2018 through 2020. In 2020, the average gap was higher than the average gap in 2019, indicating that the (risk-adjusted) profitability on new loan acquisitions increased. As in 2018 and 2019, the gap in 2020 was positive, indicating that the Enterprises continued to meet their return on capital targets.

Chart 2: Average Gap*



*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

II. Guarantee Fees by Product Type

Table 3 presents the relative distribution of the study population by product type over the three-year study period, in terms of dollar volume rather than loan count. From 2019 to 2020, the share of the study population belonging to 30-year fixed rate loans decreased by 6 percent, whereas the share belonging to 15-year fixed rate loans increased by 4 percent. Shares of fixed rate loans of all other terms jumped by 3 percent overall, driven mainly by loans with 20-year terms.

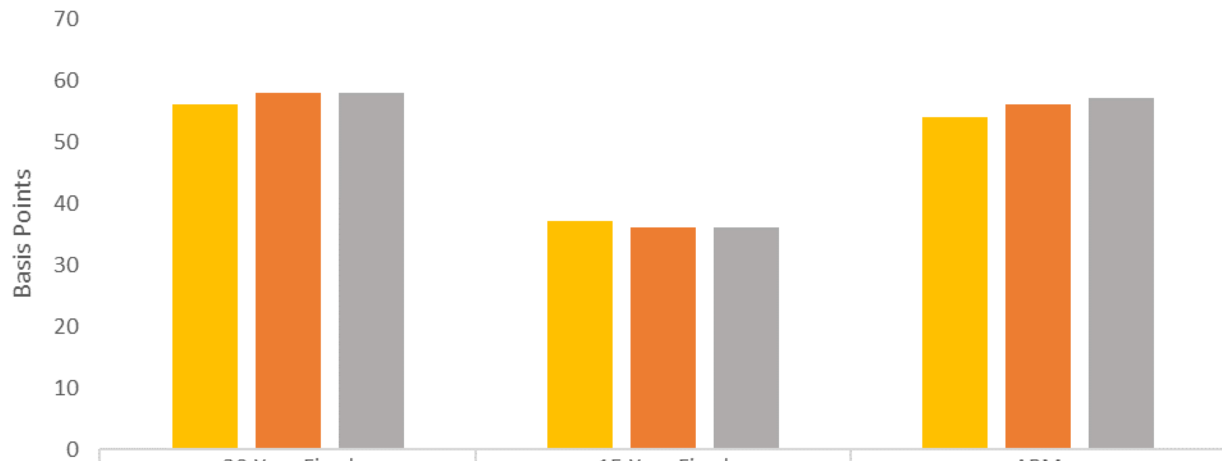
Table 3: Study Population Distribution by Product Type

Product Type	2018	2019	2020	Change 2019 to 2020
30-Year Fixed	85%	85%	79%	-6%
15-Year Fixed	9%	10%	14%	4%
Fixed Other Terms	4%	4%	7%	3%
ARM	2%	1%	0%	-1%

Note: due to rounding shares may not add up to 100 percent for each year.

Chart 3 shows guarantee fees by product type. From 2019 to 2020, the average guarantee fees on 30-year and 15-year fixed rate loans remained unchanged at 58 basis points and 36 basis points respectively. The average guarantee fee rose by 1 basis point to 57 basis points for ARM loans.

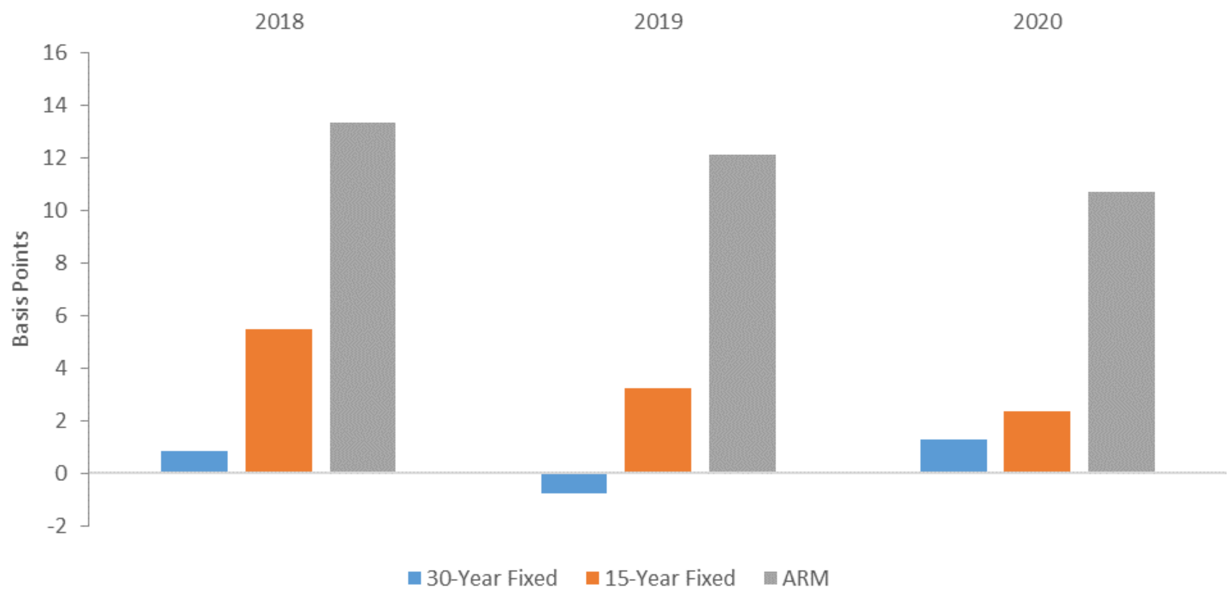
Chart 3: Guarantee Fee by Product Type



	30-Year Fixed	15-Year Fixed	ARM
2018	56	37	54
2019	58	36	56
2020	58	36	57

Chart 4 shows modest changes in the product type gaps from 2019 to 2020. Profitability increased for 30-year fixed rate loans, transitioning from slightly below to slightly above target, but decreased slightly for 15-year fixed rate and ARM loans.

Chart 4: Gap* by Product Type



*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

III. Guarantee Fees by Risk Class

Table 4 shows the relative distribution of the study population by loan and borrower characteristics indicative of risk, for each year in the three-year study period. Shares are in terms of dollar volume rather than loan count. The 2020 distributions reflect a different composition of loans by risk class compared to 2019. Following the onset of the COVID-19 pandemic, the decreasing interest rate environment and historic house price appreciation contributed to a large increase in the share of rate-term refinance loans and a corresponding decrease in the share of purchase loans. The larger share of rate-term refinances contributed to a larger share of lower LTV loans. Usually rate-term refinancers have more equity in a property than purchasers and in 2020 this effect was further amplified by the historic price appreciation. Similarly, the larger share of rate-term refinances contributed to a larger share of higher credit score loans. These two changes contributed to the decline in average upfront fees.

The subsections that follow show average guarantee fees for each risk class.

Table 4: Study Population Distributions by Risk Class

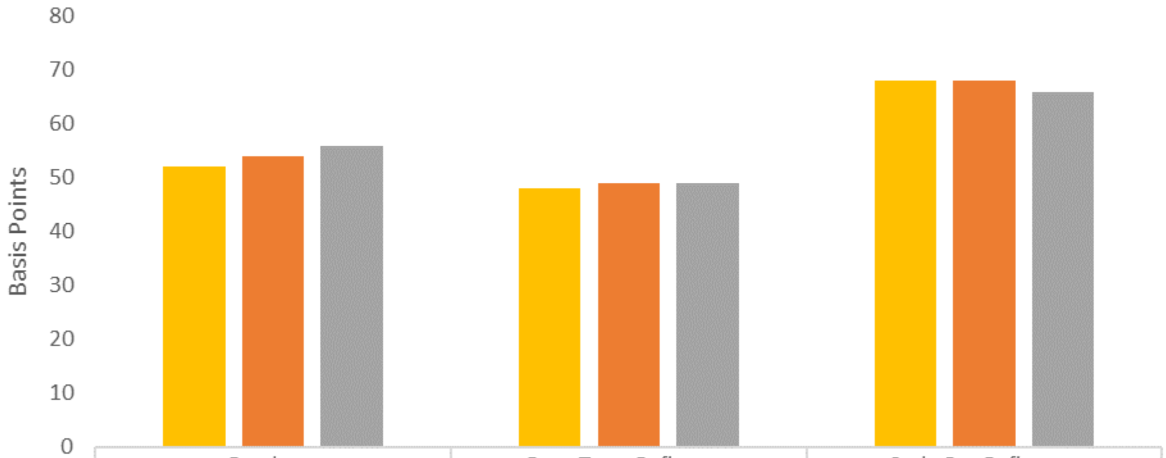
Loan Purpose	2018	2019	2020	Change 2019 to 2020
Purchase	67%	54%	30%	-24%
Rate-Term Refinance	12%	27%	51%	24%
Cash-Out Refinance	20%	19%	18%	-1%
LTV Ratio				
<=70 Percent	27%	29%	43%	14%
70.1 - 80 Percent	38%	37%	34%	-3%
80.1 - 90 Percent	13%	14%	12%	-2%
> 90 Percent	22%	20%	12%	-8%
Credit Score				
>= 720	73%	77%	84%	7%
660 - 719	23%	20%	14%	-6%
< 660	5%	3%	2%	-1%

Note: due to rounding shares may not add up to 100 percent for each year.

A. Loan Purpose

Chart 5 shows guarantee fees by loan purpose. The higher fees on cash-out refinance loans shown below reflect the higher upfront fees required for this loan purpose. The average fee for cash-out refinance loans decreased by 2 basis points in 2020, while the average fee for purchase loans increased by 2 basis points. The average fee for rate-term refinance loans remained unchanged in 2020; the Adverse Market Refinance Fee did not take effect until December 1 of that year.

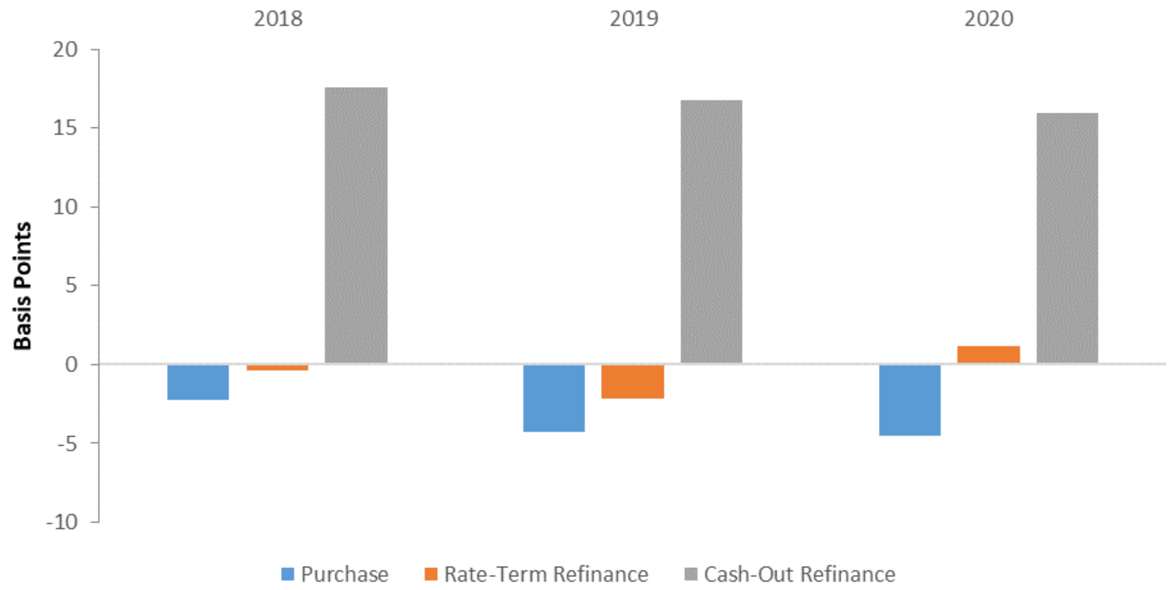
Chart 5: Guarantee Fee by Loan Purpose



	Purchase	Rate-Term Refinance	Cash-Out Refinance
2018	52	48	68
2019	54	49	68
2020	56	49	66

Chart 6 shows gap performance by loan purpose. For purchase and cash-out refinances, 2019 trends continued into 2020; returns fell slightly for both loan purposes, with purchases falling further below the target rate of return and cash-out refinances still staying well above the target. Returns transitioned from slightly below to slightly above target for rate-term refinances.

Chart 6: Gap* by Loan Purpose

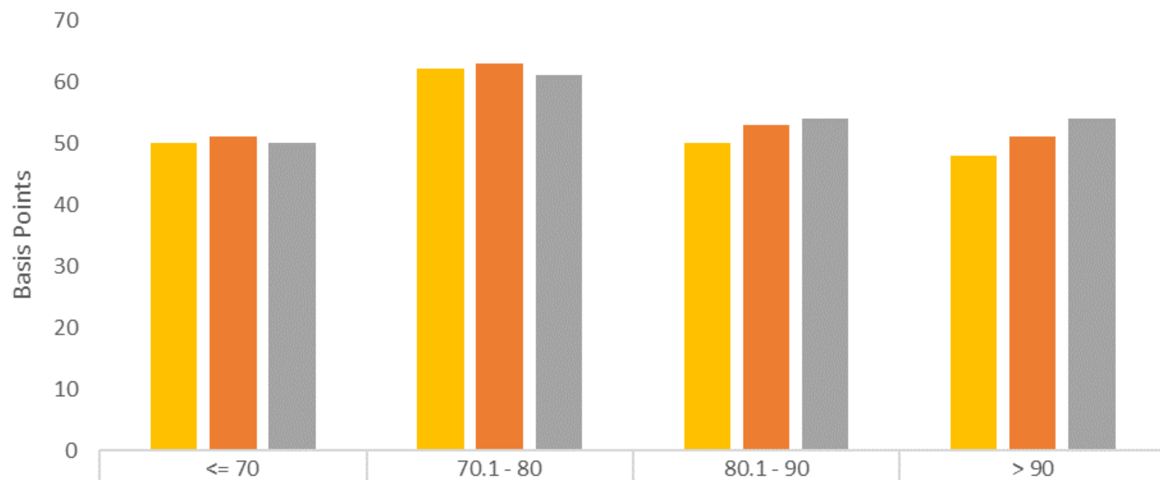


*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

B. Loan-to-Value Ratio

Chart 7 shows modest changes in guarantee fees by loan-to-value ratio from 2019 to 2020. For the two loan groups with borrower equity of at least 20 percent (≤ 80 LTV), the average guarantee fee decreased by 1-2 basis points. For the two loan groups with borrower equity less than 20 percent (> 80 LTV), the average guarantee fee increased by 1-3 basis points. Acquisitions became more concentrated in the lowest LTV group in 2020 (see Table 4), contributing to the decline in average upfront fees.

Chart 7: Guarantee Fee by Loan-to-Value Ratio

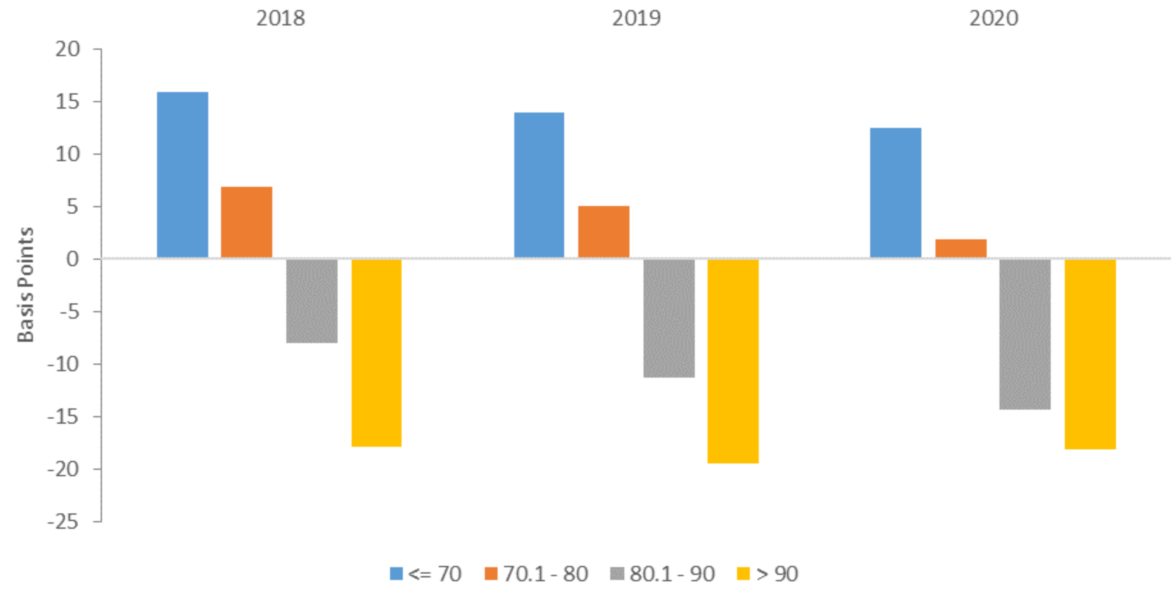


	<= 70	70.1 - 80	80.1 - 90	> 90
2018	50	62	50	48
2019	51	63	53	51
2020	50	61	54	54

Note: 0.1 denotes “greater than.” For example, 70.1 denotes “greater than 70.”

Chart 8 shows slight decreases in profitability for each of the LTV ratio groups in 2020, with the exception of the > 90 LTV group, which saw a slight increase in profitability. Consistent with 2018 and 2019, the Enterprises earned above-target returns on loans with LTV ratios up to 80 percent, and below-target returns on loans with LTV ratios greater than 80 percent.

Chart 8: Gap* by Loan-to-Value Ratio

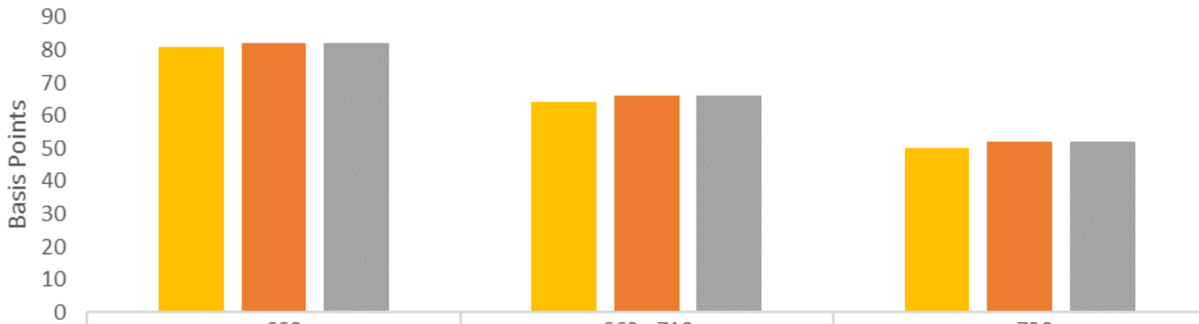


*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.
Note: 0.1 denotes "greater than." For example, 70.1 denotes "greater than 70."

C. Credit Score

Chart 9 shows guarantee fees by credit score. From 2019 to 2020, the average guarantee fee was unchanged in each credit score group.

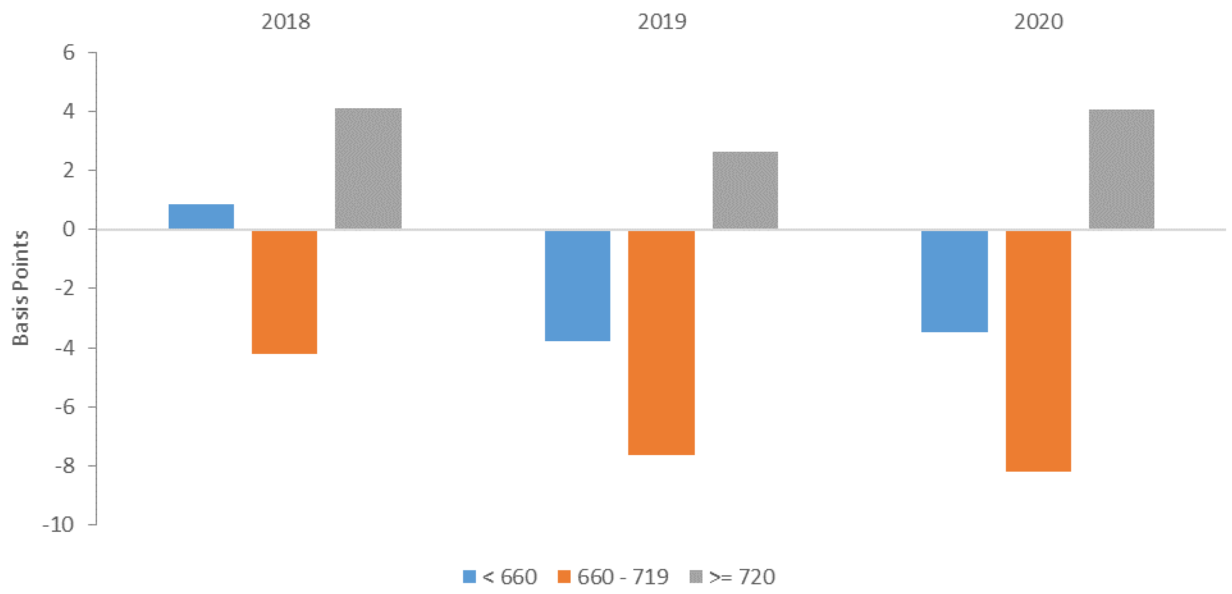
Chart 9: Guarantee Fee by Credit Score



	< 660	660 - 719	>= 720
2018	81	64	50
2019	82	66	52
2020	82	66	52

Chart 10 shows that profitability was largely unchanged for each of the three credit score groups from 2019 to 2020. There were slight increases in profitability for the < 660 and ≥ 720 groups, and a slight decrease for the 660–719 group.

Chart 10: Gap* by Credit Score



*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

IV. Guarantee Fees by Seller Volume

Together the Enterprises acquired loans from 1,776 sellers in the study population in 2020, with each Enterprise individually acquiring loans from about 1,000 sellers. Consistent with the report on 2019, FHFA divided these sellers into three seller groups based on their share of total Enterprise acquisition volume. This is a departure from reports on years prior to 2019, in which FHFA classified sellers separately for each Enterprise.[20] The seller volume groups are comprised of those sellers with a share of total Enterprise acquisition volume at or above 2 percent (Large), greater than or equal to 0.1 percent and less than 2 percent (Medium), and below 0.1 percent (Small), within each year studied. Generally, smaller sellers tend to sell loans for cash, and larger sellers exchange loans for MBS, as reflected in Tables 5a and 5b.

Table 5a: Study Population Distribution by Seller Volume Group, MBS Swap

Group	Seller Share of Total Volume	2018	2019	2020	Change 2019 to 2020
L	>= 2%	71%	71%	73%	2%
M	>= 0.1% and < 2%	28%	28%	26%	-2%
S	< 0.1%	1%	1%	1%	0%

Note: due to rounding shares may not add up to 100 percent for each year.

Table 5a shows that the domination of MBS Swap acquisitions by larger sellers remained consistent in 2020, with very slight changes in shares attributed to specific size groups. The large (L) group saw its share increase by 2 percentage points at the expense of the medium (M) group. However, Table 5b shows a very different trend for cash window acquisitions. The large (L) seller group saw its share of cash window acquisitions decline by 13 percentage points, with the medium (M) and small (S) seller groups respectively accounting for 11 and 2 percentage points of change.

[20] In reports on years prior to 2019, due to data limitations, FHFA formed the seller volume groups separately for each Enterprise as follows: the top 5 sellers ranked by volume for each Enterprise each year were considered Extra-Large (XL), the next 10 sellers were considered Large (L), the next 10 sellers were considered Medium (M), the next 75 sellers were considered Small (S), and all others were considered Extra-Small (XS). This year's report combines seller volume across Enterprises to calculate each seller's share of total annual Enterprise acquisition volume, consistent with the study population exclusions described in footnote 19. Discrepancies in seller size categorizations may exist due to mergers and acquisitions not captured appropriately in the data.

Table 5b: Study Population Distribution by Seller Volume Group, Cash Window

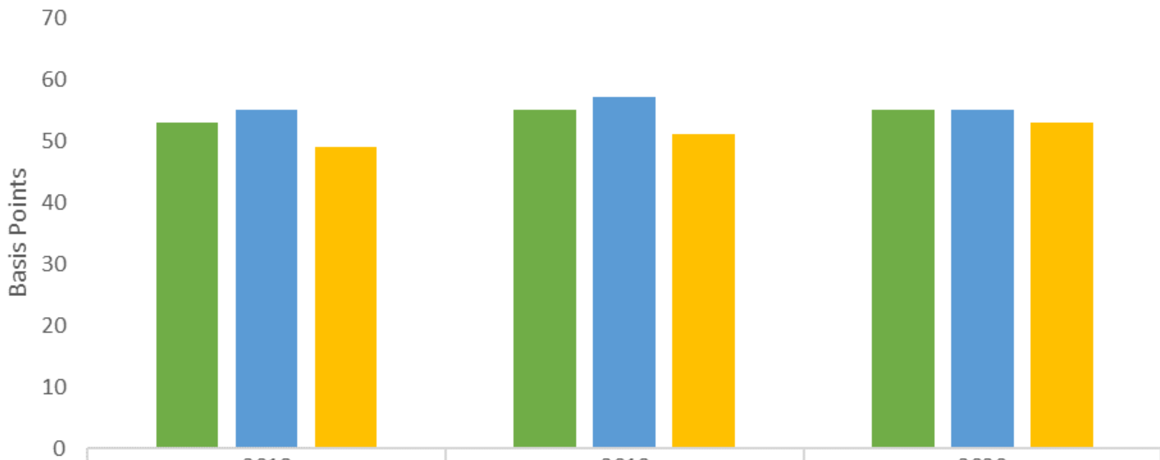
Group	Seller Share of Total Volume	2018	2019	2020	Change 2019 to 2020
L	>= 2%	22%	23%	10%	-13%
M	>= 0.1% and < 2%	48%	48%	59%	11%
S	< 0.1%	30%	29%	31%	2%

Note: due to rounding shares may not add up to 100 percent for each year.

Across both MBS swap and cash window channels combined, the average guarantee fee by seller size was 55 basis points for the medium (M) seller group, and 54 basis points for the large (L) and small (S) seller groups. The charts on the following pages show guarantee fees by seller volume group, separately for MBS swap acquisitions and cash window acquisitions. In the cash window channel, the Enterprises hold the acquired loans in portfolio until they can be securitized. In the process, the Enterprises take on additional risk and costs, including but not limited to liquidity risk and hedging costs. Therefore, guarantee fees through the cash window channel are not comparable to guarantee fees through the MBS swap channel.

Chart 11a shows guarantee fees by seller volume group for MBS swap acquisitions. From 2019 to 2020, the average guarantee fee remained unchanged for the large (L) seller group, decreased by 2 basis points for the medium (M) seller group, and increased by 2 basis points for the small (S) seller group.

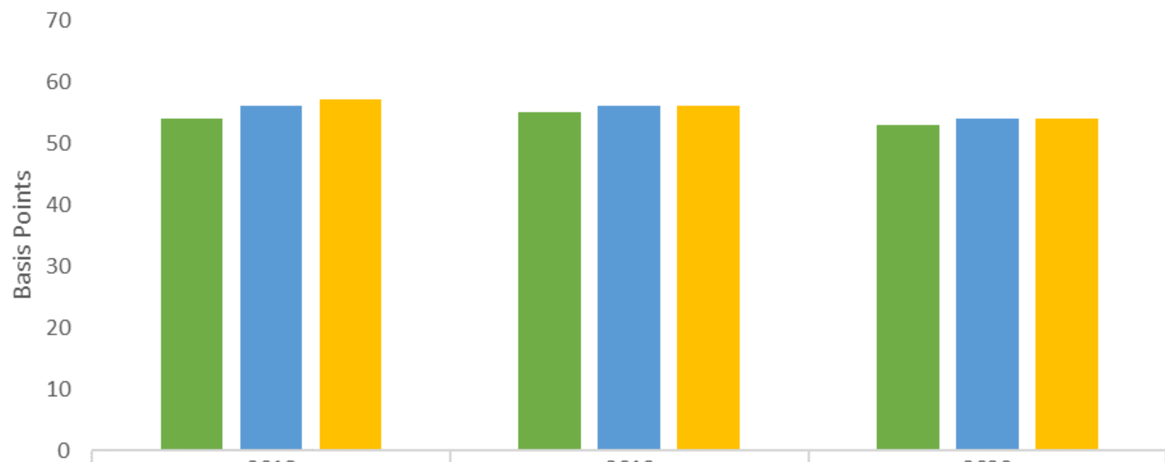
Chart 11a: Guarantee Fee by Seller Volume Group, MBS Swap



	2018	2019	2020
L	53	55	55
M	55	57	55
S	49	51	53

Chart 11b shows guarantee fees by seller volume group for cash window acquisitions. From 2019 to 2020, the average guarantee fee decreased by 2 basis points for the large (L), medium (M), and small (S) seller groups. As such, a single basis point continues to separate the large (L) and small (S) seller groups on average.

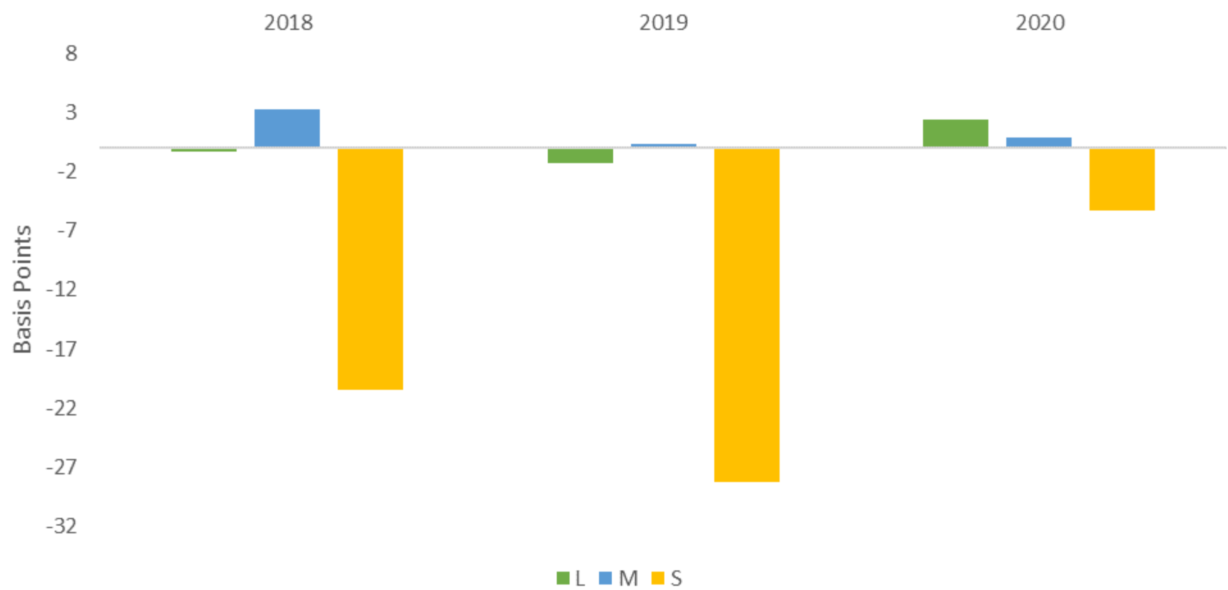
Chart 11b: Guarantee Fee by Seller Volume Group, Cash Window



	2018	2019	2020
L	54	55	53
M	56	56	54
S	57	56	54

Chart 12a shows the Enterprises' profitability arising from loans acquired through MBS swap for the three seller volume groups over the three-year study period. There is an increase in the average profitability of loans from all three seller volume groups from 2019 to 2020, with the large (L) group moving from slightly below-target to slightly above-target profitability and the small (S) group moving from substantially below to slightly below-target profitability. The substantially below-target profitability of loans from the small (S) seller group in 2019 was due to roughly half of its acquisitions coming from housing finance authorities (HFAs). Many of these loans were exempt from upfront delivery fees and some had subsidies, which resulted in the large, negative gap shown below for that year.[21]

Chart 12a: Gap* by Seller Volume Group, MBS Swap

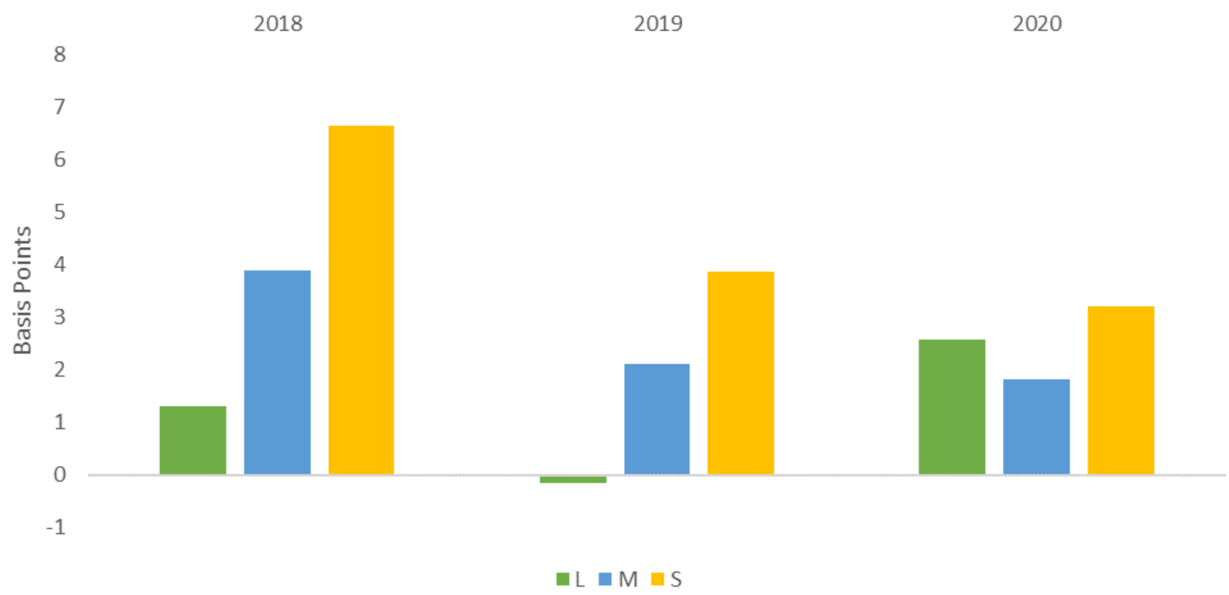


*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.

[21] From 2019 to 2020, the HFA share of the MBS Swap small (S) seller group dropped substantially. Additionally, the Enterprises eliminated exemptions for certain types of HFA loans.

Chart 12b presents the same comparison for cash window acquisitions. From 2019 to 2020, there is a slight decrease in the above-target profitability of loans from medium (M) and small (S) seller groups. The large (L) seller group saw an increase from very slightly below-target profitability in 2019 to solidly above-target profitability in 2020.

Chart 12b: Gap* by Seller Volume Group, Cash Window



*The gap serves as the measure of estimated profitability relative to the target rate of return on capital.