



Situs RERC®

Vision 2020

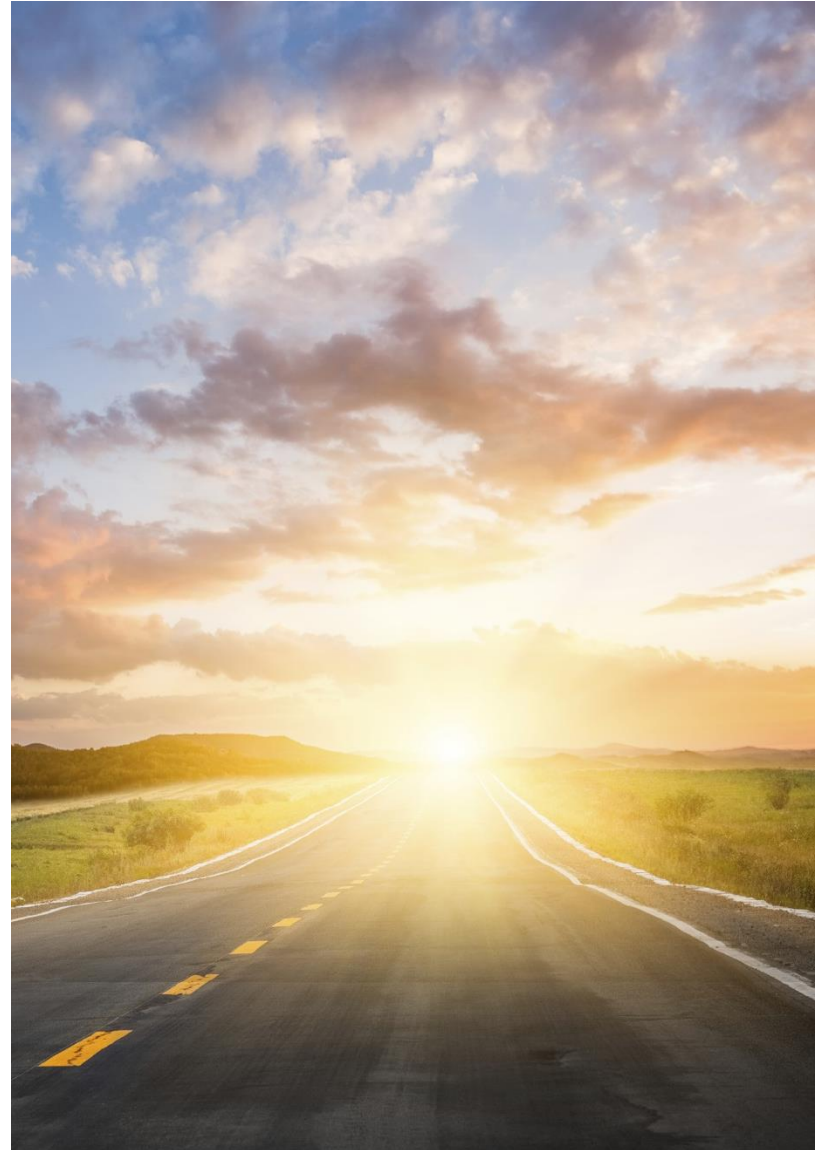
Ken Riggs, CFA, CRE, MAI
President, Situs RERC

EVALUATE • OPTIMIZE • MANAGE

INSTABILITY CREATES STABILITY
FOR NOW!

WHAT'S NEXT FOR CRE?

- Market adjustment
- Market correction
- Crisis/black swan event



BLACK SWANS EVENTS

Black Swan Event: Unexpected events of large magnitude and consequence (i.e., extreme outliers) that are exceptionally difficult to predict and are often incorrectly rationalized after the event.



BLACK SWAN EVENTS

Some Historical Examples since the 1970s

- Oil Crisis and Stagflation of 1973
- Oil Bubble early 1980s (Houston)
- Asset Bubble 1990 (Japan)
- Black Monday (Stock Market Crash of 1987)
- S & L Crisis (1989-1991)
- Dot-com Bubble Burst (2001)
- Subprime Mortgage Crisis (2008)



EARLY SIGNS

- Need a “canary in a coal mine”
 - Michael Burry recognized the dangers of the subprime mortgage market
 - “Wizard of Oz/smoke and mirrors” event taking place



BLACK SWANS

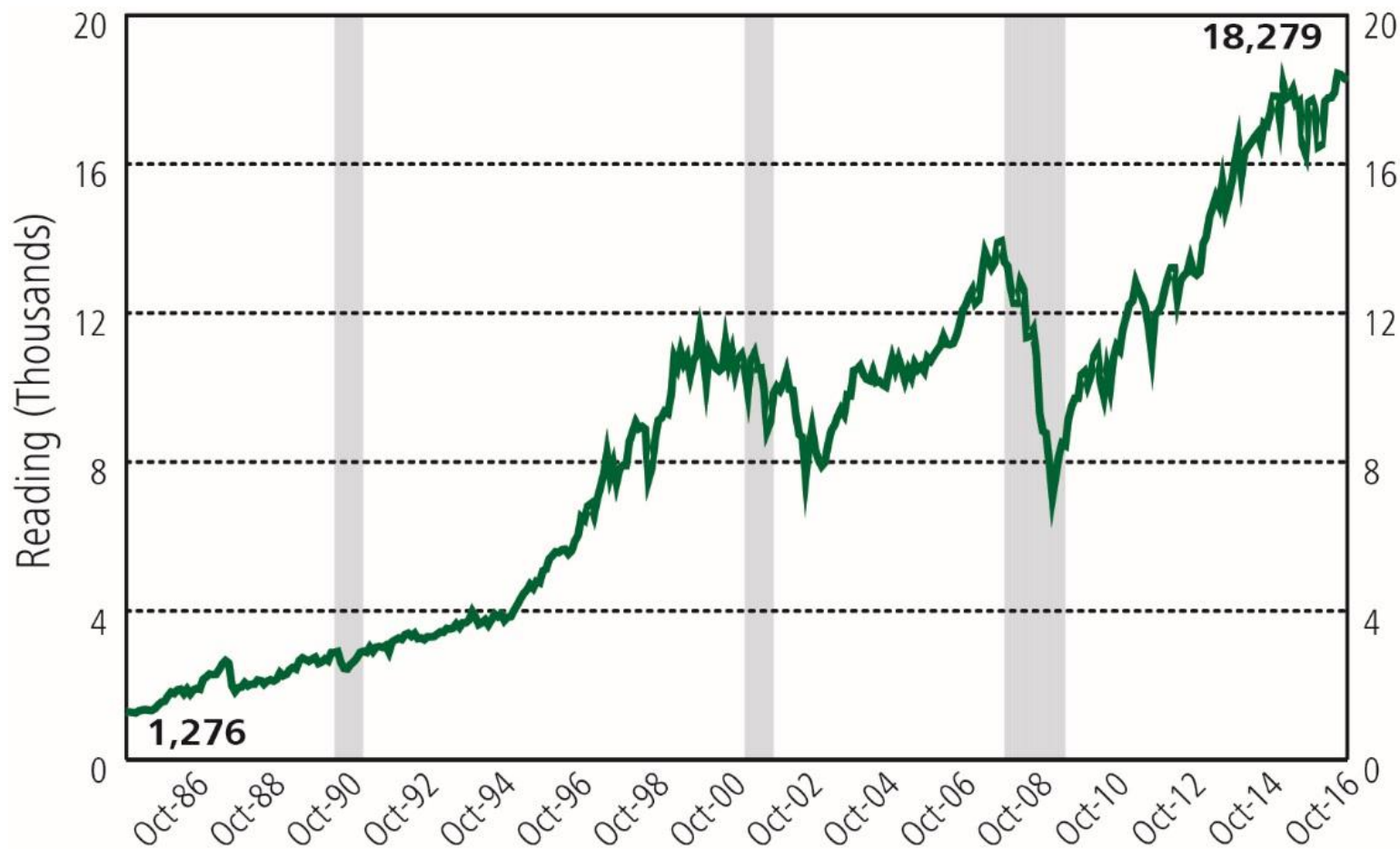
- Potential future black swan events
 - Fall of the unicorns (145=\$500Billion)
 - Sovereign wealth fund crash (Currently \$4.3T)
 - Chinese economy & politics
 - European politics & financial markets
 - Deep decline of oil prices
 - Technological disruption

It is ludicrous to believe that asset bubbles can only be recognized in hindsight.

Michael Burry

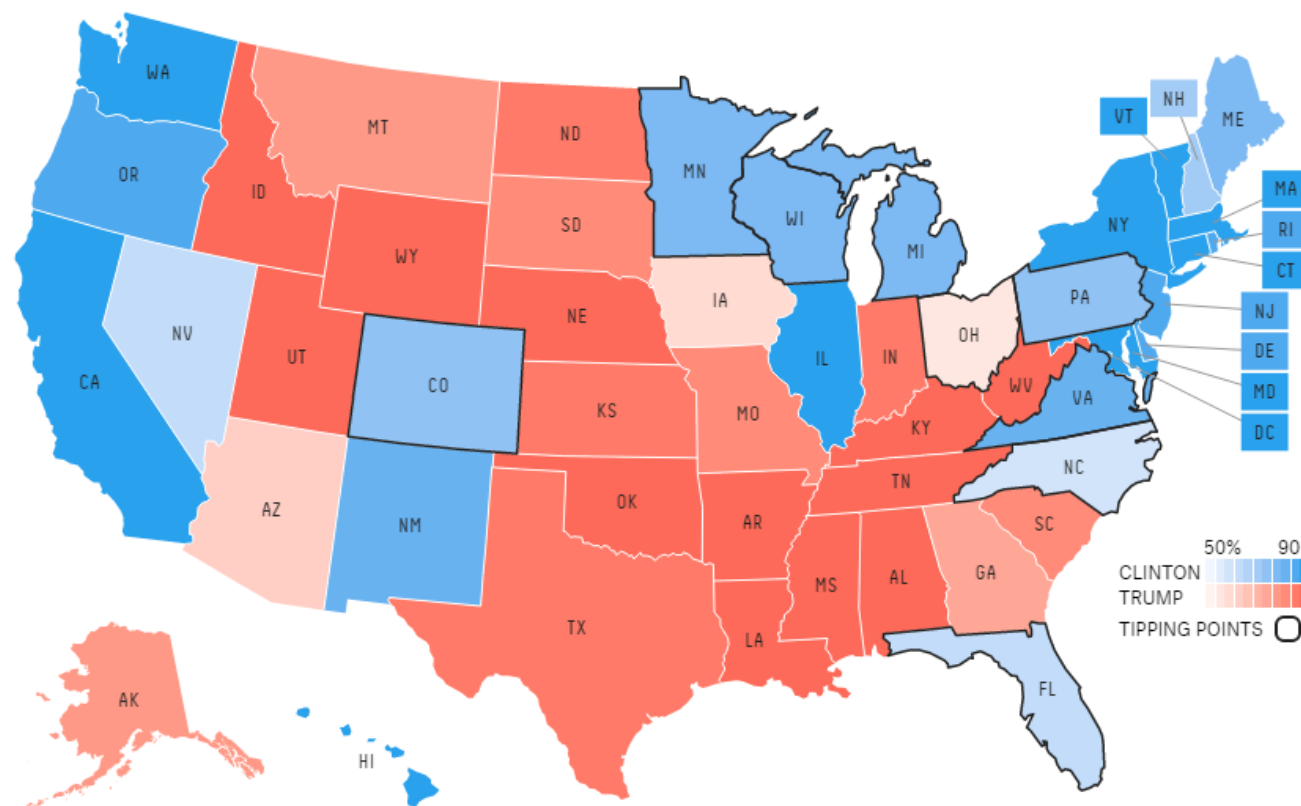


DOW JONES INDUSTRIAL AVERAGE



Source: Dow Jones, October 2016.

ELECTION 2016 CURRENT PREDICTION



Electoral votes

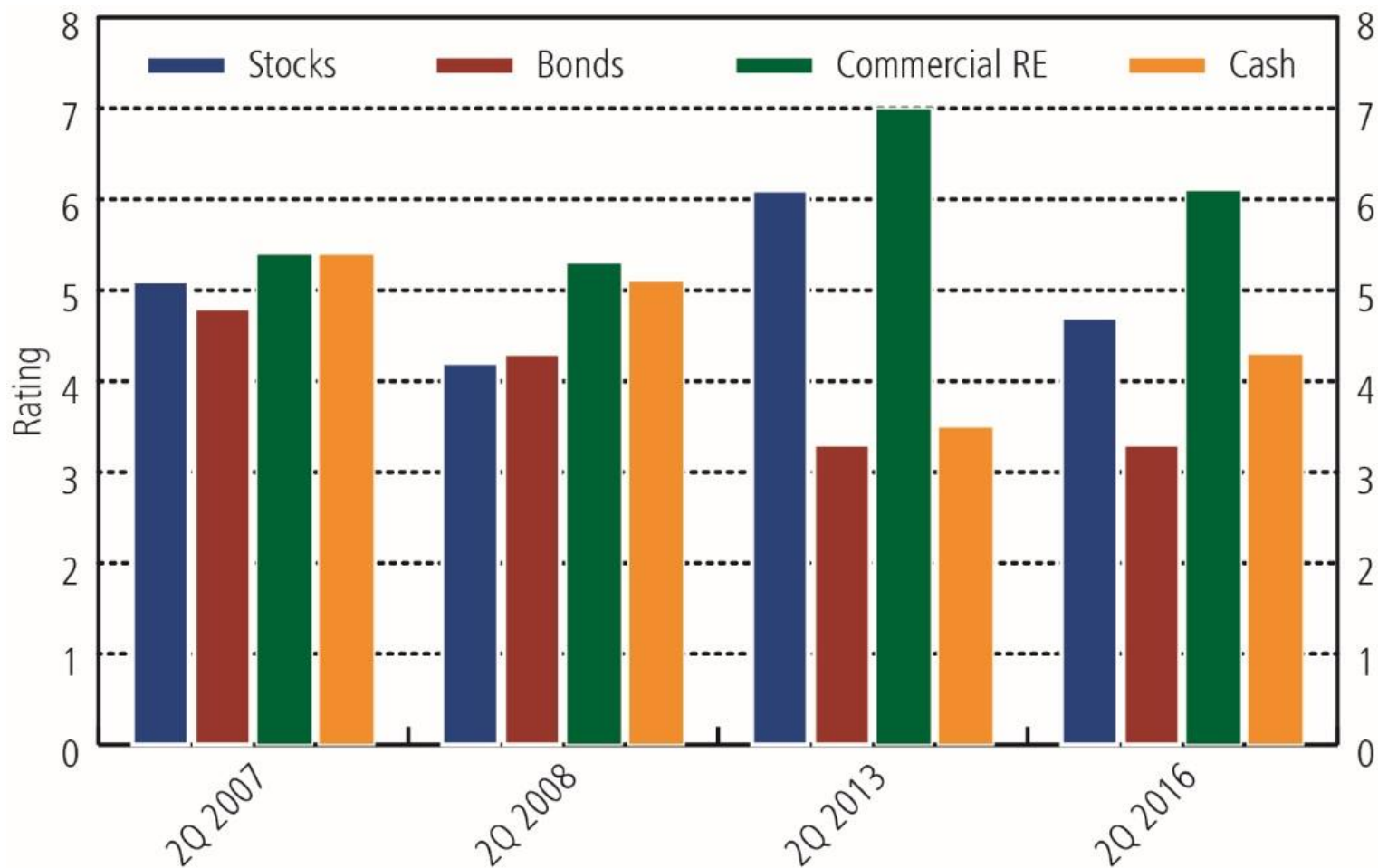
■ Hillary Clinton	311 . 9
■ Donald Trump	225 . 9
■ Gary Johnson	0 . 2

Popular vote

■ Hillary Clinton	47 . 8%
■ Donald Trump	43 . 7%
■ Gary Johnson	7 . 1%

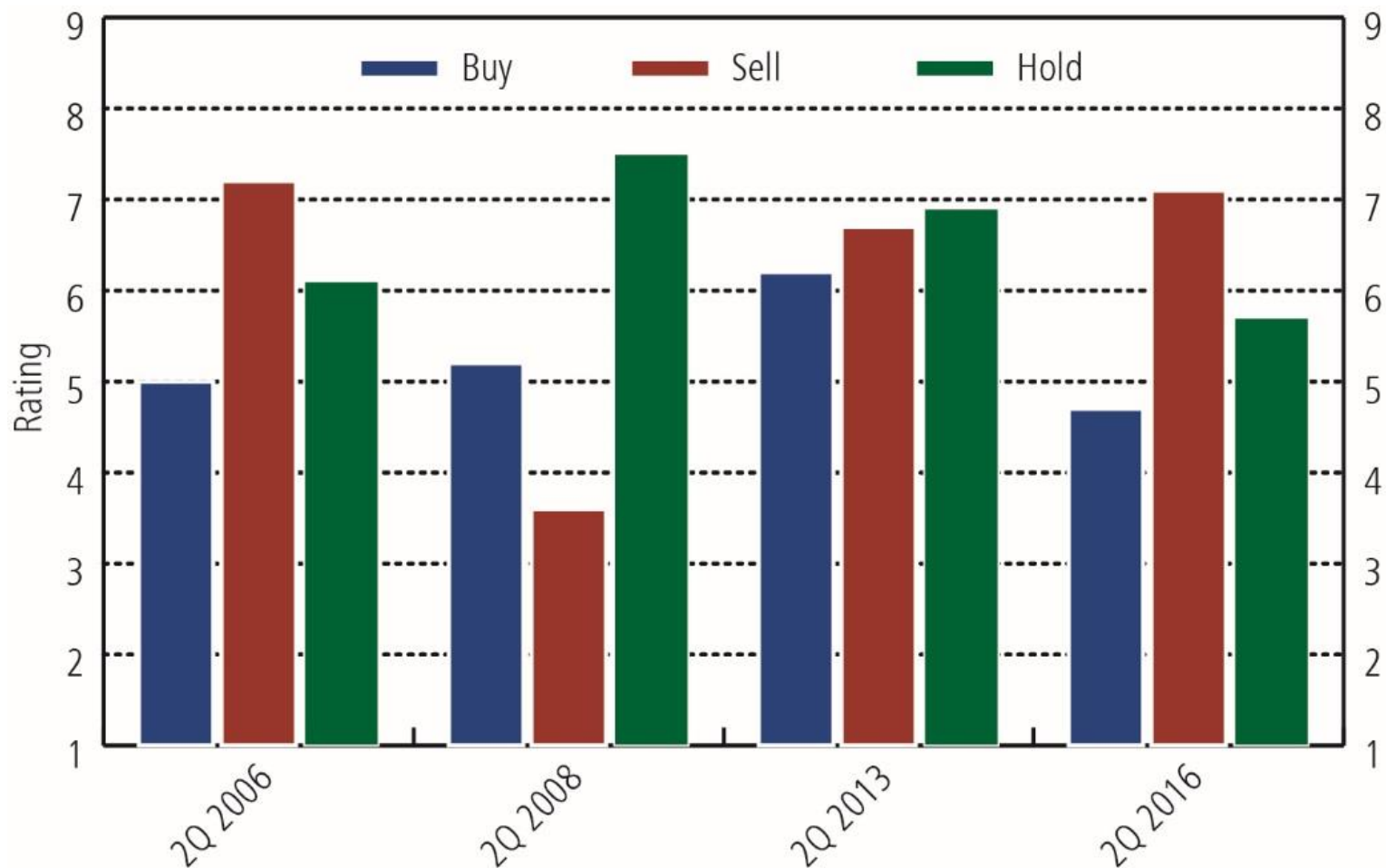
Source: FiveThirtyEight.com, October 4, 2016.

INVESTMENT ALTERNATIVES



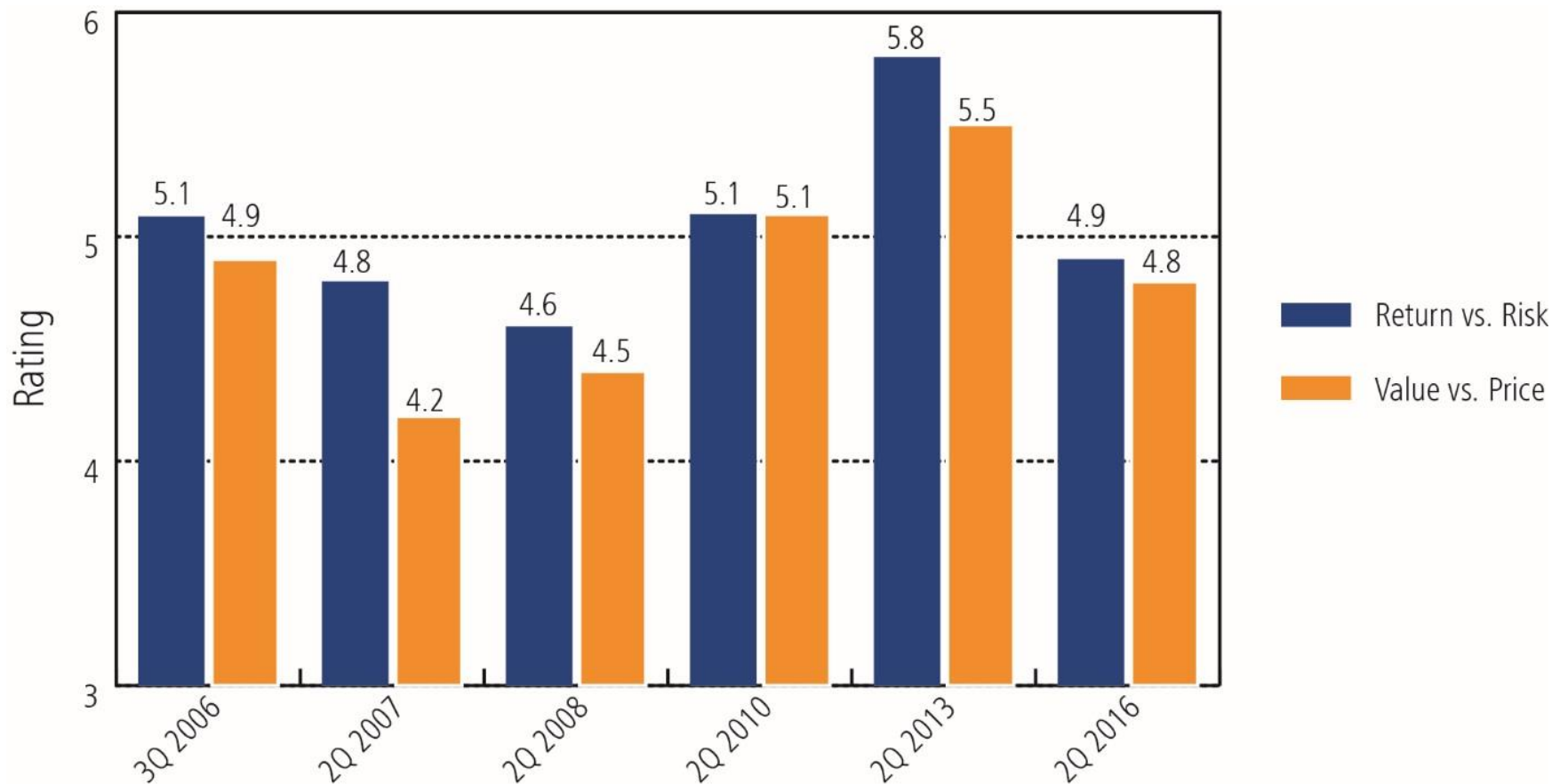
Source: Situs RERC, 2Q 2016.

BUY-SELL-HOLD RECOMMENDATIONS



Source: Situs RERC, 2Q 2016.

RETURN VS. RISK & VALUE VS. PRICE RATINGS



Source: Situs RERC, 2Q 2016.

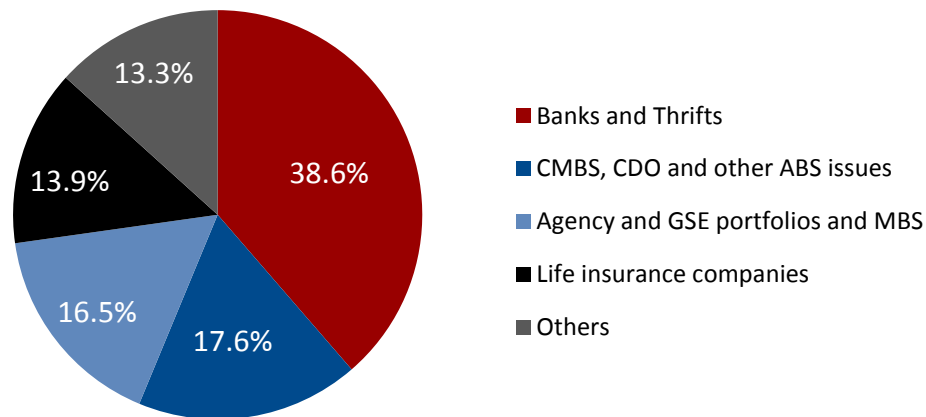
SECURITIZATION TRENDS

TOTAL CRE/ MULTIFAMILY DEBT INCREASED TO \$2.86 TRILLION IN 1Q 2016.

- This was an increase of **\$35.3 billion, or 1.2%**, from 4Q 2015.
- **Multifamily mortgage debt rose 1.7% in 1Q 2016 to \$1.07 trillion.**

COMMERCIAL/MULTIFAMILY MORTGAGE DEBT OUTSTANDING

By Investor Group, 1Q 2016



Source: Mortgage Bankers Association (MBA), Commercial/Multifamily Quarterly DataBook, 1Q 2016.

SECURITIZATION TRENDS

TOTAL U.S. CMBS OUTSTANDING IN 1Q 2016 WAS \$543.2 BILLION, THE LOWEST FIRST QUARTER TOTAL SINCE 2006.

By property type, total CMBS outstanding in 1Q 2016 was:

- 30.6% retail;
- 28.6% office;
- 14.3% hotel;
- 10.5% multifamily;
- 5.3% industrial; and
- 10.8% self-storage, healthcare, and other.

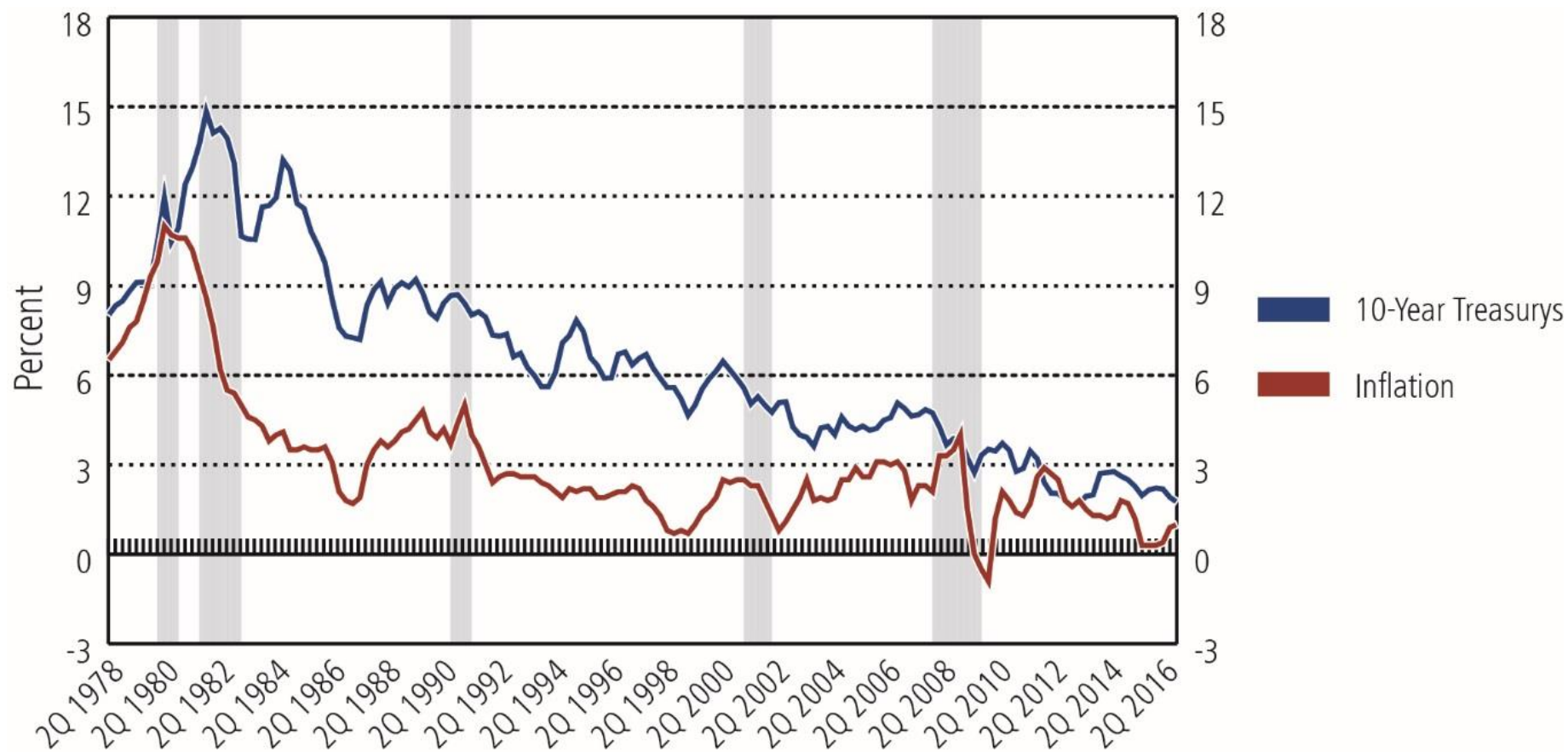
Source: MBA, Commercial/Multifamily Quarterly DataBook, 1Q 2016.

The borrowers will always be willing to take a great deal for themselves. It's up to the lenders to show restraint, and when they lose it, watch out.

Michael Burry

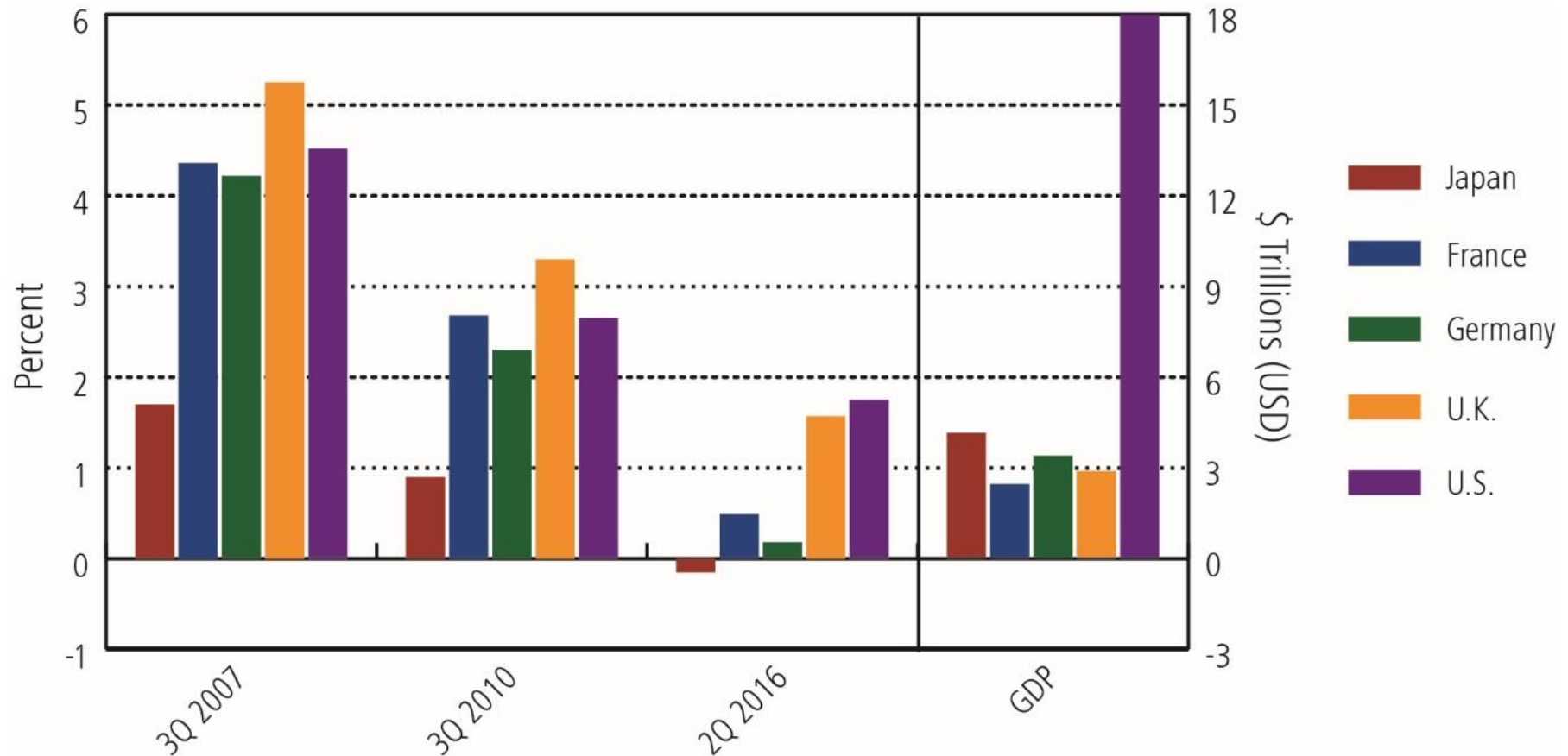


10-YEAR TREASURYS & INFLATION



Source: Federal Reserve Bank of St. Louis, 2Q 2016.

GLOBAL TREASURY RATES & GDP



Sources: Federal Reserve Bank of St. Louis, Deutsche Bundesebank, Agence France Tresor, World Bank, September 2016.

AUDIENCE QUESTION #1

10-year U.S. Treasury Bonds are currently at 1.7%. At what level will they normalize?

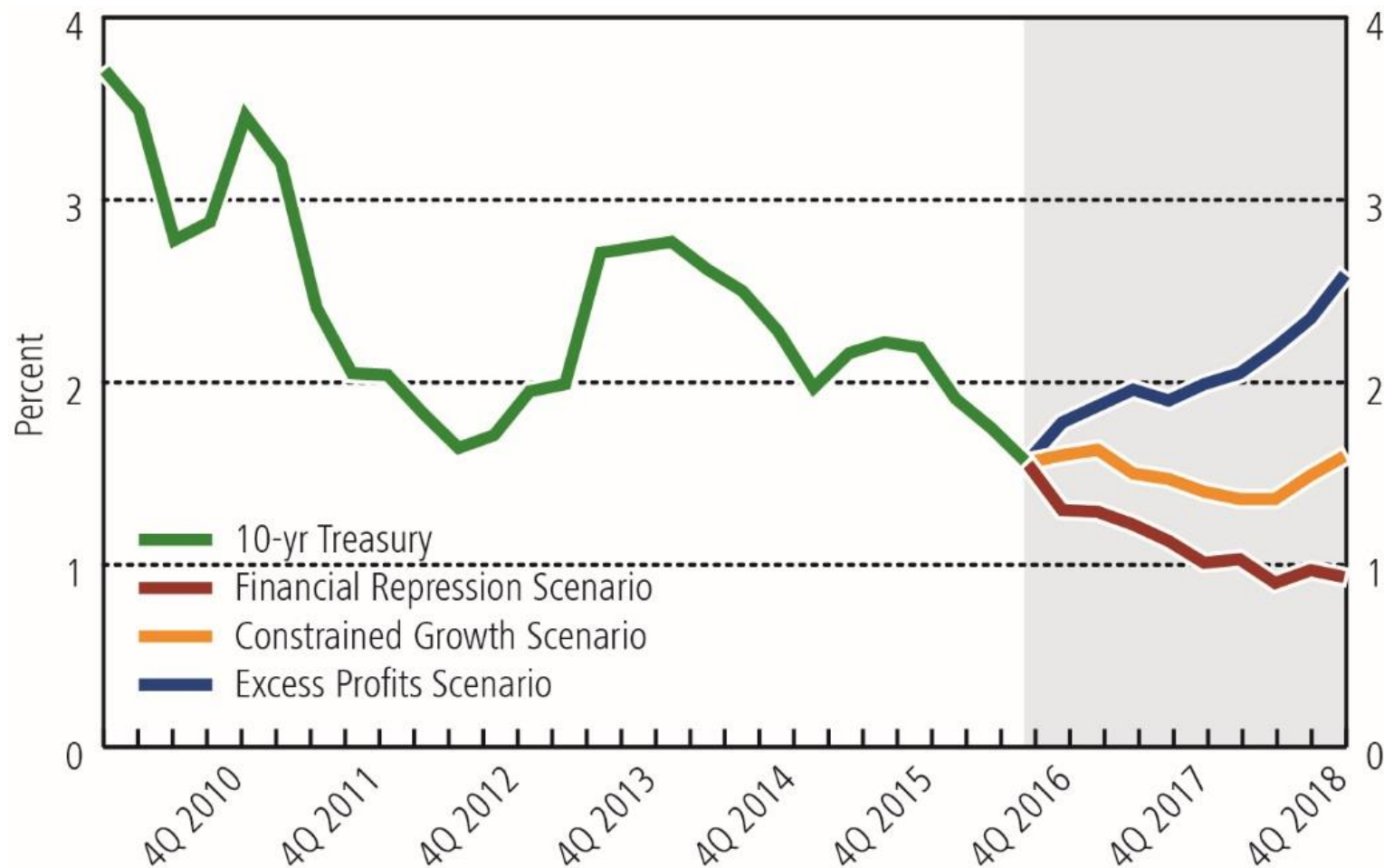
- a) 2.0% to 3.0%
- b) 3.0% to 4.0%
- c) 5.0% to 6.0%
- d) Greater than 6%

AUDIENCE QUESTION #2

When will 10-year U.S. Treasury Bonds normalize?

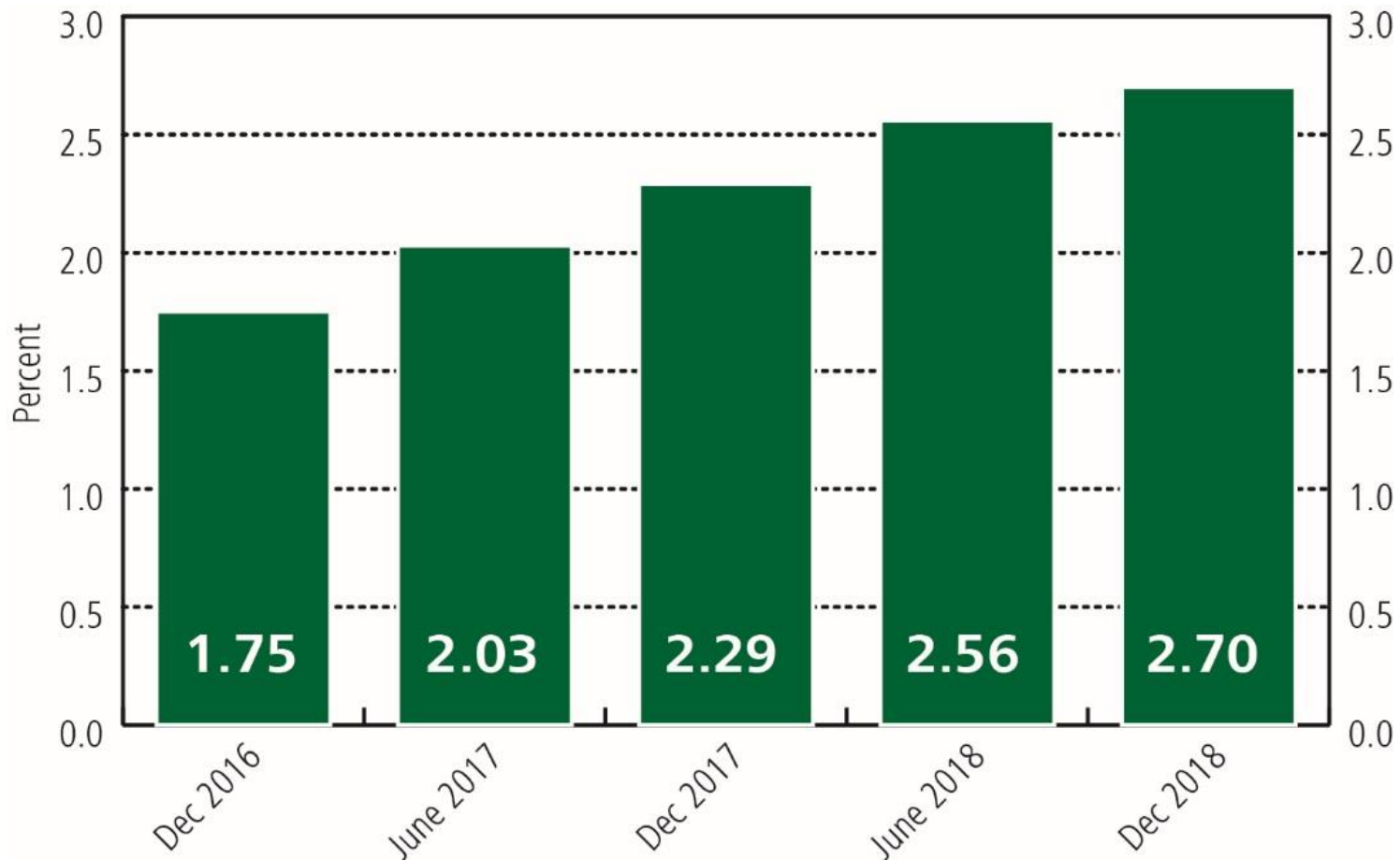
- a) 1 to 3 years
- b) 3 to 5 years
- c) 5 to 7 years
- d) 7 year or longer

SITUS RERC TREASURY FORECAST



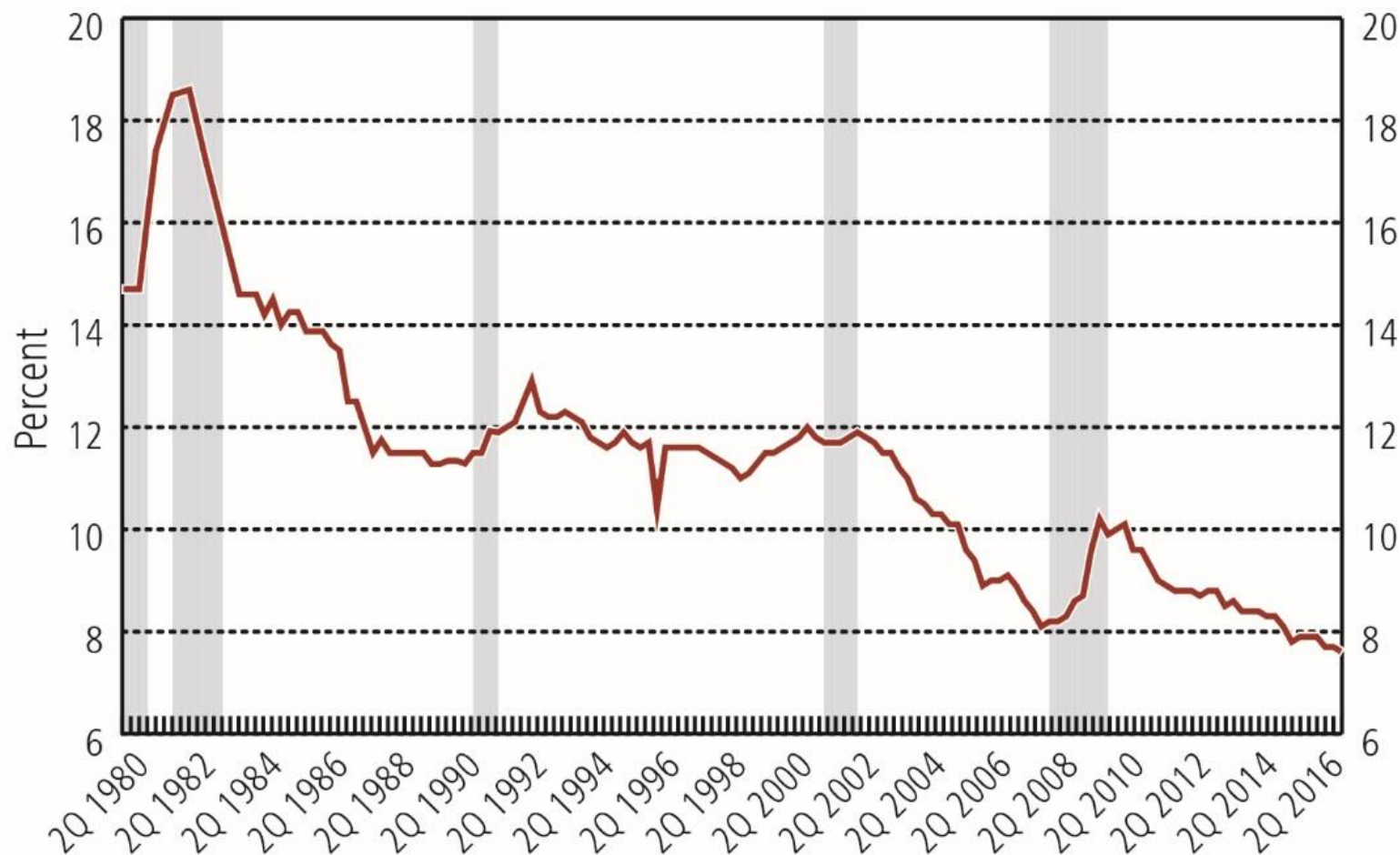
Sources: Federal Reserve, Situs RERC, September 2016.

WALL STREET JOURNAL TREASURY FORECAST



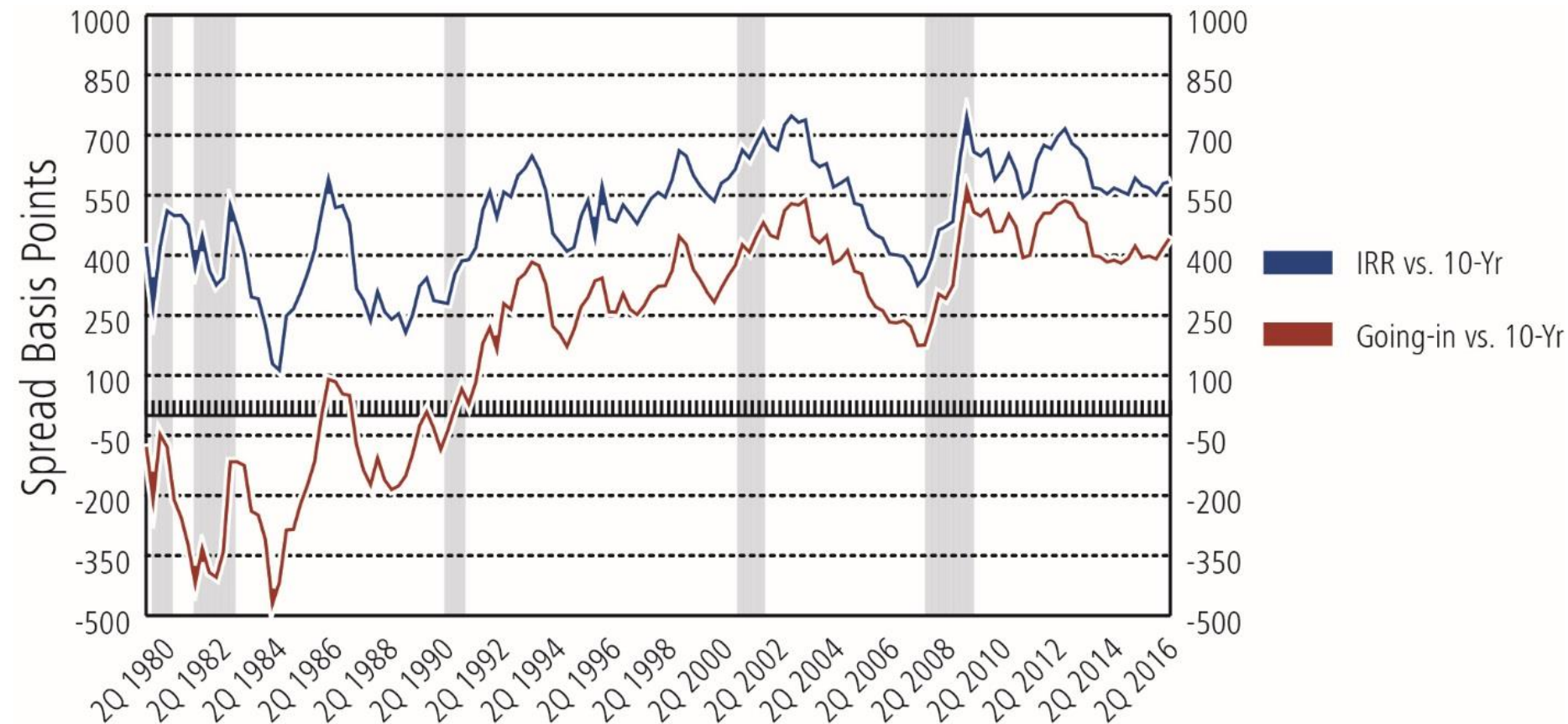
Sources: Wall Street Journal Economic Survey, September 2016.

SITUS RERC PRE-TAX YIELD (IRR)



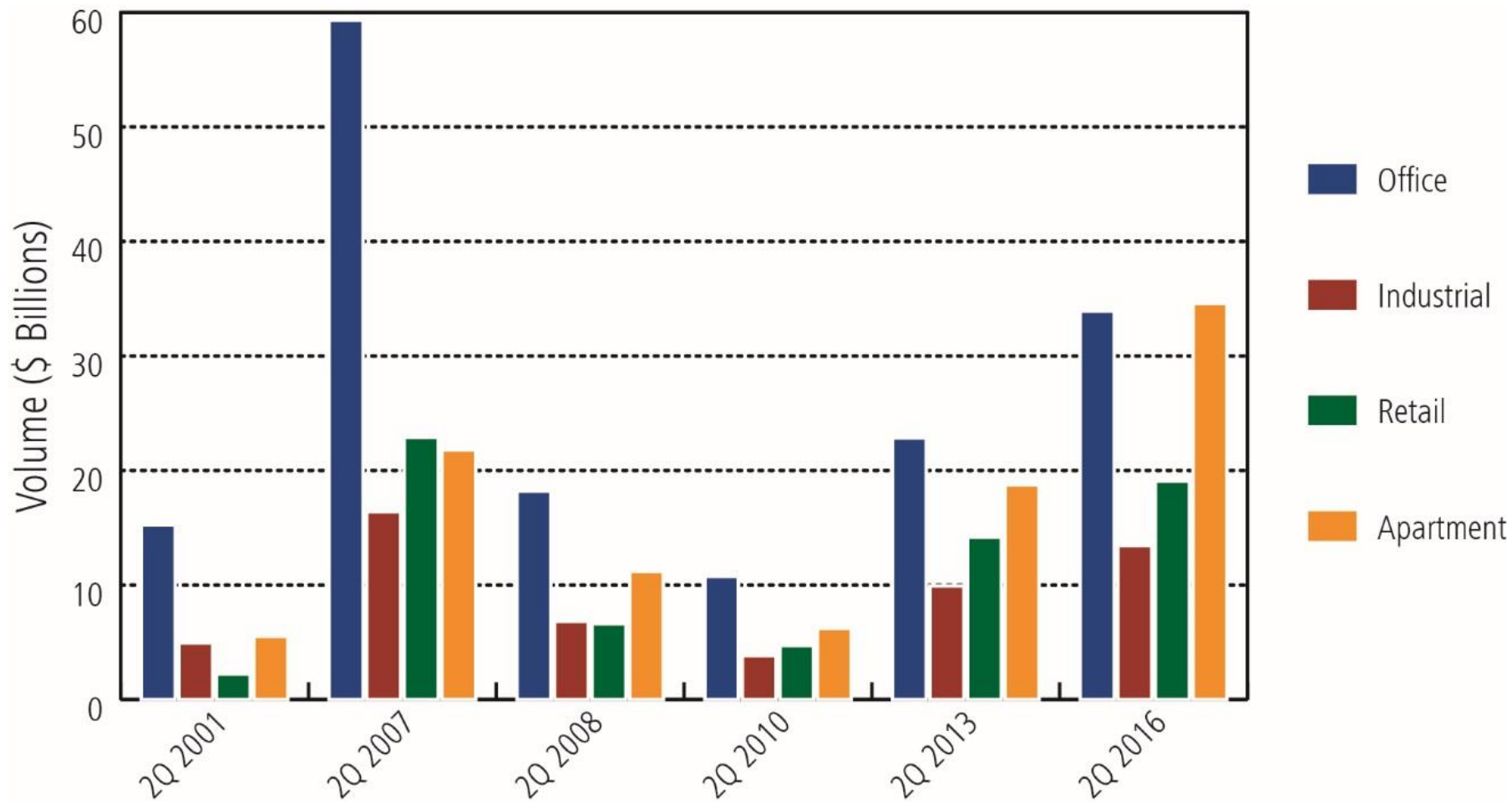
Source: Situs RERC, 2Q 2016.

SITUS RERC RATES VS. 10-YEAR TREASURYS



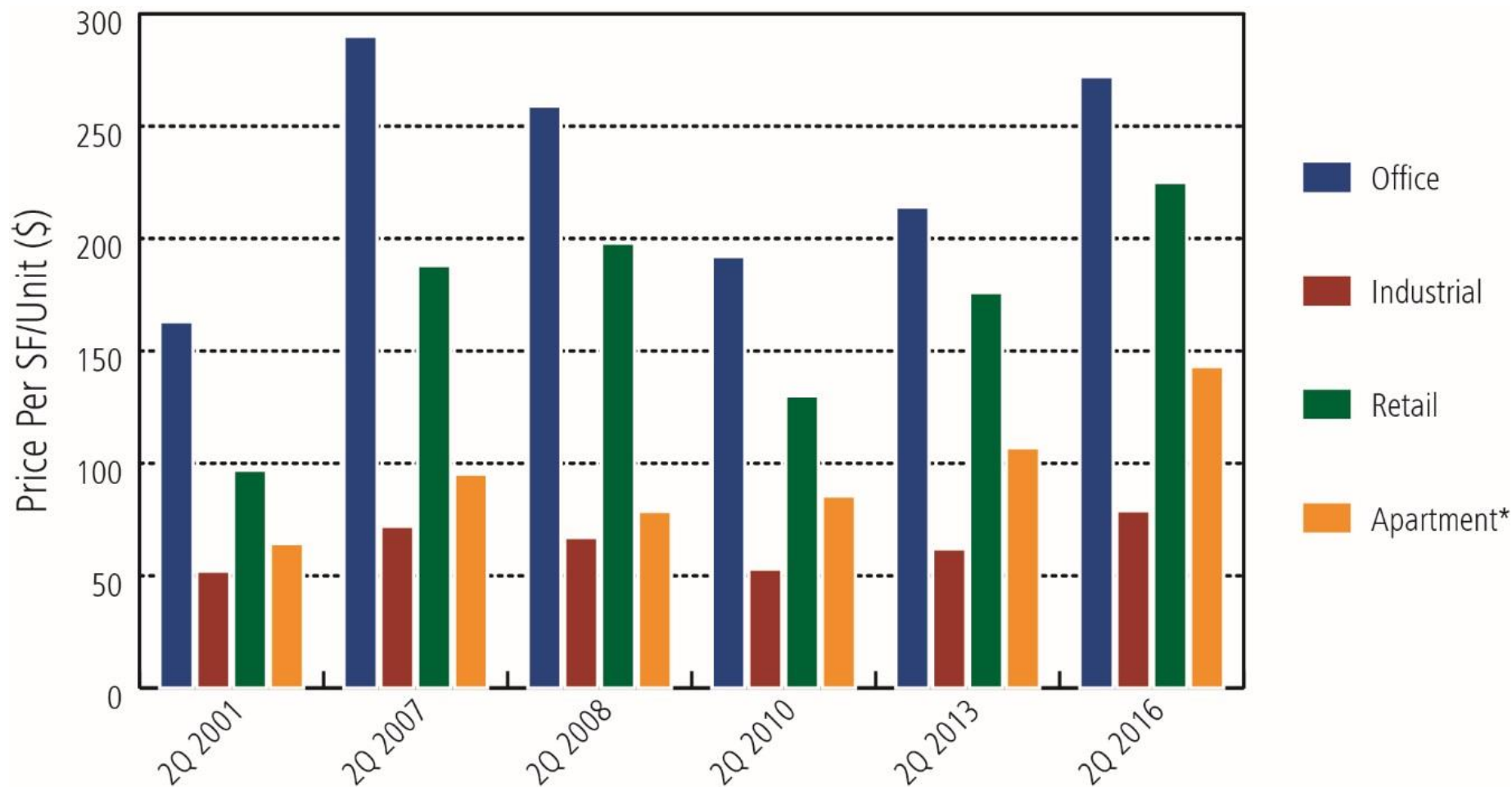
Sources: Federal Reserve, Situs RERC, 2Q 2016.

TRANSACTION VOLUME



Source: Real Capital Analytics, 2Q 2016.

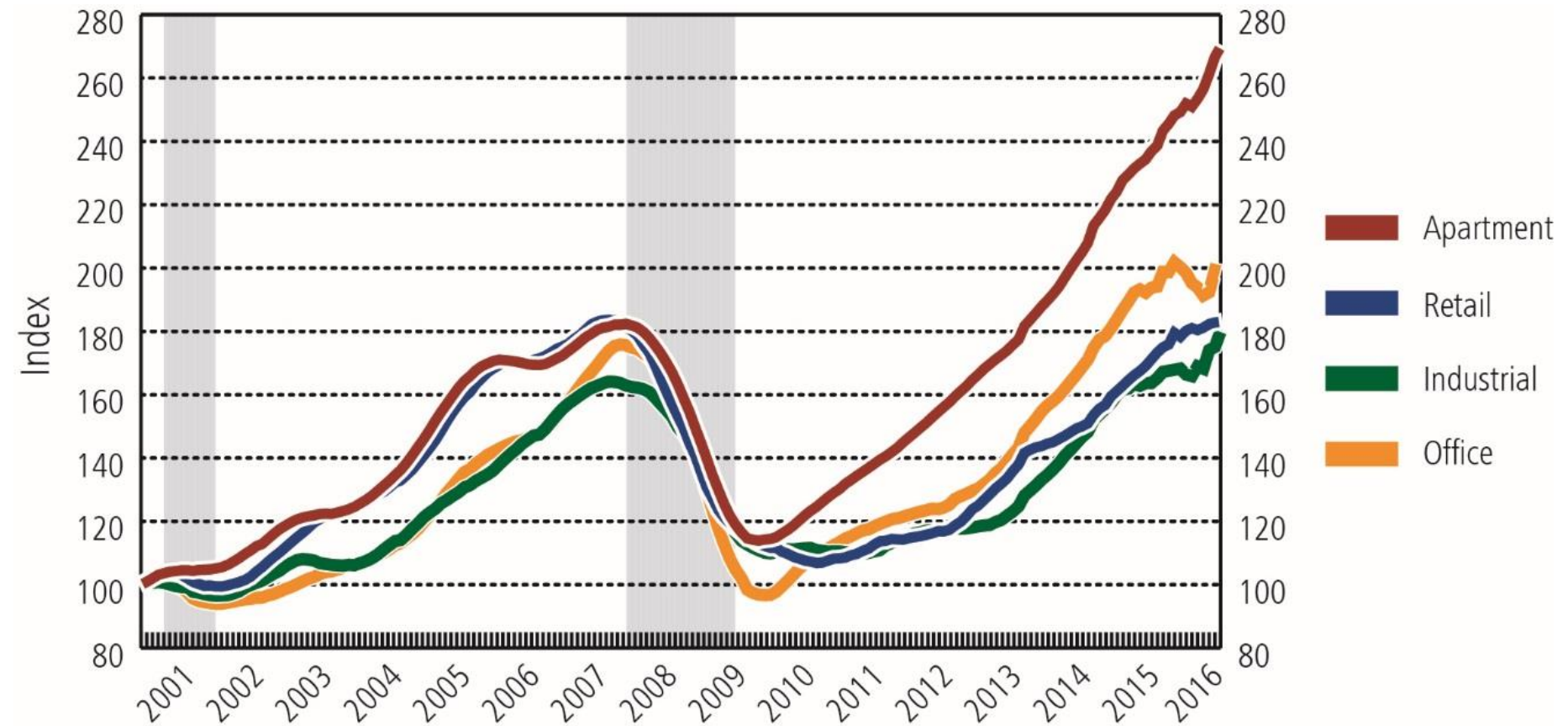
TRANSACTION PRICES



*Apartment PPU is in thousands of dollars.

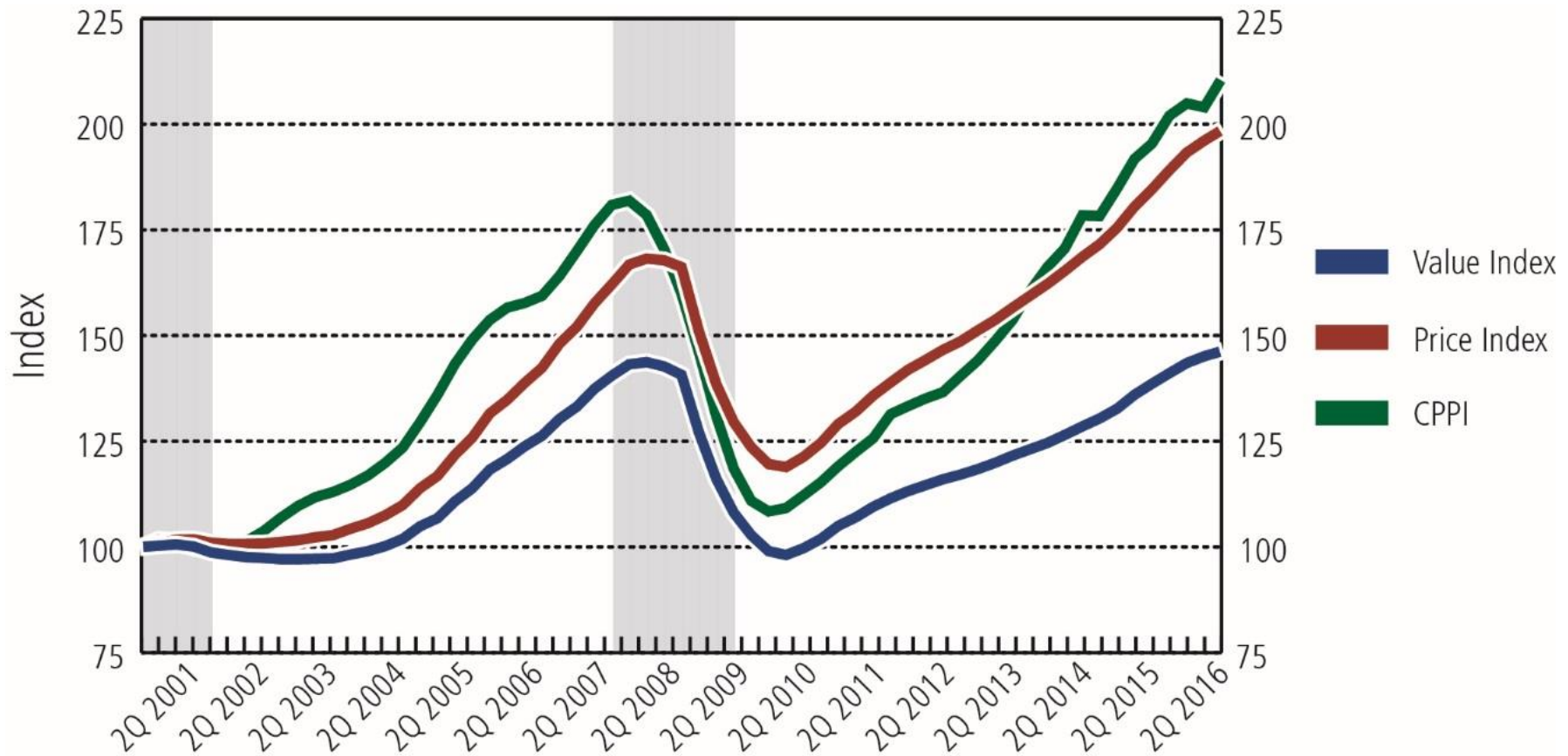
Source: Real Capital Analytics, 2Q 2016.

MOODY'S/RCA COMMERCIAL PROPERTY PRICE INDEX



Source: Moody's/Real Capital Analytics CPPI, July 2016.

VALUE¹ AND PRICE² INDICES W/ MOODY'S CPPI



¹ Value index represents capital returns only.

² Price index combines capital expenditures and capital returns

Sources: Moody's/RCA CPPI, July 2016, NCREIF, Situs RERC, 2Q 2016.

AUDIENCE QUESTION #3

When will a Commercial Real Estate market correction occur?

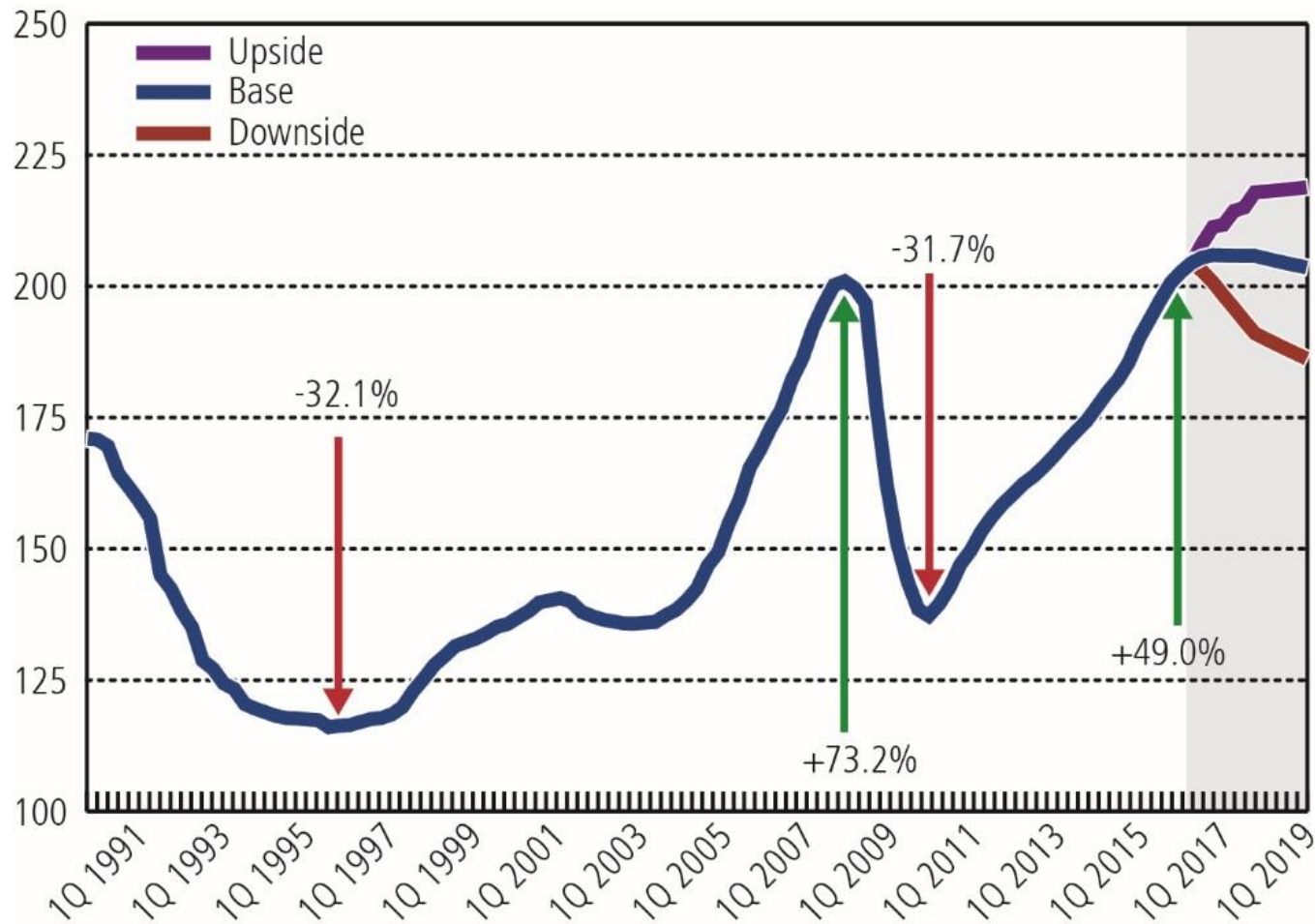
- a) 2017 to 2018 (1 to 2 years)
- b) 2019 to 2020 (3 to 4 years)
- c) 2021 to 2026 (5 to 10 years)
- d) Unlikely

AUDIENCE QUESTION #4

How large will the CRE correction be when it occurs?

- a) Less than 15%
- b) Less than 25%
- c) Less than 35%
- d) Greater than 35%

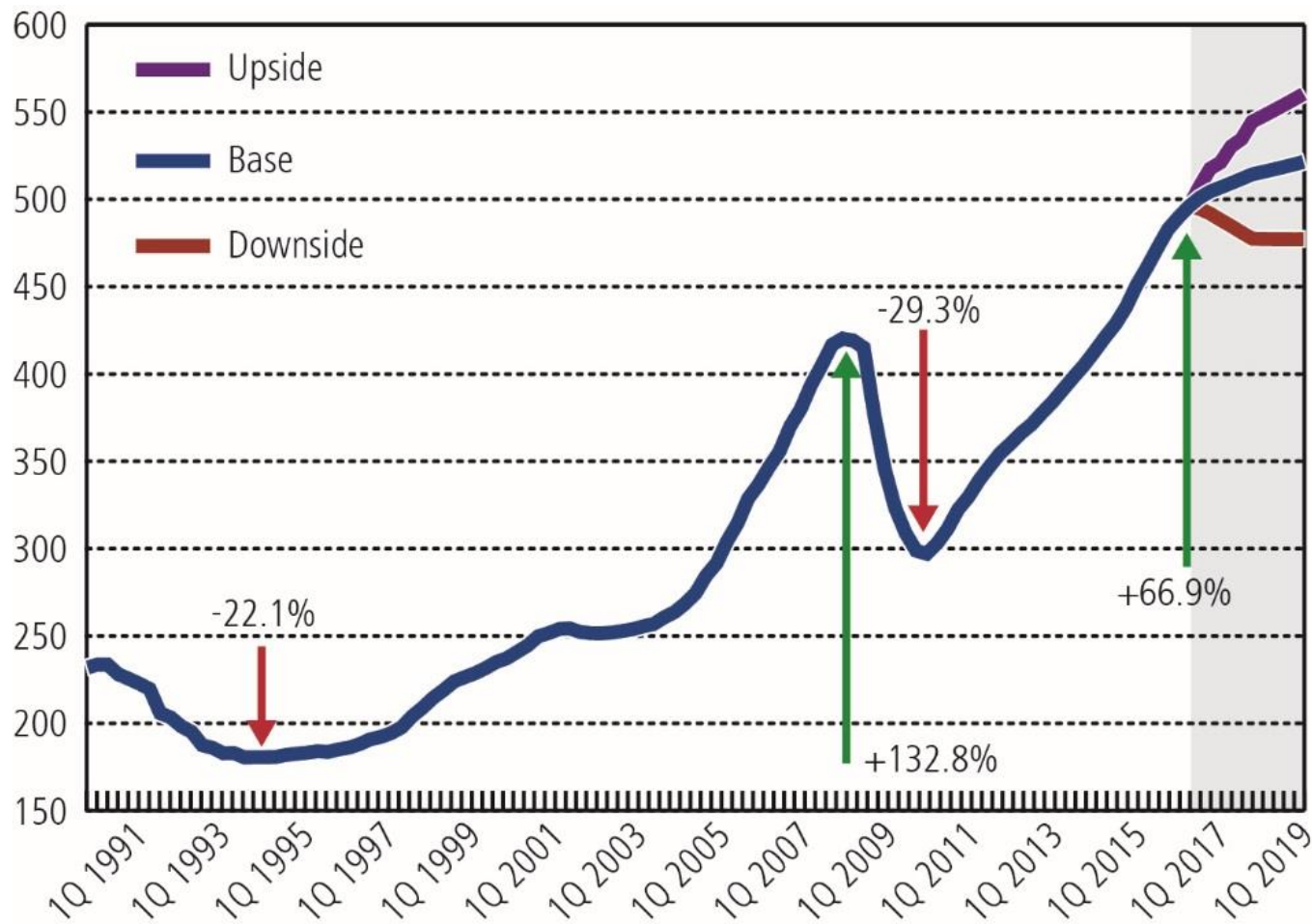
SITUS RERC CRE VALUE INDEX¹



¹ Value index represents capital returns only.

Sources: NCREIF, Situs RERC, 2Q 2016.

SITUS RERC CRE PRICE INDEX¹



¹ Price index combines capital expenditures and capital returns.

Sources: NCREIF, Situs RERC, 2Q 2016.

RERC APARTMENT VALUE VS. PRICE RANKINGS

Primary Markets

1. Dallas
2. Seattle
3. Los Angeles
4. Washington, D.C.
5. San Francisco

Secondary Markets

1. Orlando
2. Austin
3. Raleigh
4. Atlanta
5. Nashville

Tertiary Markets

1. Omaha
2. Columbus
3. Richmond
4. Toledo
5. Milwaukee

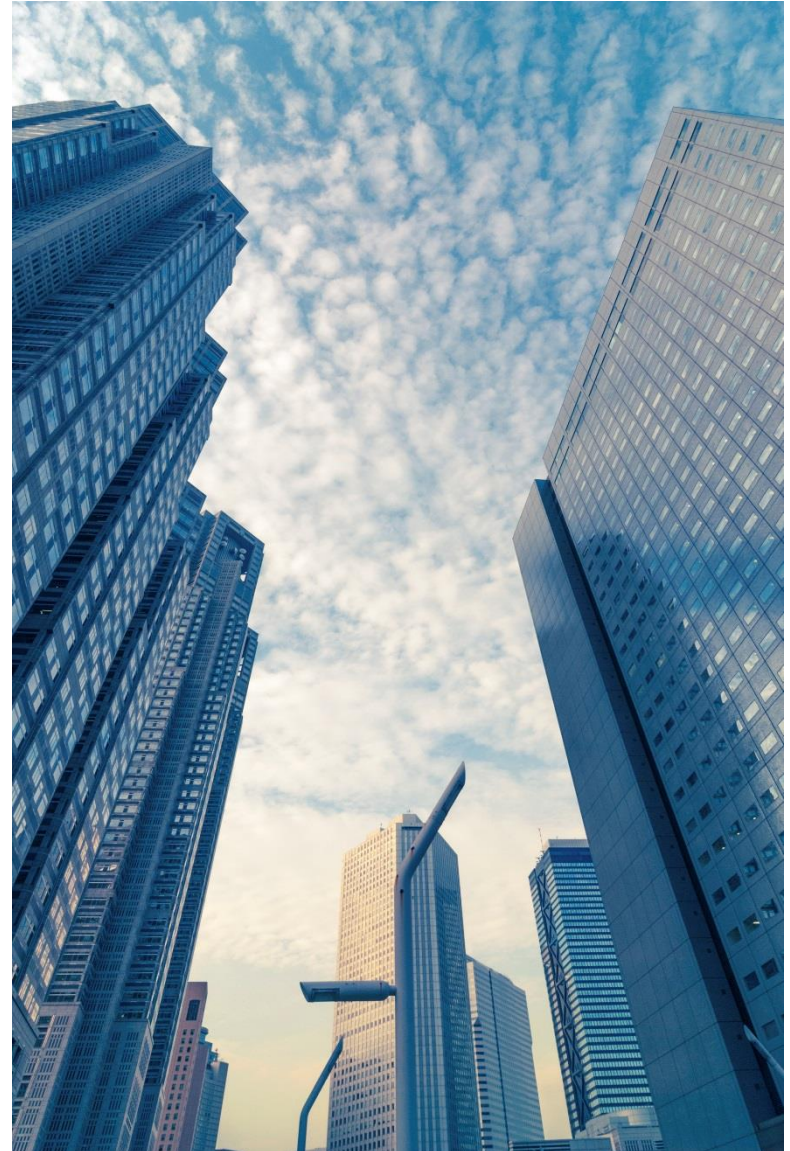
6. Boston
7. Houston
8. New York City
9. Chicago

- | | |
|--------------------|------------------|
| 6. San Antonio | 18. Kansas City |
| 7. Phoenix | 19. Sacramento |
| 8. Tampa | 20. St. Louis |
| 9. Portland | 21. Cincinnati |
| 10. Denver | 22. Baltimore |
| 11. Charlotte | 23. Philadelphia |
| 12. Miami | 24. Detroit |
| 13. Las Vegas | 25. Newark |
| 14. Salt Lake City | 26. Honolulu |
| 15. Indianapolis | |
| 16. Minneapolis | |
| 17. San Diego | |

6. Memphis
7. Oklahoma City
8. Norfolk
9. Cleveland
10. Tucson
11. Pittsburgh
12. New Orleans
13. Hartford

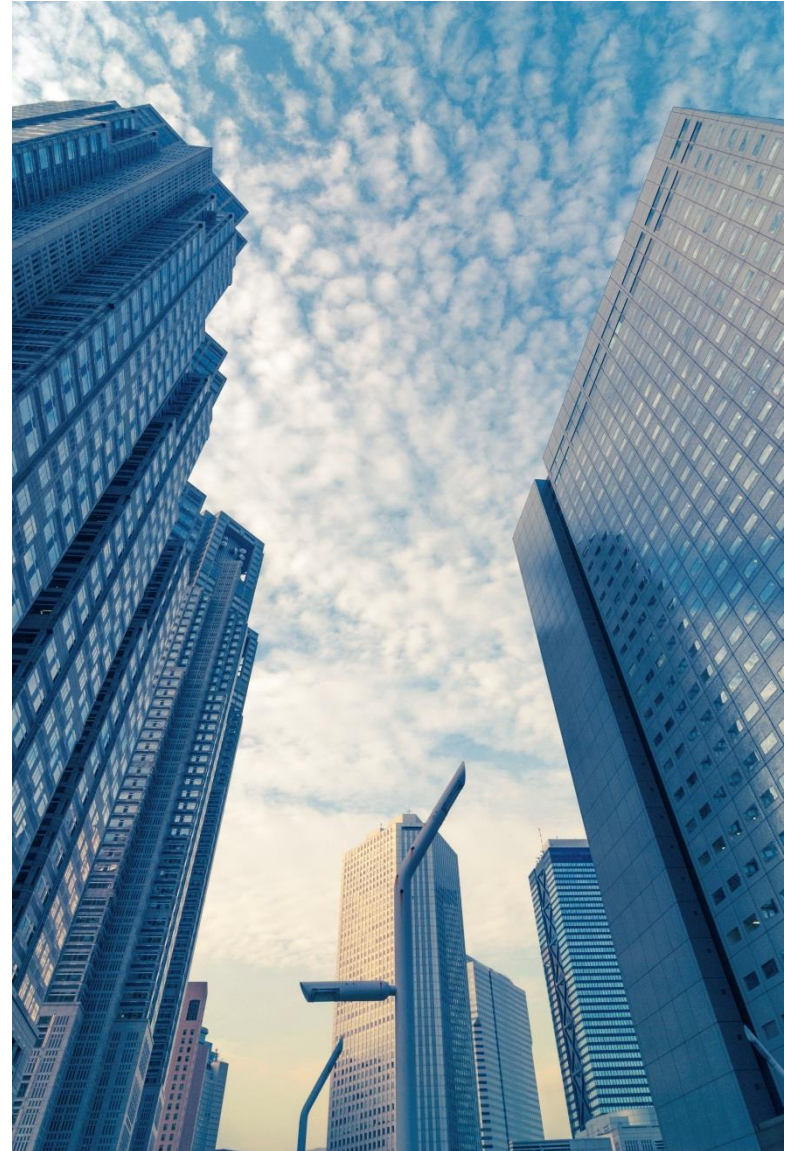
POSITIVES

- Supply in Check
- Interest rate low
- Best Alternative
- Solid Income
- Attractive Spread/10-Yr.



POTENTIAL DANGERS

- Lease Duration vs. Rates
- Cap rates rise fast
- Oversupply
- Dark Pools (Capital)



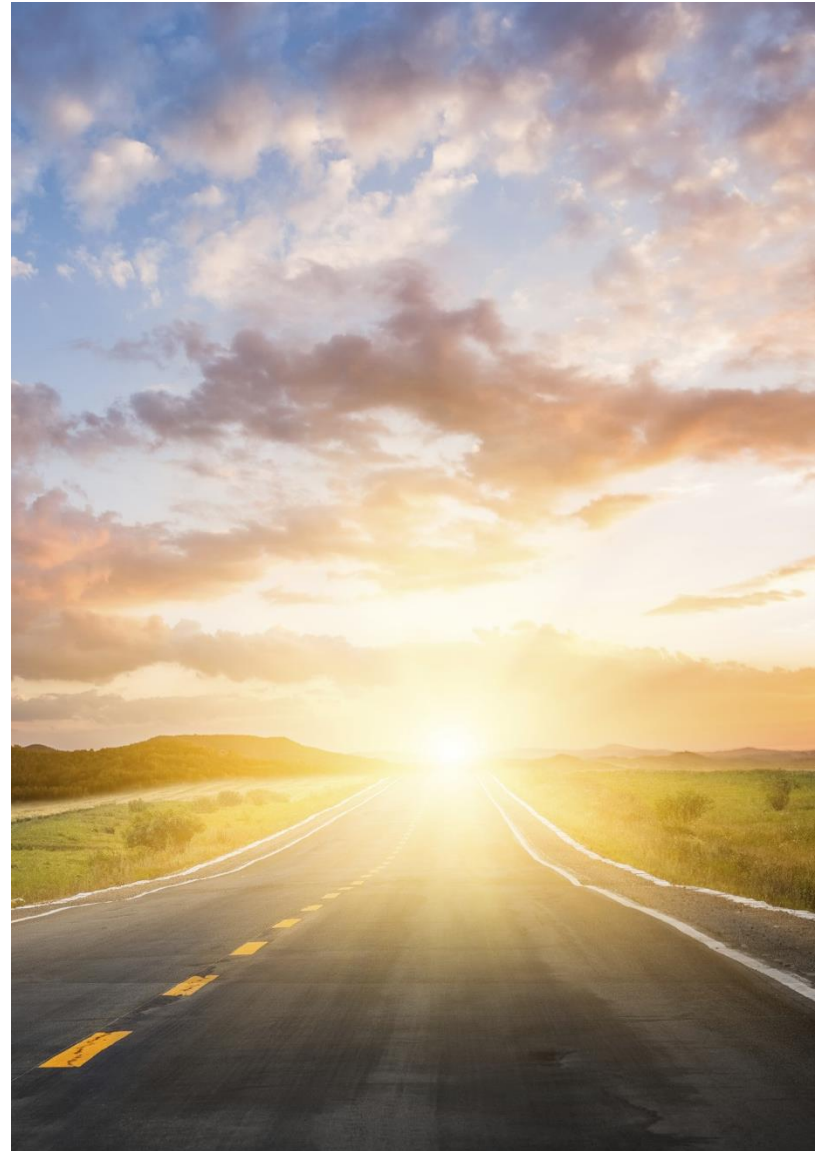
AS ALWAYS, IT'S...

- Location
- Location
- Location



WHAT'S NEXT FOR CRE?

- Market adjustment
- Market correction
- Crisis/black swan event



Situs RERC®

VALUATION ADVISORY SERVICES

ANY PROPERTY.
ANY CAPITAL INVESTMENT.
ANY LEVEL OF COMPLEXITY.
WE DO IT ALL.

INTEGRITY. INTELLIGENCE. INNOVATION.

Situs RERC is one of the most nationally-recognized firms devoted to fiduciary and advisory services, research and analytics, valuation and consulting. Situs RERC's clients include institutional and individual investors, development and investment firms and government agencies at all levels. Corporations, pension funds and institutions seeking to diversify investment portfolios frequently call on Situs RERC to provide fiduciary, valuation and consulting services.

SITUS RERC'S VALUATION ADVISORY SERVICES CLIENTS INCLUDE RETIREMENT FUNDS, BANKS AND LENDING INSTITUTIONS, REITS, INSURANCE COMPANIES, ACCOUNTING FIRMS, CMBS INVESTORS, CORPORATIONS, FOREIGN INVESTORS AND MANY OTHER PRIVATE, PUBLIC AND GOVERNMENTAL AGENCIES.

Our client portfolios in aggregate **exceed \$100 billion**.

We are committed to valuation **best practices** for commercial real estate.

Our **experts** have MAI, CFA, CRE, FRICS, CCIM designations, and more.

We are **AMC-licensed** in 22 states.

We are an **SEC-registered** investment advisor.

VALUATION MANAGEMENT & FIDUCIARY SERVICES

Debt Valuation
Daily Market-to-market Valuation
Portfolio Analysis and Valuation
Independent Fiduciary Services
Valuation Management & Fiduciary
Services Leadership
Fairness Opinions
Web-based Valuation Management System
Real Estate Dynamic Benchmarking
Reporting

VALUATION ADVISORY & CONSULTING PRACTICES

Appraisals
Market studies
Appraisal Reviews
Due Diligence
Litigation Support
Purchase Price Allocation
IFRS Valuation
Expert Witness Services

DATA ANALYTICS & RESEARCH

Cap and Discount Rates
Statistical Analysis
Predictive Modeling
Risk Analysis
Quantitative Forecasting
Survey-based Research

SITUS RERC PRODUCTS

Situs RERC DataCenter
Quarterly U.S. Real Estate Report
Semi-Annual European Real Estate Report
Annual U.S. Expectations and Market
Realities in Real Estate



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