

COMMERCIAL REAL ESTATE UPDATE: IMPLICATIONS FOR MORTGAGE MARKETS

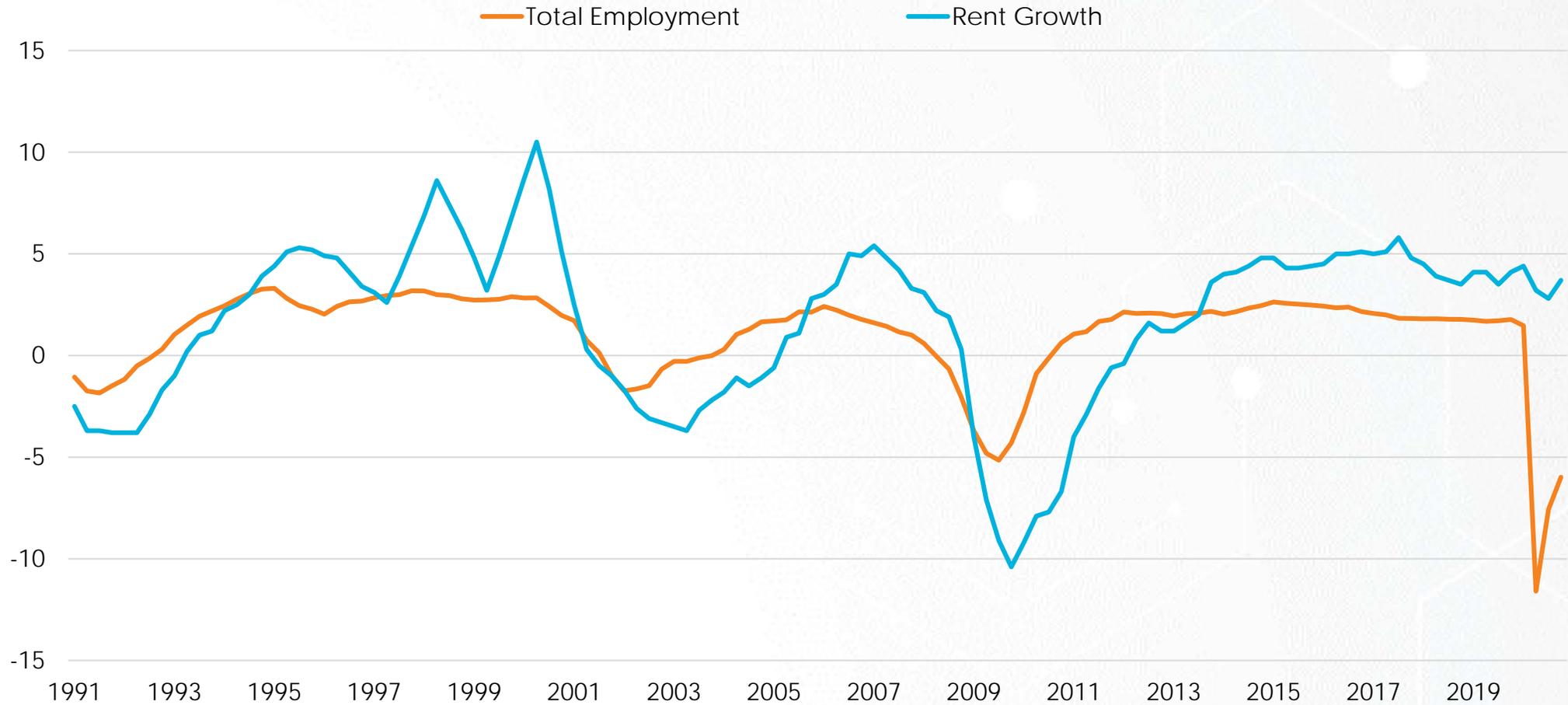
FHFA – FEBRUARY 23, 2021



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Head of Americas
Research
CBRE Research

INDUSTRIAL CONTINUES TO FLY

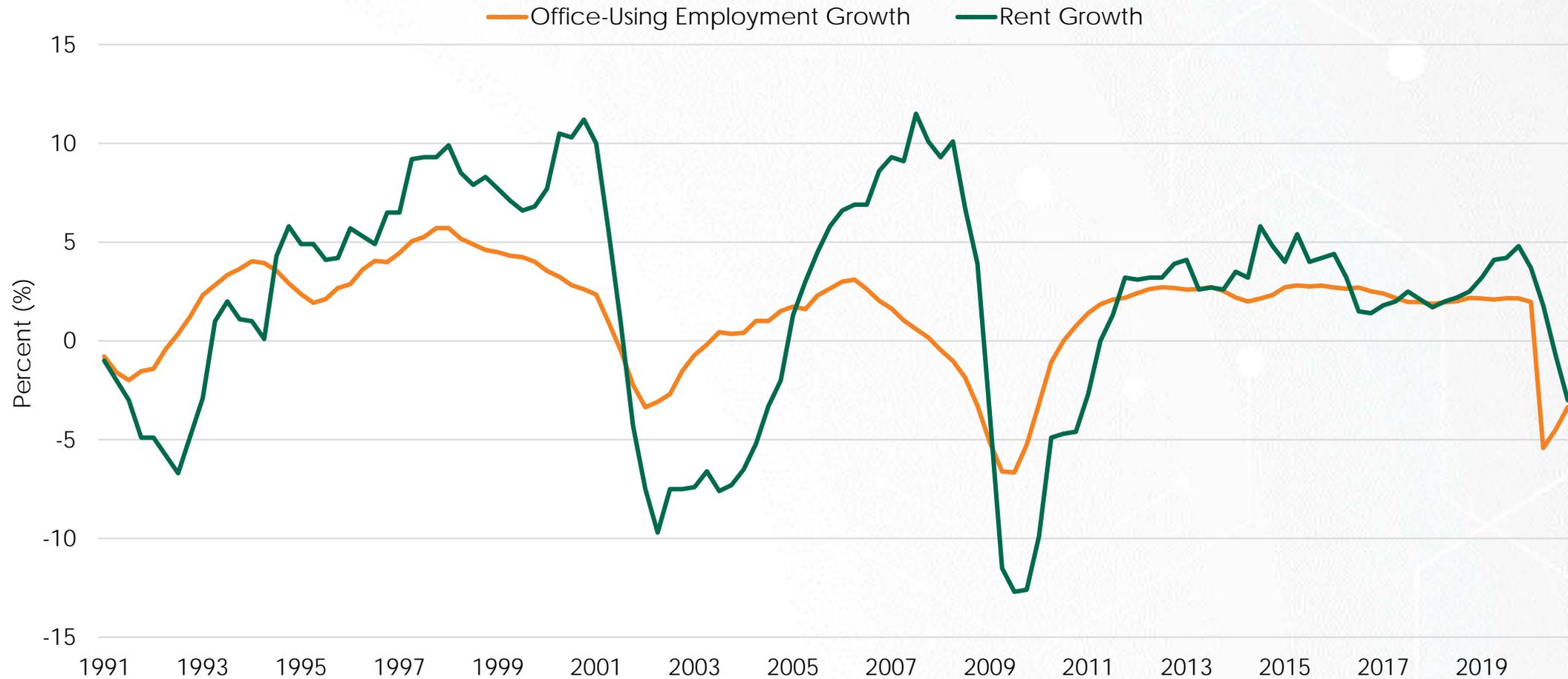
U.S. Industrial Rent vs. Warehouse Employment Growth



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

OFFICE FACES CYCLICAL AND SECULAR HEADWINDS

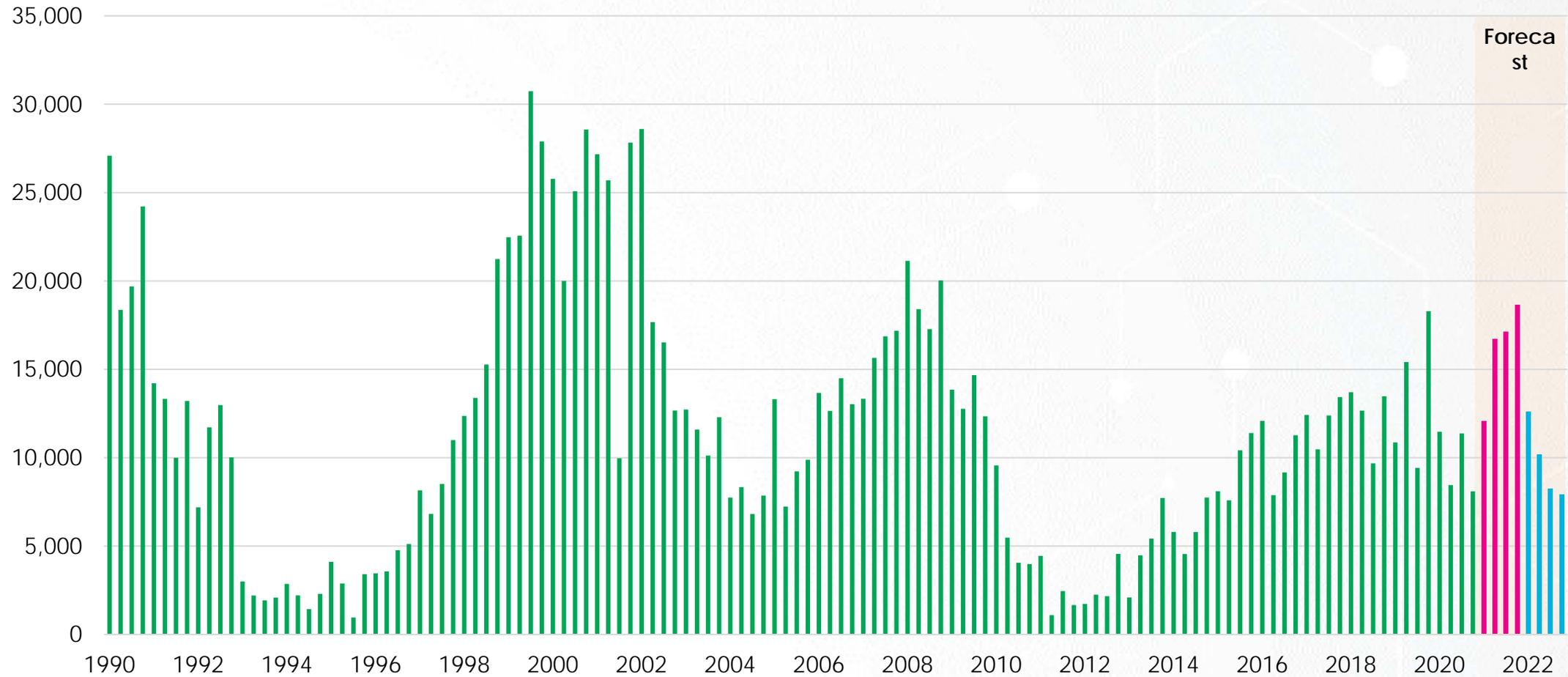
U.S. Office Rent vs. Office Employment Growth



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

OFFICE – CYCLICAL PEAK IN COMPLETIONS

U.S. Office Completions (Thousands of SF)



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

OFFICE – SECULAR SHIFT IN WORK PATTERNS

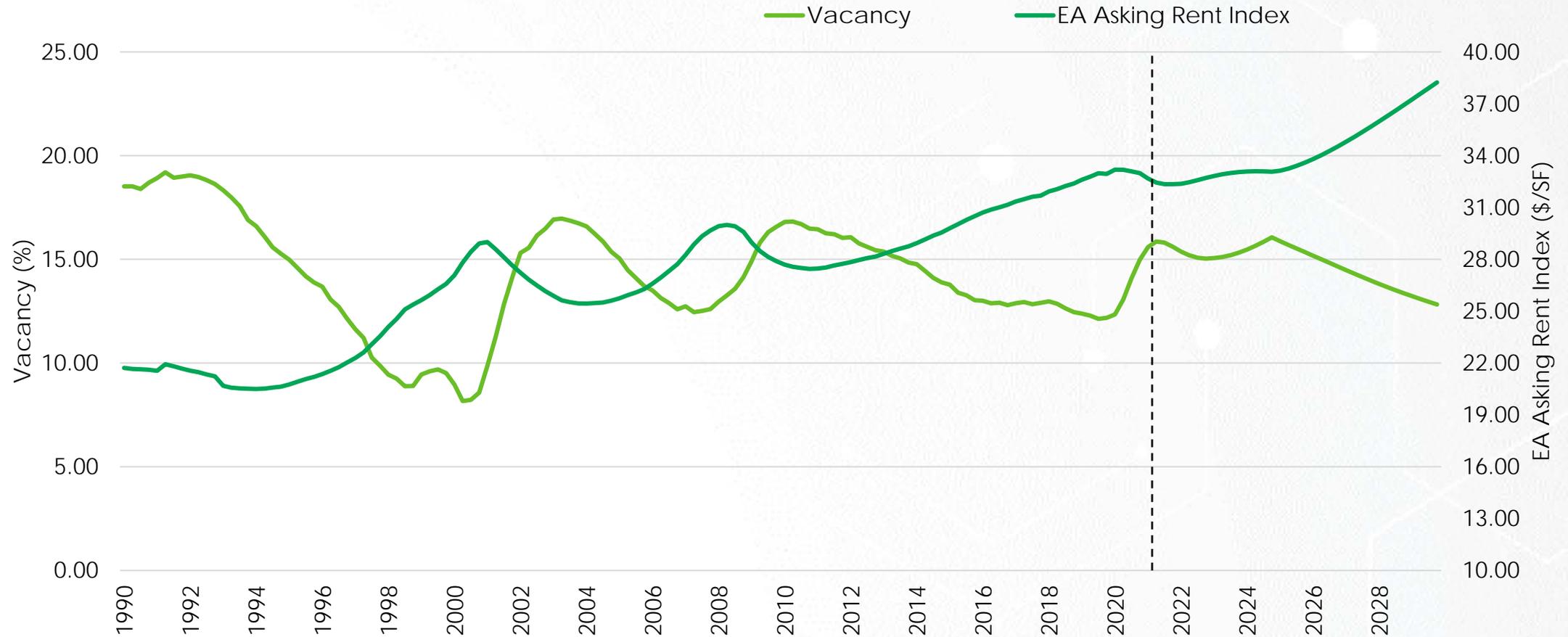
32% Fall in Days in the Office, 9% Drop in Demand for Space

Example: Firm with 10,000 SF lease

#1 Average Days Per Week In the Office	
2019	4.29
Future	3.25
Impact (= 3.25/4.29)	0.76
Footprint	7,600 SF
#2 Efficiency Factor	
	0.55
Net Effect of changing working patterns = $(1.00) - [(1.00 - 0.76) * (0.55)]$	0.87
Footprint	8,700 SF
#3 De-Densification Effect	
	1.05
Overall Net Impact = $(0.87) * (1.05)$	0.91
Overall Net Impact: Footprint	9,100 SF

RENTS STAGNANT FOR 3 TO 4 YEARS – VACANCY ELEVATED

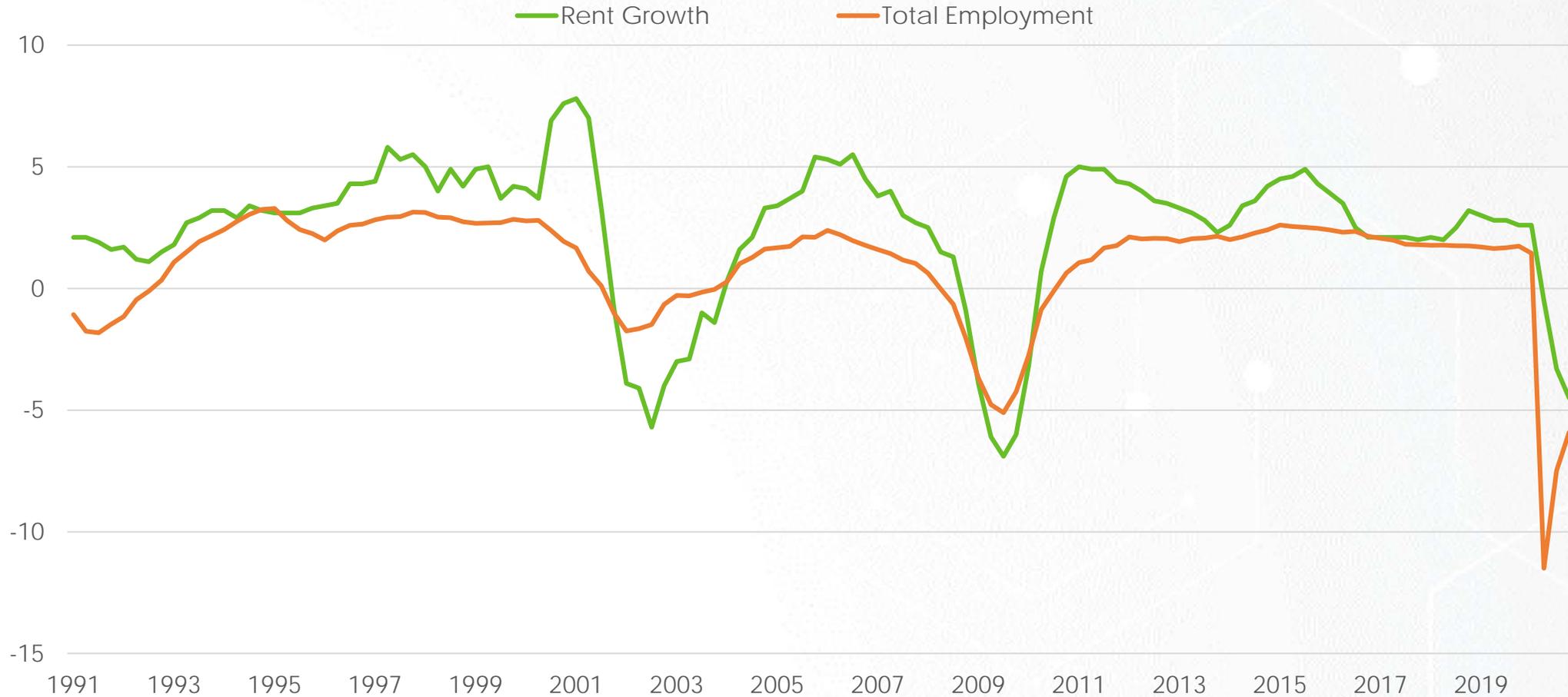
U.S. Office Baseline Forecast for Vacancy Rate and Rents



Source: CBRE Econometric Advisors, Q4 2020.

APARTMENT – CYCLICAL HEADWIND, SECULAR TAILWIND

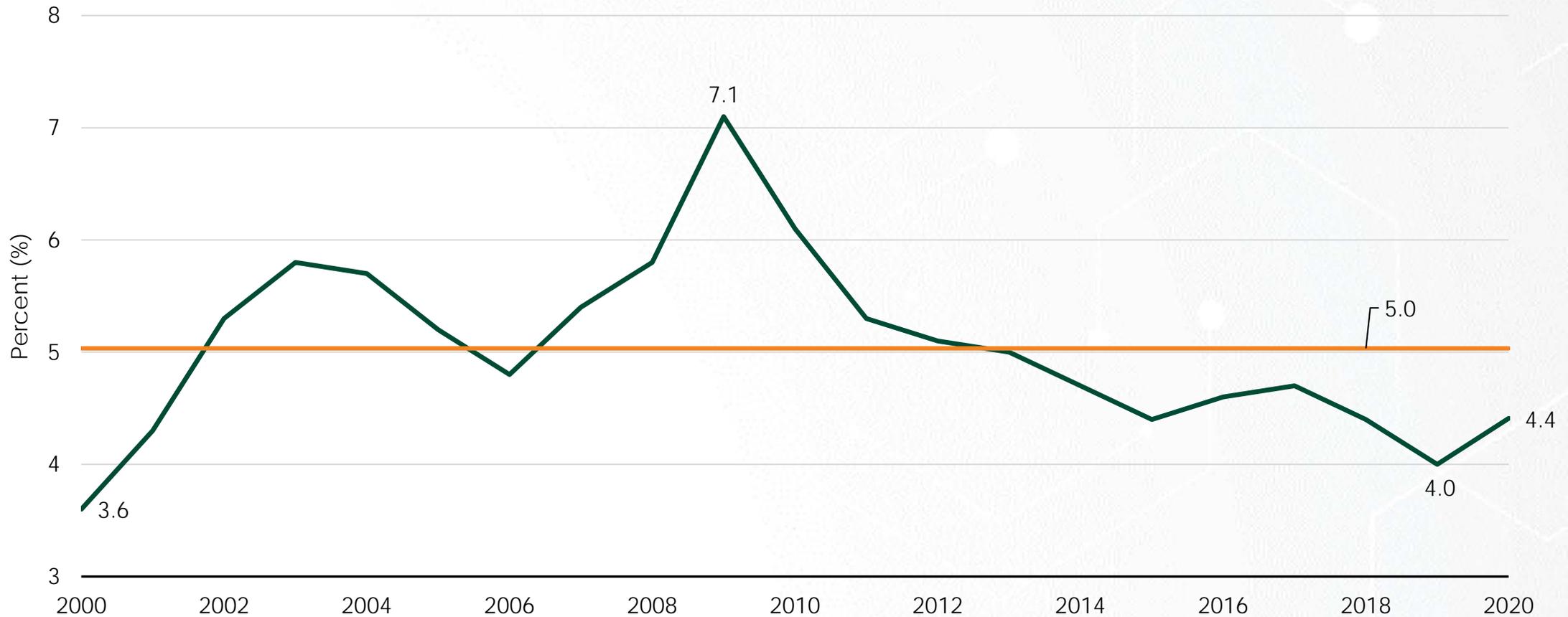
U.S. Apartment Rent vs. Total Employment Growth



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

APARTMENT VACANCY HAS REMAINED RELATIVELY LOW

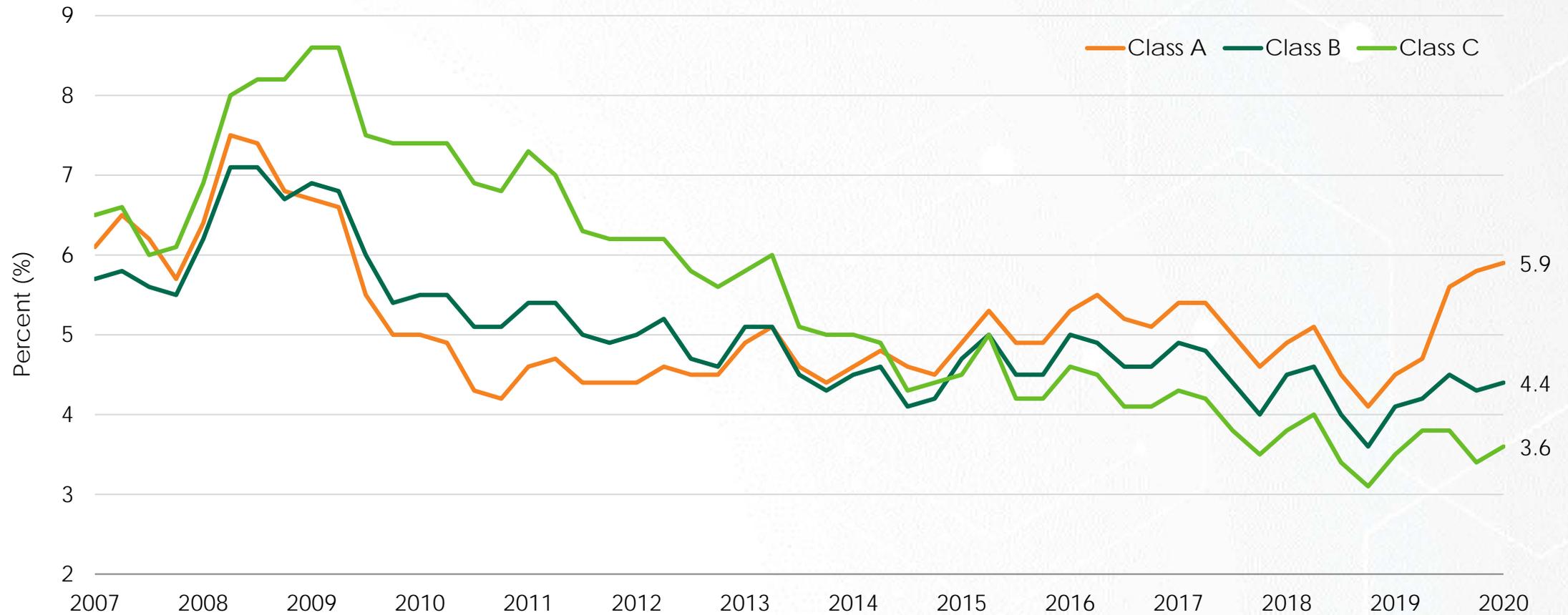
U.S. Apartment Historical Vacancy - Annual Averages



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

CLASS A VACANCY HAS RISEN BUT NOT BY MUCH

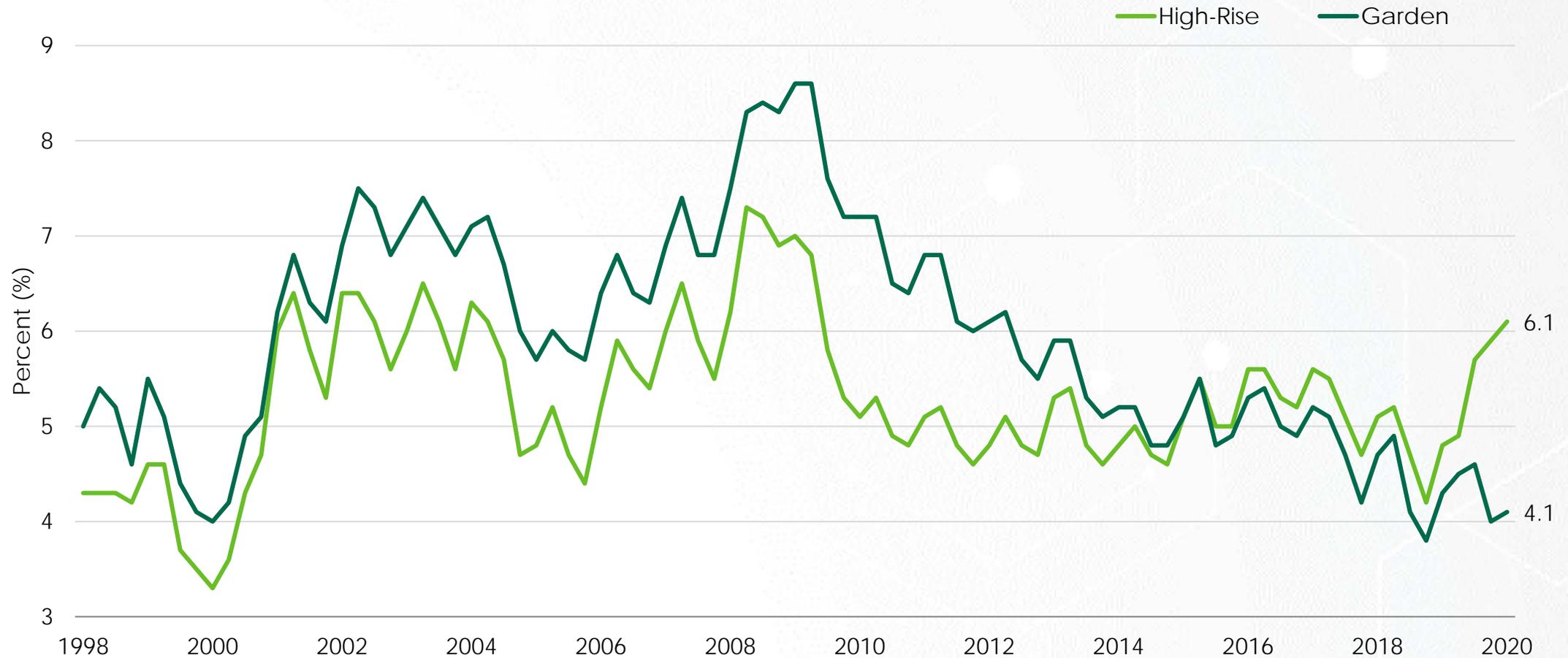
U.S. Apartment Historical Vacancy by Class



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

HIGH-RISE MOST AFFECTED

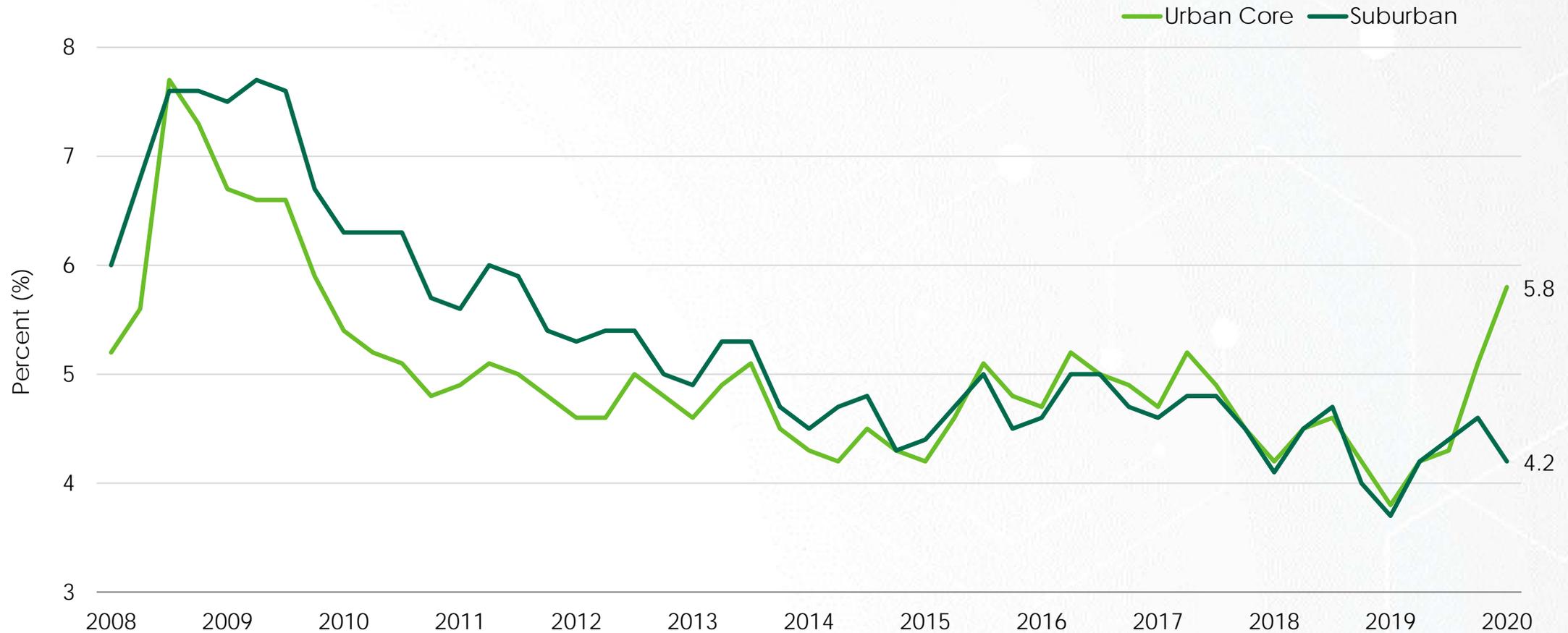
U.S. Apartment Vacancy by Community Type: High-Rise vs. Garden



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020. Mid-rise is a separate category not included in these statistics. Garden = 1-2 stories, mid-rise = 3-5 stories, high-rise = 6+.

BIG CITY CORES THE WEAKEST

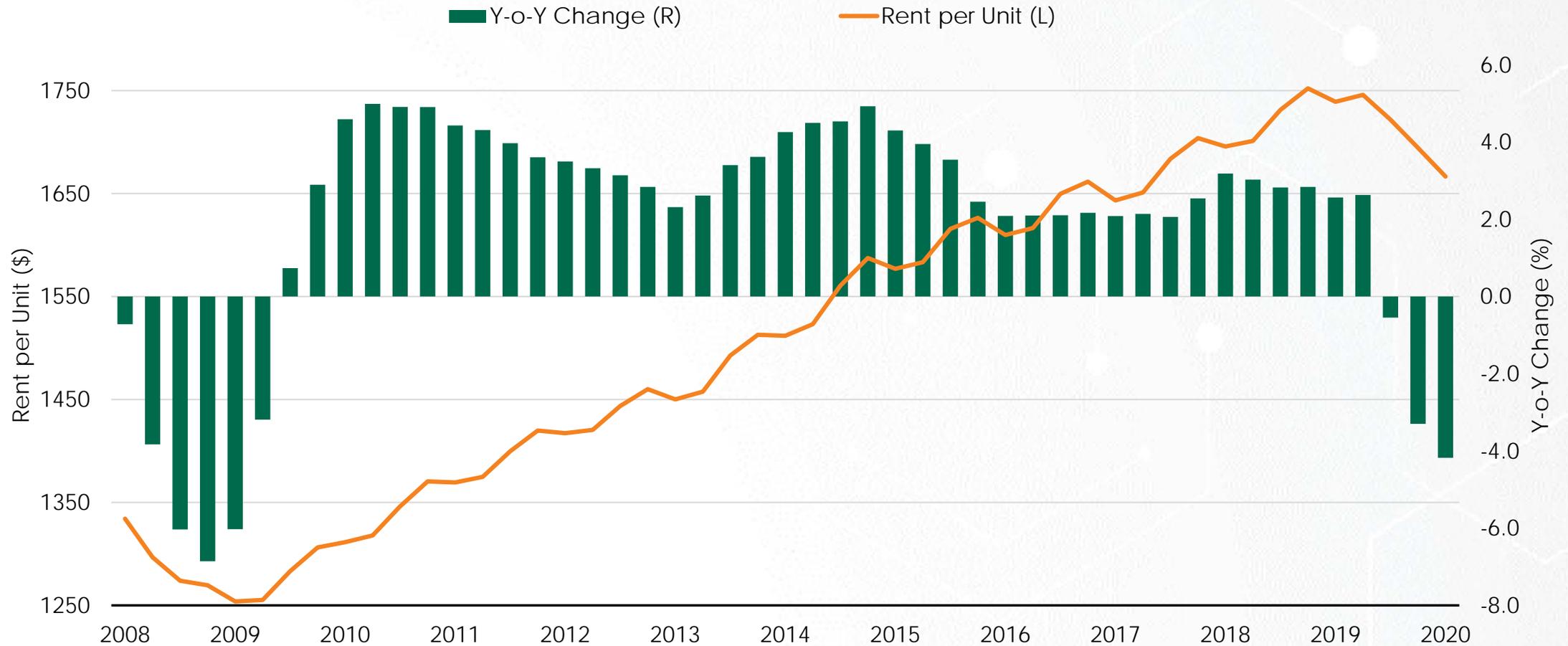
U.S. Apartment Urban Core vs. Suburban Submarkets – Vacancy



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

RENT – HISTORICAL EFFECTIVE RENTS & RENT CHANGE

U.S. Apartment Historical Rent Average and Rent Growth



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

METRO LEADERS AND LAGGARDS

U.S. Apartment Metro Leaders & Laggards By Region

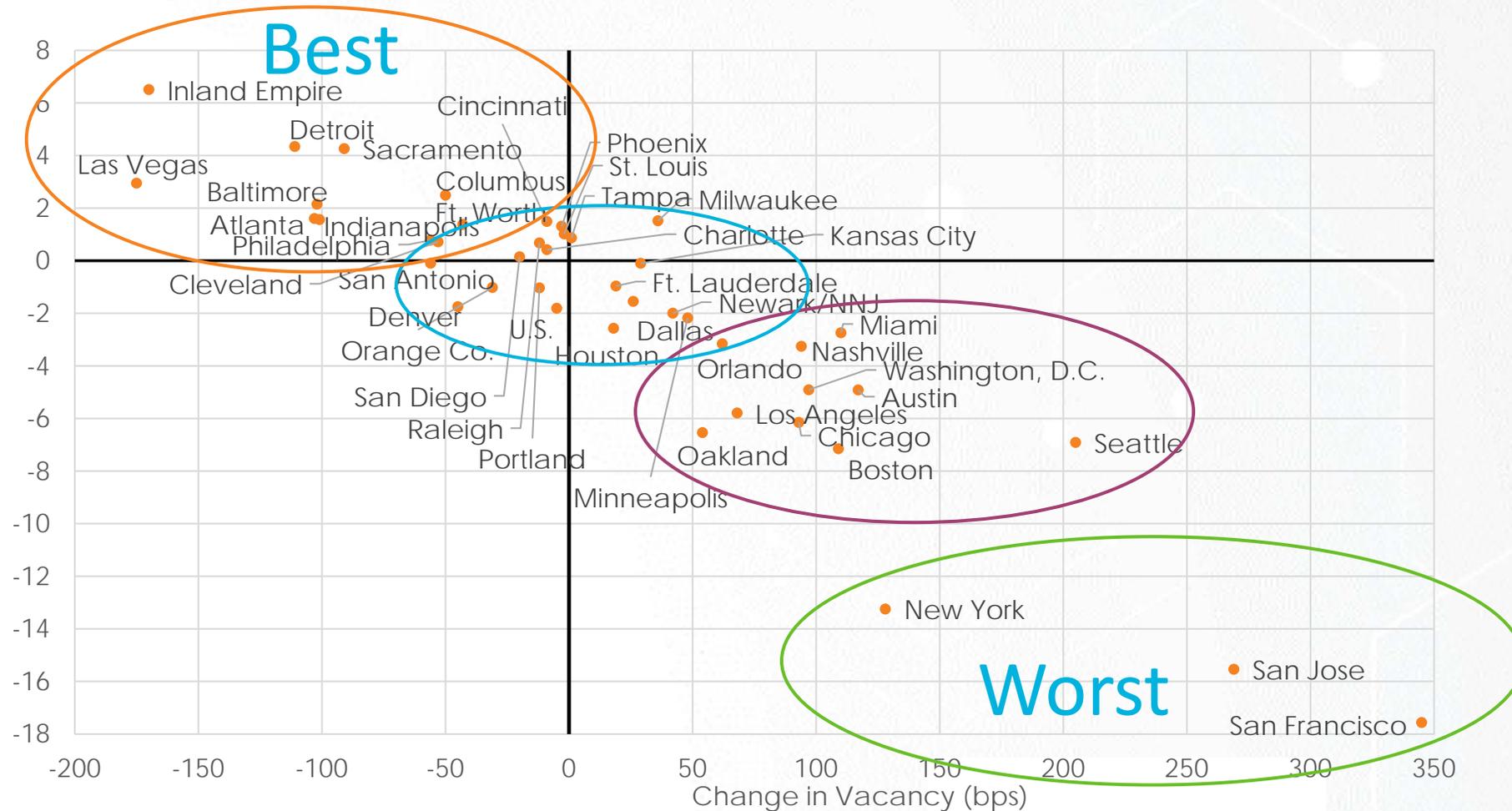
Rank	Market	Rent Change Y-o-Y (%)	Rank	Market	Rent Change Y-o-Y (%)	Rank	Market	Rent Change Y-o-Y (%)
ALL MARKET			SOUTH CENTRAL			MIDWEST		
	Sum of Markets	-4.2	1	Tulsa	4.5	1	Detroit	3.5
PACIFIC			2	Oklahoma City	2.4	2	Indianapolis	3.5
1	Inland Empire	8.2	3	El Paso	1.8	3	Columbus	3.3
2	Sacramento	6.4	4	Ft. Worth	1.7	4	Cincinnati	2.7
3	Ventura	3.7	5	Corpus Christi	0.9	5	Dayton	2.1
4	San Diego	0.6	6	San Antonio	-0.8	6	Cleveland	1.9
5	Portland	-0.1	7	Dallas	-1.2	7	St. Louis	1.8
6	Orange County	-0.9	8	Houston	-2.6	8	Kansas City	1.5
7	Honolulu	-1.1	9	Austin	-4.7	9	Omaha	1.5
8	Seattle	-3.9	SOUTHEAST			10	Milwaukee	1.2
9	Oakland	-5.0	1	Norfolk	5.1	11	Madison	0.9
10	Los Angeles	-5.5	2	Memphis	5.1	12	Minneapolis	-1.4
11	San Jose	-14.6	3	Richmond	4.9	13	Chicago	-4.6
12	San Francisco	-18.0	4	Greensboro	4.5	NORTHEAST/MID-ATLANTIC		
MOUNTAIN WEST			5	Lexington	3.6	1	Providence	3.8
1	Albuquerque	6.3	6	Jacksonville	3.3	2	Hartford	3.1
2	Tucson	6.2	7	Tampa	3.0	3	Long Island	2.7
3	Phoenix	4.5	8	Birmingham	2.8	4	Baltimore	2.7
4	Colorado Springs	4.1	9	Atlanta	2.1	5	Philadelphia	1.4
5	Las Vegas	3.7	10	Greenville	1.4	6	Newark	-0.4
6	Salt Lake City	1.6	11	Charlotte	1.3	7	Pittsburgh	-1.0
7	Denver	-1.8	12	West Palm Beach	1.1	8	Washington, D.C.	-4.8
			13	Louisville	1.0	9	Boston	-6.4
			14	Raleigh	0.8	10	New York	-9.7
			15	Ft. Lauderdale	-0.4			
			16	Miami	-2.8			
			17	Nashville	-2.8			
			18	Orlando	-3.0			

Note: Based on effective "same-store" rents.
Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

CBRE RESEARCH

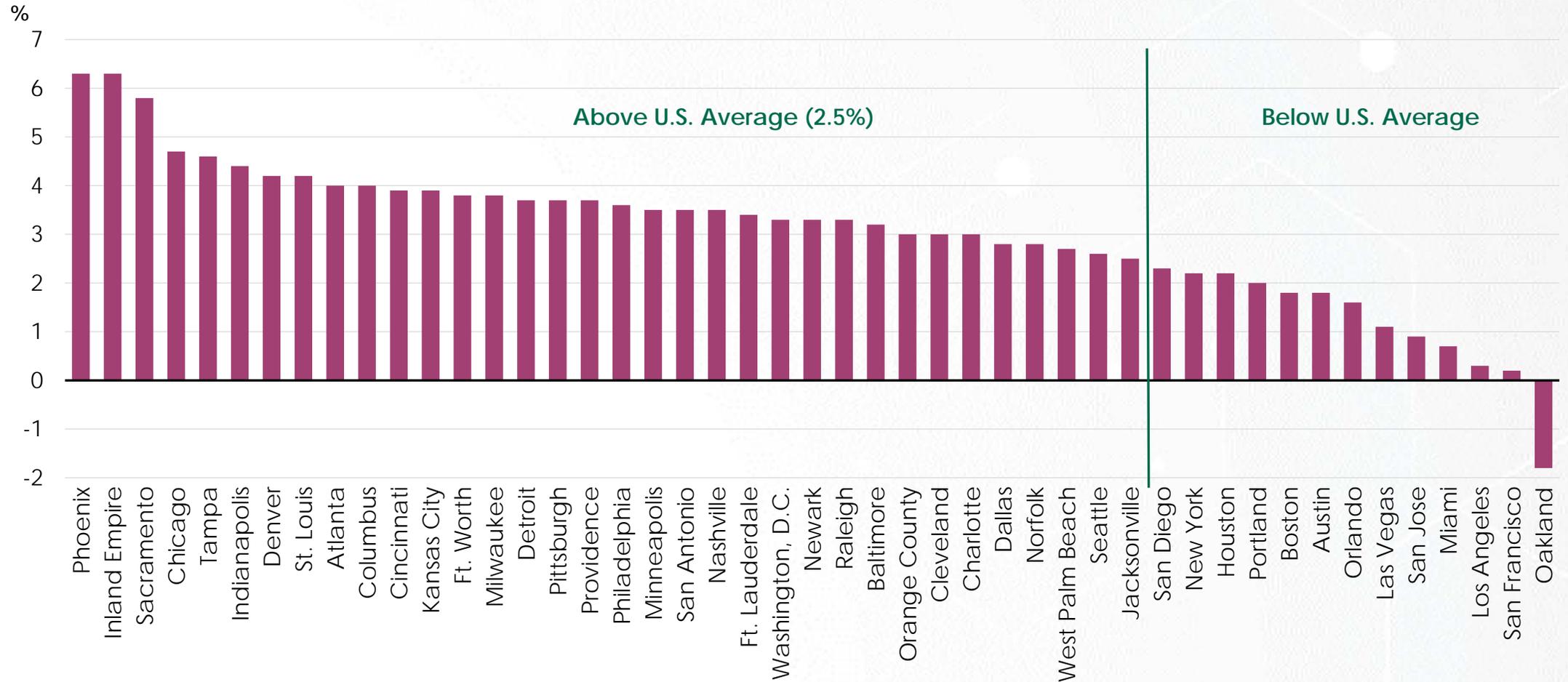
METROS – RENT & VACANCY CHANGE MARCH TO OCTOBER

Change in Effective Rents (%)



OUTLOOK – PROJECTED 2021 RENTAL GROWTH

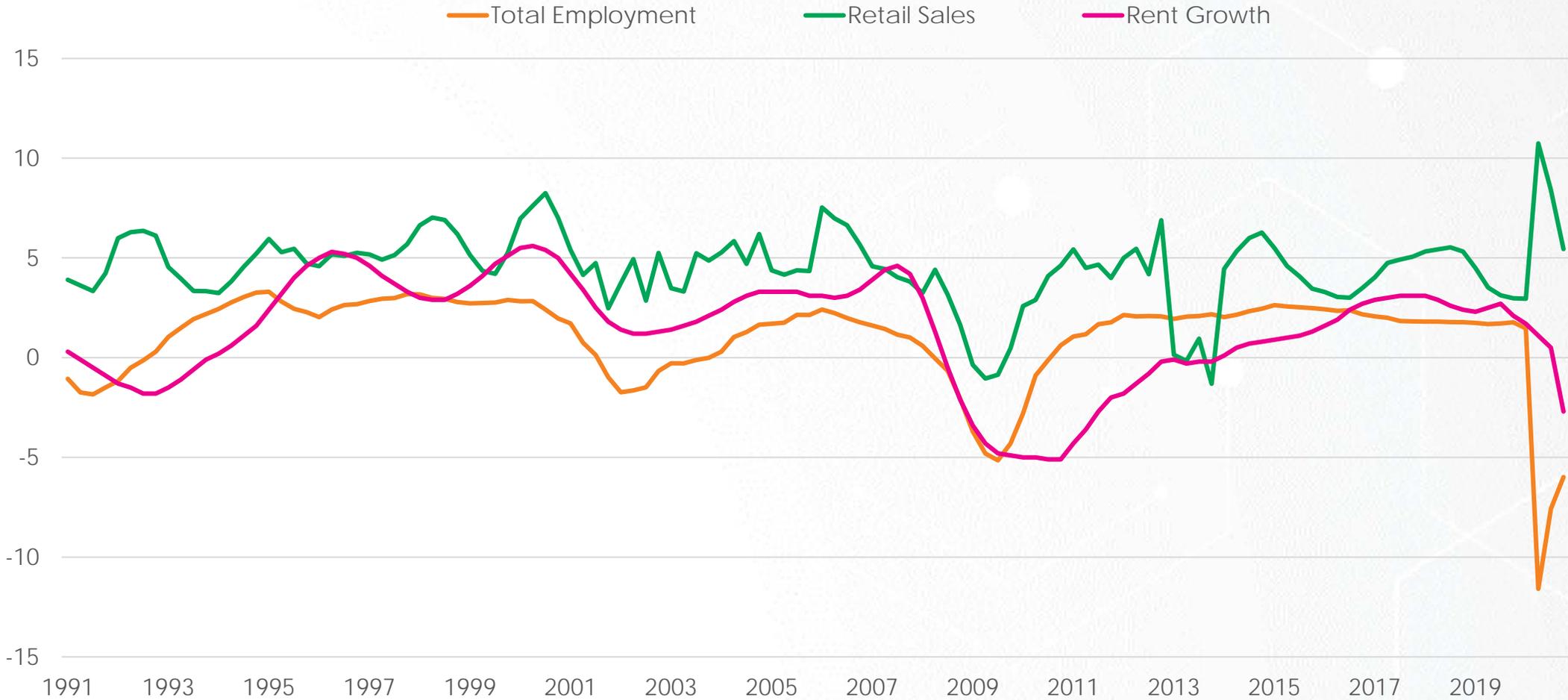
U.S. Apartment 2021 Metro Rent Projections (%)



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

PHYSICAL RETAIL TAKES ANOTHER BLOW

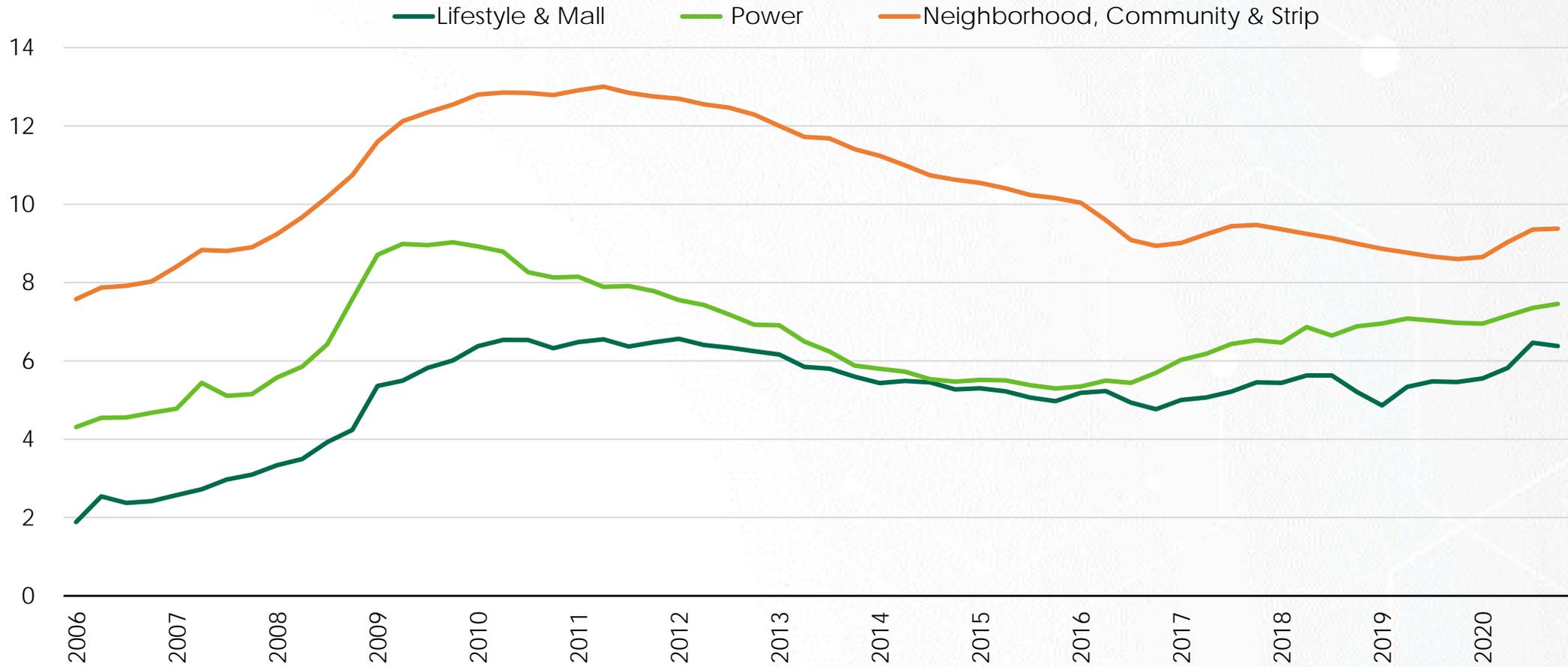
U.S. Retail Rent vs. Total Employment Growth and Retail Sales



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

POWER MALLS HAVE BEEN AFFECTED

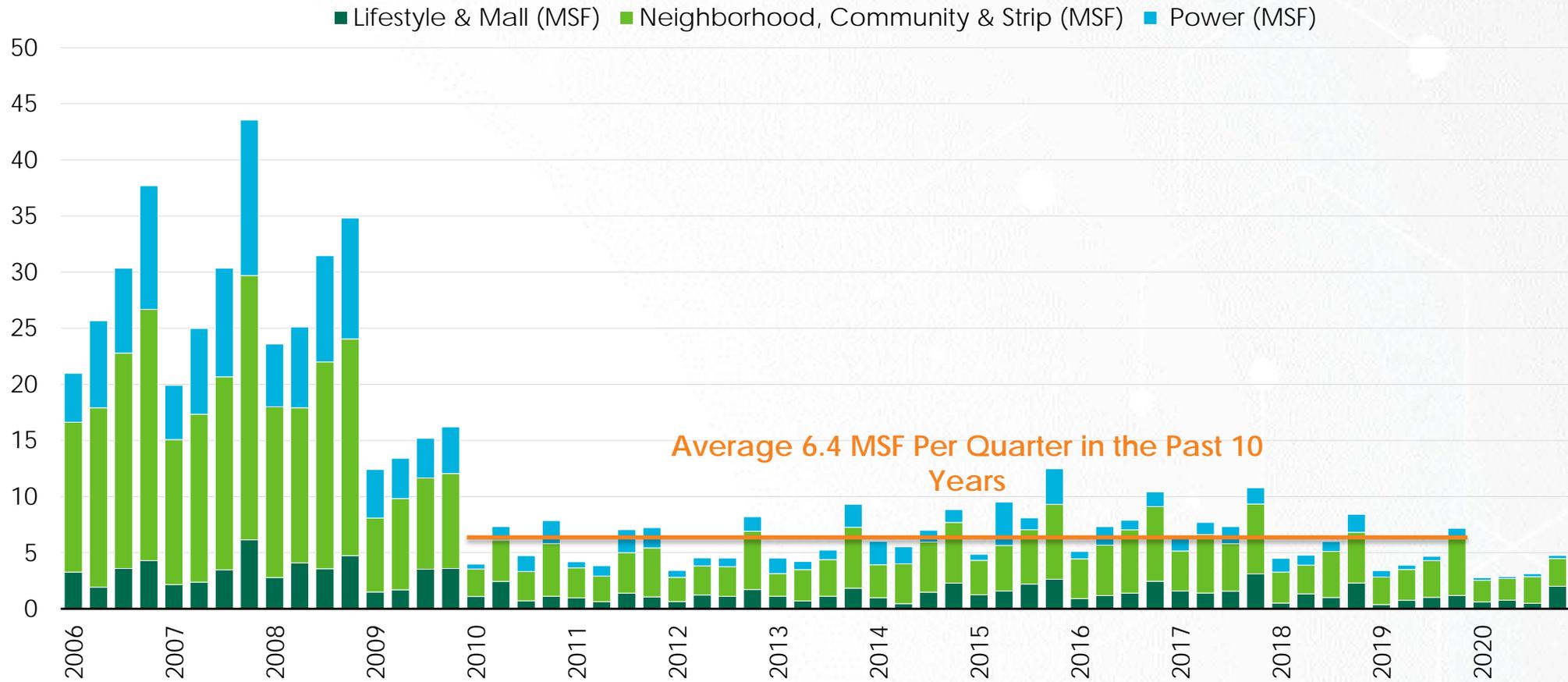
U.S. Retail Availability Rate by Retail Type



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

NO NEW RETAIL SUPPLY

U.S. Retail Completions by Retail Type



Source: CBRE Research, CBRE Econometric Advisors, Q4 2020.

RETAIL BANKRUPTCIES ELEVATED IN 2020

U.S. Retail - National & large regional bankruptcies (excl. small business)

Approx.
12,130 announced &
6,352 actual retail store
closures as of
December 31th.



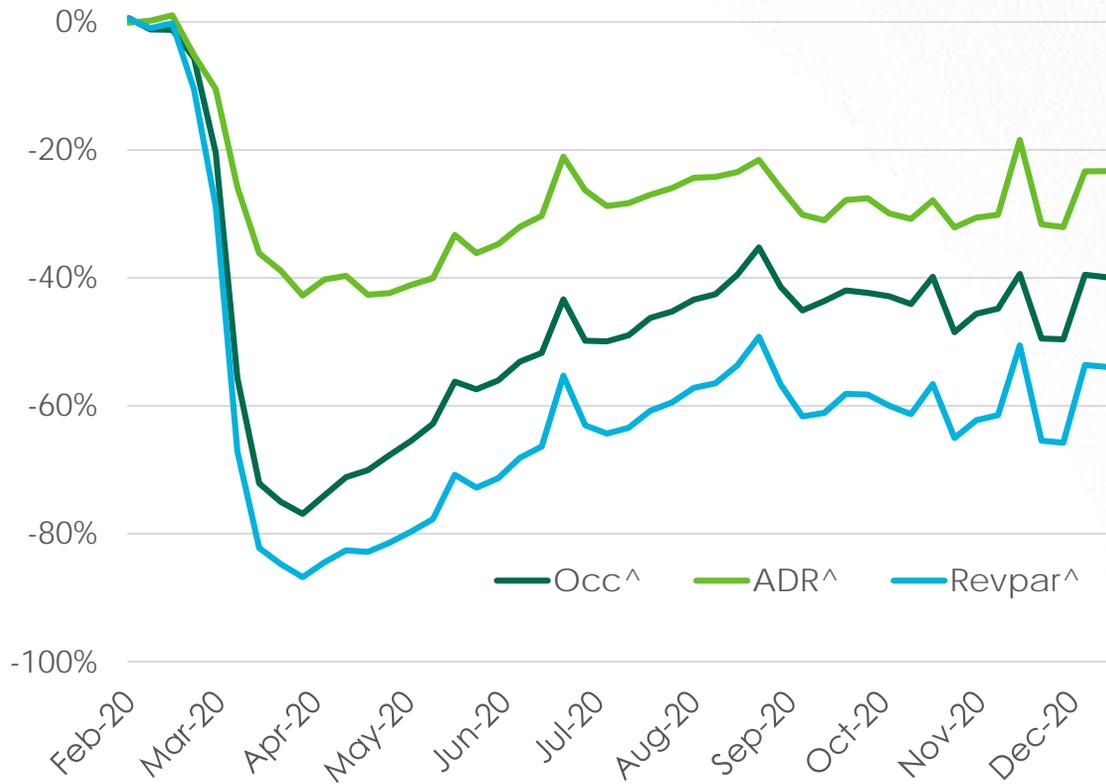
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Source: CBRE Research, Creditintell, as of January 2021.

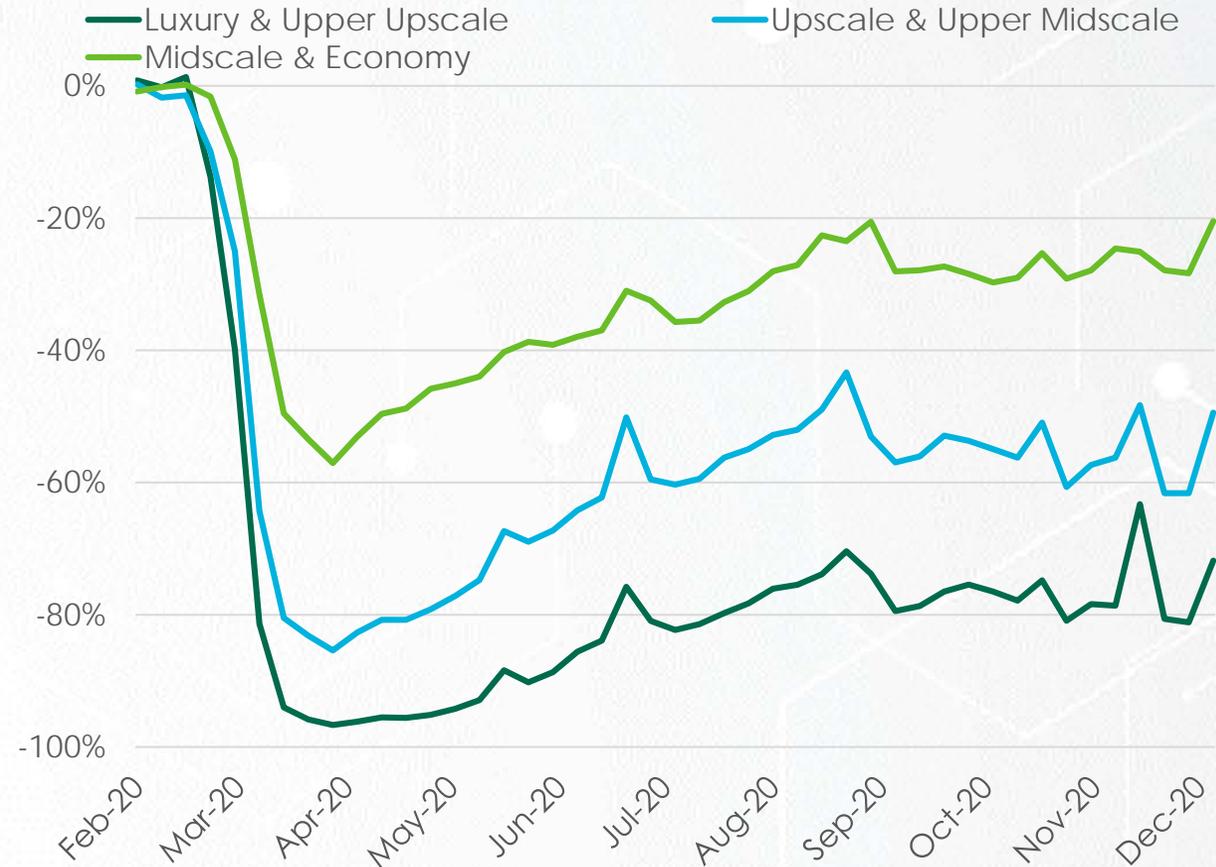
HOTELS IMPROVED BUT GOING SIDEWAYS

U.S. Hotel Occupancy, ADR, and RevPAR (YoY Change)

Y-o-Y Change in Occupancy, ADR and RevPAR



Y-o-Y Change in RevPAR



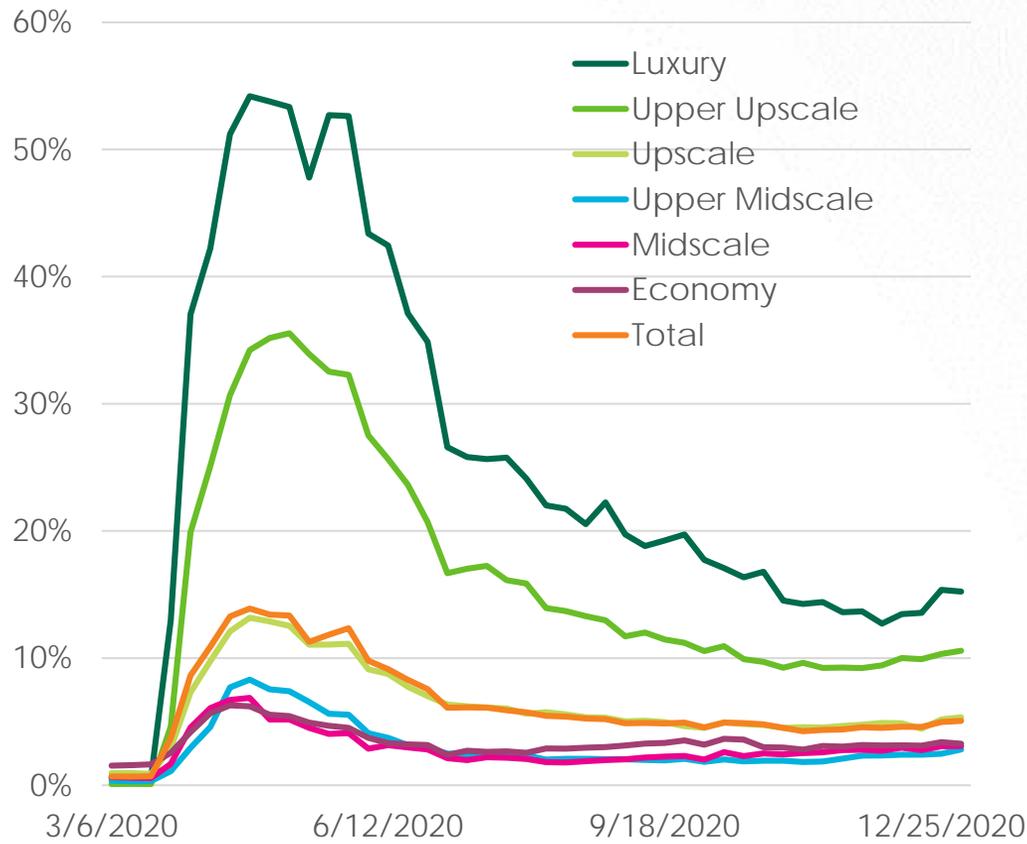
Source: CBRE Hotels Research, Kalibri Labs, January 12th, 2021.

Note: Covers Kalibri Weekly Sample, not scaled to full U.S. Hotel Industry Representation

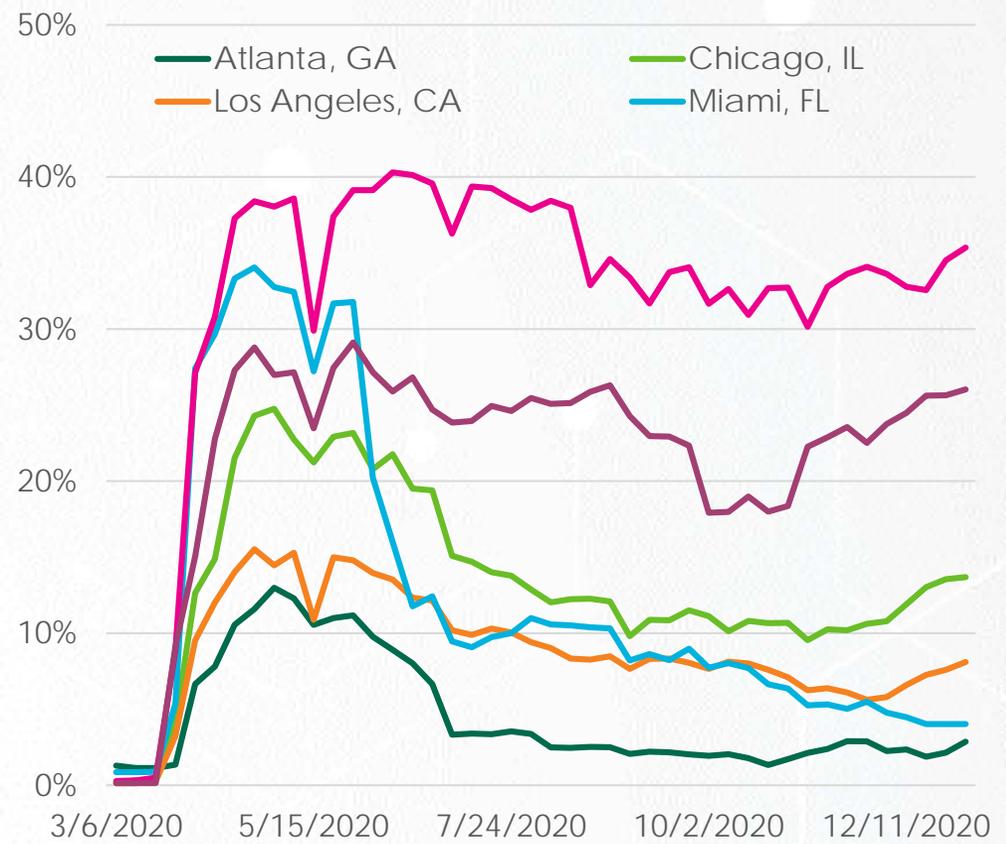
HIGH END AND BIG CITY HARD HIT

U.S. Hotel Percent of Rooms Closed by Chain Scale and Market

Percent of Rooms Closed by Chain Scale



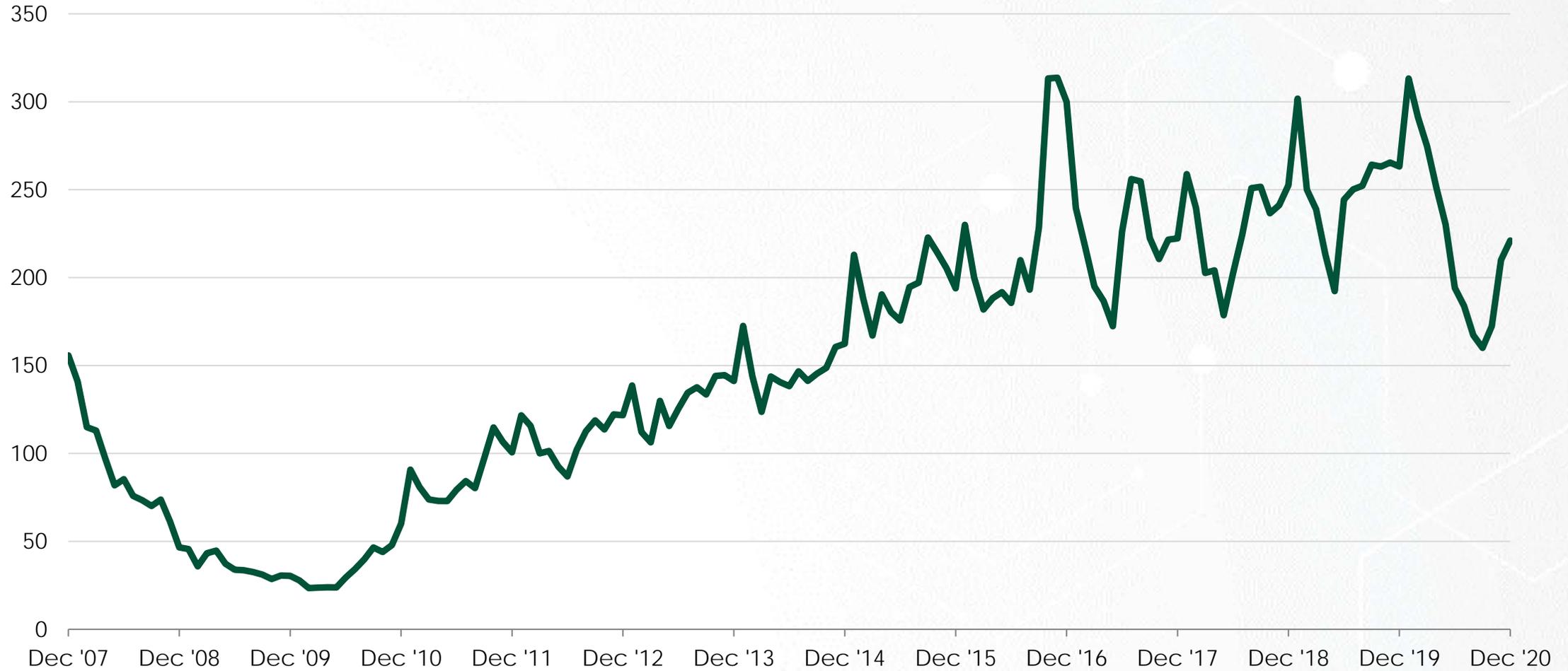
Percent of Rooms Closed by Market



Source: CBRE Hotels Research, Kalibri Labs, Hotel Compete, January 12th, 2021.

REAL ESTATE LENDING PICKING UP AGAIN

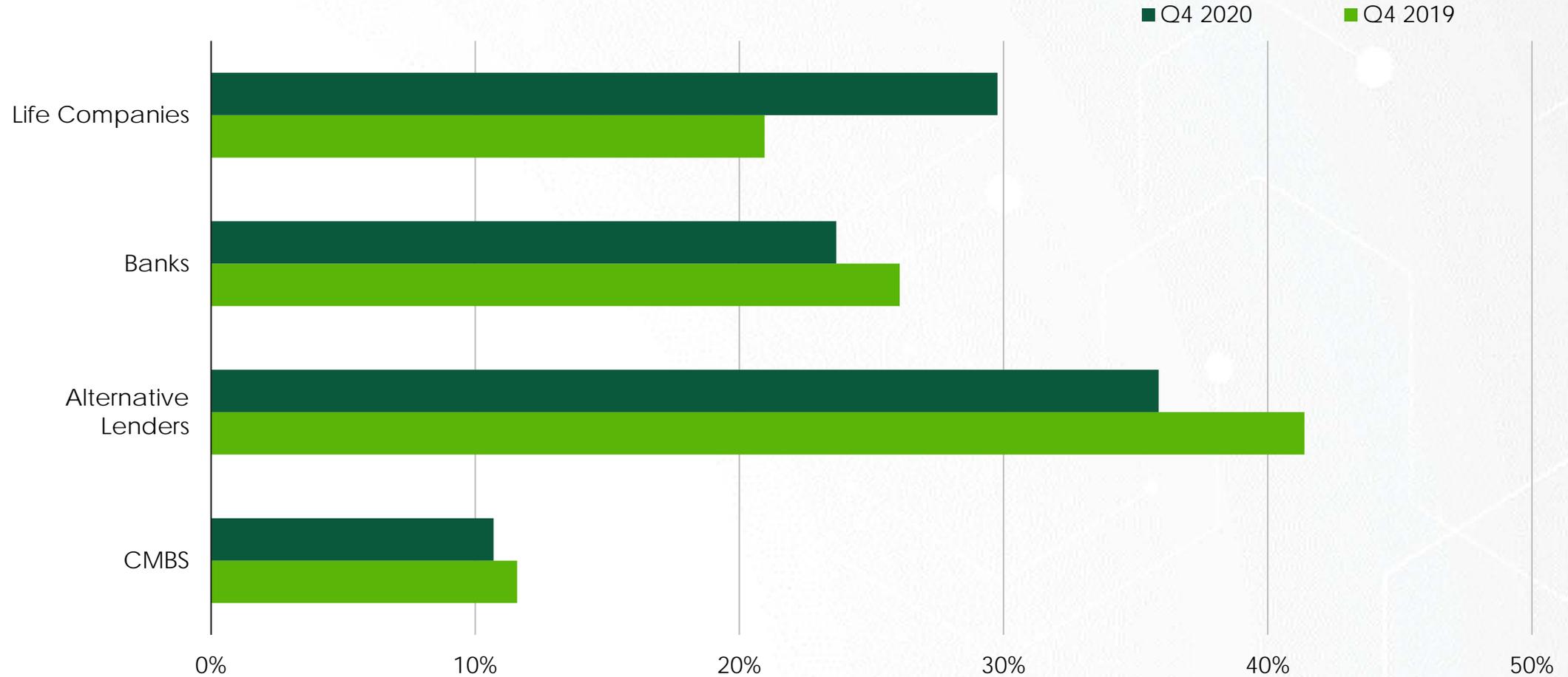
CBRE Lending Momentum Index



Source: CBRE Capital Markets and CBRE Research, Q4 2020.

LIFE COMPANIES TAKING A BIGGER SHARE

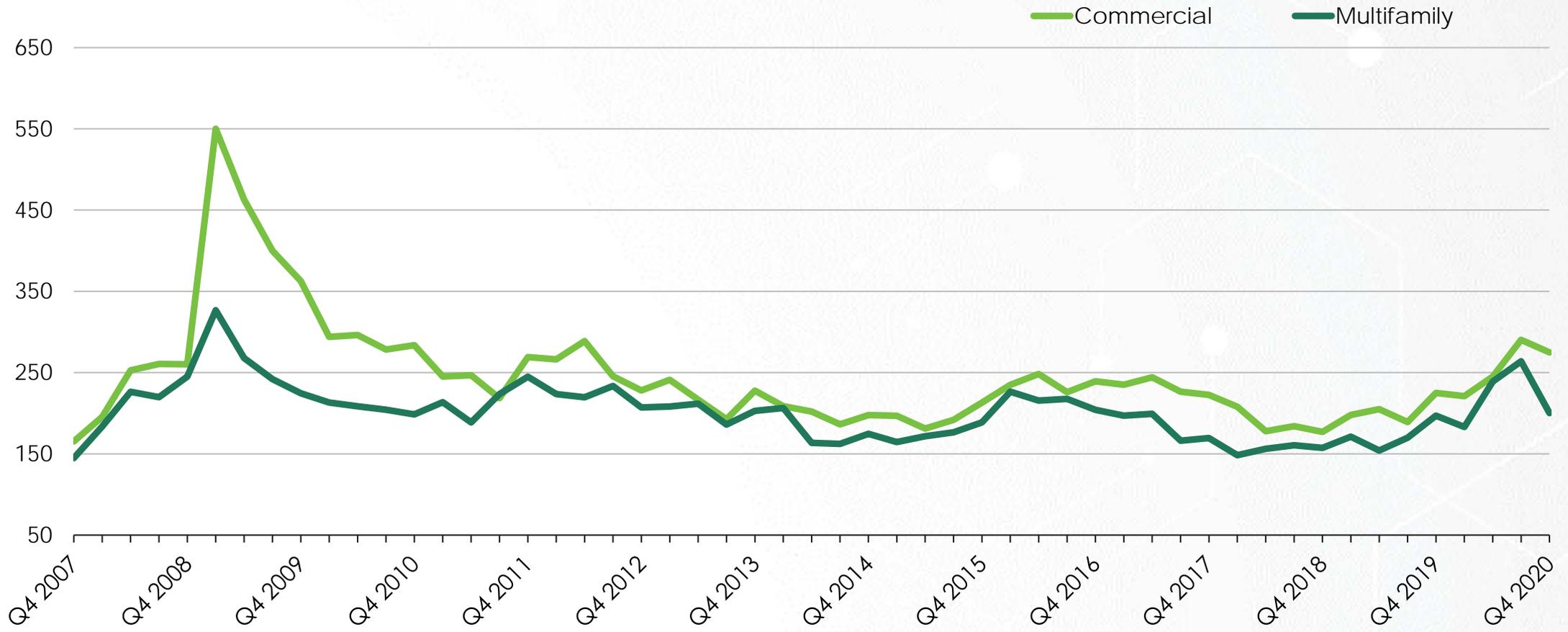
Alternative Lenders & Life Companies Top Q4 Originations



Note: Reflects non-agency commercial/multifamily loans.
Source: CBRE Capital Markets and CBRE Research, Q4 2020.

MORTGAGE LOAN SPREADS TIGHTENED IN Q4

Commercial & Multifamily Mortgage Loan Spreads to U.S. Treasury (BPS)

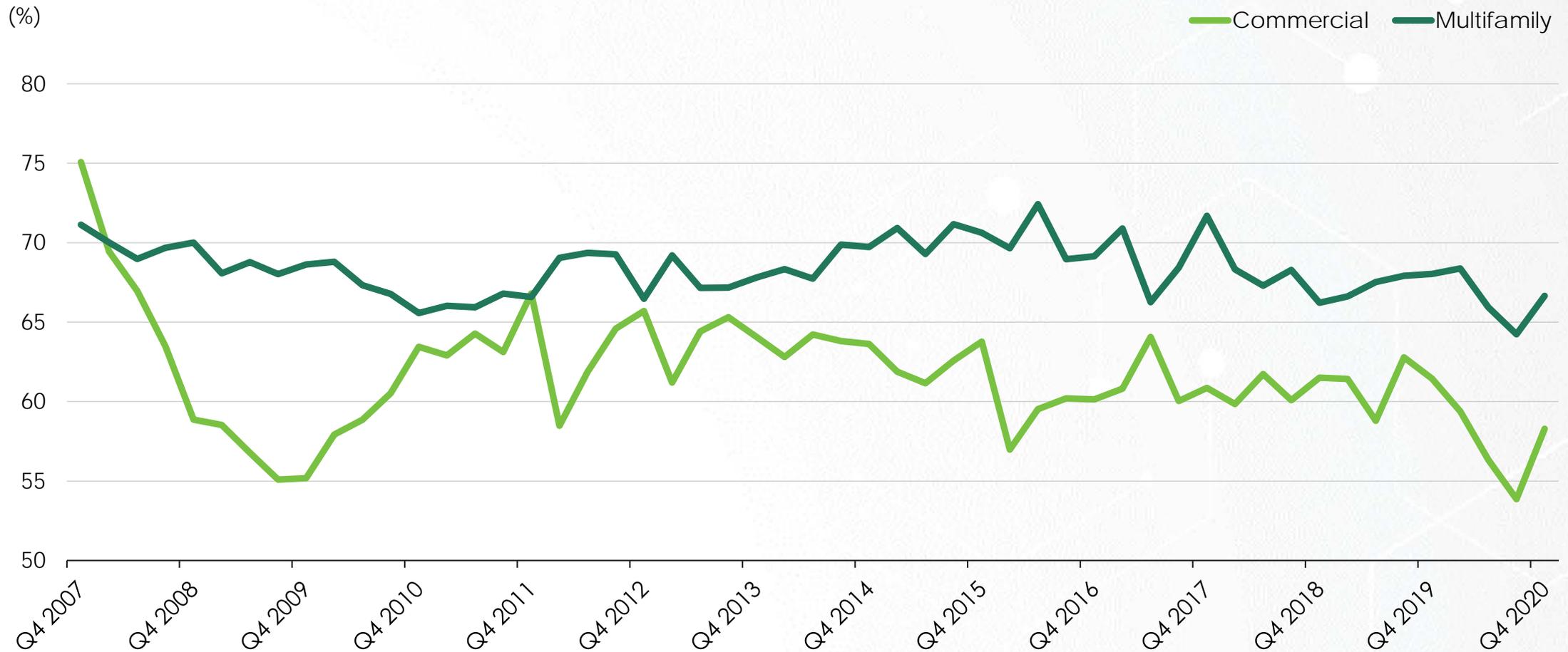


Note: Reflects average spreads on 7-10 year, 55%-65% LTV, permanent fixed-rate loans closed by CBRE Capital Markets.

Source: CBRE Capital Markets and CBRE Research, Q4 2020.

COMMERCIAL & MULTIFAMILY LTVS RISE AT YEAR-END

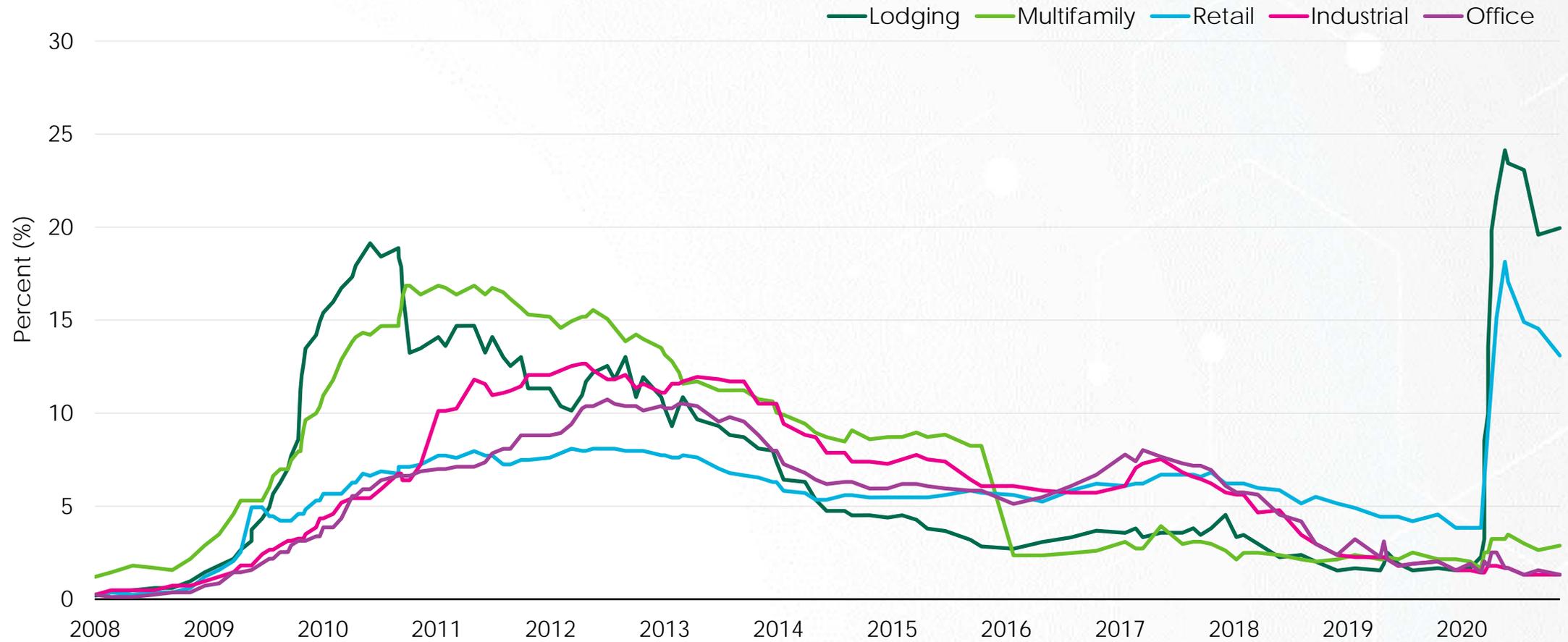
Commercial & Multifamily Loan-to-Values



Source: CBRE Research, Q4 2020.

CMBS DELINQUENCY RATES UP IN LODGING AND RETAIL

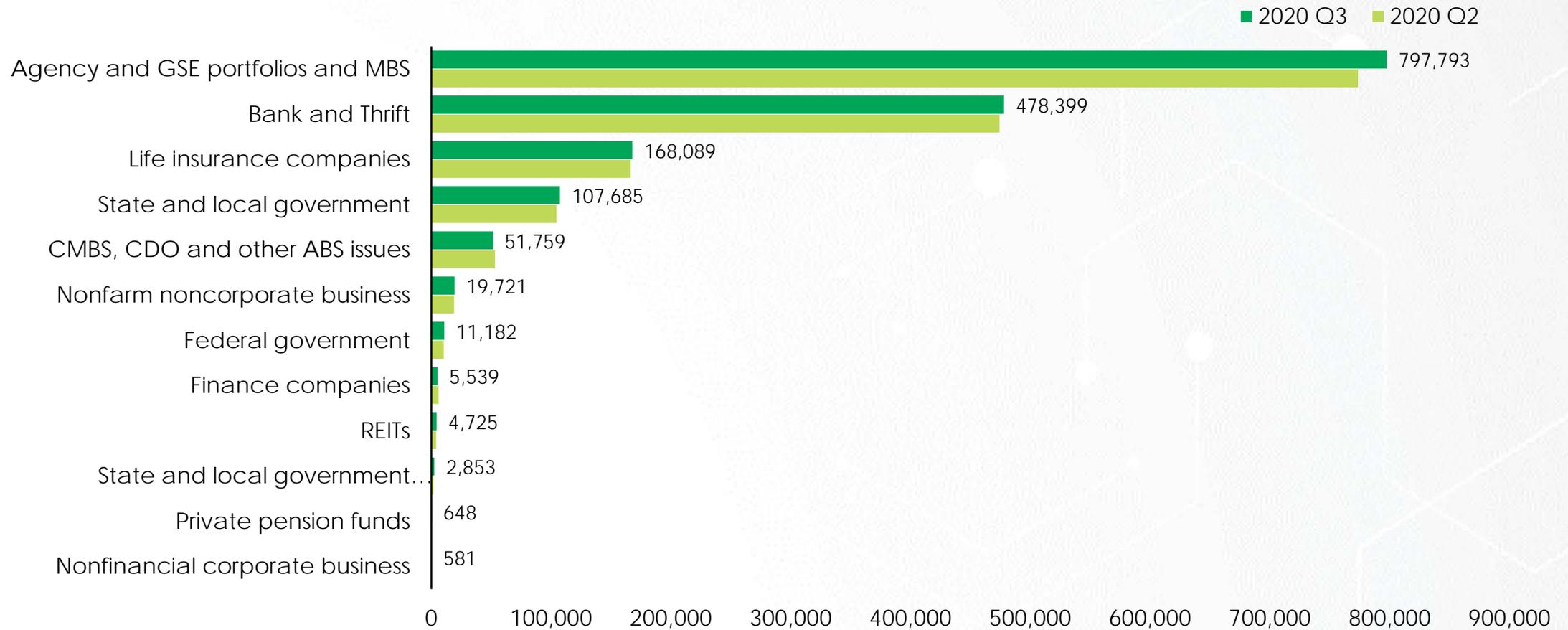
CMBS Delinquency Rates



Source: Trepp, Q4 2020.

CMBS IS A RELATIVELY SMALL PART OF THE MARKET

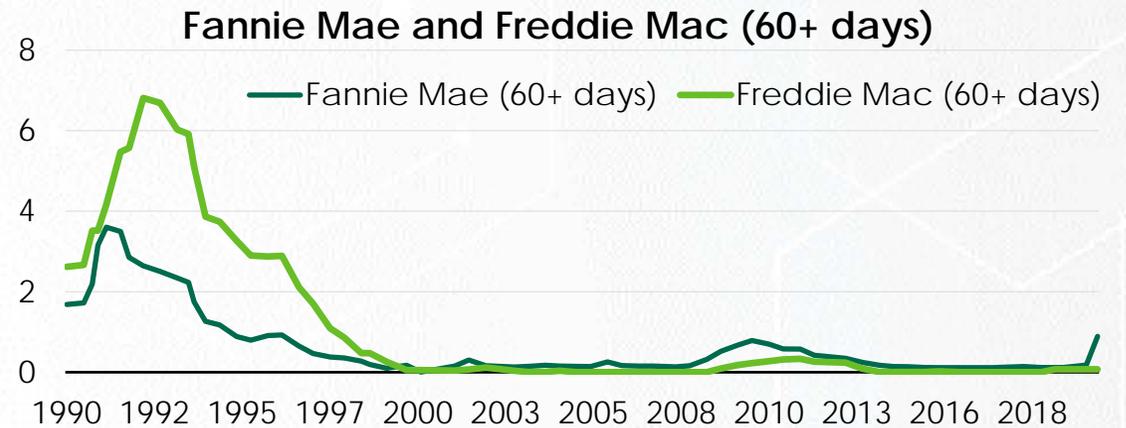
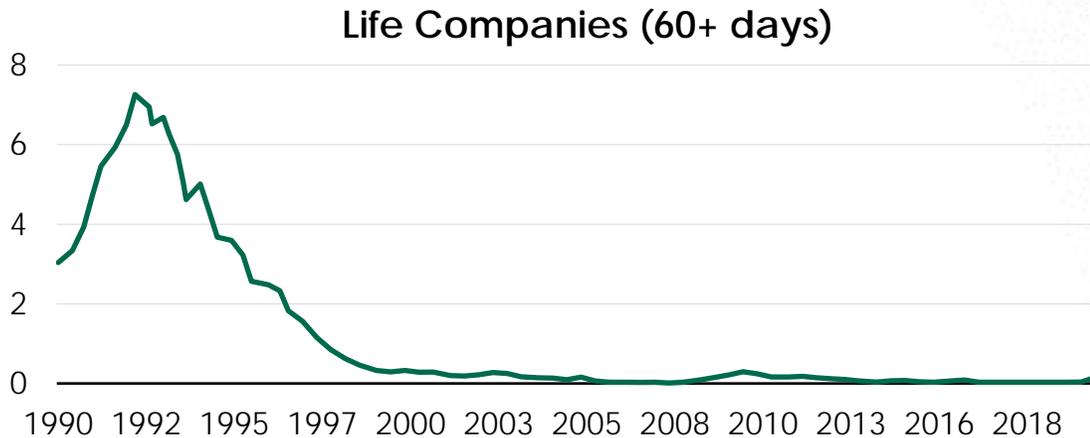
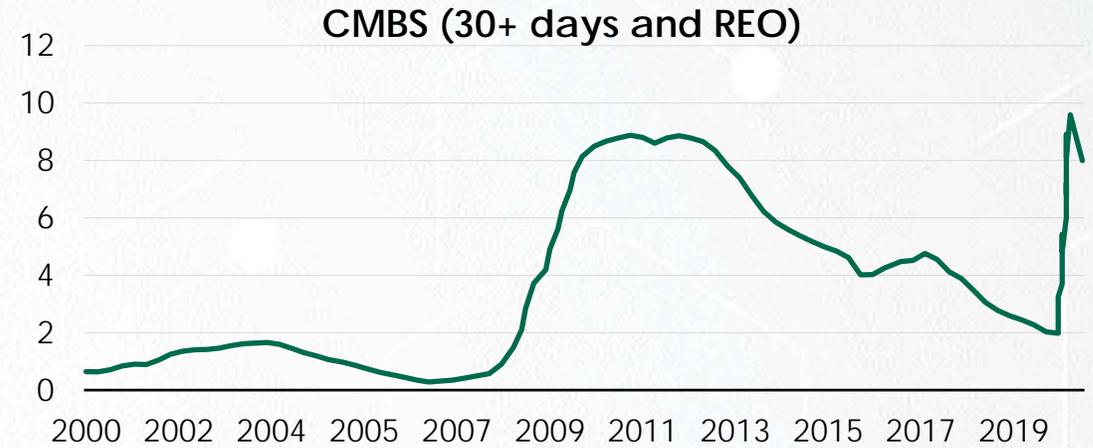
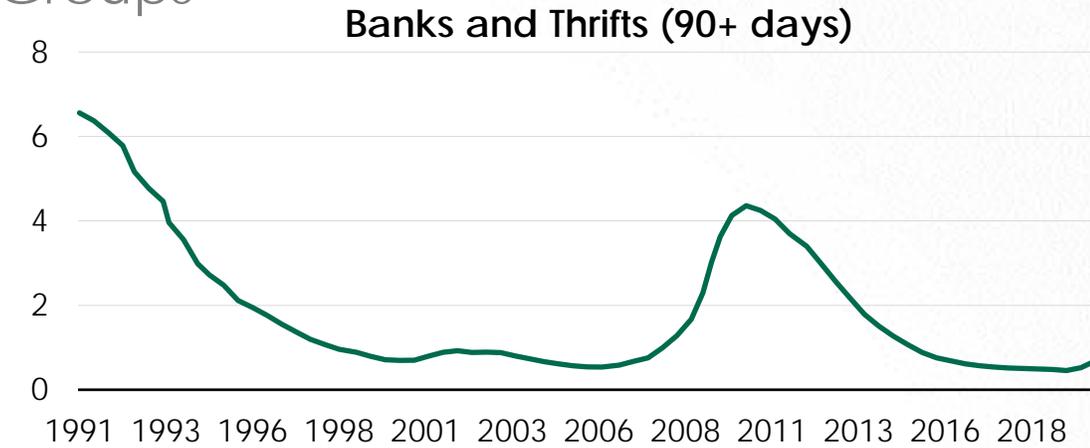
Total Multifamily Mortgage Debt Outstanding by Sector (USD Millions)



Source: MBA, Federal Reserve Board of Governors, Trepp LLC, Wells Fargo Securities, Intex Solutions, FDIC.

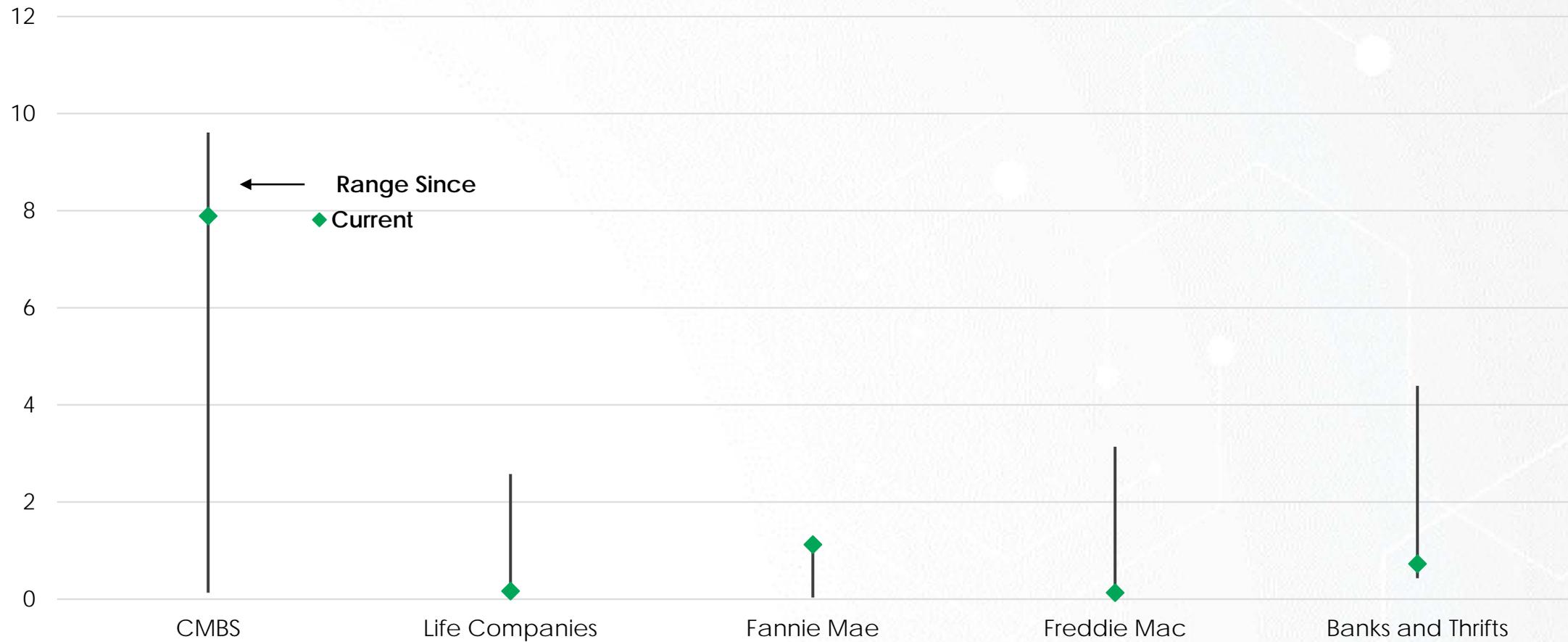
CMBS GENERALLY LOWER QUALITY COVENANT

Commercial/Multifamily Mortgage Delinquency Rates Among Major Investor Groups



LATEST DELINQUENCY RATES AND RANGE

Latest Delinquency Rates and Range Since 1996



Source: MBA, Federal Reserve Board of Governors, Trepp LLC, Wells Fargo Securities, Intex Solutions, FDIC.

THANK YOU!

PLEASE DON'T HESITATE TO CONTACT US.

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