

## CMBS Investor Solutions

### Dependable analytics and data via customizable tools

#### What We Offer:



Analysis at property, loan, deal, and portfolio levels



Benchmarking by comparable deal cohorts



Sophisticated Cash Flow Engine



210,000+ properties, plus tenant and lease information



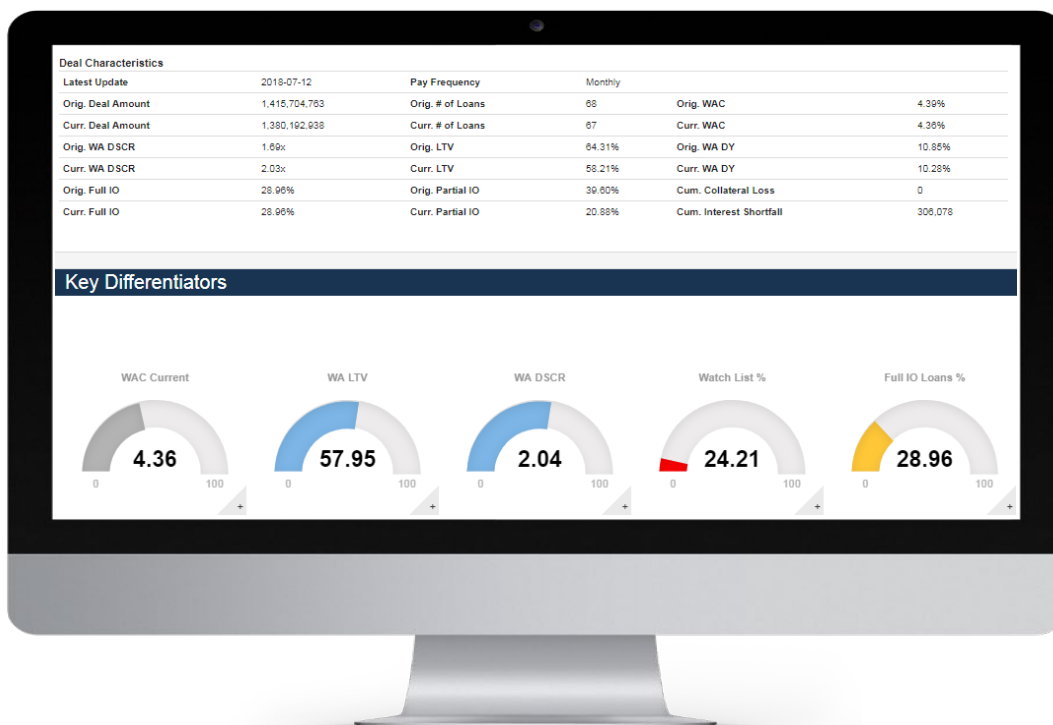
Risk calculations based on historical data and trends



Incorporates, latest market trends and forecasts

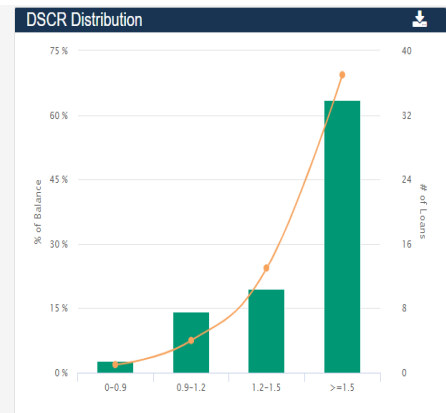
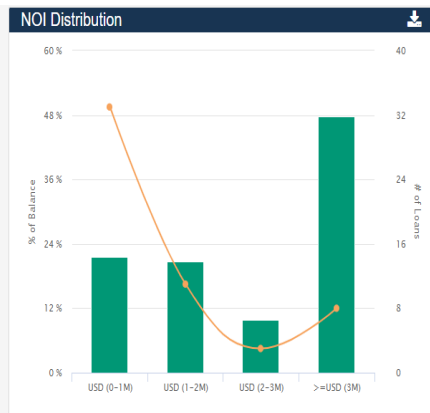
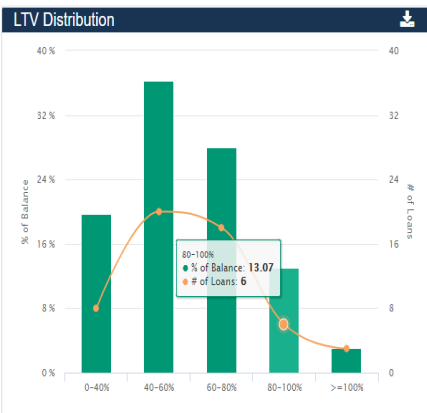
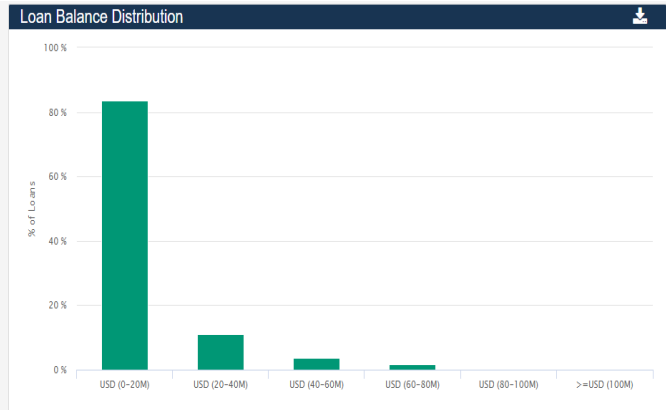
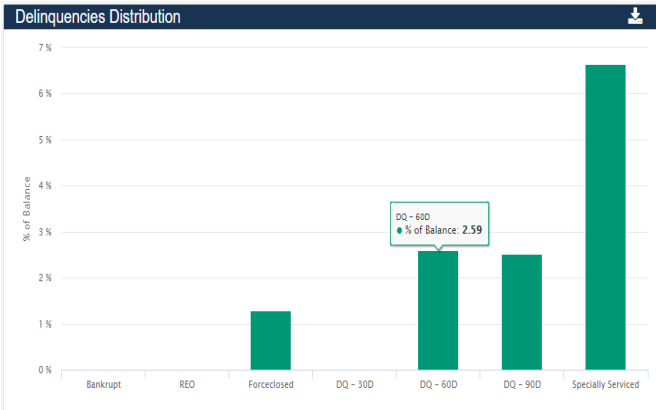
#### The Structured Finance Portal – CMBS

Our centralized, web-based, multi-asset class structured finance portal (the “SF Portal”) offers comparative analytics, and an advanced cash flow engine, spanning more than 20 years of historical commercial real estate performance data related to over 2,000 CMBS deals. With the use of historical and real-time data, the SF Portal is able to offer property details including tenant-level data. Additionally, with the recent integration of the industry standard CRE forecasts of Reis Services, LLC (“REIS”), the SF Portal further simplifies and enhances the monitoring of US CMBS transactions. Cash flow analytics accommodate the application of credit views including granular loan-level, property/loan stratification, and pool-level assumptions.



## Conduct analysis quickly across portfolios, deals, loans, and properties

Straightforward visualization of portfolio characteristics. Quick lists of the top ten loans by the most sought-after attributes: size, delinquency, special servicing, geography, property type, and appraisal reduction loans.



### Top Ten Property Types

Property Type	% of Balance
OF	25.65
RT	19.57
MF	16.63
LO	16.40
OT	11.26
MU	6.54
SS	3.95

### Top Ten State Concentrations

State	% of Balance
NY	17.06
CO	11.49
TX	10.21
IL	9.53
MI	7.26
VA	6.85
OH	6.72
CA	5.86
FL	5.11
AZ	4.51

### Top Ten MSA Concentrations

MSA	% of Balance
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	15.64
Denver-Aurora, CO MSA	10.78
Chicago-Naperville-Joliet, IL-IN-WI MSA	9.53
Richmond, VA MSA	6.85
Detroit-Warren-Livonia, MI MSA	6.24
Austin-Round Rock, TX MSA	5.77
Los Angeles-Long Beach-Santa Ana, CA MSA	5.29
Phoenix-Mesa-Scottsdale, AZ MSA	3.51
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	3.39
Las Vegas-Paradise, NV MSA	3.27

## Quickly identify and drill down into risks in the market and your portfolio

CMBS Credit Events is a unique surveillance tool designed to aid a user to identify critical credit events as they have been reported in a customizable time period. Such events cover the CMBS loan universe, specific property types, geographical locations, and specified portfolios. Hyperlinks are available to see the actual loans.

### Key Features

- » Ability to analyze various credit events
- » Quickly available credit event highlights
- » Navigation of CMBS and loan level data

### CMBS Credit Developments

Date Range: 7/1/2020 to 7/31/2020

#### Total Outstanding Balances of Select Credit Events

Credit Event	Number of Loans Affected in Date Range	Outstanding Balance of Affected Loans
<a href="#">Added to Special Servicing</a>	391	8,577,900,607
<a href="#">Adverse Occupancy Change</a>	36	664,000,893
<a href="#">Adverse NOI Report</a>	288	3,833,071,591
<a href="#">DSCR &lt; 0.9</a>	24	231,432,559
<a href="#">DSCR &lt; 1 but &gt;= 0.9</a>	13	258,087,626
<a href="#">DSCR &lt; 1.1 but &gt;= 1</a>	23	233,028,309
<a href="#">Short Term Delinquency Deterioration</a>	446	11,002,991,446
<a href="#">Long Term Delinquency Deterioration</a>	576	13,634,043,605
<a href="#">Major Tenant Lease Expiration in Next Six Months</a>	18	1,025,332,034
<a href="#">Added to Servicer Watchlist</a>	658	12,165,645,348
<a href="#">Change in Workout Code</a>	168	5,784,219,277
<a href="#">Newly Foreclosed</a>	3	85,665,744
<a href="#">Newly REO</a>	10	188,303,259
<a href="#">Maturity in Next Three Months</a>	210	7,687,476,614
<a href="#">Maturity in Next Six Months</a>	626	24,027,880,577
<a href="#">Balloon Extension</a>	2	151,809,160
<a href="#">Defeasement</a>	82	888,397,452
<a href="#">Delinquency Improvement</a>	220	6,048,602,407
<a href="#">Prepaid with Penalty</a>	4	-
<a href="#">Prepaid without Penalty</a>	0	-

#### Total Outstanding Balance by Delinquency/Extension Status

Status	Number of Loans	Outstanding Balance of Loans
<a href="#">Late Payment but Less than 30 Days Delinquent</a>	425	6,476,943,157
<a href="#">30-59 Days Delinquent</a>	288	5,349,720,056
<a href="#">60-89 Days Delinquent</a>	443	11,015,718,360
<a href="#">90-120 Days Delinquent</a>	540	12,998,396,764
<a href="#">121+ Days Delinquent</a>	31	427,651,836
<a href="#">In Foreclosure</a>	3	85,665,744
<a href="#">REO</a>	10	188,303,259
<a href="#">Non Performing Matured Balloon</a>	27	925,432,689
<a href="#">Performing Matured Balloon</a>	16	612,874,688

## Single page location for all property data

Our property page is a one stop for financials, tenant data, geographic context, forecasts, historical loans, splits, credit events and servicer comments. We centralize all property information for quick analytics and ease of use.

PROPERTY [REDACTED]
Export PDF

Address [REDACTED]  
 City ALBANY  
 State NY  
 Zip Code 12203  
 County ALBANY

MSA Albany-Schenectady-Troy, NY MSA  
 REIS Metro Area Albany  
 REIS Submarket N/A  
 Property Type RT  
 Property Subtype -

Net Rentable Sq Ft [REDACTED]  
 Number Of Units -  
 Most Recent Value [REDACTED]  
 Most Recent Value Date 2012-03-08  
 Year Built / Renovated 1984 / 1994

### Property Financial Information

Metric	Most Recent	Preceding Fiscal Year	Second Preceding Fiscal Year	Most Recent Underwritten
Fiscal Period Start Date	2020-01-01	2019-01-01	2018-01-01	2012-01-31
Fiscal Period End Date	2020-03-31	2019-12-31	2018-12-31	-
Revenue	10,494,385	43,632,916	44,732,256	-
Operating Expenses	3,717,811	14,405,356	15,620,451	-
NOI	6,776,574	29,227,560	29,111,805	-
NCF	6,444,965	27,901,118	27,785,363	-
DSCR NOI	1.34	1.45	1.44	-
DSCR NCF	1.28	1.38	1.37	-
Physical Occupancy (%)	87	90	85	-

### Top Five Tenants

Tenant Name	Pct. Sq. Ft. Occupied by Tenant	Lease Expiration Date
[REDACTED]	14	2024-03-31
[REDACTED]	8	2035-10-31
[REDACTED]	6	2025-01-31
[REDACTED]	5	2024-09-30
[REDACTED]	5	2021-01-31

Showing 1 to 5 of 5 entries

### Geographic Context

	REIS Metro Area	REIS Submarket
Occupancy (%)	91.50	91.70
Change in Occupancy (%)	(0.50)	(0.90)
Asking Rent	71.64	82.41
Change in Asking Rent (%)	(4.76)	2.40
Effective Rent	58.24	68.46
Change in Effective Rent (%)	(6.70)	2.60

### NOI and Property Value Growth Rate Projections

	Three-Year Annual Growth Rate (%)	Five-Year Annual Growth Rate (%)	Seven-Year Annual Growth Rate (%)
NOI - Baseline	(7.16)	(4.85)	(2.97)
NOI - Stressed	(9.32)	(6.15)	(3.93)
Property Value - Baseline	(6.09)	(3.94)	(1.96)
Property Value - Stressed	(18.95)	(12.13)	(7.52)

### Deals with Largest Exposure to This Property

Deal Name	Outstanding Balance	Loan Status	Paid Through Date
[REDACTED]	45,000,000.00	-	2020-08-06
[REDACTED]	40,000,000.00	-	2020-08-06

Showing 1 to 2 of 2 entries

### Loan History

Deal Name	Origination Date	Original Note Amount	Total Loan Amount	Original Note Rate (%)
[REDACTED]	2016-04-13	45,000,000	-	4.7500
[REDACTED]	2016-04-01	40,000,000	-	4.7500
[REDACTED]	2007-05-17	55,000,000	-	6.2500
[REDACTED]	2001-01-15	19,430,000	-	8.6600

Showing 1 to 4 of 4 entries

### Credit Events History

2020-02-25 to 2020-05-25 Refresh

Deal Name	News	Date
[REDACTED]	Added to Servicer Watchlist	2020-05-12

Showing 1 to 1 of 1 entries

### Servicer Commentary

Servicer Comments	Servicer Watchlist Code	Date
COVID-19 Relief Cancelled. Loan will be removed from the Watch List for COVID relief.	-	2020-06-12
COVID-19 Relief Requested. Borrower is working with Lender towards possible solution.	6A	2020-07-10

## Comprehensive viewing tool for loan and property information

Our asset-level templates offer the ability to customize and download over 400 available fields for loan-level or property-level information. Our templates are designed to simplify your workflow with integration of REIS forecasts by property.

Property Name	Property City	Property State	Property Type	Updated LTV Estimate (%)	Change in LTV since Underwriting (%)	Updated Cap Rate Estimate (%)	Change in Cap Rate since Underwriting (%)	3-Year NOI Growth Rate Forecast (%)	5-Year NOI Growth Rate Forecast (%)	7-Year NOI Growth Rate Forecast (%)	3-Year Value Growth Rate Forecast (%)	5-Year Value Growth Rate Forecast (%)	7-Year Value Growth Rate Forecast (%)
[REDACTED]	Atlanta	GA	RT	51.65	(2.15)	5.54	(0.07)	(0.41)	(1.90)	(1.91)	(0.77)	(2.35)	(2.17)
[REDACTED]	Atlanta	GA	RT	50.14	(15.16)	7.57	(0.87)	(1.88)	(1.24)	0.04	(2.05)	(0.80)	0.68
[REDACTED]	Norfolk	VA	OF	70.76	(4.24)	9.04	0.69	(1.09)	(1.53)	(0.95)	(1.62)	(1.54)	(0.56)
[REDACTED]	Marietta	GA	MU	59.61	(9.19)	10.26	2.29	(2.87)	(2.07)	(1.20)	(2.83)	(1.91)	(0.73)
[REDACTED]	Lilburn	GA	RT	64.28	(10.52)	6.33	(1.23)	(5.88)	(4.12)	(2.56)	(5.36)	(3.68)	(1.87)
[REDACTED]	Milwaukee	WI	OF	61.03	(7.57)	6.06	(1.62)	(2.58)	(0.83)	0.31	(2.64)	(0.54)	0.81
[REDACTED]	Hapeville	GA	RT	64.95	(9.15)	10.83	3.16	(5.21)	(4.44)	(2.75)	(4.74)	(3.92)	(2.02)

## Tenant Lookup

Easily access individual tenant exposure with standardized names in a deal or across the outstanding CMBS universe (making it easier to see tenant exposures).

## Benchmark your bond versus an index of your choice

Choose from various user-defined indices and compare real-time performance of your holdings relative to the selected index. View performance data, and easily understand how a bond performs relative to its peers.

METRICS	VALUE	PERCENTILE	25th PERCENTILE	MEDIAN	75th PERCENTILE
Specialty Serviced %	12.85	26.00	14.26	9.27	5.82
Watch List %	43.32	2.00	28.06	20.21	14.22
DQ - 60D+ %	3.56	56.00	6.41	3.99	0.74
Hotel %	13.41	31.00	12.86	15.35	19.16
Retail %	30.75	59.00	23.16	28.35	34.80
MultiFamily %	11.32	81.00	4.96	8.92	13.83
Office %	30.17	85.00	18.15	26.81	33.51
Orig. Full IO Loans %	42.71	14.00	36.68	29.81	16.96
WA DSCR	2.73	96.00	1.73	1.90	2.14
WA LTV	66.74	7.00	64.51	60.18	57.54

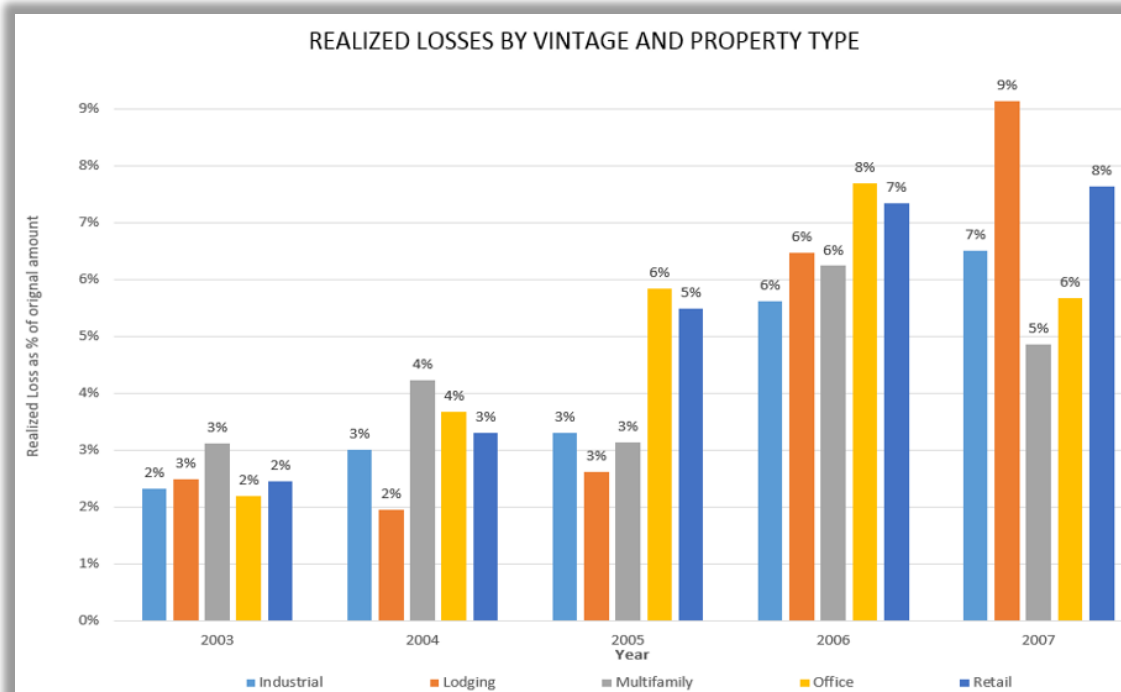
## Run cashflows with user-defined loan and pool assumptions

Assess the credit quality of the underlying collateral in your portfolio, understand the economic trends driving key portfolio performance metrics, and generate deal cashflows to view bond impact.

Month	Date	End Balance	Interest	Scheduled Principal	Unscheduled Principal	Principal Payment	Defaulted Balance	Unrecovered Losses	Recovered Principal	Total Payment	Performing Balance	Non-Performing Balance	30 delinq Balance	60 delinq Balance	90 delinq Balance	90+ delinq Balance
0	2020-08-25	1,306,452,002.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,306,452,002.00	0.00	0.00	0.00	0.00	0.00
1	2020-09-25	1,306,328,275.44	3,190,288.16	123,726.56	0.00	123,726.56	0.00	0.00	0.00	123,726.56	1,306,328,275.44	0.00	0.00	0.00	0.00	0.00
2	2020-10-25	1,306,197,715.89	3,087,074.40	130,559.55	0.00	130,559.55	0.00	0.00	0.00	130,559.55	1,306,197,715.89	0.00	0.00	0.00	0.00	0.00
3	2020-11-25	1,306,073,317.93	3,189,648.24	124,397.96	0.00	124,397.96	0.00	0.00	0.00	124,397.96	1,306,073,317.93	0.00	0.00	0.00	0.00	0.00
4	2020-12-25	1,305,942,106.90	3,086,453.48	131,211.02	0.00	131,211.02	0.00	0.00	0.00	131,211.02	1,305,942,106.90	0.00	0.00	0.00	0.00	0.00
5	2021-01-25	1,305,817,034.02	3,086,133.84	125,072.88	0.00	125,072.88	0.00	0.00	0.00	125,072.88	1,305,817,034.02	0.00	0.00	0.00	0.00	0.00
6	2021-02-25	1,305,691,630.98	3,085,829.30	125,403.04	0.00	125,403.04	0.00	0.00	0.00	125,403.04	1,305,691,630.98	0.00	0.00	0.00	0.00	0.00
7	2021-03-25	1,305,546,540.34	3,085,554.47	145,090.64	0.00	145,090.64	0.00	0.00	0.00	145,090.64	1,305,546,540.34	0.00	0.00	0.00	0.00	0.00
8	2021-04-25	1,305,420,422.68	3,188,009.19	126,117.66	0.00	126,117.66	0.00	0.00	0.00	126,117.66	1,305,420,422.68	0.00	0.00	0.00	0.00	0.00
9	2021-05-25	1,305,287,543.01	3,084,863.09	132,879.67	0.00	132,879.67	0.00	0.00	0.00	132,879.67	1,305,287,543.01	0.00	0.00	0.00	0.00	0.00
10	2021-06-25	1,305,160,741.42	3,187,357.34	126,801.58	0.00	126,801.58	0.00	0.00	0.00	126,801.58	1,305,160,741.42	0.00	0.00	0.00	0.00	0.00
11	2021-07-25	1,304,984,370.17	3,084,230.58	176,371.25	0.00	176,371.25	0.00	0.00	0.00	176,371.25	1,304,984,370.17	0.00	0.00	0.00	0.00	0.00
12	2021-08-25	1,304,816,023.67	3,186,597.66	168,346.50	0.00	168,346.50	0.00	0.00	0.00	168,346.50	1,304,816,023.67	0.00	0.00	0.00	0.00	0.00
13	2021-09-25	1,304,647,235.18	3,062,589.77	168,788.49	0.00	168,788.49	56,960,000.00	0.00	0.00	168,788.49	1,247,687,235.18	56,960,000.00	0.00	0.00	0.00	0.00
14	2021-10-25	1,304,469,559.01	2,963,388.66	177,676.17	0.00	177,676.17	0.00	0.00	0.00	177,676.17	1,247,509,559.01	56,960,000.00	56,960,000.00	0.00	0.00	0.00
15	2021-11-25	1,304,299,860.65	3,061,724.39	169,698.36	0.00	169,698.36	0.00	0.00	0.00	169,698.36	1,247,339,860.65	56,960,000.00	0.00	56,960,000.00	0.00	0.00
16	2021-12-25	1,304,121,301.65	2,962,548.98	178,559.01	0.00	178,559.01	0.00	0.00	0.00	178,559.01	1,247,161,301.65	56,960,000.00	0.00	0.00	56,960,000.00	56,960,000.00
17	2022-01-25	1,303,950,688.69	2,881,462.89	170,612.96	0.00	170,612.96	35,587,000.00	0.00	0.00	170,612.96	1,211,403,688.69	92,547,000.00	0.00	0.00	0.00	56,960,000.00
18	2022-02-25	1,303,779,627.75	2,881,050.55	171,060.94	0.00	171,060.94	0.00	0.00	0.00	171,060.94	1,211,232,627.75	92,547,000.00	35,587,000.00	0.00	0.00	56,960,000.00
19	2022-03-25	1,303,583,004.60	2,880,678.44	196,623.15	0.00	196,623.15	0.00	0.00	0.00	196,623.15	1,211,036,004.60	92,547,000.00	0.00	35,587,000.00	0.00	56,960,000.00
20	2022-04-25	1,303,410,977.60	2,976,166.75	172,027.00	0.00	172,027.00	0.00	0.00	0.00	172,027.00	1,210,863,977.60	92,547,000.00	0.00	0.00	35,587,000.00	92,547,000.00
21	2022-05-25	1,303,230,159.12	2,879,745.60	180,818.49	0.00	180,818.49	0.00	0.00	0.00	180,818.49	1,210,683,159.12	92,547,000.00	0.00	0.00	0.00	92,547,000.00
22	2022-06-25	1,303,057,205.39	2,975,285.34	172,953.72	0.00	172,953.72	0.00	0.00	0.00	172,953.72	1,210,510,205.39	92,547,000.00	0.00	0.00	0.00	92,547,000.00
23	2022-07-25	1,302,875,487.71	2,878,890.36	181,717.68	0.00	181,717.68	0.00	0.00	0.00	181,717.68	1,210,328,487.71	92,547,000.00	0.00	0.00	0.00	92,547,000.00
24	2022-08-25	1,302,701,602.44	2,974,399.33	173,885.27	0.00	173,885.27	0.00	0.00	0.00	173,885.27	1,210,154,602.44	92,547,000.00	0.00	0.00	0.00	92,547,000.00
25	2022-09-25	1,245,567,260.54	2,973,965.04	174,341.89	39,872,000.00	40,046,341.89	0.00	17,088,000.00	39,872,000.00	40,046,341.89	1,209,980,260.54	35,587,000.00	0.00	0.00	0.00	35,587,000.00
26	2022-10-25	1,245,384,195.92	2,877,609.28	183,064.62	0.00	183,064.62	0.00	0.00	0.00	183,064.62	1,209,797,195.92	35,587,000.00	0.00	0.00	0.00	35,587,000.00
27	2022-11-25	1,245,208,915.25	2,973,072.16	175,280.67	0.00	175,280.67	0.00	0.00	0.00	175,280.67	1,209,621,915.25	35,587,000.00	0.00	0.00	0.00	35,587,000.00
28	2022-12-25	1,245,024,939.74	2,876,742.93	183,975.51	0.00	183,975.51	0.00	0.00	0.00	183,975.51	1,209,437,939.74	35,587,000.00	0.00	0.00	0.00	35,587,000.00
29	2023-01-25	1,209,261,715.41	2,876,298.04	176,224.33	24,910,900.00	25,087,124.33	0.00	10,676,100.00	24,910,900.00	25,087,124.33	1,209,261,715.41	0.00	0.00	0.00	0.00	0.00

## Analyze risk and historical trends based on loan and property characteristics

View a numerical and visual representation of the data that the Moody's Analytics team has normalized across the CMBS universe.



## Data Feeds for CMBS Investors

Our CMBS Data Feed delivers all the data found in our portal, including coverage of over 2000 deals spanning over 20 years. Our data set looks at both active and retired CMBS deals, including historical loan, pool, bond, and property-level CMBS data. The feed can be delivered via File Transfer Protocol (FTP) or instant download.

### Premium Data Fields include:

- » REIS Submarket Rents\*
- » Updated Valuations
- » Standardized Tenant Information
- » REIS Submarket Vacancies\*
- » Cross Deal Property IDs
- » Servicer Commentary
- » REIS Metro and Submarket Forecasts\*
- » Calculated Debt Yield
- » Loan History

*\*Additional REIS data points are available on REIS.com*

### The Feed is ideal for:

- » CMBS and CRE market participants looking to conduct more in-depth analysis
- » Modeling groups requiring historical data sets
- » Risk and Treasury departments looking to prepare regulatory submissions
- » Traders looking for metrics specific to their trading strategies
- » Originators in search of specific loans and loan profiles
- » Research teams looking to decipher trends within the Commercial Real Estate space

## CMBS Research

Our weekly CMBS research offers unique insights on CRE trends as reported through CMBS and combined REIS data perspectives.

## Other Solutions

You can also access our economic, credit, cash flow models and data for CMBS Investors via flexible contracting options with cutting-edge content delivery methods such as local/hosted APIs, microservices, iFrames, and Excel® Add-In.

Find out more information about Moody's Analytics award winning structured finance products and solutions.



**Evaluated Pricing Solutions:** Calculate end-of-day prices for structured finance securities based on various pricing recipes across global structured asset classes



**Investor and Issuer Solutions:** Our end-to-end solution includes 500+ enhanced metrics, a sophisticated cash flow engine, global coverage, and advanced comparative analytics



**Portfolio Analytics & ALM Solutions:** Access structured cash flows models and data via APIs to calculate and report assets and liabilities under various economic scenarios



**Risk & Regulatory Solutions:** Leverage our proprietary interest rate, economic, credit and cash flow models to calculate advanced market risk measures and to assist with your regulatory needs, such as for CCAR, DFAST, IFRS9, and CECL



## CONTACT US

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