



CRE Capital Markets Update

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Presented to:

**Center for Real Estate &
Urban Economic Studies**



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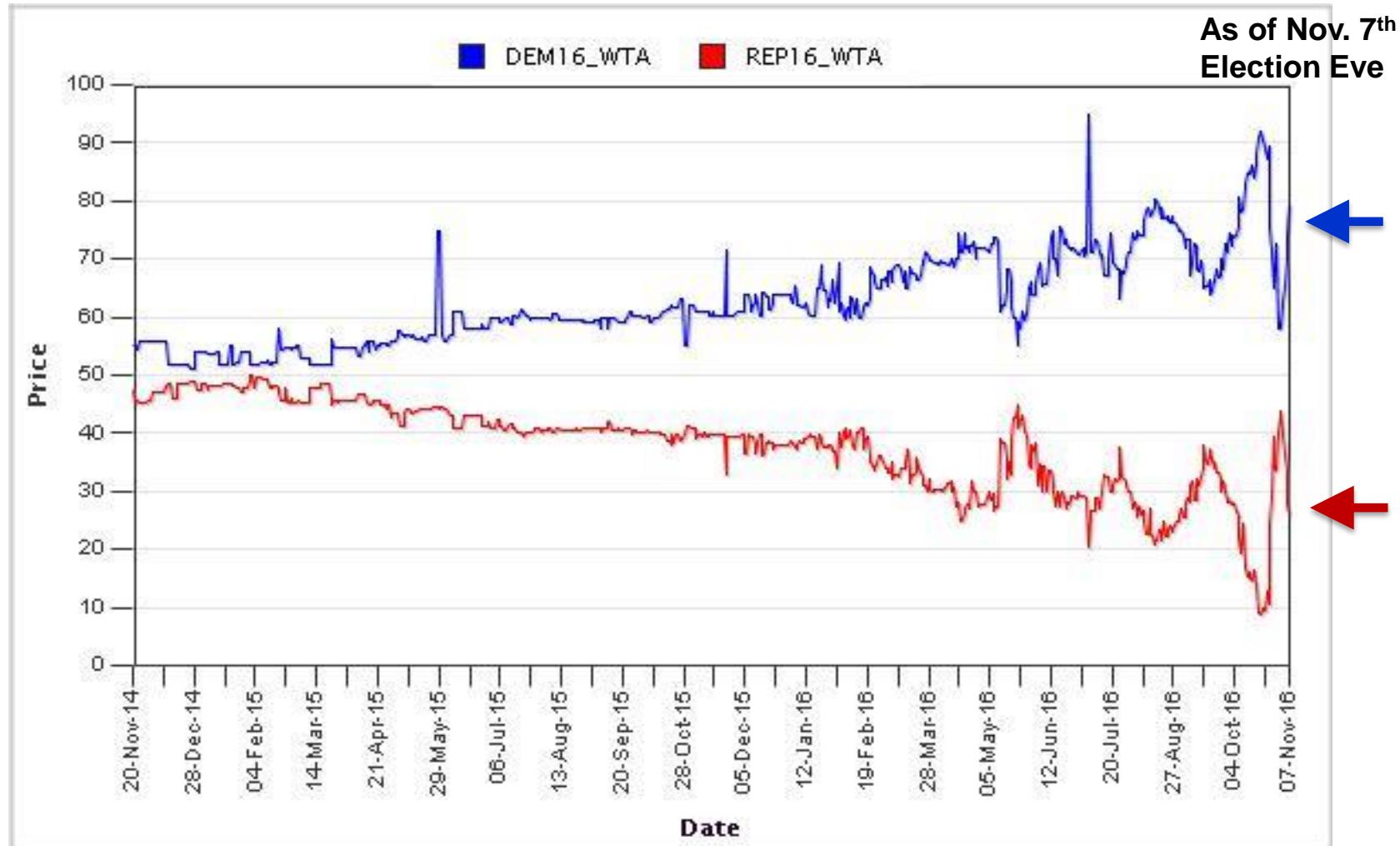
Searching for Clarity ...



The Presidential “Race” ...

Pres16_WTA

2016 US Presidential Election Winner Takes All Market



Dealing with Heightened Volatility?



NOW
PANIC
AND
FREAK
OUT

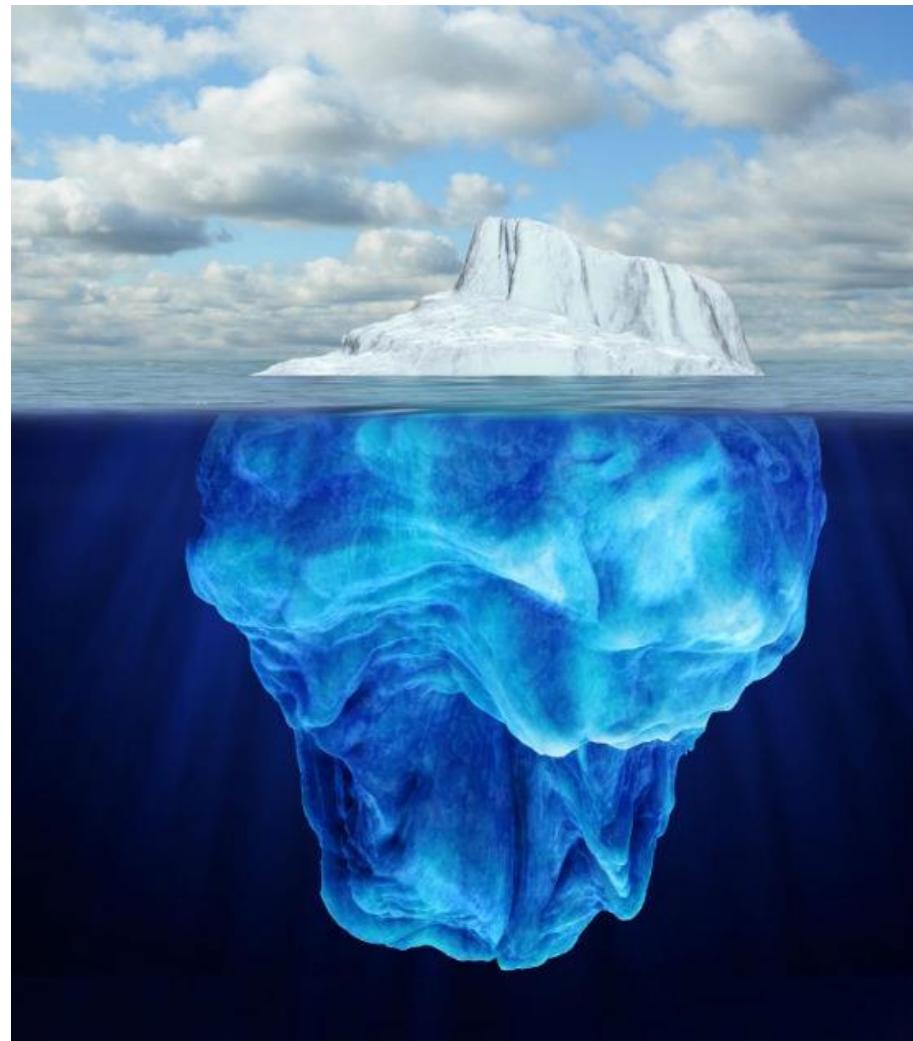
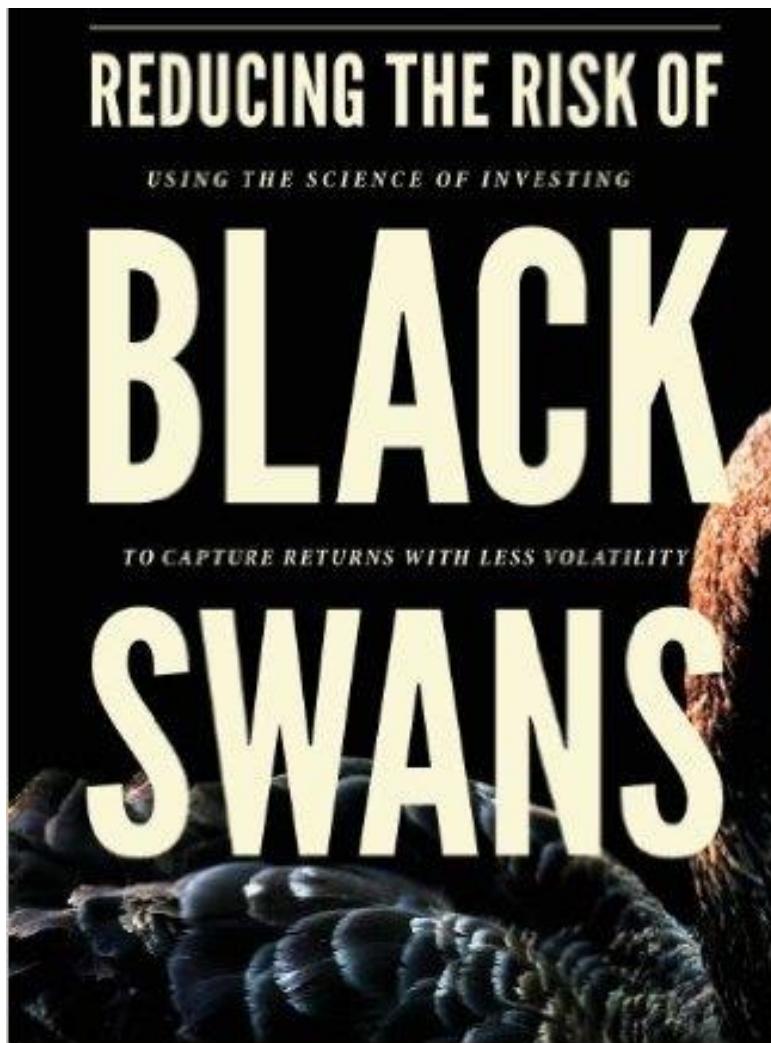


KEEP
CALM
AND
CARRY
ON



SHIFT
HAPPENS
SO
BE
RESILIENT

Risk Management Matters!!



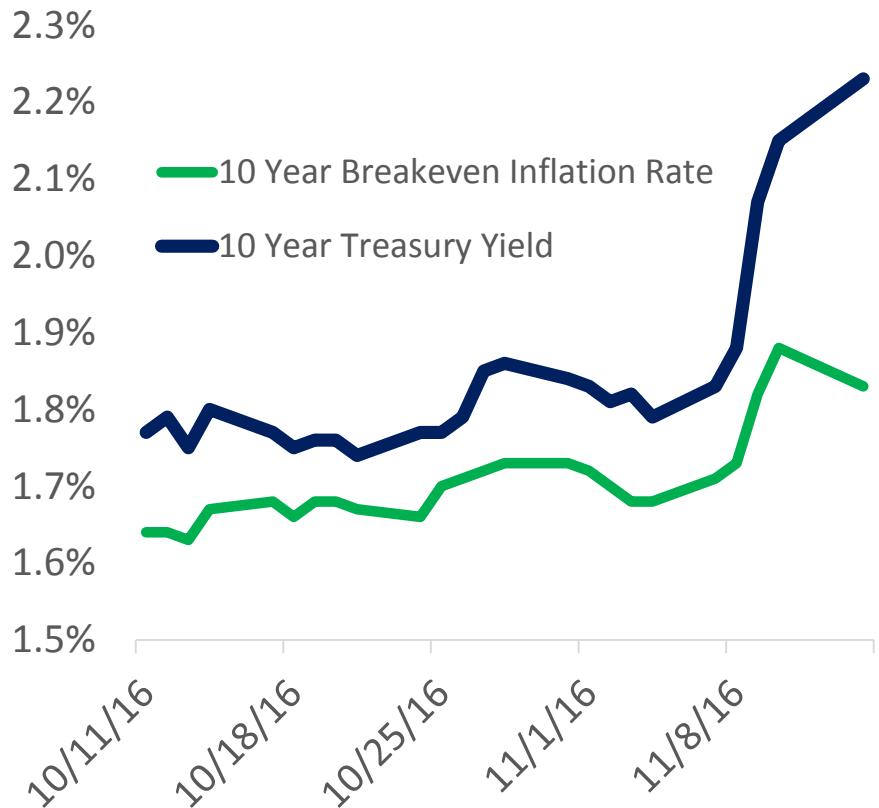
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“Trumpanomics”: A Big Win for the U.S. Economy?

Initial market enthusiasm for “Trumpanomics” likely overstated;
important to keep an eye on the risks

What we know so far ...

10 Yr. Treasury Yields and Inflation Expectations Up



Expansionary Fiscal Policy

- Tax cuts (personal + corporate)
- Infrastructure spending

Reduced Regulation

- Banking and energy

U.S. Manufacturing Job Boost

Data through November 14, 2016.

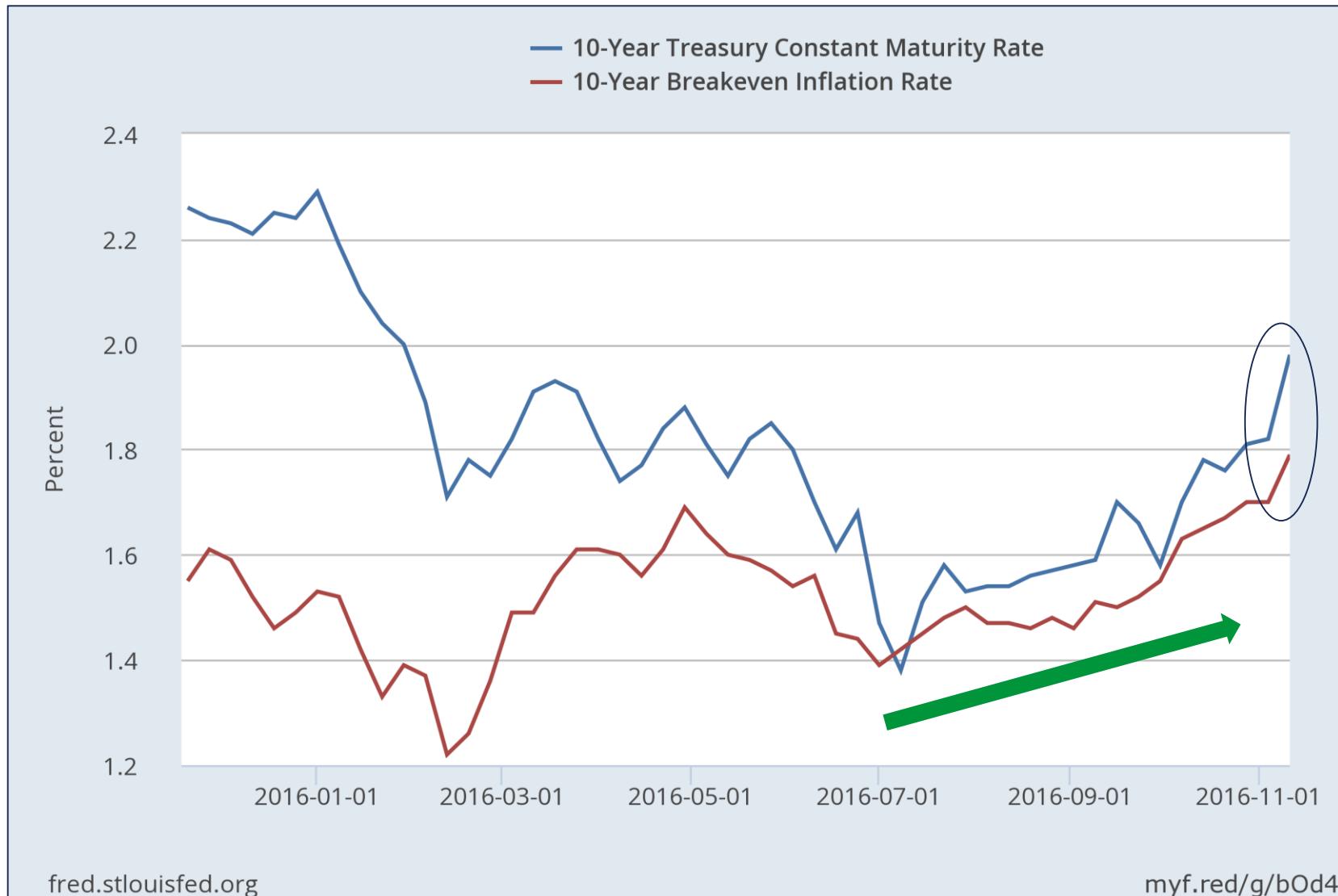
Source: Barings Real Estate Research, Federal Reserve, U.S. Treasury Department.

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Important to Recognize ...

Yields and inflation expectations had been trending upward

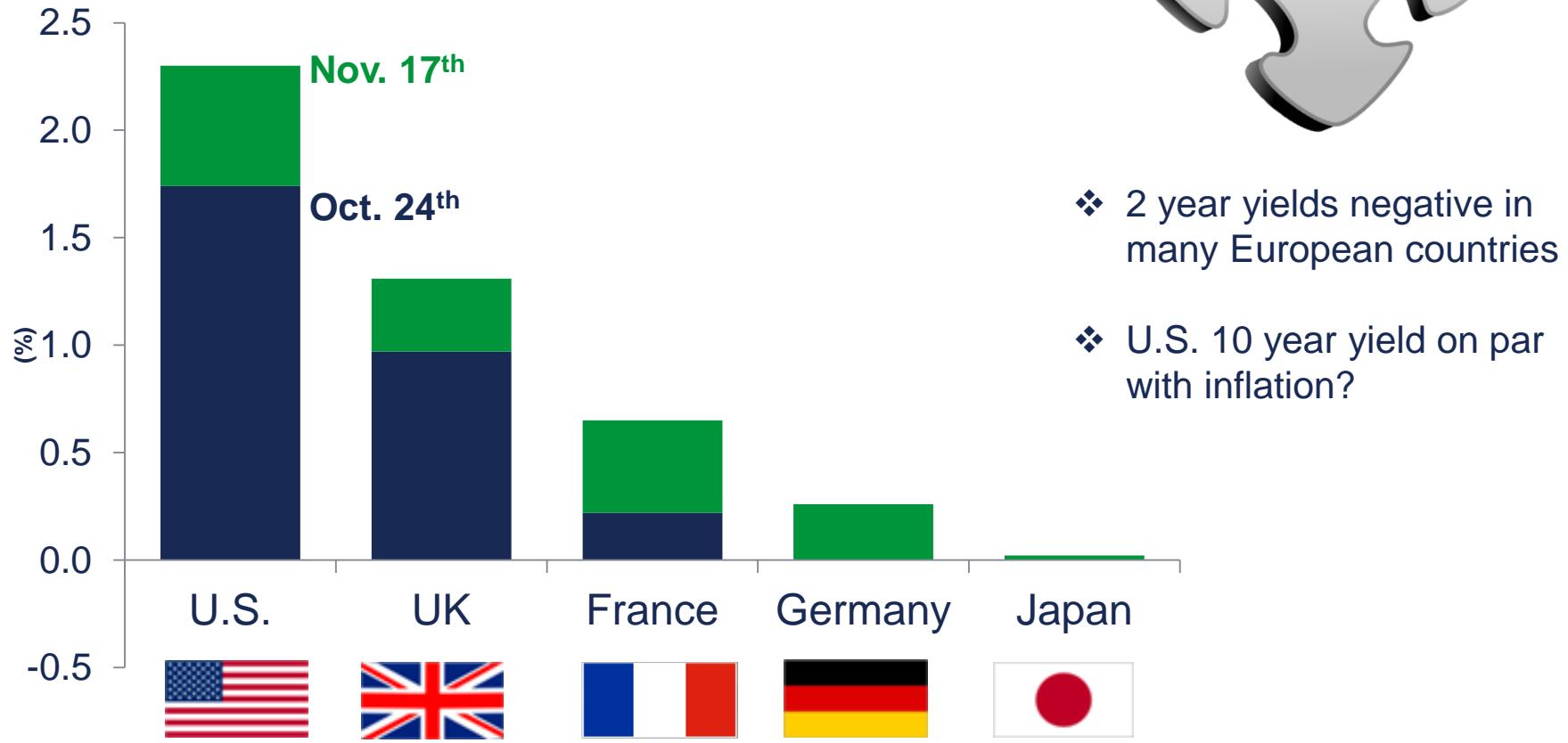


Interest Rates Around the World ...

Downward pressure on U.S. long-term rates to persist



10 Year Government Bond Yield



Source: Barings Real Estate Research, Bloomberg.

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“Trumpanomics”: A Big Win for the U.S. Economy?

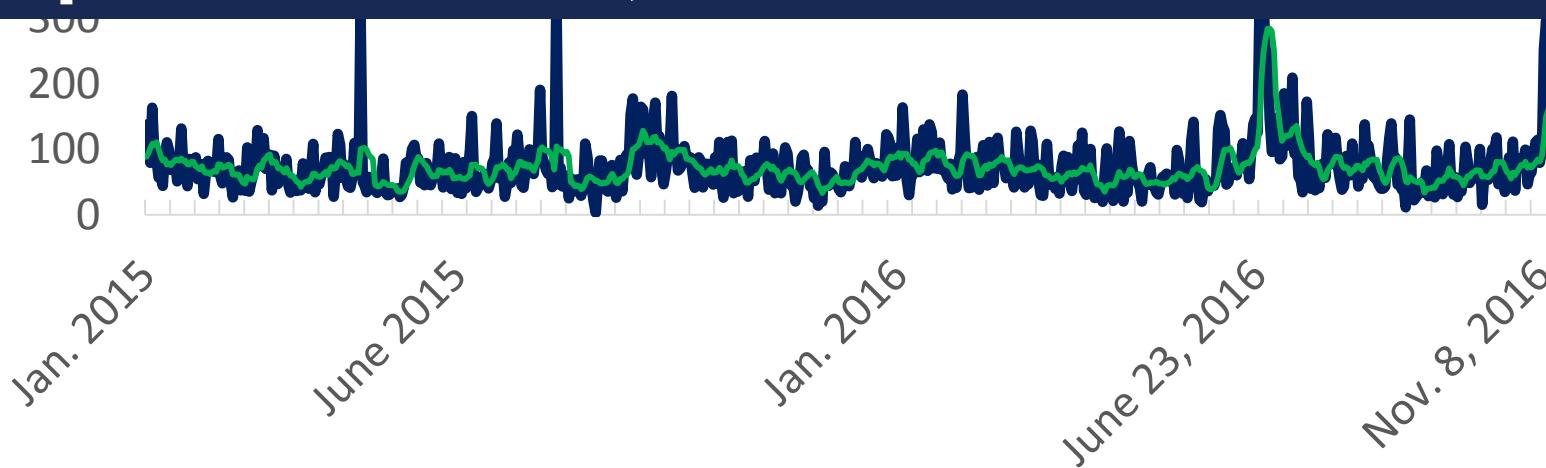
Initial market enthusiasm for “Trumpanomics” likely overstated;
important to keep an eye on the risks



Economic Policy Uncertainty Index Spikes

Exceeds level reached following the Brexit vote

Uncertainty increases the “value of waiting” especially as it relates to major, capital intensive, investments

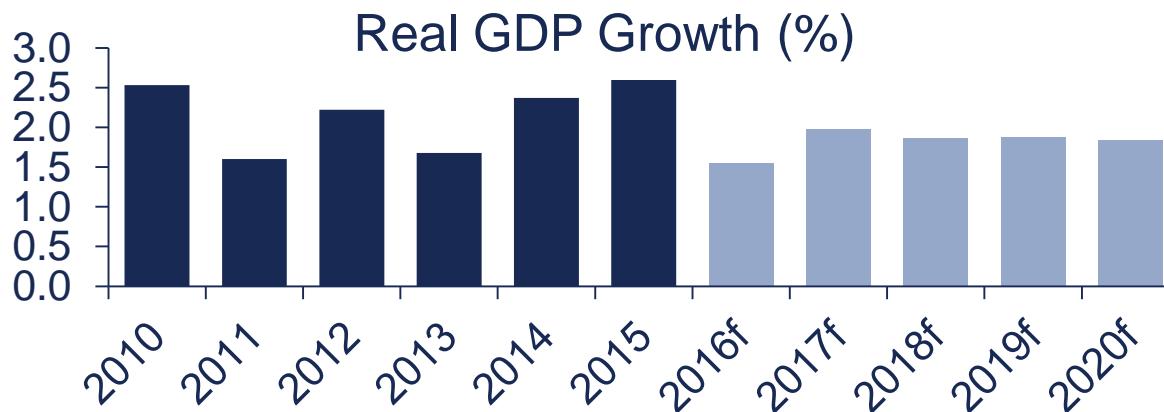


Data through November 14, 2016. Details on the “Economic Policy Uncertainty Index” are found in “Measuring Economic Policy Uncertainty,” by Scott R. Baker, Nicholas Bloom, and Steven J. Davis, NBER Working Paper No. 21633, October 2015

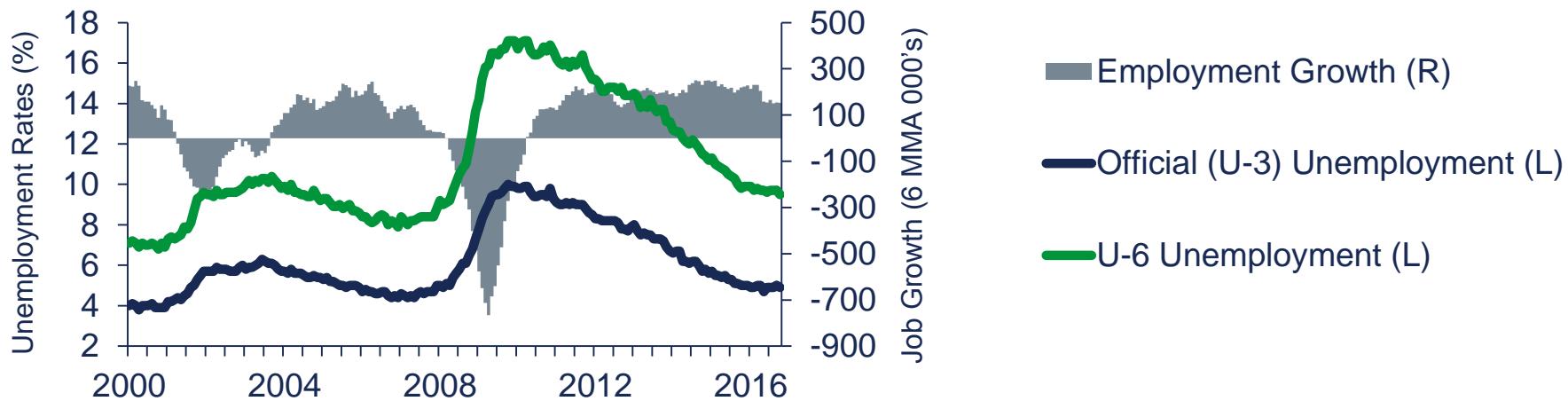
Source: Barings Real Estate Research, Federal Reserve, U.S. Treasury Department and Economic Policy Uncertainty (<http://www.policyuncertainty.com/>)

U.S. Economic Update and Outlook

Economic expansion continues; growth expected to improve in the second half of the year but remain sluggish



Private Sector Job Growth and Unemployment Rates¹

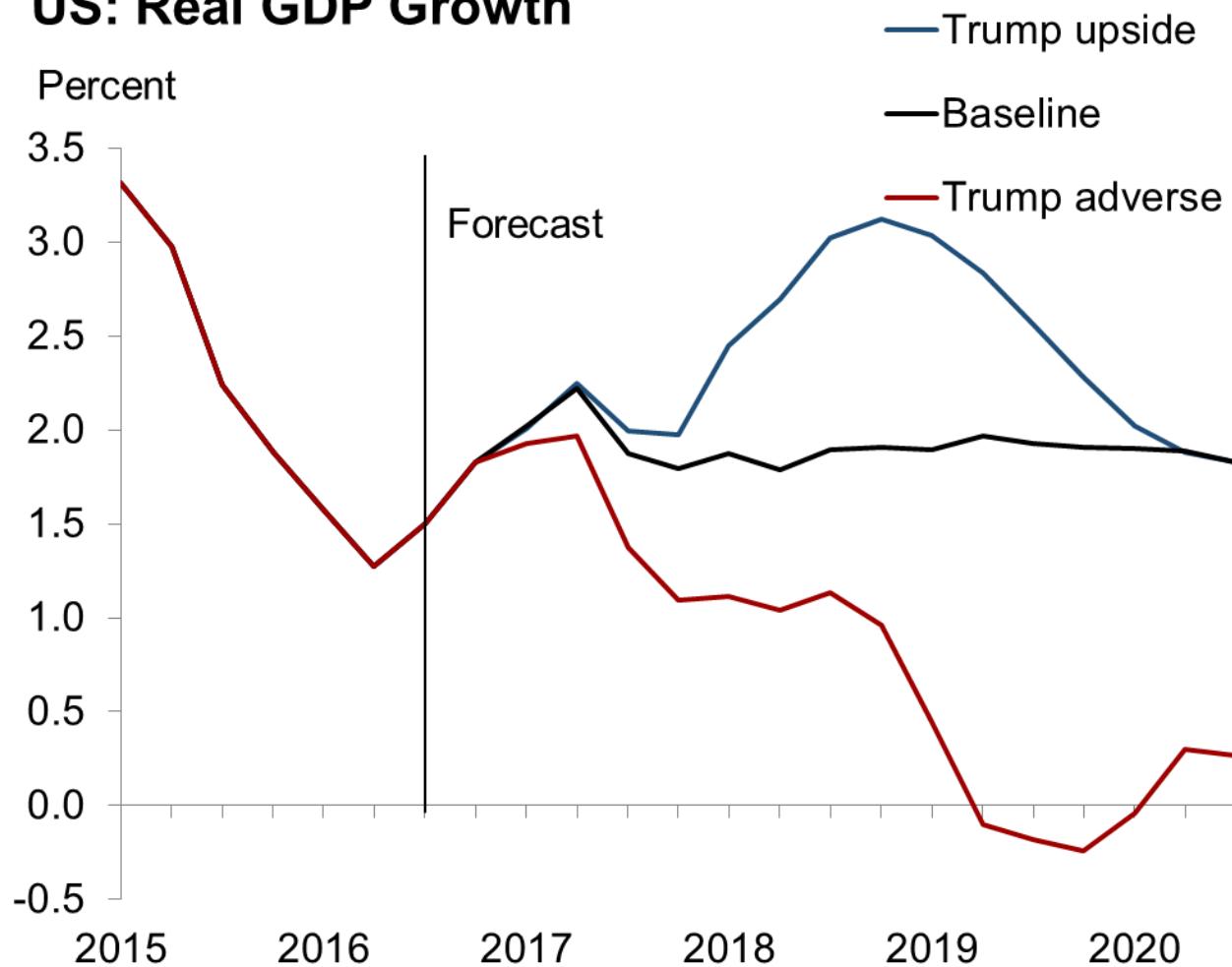


1. Employment Growth is the six month moving average of monthly job gains. U6 unemployment rate contains discouraged workers and those working part-time for economic reasons.

Sources: Barings Real Estate Research, Moody's Analytics, Oxford Economics, Bureau of Labor Statistics (November 8, 2016).

Real GDP

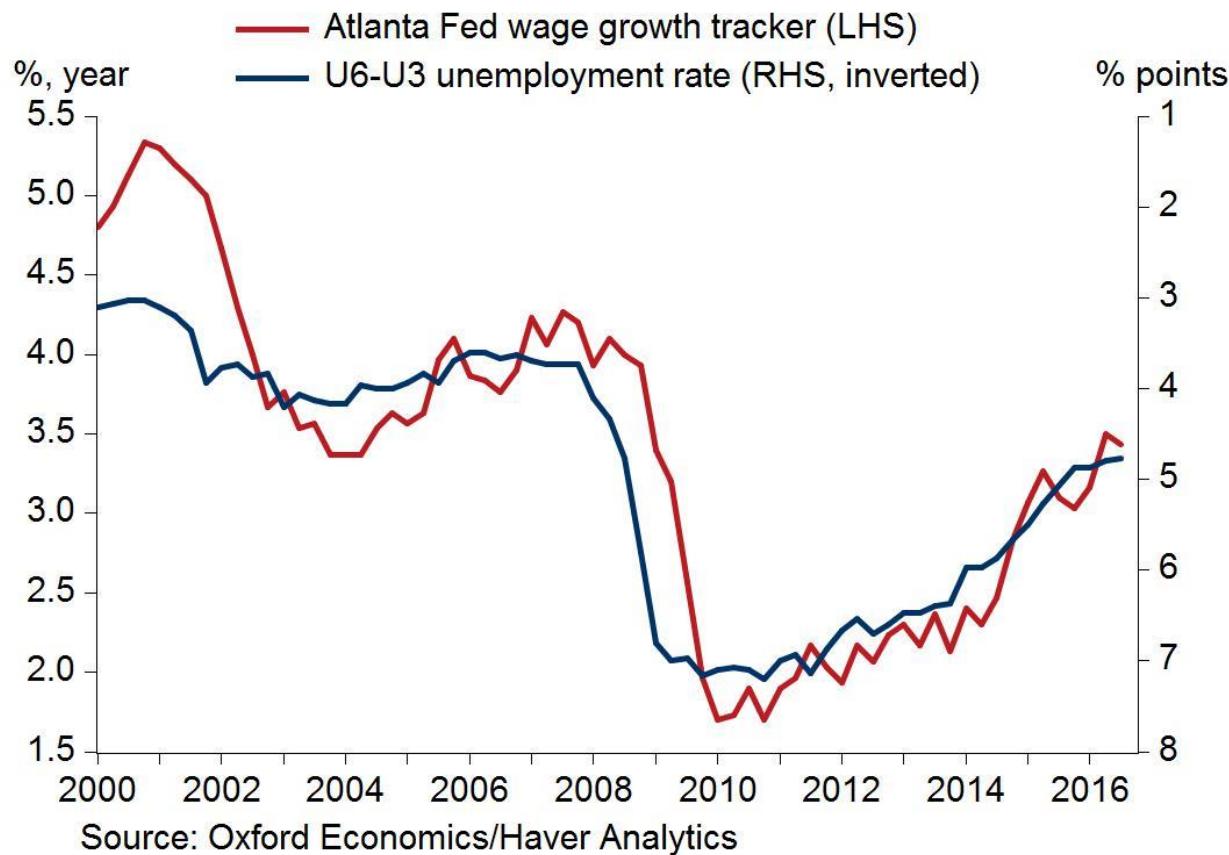
US: Real GDP Growth



Source : Oxford Economics

Wages moving higher

US: Labor market slack



Turning Our Attention to CRE ...

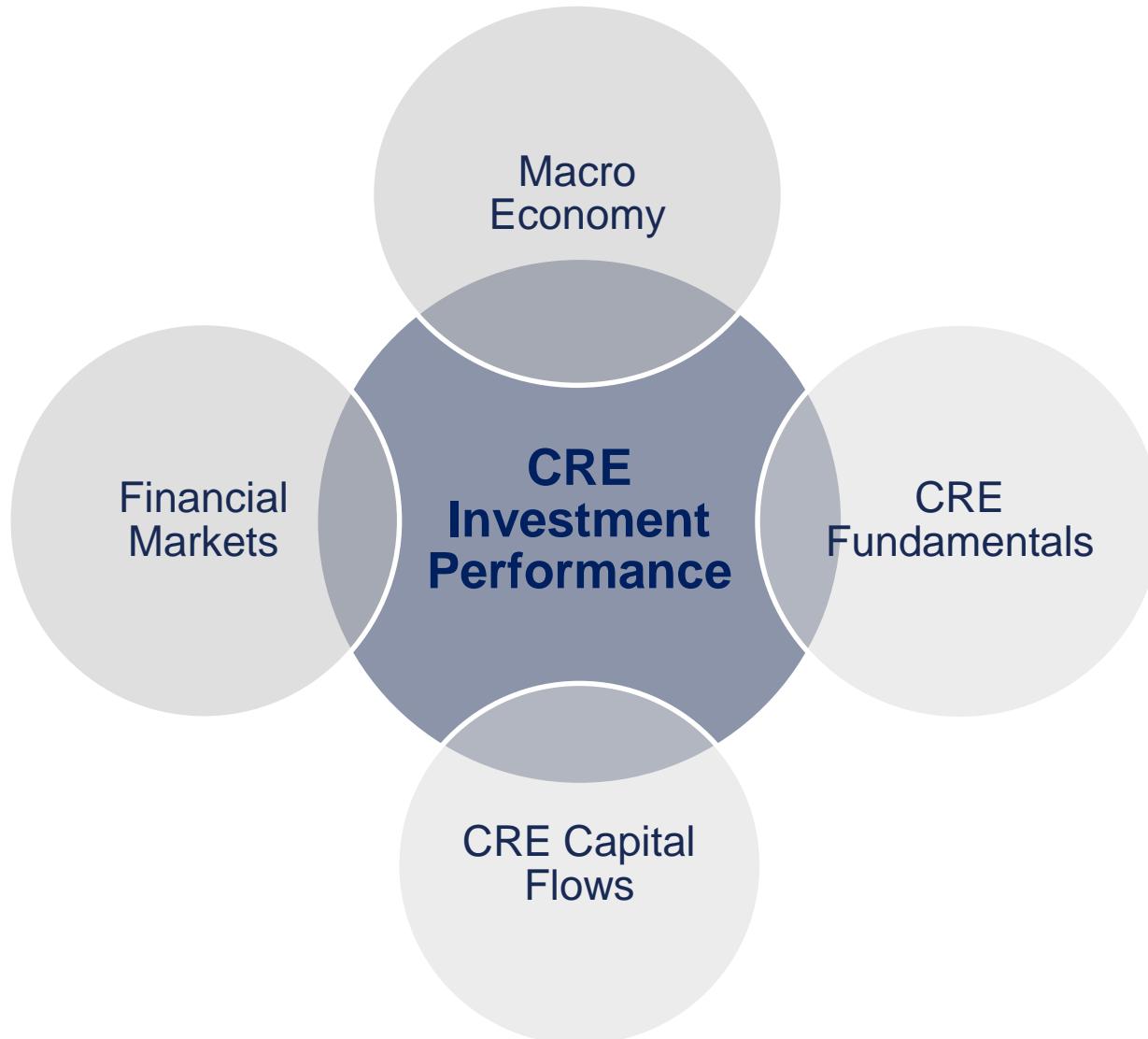
2015 Special Real Estate Issue of the Journal of Portfolio Management – editor's lead article/intro

New Horizons and Familiar Landscapes: New Capital Sources Confront Shifting Real Estate Fundamentals

JIM CLAYTON, FRANK J. FABOZZI, S. MICHAEL GILIBERTO,
JACQUES N. GORDON, YOUNGUO LIANG, GREG MACKINNON,
AND ASIEH MANSOUR

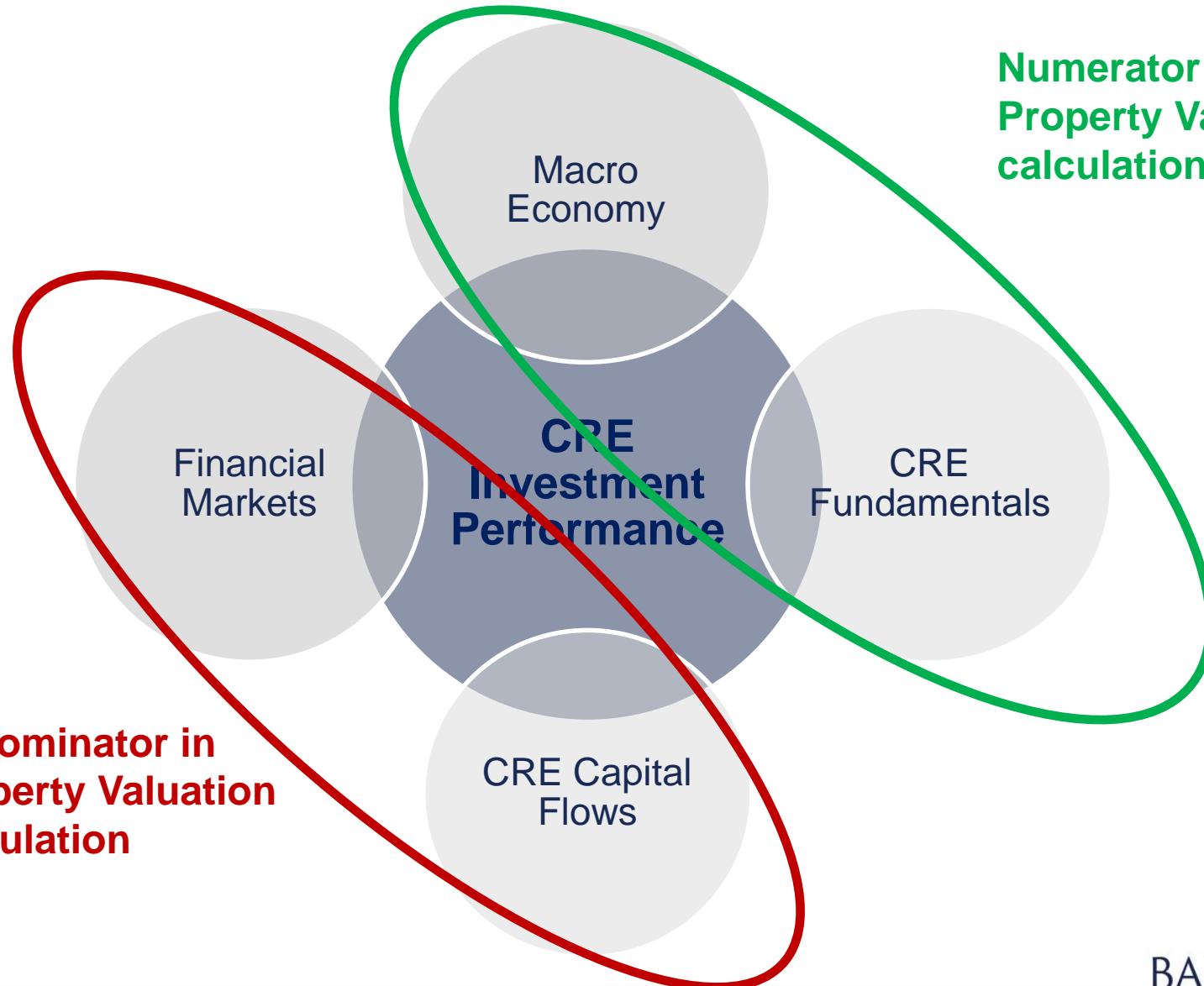
CRE Performance Driven by Interaction of Multiple Cycles

There is not “one cycle” ... and cycle components have unique dynamics and durations



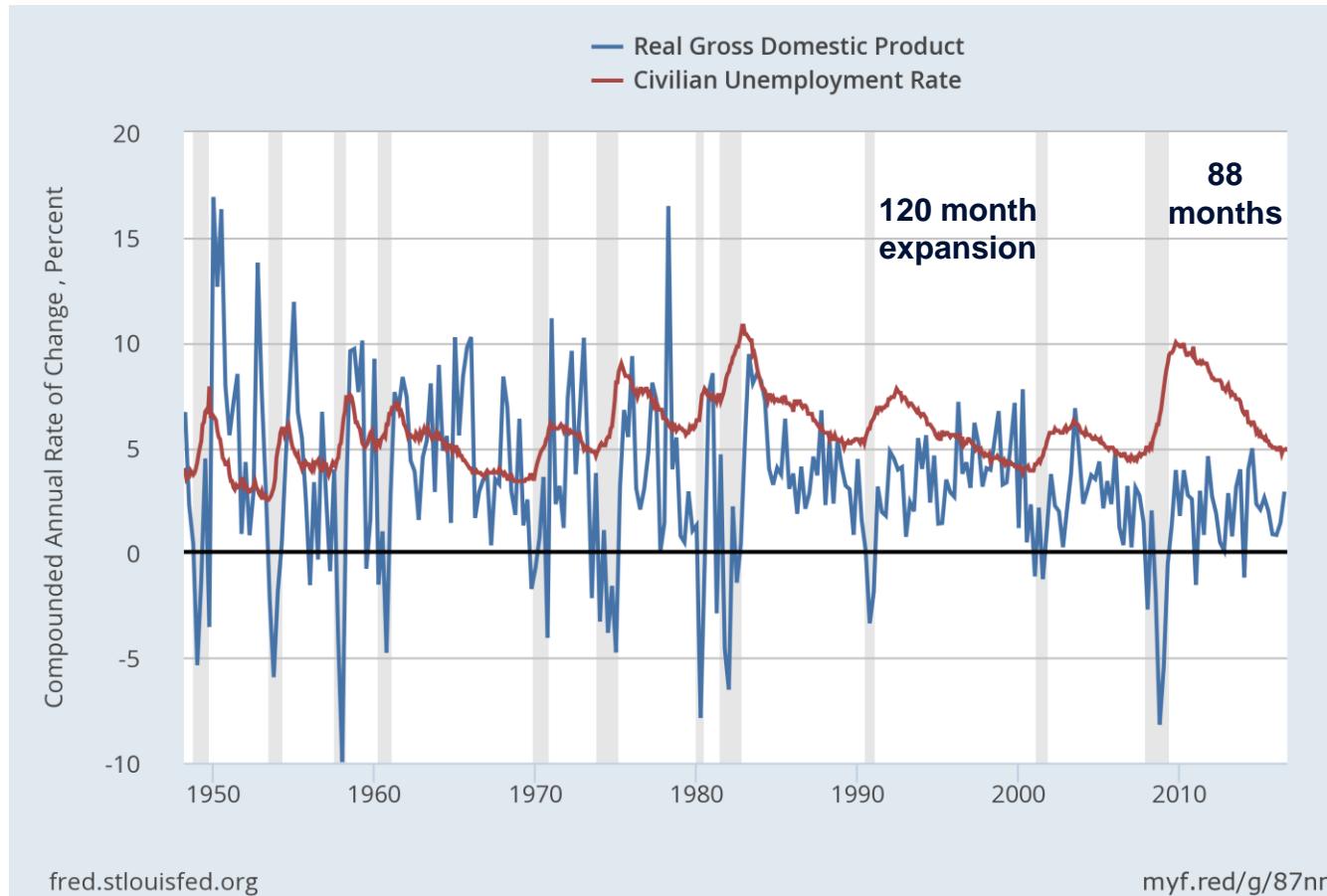
CRE Performance Driven by Interaction of Multiple Cycles

There is not “one cycle” ... and cycle components have unique dynamics and durations



U.S. Economic Expansion Evolves

Structural shift in nature of business cycles since 1980;
longer expansions and less overall macroeconomic volatility.



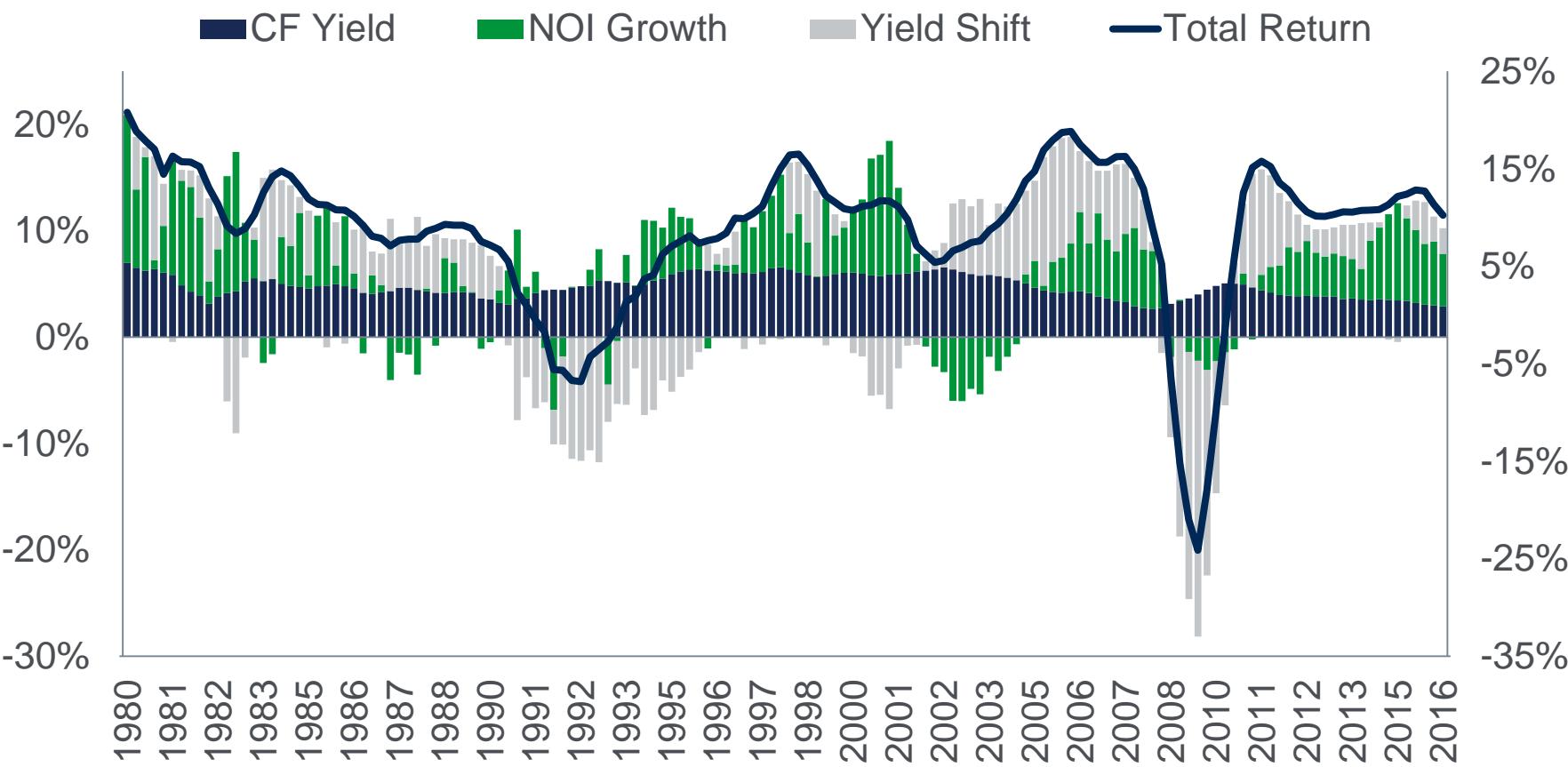
- The U.S. economic expansion is 88 months old, and is forecast to maintain a steady pace over the next several years after a prolonged period of deleveraging and balance sheet repair post “Great Recession”
- Age tends not to be a contributing factor in the “death” of economic expansions
- Expansions end after a period of Fed tightening aimed at fighting inflation; not the situation we are in today or expect to be over the next few years

Shaded areas indicate U.S. recessions – 2016 research.stlouisfed.org

NCREIF Property Index Return Drivers

NPI returns are moderating and the composition of returns shifting

Breakdown of total returns into estimated cash flow yield, NOI growth, and yield shift components

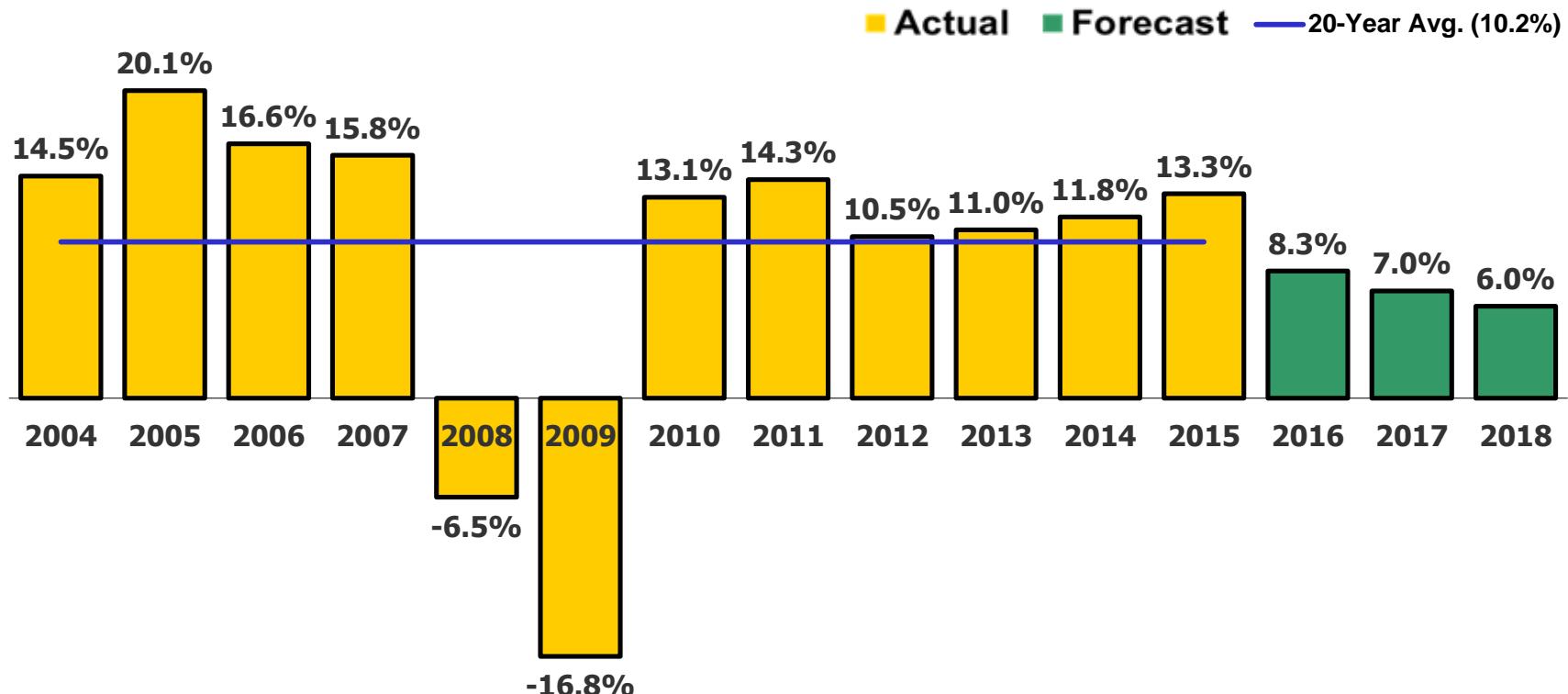


Source: Barings Real Estate Research, NCREIF (quarterly data through 2Q 2016).

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Property Returns Expected to Moderate Further

NCREIF Property Index (NPI) returns expected to revert towards high single digit long-term average as cycle matures



Source: Barings Real Estate Advisers, NCREIF (actual data through 2Q 2016), ULI Consensus Forecast October 2016.



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CRE Pricing Relative to Bonds and Equity REITs

At the aggregate level, property appears fairly priced on a relative basis

Cap Rates vs. Bond Yields

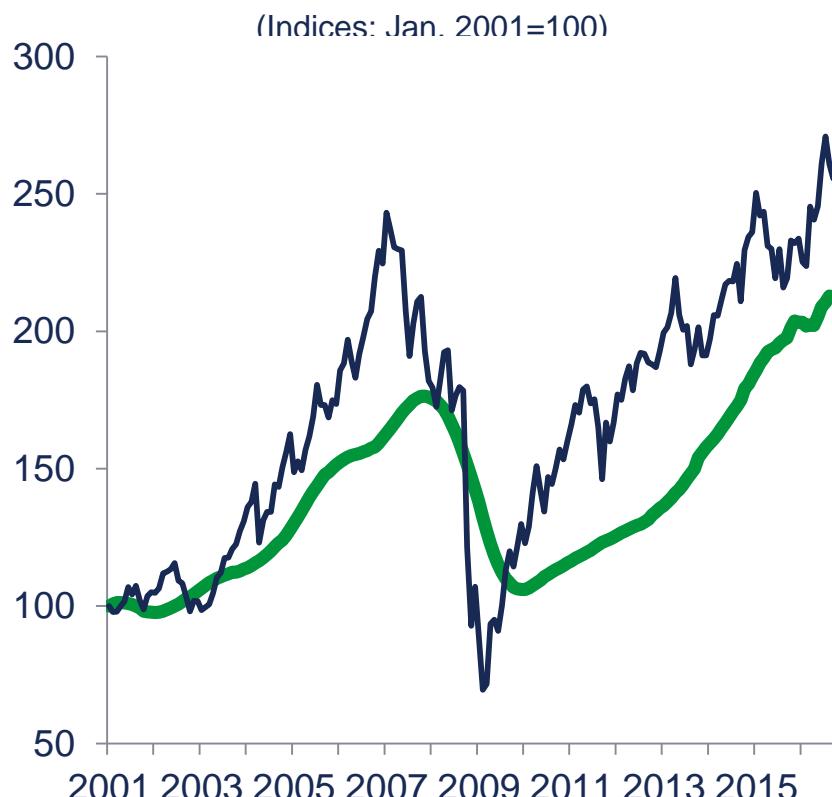
Wide vs. Treasuries and Fair to Corporates



NCREIF Cap rate through 2Q 2016, 10 Year Treasury and Baa Corporate Yields through 3Q 2016

Public vs. Private Market Pricing

REITs prices, at times, can be a leading indicator



Monthly data with the property price index (CPPI) extending through August 2016 and the equity REIT index through September 2016.

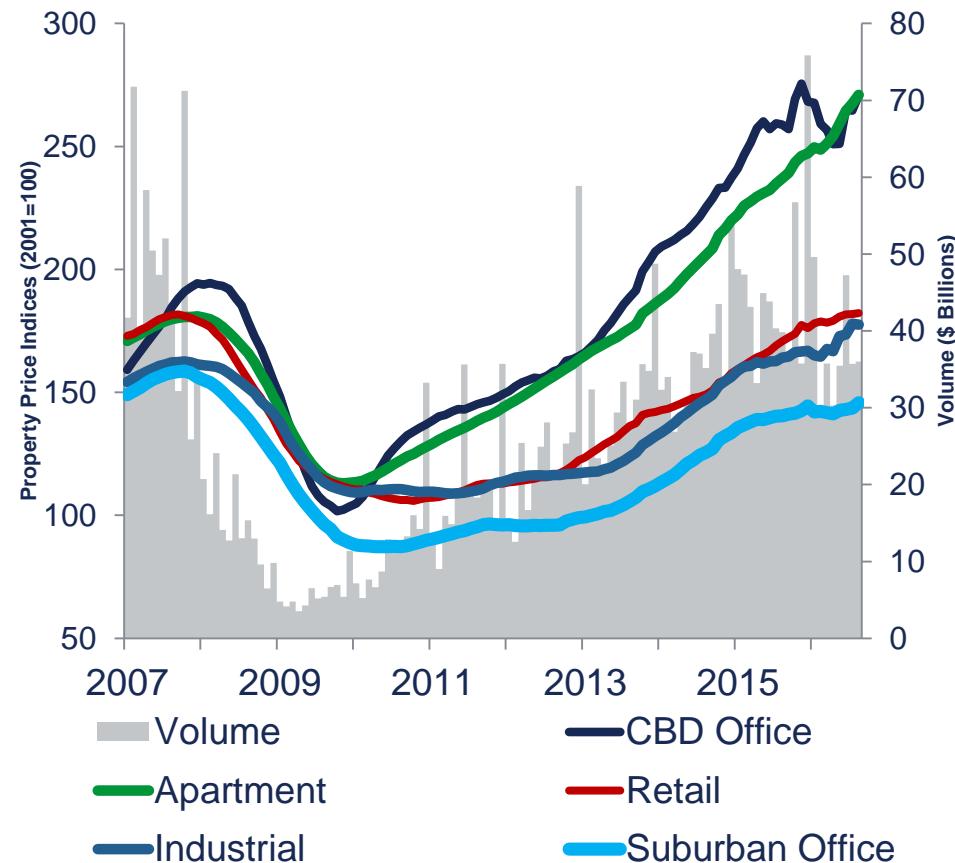
Sources: Barings Real Estate Research, NCREIF, Federal Reserve, NAREIT, Moody's Analytics.

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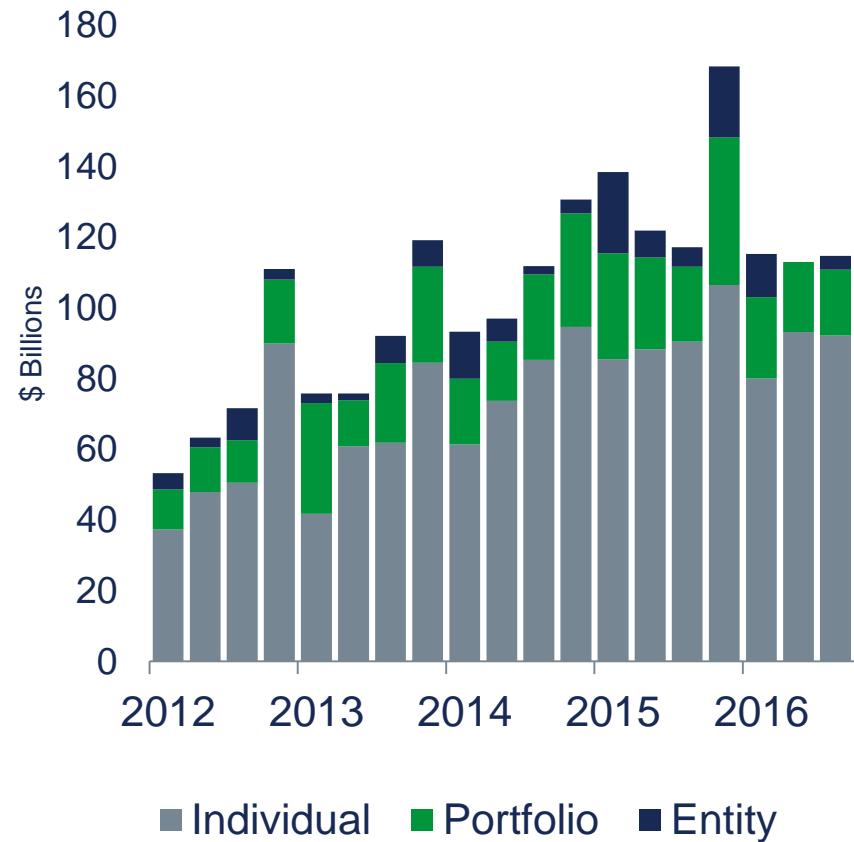
CRE Transaction and Pricing Trends

Slowing of investment activity and price growth in 1Q reverse course in 2Q and 3Q as cycle matures and evolves

Moody's/RCA Commercial Property Price Indices (CPPIs) and Total Transaction



Transaction Volume by Type of Sale



Monthly data through August 2016.

Sources: Barings Real Estate Research, Moody's Investors Service, Real Capital Analytics (November 2016).

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Quarterly data through 3Q 2016

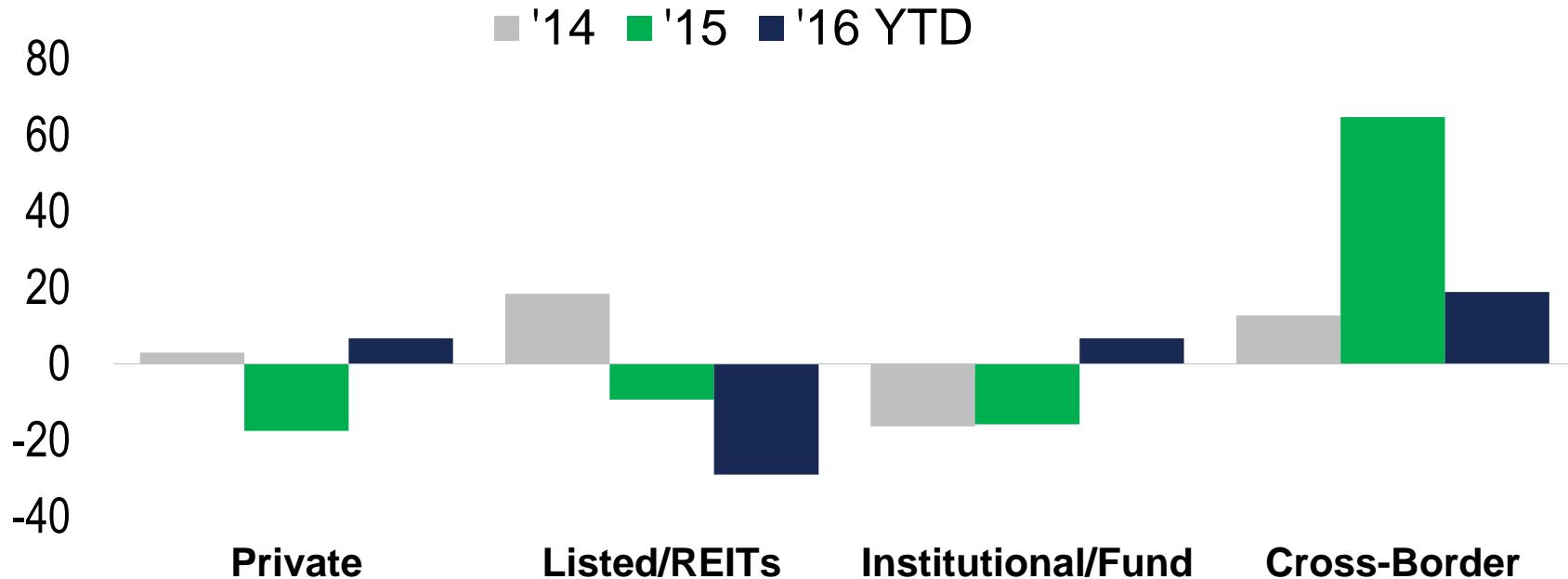
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CRE Capital Markets

RCA Q3 Capital Trends – Investor Type Breakdown

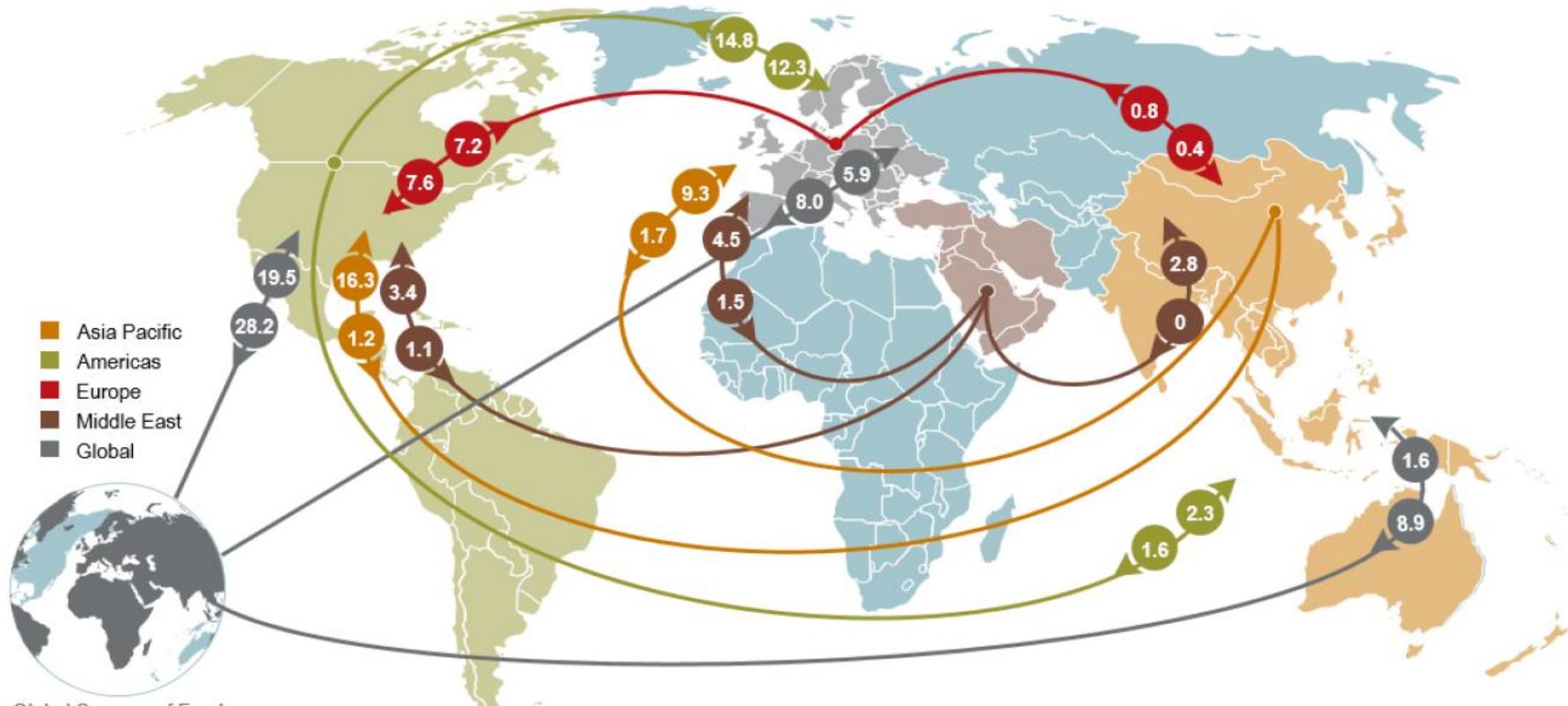
Net Acquisitions by Investor Type

Cross-Border Investors Still Net Buyers
Competition for Assets May Increase



Global Cross Border Capital Flows

Figure 8: Inter-Regional Flows, YTD 2016 (US\$136 billion in total)

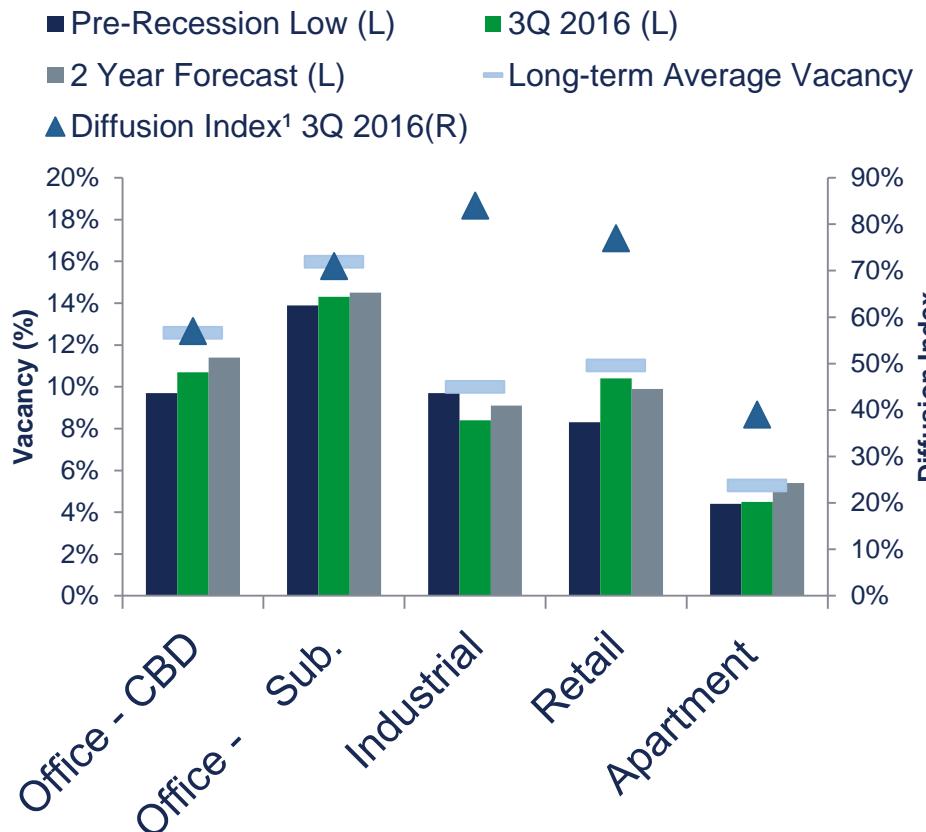


Source: JLL

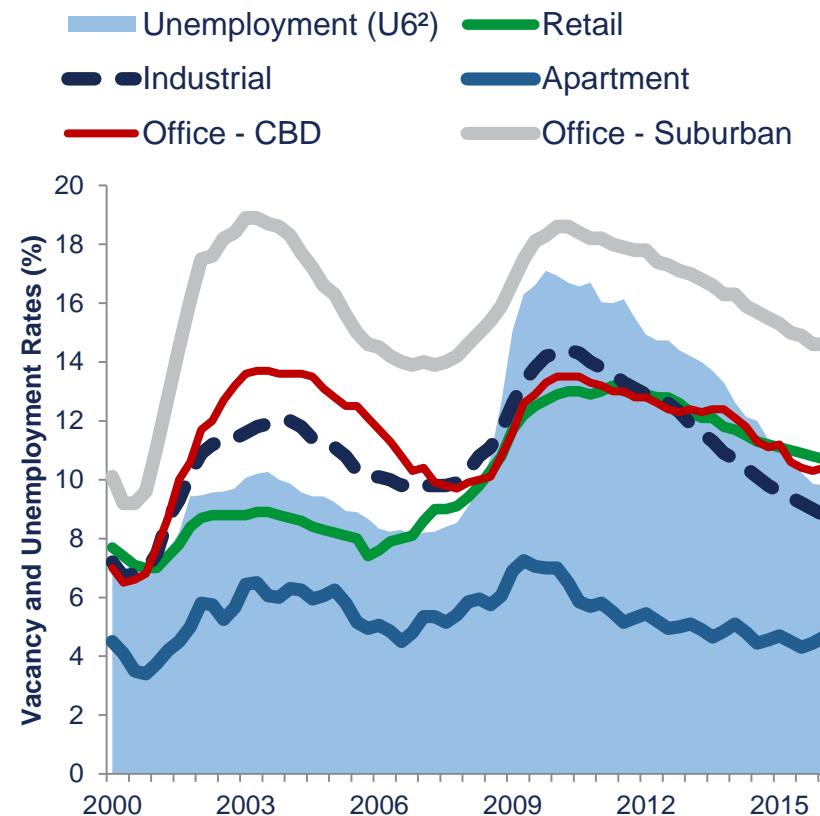
Property Data (UK); Real Capital Analytics (USA)

U.S. Property Sector Fundamentals – 3Q 2016

Maturing and evolving recovery; strong broad-based gains in industrial, slower but broadening recovery in retail



▲ 1 “Diffusion Index” is a measure of the breadth of recovery, equal to the percentage of metros tracked by CBRE-EA with vacancy declining over the past year.



²U6 unemployment rate contains discouraged workers and those working part-time for economic reasons.

Sources: Barings Real Estate Research, CBRE-EA, Moody's Analytics, BLS. (3Q 2016).

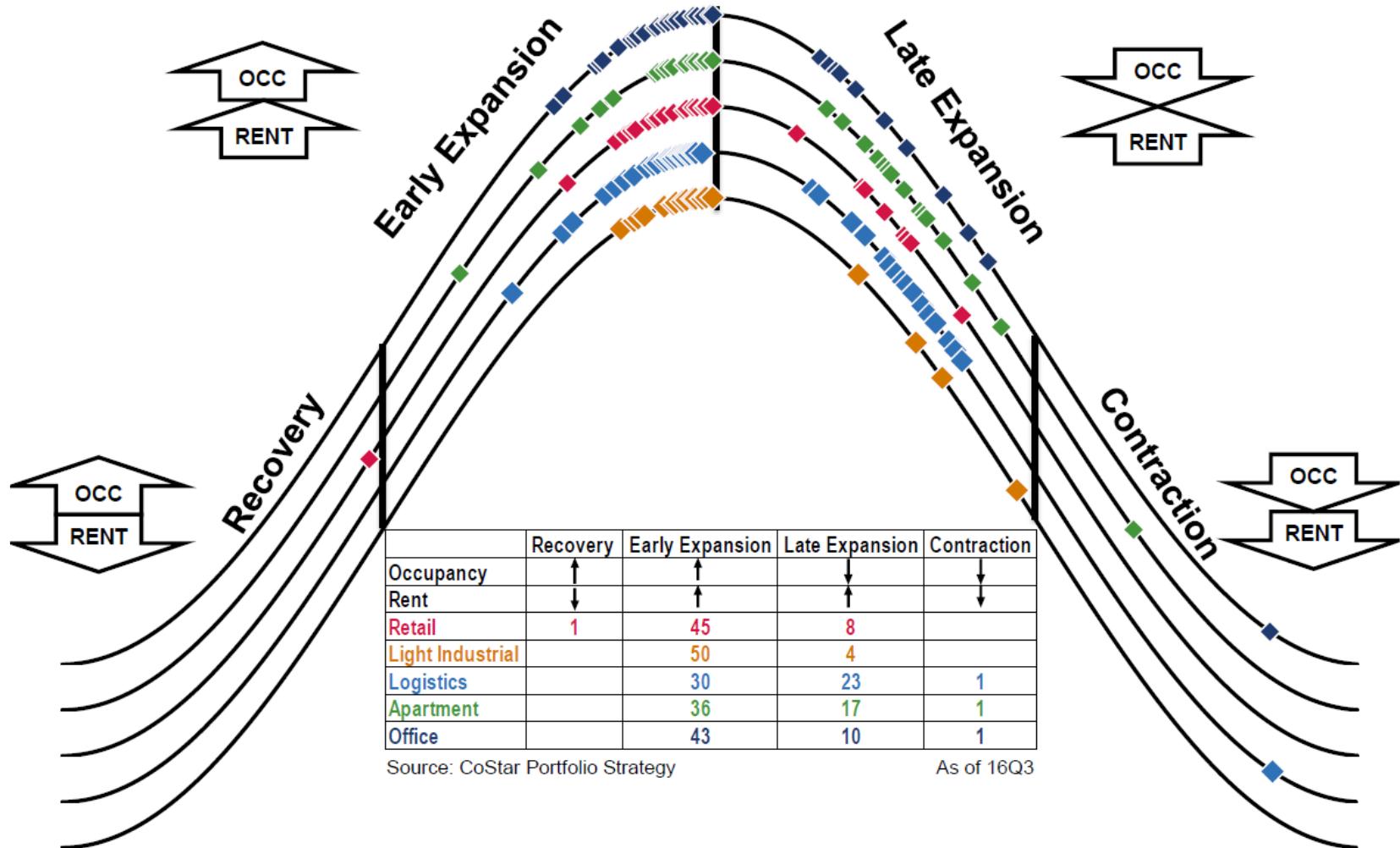
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Costar's "property cycles" – Apartment Markets Circled in Red



The Market Cycle

Recovery, Early Expansion, Late Expansion, Contraction



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Economic Outlook – Job Growth Top Ten & Bottom Ten

- **Top ten** - usual suspects (FL & TX). No tech except Austin
- **Bottom ten** – Forecast slowdown in Chicago & NY a concern

Emp Growth Top Ten 2017-2018

	Annual Rate(%)	Change from LQ	Y-o-Y Sep'16
Orlando, FL	3.4	(0.0)	4.5
Las Vegas, NV	3.0	0.8	2.8
Phoenix, AZ	2.8	(0.3)	2.2
W Palm Beach, FL	2.7	(0.4)	1.8
Jacksonville, FL	2.6	0.1	3.8
Austin, TX	2.6	0.2	3.2
Dallas, TX	2.5	(0.3)	4.1
Raleigh, NC	2.5	(0.1)	2.7
Fort Worth, TX	2.4	(0.0)	2.0
Salt Lake City, UT	2.4	(0.0)	2.7
U.S.	1.4	(0.1)	1.7

Emp Growth Bottom Ten 2017-2018

	Annual Rate(%)	Change from LQ	Y-o-Y Sep'16
Baltimore, MD	1.2	0.6	2.2
Chicago, IL	1.1	(0.6)	1.4
Newark, NJ	1.1	(0.1)	1.5
Kansas City, MO	1.1	(0.6)	1.3
Stamford, CT	1.1	0.7	1.4
New York, NY-NJ	1.0	0.0	1.6
Honolulu, HI	0.9	0.5	1.5
Hartford, CT	0.9	(0.1)	1.4
Pittsburgh, PA	0.9	(0.5)	(0.7)
Nassau-Suff., NY	0.8	0.0	1.0
U.S.	1.4	(0.1)	1.7

FYI: CPF top markets - NY, LA, Philla, WPB, Bos, DC, Sea, SF, Den, Aus, DFW & Houston

Investing Themes Driving Opportunity Today

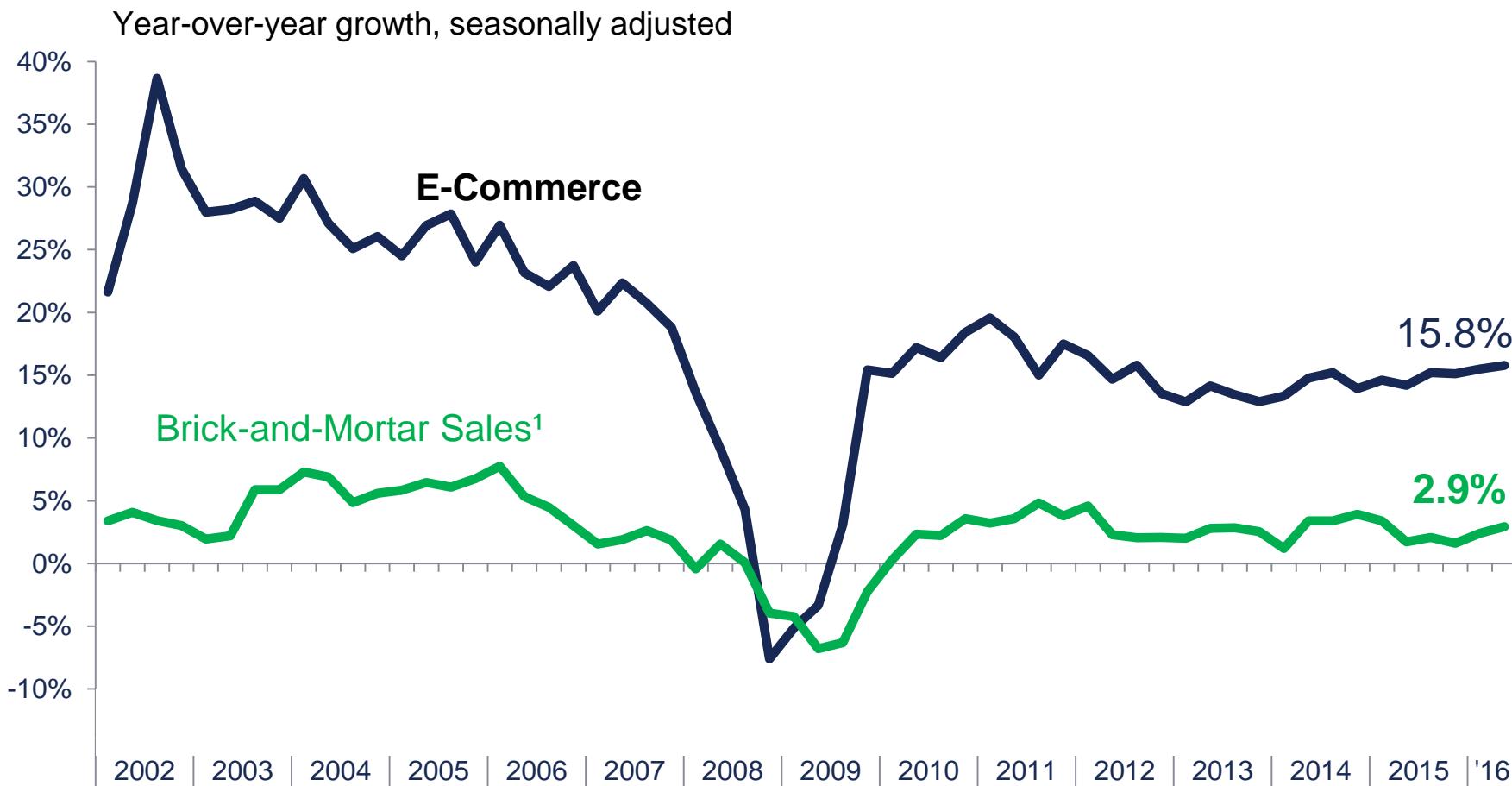
Maturing but extended cycle with structural and “shift” supports

Success is less about broad national & sector forces and more about submarket dynamics, asset-specific characteristics, and ability to execute.

- ❖ Technology/Digitalization
 - e-commerce, 3-D printing,....
- ❖ Demographic transitions
- ❖ Urban core revitalization
- ❖ Gentrifying “next tier” submarkets
- ❖ Densifying suburban nodes
 - Urbanizing = vibrant/amenities
- ❖ Transit-oriented development (TOD)
- ❖ Obsolescence of existing stock
- ❖ Evolving definition of “core”
- ❖ Growing acceptance of debt
 - Bank & CMBS regulation



E-commerce Sales Growth Outpacing Bricks-and-Mortar



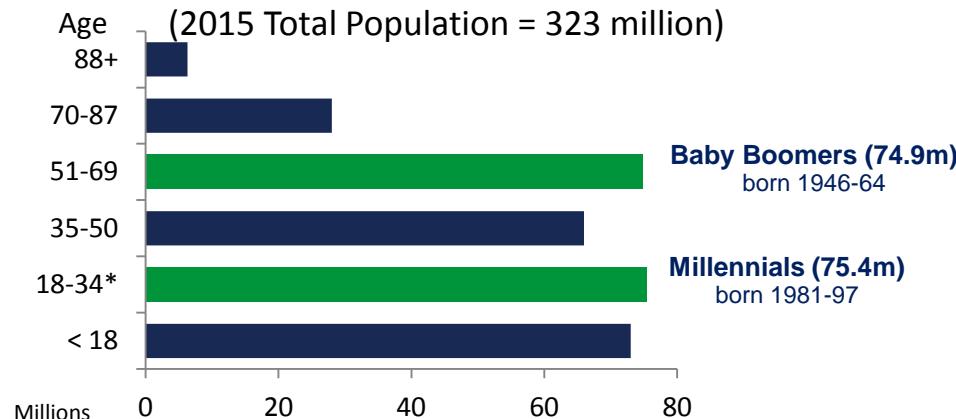
1. Excludes autos, gas stations, food service, and grocery stores

Source: U.S. Census Bureau.

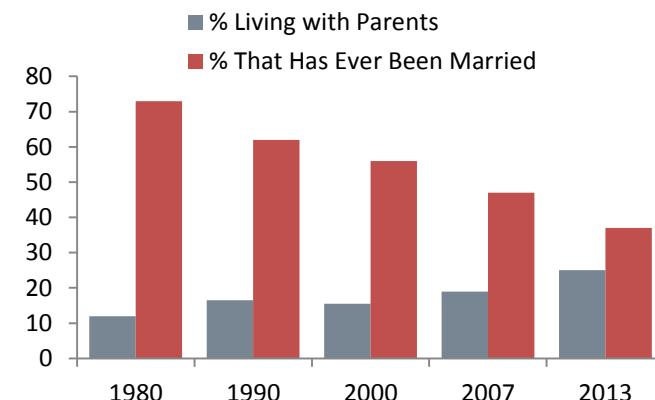
Demographic and Societal Shifts Drive Long-Term Demand

Shifting preferences and two prominent generations to sustain demand over the next decade

Age Distribution of U.S. Population

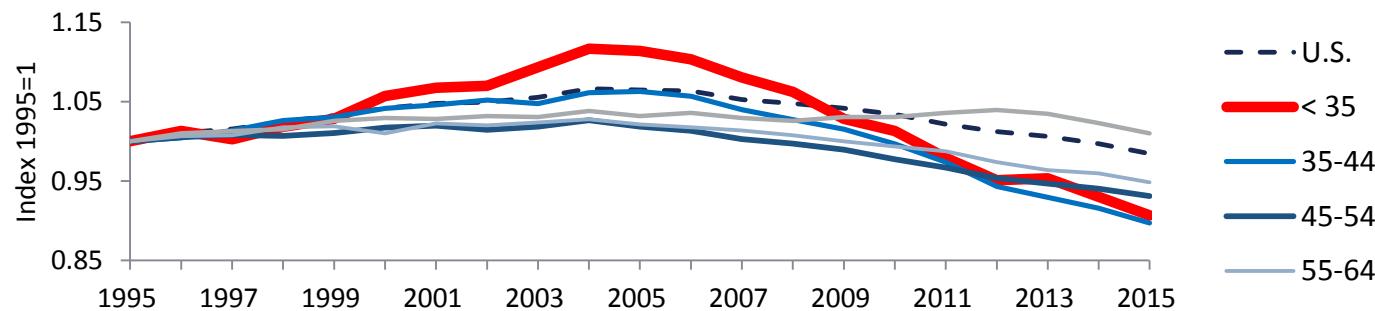


25-29 Year Olds Choices Today



Decline in Homeownership Rate for Most Ages But Especially Younger (Prime Renter Age)

Change in Homeownership Rates by Age and Household Head

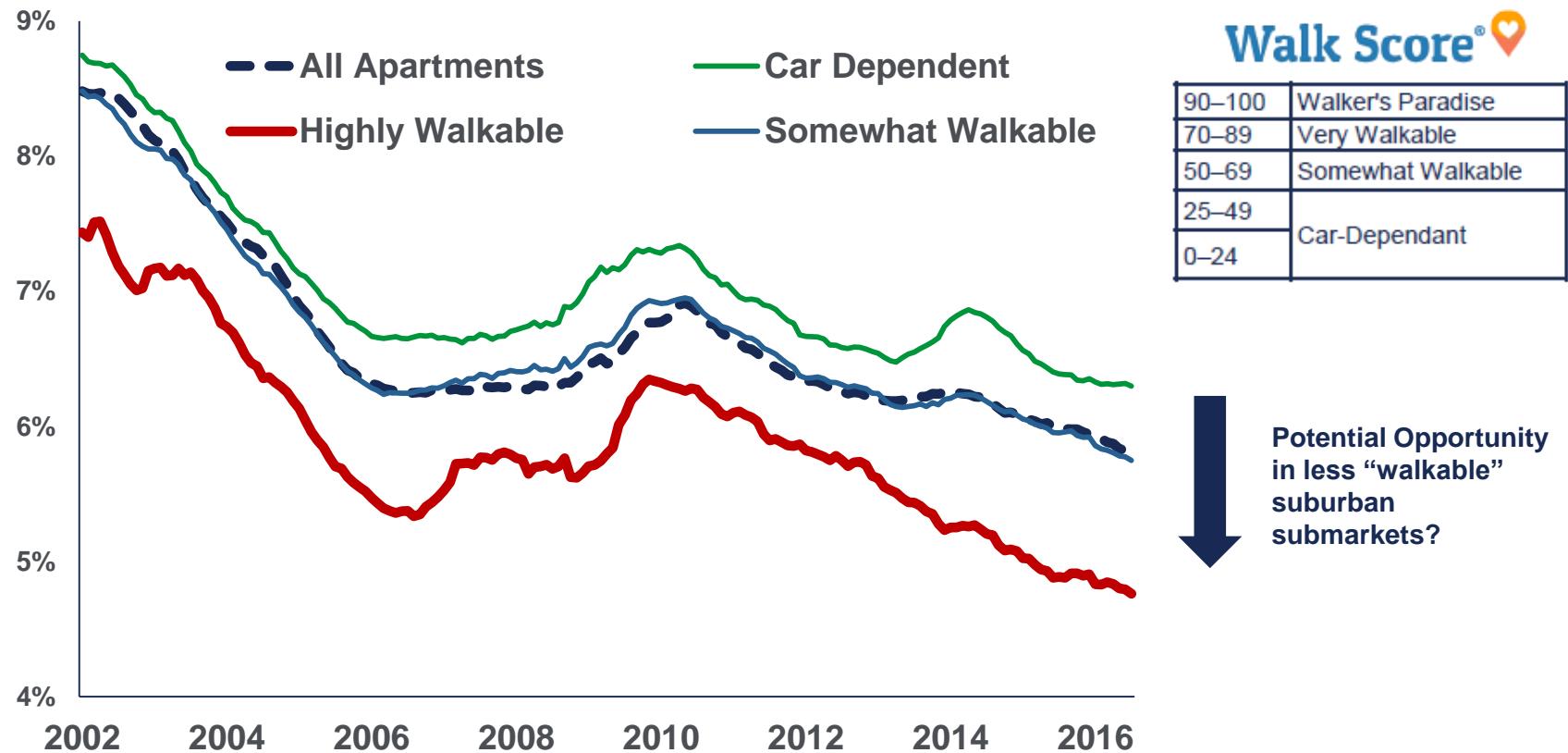


*Generational definitions as per the PEW Research Center. See "Millennials overtake Baby Boomers as America's largest generation," by Richard Fry, April 25, 2016.

Source: Barings Real Estate Research, U.S. Census and "Millennials, Baby Boomers, and Rebounding Multifamily Home Construction," by Jordan Rappaport, Federal Reserve Bank of Kansas Economic Review, Second Quarter 2015

Submarkets Matter - “Live-Work-Play” & Vibrant Transit Oriented

Cap Rates (first year income yields) on Apartment Sales Categorized by Property “Walk Score®”



Walk Score® is a measure of the “walkability” of a location and the ability of households to live their lives without having to use a car. It is a measure scaled between 0 and 100 that is derived from a combination of 1) distance to and number of nearby amenities; 2) population density; and 3) pedestrian friendliness. In the chart above “Highly Walkable” locations have a score of 70 and above and combines locations in the Very Walkable (70-89) and Walkers Paradise (90-100) categories, while Car Dependent locations have a score ranging from 0-49 and combines Car Dependent subcategories “some errands need a car” (25-49) and “virtually all errands need a car” (0-24). See <https://www.walkscore.com/methodology.shtml> for details.

Source: Real Capital Analytics (2Q16)

Strategies for Curing “Brain Fog”

Brain (or Space) Fog = Feelings of mental confusion or lack of mental clarity

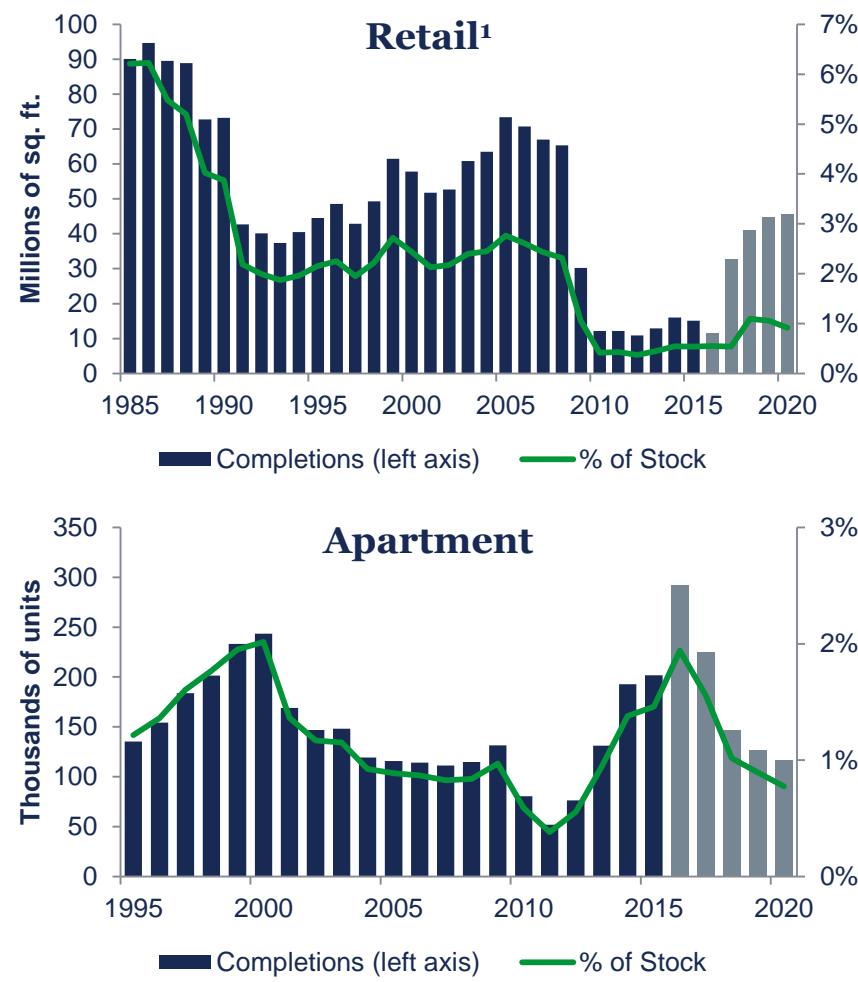
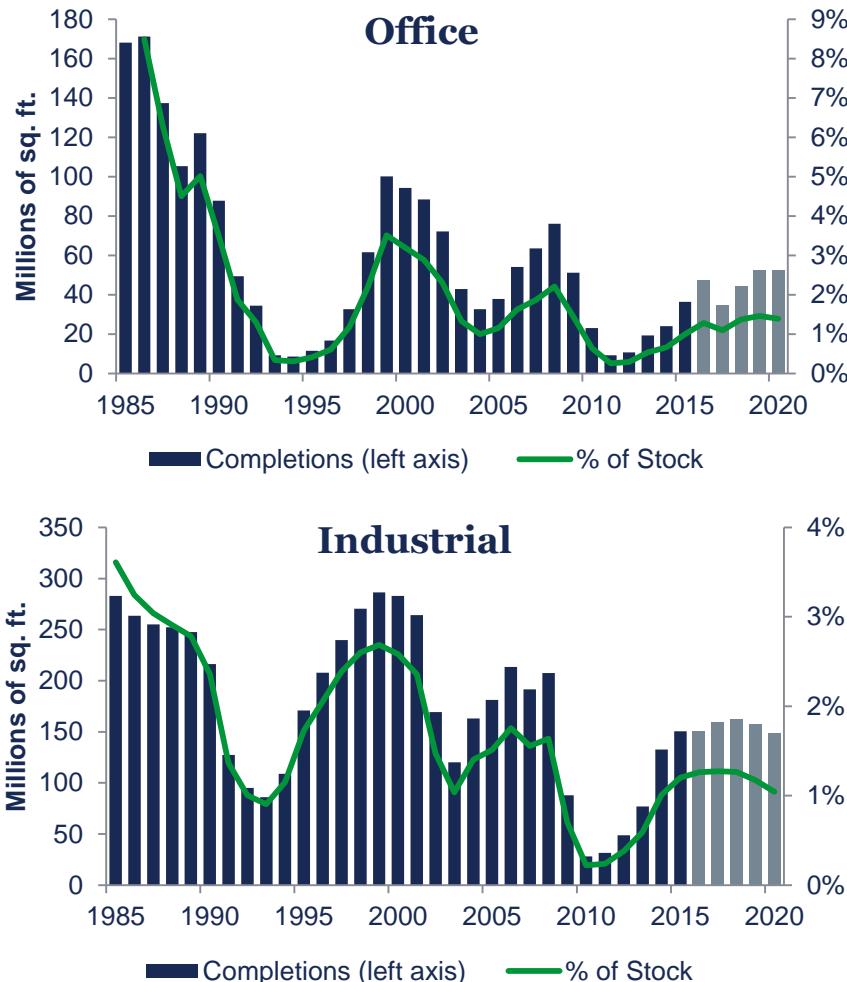
Top Brain Fog Cures

- ✓ **Change your diet**
... beyond the 4 “traditional” food groups + DEBT and GLOBAL
- ✓ **Sleep more & exercise regularly**
... sound portfolio construction; active asset management
- ✓ **Detox**
... cull the portfolio
- ✓ **Take Supplements**
... Public market securities (REITs, CMBS) + other



Active Supply Growth - But Low by Historical Standards and Cresting

Completions (sq. ft. or units delivered) – levels and as a % of stock (a.k.a. supply growth)

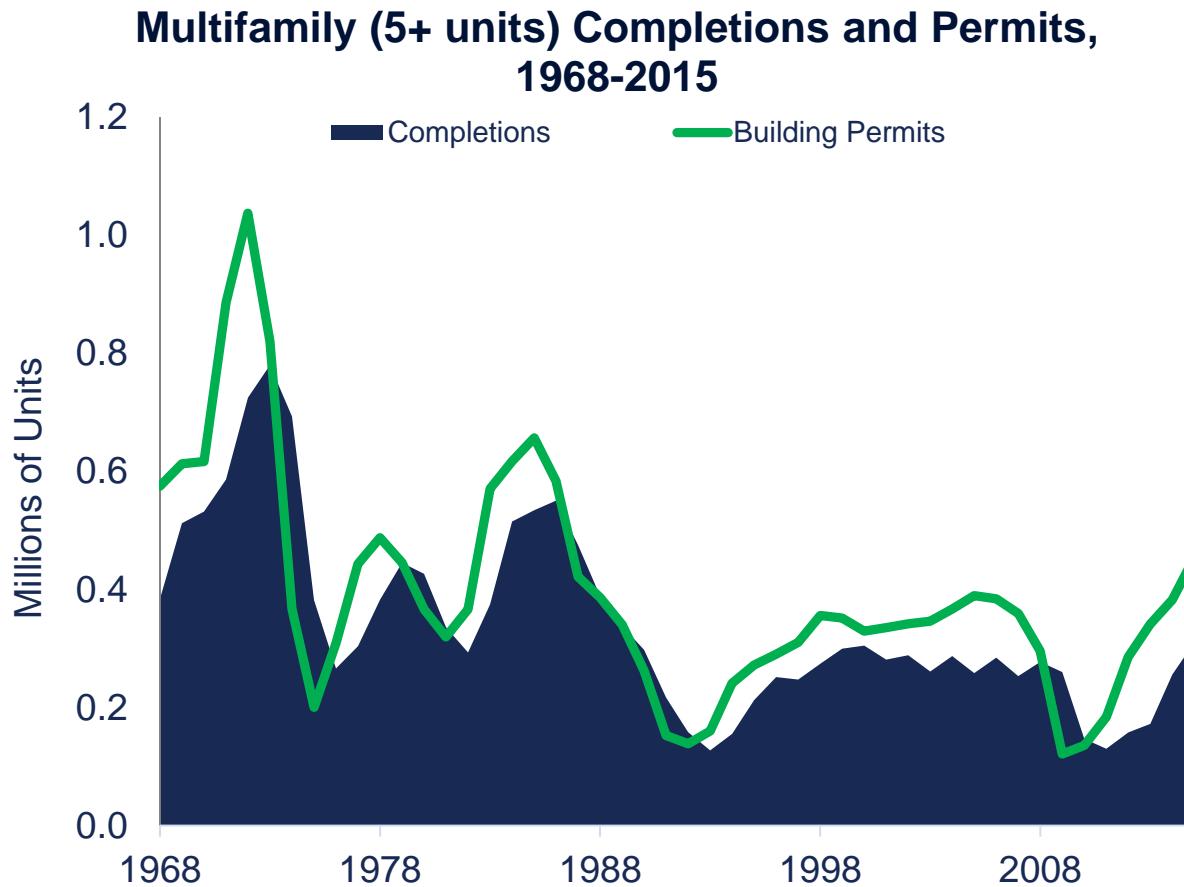


1. Neighborhood and community shopping centers.

Source: Barings Real Estate Research, CBRE-EA (2Q 2016).

Supply Growth in Perspective

New construction activity today is not excessive when viewed with a long-term, multi-generation perspective



Source: Barings Real Estate Research, US Census Bureau.

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Supports for New Supply

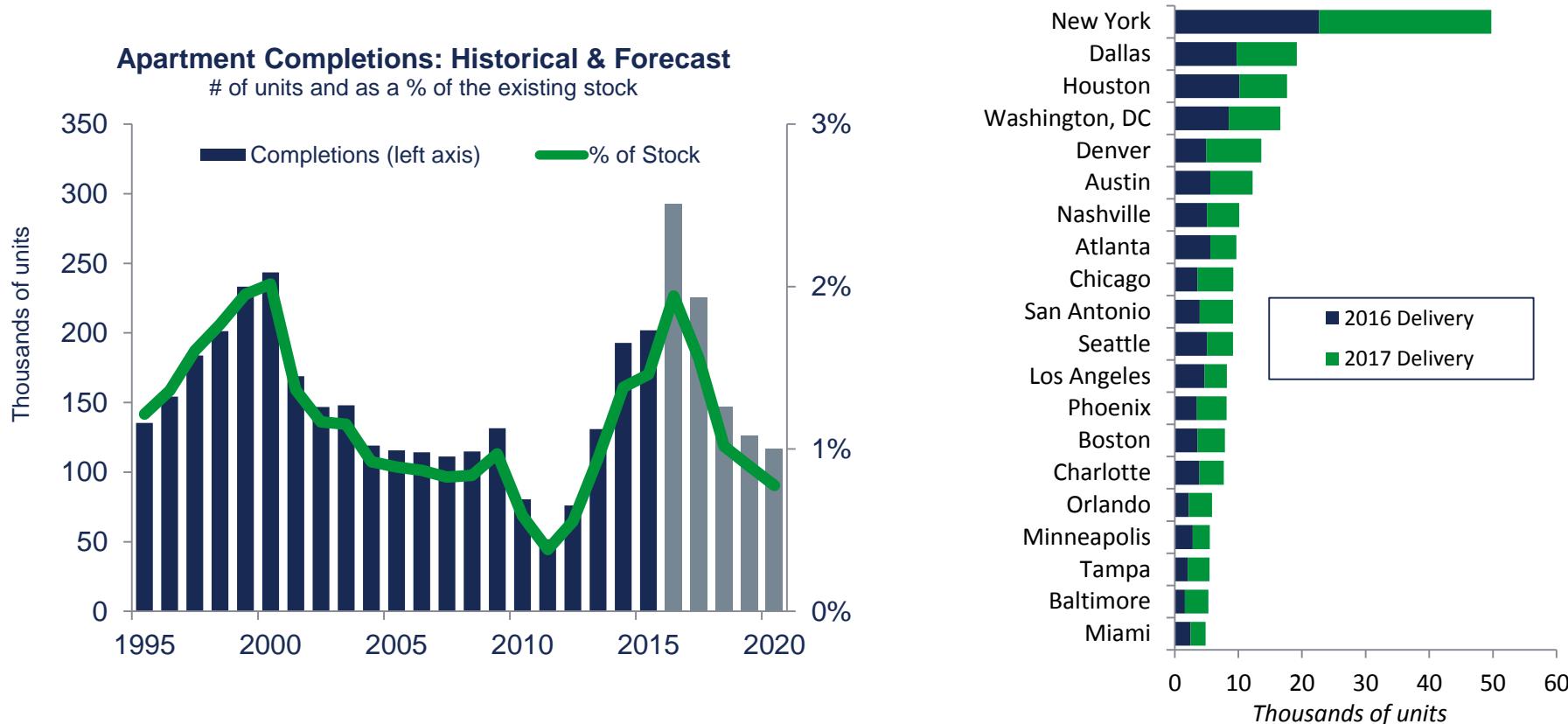
- Strong demand: population growth & household formation
- Supply “catch-up” from decade preceding GFC
- Urban core revitalization
- Densifying suburban nodes
- Obsolescence of existing stock

✓ **close to 80% of the nation's 50+ unit inventory was built prior to 1990**

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Supply: Growth Up From Historical Lows, and Peaking

New supply is a potential threat but risk is set to diminish and is relatively concentrated



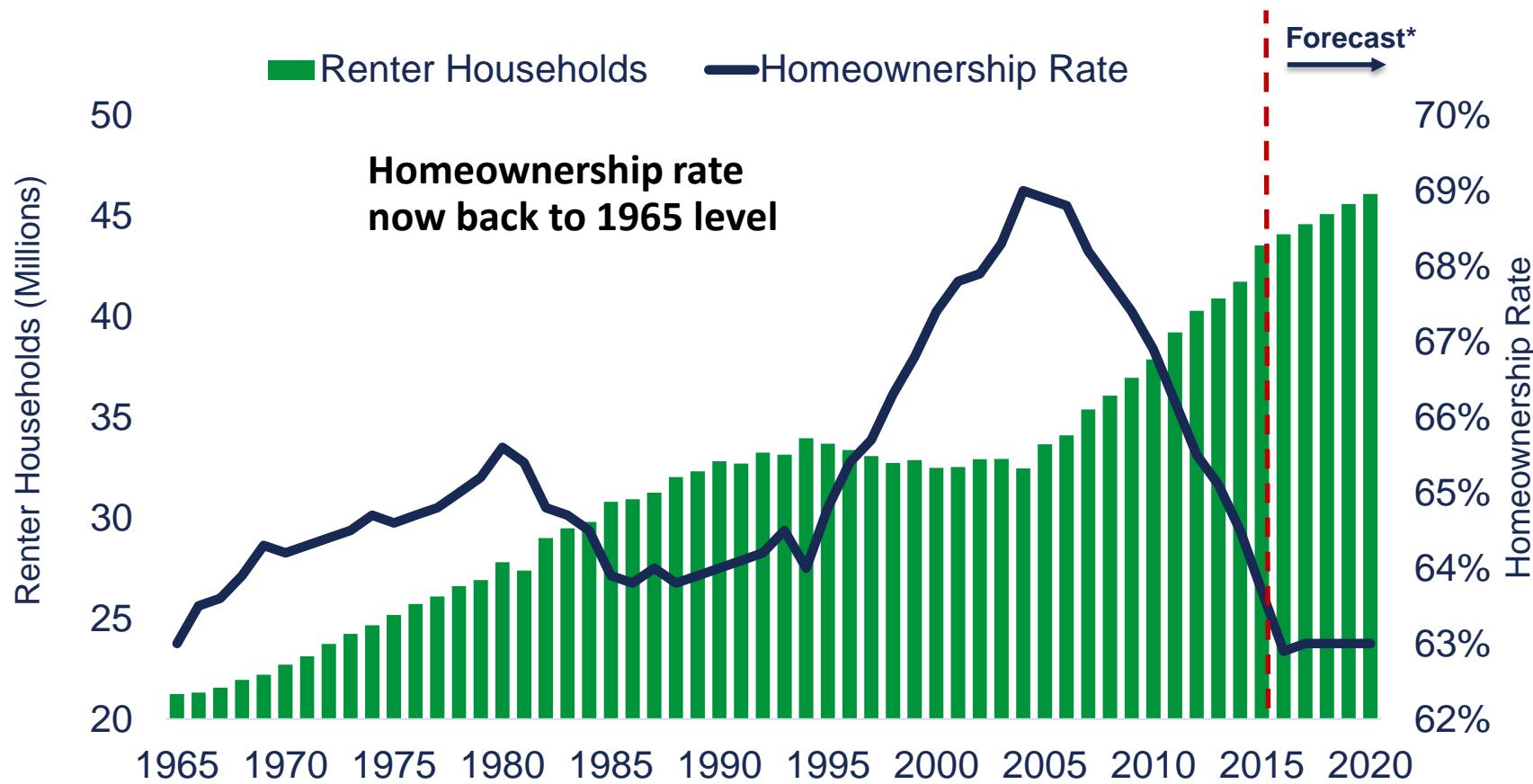
	2-year Supply Growth Forecast (Avg. Annual)	Concentration	Most Active: SF or # of Units	Highest Growth Rate
Apartments	1.7%	5 markets = 33% of new supply	New York, Dallas, Houston, Washington DC, Denver	Nashville, Austin, San Antonio, Charlotte, Dallas

Source: Barings Real Estate Research, CBRE-EA actuals and forecasts (2Q 2016).

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Solid Demand Growth in Renter Households Projected to Continue

Driven by demographics & household formation as homeownership rate stabilizes



- * Based on a projection of 5 million new renter households expected to be formed over the next decade, derived from the base case scenario projections from the Mortgage Bankers Association (July 2015, 2015) and the Joint Center of Household Studies at Harvard (December 2015) and Barings forecast that the homeownership rate bottoms and stabilizes at 63%.
- Source: Barings Real Estate Research, MBA, JCHS at Harvard (September 2016)

Disclosures

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For further information concerning the risks of real estate investment generally and other risks, including those related to investment terms and tax matters, please see the Confidential Private Placement/Offering Memorandum of the respective fund.