CREDIT RISK TRANSFER PROGRESS REPORT

Fourth Quarter 2018

2018 Credit Risk Transfer Highlights

Single-Family

For 2018, FHFA established a Scorecard objective for Fannie Mae and Freddie Mac (the Enterprises) to transfer credit risk on at least 90 percent of the unpaid principal balance (UPB) of newly acquired single-family mortgages targeted for credit risk transfer (CRT). Single-family targeted loan categories are non-HARP, fixed-rate mortgages with LTVs greater than 60 percent and original term greater than 20 years. Both Enterprises achieved this objective in 2018.

In the second quarter of 2018, Freddie Mac introduced STACR Trust transactions under which the securities are issued by a third-party bankruptcy-remote trust. The STACR Trust structure reduces the accounting timing mismatch associated with Freddie Mac's prior direct debt issuance transactions and limits investor exposure to Freddie Mac counterparty risk. In 2018, Freddie Mac executed five STACR Trust transactions with total UPB of $168.2 billion and risk in force (RIF) of $5.1B. Additionally, in September 2018, Freddie Mac modified its STACR Trust structure to transfer more of its first loss position (retaining only the first 10 basis points) and extended the final legal maturity of the securities from 12.5 years to 30 years.

In November 2018, Fannie Mae completed its first CAS offering under which the securities are issued by a third-party bankruptcy-remote trust that qualifies as a Real Estate Mortgage Investment Conduit (REMIC). The CAS REMIC structure eliminates the accounting mismatch associated with Fannie Mae's prior direct debt issuance transactions and limits investor exposure to Fannie Mae counterparty risk. Additionally, by qualifying as a REMIC, this structure should be more attractive to domestic Real Estate Investment Trusts (REITs) and foreign investors. The reference pool for Fannie Mae's inaugural CAS REMIC transaction consisted of total UPB of $24.3 billion and RIF of $922 million.

Multifamily

For 2018, FHFA established a Scorecard objective for the Enterprises to transfer a meaningful portion of the credit risk on newly acquired mortgages, subject to FHFA target adjustments as may be necessary to reflect market conditions and economic considerations. Both Enterprises achieved this objective in 2018.

Fannie Mae transferred a portion of credit risk on 99 percent, or approximately $62 billion, of its targeted multifamily new acquisitions. Through the end of 2018, Fannie Mae transferred 42 percent of the credit risk on acquisitions covered by credit risk transfer during the 12 months ended June 30, 2018. Freddie Mac transferred a portion of credit risk on 95 percent, or $69 billion, of its targeted multifamily new acquisitions. Through the end of 2018, Freddie Mac transferred 88 percent of the credit risk on 2017 acquisitions covered by credit risk transfer.

In 2018, Fannie Mae continued to grow its multifamily Credit Insurance Risk Transfer (CIRT) program, in which Fannie Mae transfers a portion of the risk it retains from Delegated Underwriting and Servicing (DUS) transactions to a panel of reinsurers. During the year, Fannie Mae executed two multifamily CIRT transactions with total UPB of $22 billion and RIF of $440 million.

In the fourth quarter of 2018, Freddie Mac also executed its first multifamily credit risk transfer transaction to reinsurers, the Multifamily Credit Insurance Pool (MCIP) offering. Under the MCIP structure, which is similar to the single-family ACIS product, Freddie Mac purchases insurance policies that provide first loss credit protection. In its inaugural MCIP transaction, Freddie Mac purchased credit risk insurance for the first 5 percent of credit losses on a reference pool with total UPB of $915 million and RIF of $43 million.

Overview of the Single-Family CRT Program

In 2012 the Federal Housing Finance Agency (FHFA) established guidelines governing single-family credit risk sharing by Fannie Mae and Freddie Mac with the intent of reducing their overall risk and, therefore, the risk they pose to taxpayers while they are in conservatorship. Fannie Mae and Freddie Mac started to implement their credit risk transfer (CRT) programs in 2013 and now transfer to private investors a substantial amount of the credit risk of new acquisitions the Enterprises assume for loans in targeted loan categories. Targeted loan categories are single-family fixed-rate mortgages with loan-to-value ratios (LTVs) greater than 60 percent and original term greater than 20 years. (HARP/Freddie Mac Relief Refinance/Fannie Mae Refi Plus loans are excluded and other minimal exclusions apply.)

The single-family CRT programs include credit risk transfers using securities issuances, insurance/reinsurance transactions, senior-subordinate securitizations, and a variety of lender risk-sharing transactions. As outlined in the annual Conservatorship Scorecard, the Enterprises continue to innovate and experiment with different structures and attempt to expand the scope of their CRT programs as part of their efforts to further reduce credit risk where economically sensible.

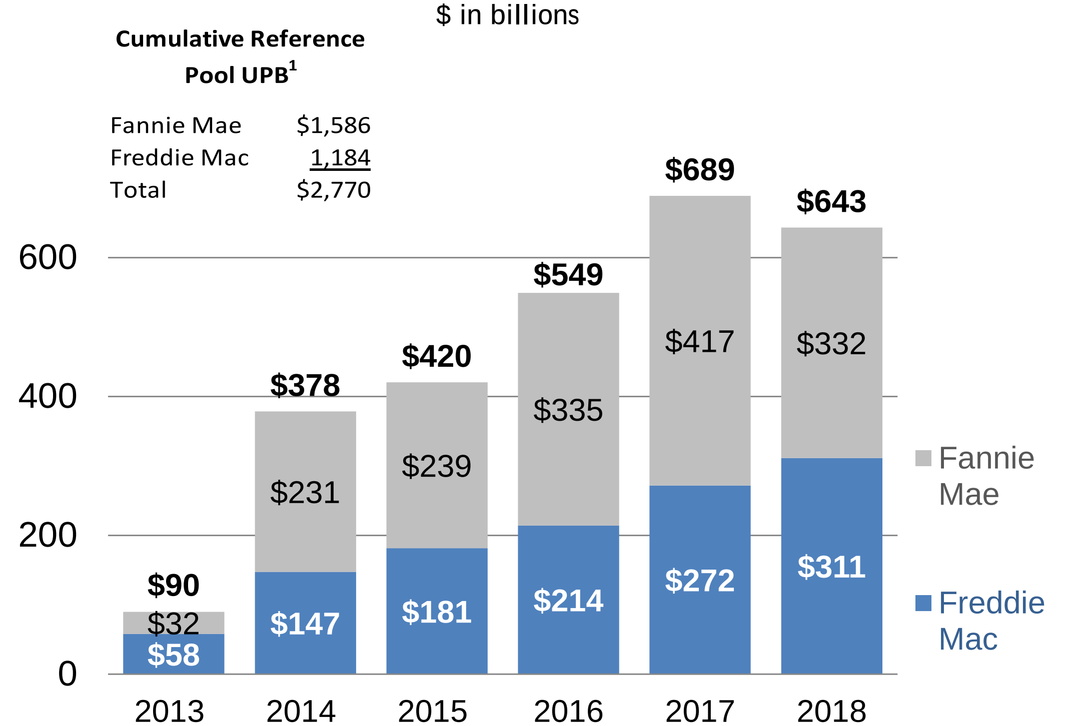
For a description of Single-Family Credit Risk Transfer Structures, see Appendix A.

From the beginning of the Enterprises' Single-Family CRT programs in 2013 through the end of 2018, Fannie Mae and Freddie Mac have transferred a portion of credit risk on $2.8 trillion of unpaid principal balance (UPB), with a combined Risk in Force (RIF) of about $91 billion, or 3.3 percent of UPB. An additional $1.2 trillion of UPB and $312 billion of RIF has been transferred to primary mortgage insurers from 2013 through the end of 2018, as described on page 16. Through CRT and mortgage insurance, the majority of the underlying mortgage credit risk on mortgages targeted for CRT has been transferred to private investors.

Enterprise Single-Family Mortgage CRT Activity, 2013 - 2018

Reference Pool UPB[1]

$ in billions



Source: FHFA (Fannie Mae and Freddie Mac)
Numbers may not foot due to rounding.

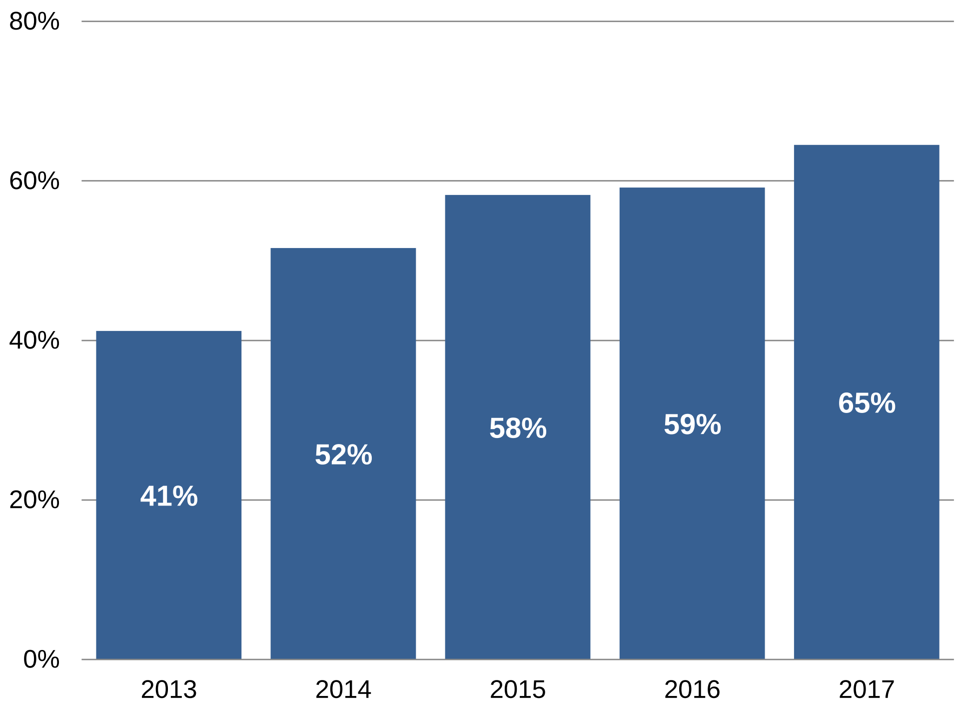
[1] The UPB shown in the table is 100 percent of each associated reference pool at issuance.

Single-Family CRT 2018 Conservatorship Scorecard Objective

For 2018, FHFA established a Scorecard objective for the Enterprises to transfer a meaningful portion of credit risk on at least 90 percent of the UPB of their acquisitions of single-family loans targeted for credit risk transfer (CRT) by the end of 2018. Targeted loan categories are non-HARP single-family fixed-rate mortgages with LTVs greater than 60 percent and original term greater than 20 years.

In 2017, loans targeted for credit risk transfers represented 65 percent of the Enterprises' single-family loan acquisitions.

Enterprises' Combined Single-Family Loans Targeted for CRT (as a Percent of Total Acquisitions)



Source: FHFA (Fannie Mae and Freddie Mac)

Single-Family CRT 2018 Conservatorship Scorecard Metrics

Through the end of 2018, Fannie Mae and Freddie Mac transferred 77 percent and 80 percent, respectively, of the credit risk on 2017 acquisitions covered by credit risk transfer.

Single-Family CRT 2018 Conservatorship Scorecard Metrics[1]

($s in billions)	Fannie Mae	Freddie Mac
UPB of Newly Acquired Mortgages[2]	$502	$343
UPB of Targeted Mortgage Acquisitions[2]	$322	$223
Single-Family Loans Targeted for CRT[2]	64%	65%
Targeted UPB Covered in CRT	$305	$219
Percent of Targeted UPB Covered by CRTs	95%	98%
Pre-CRT Credit Risk Capital	$8.1	$6.5
Credit Risk Capital Reduction	$6.3	$5.2
Credit Risk Transferred Through CRT[3]	77%	80%

[1] Through December 31, 2018

[2] Mortgages acquired in 2017. (HARP/Freddie Mac Relief Refinance/Fannie Mae Refi Plus loans are excluded and other minimal exclusions apply. Loans with terms less than or equal to 20-years or with LTVs of less than or equal to 60 percent are also excluded.)

[3] Credit risk transferred is defined as the amount of credit risk capital transferred on 2017 acquisitions that have been included in CRT transactions in 2017 or 2018 divided by pre-CRT credit risk capital per the Conservatorship Capital Framework (excluding any buffers) of 2017 target acquisitions that have been included in CRT transactions that settled in 2017 or 2018.

2018 Single-Family CRT Activity

In 2018, the Enterprises transferred risk on $643 billion of UPB with a total RIF of $22 billion. Securities issuances accounted for 64 percent of RIF, reinsurance transactions accounted for 24 percent of RIF, lender risk sharing accounted for 8 percent of RIF, and senior/subordinate transactions accounted for 4 percent of RIF.

Single-Family Credit Risk Transfer Volume, 2018
$ in millions

	Fannie Mae			Freddie Mac			Total		
	Reference Pool UPB[1]	RIF	Percent of Total RIF	Reference Pool UPB[1]	RIF	Percent of Total RIF	Reference Pool UPB[1]	RIF	Percent of Total RIF
Securities Issuances[2]	205,998	7,313	66%	243,007	6,935	62%	449,005	14,248	64%
Insurance/Reinsurance	87,824	2,442	22%	34,130	2,937	26%	121,954	5,379	24%
Lender Risk Sharing	38,140	1,348	12%	10,790	340	3%	48,930	1,688	8%
Senior/Subordinate[3]	-	-		23,443	891	8%	23,443	891	4%
Total	**331,962**	**11,103**		**311,370**	**11,102**		**643,333**	**22,206**	

Source: FHFA (Fannie Mae and Freddie Mac)

[1] The UPB shown in the table is 100 percent of the associated reference pool UPB at issuance.

[2] For Freddie Mac, the same reference pool UPB backs STACR and ACIS transactions. For Fannie Mae, CAS and CIRT are backed by separate reference pools.

[3] Senior/Subordinate includes STACR-SPI transactions. For STACR-SPI transactions, the Reference Pool UPB represents the PCs issued by the PC Trust and the Risk-in-Force represents the sold portion of the non-guaranteed securities issued by the SPI Trust.

Cumulative Single-Family CRT Activity

From 2013 through 2018, the Enterprises transferred risk on approximately $2.8 trillion of UPB, with a total RIF of $91.5 billion, or 3.3 percent of UPB. Securities issuances (CAS and STACR) accounted for 73 percent of total RIF of CRT issuances.

Cumulative Single-Family Credit Risk Transfer Volume
$ in millions

	Fannie Mae			Freddie Mac			Total		
	Reference Pool UPB[1]	RIF	Percent of Total RIF	Reference Pool UPB[1]	RIF	Percent of Total RIF	Reference Pool UPB[1]	RIF	Percent of Total RIF
Securities Issuances[2]	1,148,009	35,786	75%	1,059,530	30,825	70%	2,207,539	66,611	73%
Insurance/Reinsurance[3]	317,120	7,880	17%	83,763	11,528	26%	400,882	19,408	21%
Lender Risk Sharing	121,048	4,001	8%	13,032	367	1%	134,080	4,368	5%
Senior/Subordinate[4]	-	-		27,600	1,119	3%	27,600	1,119	1%
Total	**1,586,177**	**47,668**		**1,183,924**	**43,839**		**2,770,101**	**91,507**	

Source: FHFA (Fannie Mae and Freddie Mac)

[1] The UPB shown in the table is 100 percent of the associated reference pool UPB at issuance.
[2] For Freddie Mac, the same reference pool UPB backs STACR and ACIS transactions. For Fannie Mae, CAS and CIRT are backed by separate reference pools.
[3] ACIS transactions listed under Insurance/Reinsurance are not associated with STACR deals.
[4] Senior/Subordinate includes STACR-SPI transactions. For STACR-SPI transactions, the Reference Pool UPB represents the PCs issued by the PC Trust and the Risk-in-Force represents the sold portion of the non-guaranteed securities issued by the SPI Trust.

2018 Single-Family CRT Transactions - Fannie Mae

In 2018, Fannie Mae transferred risk on $332 billion of UPB, with a total RIF of $11.1 billion. Securities issuances (CAS) accounted for 66 percent of total RIF of CRT issuances.

Deal Type	Deal Name[1]	Date	Reference Pool UPB[2] ($ in millions)	Risk transfer attach/detach points (in basis points)	Credit Protection: Sold portion of tranches: Bond proceeds[3] or RIF ($ in millions)	Enterprise Retained Portion[4] ($ in millions)
Securities Issuances						
CAS	2018-C01 (1)	02/14/18	44,934	50/400	1,494	303
CAS	2018-C02 (2)	03/14/18	26,501	50/450	1,007	186
CAS	2018-C03 (1)	05/09/18	31,135	50/405	1,050	211
CAS	2018-C04 (2)	07/03/18	24,723	50/450	939	173
CAS	2018-C05 (1)	08/03/18	28,733	50/410	983	195
CAS	2018-C06 (1,2)	10/10/18	25,712	50/430	918	177
CAS	2018-R07 (1) [5]	11/07/18	24,260	50/450	922	170
Insurance/Reinsurance						
CIRT	2018-1	02/01/18	16,876	50/325	464	84
CIRT	FE 2018-1 [6]	03/01/18	10,000	50/375	325	50
CIRT	FE 2018-2 [6]	03/01/18	6,667	50/375	217	33
CIRT	2018-2	04/01/18	9,031	50/350	271	45
CIRT	2018-3	04/01/18	1,333	50/350	40	7
CIRT	2018-4	06/01/18	19,348	60/360	580	116
CIRT	2018-5	06/01/18	2,750	60/360	82	16
CIRT	2018-6	08/01/18	7,905	60/360	237	47
CIRT	2018-7	08/01/18	1,129	60/360	34	7
CIRT	2018-8	09/01/18	12,785	35/185	192	45
Lender Risk Sharing[6]			38,140		1,348	
Senior/Subordinate						
Total 2018			**331,962**		**11,103**	**1,866**

[1] Deal names denoted with a (1) contain low LTV pools (between 60.01% and 80.00%), and deal names denoted with a (2) contain high LTV pools (between 80.01% and 97.00%).
[2] The UPB shown in the table is 100 percent of the associated reference pool at issuance.
[3] Proceeds from debt issuances will differ from face value when issued at a discount or premium.
[4] Enterprise Retained Portion represents the amount of risk retained during the term of the CRT transaction by the Enterprises, excluding senior tranches.
[5] The CAS 2018-R07 is Fannie Mae's first CAS REMIC transaction.
[6] Table reflects the portion committed in 2018 and does not reflect the full commitment amount.

2018 Single-Family CRT Transactions - Freddie Mac

In 2018, Freddie Mac transferred risk on $311 billion of UPB with a total RIF of $11.1 billion. Securities issuances (STACR) accounted for 62 percent of total RIF of CRT issuances.

Deal Type	Deal Name[1]	Date	Reference Pool UPB[2] ($ in millions)	Risk transfer attach/detach points (in basis points)	Credit Protection: Sold portion of tranches: Bond proceeds[3] or RIF ($ in millions)	Credit Protection: Insured via ACIS ($ in millions)	Enterprise Retained Portion[4] ($ in millions)
Securities Issuances[5]							
STACR	2018-DNA1	01/30/18	34,733	50/400	900	255	234
STACR	2018-HQA1	03/28/18	40,102	50/400	985	348	271
STACR	2017-HRP1[6,8]	12/13/17		75/375		285	40
STACR	2018-DNA2[7]	06/20/18	49,346	50/350	1,050	356	321
STACR	2018-HRP1[7,8]	05/21/18	29,083	0/425	880	294	135
STACR	2018-DNA3[7]	09/21/18	29,615	10/400	820	277	87
STACR	2018-HQA2[7]	10/24/18	36,193	10/400	1,000	341	107
STACR	2018-HRP2[7,8]	11/20/18	23,935	25/600	1,300		136
Insurance/Reinsurance[9]							
ACIS	2017-AFRM-1[11]	07/01/17	7,761	50/375		240	52
ACIS	2018-SAP1	04/04/18	19,147	30/195		300	73
ACIS	2018-AFRM-1	01/01/18	7,222	60/410		240	56
Lender Risk Sharing[10, 11]			**10,790**		**340**		
Senior/Subordinate		**Total 2018**	**23,443**		**891**		
Total 2018			**311,370**		**8,166**	**2,937**	**1,512**

[1] Deal names denoted with a DNA contain low LTV pools (between 60.01% and 80.00%), and deal names denoted with a HQA contain high LTV pools (between 80.01% and 97.00%).
[2] The UPB shown in the table is 100 percent of the associated reference pool at issuance.
[3] Proceeds from securities issuances will differ from face value when issued at a discount or premium.
[4] Enterprise Retained Portion represents the amount of risk retained during the term of the CRT transaction by the Enterprises, excluding senior tranches.
[5] The same reference pool UPB backs STACR and ACIS transactions.
[6] Reference Pool UPB and Bond Proceeds are reflected in the 4Q17 Credit Risk Transfer Progress Report as the STACR transaction occurred in 2017. The ACIS transaction occurred in 2018 and only the amount insured via ACIS is reflected in the table above.
[7] STACR transactions executed under the STACR Trust structure.
[8] In 2017, Freddie Mac expanded its STACR program to a new series of STACR debt notes, called SHRP. SHRP transactions transfer risk on loans that were refinanced under Freddie Mac's Relief Refinance Program. HARP loans are excluded from CRT targeted loans.
[9] ACIS transactions listed under Insurance/Reinsurance are not associated with STACR deals.
[10] For reporting purposes, amounts are recorded under STACR.
[11] Table reflects the portion committed in 2018 and does not reflect the full commitment amount.

Overview of the Multifamily CRT Program

The Enterprises have long established credit risk transfer programs for their multifamily businesses. Risk sharing with the private sector is an integral part of the multifamily business models of both Enterprises. Freddie Mac's program focuses on senior/subordinate structures via capital market transactions. Fannie Mae's program focuses on pro-rata risk sharing directly with lenders. Both Enterprises are also working to develop programs similar to single-family transaction structures focusing on credit risk debt issuances and insurance/reinsurance.

For a description of Multifamily Credit Risk Transfer Structures, see Appendix B.

Multifamily Credit Risk Transfer Transaction Structures

Risk Sharing Transactions: In Fannie Mae's multifamily program (known as DUS), approved lenders underwrite and service loans based on Fannie Mae's underwriting criteria. The lenders typically share in loan level credit losses in two ways: (1) lenders share up to one-third of the losses on a pro-rata basis or (2) lenders bear losses up to the first 5 percent of the unpaid principal balance of the loan and share in remaining losses up to a prescribed limit. Fannie Mae requires DUS lenders to be financially strong with extensive underwriting and servicing experience. Additionally, DUS lenders must post collateral and maintain certain financial requirements when participating in risk-sharing with Fannie Mae.

Securitization with Subordination Transactions: Freddie Mac issues senior/subordinate notes to finance most of its multifamily originations, primarily through its K Certificate structure. In these transactions, Freddie Mac sells a pool of mortgage loans into a third-party trust. The trust issues subordinate and senior bonds that are tied to the performance of the pool of mortgage loans. Payments to bond investors come from the mortgage loan pool cash flows. Freddie Mac acquires the senior bonds and sells pass-through certificates (K Certificates) backed by the senior bonds. Freddie Mac guarantees the senior K Certificates. The trust sells the non-guaranteed subordinate bonds directly to investors.

Insurance and Reinsurance Transactions: Multifamily CRT transactions with the insurance/reinsurance industry are similar to the pool-level structures currently utilized for the single-family business.

Multifamily CRT 2018 Conservatorship Scorecard Objective

For 2018, FHFA established a Scorecard objective for the Enterprises to transfer a meaningful portion of the credit risk on newly acquired mortgages, subject to FHFA target adjustments as may be necessary to reflect market conditions and economic considerations

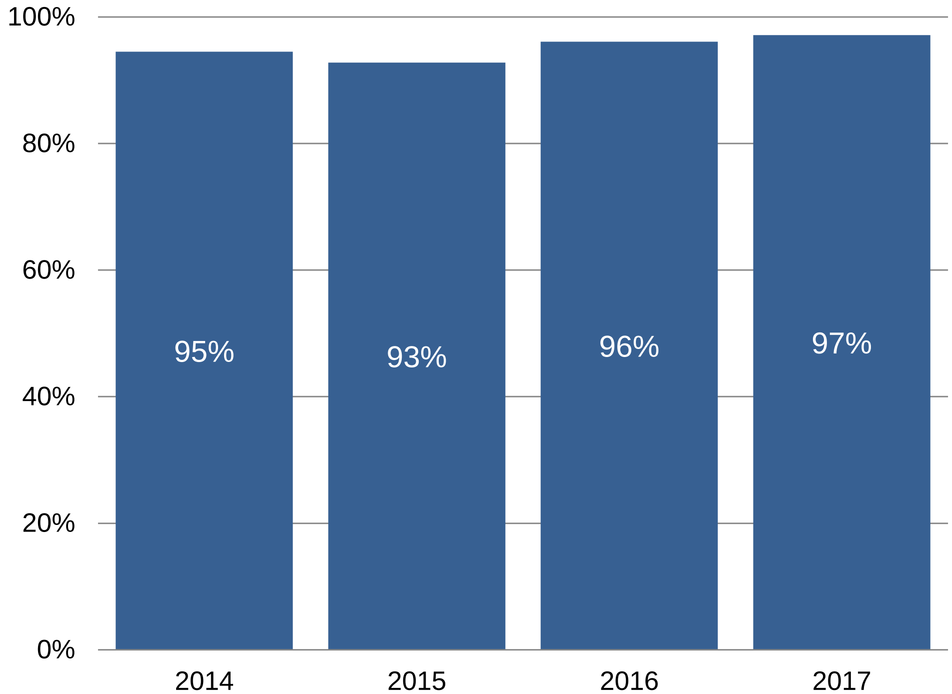
Both Enterprises achieved this objective in 2018.

Multifamily CRT 2018 Conservatorship Scorecard Metrics

Through the end of 2018, Fannie Mae transferred 42 percent of the credit risk on acquisitions covered by credit risk transfer during the 12 months ended June 30, 2018.

Freddie Mac transferred 88 percent of the credit risk on 2017 acquisitions covered by credit risk transfer.

Enterprises' Combined Multifamily Acquisitions Covered by CRT (as a Percent of Total Acquisitions)



Source: FHFA (Fannie Mae and Freddie Mac)

Multifamily CRT 2018 Conservatorship Scorecard Metrics[1]

($s in billions)	Fannie Mae	Freddie Mac
UPB of Newly Acquired Mortgages[2]	$62	$73
Percent of Acquisitions UPB Covered by CRTs[2]	99%	95%
Pre-CRT Credit Risk Capital	$2.8	$3.6
Credit Risk Capital Reduction	$1.2	$3.2
Credit Risk Transferred Through CRT[3]	42%	88%

[1] Through December 31, 2018

[2] For Fannie Mae: Mortgages acquired during the twelve months ended June 30, 2018. For Freddie Mac: Mortgages acquired in 2017.

[3] For Fannie Mae, credit risk transferred is defined as the amount of credit risk capital transferred of target acquisitions acquired in the twelve months ended June 2018 divided by pre-CRT credit risk capital per the Conservatorship Capital Framework (excluding any buffers) of new acquisitions in the twelve months ended June 2018. For Freddie Mac, credit risk transferred is defined as the amount of credit risk capital of target acquisitions transferred in 2017 or 2018 divided by pre-CRT credit risk capital per the Conservatorship Capital Framework (excluding any buffers) of new acquisitions in 2017.

2018 Multifamily CRT Activity

Fannie Mae

Fannie Mae primarily transfers credit risk through its DUS program, where lenders typically share in loan level credit losses in two ways: (1) lenders share up to one-third of the losses on a pro-rata basis or (2) lenders bear losses up to the first 5 percent of the unpaid principal balance of the loan and share in remaining losses up to a prescribed limit.

In 2018, through the DUS program Fannie Mae transferred a portion of credit risk on 99 percent, or approximately $62 billion, of its targeted multifamily new acquisitions[1]. Additionally, Fannie Mae continued to grow its multifamily Credit Insurance Risk Transfer (CIRT) program, in which Fannie Mae transfers a portion of the risk it retained from DUS transactions to a panel of reinsurers.

During the year, Fannie Mae executed two multifamily CIRT transactions with total UPB of $22 billion and RIF of $440 million. Fannie Mae plans to continue transferring credit risk through its multifamily CIRT program and continue exploring other multifamily credit risk transfer options.

[1] Mortgages acquired during the twelve months ended June 30, 2018.

Freddie Mac

In 2018, through its multifamily securitization program, Freddie Mac issued $72.8 billion of multifamily securities.

Senior/Subordinate Structure	Amount
K Certificates	$61.6 billion
SB Certificates	$7.0 billion
KT Certificates and other[2]	$4.2 billion

In 2018, Freddie Mac transferred a portion of credit risk on 95 percent, or $69 billion, of its targeted multifamily new acquisitions.[3] Since 2010, Freddie Mac has securitized senior-subordinate notes through its K Certificates to transfer risk on approximately 90 percent of the UPB of its multifamily loan acquisitions. K Certificates transfer most of the credit risk to investors through subordinated bonds that are structured to absorb expected and unexpected credit risk.

In the fourth quarter of 2018, Freddie Mac also executed its first multifamily credit risk transfer transaction to reinsurers, the Multifamily Credit Insurance Pool (MCIP) offering. Under the MCIP structure, which is similar to the single-family ACIS product, Freddie Mac purchases insurance policies that provide first loss credit protection. In its inaugural MCIP transaction, Freddie Mac purchased credit risk insurance for the first five percent of credit losses on a reference pool with total UPB of $915 million and RIF of $43 million.

[2] Other includes PCs, Q Certificates, M Certificates, and ML Certificates.

[3] Mortgages acquired in 2017.

Appendix A: Single-Family Credit Risk Transfer

Enterprise Efforts to Transfer Credit Risk to the Private Sector

The Enterprises' public purposes include providing broad national secondary market liquidity for residential mortgage financing, both for single-family and multifamily mortgages. The Enterprises provide market liquidity by acquiring mortgage loans from lenders and creating securities backed by those mortgages for sale to investors. Through the securitization process, the Enterprises transfer the interest rate and liquidity risk associated with holding mortgage loans. The securitization process generally does not, however, transfer credit risk on these loans.[1]

Each Enterprise manages the credit risk of its mortgage acquisitions and guarantees the timely payment of principal and interest to mortgage-backed securities investors. The Enterprises charge a guarantee fee in exchange for providing this guarantee, which covers administrative costs, projected credit losses from borrower defaults over the life of the loans, and the cost of holding capital to protect against projected credit losses that could occur during stressful macroeconomic conditions.[2] The following sections describe the Enterprises' activities to share credit risk through credit risk transfer programs.

The Role of Primary Mortgage Insurance in Sharing Credit Risk

Under their charters, loans acquired by Fannie Mae and Freddie Mac that have LTV ratios above 80 percent are required to have loan-level credit enhancement either in the form of mortgage insurance, a repurchase agreement, or seller retained participation in the loan. This is a long-standing statutory requirement that pre-dates the Enterprises' development of additional credit risk transfer programs. Primary mortgage insurance (PMI) is the form of charter-eligible credit enhancement used most often. Primary mortgage insurance, which can be paid by the borrower, the lender, or the Enterprise, is obtained at the front-end of the mortgage transaction prior to acquisition by the Enterprises.

The Enterprises establish PMI coverage requirements that specify the insurance coverage needed on individual loans, and these coverage requirements vary depending on the type of loan and the LTV of the loan. Currently, for 30-year loans, the typical standard level of coverage is roughly twice what is required to meet the Enterprises' minimum guidelines. The dollar amount of insurance coverage is referred to as risk-in-force (RIF). The RIF for each insured loan is calculated by multiplying the percentage of insurance coverage times the UPB of the mortgage. The total RIF for all PMIs represents the maximum level of coverage for all loans with mortgage insurance and is roughly equivalent to the Enterprises' total risk exposure to PMI counterparties.

While the total RIF associated with PMI is large, the actual level of credit risk sharing provided through insurance claims paid depends on the number of insured loans that default and the severity of losses on those loans. The loan-level coverage structure of PMI differs from the pool-level coverage that is used in other kinds of credit risk sharing transactions. The difference between the loan-level coverage of PMI and the pool-level coverage of recent credit risk transfer transactions means that the RIF figures for these two categories are not strictly comparable.

Enterprise Credit Risk Transfer Programs

The Enterprises have made significant progress toward fully integrating a credit risk transfer program into their business models.

[1] Freddie Mac's securitization of its multifamily loans through K-deals does transfer credit risk in addition to interest rate and liquidity risk.

[2] Currently, the guarantee fee also includes a 10 basis point charge as required by Section 401 of the Temporary Payroll Tax Cut Continuation Act of 2011, codified at 12 USC 4547.

Single-Family Credit Risk Transfer

The Enterprises have increased the amount of credit risk transferred year-over-year, and are now transferring credit risk on most higher risk new acquisitions for which credit risk transfer is economically sensible.

The Enterprises have also worked to develop a portfolio of different transaction structures,[3] which include:

- Securities issuances
- Insurance/reinsurance transactions
- Senior/subordinate securities
- Lender front-end risk transfer transactions

As with primary mortgage insurance, the amount of credit risk transferred is referred to as RIF for the insurance products. For the Enterprises' securities issuances, Connecticut Avenue Securities (CAS) for Fannie Mae and Structured Agency Credit Risk (STACR) for Freddie Mac, and other products where securities are created, the amount of credit risk transferred is referred to as note size. For purposes of simplifying the discussion, this CRT Progress Report refers to the amount of credit risk transferred on all credit risk transfer transactions as RIF. The following subsections provide information about different single-family credit risk transfer structures.

Single-Family Credit Risk Transfer Transaction Structures

STACR/CAS Transactions: The Enterprises' securities issuance products include Fannie Mae's Connecticut Avenue Securities (CAS) and Freddie Mac's Structured Agency Credit Risk (STACR) securities. Those products accounted for 64 percent of the RIF entered into by the Enterprise during 2018. These securities are issued as Enterprise debt or debt of a bankruptcy-remote trust. While the trust does not hold the mortgage loans, the cash flows of the securities track the credit performance of a reference pool of mortgages. The Enterprise or the trust receives the proceeds from investors at the time of issuance and, in return, investors receive monthly payment from the Enterprise or the trust. That payment includes both interest and principal, with the principal payment based on the repayment and credit performance of the loans in the underlying reference pool.

The STACR/CAS structure has several key benefits. The liquidity of the to-be-announced (TBA) market is not affected by this structure because the loans referenced were previously pooled into guaranteed mortgage-backed securities and sold in the TBA market. The STACR and CAS transactions are also effectively fully collateralized by cash that investors pay to purchase the securities. This means that the Enterprises essentially have no counterparty or reimbursement risk with this structure.

[3] Additional information about each of the various credit risk transfer products is available in FHFA's report entitled *Overview of Fannie Mae and Freddie Mac Credit Risk Transfer Transactions,* available at http://www.fhfa.gov/AboutUs/Reports/Pages/Overview-of-Fannie-Mae-and-Freddie-Mac-Credit-Risk-Transfer-Transactions-8212015.aspx.

Other Single-Family Credit Risk Transfer Structures

The Enterprises use other credit risk transfer structures in addition to the STACR/CAS structure. Pursuing a broad portfolio of credit risk transfer transaction structures furthers FHFA's objectives of having the Enterprises diversify their investor base for credit risk transfers and being able to compare execution across different structures and market environments. The Enterprises are currently engaged in the following additional transaction types:

Insurance/Reinsurance Transactions: Insurance or reinsurance transactions are considered part of the credit risk transfer program and separate from the Enterprises' charter requirements applicable to loans with LTVs greater than 80 percent. To date, the Enterprises have focused on two pool-level products — Agency Credit Insurance Structure (ACIS) for Freddie Mac and Credit Insurance Risk Transfer (CIRT) for Fannie Mae. Instead of providing coverage on individual loans as with loan-level primary mortgage insurance, these pool-level policies cover a specified percentage of aggregate credit risk for a pool that includes thousands of loans.

Through the CIRT and ACIS structures, the Enterprises are purchasing insurance primarily from diversified reinsurers. These transactions are partially collateralized and distributed among a variety of highly-rated insurers, reinsurers, and reinsurer affiliates of mortgage insurers, which reduces counterparty, reimbursement, and correlation risk.[4] Freddie Mac and Fannie Mae have different approaches to the reference pools behind their respective reinsurance deals. In the ACIS structure, which generally shares the same reference pool as STACR, Freddie Mac allocates sales between capital markets and reinsurance investors. In contrast, Fannie Mae establishes separate reference pools for CAS and CIRT transactions. Fannie Mae and Freddie Mac disclose pricing for CIRT and ACIS transactions, respectively.

Senior/Subordinate Transactions: In a senior/subordinate securitization, an Enterprise sells a pool of mortgages to a trust which securitizes the cash flows into several tranches of bonds. The subordinated bonds (mezzanine and first-loss) are structured to absorb expected and unexpected credit losses, protecting the senior bond.

The collateral backing senior/subordinate transactions typically consists of mortgages for which a TBA market does not exist. Examples include:

- Super-conforming mortgage loans, which have balances between the national conforming loan limit and higher limits applicable in high-cost areas,
- Adjustable Rate Mortgages (ARMs), and
- Multifamily mortgages.

In 2017, Freddie Mac transitioned to the STACR Securitized Participation Interests (STACR SPI), where unguaranteed bonds are issued and senior cash flow is in the form of Freddie Mac PCs. Given 2018 modifications to the STACR program, Freddie Mac does not plan to programmatically execute SPI transactions in 2019.

[4] Reinsurers are often characterized by diversified lines of business, which helps mitigate the risk that the Enterprises' counterparties are correlated to the housing market stress and would have increased claims at the same time the Enterprise themselves are under stress.

Front-End Credit Risk Transfer Transactions: Front-end risk transfer transactions are structured so that risk is transferred prior to, or simultaneous with, Enterprise loan acquisition. To date, the Enterprises have executed front-end transactions with lenders, insurance companies, and reinsurance companies.

Lender Risk Sharing: Lender front-end risk sharing may be structured through the issuance of securities, which allows the originating lender to either hold the credit risk by retaining the securities or sell the credit risk by selling the securities to credit risk investors. Alternatively, lender front-end risk sharing may be executed without any securities issuance, whereby a lender retains all the credit risk transferred by the Enterprise but generally fully collateralizes its obligation.

Compensation paid to the lenders for the protection they provide on front-end transactions is based solely on economic considerations, not on the overall amount of loans the lenders sell to the Enterprises. For all front-end transactions, lenders are required to retain a material portion of the risk on the underlying loans and to collateralize their retained loss position.

Front-End Insurance Transactions: Insurers and Reinsurers participating in front-end transactions are generally diversified companies that provide collateral to mitigate counterparty risk. Participating insurers/reinsurers commit to insure, on a forward basis, loans meeting the Enterprises' credit eligibility guideline. The fill-up period for these commitments may range from 12-24 months. Because participating insurers/reinsurers cover a pool of loans that is acquired on a forward basis and the credit profile of the final covered pool may differ from the reference pool used to price the transaction, these Front-End Insurance Transactions may include concentration limits for certain risk attributes and/or a recalibration of the transaction pricing based upon the final profile of the covered pool. Loans, covered under these transactions, with LTVs greater than 80 percent typically have traditional primary mortgage insurance.

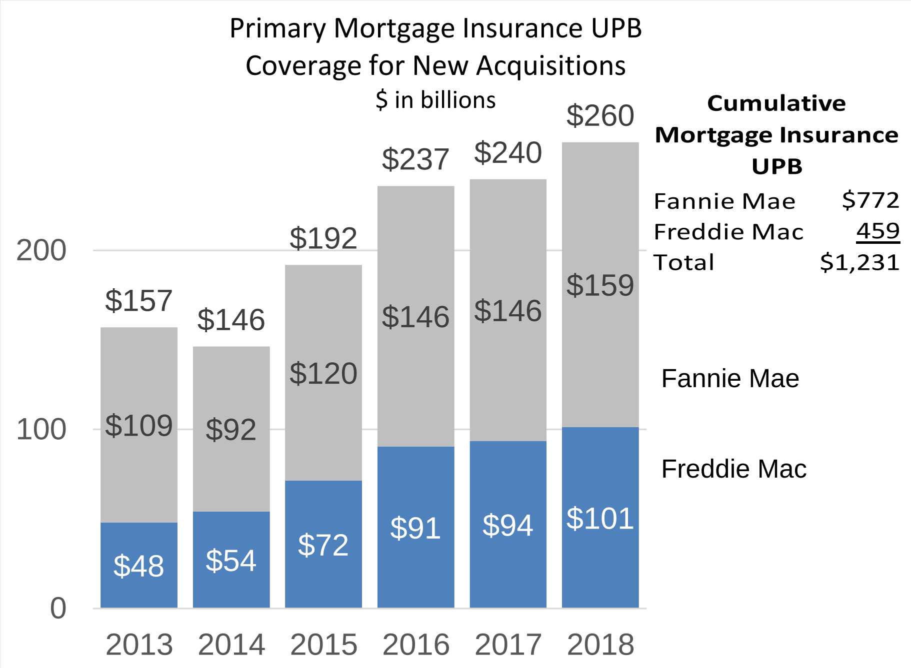
The Role of Primary Mortgage Insurance in Single-Family CRT Transactions

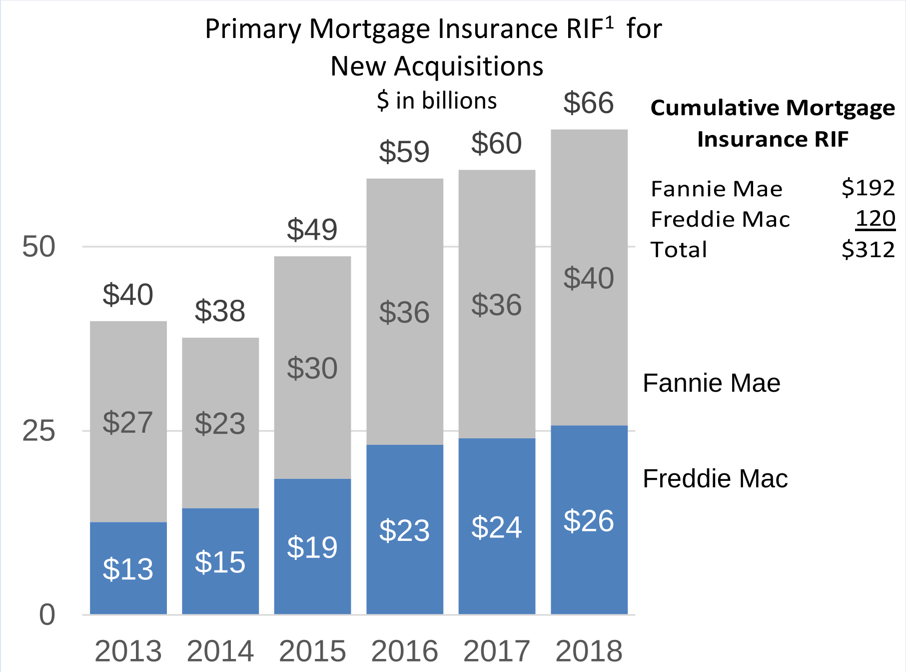
From the beginning of Fannie Mae and Freddie Mac's CRT programs in 2013 through the end of 2018, the Enterprises have transferred a portion of credit risk on approximately $2.8 trillion in single-family loans through CRT. During the same period, a portion of an additional $1.2 trillion of credit risk has been transferred to primary mortgage insurers.

Single-family loans with LTVs above 80 percent are required to have loan-level credit enhancement in one of the following charter-eligible forms:

- Private mortgage insurance (PMI),
- Seller agreement to repurchase or replace the mortgage, or
- Seller retained participation in the loan.

PMI is the form of credit enhancement used most often. The charts below show the total UPB and RIF (measured at the time of Enterprise acquisition for each loan) of single-family loans with PMI acquired by the Enterprises between 2013 and 2018. When losses occur on loans with LTVs above 80 percent, private mortgage insurers provide credit loss coverage before credit risk transfer investors or the Enterprises. However, it should be noted that the Enterprise, not the CRT investor nor the lender that sold the loan to the GSE (i.e., the seller), is typically responsible for counterparty risk when PMI coverage is provided. Therefore, if the private mortgage insurer is not able to make the payment necessary to fulfill its credit loss coverage obligations, the Enterprise must step in and cover those losses, not the CRT investor nor the seller.





Source: FHFA (Fannie Mae and Freddie Mac)

[1] While the total RIF associated with primary mortgage insurance is large, the actual level of credit risk sharing provided through paid insurance claims depends on the number of insured loans that default and the severity of losses on those loans. These figures assume that all PMI payments would be made by the mortgage insurer, not by Fannie Mae or Freddie Mac.

Appendix B: Multifamily Credit Risk Transfer

Risk sharing with the private sector is an integral part of the multifamily business models of both Enterprises. The following subsections provide information about different multifamily credit risk transfer structures.

Securitization with Subordination Transactions: Freddie Mac has developed variants of the K Certificate program that follow a senior/subordinate structure, but differ primarily by the type of loans in the transactions:

- Q Certificates are identical to K Certificates except that the loans are not underwritten by Freddie Mac when originated.
- KT Certificates are based on loans purchased by Freddie Mac that will not qualify for inclusion in a K Certificate transaction for an extended period of time.
- SB Certificates are based on low balance loans, SR Certificates are based on rental housing loans, and M and ML Certificates are based on loans made by government lenders to finance affordable housing projects. For the SB, SR, and M/ML Certificate programs, Freddie Mac underwrites the loans and guarantees senior bonds issued by the trusts, but does not purchase bonds from the trusts and subsequently issues structured pass-through securities.

Notes tied to Reference Pool Performance Transactions: Freddie Mac's SCR notes are similar in structure to single-family STACR notes where the repayment of principal to the note holders is based on the performance of a reference pool of loans.

The SCR Notes transfer credit risk on certain multifamily mortgage loans supporting affordable housing developments. The loans are funded by bonds issued by state and local housing finance agencies and guaranteed by Freddie Mac. Freddie Mac is compensated for guaranteeing the housing agency finance bonds through the issuance of the SCR Notes.

Risk Sharing Transactions: In Fannie Mae's multifamily program (known as DUS), Fannie Mae approved lenders underwrite and service loans based on Fannie Mae's underwriting criteria, which enables Fannie Mae to purchase or guarantee the loans without performing the underwriting. The lenders typically share in loan level credit losses in two ways: (1) lenders share up to one-third of the losses on a pro-rata basis or (2) lenders bear losses up to the first 5 percent of the unpaid principal balance of the loan and share in remaining losses up to a prescribed limit. By design, the DUS program loss sharing aligns lenders and Fannie Mae to maximize loan performance over the life of the loans. To minimize counterparty risk associated with lender risk-sharing, Fannie Mae requires DUS lenders to be financially strong with extensive underwriting and servicing experience. Additionally, DUS lenders must post collateral and maintain certain financial requirements when participating in risk-sharing with Fannie Mae.

Insurance and Reinsurance Transactions: Multifamily CRT transactions with the insurance/reinsurance industry are similar to the pool-level structures currently utilized for the single-family business.

Appendix C: CRT Principles, Concepts, and Definitions

CRT Principles

FHFA assesses all Enterprise credit risk transfer activities using the same key principles. These principles include:

Reduce taxpayer risk: Transactions should transfer a meaningful amount of credit risk to private investors.

Economically sensible: The program should consist of transactions in which the cost to the Enterprise for transferring the credit risk does not meaningfully exceed the cost to the Enterprise of self-insuring the credit risk being transferred.

Continuity of core business: Transactions should not interfere with the continued operation of the Enterprises' core business, including the efficient operation of the to-be-announced (TBA) market or the ability of borrowers to access credit.

Repeatable: Whenever possible, transactions should be part of a regular program of similar transactions.

Scalable: Transaction structures should be capable of being scaled without significantly affecting the economics or management of the transaction.

Counterparty strength: In transactions in which the credit risk being transferred is not fully collateralized, credit risk transfer counterparties to the Enterprises should be financially strong companies that are able to fulfill their financial commitments even in adverse markets.

Broad investor base: The program should include different transaction structures to attract a diversified and broad investor base with the objective of improving pricing, increasing secondary market liquidity, and promoting market stability.

Stability through economic and housing cycles: Transaction structures should be designed to ensure that at least some investors will remain in the market through all phases of the housing price cycle, including economic downturns.

Transparency: Parties to a transaction should provide public disclosure of transaction information, whenever practical.

Level playing field: Credit risk transfer transactions should only reflect the cost of transferring credit risk and should not favor large mortgage originators over small ones.

CRT Concepts and Definitions

First Loss Position: Credit risk for a pool of mortgages can be decomposed into expected loss (under baseline economic conditions), unexpected loss (under stressful, yet plausible, economic conditions), and catastrophic loss (beyond unexpected losses). While there is no single definition of first loss for purposes of credit risk transfers, FHFA interprets "first-loss position" as starting with the first dollar of loss through all expected losses.

Expected Credit Loss: Credit loss projected, on average, to occur if housing market conditions proceed according to a stable long-term trend, particularly with regard to house price levels. Even in a healthy housing market, a pool of mortgages is likely to experience some credit losses (i.e., defaults on the underlying mortgages) as some borrowers face trigger events such as illness, job loss, or other unanticipated events.

Unexpected Credit Loss: Credit loss over and above expected losses should there be a stressful, yet plausible, macroeconomic event, such as a severe downturn in house price levels as might accompany a recession (similar to what was experienced during the recent housing crisis), but short of catastrophic credit losses.

Catastrophic Credit Loss: Credit loss beyond unexpected loss that would be deemed highly unlikely to occur. There is no bright line between unexpected credit losses and catastrophic credit losses.

Credit Risk: In the case of residential mortgage loans, credit risk is risk of loss to a mortgage creditor stemming from a borrower's failure to repay the loan.

Credit Risk Transfer: Credit risk transfer occurs when a party exposed to credit risk transfers some or all of that risk to another party, usually accompanied by the payment of a fee for the other party's assumption of that risk. The Enterprises' credit risk transfer transactions are effective for a limited duration, typically a 10- to 12-year time period. The exact reimbursement terms and recognition of credit loss are a function of the specific credit risk transfer contract for that transaction. Risk transfer may result in the transferor's assumption of a different risk. For example, when an Enterprise transfers the credit risk on a mortgage loan for which the Enterprise has guaranteed payment of principal and interest, the Enterprise may assume risks associated with the counterparty, including reimbursement risk.

Counterparty Risk: Counterparty risk is the risk that a contractual counterparty will not perform in accordance with contract terms. This would include the counterparty's capacity to pay claims timely, such as its financial and operational strength, the depth and quality of its capital, and the diversification of its business. It also includes assessment of concentration exposures with that counterparty. When an Enterprise transfers the credit risk on a mortgage loan for which the Enterprise has guaranteed payment of principal and interest, the Enterprise assumes reimbursement risk from its risk transfer counterparties for losses incurred.

Reimbursement Risk: Reimbursement risk is the risk that the party(ies) to the credit risk transfer (front- or back-end) will not repay the Enterprise on time and in full for its portion of credit losses. When an Enterprise transfers credit risk while continuing to provide a guarantee to MBS investors for timely payments on principal and interest, the Enterprise assumes reimbursement risk from its risk transfer counterparty. This is an element of counterparty risk.

Front-End or Up-Front Credit Risk Transfer: This term applies to transactions in which the arrangement of the risk transfer occurs prior to, or simultaneous with, the acquisition of residential mortgage loans by an Enterprise. "Front-end" refers to the timing of the arrangement of the credit risk transfer and does not affect (either mitigate or exacerbate) the reimbursement risk assumed by an Enterprise.

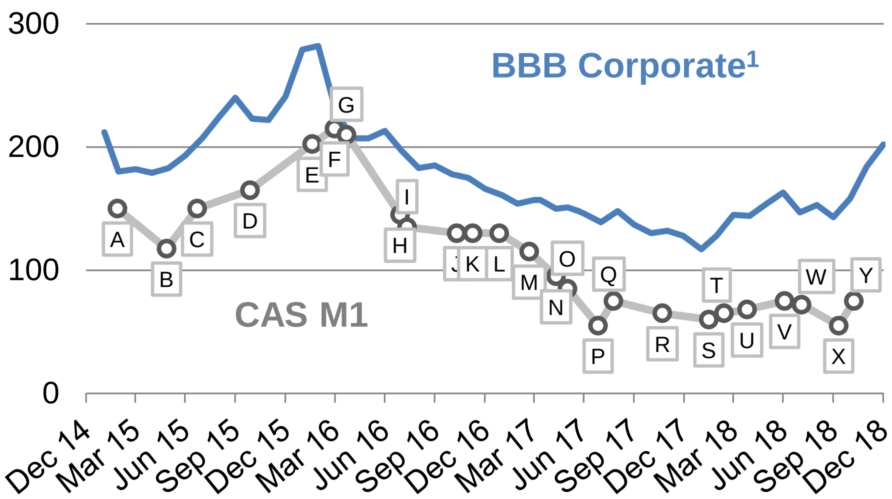
Back-End Credit Risk Transfer: This term applies to transactions in which the arrangement of the risk transfer occurs after the acquisition of residential mortgage loans by the Enterprises. "Back-end" refers to the timing of the arrangement of the credit risk transfer and does not affect (either mitigate or exacerbate) the reimbursement risk assumed by an Enterprise.

Risk-in-Force (RIF): This term, when applied to Primary Mortgage Insurance, refers to the dollar amount of insurance. For Enterprise securities issuances and other products where securities are created, RIF refers to the amount of credit risk transferred. For purposes of the CRT Progress Report, RIF refers to the amount of credit risk transferred on all credit risk transfer transactions and represents the maximum loss exposure that could be absorbed by CRT investors and counterparties.

Appendix D: Comparison of Single-Family CRT Market Pricing - Mezzanine Bonds to Corporate BBB Index

Credit spreads on the higher rated CRT mezzanine tranches performed generally similar to the corporate BBB index from the second quarter of 2016 to the end of 2018.

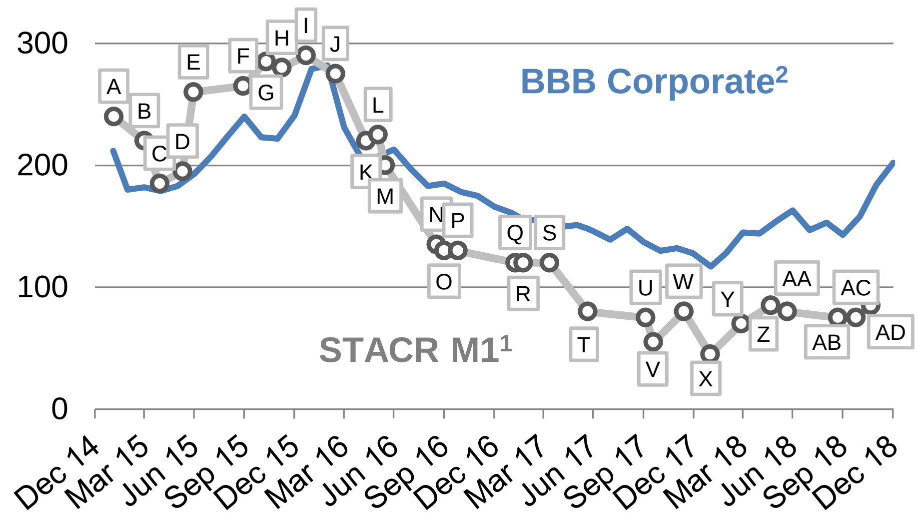
Fannie Mae CAS M1
Credit Spread at Issuance vs BBB Corporate Bond Index (bps)



[1]Bank of America Merrill Lynch US Corporate BBB Index

A - 2015 CO1	K - 2016 C07	U - 2018 C03
B - 2015 CO2	L - 2017 C01	V - 2018 C04
C - 2015 C03	M - 2017 C02	W - 2018 C05
D - 2015 C04	N - 2017 C03	X - 2018 C06
E - 2016 C01	O - 2017 C04	Y - 2018 R07
F - 2016 C02	P - 2017 C05	
G - 2016 C03	Q - 2017 C06	
H - 2016 C04	R - 2017 C07	
I - 2016 C05	S - 2018 C01	
J - 2016 C06	T - 2018 C02	

Freddie Mac STACR M1[1]
Credit Spread at Issuance vs BBB Corporate Bond Index (bps)



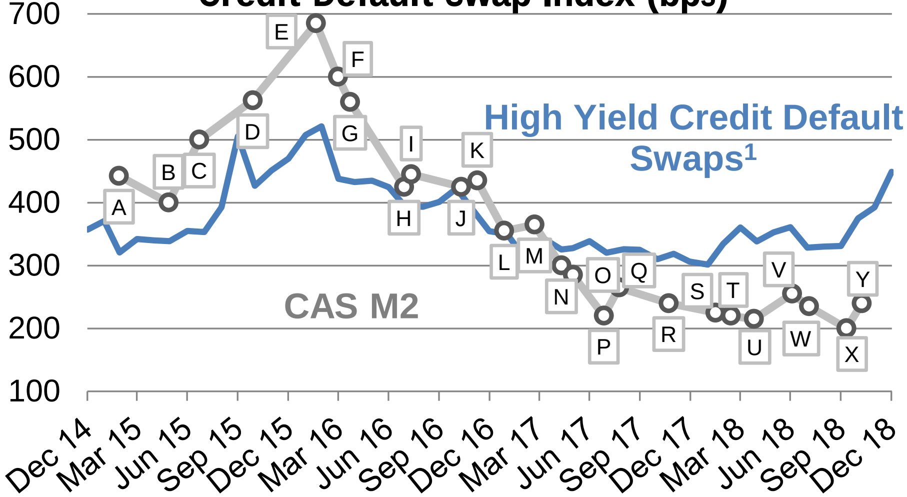
[1]Credit spreads at issuance prior to 2017 are for STACR M2.
[2]Bank of America Merrill Lynch US Corporate BBB Index

A - 2015 DN1	K - 2016 DNA2	U - 2017 DNA3
B - 2015 HQ1	L - 2016 HQA2	V - 2017 HQA3
C - 2015 DNA1	M - 2016 DNA3	W - 2017 HRP1
D - 2015 HQ2	N - 2016 HQA3	X - 2018 DNA1
E - 2015 DNA2	O - 2016 DNA4	Y - 2018 HQA1
F - 2015 HQA1	P - 2017 HQA4	Z - 2018 HRP1
G - 2015 DNA3	Q - 2017 DNA1	AA - 2018 DNA2
H - 2015 HQA2	R - 2017 HQA1	AB - 2018 DNA3
I - 2016 DNA1	S - 2017 DNA2	AC - 2018 HQA2
J - 2016 HQA1	T - 2017 HQA2	AD - 2018 HRP2

Appendix E: Comparison of Single-Family CRT Market Pricing - Mezzanine Bonds to High Yield Credit Default Swaps

Credit spreads on the lower rated CRT mezzanine tranches performed generally similar to the high yield credit default swap index from the second quarter of 2016 to the end of 2018.

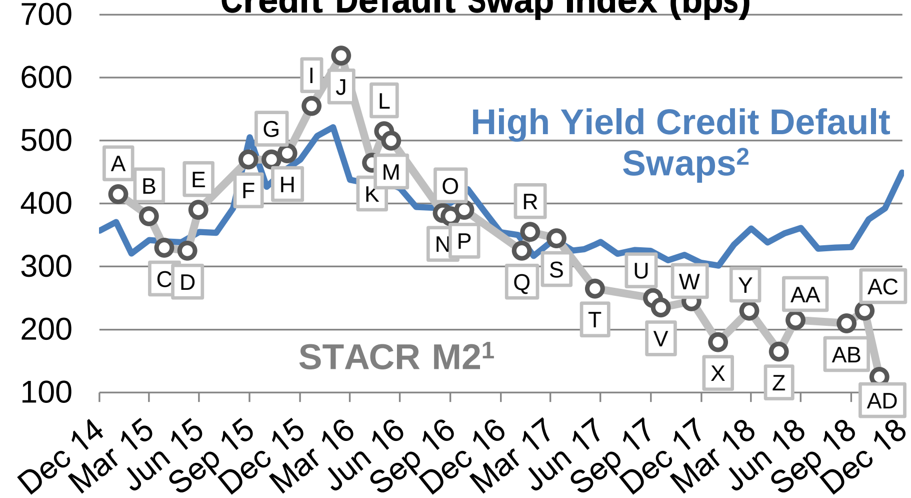
Fannie Mae CAS M2
Credit Spread at Issuance vs High Yield Credit Default Swap Index (bps)



[1]Markit CDX North American High Yield Index

A - 2015 CO1	K - 2016 C07	U - 2018 C03
B - 2015 CO2	L - 2016 C01	V - 2018 C04
C - 2015 C03	M - 2017 C02	W - 2018 C05
D - 2015 C04	N - 2017 C03	X - 2018 C06
E - 2016 C01	O - 2017 C04	Y - 2018 R07
F - 2016 C02	P - 2017 C05	
G - 2016 C03	Q - 2017 C06	
H - 2016 C04	R - 2017 C07	
I - 2016 C05	S - 2018 C01	
J - 2016 C06	T - 2018 C02	

Freddie Mac STACR M2[1]
Credit Spread at Issuance vs High Yield Credit Default Swap Index (bps)



[1]Credit spreads at issuance prior to 2017 are for STACR M3.
[2]Markit CDX North American High Yield Index

A - 2015 DN1	K - 2016 DNA2	U - 2017 DNA3
B - 2015 HQ1	L - 2016 HQA2	V - 2017 HQA3
C - 2015 DNA1	M - 2016 DNA3	W - 2017 HRP1
D - 2015 HQ2	N - 2016 HQA3	X - 2018 DNA1
E - 2015 DNA2	O - 2016 DNA4	Y - 2018 HQA1
F - 2015 HQA1	P - 2017 HQA4	Z - 2018 HRP1
G - 2015 DNA3	Q - 2017 DNA1	AA - 2018 DNA2
H - 2015 HQA2	R - 2017 HQA1	AB - 2018 DNA3
I - 2016 DNA1	S - 2017 DNA2	AC - 2018 HQA2
J - 2016 HQA1	T - 2017 HQA2	AD - 2018 HRP2