

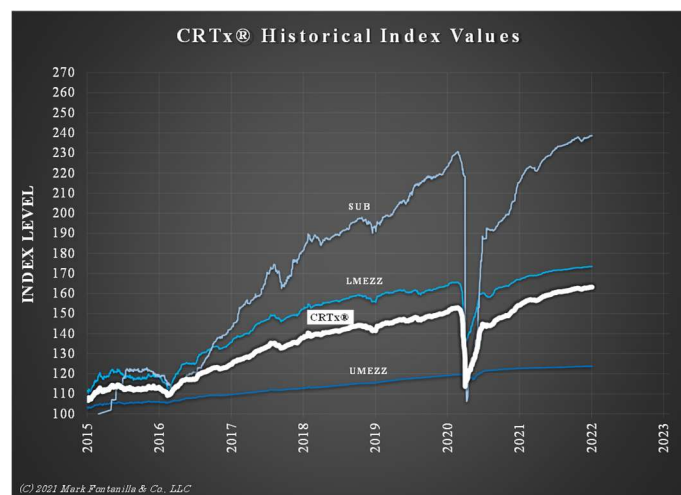
CRTx®

Credit Risk Transfer Return Tracking Index

www.markfontanilla.com/crtx-index

CRTx® Index Rebalancing Update

12/31/2021



The CRTx® Aggregate Index finished 2021 up 5.86% in a year of records, returns, and reconfigurations:

- **Records** – 2021 benchmark CRT gross issuance set an all-time record of \$14.12B for an issuance year, and 2021 Q4 came in at an all-time qtr. record of \$6.82B. A few other issuance highs were also set during the year for both CAS and STACR.
- **Returns** – 2021 saw the long-awaited return of the FNMA/CAS program to the market, bringing 3 new CAS deals in Q4. Elsewhere, the word “significant” in relation to the transfer of credit risk made its way back into the FHFA’s 2022 GSE scorecard after a hiatus in the 2021 scorecard, likely setting up more supply upside in 2022.
- **Reconfigurations** – There were a number of new sector happenings and changes to the CRT landscape in 2021 including: the first tender offer to retire certain amounts of select STACR classes was exercised by FHLMC. FNMA/CAS followed. Concurrently, B1/B2 issuance continued its increased size, changing the benchmark GSE float commensurately. Structurally, the latest 2021 deals switched to a shorter 5yr early redemption option/20yr maturity format, adding expanded sector investment alternatives to the current float.

Let the new 2022 season begin...

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The CRTx® Aggregate index ended December up 0.30% for the month, 0.63% to end Q4, and closed out 2021 with a +5.86% total return...In a reversal of 2020...outperformed most other major rates and credit sector benchmarks...

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The CRTx® Aggregate Index’s 2022 starting basket market value rises 4.2% MoM vs. December to \$47.7 billion, nearly identical to 2021’s starting basket...constituency to 264 securities from 107 deals...Sector supply records ...in Q4...2021...

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2022 technical and fundamental backdrop for mortgage credit and housing looks like it will continue...supportive trend...stage set for...bench-mark CRT issuance to continue, and even expand...but even more need for detailed analytical diligence...Ideas: new 20y/5yr early redemption option B1/B2 blend...act. loss Bs over FXD sev. Bs...new M2s vs. IG...

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12/31/2021 Index Rebalancing Update *(continued)***CRTx® Aggregate Index**

Dec 2021 CRTx® AGG Tot Ret	+30 bps
Price Attribution	+0 bps
Paydown Attribution	-3 bps
Cpn Accr&Pmt Attribution	+34 bps
Writedown+Int Shortfall Attribution	-0.51 bps
Excess Return	+29 bps
Volatility (Annualized)	0.41%
UPB Paydown %	2.17%
QTD Total Return	0.63%
YTD Total Return	5.86%

CRTx® AGG Rebalancing For Jan 2022*As of 12/31/2021***January 2022 Aggregate Constituency (w/MoM Δ):**

• Beg. UPB (\$B):	\$46.30	+4.2%
• Beg. Market Value (\$B):	\$47.72	+4.1%
• Constituents:	264	+11
• WAvg Constituent Value:	103.06	-0.14 pts
• WAvg Constituent Coupon:	3.92%	-5 bps

Index (+) Entries* & (-) Exits

(+) CAS 2021-R02 2M1/2M2/2B1/2B2
 (+) STACR 2021-HQA4 M1/M2/B1/B2
 (+) CAS 2021-R03 1M1/1M2/1B1/1B2
 (-) STACR 2017-DNA3 M1 (paid off)

** 5.97% of Beg. Index Market Value***CRTx® Mkt Val Breakdown 1/2022**

Deal Vintage	Aggregate	UMEZZ	LMEZZ	SUB
All	100%	6.4%	51.2%	42.4%
2021	28.7%	6.1%	8.9%	13.7%
2020	14.5%	0.1%	5.2%	9.2%
2019	10.8%	0.0%	4.5%	6.4%
2018	13.4%	0.1%	8.4%	4.8%
2017	15.0%	0.1%	10.2%	4.7%
2016	8.9%	0.0%	6.8%	2.1%
2015	4.3%	0.0%	2.8%	1.5%
<=2014	4.5%	0.0%	4.5%	0.0%

CRTx® RNI™ (Rolling New Issues) Agg. Index

Dec 2021 CRTx® RNI™ AGG Tot Ret	+47 bps
Price Attribution	+21 bps
Paydown Attribution	+0 bps
Cpn Accr&Pmt Attribution	+26 bps
Writedown+Int Shortfall Attribution	+0 bps
Excess Return	+46 bps
Volatility (Annualized)	0.54%
UPB Paydown %	1.22%
QTD Total Return	0.53%
YTD Total Return	6.85%

CRTx® RNI™ AGG Rebalancing For Jan 2022*As of 12/31/2021***January 2022 Aggregate Constituency (w/MoM Δ):**

• Beg. UPB (\$B):	\$13.50	+18.8%
• Beg. Market Value (\$B):	\$13.68	+18.7%
• Constituents:	52	+8
• WAvg Constituent Value:	101.33	-0.07 pts
• WAvg Constituent Coupon:	3.06%	-8 bps

Index (+) Entries* & (-) Exits

(+) CAS 2021-R02 2M1/2M2/2B1/2B2
 (+) STACR 2021-HQA4 M1/M2/B1/B2
 (+) CAS 2021-R03 1M1/1M2/1B1/1B2
 (-) STACR 2020-DNA6 M1/M2/B1/B2

** 20.83% of Beg. Index Market Value***CRTx® RNI™ Mkt Val Breakdown 1/2022**

Deal Vintage	Aggregate	UMEZZ	LMEZZ	SUB
All	100%	21.3%	31.0%	47.7%
2021	100.0%	21.3%	31.0%	47.7%
2020	0.0%	0.0%	0.0%	0.0%
2019	0.0%	0.0%	0.0%	0.0%
2018	0.0%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%	0.0%
2015	0.0%	0.0%	0.0%	0.0%
<=2014	0.0%	0.0%	0.0%	0.0%

12/31/2021 Index Rebalancing Update *(continued)***Return Roundup**

The CRTx® Aggregate index ended December up 0.30% for the month, 0.63% to end Q4, and closed out 2021 with a 5.86% total return. In a reversal of 2020, the CRTx® AGG outperformed other major rates and credit sector benchmarks YTD as a 60+bps higher curve overwhelmed 2021's firmer credit spreads, save for HY, which performed comparably to, but in the end still lagged, CRT.

Intra-Complex Highlights

December MoM CRTx® gains were once again driven primarily by SUBs (B/B1/B2s) which returned 0.51%, followed by LMEZZ (M2/old M3s) and UMEZZ (mostly M1s) at a below-carry 0.16% and .03%, respectively:

12/31/21	M/E RETURN ATTRIBUTION						
CRTx®	Price Return	Cpn Accrual Return	CPN Pmt Return	Pay-down Return	Write-down Return	Int Shortfall Return	Index Total Return
AGG	0.00%	0.00%	0.34%	-0.03%	-0.0049%	-0.0002%	0.30%
UMEZZ	-0.04%	-0.01%	0.08%	0.00%	0.0000%	0.0000%	0.03%
LMEZZ	-0.05%	0.00%	0.26%	-0.05%	0.0000%	0.0000%	0.16%
SUB	0.07%	-0.01%	0.46%	0.00%	-0.0118%	-0.0004%	0.51%

- **AGG return attribution breakdown showed 3bps drag from paydowns, with minimal writedown/shortfall effect overall.**
- **Mid-covid SUBs largely outperformed seasoned SUBs. CRTx® RNI™ SUB Index posted a .86% Dec return** (vs standard CRTx® SUB at .51%).
- **Seasoned LMEZZ generally edged out newer LMEZZ.**
- **Overall fixed severity "Type II" Dec/YTD performance lagged earliest "Type I" and actual loss returns due to increased Credit Event losses/hits to Fixed Severity 1st loss Bs (-.34% total return in Dec.).**

CRTx® Final 2021 Returns: AGG +5.86%

12/31/21	M/E RETURN METRICS				ROLLING 12-MTH RETURN METRICS			
CRTx®	Index Total Return	Excess Return	Sharpe Ratio	VOL	Index Total Return	Excess Return	Sharpe Ratio	VOL
AGG	0.30%	0.29%	0.41%	8.15	5.86%	5.81%	0.61%	9.36
UMEZZ	0.03%	0.02%	0.14%	1.71	0.82%	0.77%	0.10%	7.45
LMEZZ	0.16%	0.15%	0.28%	6.25	3.88%	3.83%	0.50%	7.52
SUB	0.51%	0.50%	0.83%	6.88	10.73%	10.68%	1.37%	7.44

UMEZZ ended 2021 at carry, LMEZZ returns boosted in part by spread firming and tender premiums, SUBs rallied on CRT credit curve bull-flattening and low credit losses. Annualized vol lower vs 2020.

Index Rebalancing Metrics

The CRTx® Aggregate Index's 2022 starting basket market value rises 4.2% MoM vs. December to \$47.7 billion, nearly identical to 2021's starting CRTx® AGG basket market value (albeit at a lower UPB). ~\$2.9B in Dec. new issue closings more than offset \$962M in Dec. paydowns, buoying CRTx® constituency to 264 securities from 107 deals.

Index Composition

FNMA's 2nd and 3rd CAS deals of their 2021 return, along with FHLMC's last STACR HLTV deal of the year add ~\$2.9B and 12 new constituents to the AGG. The par-ish priced entries (6% of the Jan 2022 basket) help slightly lower the WAvg starting constituent market value to \$103.06, while the WAvg Index coupon declines 5pbs to 3.92%.

CRTx® AGG composition as of the January 2022 basket migrates MoM to:

- 6.4% (vs 5.0% in Dec) - UMEZZ (M1/old M2s),
- 51.2% (vs 53.2% in Dec) - LMEZZ (M2/old M3s)
- 42.4% (vs 41.8% in Dec) - SUBs (B/B1/B2S)

Seasoned M2/M3 paydowns, plus a historically higher percentage issuance of B1s/B2s in new mid-COVID CAS/STACR deals (especially LLTVs) continues to push CRT float proportions up for B1/B2s relative to M2s. New issue coupons show a wide range over 2021.

Select Benchmark GSE CRT New Issue Pricing Margins:							
			Pricing Margins				
Issuance Pd./Close Dt.	Deal	Index	M1	M2	B1	B2	
Mid-COVID	12/29/21	CAS 21-R03	SOFR	85	165	275	550
	12/10/21	STACR 21-HQA4	SOFR	95	235	375	700
	12/01/21	CAS 21-R02	SOFR	90	200	330	620
	11/12/21	STACR 21-DNA7	SOFR	85	180	365	780
	10/29/21	STACR 21-DNA6	SOFR	80	150	340	750
	10/27/21	CAS 21-R01	SOFR	75	155	310	600
	09/30/21	STACR 21-HQA3	SOFR	85	210	335	625
	07/23/21	STACR 21-DNA5	SOFR	65	165	305	550
	06/25/21	STACR 21-HQA2	SOFR	70	205	315	545
	04/23/21	STACR 21-DNA3	SOFR	75	210	350	625
	03/09/21	STACR 21-DNA2	SOFR	80	230	340	600
	02/23/21	STACR 21-HQA1	SOFR	70	225	300	500
	01/29/21	STACR 21-DNA1	SOFR	65	180	265	475
	12/18/20	STACR 20-DNA6	SOFR	90	200	300	565
	11/20/20	STACR 20-HQA5	SOFR	110	260	400	740
	10/20/20	STACR 20-DNA5	SOFR	130	280	480	1,150
	09/29/20	STACR 20-HQA4	1mL	130	315	525	940
08/25/20	STACR 20-DNA4	1mL	150	375	600	1,000	
07/28/20	STACR 20-HQA3	1mL	155	360	575	1,000	
07/08/20	STACR 20-DNA3	1mL	150	300	510	935	
Pre-COVID	03/18/20	STACR 20-HQA2	1mL	110	310	410	760
	02/19/20	STACR 20-DNA2	1mL	75	110	250	480

12/31/2021 Index Rebalancing Update *(continued)***Sector Supply**

Benchmark GSE CRT issuance in December was +\$2.9B gross/+\$1.9B net.

Final 2021 benchmark GSE CRT supply tallies:

- **+\$14.119B Gross Issuance**
 - -\$11.5B paydowns
 - -\$ 3.4B tendered retirements
- **-\$.845B Net Issuance**

GSE Benchmark CRT Issuance (As of 12/31/2021)

Deal Vintage	CAS	STACR	Total
2013	675,000,000	1,130,000,000	1,805,000,000
Qtr3		500,000,000	500,000,000
Qtr4	675,000,000	630,000,000	1,305,000,000
2014	5,849,066,000	4,916,400,000	10,765,466,000
Qtr1	750,000,000	1,008,000,000	1,758,000,000
Qtr2	1,600,066,000	966,000,000	2,566,066,000
Qtr3	2,050,000,000	1,902,000,000	3,952,000,000
Qtr4	1,449,000,000	1,040,400,000	2,489,400,000
2015	5,920,002,000	6,657,600,000	12,577,602,000
Qtr1	1,468,500,000	1,740,000,000	3,208,500,000
Qtr2	1,448,500,000	2,385,600,000	3,834,100,000
Qtr3	1,557,054,000	872,000,000	2,429,054,000
Qtr4	1,445,948,000	1,660,000,000	3,105,948,000
2016	7,392,110,000	5,541,000,000	12,933,110,000
Qtr1	1,976,583,000	1,471,000,000	3,447,583,000
Qtr2	1,165,708,000	2,338,000,000	3,503,708,000
Qtr3	2,524,116,000	1,254,000,000	3,778,116,000
Qtr4	1,725,703,000	478,000,000	2,203,703,000
2017	8,635,815,000	5,462,000,000	14,097,815,000
Qtr1	2,680,640,000	1,554,500,000	4,235,140,000
Qtr2	2,374,039,000	2,107,500,000	4,481,539,000
Qtr3	2,420,253,000		2,420,253,000
Qtr4	1,160,883,000	1,800,000,000	2,960,883,000
2018	7,313,323,000	4,755,000,000	12,068,323,000
Qtr1	2,501,078,000	1,885,000,000	4,386,078,000
Qtr2	1,050,028,000	1,050,000,000	2,100,028,000
Qtr3	1,922,142,000	820,000,000	2,742,142,000
Qtr4	1,840,075,000	1,000,000,000	2,840,075,000
2019	7,136,188,000	4,980,000,000	12,116,188,000
Qtr1	1,962,727,000	1,962,000,000	3,924,727,000
Qtr2	857,330,000	615,000,000	1,472,330,000
Qtr3	2,023,973,000	1,382,000,000	3,405,973,000
Qtr4	2,292,158,000	1,021,000,000	3,313,158,000
2020	2,167,536,000	10,372,000,000	12,539,536,000
Qtr1	2,167,536,000	3,707,000,000	5,874,536,000
Qtr2			
Qtr3		3,709,000,000	3,709,000,000
Qtr4		2,956,000,000	2,956,000,000
2021	3,094,849,000	11,024,000,000	14,118,849,000
Qtr1		3,544,000,000	3,544,000,000
Qtr2		1,500,000,000	1,500,000,000
Qtr3		2,257,000,000	2,257,000,000
Qtr4	3,094,849,000	3,723,000,000	6,817,849,000
Total to Date	48,183,889,000	54,838,000,000	103,021,889,000

Sources: Fannie Mae, Freddie Mac, MF&Co

Notable Benchmark CRT Historical Issuance Records Set in 2021:

- **Largest Issuance Year:** 2021 (\$14.12B)
- **Largest Issuance Qtr:** 2021 Q4 (\$6.82B)
- **Largest Sponsor Issuance QTR:**
 - FNMA/CAS: 2021 Q4 (\$3.09B)
 - FHLMC/STACR: 2021 Q4 (\$3.72B)
- **Largest STACR LLTV Deal:**
 - STACR 2021-DNA6 (\$1.48B)
- **Largest STACR HLTV Deal:**
 - STACR 2021-HQA1 (\$1.39B)
- **Largest Sponsor B1 Class:**
 - FNMA/CAS: 2021-R01 1B1 (\$378M)
 - FHLMC/STACR: 2021-DNA6 B1 (\$424M)
- **Largest Sponsor B2 Class:**
 - FNMA/CAS: 2021-R01 1B2 (\$309M)
 - FHLMC/STACR: 2021-DNA6 B2 (\$424M)

Latest Credit Performance

December's reference pool credit/deal structural reporting showed generally stable to improved MoM performance, although certain fixed severity "Type II" deals (which have special assessment protocols for 180d DQ Credit Event tests related to crisis situations such as COVID) diverged. DQs & CPRs were modestly lower overall, more reference pools passed their dynamic DQ tests, and writedowns/ interest shortfalls were still nominal, save for fixed severity Type II deals.

Credit

- Total DQ %s and 180+ DQ dollars/counts declined again for pre-COVID CAS and STACR deals, with pre-COVID actual loss deals now range between 3.00%-9.00%.
- December tranche and reference pool realized write-downs/shortfalls remained nominal for actual loss deals, increased for fixed severities:
 - **CRTx® 1st Loss Sub-Index (1st loss Bs): -13bps** in aggregate total return drag from write-downs/shortfalls for December (mostly from FXD Severity Bs)
 - **FXD SEVERITY 1st LOSS SUB-INDEX: -107 bps** total return hit from Dec. write-downs/shortfalls
 - Basket - STACR 2015-DN1/HQ1&2 Bs (FXD Sev. "Type II")

12/31/2021 Index Rebalancing Update *(continued)***Paydowns**

- **December factor speeds slowed ~1cpr on avg.,** with modestly seasoned+ reference pools now in the low 20s/low 40s CPR range. **MTD CRTx® AGG return attribution from paydowns: -3bps**
- **The CRTx® AGG's 2.17% December paydown percentage was higher vs. November (1.94% non-tender paydowns) as more deals passed DQ tests boosting principal flows:**

Dec. Index UPB Paydowns:	\$ 962M
o UMEZZ (Mostly M1s):	\$ 197M
o LMEZZ (M2s/old M3s):	\$ 763M
o SUB (Bs/B1s/B2s):	\$ 2M

Structure

- Class C/E's improved across the board.
- LIBOR resets +1bp, SOFR resets unchanged MoM.
- **49 reference pool groups continued to fail their DQ Test in December, down 9** (5 CAS, 4 STACR reference pools) vs. 58 in November.

Relative Value Thoughts**Landscape**

Heading into 2022, the technical and fundamental backdrop for mortgage credit and housing looks like it will continue the current supportive trend, although probably with less upside vs 2021. While home prices and demand continue, the market is already at heady levels. Forbearance period conclusions have begun, and though HPA is much higher across deal vintages, fixed severity deals are uniquely exposed to DQ status.

From a technical perspective, the 2022 GSE scorecard calls for affordability housing efforts and "significant" transfer of credit risk, which, along with proposed capital rule changes and much higher conforming loan limits, sets the stage for the pace of benchmark CRT issuance to continue, and even expand this year, as CPRs continue to slow from historically fast levels.

Newly used GSE options and structural formats, such as the recent tender offers, 20yr deal maturities with shorter 5yr early redemption

options, and structural issuance sizing shifts towards the lower part of the capital structure, make for a very diverse and nuanced benchmark GSE CRT float composition.

With this increase in variation across reference pool exposure, structural features, and vintage differentials, at historically firmer spreads, there are even more relative value risk/reward propositions for investors in 2022, and hence, even more of a need for detailed analytical diligence.

Ideas

- ❖ B1/B2 blend from latest CAS/STACR deals with 5yr sponsor redemption option/20yr final maturity:
 - o B1/B2 CRT blend and HY aggregate both currently carrying at ~45bps/mth.
 - o Yields-to-redemption vs. blended HY yields-to-call are within the same context, but CRTs at shorter theoretical durations to early redemption.
- ❖ Seasoned actual loss over fixed severity 1st loss B-pieces:
 - o *FXD severity Bs currently exposed to forbearance conclusions and 180dq credit event assessments.*
 - o \$1.4B in act. loss Bs float (2015-17 vintages),
 - o About 4-5yrs until redemption option,
 - o Net-carry still at ~70ish bps,
 - o Substantial 900+ coupon entitlements, while still at ~\$112-handles.
 - o 2015/2016/2017 vintage HPA now up 45%-67%.
- ❖ M2s from latest CAS/STACR deals with 5yr sponsor redemption option/20yr final maturity:
 - o M2s vs. IG – yield give, but less exposure to curve volatility/higher rates.
 - o M2 yields-to-redemption per unit spread duration incrementally better than IG yields-to-call per unit duration.

CRTx® Index Suite Total Return Performance: Month End 12/31/2021

CRTx® (Credit Risk Transfer Return Tracking Index) Return Summary						
RETURNS						
		Period			Annualized	
		MTD	QTD	YTD	1-YR	3-YR
					As of Date	
Aggregate		0.30%	0.63%	5.86%	5.86%	4.79%
					12/31/2021	
Upper Mezzanine		0.03%	0.21%	0.82%	0.82%	2.35%
					12/31/2021	
Lower Mezzanine		0.16%	0.49%	3.88%	3.88%	3.60%
					12/31/2021	
Subordinate		0.51%	0.86%	10.73%	10.73%	7.25%
					12/31/2021	
Upper/Lower Mezz.		0.15%	0.46%	3.68%	3.68%	3.63%
					12/31/2021	
Lower Mezz./Sub.		0.31%	0.65%	6.09%	6.09%	4.77%
					12/31/2021	
CAS		0.28%	0.86%	5.64%	5.64%	4.64%
					12/31/2021	
STACR		0.31%	0.47%	5.98%	5.98%	4.92%
					12/31/2021	
LLTV		0.29%	0.60%	5.72%	5.72%	4.63%
					12/31/2021	
HLTV		0.32%	0.67%	6.07%	6.07%	5.03%
					12/31/2021	
Upper Mezzanine	2021	0.03%	0.21%	0.69%	-	-
					12/31/2021	
	2020	0.08%	0.19%	0.77%	0.77%	-
					12/31/2021	
	2019	-	-	-	-	-
					12/31/2021	
	2018	0.09%	0.30%	1.02%	1.02%	2.14%
					12/31/2021	
	2017	-0.01%	0.21%	0.95%	0.95%	2.09%
					12/31/2021	
	2016	-	-	-	-	-
					12/31/2021	
	2015	-	-	-	-	-
					12/31/2021	
	<=2014	-	-	-	-	-
					12/31/2021	
Lower Mezzanine	2021	0.11%	0.18%	3.41%	-	-
					12/31/2021	
	2020	0.17%	0.23%	2.62%	2.62%	-
					12/31/2021	
	2019	0.14%	0.32%	2.88%	2.88%	-
					12/31/2021	
	2018	0.34%	0.63%	4.60%	4.60%	5.24%
					12/31/2021	
	2017	0.08%	0.63%	4.23%	4.23%	3.98%
					12/31/2021	
	2016	0.00%	0.35%	3.52%	3.52%	2.42%
					12/31/2021	
	2015	0.22%	0.53%	2.91%	2.91%	2.30%
					12/31/2021	
	<=2014	0.30%	0.98%	6.10%	6.10%	3.38%
					12/31/2021	
Subordinate	2021	0.97%	0.49%	7.14%	-	-
					12/31/2021	
	2020	0.12%	0.79%	10.81%	10.81%	-
					12/31/2021	
	2019	0.46%	0.42%	11.41%	11.41%	-
					12/31/2021	
	2018	0.38%	0.38%	8.33%	8.33%	9.19%
					12/31/2021	
	2017	0.31%	1.93%	11.21%	11.21%	5.93%
					12/31/2021	
	2016	0.78%	1.85%	11.96%	11.96%	4.41%
					12/31/2021	
	2015	0.24%	0.72%	4.79%	4.79%	2.60%
					12/31/2021	
	<=2014					
					12/31/2021	

CRTx® Index Suite Total Return Performance: Month End 12/31/2021 (Continued)

CRTx® RNI™ (Rolling New Issues*) Return Summary						
	RETURNS					
	Period			Annualized		As of Date
	MTD	QTD	YTD	1-YR	3-YR	
Aggregate	0.47%	0.53%	6.85%	6.85%	7.16%	12/31/2021
Upper Mezzanine	0.03%	0.21%	0.81%	0.81%	2.23%	12/31/2021
Lower Mezzanine	0.12%	0.19%	3.29%	3.29%	5.55%	12/31/2021
Subordinate	0.86%	0.87%	12.10%	12.10%	10.91%	12/31/2021
LLTV	0.55%	0.61%	6.84%	6.84%	7.10%	12/31/2021
HLTV	0.25%	0.26%	6.35%	6.35%	7.41%	12/31/2021

* Most recently issued securities within a "rolling" 12-month window

CRTx® (Credit Risk Transfer Return Tracking Index) Return Summary						
Special Sub-Indexes (NEW)	RETURNS					
	Period			Annualized		As of Date
	MTD	QTD	YTD	1-YR	3-YR	
Fxd Severity - Type I*	0.37%	1.14%	6.92%	6.92%	4.02%	12/31/2021
Fxd Severity - Type II*	0.12%	0.70%	4.25%	4.25%	2.74%	12/31/2021
Actual Loss	0.30%	0.60%	5.92%	5.92%	5.10%	12/31/2021
CAS Fxd Severity - Type I*	0.44%	1.07%	6.15%	6.15%	3.71%	12/31/2021
STACR Fxd Severity - Type I*	0.31%	1.20%	7.57%	7.57%	4.29%	12/31/2021
CAS Fxd Severity - Type II*	0.19%	0.72%	4.54%	4.54%	2.87%	12/31/2021
STACR Fxd Severity - Type II*	-0.06%	0.66%	3.67%	3.67%	2.50%	12/31/2021
CAS Act. Loss	0.28%	0.86%	5.72%	5.72%	4.94%	12/31/2021
STACR Act. Loss	0.31%	0.44%	6.03%	6.03%	5.23%	12/31/2021

* Type I - No Credit Event Relief Provisions For Natural Disaster/Casualty Events

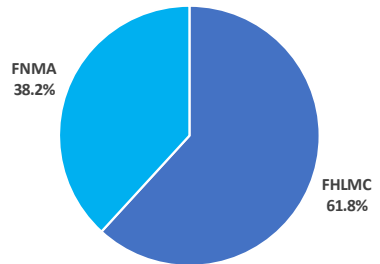
Type II - Some Credit Event Relief Provisions For Natural Disaster/Casualty Events

* CRTx® Aggregate Index and Sub Index Constituency

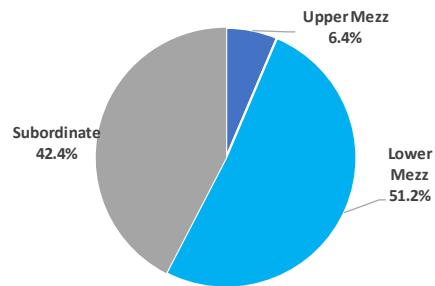
CRISIL Aggregate Index and Sub-Index Constituency					
Aggregate	Upper Mezzanine	Lower Mezzanine	Subordinate	LLTV	HLTV
All Index-Eligible FNMA CAS shelf and FHLMC STACR shelf At-Issuance Classes	<u>FNMA CAS Shelf:</u> M1 Classes	<u>FNMA CAS Shelf:</u> M2 Classes	<u>FNMA CAS Shelf:</u> All B Classes	All Index-Eligible FNMA CAS shelf and FHLMC STACR shelf At-Issuance Classes from deals referencing Low Loan to Value (LLTV) loans	All Index-Eligible FNMA CAS shelf and FHLMC STACR shelf At-Issuance Classes from deals referencing High Loan to Value (HLTV) loans
	<u>FHLMC STACR Shelf:</u> M1 Classes (in M1/M2 structures) M1/M2 Classes (in M1/M2/M3 structures)	<u>FHLMC STACR Shelf:</u> M2 Classes (in M1/M2 structures) M3 Classes (in M1/M2/M3 structures)	<u>FHLMC STACR Shelf:</u> All B Classes		
	Vintage Sub Index constituency determined by deal/security closing year (except 2013/2014 which are grouped as "2014").				
RNI™ (Rolling New Issues) versions of the standard CRTx® Aggregate and Sub-Indexes have dynamic constituent baskets made up exclusively of the most recently issued securities within a "rolling" 12-month look-back window.					

CRTx® Select Constituent Metrics History: January 2022 Starting Basket

Sponsor % of CRTx® Mkt Val For 01/2022



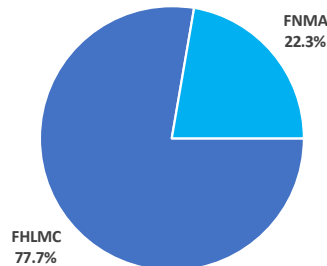
Sub Index % of CRTx® Mkt Val For 01/2022


CRTx® AGG

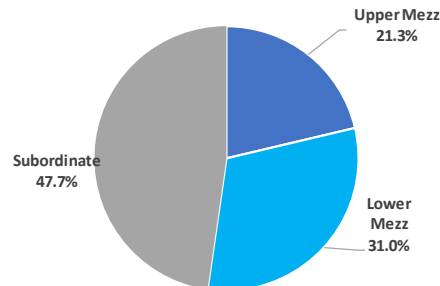
MONTH END CLOSINGS			BEGINNING MONTH BASKET						
Calculation	INDEX VALUE	Month to Date Total Return	# of Constituents	Beg Month UPB	Beg Month Total \$ Market Value	W Avg Adj Beg Month Security Mkt Value	WTD Avg Current Coupon	WTD Avg Cpn Margin	
Feb-2019	145.35	0.67%	197	46,772,850,585	49,835,261,884	106.55	6.03	352	
Mar-2019	145.38	0.03%	203	48,032,924,530	51,194,424,387	106.58	6.00	351	
Apr-2019	146.85	1.01%	207	49,316,494,813	52,277,031,986	106.00	5.98	349	
May-2019	146.57	-0.19%	209	49,790,890,759	53,037,404,665	106.52	5.96	348	
Jun-2019	146.96	0.27%	213	49,953,468,597	52,833,120,553	105.77	5.92	349	
Jul-2019	147.90	0.64%	209	49,366,797,803	52,160,276,911	105.66	5.91	350	
Aug-2019	147.57	-0.22%	216	50,468,731,712	53,381,992,659	105.77	5.76	349	
Sep-2019	148.53	0.65%	219	50,665,720,866	53,218,677,450	105.04	5.63	349	
Oct-2019	149.04	0.34%	222	50,254,380,617	52,920,221,300	105.31	5.53	351	
Nov-2019	149.76	0.48%	228	50,975,909,280	53,606,190,708	105.16	5.33	351	
Dec-2019	150.73	0.65%	233	51,029,160,871	53,690,414,024	105.22	5.23	352	
Jan-2020	152.55	1.21%	228	49,686,844,416	52,466,578,192	105.60	5.35	356	
Feb-2020	152.31	-0.16%	232	50,375,851,983	53,580,028,930	106.36	5.20	354	
Mar-2020	113.64	-25.39%	240	52,372,791,379	55,277,944,042	105.55	5.11	348	
Apr-2020	123.83	8.97%	234	52,342,281,038	40,769,683,770	77.89	4.45	351	
May-2020	132.53	7.03%	229	50,951,320,646	42,820,320,693	84.04	4.03	355	
Jun-2020	144.50	9.04%	218	48,983,309,963	43,695,592,838	89.21	3.77	360	
Jul-2020	143.94	-0.39%	214	46,718,914,995	45,227,362,482	96.81	3.83	365	
Aug-2020	146.37	1.69%	217	46,681,772,649	44,843,108,762	96.06	3.87	370	
Sep-2020	147.99	1.11%	217	46,076,349,850	44,862,684,449	97.37	3.92	374	
Oct-2020	148.99	0.68%	220	45,735,370,315	44,865,412,741	98.10	3.90	375	
Nov-2020	151.26	1.52%	224	46,269,817,211	45,566,172,083	98.48	3.93	378	
Dec-2020	154.14	1.91%	228	46,924,624,650	46,772,793,230	99.68	3.93	378	
Jan-2021	155.99	1.20%	230	47,148,362,895	47,722,154,982	101.22	3.92	377	
Feb-2021	156.91	0.59%	232	47,277,423,099	48,281,726,799	102.12	3.90	377	
Mar-2021	156.58	-0.21%	235	47,729,907,668	48,857,887,219	102.36	3.87	376	
Apr-2021	158.53	1.25%	236	47,872,554,649	48,747,702,476	101.83	3.87	378	
May-2021	159.34	0.51%	238	47,615,037,767	48,936,401,435	102.78	3.89	380	
Jun-2021	160.42	0.68%	235	46,556,670,751	47,976,744,707	103.05	3.90	382	
Jul-2021	160.88	0.29%	239	46,213,562,998	47,807,083,563	103.45	3.91	383	
Aug-2021	161.28	0.25%	242	46,542,264,071	48,139,580,923	103.43	3.91	383	
Sep-2021	162.16	0.55%	240	45,645,024,894	47,210,049,253	103.43	3.93	385	
Oct-2021	162.45	0.18%	243	44,395,832,151	46,008,939,674	103.63	3.93	385	
Nov-2021	162.69	0.15%	250	46,136,808,535	47,705,750,833	103.40	3.92	384	
Dec-2021	163.17	0.30%	253	44,428,702,439	45,850,865,730	103.20	3.97	389	
Jan-2022			264	46,303,372,955	47,721,518,712	103.06	3.92	383	

CRTx® RNI™ Select Constituent Metrics History: January 2022 Starting Basket

Sponsor % of CRTx® RNI™ Mkt Val For 01/2022



Sub Index % of CRTx® RNI™ Mkt Val For 01/2022



CRTx® RNI™ AGG

MONTH END CLOSINGS			BEGINNING MONTH BASKET					
Calculation	INDEX VALUE	Month to Date Total Return	# of Constituents	Beg Month UPB	Beg Month Total \$ Market Value	W Avg Adj Beg Month Security Mkt Value	WTD Avg Current Coupon	WTD Avg Cpn Margin
Feb-2019	150.07	0.96%	42	11,690,163,411	11,668,711,493	99.82	4.95	244
Mar-2019	150.42	0.24%	46	11,805,116,972	11,843,264,036	100.32	5.04	255
Apr-2019	153.32	1.93%	47	11,496,051,271	11,521,401,714	100.22	5.11	263
May-2019	153.30	-0.01%	50	12,325,563,537	12,533,604,780	101.69	5.08	260
Jun-2019	154.99	1.10%	51	11,881,379,851	12,033,434,980	101.28	5.11	268
Jul-2019	156.84	1.19%	48	10,813,358,090	11,041,172,540	102.11	5.15	275
Aug-2019	157.60	0.49%	52	11,648,252,778	11,964,569,893	102.72	5.02	275
Sep-2019	158.58	0.62%	52	11,555,452,802	11,866,682,740	102.69	4.90	275
Oct-2019	158.98	0.25%	52	11,145,361,078	11,471,457,452	102.93	4.81	278
Nov-2019	159.70	0.45%	49	10,957,162,877	11,213,504,874	102.34	4.55	273
Dec-2019	161.24	0.96%	53	11,183,706,619	11,434,402,160	102.24	4.43	272
Jan-2020	163.27	1.26%	52	10,810,525,676	11,128,255,837	102.94	4.58	279
Feb-2020	163.04	-0.14%	54	11,750,620,247	12,144,811,071	103.36	4.32	266
Mar-2020	123.73	-24.11%	57	13,219,029,124	13,479,658,957	101.97	4.09	246
Apr-2020	120.70	-2.45%	55	12,793,770,386	9,865,262,294	77.11	3.43	249
May-2020	134.53	11.46%	51	11,841,276,956	8,721,408,098	73.65	3.01	252
Jun-2020	151.62	12.71%	46	10,917,819,539	8,842,509,887	80.99	2.69	253
Jul-2020	153.41	1.17%	45	10,409,152,540	9,432,905,082	90.62	2.78	259
Aug-2020	154.49	0.71%	46	10,724,189,826	9,890,825,093	92.23	2.99	282
Sep-2020	157.58	2.00%	47	10,980,427,286	10,237,992,004	93.24	3.19	301
Oct-2020	158.61	0.66%	48	11,105,630,257	10,559,393,889	95.08	3.25	310
Nov-2020	161.83	2.03%	47	10,696,965,880	10,283,123,737	96.13	3.47	333
Dec-2020	166.71	3.02%	46	10,736,337,604	10,542,306,038	98.19	3.53	339
Jan-2021	168.67	1.18%	50	11,324,184,451	11,415,597,441	100.81	3.50	337
Feb-2021	169.49	0.48%	47	10,504,416,039	10,712,665,142	101.98	3.61	350
Mar-2021	167.93	-0.92%	39	9,048,558,462	9,296,466,342	102.74	3.84	377
Apr-2021	170.69	1.64%	38	8,978,749,172	9,107,517,591	101.43	3.81	376
May-2021	172.19	0.88%	41	9,588,703,205	9,840,125,130	102.62	3.79	375
Jun-2021	174.63	1.42%	40	9,373,273,707	9,681,506,748	103.29	3.81	378
Jul-2021	175.45	0.47%	44	9,738,420,034	10,156,250,987	104.29	3.78	374
Aug-2021	175.78	0.19%	42	9,659,687,165	10,041,577,171	103.95	3.55	349
Sep-2021	177.19	0.80%	39	8,836,801,107	9,156,649,664	103.62	3.40	335
Oct-2021	177.37	0.10%	39	9,275,157,362	9,611,457,885	103.63	3.25	320
Nov-2021	177.29	-0.05%	44	11,029,258,671	11,264,989,273	102.14	3.12	307
Dec-2021	178.13	0.47%	44	11,364,521,191	11,523,394,460	101.40	3.14	309
Jan-2022			52	13,499,939,498	13,679,507,404	101.33	3.06	301

Latest Deal Performance Metrics: December 2021 Monthly Statements - CAS

CRTx® AGG Index Constituent Performance Data (Dec-2021 Monthly Statements)																										
Deal					Loss	Pool	Form	Structure	Early Redemption Option (Yrs)	Maturity (Yrs)	Rem. Early Redemp. Option (Yrs)	Rem. Maturity (Yrs)	Delinquency Pipeline						CPR	Net						
													30d	60d	90d	120d	150d	180d+		Total DQ%	MoM % Chg	1mth	Pass	Pass	Pass	Pass
Deal	Loss	Pool	Form	Structure	Early Redemption Option (Yrs)	Maturity (Yrs)	Rem. Early Redemp. Option (Yrs)	Rem. Maturity (Yrs)	30d	60d	90d	120d	150d	180d+	Total DQ%	MoM % Chg	1mth	Pass	Pass	Pass	Pass					
CAS 2013-C01	FXD1	LLTV	DEBT	M1-M2	10.0		1.8	0.48	0.10	0.04	0.03	0.02	-	0.67	5%	28%	NA	YES	NA	NA						
CAS 2014-C01	FXD1	LLTV	DEBT	M1-M2	10.0		2.1	0.41	0.09	0.06	0.02	0.03	-	0.61	5%	27%	NA	YES	NA	NA						
CAS 2014-C02	FXD1	LLTV	DEBT	1M1-1M2	10.0		2.4	0.43	0.06	0.05	0.04	0.02	-	0.60	11%	24%	NA	YES	NA	NA						
	FXD1	HLTV	DEBT	2M1-2M2	10.0		2.4	0.63	0.10	0.03	0.04	0.07	-	0.87	10%	28%	NA	YES	NA	NA						
CAS 2014-C03	FXD2	LLTV	DEBT	1M1-1M2	10.0		2.6	0.52	0.09	0.04	0.03	0.03	-	0.71	4%	27%	NA	NO	NA	NA						
	FXD2	HLTV	DEBT	2M1-2M2	10.0		2.6	0.74	0.12	0.08	0.06	0.03	-	1.03	17%	29%	NA	YES	NA	NA						
CAS 2014-C04	FXD2	LLTV	DEBT	1M1-1M2	10.0		2.9	0.58	0.14	0.09	0.04	0.07	-	0.92	8%	25%	NA	YES	NA	NA						
	FXD2	HLTV	DEBT	2M1-2M2	10.0		2.9	0.85	0.23	0.11	0.06	0.06	-	1.31	12%	28%	NA	YES	NA	NA						
CAS 2015-C01	FXD2	LLTV	DEBT	1M1-1M2	10.0		3.2	0.96	0.18	0.07	0.09	0.08	-	1.38	6%	27%	NA	YES	NA	NA						
	FXD2	HLTV	DEBT	2M1-2M2	10.0		3.2	1.26	0.30	0.15	0.10	0.11	-	1.92	10%	30%										
CAS 2015-C02	FXD2	LLTV	DEBT	1M1-1M2	10.0		3.4	1.05	0.29	0.10	0.08	0.07	-	1.59	5%	27%	NA	YES	NA	NA						
	FXD2	HLTV	DEBT	2M1-2M2	10.0		3.4	1.57	0.36	0.23	0.12	0.12	-	2.40	16%	26%	NA	YES	NA	NA						
CAS 2015-C03	FXD2	LLTV	DEBT	1M1-1M2	10.0		3.6	1.11	0.27	0.13	0.09	0.05	-	1.65	13%	27%	NA	YES	NA	NA						
	FXD2	HLTV	DEBT	2M1-2M2	10.0		3.6	1.55	0.39	0.21	0.16	0.15	-	2.46	8%	32%	NA	YES	NA	NA						
CAS 2015-C04	ACT	LLTV	DEBT	1M1-1M2	10.0	12.5	3.8	6.3	1.20	0.30	0.17	0.08	0.11	2.57	4.43	-2%	31%	NA	YES	NA	NO					
	ACT	HLTV	DEBT	2M1-2M2	10.0	12.5	3.8	6.3	1.52	0.44	0.31	0.17	0.18	3.43	6.05	0%	34%	NA	YES	NA	NO					
CAS 2016-C01	ACT	LLTV	DEBT	1M1-1M2-1B	10.0	12.5	4.2	6.7	0.88	0.26	0.13	0.09	0.16	2.42	3.94	-2%	31%	NA	YES	NA	YES					
	ACT	HLTV	DEBT	2M1-2M2	10.0	12.5	4.2	6.7	1.51	0.44	0.22	0.16	0.11	3.06	5.50	-5%	34%	NA	YES	NA	NO					
CAS 2016-C02	ACT	LLTV	DEBT	1M1-1M2-1B	10.0	12.5	4.2	6.8	0.80	0.18	0.12	0.09	0.07	1.70	2.96	-11%	31%	NA	YES	NA	YES					
	ACT	LLTV	DEBT	1M1-1M2-1B	10.0	12.5	4.3	6.8	0.76	0.21	0.11	0.03	0.06	1.93	3.10	-8%	31%	NA	YES	NA	YES					
CAS 2016-C03	ACT	HLTV	DEBT	2M1-2M2-2B	10.0	12.5	4.3	6.8	1.18	0.36	0.13	0.10	0.14	2.48	4.39	-4%	34%	NA	YES	NA	NO					
	ACT	LLTV	DEBT	1M1-1M2-1B	10.0	12.5	4.6	7.1	0.99	0.22	0.14	0.08	0.08	2.18	3.69	-3%	34%	NA	YES	NA	YES					
CAS 2016-C05	ACT	HLTV	DEBT	2M1-2M2-2B	10.0	12.5	4.6	7.1	1.44	0.42	0.22	0.18	0.16	2.81	5.23	-3%	35%	NA	YES	NA	NO					
CAS 2016-C06	ACT	LLTV	DEBT	1M1-1M2-1B	10.0	12.5	4.8	7.3	1.01	0.25	0.16	0.08	0.12	2.28	3.90	-2%	31%	NA	YES	NA	YES					
CAS 2016-C07	ACT	HLTV	DEBT	2M1-2M2-2B	10.0	12.5	4.9	7.4	1.39	0.42	0.23	0.14	0.13	3.14	5.45	-3%	35%	NA	YES	NA	NO					
CAS 2017-C01	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	5.1	7.6	0.91	0.23	0.13	0.09	0.09	2.21	3.66	-6%	32%	NA	YES	NA	NO					
CAS 2017-C02	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	5.2	7.8	1.10	0.31	0.20	0.12	0.12	2.53	4.38	-3%	34%	NA	YES	NA	NO					
CAS 2017-C03	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	5.3	7.8	0.84	0.18	0.10	0.12	0.07	1.81	3.12	-4%	30%	NA	YES	NA	YES					
CAS 2017-C04	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	5.4	7.9	1.01	0.33	0.16	0.12	0.15	2.44	4.21	-5%	32%	NA	YES	NA	NO					
CAS 2017-C05	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	5.6	8.1	0.76	0.19	0.12	0.07	0.08	1.89	3.11	-4%	31%	NA	YES	NA	NO					
CAS 2017-C06	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	5.7	8.2	0.91	0.20	0.14	0.10	0.10	2.56	4.01	-6%	30%	NA	YES	NA	NO					
	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	5.7	8.2	1.43	0.48	0.27	0.19	0.21	3.78	6.36	-4%	37%	NA	YES	NA	NO					
CAS 2017-C07	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	5.9	8.4	1.08	0.31	0.20	0.10	0.18	3.06	4.93	-5%	34%	NA	YES	NA	NO					
	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	5.9	8.4	1.49	0.53	0.34	0.25	0.20	4.40	7.21	-3%	39%	NA	YES	NA	NO					
CAS 2018-C01	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.4	6.1	8.6	1.08	0.27	0.15	0.13	0.12	2.91	4.66	-3%	36%	NA	YES	NA	NO					
CAS 2018-C02	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	6.2	8.7	1.59	0.45	0.25	0.17	0.16	3.48	6.10	-5%	39%	NA	YES	NA	NO					
CAS 2018-C03	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	6.3	8.8	1.20	0.34	0.22	0.15	0.15	3.00	5.06	-4%	36%	NA	YES	NA	NO					
CAS 2018-C04	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	6.5	9.0	1.54	0.46	0.31	0.14	0.23	4.32	7.00	-4%	38%	NA	YES	NA	NO					
CAS 2018-C05	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	6.6	9.1	1.07	0.37	0.20	0.17	0.17	3.34	5.32	-3%	37%	NA	YES	NA	NO					
CAS 2018-C06	ACT	LLTV	DEBT	1M1-1M2-1B1	10.0	12.5	6.8	9.2	1.34	0.47	0.27	0.20	0.16	3.99	6.43	-6%	37%	NA	YES	NA	NO					
	ACT	HLTV	DEBT	2M1-2M2-2B1	10.0	12.5	6.8	9.2	1.53	0.49	0.31	0.18	0.24	4.74	7.49	-5%	36%	NA	YES	NA	NO					
CAS 2018-R07	ACT	LLTV	REMIC	1M1-1M2-1B1	10.0	12.5	6.8	9.3	1.51	0.53	0.35	0.22	0.17	4.37	7.15	-2%	37%	NA	YES	NA	NO					
CAS 2019-R01	ACT	HLTV	REMIC	2M1-2M2-2B1	10.0	12.5	7.1	9.6	1.79	0.57	0.36	0.31	0.23	5.16	8.42	-3%	41%	NA	YES	NA	NO					
CAS 2019-R02	ACT	LLTV	REMIC	1M1-1M2-1B1	10.0	12.5	7.2	9.7	1.48	0.41	0.30	0.23	0.16	4.34	6.92	-3%	39%	NA	YES	NA	NO					
CAS 2019-R03	ACT	LLTV	REMIC	1M1-1M2-1B1	9.9	12.4	7.2	9.8	1.58	0.44	0.29	0.14	0.18	4.32	6.95	-6%	40%	NA	YES	NA	NO					
CAS 2019-R04	ACT	HLTV	REMIC	2M1-2M2-2B1	7.0	20.0	4.5	17.5	1.78	0.52	0.39	0.26	0.30	5.48	8.73	-2%	44%	NA	YES	NA	NO					
CAS 2019-R05	ACT	LLTV	REMIC	1M1-1M2-1B1	7.0	20.0	4.6	17.6	1.53	0.41	0.25	0.23	0.17	4.76	7.35	-4%	40%	NA	YES	NA	NO					
CAS 2019-R06	ACT	HLTV	REMIC	2M1-2M2-2B1	7.0	20.0	4.7	17.8	1.43	0.49	0.34	0.23	0.24	4.68	7.41	-5%	44%	NA	YES	NA	NO					
CAS 2019-R07	ACT	LLTV	REMIC	1M1-1M2-1B1	7.0	20.0	4.8	17.8	1.21	0.31	0.25	0.15	0.18	3.73	5.83	-6%	39%	NA	YES	NA	NO					
CAS 2020-R01	ACT	LLTV	REMIC	1M1-1M2-1B1	7.0	20.0	5.1	18.1	0.85	0.24	0.17	0.10	0.11	2.50	3.97	-7%	40%	NA	YES	NA	NO					
CAS 2020-R02	ACT	HLTV	REMIC	2M1-2M2-2B1	7.0	20.0	5.1	18.1	1.10	0.46	0.25	0.24	0.18	3.26	5.49	-3%	42%	NA	YES	NA	NO					
CAS 2021-R01	ACT	LLTV	REMIC	1M1-1M2-1B1-1B2	5.0	20.0	4.8	19.8	0.43	0.02	0.00	-	-	-	0.45		15%	NA	YES	NA	YES					
CAS 2021-R02	ACT	HLTV	REMIC	2M1-2M2-2B1-2B2	5.0	20.0	4.9	19.9	0.36	0.00	-	-	-	-	0.36		15%	NA	YES	NA	YES					
CAS 2021-R03	ACT	LLTV	REMIC	1M1-1M2-1B1-1B2	5.0	20.0	5.0	20.0	-	-	-	-	-	-				NA	YES	NA	YES					

Latest Deal Performance Metrics: December 2021 Monthly Statements - STACR

CRTx® AGG Index Constituent Performance Data (Dec-2021 Monthly Statements)																					
Deal	Loss	Pool	Form	Structure	Early Redemption Option (Yrs)	Maturity (Yrs)	Rem. Early Redemp. Option (Yrs)	Rem. Maturity (Yrs)	Delinquency Pipeline						CPR		Net				
									30d	60d	90d	120d	150d	180d+	Total DOQ	MoM	1mth	Test	Test	Test	Test
STACR 2013-DN1	FXD1	LLTV	DEBT	M1-M2	10.0		1.6	0.35	0.10	0.02	0.02	-	-	0.49	7%	24%	YES	YES	NA	NA	
STACR 2013-DN2	FXD1	LLTV	DEBT	M1-M2	10.0		1.9	0.40	0.08	0.04	0.04	0.02	-	0.58	0%	23%	YES	YES	NA	NA	
STACR 2014-DN1	FXD1	LLTV	DEBT	M1-M2-M3	10.0		2.2	0.48	0.06	0.06	0.02	0.02	-	0.64	-6%	24%	YES	YES	NA	NA	
STACR 2014-DN2	FXD1	LLTV	DEBT	M1-M2-M3	10.1		2.3	0.54	0.11	0.04	0.03	0.03	-	0.75	0%	26%	YES	YES	NA	NA	
STACR 2014-DN3	FXD2	LLTV	DEBT	M1-M2-M3	10.0		2.7	0.95	0.23	0.08	0.12	0.03	0.91	2.32	-20%	27%	YES	YES	NA	NA	
STACR 2014-DN4	FXD2	LLTV	DEBT	M1-M2-M3	10.0		2.8	1.10	0.28	0.08	0.07	0.04	1.06	2.63	-25%	29%	YES	YES	NA	NA	
STACR 2014-HQ1	FXD2	HLTV	DEBT	M1-M2-M3	10.0		2.7	1.38	0.47	0.26	0.01	0.07	1.22	3.41	-11%	31%	YES	YES	NA	NA	
STACR 2014-HQ2	FXD2	HLTV	DEBT	M1-M2-M3	10.0		2.7	0.67	0.16	0.10	0.04	0.06	0.73	1.76	-17%	26%	YES	YES	NA	NA	
STACR 2014-HQ3	FXD2	HLTV	DEBT	M1-M2-M3	10.0		2.8	1.48	0.47	0.13	0.20	0.20	1.50	3.98	-9%	25%	YES	YES	NA	NA	
STACR 2015-DN1	FXD2	LLTV	DEBT	M1-M2-M3-B	10.0		3.1	0.90	0.21	0.13	0.12	0.08	1.13	2.57	-23%	30%	YES	NO	NA	NA	
STACR 2015-HQ1	FXD2	HLTV	DEBT	M1-M2-M3-B	10.0		3.2	1.35	0.41	0.28	0.10	0.07	1.33	3.54	-17%	31%	YES	YES	NA	NA	
STACR 2015-HQ2	FXD2	HLTV	DEBT	M1-M2-M3-B	10.0		3.4	0.64	0.14	0.08	0.04	0.06	0.70	1.66	-17%	26%	YES	YES	NA	NA	
STACR 2015-DNA1	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	3.3	5.8	0.44	0.10	0.07	0.07	0.82	1.50	-2%	24%	NA	YES	YES	YES	
STACR 2015-DNA2	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	3.5	6.0	0.97	0.30	0.10	0.19	2.05	3.61	-3%	29%	NA	YES	YES	YES	
STACR 2015-DNA3	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	3.8	6.3	0.80	0.27	0.12	0.12	1.97	3.28	-7%	30%	NA	YES	YES	YES	
STACR 2015-HQA1	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	3.7	6.3	1.18	0.44	0.18	0.37	2.57	4.74	-4%	31%	NA	YES	YES	YES	
STACR 2015-HQA2	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	3.9	6.4	1.06	0.34	0.18	0.31	2.58	4.47	-3%	32%	NA	YES	YES	YES	
STACR 2016-DNA1	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.1	6.6	0.67	0.20	0.12	0.13	1.75	2.87	-6%	29%	NA	YES	YES	YES	
STACR 2016-DNA2	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.3	6.8	0.87	0.22	0.14	0.19	2.16	3.58	-7%	29%	NA	YES	YES	YES	
STACR 2016-DNA3	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.5	7.0	0.93	0.27	0.13	0.17	2.20	3.70	-4%	29%	NA	YES	YES	YES	
STACR 2016-DNA4	ACT	LLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.7	7.2	0.83	0.25	0.16	0.19	2.37	3.80	-7%	32%	NA	YES	YES	YES	
STACR 2016-HQA1	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.2	6.8	1.08	0.38	0.15	0.23	2.65	4.49	-4%	32%	NA	YES	YES	YES	
STACR 2016-HQA2	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.4	6.9	1.16	0.32	0.27	0.24	2.57	4.56	-5%	34%	NA	YES	YES	YES	
STACR 2016-HQA3	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.7	7.2	1.17	0.32	0.33	0.25	2.56	4.63	-6%	33%	NA	YES	YES	YES	
STACR 2016-HQA4	ACT	HLTV	DEBT	M1-M2-M3-B	10.0	12.5	4.8	7.3	1.16	0.41	0.21	0.38	3.01	5.17	-6%	35%	NA	YES	YES	YES	
STACR 2017-DNA1	ACT	LLTV	DEBT	M1-M2-B1-B2	10.0	12.5	5.1	7.6	0.83	0.24	0.13	0.13	2.09	3.42	-7%	30%	NA	YES	YES	YES	
STACR 2017-DNA2	ACT	LLTV	DEBT	M1-M2-B1-B2	10.0	12.5	5.3	7.8	0.84	0.18	0.11	0.16	1.88	3.17	-4%	28%	NA	YES	YES	YES	
STACR 2017-DNA3	ACT	LLTV	DEBT	M1-M2-B1	10.0	12.5	5.7	8.2	0.82	0.22	0.13	0.20	2.19	3.56	-4%	30%	NA	YES	YES	YES	
STACR 2017-HQA1	ACT	HLTV	DEBT	M1-M2-B1-B2	10.5	12.5	5.7	7.7	1.01	0.33	0.25	0.29	2.67	4.55	-6%	33%	NA	YES	YES	YES	
STACR 2017-HQA2	ACT	HLTV	DEBT	M1-M2-B1	10.0	12.5	5.5	8.0	1.07	0.30	0.19	0.29	2.72	4.57	-5%	31%	NA	YES	YES	NO	
STACR 2017-HQA3	ACT	HLTV	DEBT	M1-M2-B1	10.0	12.5	5.8	8.3	1.28	0.36	0.23	0.22	0.19	3.00	5.28	-2%	36%	NA	YES	YES	NO
STACR 2018-DNA1	ACT	LLTV	DEBT	M1-M2-B1	10.0	12.5	6.1	8.6	1.09	0.27	0.17	0.25	2.79	4.57	-3%	33%	NA	YES	YES	YES	
STACR 2018-HQA1	ACT	HLTV	DEBT	M1-M2-B1	10.0	12.5	6.3	8.8	1.40	0.51	0.31	0.19	0.19	3.68	6.28	-3%	35%	NA	YES	YES	NO
STACR 2018-DNA2	ACT	LLTV	TRUST	M1-M2-B1	10.0	12.5	6.5	9.0	0.92	0.24	0.16	0.24	2.44	4.00	-4%	33%	NA	YES	YES	NO	
STACR 2018-DNA3	ACT	LLTV	TRUST	M1-M2-B1-B2	10.0	30.0	6.8	26.8	0.98	0.33	0.19	0.12	0.12	3.16	4.90	-6%	33%	NA	YES	YES	NO
STACR 2018-HQA2	ACT	HLTV	TRUST	M1-M2-B1-B2	9.9	30.0	6.8	26.8	1.32	0.39	0.26	0.19	0.18	3.47	5.81	-4%	37%	NA	YES	YES	NO
STACR 2019-DNA1	ACT	LLTV	TRUST	M1-M2-B1-B2	10.0	30.0	7.1	27.1	1.22	0.30	0.24	0.17	0.14	3.68	5.75	-2%	34%	NA	YES	YES	NO
STACR 2019-DNA2	ACT	LLTV	TRUST	M1-M2-B1-B2	10.0	30.0	7.2	27.3	1.10	0.33	0.24	0.34	3.80	5.81	-4%	39%	NA	YES	YES	NO	
STACR 2019-DNA3	ACT	LLTV	TRUST	M1-M2-B1-B2	10.0	30.0	7.6	27.6	1.21	0.37	0.20	0.30	3.05	5.13	-3%	38%	NA	YES	YES	NO	
STACR 2019-HQA1	ACT	HLTV	TRUST	M1-M2-B1-B2	9.9	30.0	7.1	27.2	1.59	0.51	0.42	0.30	0.25	4.67	7.74	-4%	40%	NA	YES	YES	NO
STACR 2019-HQA2	ACT	HLTV	TRUST	M1-M2-B1-B2	10.0	30.0	7.3	27.3	1.38	0.47	0.38	0.45	4.90	7.58	-2%	40%	NA	YES	YES	NO	
STACR 2019-HQA3	ACT	HLTV	TRUST	M1-M2-B1-B2	10.0	30.0	7.8	27.8	1.61	0.54	0.28	0.44	4.76	7.63	-1%	41%	NA	YES	YES	NO	
STACR 2019-DNA4	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.9	7.8	28.7	1.04	0.30	0.19	0.23	3.21	4.97	-4%	38%	NA	YES	YES	NO	
STACR 2019-HQA4	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	7.9	27.9	1.48	0.47	0.41	0.47	4.40	7.23	1%	40%	NA	YES	YES	NO	
STACR 2020-DNA1	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.1	28.1	0.97	0.25	0.22	0.10	0.11	2.70	4.35	-3%	37%	NA	YES	YES	NO
STACR 2020-DNA2	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.2	28.2	0.72	0.21	0.15	0.21	1.96	3.25	-6%	34%	NA	YES	YES	NO	
STACR 2020-DNA3	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.5	28.5	0.53	0.14	0.09	0.14	0.85	1.75	-5%	35%	NA	YES	YES	YES	
STACR 2020-DNA4	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.7	28.7	0.57	0.09	0.09	0.12	0.76	1.63	1%	34%	NA	YES	YES	YES	
STACR 2020-DNA5	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.8	28.8	0.42	0.09	0.06	0.08	0.43	1.08	-5%	26%	NA	YES	YES	YES	
STACR 2020-DNA6	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	9.0	29.0	0.43	0.06	0.05	0.03	0.03	0.30	0.90	3%	24%	NA	YES	YES	YES
STACR 2020-HQA1	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.1	28.1	1.15	0.45	0.24	0.17	0.21	3.42	5.64	-3%	43%	NA	YES	YES	NO
STACR 2020-HQA2	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.2	28.3	1.00	0.28	0.22	0.29	2.60	4.39	-1%	39%	NA	YES	YES	NO	
STACR 2020-HQA3	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.6	28.6	0.60	0.17	0.11	0.15	0.94	1.97	3%	37%	NA	YES	YES	YES	
STACR 2020-HQA4	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.8	28.8	0.56	0.18	0.14	0.08	0.07	0.81	1.84	2%	36%	NA	YES	YES	YES
STACR 2020-HQA5	ACT	HLTV	REMIC	M1-M2-B1-B2	10.0	30.0	8.9	28.9	0.46	0.13	0.09	0.10	0.57	1.35	-3%	27%	NA	YES	YES	YES	
STACR 2021-DNA1	ACT	LLTV	REMIC	M1-M2-B1-B2	10.0	30.0	9.1	29.1	0.38	0.05	0.05	0.06	0.17	0.71	6%	21%	NA	YES	YES	YES	
STACR 2021-DNA2	ACT	LLTV	REMIC	M1-M2-B1-B2		12.5		11.7	0.37	0.06	0.03	0.05	0.12	0.63	-6%	18%	NA	YES	YES	YES	
STACR 2021-DNA3	ACT	LLTV	REMIC	M1-M2-B1-B2		12.5		11.8	0.43	0.03	0.04	0.05	0.04	0.59	26%	15%	NA	YES	YES	YES	

Latest Deal Performance Metrics: December 2021 Monthly Statements – STACR (continued)

CRTx® AGG Index Constituent Performance Data (Dec-2021 Monthly Statements)																					
Deal	Loss	Pool	Form	Structure	Early Redemption Option (Yrs)	Maturity (Yrs)	Rem. Early Redemp. Option (Yrs)	Rem. Maturity (Yrs)	Delinquency Pipeline						Total DO%	MoM % Chg	CPR	Net	Min	Cum	
									30d	60d	90d	120d	150d	180d+				Event Test	Credit CE Test	Loss Test	DQ Test
STACR 2021-DNA5	ACT	LLTV	REMIC	M1-M2-B1-B2	12.5		12.1		0.34	0.04	0.03	0.04	0.01	0.46	39%	14%	NA	YES	YES	YES	
STACR 2021-DNA6	ACT	LLTV	REMIC	M1-M2-B1-B2	5.0	20.0	4.8	19.8	0.21	0.02	-	-	-	0.23		11%	NA	NO	YES	YES	
STACR 2021-DNA7	ACT	LLTV	REMIC	M1-M2-B1-B2	5.0	20.0	4.9	19.9	0.35	0.03	-	-	-	0.38		24%	NA	NO	YES	YES	
STACR 2021-HQA1	ACT	HLTV	REMIC	M1-M2-B1-B2		12.5		11.7	0.43	0.13	0.08	0.06	0.05	0.27	1.02	2%	20%	NA	YES	YES	YES
STACR 2021-HQA2	ACT	HLTV	REMIC	M1-M2-B1-B2		12.5		12.0	0.37	0.08	0.09	0.10	0.02	0.66	20%	14%	NA	NO	YES	YES	
STACR 2021-HQA3	ACT	HLTV	REMIC	M1-M2-B1-B2	5.0	20.0	4.7	19.8	0.25	0.08	0.03	0.00	-	0.36		9%	NA	NO	YES	YES	
STACR 2021-HQA4	ACT	HLTV	REMIC	M1-M2-B1-B2	5.0	20.1	5.0	20.0	-	-	-	0.00	-				NA	NO	YES	YES	

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