

ULI Real Estate Economic Forecast

A Survey of Leading Real Estate Economists/Analysts

Learning in Real Time:
Experts Share Their Forecasts for
Real Estate in '18, '19, and '20

uli.org/economicforecast

ULI Fall Meeting

October 10, 2018



**Urban Land
Institute**

ULI Center for Capital Markets
and Real Estate

ULI Center for Capital Markets and Real Estate

ULI Real Estate Economic Forecast

- Three-year forecast ('18-'20) for 27 economic and real estate indicators.
- A consensus forecast based on the median of the forecasts from 45 economists/analysts at 33 leading real estate organizations.
- Respondents represent major real estate investment, advisory, and research firms and organizations.
- This is the 14th survey; completed August 17 – September 5, 2018.
- A semi-annual survey; next release planned for April 2019.



Moderator

Arthur Margon

Partner
Rosen Consulting Group

Panel



Melissa Reagen

Managing Director, Head of
Americas Real Estate Research
TH Real Estate



Joshua Scoville

Senior Managing Director,
Research
Hines



Tim Wang

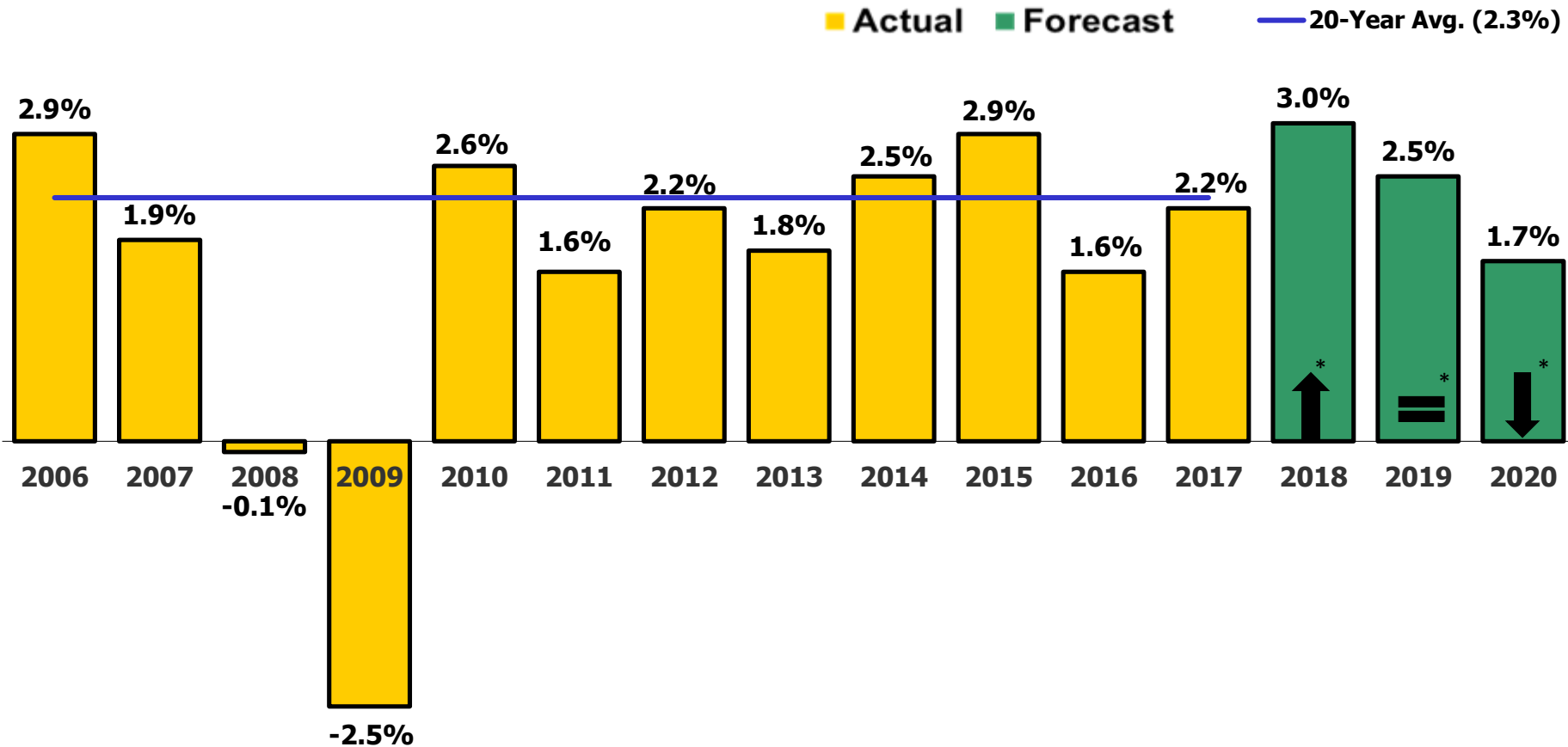
Managing Director, Head of
Investment Research
Clarion Partners

Sea Change In Macro Policy

- Scale back in monetary stimulus - Normalization of monetary policy
 - Gradual increase in short term and long term interest rates
 - QT rather than QE as Fed reduces balance sheet
- Massive fiscal stimulus, tax cuts/tax reform, \$300 billion spending increase over 2 years, deficit explodes to \$1 trillion
- Possible Trade War with China and others
- Restrictive immigration policy
- Deregulation by appointments and by executive orders, has boosted business optimism
- Opportunity zones

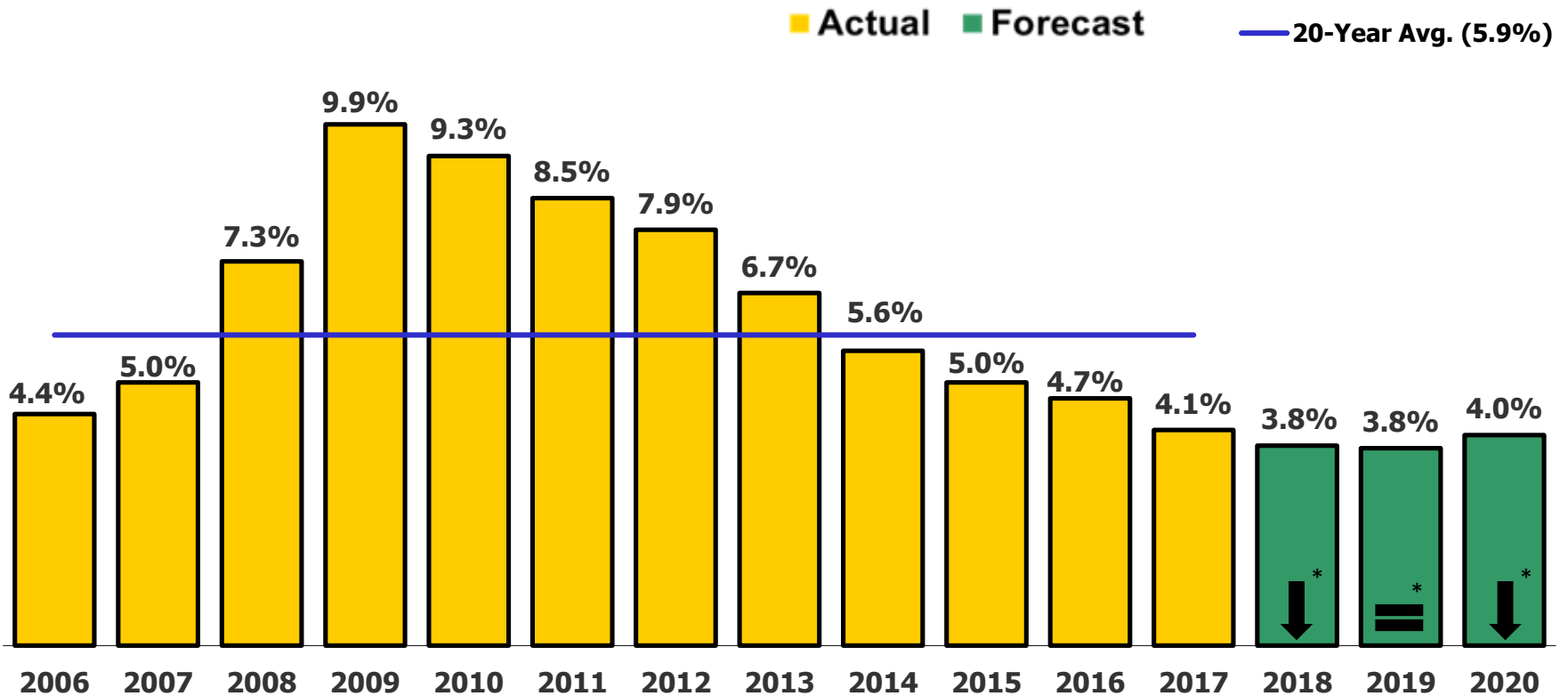
Risks to Economic Outlook

- Unfunded tax cuts and increased spending in a full employment economy
- Trade War : De-globalization; restrictive immigration, trade, tariffs, travel, and visa policies
- Emerging market meltdown: U.S. interest rate normalization and stronger dollar
- Geopolitical accident
- Political risk: midterm elections and Trump legal issues
- Technology valuation bubble
- Proliferation of high-yield covenant-lite loans, esp. corporate debt



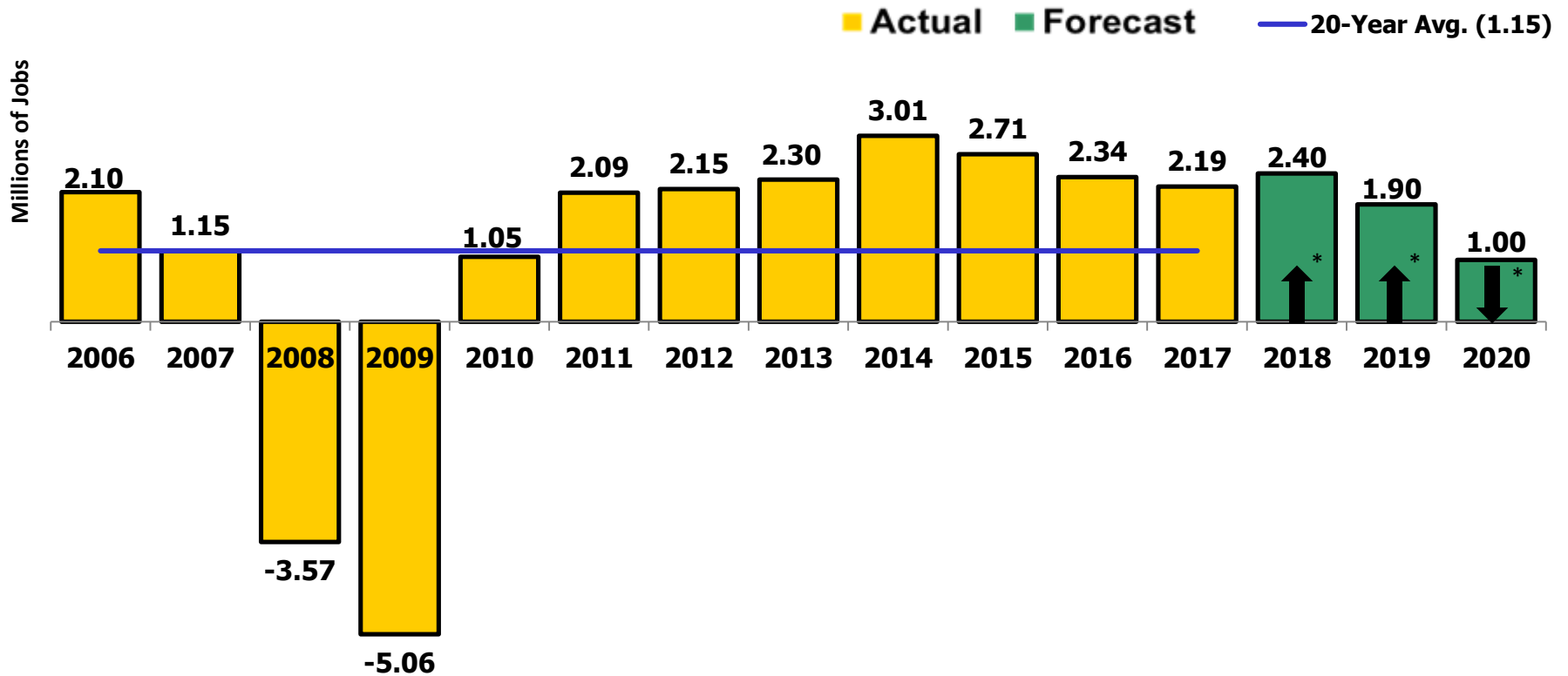
Sources: 1998-2017, Bureau of Economic Analysis; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 2.8%, 2.5%, and 2.0%, respectively, for 2018, 2019, and 2020.



Sources: 1998-2017, (seasonally adjusted, as of December), Bureau of Labor Statistics; 2018-2020 (YE), ULI Real Estate Economic Forecast.

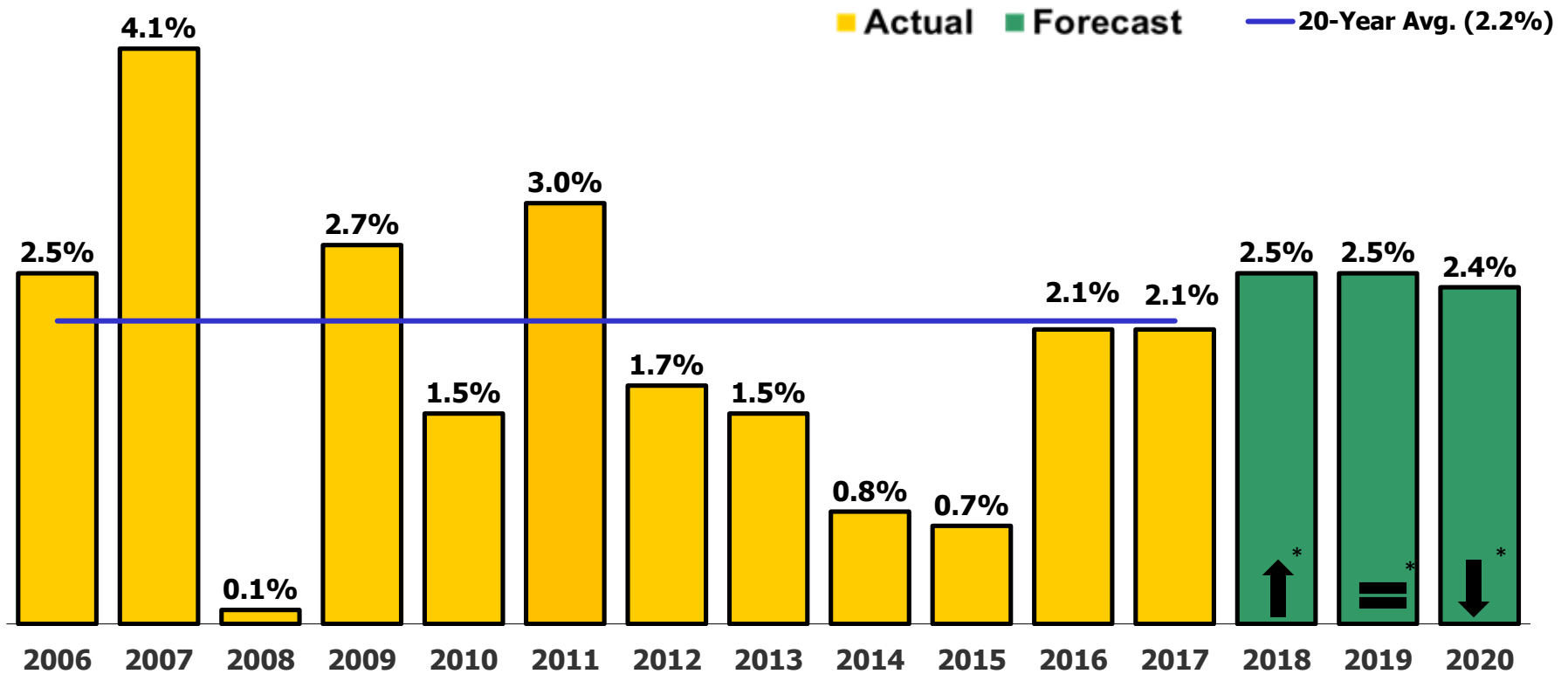
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 3.9%, 3.8%, and 4.1%, respectively, for 2018, 2019, and 2020.



Sources: 1998-2017, Bureau of Labor Statistics; 2018-2020 ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 2.20, 1.89, and 1.38, respectively, for 2018, 2019, and 2020.

Consumer Price Index Inflation Rate



Sources: 1998-2017, (12-month change, as of December), Bureau of Labor Statistics; 2018-2020 (YE), ULI Real Estate Economic Forecast.

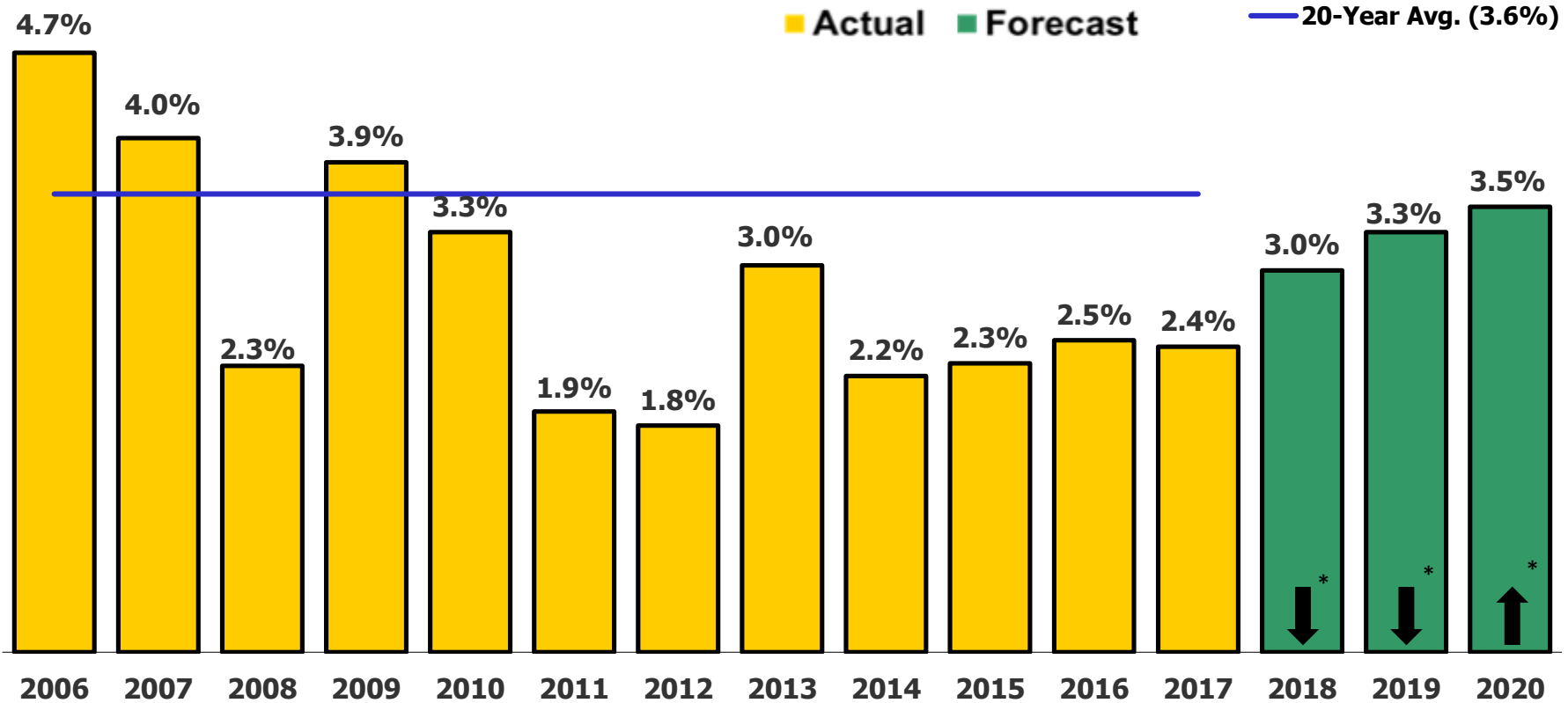
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 2.3%, 2.5%, and 2.45%, respectively, for 2018, 2019, and 2020.

Why Inflation May Accelerate 2018-2020

- Stimulative fiscal policy in U.S. in a full employment economy
- Tariffs...imported inflation from China and rest of the world
- Surge in oil prices
- Tight labor markets lead to accelerating wage inflation
- Surge in logistics costs
 - Truck costs: +7.8%
 - Rail costs: +8.2%
 - Airfreight costs: +3.1%
- Higher health insurance premiums (end to individual mandate)



Ten-Year Treasury Rate



Sources: 1998-2017 (YE), U.S. Federal Reserve; 2018-2020 (YE), ULI Real Estate Economic Forecast.

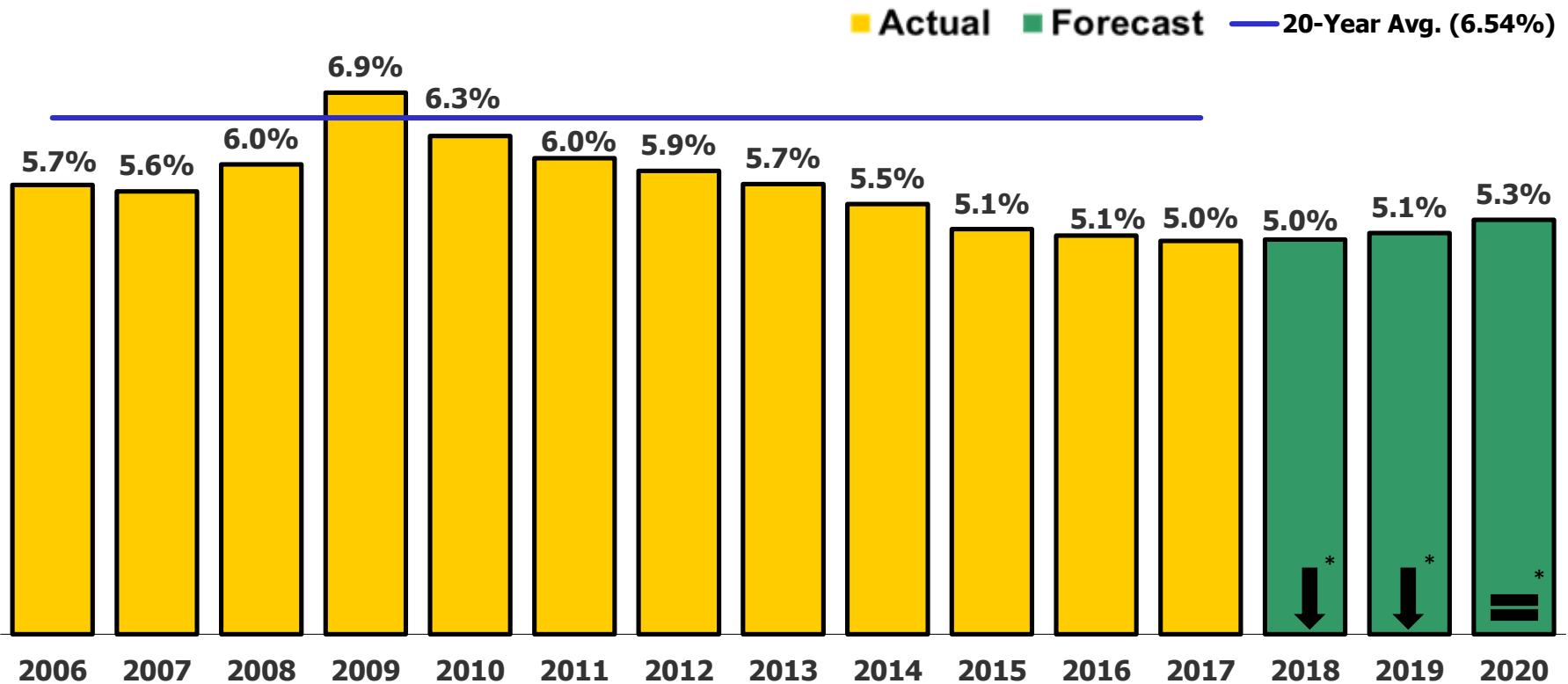
*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 3.1%, 3.4%, and 3.4% respectively, for 2018, 2019, and 2020.

Why Long Term Bond Interest Rates May Rise in 2018-2020

- Acceleration of global inflation
 - Wages, commodity prices, tariffs
- Fed raising short term rates to the 3.375% level
- \$1.8 trillion reduction in Fed balance sheet over three years
- Federal deficit increasing to nearly \$1 trillion per year
 - Tax cuts and bi-partisan budget agreement
 - Increasing issuance of Treasuries
- Extreme monetary expansion by ECB and Bank of Japan ends



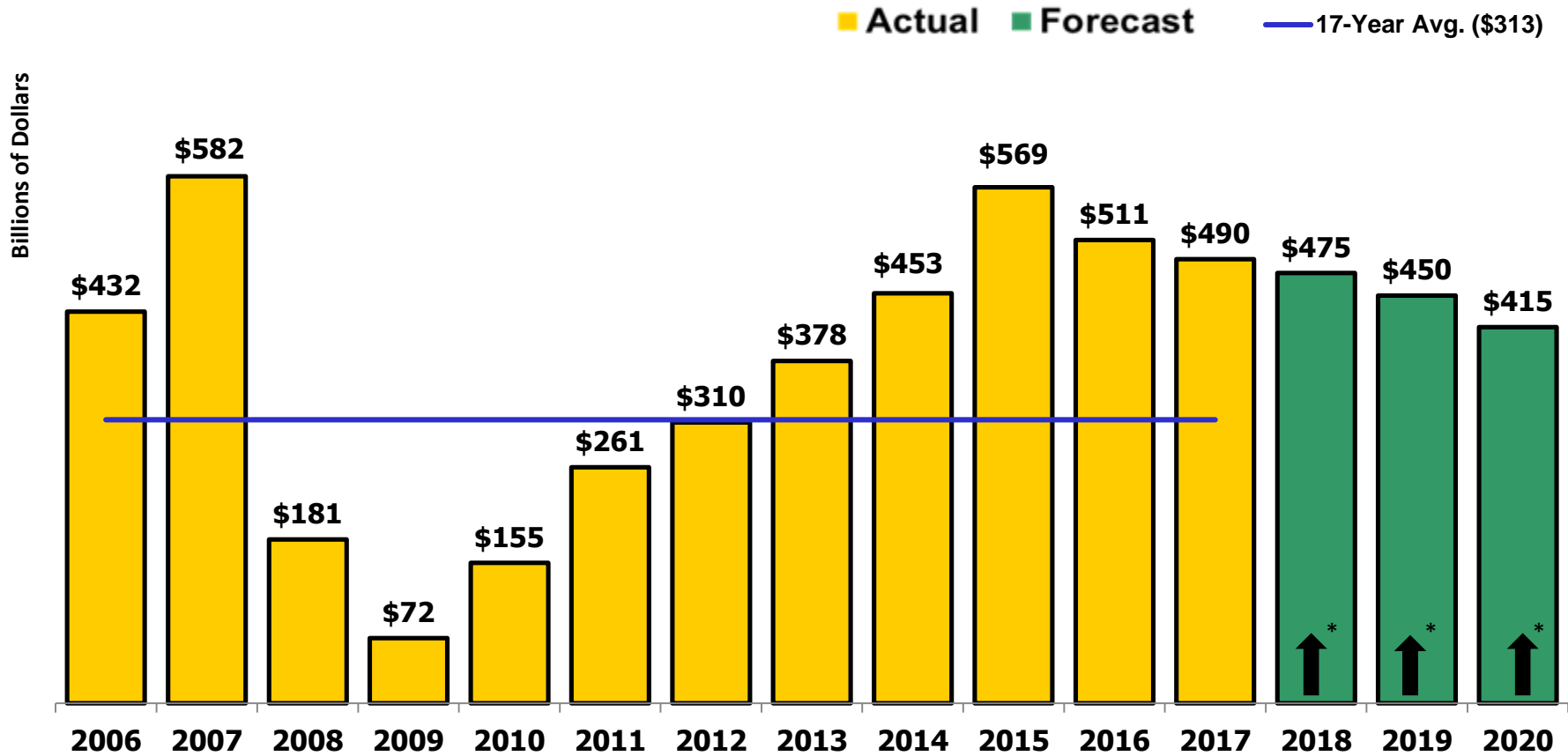
NCREIF Capitalization Rate



Sources: 1998-2017, (Q4), National Council of Real Estate Investment Fiduciaries (NCREIF); 2018-2020 (YE), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 5.1%, 5.2%, and 5.3%, respectively, for 2018, 2019, and 2020.

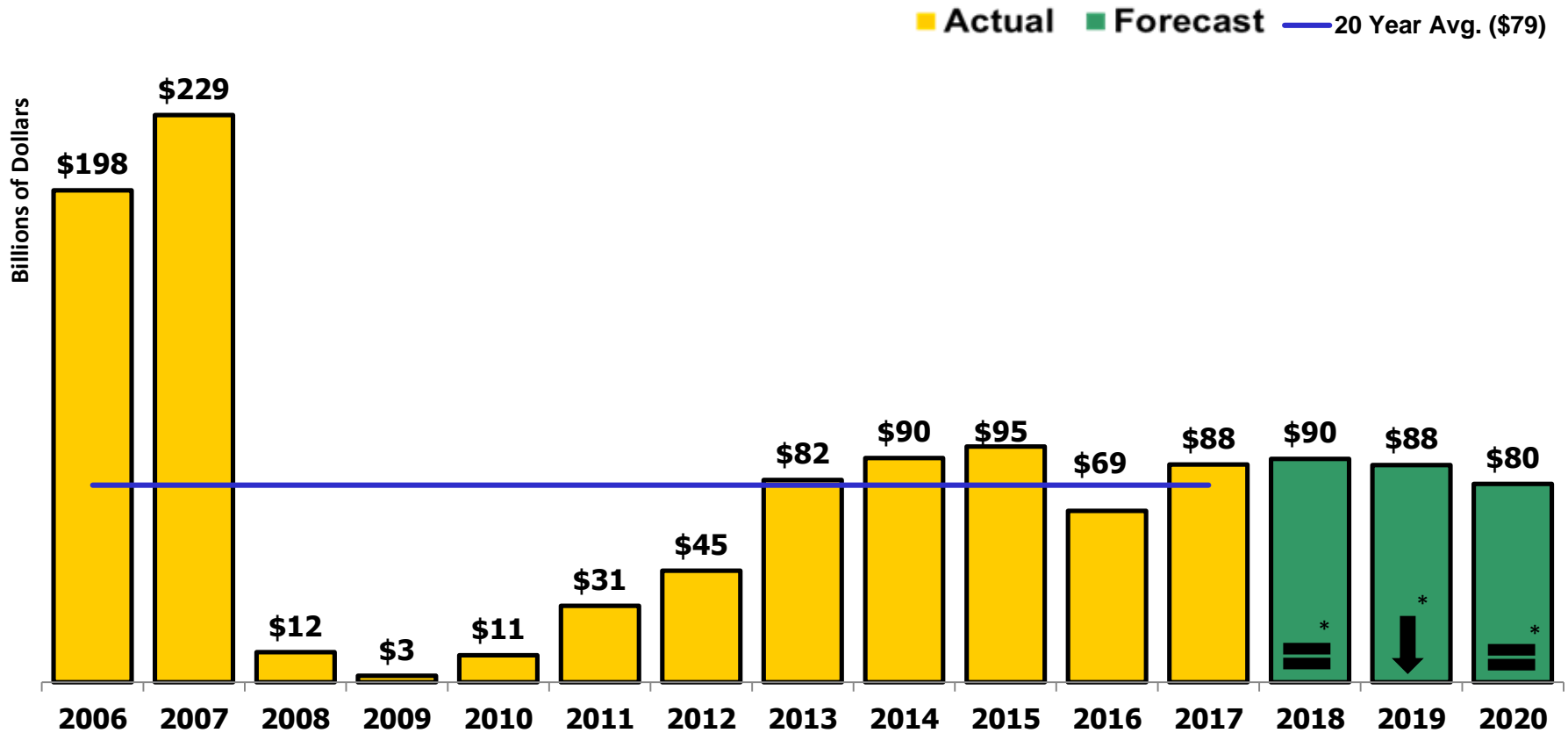
Commercial Real Estate Transaction Volume



Sources: 2001-2017, Real Capital Analytics; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were \$450, \$425, and \$408 respectively, for 2018, 2019, and 2020.

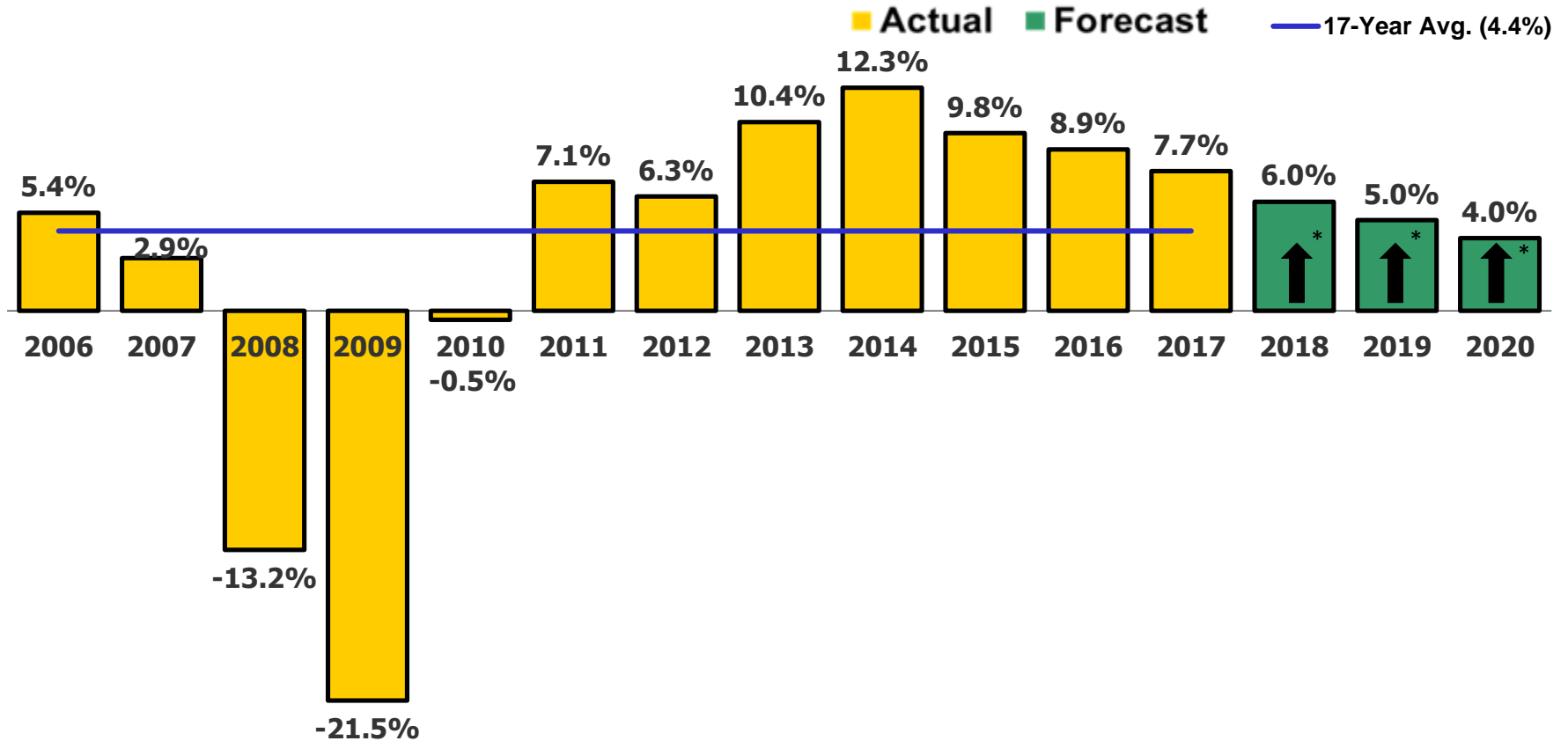
Commercial Mortgage-Backed Securities (CMBS) Issuance



Sources: 1998-2017, Commercial Mortgage Alert; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were \$90 billion, \$90 billion, and \$80 billion, respectively, for 2018, 2019, and 2020.

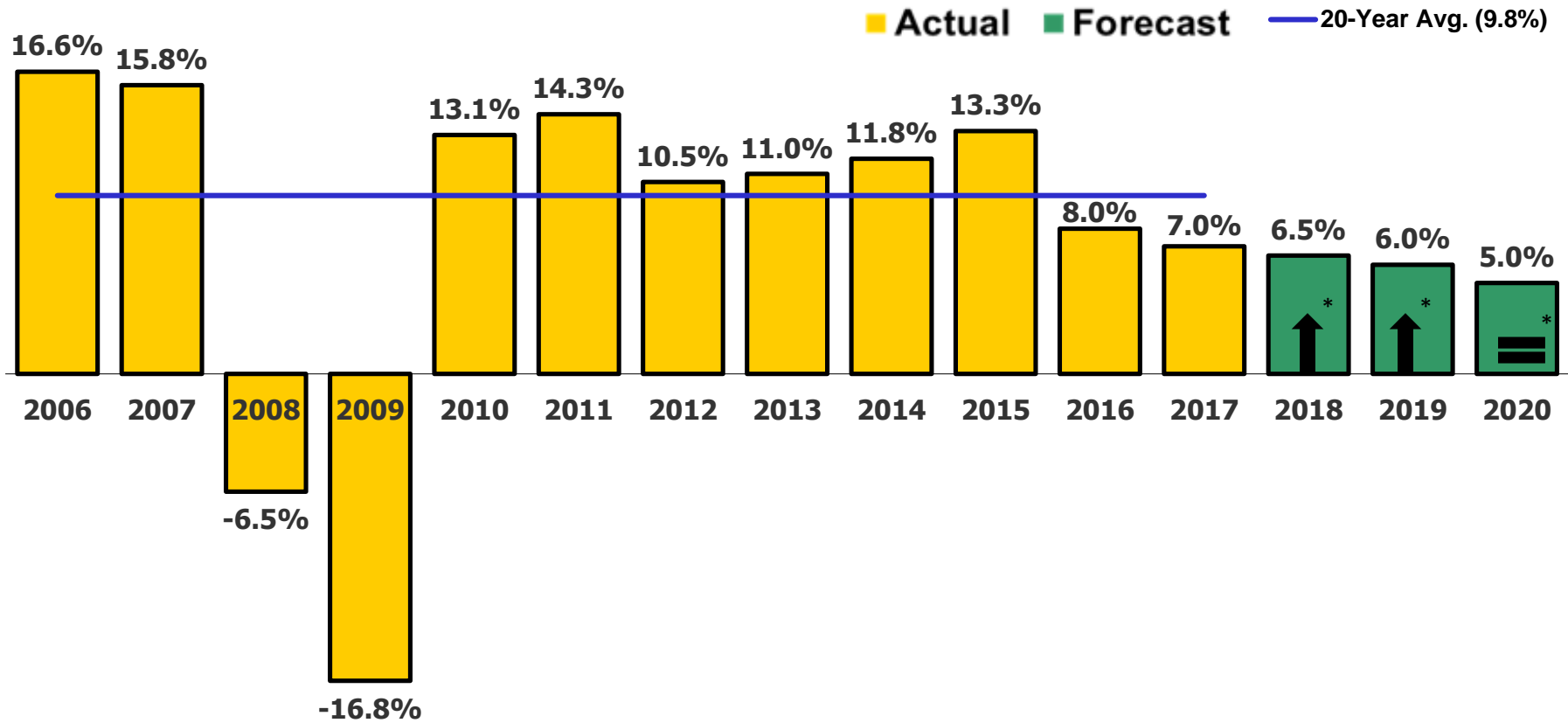
RCA Commercial Property Price Index (annual change)



Sources: 2001-2017, Real Capital Analytics; 2018-2020, ULI Real Estate Economic Forecast.

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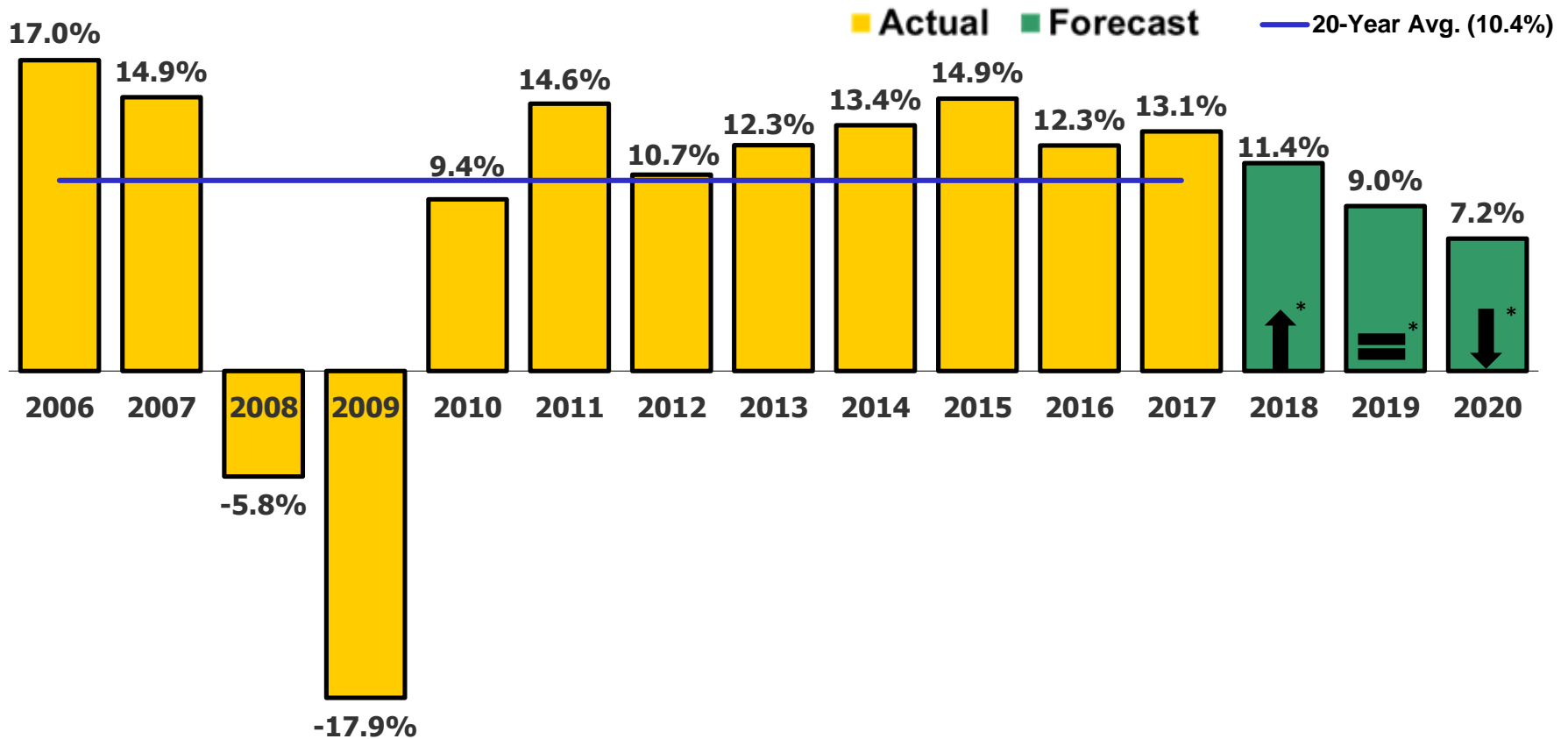
NCREIF Total Annual Returns



Sources: 1998-2017 National Council of Real Estate Investment Fiduciaries (NCREIF); 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 6.0%, 5.1%, and 5.0% respectively, for 2018, 2019, and 2020.

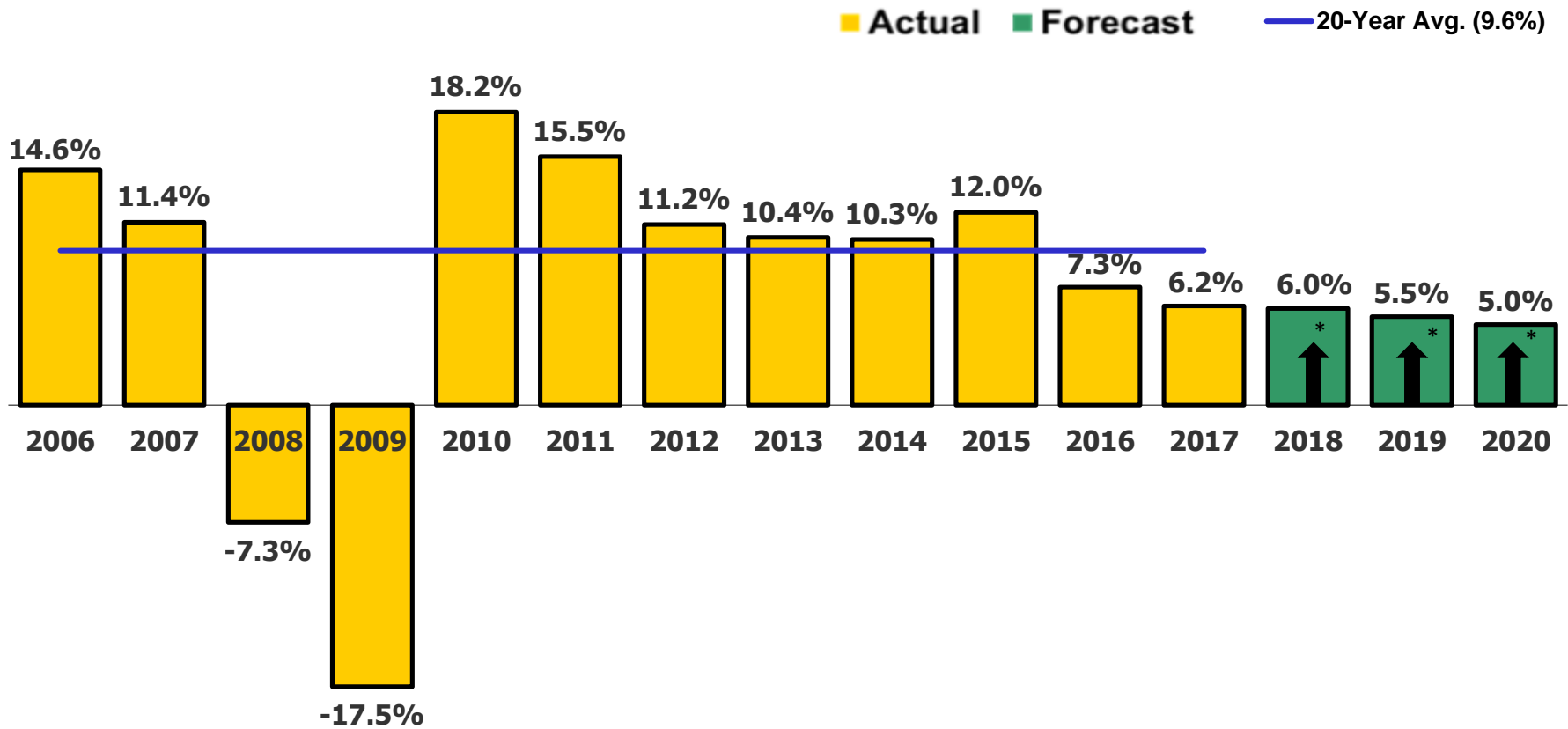
NCREIF Industrial Total Annual Returns



Sources: 1998-2017, National Council of Real Estate Investment Fiduciaries (NCREIF); 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 10.0%, 9.0%, and 8.0% respectively, for 2018, 2019, and 2020.

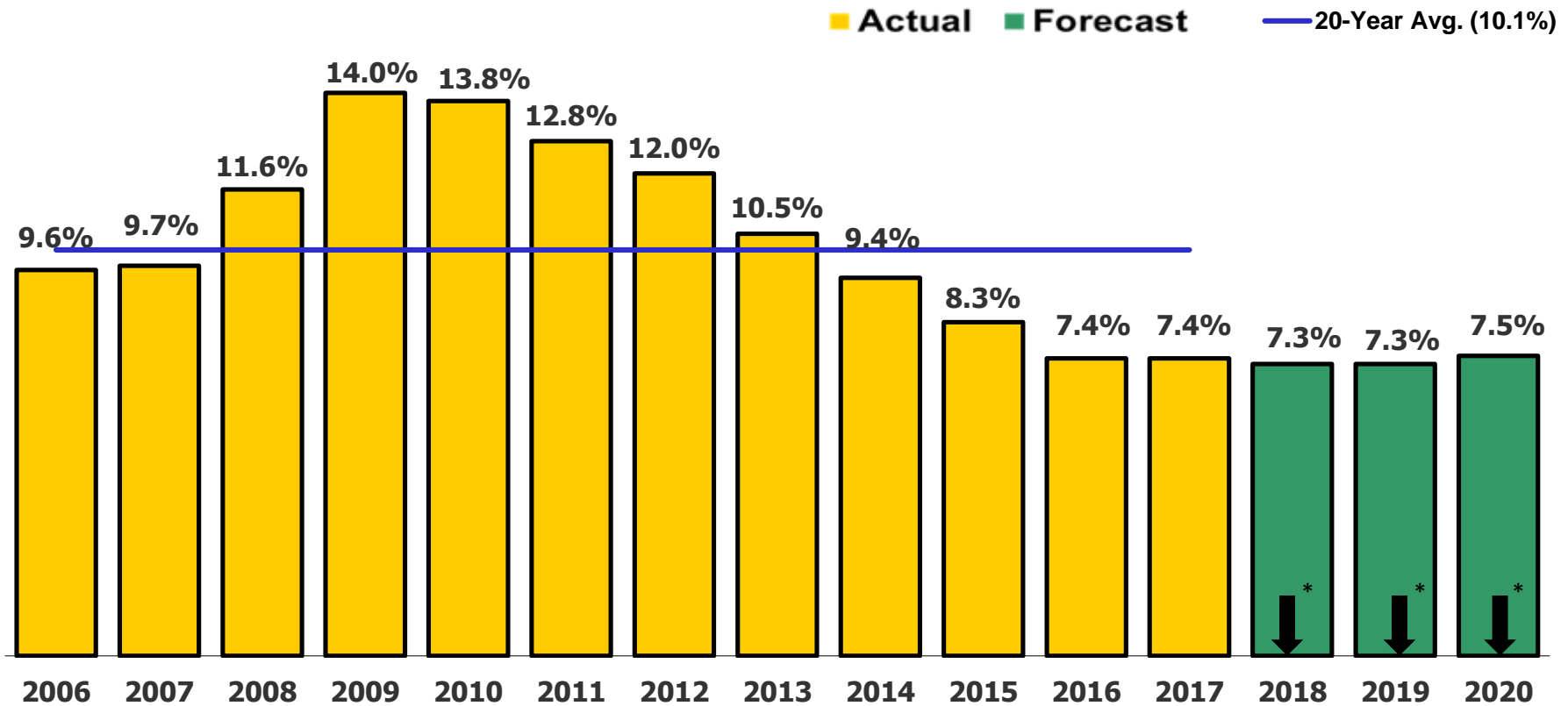
NCREIF Apartment Total Annual Returns



Sources: 1998-2017, National Council of Real Estate Investment Fiduciaries (NCREIF); 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 5.4%, 5.0%, and 4.5%, respectively, for 2018, 2019, and 2020.

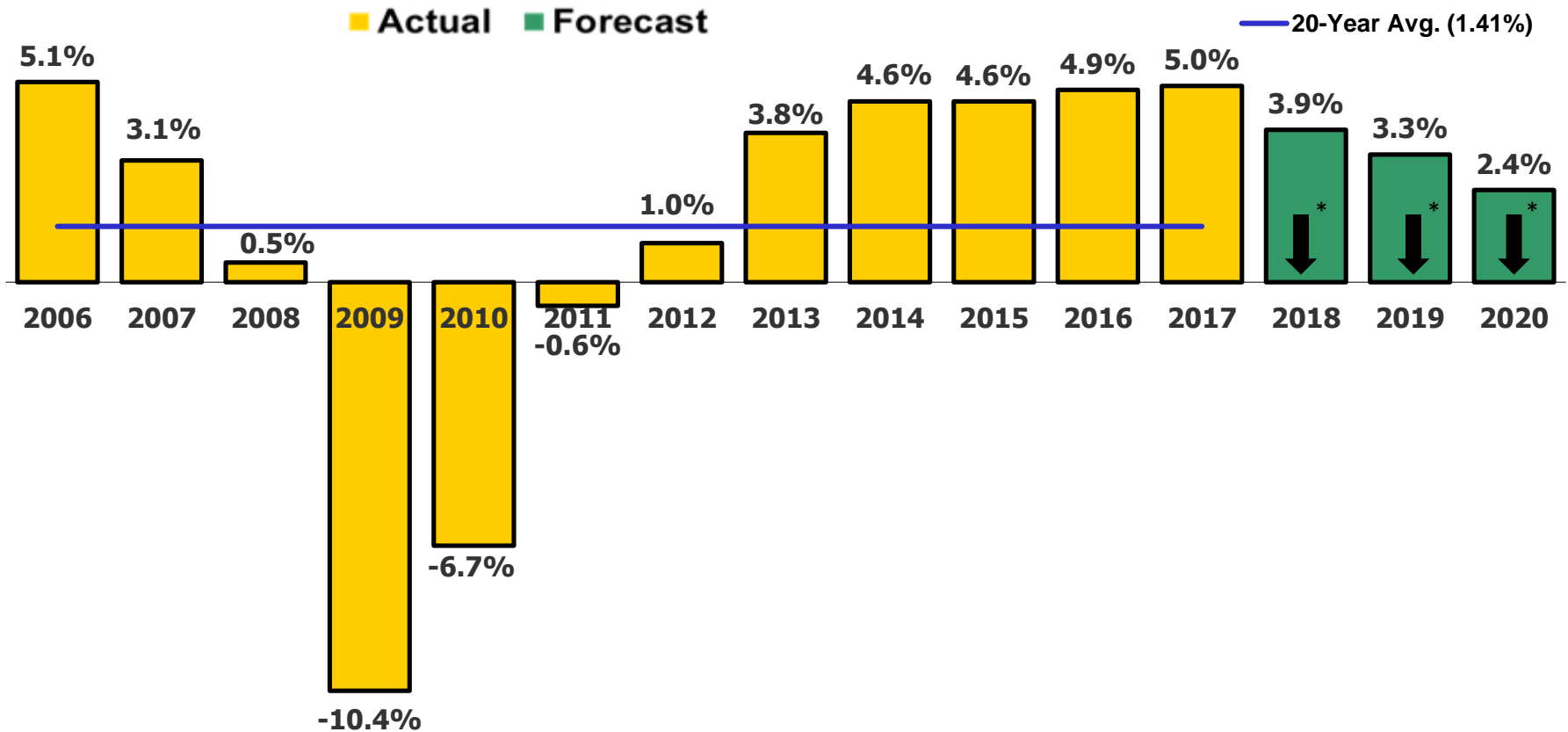
Industrial/Warehouse Availability Rates



Sources: 1998-2017 (Q4), CBRE; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 7.4%, 7.5%, and 7.7%, respectively, for 2018, 2019, and 2020.

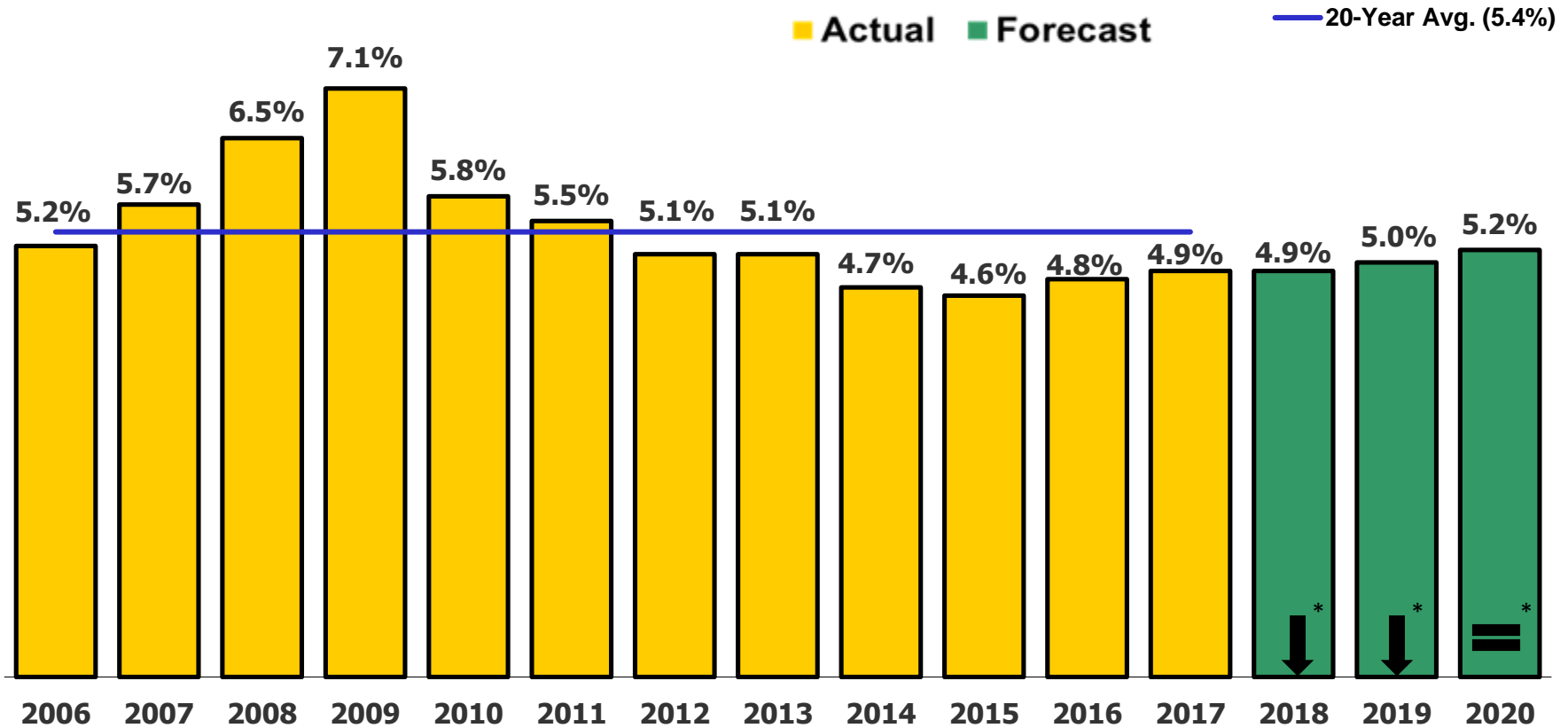
Industrial/Warehouse Rental Rate Change



Sources: 1998-2017, CBRE; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 4.6%, 3.8%, and 3.0%, respectively, for 2018, 2019, and 2020.

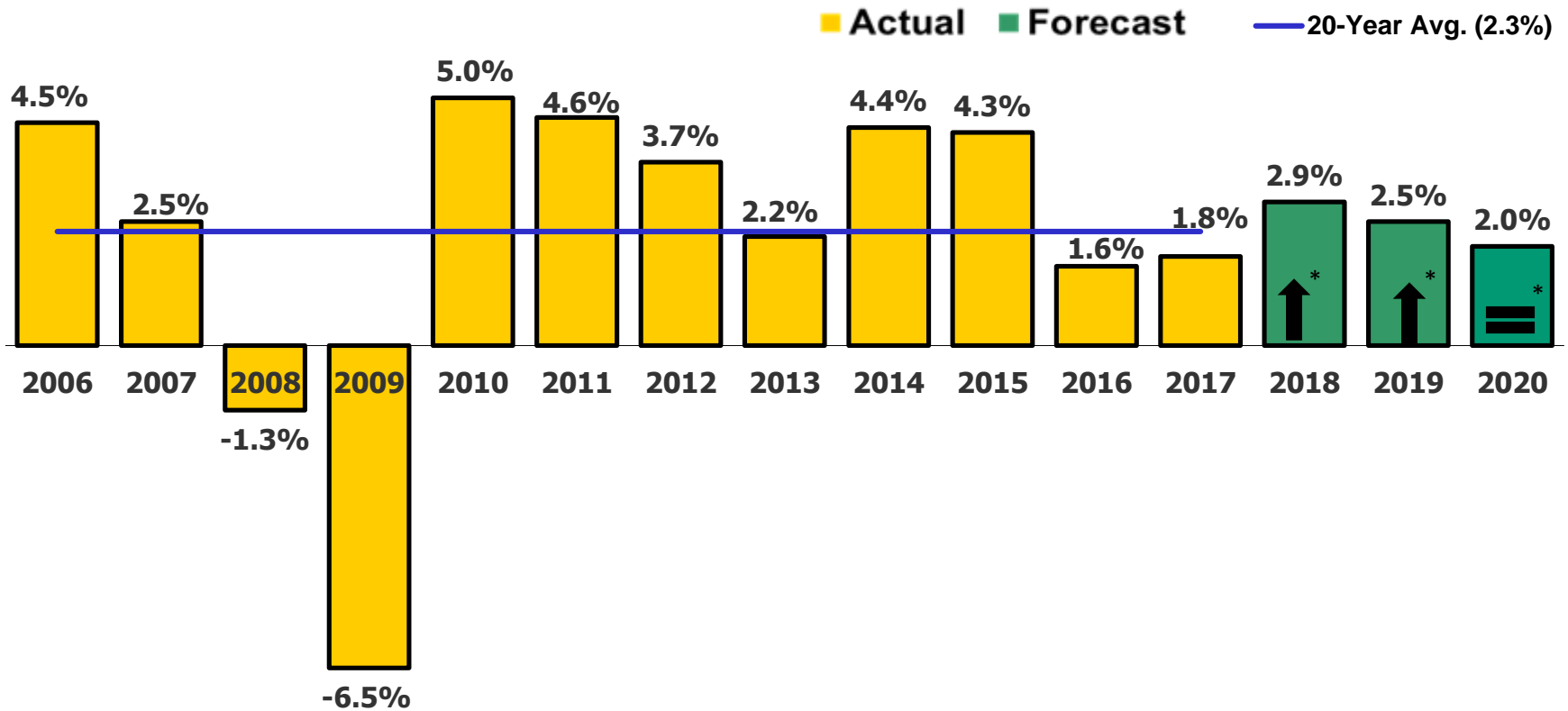
Apartment Vacancy Rates



Sources: 1998-2017 (Q4), CBRE; 2018-2020 (Q4), ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 5.0%, 5.2%, and 5.2%, respectively, for 2018, 2019, and 2020.

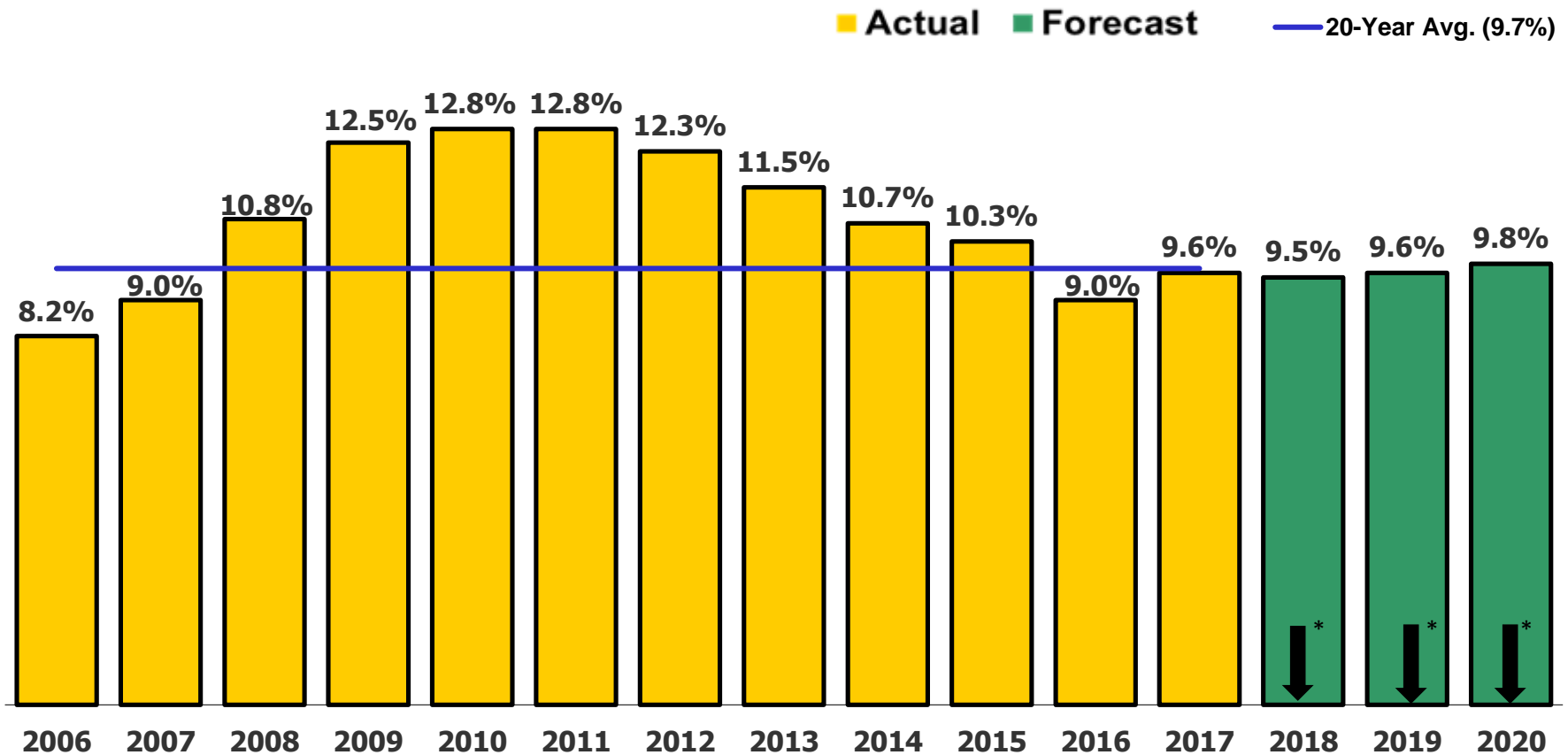
Apartment Rental Rate Change



Sources: 1998-2017, CBRE; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 1.5%, 2.0%, and 2.0% respectively, for 2018, 2019, and 2020.

Retail Availability Rates

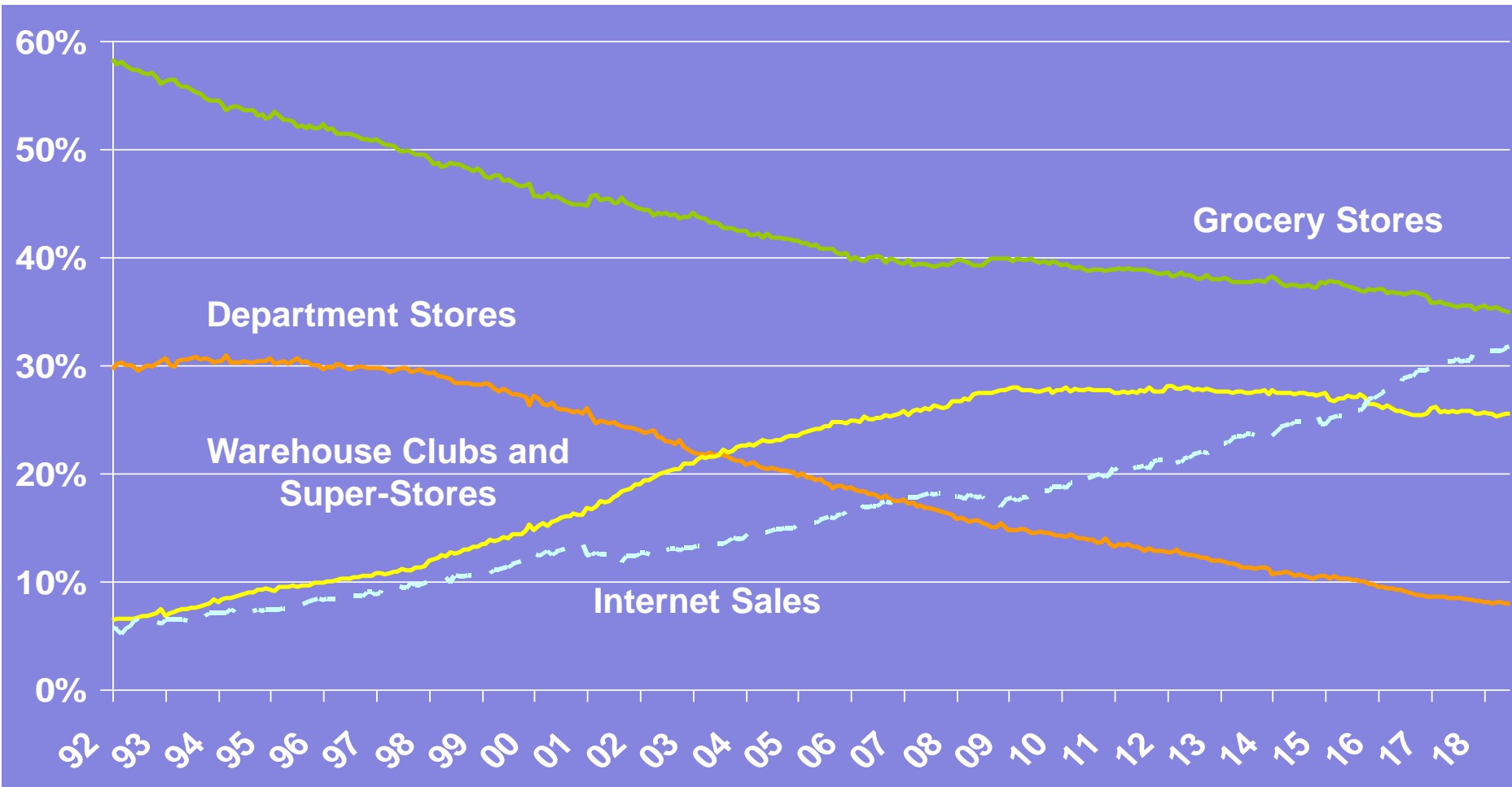


Sources: 1998-2017 (Q4), CBRE; 2018-2020, ULI Real Estate Economic Forecast.

*Indicated directions (↑ ↓ =) refer to the current forecast relative to the previous ULI Real Estate Economic Forecast, released in April, 2018. Previous projections were 9.8%, 9.9%, and 10.0% respectively, for 2018, 2019, and 2020.

Super-Stores and Internet Sales Cannibalization

Percentage of total sales by retailer type



Urban Land Institute

ULI Center for Capital Markets and Real Estate



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Partner
Rosen Consulting Group

Panel



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Americas Real Estate Research
TH Real Estate



Joshua Scoville

Senior Managing Director,
Research
Hines



Tim Wang

Managing Director, Head of
Investment Research
Clarion Partners

Firms That Participated in the ULI Real Estate Consensus Forecast

Organization	Lead Economist/Analyst	Title
Aberdeen Standard Investments	Donald Hall	Head of Americas Investment Research, Real Estate
Alvarez & Marsal	Steven Laposa	Senior Advisor
Barclays	Ross Smotrich	Managing Director
Bentall Kennedy	Douglas Poutasse	EVP, Head of Strategy and Research
Berkshire Group	Gleb Nechayev	SVP, Head of Research
CBRE	Tim Savage	Data Science Advisor
	Jeanette Rice	Americas Head of Multifamily Research
Clarion Partners	Tim Wang	Managing Director & Head of Investment Research
CoreLogic, Inc.	Frank E. Nothaft	Chief Economist
CoStar Portfolio Strategy	Hans Nordby	Managing Director
	Shaw Lupton	Senior Managing Consultant
Cushman & Wakefield	Revathi Greenwood	Head of Americas Research
	Rebecca Rockey	Economist, Head of Forecasting
DWS	Mark Roberts	Head of Research & Strategy, Alternatives
Eigen 10 Advisors, LLC	Eileen E. Marrinan	Managing Director
	Paige Mueller	Managing Director

continued.....

Firms That Participated in the ULI Real Estate Consensus Forecast

Organization	Lead Economist/Analyst	Title
Everest Healthcare Properties, LLC	David J. Lynn	CEO, President and Founder
	Ross Tieken	Manager
Green Street Advisors	Dave Bragg	Managing Director
	Peter Rothemund	Senior Analyst
Harrison Street Real Estate Capital	Thomas Errath	Senior Vice President
Hines	Josh Scoville	Senior Managing Director
JLL	Ryan Severino	Chief Economist, Americas Research
	Josh Gelormini	Vice President, Americas Research
LaSalle Investment Management	Richard Kleinman	Managing Director, Research & Strategy
	William Maher	Director, Americas Research & Strategy
Linneman Associates	Peter Linneman	CEO
MetLife Investment Management	Adam Ruggiero	Head of Real Estate Research
NAREIT	Calvin Schnure	Senior Vice President, Research & Economic Analysis
National Association of REALTORS	Lawrence Yun	Chief Economist
Oxford Economics	Greg Daco	Head of U.S. Economics
	Matthew Mowell	Senior Economist
	Aran Ryan	Tourism Economics, Director of Lodging Analytics

continued.....

Firms That Participated in the ULI Real Estate Consensus Forecast

Organization	Lead Economist/Analyst	Title
PwC, LLP	Andrew Warren	Director, Real Estate Research
RCLCO	Taylor Mammen	Managing Director
	Ben Maslan	Principal
Reis	Dr. Victor Calanog	Chief Economist & Senior Vice President of Research
	Cody Bond	Economic Analyst
Rosen Consulting Group	Kenneth T. Rosen	Chairman
	Randall Sakamoto	Executive Vice President
Situs RERC	Ken Riggs	President
Stockbridge Associates, LLC	George Casey	CEO
TH Real Estate	Melissa Reagen	Managing Director, Head of Americas Real Estate Research
Trepp, LLC	Matthew Anderson	Managing Director



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