

THE UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS - REAL ESTATE CONFERENCE REAL ESTATE CAPITAL MARKETS

Roy March

October 6, 2016



 EASTDIL
SECURED



Overview

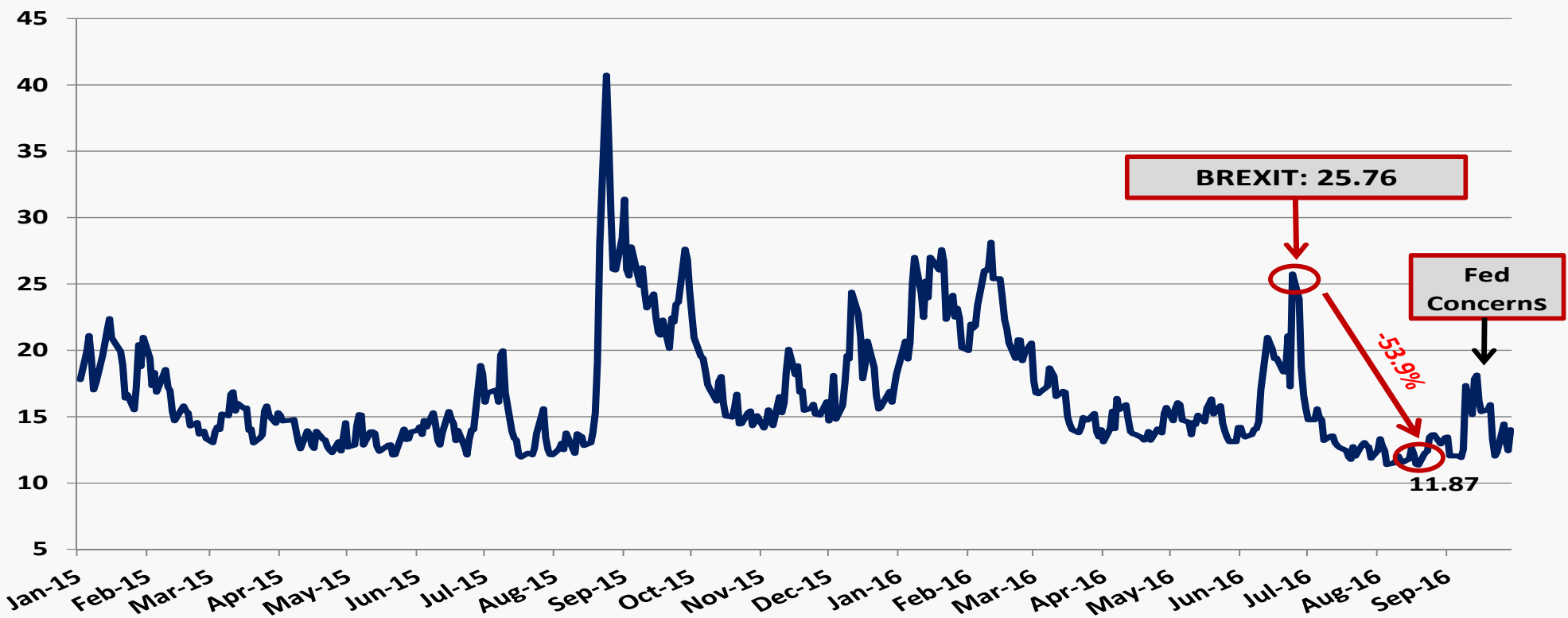
Wow – Who would have thought that BREXIT Bear & Goldilocks were living in the same house...!?

- Unique situation of near all-time **LOW 10 year rates (but rising?)** and **near all-time HIGHS** for **S&P & Dow**
- Unique time with Spreads holding Stable with low Gov't Rates / Swaps
- We are seeing best US 10 year CMBS pricing in the **3.00%-3.20%** area and US & Life Co's at **3.30%-3.50%**



VIX Index January 2015 - Present

July 29, 2016 Down 53.9% - Largest 5 Week Drop in History



Source: Bloomberg



5 & 10-Year Global Bond Rates

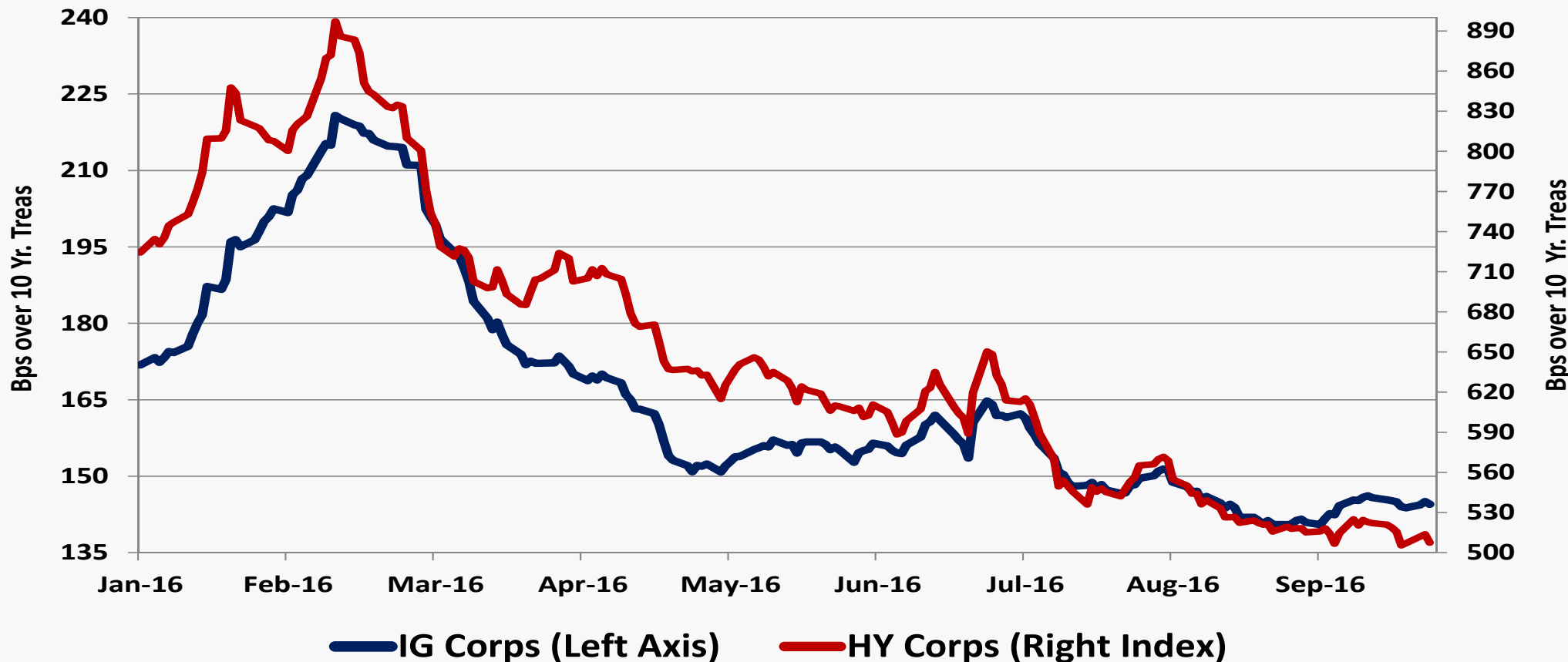
<u>Country</u>	<u>YTM</u> <u>Today</u>
Switz. - CHF	-0.80% / -0.55%
Germany - €	-0.55% / -0.10%
Japan – Yen ¥	-0.25% / -0.10%
France - €	-0.45% / 0.20%
Ireland - €	0.00% / 0.30%

<u>Country</u>	<u>YTM</u> <u>Today</u>
U.K. - £	0.20% / 0.70%
Spain - €	0.05% / 0.90%
Italy - €	0.25% / 1.20%
U.S. - \$	1.10% / 1.55%
Portugal - €	1.85% / 3.30%
Greece - €	NAV / 8.40%

* Source: Bloomberg, As of Sept. 29, 2016, numbers are rounded to nearest 5 bps.



IG Grade & HY Bonds Since Jan 1, 2016





Overview

- Meanwhile, the Scramble for Yield continues
 - Over \$9 Trillion of D.M. Sovereign Bonds Yield Negative (35-40% of supply)
 - Only 1/6 of all the investment grade bonds in the WORLD yield more than 3.0%
- Creating Positive Implications for CRE
 - Cap Rates could trend lower – particularly for assets still priced under replacement cost
 - If 3.00% - 3.25% 10 year debt rates hold, we could have another leg up in value



Overview

- But there are still Lingerings Concerns
 - Where we are in the cycle?
 - US Pension Funds are near full allocations (but increasing them slowly)
 - Thinner Bidding Pools
 - Private Markets are not as bullish as Public Markets
 - Political Uncertainty
 - What is the Fed going to do – Possible “Taper Tantrum”



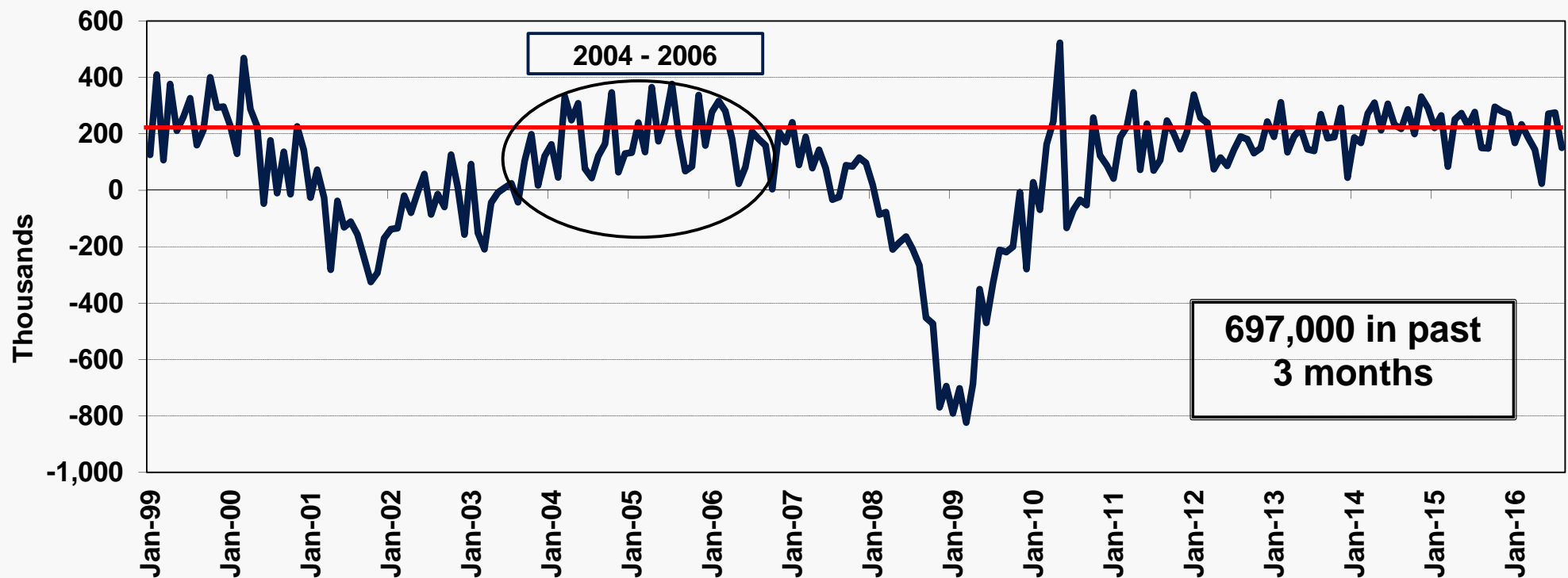
US Economy Continues to Perform

- YTD Job creation now totals 1.5 million (averaging 182k/month), with ~700k jobs added in the past three months
 - Unemployment at 4.9%
 - Labor force participation up modestly to 62.8% from 62.6% last year
 - Wages up modestly climbing, YOY increase at 2.4%



U.S. Job Growth

1.5 Million Jobs Added Since January 2016

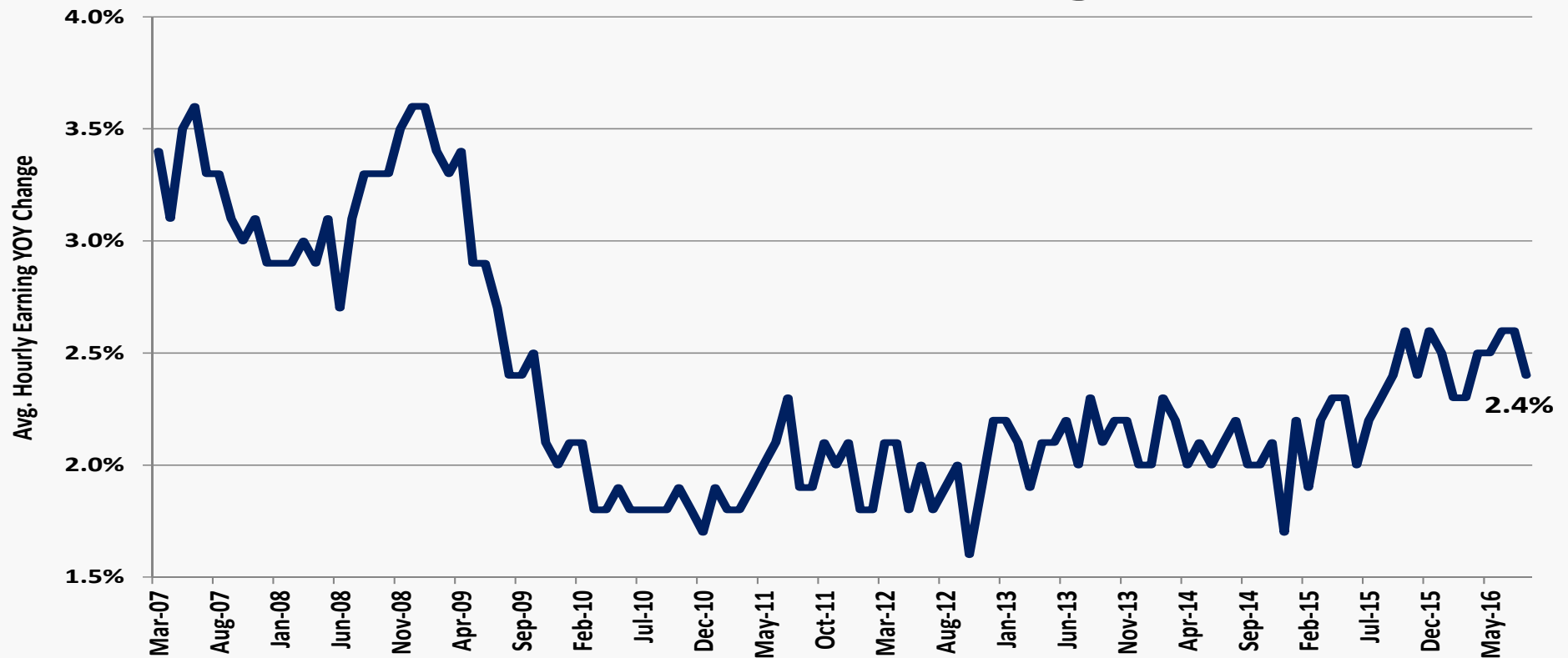


Source: Bloomberg & Dept. of Labor



Wages are Growing Again (2007 – Today)

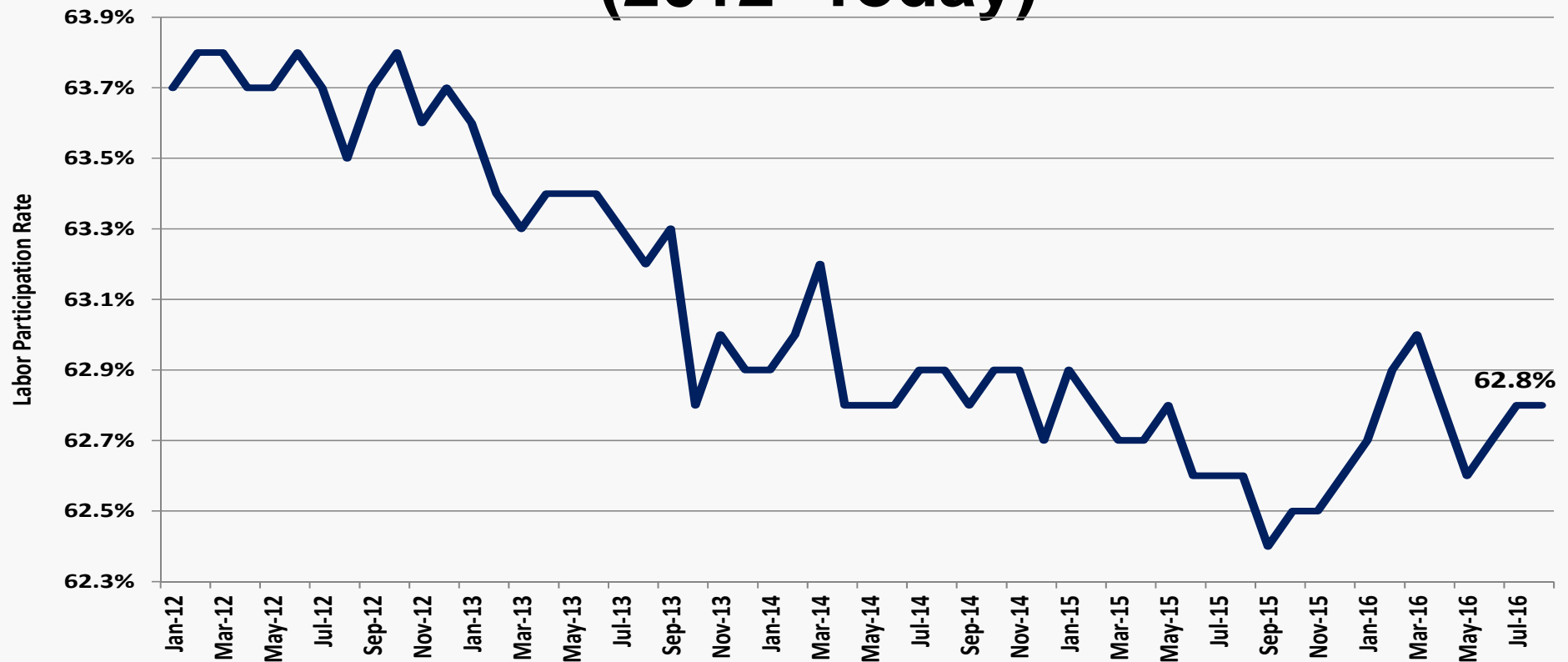
Year Over Year Change



Source: Bloomberg & Dept. of Labor



People are Coming Back into the Labor Force (2012- Today)

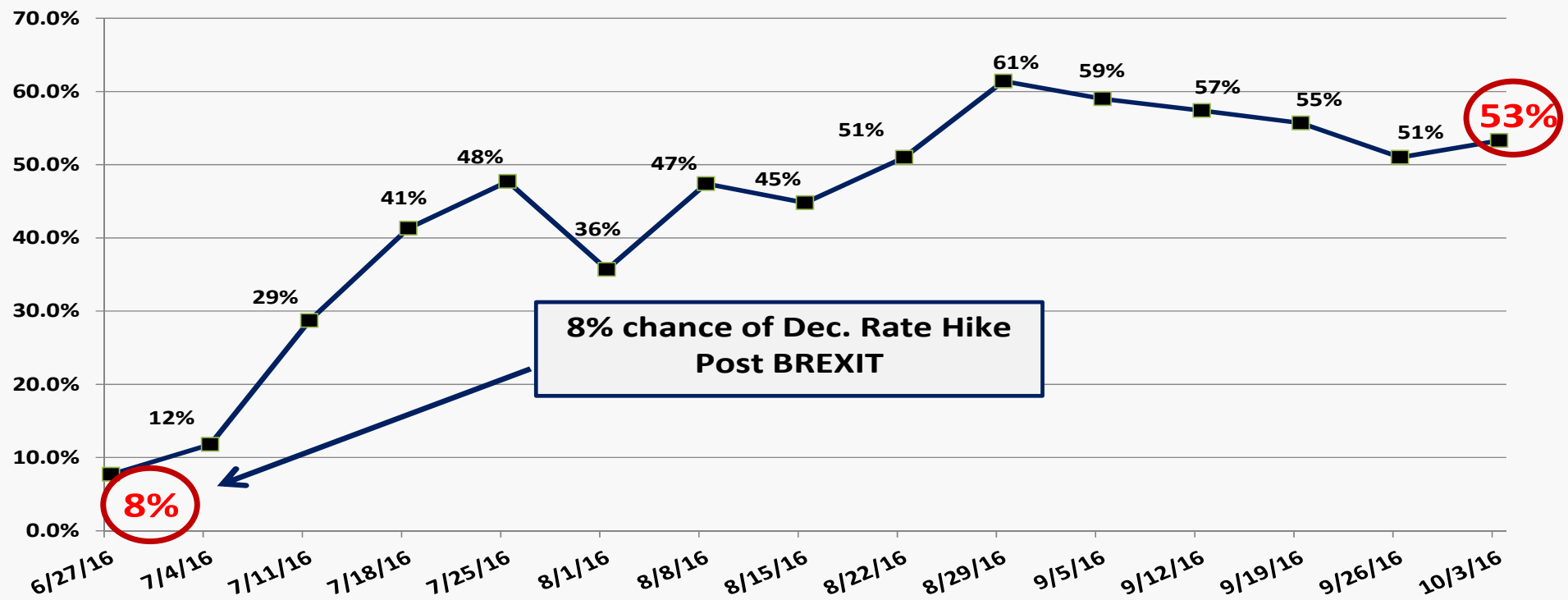


Source: Bloomberg & Dept. of Labor



December Rate Hike Probability

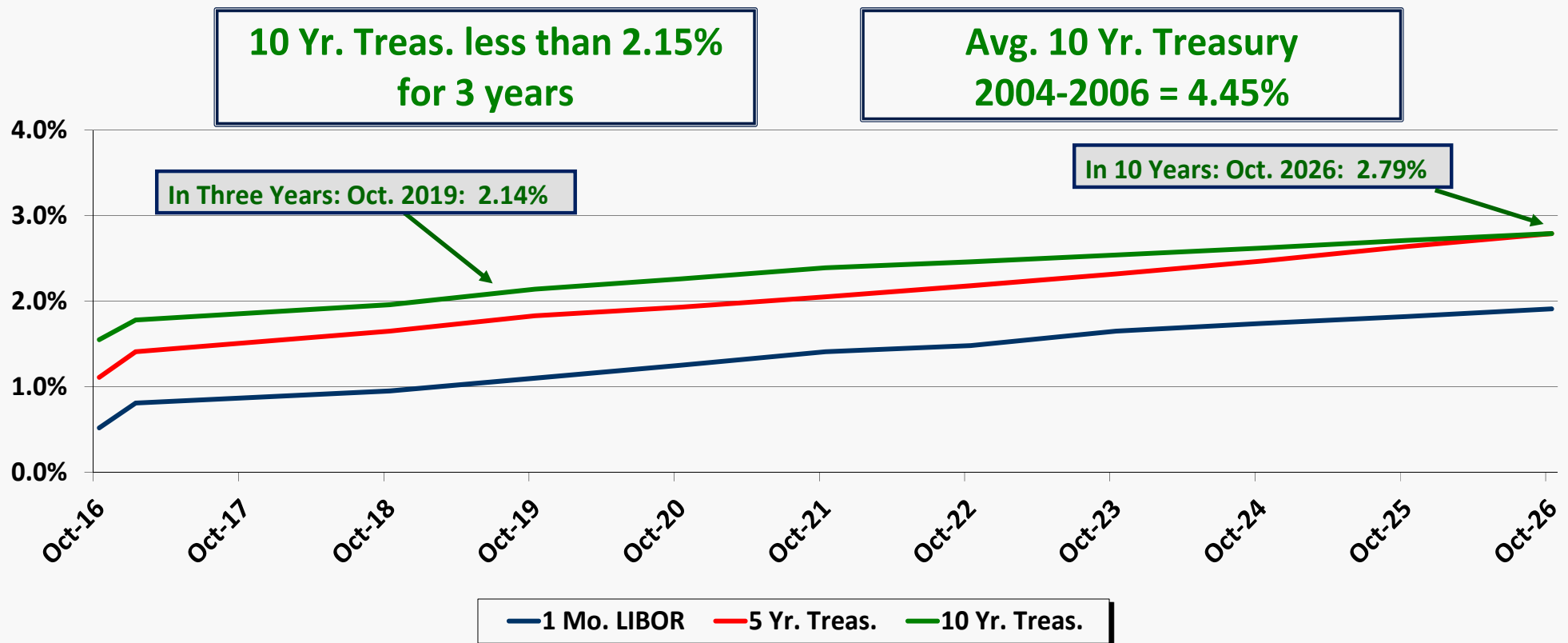
27% Chance of a Rate Hike by November; 53% by December



Source: Bloomberg



The Bond Markets Predict Low Rates for Some Time



Source: Bloomberg



Growing Issues with Negative Rates

- The Search for Yield -



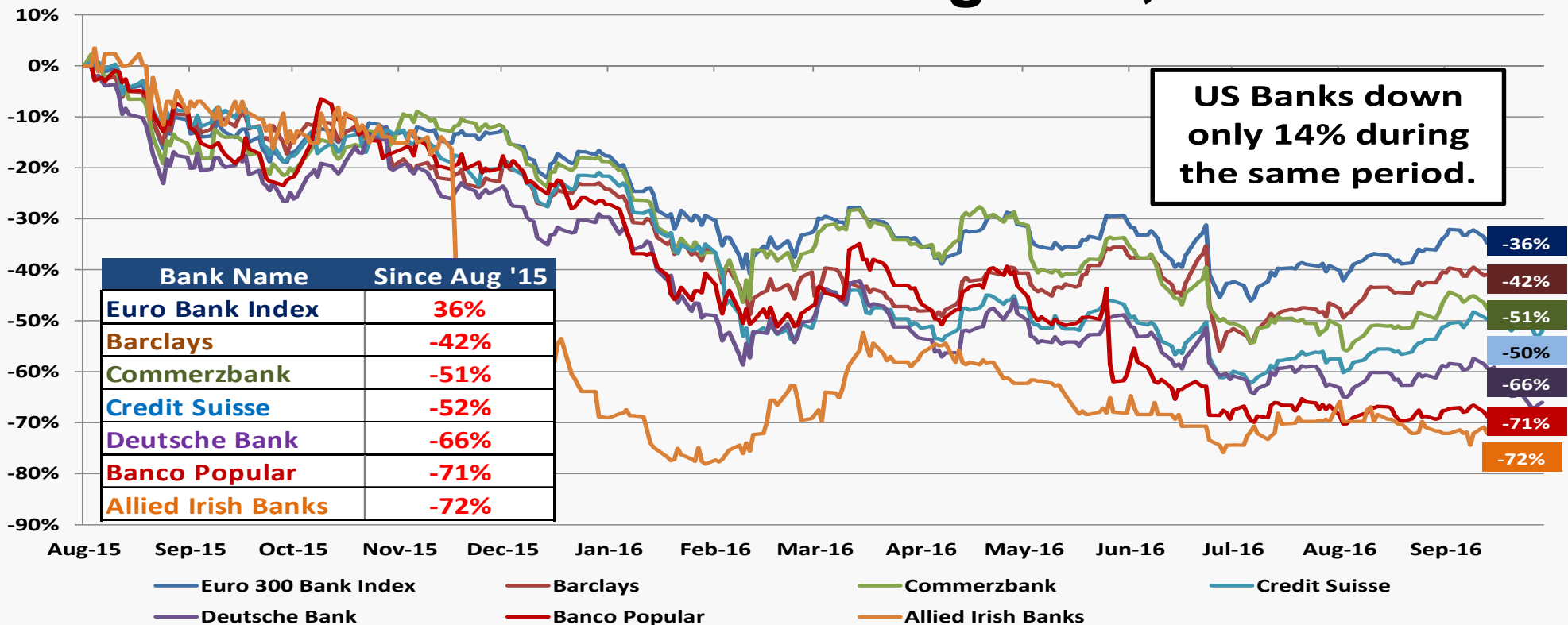
Negative Rates

- Negative Rate Policies are:
 - Hurting Banks & Financial Institutions
 - Creating a huge appetite for long bonds (adding risk to system)
 - Seriously impacting global pension returns (~6-7% requirement)
- Yet many view that the ECB and BOJ will continue the policy for quite some time
- These policies are likely to push even more capital to US CRE



Many Euro Banks Have Lost Half Their Value

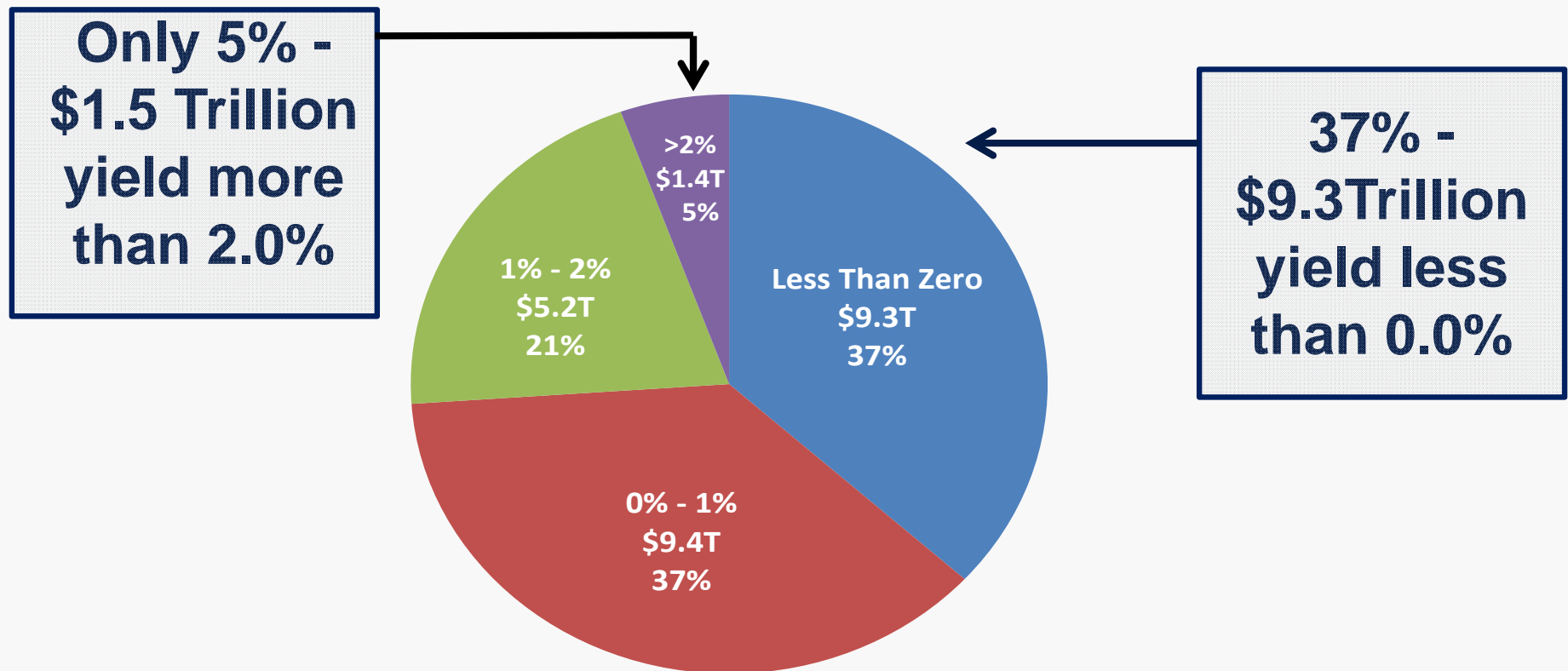
Performance Since August 1, 2015



Source: Bloomberg, US Banks based on the S&P 500 Bank Index







\$9.3 Trillion of Negative-Yielding D.M. Sovereign Debt Bonds



Source: Bloomberg Global Developed Sovereign Bond Index



Select Global Bond Rates

	Japan 	Germany 	U.K. 	U.S. 
1 Month	-0.35%	-0.75%	0.35%	0.10%
5 Years	-0.25%	-0.55%	0.20%	1.10%
10 Years	-0.10%	-0.10%	0.70%	1.55%
30 Years	0.45%	0.45%	1.45%	2.30%

Source: Bloomberg, as of 9/29/16; figures are rounded to the nearest 5 bps



Negative Rates Hitting Pension Fund Returns

	Total Return FY 2016	Total Return FY 2015
Actuary objective 6.5%-7.0%		
Pension Fund A	0.61%	2.40%
Pension Fund B	1.40%	4.80%
Actuary Objective:	6.5% – 7.0%	

Source: Company filings



Negative Rates Pushing Investors to go Longer

	\$500M <u>100 Yr. Bond</u>	3.885%
	\$250M <u>30 Yr. Unsecured Bond</u>	3.625%
	\$300M <u>Perpetual Preferred</u>	4.95%



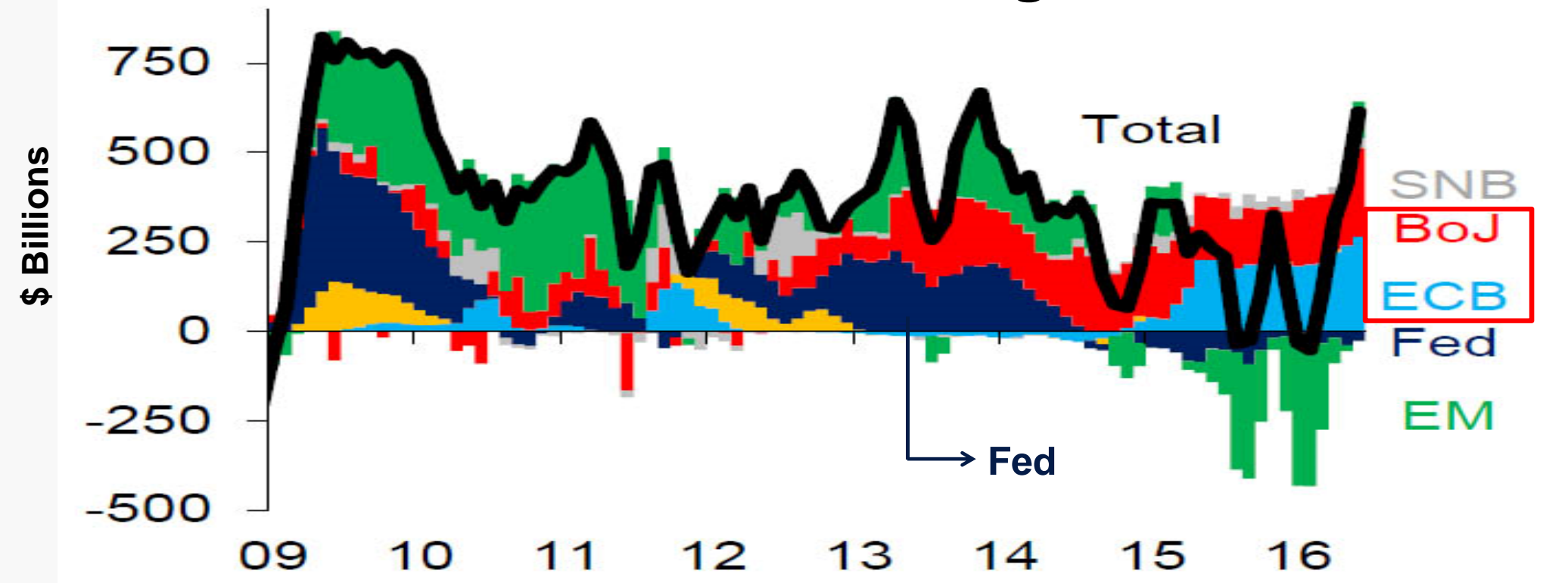
Amazing Amount of Financial Stimulus

- Global Central Banks are actively buying corporate bonds and Japan is actively buying equities
- Rumors of other Central Banks considering purchasing equities
- European & Japanese Corporate issuance at negative rates
- Possible Euro-bor floors of $< 0\%$ in Euro-zone



Global Central Bank Liquidity

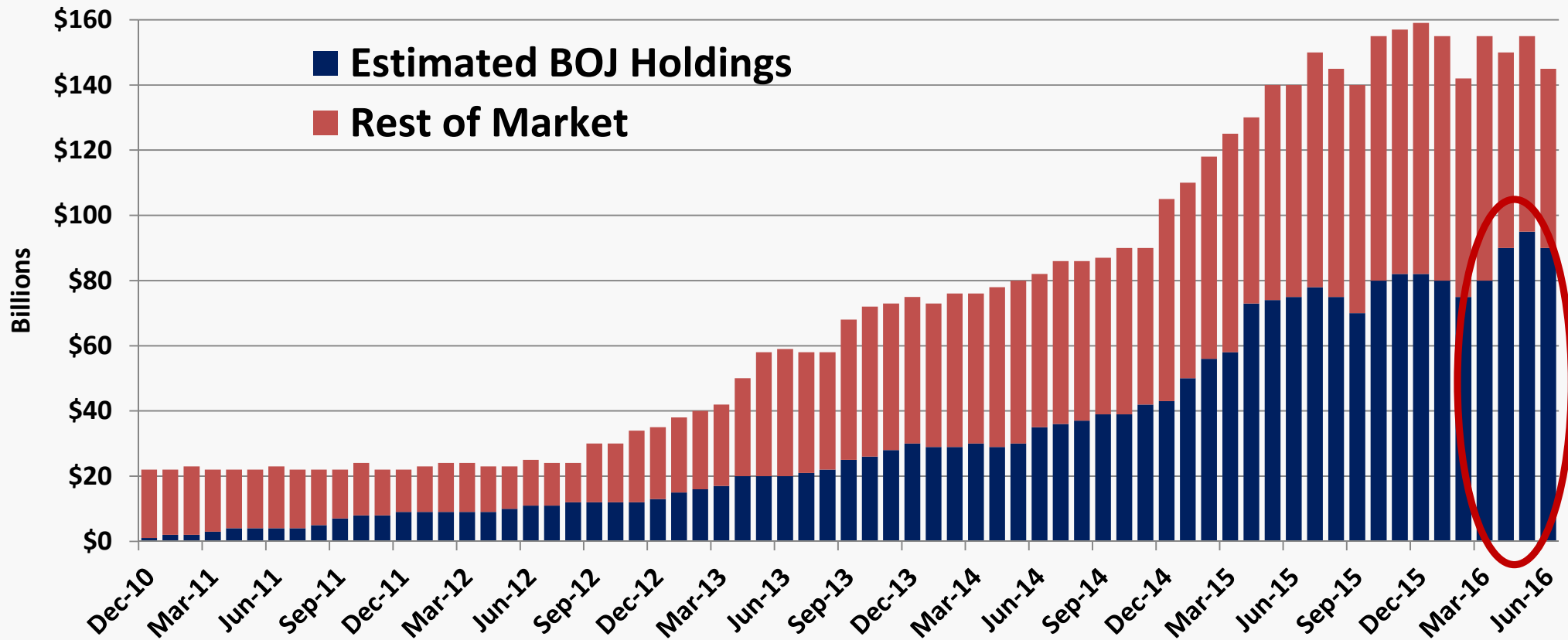
Net Purchased Increase to Highest Since 2013



Asset Purchases, rolling 3 months
Source: Citi Research. EM numbers based on 3 month change in foreign exchange reserves



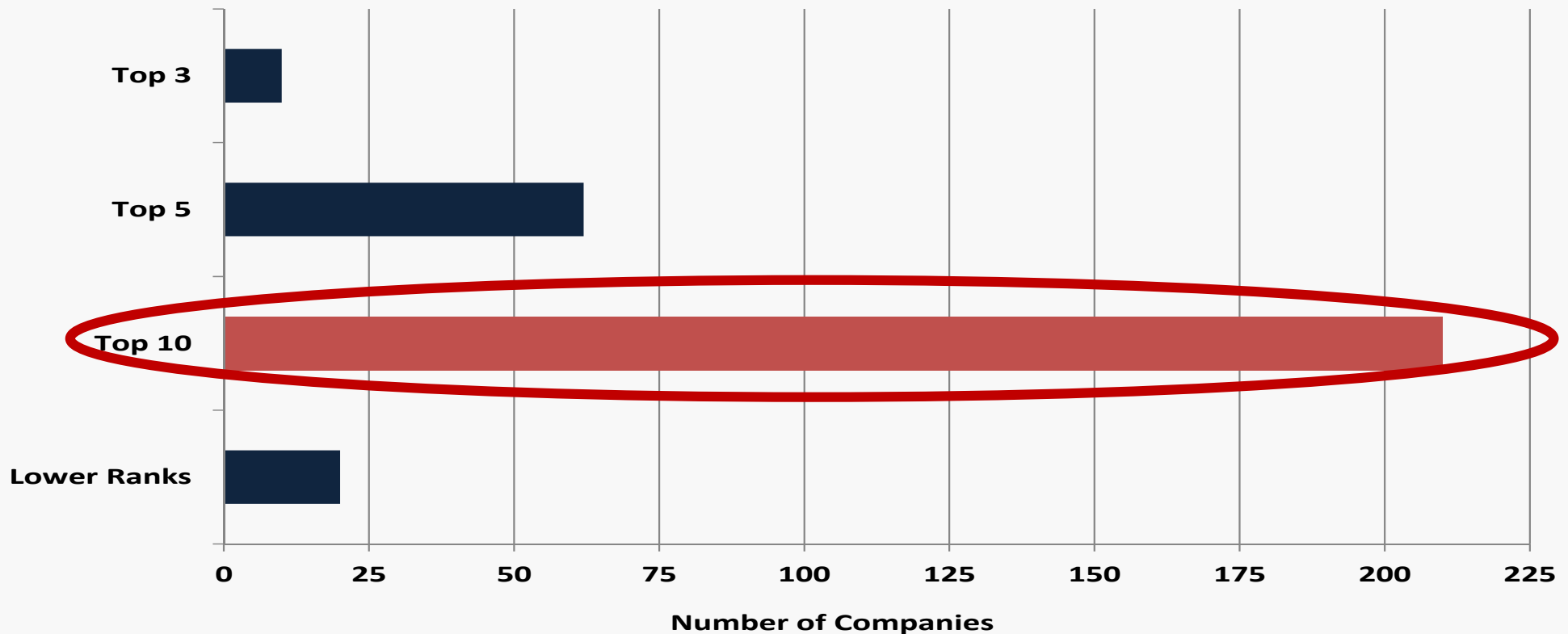
Bank of Japan Now Owns About 60% of Japan's ETFs



Source: Bank of Japan, Investment Trusts Assoc. of Japan, Bloomberg



BOJ is a Top 10 Shareholder in ~90% of Nikkei 225



Source: Bank of Japan, Investment Trusts Assoc. of Japan, Bloomberg



Key Question to be Answered

- In a world of huge QE and negative rates, should investors own more financial or real assets?**



Debt Markets Overview

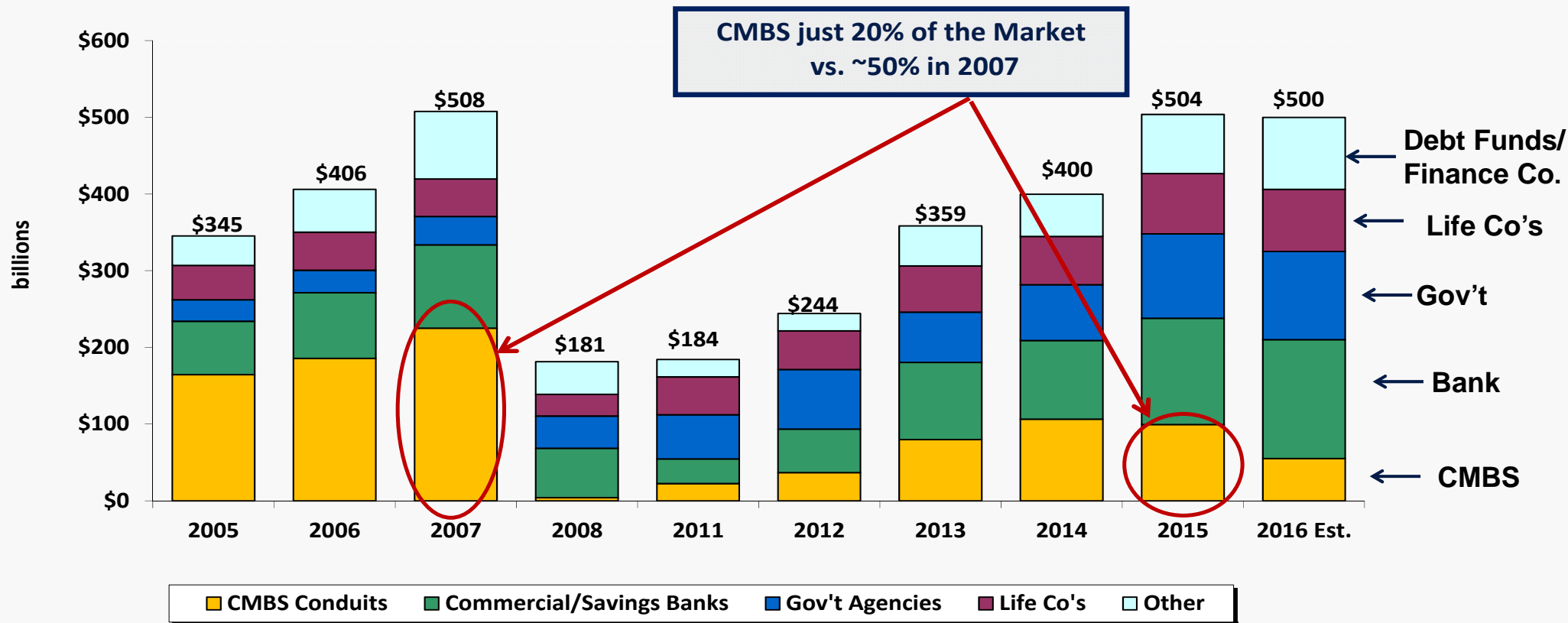


Current Themes in the Debt Markets

- **Fixed Rate CMBS** – ON FIRE (Risk Retention coming though)
- **Debt Funds/Mortgage REITs** – VERY STRONG
- **Life Companies** – Strong Demand
- **Offshore Banks** – Growing Demand
- **US Banks** – Decent Demand, but Growing Regulatory Pressure
- **Growing** challenge with construction loans



U.S. Debt Originations



Source: MBA Origination Survey



Life Company Commitments



Source: ACLI & MBA



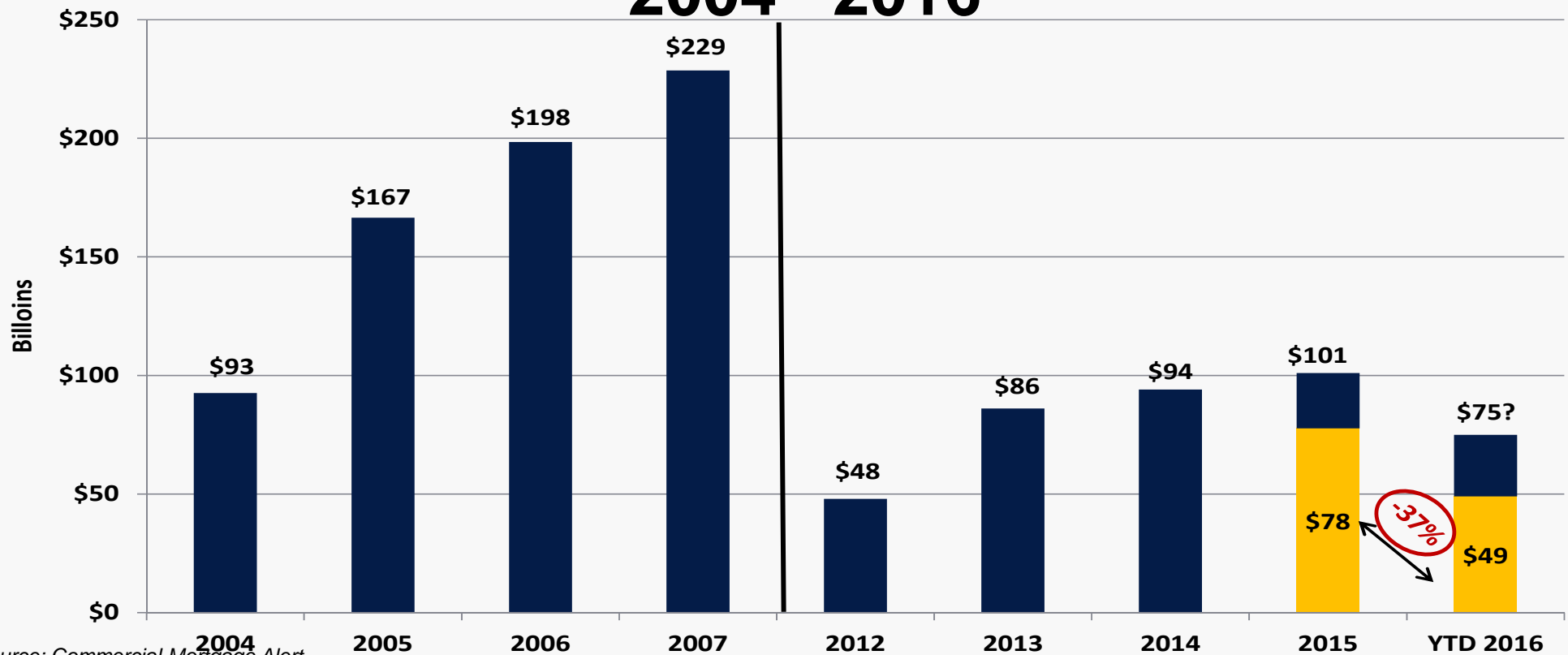
Life Company: YTD Loan Origination Snapshot

<i>End of Q1 - % of Allocation Used:</i>		21.3%		<i>End of Q2 - % of Allocation Used:</i>		46.9%	
<i>\$ in Billions</i>	MetLife	Prudential	NY Life	NW Mutual	AIG	Mass Mutual	Total
2015 Allocations	\$12.0	\$9.0	\$5.0	\$5.0	\$4.0	\$4.3	\$35.3
2015 Originations	\$13.6	\$9.1	\$6.0	\$5.7	\$5.3	\$4.3	\$38.7
2016 Allocations	\$14.6	\$9.0	\$5.0	\$5.0	\$4.5	\$3.0	\$41.1
YTD Closed & Committed	\$10.0	\$6.5	\$3.3	\$3.8	\$4.0	\$2.4	\$30.0
<i>% of 2016 Allocation Used</i>	68.5%	72.2%	65.0%	75.0%	88.9%	80.0%	72.9%
<i>Have Room in Their Cap?</i>	Yes	No	Yes	Yes	Yes	No	

- Life Companies on Par with Pro Rata Allocations at the End of Q3...
- Most Groups Have Ability to Increase Allocations...
- There's Still **Plenty of Life Co Capital Available for 4Q 2016!**



U.S. CMBS Issuance 2004 – 2016

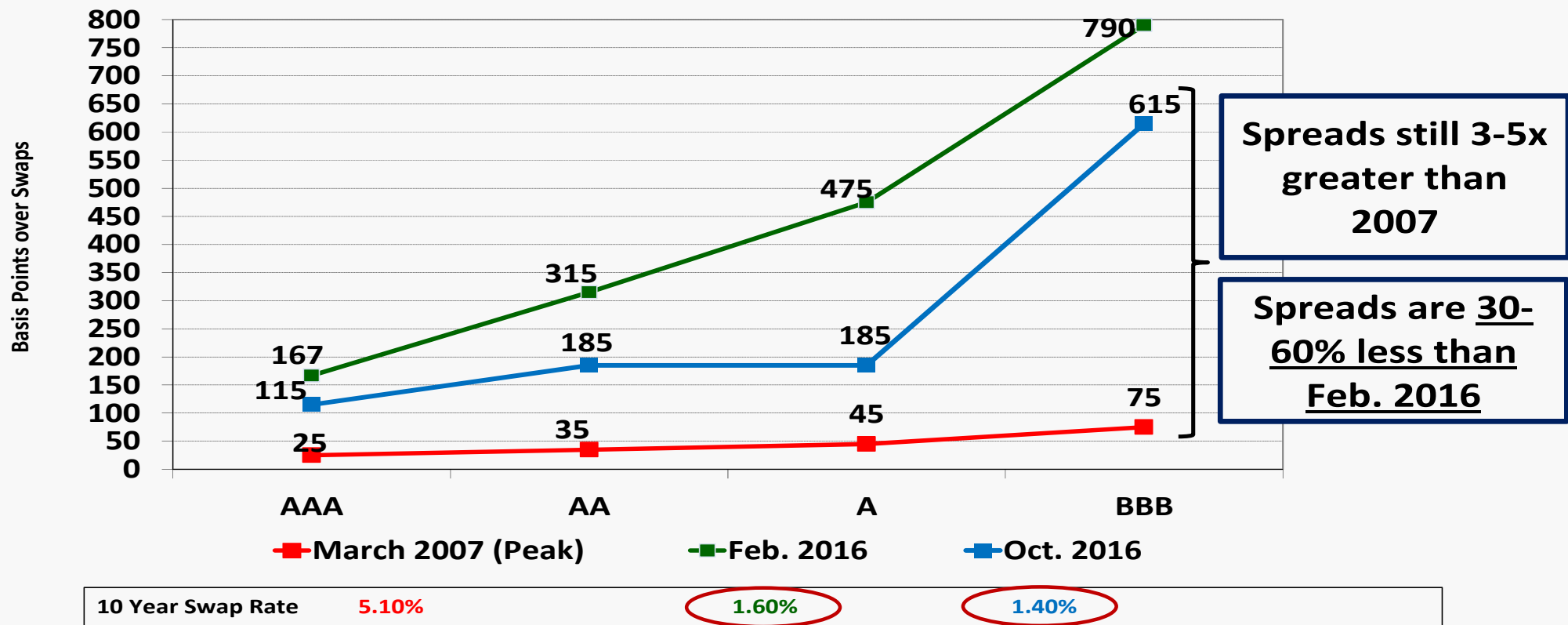


Source: Commercial Mortgage Alert

*\$2016 estimate based on 12 CMBS shops in January 2016.



CMBS 2.0/3.0 Yield Curve

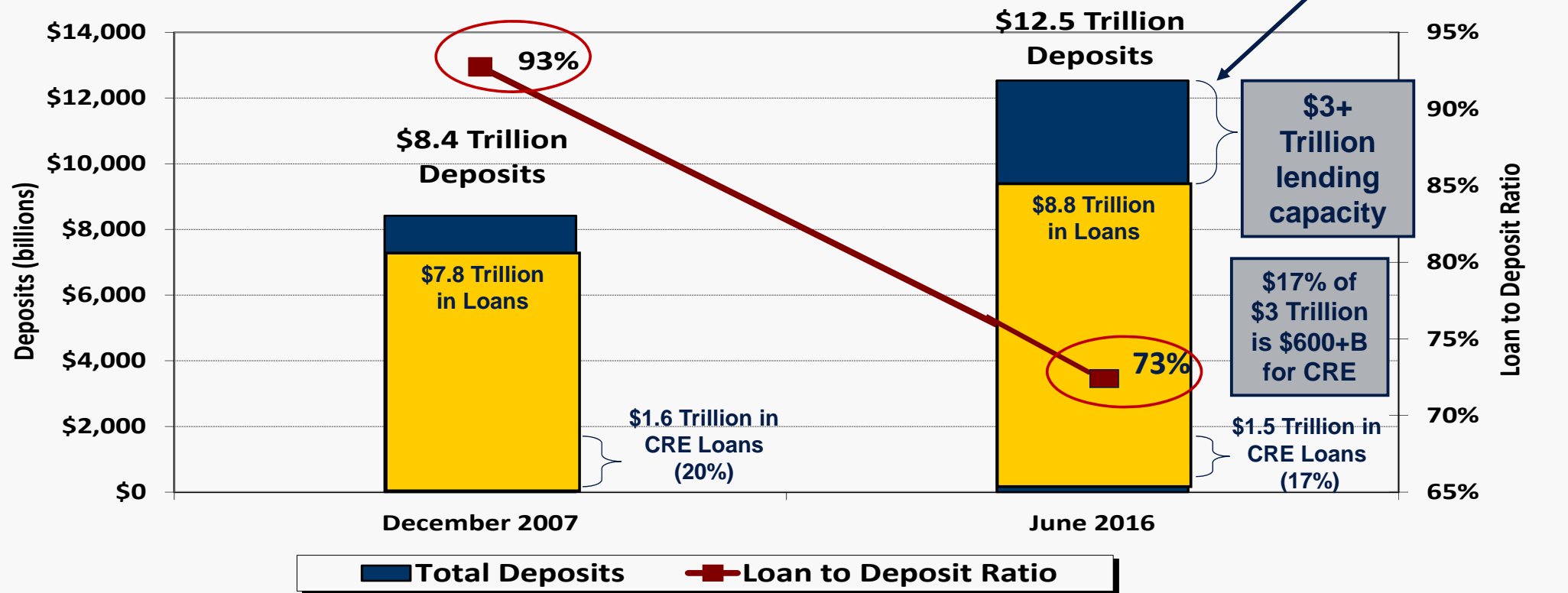


Source: Wells Fargo Securities



Liquidity in the System

U.S. Banks Loan-to-Deposit Ratio

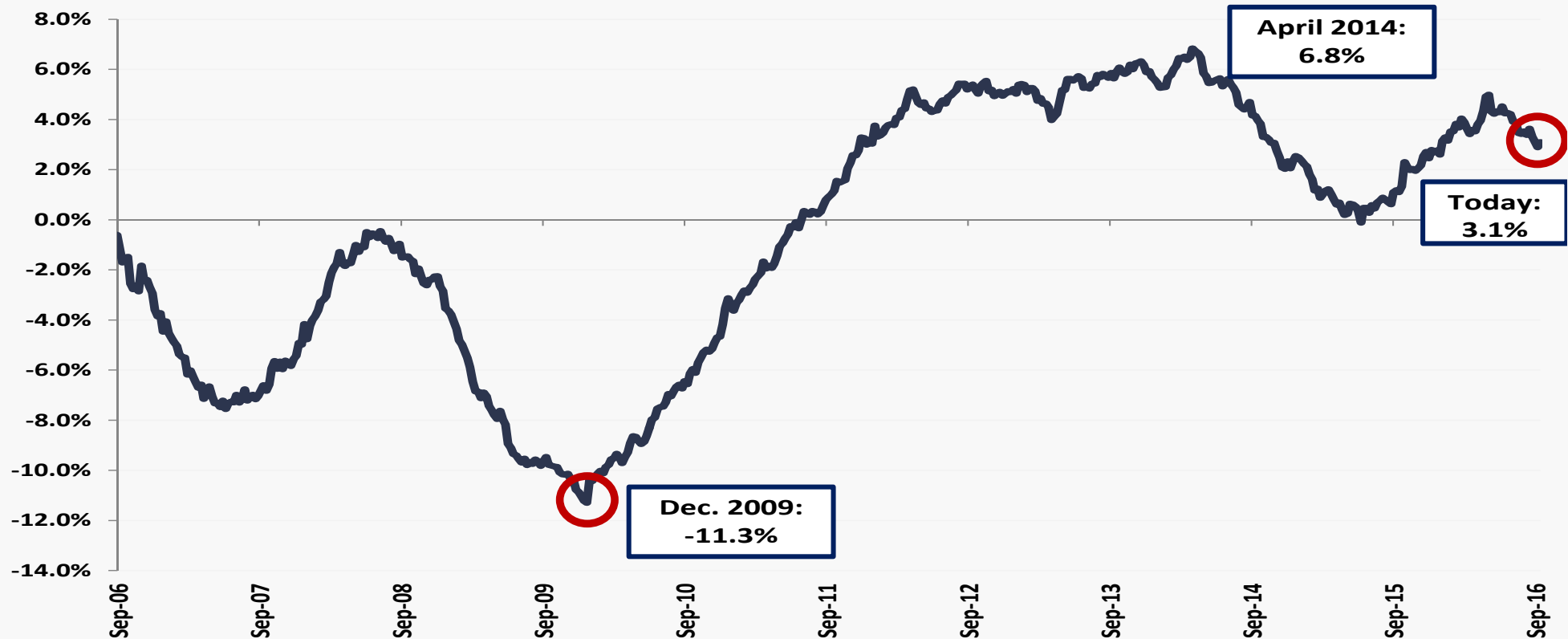


Source: FDIC



CRE Bank Lending is Accelerating

YOY % Change in Bank CRE Portfolios



Source: Federal Reserve & Bloomberg

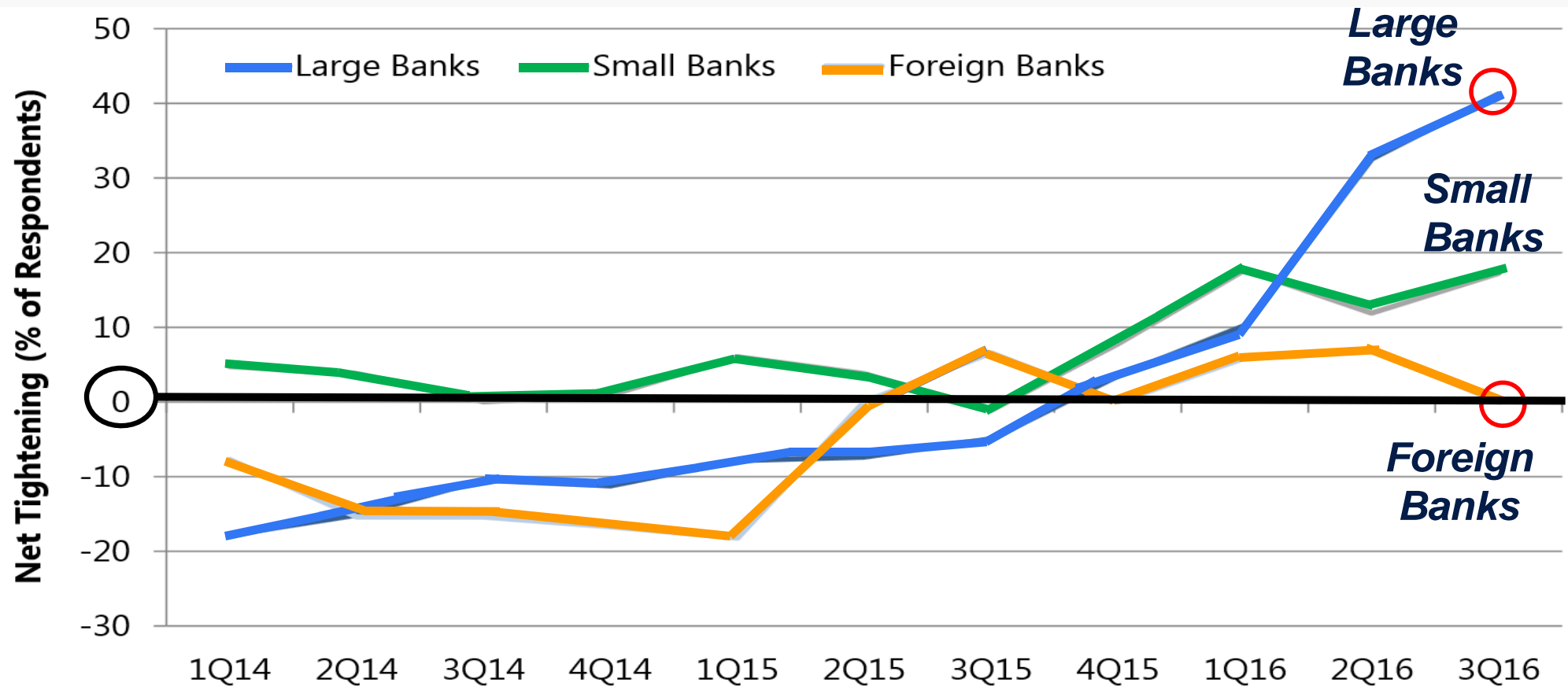


Syndication Challenges Driven by Tightening UW Standards

- Primary Causes
 - Increased Regulation / Scrutiny from OCC
 - Increased Capital Charge for CRE
 - Generally full allocation to CRE
 - Significant deal flow
 - Solving for last Syndicate Partner
- **Effect on Borrowers:** Wider pricing (25 bps+/-), lower leverage (65%-60% LTV), more conservative structure, and **Smaller Strike Zone for Best Bank Pricing**



Syndication Challenges Driven By Tightening UW Standards



Source: The Federal Reserve, Morgan Stanley Research



U.S. Domestic Pricing – Best Rates on Office, Retail, Industrial

LOAN-TO-VALUE ~50% LTV ~60% LTV ~70% LTV ~75% LTV

BANKS - FLOATING RATE

3-5 Years	L + 1.95%	L + 2.20%		
Swap 5 Yrs.	3.10%	3.35%		

LIFE COMPANY –FIXED RATE

5 Years	2.95%	3.15%		
7 Years	3.20%	3.40%		
10 Years	3.35%	3.55%		

CMBS – CONDUIT FIXED RATE

10 Years	3.10%	3.50%	3.90%	4.20%
-----------------	--------------	--------------	--------------	--------------

CMBS – SINGLE ASSET / SINGLE BORROWER

10 Years	3.05%	3.45%	4.05%	-
-----------------	--------------	--------------	--------------	----------

Current Rates (9/16/16): 5yr T/S = 1.10% / 1.15%; 7yr T/S = 1.40% / 1.25%; 10yr T/S = 1.55% / 1.40%



Equity Markets Overview



Current Themes in the Equity Capital Markets

- Continuing global demand for U.S. real estate driving major/iconic asset values – but more focus on yield.
- New supply still well below historic averages.
- Cap rate spread to treasury yields is still historically high.
- Reasonable confidence in absorption & rent growth - but growing differentiation between well leased and transitional with volatility.
- Pricing is beyond 2007 pricing levels, but growth has moderated and in some cases pricing is lower.
- Public markets moving ahead of private markets.



Current Trading Environment

Most Liquid

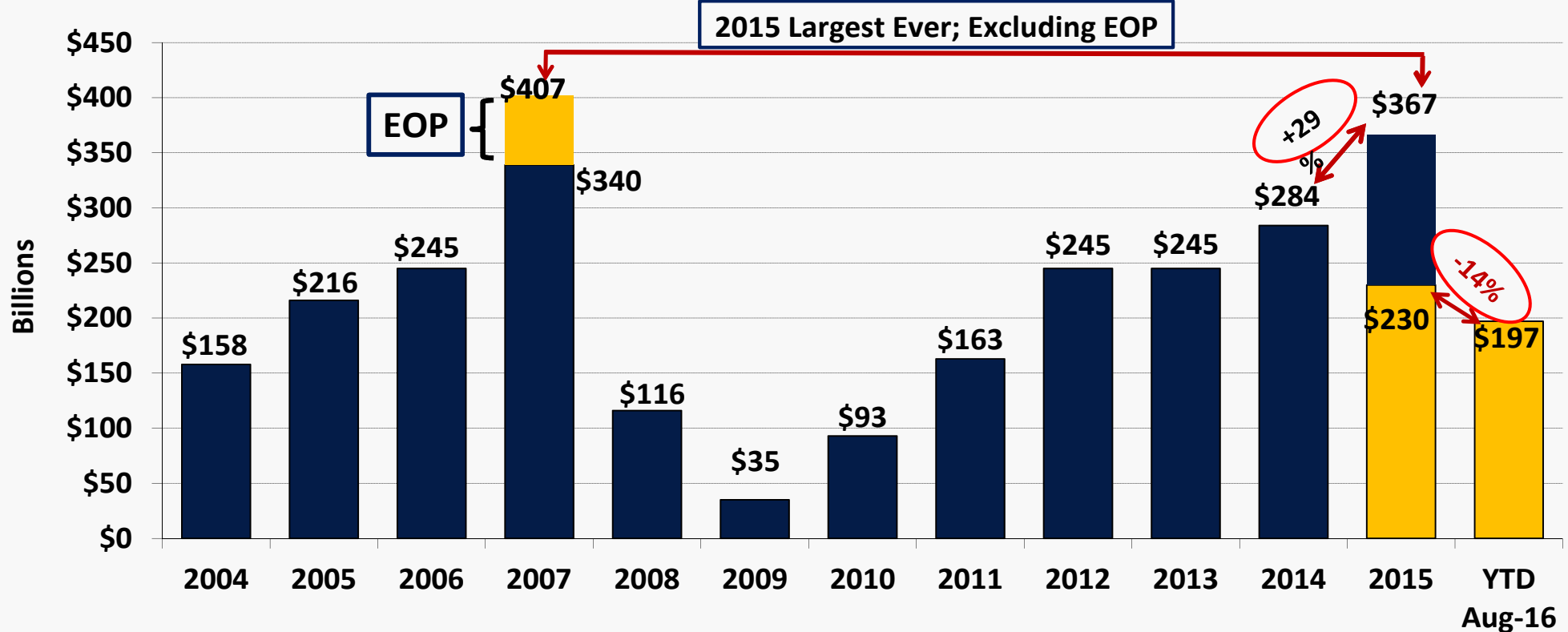
- Less than \$200mm
- Well leased Apartment, Industrial, Retail & Office
- Assets with levered cash on cash yields of 5%-7%
- Transit oriented development

More Challenging

- Greater than \$500mm
- Encumbered Hotels (and Supply+ Markets)
- Material Roll Over / Repositioning
- Spec Office Lease Up
- Tertiary or Suburban Markets



US Sales & JV's Volume Transactions >\$25 Million



Source: Real Capital Analytics



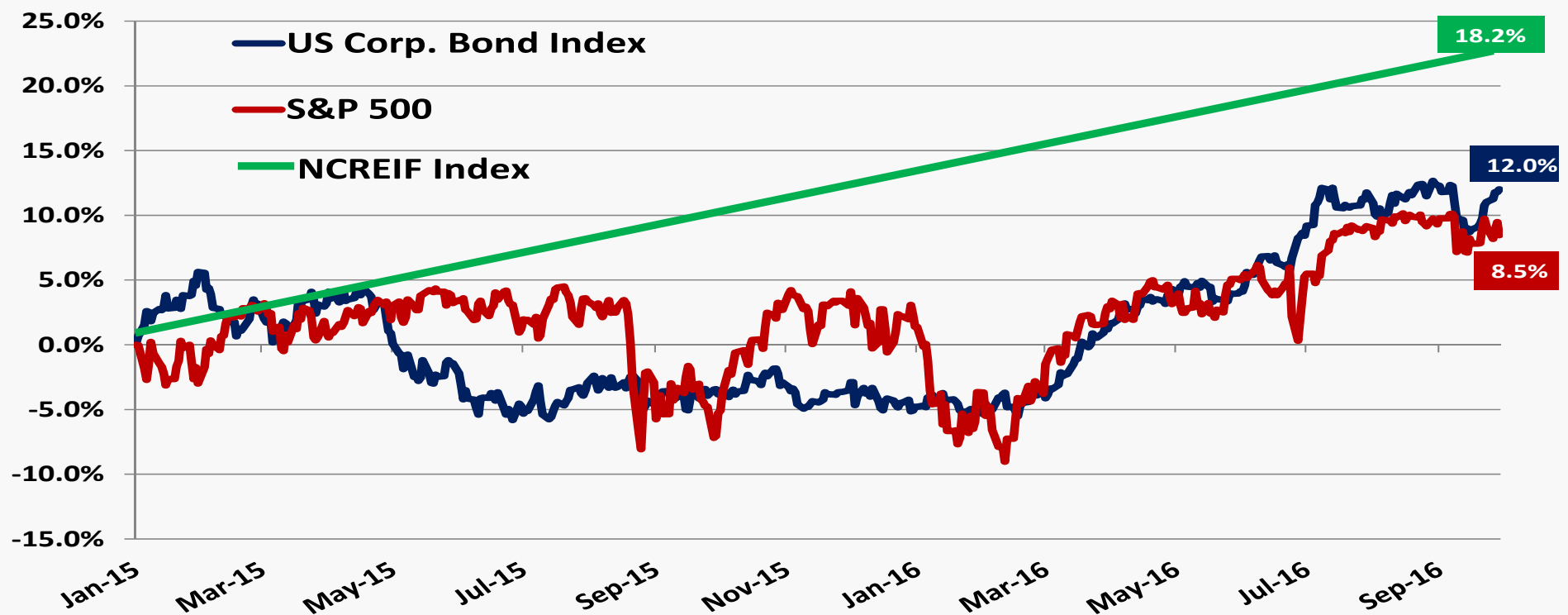
U.S. Sale & JV Transaction History >\$25mm (in \$ Bil) YTD Aug. 2016 vs. YTD Aug. 2015

Year	Office	Apt.	Hotel	Retail	Ind.	Total
YTD Aug. 2015	\$84	\$59	\$25	\$43	\$19	\$230
YTD Aug. 2016	\$81	\$60	\$14	\$29	\$13	\$197
Aug. 2016 vs. Aug. 2015 % Change	-4%	2%	-44%	-33%	-32%	-14%

Source: Real Capital Analytics



US Pension Fund Dilemma: NCREIF vs. S&P 500 & US Corporate Bonds January 2015 – Today (Total Returns)



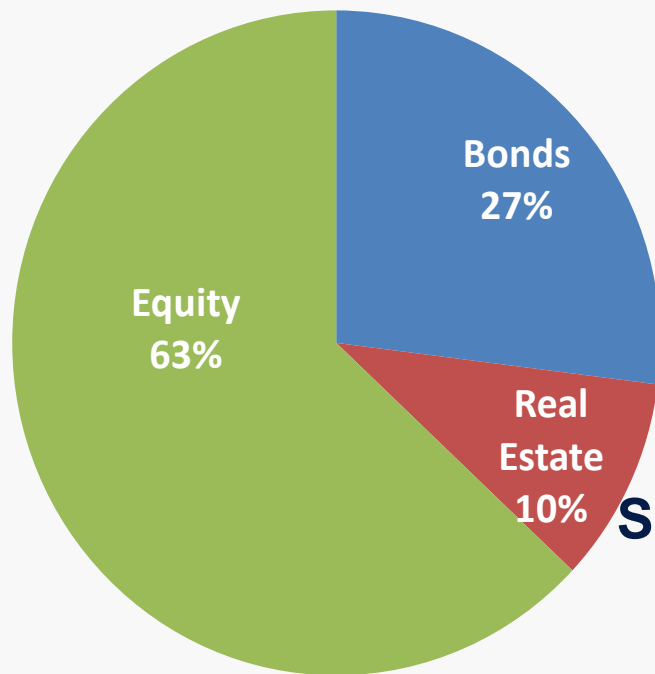
Source: Bloomberg



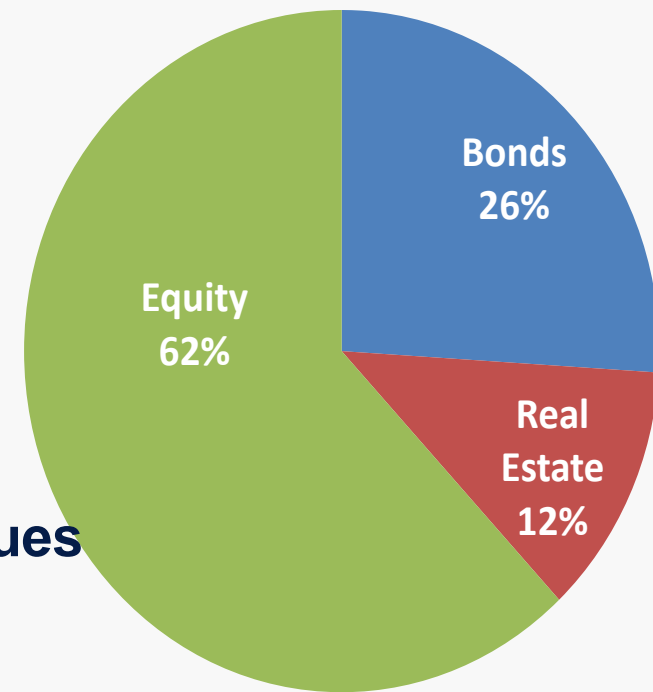
US Pensions Limited by Allocation

CRE Outperformance has Produced a “Numerator Effect”

Est. Allocations in January 2015



Est. Allocations in August 2016



**Significant increase in RE values
Modest increase in equity
& bond values**

Note: Assumes static portfolio



Core Funds/Advisors Acquisitions – US Office Transactions (\$MM)

Investor	<u>(Jan-Sept.) 2015</u> Acq.	<u>(Jan-Sept.) 2016</u> Acq.	<u>(Jan-Sept.) 2015-2016 YOY %</u> Acq.
JP Morgan	\$1,777	\$1,635	(8%)
RREEF	\$544	\$968	78%
AEW	\$685	\$0	(100%)
Invesco	\$1,503	\$550	(63%)
Prudential	\$1,206	\$1,074	(11%)
Clarion	\$845	\$912	8%
MEPT	\$464	\$254	(45%)
UBS	\$697	\$35	(95%)
Morgan Stanley	\$330	\$17	(95%)
Principal	\$1,371	\$208	(85%)
ASB	\$0	\$263	N/A
Heitman	\$0	\$192	N/A
Total	\$9,423	\$6,107	(35%)

Source: Real Capital Analytics.

Note: Transaction volume does not include refinances.

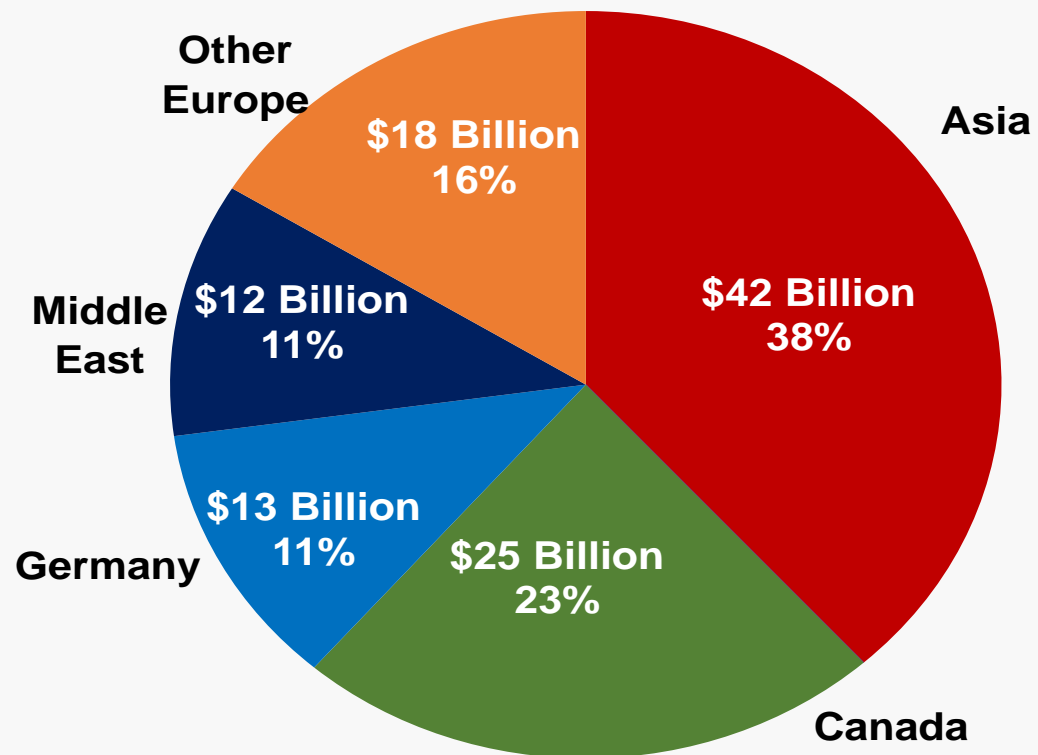


Offshore Capital Trends For U.S. Real Estate



Eastdil Secured – International Capital Placed in U.S. by Region January 2012 – September 2016

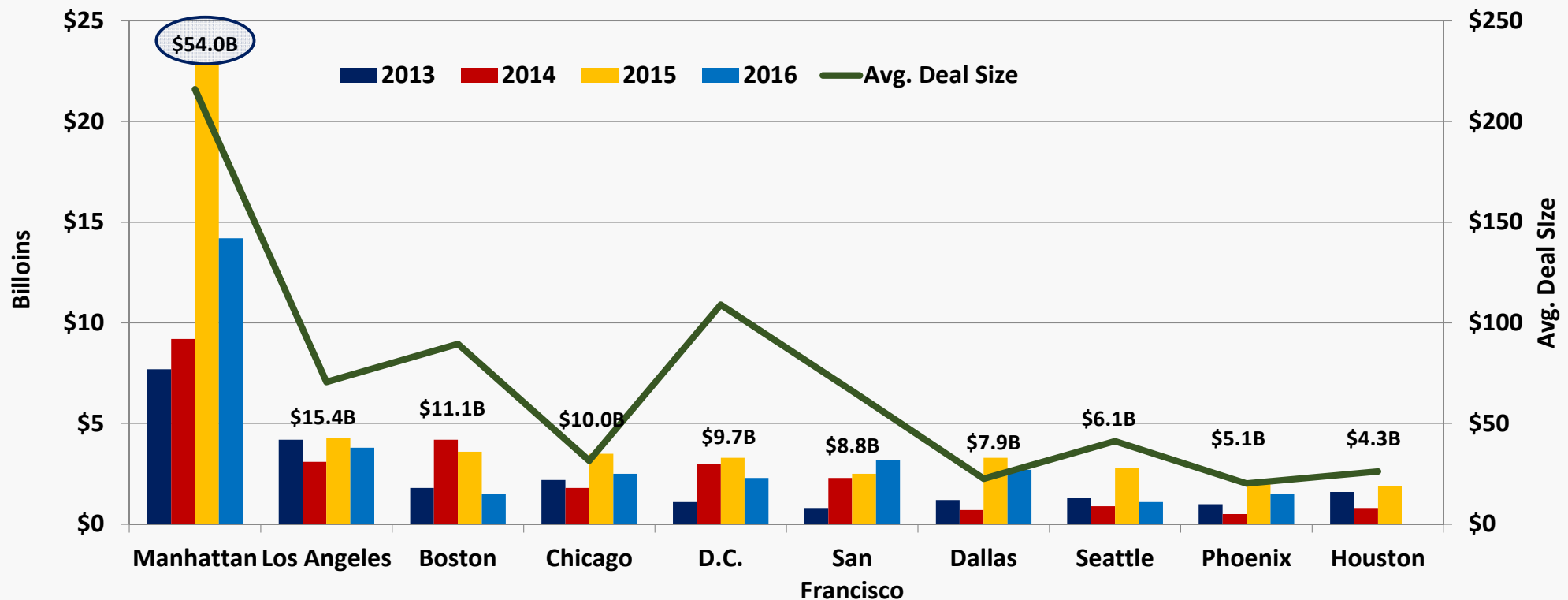
**\$110B+
TOTAL**



Source: Eastdil Secured



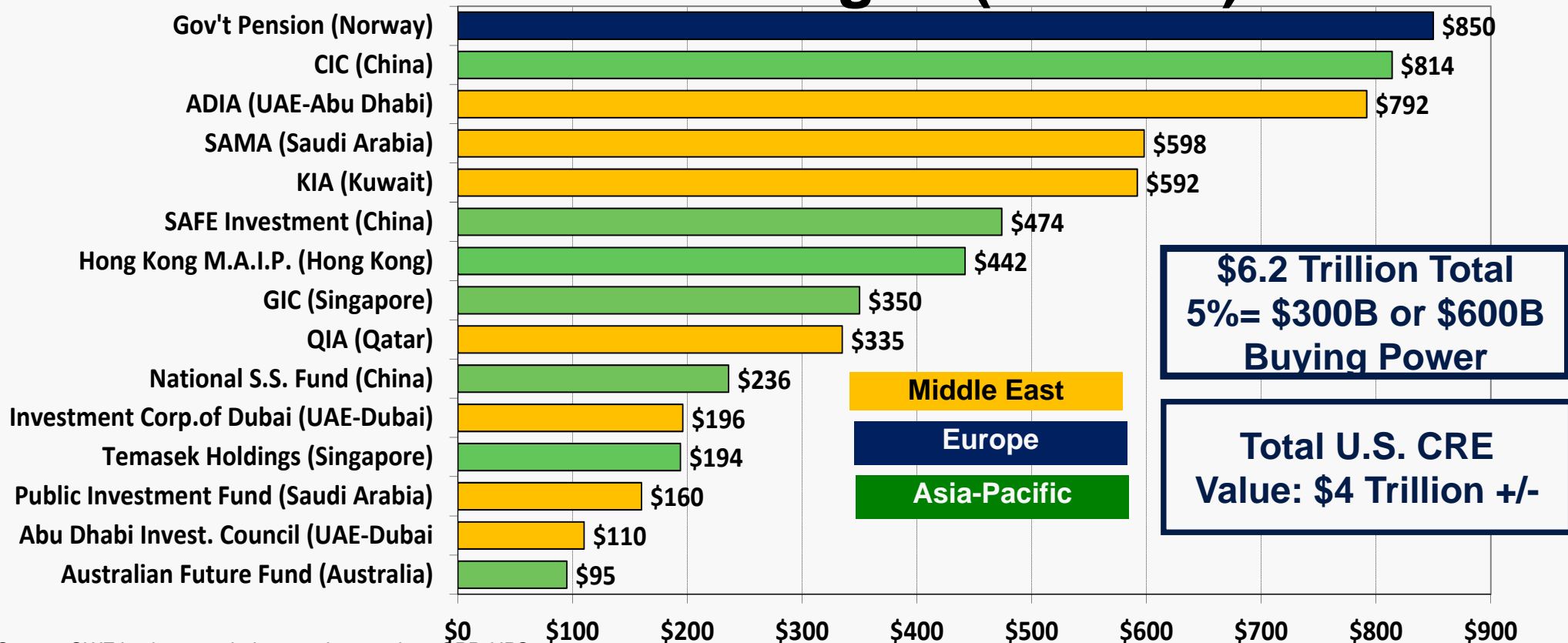
Top U.S. Real Estate Markets for Foreign Capital (2013 – August 2016)



Source: Real Capital Analytics



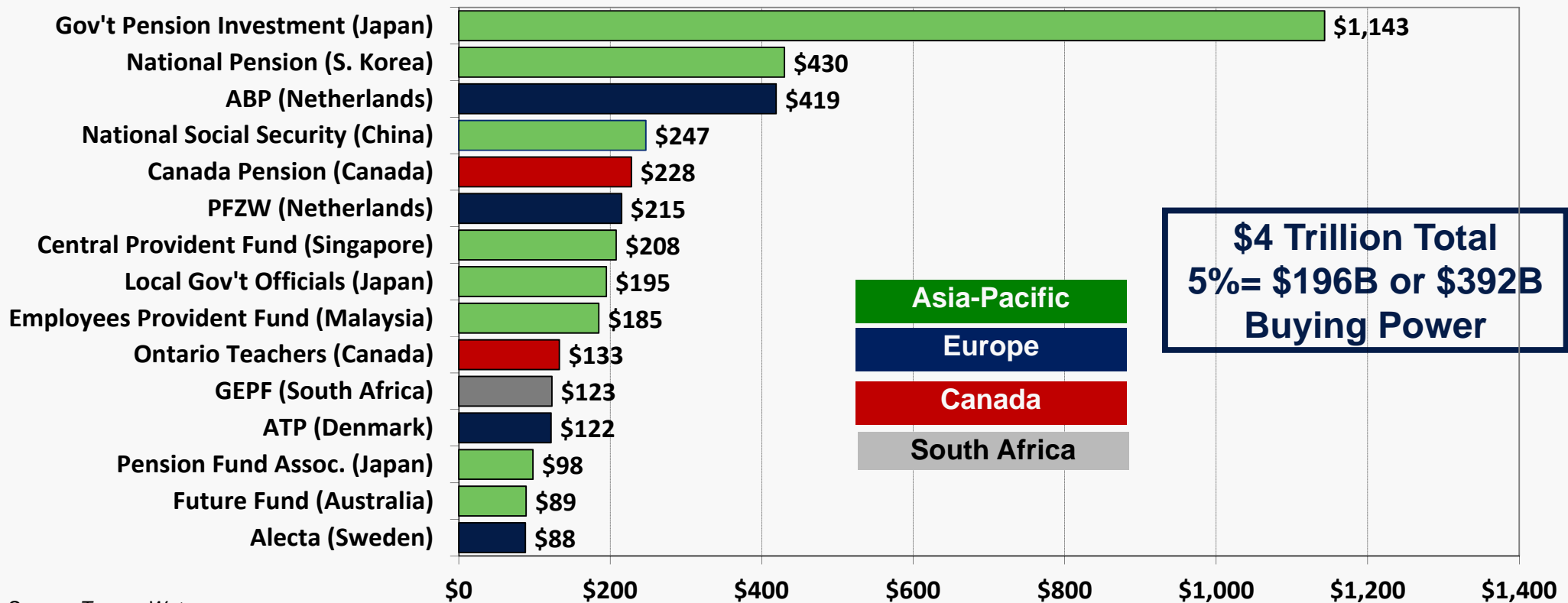
Sovereign Wealth Funds Assets Under Mgmt (Billions)



Source: SWF Institute, excludes pensions such as CPP, NPS



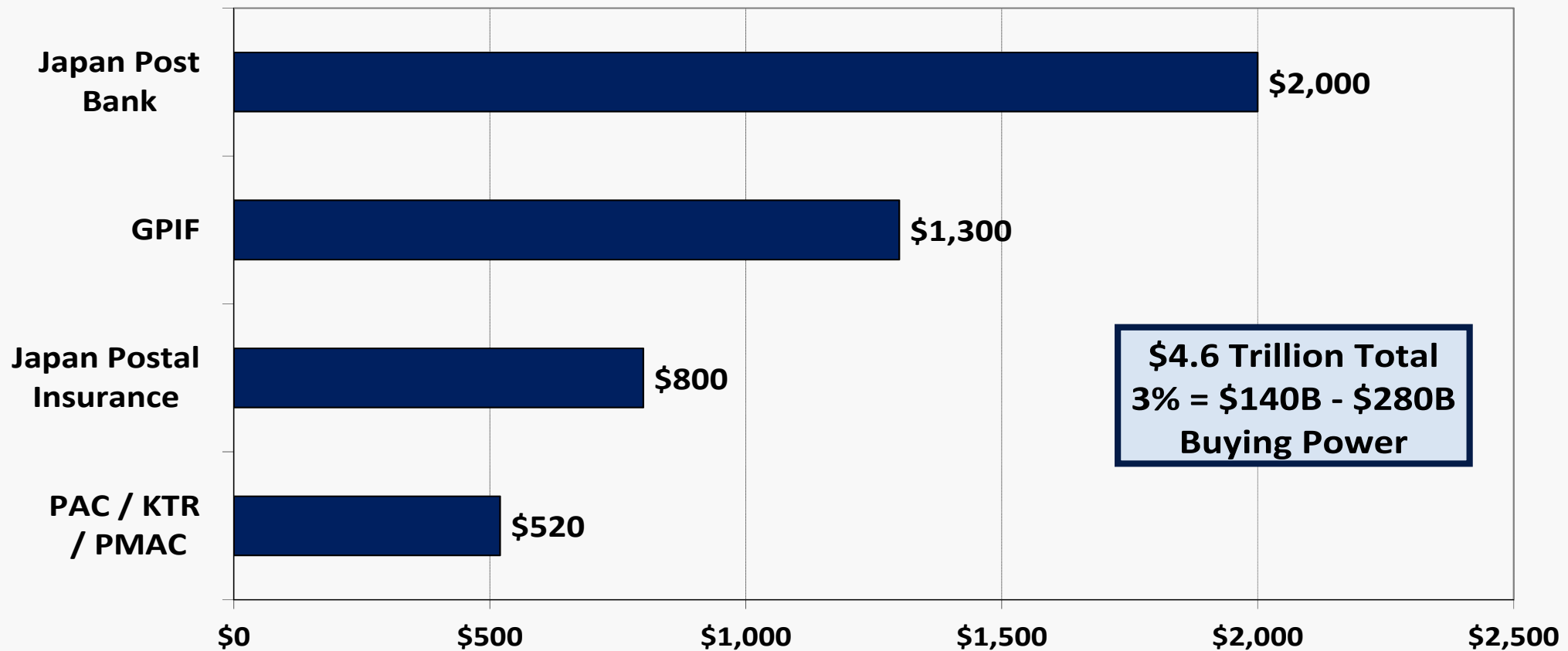
Non-US Major Global Pensions Assets Under Mgmt (Billions)



Source: Towers Watson

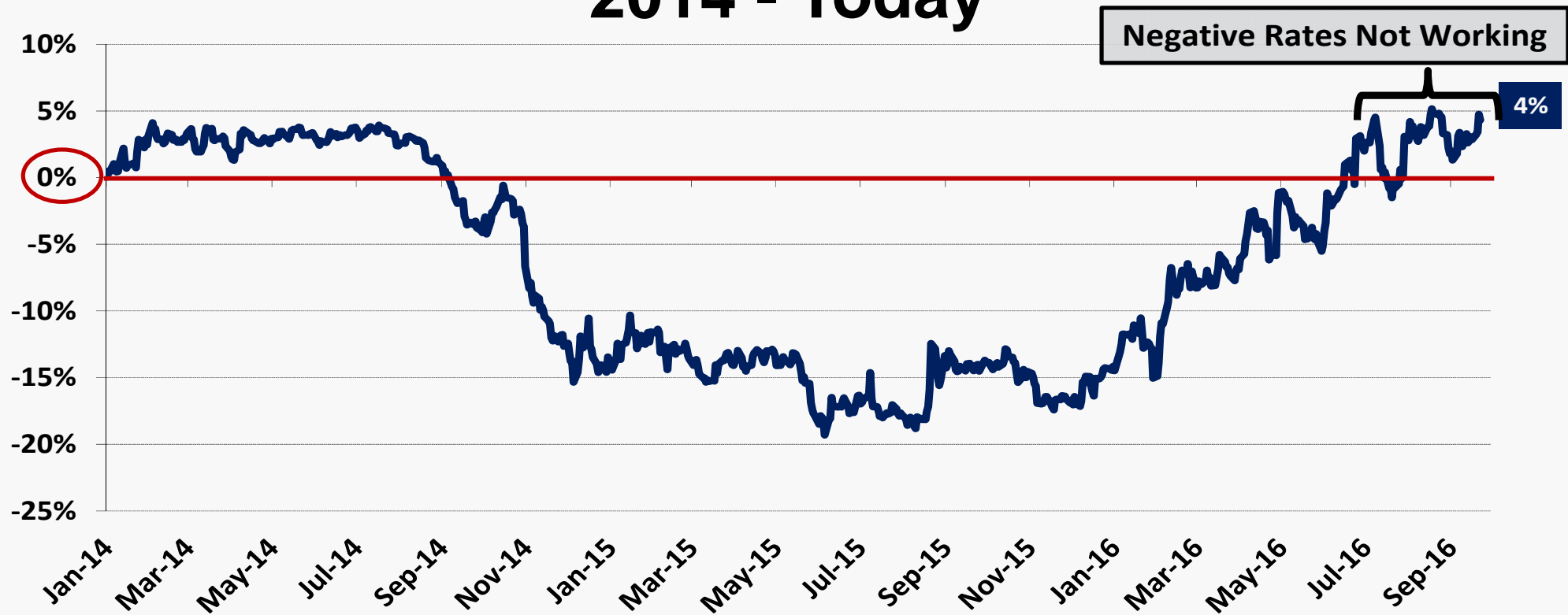


The Scale of Japanese Capital: \$4.6 Trillion





Japanese Yen vs. US Dollar 2014 - Today



Source: Bloomberg

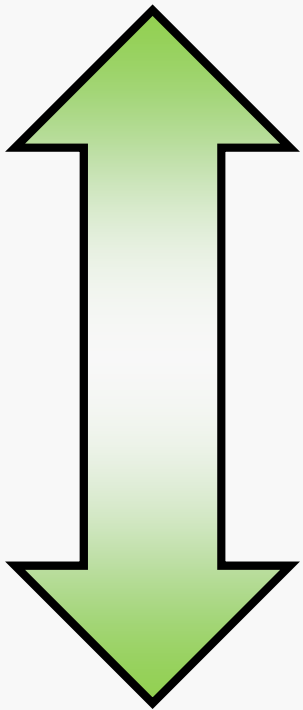


Middle East Capital



Oil: Tough Times, But Not Quite Doomsday

- Oil is circa \$45 per barrel – Loss of Oil Revenue is Mitigated by:
 - **Removal of Oil and Utility Subsidies:** Kuwait announces fuel related subsidy cuts
 - **Introduction of VAT / Sales Tax on Selected Products from 2018**
 - **Issuance of Sovereign Debt:** Saudi Arabia mandates three international banks to arrange its debut international bond
 - **Reduction / Stoppage of Certain Non-core Development Projects**
 - **Potential Privatization Programs** (e.g. Saudi Aramco)



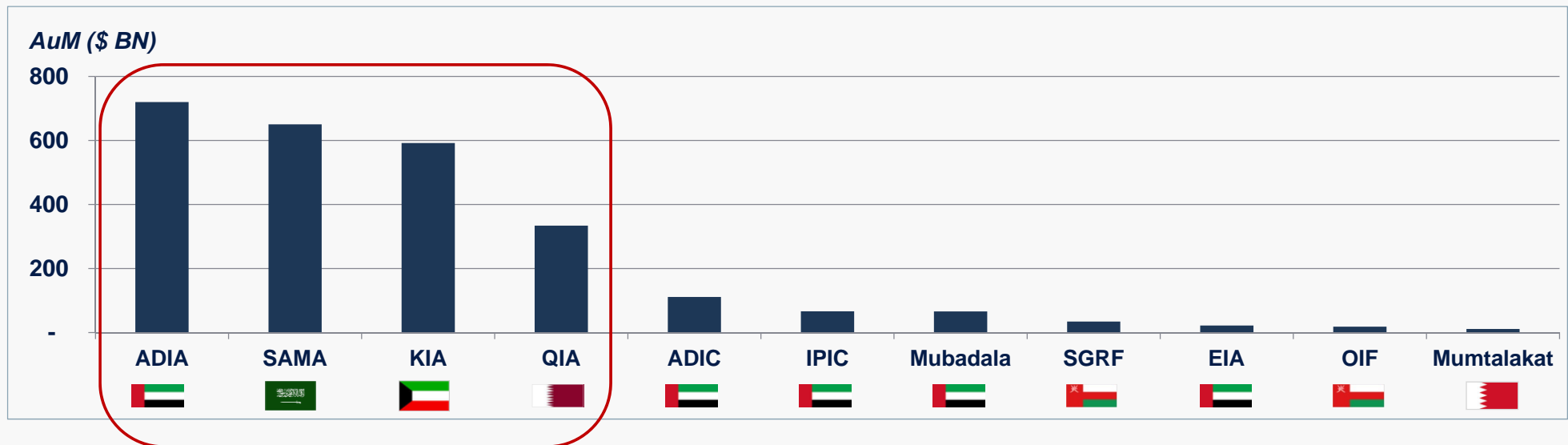


Any Impact on the SWFs?

1. **Large Funds:** Not materially impacted
2. **Smaller Funds:** Some are struggling to find non-oil liquidity
3. **Consolidation:** Mergers can consolidate resources (e.g. Mubadala and IPIC merger)
4. **Non-oil Sources of Cash:** Some funds have other sources of cash
5. **Other Sources of Capital:** Family Offices



Largest SWFs in the Middle East...





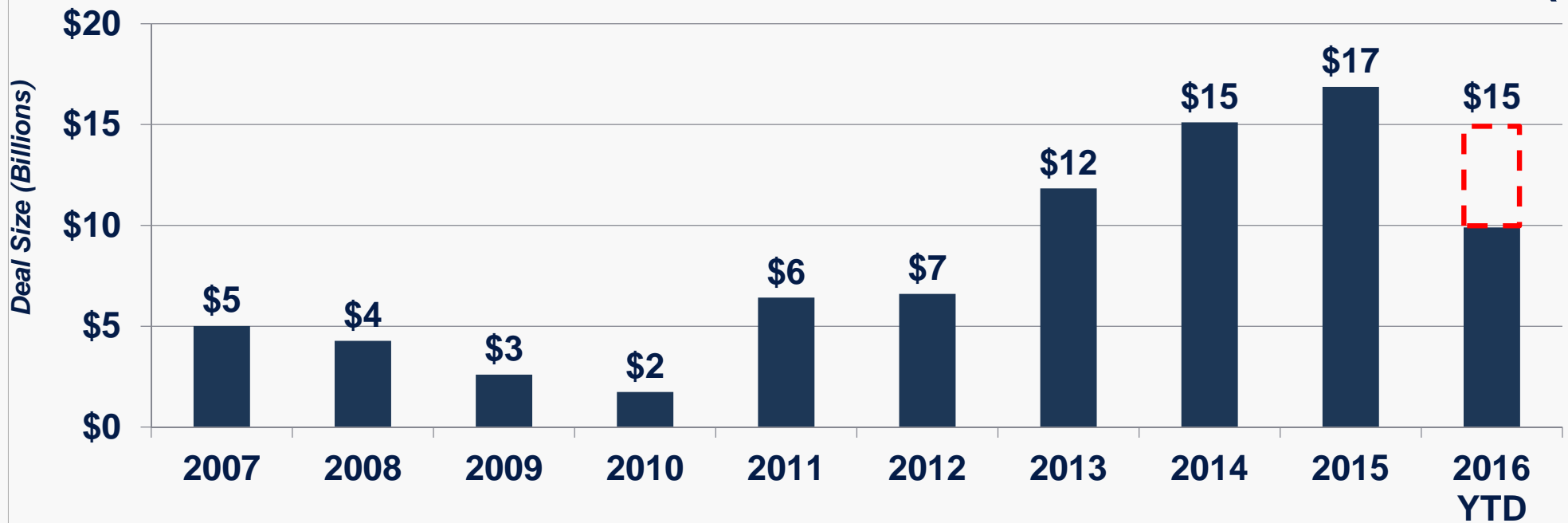
... And Institutional Family Offices





MENA SWF Direct Investments Have Been Growing

Total Direct Investments in Real Estate from Middle East SWFs (*)



(*) By announcement date globally

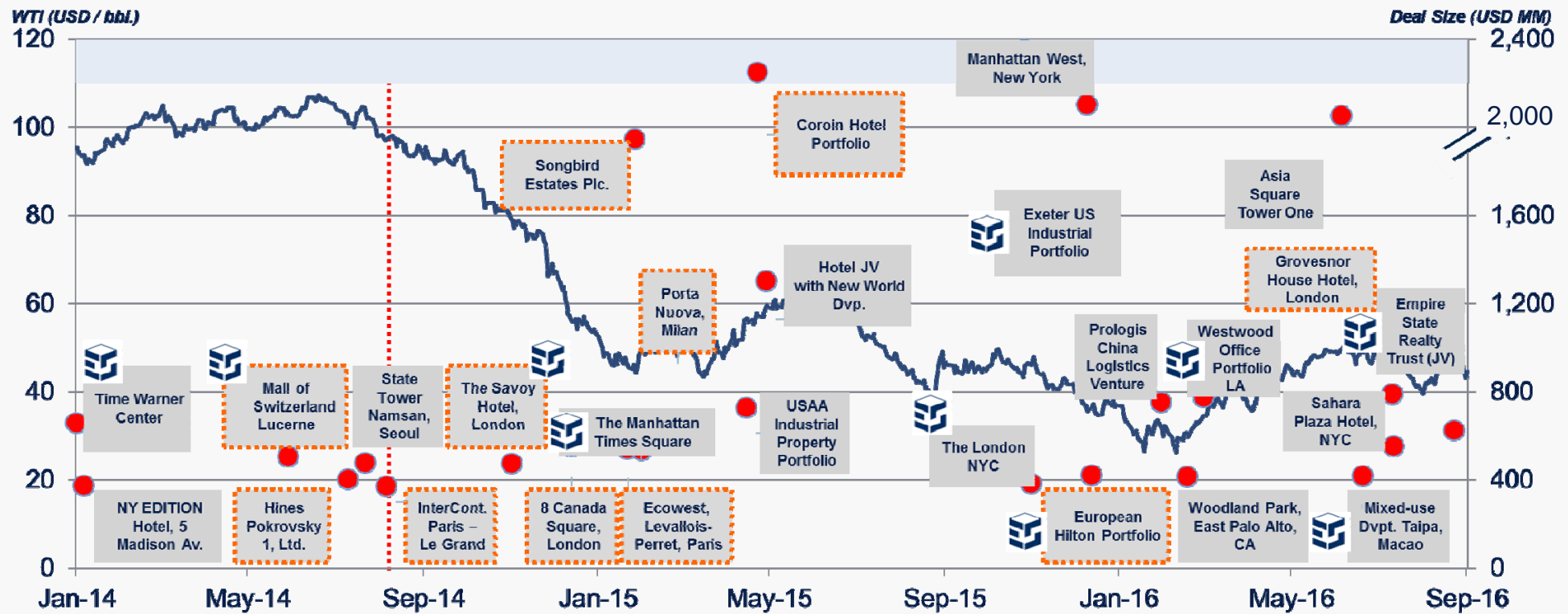
(**) Calculated on an annualized basis for FY 2016

Annualized data for FY 2016

Source: Sovereign Wealth Center



Investments Continue Despite Oil Price Decline



European Deal

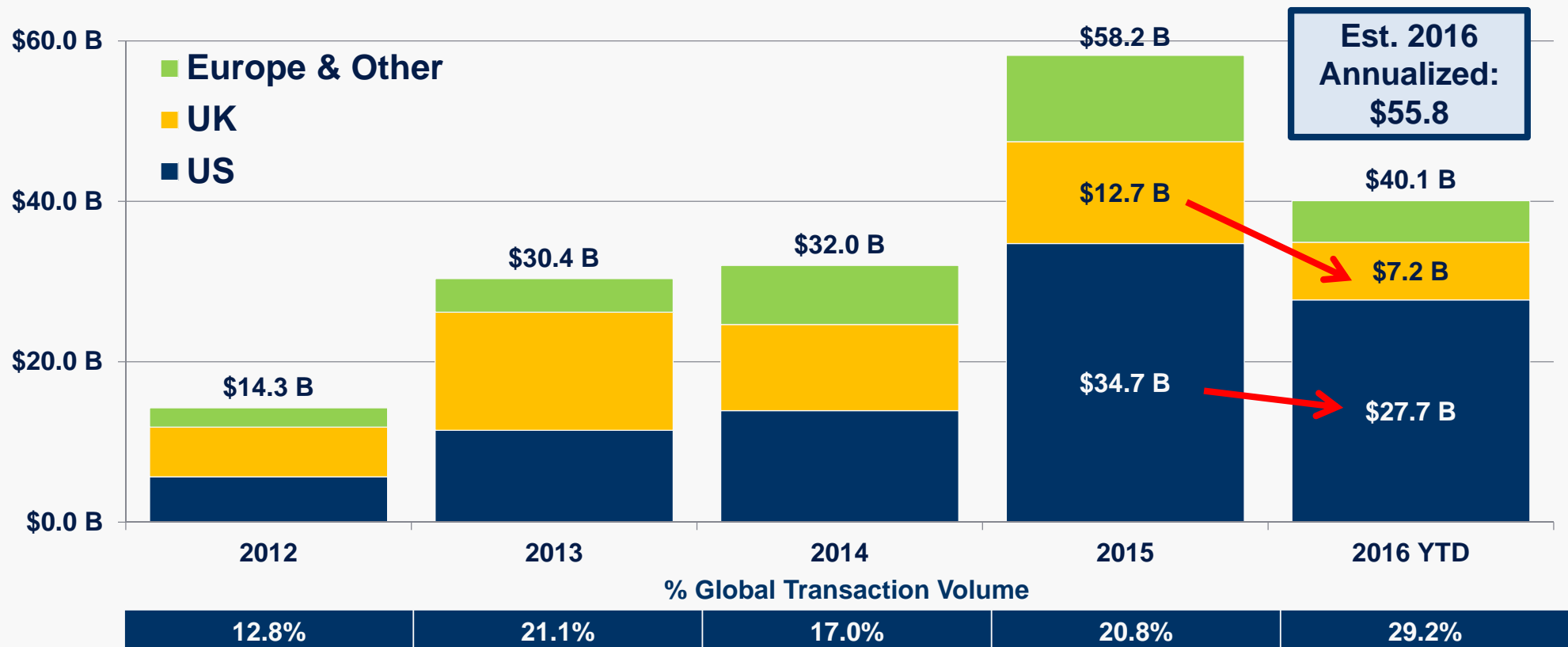
Source: Wells Fargo, Sovereign Wealth Center, Bloomberg



Asia Update



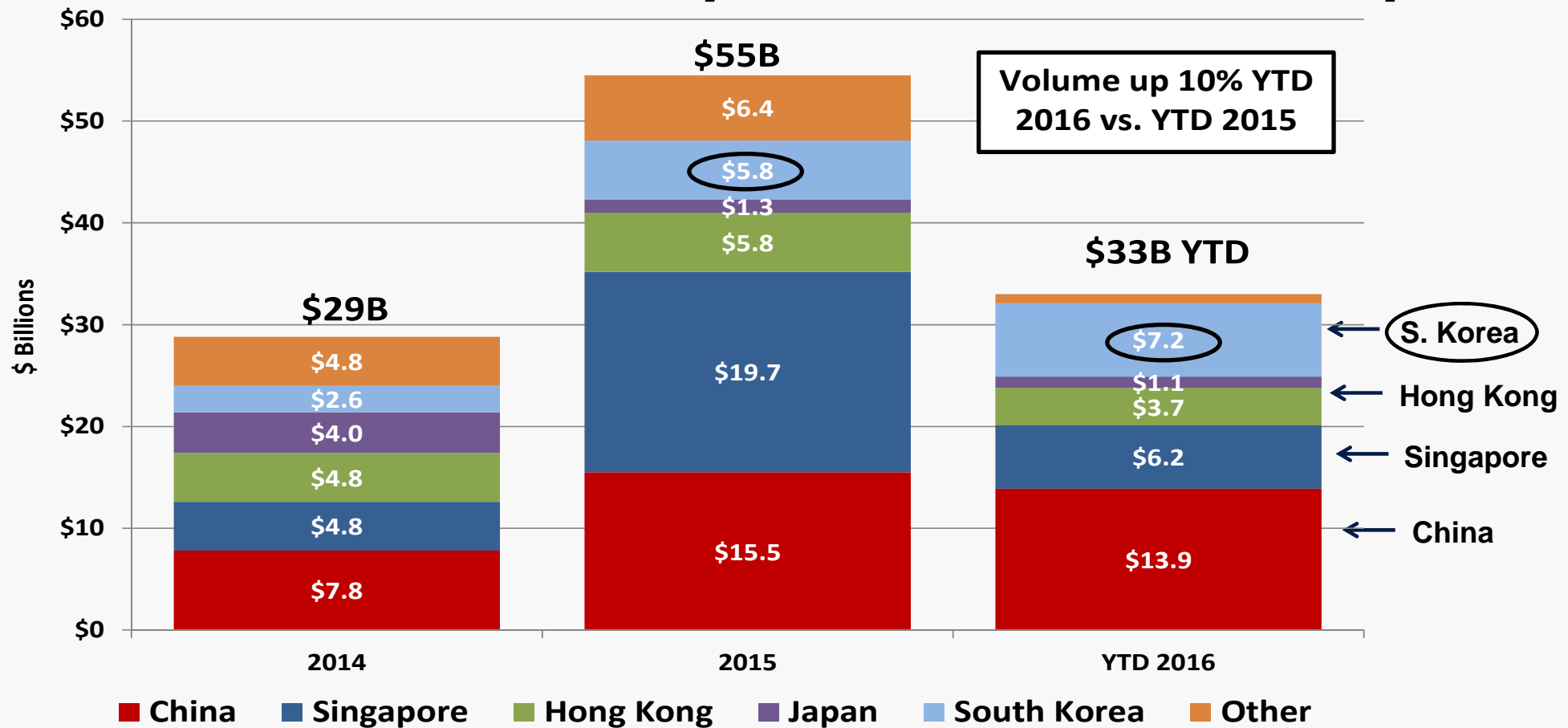
Asia Outbound Capital by Destination



*Europe excludes the UK; Source: Source: Real Capital Analytics



Source of Asian Capital to the US & Europe

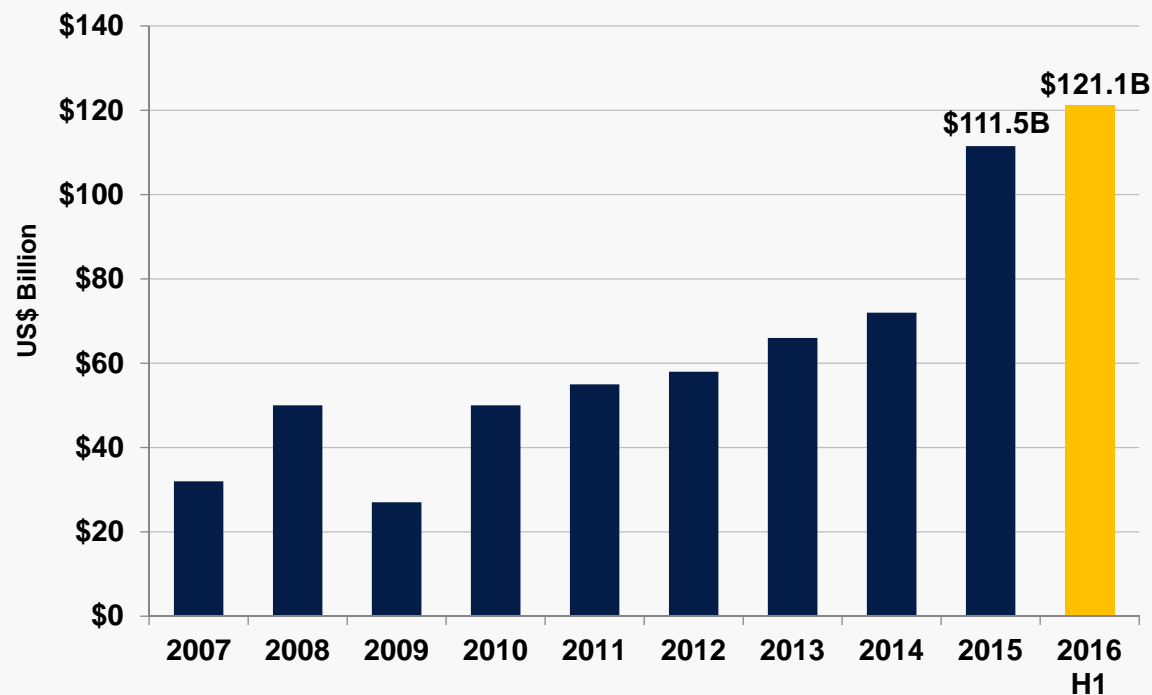


Source: Real Capital Analytics



2016 So Far – Outbound Flow Continues Despite Headwinds and Volatility

Chinese Outbound M&A Volume



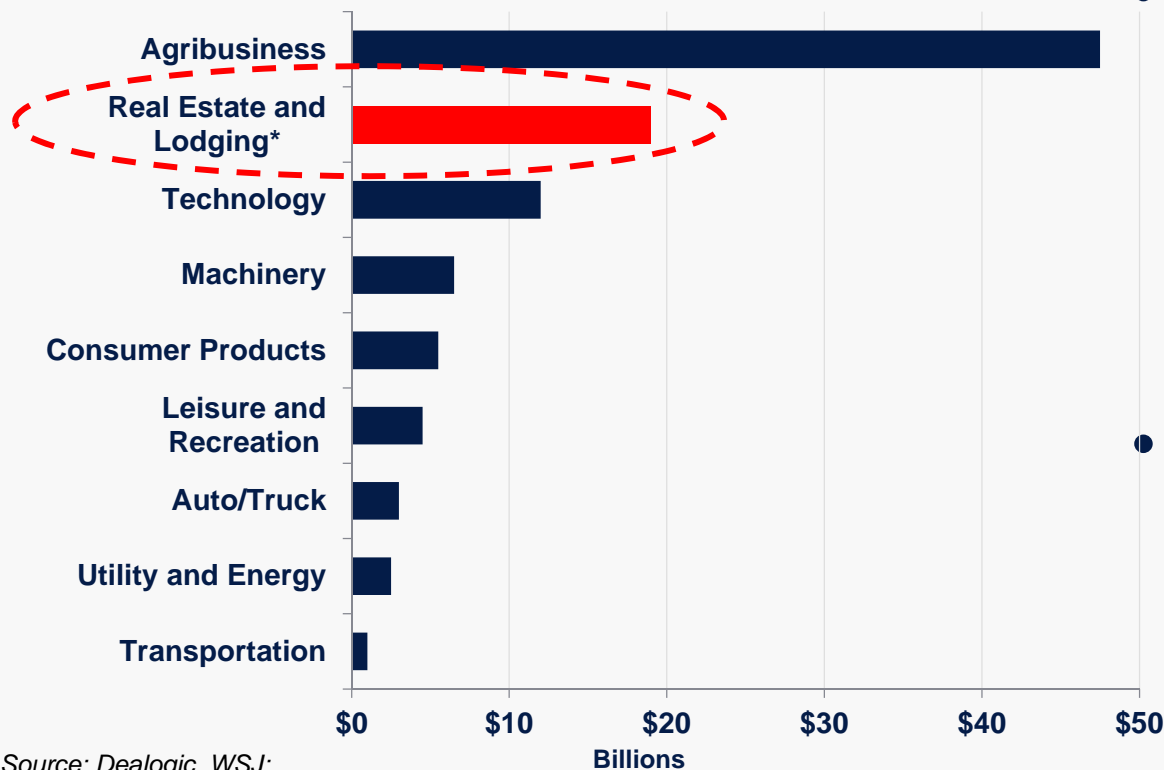
Source: Dealogic, WSJ

- Chinese Outbound M&A activity remains robust in 2016; 2016 H1 volume has already surpassed 2015 total volume
- China has continued to lead the flow despite some government intervention via capital controls.



2016 So Far – Outbound Investment Sector Breakdown

China 2016 YTD M&A Sector Breakdown



Source: Dealogic, WSJ;
* Includes dining

- M&A activities with Asian capital, especially Chinese, have taken place across a wide array of sectors as they continue to globalize and acquire best in class know-how
- Real estate, and lodging in particular, remains to be heavily favored by Asian capital as key investment targets

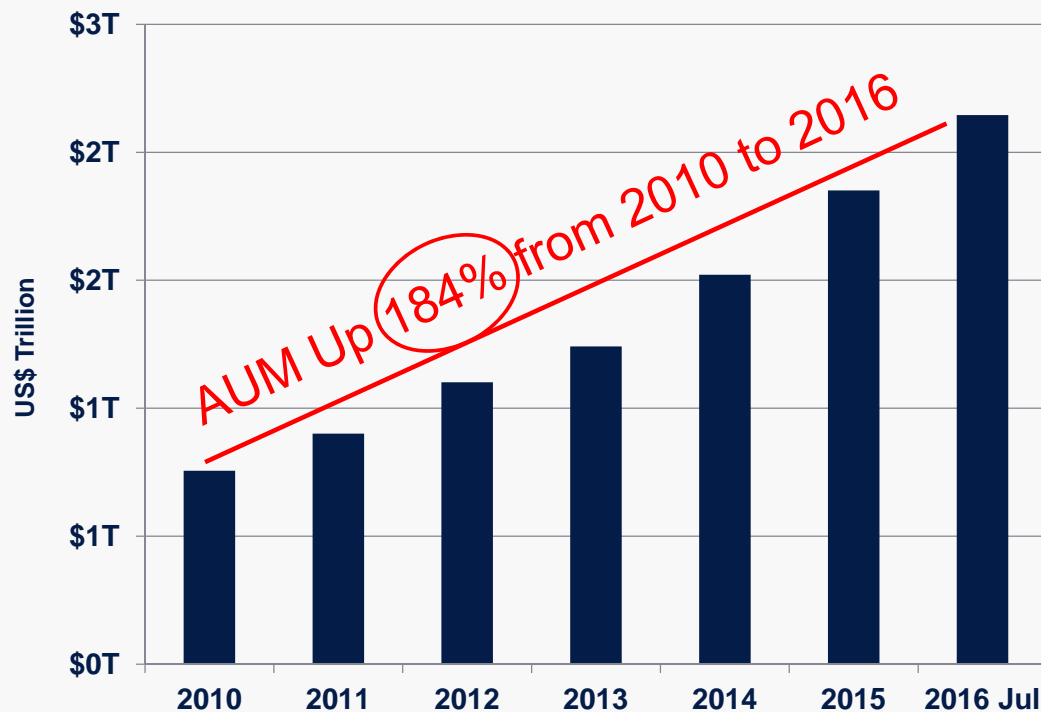


Chinese Insurers



Growth of Chinese Insurance Sector

China Insurance Industry Total Assets Growth 2010-2016



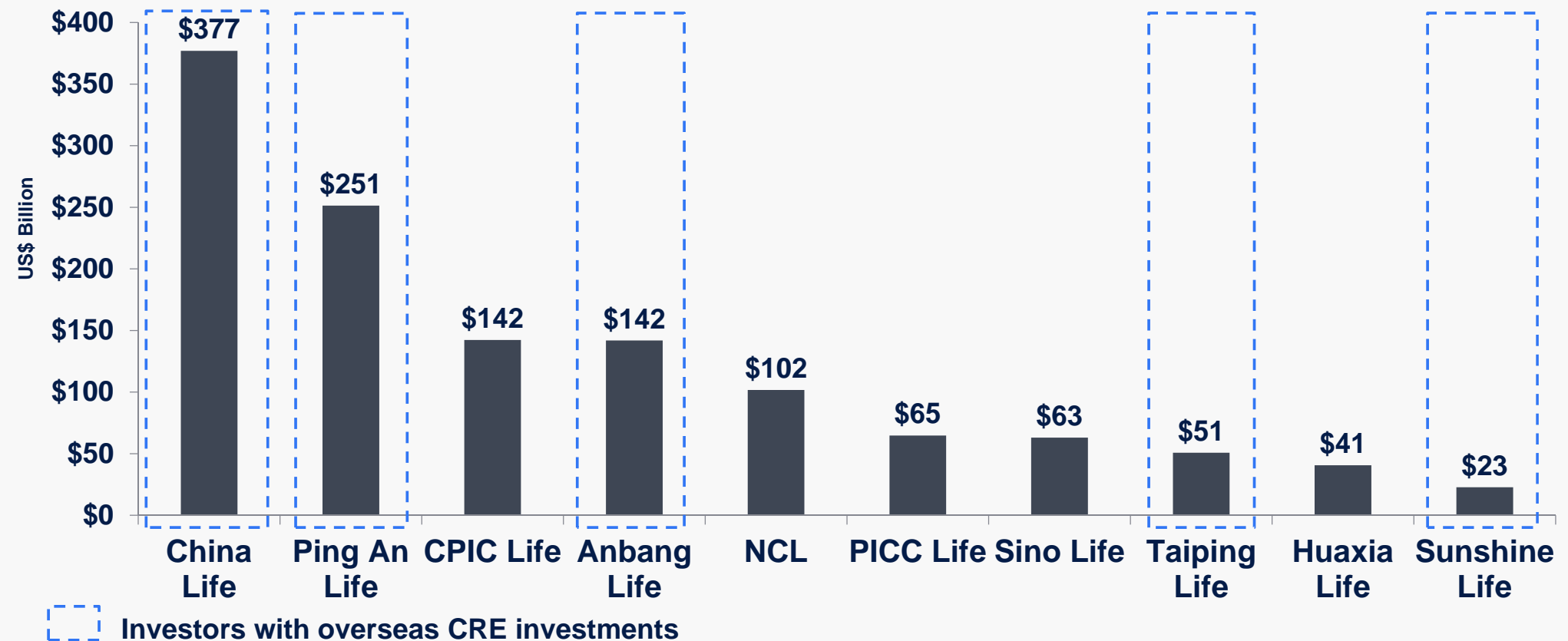
Source: CRIC; CNY/USD as of 9.1.16

- In 2015, China became world's **third largest** insurance market driven by surging premiums
- Contributed **26%** of the growth of global insurance markets in 2015
- Total assets of China's insurance industry have more than doubled from \$760B in 2010 to **\$2.1T** in July 2016



Major Insurers in China

Total Assets of Life Insurers 2015

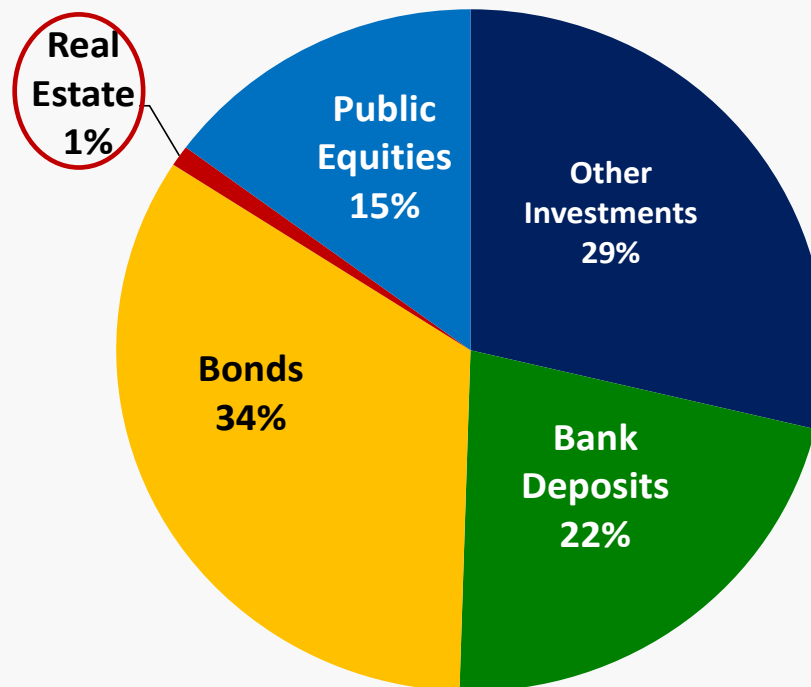


Source: Wall Street Research, CIRC, UBS;



Chinese Insurers Asset Allocation

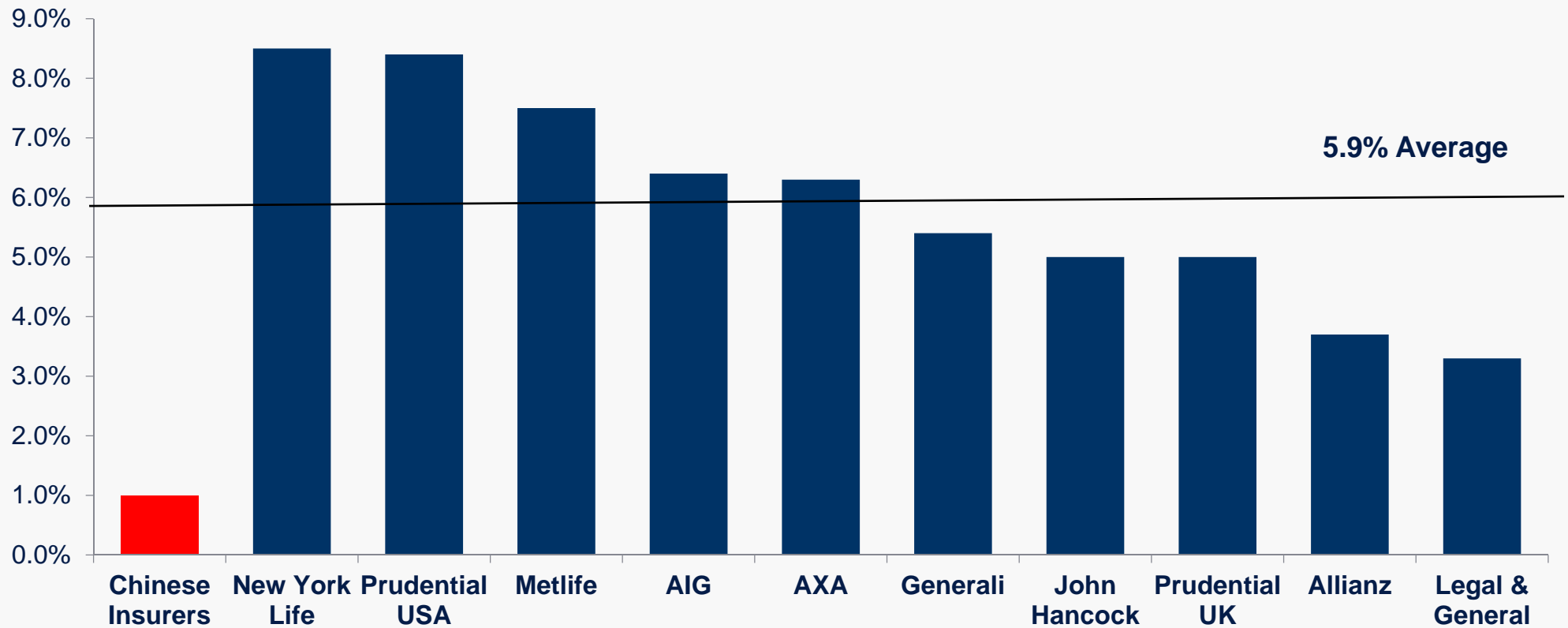
- Chinese Insurers invested only ~1% in property sector; the real estate exposure remains very low with a lot of room to grow compared to more developed markets



Source: CIRC, Public company and regulatory data, Coherent Advisors Research. Data as of December 2015



RE Allocation – Global Insurers Comparison

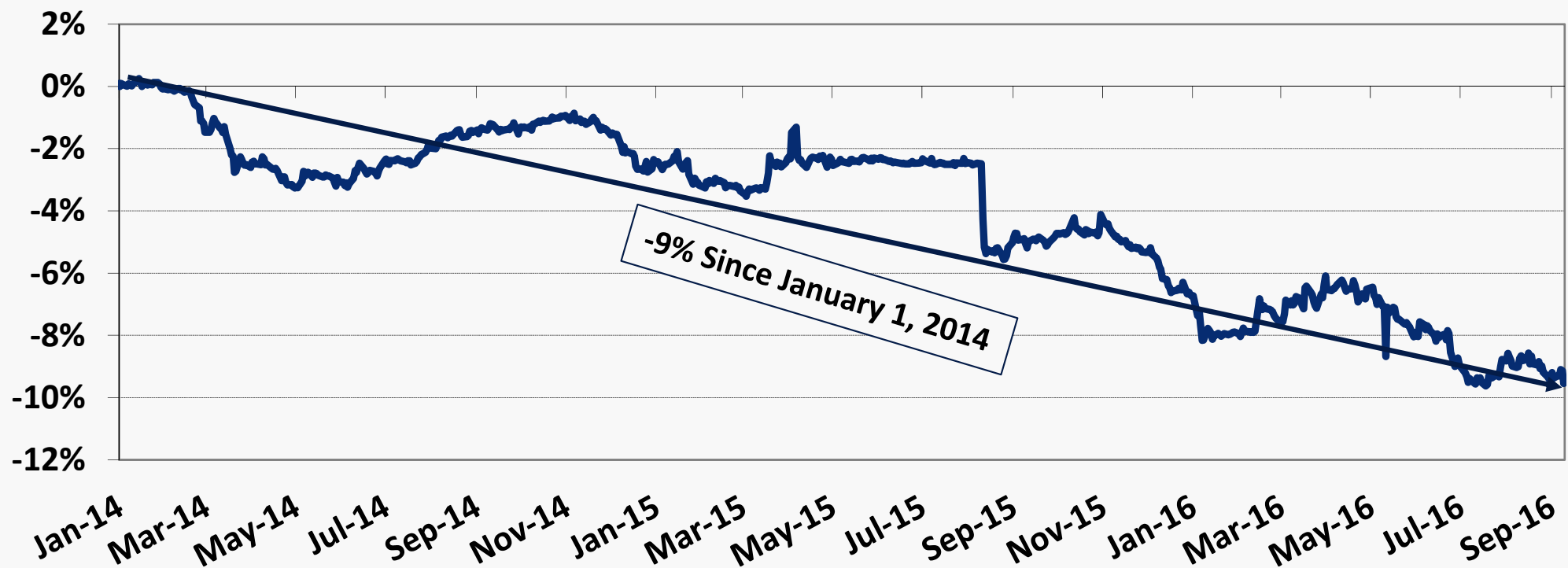


Source: CIRC, Public company and regulatory data, Coherent Advisors Research



RMB Weakness: 2014 - Present

- Currency weakness driven by slowing domestic economy has fueled the need for asset diversification / safe haven assets / currencies



Source: Bloomberg



Public Markets

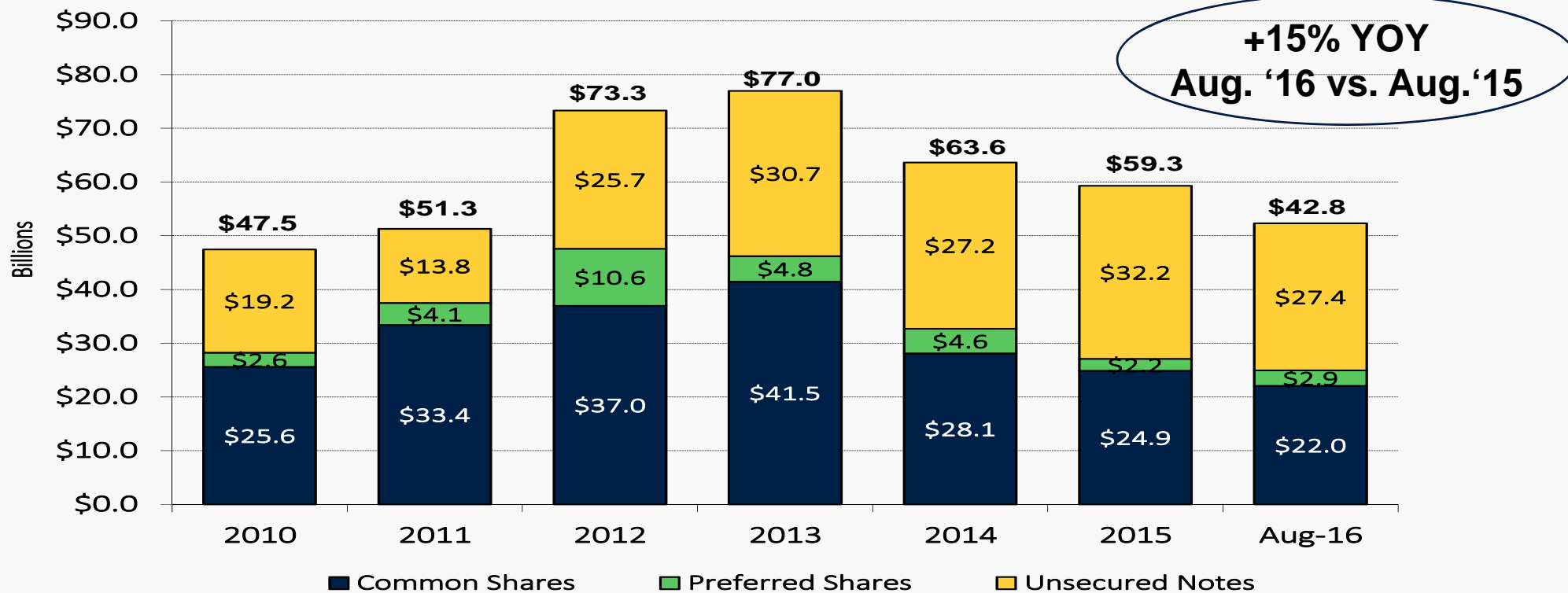


Public Markets

- REIT balance sheets are the strongest they have ever been.
- Discounts to NAV had materially recovered – some choppiness
- Non traded REIT capital raising has been challenging, but next generation retail products could be game changers.



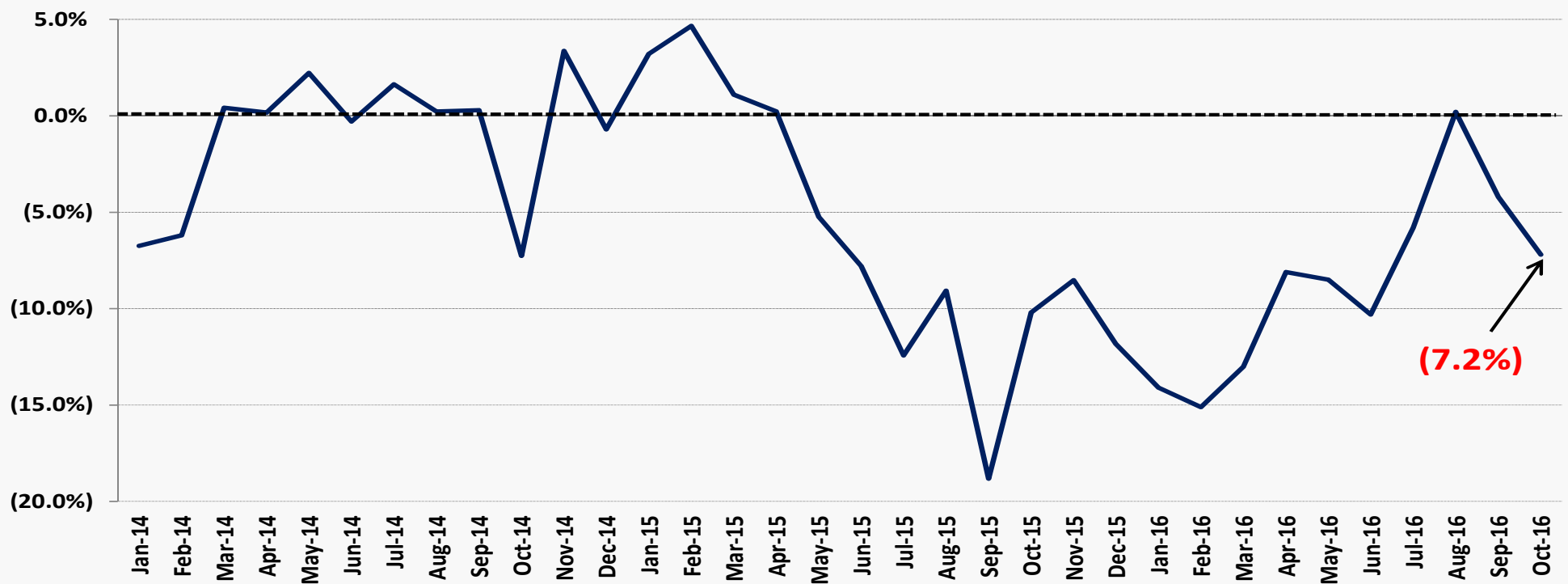
REIT Balance Sheets are in Great Shape With Significant Acquisition Capacity



Source: NAREIT (based on Equity & Mortgage REITs)



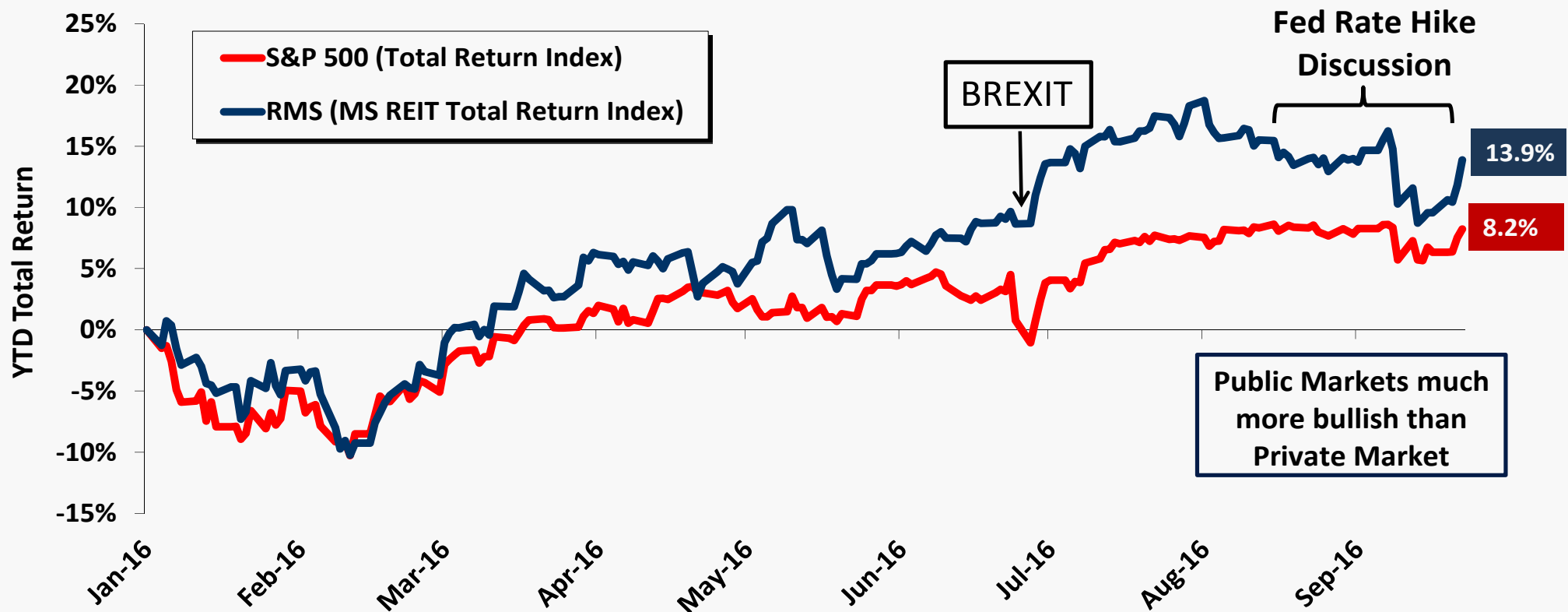
Recent Public Trading Discounts to NAV 2014 - Present



*REIT Index includes multifamily, industrial, office, strip center, malls and lodging, (2.4%) on an unlevered basis.



Lower For Longer Continues to Benefit CRE



Source: Bloomberg



The Window is Open – REIT Debt Capital Markets

Preferred

- Public Storage issuance broke 5.00% threshold - \$300M @ 4.95%

Bond Market

- Federal set a record within the REIT space by pricing a \$250 million 30-YR with a coupon of 3.625%



	Current
10-YR	2.70%
30-YR	3.75%



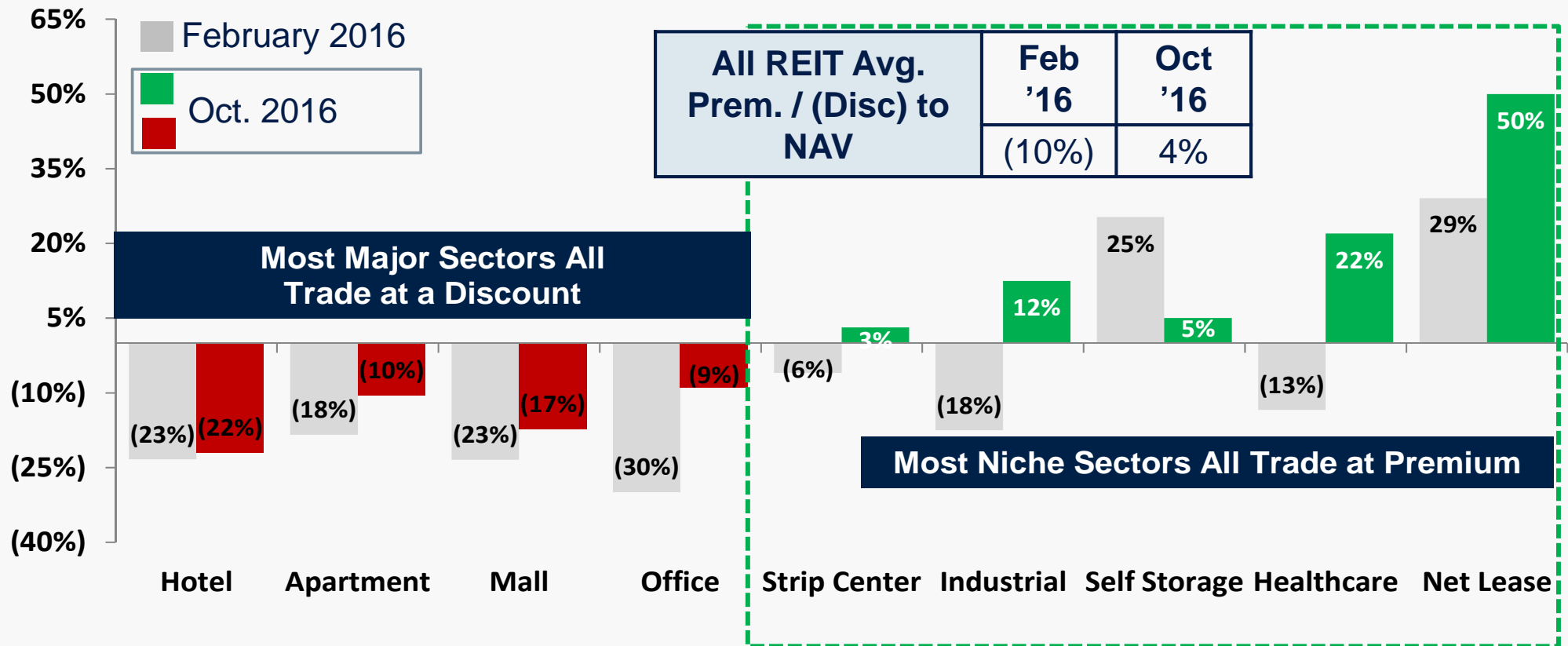
	Current
10-YR	3.05%
30-YR	4.10%

10-YR @ 1.70%
30-YR @ 2.40%



REIT Sector Trading Relative to NAV

REIT Sector Premium / (Discount) to NAV

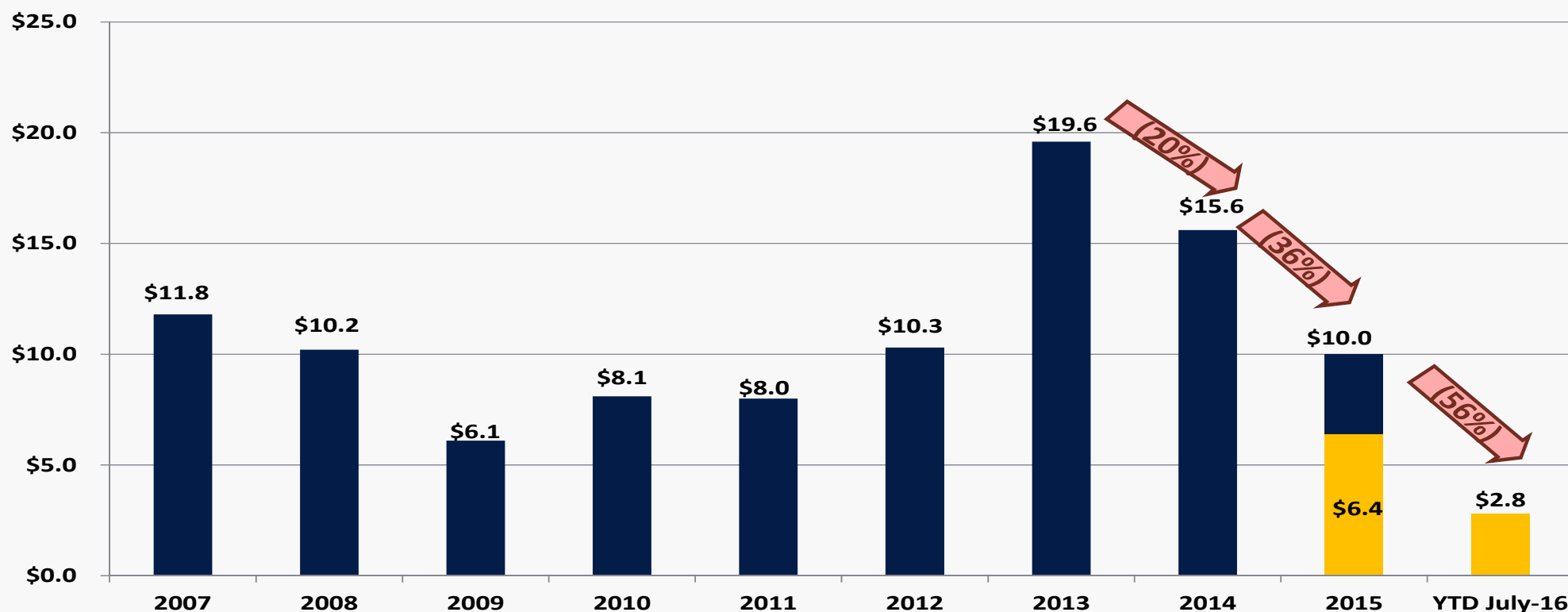




Non-Traded REIT Capital Raising

Equity Raised by Year

(\$ in billions)



Source: Research from Green Street Advisors and Robert A. Stanger & Co., Inc.. Includes equity and mortgage REITs only.

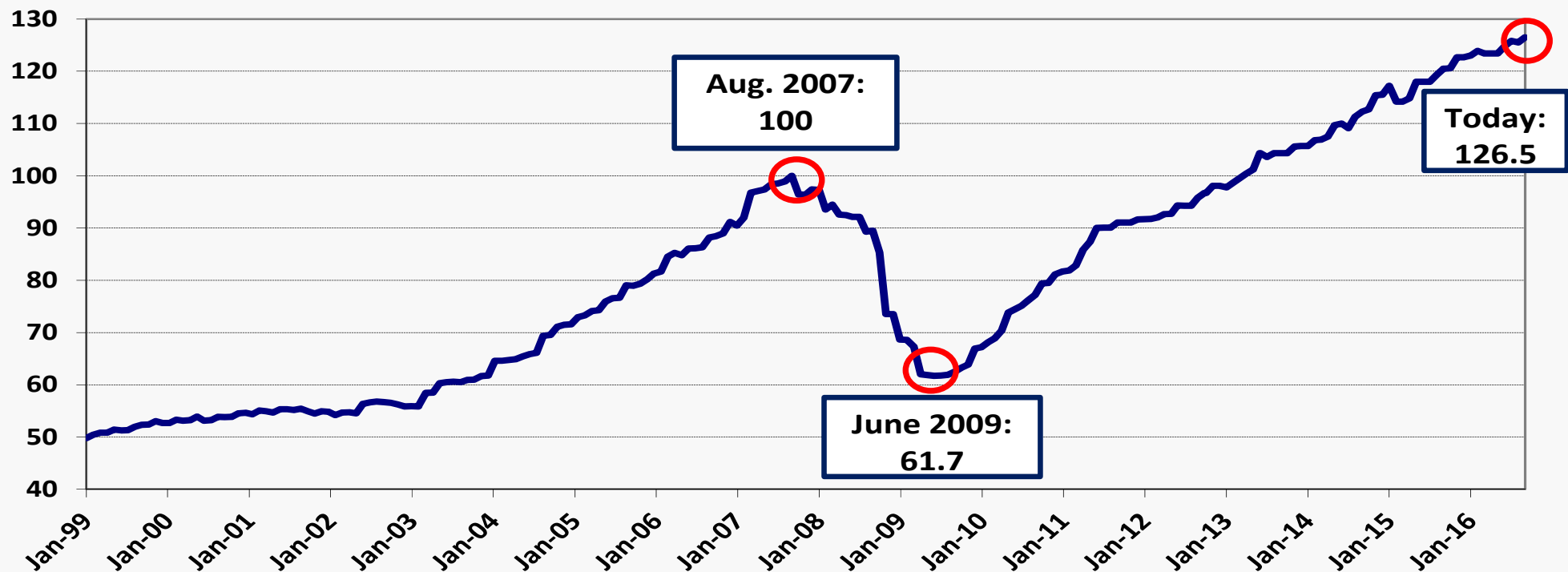


Asset Bubble or Fair Relative Value?



Green Street's Commercial Property Price Index

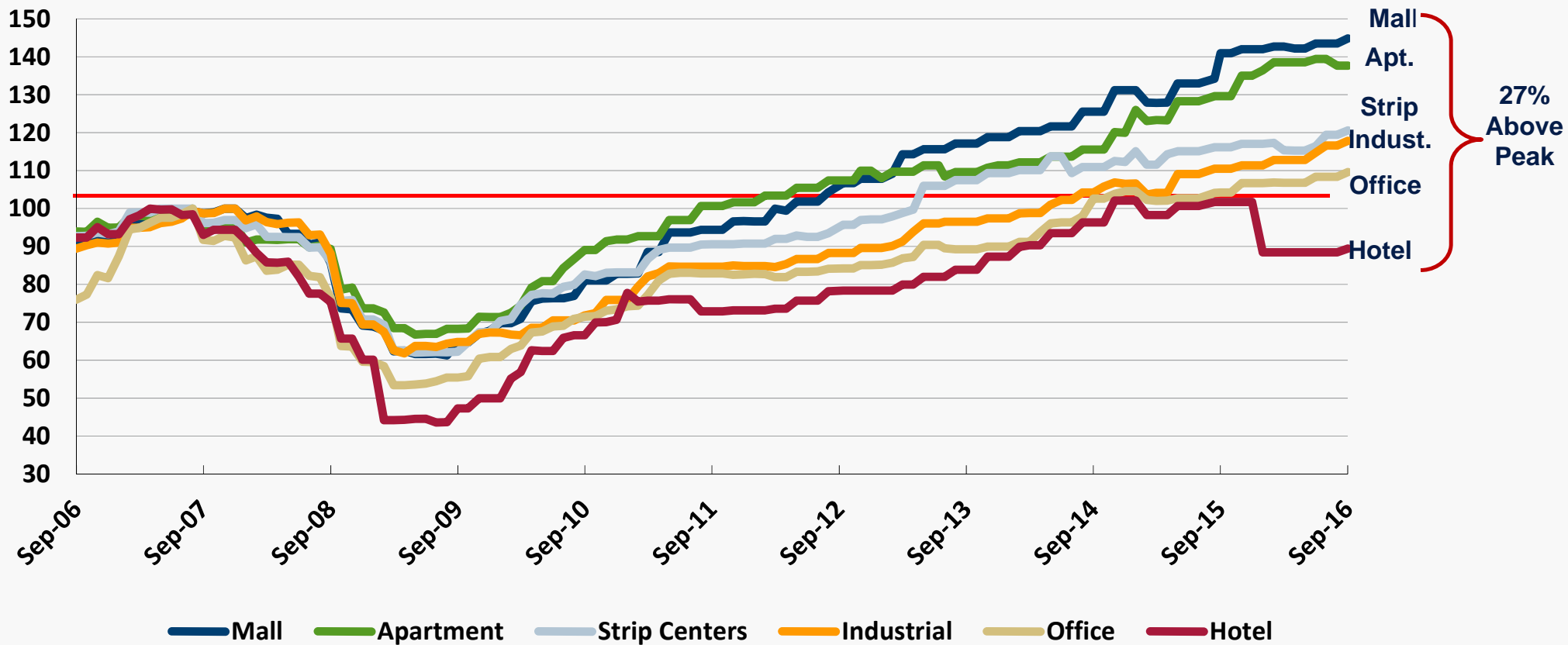
Overall Pricing Today is 127% of Peak in Aggregate



Source: Green Street Advisors



Commercial Property Price Index By Sector



Source: Green Street Advisors



Yield Environment has Pushed Values for all Asset Classes – Just Less For CRE

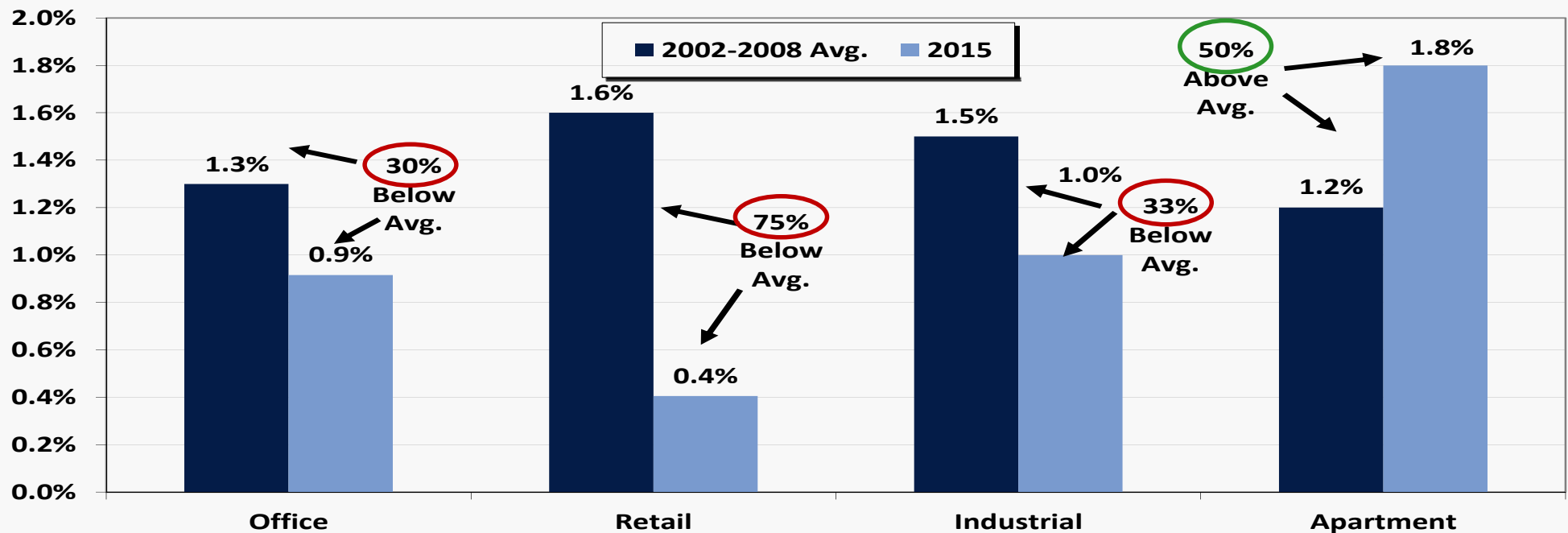
<u>Index</u>	<u>Feb. 2007*</u>	<u>Oct. 2016*</u>	<u>% Change in Value</u>
S&P 500 (Price Only)	1,445	2,160	+50%
10-Yr. Treasury	4.70%	1.60%	+66%
Green Street CPPI	100	127	+27%

*30 day average



US Supply Fundamentals Remain Healthy

New Supply is Generally Below Long-Term Averages



All sectors (multifamily being one exception) are 30%+ below their long-term avg. supply levels

Source: Reis



CIO Conundrum Today

Annual Returns on \$100 MM Invested

	Annual Return (%)	Annual Return (\$)	
10 Year Treasury	1.55%	\$1.55 MM	
S&P Dividend Yield	2.14%	\$2.14 MM	
AAA 10 year CMBS	2.55%	\$2.55 MM	1.6x T's
Class A Core Real Estate (Unlevered)	6.00%*	\$6.00 MM	3.9x T's
Class A Core Real Estate (Levered)	8.00%*	\$8.00 MM	5.1x T's

*IRR



What Typically Ends CRE Cycle?

	Yes	Maybe	No
Over Supply	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Over Leverage	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Banking Crisis	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Global Financial Crisis	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Material Recession	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



In The End...



Conclusions

- CRE likely a real beneficiary of Global Search For Yield.
 - How do pension systems keep up when only 1/6 of the IG bonds in the world would yield above 3%?
- Negative rates & QE call into question – would you rather own financial assets or real assets?
- Bullish Debt and Public Equity Markets seem to be ahead of Private Markets.
- US Pension Allocations are relatively full due to strong performance, but many are increasing their allocations.



Conclusions

- Global Capital Flows to US are still at an early stage and growing.
- Fundamentals in the US continue to be good with few signs of the cycle ending.
- Limited oversupply.
- Outlook continues to be fair relative value unless:
 - Geopolitical unrest / uncertainty hits home.
 - World loses faith in Central Banks or Fed creates another Taper Tantrum.

THE UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS - REAL ESTATE CONFERENCE REAL ESTATE CAPITAL MARKETS

Roy March

October 6, 2016



 EASTDIL
SECURED