

Gilberto-Levy Commercial Mortgage Performance Index (G-L 1)

Monitor Third Quarter 2023



GILBERTO-LEVY
COMMERCIAL REAL ESTATE DEBT INDEXES

Giliberto-Levy Commercial Mortgage Performance Index

Third Quarter 2023 Summary

Total Return: (in %)		Spreads: (as of 9/30/2023)		Index Statistics: (as of 9/30/2023)	
Office	-1.30	Office	234	Principal (\$ billion)	302.79
Multi-family	-1.65	Multi-family	201	Capitalization (\$ billion)	267.22
Retail	-0.52	Retail	220	Duration (years)	4.46
Industrial	-1.21	Industrial	200	Coupon (%)	4.06
Total (all sectors)	-1.36			Maturity (years)	6.21
				Book LTV (%)	50.97

Spreads are averages for new ten-year loans at 60%-65% loan-to-value ratio.

Source: Giliberto-Levy

The Giliberto-Levy Commercial Mortgage Performance Index (G-L 1) declined again in 3Q 2023. A sharp rise in yields pushed values lower, resulting in **-1.36% total return**.¹ Capital value fell 2.45%. Income return was 1.09%, slightly higher than in 2Q. The increase came mainly from lower loan values at the start of 3Q due to capital value declines posted in 2Q. Year-to-date G-L 1 total return dropped to 0.99%, and trailing four-quarter return as of September 30, 2023 was 2.22%.

U.S. Treasury yields rose between 6 and (almost) 90 basis points (bp) across the yield curve (see Charts 1 and 2). The benchmark ten-year yield went from 3.81% to 4.59%. The five-year yield, which underpinned coupon rates on many new loans during the quarter, rose 47 bp.

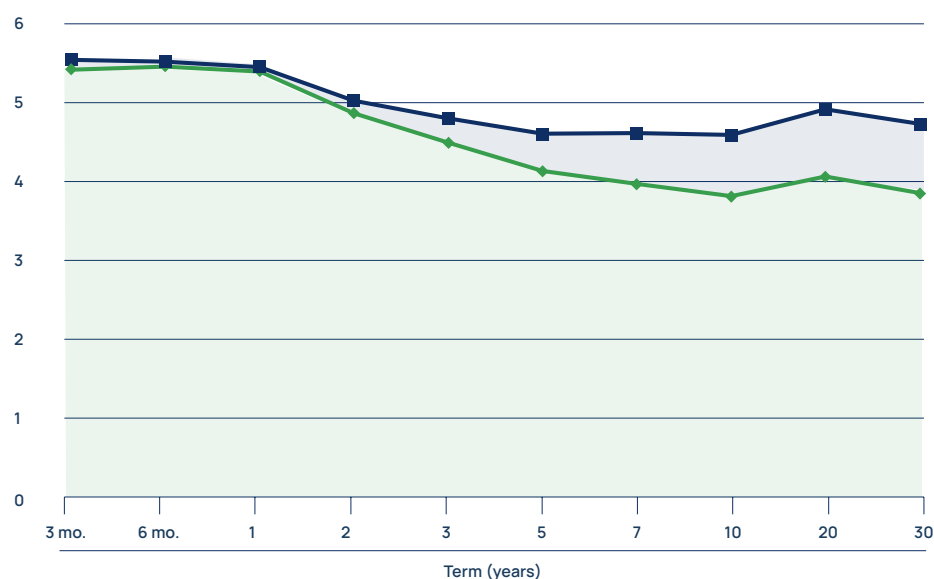
Chart 1

US Treasury Yields

In %

Source: U.S. Treasury; Giliberto-Levy

◆ Jun 30, 2023
■ Sep 29, 2023



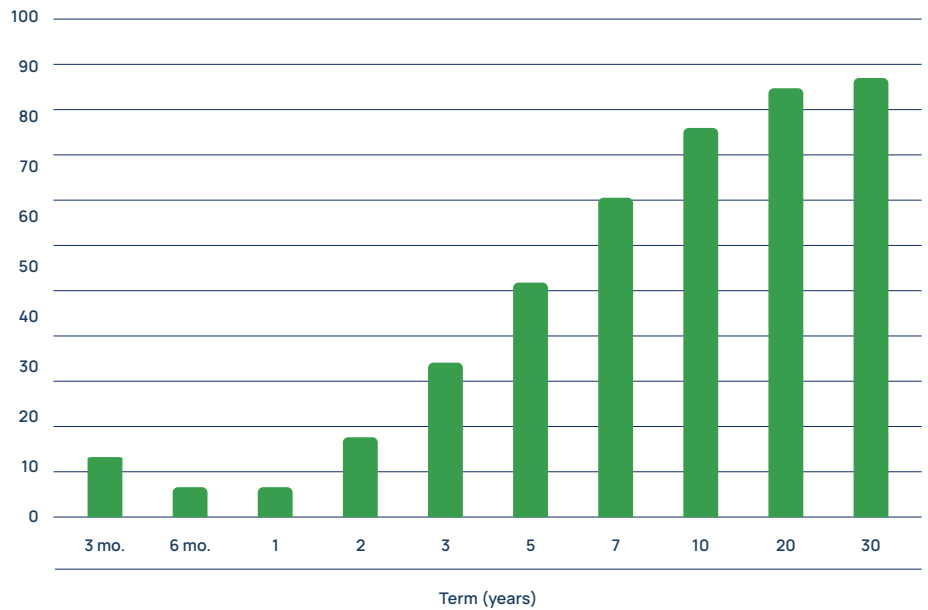
¹ The Index's components are fixed-rate commercial mortgage loans held on balance sheets of institutions such as life insurance companies and pension funds. Index returns are a market-value-weighted blend of office, apartment, retail, industrial, lodging, mixed-use and other miscellaneous property types. Index performance tracks senior loans only; it does not include construction loans, mezzanine and other subordinate instruments and bridge loans made by such institutions.

Chart 2

Changes in US Treasury Yields June 30, 2023 to September 29, 2023

In basis points

Source: U.S. Treasury; Giliberto-Levy



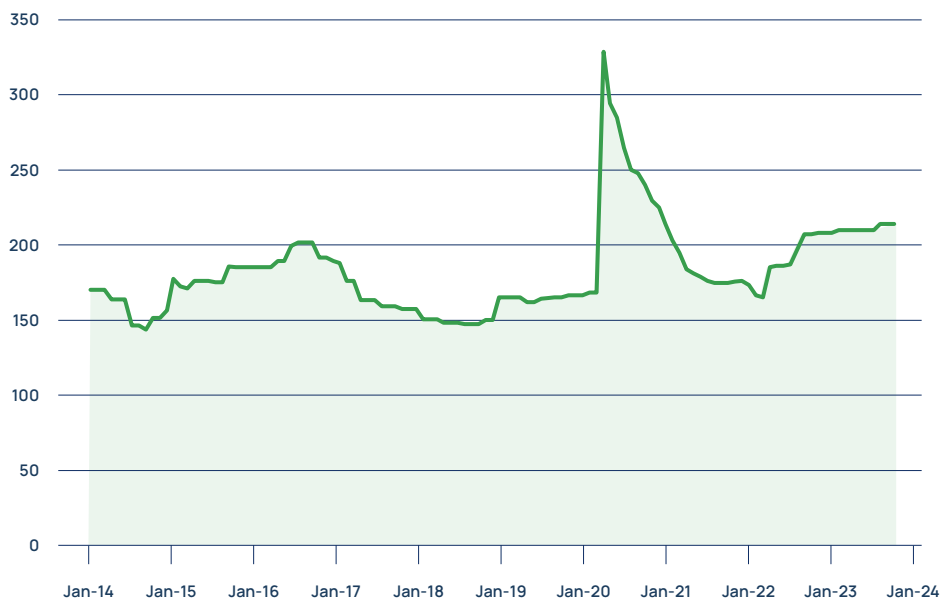
Credit spreads were slightly higher on average (see Chart 3). Spread changes varied by sector. Office spreads, not surprisingly, moved up. In contrast, retail spreads came down a bit. Apartment and industrial were slightly higher. Increases were larger at loan-to-value ratios (LTV) above 60%. Again, no surprise there.

Chart 3

Spreads over Treasuries for Ten-year Commercial Mortgages

In basis points, reflecting 30/360 day count convention

Source: Giliberto-Levy. Chart data are equally weighted averages of office, apartment, retail and industrial property loans at 60% to 65% LTV.



Market Trends: 3Q 2023

Table 1

Key Rates (in %)

	6/30/2023	9/29/2023	change
10-year Treasury Yield	3.81	4.59	0.78
10-year Mortgage Spread	2.10	2.14	0.04
10-year Mortgage Yield	5.91	6.73	0.82
7-year Treasury Yield	3.97	4.61	0.64
7-year Mortgage Spread	2.10	2.14	0.04
7-year Mortgage Yield	6.07	6.75	0.68
5-year Treasury Yield	4.13	4.60	0.47
5-year Mortgage Spread	2.10	2.14	0.04
5-year Mortgage Yield	6.23	6.74	0.51

Sources: U.S. Treasury; Giliberto-Levy

- Table 1 shows the effects of Treasury yield and spread changes on commercial mortgage yields. G-L spreads were calculated from loan transactions during the quarter. By quarter end coupon rates had neared 7%. Also notable was the “flattening” of the coupon-rate curve, driven by differential shifts in underlying Treasury yields. Reminder: rates are for 60% to 65% LTV loans; loans with LTVs in the 50% to 60% range were 10 to 15 bp lower. (We omitted 20-year data from Table 1 because, as we discuss below, very few 3Q loans had maturity terms beyond ten years.)
- Small-loan size premiums continued to prevail. Industrial loans under \$10 million showed a 10-bp add-on. Apartment loans below \$10 million often ran 25 to 30 bp above coupon rates on loans above that amount, after adjusting for other factors that affect coupon rates. Retail deals less than \$5 million carried similar premiums. Other sectors showed a 15-bp add on for loans under \$10 million. Not all small loans had premiums, but average premiums reported were statistically significant.
- We updated cumulative property value reductions since prices peaked in 2022. For this calculation we used a subset of the NCREIF Property Index (NPI): assets that are held in open-end funds that make up the ODCE Fund Index, which is also published by NCREIF. Assets in these funds are marked to market quarterly, which is not the case for all assets in the broader NPI.
 - Industrial has been written down 7%.
 - Apartments are down about 11%.
 - Office has registered a 24% reduction.
 - Retail is off almost 18%. However, retail prices peaked in 4Q 2018, while the other major sectors' peaks were in 2022. Since March 2022, retail is down 11%.

Credit Tracker

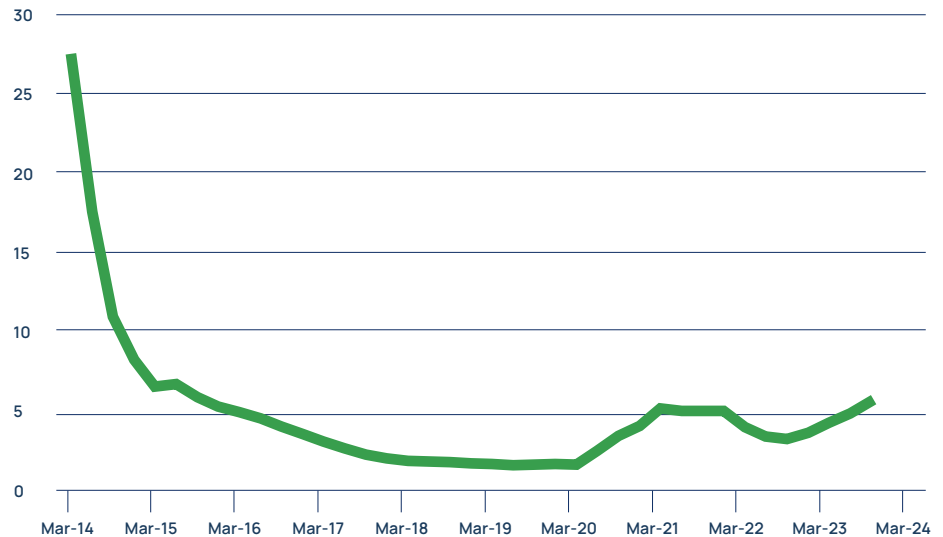
Trailing four-quarter credit effects tacked on 1 bp, rising to 6 bp (see Chart 4). Third quarter 2023's annualized credit effect also was 6 bp. While this is low compared with history, **higher credit effects are likely going forward**.

Chart 4

Commercial Mortgage Credit Effects

Rolling four-quarter effect as a percentage of book value, in basis points

Source: Giliberto-Levy



Credit effects differed by property sector, and results were as one would have expected. Office was worst at 10 bp over the trailing four-quarter period, followed by retail (9 bp), apartments (5 bp) and industrial (2 bp). (Sector credit effects are published every quarter in the G-L 1 Monitor Exhibits.)

Pressure for higher credit effects will come from an increasing percentage of loans with elevated risk (see Table 2 and Chart 5). (The “elevated risk” percentage is the share of loans that are in the amber and red risk zones in Table 2, which is our credit tracker heat map.) Higher marked-to-market LTVs – arising from the cumulative value declines noted above – have been the main driver.

Table 2

Credit Quality Distribution: All G-L 1 Loans

As a percentage of September 30, 2023 balances of these loans

DSC	LTV						Total
	0% to 50%	50% to 60%	60% to 65%	65% to 70%	70% to 75%	above 75%	
1.0 and less	0.17%	0.48%	0.23%	0.16%	0.10%	0.21%	1.35%
1.01 to 1.15	0.28%	0.56%	0.27%	0.19%	0.42%	0.13%	1.85%
1.15 to 1.5	1.32%	2.72%	1.97%	1.99%	1.23%	0.79%	10.01%
1.5 to 1.75	2.72%	5.64%	3.10%	2.03%	0.92%	0.79%	15.20%
above 1.75	35.44%	19.25%	7.74%	4.80%	1.87%	1.42%	70.53%
Unknown	0.08%	0.77%	0.04%	0.08%	0.09%	0.00%	1.06%
Total	40.01%	29.44%	13.35%	9.25%	4.62%	3.33%	100.0%

Source: Giliberto-Levy

LTV and DSC are updated from the original underwriting to reflect seasoning and market movements.

Zone	Red	Amber	Green	Unknown
Total	2.7%	6.7%	89.5%	1.1%

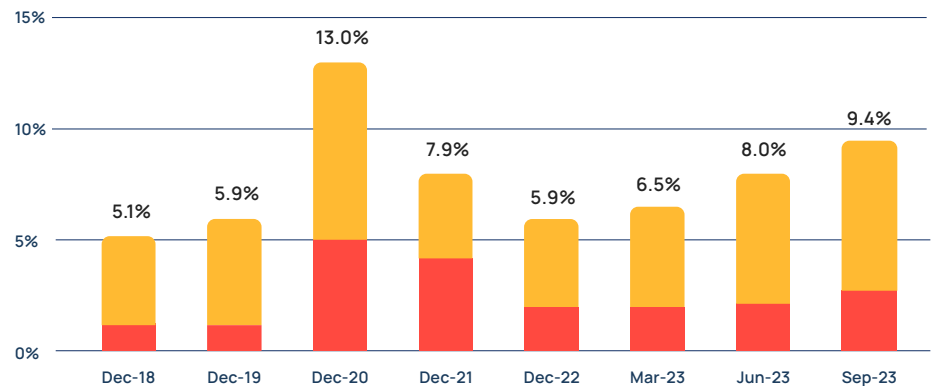
Chart 5

Potential At-Risk Loans

As a percentage of loan balances at month end

Source: Giliberto-Levy

Amber Zone
Red Zone



Relative Performance

G-L 1 performance was in line with investment-grade bond performance (see Table 3). Securitized commercial mortgages returned -1.00%, according to the Bloomberg Index Services investment-grade CMBS index. Baa-rated corporate bond results adjusted to match G-L 1's duration came in at -1.25%.

Table 3

Total Return as of September 30, 2023

Index	Total Return (%)			Duration as of 9/30/2023
	3Q 23	YTD	Last 4 Q	
Commercial Mortgages*	-1.36	0.99	2.22	4.46
Duration-adjusted Baa Bond	-1.25	1.36	4.68	4.46
CMBS: Investment Grade	-1.00	0.05	1.01	4.34
CMBS 2.0	-0.24	0.23	0.91	3.86
TSY Int. Term	-0.81	0.28	1.30	3.68
TSY 5-7 yr. Term	-2.15	-0.86	0.43	5.37
Credit Int. Term	-0.92	1.26	3.81	3.94
A Int. Term	-1.14	1.07	3.59	3.99
Baa Int. Term	-0.86	1.59	4.70	4.11
High-yield Int. Term	0.51	5.93	10.34	3.38
Ba Int. Term	-0.30	3.98	8.50	3.58

* Giliberto-Levy Total Index, includes office, retail, apartment, industrial and other

Sources: Bloomberg Index Services; Giliberto-Levy

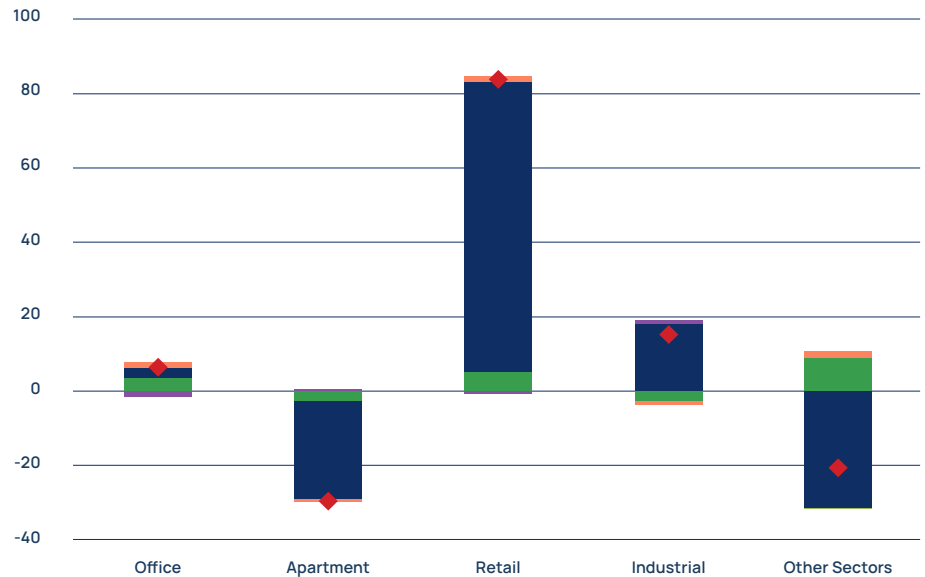
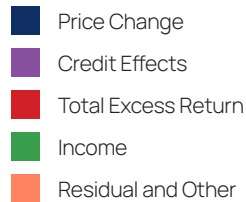
It may seem odd that office and retail, less favored of the four major sectors, produced positive relative returns (see Chart 6). Lower durations, which indicate reduced sensitivity to yield changes, and higher income yields for those sectors explain the positive results. However, weaker credit results undercut those sectors' total excess returns.

Chart 6

Sector Performance Attribution 3Q 2023

Sector performance minus Total index performance, in basis points

Source: Giliberto-Levy



Lending Activity

Observations are based on data received at the time we prepared this report. These statistics are subject to change as we receive more information about lending activity. *Please note that any such revisions do not alter published G-L 1 returns.*

Table 4

G-L 1 Lending Activity Summary

	Most Recent Period 3Q 2023 P	Prior Period 2Q 2023	Year Ago Comp. Period 3Q 2022
Loan Volume (\$ billions)	7.8	6.6	5.1
Weighted Average:			
LTV	58.6%	61.0%	59.2%
DSCR	1.51	1.62	1.47
Coupon Rate	6.10%	5.75%	5.19%
Spread (basis points)	188	195	195
Term to Maturity (years)	6.7	7.7	9.3
Loan Size (\$ millions)	38.7	37.8	26.3

Spread is reported with respect to comparable maturity U.S. Treasury yield.
P Preliminary and subject to revision

Source: Giliberto-Levy

- **Lending volume was up in 3Q** (see Chart 7). Historically, 3Q volume often has exceeded the quarterly pace generated in the first half of the year, so there likely was a seasonal component in this result. In addition, we heard anecdotally that “blend and extend” deals increased. That also would have boosted reported volume.

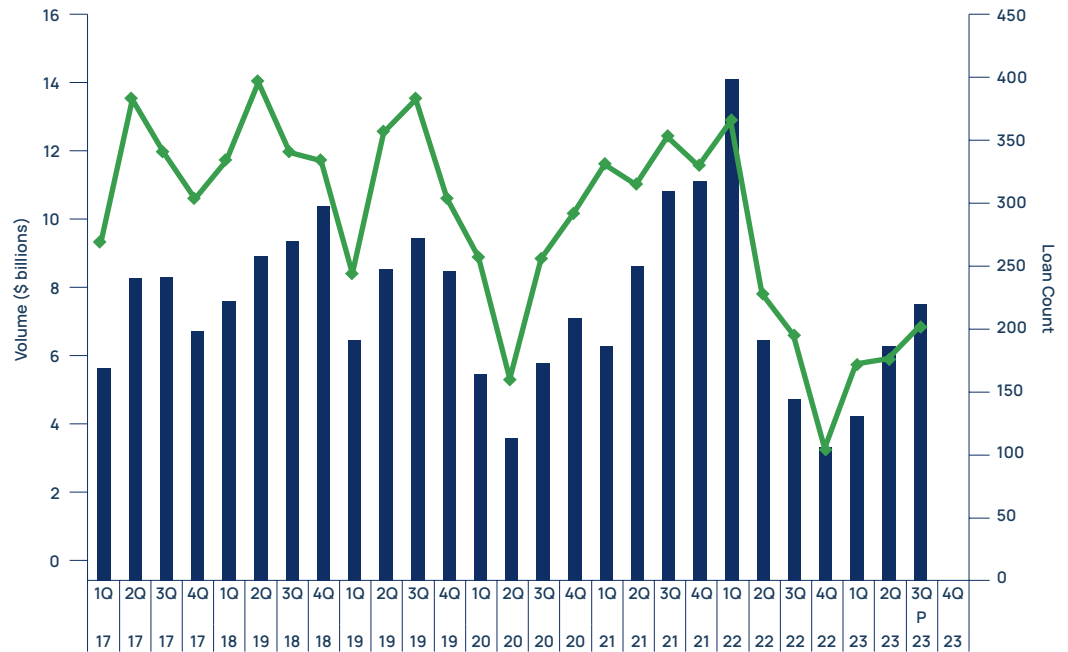
Chart 7

Index-eligible Loan Production

P Preliminary and subject to revision

Source: Giliberto-Levy

◆ # of Loans
— Volume



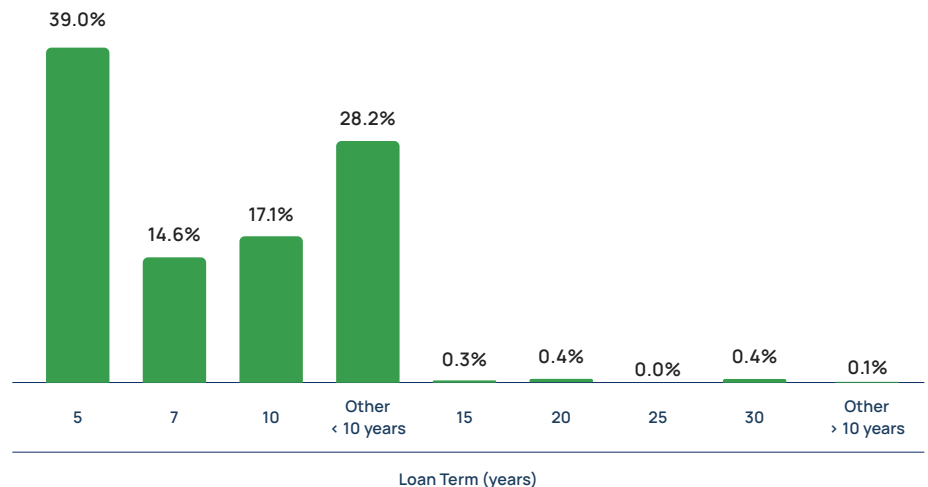
- **Almost no new loans with terms to maturity greater than ten years were made** (see Chart 8). This was consistent with the last several quarters.

Chart 8

Distribution of Lending Activity

by Term to Maturity, 3Q 2023

Source: Giliberto-Levy



- **Echoing 2Q 2023 results, full-term interest-only loans captured about 65% of total volume.** This was again attributable to large loans: the average interest-only loan size was above \$60 million. In contrast, partially amortizing loans averaged \$23 million. Such loans made up a third of issuance volume. Fully amortizing loans were less than one percent of production.
- **Loan sizes ranged from just under \$2 million to nearly \$400 million.** By count, loans of \$100 million and above were 7% of the total number of loans reported, but they were 40% of the dollar amount.

We added more than \$9 billion of new loans to G-L 1 (see Table 5 for details). These were loans from June, July and August 2023.

September 2023 loans, which are included in the production number cited above and depicted in Chart 7 will be added to the Index in 4Q 2023.

Table 5

Additions to G-L 1 Index (Third Quarter 2023)

	Amount (\$)	Number of Loans	Weighted-Average				
			Coupon	Spread (bp)	DSCR	LTV (%)	Term Years
Office	570,757,749	8	7.08%	270	2.34	57.3	5.8
Apartment	3,641,505,170	98	5.69%	177	1.50	58.8	7.3
Retail	461,335,000	29	6.15%	195	1.65	59.6	8.2
Industrial	3,719,485,816	73	6.13%	187	1.47	57.9	6.7
Other	833,910,000	10	6.20%	210	1.56	61.9	8.6
Total	9,226,993,735	218	6.02%	191	1.55	58.6	7.1

Source: Giliberto-Levy

Please note that spreads reported in Table 5 are weighted (by loan amount) averages of loans made during periods prior to September 2023. These averages are not quarter-end pricing parameters. Pricing spreads as reported in the summary table at the top of this report are for standardized ten-year loans at 60% to 65% LTVs. The average standardized spread also appears in Table 1. Standardized spreads are generated from new loan originations and form the baseline for marking to market all loans in the Index. ("Standardization" adjusts for spread variability due to factors such as differing amortization patterns, LTVs, DSCRs, prepayment penalties, loan sizes and so forth. Spreads in Table 5 are differences between coupon rates and Treasury yields without any consideration of these factors.)

Commercial Mortgage Perspective: Then (1Q 2022) and Now (3Q 2023)

The Federal Reserve's monetary tightening began in March 2022. Since then, both short- and long-term U.S. Treasury yields have dramatically increased. Yields on other fixed-income assets have followed suit, leading to large reductions in values and correspondingly negative investment returns. G-L 1 performance was no exception.

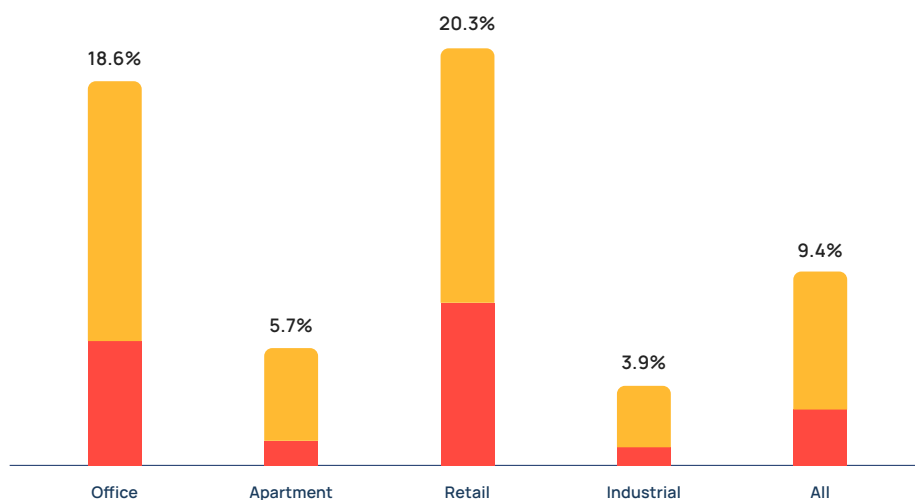
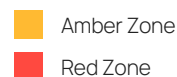
Declines in property valuations in the private equity real estate market also reflect, at least in part, an increase in returns required on investments. We have flagged these reduced collateral values as a main source of increased credit risk exposure in commercial mortgage portfolios.

In this issue's Credit Tracker we cited differences in credit effects across major property sectors and noted that outcomes were what one would expect with office posting the worst result and industrial the best. We expect this worst-to-best ordering will continue because at-risk percentages by property type show that office and retail have markedly higher exposure than apartments and industrial (see Chart 9).

Chart 9

Potential At-Risk Loans

*As a percentage of loan balances on
September 30, 2023*



Note: All includes lodging, mixed-use and miscellaneous other in addition to the four major sectors.

Source: Giliberto-Levy

In 1Q 2022, the average daily five-year Treasury yield was 1.83%, and the ten-year yield averaged 1.95%. (We used averages of daily yields because we want to compare with coupon rates which are set throughout the quarter, not just at month or quarter end.) These averages had risen to 4.31% (+248 bp) and 4.19% (+224 bp), respectively, in 3Q 2023. Naturally, commercial mortgage coupon rates went up (see Table 6).

Table 6

G-L I Sector Coupon Rates 1Q 2022 and 3Q 2023

Sector	Coupon Rate		
	1Q 2022	3Q 2023	Change
Office	3.83%	6.94%	3.11%
Apartment	3.54%	6.21%	2.67%
Retail	3.95%	6.43%	2.48%
Industrial	3.65%	6.28%	2.63%
Average	3.74%	6.46%	2.72%

Note: Table reports unweighted averages. Consequently, coupon rates in this table may differ from results reported using weighted averages, which are used in Table 5 for example.

Source: Giliberto-Levy

Key loan underwriting metrics also have shifted (see Table 7).

Table 7

Underwriting Metrics 1Q 2022 and 3Q 2023

Sector	LTV		
	1Q 2022	3Q 2023	Change
Office	58.90%	57.20%	-1.70%
Apartment	60.40%	57.10%	-3.30%
Retail	61.80%	59.50%	-2.30%
Industrial	58.70%	60.00%	1.30%
Average	59.95%	58.45%	-1.50%

Sector	DSCR		
	1Q 2022	3Q 2023	Change
Office	1.86	1.69	-0.17
Apartment	1.92	1.57	-0.35
Retail	1.91	1.68	-0.23
Industrial	1.92	1.48	-0.44
Average	1.90	1.61	-0.30

Sector	DEBT YIELD		
	1Q 2022	3Q 2023	Change
Office	8.70%	12.30%	3.60%
Apartment	7.70%	9.80%	2.10%
Retail	9.50%	12.10%	2.60%
Industrial	8.60%	9.60%	1.00%
Average	8.63%	10.95%	2.33%

Table reports unweighted averages.

Source: Giliberto-Levy

Reported LTVs are slightly lower. Presumably, assessed collateral values have been reduced at least in line with reported declines in property values, so a large shift in this measure seemed unlikely. DSC seems, to us, to have declined more substantially. We believe this reflects a (reasonable) view that property earnings going forward will either experience sluggish growth or even outright declines.

Lenders we have spoken with recently are focused on debt yield when underwriting. To understand how these have moved, we calculated debt yields implied by loan LTVs and DSCRs for loans made in the two quarters shown in the tables. Increases for retail and apartments are roughly in line with increased coupon rates and Treasury yields. Industrial continues to be viewed constructively with its debt yield increase being fairly low. In contrast office debt yields have increased markedly. Are you shocked?

As always, we welcome your comments and questions.

November 2023

Chart 10

Commercial Mortgage Performance

Rolling four-quarter total return for Total Index

Source: Giliberto-Levy

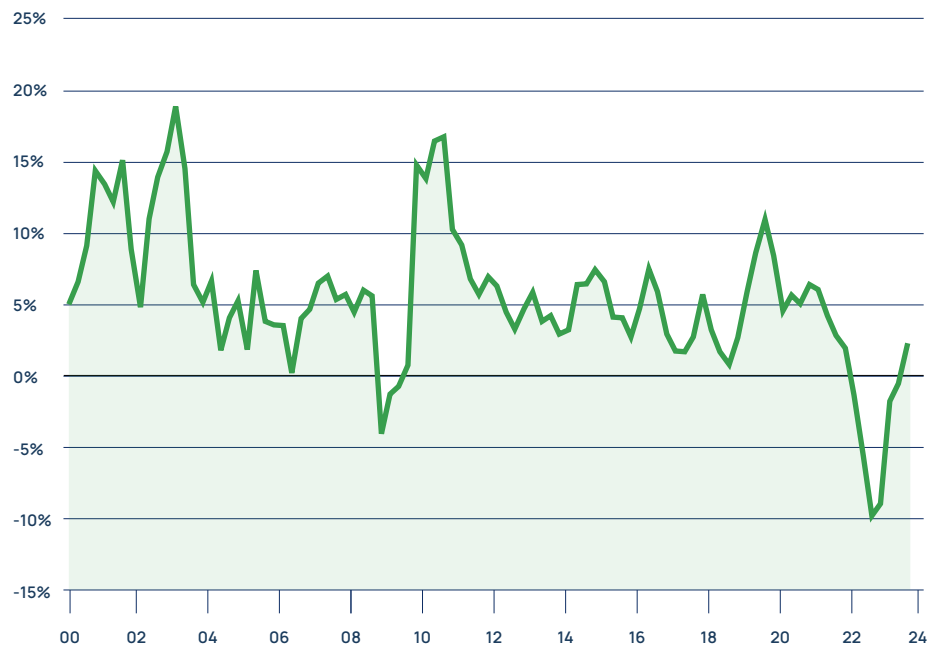


Chart 11

Commercial Mortgage Credit Effects

Rolling four-quarter effects as a percentage of book value, in basis points

Source: Giliberto-Levy

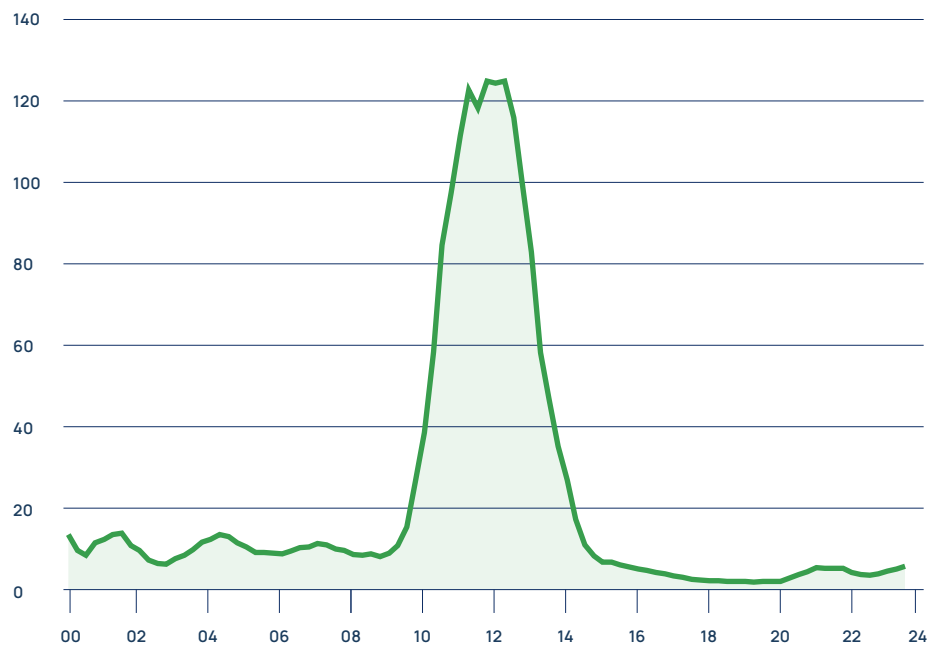


Table A

Giliberto-Levy Commercial Mortgage Index (G-L I)

Performance by Property Sector

For the quarter ended September 30, 2023

Sector	Returns (%)						Credit Effects (book value; bp)			
	Last 3 months				YTD Total	Last 12 Months	Index Level	Last 3 Months	YTD	Last 12 Months
	Income	Price	Other	Total						
Office	1.13	-2.50	0.08	-1.30	0.73	1.82	2273.25	3	8	10
Apartment	1.06	-2.77	0.05	-1.65	0.74	1.99	2900.23	1	4	5
Retail	1.14	-1.74	0.07	-0.52	1.93	3.26	2737.88	2	7	9
Industrial	1.06	-2.32	0.05	-1.21	1.09	2.27	2622.63	1	1	2
Others	1.18	-2.83	0.08	-1.57	1.12	2.53	N/A	2	5	6
Total	1.09	-2.51	0.06	-1.36	0.99	2.22	2461.08	1	4	6
Aggregate	1.09	-2.49	0.06	-1.34	0.98	2.20	3979.38	1	4	6

Aggregate excludes Other Sectors (hotel/motel, mixed-use and miscellaneous)

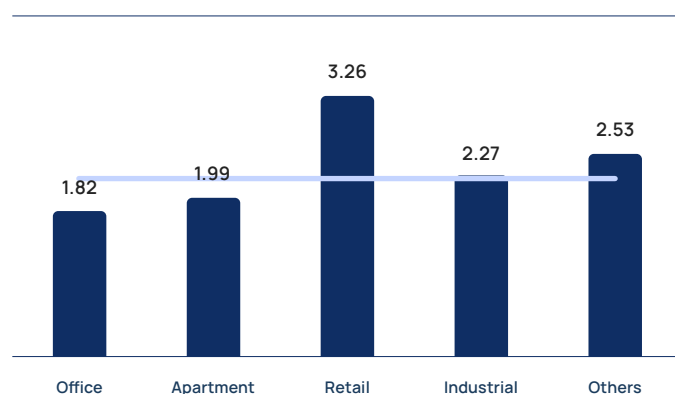
Other Return is paydown return and compounding

Index bases: Aggregate Dec. 1971 = 100; Total and major sectors Dec. 1977 = 100

bp basis points

Total Return by Sector

Last 12 months; in percent



Credit Effect by Sector

Last 12 months

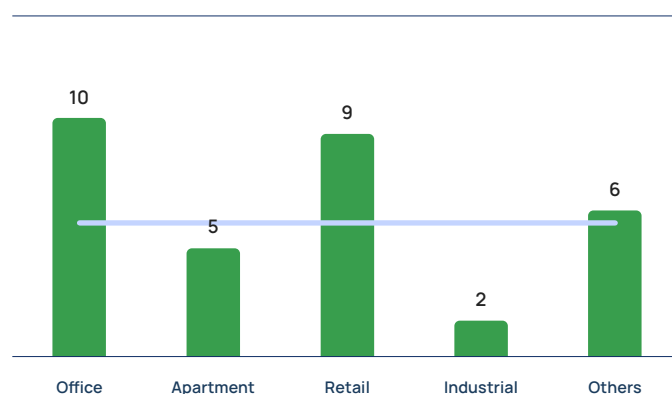


Table B

Giliberto-Levy Commercial Mortgage Index (G-L I)

Performance by Property Sector

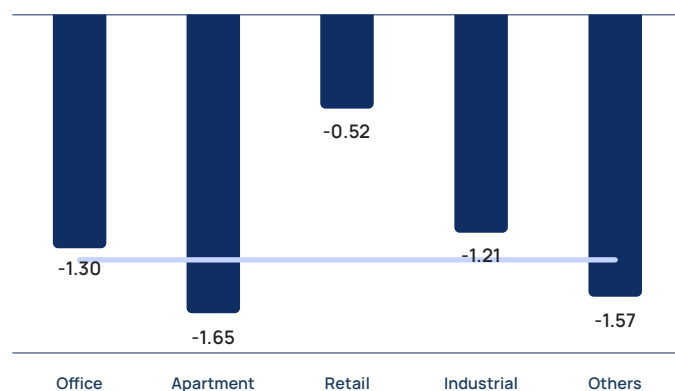
For the quarter ended September 30, 2023

Sector	Returns (%)				Statistics						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
Office	1.13	-2.50	0.08	-1.30	3.94	4.20	5.67	88.6	7.15	14.4%	1917
Apartment	1.06	-2.77	0.05	-1.65	4.73	3.93	6.47	87.4	6.68	45.7%	6256
Retail	1.14	-1.74	0.07	-0.52	4.00	4.26	5.73	89.7	6.94	13.4%	3206
Industrial	1.06	-2.32	0.05	-1.21	4.45	4.03	5.97	89.3	6.53	19.7%	2932
Others	1.18	-2.83	0.08	-1.57	4.75	4.38	7.29	87.6	7.09	6.8%	1093
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404
Aggregate	1.09	-2.49	0.06	-1.34	4.44	4.04	6.13	88.3	6.76	93.2%	14311

Aggregate excludes Other Sectors (hotel/motel, mixed-use and miscellaneous)

Total Return by Sector

Last 12 months; in percent



Portfolio Composition by Sector

in percent

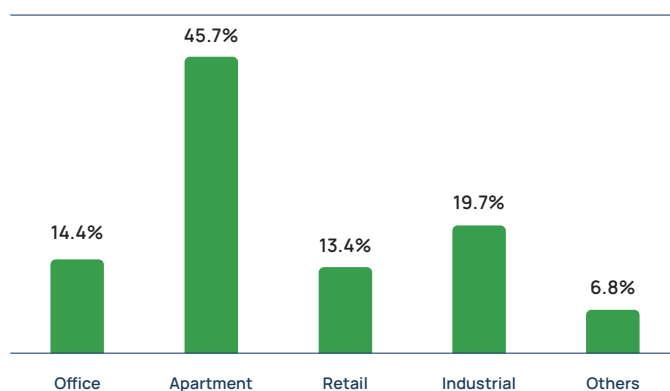


Table C

Giliberto-Levy Commercial Mortgage Index (G-L I)

Performance by Book LTV Classification

For the quarter ended September 30, 2023

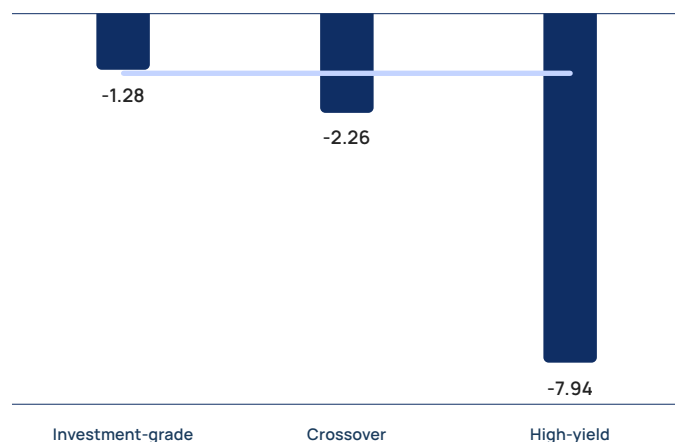
Credit quality using book value	Returns (%)				Statistics Averages						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
Investment-grade	1.09	-2.43	0.06	-1.28	4.42	4.04	6.15	88.5	6.74	93.0%	14580
Crossover	1.18	-3.51	0.07	-2.26	5.05	4.33	6.92	86.0	7.17	6.8%	800
High-yield	1.45	-9.51	0.12	-7.94	4.34	4.39	7.31	69.6	10.26	0.3%	24
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404

Credit quality definition	Book LTV	
	Minimum	Maximum
Investment-grade	NA	70.0%
Crossover	70.1%	85.0%
High-yield	85.1%	NA

Please note that all G-L I loans are senior loans. "Crossover" loans are those with LTVs above 70% and below 85%. They are not subordinate positions that "attach" at 70% LTV and go up to 85% of the capital stack.

Total Return by Credit Quality

For the quarter; in percent



Portfolio Composition by Credit Quality

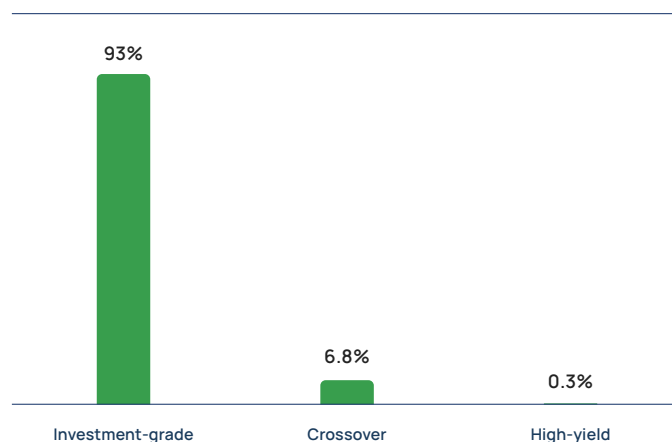


Table D

Giliberto-Levy Commercial Mortgage Index (G-L I)

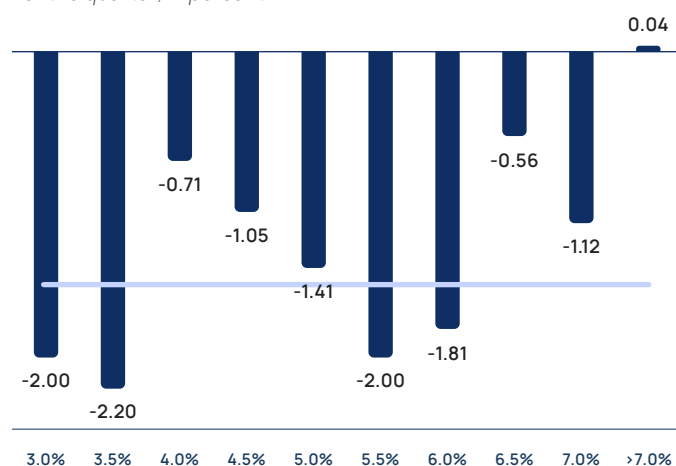
Performance by Coupon Rate

For the quarter ended September 30, 2023

Coupon Rate	Returns (%)				Statistics Averages						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
0.0% to 3.0%	0.81	-2.86	0.06	-2.00	5.29	2.74	6.67	81.4	6.57	10.3%	1105
3.0% to 3.5%	0.94	-3.20	0.07	-2.20	5.30	3.28	7.09	82.9	6.71	17.5%	2142
3.5% to 4.0%	1.03	-1.81	0.06	-0.71	3.77	3.78	5.11	89.1	6.84	24.9%	3497
4.0% to 4.5%	1.14	-2.25	0.06	-1.05	4.09	4.25	6.02	90.1	6.84	24.4%	3450
4.5% to 5.0%	1.25	-2.73	0.07	-1.41	4.50	4.73	6.65	90.8	6.87	10.2%	1666
5.0% to 5.5%	1.35	-3.41	0.06	-2.00	5.15	5.26	7.55	92.6	6.77	4.3%	768
5.5% to 6.0%	1.44	-3.29	0.05	-1.81	5.03	5.75	7.27	95.4	6.74	4.4%	958
6.0% to 6.5%	1.55	-2.13	0.03	-0.56	3.95	6.26	5.38	98.4	6.74	2.6%	740
6.5% to 7.0%	1.62	-2.77	0.03	-1.12	4.36	6.72	6.10	99.8	6.85	0.7%	274
7.0% & above	1.81	-1.76	-0.01	0.04	3.06	7.56	4.68	101.8	7.03	0.8%	804
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404

Total Return by Coupon Rate

For the quarter; in percent



Portfolio Composition by Coupon Rate

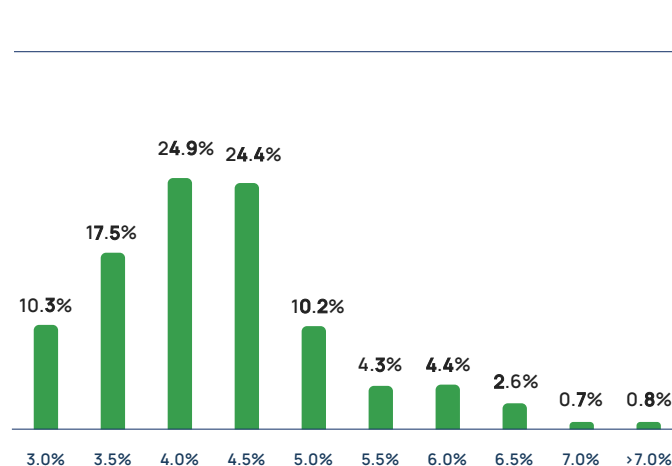


Table E

Giliberto-Levy Commercial Mortgage Index (G-L I)

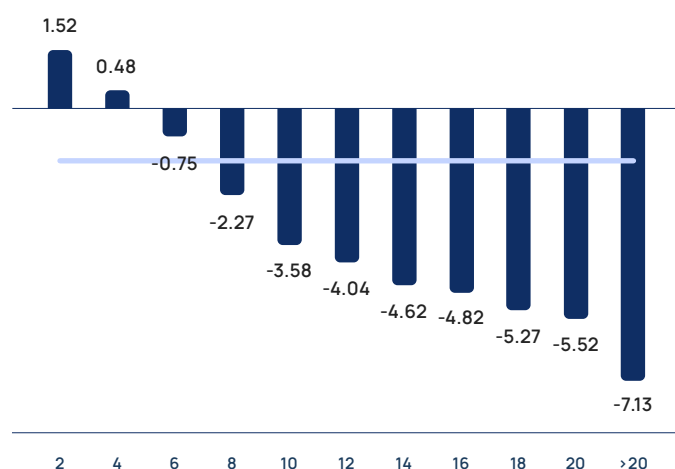
Performance by Remaining Term to Maturity

For the quarter ended September 30, 2023

Maturity Cell	Returns (%)				Statistics						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
0 to 2 years	1.06	0.41	0.04	1.52	1.05	4.09	1.11	96.7	7.30	16.2%	2989
2 to 4 years	1.06	-0.61	0.03	0.48	2.74	4.00	3.04	92.5	6.81	20.6%	2982
4 to 6 years	1.13	-1.92	0.04	-0.75	4.27	4.28	5.00	90.1	6.64	21.6%	2661
6 to 8 years	1.03	-3.36	0.06	-2.27	5.69	3.68	7.04	84.1	6.61	15.0%	2195
8 to 10 years	1.13	-4.78	0.07	-3.58	6.68	4.22	8.88	84.6	6.63	12.5%	1687
10 to 12 years	1.13	-5.29	0.12	-4.04	7.12	4.11	10.95	82.9	6.60	4.2%	827
12 to 14 years	1.11	-5.88	0.15	-4.62	7.71	3.92	13.01	79.8	6.65	3.7%	722
14 to 16 years	1.20	-6.17	0.15	-4.82	7.76	4.40	14.99	83.1	6.66	1.7%	429
16 to 18 years	1.07	-6.56	0.22	-5.27	8.13	3.61	17.08	75.9	6.73	1.5%	356
18 to 20 years	1.17	-6.89	0.20	-5.52	8.24	4.26	18.85	79.8	6.78	0.7%	203
20 years & more	1.22	-8.54	0.19	-7.13	9.71	4.17	25.14	74.1	6.87	2.2%	353
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404

Total Return by Maturity Cell

For the quarter; in percent



Portfolio Composition by Maturity Cell

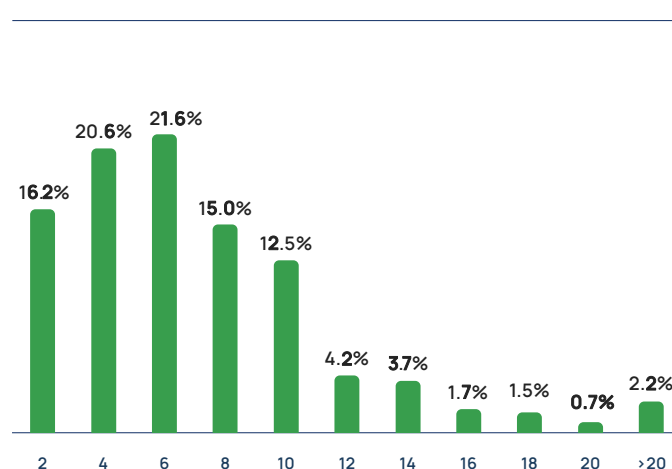


Table F

Giliberto-Levy Commercial Mortgage Index (G-L I)

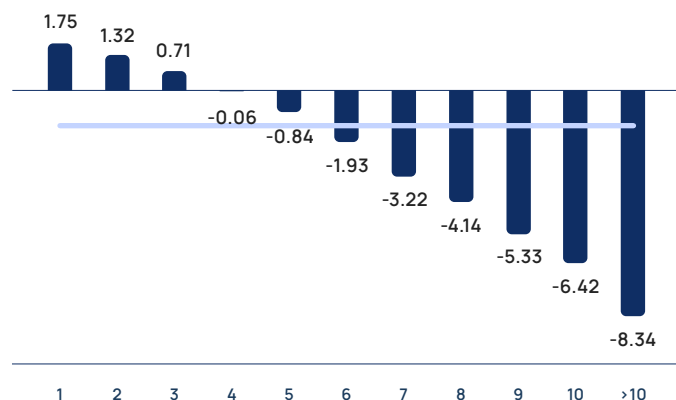
Performance by Duration

For the quarter ended September 30, 2023

Duration Cell	Returns (%)				Statistics						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
0 to 1 year	1.10	0.60	0.06	1.75	0.52	4.25	0.55	98.3	7.46	6.9%	1625
1 to 2 years	1.06	0.24	0.03	1.32	1.45	4.08	1.61	95.6	7.17	9.8%	2144
2 to 3 years	1.05	-0.38	0.04	0.71	2.46	3.93	2.78	93.0	6.83	12.8%	1847
3 to 4 years	1.11	-1.21	0.05	-0.06	3.43	4.23	4.12	91.8	6.72	12.7%	1921
4 to 5 years	1.13	-2.02	0.05	-0.84	4.38	4.24	5.35	89.9	6.62	16.2%	2014
5 to 6 years	1.08	-3.09	0.08	-1.93	5.39	3.98	7.26	86.2	6.64	12.1%	1809
6 to 7 years	1.06	-4.35	0.08	-3.22	6.45	3.84	8.85	83.2	6.63	12.6%	1741
7 to 8 years	1.12	-5.35	0.09	-4.14	7.26	4.08	10.65	82.6	6.63	9.4%	1167
8 to 9 years	1.11	-6.57	0.13	-5.33	8.29	3.89	14.97	78.5	6.67	4.0%	623
9 to 10 years	1.14	-7.68	0.13	-6.42	9.26	3.92	17.39	76.0	6.71	2.0%	326
10 years & more	1.16	-9.62	0.12	-8.34	11.17	3.84	22.70	69.8	6.74	1.4%	187
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404

Total Return by Duration Cell

For the quarter; in percent



Portfolio Composition by Duration Cell

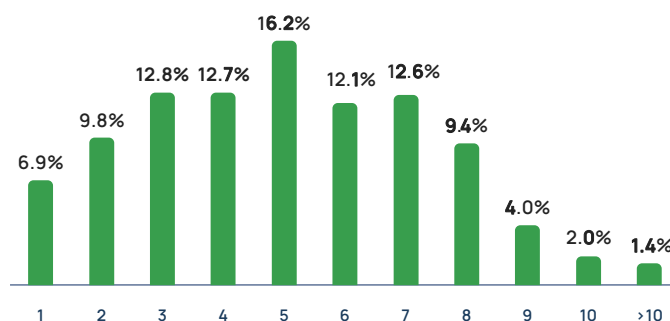


Table G

Giliberto-Levy Commercial Mortgage Index (G-L I)

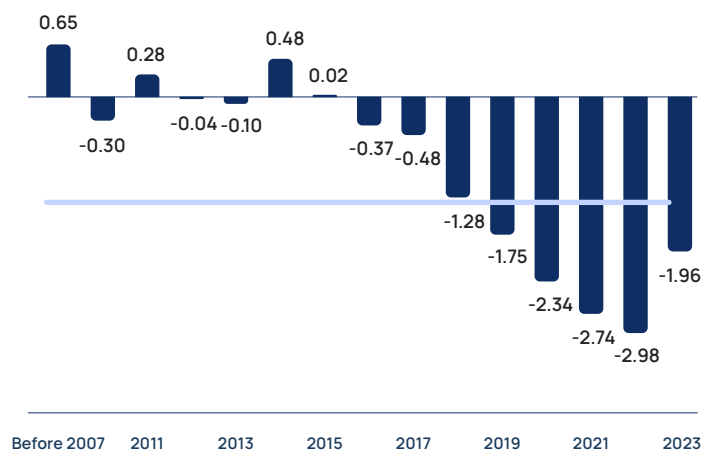
Performance by Vintage Year

For the quarter ended September 30, 2023

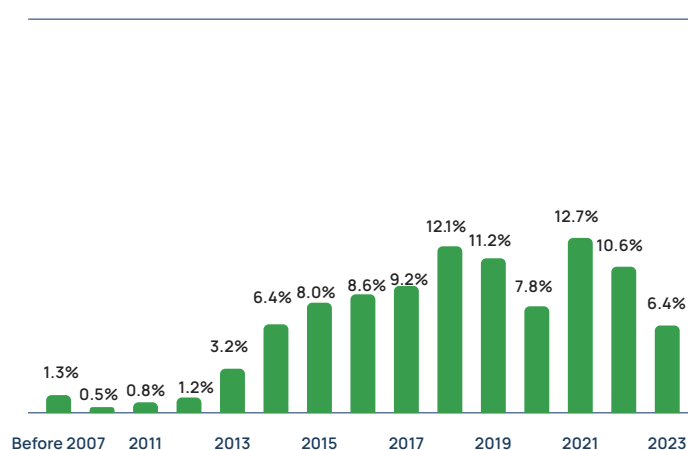
Vintage Year	Returns				Statistics						
	Income	Price	Other	Total	Mod. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	Num. of Cohorts
Before 2007	1.56	-0.94	0.03	0.65	2.32	6.29	4.34	99.2	6.83	1.3%	2035
2007 to 2010	1.53	-1.88	0.04	-0.30	3.40	6.23	6.68	98.5	6.73	0.5%	288
2011	1.31	-1.11	0.08	0.28	2.71	5.18	4.45	96.3	6.85	0.8%	250
2012	1.18	-1.33	0.11	-0.04	3.04	4.55	5.08	93.7	6.85	1.2%	324
2013	1.18	-1.39	0.11	-0.10	3.27	4.51	5.30	93.3	6.83	3.2%	657
2014	1.10	-0.67	0.05	0.48	2.31	4.21	3.49	94.3	7.10	6.4%	1004
2015	1.06	-1.10	0.06	0.02	2.92	3.96	4.25	92.0	6.95	8.0%	1352
2016	1.03	-1.49	0.08	-0.37	3.50	3.81	5.04	90.0	6.84	8.6%	1234
2017	1.07	-1.62	0.06	-0.48	3.59	3.97	4.90	90.5	6.84	9.2%	1326
2018	1.17	-2.50	0.05	-1.28	4.42	4.36	6.26	90.2	6.74	12.1%	1427
2019	1.05	-2.86	0.06	-1.75	4.93	3.78	6.89	86.3	6.72	11.2%	1414
2020	0.90	-3.32	0.08	-2.34	5.47	3.10	7.51	81.8	6.64	7.8%	1104
2021	0.89	-3.69	0.06	-2.74	5.94	3.03	7.78	80.4	6.63	12.7%	1510
2022	1.21	-4.24	0.05	-2.98	6.04	4.48	8.20	86.1	6.79	10.6%	981
2023	1.46	-3.46	0.04	-1.96	5.21	5.88	6.78	95.6	6.69	6.4%	498
Total	1.09	-2.51	0.06	-1.36	4.46	4.06	6.21	88.3	6.78	100.0%	15404

Total Return by Vintage Cohort

For the quarter; in percent



Portfolio Composition by Vintage Cohort





GILIBERTO-LEVY
COMMERCIAL REAL ESTATE DEBT INDEXES

The return on \$52.9 billion of loans tracked by the G-L 2 high-yield debt index rebounded to 1.99% during Q2-2023, up from 1.10% in the first three months of this year and well above the G-L 1's return of 0.74% during the same quarter.

If you'd like more information on the G-L 2 Index, please contact us at jgrant@jblevyco.com.

The Gilberto-Levy Indexes

The G-L Commercial Mortgage Performance Index, or G-L 1, tracks investment results for fixed-rate senior mortgages made by lenders such as life insurance companies, GSEs, pension funds and investment managers and held on their balance sheets. G-L 1 has been produced continuously since 1993, with a return inception date of January 1, 1972.

The G-L High-yield Real Estate Debt Index, or G-L 2, measures performance for a variety of investments, such as mezzanine loans, leveraged whole loan and B-notes. G-L 2 production started in 2018. The return inception date is January 1, 2010.

To receive more information about the indexes, please contact Julia Grant (jgrant@jblevyco.com).

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