ULI Real Estate Economic Forecast

A Survey of Leading Real Estate Economists/Analysts

uli.org/economicforecast

May 2020

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 39 economists/analysts at 35 leading real estate organizations.
- Respondents represent major real estate investment, advisory, and research firms and organizations.
- This is the 17th survey; completed May 1– May 18, 2020.
- A semi-annual survey; next release planned for October 2020.
- 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
	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, Home Price Growth
	CMBS Issuance
	Hotel RevPAR, Occupancy

2022 Forecast

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

Key Findings

- Commercial real estate transaction volume reached $588 billion in 2019, a post-Great Financial Crisis peak. Volume is expected to be over 50% lower in 2020 with a forecast of $275 billion. Forecasts for '21 and '22 show growth of $400 billion and $500 billion, respectively.

- Commercial property prices are expected to drop by 7% in 2020, returning to positive, minimal growth of 1% in '21, with further growth of 5% in '22.

- Institutional real estate assets are expected to provide total returns of -5.0% in '20, but turn positive in '21 and '22, at 3.2% and 6.7%, respectively. By property type, 2020 returns are forecast to range from industrial's 2.0% to retail's -12.0%. In '22, returns are forecast to range from industrial's 9.0% to retail's 5.0%.

- Change in vacancy and availability rates differ widely by property type. In 2020, industrial availability is forecast to move up 60 basis points, while apartments, office, and retail vacancy rates are forecast to move up 100, 230, and 300 basis points, respectively. In '21, industrial availability is expected to move down slightly, apartment vacancy remains unchanged, and both office and retail vacancy rates continue to increase, albeit just moderately. In '22, all sectors show slight improvement.

- Commercial property rent growth differs widely by property type, as well. In 2020, industrial rent growth is forecast to be 0.0%, while apartments, office and retail are forecast at -2.0%, -5.0%, and -8.2%, respectively. In '21, both the industrial and multifamily sectors experience positive growth, at 2.5% and 2.0%, respectively, while office rental rate growth is 0.0% and retail is -2.0%. By '22, positive rental growth is forecast for all sectors, ranging from 4.0% in the industrial sector to 1.0% in the retail sector.

- Single-family housing starts are projected to be down by 27% from 887,700 in '19 to 650,000 starts in '20. Starts are expected to start recovery in '21, increasing to 775,000, and the continue growth in '22 to 850,000.

Economy

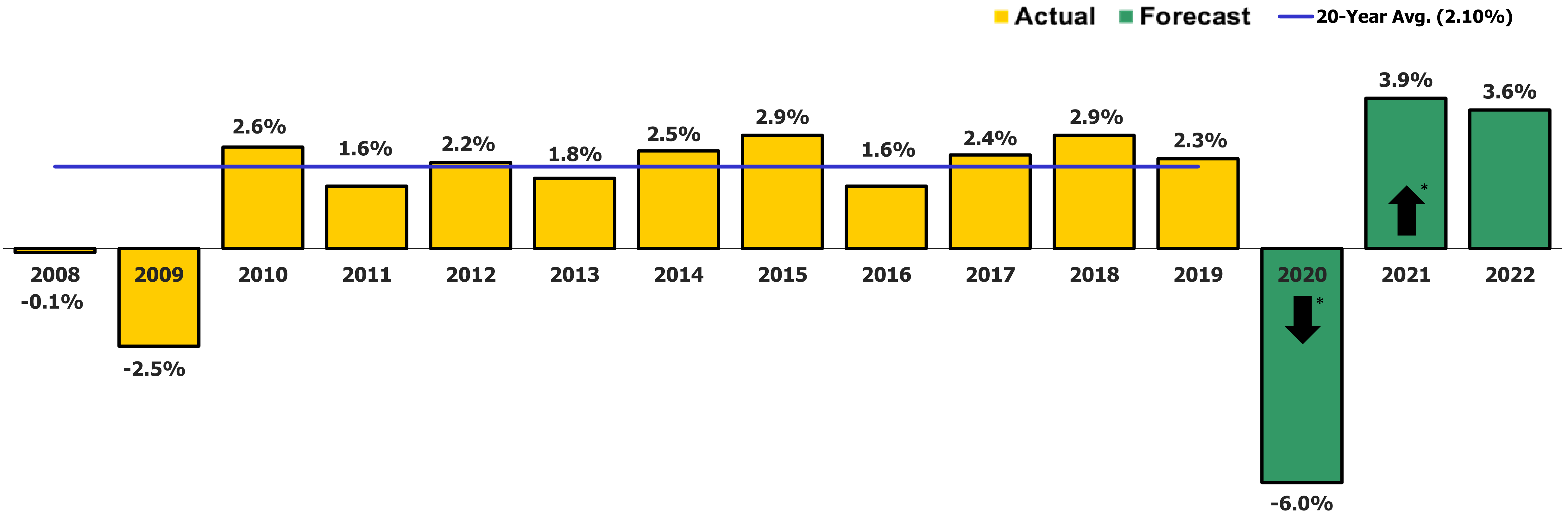
- The COVID-19 pandemic brought broad segments of the economy to a halt for various periods of time in 2020. The economists/analysts forecast a severely impacted 2020, and strong recovery activity in ‘21 and ’22.

- GDP growth was 2.3% in 2019, down from the 2.9% growth in ’18, but both years were above the 20-year average growth rate. GDP is forecast to fall by 6% in 2020. A bounce-back is expected in ‘21 and ‘22, with forecast GDP growth of 3.9% and 3.6%, higher than growth rates of the last ten years.

- Net employment growth is expected to be negative 10 million in 2020 (full year). A strong, although not full, job recovery of a total of 8 million jobs is expected by ’22 (4 million jobs in both ‘21 and ‘22).

- The unemployment rate is expected to be 11.3% in 2020, declining significantly in ‘21 to 7.9% and then to 5.9% in ‘22. This would not yet reach the low unemployment rate of 3.5% in 2019.

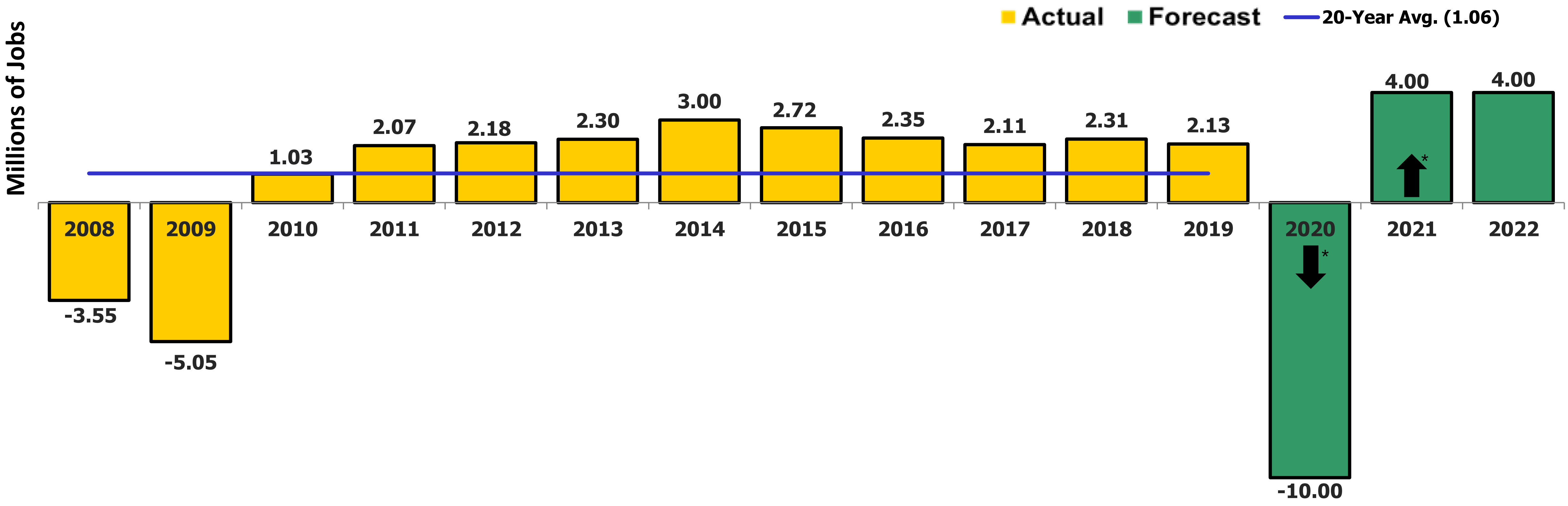
Real GDP Growth



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 October, 2019) projected 1.7% for 2020 and 1.9% for 2021.

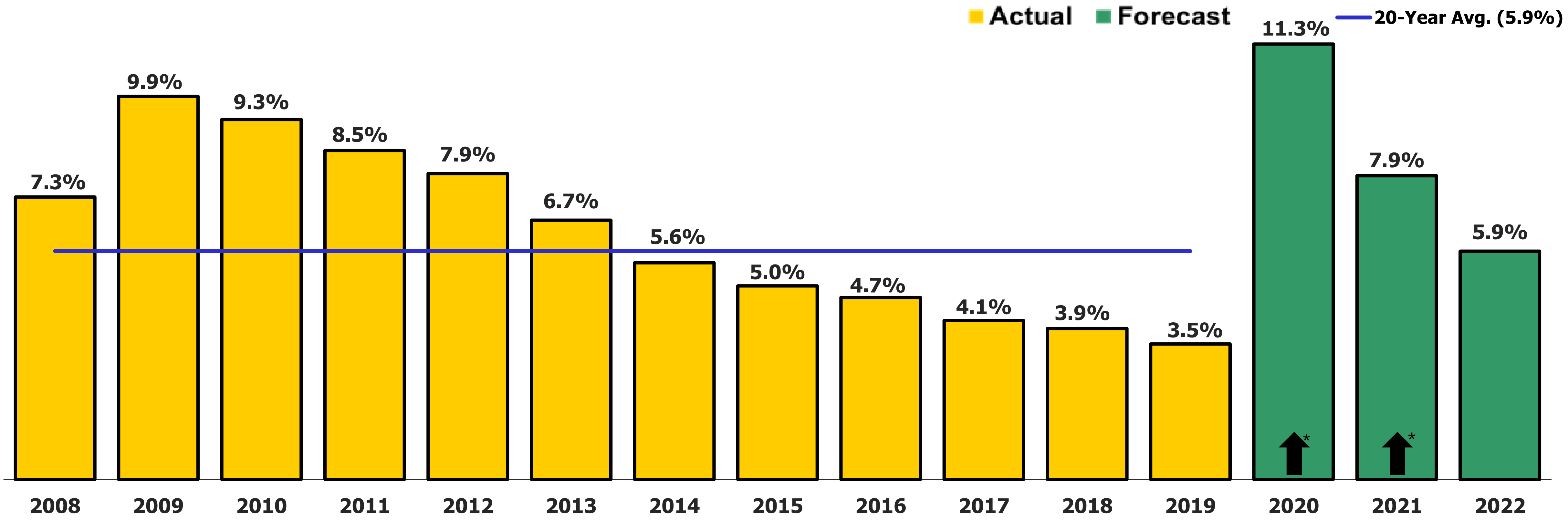
Employment Growth (Millions)



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 October, 2019) projected 1.44M for 2020 and 1.50M for 2021.

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 October, 2019) projected 4.0% for 2020 and 4.1% for 2021.

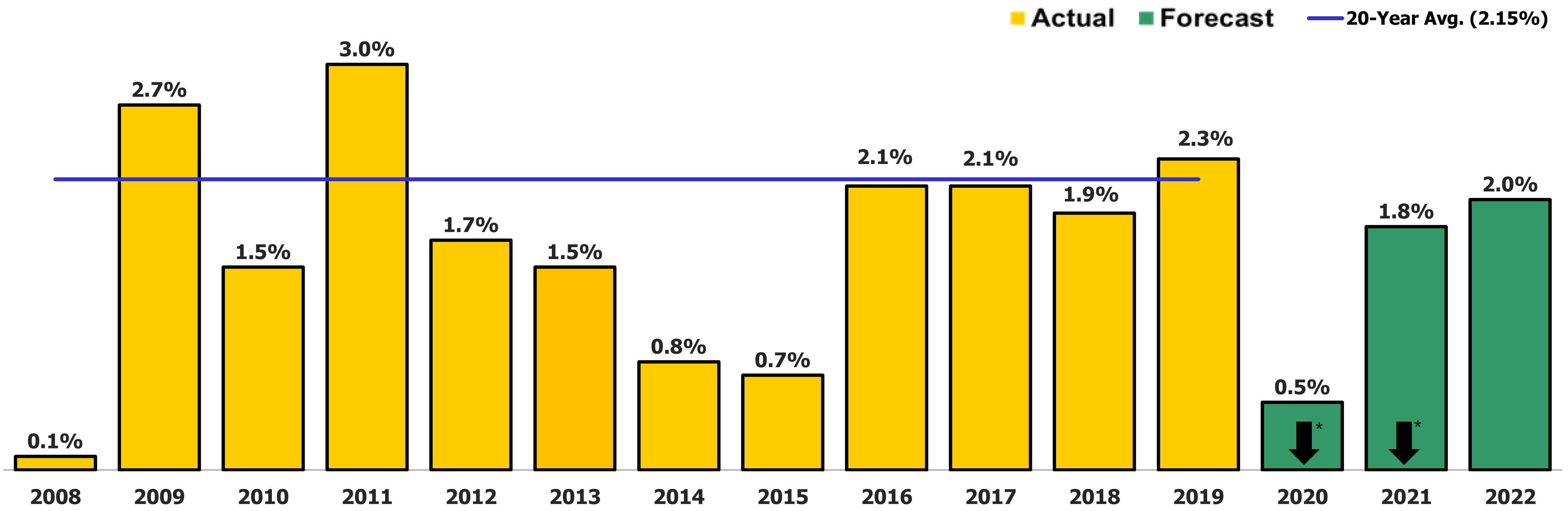
Inflation, Interest Rates, and Cap Rates

- The CPI inflation rate in 2019 was 2.3%, exceeding (slightly) the 20-year average for the first time in 7 years. The forecast for 2020 is for extremely low inflation, at 0.5%, and then rising to 1.8% and 2%, respectively in ’21 and ’22 but remaining below the long-term average.

- 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 1.3% in ‘21, and 1.7% in ‘22.

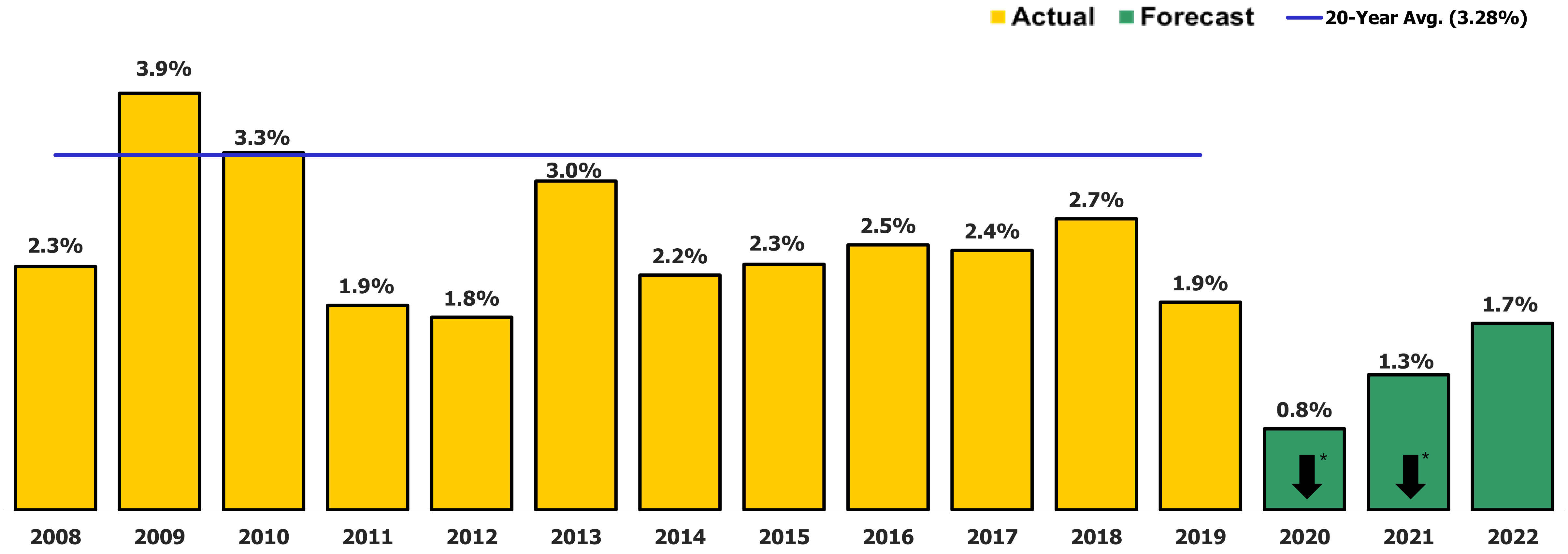
- Capitalization rates for institutional-quality investments (NCREIF cap rates) have steadily declined since 2009, and were at 4.7% in ‘19. They are expected to move up to 5.1% in ’20, remaining steady in ‘21, and edge down again to 4.9% ‘22.

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 October, 2019) projected 2.0% for 2020 and 2.1% for 2021.

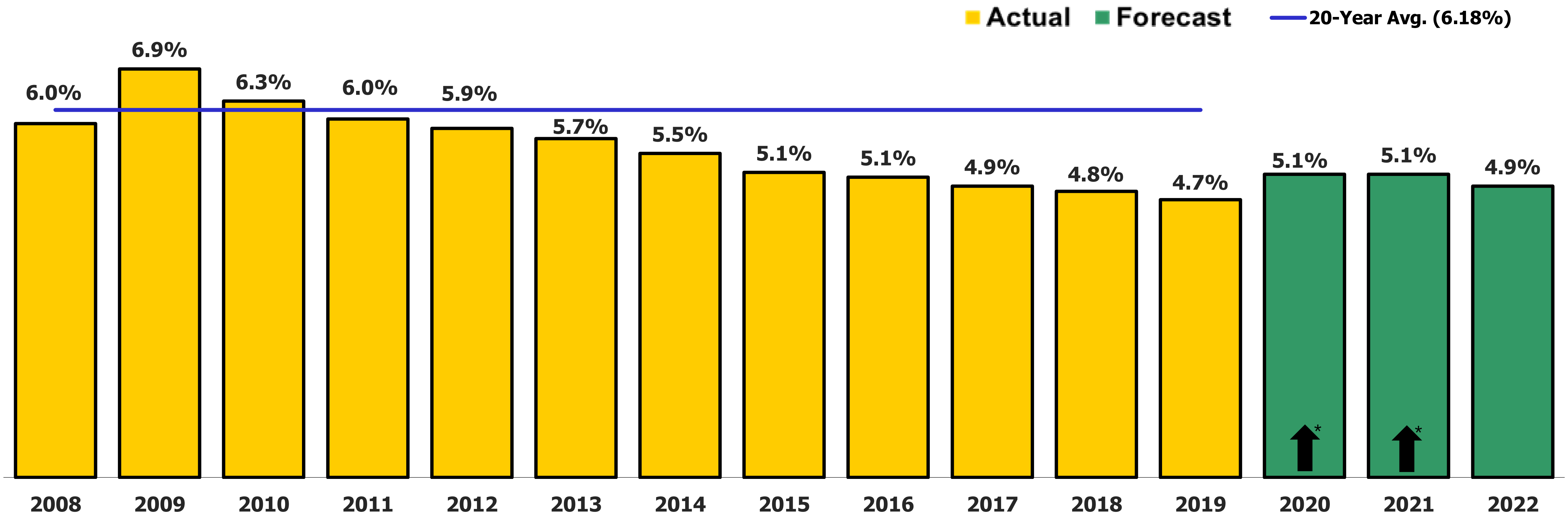
Ten-Year Treasury Rate



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 October, 2019) projected 2.0 % for 2020 and 2.3% for 2021.

NCREIF Capitalization Rate



Sources: 2000-2019, Q4, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022 (YE), ULI Real Estate Economic Forecast.

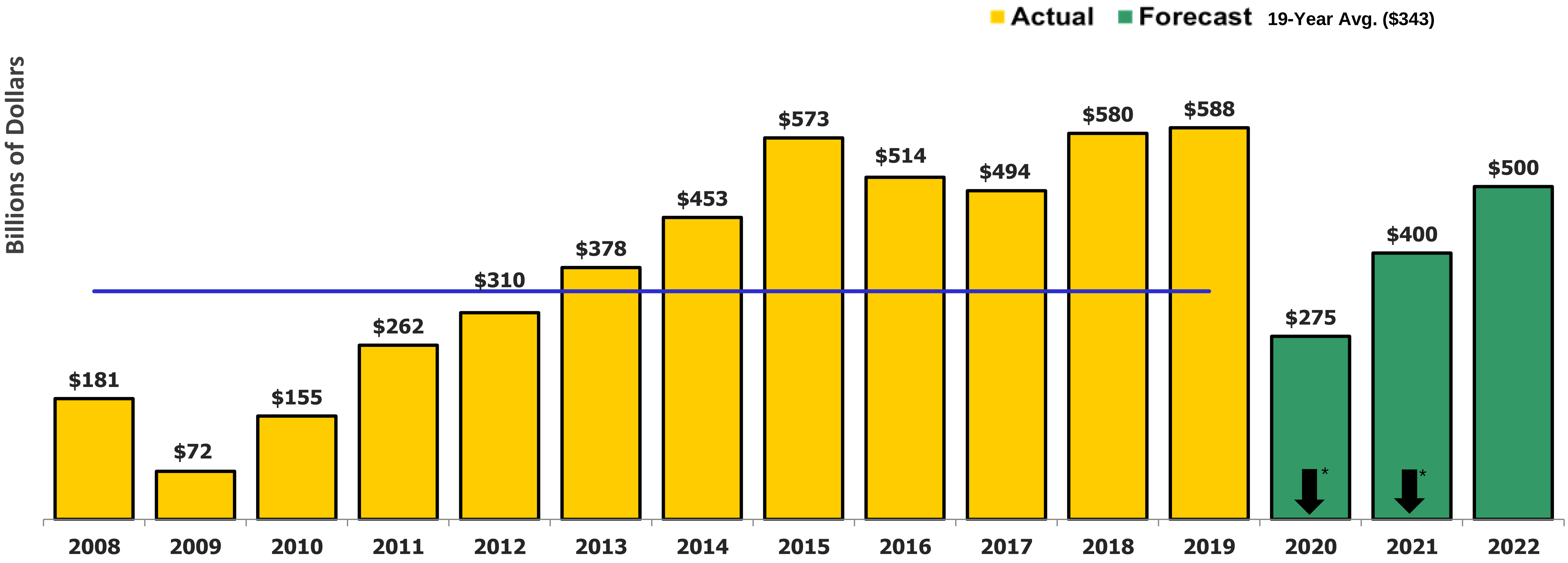
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 5.0% for 2020 and 5.0%, for 2021.

Real Estate Capital Markets

- Commercial real estate transaction volume reached $588 billion in 2019, a post-Great Financial Crisis peak. Volume is expected to be over 50% lower in 2020 with a forecast of $275 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 (with a peak of $229 billion in 2007). The post-GFC peak was in 2019, at $98 billion. CMBS issuance is expected to fall by more than half in 2020, with a forecast of $45 billion. Forecasts for ‘21 and ‘22 show growth to $60 billion and $80 billion, respectively.

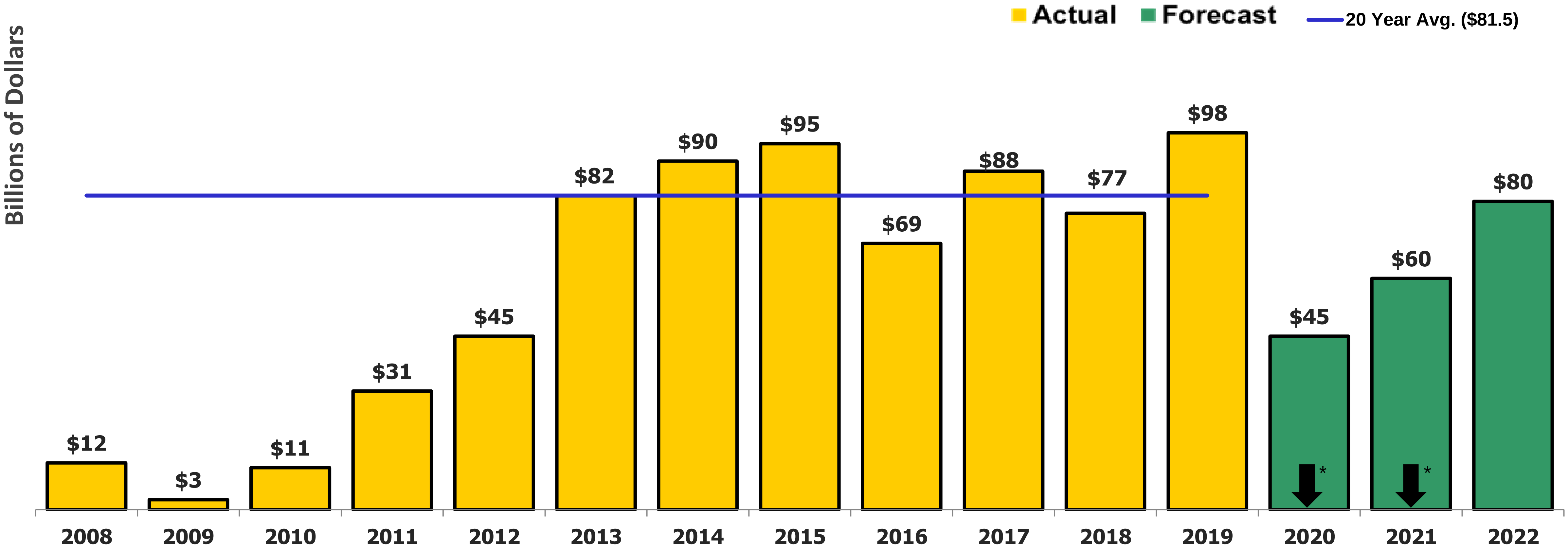
Commercial Real Estate Transaction Volume



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 October, 2019) projected 480B for 2020 and 470B for 2021.

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 October, 2019) projected $65B for 2020 and $75B for 2021.

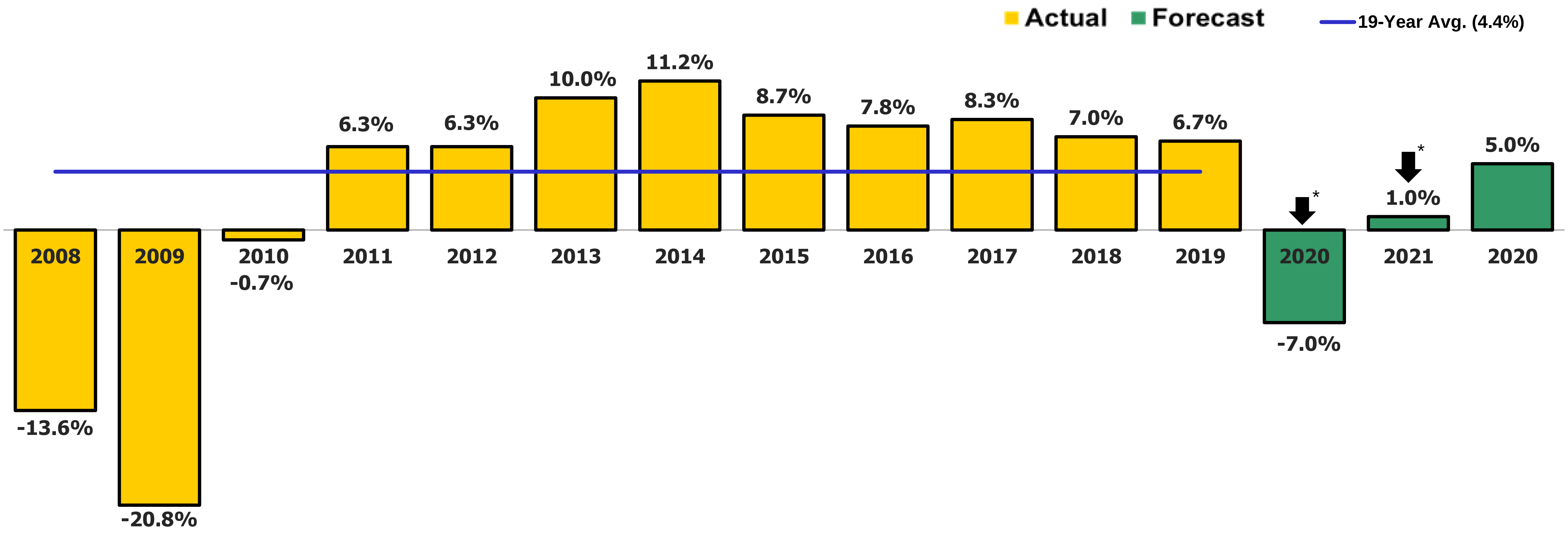
Real Estate Returns and Prices

- 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 7% in 2020, returning to positive, minimal growth of 1% in ’21, but further growth of 5% in ‘22.

- Equity REIT total returns in 2019, according to NAREIT, were strong in 2019, at 26%. Returns are forecast at -18% in 2020, followed by positive returns of 10% in both ‘21 and ‘22.

- Total returns for institutional-quality direct real estate investments, as measured by the NCREIF Property Index (NPI), was positive for the tenth straight year in 2019 at 6.4%, though it was below the long-term average of 9.1% for the fourth straight year. Total returns are forecast to be -5% in 2020, but reverse direction in 2021 for positive growth of 3.2% and continue to improve in 2022 at 6.7%.

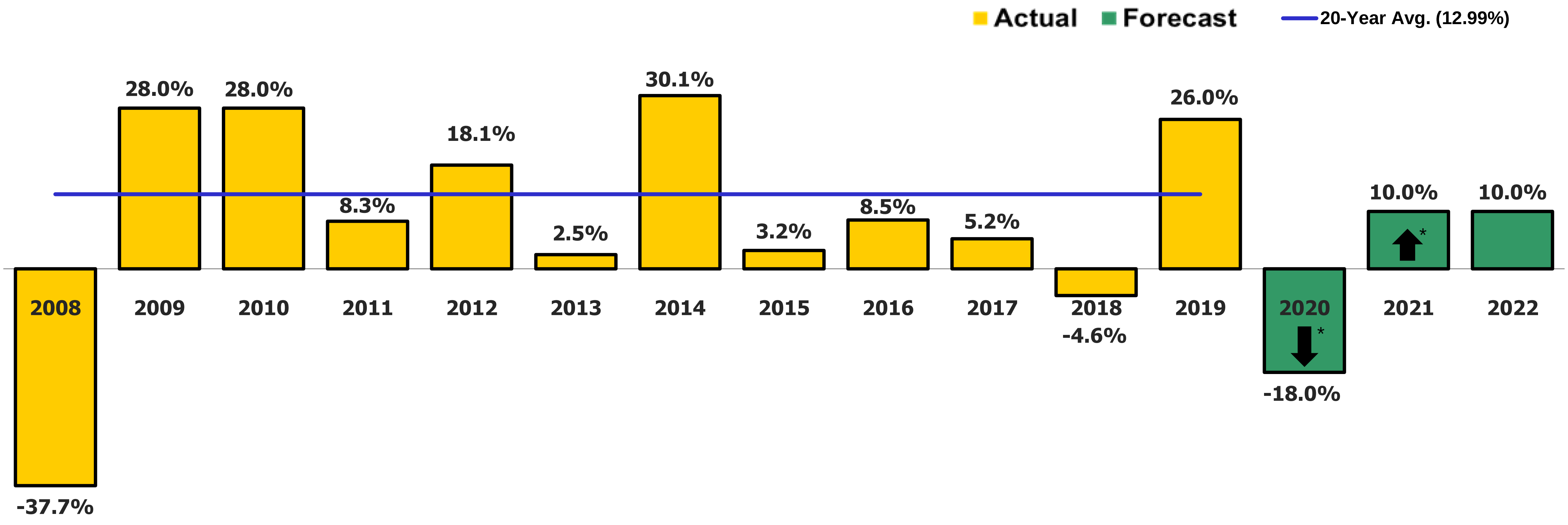
RCA Commercial Property Price Index (annual change)



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 October, 2019) projected 4.0% for 2020 and 3.9% for 2021.

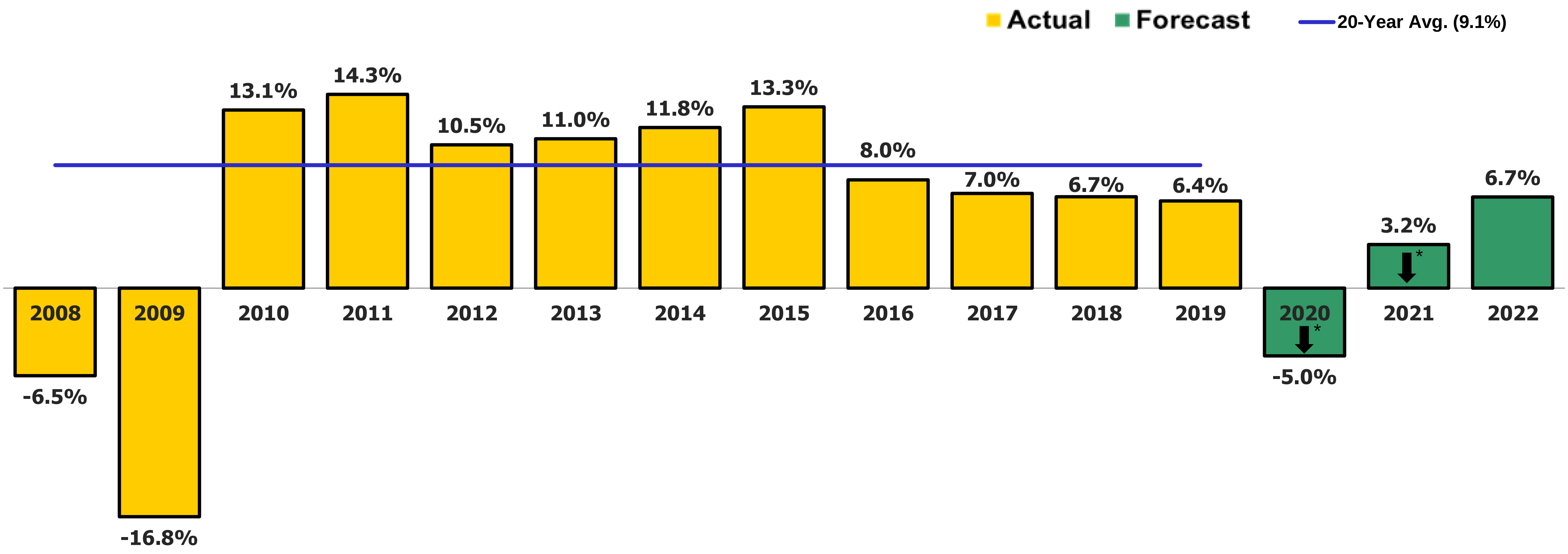
Equity REIT Total Annual Returns



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 October, 2019) projected 6.3% for 2020 and 8.0% 2021.

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 October, 2019) projected 5.2% for 2020 and 5.5% for 2021.

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 2%, this is a significant decline from industrial returns in 2019 of 13.4% and well below its long-term average of 10.4%. Apartment, office and retail returns for 2020 are all forecast to be negative, at -3%, 5.9%, and -12%, respectively.

- Industrial total returns are forecast to continue to increase in ‘21 and ‘22, at 7% and 9%, respectively, not yet returning to the growth rates experienced prior to the pandemic.

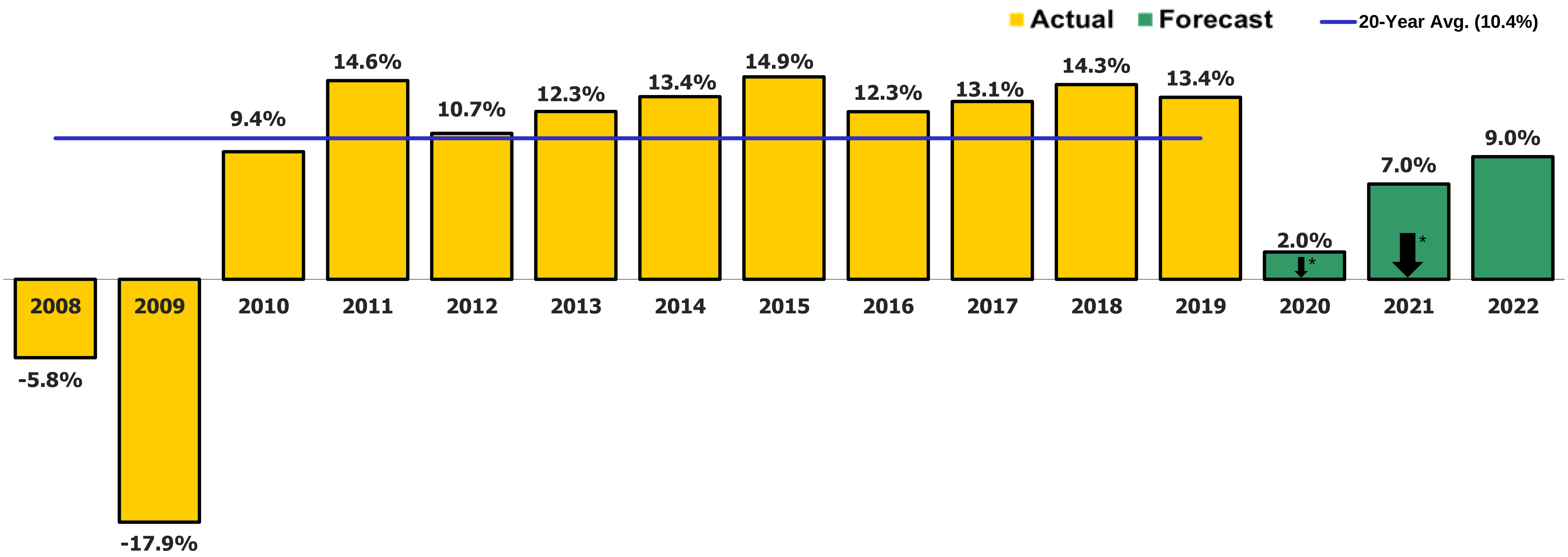
- Apartment and office total returns are forecast to turn positive in ’21, at 5% and 1%, respectively and continuing to gain strength in ’22, at 7.5% and 5%, respectively.

- Retail total returns are expected to further decline in 2021 by a relatively more moderate 2.5%, and then experience positive growth in 2022 of 5%.

NCREIF Property Types Total Returns

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

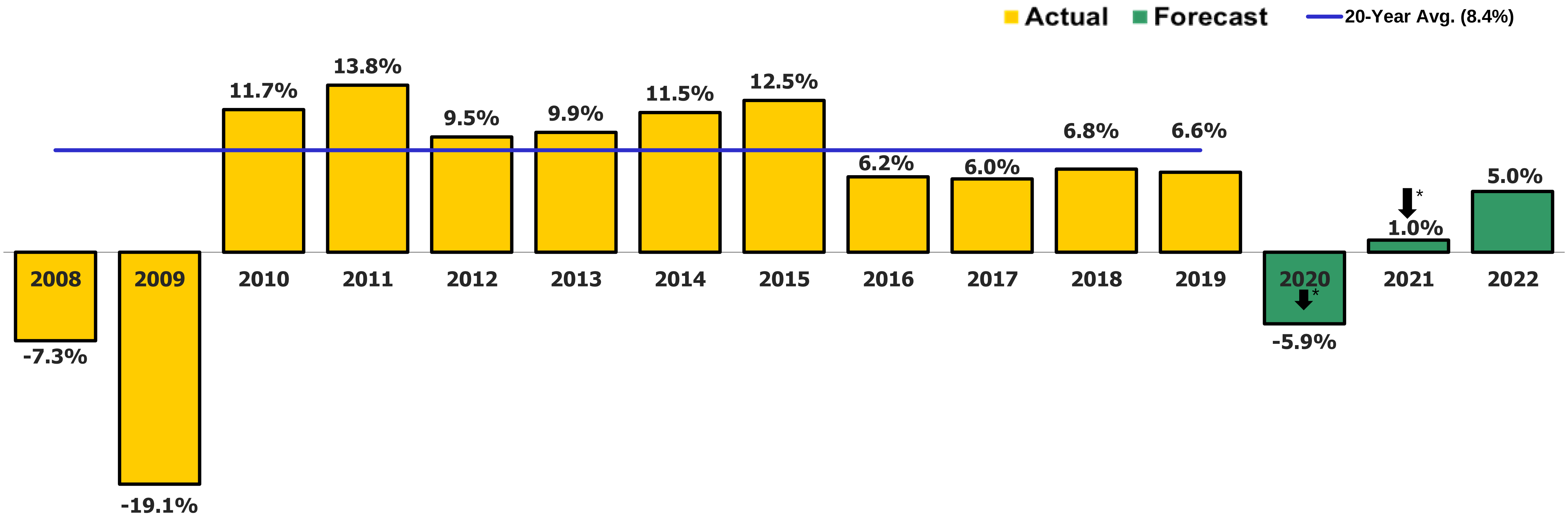
NCREIF Industrial Total Annual Returns



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 October, 2019) projected 8.0% for 2020 and 7.1% for 2021.

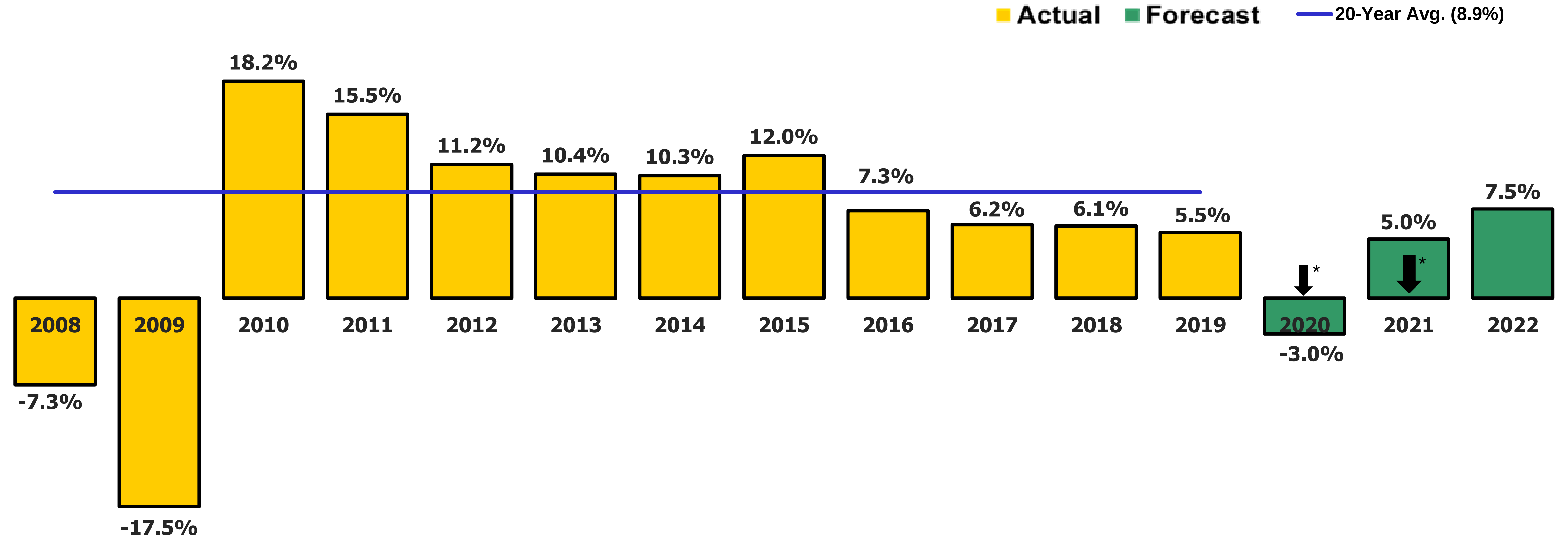
NCREIF Office Total Annual Returns



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 October, 2019) projected 5.1% for 2020 and 5.1% for 2021.

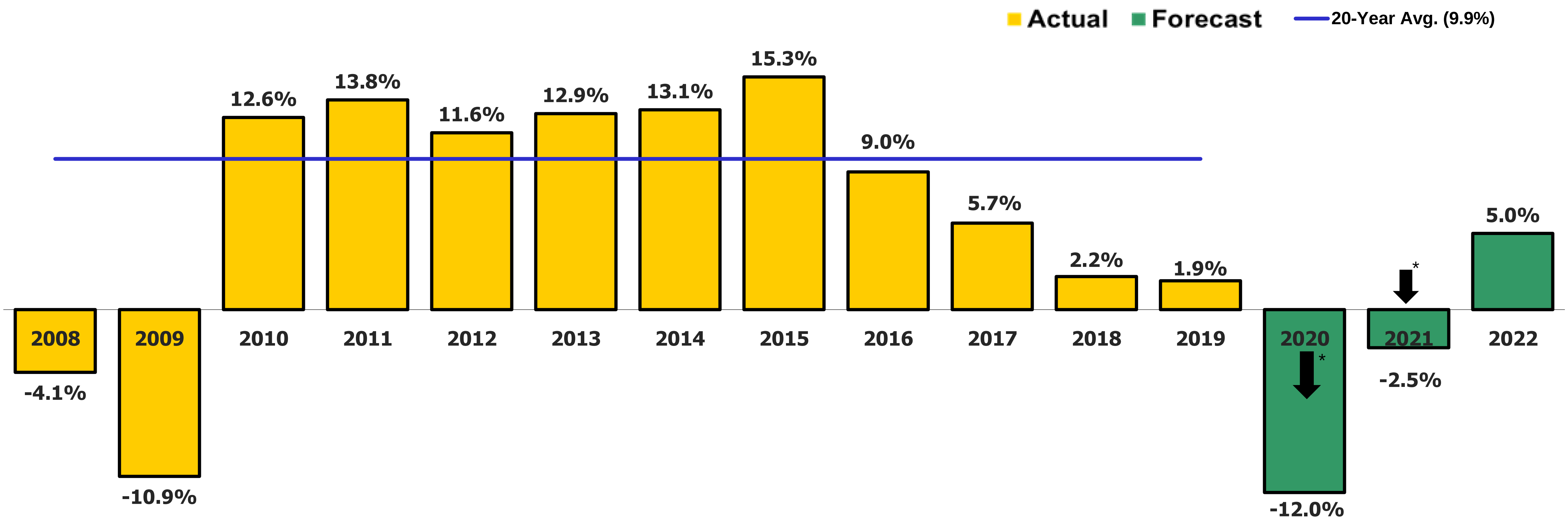
NCREIF Apartment Total Annual Returns



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 October, 2019) projected 5.0% for 2020 and 5.5% for 2021.

NCREIF Retail Total Annual Returns



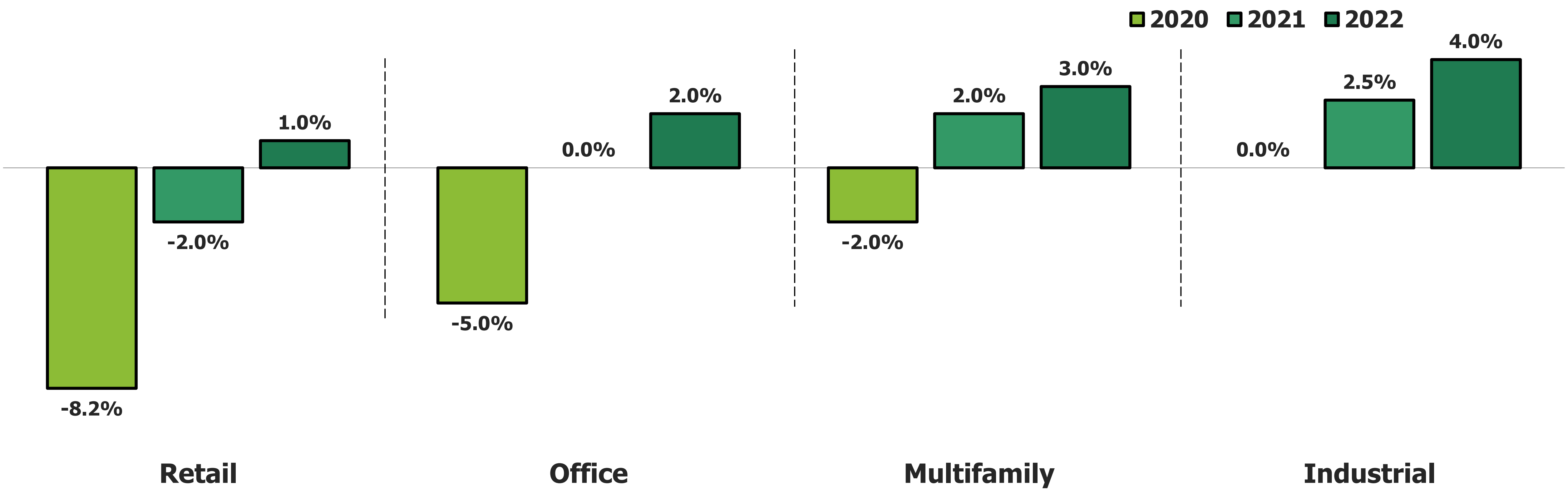
Sources: 1999-2019, National Council of Real Estate Investment Fiduciaries (NCREIF); 2020-2022, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 2.6% for 2020 and 3.0% for 2021.

Vacancy Rate Change 2019-2022 (bps)

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

Rental Rate Growth 2019-2022



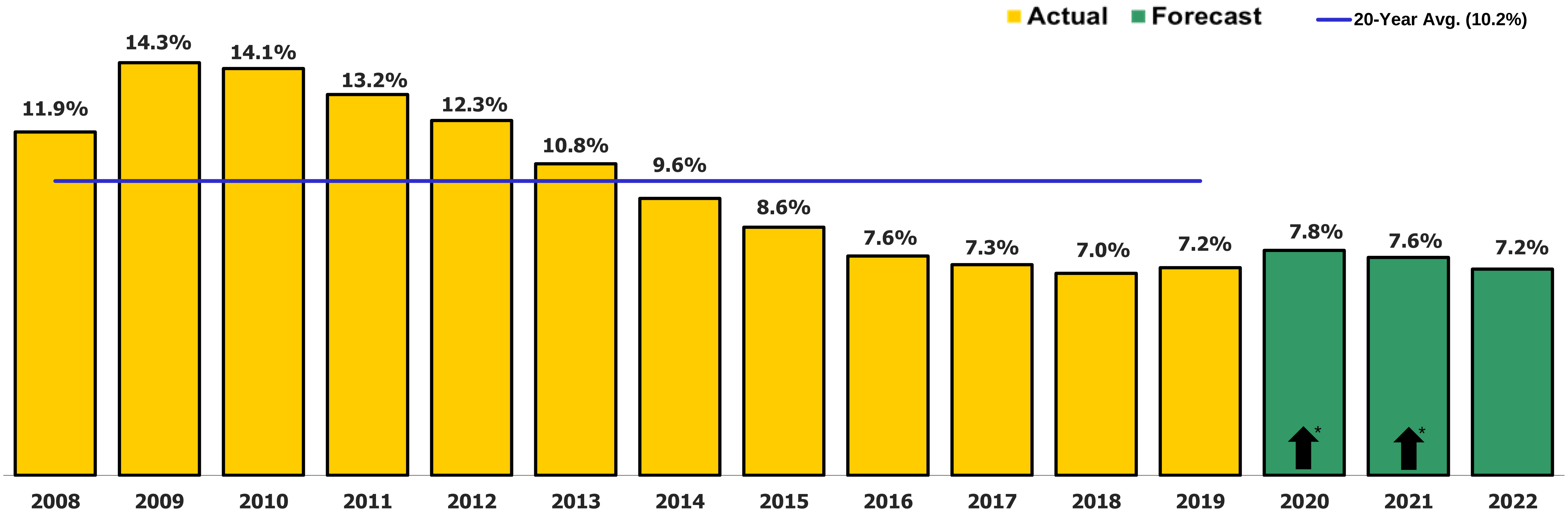
Source: 2020-2022, ULI Real Estate Economic Forecast.

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%, but staying well-below the 20-year average of 10.2%. The forecast indicates only a 60 basis point increase in 2020, with declines in both subsequent forecast years, arriving back to 7.2% in ‘22.

- Warehouse rental rate growth in the last seven years has been substantially above the long-term average of 1.1%. Rent levels are not expected to change in 2020, neither positively nor negatively; positive rental rate growth is expected to resume in 2021 and continue in 2022, at 2.5% and 4%, respectively.

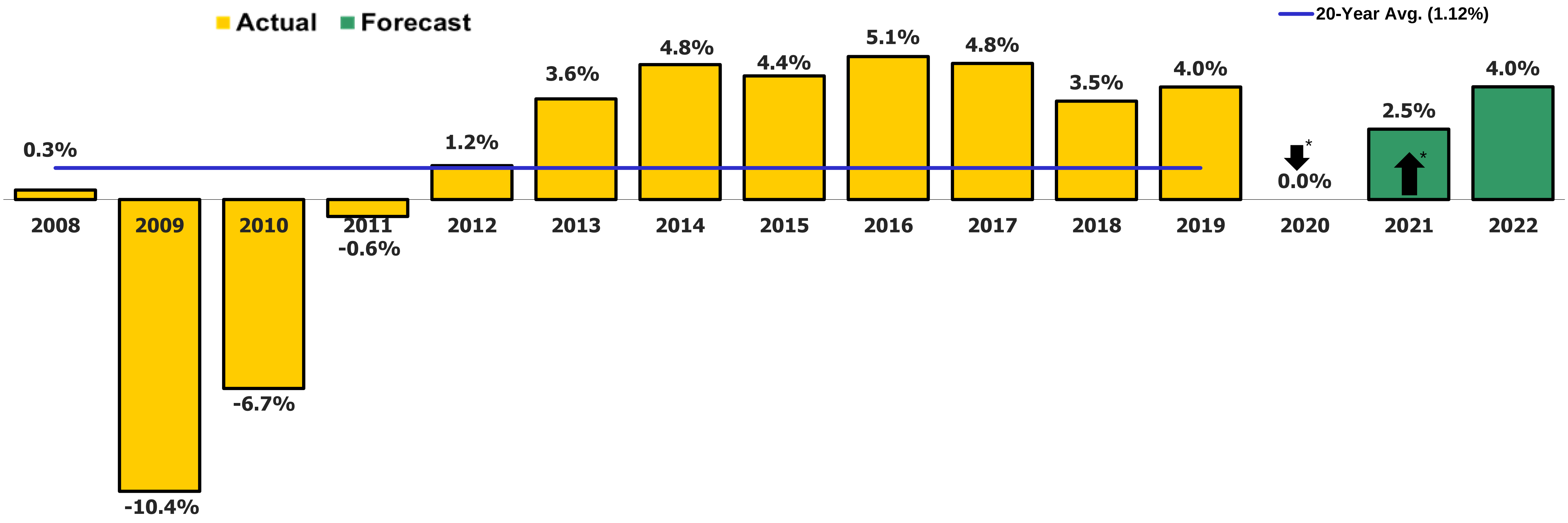
Industrial/Warehouse Availability Rates



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 October, 2019) projected 7.2% for 2020 and 7.4% for 2021.

Industrial/Warehouse Rental Rate Change



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

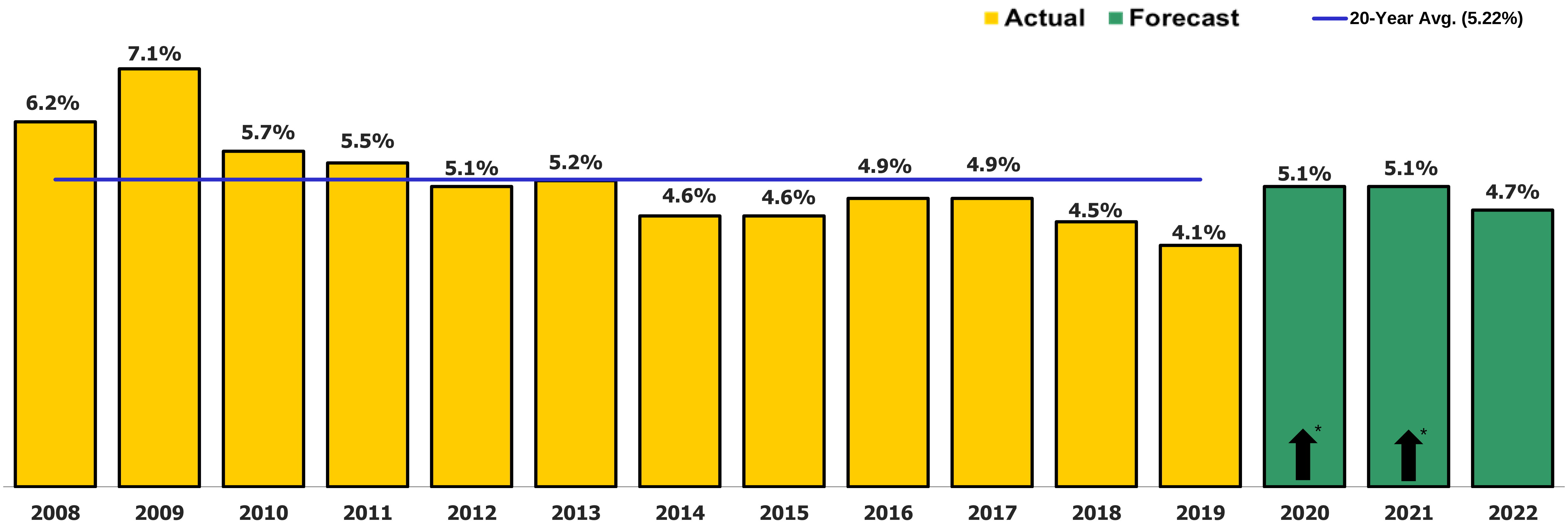
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast**.** The previous forecast (released in October, 2019) projected 3.0% for 2020 and 2.4% for 2021.

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 4.1% in ‘19. Vacancy rates are expected to increase by 100 basis points in 2020 to 5.1%, plateau at that level in 2021, and notch back down in 2022 to 4.7%.

- 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 -2.0% growth, but a return to positive growth of 2% in 2021. This positive growth is expected to continue in 2022 at 3%, a return to above long-term average growth rates.

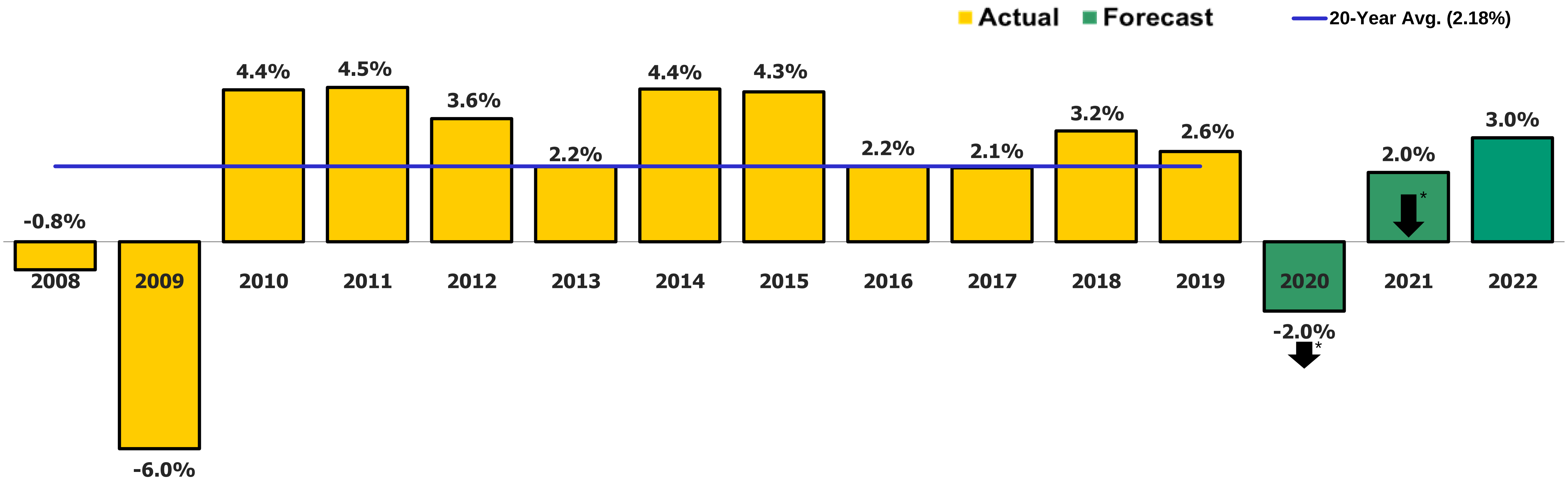
Apartment Vacancy Rates



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 forecast (released in October, 2019) projected 4.5% for 2020 and 4.7% for 2021.

Apartment Rental Rate Change



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

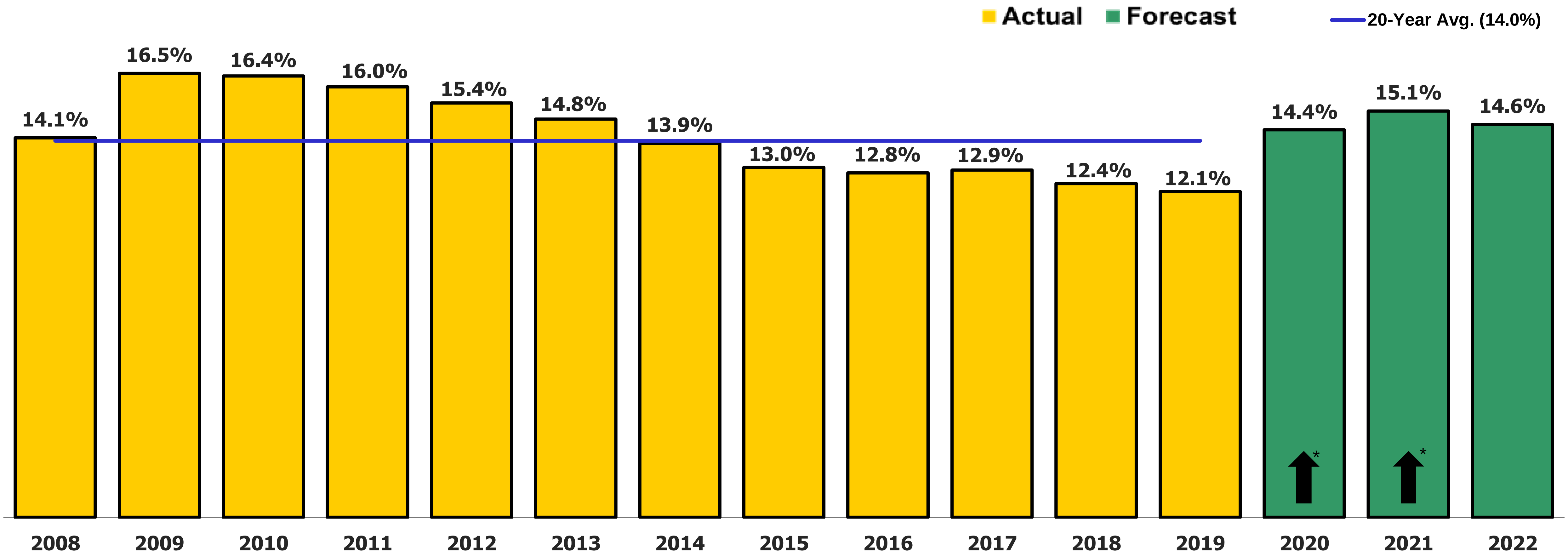
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 2.3% for 2020 and 2.3% for 2021.

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 230 basis points to 14.4% continue to rise in 2021, albeit at a much slower pace, to 15.1% before edging down 14.6% 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 -5.0% in 2020 and neither positive nor negative movement in 2021. Growth will be positive in 2022 at 2%, slightly above the long-term average.

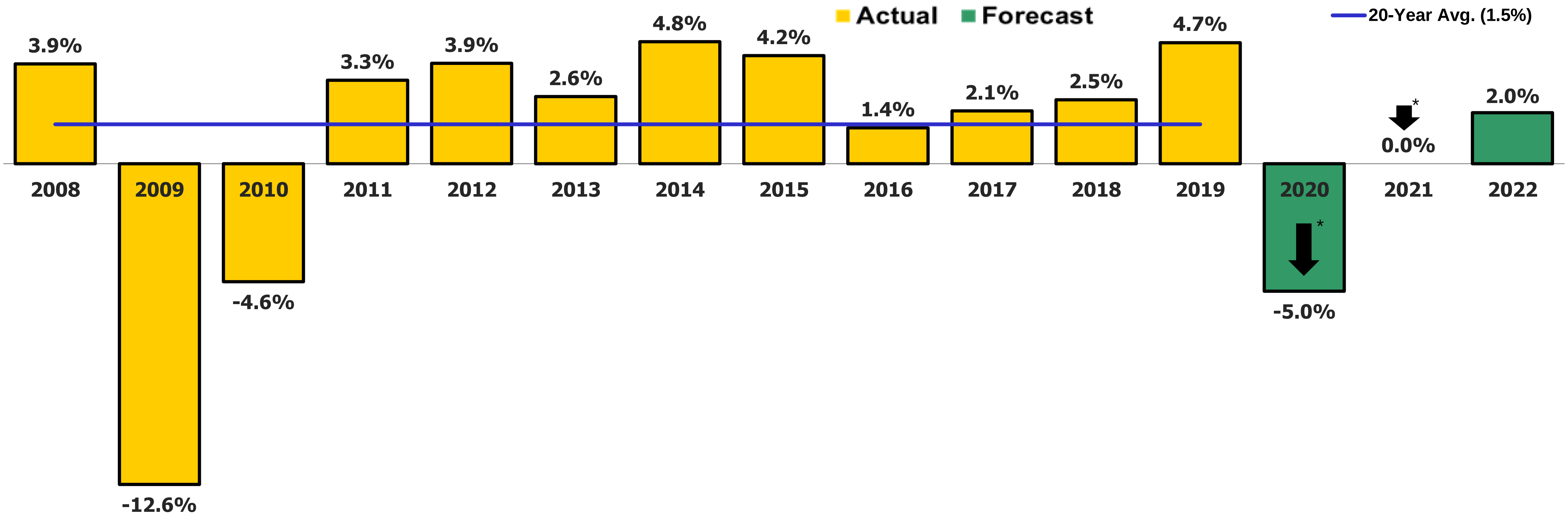
Office Vacancy Rates



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 forecast (released in October, 2019) projected 12.5% for 2020 and 12.8% for 2021.

Office Rental Rate Change



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

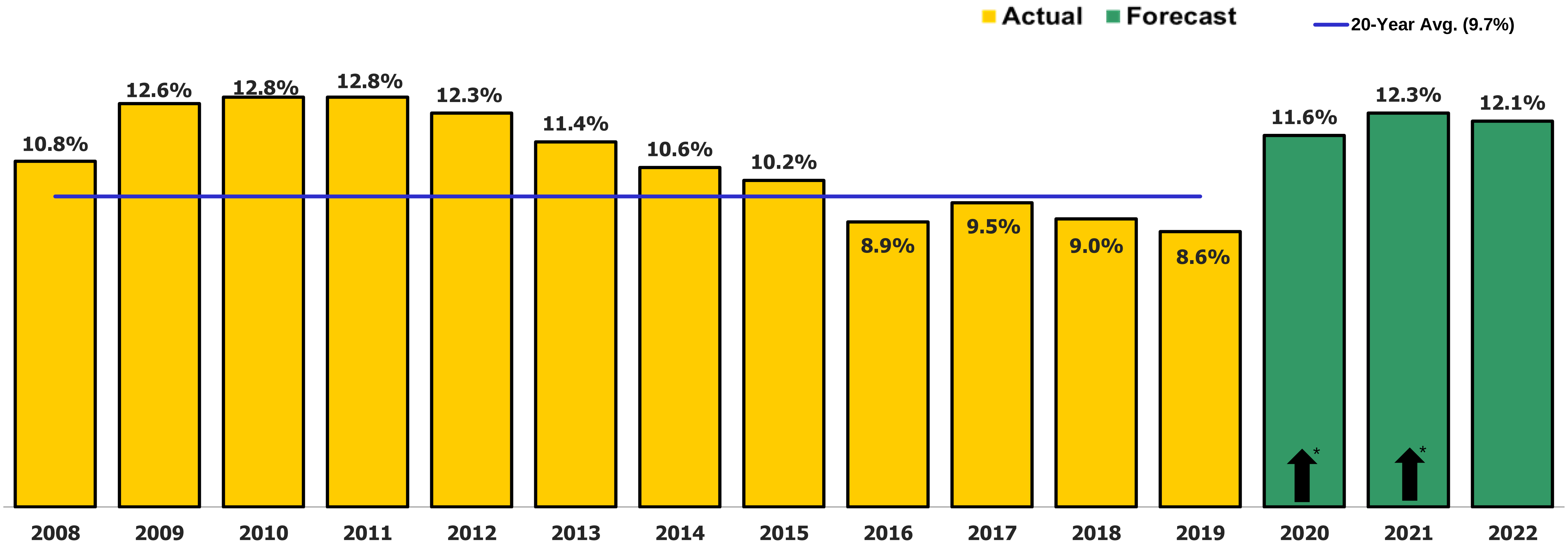
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 1.8% for 2020 and 1.6% for 2021.

Retail Sector Fundamentals

- Retail availability rates were at 8.6% in ‘19, the lowest post-GFC rate. With the closure of non-essential stores during the pandemic, which also exacerbated on-going struggles by some retailers, availability rates for 2020 are forecast to rise 300 basis points to 11.6%, continue to rise in 2021, albeit at a much slower pace, to 12.3% and essentially plateau at 12.1% 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 steep decline in retail rents of -8.2% in 2020 and further decline of -2% in 2021. Growth will be positive in 2022, albeit a modest 1%.

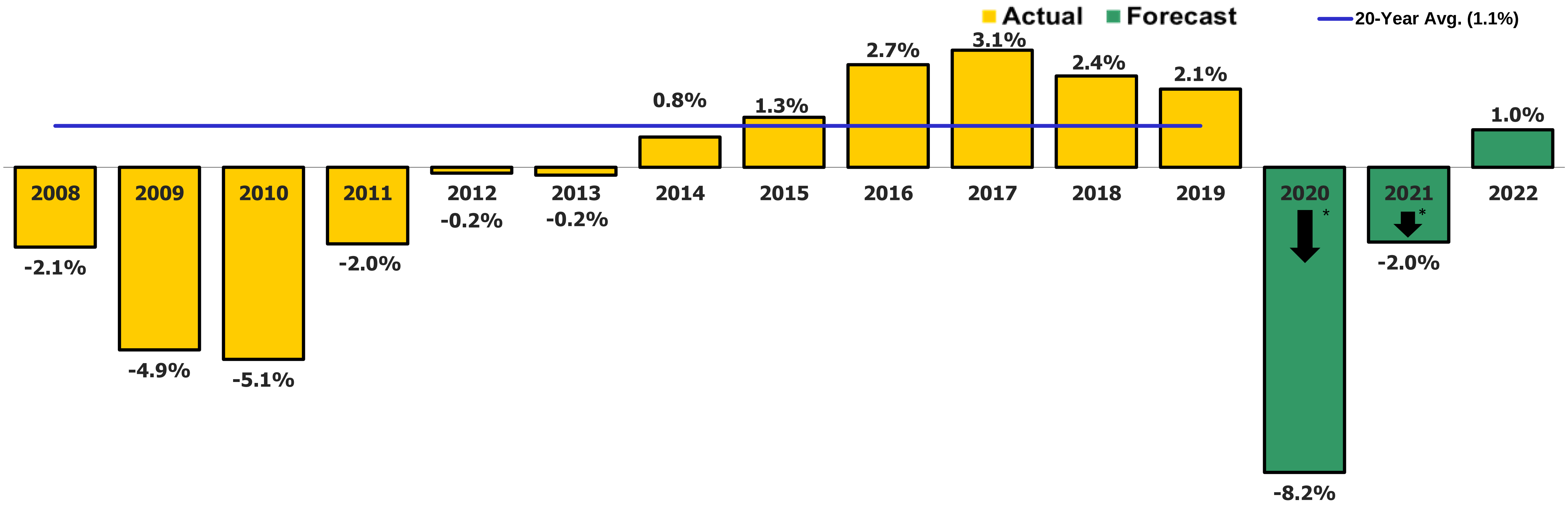
Retail Availability Rates



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 October, 2019) projected 9.2% for 2020 and 9.5% for 2021.

Retail Rental Rate Change



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

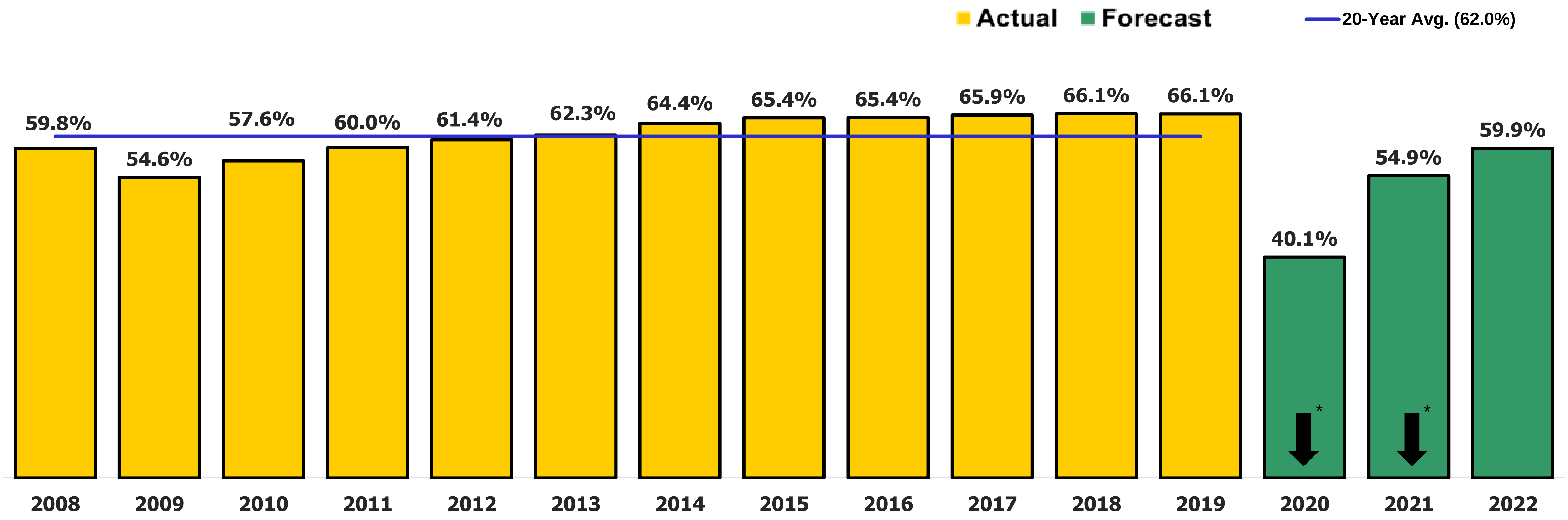
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 1.0% for 2020 and 1.0% for 2021.

Hotel Sector Fundamentals

- Hotel occupancy rates, according to STR, were steadily improving over the last ten years since reaching a low of 54.6% in 2009. Occupancy rates came in at 66.1% in 2019, above the twenty-year average. The hotel industry was brought to a halt during the pandemic; the occupancy forecast for the full 2020, 40.1%, most likely reflects its relative strength in the few months prior to the pandemic, the halt during 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 54.9% in ‘21 and 59.9% in ‘22.

- Following seven years of above-average hotel revenue per available room (RevPAR) growth, the RevPAR growth rate dipped to just below the long-term average in ‘17 and ’18, and then experienced minimal growth, 0.9%, in 2019. RevPAR is forecast to drop 27.5% in 2020. Growth is expected to begin recovery in ‘21 at 6.5%, and continue in ‘22 at 5.0%. 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.

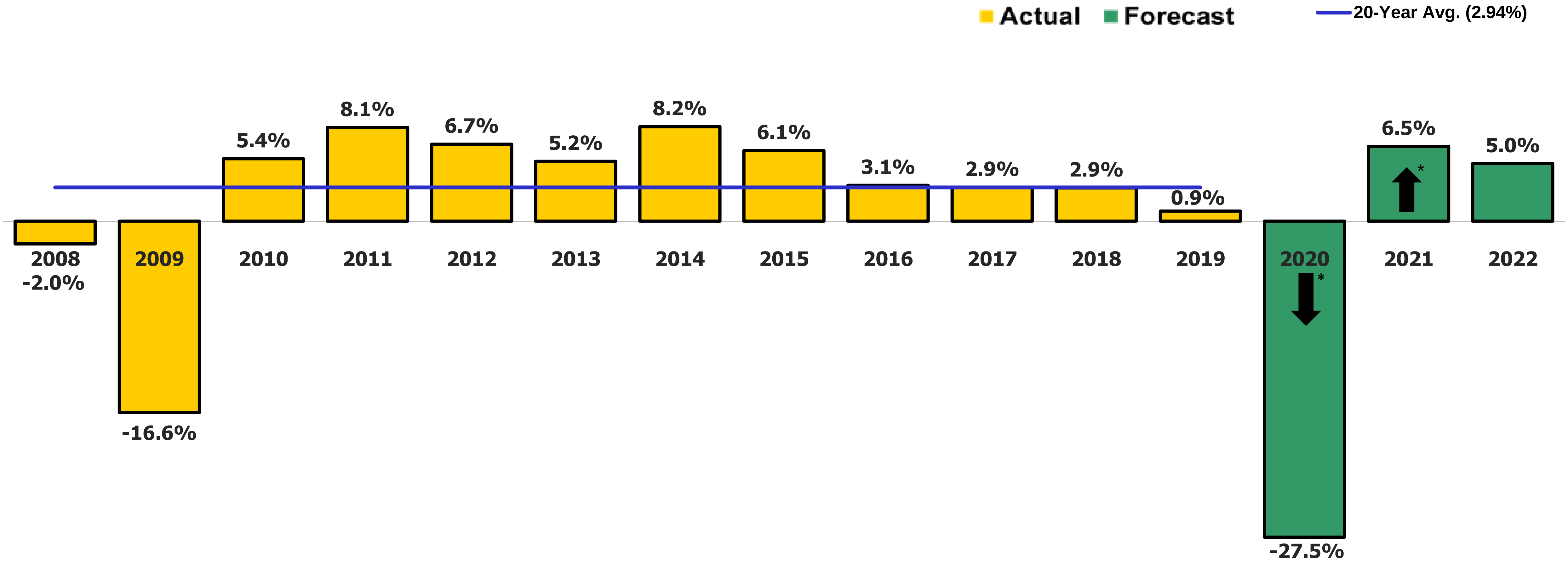
Hotel Occupancy Rates



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 forecast (released in October, 2019) projected 65.7% for 2020 and 65.2% for 2021.

Hotel Revenue per Available Room (RevPAR) Change



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

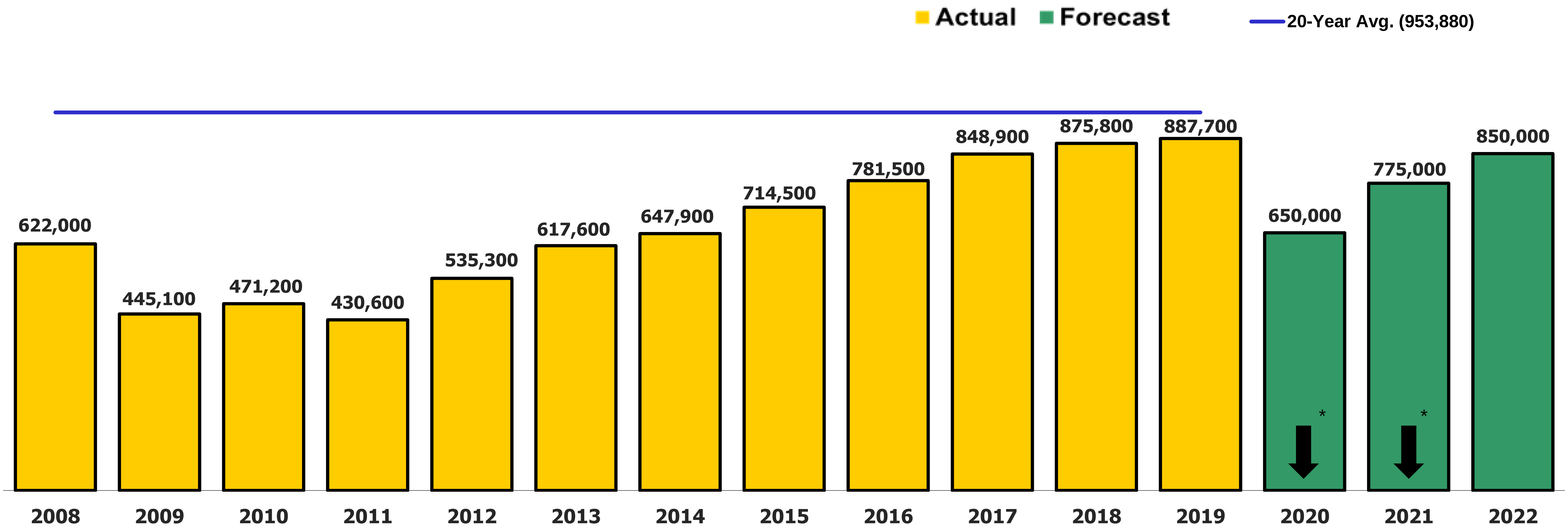
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast. The previous forecast (released in October, 2019) projected 1.2% for 2020 and 1.0% for 2021.

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 by more than one quarter from ‘19 to 650,000 starts. Starts are expected to start recovery and reverse direction in 2021, increasing to 775,000 and to 850,000 in ’22.

- According to the FHFA, existing home prices increased an average of 5.2% in 2019, the eighth consecutive year of strong price growth. Price growth is expected to be minimal but positive in ‘20, with 1.1% price growth. Price growth is expected to be stronger in ‘21 at 2.8% and in ‘22 at 4.6%.

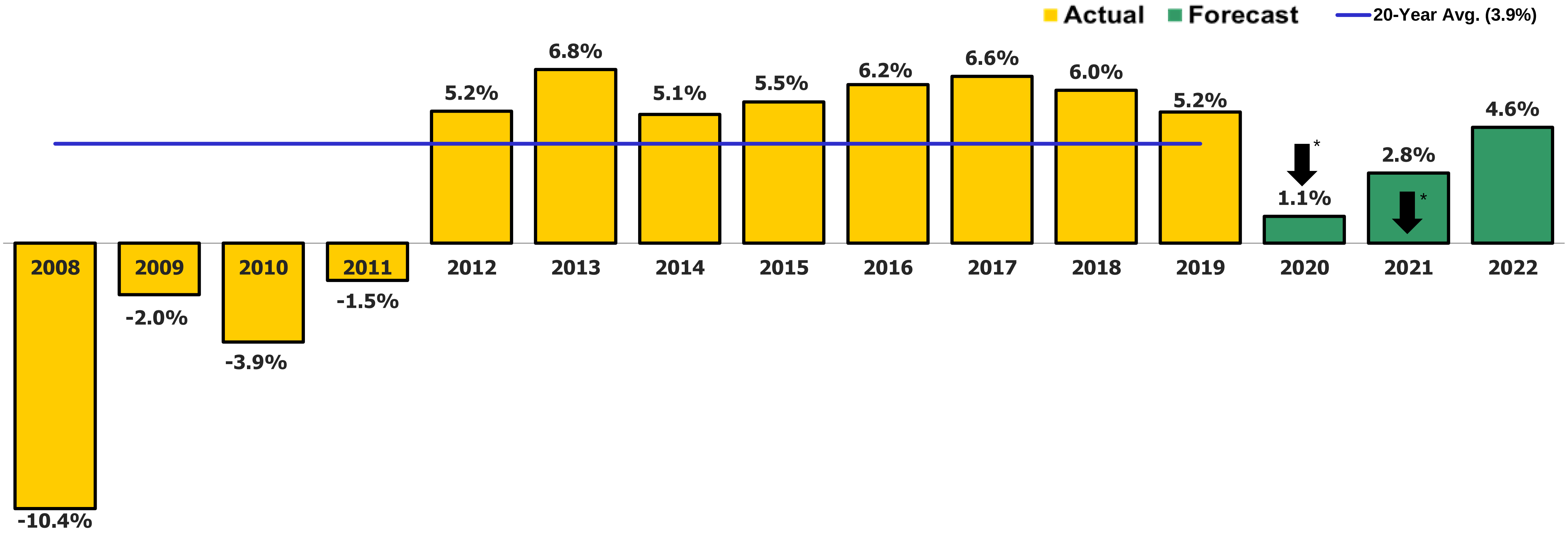
Single-Family Housing Starts



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 October, 2019) projected 810,000 for 2020 and 800,000 for 2021.

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 October, 2019) projected 2.5% for 2020 and 3.0% for 2021.

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
Berkshire Residential Investments	Gleb Nechayev	Head of Research, Chief Economist
Bozzuto	Mark Franceski	Vice President, Research
Clarion Partners	Tim Wang	Managing Director & Head of Investment Research
CoreLogic, Inc.	Frank E. Nothaft	Executive, Chief Economist
Cushman & Wakefield	Rebecca Rockey	Economist, Global Head of Forecasting
DWS	Kevin White	Co-Head of Research & Strategy, Alternatives
Eigen 10 Advisors, LLC	Paige Mueller	Managing Director
GID	Suzanne Mulvee	SVP, Research and Strategy
Green Street Advisors	Peter Rothemund, CFA	Managing Director
Harrison Street Real Estate	Thomas Errath	Managing Director

continued…….

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
JP Morgan Asset Management - Real Estate Americas	Aric Chang	Executive Director, Research
Laposa Realty Advisors, LLC	Steven Laposa, PhD	Principal
LaSalle Investment Management	Richard Kleinman	Head of Research & Strategy
Linneman Associates	Peter Linneman	CEO
Marcus & Millichap	John T. Chang	Senior Vice President, Director of Research
	Peter Tindall	Vice President, Research Data & Analytics
MetLife Investment Management	William Pattison	Head of Real Estate Research and Strategy
Moodys Analytics	Victor Calanog	Head of CRE Economics
NAREIT	Calvin Schnure	Chief Economist
National Association of Realtors	Lawrence Yun	Chief Economist
Oxford Economics	Aran Ryan	Tourism Economics, Director of Lodging Analytics
PNC Financial Services Group	Stuart Hoffman	SVP, Senior Economic Advisor
PwC, LLP	Andrew Warren	Director - Real Estate Research
RCLCO	Taylor Mammen	Senior Managing Director
	Ben Maslan	Managing Director

Firms That Participated in the ULI Real Estate Economic Forecast

Organization	Lead Economist/Analyst	Title
RERC	Ken Riggs	Vice Chairman
	Jodi Airhart	Senior Vice President
Rosen Consulting Group	Kenneth Rosen	Chairman
	Randall Sakamoto	President
Stockbridge Associates	George Casey	CEO
Transwestern	Jimmy Hinton	Senior Managing Director, Investment & Data Analytics
Trepp, LLC	Matthew Anderson	Managing Director
UMP, LLC	Dr. David Lynn	CEO
University of Alabama	KC Conway	CCIM Chief Economist
UT Austin, McCombs Real Estate Finance & Investment Center	Mark Roberts	Executive Director

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.

Urban Land Institute

ULI Real Estate Economic Forecast

A Survey of Leading Real Estate Economists/Analysts

uli.org/economicforecast

May 2020

ULI Center for Capital Markets and Real Estate

Anita Kramer
Senior Vice President

Jacob Behrmann
Senior Associate

Clayton Daneker
Senior Associate

Urban Land Institute
ULI Center for Capital Markets and Real Estate