

ULI Real Estate Economic Forecast

A SURVEY OF LEADING REAL ESTATE ECONOMISTS/ANALYSTS

OCTOBER 2021

ULI Center For Real Estate Economics And Capital Markets | uli.org/economicforecast

ULI Real Estate Economic Forecast

- Three-year forecast ('21 -'23) for 27 economic and real estate indicators.
- A consensus forecast based on the median of the forecasts from 49 economists/analysts at 36 leading real estate organizations.
- Respondents represent major real estate investment, advisory, and research firms and organizations.
- This is the 20th survey; completed September 24 – October 9, 2021.
- A semi-annual survey; next release planned for May 2022.
- Forecasts for:
 - Broad economic indicators
 - Real estate capital markets
 - Property investment returns for four property types
 - Vacancy rates and rents for five property types
 - Housing starts and prices
- Full results and analysis of this data will be presented during a webinar on October 27 ([register here](#)) and made available on Knowledge Finder and uli.org/EconomicForecast at that time.

Forecasts vs. Long-Term Averages

2021 Forecast

Better than long-term averages	Worse than long-term averages
GDP Growth	CMBS Issuance
Unemployment Rate Employment Growth	NCREIF Returns: Total, Apartment, Office, Retail
Transaction Volume	Office Vacancy Rate
CPPI Growth	Rental Rate Change: Office, Retail
Equity REIT returns	Hotel Occupancy Rates
NCREIF Returns: Industrial	
Vacancy/Availability rates: Industrial, Apartment, Retail	
Rental Rate Change: Industrial, Apartment	
Hotel RevPAR Change	
Single Family Starts Home Price Change	

2023 Forecast

Better than long-term averages	Worse than long-term averages
GDP Growth	Equity REIT Returns
Unemployment Rate Employment Growth	NCREIF Returns: Total, Apartment, Office, Retail, Industrial
Transaction Volume CMBS Issuance	Office Vacancy Rate
CPPI Growth	
Rental Rate Change: All sectors	
Vacancy/Availability rates: Industrial, Apartment, Retail	
Hotel Occupancy Rates, Hotel RevPAR Change	
Single Family Starts Home Price Change	

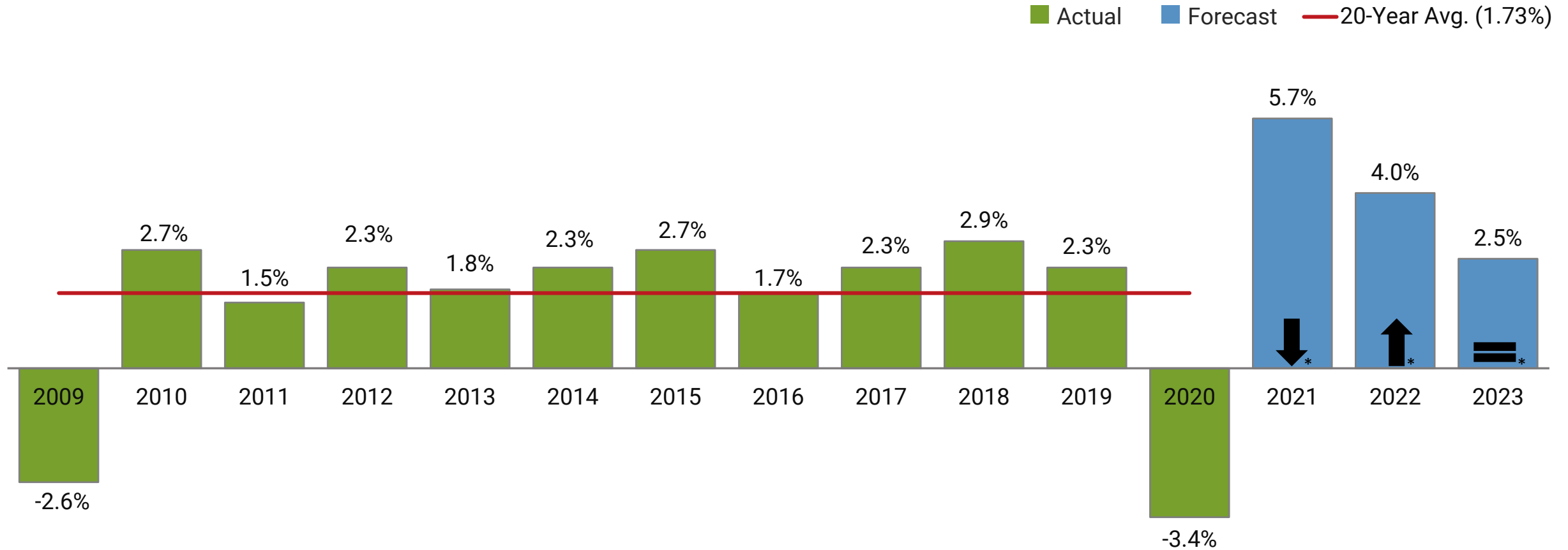
Key Findings

- Commercial real estate transaction volume fell by almost 30% in 2020 from a post-Great Financial Crisis peak in 2019 of \$617 billion to \$453 billion, the lowest volume in seven years but decidedly above the declines of the GFC. Volume is expected to recover relatively quickly over the forecast period, reaching \$600 billion by '22 and remaining at that level in '23.
- Price growth in 2020 moderated somewhat but remained positive at 5.3%. The pace of price growth in '21 is expected to almost double to 10%, before returning to strong pre-pandemic growth rates—7% in '22 and 6% in '23.
- Total returns for institutional-quality direct real estate investments, as measured by the NCREIF Property Index (NPI), were positive in 2020 but, at 1.6%, the lowest in 11 years. Total returns are forecast to increase over the forecast period, returning to the moderate rates of the years immediately before the pandemic. The forecast is for returns of 8%, 7% and 7%, in '21, '22 and '23 respectively. By property type, 2021 returns are forecast to range from industrial's 16% to retail's 2%. In '23, returns are forecast to range from industrial's 10% to retail's 4.3%.
- Change in vacancy and availability rates differ by property type. Industrial availability and apartment vacancy are expected to show further, although slight, improvement in '21 and '22 from already low rates in '20 and then plateau in '23. Retail availability is forecast to remain unchanged until '23, when the forecast is for minimal improvement. Office vacancy is expected to continue the increase experienced in '20, jumping by 200 basis points in '21, remaining unchanged in '22 and experience slight improvement in '23.
- Commercial property rent growth differs by property type, as well. Industrial and apartment rent growth is expected to be strong in both sectors during the forecast period, with an annual average of 4.4% and 4.0%, respectively. Retail rent growth is forecast at an annual average of 1.2% during the forecast period, and office rent growth is forecast at an annual average of -0.17%.
- Housing starts exceeded the 20-year average in 2020 for the first time since the GFC. Housing starts are expected to continue to increase to 1.13 million in '21, 1.2 million in '22 and 1.25 million in '23.

» Economy

- The pandemic brought broad segments of the economy to a halt for various periods of time in 2020. The economists/analysts forecast strong recovery activity in '21, '22, '23.
- GDP growth was down 3.4% in 2020, the first economic contraction since 2009 and a more severe one. Recovery, conversely, is expected to move dramatically faster. Bounce-back in growth of 5.7% is expected in '21, with continued growth of 4.0% in '22, both exceeding annual growth rates during the ten years from 2010-2019. Growth is forecast to continue in '23 at 2.5%, within range of the highest annual growth rates during that ten-year period.
- Net employment growth was negative 9.42 million in 2020. A two-year recovery process is forecast with growth of 6.0 million jobs in 2021, and growth of 3.7 million jobs in 2022, for total growth just exceeding jobs lost. Further growth is of 2.2 million jobs is forecast in 2023. But net of the welcome replacement numbers, average annual new job growth in the forecast period is lower than annual job growth from 2010-2019.
- The unemployment rate is expected to be 4.9% at the end of 2021, declining to 4.0% at the end of '22 and then to 3.8% in '23, approaching the low unemployment rate of 3.6% in 2019.

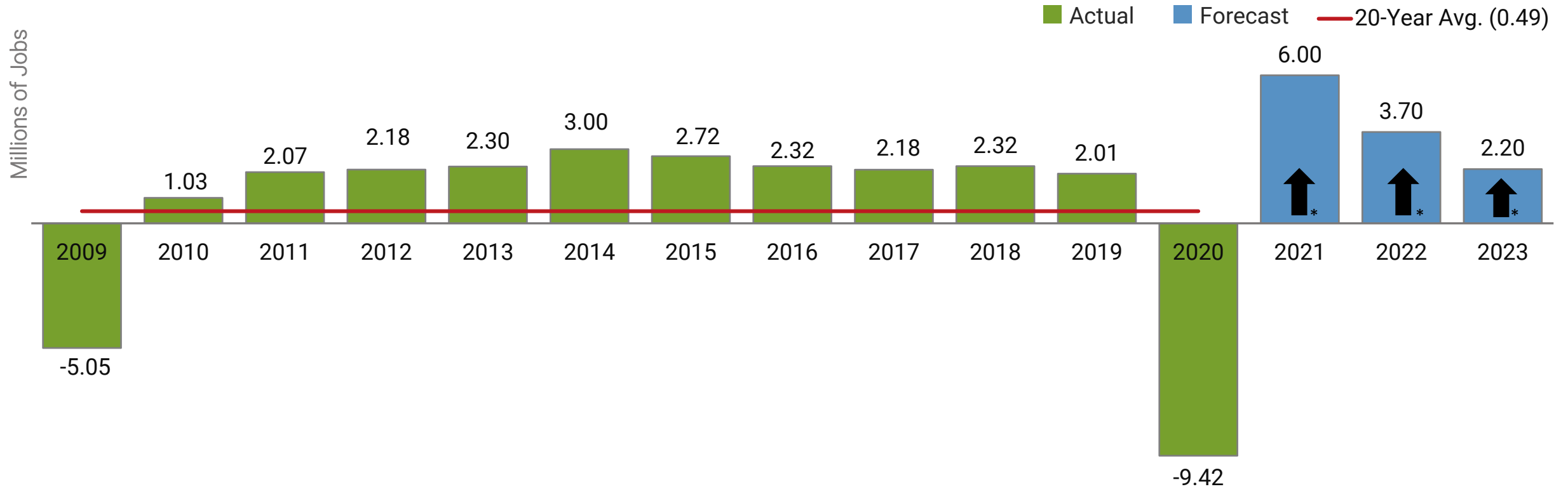
>> Real GDP Growth



Sources: 2001-2020, Bureau of Economic Analysis; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 6.5% for 2021, 3.9% for 2022, and 2.5% for 2023.

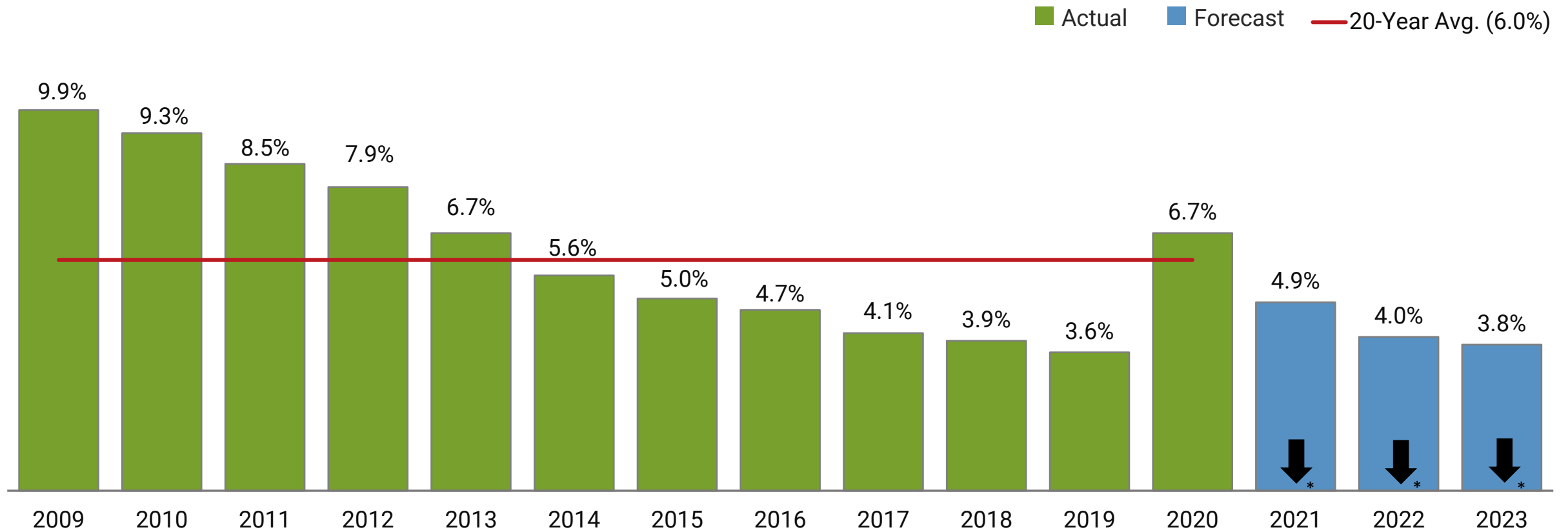
» Employment Growth (Millions)



Sources: 2001-2020, Bureau of Labor Statistics; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 5.5M for 2021, 3.0M for 2022, and 2.1M for 2023.

» Unemployment Rate



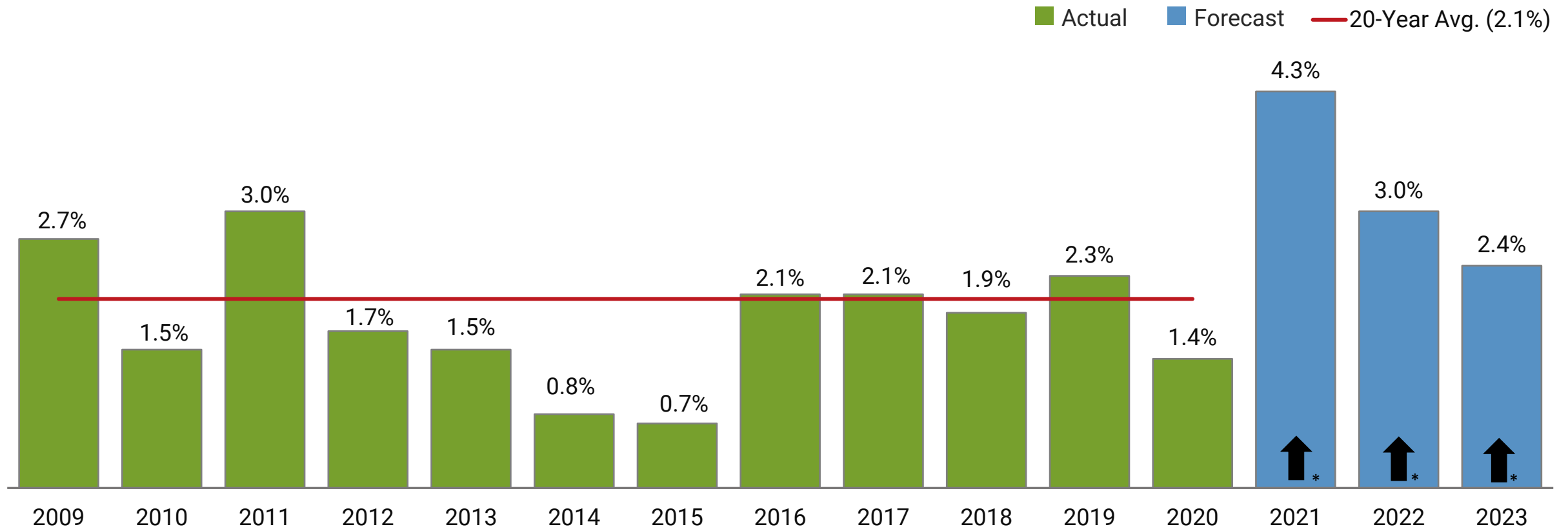
Sources: 2001-2020, (seasonally adjusted, as of December), Bureau of Labor Statistics; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 5.0% for 2021, 4.1% for 2022, and 4.0% for 2023.

» Inflation, Interest Rates, and Cap Rates

- The CPI inflation rate in 2020 was 1.4%, below the 20-year average of 2.1%. The forecast for 2021 is for the inflation rate to be 4.3%, double the long-term average, then moderate to 3.0% to '22, and to 2.4% in '23, still remaining above the long-term average.
- The ten-year treasury rate had averaged 2.3% per year from 2011 to 2019, below the long-term average of 3.07%, before dropping to a low 0.93% in 2020. The rate is expected to remain below the long-term average but rise consistently during the forecast period from 1.6% by the end of 2021 to 2.25% by the end of '23.
- Capitalization rates for institutional-quality investments (NCREIF cap rates) have steadily declined for 11 years, including the pandemic year, and were at 4.4% in '20. Cap rates are expected to further decline to 4.3% in '21, plateau in '22 and notch up to 4.4% in '23.

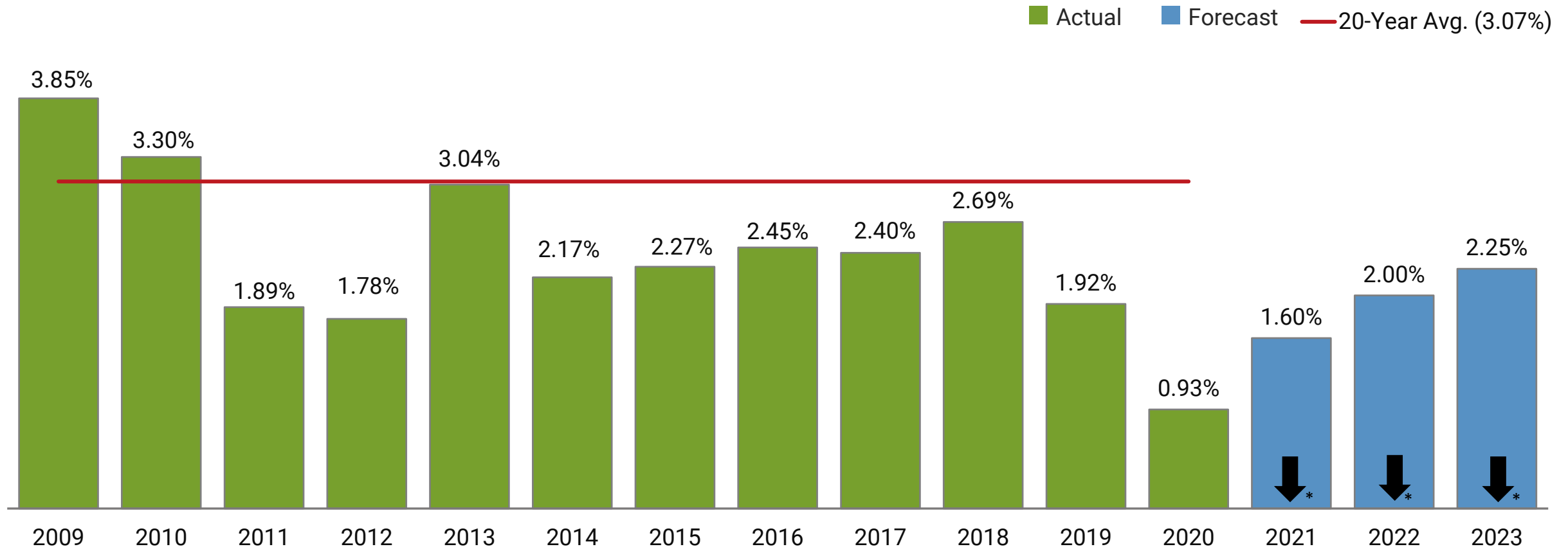
» Consumer Price Index Inflation Rate



Sources: 2001-2020, (12-month change, as of December), Bureau of Labor Statistics; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 2.8% for 2021, 2.5% for 2022, and 2.3% for 2023.

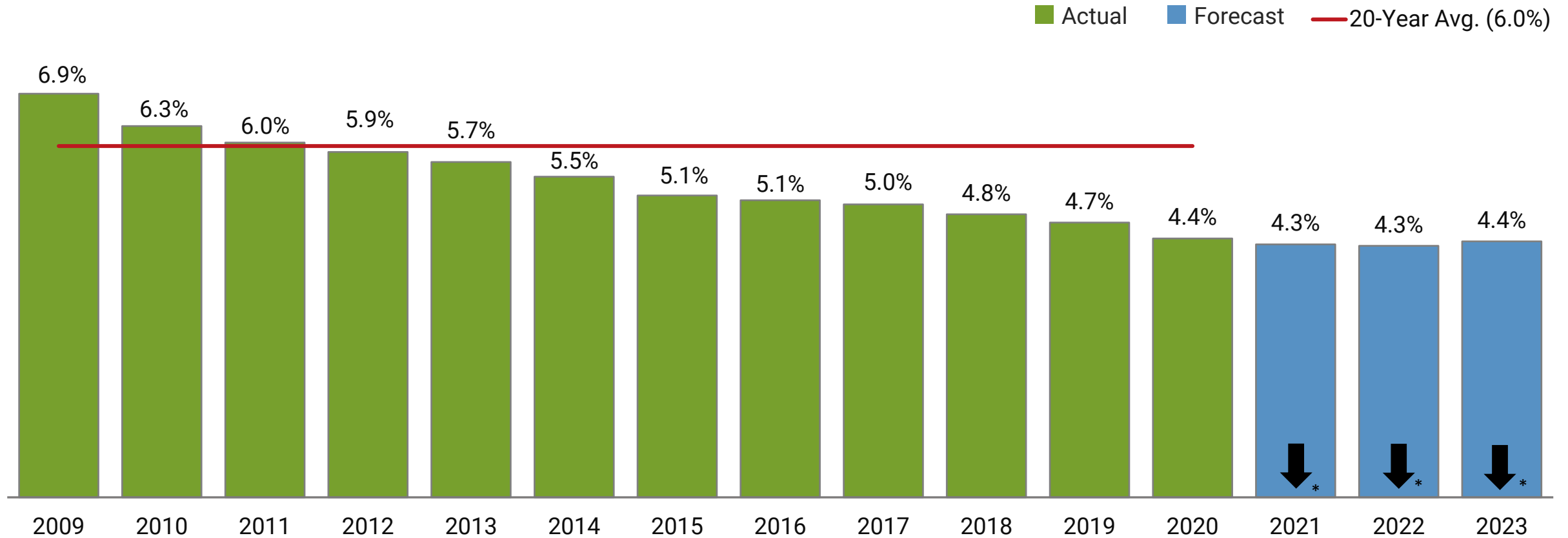
» Ten-Year Treasury Rate



Sources: 2001-2020 (YE), U.S. Federal Reserve; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 1.95% for 2021, 2.25% for 2022 and 2.50% for 2023.

» NCREIF Capitalization Rate



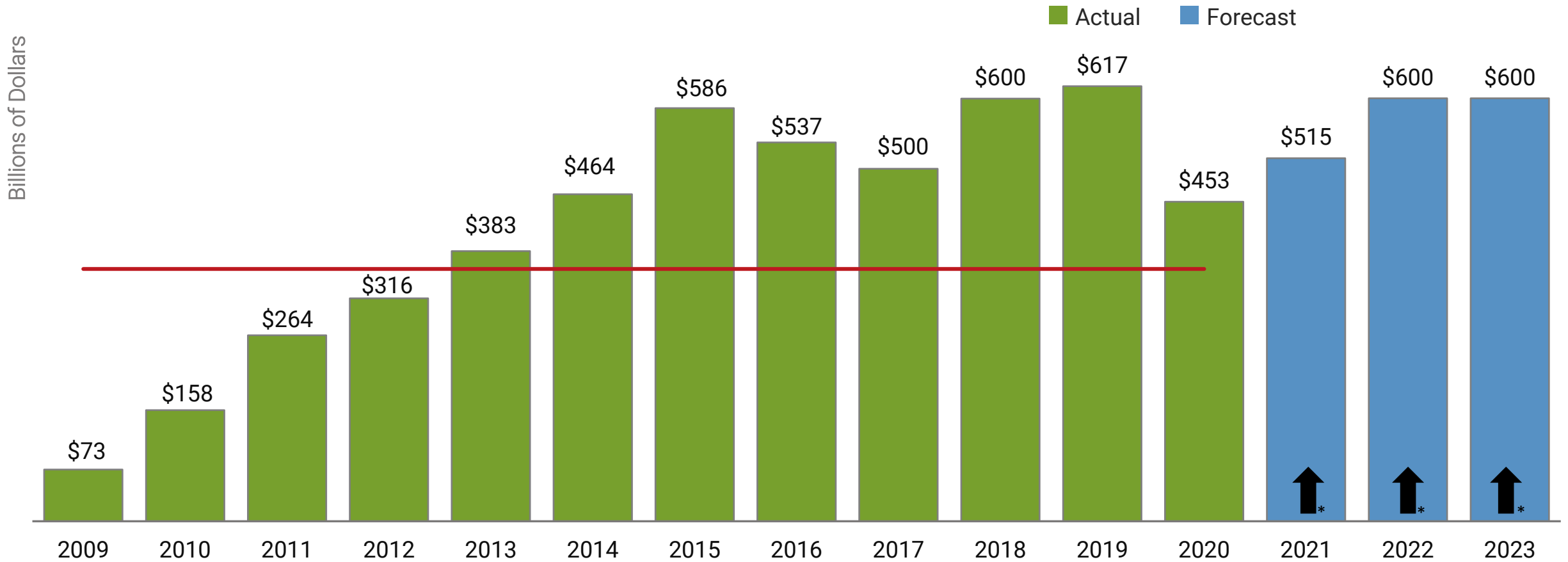
Sources: 2001-2020, Q4, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 4.4% for 2021, 4.5% for 2022, and 4.6% for 2023.

» Real Estate Capital Markets

- Commercial real estate transaction volume reached \$617 billion in 2019, a post-Great Financial Crisis peak. Volume fell by 27% in 2020 to \$453 billion, the lowest volume in seven years, but decidedly above the declines of the GFC. Volume is expected to recover relatively quickly over the forecast period, rising to \$515 billion in '21, \$600 billion in 2022 and remaining at that level in '23.
- Issuance of commercial mortgage-backed securities (CMBS), a source of financing for commercial real estate, had rebounded since a low in 2009, but to a much lower level than pre-GFC levels (which peaked at \$229 billion in 2007). The post-GFC peak was in 2019, at \$98 billion. CMBS issuance fell by 40% in '20 to \$59 billion but, as with transaction volume, decidedly above the declines of the GFC. Issuance is expected to rebound steadily over the forecast period, reaching \$95 billion in '23.

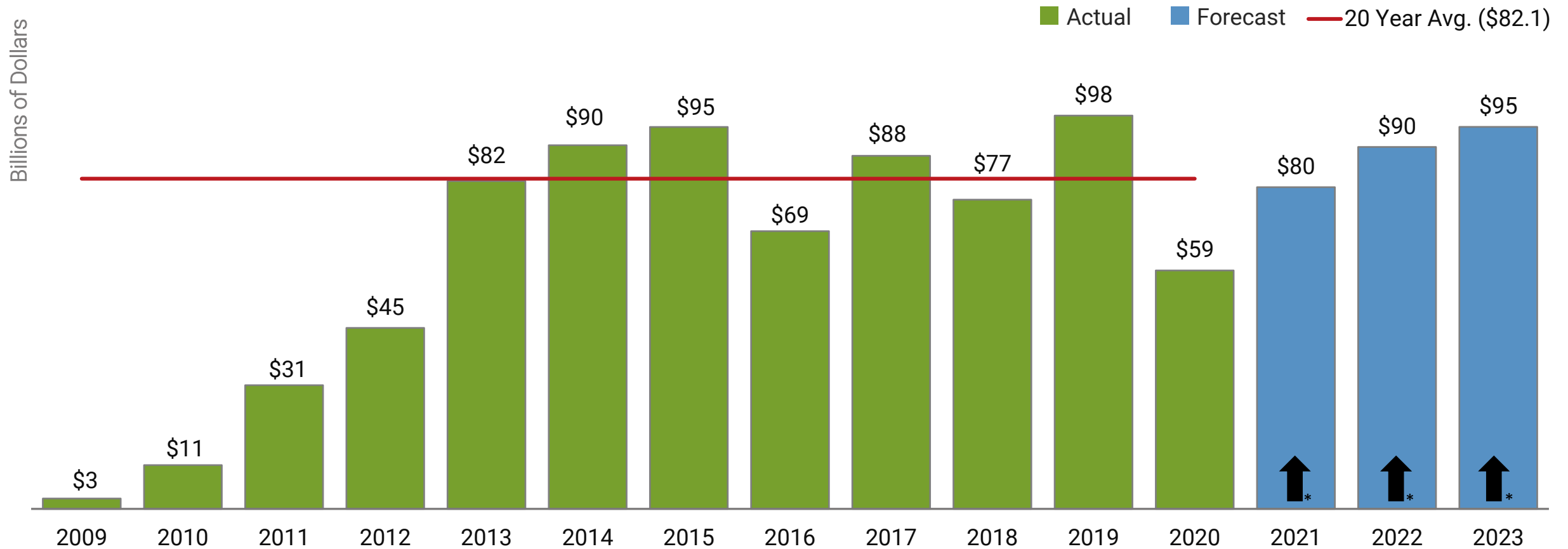
» Commercial Real Estate Transaction Volume



Sources: 2001-2020, Real Capital Analytics; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected \$500B for 2021, \$550B for 2022, and \$590B for 2023.

» Commercial Mortgage-Backed Securities (CMBS) Issuance



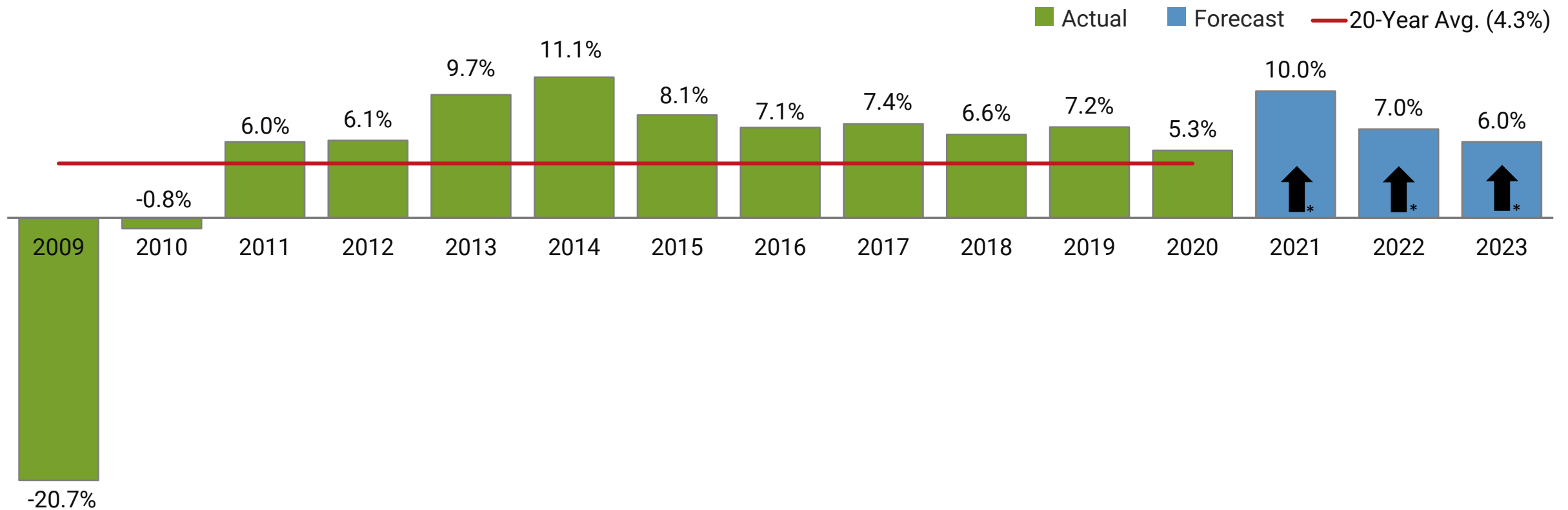
Sources: 2001-2020, Green Street, Commercial Mortgage Alert; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected \$70B for 2021, \$85B for 2022, and \$90B for 2023.

» Real Estate Returns and Prices

- The RCA Commercial Property Price Index (CPPI) had experienced strong growth over the nine years from 2011 to 2019, staying consistently above 6 percent annually. Price growth in 2020 only moderated slightly to 5.3%, remaining above the long-term average. Price growth in '21 is expected to almost double to 10%, before returning to the strong pre-pandemic growth rates of 7% in '21 and 6% in '22.
- Equity REIT total returns in 2020, according to NAREIT, fell by 8%. Positive returns are expected during the forecast period of 27.8%, 10% and 10% in '21, '22 and '23, respectively.
- Total returns for institutional-quality direct real estate investments, as measured by the NCREIF Property Index (NPI), were positive in 2020 but, at 1.6%, the lowest in 11 years. Total returns are forecast to increase over the forecast period, returning to the moderate rates of the years immediately before the pandemic. The forecast is for returns of 8%, 7% and 7%, in '21, '22 and '23 respectively.

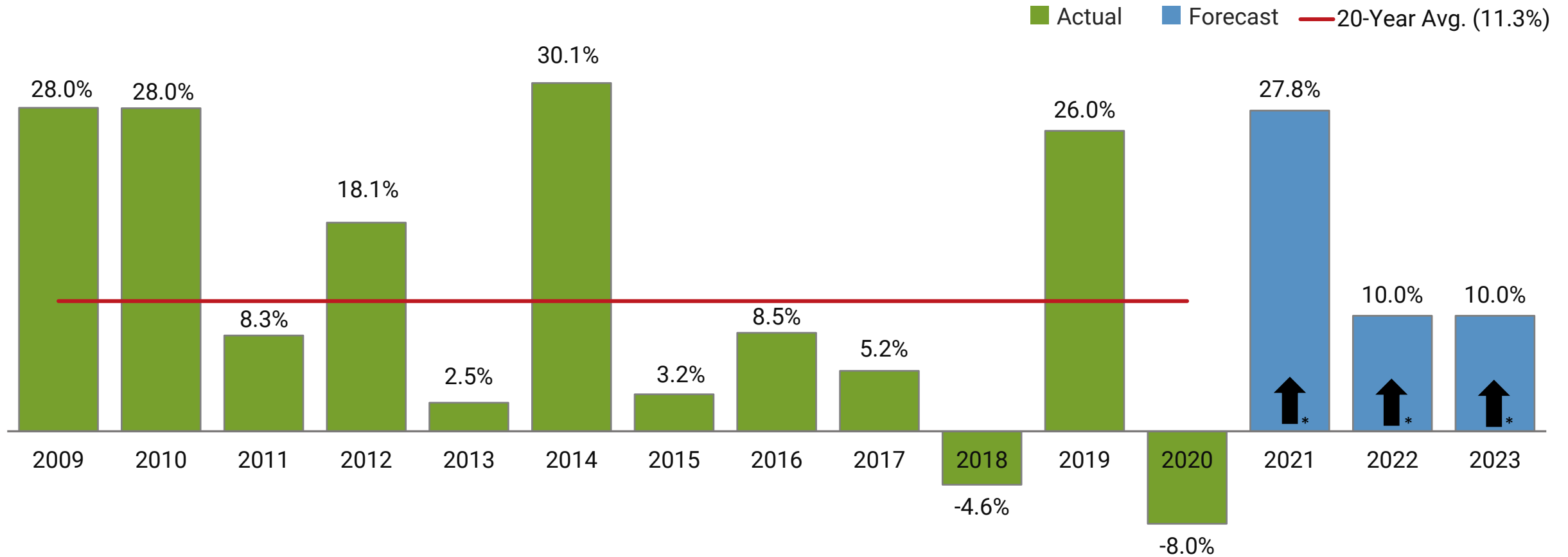
» RCA Commercial Property Price Index (annual change)



Sources: 2001-2020, Real Capital Analytics; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 4.2% for 2021, 5.0% for 2022, and 5.0% for 2023.

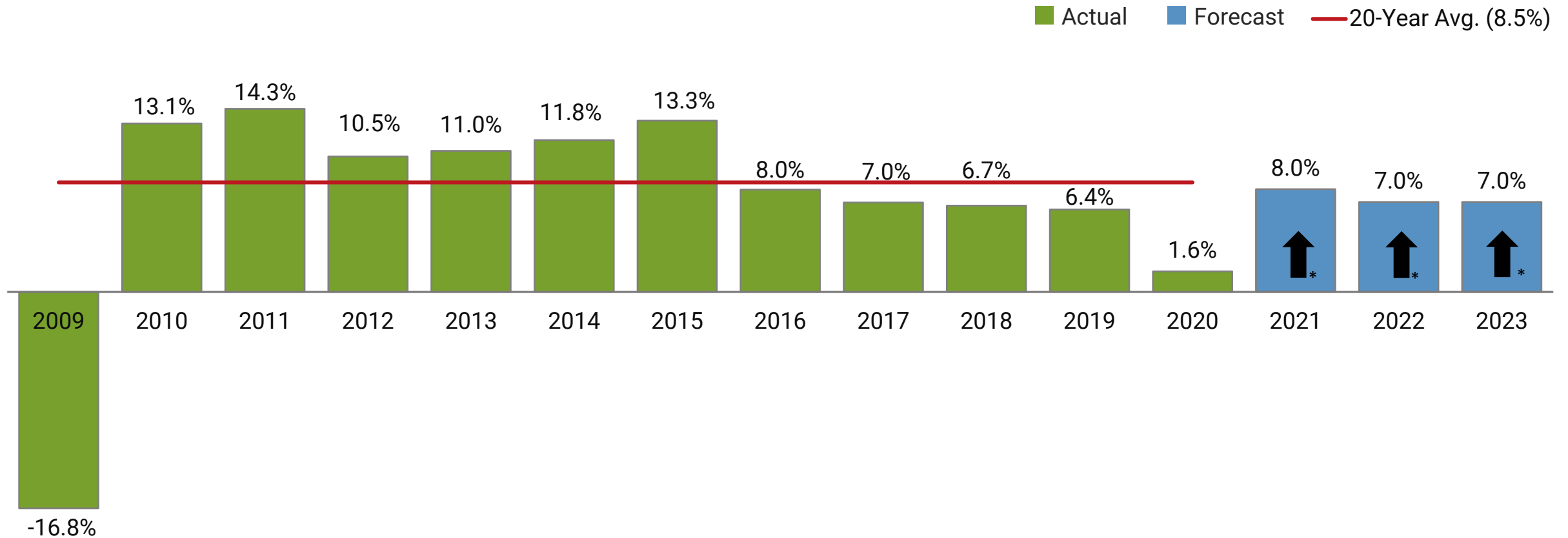
» Equity REIT Total Annual Returns



Sources: 2001-2020, National Association of Real Estate Investment Trusts; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 15.0% for 2021, 8.0% for 2022 and 7.0% for 2023.

» NCREIF Total Annual Returns



Sources: 2000-2020, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023, ULI Real Estate Economic Forecast.

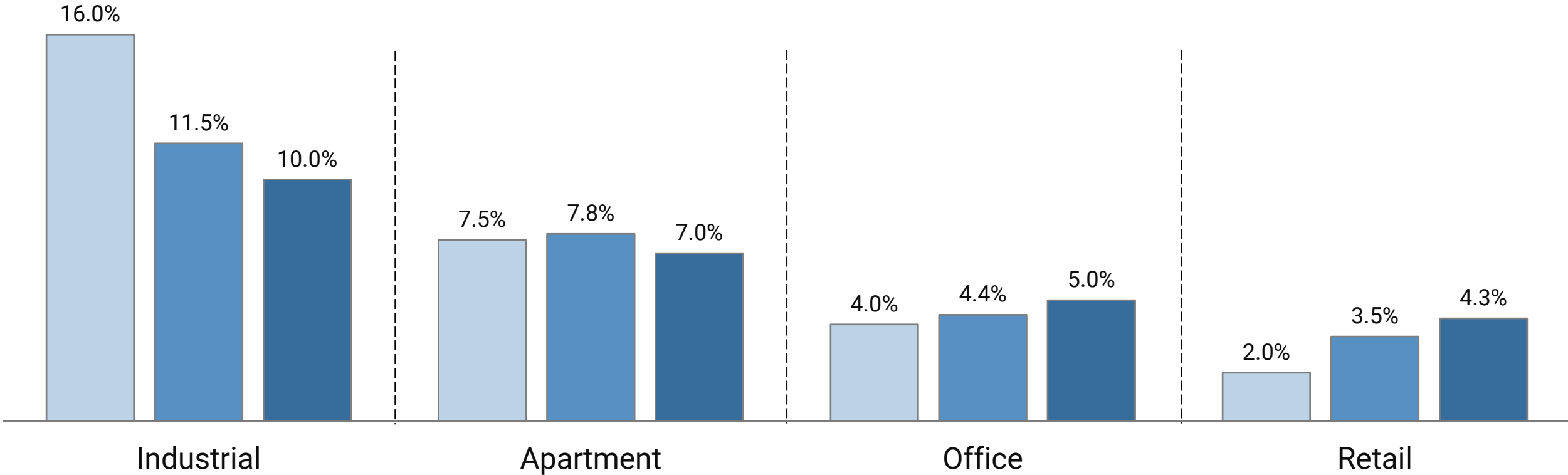
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 4.5% for 2021, 5.9% for 2022 and 6.5% for 2023.

» NCREIF Returns by Property Type

- NCREIF total returns in 2021 for the industrial sector are forecast to be 16%, becoming the 11th year of returns above the long-term average and exceeding levels immediately before the pandemic. After an 11-year low in '20, apartment returns in '21 are expected to be 7.5%, exceeding levels in the four years immediately before the pandemic. After an 11-year low in '20, office sector returns are expected to improve to 4.0% but remaining below levels in the four years immediately before the pandemic. After a substantial decline in '20, retail returns are expected to be positive in '21, approximating the two years just prior to the pandemic.
- Industrial total returns are forecast to remain strong although moderating in '22 and '23, to 11.5% and 10.0%, respectively.
- Apartment returns are forecast to continue to increase in '22 to 7.8% and moderate just slightly to 7.0% in '23.
- Office total returns are forecast to continue to increase, but remain low relative to pre-pandemic years, at 4.4% in '22 and 5.0% in '23.
- Retail total returns are expected to continue to increase in '22 at 3.5% and increase to 4.3% by '23, both years stronger than the two years prior to the pandemic.

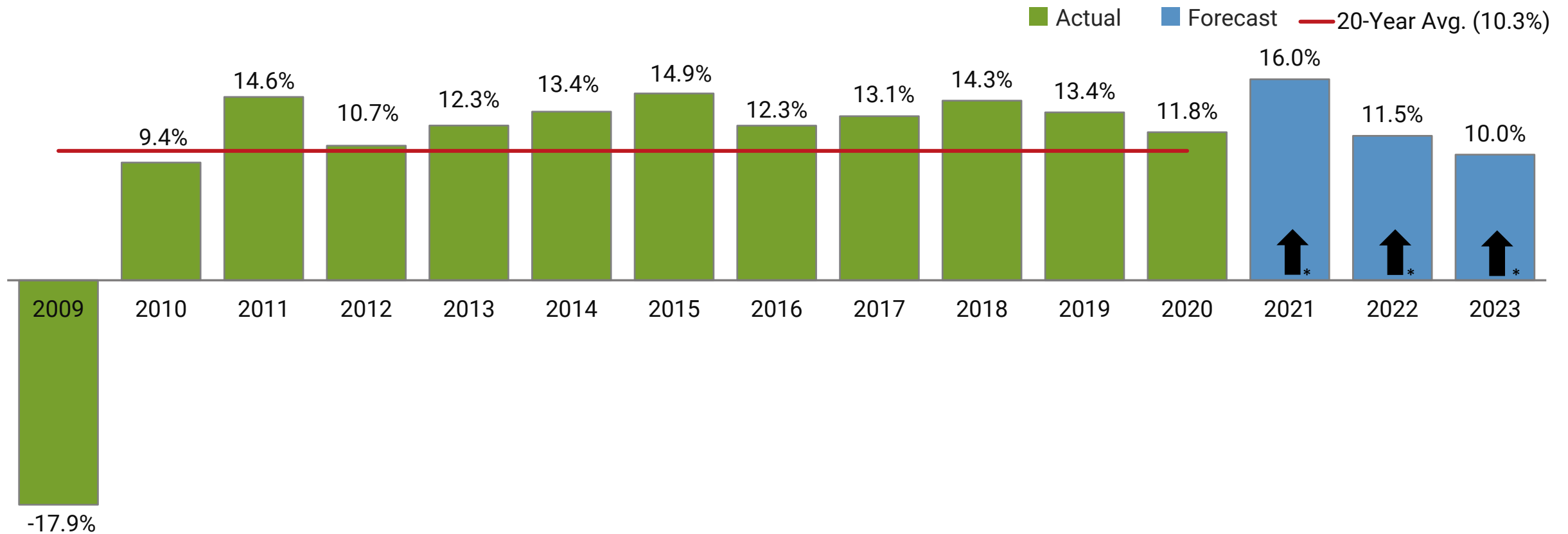
>> NCREIF Property Types Total Returns

2021 2022 2023



Source: 2021-2023, ULI Real Estate Economic Forecast.

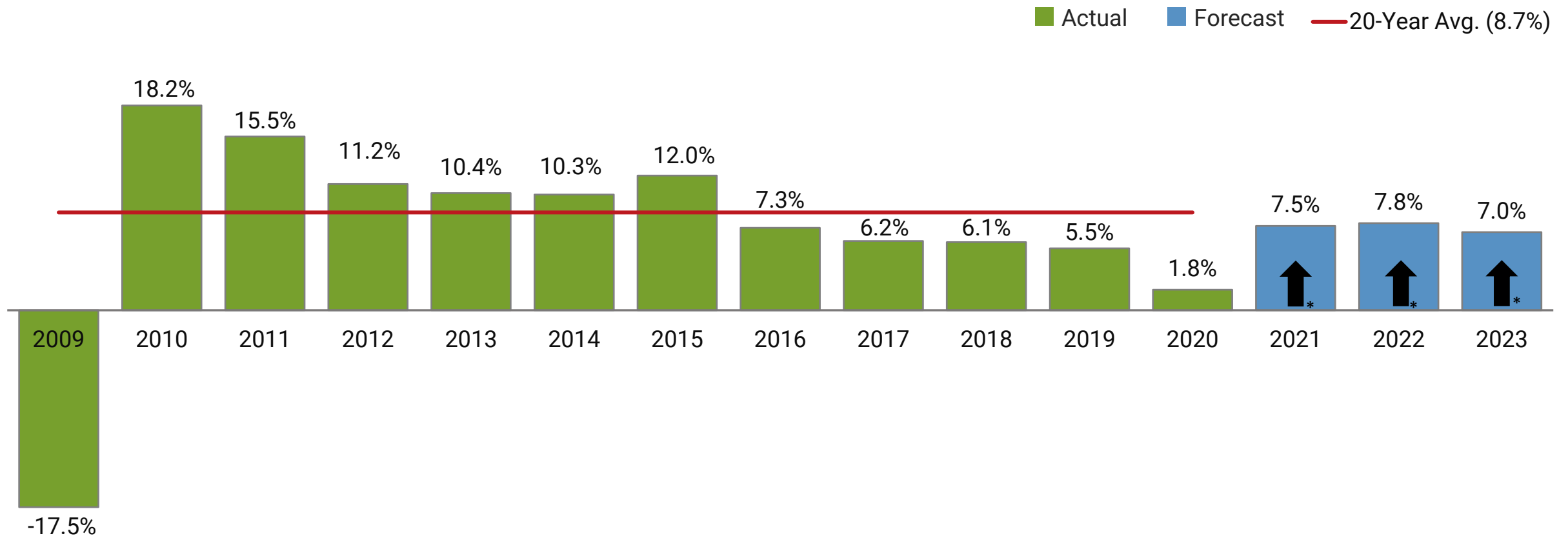
» NCREIF Industrial Total Annual Returns



Sources: 2000-2020, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 12.0% in 2021, 9.3% for 2022 and 8.2% for 2023.

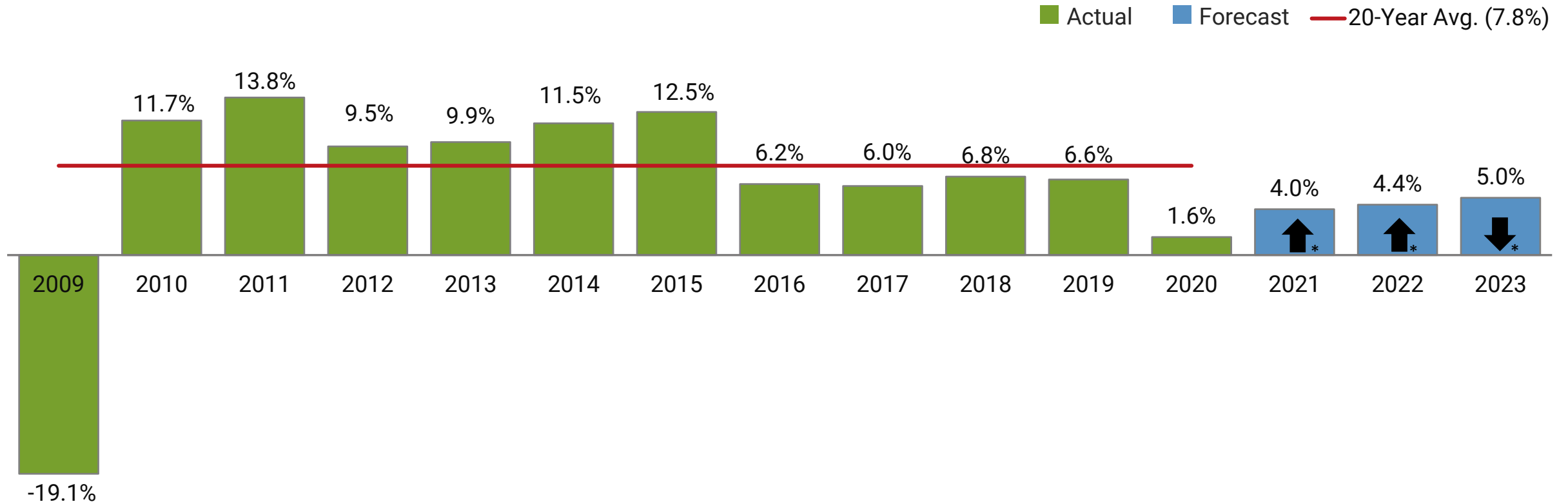
» NCREIF Apartment Total Annual Returns



Sources: 2000-2020, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 5.6% for 2021, 6.7% for 2022 and 6.5% for 2023.

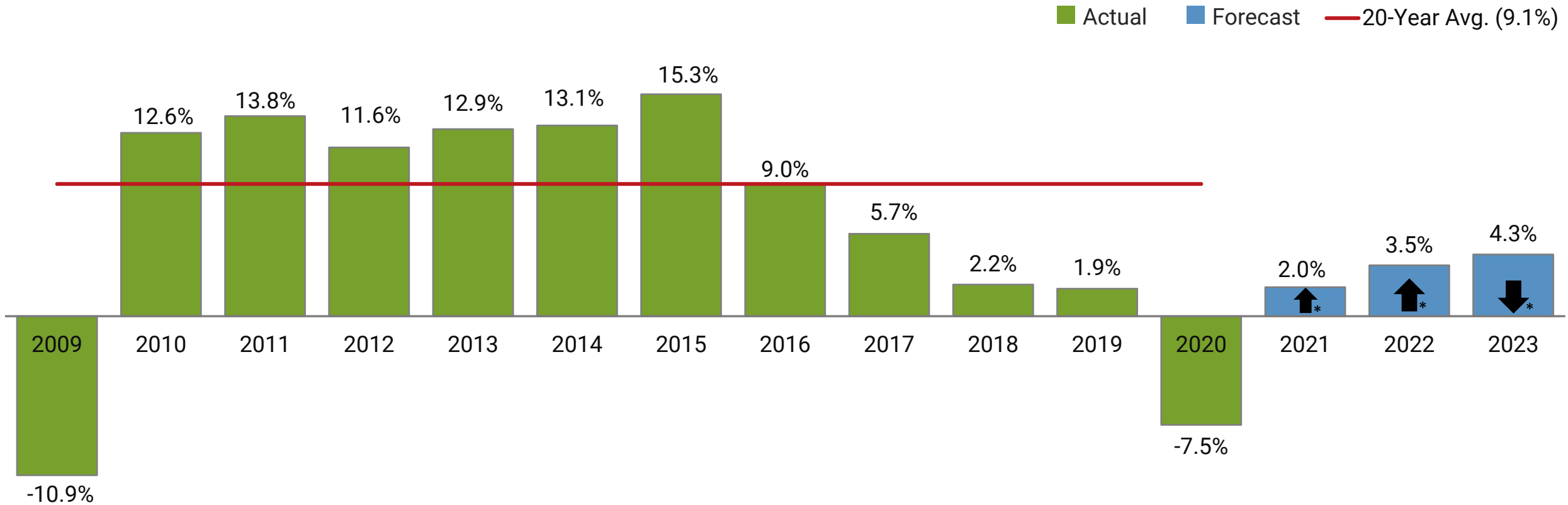
» NCREIF Office Total Annual Returns



Sources: 2000-2020, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Forecast (released in May 2021) projected 2.2% for 2021, 3.2% for 2022 and 5.4% for 2023.

» NCREIF Retail Total Annual Returns

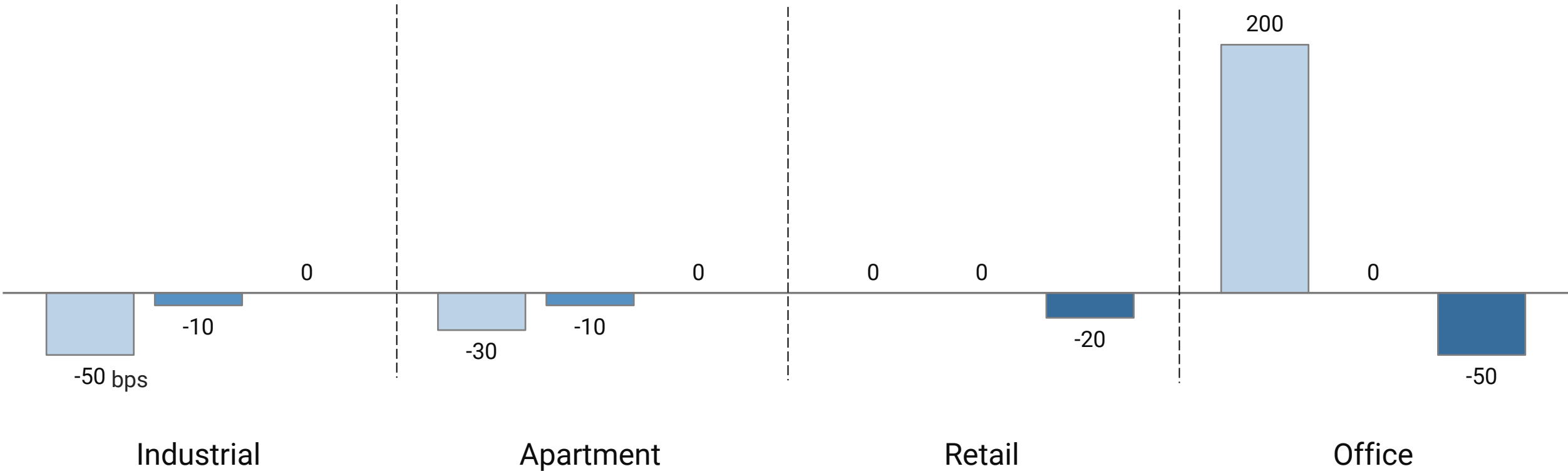


Sources: 2000-2020, National Council of Real Estate Investment Fiduciaries (NCREIF); 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected -1.0% for 2021, 3.3% for 2022 and 5.2% for 2023.

>> Vacancy Rate Change (bps)

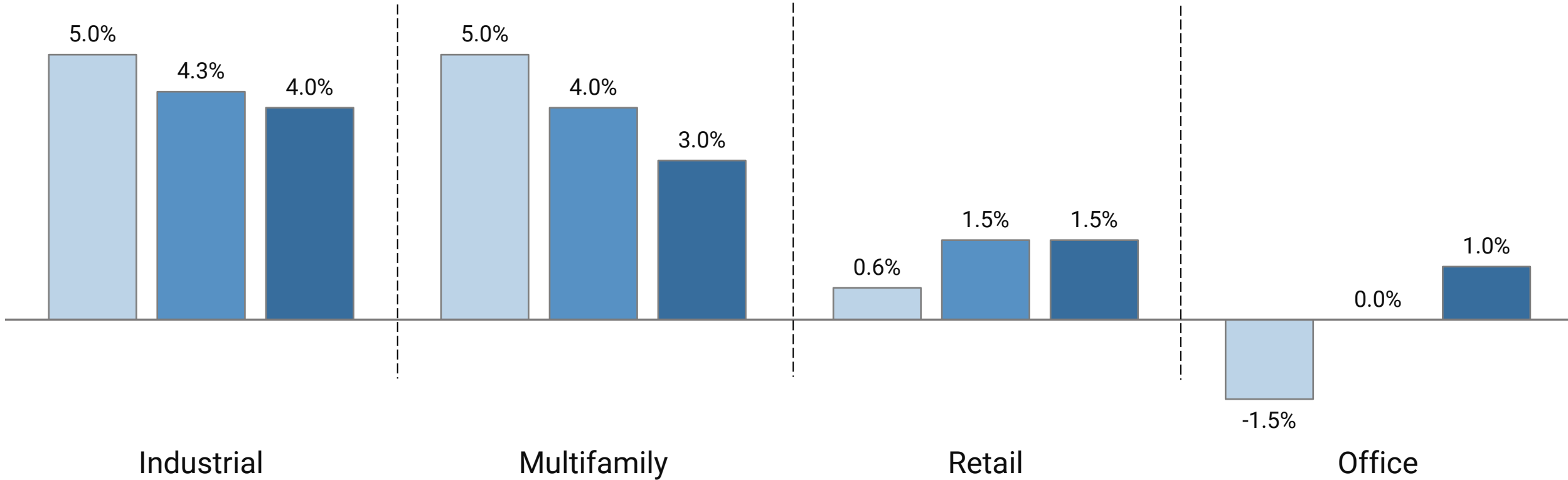
2021 2022 2023



Source: 2021-2023, ULI Real Estate Economic Forecast.

» Rental Rate Growth

2021 2022 2023

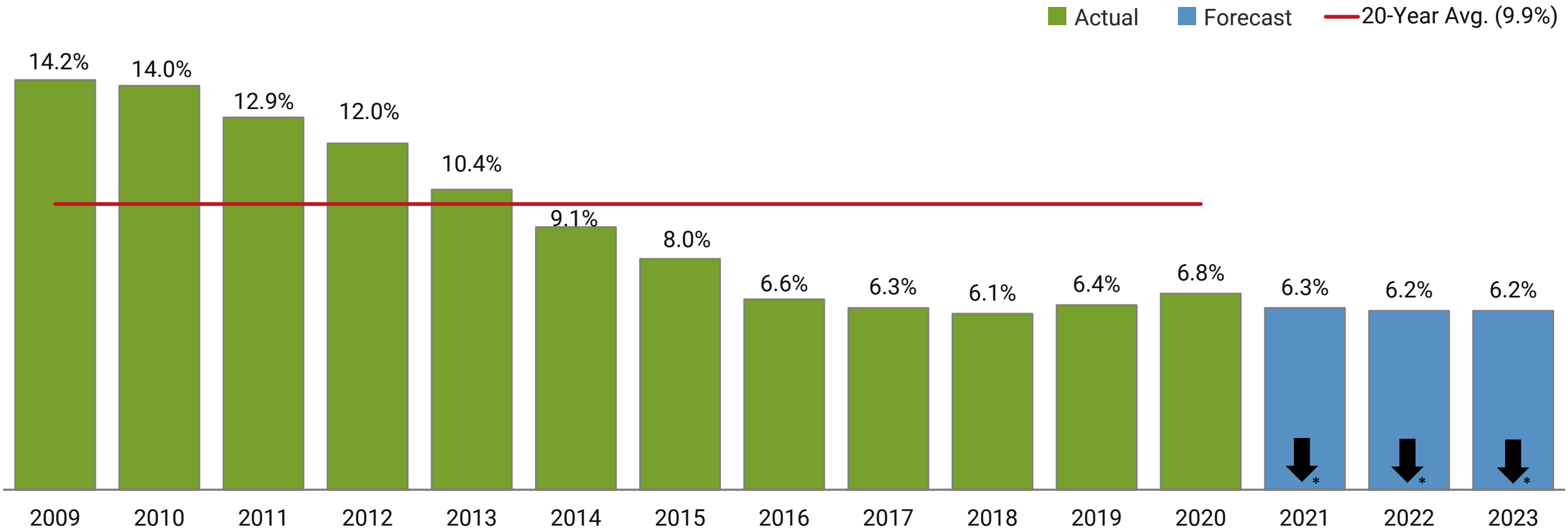


Source: 2021-2023, ULI Real Estate Economic Forecast.

» Industrial/Warehouse Sector Fundamentals

- The availability rate for the industrial/warehouse sector declined for the ninth straight year in 2018, to 6.1%, before notching up to 6.4% in 2019 and 6.8% in 2020 but staying well-below the 20-year average of 9.9%. The forecast indicates close to a return to the previous low, with 6.3% in '21, and 6.2% in both '22 and '23.
- Warehouse rental rate growth in the last eight years has been substantially above the long-term average of 1.4%. Rent growth is expected to continue above that average at 5.0%, 4.3% , and 4.0%, respectively in '21, '22, and '23.

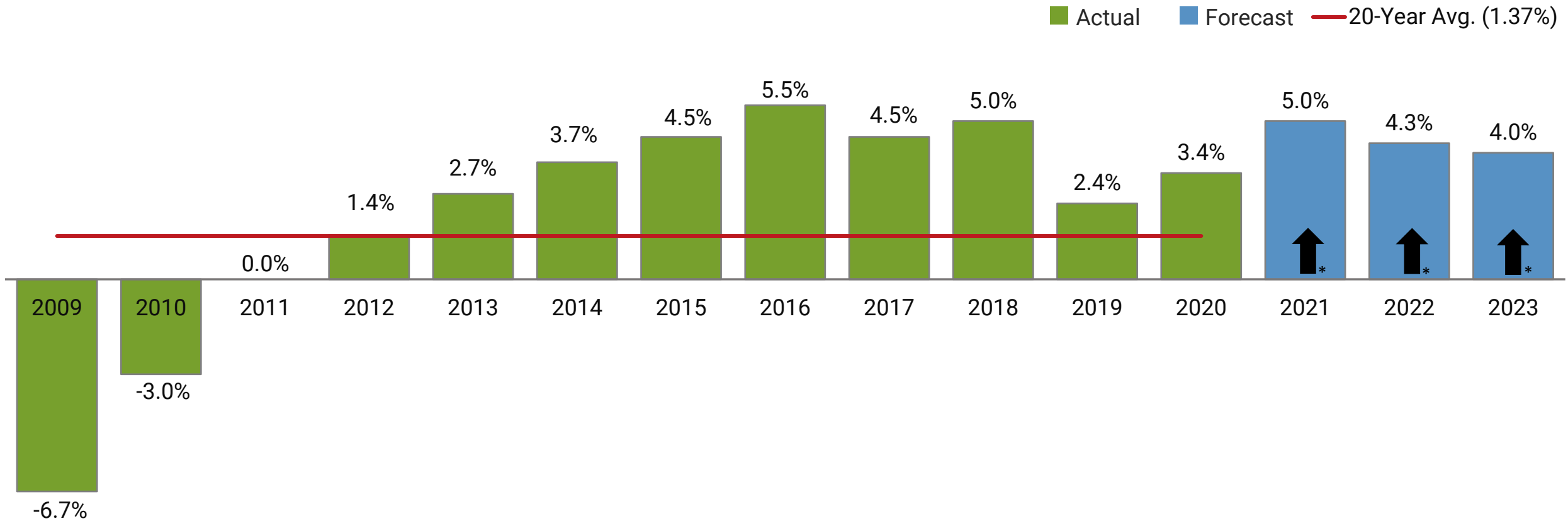
>> Industrial/Warehouse Availability Rates



Sources: 2001-2020 (Q4), CBRE; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 7.4% for 2021, 7.3% for 2022, and 7.2% for 2023.

» Industrial/Warehouse Rental Rate Change



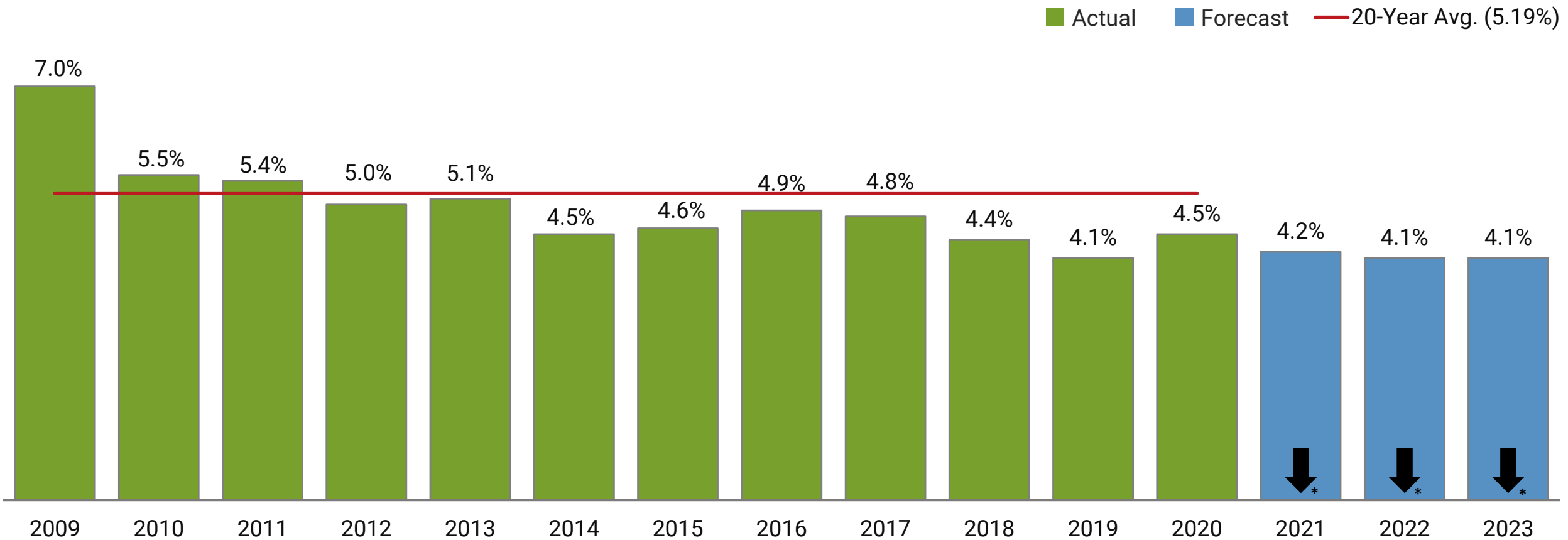
Sources: 2000-2020, CBRE; 2021-2023, ULI Real Estate Economic Forecast. Please note that as of 1Q 2021 CBRE has changed the reported rents for industrial properties from the hedonic TW Rents to the repeat-rent EA Asking Rents.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 4.0% for 2021, 3.7% for 2022, and 3.1% for 2023.

» Apartment Sector Fundamentals

- Even with continued strong construction activity over the past decade, the apartment sector continued to perform very well—vacancy rates decreased fairly steadily from 7.0% in 2009 to 4.1% in '19. Vacancy rates increased only slightly during the pandemic year of 2020 to 4.5%. Rates are expected to return to pre-pandemic levels over the over the forecast period, declining to 4.2% in '21 and reaching 4.1% in both '22 and '23.
- Rental rate growth had been strong over the last decade with some annual growth rates exceeding 4% and growth in the last two pre-pandemic years averaging 2.9%, all above the 20-year average. Rental rate growth fell by 4.2% in 2020. Growth in '21 is expected to exceed that of any single year in the last decade at 5%, remain elevated at 4.0% in '22, and just moderate somewhat to 3.0% in '23.

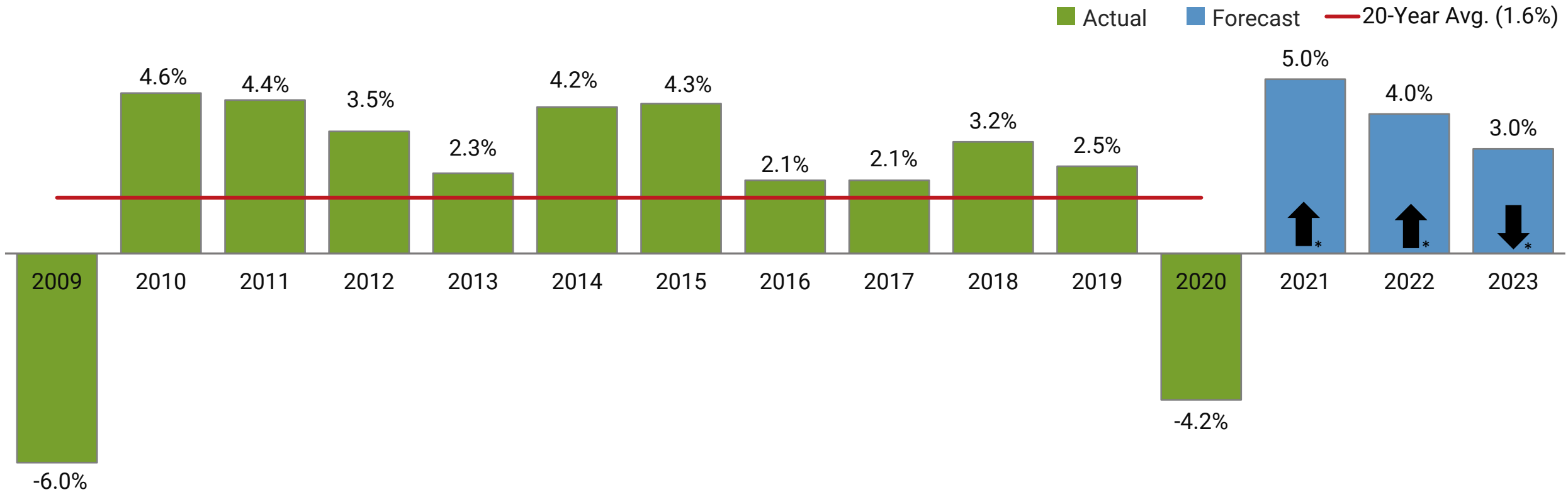
>> Apartment Vacancy Rates



Sources: 2001-2020 (Q4), CBRE; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 4.6% for 2021, 4.4 for 2022, and 4.2% for 2023.

» Apartment Rental Rate Change



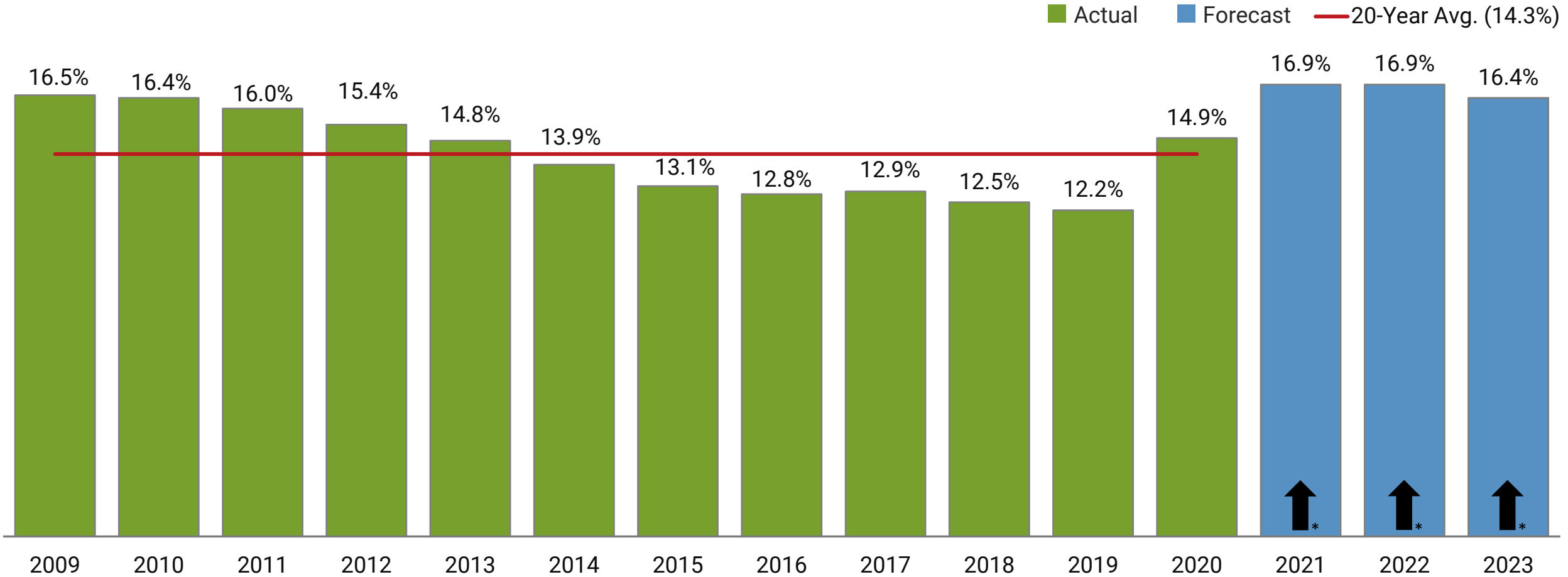
Sources: 2000-2020, CBRE; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 1.7% for 2021, 3.0% for 2022, and 3.1% for 2023.

» Office Sector Fundamentals

- Office vacancy rates reached a post-GFC low of 12.2% in 2019, below the 20-year average of 14.3%. Vacancy rates rose 270 basis points in '20 to 14.9%. Rates are expected to increase by an additional 200 basis points in '21 to 16.9%, remain at that level in 2022, and retreat just slightly in '23 to 16.4%.
- Growth in office rental rates had averaged 2.3% in the four years prior to the pandemic. In '20, rent growth was down 0.7%. An additional decline of 1.5% is forecast for '21 and no change is expected in '22. Growth is expected to be positive again in '23 at 1%.

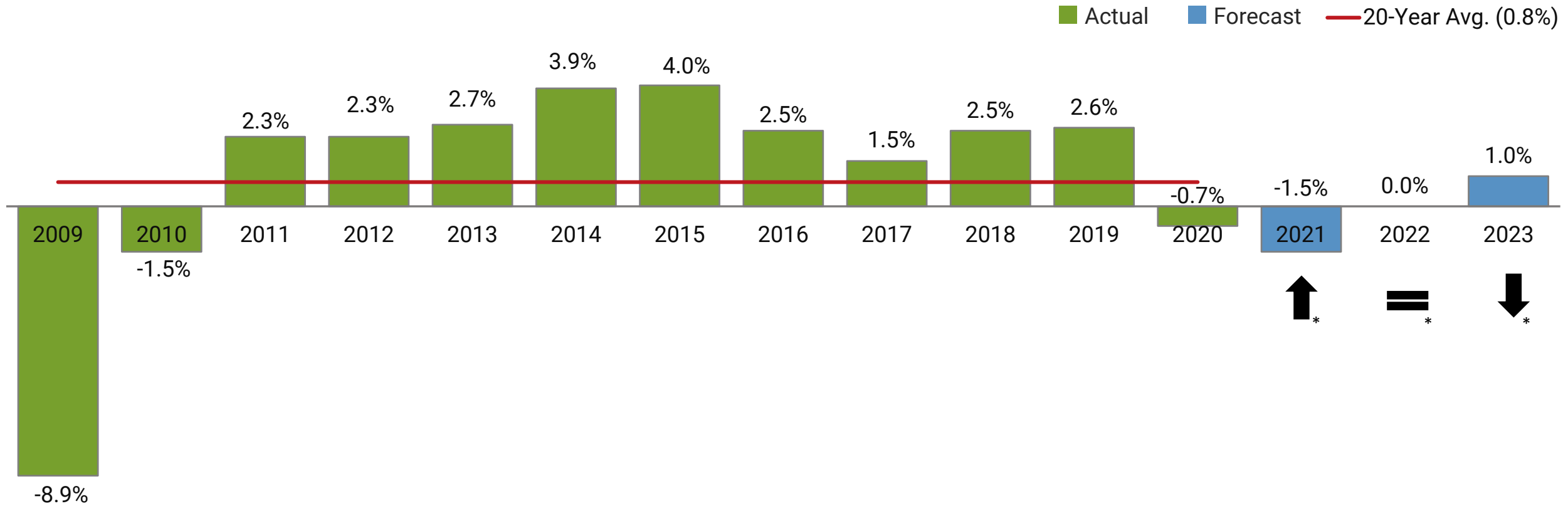
» Office Vacancy Rates



Sources: 2001-2020 (Q4), CBRE; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 16.5% for 2021, 16.4% for 2022, and 15.7% for 2023.

» Office Rental Rate Change



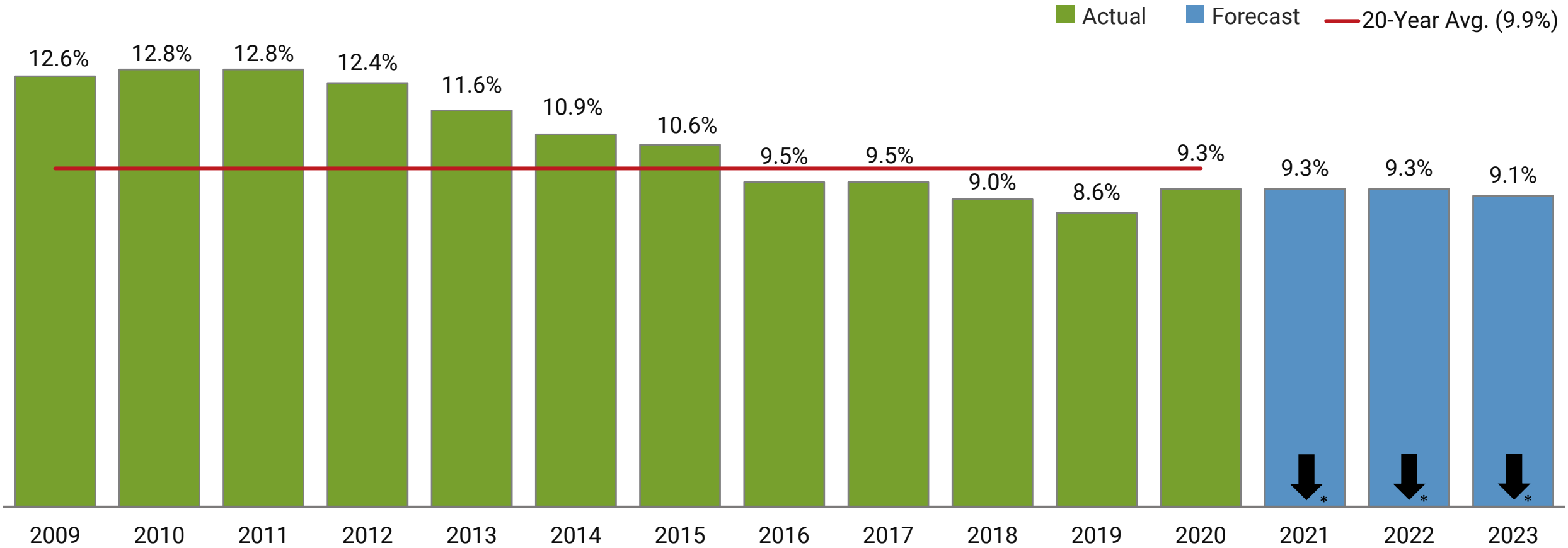
Sources: 2000-2020, CBRE; 2021-2023, ULI Real Estate Economic Forecast. Please note that as of 1Q 2021 CBRE has changed the reported rents for office properties from the hedonic TW Rents to the repeat-rent EA Asking Rents.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected -2.9% for 2021, 0% for 2022, and 2.0% for 2023.

» Retail Sector Fundamentals

- Retail availability rates were at 8.6% in '19, the lowest post-GFC rate. Despite the severe pandemic restrictions on retail, availability rates increased a relatively modest 70 basis points in 2020 to 9.3%. Availability rates are expected to plateau over the forecast years, remaining at 9.3% in '21 and '22 and declining only slightly to 9.1% by the end of '23.
- Retail rental rate growth reached a post-recession high of 2.5% in 2016 before moderating to 1.2% by '19 and '20. The forecast indicates minimal growth of 0.6% in 2021 and a return to relatively stronger growth of 1.5% in both '22 and '23.

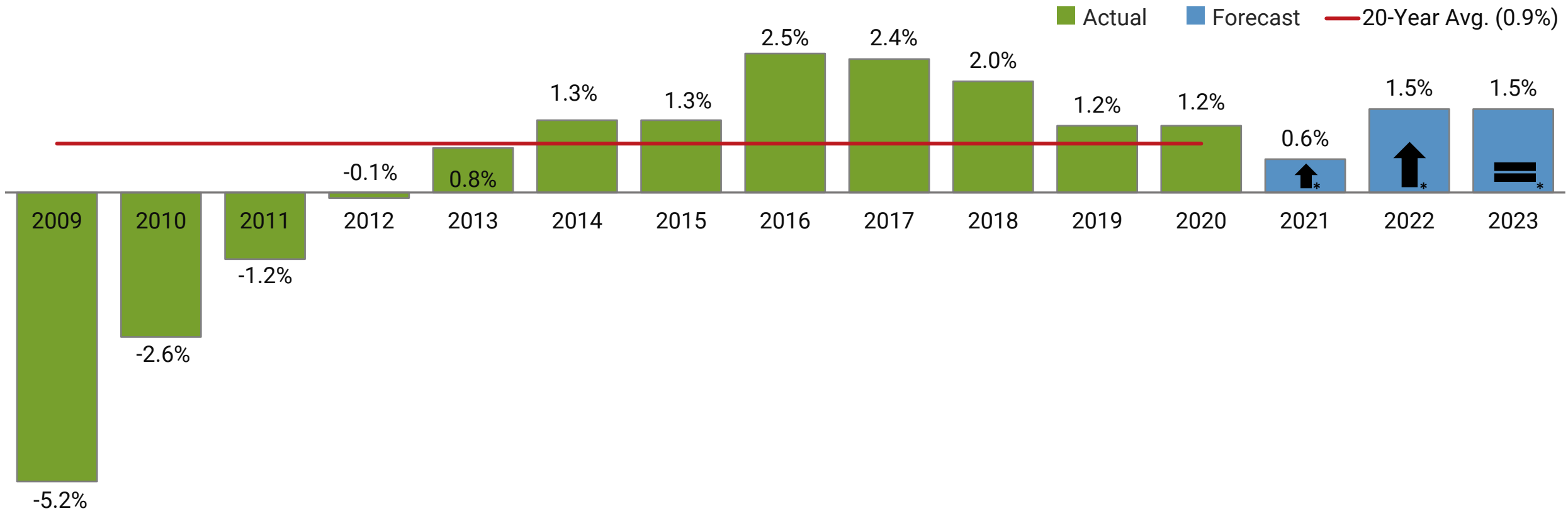
» Retail Availability Rates



Sources: 2001-2020 (Q4), CBRE; 2021-2023 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 10.0% for 2021, 9.8% for 2022, and 9.6% for 2023.

» Retail Rental Rate Change



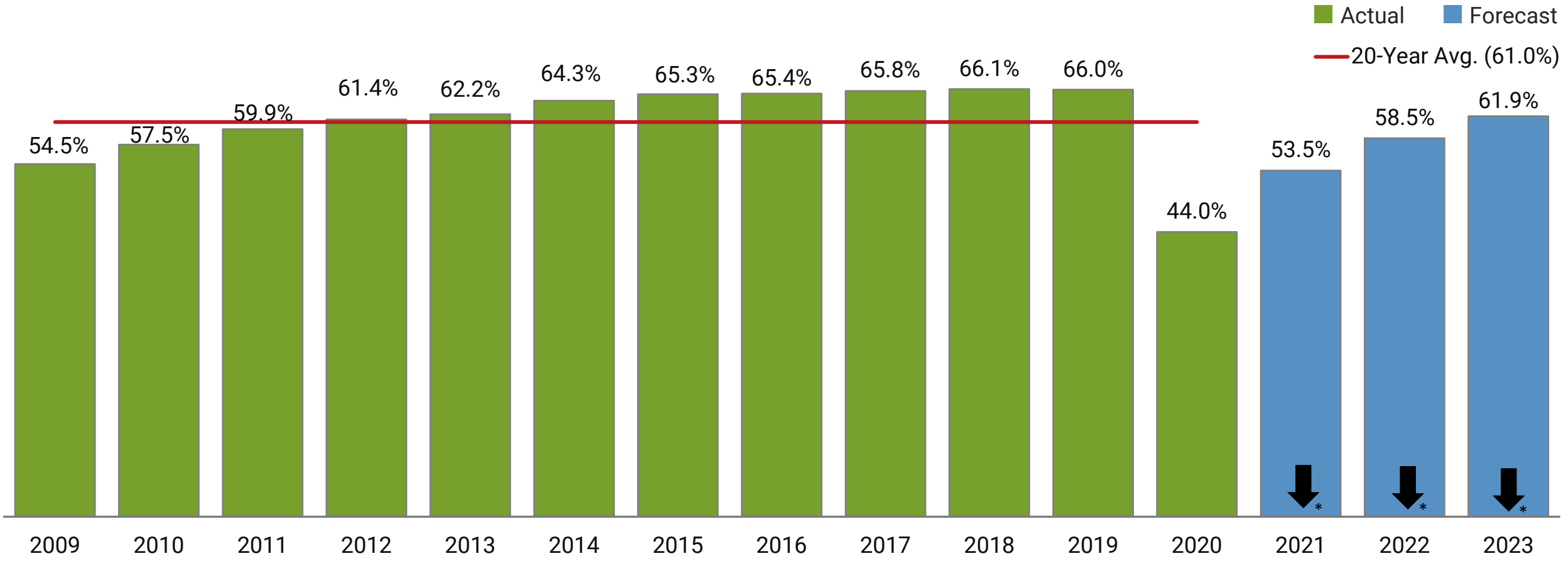
Sources: 2000-2020 (Q4), CBRE; 2021-2023, ULI Real Estate Economic Forecast. Please note that as of 2Q 2021 CBRE has changed the reported rents for retail properties from the hedonic TW Rents to the repeat-rent EA Asking Rents.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected -2.0% for 2021, 0.2% for 2022, and 1.5% for 2023.

» Hotel Sector Fundamentals

- Hotel occupancy rates, according to STR, were steadily improving over the last ten years, coming in at 66% in 2019, above the twenty-year average. Occupancy in the pandemic year of '20 fell to 44.0%. Continual improvement, although not full recovery, is expected during the forecast period, with occupancy rates of 53.5%, 58.5%, and 61.9%, respectively in '21, '22', and '23.
- Following four years of already slowing hotel revenue per available room (RevPAR) growth, the RevPAR growth rate dropped 47.4% 2020. RevPAR is expected to begin recovery in '21 at positive 5.0%, and continue in '22 at 12.2%, and 8.0% in '23. Given the steep decline in '20, these growth rates will clearly not yet be sufficient to bring RevPAR fully back to 2019 levels.

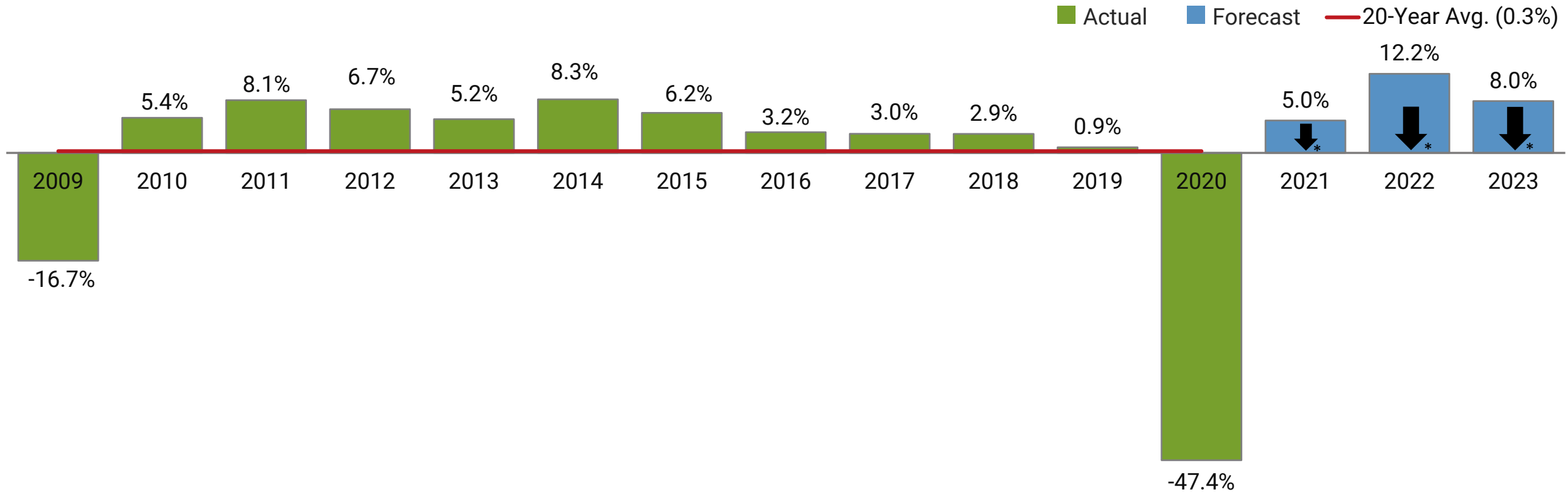
» Hotel Occupancy Rates



Sources: 2000-2020 (December, 12 month rolling average), STR; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 54.7% for 2020, 61.1% for 2021, and 64.7% for 2023.

» Hotel Revenue per Available Room (RevPAR) Change



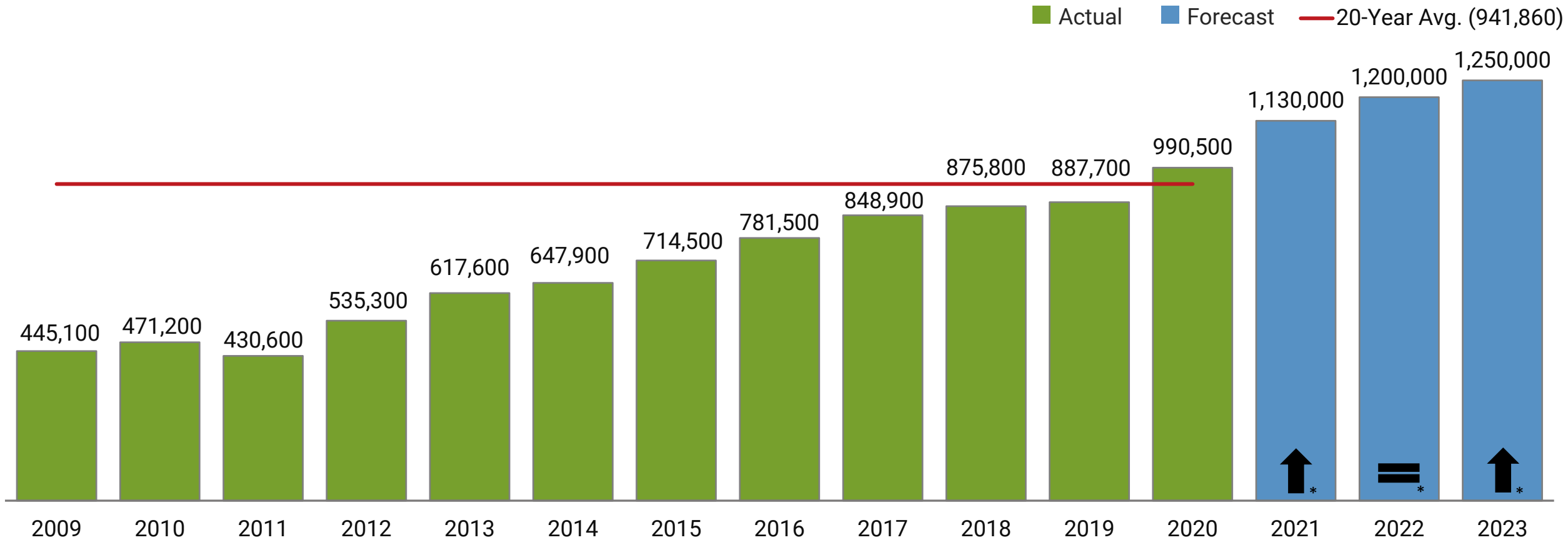
Sources: 2000-2020 (December, 12-month rolling average) STR; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 29.6% for 2021, 20.0% for 2022, and 10.0% for 2023.

»» Housing Sector

- Single-family housing starts experienced positive growth for the ninth straight year in 2020, exceeding the 20-year average in that pandemic year for the first time since the GFC. Housing starts are expected to continue to increase over the forecast years to 1.13 million in '21, 1.2 million in '22, and 1.25 million in '23.
- According to the FHFA, existing home prices increased an average of 11.6% in 2020, roughly double the strong growth rates of the eight years prior. Price growth is expected to continue at elevated levels in '21, with 10.9% price growth. Price growth is expected to remain strong but moderate in '22 at 6.4% and in '23 at 5.0%.

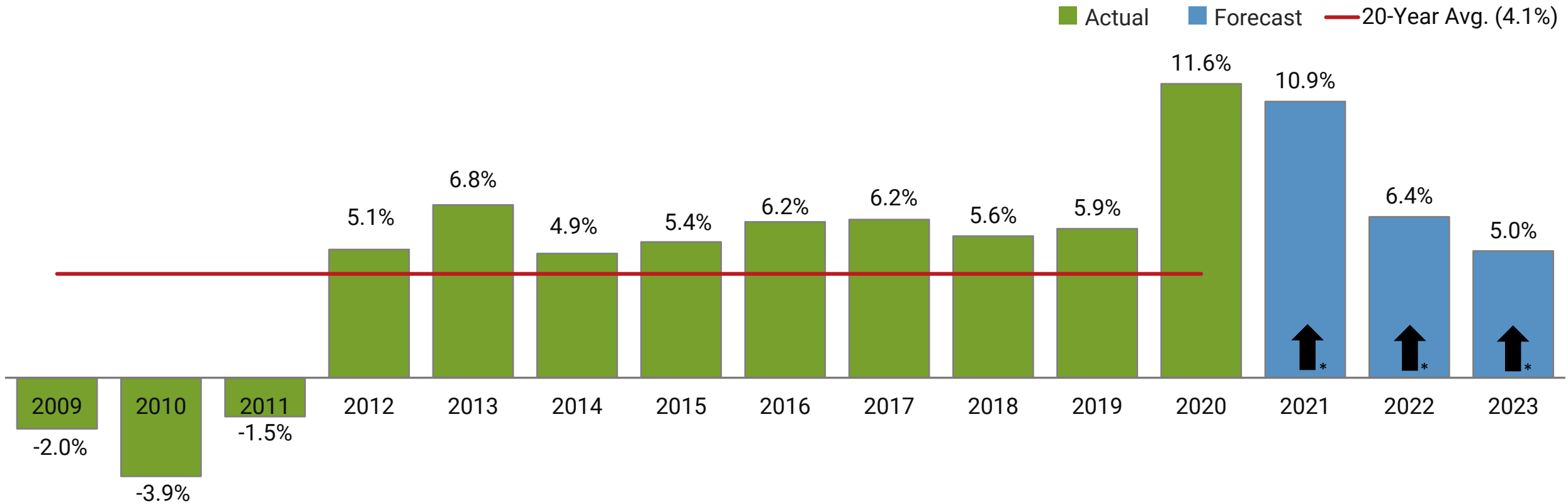
» Single-Family Housing Starts



Sources: 2001-2020, (structures with 1 unit, as of December), U.S. Census; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 1,100,000 for 2021, 1,200,000 for 2022, and 1,200,000 for 2023.

» Average Home Price Change



Sources: 2000-2020, (seasonally adjusted, as of December), Federal Housing Finance Agency; 2021-2023, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous ULI Real Estate Economic Forecast (released in May 2021) projected 8.1% for 2021, 5.0% for 2022, and 4.0% for 2023.

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
AEW Capital Management	Michael Acton	Managing Director
AvalonBay Communities	Craig Thomas	Senior Vice President
Berkshire Residential Investments	Gleb Nechayev	Head of Research
Black Creek Group	Glenn Mueller	Real Estate Investment Strategist
Bozzuto	Mark Franceski	Vice President, Research
Capital Economics	Kiran Raichura	Senior Property Economist
CCIM Institute	Kiernan C Conway	Chief Economist
Clarion Partners	Tim Wang	Head of Investment Research and Managing Director
CoreLogic	Frank Nothaft	Chief Economist
Cushman & Wakefield	Rebecca Rockey	Economist, Global Head of Economic Analysis & Forecasting
	Kevin Thorpe	Chief Economist, Americas
DWS	Kevin White	Head of Real Estate Research, Americas
Eigen10 Advisors, LLC	Paige Mueller	Managing Director
GID	Suzanne Mulvee	SVP Research & Strategy

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Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
Green Street	Dave Bragg	Co-Head of Strategic Research
	Jared Giles	Senior Associate
	Peter Rothmund	Senior Analyst
Harrison Street Real Estate Capital	Thomas Errath	Managing Director
Heitman	Maiko Adachi	SVP, Deputy Director of North American Research
	Jeffrey Bingham	Senior Vice President
	Mary Ludgin	Senior Managing Director, Head of Global Research
JLL	Benjamin Breslau	Chief Research Officer
	Ryan Severino	Chief Economist
JP Morgan Asset Management, Real E	Aric Chang	Executive Director, Research
Laposa Realty Advisors, LLC	Steven P. Laposa	Principal
LaSalle Investment Management	Richard Kleinman	Head of US Research and Strategy / Co-CIO Americas
Marcus & Millichap	John T. Chang	Senior Vice President, National Director Research Services
	Peter Tindall	Vice President, Director of Research Operations
MetLife Investment Management	William Pattison	Head of Real Estate Research

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Organization	Lead Economist/Analyst	Title
Moody's Analytics REIS	Victor Calanog	Head of Commercial Real Estate
Nareit	Calvin Schnure	Senior Economist
National Association of Realtors(r)	Lawrence Yun	Chief Economist
Oxford Economics	Aran Ryan	Tourism Economics, Director, Lodging Analytics
PGIM Real Estate	Lee Meniffee	Head of Americas Investment Research
PNC Economics	Augustine Faucher	Chief Economist
	Stuart Hoffman	Senior Vice President and Chief Economist
	Abbey Omodunbi	Senior Economist
PwC, LLP	Andrew Warren	Director Real Estate Research
RCLCO Financial Advisors	Gadi Kaufmann	Managing Director/CEO
	Taylor Mammen	CEO, RCLCO Fund Advisors
	William Maher	Director, Strategy & Research
Rosen Consulting Group	Ken Rosen	Chairman
	Randall Sakamoto	President

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Organization	Lead Economist/Analyst	Title
SitusAMC Insights	Jodi Airhart	Senior Vice President
	Ken Riggs	Vice Chairman
Stockbridge Associates, LLC	George Casey	CEO
Transwestern	Doug Prickett, CCIM, CRE	Senior Managing Director
Trepp, Inc.	Matthew Anderson	Managing Director
Unity Medical Properties REIT, LLC	Dr. David Lynn	CEO and Founder

Urban Land Institute

About the Urban Land Institute

The Urban Land Institute is a global, member-driven organization comprising more than 45,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide. For more information, please visit www.uli.org.

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ULI Real Estate Economic Forecast

A SURVEY OF LEADING REAL ESTATE ECONOMISTS/ANALYSTS

OCTOBER 2021

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