FANNIE MAE AND FREDDIE MAC SINGLE-FAMILY GUARANTEE FEES IN 2014

June 30, 2015

Division of Housing Mission & Goals

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EXECUTIVE SUMMARY

The Housing and Economic Recovery Act of 2008[1] (HERA) requires the Federal Housing Finance Agency (FHFA) to submit reports to Congress annually on the guarantee fees charged by Fannie Mae and Freddie Mac (the Enterprises).[2] HERA requires an analysis of fees by product type, risk class, and the volume of a lender's business. The report must also analyze the costs of providing the guarantee and provide a comparison to the prior year. FHFA issued the first such report in 2009. This report covers guarantee fees charged in 2014.

Among the major findings of this report are:

- Overall, the average level of guarantee fees charged has increased since 2009. The guarantee fees are currently two-and-a-half times their previous level; from 2009 to 2014, average fees increased from 22 basis points to 58 basis points.[3] From 2013 to 2014, average fees increased from 51 basis points to 58 basis points.
- In 2014, primarily because of changes in the models the Enterprises use to estimate the capital necessary to support their mortgage guarantee business, gaps on 30-year fixed rate loans were more negative and gaps on 15-year loans were more positive than in 2013.[4] While the gap on 30-year fixed rate loans was negative relative to targeted return on capital, the returns on capital were positive.
- The percentage of loans that the Enterprises purchased from small lenders grew substantially in 2014, while pricing differences between small sellers and large sellers remained small.

In April 2015, FHFA completed a comprehensive review of the agency's policy for guarantee fees charged by the Enterprises to lenders. FHFA decided not to change the general level of fees. However, FHFA made certain minor and targeted fee adjustments. Overall, the set of modest changes to guarantee fees is roughly revenue neutral and will result in little or no change for most borrowers.

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[1] Section 1601 of the Housing and Economic Recovery Act of 2008, Public Law 110-289, 122 Stat 2824.
[2] Prior guarantee fee reports may be found at http://www.fhfa.gov/DataTools/Pages/Data-Reports.aspx.
[3] This increase includes the 10 basis point increase mandated by Congress to fund the Temporary Tax Cut Continuation Act of 2011.
[4] The difference between actual guarantee fees charged and the expected cost of providing the guarantee is referred to as a "gap."

DESCRIPTION OF GUARANTEE FEES

Fannie Mae and Freddie Mac acquire single-family loans from lenders and securitize them in the form of mortgage-backed securities (MBS). Although the Enterprises hold some MBS on their balance sheets, most are held by private investors. For investor-held MBS, the Enterprises guarantee timely payment of principal and interest to the investor.[5] As compensation for providing this guarantee, the Enterprises charge lenders guarantee fees. Although the Enterprises are always the ultimate guarantors, they may choose to retain the credit risk on their own balance sheets or, as part of their credit risk-transfer programs, pay private entities to bear some of the credit risk.

The Enterprises charge guarantee fees to cover three types of costs that they expect to incur in providing their guarantee: (1) the costs that the Enterprises expect to bear, on average, as a result of failure of borrowers to make their payments; (2) the costs of holding economic capital to protect against potentially much larger, unexpected losses as a result of failure of borrowers to make their payments; and (3) general and administrative expenses. Collectively these three costs are the estimated cost of providing the credit guarantee.[6]

Of these three 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 occurred during the recent housing market crisis. The annual cost of holding capital to protect against unexpected losses is the amount of capital required multiplied by the target rate of return on that capital. While the Enterprises do not currently hold material equity capital, FHFA has asked them to set guarantee fees consistent with the amount of capital they would need to support their guarantee businesses if they were able to retain capital.[7]

The Enterprises use proprietary models to estimate the costs they expect to bear and the amount of capital that needs to be set aside to cover unexpected losses (see items 1 and 2 above). The capital estimates derived from these models are typically most sensitive to the macroeconomic scenario specified in the model. The two primary components of the macroeconomic scenario are the stressed house price path and stressed interest rate path.

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[5] For its ARM participation certificates (PCs), Freddie Mac guarantees the timely payment of interest and the *ultimate* payment of principal.

[6] Estimated costs reflect the benefit of private mortgage insurance and other forms of credit enhancement, where applicable.

[7] While in Conservatorship, the Enterprises are subject to the Senior Preferred Stock Purchase Agreements with the U.S. Department of the Treasury, which restrict their ability to retain capital.

In addition to the macroeconomic scenarios, the main risk characteristics included in the models that determine the estimated cost of guaranteeing a single-family mortgage are:

- Borrower credit history
- Debt-to-income ratio
- Loan-to-value (LTV) ratio
- Mortgage insurance coverage
- Loan purpose (purchase, rate-term refinance, cash-out refinance)
- Occupancy status (primary home, investor)
- Property type (single-family, condominium, 2-4 unit, manufactured housing)
- Product type (fixed, adjustable rate, maturity term)
- Mortgage interest rate

The capital estimates from the models may be adjusted upward to account for model risk and going concern risk. Further, the impact of the capital estimates on modeled guarantee fees is affected by an assumed target rate of return to be earned on that capital.

Using the models to estimate a required amount of capital, and subjecting that estimate to a target rate of return, the Enterprises calculate a model guarantee fee and from that a "gap." A gap is the difference between the actual fee charged on a loan and the model-based fee, or estimated cost of providing the credit guarantee (three types of costs that they expect to incur referenced above), and is an important tool used by the Enterprises to assess the adequacy of guarantee fees. If the gap on a loan is positive or zero, the Enterprise expects to achieve at least its target rate of return on capital.[8] If the gap is negative, the Enterprise may still earn a positive return on the loan although not achieve its overall target rate of return on that loan.

Another important consideration in determining guarantee fees is the lending environment. For example, lenders could choose to deliver loans to Fannie Mae or Freddie Mac or choose an alternative: retain loans in portfolio, originate loans insured by the Federal Housing Administration, or securitize loans in the private-label securities market. Thus, if guarantee fees rise relative to the prices of these alternatives, we should expect some reduction in market share for the Enterprises for certain types of loans.

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[8] Models are updated over time. Thus, one must exercise caution in comparing gaps from different time periods.

Timeline of Key Guarantee Fee Changes Since 2008

Faced with deteriorating conditions in the housing and mortgage markets, the Enterprises implemented a fee increase in March 2008 in order to better align guarantee fees with mortgage credit risk. Specifically, overall fees were increased, upfront guarantee fees were introduced that were based on a borrower's LTV and credit score, and a 25-basis point "adverse market fee" was introduced. Prior to this change, guarantee fees had been primarily based on product type, rather than loan attributes.

Later in 2008, the Enterprises refined their LTV and credit score-based upfront charges and other fee components, and in subsequent years gradually raised fees to better reflect credit risk.

In 2011, Congress passed the Temporary Payroll Tax Cut Continuation Act (TCCA) to fund an extension of the payroll tax cut. In April 2012, at the direction of FHFA and consistent with the TCCA, the Enterprises implemented an increase of 10 basis points in ongoing fees for all loans. Pursuant to the TCCA, this fee accrues to the Department of the Treasury and not to the Enterprises. This provision of the TCCA expires on October 1, 2021.

Later in 2012, FHFA again directed the Enterprises to increase their guarantee fees by 10 basis points on average. This increase was intended to encourage more private sector participation, reduce the Enterprises' market share, and more fully compensate taxpayers for bearing mortgage credit risk. The increase was allocated in a way that reduced cross-subsidies from 15-year to 30-year loans and reduced lender-based fee differences between small lenders and large lenders. This change was implemented in December 2012.

The agency announced another guarantee fee change in December 2013 that would have increased ongoing fees by 10 basis points, adjusted upfront fees charged to borrowers in different risk categories, and removed the 25-basis point adverse market charge for all but four states. The increase was to be phased in during in the spring of 2014. In January 2014, FHFA suspended implementation of the change pending further review. As part of this review, FHFA published a Request for Input in June 2014 to seek public input on a number of questions related to guarantee fee policy and implementation.[9]

In April 2015, the FHFA completed a comprehensive review of the agency's policy for guarantee fees. FHFA found no compelling economic reason to change the overall level of fees. However, FHFA made certain minor and targeted fee adjustments:

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[9] http://www.fhfa.gov/PolicyProgramsResearch/Policy/Documents/GfeeRFI060514F.pdf.

- Due to improvements in the housing market, the 25 basis point upfront Adverse Market Charge instituted in 2008 was removed for all states effective with September 2015 loan deliveries.
- To replace the revenue lost due by removing the Adverse Market Charge, FHFA made targeted increases to a subset of loans, including some higher risk loan segments (e.g., cash-out refinances, investment properties, loans with secondary financing, jumbo conforming loans) and those with both high credit scores and low loan-to-value ratios.

Overall, the set of modest changes to guarantee fees is approximately revenue neutral and will result in little or no change in mortgage rates for most borrowers.

Table 1: Chronology of Changes in Guarantee Fees 2008-Present

Event Date	Change
March 2008	Overall fee increase implemented. Upfront fees introduced based on LTV and credit score. 25-basis point upfront Adverse Market Charge introduced.
Late 2008 through 2011	Fees gradually raised. Average fees in 2011 were approximately 5 basis points higher than in 2009. Upfront fee grids (e.g., the LTV/credit score grid) gradually refined.
April 2012	Enterprises implement a 10 basis point ongoing fee increase consistent with the Temporary Tax Cut Continuation Act of 2011. This fee accrues to the Department of the Treasury and not to the Enterprises.
December 2012	FHFA directs Enterprises to implement an additional 10 basis point average increase, raise 30-year fees by more than 15-year fees to better align returns across both products, and make changes intended to increase fees by more for larger lenders in order to remove fee concessions for volume of deliveries.
December 2013	FHFA directs Enterprises to increase ongoing fees by 10 basis points, change upfront fees charged to borrowers in different risk categories, and remove the 25-basis point Adverse Market Charge for all but four states.
January 2014	FHFA suspends implementation of the December 2013 changes pending further review.
April 2015	FHFA leaves the overall level of guarantee fees unchanged as a result of its review. FHFA eliminates the 2008 Adverse Market Charge and adds targeted increases for specific loan groups. The overall change is roughly revenue neutral and will result in little or no impact for most borrowers.

GUARANTEE FEE POLICIES AND 2014 OUTCOMES

I. TRENDS IN OVERALL AVERAGE GUARANTEE FEES

There are two types of guarantee fees: ongoing and upfront. Ongoing fees are collected each month over the life of a loan. Upfront fees are one-time payments made by lenders when a loan is acquired by an Enterprise. Fannie Mae refers to upfront fees as loan level pricing adjustments, and Freddie Mac refers to them as delivery fees. Both ongoing and upfront fees compensate the Enterprises for providing credit guarantees. To date, the Enterprises have relied primarily on upfront fees to reflect differences in risk across loans as opposed to ongoing fees.

Figure 1 shows average estimated single-family guarantee fee levels from 2009 through 2014.[10] Upfront fees are converted to an ongoing basis for ease of comparison.[11] The guarantee fees are currently two-and-a-half times their previous level, up from an average of 22 basis points in 2009 to 58 basis points in 2014. The upward trend in guarantee fees over time reflects implementation of FHFA's prior policy to gradually increase fees, changes initiated by the Enterprises, and changes in the mix of loans purchased and guaranteed by the Enterprises that are subject to different upfront fees based on risk characteristics. The two FHFA-directed increases in 2012 are the primary drivers for the sizeable increase from 2011 through 2014. (Since Figure 1 shows only calendar year averages, and given that the increases are implemented gradually over many months, there is a lag from the time a guarantee fee change is implemented to the time it is fully reflected in the data.)

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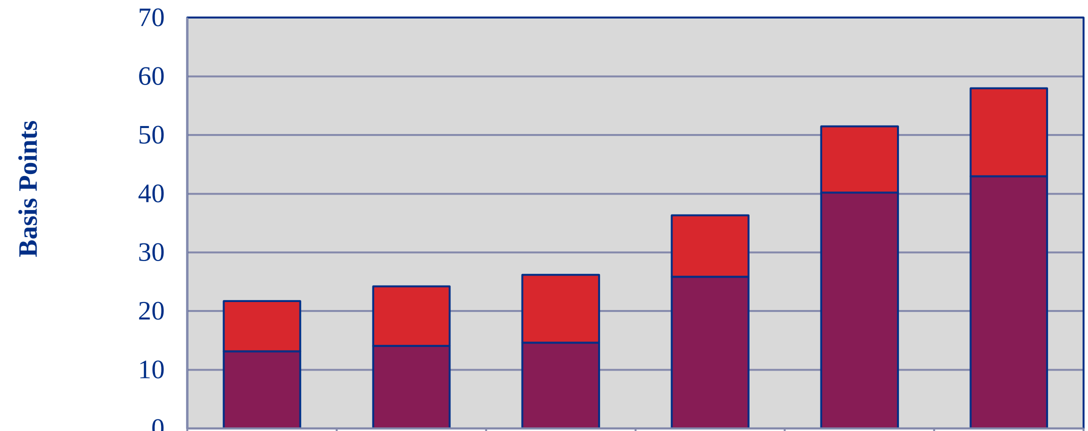
[10] All data presented in this report is based on data submitted to FHFA by Fannie Mae and Freddie Mac.

[11] Upfront fees are converted to annual fees by dividing the upfront fee by the average (or expected) life of the loan. For example, a 25 basis point upfront fee annualizes to a 5 basis point ongoing fee given an expected life of the loan of 5 years.

Figure 1: Average Estimated Single-Family Guarantee Fees, 2009-2014



	2009	2010	2011	2012	2013	2014
Upfront Fee	9	10	12	11	11	15
Ongoing Fee	13	14	15	26	40	43
Total:	22	24	26	36	51	58

Note: Components may not sum to total due to rounding. All fees for deliveries starting April, 2012 include 10 basis points passed to Department of the Treasury for TCCA.

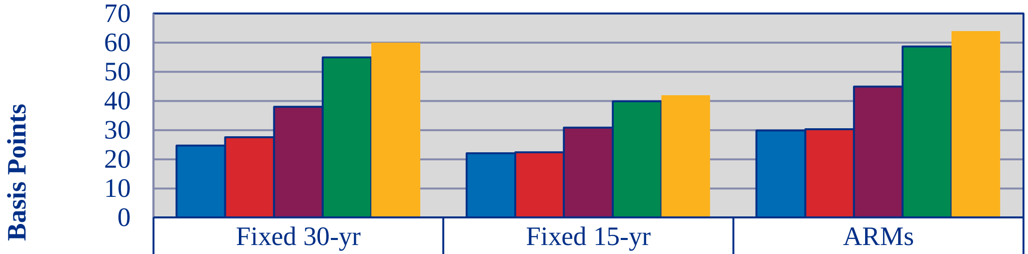
II. Changes in Guarantee Fees by Product and Lender Types

The second of the two 2012 guarantee fees increases implemented risk-based pricing across certain borrower/loan characteristics in two distinct ways. To evaluate the implementation of these policies, we present gap data. A gap is the difference between the actual fee charged on a loan and the estimated (future) cost of providing the credit guarantee.[12] It is important to note that gaps are based on models that are revised over time. Thus, caution should be exercised when using gaps to identify time trends. Comparing gaps across various types of loans at the same point in time, however, is not as problematic. Finally, it should be noted that differences in gaps between the Enterprises will exist as a result of different modeling assumptions.

[12] A negative gap does not necessarily mean that an Enterprise expects to incur a loss on a set of loans, but rather that it expects, according to its model, to earn less than its overall targeted return on capital (assuming the Enterprises held that amount of capital) on that set of loans.

Figure 2 shows that in 2013, fixed-rate 30-year guarantee fees increased by 17 basis points, whereas fixed-rate 15-year fees increased by 9 basis points. Thirty year guarantee fees increased by 5 basis points in 2014, whereas 15-year fees increased by only 2 basis points. This more modest change occurred in 2014 because prior guarantee fee increases were phased in throughout 2013.

Figure 2: Estimated Single-Family Guarantee Fee by Product Type 2010-2014



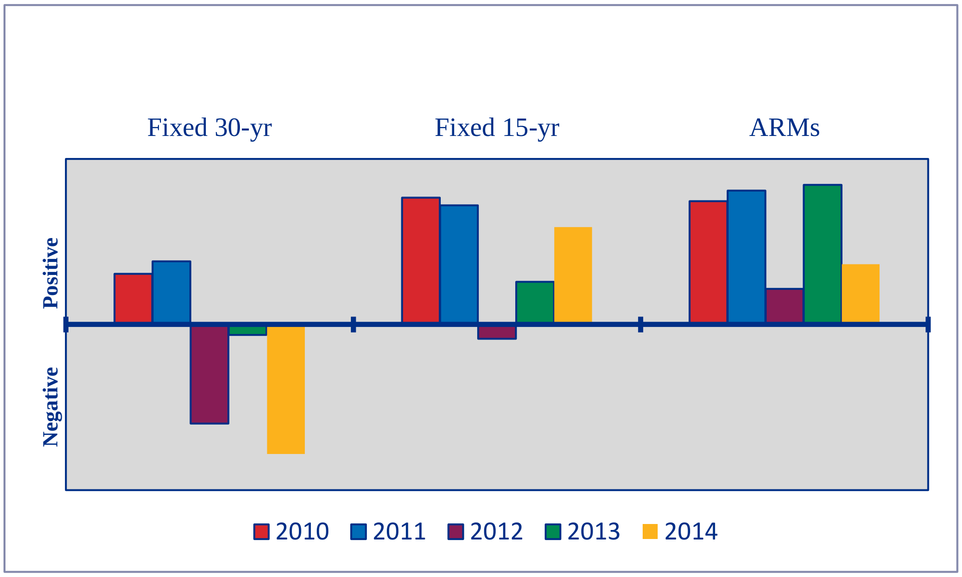
	Fixed 30-yr	Fixed 15-yr	ARMs
2010	25	22	30
2011	28	22	30
2012	38	31	45
2013	55	40	59
2014	60	42	64

Note: All fees for deliveries starting April, 2012 include 10 basis points passed to Department of the Treasury for TCCA.

Gap data depicted in Figure 3 indicate that from 2010 through 2012, guaranteeing fixed-rate 15-year loans was expected to be more profitable (or less costly) than guaranteeing fixed-rate 30-year loans. The guarantee fee change implemented in December 2012 sought to remove this difference by raising guarantee fees on 30-years loans more than on 15-year loans. Due to higher fee increases on 30-year loans in 2013, profitability differences between 15- and 30-year loans diminished in 2013, although guaranteeing 15-year loans remained slightly more profitable for the Enterprises than guaranteeing 30-year loans.

Given the direction and modest level of fee changes between 2013 and 2014, gaps should have narrowed in 2014 between 30-year loans and 15-year loans. However, as shown in Figure 3,[13] this was not the case and instead these gaps widened significantly. Nonetheless, for both Enterprises the return on capital is positive for each of these product types.

Figure 3: Estimated Single-Family Guarantee Fee Gap by Product Type 2009-2014



Two sets of factors contribute to the movement in gaps over time and ultimately account for why the 30-year loan gap became more negative while at the same time the 15-year loan gap became more positive in 2014.

[13] The y-axis scale in Figure 2 is omitted so as not to disclose proprietary data.

First, as discussed previously, changes to the credit model and capital-related assumptions can affect the gaps over time. Typically, both Enterprises implement such changes on an annual basis. In 2014, both Enterprises imposed a variety of model and capital-related assumption changes that contributed to increasing the estimated credit risk of 30-year loans relative to 15-year loans. These model changes included, at a minimum, revised assumptions concerning the level of imposed macroeconomic stress, and revised capital-related assumptions concerning the cost of capital (the amount of capital times the return on capital), inclusion of model risk, going concern risk, and operational risk. The widening guarantee fee gap between fixed-30-year loans and fixed 15-year loans is in large part driven by the change in capital-related assumptions by one or both Enterprises.

Second, as shown in Table 2, the composition of Enterprise loans in 2014 was significantly different from 2013 for both fixed 30-year and fixed 15-year mortgages. Specifically, the percentage of purchase-only loans increased significantly with a corresponding decrease in the percentage of refinance loans. It should be noted that, holding all risk attributes constant, historical performance suggests that purchase loans are lower risk than refinance loans. However, we also observe that the proportion of loans in the highest credit score category declined in 2014, combined with a significant shift toward higher LTV ratios. Such a movement is expected as the proportion of rate-term refinance loans declines and purchase loans increases. In 2014, and for both fixed 30 and 15-year loans, the Enterprises experienced about a 10 percent decline in the proportion of loans in the lowest LTV category. For the fixed 30-year loans, most of the shift in LTV was to the two highest LTV categories. For the fixed 15-year loans, the shift in LTV was primarily to the next lowest LTV category. In essence, these movements in average LTV suggest that credit quality was more negatively affected for the fixed 30-year loans than for the fixed 15-year loans. As a consequence of the unequal change in loan quality, and because guarantee fees are not fully risk-based priced, the gaps for fixed 30-year loans shifted more negative relative to gaps for the fixed 15-year loans.

Table 2: Product Type and Risk Class Profile, Study Population, 2011-2014

(share of total unpaid principal balance)

	2011	2012	2013	2014	Change
	Fixed Rate 30-year mortgages				
Loan Purpose					
Purchase	36%	33%	45%	66%	21%
Regular Refinance	47%	52%	41%	20%	-21%
Cash-Out Refinance	16%	15%	15%	14%	0%
Credit Score					
>=720	84%	86%	81%	74%	-8%
660-719	14%	12%	16%	22%	6%
<660	2%	1%	2%	4%	2%
Loan-to-Value Ratio					
0-70 Percent	41%	40%	33%	22%	-11%
70.1-80 Percent	47%	44%	44%	44%	1%
80.1 - 90 Percent	7%	8%	10%	13%	3%
>90 Percent	6%	8%	13%	20%	7%
	Fixed Rate 15-year mortgages				
Loan Purpose					
Purchase	8%	8%	12%	28%	16%
Regular Refinance	65%	68%	62%	44%	-18%
Cash-Out Refinance	26%	24%	25%	28%	2%
Credit Score					
>=720	86%	87%	83%	76%	-7%
660-719	12%	11%	14%	19%	5%
<660	2%	2%	2%	5%	2%
Loan-to-Value Ratio					
0-70 Percent	67%	63%	61%	51%	-10%
70.1-80 Percent	31%	32%	33%	40%	7%
80.1 - 90 Percent	2%	3%	4%	6%	2%
>90 Percent	1%	1%	2%	3%	1%

With the December 2012 guarantee fee increase, FHFA also sought to reduce pricing differences between smaller lenders and larger lenders. Lenders deliver loans to the Enterprises in two primary ways. First, a lender may deliver a pool of loans to an Enterprise and receive a guaranteed MBS containing those loans in return. This method is referred to as an MBS swap. Many lenders subsequently sell the MBS they receive this way in the secondary market. In the second method, referred to as a cash window execution, the lender sells a pool of loans directly to the Enterprise for cash. Typically, the Enterprise will then securitize the loans in a guaranteed MBS and sell this security in the market. Because of the smaller dollar size of their pools and operational considerations, smaller lenders tend to use the cash window whereas larger lenders tend to engage in MBS swaps.

The December 2012 increase raised ongoing guarantee fees for swap executions by more than those for cash window executions. This resulted, on average, in fees paid by small lenders increasing less than those paid by larger lenders. As the gap analysis in Figure 4 shows, in 2013 and 2014 the Enterprises expected to profit slightly less on small lender loans than on large lender loans, as opposed to 2010, 2011, and 2012 for which the opposite was true. Or equivalently, on a risk-adjusted basis, small lenders paid slightly less to guarantee a loan in 2013 and 2014 than did large lenders, whereas in 2010, 2011 and 2012, small lenders paid slightly more to guarantee a loan than large lenders.

In Figure 4 and Table 2, lenders are categorized by acquisition-volume of loans sold to the Enterprises. The five lenders with the largest dollar volume sold are categorized as extra-large (XL); the next 10 lenders are categorized as large (L); the next 10 lenders are categorized as medium (M); the next 75 lenders are categorized as small (S); and all lenders not ranked in the top 100 are categorized as extra-small (XS). Table 2 shows that the percentage of loans purchased by the Enterprises from extra-small lenders grew substantially in 2014, from 19 percent to 28 percent of overall business.

Figure 4: Estimated Single-Family Guarantee Fee Gap, by Acquisition-Volume Group 2010-2014

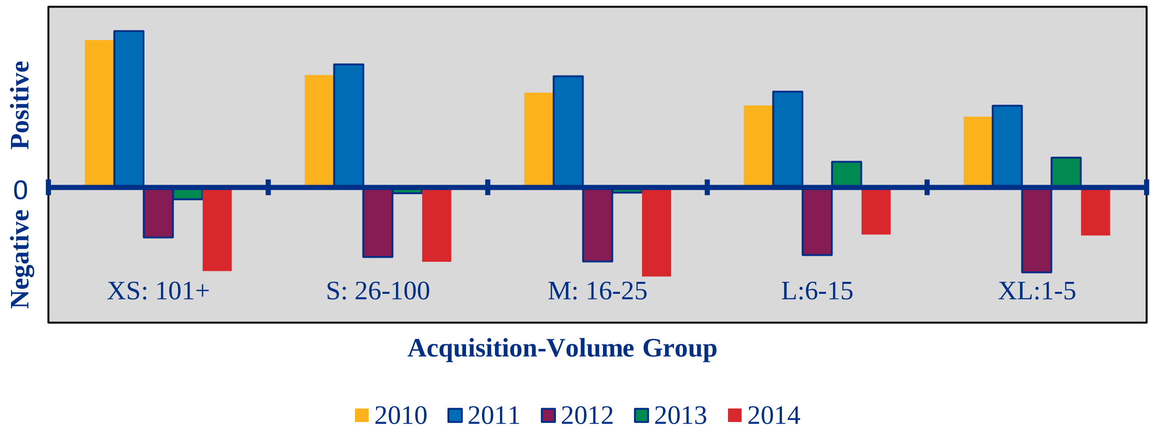


**Table 3: Single-Family Acquisitions by Acquisition-Volume Group 2010-2014[(1)]
(share of total unpaid principal balance)**

	XL 1-5	L 6-15	M 16-25	S 26-100	XS 101+
2010	60%	18%	5%	8%	8%
2011	58%	22%	4%	8%	8%
2012	49%	19%	6%	10%	16%
2013	49%	16%	6%	10%	19%
2014	39%	15%	7%	11%	28%
Change from 2013	-10%	-1%	1%	1%	9%

(1) Based on a study population loans eligible under the Enterprises' standard underwriting guidelines (standard loans) for 2010-2014.

The appendix that follows this section presents additional tables and graphs that further disaggregate the fees across various dimensions.

APPENDIX: DETAILED PRESENTATION AND ANALYSIS OF 2014 FEE CHANGES

Under data collection procedures established by FHFA in accordance with section 1601 of HERA, the Enterprises submit loan group data on a regular basis. Quarterly data were submitted for 2007 through 2010 and monthly data for 2011 through 2014. For each lender, the Enterprises provide guarantee fee data by loan type. Within each loan type, the data are segmented into categories based on LTV ratios and borrower credit scores.

This section uses data on single-family mortgages acquired in 2009 through 2014 to present the average guarantee fee charged by the Enterprises as well as how the fees charged varied by product type, loan purpose, risk classification, and volume of mortgages delivered by lenders. Prior year data presented in this report may not be consistent with data for the same year in previous FHFA reports due to lender updates, model updates, and other revisions of data by the Enterprises. The analysis uses economic data relevant to the concepts summarized above rather than accounting data prepared in conformance with GAAP. To avoid public disclosure of protected information, the analysis presents Enterprise data on a combined basis and discloses certain information in a more limited manner.

The majority of single-family mortgages acquired by Fannie Mae and Freddie Mac in 2012 through 2014 were eligible under the Enterprises' standard underwriting guidelines and are referred to in this report as "standard loans." In addition to those mortgages, the Enterprises acquired a significant volume of loans under the Home Affordable Refinance Program (HARP) as well as a small volume of other mortgages eligible under flexible refinance programs (Refi Plus for Fannie Mae and Relief Refi for Freddie Mac) that have the same objective as HARP and have similar underwriting standards. This appendix focuses on guarantee fees charged on standard loans.

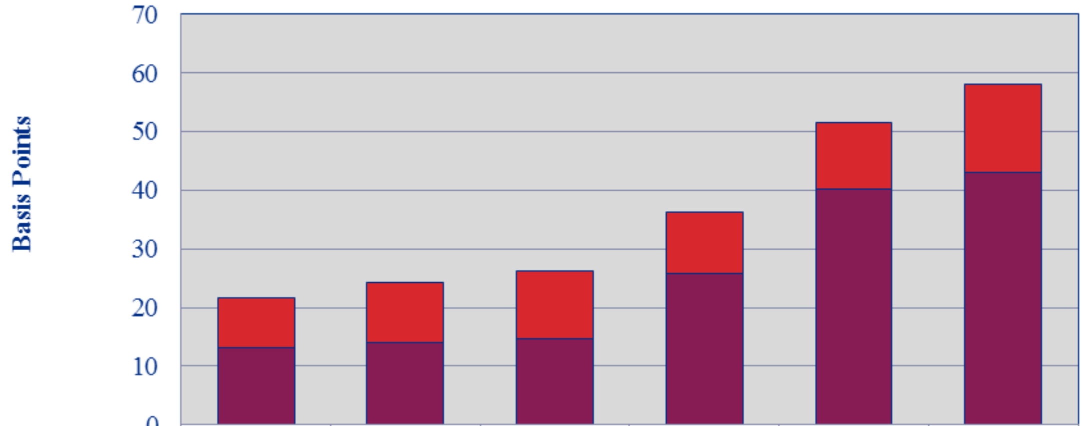
The remainder of this appendix presents tables and graphs derived from the data described above.

Table A-1: Study Population 2010-2014

	Dollars in Millions	% of Total	Number of Loans	% of Total
		2010		
Standard	$847,824	88%	3,963,913	89%
HARP	$101,436	11%	429,096	10%
Flexible Refinance	$11,668	1%	55,662	1%
Total	$960,928	100%	4,448,671	100%
		2011		
Standard	$758,555	88%	3,604,000	88%
HARP	$94,787	11%	435,276	11%
Flexible Refinance	$7,808	1%	42,110	1%
Total	$861,150	100%	4,081,386	100%
		2012		
Standard	$1,013,598	81%	4,696,509	80%
HARP	$216,140	17%	1,070,626	18%
Flexible Refinance	$16,231	1%	93,225	2%
Total	$1,245,968	100%	5,860,360	100%
		2013		
Standard	$942,460	83%	4,451,699	81%
HARP	$161,312	14%	887,178	16%
Flexible Refinance	$28,442	3%	175,905	3%
Total	$1,132,214	100%	5,514,782	100%
		2014		
Standard	$563,825	92%	2,666,787	90%
HARP	$35,221	6%	209,359	7%
Flexible Refinance	$14,736	2%	91,619	3%
Total	$613,782	100%	2,967,765	100%

- HARP mortgages and flexible refinance mortgages (Refi Plus for Fannie Mae and Relief Refi for Freddie Mac) decreased in both absolute dollar terms and by percentage of business from 2013 to 2014.

Figure A-1: Average Estimated Single-Family Guarantee Fees, 2009-2014



	2009	2010	2011	2012	2013	2014
Upfront Fee	9	10	12	11	11	15
Ongoing Fee	13	14	15	26	40	43
Total:	22	24	26	36	51	58

Note: Components may not sum to total due to rounding.

- The average total guarantee fee for standard loans increased from 51 basis points in 2013 to 58 basis points in 2014; this increase was due to changes in both upfront fees and ongoing fees.

- The average total guarantee fee for standard loans increased from 22 basis points in 2009 to 58 basis points in 2014; this change was primarily due to increases in ongoing fees.

Table A-2: Single-Family Acquisitions by Product Type 2010-2014
(share of total unpaid principal balance)

	Fixed 30-yr	Fixed 15-yr	All ARM	Fixed Other[14]
2010	64%	24%	6%	6%
2011	58%	27%	8%	7%
2012	63%	26%	4%	7%
2013	68%	23%	3%	6%
2014	74%	16%	5%	5%
Change from 2013	6%	-7%	2%	-1%

- In 2014 consumers continued to predominantly select the 30-year fixed-rate option when choosing among mortgage products.
- Fixed-rate 30-year mortgages increased in unpaid principal balance (UPB) share by 6 percentage points from 2013 to 2014, while fixed-rate 15-year mortgages decreased by 7 percentage points, accelerating a trend ongoing for several years.

[14] Fixed Other includes all fixed-rate mortgages other than 15- and 30-year.

Table A-3: Product Type and Risk Class Profile, Study Population, 2011-2014

(share of unpaid principal balance)

	2011	2012	2013	2014	Change
	Fixed Rate 30-year mortgages				
Loan Purpose					
Purchase	36%	33%	45%	66%	21%
Regular Refinance	47%	52%	41%	20%	-21%
Cash-Out Refinance	16%	15%	15%	14%	0%
Credit Score					
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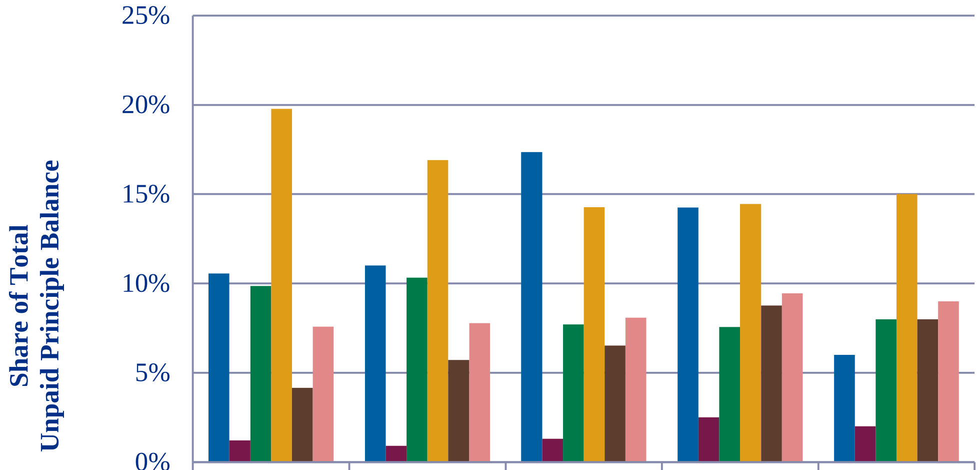
80.1 - 90 Percent	2%	3%	4%	6%	2%
>90 Percent	1%	1%	2%	3%	1%

- Purchase loans increased in UPB share by 22 percentage points, while regular refinance loans decreased by 22 percentage points.

- The average credit quality of loans deteriorated in 2014. Loans made with credit scores greater than 720 decreased in UPB share by 7 percentage points, and the percentage of loans with LTVs less than 70 decreased by 13 percentage points in UPB share.

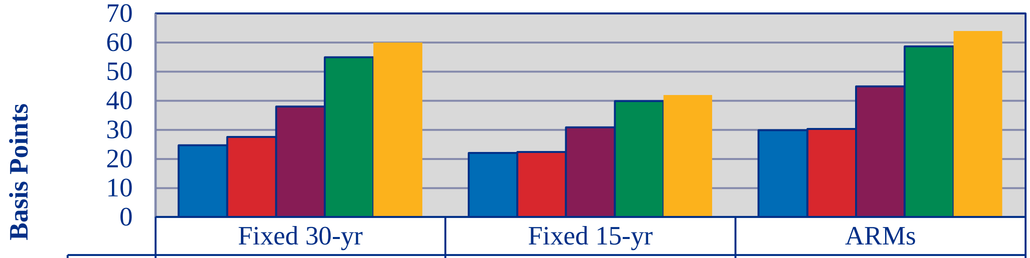
Figure A-2: Risk Related Loan Categories 2010-2014:
(Includes Standard, HARP, and Flexible Refinance Loans)



	2010	2011	2012	2013	2014
HARP Refinances	11%	11%	17%	14%	6%
Flexible Refinances	1%	1%	1%	3%	2%
Jumbo Conforming Loans	10%	10%	8%	8%	8%
Refinances with Cash Out	20%	17%	14%	14%	15%
Investor Loans	4%	6%	7%	9%	8%
Condominiums and Cooperatives	8%	8%	8%	9%	9%

- HARP refinances decreased from 14 percent of UPB share in 2013 to 6 percent of UPB share in 2014 while all other categories remained relatively unchanged between 2013 and 2014.

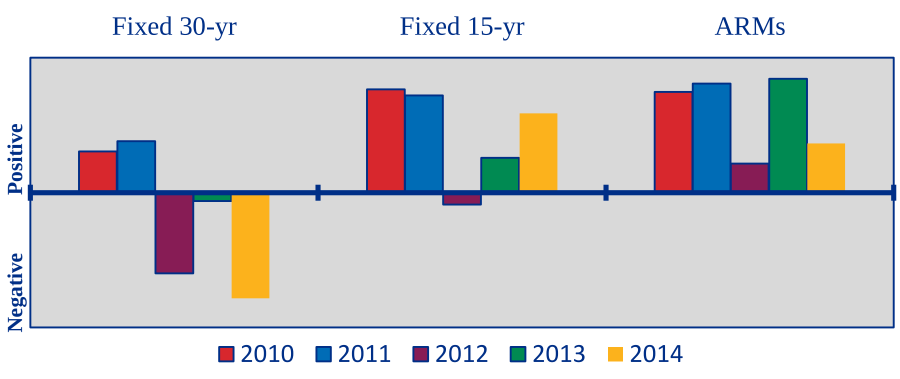
Figure A-3: Estimated Single-Family Guarantee Fee by Product Type 2010-2014



	Fixed 30-yr	Fixed 15-yr	ARMs
2010	25	22	30
2011	28	22	30
2012	38	31	45
2013	55	40	59
2014	60	42	64

- From 2013 to 2014, the average guarantee fee increased by 5 basis points for 30-year fixed-rate mortgages, 2 basis points for 15-year fixed-rate mortgages, and 5 basis points for ARMs. Both the move to greater purchase loans with higher LTVs and slightly lower credit scores between 2013 and 2014, and the fact that guarantee fee increases were not fully phased in until mid-2013 account for these increases in average fees.

Figure A-4: Estimated Single-Family Guarantee Fee Gap by Product Type 2010-2014



- The difference in profitability of 15-year loans versus 30-year loans widened again in 2014. Changes that occurred in 2014 in average credit quality mix, credit models, and capital-related assumptions contributed to the widening gap between 15-year loans and 30-year loans.

Table A-4: Single-Family Acquisitions by Loan Purpose 2010-2014[1]
(share of total unpaid principal balance)

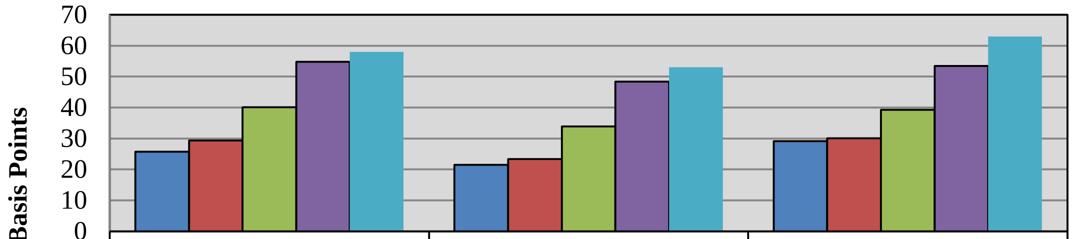
	Purchase	Rate-Term Refinance	Cash-Out Refinance
2010	25%	53%	22%
2011	26%	55%	19%
2012	24%	58%	18%
2013	35%	48%	17%
2014	57%	26%	17%
Change from 2013	22%	-22%	0%

(1) Based on standard loans for 2010-2014.

- Acquisitions of purchase loans increased dramatically relative to acquisitions of refinance loans, from 35 percent of UPB share in 2013 to 57 percent in 2014.

- The sharp decrease in the dollar volume of rate-term refinances was a driving factor in the average increase in guarantee fees. Rate-term refinances tend to have lower loan-to value ratios and thus lower guarantee fees than home purchase loans.

Figure A-5: Estimated Single-Family Guarantee Fee by Loan Purpose 2010-2014

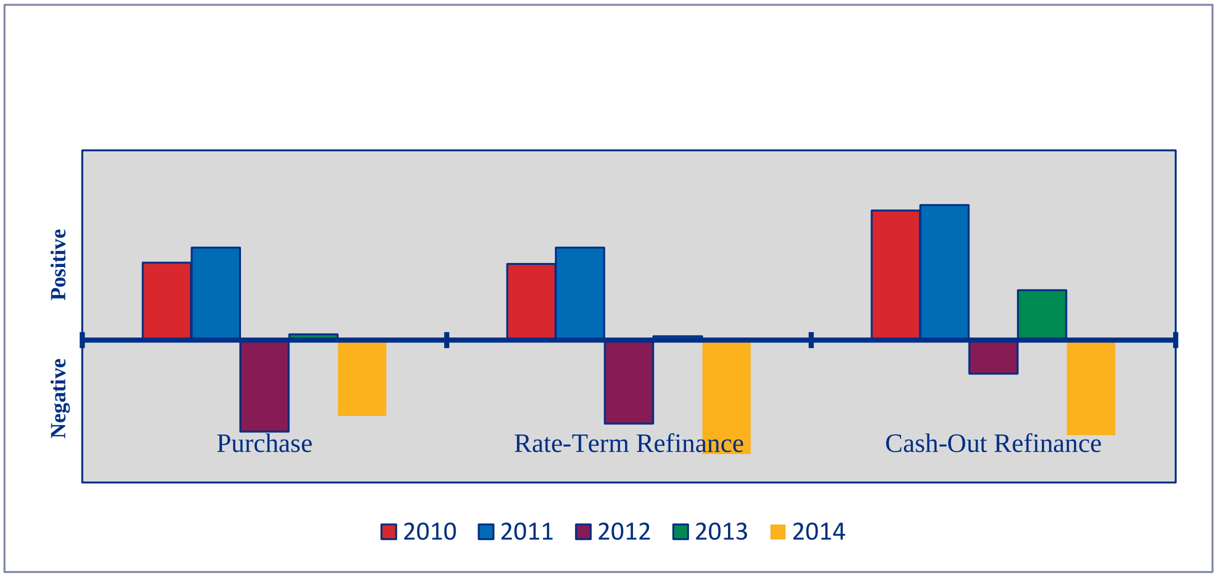


	Purchase	Rate-Term Refinance	Cash-Out Refinance
2010	26	21	29
2011	29	23	30
2012	40	34	39
2013	55	48	53
2014	58	53	63

- From 2013 to 2014, the average guarantee fee increased by 3 basis points for purchase loans, 5 basis points for rate-term refinance loans, and 10 basis points for cash-out refinance loans.

- About half of the 10 basis point increase on cash-out refinances from 2013 to 2014 was due to the phasing in of the December 2012 increase, with the other half due to higher LTV ratios and lower credit scores in 2014 as compared to 2013.

Figure A-6: Estimated Single-Family Guarantee Fee Gap by Loan Purpose 2010-2014



- Gaps for 2014 purchase, rate-term refinance and cash-out refinance loans became negative in 2014, primarily as a result of the changes, mentioned earlier, to credit models, and an increase in LTVs and decrease in credit scores of the loans in 2014.

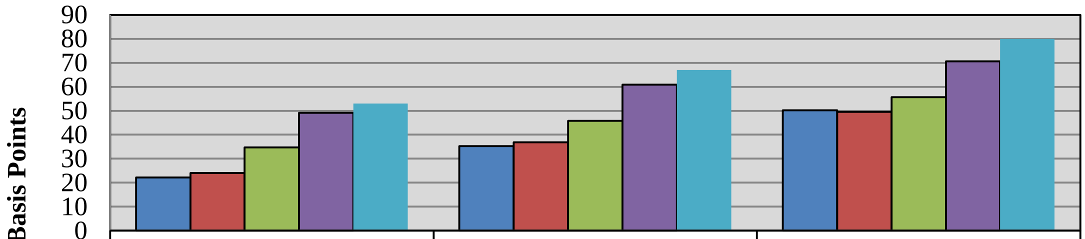
Table A-5: Single-Family Acquisitions by Credit Score 2010-2014[1]
(share of total unpaid principal balance)

	>=720	660 - 719	<660
2010	86%	13%	2%
2011	85%	13%	2%
2012	87%	12%	1%
2013	82%	16%	2%
2014	75%	21%	4%
2013 to 2014 Change	-7%	5%	2%

[1] Based on standard loans for 2010-2014

- The 2014 decline in acquisitions of loans with credit scores greater than or equal to 720 is in part due to the shift from refinance loans to purchase loans.

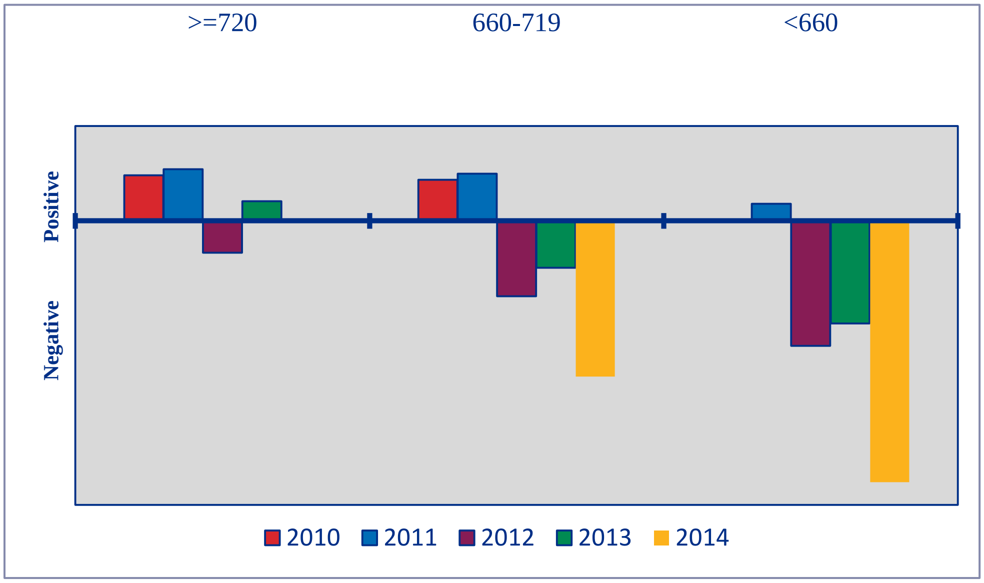
Figure A-7: Estimated Single-Family Guarantee Fee by Credit Score 2010-2014



	>=720	660-719	<660
2010	22	35	50
2011	24	37	50
2012	35	46	56
2013	49	61	71
2014	53	67	80

- From 2013 to 2014, guarantee fees for loans with credit scores greater than or equal to 720 increased by 4 basis points, for credit scores between 660 and 719 by 6 basis points, and for credit scores less than 660 by 9 basis points.

Figure A-8: Estimated Single-Family Guarantee Fee Gap by Credit Score 2010-2014



- In 2014, the Enterprises expected to slightly exceed their target rate of return on loans with greater than or equal to 720 credit scores and expected to earn less than their target rate of return on loans with less than 720 credit scores. Yet, the return on capital for all categories remains positive. Updates to credit models and capital-related assumptions are largely responsible for this outcome.

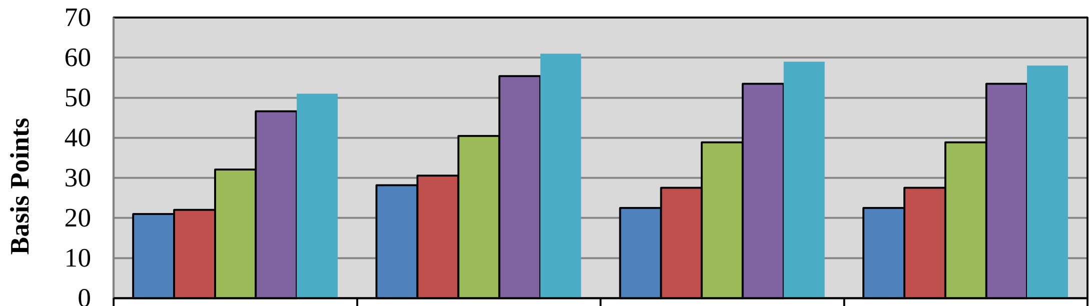
Table A-6: Single-Family Acquisitions by Loan-to-Value Ratio 2010-2014[1]
(share of total unpaid principal balance)

	0 - 70	70.1 - 80	80.1 - 90	>90
2010	51%	43%	4%	2%
2011	50%	41%	5%	4%
2012	48%	40%	6%	6%
2013	42%	41%	8%	9%
2014	29%	43%	12%	16%
2013 to 2014 Change	-13%	2%	4%	7%

(1) Based on standard loans for 2010-2014

- The UPB share of loans with 0-70 LTV ratios declined by 13 percent in 2014, primarily due to the shift away from refinance loans and toward purchase loans.

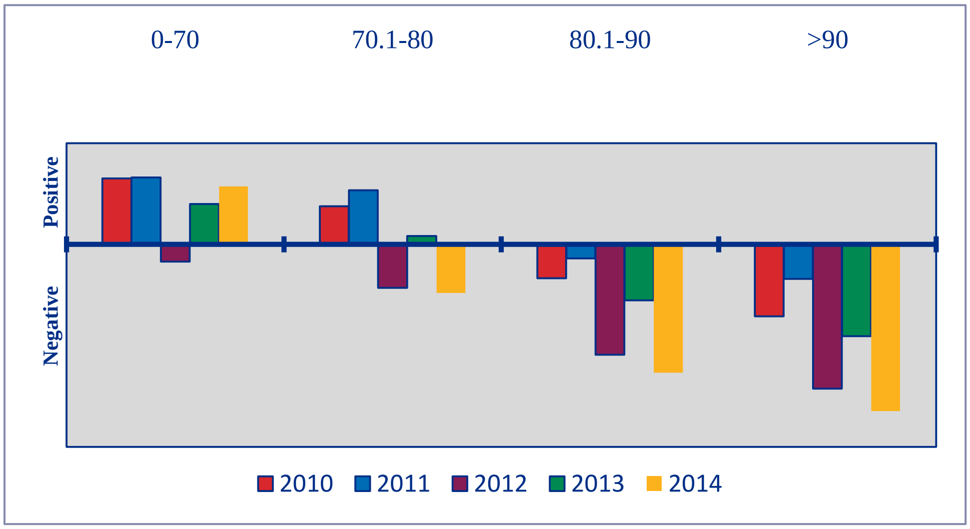
Figure A-9: Estimated Single-Family Guarantee Fee by Loan-to-Value Ratio 2010-2014



	0-70	70.1-80	80.1-90	>90
2010	21	28	23	23
2011	22	31	28	28
2012	32	40	39	39
2013	47	55	53	53
2014	51	61	59	58

- Guarantee fees increased slightly, between four and six basis points, for all LTV ranges in 2014.

Figure A-10: Estimated Single-Family Guarantee Fee Gap by Loan-to-Value Ratio 2010-2014



- In 2014, the Enterprises expected to exceed their target rate of return on loans with LTVs less than 70 and less than their target rate of return on loans with LTVs greater than 70. Note, however, that for both Enterprises the return on capital is positive for each of the LTV classifications in the Figure.

Table A-7: Number of Lenders by Enterprise 2010-2014

	2010	2011	2012	2013	2014
Fannie Mae	1,052	1,045	1,124	1,174	1,210
Freddie Mac	1,035	1,000	1,034	1,066	1,087

- In 2014, both Fannie Mae and Freddie Mac saw increases in their total number of lenders.

Table A-8: Single-Family Acquisitions by Acquisition-Volume Group 2010-2014[1]
(share of total unpaid principal balance)

	XL 1-5	L 6-15	M 16-25	S 26-100	XS 101+
2010	60%	18%	5%	8%	8%
2011	58%	22%	4%	8%	8%
2012	49%	19%	6%	10%	16%
2013	49%	16%	6%	10%	19%
2014	39%	15%	7%	11%	28%
Change from 2013	-10%	-1%	1%	1%	9%

(1) Based on study population for standard loans for 2010-2014.

- The percent of loans sold to the Enterprises by XL lenders decreased from 60 percent in 2010 to 39 percent in 2014.
- The percent of loans sold to the Enterprises by XS lenders increased from 8 percent in 2010 to 28 percent in 2014.

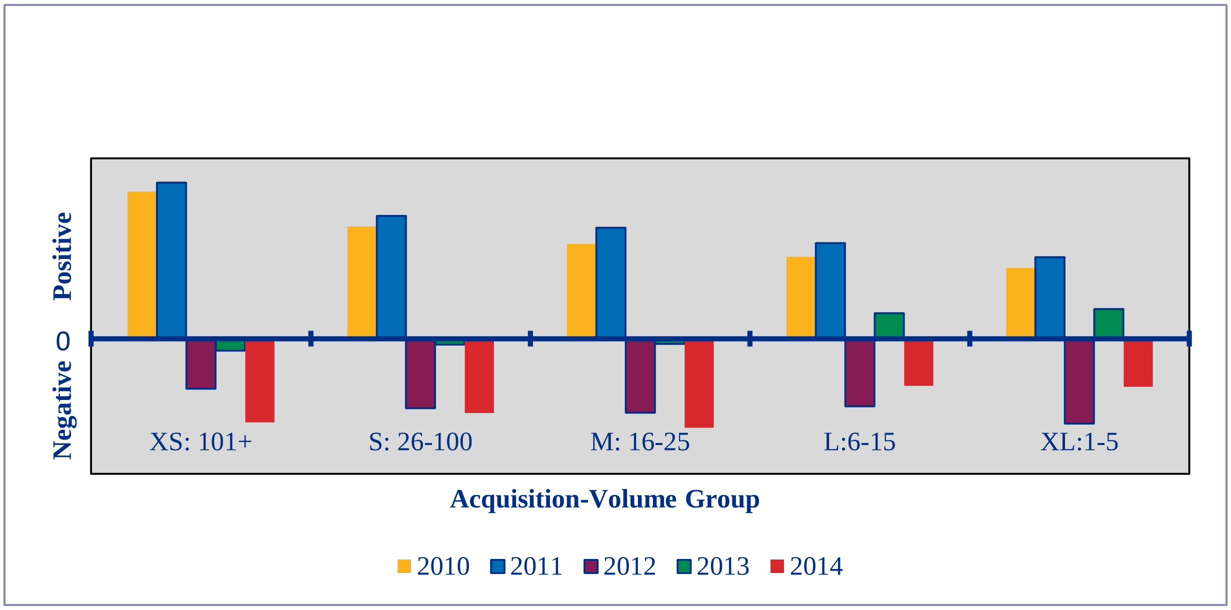
Table A-9: Estimated Single-Family Guarantee Fees by Acquisition-Volume Group 2011-2014

Acquisition Volume Group			Guarantee fees Ongoing	Upfront	Total
2011	XL	1 – 5	14	11	25
	L	6 – 15	14	12	26
	M	16 – 25	16	12	27
	S	26 – 100	17	12	29
	XS	100+	21	12	33
	XL – XS Difference		-7	-1	-8
2012	XL	1 – 5	24	11	34
	L	6 – 15	25	10	35
	M	16 – 25	26	11	37
	S	26 – 100	27	10	38
	XS	100+	30	11	40
	XL – XS Difference		-6	0	-6
2013	XL	1 – 5	40	10	51
	L	6 – 15	39	12	51
	M	16 – 25	41	11	52
	S	26 – 100	40	11	51
	XS	100+	40	12	53
	XL – XS Difference		0	-2	-2
2014	XL	1 – 5	42	14	56
	L	6 – 15	43	15	58
	M	16 – 25	43	14	57
	S	26 – 100	43	14	56
	XS	100+	43	15	58
	XL – XS Difference		-1	-1	-2

Source: Federal Housing Finance Agency based on data from Fannie Mae and Freddie Mac

- Pricing differences between XS lenders and XL lenders remain almost negligible, where XS lenders face higher fees than XL lenders of between one and two basis points.

Figure A-11: Estimated Single-Family Guarantee Fee Gap by Acquisition-Volume Group 2010-2014



- Small volume lenders had larger negative gaps than high volume lenders. Therefore, adjusted for risk, small-volume lenders paid lower fees in 2014 than did high-volume lenders.