

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

1Q 2021 RESULTS AND ANALYSIS

The Giliberto-Levy Monitor reports quarterly results of the Giliberto-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 Giliberto-Levy Monitor includes access to the Giliberto-Levy Analyzer—a custom query tool enabling analysis of total return on a long-term historical basis.

### Update from the G-L 2

The Giliberto-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 12/31/20, the G-L 2 notched a return of 5.12%, which is 348 basis points lower than the 8.60% 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 6.33% - 121 basis points higher – for the 12 months ended 12/31/20. Of equal interest, investment-grade CMBS, as measured by Bloomberg Barclays indices, showed a total return of 7.62% 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**.

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#### MARKET OVERVIEW

### **FIRST QUARTER 2021 SUMMARY**

T. I.D. (1.00)	T. 1/11	As of 3/31/2021
Total Return: (in %)	Total (all sectors) Office Multi-family Retail Industrial	-1.22 -1.09 -1.38 -1.18 -0.89
Spreads:	Office Multi-family Retail Industrial	196 173 201 165
Index Statistics:	Capitalization (\$ billion) Duration (years) Coupon (%) Maturity (years) Book LTV (%)	279.40 5.19 4.06 7.23 50.88

 $Spreads \ are \ averages \ for \ new \ ten-year \ loans \ at \ 60\%-65\% \ loan-to-value \ ratio. \qquad Source: \textit{Giliberto-Levy}$ 

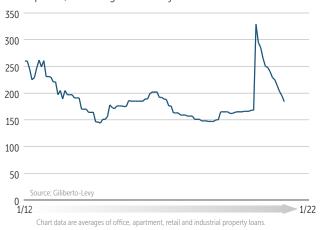
The Giliberto-Levy Commercial Mortgage Performance Index (G-L 1) posted a -1.22% total return for 1Q 2021.¹ Total return consisted of 0.95% income return and -2.17% capital value return, which includes price changes and other factors. (The sum of the components may not equal the total due to rounding.) Sharp increases in Treasury yields caused the capital value hit. The full potential effect of increased Treasury yields was blunted by declining commercial mortgage spreads. Replicating 4Q 2020 moves, spreads declined about 30 basis points (bp) for major sectors (see Chart 1). That move puts spreads about 15 basis points (bp) above their average level in February 2020, just prior to the COVID-driven market disruption.

<sup>&</sup>lt;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**

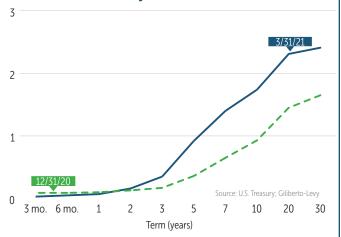
In basis points, reflecting 30/360 day count convention



The rise in Treasury yields was accompanied by a marked steepening of the yield curve slope (see Charts 2 and 3). To illustrate, on December 31, 2020 the two-year yield was 0.13% and the ten-year yield was 0.93%; the 80-bp difference measures the slope. On March 31, 2021, the two-year yield had barely moved, coming in at 0.16%. In contrast, the ten-year yield had reached 1.74%, implying a 158bp slope, an increase of 78 bp. Similar results were repeated across intermediate and long-term notes and bonds.

Importantly, slope increases appeared to prompt a return of term premiums as a component of commercial mortgage spreads for new loans with five or fewer years to maturity. As a reminder, we measure "term premium" as the spread difference between, say, a five-year and a ten-year mortgage that have identical characteristics, other than term. We estimated the term premium to be about 60 bp at the three-year mark and 25 bp for five-year deals. In the past, term premiums, when present, have ranged from 40 bp to 150 bp for three-year loans and 10 to 90 bp for five-year loans. Even with term premiums, coupon rates on new shorter-term loans were below those on longer loans, on average.

### **Chart 2: US Treasury Yields** 12/31/20 and 3/31/21 (in %)



### **Chart 3: Changes in US Treasury Yields** 12/31/20 to 3/31/21 (in basis points)



### PRICING TRENDS: 1Q 2020

- · Origination of loans with coupon rates below 3% abated somewhat in 1Q as rising Treasury yields put upward pressure on coupon rates. About 37% of ten-year loans had coupon rates under 3%, compared with 46% in 4Q 2020. The percentage of sub-3% coupons was almost identical when all loans, both under and over ten-year term to maturity, were analyzed.
- We continued to see a 20-bp to 30-bp small loan (under \$5 million) premiums for most sectors. Not all small-balance loans have such premiums.



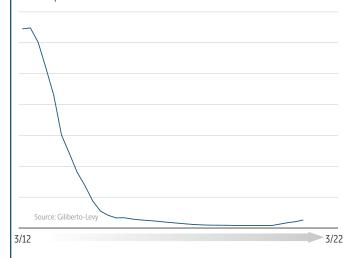
• The National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index reported about a 1% price increase, with all major sectors other than retail posting positive changes. As expected, industrial assets had the largest increase. Apartments were well below that, and offices were just slightly positive. These changes reflect a combination of property sales and appraisals.

### **CREDIT EFFECTS**

**Trailing four-quarter credit effects increased to 5 bp** (see Chart 4). This reflects ongoing, albeit perhaps moderating, stress in office and retail. Annualized quarterly credit effects increased to 6 bp after having dipped to 4 bp in 4Q 2020. As economic recovery seems likely to strengthen, this number – low by historical standards – should improve, probably with a lag.

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

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



#### RELATIVE PERFORMANCE

Due to the rise in Treasury yields, almost all investment-grade fixed-income investments produced negative total returns in 1Q 2021 (see Table 2).

Table 2: Total Return as of March 31, 2021

	Total	Return (%)	Duratio		
	1Q		Last	as of	
Index	2021	YTD	4Q	3/31/21	
Commercial Mortgages*	-1.22	-1.22	6.01	5.19	
Duration-adjusted Baa Bond	-2.54	-2.54	12.26	5.19	
CHIEGO	2.40	2.40	4.05	5.46	
CMBS: Investment Grade	-2.10	-2.10	4.86	5.16	
CMBS 2.0	-1.55	-1.55	6.83	4.65	
TSY Int. Term	-1.76	-1.76	-1.27	3.99	
TSY 5-7 yr. Term	-3.57	-3.57	-2.82	5.96	
Credit Int. Term	-2.07	-2.07	7.39	4.48	
A Int. Term	-2.23	-2.23	5.61	4.42	
Baa Int. Term	-2.18	-2.18	11.97	4.76	
High-yield Int. Term	1.05	1.05	22.37	3.32	
Ba Int. Term	0.13	0.13	19.91	3.78	

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

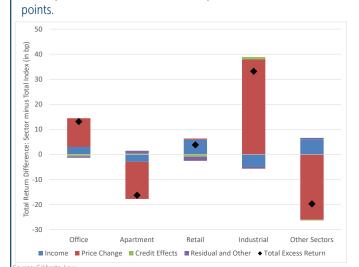
Investment-grade CMBS produced -2.10% total return, according to Bloomberg Barclays Indices. As we often note, CMBS and G-L 1 do not move in lockstep, and this quarter demonstrated that. However, looking back over the last five quarters, reaching back to pre-COVID days, cumulative returns are similar: 5.04% for G-L 1 and 5.36% 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, sectors with longer (than index average) duration generally under-performed.





# Chart 5: Sector Performance Attribution 1Q 2021 Sector performance minus Total Index performance, in basis

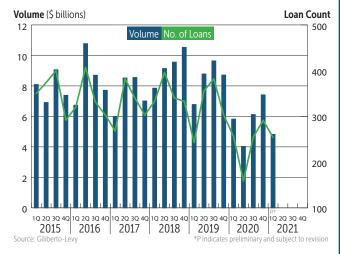


### **LENDING ACTIVITY**

Observations below are based on data received at the time we prepared this report. Results are subject to change as we receive additional information.

• The typical first-quarter seasonal drop in lending volume occurred. 1Q origination of loans eligible for the Index decreased to \$4.8 billion, compared with 4Q 2020's \$7.4 billion, revised from the previously reported \$6.1 billion (see Chart 6). As usual, we expect the most recent quarter's volume will increase when additional loans made in 1Q 2021 are reported as part of 2Q 2021 data collection.

# **Chart 6: Index-eligible Loan Production** 1Q 2015 to 1Q 2021



- Average loan size came down quite a bit from \$25.7 million to about \$19 million. Loan sizes ranged from \$1.5 million to over \$200 million. However, in 4Q 2020 there were more mega-loans. Reduced volume in that segment in 1Q 2021 explains most of the decline in average size. Loans above \$25 million made up roughly 55% of dollar volume but accounted for about 22% of the number of loans. These statistics are roughly comparable to those posted in prior guarters.
- The average LTV on new loans eligible for inclusion in the G-L 1 was 60%. This is a slight decline from last quarter's 62%. Reported DSC held steady at 2.4 times.
- The **ten-year segment's market share by volume was 43%**, which is near its historical average and a little below the prior quarter's 48%. Other segments also showed typical shares. Five- and seven-year loans jointly got 20% of volume, and loans with 15 years or more to maturity also had about 20%.
- New loan production was 22% full-term interest-only loans, 65% loans with partial amortization, and 13% fully amortizing loans. Partially amortizing loans often include an interest-only period up front: about half these loans, by volume, had at least some period of interest-only.

**Nearly \$9** billion of new loans was added to the Index (see Table 3a for details). This came from two sources: (1) loans originated in December 2020, and January and February 2021 (see Table 3b) and



(2) loans originated from January 2020 through November 2020 that were reported too late to be included during the appropriate quarters of 2020 (see Table 3c).

March 2021 loans, which are included in the production number cited above and depicted in Chart 5, will be added to the Index for 2Q 2021.

# **Table 3a: Total Index Additions**

(First Quarter 2021: Current plus Late Reports)

			Weighted-Average									
	Amount (\$)	No. of Loans	Coupon (bp)	Spread	DSCR		Term (years)					
Office	924,375,000	39	2.99%	204	3.13	56.1	9.9					
Apartment	4,240,838,000	188	2.96%	188	2.34	61.0	11.0					
Retail	1,305,401,567	65	3.27%	224	2.29	54.8	10.5					
Industrial	2,154,773,616	126	2.91%	197	2.53	57.4	10.7					
Other	347,988,000	28	2.95%	200	2.79	54.7	12.5					
Total	8,973,376,183	446	2.99%	197	2.48	58.5	10.8					

Source: Giliberto-Levv

# **Table 3b: New Loans** (Dec. 2020 - Feb. 2021: Current Period Originations)

			Weighted-Average									
	Amount (\$)	No. of Loans	Coupon (bp)	Spread	DSCR	LTV (%)	Term (years)					
Office	444,200,000	22	2.90%	205	3.51	53.6	8.9					
Apartment	3,203,858,000	142	2.93%	191	2.35	62.5	10.8					
Retail	621,956,567	40	3.19%	208	2.32	55.7	10.6					
Industrial	1,225,592,716	66	2.87%	185	2.25	60.5	10.8					
Other	127,425,000	7	2.96%	195	2.59	50.9	13.4					
Total	5,623,032,283	277	2.95%	193	2.42	60.3	10.7					

Source: Giliberto-Levv

# Table 3c: Late Reports from 2020

(Jan. 2020-Nov. 2020 Late Reports)

			Weighted-Average									
	Amount (\$)	No. of Loans	Coupon (bp)	Spread	DSCR	LTV (%)	Term (years)					
Office	480,175,000	17	3.08%	204	2.78	58.3	10.8					
Apartment	1,036,980,000	46	3.02%	178	2.33	56.6	11.4					
Retail	683,445,000	25	3.34%	239	2.26	54.0	10.3					
Industrial	929,180,900	60	2.97%	214	2.89	53.2	10.6					
Other	220,563,000	21	2.94%	202	2.91	56.8	12.0					
Total	3,350,343,900	169	3.07%	206	2.57	55.4	10.9					

Source: Giliberto-Levy

Please note that spreads reported in Tables 3a to 3c are weighted averages of loans made during periods prior to March 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

We compiled our annual review of the change in the Index's outstanding principal balance over the prior calendar year.

New loans added during 2020, including late reports from 2019, totaled about \$27 billion (see Chart 7). This was down about \$11 billion from the prior year. The scaled-back volume was due, of course, to the COVID pandemic.

Consequently, the Index's outstanding principal balance increased by only about \$9 billion, compared with \$25.0 billion in 2019.

### **Chart 7: Components of G-L1 Index Principal**

Balance Change from Year-end 2019 to Year-end 2020

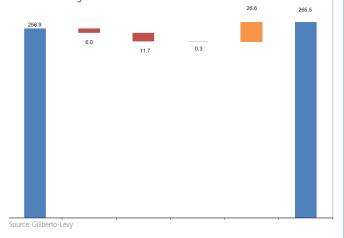


Chart 7 reconciles the gap between the net increase in principal and the amount of new loans: amortization and balloon payments at loan maturity caused almost all the \$18 billion difference.



Last year at this time we wrote "The potential for credit losses in all sectors has increased, with retail, lodging and office being most vulnerable." Potential became reality. Loans removed due to credit issues added up to roughly \$305 million, or about 0.12% of the beginning-of-year outstanding principal. In contrast, in 2019 only 0.05% of loans were affected. Loss severity during 2020 was about the same as in 2019 at 25%, according to our credit event model. The question for 2021 is whether the pace of economic recovery bolsters property income and value sufficiently to halt further increases in credit effects. Stay tuned.

As always, we welcome your comments and questions.

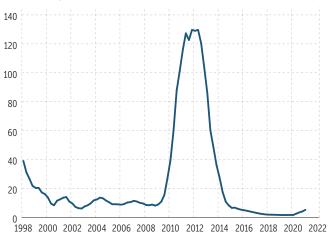
May 2021

# **Chart 8: Commercial Mortgage Performance**Rolling four-quarter total return for Total Index



### **Chart 9: Commercial Mortgage Credit Effects**

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



Source: Giliberto-Levy



### SUPPORTING TABLES AND CHARTS

# Table A: Performance by Property Sector - For the quarter ended March 31, 2021

#### Returns (%)

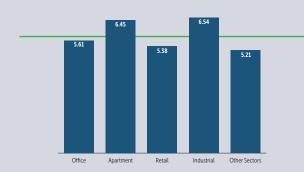
Credit Losses (book value; bp)

		Last 3	months		YTD	Last 12	Index	Last 3		Last 12
Sector	Income	Price	Other	Total	Total	Months	Level	Months	YTD	Months
Office	0.98	-2.05	-0.02	-1.09	-1.09	5.61	2377.43	2	2	7
Apartment	0.92	-2.30	0.00	-1.38	-1.38	6.45	3088.46	1	1	4
Retail	1.01	-2.16	-0.03	-1.18	-1.18	5.38	2820.19	2	2	8
Industrial	0.90	-1.77	-0.02	-0.89	-0.89	6.54	2789.56	0	0	3
Other Sectors	1.01	-2.42	-0.01	-1.42	-1.42	5.21	N/A	2	2	7
Total	0.95	-2.16	-0.01	-1.22	-1.22	6.01	2595.27	1	1	5
Aggregate	0.95	-2.14	-0.02	-1.21	-1.21	6.07	4201.46	1	1	5

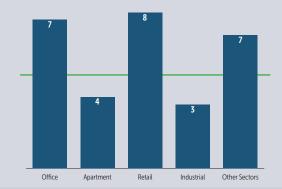
Aggregate excludes Other Sectors (hotel/motel, mixed-use and miscellaneous) Other Return is paydown return and compounding

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 1Q 2021

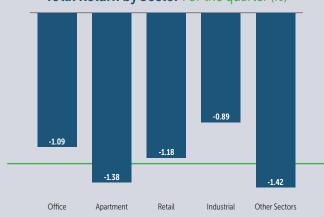
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# Table B: Giliberto-Levy Index Performance by Property Sector - For the quarter ended March 31, 2021

	Returns (%)				Statistics		Averages				
					Adj.					Pct. of	No. of
Sector	Income	Price	Other	Total	Duration	Coupon	Maturity	Price	Yield	Portfolio	Cohorts
Office	0.98	-2.05	-0.02	-1.09	4.52	4.20	6.37	103.9	2.95	19.7%	2,392
Apartment	0.92	-2.30	0.00	-1.38	5.65	3.95	7.70	103.7	3.02	42.2%	5,735
Retail	1.01	-2.16	-0.03	-1.18	4.74	4.31	6.78	103.6	3.16	16.5%	3,718
Industrial	0.90	-1.77	-0.02	-0.89	5.11	3.86	7.01	104.2	2.69	15.0%	2,793
Other Sectors	1.01	-2.42	-0.01	-1.42	5.47	4.24	8.43	101.3	3.69	6.7%	1,213
Total	0.95	-2.16	-0.01	-1.22	5.19	4.06	7.23	103.7	3.02	100.0%	15,851
Aggregate	0.95	-2.14	-0.02	-1.21	5.16	4.05	7.15	103.8	2.98	93.3%	14,638

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 March 31, 2021

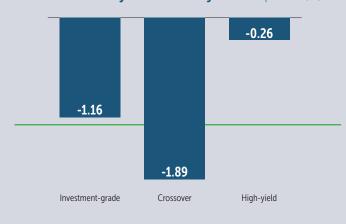
	Returns (%)					Statistics Averages						
Credit Quality Using Book Value	Income	Price	Other	Total		Adj. Duration	Coupon	Maturity	Price	Yield	Pct. of Portfolio	No. of Cohorts
Investment-grade	0.95	-2.10	-0.02	-1.16		5.09	4.07	7.12	104.0	2.96	92.0%	14,812
Crossover	0.94	-2.84	0.01	-1.89		6.34	3.97	8.58	100.6	3.71	7.9%	1,021
High-yield	1.11	-1.39	0.03	-0.26		4.90	4.22	6.41	91.1	5.74	0.1%	18
Total	0.95	-2.16	-0.01	-1.22		5.19	4.06	7.23	103.7	3.02	100.0%	15,851

### **Credit Quality Definition**

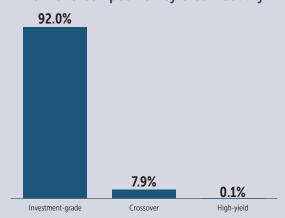
	Bool	k LTV
	Minimum	Maximum
Investment-grade	NA	70.0%
Crossover	70.1%	85.0%
High-yield	85.1%	NA

Please note that all G-L1 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**





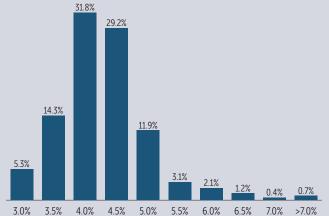
# Table D: Giliberto-Levy Performance by Coupon Rate - For the quarter ended March 31, 2021

	Returns (	%)			Statistics		Averages				
Credit Quality					Adj.					Pct. of	No. of
Using Book Value	Income	Price	Other	Total	Duration	Coupon	Maturity	Price	Yield	Portfolio	Cohorts
0.0% to 3.0%	0.69	-3.08	0.02	-2.37	6.86	2.76	9.03	96.1	3.20	5.3%	583
3.0% to 3.5%	0.79	-2.67	0.01	-1.87	5.62	3.30	7.42	100.1	3.04	14.3%	1,628
3.5% to 4.0%	0.89	-2.42	0.00	-1.53	4.85	3.79	6.43	103.1	2.96	31.8%	3,768
4.0% to 4.5%	0.98	-2.24	-0.01	-1.28	5.53	4.25	7.93	105.5	3.10	29.2%	3,821
4.5% to 5.0%	1.09	-1.15	-0.03	-0.09	5.09	4.73	7.55	106.8	3.10	11.9%	1,875
5.0% to 5.5%	1.22	-0.76	-0.07	0.39	3.73	5.23	6.03	106.3	2.82	3.1%	774
5.5% to 6.0%	1.33	-0.78	-0.15	0.40	3.38	5.74	5.92	107.3	2.69	2.1%	1,017
6.0% to 6.5%	1.43	-0.57	-0.19	0.66	3.16	6.24	5.61	108.3	2.69	1.2%	923
6.5% to 7.0%	1.53	-0.74	-0.18	0.61	3.12	6.71	5.56	108.5	2.71	0.4%	339
7.0% and above	1.76	-0.65	-0.29	0.82	2.69	7.68	5.05	108.6	2.47	0.7%	1,123
Total	0.95	-2.16	-0.01	-1.22	5.19	4.06	7.23	103.7	3.02	100.0%	15,851

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



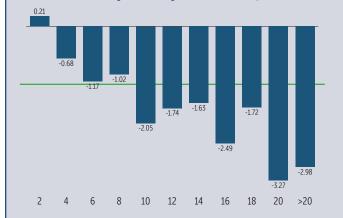
## **Portfolio Composition by Coupon Rate**



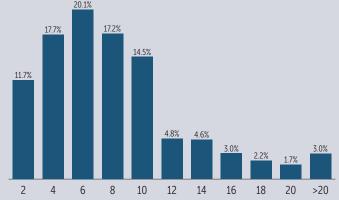
# **Table E: Giliberto-Levy Total Performance by Remaining Term to Maturity -** For the quarter ended March 31, 2021

Returns (%)					Statistics		Averages				
					Adj.					Pct. of	No. of
Maturity Cell	Income	Price	Other	Total	Duration	Coupon	Maturity	Price	Yield	Portfolio	Cohorts
0 to 2 years	1.05	-0.80	-0.04	0.21	0.99	4.25	1.04	101.7	2.41	11.7%	2,416
2 to 4 years	0.98	-1.64	-0.02	-0.68	2.76	4.15	3.06	104.0	2.63	17.1%	2,915
4 to 6 years	0.93	-2.08	-0.02	-1.17	4.33	4.02	5.04	104.6	2.89	20.1%	2,933
6 to 8 years	0.96	-1.97	-0.01	-1.02	5.74	4.19	7.04	105.9	3.11	17.2%	2,224
8 to 10 years	0.87	-2.92	0.00	-2.05	7.11	3.66	8.98	101.5	3.34	14.5%	1,980
10 to 12 years	0.93	-2.64	-0.02	-1.74	7.42	4.03	10.98	104.0	3.32	4.8%	846
12 to 14 years	0.97	-2.58	-0.02	-1.63	8.33	4.19	13.02	104.6	3.50	4.6%	773
14 to 16 years	0.92	-3.40	-0.01	-2.49	8.60	4.02	14.93	102.3	3.57	3.0%	603
16 to 18 years	1.01	-2.71	-0.02	-1.72	9.02	4.43	16.96	105.8	3.63	2.2%	419
18 to 20 years	0.89	-4.17	0.01	-3.27	9.60	3.78	18.95	99.6	3.73	1.7%	333
20 years or more	0.96	-3.95	0.01	-2.98	11.49	4.16	26.00	102.0	3.84	3.0%	409
Total	0.95	-2.16	-0.01	-1.22	5.19	4.06	7.23	103.7	3.02	100.0%	15,851

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



## **Portfolio Composition by Maturity Cell**



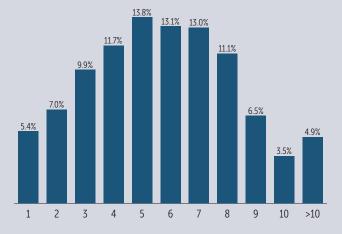
# Table F: Giliberto-Levy Index Performance by Duration - For the quarter ended March 31, 2021

Returns (%)						Statistics		Averages				
						Adj.					Pct. of	No. of
<b>Duration Cell</b>	Income	Price	Other	Total		Duration	Coupon	Maturity	Price	Yield	Portfolio	Cohorts
0 to 1 year	1.12	-0.68	-0.06	0.38		0.45	4.50	0.48	100.9	2.36	5.4%	1,406
1 to 2 years	1.01	-0.92	-0.04	0.05		1.45	4.20	1.61	102.5	2.45	7.0%	1,835
2 to 3 years	1.02	-1.39	-0.04	-0.42		2.41	4.33	2.81	104.3	2.56	9.9%	2,097
3 to 4 years	0.95	-1.82	-0.02	-0.89		3.44	4.09	4.07	104.5	2.74	11.7%	1,937
4 to 5 years	0.93	-2.00	-0.01	-1.09		4.43	4.00	5.39	104.6	2.91	13.8%	1,839
5 to 6 years	0.93	-2.11	-0.01	-1.19		5.41	4.03	6.93	104.9	3.08	13.1%	1,778
6 to 7 years	0.95	-2.14	0.00	-1.19		6.40	4.16	8.56	105.6	3.24	13.0%	1,636
7 to 8 years	0.89	-2.91	0.00	-2.02		7.41	3.80	10.41	102.5	3.40	11.1%	1,406
8 to 9 years	0.86	-3.13	0.00	-2.26		8.34	3.69	12.66	101.2	3.49	6.5%	852
9 to 10 years	0.93	-3.27	0.01	-2.33		9.38	4.01	15.69	102.6	3.66	3.5%	504
10 years or more	0.92	-4.47	0.02	-3.53		11.54	3.93	21.14	100.4	3.81	4.9%	561
Total	0.95	-2.16	-0.01	-1.22		5.19	4.06	7.23	103.7	3.02	100.0%	15,851

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



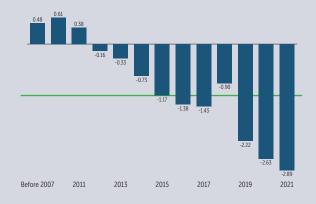
# **Portfolio Composition by Duration Cell**



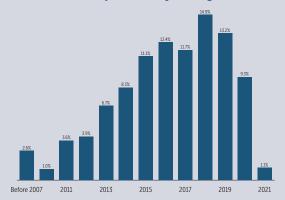
# Table G: Giliberto-Levy Index Performance by Vintage Year - For the quarter ended March 31, 2021

	Statistics		Averages								
					Adj.					Pct. of	Num. of
Vintage Year	Income	Price	Other	Total	Duration	Coupon	Maturity	Price	Yield	Portfolio	Cohorts
Before 2007	1.45	-0.72	-0.25	0.48	2.89	6.34	5.20	108.3	2.50	2.6%	2,970
2007 to 2010	1.42	-0.65	-0.16	0.61	3.36	6.22	6.14	107.7	2.69	1.0%	463
2011	1.20	-0.76	-0.07	0.38	1.73	5.00	2.53	103.5	2.45	3.6%	705
2012	1.02	-1.13	-0.04	-0.16	2.56	4.31	3.73	104.0	2.57	3.9%	830
2013	1.01	-1.30	-0.03	-0.33	3.84	4.35	5.60	105.5	2.75	6.7%	1,135
2014	0.97	-1.67	-0.02	-0.73	3.97	4.17	5.63	104.9	2.84	8.3%	1,107
2015	0.92	-2.08	-0.01	-1.17	4.37	3.93	6.06	104.0	2.91	11.1%	1,511
2016	0.88	-2.26	0.00	-1.38	4.73	3.78	6.61	103.1	3.00	12.4%	1,438
2017	0.92	-2.35	0.00	-1.43	5.23	3.96	7.05	104.1	3.09	11.7%	1,432
2018	0.99	-1.90	0.00	-0.90	6.26	4.37	8.70	106.8	3.18	14.9%	1,520
2019	0.89	-3.12	0.01	-2.22	6.98	3.79	9.61	102.4	3.33	13.2%	1,430
2020	0.76	-3.41	0.02	-2.63	7.46	3.13	10.11	97.5	3.35	9.3%	1,127
2021	0.49	-3.40	0.01	-2.89	7.98	2.97	11.02	95.9	3.42	1.1%	183
Total	0.95	-2.16	-0.01	-1.22	5.19	4.06	7.23	103.7	3.02	100.0%	15,851

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



# **Portfolio Composition by Vintage Cohort**



### **About the Giliberto-Levy Index**

Established in 1993, the Giliberto-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 Giliberto-Levy Commercial Mortgage Performance Index<sup>SM</sup> Monitor, please contact jgrant@jblevyco.com.

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