ULI Real Estate Economic Forecast

A Survey of Leading Real Estate Economists/Analysts

uli.org/economicforecast

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ULI Center for Capital Markets and Real Estate

Urban Land Institute
ULI Center for Capital Markets and Real Estate

ULI Real Estate Economic Forecast

- Three-year forecast ('20 -'22) for 27 economic and real estate indicators.
- A consensus forecast based on the median of the forecasts from 43 economists/analysts at 37 leading real estate organizations.
- Respondents represent major real estate investment, advisory, and research firms and organizations.
- This is the 18th survey; completed September 25– October 9, 2020.
- A semi-annual survey; next release planned for May 2021.
- 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

Forecasts vs. Long-Term Averages

2020 Forecast

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

2022 Forecast

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

Key Findings

- Commercial real estate transaction volume reached $593 billion in 2019, a post-Great Financial Crisis peak. Volume is expected to be about 50% lower in 2020 with a forecast of $300 billion. Forecasts for ‘21 and ’22 show growth again with transactions at $400 billion and $500 billion, respectively.

- Overall, commercial property prices are expected to drop by 2% in 2020, plateau in ‘21 and then resume growth in ‘22 at a 4% growth rate.

- Institutional real estate assets are expected to provide total returns of -1.7% in ‘20, but returns are forecast to turn positive in ‘21 and ’22, at 3% and 5.6%, respectively. By property type, 2020 returns are forecast to range from industrial’s 4.5% to retail’s -9.9%. In ‘22, returns are forecast to range from industrial’s 10% to retail’s 2%.

- Change in vacancy and availability rates differ widely by property type. In 2020, industrial availability is forecast to move up 50 basis points, while apartments are forecast to move up 100 basis points and both office and retail are forecast to move up 200 basis points. In ’21, industrial availability is expected to reverse direction and notch down slightly, apartment vacancy notches up slightly, and both office and retail vacancy rates continue to increase, albeit more moderately. In ’22, all sectors show slight improvement, with the exception of retail which remains unchanged over ‘21.

- Commercial property rent growth differs widely by property type, as well. In 2020, industrial rent growth is forecast to be 1.0%, while apartments, office and retail are forecast at -2.5%, -2.4%, and -4.0%, respectively. In ‘21, both the industrial and multifamily sectors experience positive growth, at 2.1% and 0.1%, respectively, while office rental rate growth is -1.0% and retail is -2.8%. By ‘22, positive rental growth is forecast for all sectors, ranging from 3.3% in the industrial sector to 1.9% in the office sector. The exception is the retail sector that plateaus in ‘22.

- Single-family housing starts are projected to be down slightly from ‘19 to 871,000 starts in 2020. Starts are expected to sharply reverse direction in 2021, increasing to 940,000 and to 975,000 in ’22, finally exceeding the long-term average for the first time since the GFC.

Economy

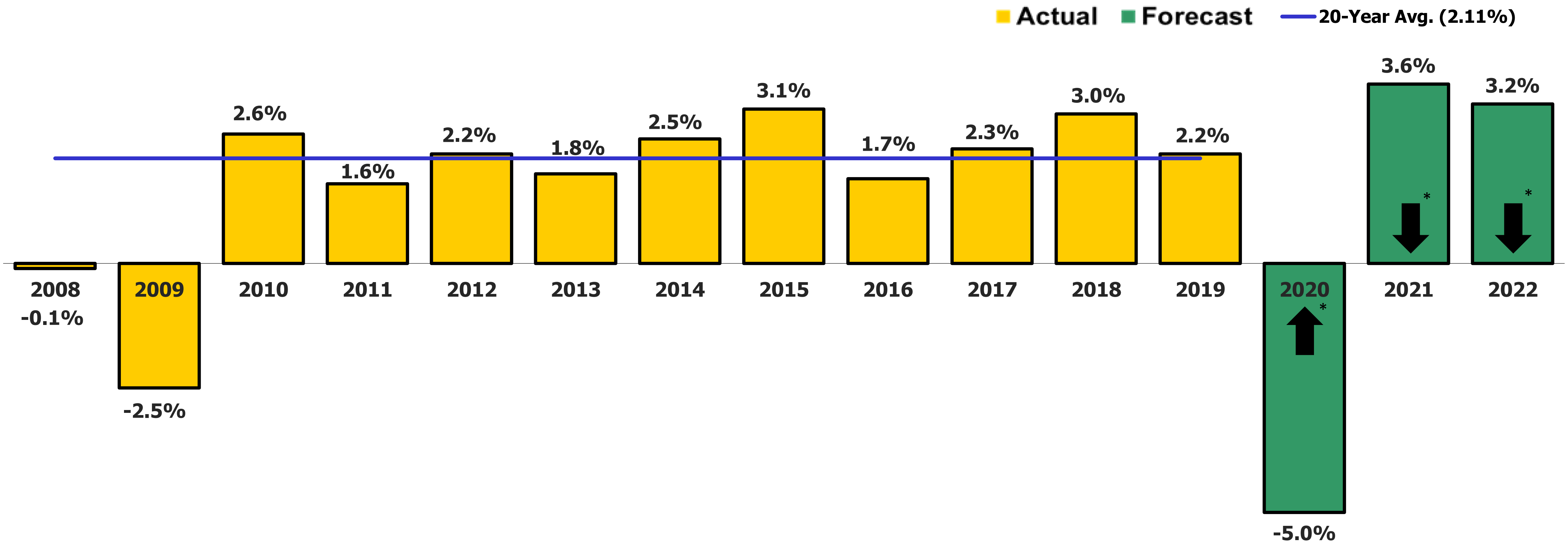
- The COVID-19 pandemic brought broad segments of the economy to a halt for various periods of time in 2020. The economists/analysts forecast a severely impacted 2020, and strong recovery activity in ‘21 and ’22.

- GDP growth was 2.2% in 2019, down from the 3.0% growth in ’18, although both years were above the 20-year average growth rate. GDP is forecast to fall by 5.0% in 2020. A bounce-back is expected in ‘21 and ‘22, with forecast GDP growth of 3.6% and 3.2%, exceeding annual growth rates of the last ten years.

- Net employment growth is expected to be negative 9 million in 2020 (full year). A strong, although not full, job recovery of a total of 6.5 million jobs is expected by ’22 (3.5 million jobs in ‘21 and 3.0 million jobs in ‘22).

- The unemployment rate is expected to be 8.0% at the end of 2020, declining significantly by the end of ‘21 to 6.6% and then to 5.5% in ‘22. This would not yet reach the low unemployment rate of 3.5% in 2019.

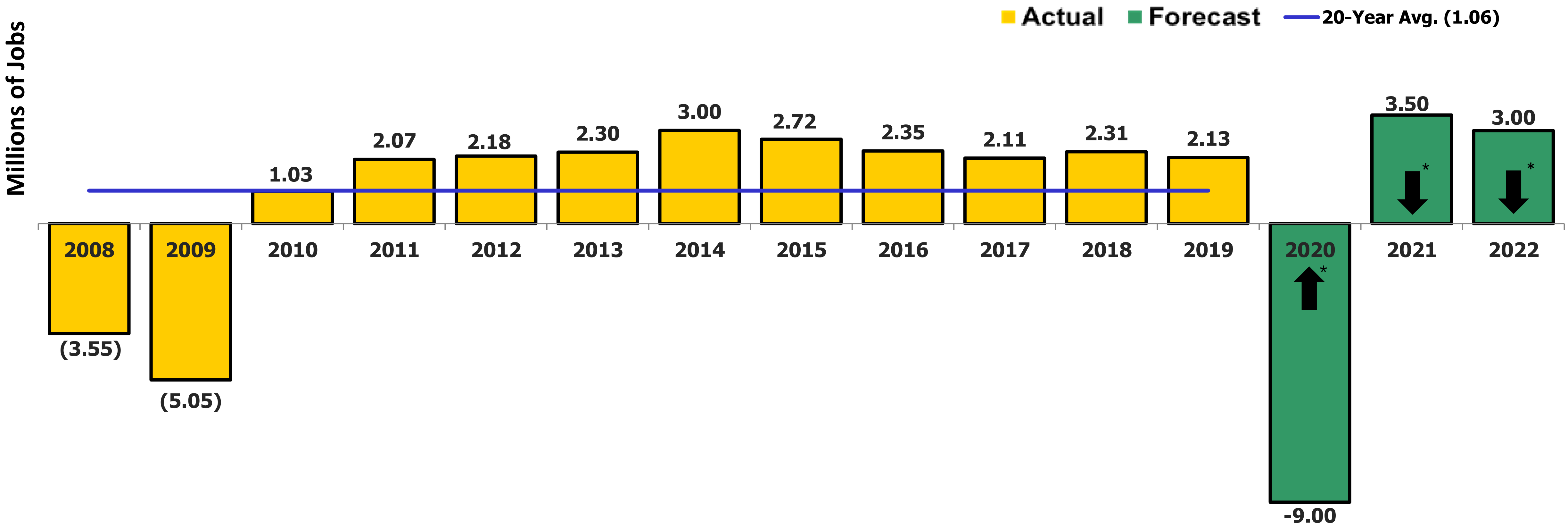
Real GDP Growth



Sources: 2000-2019, Bureau of Economic Analysis; 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -6.0% for 2020, 3.9% for 2021, and 3.6% for 2022.

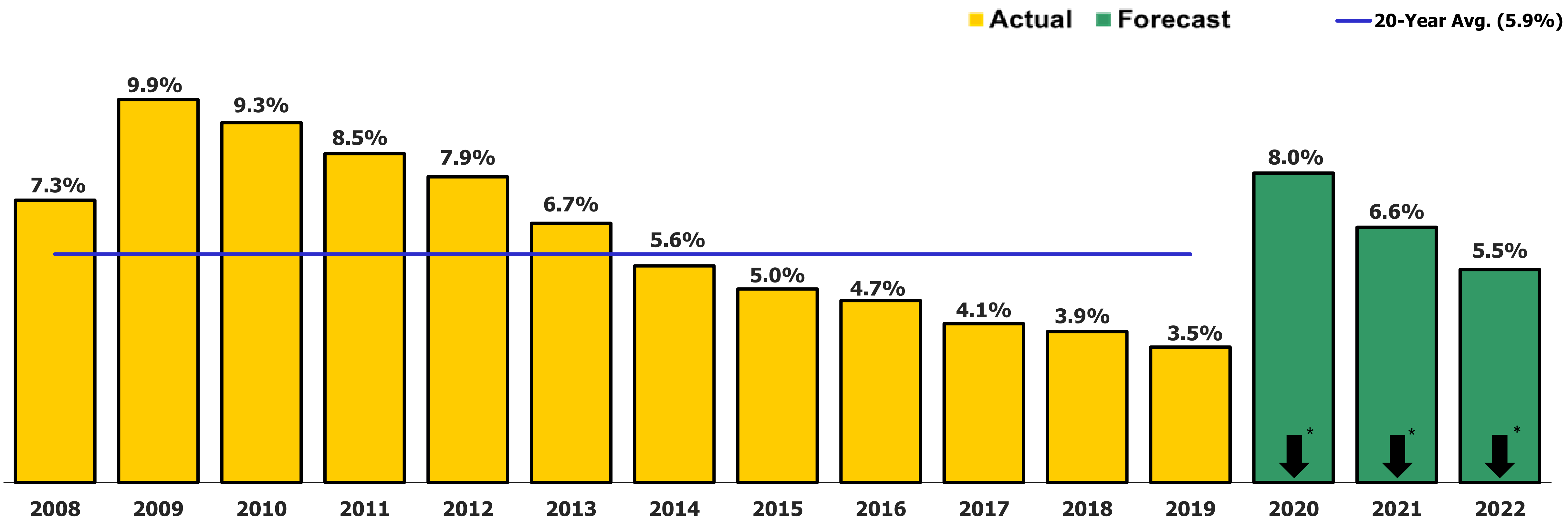
Employment Growth (Millions)



Sources: 1999-2019, Bureau of Labor Statistics; 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -10.00M for 2020, 4.00M for 2021, and 4.00M for 2022.

Unemployment Rate



Sources: 2000-2019, (seasonally adjusted, as of December), Bureau of Labor Statistics; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 11.3% for 2020, 7.9% for 2021, and 5.9% for 2022.

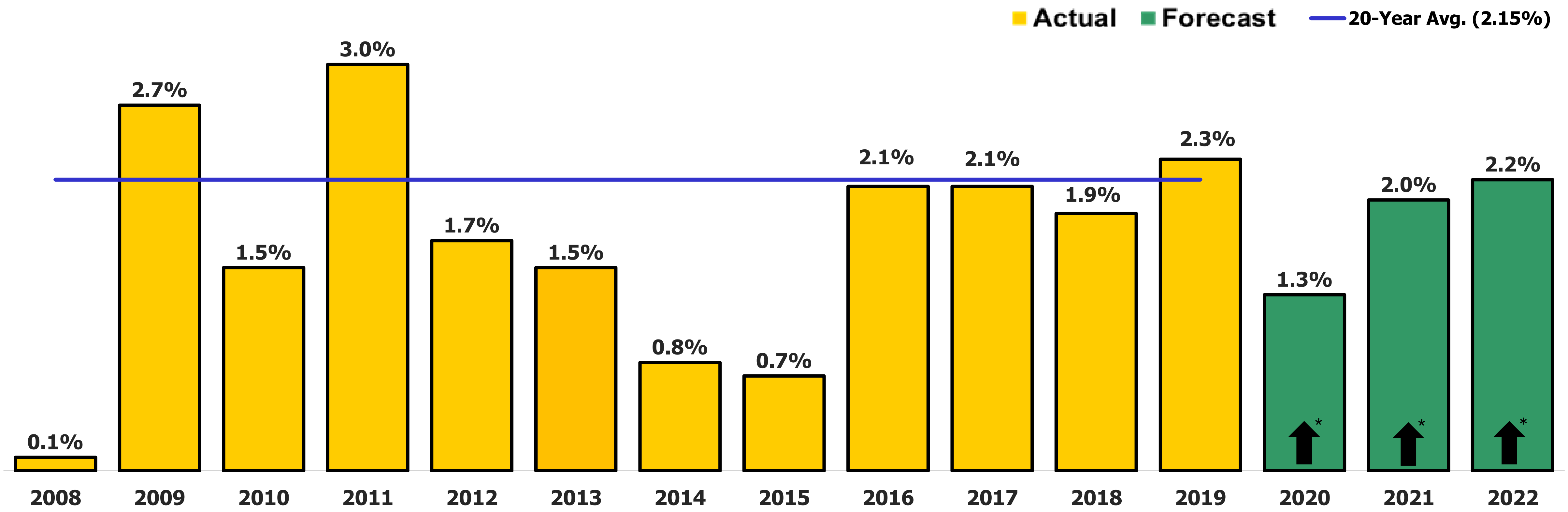
Inflation, Interest Rates, and Cap Rates

- The CPI inflation rate in 2019 was 2.3%, exceeding the 20-year average for the first time in 8 years. The forecast for 2020 is for low inflation at 1.3%, rising to 2.0% in ’21, and reaching the long-term average of 2.2% in’22.

- The ten-year treasury rate has averaged 2.3% per year over the last nine years. It is expected to be unusually low in 2020, at 0.8%, rising only to 1.0% in ‘21, and 1.5% in ‘22.

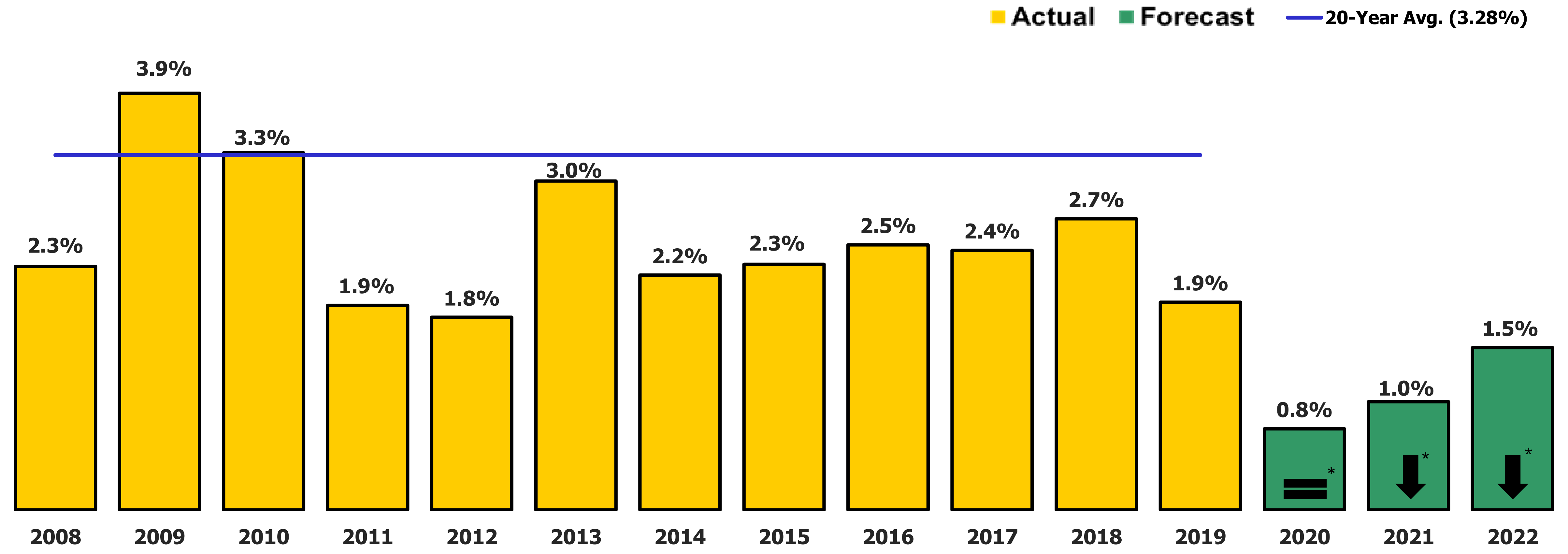
- Capitalization rates for institutional-quality investments (NCREIF cap rates) have steadily declined for 10 years, and were at 4.7% in ‘19. Cap rates are expected to remain low at 4.8% in all three forecast years.

Consumer Price Index Inflation Rate



Sources: 2000-2019, (12-month change, as of December), Bureau of Labor Statistics; 2020-2022 (YE), ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 0.5% for 2020, 1.8% for 2021, and 2.0% for 2022

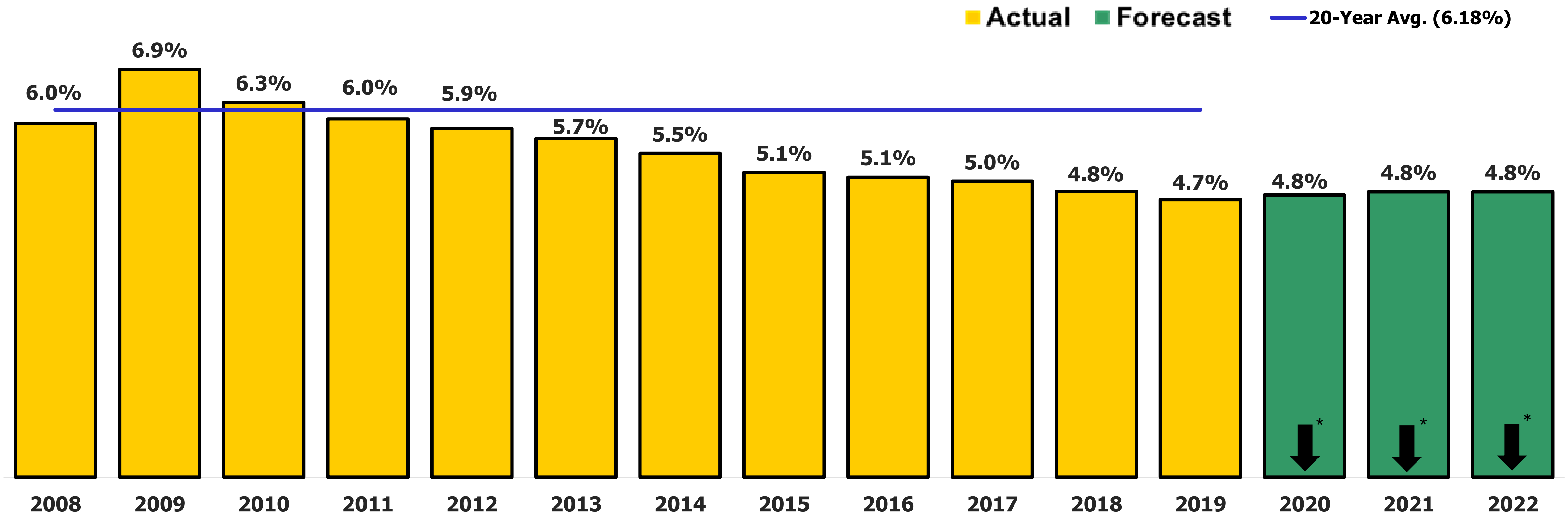
Ten-Year Treasury Rate



Sources: 2000-2019 (YE), U.S. Federal Reserve; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 0.8% for 2020, 1.3% for 2021, and 1.7% for 2022.

NCREIF Capitalization Rate



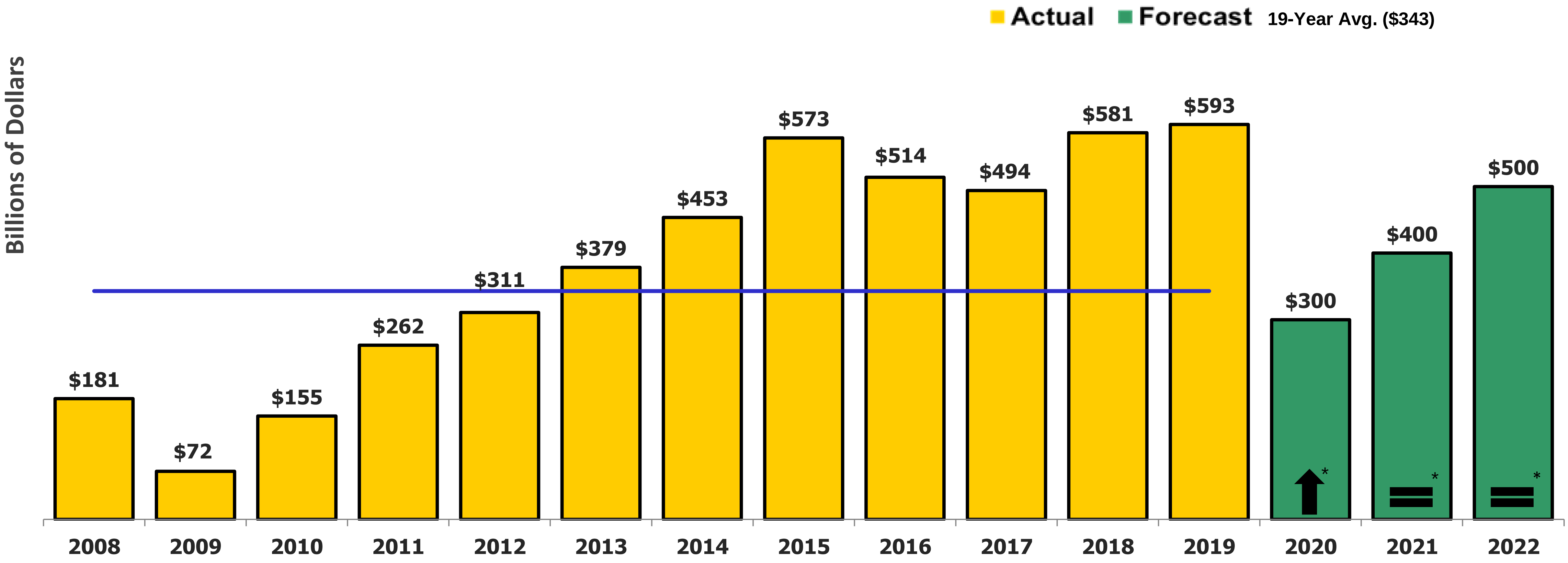
Sources: 2000-2019, Q4, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022 (YE), ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 5.1% for 2020, 5.1% for 2021, and 4.9% for 2022.

Real Estate Capital Markets

- Commercial real estate transaction volume reached $593 billion in 2019, a post-Great Financial Crisis peak. Volume is expected to be about 50% lower in 2020 with a forecast of $300 billion. Forecasts for ‘21 and ’22 show growth to $400 billion and $500 billion, respectively.

- Issuance of commercial mortgage-backed securities (CMBS), a source of financing for commercial real estate, has 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 is expected to fall by about half in 2020, with a forecast of $50 billion. Forecasts for ‘21 and ‘22 show growth to $60 billion and $83 billion, respectively.

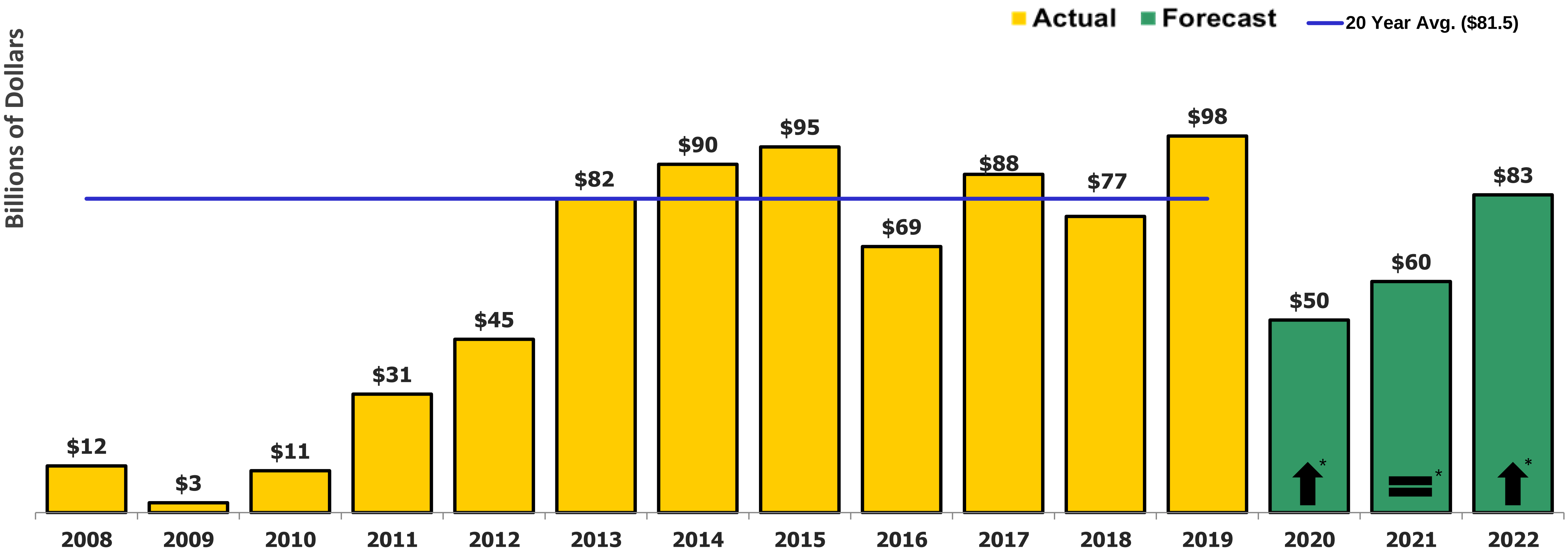
Commercial Real Estate Transaction Volume



Sources: 2001-2019, Real Capital Analytics (RCA); 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected $275B for 2020, $400B for 2021, and $500B for 2022.

Commercial Mortgage-Backed Securities (CMBS) Issuance



Sources: 2000-2019, Commercial Mortgage Alert; 2020-2022, ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected $45B for 2020, $60B for 2021, and $80B for 2022.

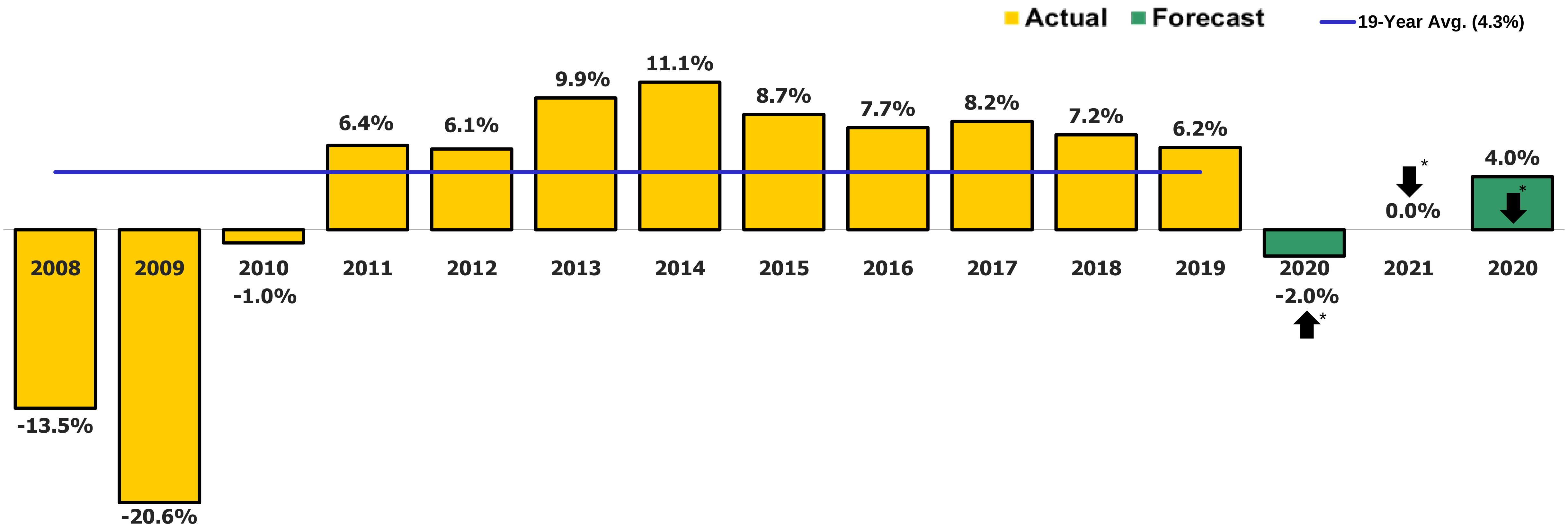
Real Estate Returns and Prices

- The RCA Commercial Property Price Index (CPPI) has experienced strong growth over the last nine years, staying consistently above 6 percent annually. Prices are expected to drop by 2% in 2020, remaining at that level with no change in ‘21 and then resuming growth in ‘22 with a 4% growth rate.

- Equity REIT total returns in 2019, according to NAREIT, were strong in 2019, at 26%. Returns are forecast at -12% in 2020, followed by positive returns of 6.5% and 8.0%, respectively, in ‘21 and ‘22.

- Total returns for institutional-quality direct real estate investments, as measured by the NCREIF Property Index (NPI), were positive for the tenth straight year in 2019 at 6.4%, though below the long-term average of 9.1% for the fourth straight year. Total returns are forecast to be -1.7% in 2020, but reverse direction in 2021 for positive growth of 3.0% and continue to improve in 2022 at 5.6%.

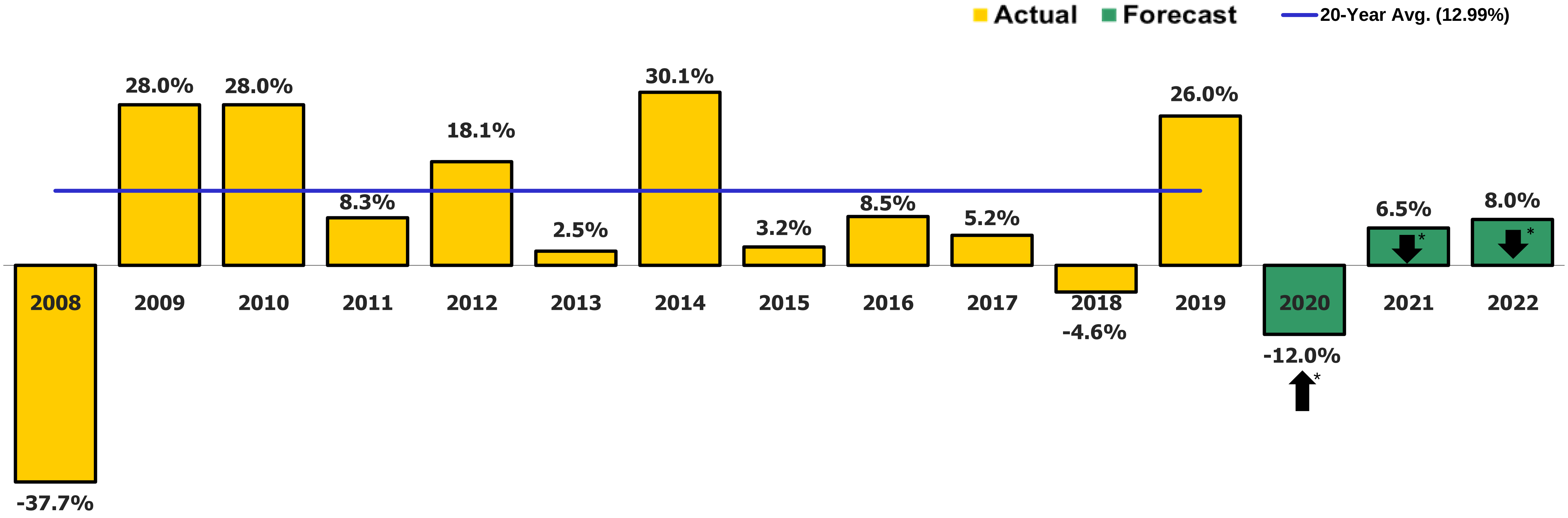
RCA Commercial Property Price Index (annual change)



Sources: 2000-2019, Real Capital Analytics (RCA); 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -7.0% for 2020, 1.0% for 2021, and 5.0% for 2022.

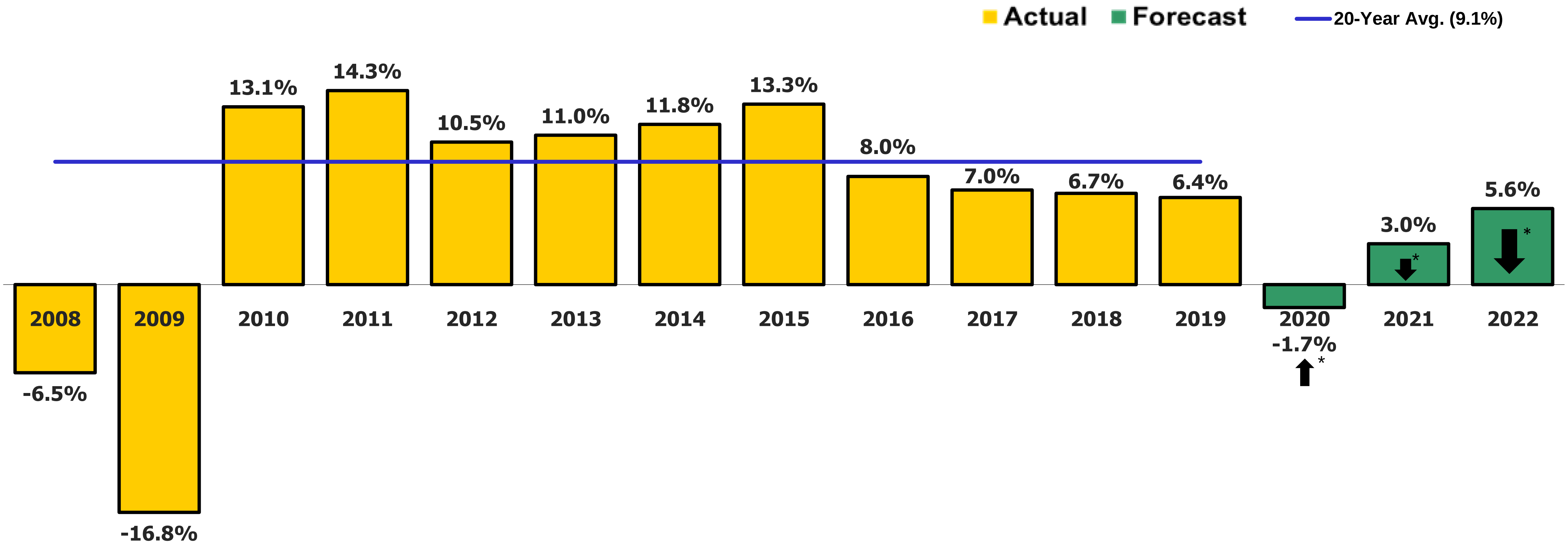
Equity REIT Total Annual Returns



Sources: 2000-2019, National Association of Real Estate Investment Trusts; 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -18.0% for 2020, 10.0% for 2021, and 10.0% for 2022.

NCREIF Total Annual Returns



Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -5.0% for 2020, 3.2% for 2021, and 6.7% for 2022.

NCREIF Returns by Property Type

- NCREIF total returns in 2020 for the industrial sector in 2020 are expected to be positive, the only sector for which this is the case. Still, at 4.5%, this is a significant decline from industrial returns in 2019 of 13.4% and well below its long-term average of 10.4%. Apartment returns for 2020 are expected to be flat, while office and retail returns for 2020 are both forecast to be negative, at -2% and -9.9%, respectively.

- Industrial total returns are forecast to continue to increase in ‘21 and ‘22, at 6.2% and 10%, respectively, not yet returning to the recent growth rates experienced prior to the pandemic.

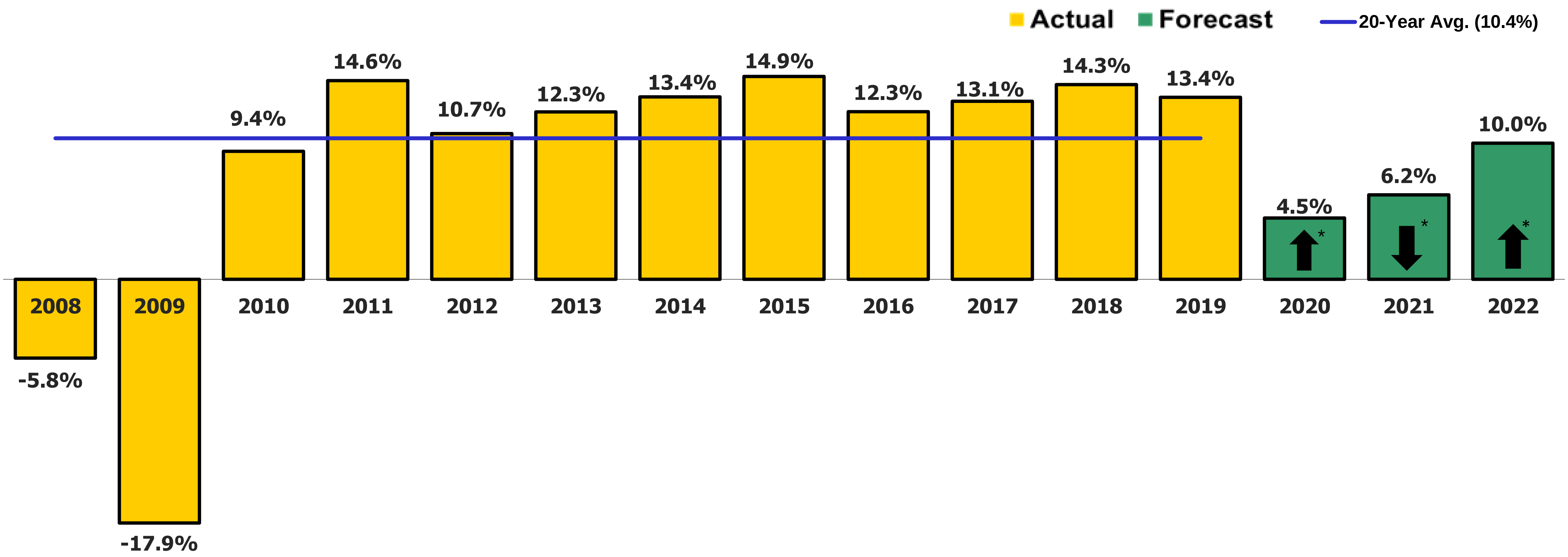
- Apartment and office total returns are forecast to turn positive in ’21, at 4% and 0.3%, respectively and continuing to gain strength in ’22, at 6.0% and 4.3%, respectively.

- Retail total returns are expected to further decline in 2021 by 4.0%, and then experience positive growth in 2022 of 2%.

NCREIF Property Types Total Returns

Source: 2020-2022, ULI Real Estate Economic Forecast.

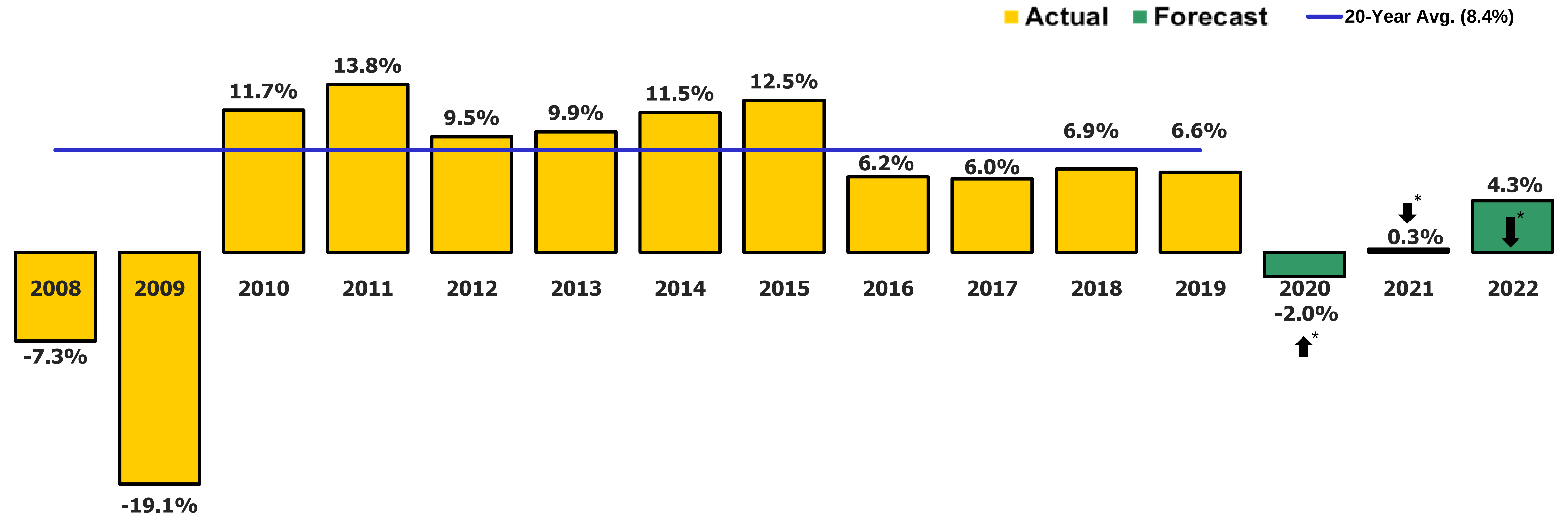
NCREIF Industrial Total Annual Returns



Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.

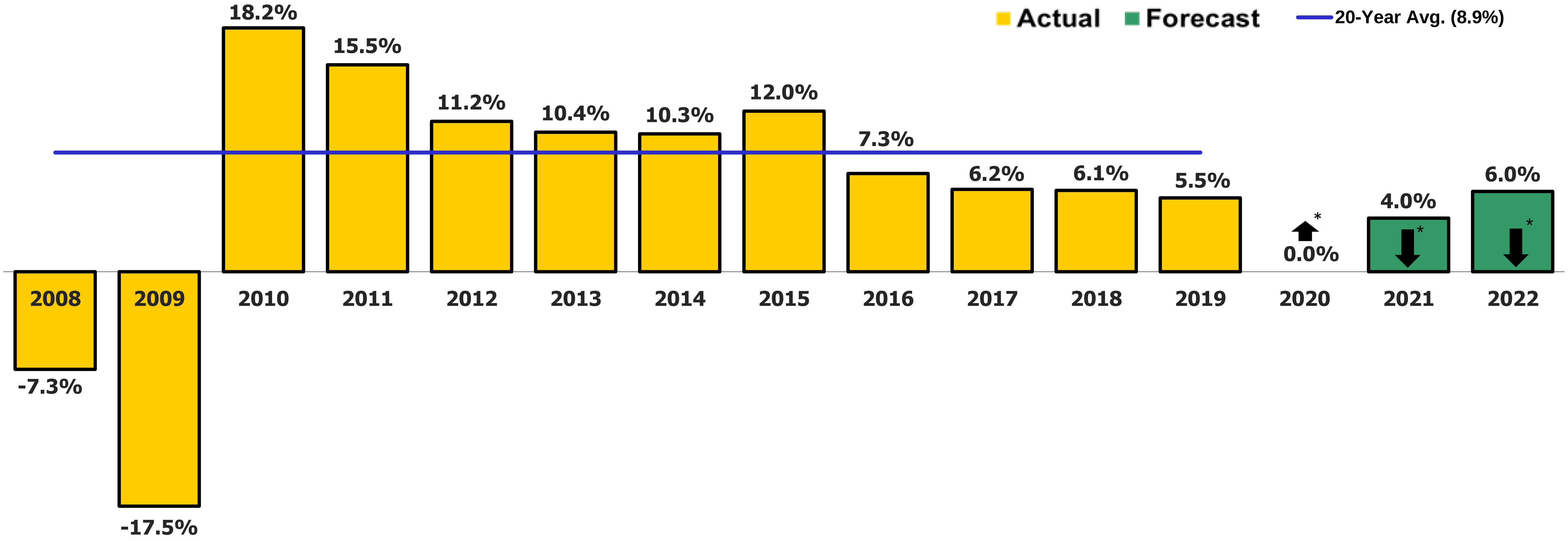
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 2.0% for 2020, 7.0% for 2021, and 9.0% for 2022.

NCREIF Office Total Annual Returns



Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) -5.9% for 2020, 1.0% for 2021, and 5.0% for 2022.

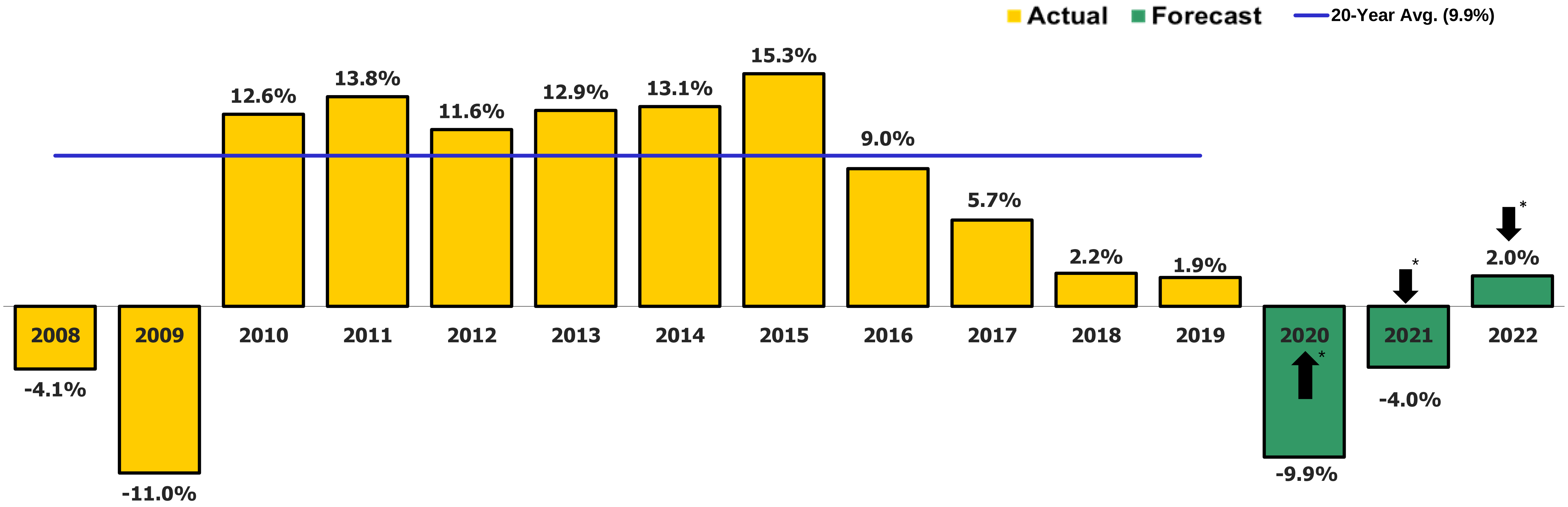
NCREIF Apartment Total Annual Returns



Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -3.0% for 2020, 5.0% for 2021, and 7.5% for 2022.

NCREIF Retail Total Annual Returns

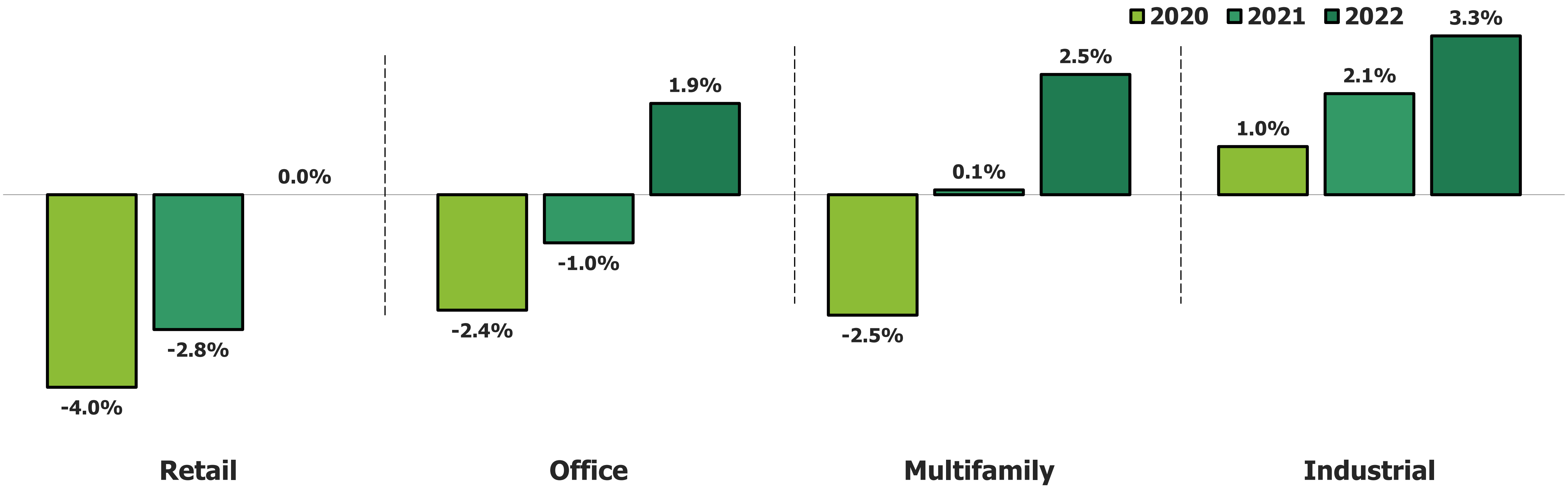


Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -12.0% for 2020, -2.5% for 2021, and 5.0% for 2022.

Vacancy Rate Change 2019-2022 (bps)

Source: 2020-2022, ULI Real Estate Economic Forecast.

Rental Rate Growth 2019-2022



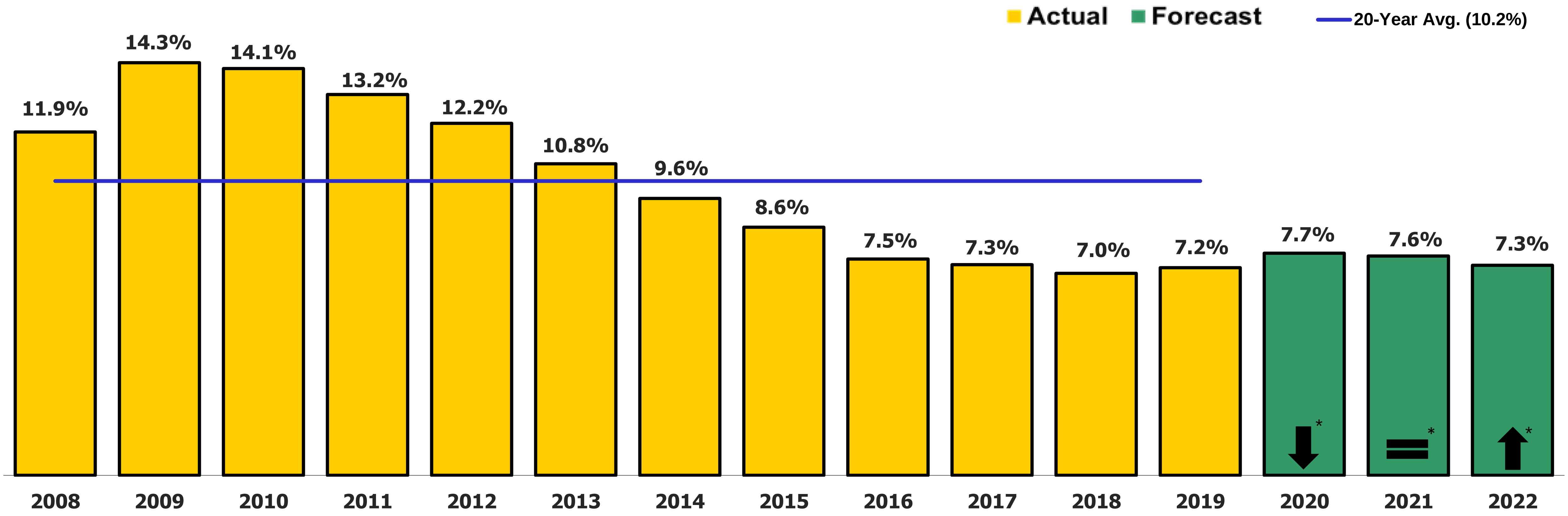
Source: 2020-2022, ULI Real Estate Economic Forecast.

Industrial/Warehouse Sector Fundamentals

- The availability rate for the industrial/warehouse sector declined for the ninth straight year in 2018, to 7.0%, before notching up to 7.2% in 2019, staying well-below the 20-year average of 10.2%. The forecast indicates only a 50 basis point increase in 2020, with slight declines in both subsequent forecast years, down to 7.3% in '22.

- Warehouse rental rate growth in the last seven years has been substantially above the long-term average of 1.1%. Rent growth in 2020 is expected to be 1.0% and 2.1% and 3.3%, respectively, in '21 and '22.

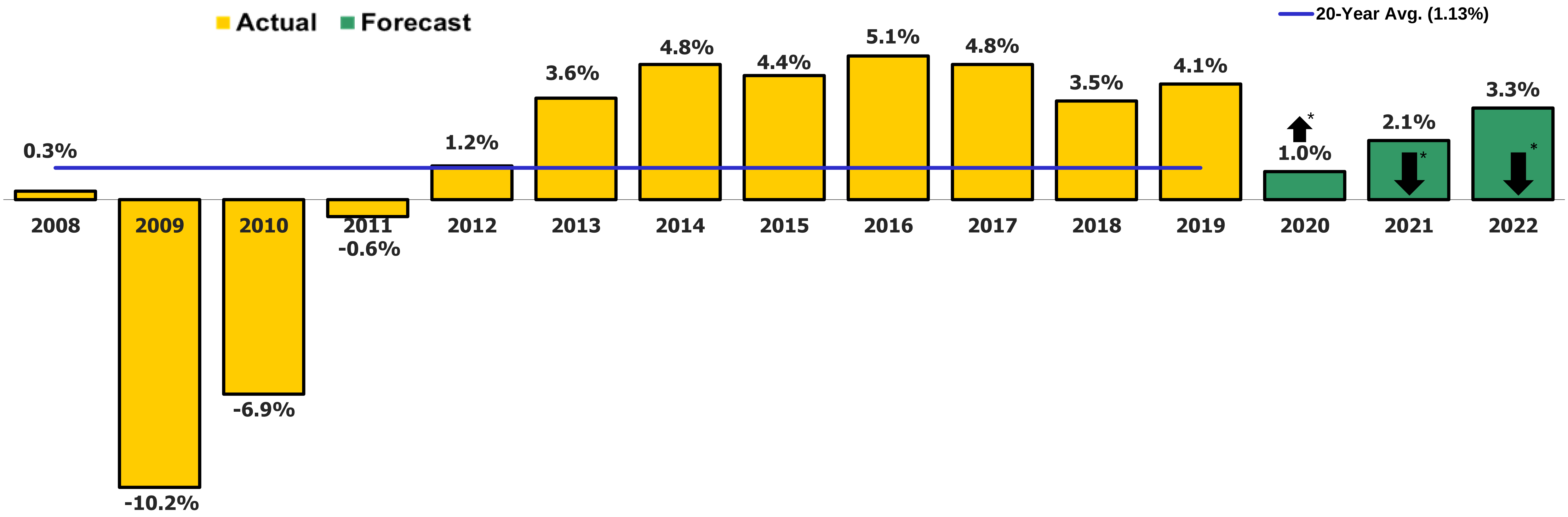
Industrial/Warehouse Availability Rates



Sources: 2000-2019 (Q4), CBRE; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 7.8% for 2020, 7.6% for 2021, and 7.2% for 2022.

Industrial/Warehouse Rental Rate Change



Sources: 1999-2019, CBRE; 2020-2022, ULI Real Estate Economic Forecast.

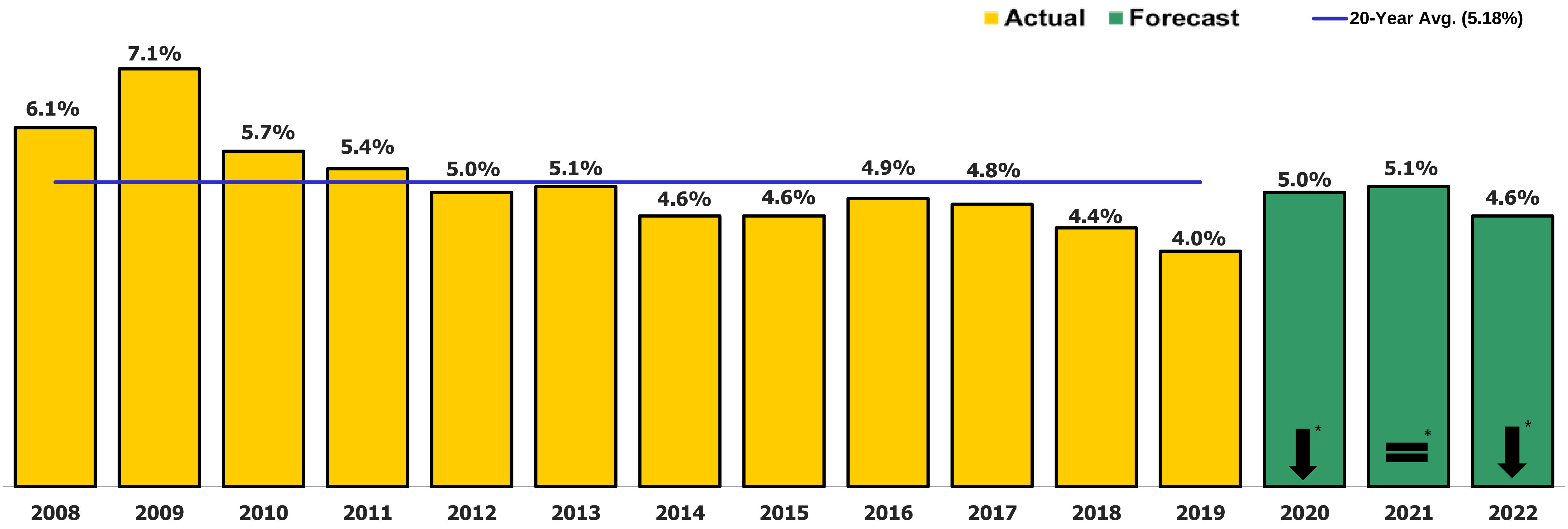
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast**.** The previous forecast (released in May, 2020) projected 0.0% for 2020, 2.5% for 2021, and 4.0% for 2022.

Apartment Sector Fundamentals

- Even with continued strong construction activity over the past decade, the apartment sector continued to perform very well, with vacancy rates decreasing fairly steadily from 7.1% in 2009 to 4.0% in ‘19. Vacancy rates are now expected to increase by 100 basis points in 2020 to 5.0% and notch up to 5.1% in ‘21 before declining again in ‘22, to 4.6%.

- Rental rate growth has been strong over the last decade with some annual growth rates exceeding 4%. Growth in the last two years averaged 2.9%, remaining above the 20-year average. The forecast for 2020 is -2.5% growth and remaining almost flat in ‘21 with a positive growth of just 0.1%. Stronger growth of 2.5% is expected in ‘22, marking a return to above long-term average growth rates.

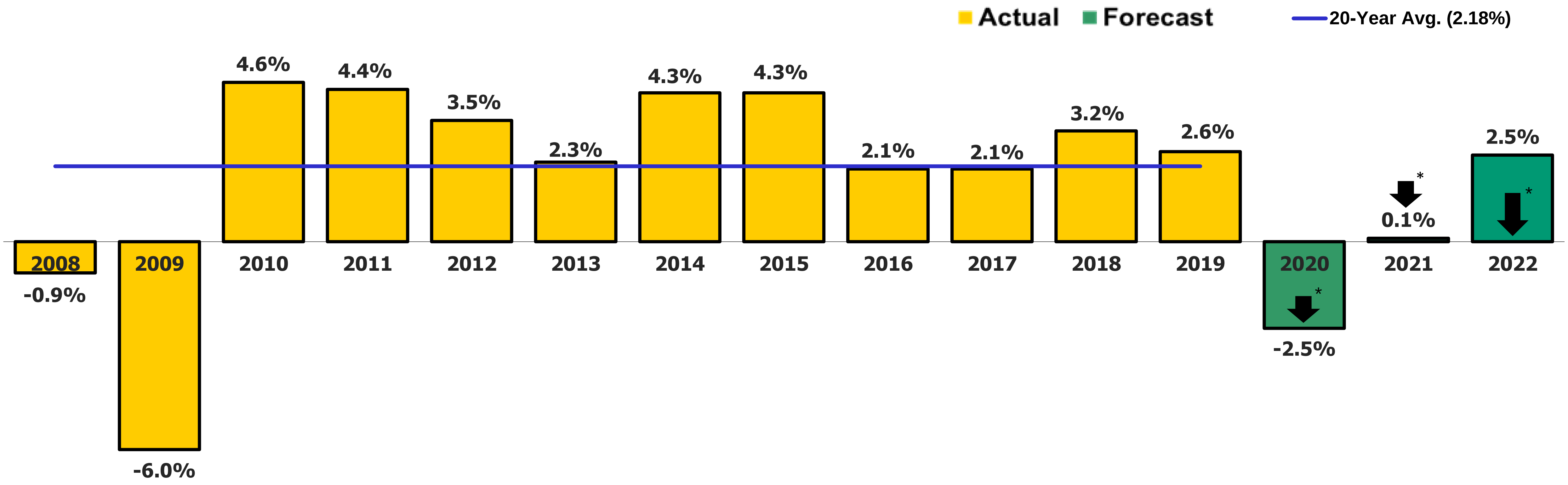
Apartment Vacancy Rates



Sources: 2000-2019 (Q4), CBRE; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 5.1% for 2020, 5.1% for 2021, and 4.7% for 2022.

Apartment Rental Rate Change



Sources: 1999-2019, CBRE; 2020-2022, ULI Real Estate Economic Forecast.

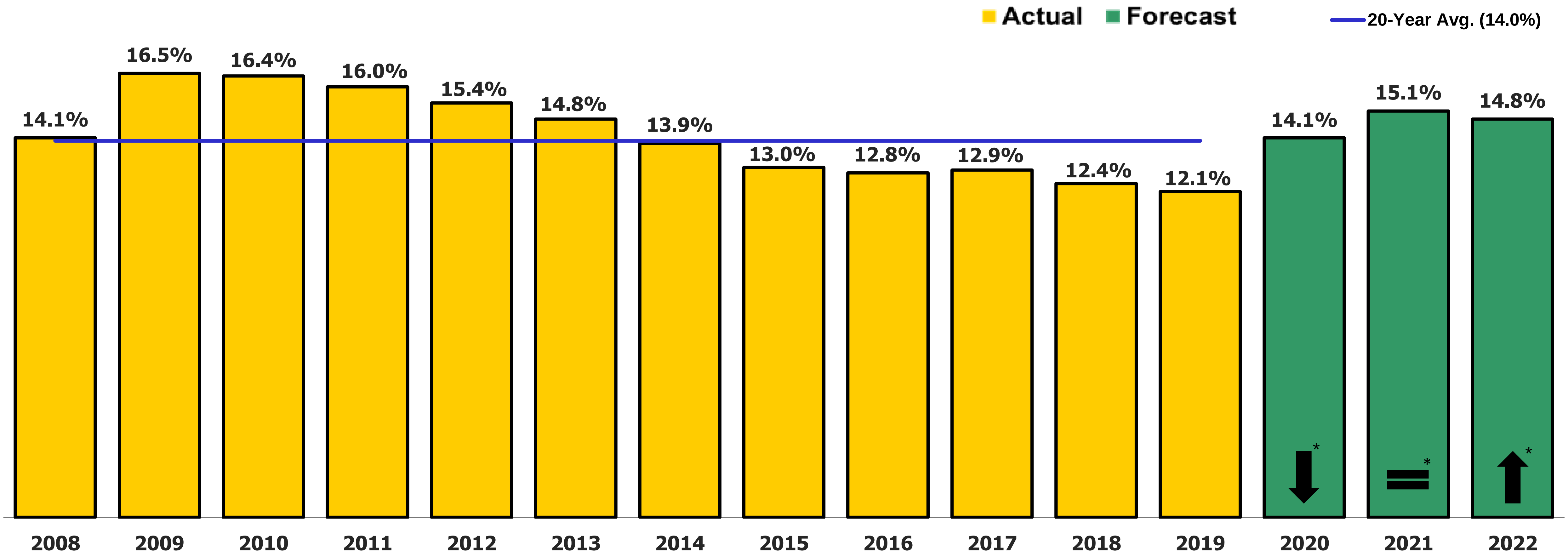
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -2.0% for 2020, 2.0% for 2021, and 3.0% for 2022.

Office Sector Fundamentals

- Office vacancy rates reached a post-recession low of 12.1% in 2019, below the 20-year average of 14%. Vacancy rates for 2020 are forecast to rise 200 basis points to 14.1% continue to rise another 100 basis points in 2021 to 15.1% before edging down 14.8% in 2022. Vacancy rates in all three forecast years are above the long-term average.

- Growth in office rental rates was strong in 2019, increasing 4.7%, well above the 20-year average of 1.5%. The forecast indicates a decline in office rents of -2.4% in 2020 and further decline of -1.0%. Growth will be positive in 2022 at 1.9%, above the long-term average.

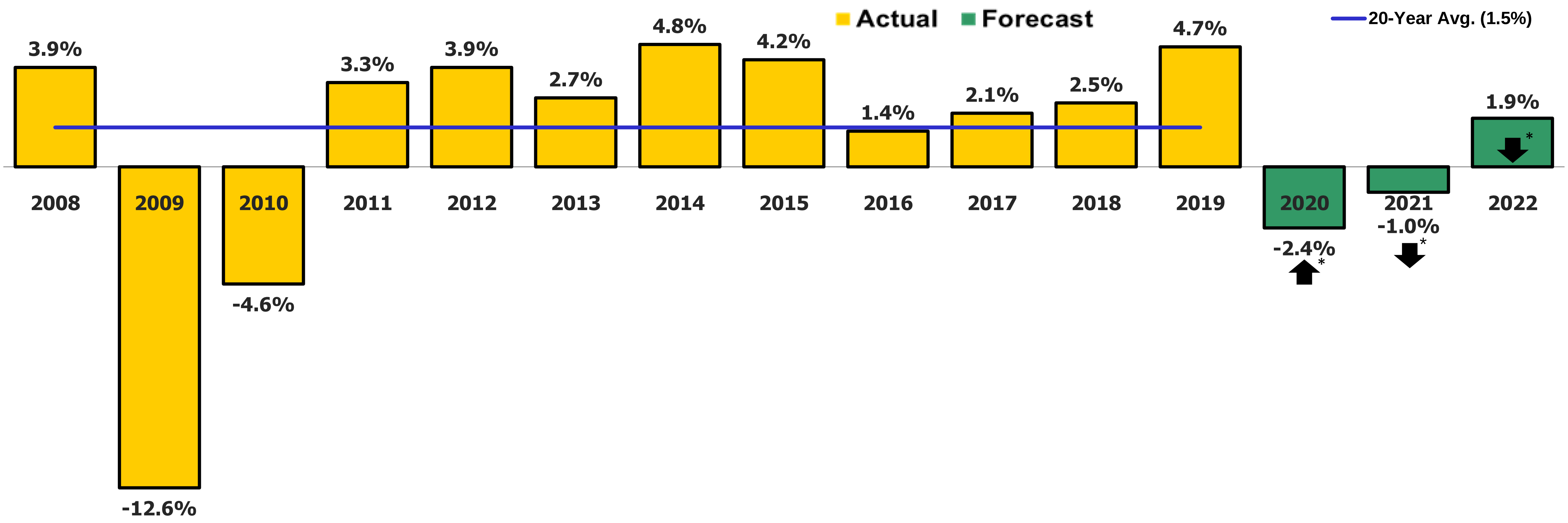
Office Vacancy Rates



Sources: 2000-2019 (Q4), CBRE; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 14.4% for 2020, 15.1% for 2021, and 14.6% for 2022.

Office Rental Rate Change



Sources: 1999-2019, CBRE; 2020-2022, ULI Real Estate Economic Forecast.

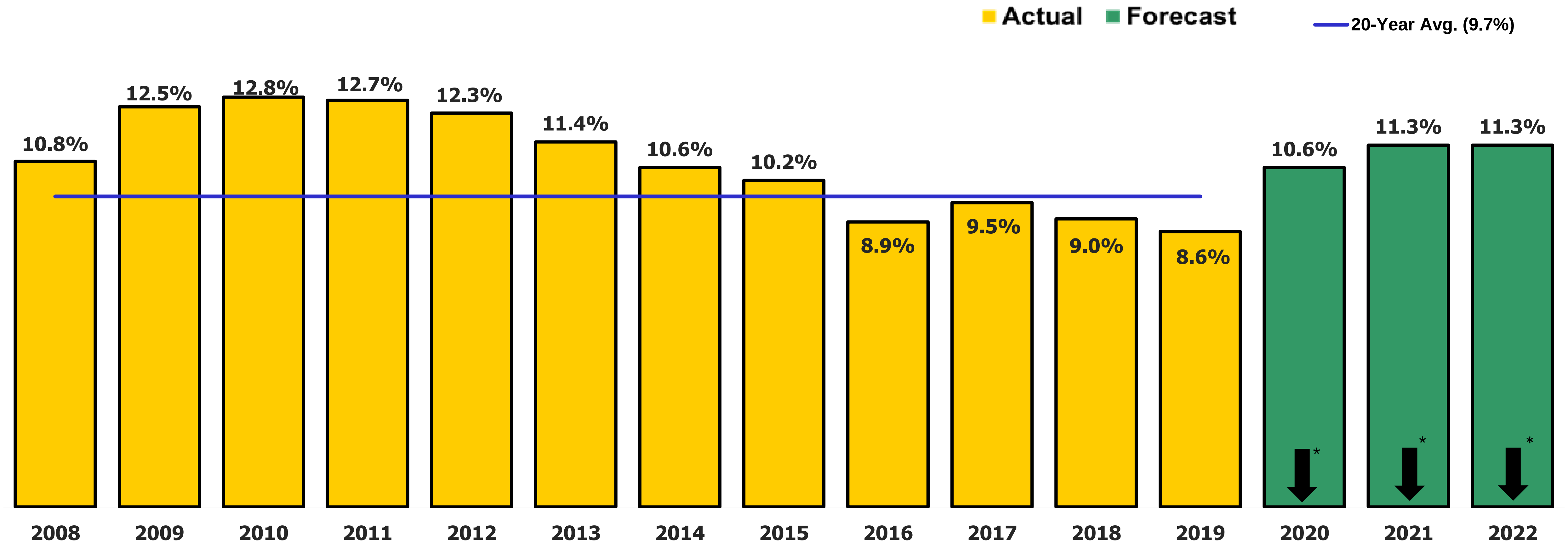
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -5.0% for 2020, 0.0% for 2021, and 2.0% for 2022.

Retail Sector Fundamentals

- Retail availability rates were at 8.6% in ‘19, the lowest post-GFC rate. The rolling closures and restrictions on non-essential stores during the pandemic, consumers’ concerns about in-person shopping, and the impact on business district retailers of Work from Home created new pressures on retailers large and small and also exacerbated on-going struggles among other retailers. Availability rates for 2020 are forecast to rise 200 basis points to 10.6%, continue to rise in 2021, albeit at a much slower pace, to 11.3% and plateau at that level in 2022.

- Retail rental rate growth reached a post-recession high of 3.1% in 2017 before moderating to 2.1% in ‘19. The forecast indicates a decline in retail rents of -4.0% in 2020 and a further decline of -2.8% in 2021. Rents are expected to remain unchanged in ’22, with neither positive nor negative growth.

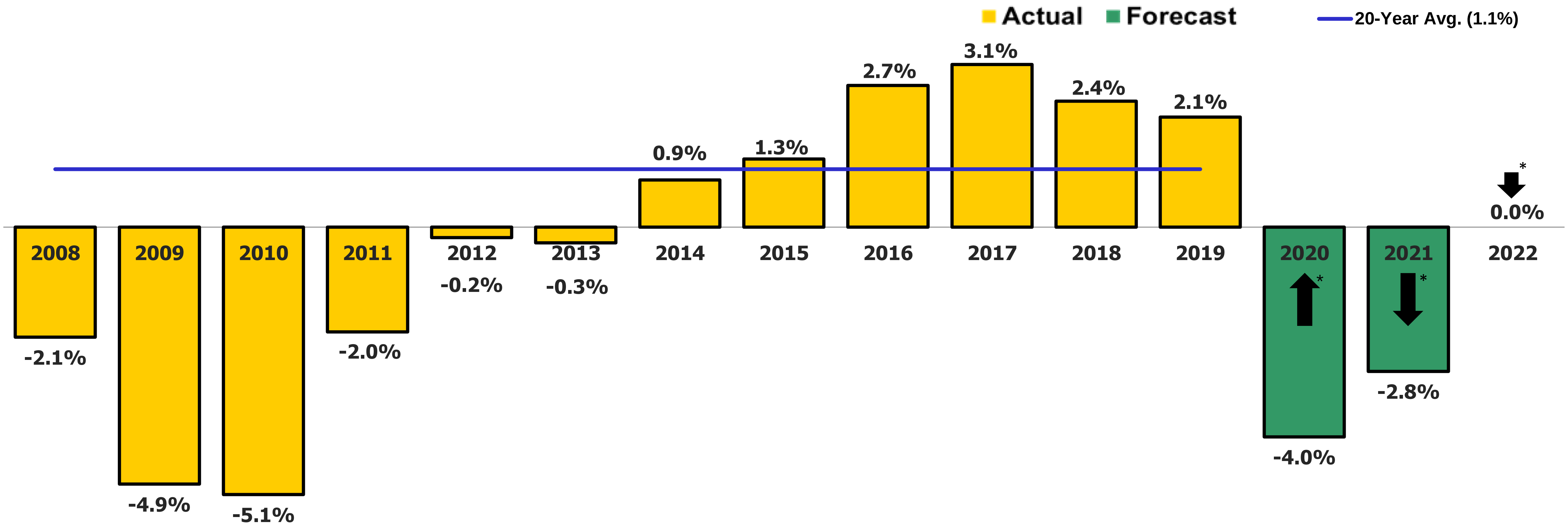
Retail Availability Rates



Sources: 2000-2019 (Q4), CBRE; 2020-2022 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 11.6% for 2020, 12.3% for 2021, and 12.1% for 2022.

Retail Rental Rate Change



Sources: 1999-2019 (Q4), CBRE; 2020-2022, Real Estate Economic Forecast.

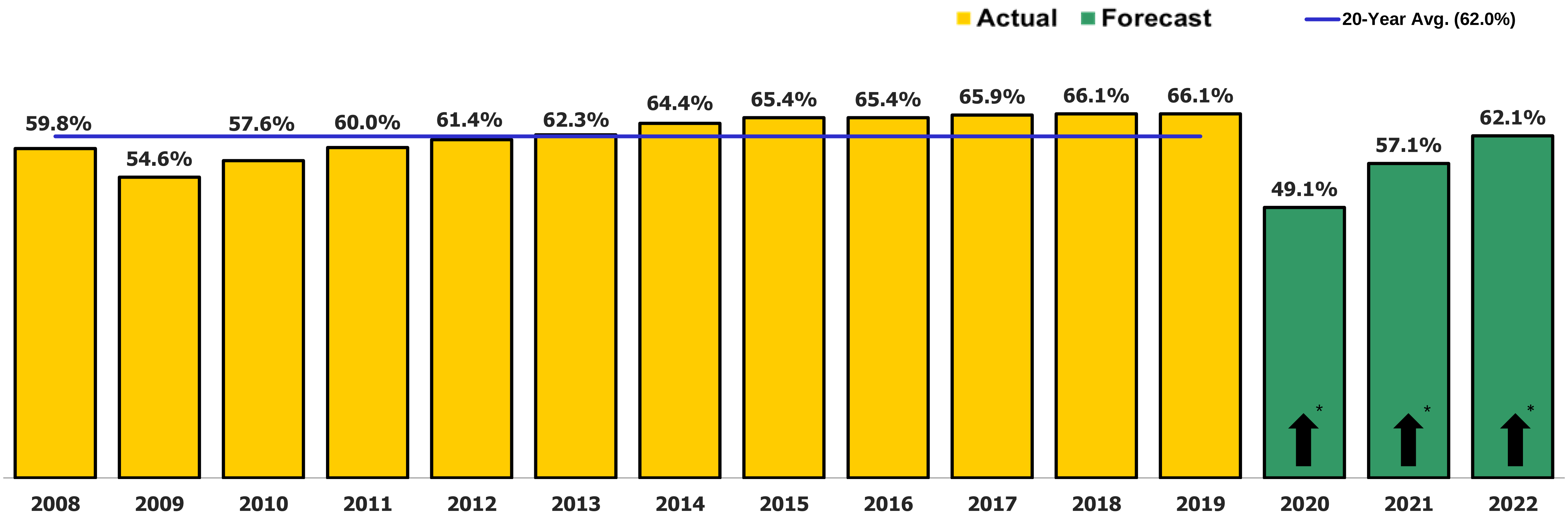
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -8.2% for 2020, -2.0% for 2021, and 1.0% for 2022.

Hotel Sector Fundamentals

- Hotel occupancy rates, according to STR, were steadily improving over the last ten years, coming in at 66.1% in 2019, above the twenty-year average. The occupancy forecast for the full 2020, 49.1%, reflects the sector's relative strength in the few months prior to the pandemic, the near halt during the initial phases of the pandemic, and then some level of return to travel the balance of the year. Rates are forecast to improve over subsequent forecast years, increasing to 57.1% in '21 and 62.1% in '22.

- Following seven years of above-average hotel revenue per available room (RevPAR) growth, the RevPAR growth rate dipped to the long-term average in '17 and '18, and then experienced minimal growth, 0.8%, in 2019. RevPAR is forecast to drop 35% in 2020. Growth is expected to begin recovery in '21 at positive 15%, and continue in '22 at 10%. Given the steep decline in '20, the growth rates in the subsequent forecast years will not yet be sufficient to bring RevPAR to 2019 levels.

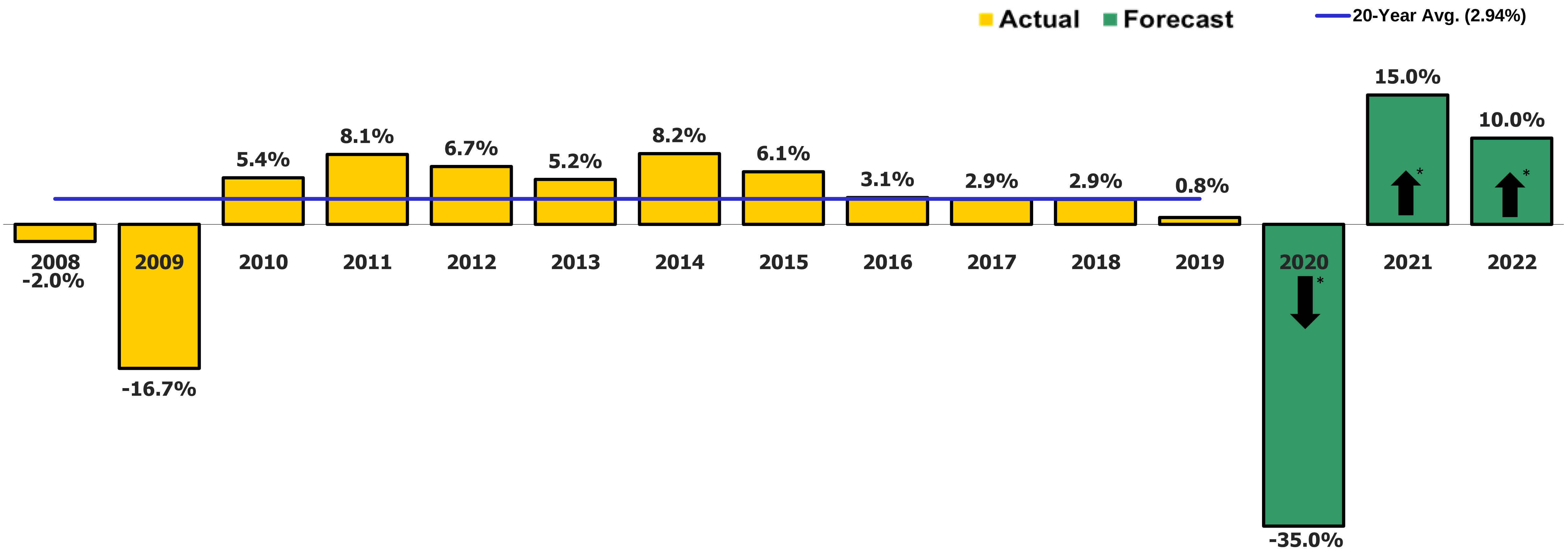
Hotel Occupancy Rates



Sources: 2000-2019, (December, 12-month rolling average), STR; 2020-2022, 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, 2020) projected 40.1% for 2020, 54.9% for 2021, and 59.9% for 2022.

Hotel Revenue per Available Room (RevPAR) Change



Sources: 1999-2019, (December, 12-month rolling average), STR; 2020-2022, ULI Real Estate Economic Forecast.

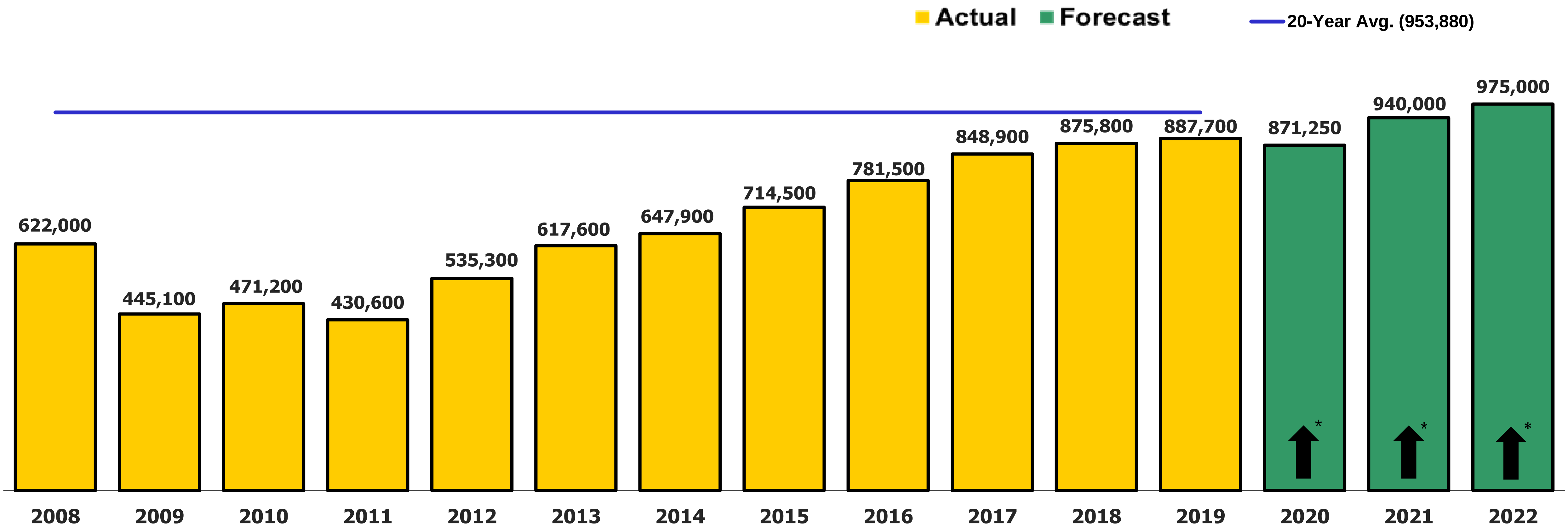
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected -27.5% for 2020, 6.5% for 2021, and 5.0% for 2020.

Housing Sector

- Single-family housing starts experienced positive growth for the eighth straight year in 2019. Still, housing starts during the last eight years never reached the 20-year average, which itself was influenced by historically strong growth in starts in the eight years prior to the Great Financial Crisis. Housing starts in 2020 are expected to be down slightly from ‘19 to 871,000 starts. Starts are expected to sharply reverse direction in 2021, increasing to 940,000 and to 975,000 in ’22, finally exceeding the long-term average for the first time since the GFC.

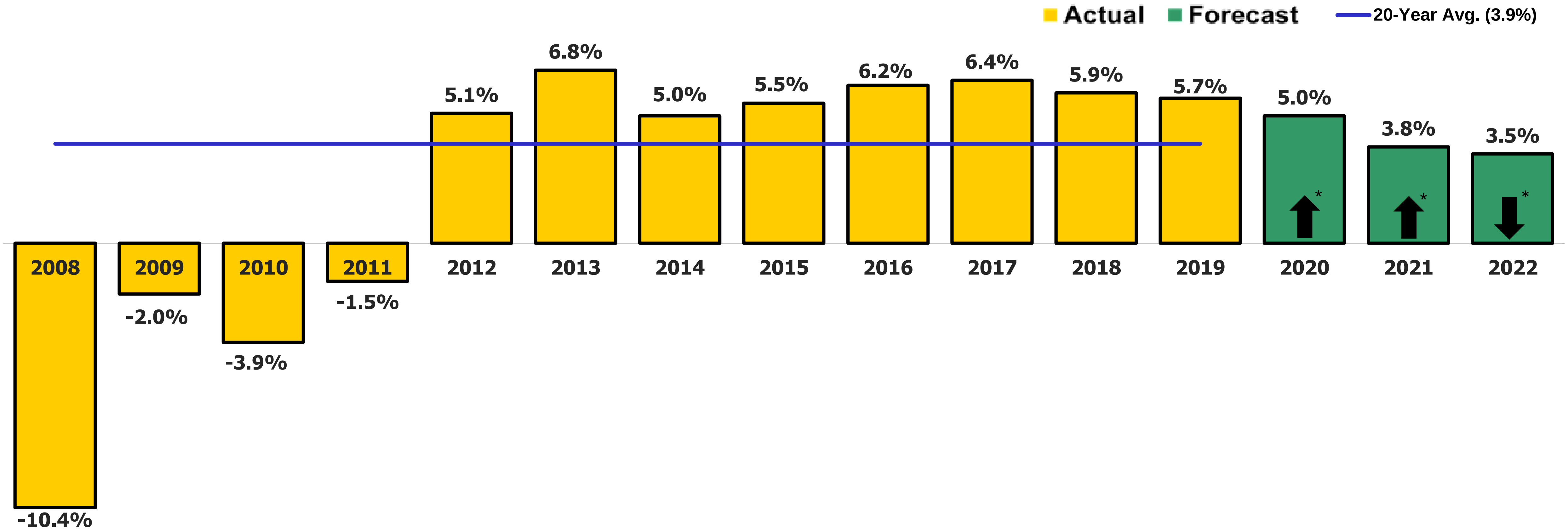
- According to the FHFA, existing home prices increased an average of 5.7% in 2019, the eighth consecutive year of strong price growth. Price growth is expected to continue strong in ‘20, with 5% price growth. Price growth is expected to slow somewhat in ‘21 at 3.8% and in ‘22 at 3.5%.

Single-Family Housing Starts



Sources: 2000-2019, (structures with 1 unit, as of December), U.S. Census; 2020-2022, ULI Real Estate Economic Forecast.
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 650,000 in 2020, 775,000 in 2021, and 850,000 in 2022.

Average Home Price Change



Sources: 1999-2019, (seasonally adjusted, as of December), Federal Housing Finance Agency; 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in May, 2020) projected 1.1% in 2020, 2.8% in 2021, and 4.6% in 2022.

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
Aberdeen Standard Investments	Carlos Ortea	Head of Real Estate Investment Research - Americas
AEW Capital Management	Michael J. Acton	Managing Director
AvalonBay Communities	Craig Thomas	SVP
BentallGreenOak	Douglas Poutasse	Head of Strategy & Research
	Paul Briggs	Managing Director
Berkshire Residential Investments	Gleb Nechayev	Head of Research
Boyd Watterson Asset Management	Rank Dawson	VP Investment Strategy
Bozzuto	Mark Franceski	Vice President, Research
Capital Economics	Kiran Raichura	Senior Property Economist
CBRE	Jeanette Rice	Americas Head of Multifamily Research
CCIM Institute	KC Conway, MAI, CRE, CCIM	Chief Economist
Clarion Partners	Tim Wang	Managing Director and Head of Investment Research
CoreLogic	Frank Nothaft	Executive & Chief Economist
CoStar Group	John Affleck	Vice President, Market Analytics

continued…….

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
Cushman & Wakefield	Kevin Thorpe	Chief Economist
	Rebecca Rockey	Economist, Head of Forecasting
DWS	Kevin White	Head of Real Estate Research & Strategy
Eigen10 Advisors, LLC	Paige Mueller	Managing Director
GID	Suzanne Mulvee	SVP, Research and Strategy
Green Street	Peter Rothemund, CFA	Managing Director
Harrison Street	Thomas Errath	Managing Director
JP Morgan Asset Management, Real Estate Americas	Aric Chang	Executive Director
Laposa Realty Advisors, LLC	Steven Laposa	Principal
LaSalle Investment Management	Richard Kleinman	Head of US Research and Strategy
Linneman Associates	Peter Linneman	CEO
Marcus & Millichap	John Chang	Sr VP, National Director Research Services
	Peter Tindall	VP, Director of Research Operations
McCombs Real Estate, University of Texas Austin	Mark Roberts	Executive Director

continued……

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
MetLife Investment Mangement	William Pattison	Head of Research
Moody's Analytics REIS	Victor Calanog	Head of Commercial Real Estate Economics
Nareit	Calvin Schnure	Senior Economist
National Association of REALTORS(r)	Lawrence Yun	Chief Economist
Nuveen Real Estate	Melissa Reagen	Managing Director, Head of Research, Americas
Oxford Economics	Aran Ryan	Tourism Economics, Director, Lodging Analytics
PwC, LLP	Andrew Warren	Director - Real Estate Research
RCLCO	Taylor Mammen	Sr. Managing Director
	Ben Maslan	Managing Director
RERC	Ken Riggs	Vice Chairman, Commercial Real Estate
	Jodi Airhart	Senior Vice President
Rosen Consulting Group	Ken Rosen	Chairman
	Randall Sakamoto	President
Stockbridge Associates	George Casey	CEO
White Oak Healthcare REIT	Dr. David J Lynn	President and Chief Investment Officer

Urban Land Institute

About the Urban Land Institute
The Urban Land Institute is a nonprofit education and research institute supported by its members. Its mission is to provide leadership in the responsible use of land and in sustaining and creating thriving communities worldwide. Established in 1936, the Institute has more than 40,000 members representing all aspects of land use and development disciplines. 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

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