



GILIBERTO-LEVY

# MONITOR

Commercial Mortgage Performance Index<sup>SM</sup>

3Q 2021 RESULTS AND ANALYSIS

The **Gilberto-Levy Monitor** reports quarterly results of the **Gilberto-Levy Commercial Mortgage Performance Index<sup>SM</sup>** and provides comprehensive in-depth market analysis and commentary on key aspects of the commercial mortgage industry. A subscription to the **Gilberto-Levy Monitor** includes access to the **Gilberto-Levy Analyzer**—a custom query tool enabling analysis of total return on a long-term historical basis.

## Update from the G-L 2

The Gilberto-Levy High-Yield Real Estate Debt Index (the G-L 2) offers investors a performance benchmark for mezzanine debt, preferred equity, and A/B note structures, among others. The G-L 2 is fully consistent with other mark-to-market indexes, including other commercial real estate investment performance indexes. For the 12 months ended 06/30/21, the G-L 2 notched a return of 6.64%, which is 191 basis points lower than the 8.55% return tallied since its inception at the beginning of 2010. By contrast, the G-L 1 (our first mortgage, fixed-rate index covered in this Monitor) showed a return of 4.16% - 248 basis points lower – for the 12 months ended 06/30/21. Of equal interest, investment-grade CMBS, as measured by Bloomberg Barclays indices, showed a total return of 2.94% for the same 12 months, with slightly more volatility than the G-L 2.

To learn more about the G-L 2 or join the Founders Group, please contact **John Levy at 804-500-9025 or [jlevy@jblevyco.com](mailto:jlevy@jblevyco.com)**.

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## MARKET OVERVIEW

### THIRD QUARTER 2021 SUMMARY

		As of 9/30/2021
<b>Total Return:</b> (in %)	Total (all sectors)	0.42
	Office	0.29
	Multi-family	0.54
	Retail	0.39
	Industrial	0.19
<b>Spreads:</b>	Office	186
	Multi-family	165
	Retail	191
	Industrial	157
<b>Index Statistics:</b>	Capitalization (\$ billion)	288.70
	Duration (years)	5.25
	Coupon (%)	3.97
	Maturity (years)	7.24
	Book LTV (%)	48.27

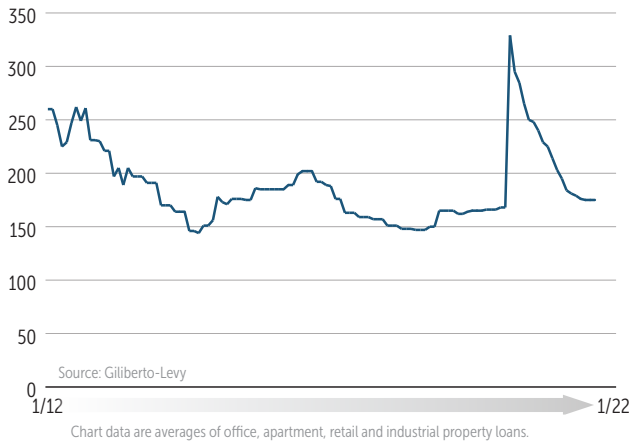
Spreads are averages for new ten-year loans at 60%–65% loan-to-value ratio. Source: Gilberto-Levy

**The Gilberto-Levy Commercial Mortgage Performance Index (G-L 1) posted a 0.42% total return for 3Q 2021.** Total return consisted of 0.94% income return and -0.52% capital value return, which includes price changes and other factors. (The sum of the components may not equal the total due to rounding.) Rising Treasury yields caused most of the capital value return. Commercial mortgage credit spreads were mostly unchanged from June 30, 2021 levels (see Chart 1). High LTV loans, which are a small component of the index, did experience spread reductions.

<sup>1</sup> 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.

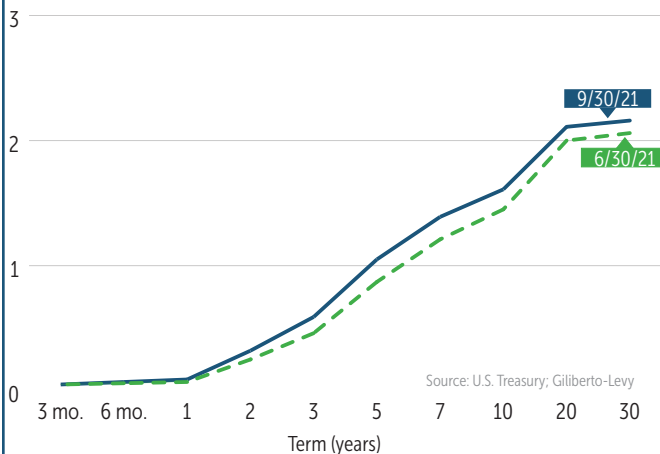
## Chart 1: Spreads over Treasuries for Ten-year Commercial Mortgages

In basis points, reflecting 30/360 day count convention

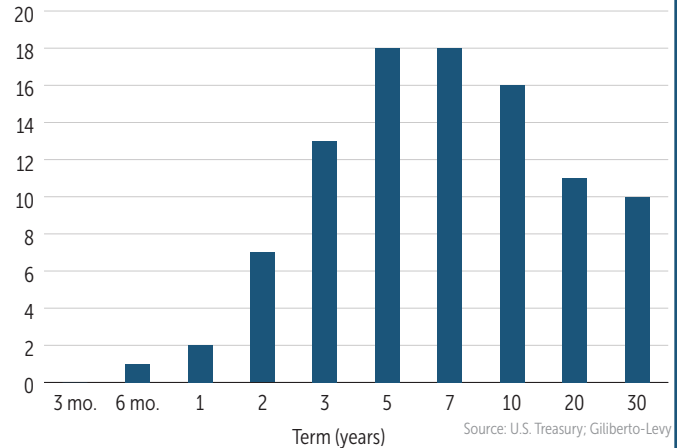


Most segments of the U.S. Treasury yield curve showed higher yields (see Charts 2 and 3). The largest increases were for issues with five to ten years of remaining term. For example, the benchmark ten-year yield was up 16 basis points, ending the quarter at 1.61%.

## Chart 2: US Treasury Yields 6/30/21 and 9/30/21 (in %)



## Chart 3: Changes in US Treasury Yields 6/30/21 to 9/30/21 (in basis points)



## PRICING TRENDS: 3Q 2021

Table 1: Key Rates (in %)

	6/30/2021	9/30/2021	change
20-year Treasury Yield	2.00	2.11	0.11
20-year Mortgage Spread	1.76	1.75	-0.01
20-year Mortgage Yield	3.76	3.86	0.10
10-year Treasury Yield	1.45	1.61	0.16
10-year Mortgage Spread	1.76	1.75	-0.01
10-year Mortgage Yield	3.21	3.36	0.15
7-year Treasury Yield	1.21	1.39	0.18
7-year Mortgage Spread	1.76	1.75	-0.01
7-year Mortgage Yield	2.97	3.14	0.17
5-year Treasury Yield	0.87	1.05	0.18
5-year Mortgage Spread	1.76	2.00	0.24
5-year Mortgage Yield	2.63	3.05	0.42

Source: U.S. Treasury; Giliberto-Levy

- As Charts 2 and 3 show, sizes of Treasury yield changes were mixed, although five- to ten-year yields showed similar magnitude moves. The five-year key rate spread change reflects the resumption of a 25-bp term premium that was observed in 3Q 2021 and 1Q 2021 but not in 2Q 2021.

- Apartment loans for less than \$5 million again commanded a 25-bp size premium. Other major sectors did not show size premiums.

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However, mixed-use and miscellaneous other had 20-bp premiums.

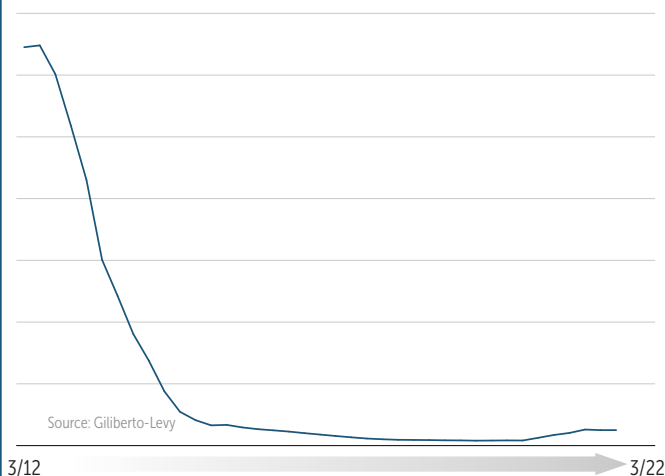
- No fixed-rate hotel/lodging loans have been reported to date in 2021. Several floating-rate loans, which are not eligible for inclusion in the index, were made. Those spreads averaged about 400 bp.
- The National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index produced a 4.5% price increase for the quarter, with all major sectors, including retail, exhibiting positive changes. Prices reflect both property sales and appraisals.

## CREDIT EFFECTS

Trailing four-quarter credit effects remained at 5 bp (see Chart 4). However, **annualized quarterly credit effects dropped from last quarter's 6 bp to about 3 bp**. While all sectors contributed, reductions from improving operations for office and retail had the greatest effect.

### Chart 4: Commercial Mortgage Credit Effects, 1Q 2012 to 3Q 2021

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



## RELATIVE PERFORMANCE

With Treasury yields edging up, most investment-grade fixed-income segments saw 3Q 2021 returns drop from those posted in 2Q 2021 (see Table 2). Intermediate-term Treasury issues for the quarter, year to date and trailing four quarters have had price declines that exceeded (coupon) income returns. Credit sectors,

including both G-L 1 and CMBS, did better. Higher income yields generated by these investments was the tipping factor because most of these investments showed negative capital value changes in 3Q.

**Table 2: Total Return as of September 30, 2021**

Index	Total Return (%)		Duration	
	3Q 2021	YTD	Last 4Q	as of 9/30/21
Commercial Mortgages*	0.42	1.62	2.80	5.25
Duration-adjusted Baa Bond	0.12	-0.31	2.39	5.25
CMBS: Investment Grade	-0.03	-0.25	1.00	5.07
CMBS 2.0	0.12	0.42	2.15	4.57
TSY Int. Term	-0.01	-1.15	-1.38	4.04
TSY 5-7 yr. Term	-0.11	-2.31	-2.75	5.95
Credit Int. Term	0.07	-0.48	1.06	4.44
A Int. Term	-0.03	-0.78	0.34	4.40
Baa Int. Term	0.16	-0.17	2.29	4.71
High-yield Int. Term	0.77	4.33	10.63	3.41
Ba Int. Term	0.89	3.42	8.50	3.83

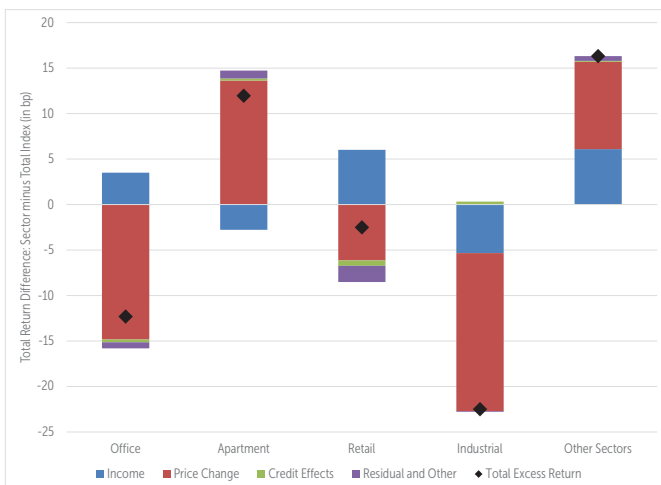
\*Giliberto-Levy Total Index includes office, retail, multifamily, industrial, and other. Source: Bloomberg, Barclays; Giliberto-Levy

Investment-grade CMBS posted -0.03% total return, according to Bloomberg Barclays Indices. G-L 1's higher return reflected (1) 21 bp higher income return for the quarter and (2) 23 bp less decline in capital value (-52 bp for G-L 1 versus -75 bp for CMBS).

Property sector relative (to the overall index) performance variation is largely explained by differences in duration and income yields (see Chart 5). Duration is a driver of price performance. With commercial mortgage yields rising on average, sectors with longer (than index average) duration generally would underperform. However, apartments, which have the longest duration, outperformed. Apartment spreads declined more than average in 3Q, and this blunted the part of the mortgage yield increase caused by rising Treasury rates. As a result, apartments had the smallest discount rate increase among major sectors. This was sufficient to offset part of the negative effect that longer duration would typically have.

## Chart 5: Sector Performance Attribution 3Q 2021

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 additional information about lending activity. *Please note that these revisions do not alter posted G-L 1 returns.*

**Table 3: G-L 1 Lending Activity Summary**

Index	Most Recent Period 3Q 2021*	Prior Period 2Q 2021	Year Ago Comp. Period 3Q 2020
Loan Volume (\$ billions)	9.3	8.9	6.1
Weighted Average:			
LTV	62.2%	59.6%	62.5%
DSCR	2.32	2.29	2.42
Coupon Rate	2.97%	3.11%	3.01%
Spread (basis points)	168	157	235
Term to Maturity (years)	10.4	10.5	10.7
Loan Size (\$ millions)	29.0	28.2	24.0

Spread is reported with respect to comparable maturity U.S. Treasury yield.

Source: Giliberto-Levy

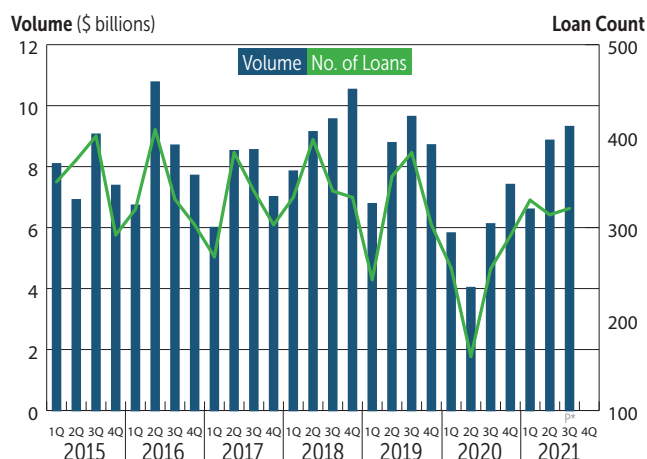
\* Preliminary and subject to revision

- **Lending volume continued to pick up.** Reported-to-date 3Q 2021 is only about 3% below 3Q 2019 (see Chart 6). Last quarter we mentioned that it was possible that upon revision actual 2Q 2021 volume would match or exceed 2019. It did, coming in about 1%

greater than 2Q 2019. We anticipate that 3Q 2021 will exceed 3Q 2019 by more than that once additional loans are reported.

## Chart 6: Index-eligible Loan Production

1Q 2015 to 3Q 2021



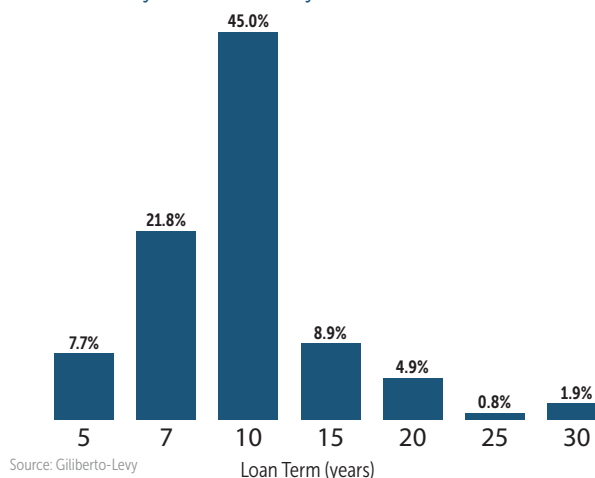
Source: Giliberto-Levy

\*P indicates preliminary and subject to revision

- The **ten-year segment's market share by volume was 45%**, up from 39% in 2Q 2021 (see Chart 7). Loan terms reported in the chart tallied 91% of total activity. Of the remainder, about 60% arose from loans longer than 10 years, but with terms other than those shown in the chart.

## Chart 7: Distribution of Lending Activity

Distribution by Term to Maturity, 3Q 2021



Source: Giliberto-Levy



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• **New loan production was 42% full-term interest-only loans, 52% loans with partial amortization, and 5% fully amortizing loans.** (Sum is less than 100% due to rounding.) Partially amortizing loans often include an interest-only period up front: more than 75% of these loans, by volume, had an interest-only period.

**Loans added to the G-L 1 totaled \$9 billion** (see Table 4 for details). These were loans originated in June through August 2021. September 2021 loans, which are included in the production number cited above and depicted in Chart 6, will be added to the Index for 4Q 2021.

**Table 4: Index Additions**  
Third Quarter 2021

	Amount (\$)	No. of Loans	Weighted-Average				
			Coupon (bp)	Spread	DSCR	LTV (%)	Term (years)
Office	608,971,850	25	3.40%	202	2.66	57.7	12.0
Apartment	6,527,665,000	210	2.91%	158	2.23	62.4	10.4
Retail	409,041,000	24	3.24%	188	2.44	61.2	10.3
Industrial	1,409,920,000	55	2.74%	139	3.00	56.1	11.5
Other	126,400,000	9	3.22%	161	2.04	59.1	15.6
<b>Total</b>	<b>9,081,997,850</b>	<b>323</b>	<b>2.94%</b>	<b>159</b>	<b>2.39</b>	<b>61.0</b>	<b>10.8</b>

Source: Giliberto-Levy

Please note that spreads reported in Table 4 are weighted averages of loans made during periods prior to September 2021. These averages do not represent quarter-end pricing parameters. Pricing spreads are reported in the summary table at the top of this report for standardized ten-year loans at 60% to 65% LTVs. These standardized spreads also appear in Table 1. Standardized spreads are generated from new loan originations and form the baseline for marking to market all loans in the Index.

## COMMERCIAL MORTGAGE PERSPECTIVE

In last quarter's *Monitor*, we examined changes in commercial mortgage credit spreads during the global financial crisis (GFC) and the onset of the COVID pandemic. In this issue, we re-visit spreads, but with a different question in mind: How have spreads changed when Treasury yields change?

We think this is relevant now that the Federal Reserve has started to tighten, albeit modestly, policy by announcing a tapering of bond purchases. Some analysts anticipate actual Fed rate hikes, possibly

as early as 2023.

There also is the specter of inflation. A reset of inflation expectations could lead to yield changes. Is the recent inflation uptick transient and tame – what the Fed espouses today – or persistent and pernicious? (We don't know.)

We used the time series of G-L 1 standardized spreads to examine how spreads move when Treasury yields change. The advantage of using standardized spreads is that we do not have to account for variation in loan term to maturity, loan-to-value (LTV) ratio, property type mix, and so forth. All those adjustments were applied to derive the standardized spreads, which are for ten-year loans at 60% to 65% LTV with long amortization periods.

Before turning to our findings, it is worth noting that finance theory suggests a negative relationship should exist between changes in (risk-free) interest rates and spreads, at least under certain assumptions. This is because the credit risk of a loan secured solely by the property is akin to a put option. A put option's value increases when the risk-free rate declines and vice versa. Credit spread is a proxy for put value: a loan with a high LTV carries a higher spread, all else equal, because the likelihood that the put is exercised, i.e., the borrower defaults, is higher. Hence, the put should be more expensive. An implication is that spreads should increase – put values go up -- when risk-free yields decrease and conversely.

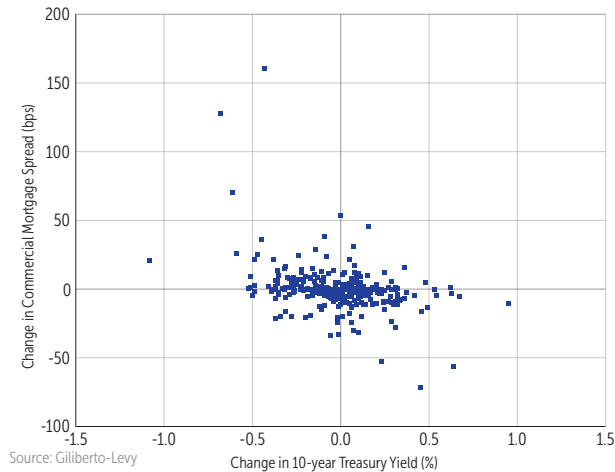
Of course, as markets move "all else" frequently is not "equal." Consequently, a theoretically clear implication may be less visible when looking at real-world data.

Data start in January 1997 and are monthly. As of September 2021, we have almost 25 years of history. Because spreads are for ten-year loans, yields on ten-year Treasury instruments are appropriate to use. Chart 8 shows monthly changes in spreads and yields. (The first data point for changes is February 1997.)

<sup>2</sup> Conceptually, the borrower exercises the put by "selling" the property to the lender for the amount due on the loan. Of course, no money is exchanged, but the elimination of the borrower's (former) liability is similar.

## Chart 8: Monthly Changes in G-L 1

Standardized Spreads and Ten-year U.S. Treasury Yields February 1997 through September 2021



In Chart 8, data points in the upper-left and lower-right quadrants are months in which spreads and Treasury yields moved in opposite directions, consistent with theory. As you can see, there are many data points in the other two quadrants.

In addition, there clearly are multiple data points corresponding to large changes in yields and spreads. These often reflect extreme events. For example, the highest data point as measured along the vertical axis is March 2020, the front edge of the COVID pandemic. The ten-year Treasury yield declined 43 bp – it had already declined about 80 bp in January and February 2020 – and the mortgage spread jumped up 160 bp as markets shut down.

We used regression analysis to determine the average response of spreads to yield changes while controlling for the effects of extreme events. For the entire February 1997 to September 2021 period spreads on average changed 10 to 15 bp for a 100-bp change in the ten-year yield, moving in the opposite direction. Results were statistically significant.<sup>3</sup>

Prior to 2003, spreads were derived from loan cohort data reported by the American Council of Life Insurers. Thereafter, individual loan data from our monthly lending surveys were used. We split

the sample accordingly and ran separate regressions. In the earlier period, changes in spreads were negatively related to yield changes, but the relationship was not statistically significant. In contrast, the relationship in the later period was also negative but highly significant, with 15 to 20 bp of spread change associated with a 100bp Treasury yield movement.

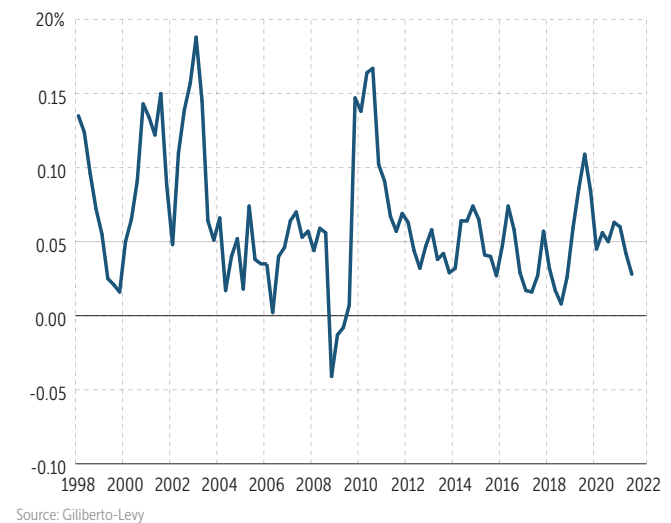
Another way to think of this is that ten-year mortgage coupon rates change by 80% to 85% of the change in the ten-year Treasury yield on average. Of course, other variables also affect perceived credit risk and its pricing and need to be considered. For example, option values are positively related to the volatility of the price of the underlying asset. In real estate terms, if property values are expected to fluctuate less in the future, then spreads should come down. All else equal, of course!

As always, we welcome your comments and questions.

November 2021

## Chart 9: Commercial Mortgage Performance

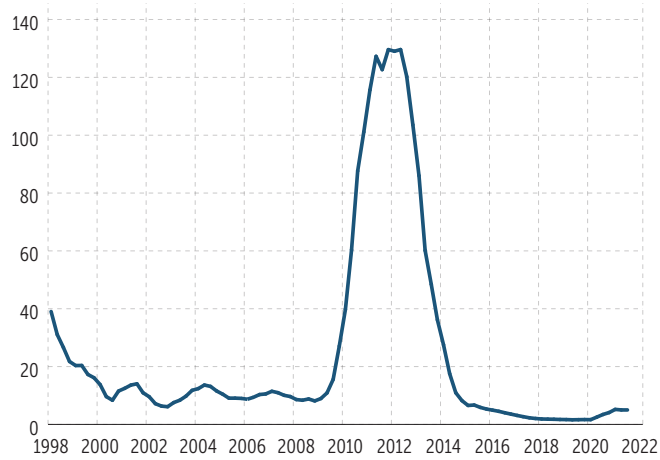
Rolling four-quarter total return for Total Index



<sup>3</sup> For statistics aficionados, all coefficients other than the constant term had t-statistics with p-values well below 1% for all regressions reported here as being statistically significant. We also looked at each major property sector individually, but there was no meaningful variation in response coefficients across sectors.

## Chart 10: Commercial Mortgage Credit Effects

Rolling four-quarter total effects as a percentage of book value (in basis Points)



Source: Gilberto-Levy

## SUPPORTING TABLES AND CHARTS

**Table A: Performance by Property Sector - For the quarter ended September 30, 2021**

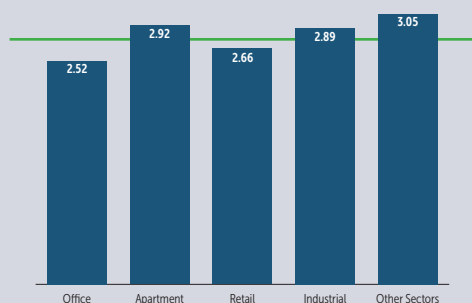
Sector	Returns (%)						Credit Losses (book value; bp)			
	Last 3 months				YTD	Last 12	Index	Last 3		Last 12
	Income	Price	Other	Total	Total	Months		Months	YTD	Months
Office	0.98	-0.65	-0.03	0.29	1.36	2.52	2436.44	1	5	6
Apartment	0.91	-0.36	-0.02	0.54	1.68	2.92	3184.51	1	3	4
Retail	1.00	-0.56	-0.05	0.39	1.56	2.66	2898.51	2	6	8
Industrial	0.89	-0.67	-0.03	0.19	1.64	2.89	2860.68	0	2	2
Other Sectors	1.00	-0.40	-0.02	0.58	2.05	3.05	N/A	1	5	6
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>1.62</b>	<b>2.80</b>	<b>2669.91</b>	<b>1</b>	<b>4</b>	<b>5</b>
Aggregate	0.94	-0.50	-0.03	0.41	1.59	2.78	4320.41	1	4	5

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  
bp Basis Points

**Total Return by Sector Last 12 months (%)**



**Credit Effect by Sector Last 12 months (bp)**



### APPENDIX (Following pages) Supporting Tables and Charts 3Q 2021

A. G-L Performance by Sector.....	8
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G. G-L Vintage Cohort.....	14



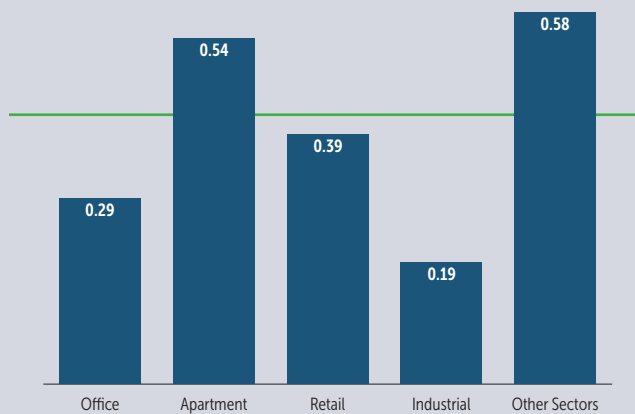


**Table B: Giliberto-Levy Index Performance by Property Sector - For the quarter ended September 30, 2021**

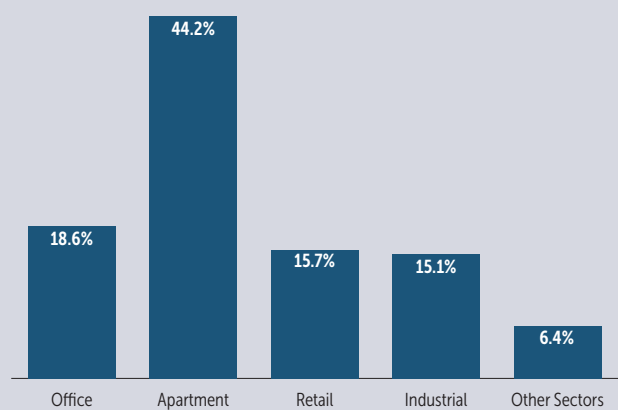
Sector	Returns (%)				Statistics		Averages			Pct. of Portfolio	No. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
Office	0.98	-0.65	-0.03	0.29	4.64	4.13	6.49	104.6	2.74	18.6%	2,306
Apartment	0.91	-0.36	-0.02	0.54	5.71	3.85	7.68	104.6	2.74	44.2%	5,977
Retail	1.00	-0.56	-0.05	0.39	4.73	4.23	6.67	104.5	2.92	15.7%	3,614
Industrial	0.89	-0.67	-0.03	0.19	5.09	3.76	6.94	104.8	2.48	15.1%	2,788
Other Sectors	1.00	-0.40	-0.02	0.58	5.59	4.16	8.55	102.7	3.42	6.4%	1,175
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>
Aggregate	0.94	-0.50	-0.03	0.41	5.23	3.96	7.15	104.6	2.73	93.6%	14,685

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

**Total Return by Sector For the quarter (%)**



**Portfolio Composition by Sector**





**Table C: Giliberto-Levy Index Performance by Book LTV - For the quarter ended September 30, 2021**

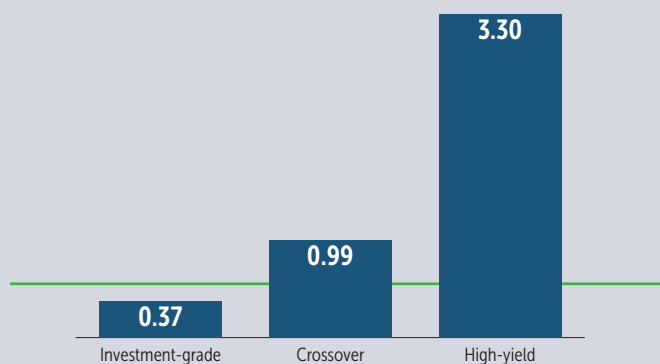
Credit Quality Using Book Value	Returns (%)				Statistics		Averages			Pct. of Portfolio	No. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
Investment-grade	0.94	-0.54	-0.03	0.37	5.21	3.97	7.19	104.6	2.74	95.8%	15,291
Crossover	0.95	0.05	-0.01	0.99	6.18	3.96	8.56	101.9	3.50	4.2%	563
High-yield	1.11	1.90	0.28	3.30	3.71	4.32	4.47	94.9	5.12	0.1%	6
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>

**Credit Quality Definition**

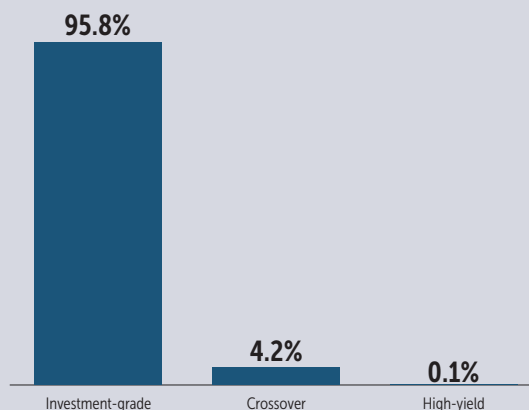
	Book LTV	
	Minimum	Maximum
Investment-grade	NA	70.0%
Crossover	70.1%	85.0%
High-yield	85.1%	NA

Please note that all G-L 1 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 (%)**



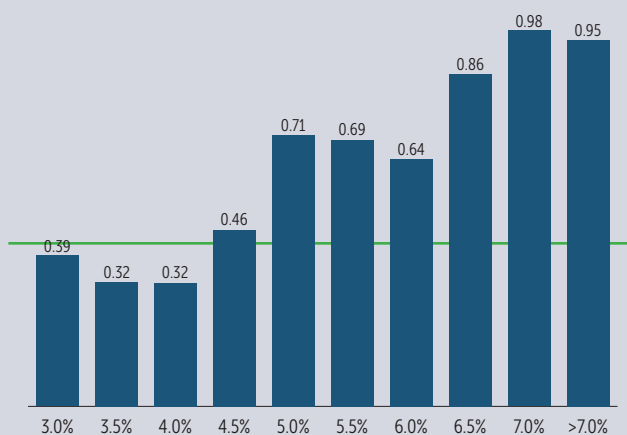
**Portfolio Composition by Credit Quality**



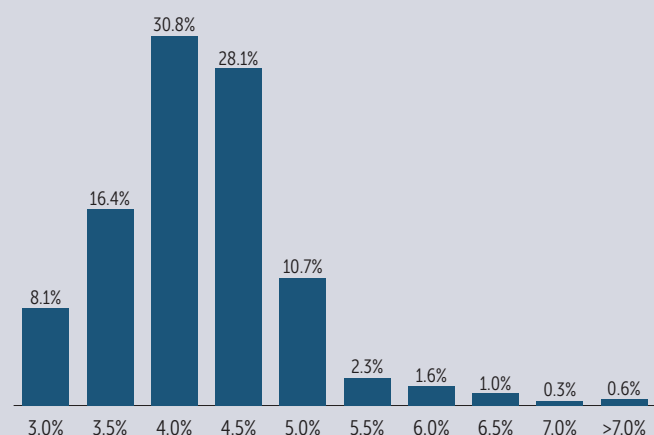
**Table D: Giliberto-Levy Performance by Coupon Rate - For the quarter ended September 30, 2021**

Credit Quality Using Book Value	Returns (%)				Statistics		Averages			Pct. of Portfolio	No. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
0.0% to 3.0%	0.69	-0.30	0.00	0.39	6.84	2.74	8.75	98.3	2.92	8.1%	849
3.0% to 3.5%	0.80	-0.47	-0.01	0.32	6.04	3.29	8.02	101.4	2.85	16.4%	1,871
3.5% to 4.0%	0.90	-0.56	-0.02	0.32	4.69	3.79	6.19	104.2	2.69	30.8%	3,804
4.0% to 4.5%	0.99	-0.50	-0.02	0.46	5.31	4.25	7.57	106.6	2.81	28.1%	3,779
4.5% to 5.0%	1.09	-0.34	-0.05	0.71	5.14	4.72	7.58	107.8	2.83	10.7%	1,781
5.0% to 5.5%	1.21	-0.43	-0.09	0.69	4.36	5.23	7.05	107.8	2.67	2.3%	654
5.5% to 6.0%	1.32	-0.53	-0.15	0.64	3.67	5.75	6.42	108.2	2.52	1.6%	932
6.0% to 6.5%	1.43	-0.37	-0.19	0.86	3.24	6.24	5.70	109.0	2.51	1.0%	834
6.5% to 7.0%	1.53	-0.36	-0.20	0.98	3.06	6.71	5.46	108.8	2.52	0.3%	298
7.0% and above	1.74	-0.44	-0.35	0.95	2.89	7.61	5.43	109.3	2.34	0.6%	1,058
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>

**Total Return by Coupon Rate For the quarter (%)**



**Portfolio Composition by Coupon Rate**

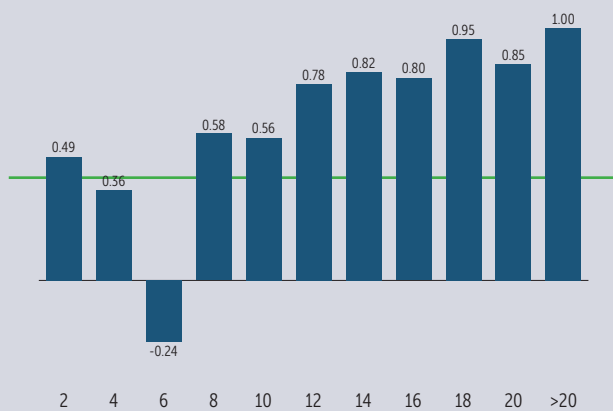




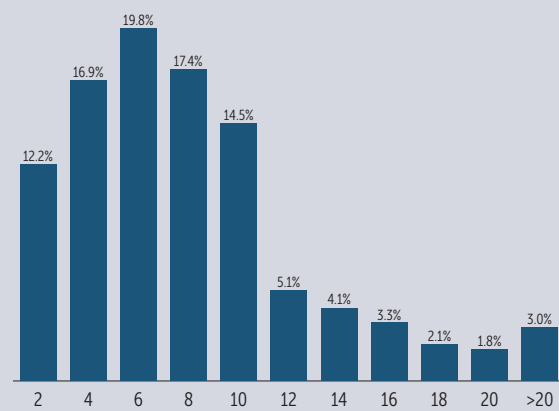
**Table E: Giliberto-Levy Total Performance by Remaining Term to Maturity - For the quarter ended September 30, 2021**

Maturity Cell	Returns (%)				Statistics		Averages			Pct. of Portfolio	No. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
0 to 2 years	1.01	-0.48	-0.04	0.49	1.10	4.13	1.16	102.3	2.02	12.2%	2,580
2 to 4 years	0.97	-0.59	-0.03	0.36	2.80	4.11	3.11	104.6	2.40	16.9%	2,951
4 to 6 years	0.92	-1.14	-0.02	-0.24	4.33	3.92	5.01	104.6	2.80	19.8%	2,785
6 to 8 years	0.95	-0.35	-0.02	0.58	5.79	4.10	7.02	106.5	2.91	17.4%	2,218
8 to 10 years	0.85	-0.27	-0.02	0.56	7.18	3.51	9.01	102.6	3.05	14.5%	1,973
10 to 12 years	0.94	-0.12	-0.04	0.78	7.63	4.05	11.11	106.2	3.05	5.1%	877
12 to 14 years	0.95	-0.09	-0.03	0.82	8.38	4.07	13.04	105.7	3.18	4.1%	759
14 to 16 years	0.93	-0.10	-0.04	0.80	8.80	3.97	14.88	104.6	3.23	3.3%	588
16 to 18 years	0.99	0.00	-0.04	0.95	9.32	4.32	17.01	108.0	3.28	2.1%	404
18 to 20 years	0.88	-0.01	-0.02	0.85	9.88	3.59	19.06	101.3	3.37	1.8%	320
20 years or more	0.96	0.06	-0.02	1.00	11.87	4.09	26.18	105.0	3.47	3.0%	405
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>

**Total Return by Maturity Cell For the quarter (%)**



**Portfolio Composition by Maturity Cell**



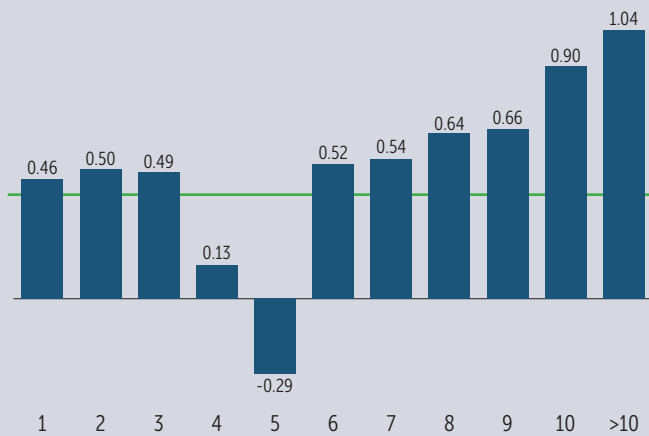




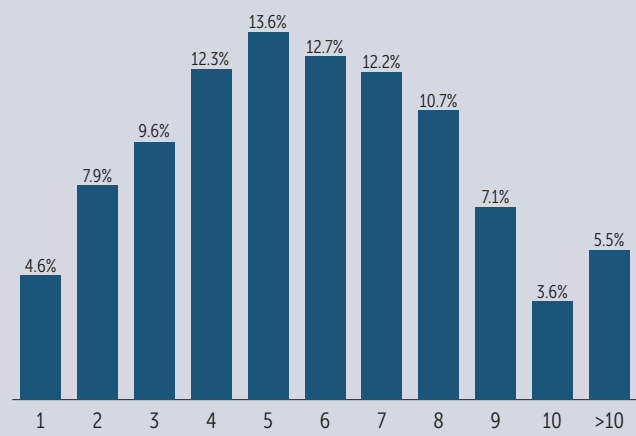
**Table F: Gilberto-Levy Index Performance by Duration - For the quarter ended September 30, 2021**

Duration Cell	Returns (%)				Statistics		Averages			Pct. of Portfolio	No. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
0 to 1 year	1.06	-0.51	-0.08	0.46	0.51	4.24	0.55	101.2	1.94	4.6%	1,461
1 to 2 years	1.00	-0.46	-0.04	0.50	1.46	4.17	1.61	103.1	2.06	7.9%	1,862
2 to 3 years	1.02	-0.48	-0.05	0.49	2.45	4.27	2.83	104.8	2.32	9.6%	1,984
3 to 4 years	0.96	-0.80	-0.03	0.13	3.46	4.08	4.04	105.2	2.58	12.3%	1,934
4 to 5 years	0.91	-1.18	-0.02	-0.29	4.44	3.87	5.40	104.5	2.83	13.6%	1,829
5 to 6 years	0.95	-0.40	-0.02	0.52	5.45	4.09	6.89	106.3	2.88	12.7%	1,752
6 to 7 years	0.93	-0.37	-0.02	0.54	6.39	3.94	8.45	105.6	3.00	12.2%	1,577
7 to 8 years	0.88	-0.22	-0.02	0.64	7.40	3.69	10.26	103.9	3.09	10.7%	1,394
8 to 9 years	0.86	-0.19	-0.02	0.66	8.34	3.59	12.28	103.0	3.16	7.1%	916
9 to 10 years	0.91	0.00	-0.02	0.90	9.39	3.87	14.92	104.7	3.25	3.6%	502
10 years or more	0.92	0.13	-0.01	1.04	11.64	3.85	20.90	103.7	3.41	5.5%	649
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>

**Total Return by Duration Cell For the quarter (%)**



**Portfolio Composition by Duration Cell**

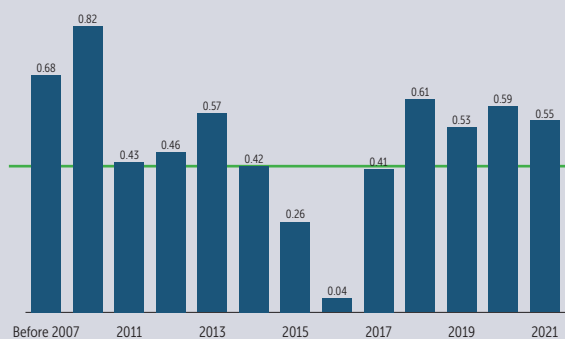




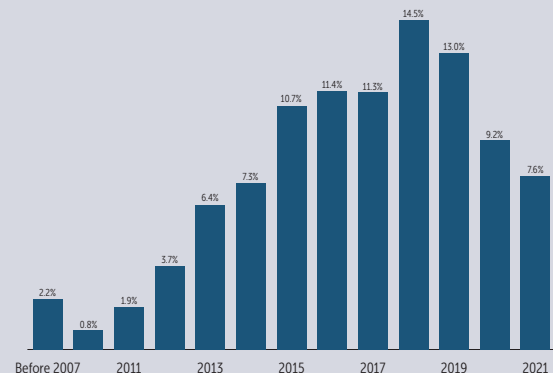
**Table G: Gilberto-Levy Index Performance by Vintage Year - For the quarter ended September 30, 2021**

Vintage Year	Returns (%)				Statistics		Averages			Pct. of Portfolio	Num. of Cohorts
	Income	Price	Other	Total	Adj. Duration	Coupon	Maturity	Price	Yield		
Before 2007	1.44	-0.50	-0.26	0.68	2.84	6.31	5.08	108.5	2.36	2.2%	2,748
2007 to 2010	1.42	-0.42	-0.18	0.82	3.36	6.10	6.16	107.8	2.49	0.8%	454
2011	1.17	-0.60	-0.13	0.43	2.53	4.96	3.84	105.5	2.33	1.9%	420
2012	1.03	-0.53	-0.05	0.46	2.21	4.32	3.27	103.8	2.22	3.7%	825
2013	1.02	-0.41	-0.04	0.57	3.51	4.35	5.12	105.7	2.44	6.4%	1,132
2014	0.98	-0.52	-0.04	0.42	3.98	4.20	5.64	105.7	2.60	7.3%	1,040
2015	0.93	-0.64	-0.02	0.26	4.04	3.93	5.60	104.6	2.64	10.7%	1,504
2016	0.89	-0.83	-0.02	0.04	4.66	3.79	6.49	104.1	2.79	11.4%	1,374
2017	0.93	-0.50	-0.02	0.41	4.94	3.95	6.62	105.3	2.78	11.3%	1,424
2018	1.00	-0.38	-0.01	0.61	5.98	4.36	8.23	107.9	2.87	14.5%	1,517
2019	0.89	-0.36	-0.01	0.53	6.73	3.79	9.18	104.5	3.00	13.0%	1,430
2020	0.77	-0.17	0.00	0.59	7.21	3.12	9.68	100.3	2.99	9.2%	1,125
2021	0.76	-0.21	0.00	0.55	7.75	3.03	10.29	99.4	3.08	7.6%	867
<b>Total</b>	<b>0.94</b>	<b>-0.50</b>	<b>-0.03</b>	<b>0.42</b>	<b>5.25</b>	<b>3.97</b>	<b>7.24</b>	<b>104.5</b>	<b>2.77</b>	<b>100.0%</b>	<b>15,860</b>

**Total Return by Vintage Cohort For the quarter (%)**



**Portfolio Composition by Vintage Cohort**





### About the Gilberto-Levy Index

Established in 1993, the Gilberto-Levy Index provides essential information and accurate research on emerging trends affecting commercial mortgage investments. Investment professionals, actuaries, consultants, plan sponsors, banks, life companies, regulators and rating agencies use the index as a reliable way to evaluate the performance of commercial mortgages on a total return, marked-to-market basis.

### Contact

To subscribe or receive more information on the Gilberto-Levy Commercial Mortgage Performance Index<sup>SM</sup>, please contact [jgrant@jblevyco.com](mailto:jgrant@jblevyco.com).

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