



Vista Benchmark Administration

Index Definitions

VISTA CRT Indices™ are financial benchmarks based on daily pricing¹ of Connecticut Avenue Securities (CAS) and Structured Agency Credit Risk (STACR®) debt notes issued by Fannie Mae and Freddie Mac, respectively. Collectively, these securities are known as Credit Risk Transfer (CRT) securities.

Each index is expressed in terms of Dollar Price and Discount Margin (DM). The Dollar Price and DM reflect the average of composite CRT security prices and DMs in the index, weighted by the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday.

2023 Vintage Index Definition

- 45 securities in total
 - All 2023 issued CAS 1M1, 2M1, 1M2, 2M2, 1B1, and 2B1 securities
 - All 2023 issued STACR® DNA M1A, M1B, M2 and B1, HQA A1, M1A, M1B, M2 and B1 securities
- 2023 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2023 M1 Index Definition

- 18 securities in total
 - All 2023 issued CAS 1M1, 2M1 securities
 - All 2023 issued STACR® DNA M1A, M1B, and HQA A1, M1A, M1B securities
- 2023 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2023 M2 Index Definition

- 13 securities in total
 - All 2023 issued CAS 1M2, 2M2 securities
 - All 2023 issued STACR® DNA M2 and HQA M2 securities
- 2023 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2023 B1 Index Definition

- 10 securities in total
 - All 2023 issued CAS 1B1 and 2B1 securities
 - All 2023 issued STACR® DNA B1 and HQA B1 securities
- 2023 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

• **2023 B2 Index Definition**

- 4 securities in total
 - All 2023 issued CAS 1B2 and 2B2 securities
 - All 2023 issued STACR® DNA B2 and HQA B2 securities
- 2023 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2023 High LTV Index Definition

- 12 securities in total
 - All 2023 issued CAS 2M2 and 2B1 securities
 - All 2023 issued STACR® HQA M2 and B1 securities
- 2023 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2023 Low LTV Index Definition

- 33 securities in total
 - All 2023 issued CAS 1M2 and 1B1 securities
 - All 2023 issued STACR® DNA M2 and B1 securities
- 2023 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2023

2022 Vintage Index Definition

- 76 securities in total
 - All 2022 issued CAS 1M1, 2M1, 1M2, 2M2, 1B1, and 2B1 securities
 - All 2022 issued STACR® DNA M1A, M1B, M2 and B1, HQA M1A, M1B, M2 and B1 securities
- 2022 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2022 M1 Index Definition

- 29 securities in total
 - All 2022 issued CAS 1M1, 2M1 securities
 - All 2022 issued STACR® DNA M1A, M1B, and HQA M1A, M1B securities
- 2022 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2022 M2 Index Definition

- 19 securities in total
 - All 2022 issued CAS 1M2, 2M2 securities

- All 2022 issued STACR® DNA M2 and HQA M2 securities
- 2022 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2022 B1 Index Definition

- 13 securities in total
 - All 2022 issued CAS 1B1 and 2B1 securities
 - All 2022 issued STACR® DNA B1 and HQA B1 securities
- 2022 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022
- **2022 B2 Index Definition**

- 13 securities in total
 - All 2022 issued CAS 1B2 and 2B2 securities
 - All 2022 issued STACR® DNA B2 and HQA B2 securities
- 2022 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2022 High LTV Index Definition

- 22 securities in total
 - All 2022 issued CAS 2M2 and 2B1 securities
 - All 2022 issued STACR® HQA M2 and B1 securities
- 2022 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2022 Low LTV Index Definition

- 54 securities in total
 - All 2022 issued CAS 1M2 and 1B1 securities
 - All 2022 issued STACR® DNA M2 and B1 securities
- 2022 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2022

2021 Vintage Index Definition

- 22 securities in total
 - All 2021 issued CAS 1M2, 2M2, 1B1, and 2B1 securities (4)
 - All 2021 issued STACR® DNA M2 and B1, HQA M2 and B1 securities (18)
- 2021 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2021

2021 M Index Definition

- 11 securities in total
 - All 2021 issued CAS 1M2 and 2M2 securities (2)
 - All 2021 issued STACR® DNA M2 and HQA M2 securities (9)
- 2021 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2021

2021 B Index Definition

- 11 securities in total
 - All 2021 issued CAS 1B1 and 2B1 securities (2)
 - All 2021 issued STACR® DNA B1 and HQA B1 securities (9)
- 2021 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2021

2021 High LTV Index Definition

- 8 securities in total
 - All 2021 issued CAS 2M2 and 2B1 securities (2)
 - All 2021 issued STACR® HQA M2 and B1 securities (6)
- 2021 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2021

2021 Low LTV Index Definition

- 14 securities in total
 - All 2021 issued CAS 1M2 and 1B1 securities (2)
 - All 2021 issued STACR® DNA M2 and B1 securities (12)
- 2021 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2021

2020 Vintage Index Definition

- 26 securities in total
 - All 2020 issued CAS 1M2, 2M2, 1B1, and 2B1 securities (4)
 - All 2020 issued STACR® DNA M2 and B1, HQA M2 and B1 securities (22)
- 2020 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2020

2020 M Index Definition

- 13 securities in total

- All 2020 issued CAS 1M2 and 2M2 securities (2)
- All 2020 issued STACR® DNA M2 and HQA M2 securities (11)
- 2020 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2020

2020 B Index Definition

- 13 securities in total
 - All 2020 issued CAS 1B1 and 2B1 securities (2)
 - All 2020 issued STACR® DNA B1 and HQA B1 securities (11)
- 2020 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2020

2020 High LTV Index Definition

- 12 securities in total
 - All 2020 issued CAS 2M2 and 2B1 securities (2)
 - All 2020 issued STACR® HQA M2 and B1 securities (10)
- 2020 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2020

2020 Low LTV Index Definition

- 14 securities in total
 - All 2020 issued CAS 1M2 and 1B1 securities (2)
 - All 2020 issued STACR® DNA M2 and B1 securities (12)
- 2020 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2020

2019 Vintage Index Definition

- 30 securities in total
 - All 2019 issued CAS 1M2, 2M2, 1B1, and 2B1 securities (14)
 - All 2019 issued STACR® DNA M2 and B1, HQA M2 and B1 securities (16)
- 2019 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2019

2019 M Index Definition

- 15 securities in total
 - All 2019 issued CAS 1M2 and 2M2 securities (7)
 - All 2019 issued STACR® DNA M2 and HQA M2 securities (8)
- 2019 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday

- The Index began on December 31, 2019

2019 B Index Definition

- 15 securities in total
 - All 2019 issued CAS 1B1 and 2B1 securities (7)
 - All 2019 issued STACR® DNA B1 and HQA B1 securities (8)
- 2019 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2019

2019 High LTV Index Definition

- 14 securities in total
 - All 2019 issued CAS 2M2 and 2B1 securities (6)
 - All 2019 issued STACR® HQA M2 and B1 securities (8)
- 2019 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2019

2019 Low LTV Index Definition

- 16 securities in total
 - All 2019 issued CAS 1M2 and 1B1 securities (8)
 - All 2019 issued STACR® DNA M2 and B1 securities (8)
- 2019 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2019

2018 Vintage Index Definition

- 26 securities in total
 - All 2018 issued CAS 1M2, 2M2, 1B1, and 2B1 securities (16)
 - All 2018 issued STACR® DNA M2 and B1, HQA M2 and B1 securities (10)
- 2018 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2018

2018 M Index Definition

- 13 securities in total
 - All 2018 issued CAS 1M2 and 2M2 securities (8)
 - All 2018 issued STACR® DNA M2 and HQA M2 securities (5)
- 2018 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2018

2018 B Index Definition

- 13 securities in total
 - All 2018 issued CAS 1B1 and 2B1 securities (8)
 - All 2018 issued STACR® DNA B1 and HQA B1 securities (5)
- 2018 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2018

2018 High LTV Index Definition

- 10 securities in total
 - All 2018 issued CAS 2M2 and 2B1 securities (6)
 - All 2018 issued STACR® HQA M2 and B1 securities (4)
- 2018 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2018

2018 Low LTV Index Definition

- 16 securities in total
 - All 2018 issued CAS 1M2 and 1B1 securities (10)
 - All 2018 issued STACR® DNA M2 and B1 securities (6)
- 2018 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2018

2017 Vintage Index Definition

- 30 securities in total
 - All 2017 issued CAS 1M2, 2M2, 1B1, and 2B1 securities (18)
 - All 2017 issued STACR® DNA M2 and B1, HQA M2 and B1 securities (12)
- 2017 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2017

2017 M Index Definition

- 15 securities in total
 - All 2017 issued CAS 1M2 and 2M2 securities (9)
 - All 2017 issued STACR® DNA M2 and HQA M2 securities (6)
- 2017 M Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2017

2017 B Index Definition

- 15 securities in total
 - All 2017 issued CAS 1B1 and 2B1 securities (9)
 - All 2017 issued STACR® DNA B1 and HQA B1 securities (6)
- 2017 B Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday

- The Index began on December 31, 2017

2017 High LTV Index Definition

- 14 securities in total
 - All 2017 issued CAS 2M2 and 2B1 securities (8)
 - All 2017 issued STACR® HQA M2 and B1 securities (6)
- 2017 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2017

2017 Low LTV Index Definition

- 16 securities in total
 - All 2017 issued CAS 1M2 and 1B1 securities (10)
 - All 2017 issued STACR® DNA M2 and B1 securities (6)
- 2017 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2017

2016 Vintage Index Definition

- 17 securities in total
 - All 2016 issued CAS 1M2 and 2M2 securities (9)
 - All 2016 issued STACR® DNA, HQA M3 securities (8)
- 2016 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

2016 High LTV Index Definition

- 8 securities in total
 - All 2016 issued CAS 2M2 securities (4)
 - All 2016 issued STACR® HQA M3 securities (4)
- 2016 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

2016 Low LTV Index Definition

- 9 securities in total
 - All 2016 issued CAS 1M2 securities (5)
 - All 2016 issued STACR® DNA M3 securities (4)
- 2016 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted by* the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

2015 Vintage Index Definition

- 16 securities in total
 - All 2015 issued CAS 1M2 and 2M2 securities (8)
 - All 2015 issued STACR® DN, DNA, HQ, HQA M3 securities (8)

- 2015 Vintage Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted* by the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

2014/15 High LTV Index Definition

- 14 securities in total
 - All 2014 and 2015 issued CAS 2M2 securities (7)
 - All 2014 and 2015 issued STACR® HQ, HQA M3 securities (7)
- 2014/15 High LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted* by the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

2014/15 Low LTV Index Definition

- 16 securities in total
 - All 2014 and 2015 issued CAS 1M2 securities, plus CAS 2014 C01 M2 (8)
 - All 2014 and 2015 issued STACR® DN, DNA M3 securities (8)
- 2014/15 Low LTV Dollar Price and DM *equals* the average of composite CRT security prices and DMs, *weighted* by the amount outstanding of each CRT security in the index. Dollar Prices and DMs are rebalanced on the 25th day of each month, or the next business day if the 25th falls on a weekend or holiday
- The Index began on December 31, 2016

January 2024

ⁱ As of November 1, 2018, individual CRT security prices used in Vista CRT Indices™ calculations are determined based on observable market data along with evaluation of end of business day prices, received directly from market sources. Market sources, which commonly include large underwriters and secondary-market broker dealers of CRT securities, may occasionally change. Additionally, Vista may, from time to time, solely rely on observable market data including evaluation of daily CRT transactions in determining final prices. Prior to November 1, 2018, individual CRT security prices were determined as a trimmed arithmetic mean based on submissions from panel banks.