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San Bernardino County

Investment Summary
Quarter Ending September 30, 2015

Allan Martin, Partner
Don Stracke, CFA, CAIA, Senior Consultant
Michael Malchenko, Senior Analyst

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com

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Market Environment Update and Outlook



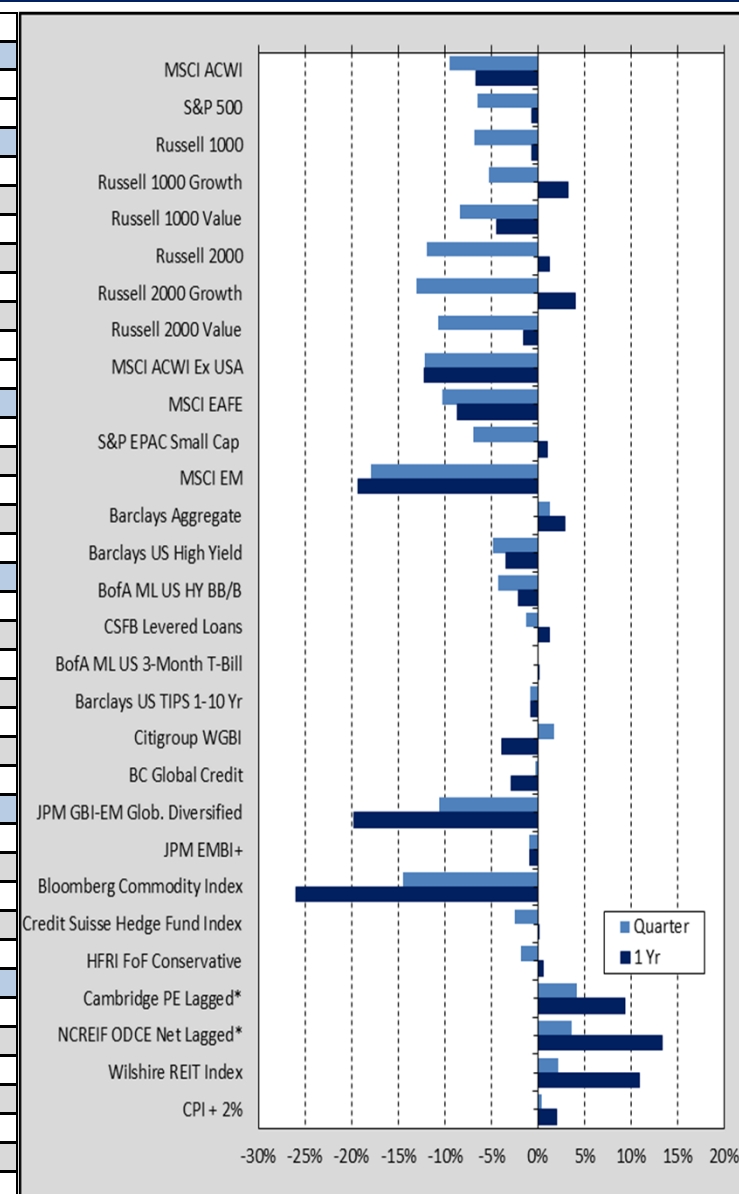
Economic Environment

- **Second quarter GDP growth rate rebounded strongly (third estimate) printed at +3.9%.**
 - Retail sales (ended August) at +1.3% on a year-over-year growth rate basis. The same period last year YoY growth rate was 4.6%.
 - The inventory-to-sales ratio at August, 31 was flat at 1.4 and has remained relatively flat since early 2010.
 - Corporate profits (ended June) as a percent of GDP declined slightly vs first quarter GDP to 10.4% from 10.7% and remain elevated relative to historical levels.
 - The U.S. trade deficit widened in August.
- **The unemployment rate fell to 5.1% in Q3 from 5.3% in Q2 2014; U-6, a broader measure of unemployment, fell to 10.0% during the third quarter.**
- **The Case-Shiller Home Price Index (as of 9/30) increased slightly to 175.1 from second quarter levels (170.0) and is at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally adjusted CPI decreased to -0.02% from +0.2% at the end of June; Capacity Utilization decreased slightly to 77.5% in September.**
- **Fed Funds rate remains at 0.25%, while the 10-year Treasury Yield finished Q3 at 2.2% down 20 basis points from Q2.**
- **The Fed balance sheet remained flat in Q3 2015, while the European Central Bank balance sheet increased in the same period.**
 - ECB continues asset purchases of €60 billion per month.
- **S&P valuations decreased in September remaining above the 10-year and long-term averages**
 - Cyclically adjusted Shiller PE ratio (24.6x) is above the long-term average of 16.4x and above the 10-year average of 22.9x.
- **The U.S. Dollar continues its strength against a basket of major currencies as the Fed ends its quantitative easing program and the ECB continues easing.**
 - Currency volatility has seen a sustained uptick since Q1.

San Bernardino County Employees' Retirement Association

Market Environment – Q3 2015 Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI	World	-9.4%	-6.7%	7.0%	6.8%	4.6%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity Benchmarks						
S&P 500	Large Core	-6.4%	-0.6%	12.4%	13.3%	6.8%
Russell 1000	Large Core	-6.8%	-0.6%	12.7%	13.4%	7.0%
Russell 1000 Growth	Large Growth	-5.3%	3.2%	13.6%	14.5%	8.1%
Russell 1000 Value	Large Value	-8.4%	-4.4%	11.6%	12.3%	5.7%
Russell 2000	Small Core	-11.9%	1.2%	11.0%	11.7%	6.5%
Russell 2000 Growth	Small Growth	-13.1%	4.0%	12.8%	13.3%	7.7%
Russell 2000 Value	Small Value	-10.7%	-1.6%	9.2%	10.2%	5.3%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	-12.2%	-12.2%	2.3%	1.8%	3.0%
MSCI EAFE	Int'l Developed	-10.2%	-8.7%	5.6%	4.0%	3.0%
S&P EPAC Small Cap	Small Cap Int'l	-6.9%	1.0%	10.7%	7.8%	5.8%
MSCI EM	Emerging Equity	-17.9%	-19.3%	-5.3%	-3.6%	4.3%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	1.2%	2.9%	1.7%	3.1%	4.6%
Barclays US High Yield	High Yield	-4.9%	-3.4%	3.5%	6.1%	7.3%
BofA ML US HY BB/B	High Yield	-4.3%	-2.1%	3.7%	6.0%	6.7%
CSFB Levered Loans	Bank Loans	-1.2%	1.2%	3.8%	4.8%	4.4%
BofA ML US 3-Month T-Bill	Cash	0.0%	0.0%	0.1%	0.1%	1.3%
Barclays US TIPS 1-10 Yr	Inflation	-0.9%	-0.8%	-1.4%	1.8%	3.6%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Global Fixed Income Benchmarks						
Citigroup WGBI	World Gov. Bonds	1.7%	-3.8%	-2.9%	-0.2%	3.4%
BC Global Credit	Global Bonds	-0.2%	-2.9%	0.6%	2.6%	4.3%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local)	-10.5%	-19.8%	-8.7%	-3.6%	4.5%
JPM EMBI+	Em. Mkt. Bonds	-0.9%	-0.9%	0.2%	4.2%	6.7%
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Alternative Benchmarks						
Bloomberg Commodity Index	Commodity	-14.5%	-26.0%	-16.0%	-8.9%	-5.7%
Credit Suisse Hedge Fund Index	Hedge Fund	-2.5%	0.1%	5.0%	4.5%	5.2%
HFRI FoF Conservative	Fund of Funds	-1.8%	0.6%	4.2%	2.8%	2.1%
Cambridge PE Lagged*	Private Equity	4.2%	9.3%	16.0%	15.7%	13.2%
NCREIF ODCE Net Lagged*	Real Estate	3.6%	13.4%	12.1%	13.3%	5.9%
Wilshire REIT Index	REIT	2.2%	10.9%	9.8%	12.4%	6.7%
CPI + 2%	Inflation/Real Assets	0.4%	2.0%	2.9%	3.7%	3.8%



* As of 6/30/2015

Positives

- **Divergence in monetary policies signaling different investment environments globally**
- **US Economy shows strength relative to other developed markets**
 - Low oil prices beginning to benefit consumers
- **Global monetary stimulus flowing through to markets**
 - ECB €1.3 trillion in asset purchases in the Eurozone
 - Economic conditions in Europe and Japan responding to QE
 - China policy response remains stimulative with more tools available to deploy
- **Developed world inflation is low**
 - In US, CPI for all Urban Consumers on a seasonally adjusted basis was negative in Q3

Negatives

- **Volatility increased across global markets**
 - Financial and geo-political instability in the Mid-East, Eastern Europe, Greece
- **Slowing economic growth in China may have broad implications for many emerging economies**
 - China growth concerns sparked a rapid decline in commodities and emerging markets
- **Fed rate hike uncertainty contributed to volatility in domestic markets**
 - Fed signaled tightening to begin by year-end; market expecting a slow pace to rate increases
- **Valuations remain above 10 year and long term averages**
 - Developed Equity P/Es above median

Market Environment

Global Equity

- **U.S. equities posted sharp losses in the third quarter as global volatility ramped up.**
- **Small cap stocks underperformed large cap stocks during the quarter, with the Russell 2000 Index returning -11.9% and the Russell 1000 Index returning -6.8%.**
- **International equities underperformed U.S. markets during the quarter, returning -12.2%, as measured by the MSCI ACWI ex-U.S. Index.**
 - Developed markets returned -10.2% as measured by the MSCI EAFE Index. The Pacific Region led returns down posting a -13.1% with Singapore leading the group down -19.5%. Europe posted a loss of -8.7%.
 - Emerging markets returned -17.9% as measured by the MSCI Emerging Markets Index in U.S. dollar terms. Indonesia and China led to the downside returning -24.2% and -22.7% respectively.

Private Equity

- **New private equity commitments totaled \$74.6 billion in Q3 2015.**
 - Represents a 25% decline from the \$101.5 billion raised in Q2 2015, resulting from public equity market volatility and increased economic uncertainties
- **Buyout and growth equity funds raised \$45.3 billion in Q3 2015.**
 - Annual pace is in line with the \$180-190 billion that was raised in each of the past two years
- **Venture capital raised \$10.0 billion ended Q3 2015.**
 - VC fundraising as a percent of total new PE funds is in line with historical post-dot com levels
- **Energy funds raised \$7.8 billion representing 10% of capital raised in Q3 2015.**
 - Investors are opportunistically approaching the energy market dislocation.
- **Asian private equity commitments slowed to total 7% of total funds raised down from 11% in 2014.**
- **European commitments comprised 23% of all new PE commitments in Q3 2015.**
 - Fifteen pan-European buyout managers with closes on over \$1 billion each raised over half of 2015 total

Market Environment

Fixed Income

- **The yield curve flattened significantly with long duration yields dropping 20-30 basis points.**
- **The spread between two and 10-year rates decreased to 142 basis points from 176 basis points ended June. Treasury Inflation-Protected Securities, or TIPS, returned -0.9% during the quarter, as measured by the Barclays US TIPS Index.**
- **The Barclays Long Duration Credit Index gained +0.5% as the long end of the curve ended the quarter 24 basis points lower.**
- **Long Treasuries gained +5.1% and investment-grade corporate debt gained +3.8%.**
- **The Barclays 1-3 year Government/ Credit Index returned 0.3% and US high yield bonds lost -4.9%.**
- **Emerging markets debt continued to slow in local and external currency.**
 - US dollar-denominated debt, as measured by the JP Morgan EMBI Index, fell 90 basis points; local currency debt fell 10.5%, according to the JP Morgan GBI-EM Index.

Real Assets/Inflation-Linked Assets

- **Massive energy market dislocation.**
 - Oil prices trending lower.
 - Private equity and private debt opportunities attractive.
 - Potential for public stressed/distressed credit, equity and commodity plays.

- **OPEC and Saudi Arabia have indicated a willingness to allow lower oil prices to persist in efforts to cement market share and reduce marginal supply.**

- **Select infrastructure opportunities are attractive.**
 - Target opportunistic strategies in niche sub-sectors to take advantage of market dislocations.

- **NEPC continues to believe in the long-term demand drivers in agriculture.**
 - Long-term commodity prices driven by growing emerging market demand.
 - Softness in commodity prices may provide attractive entry point.

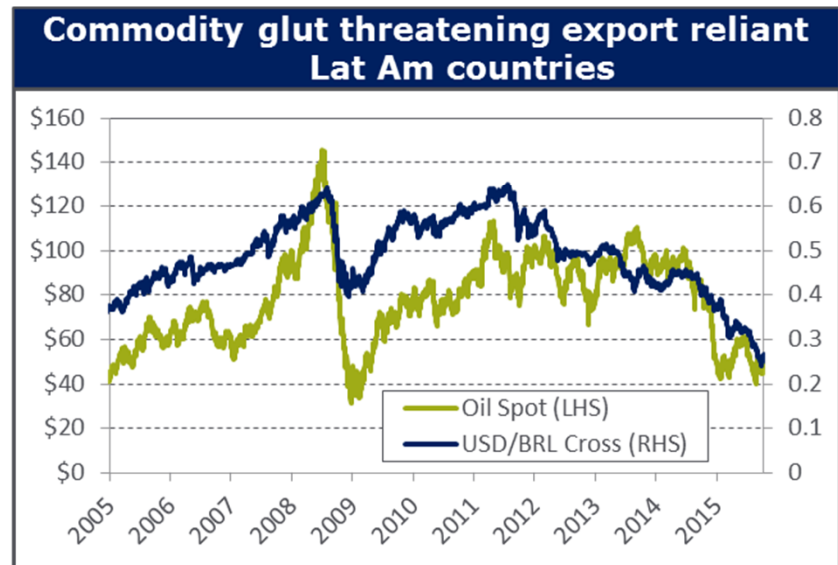
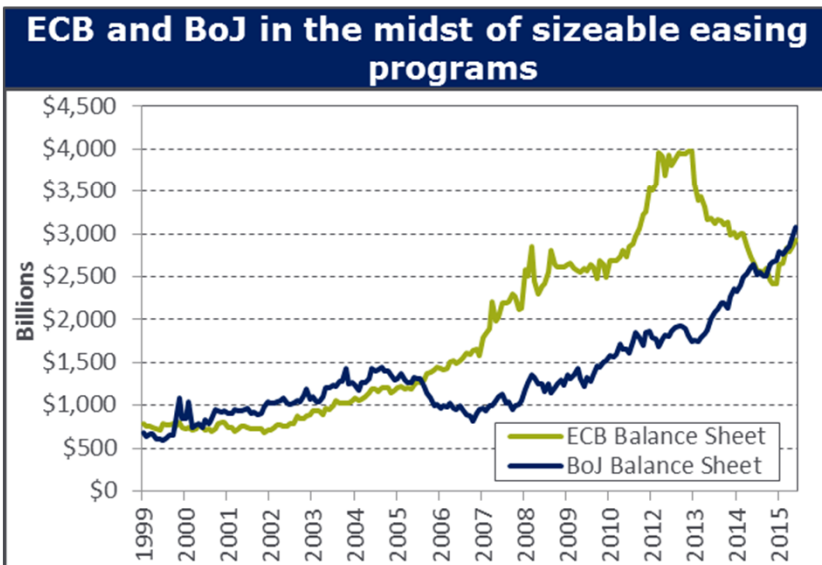
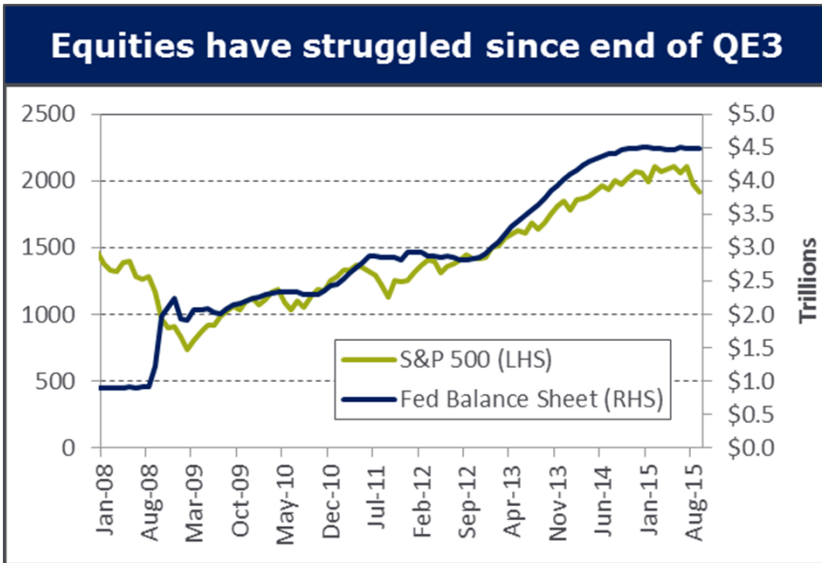
- **Timber opportunity set limited but warrants further review**
 - 45% increase in housing starts forecasted; timber prices highly correlated

Commodities

- **Commodities retracted significantly with the Bloomberg Commodity Index posting a -14.5%.**
 - Energy led the way losing -24% (WTI Oil), while industrial metals, precious metals and agriculture declined.

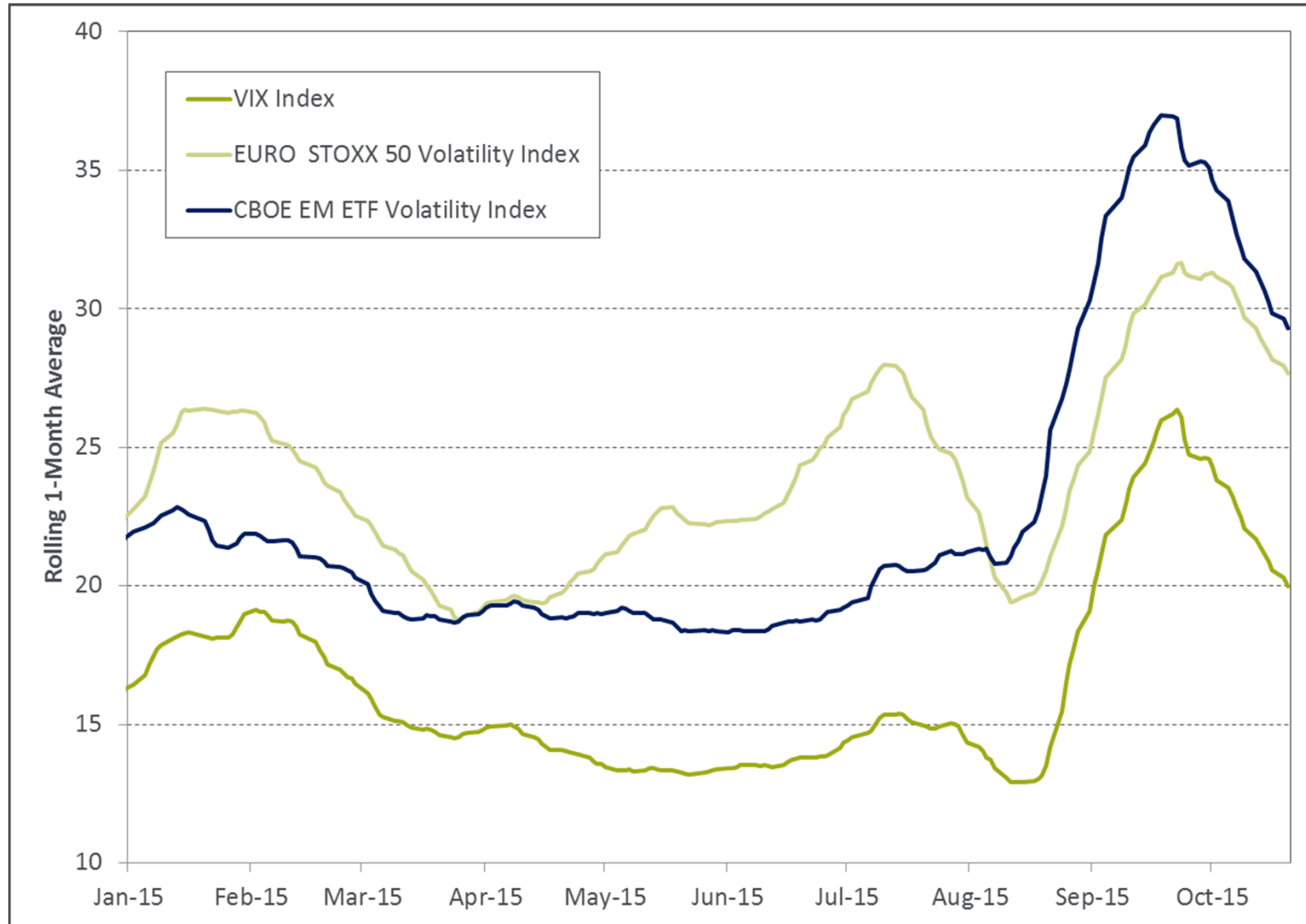
Real Estate

- **NEPC continues to be neutral on core real estate in the US and remains positive on non-core real estate, that is, value-add and opportunistic strategies.**
- **Within U.S. core real estate, strong fundamentals continue to be the story along with attractive income spreads relative to interest rates.**
 - Real estate fundamentals and debt terms are attractive, however valuations are high and the possibility of rising interest rates and the impact on cap rates causes concern.
- **U.S. REITs posted modest gains with a +2.2% return.**
 - FFO multiples are high, at approximately 15x but are decreasing.
 - REITs are trading at a discount to NAV.
- **Overall, the non-core real estate investment environment in the U.S. is normalizing; however, select areas remain attractive.**
- **Europe is viewed as the best place for a marginal dollar of non-core real estate investment.**
 - Europe is emerging from multi-year recession, but recovery is slow and uneven with global markets experiencing large capital inflows.
 - Banks in EU are still overleveraged and have significant real estate exposure to jettison.



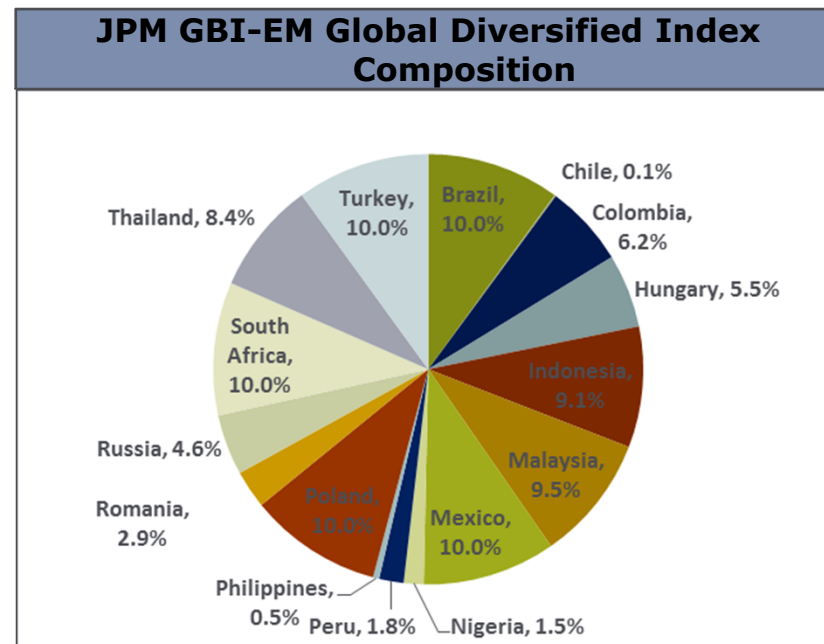
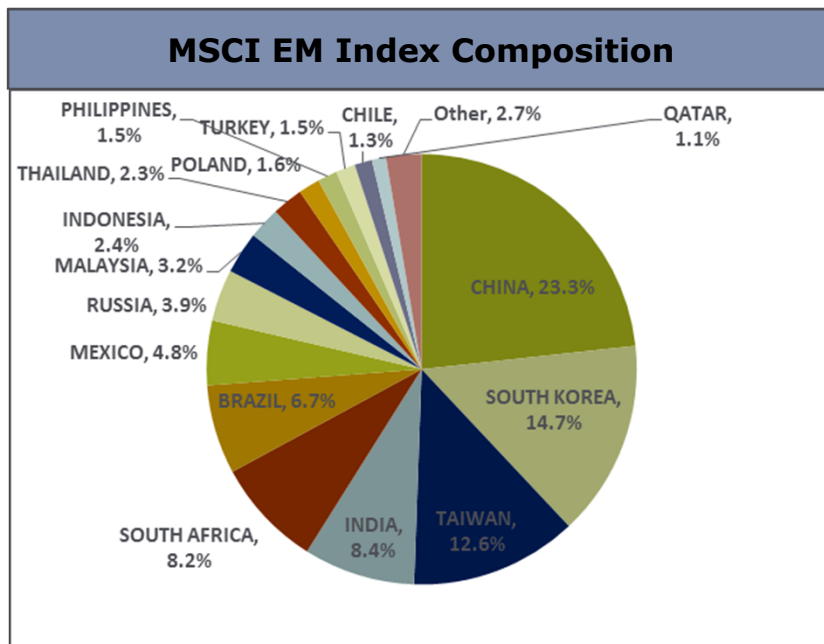
Sources: Standard & Poors, The Federal Reserve, ECB, BoJ, Bloomberg Energy, Bloomberg

Increase in Global Volatility Finally Caught Up with Equities



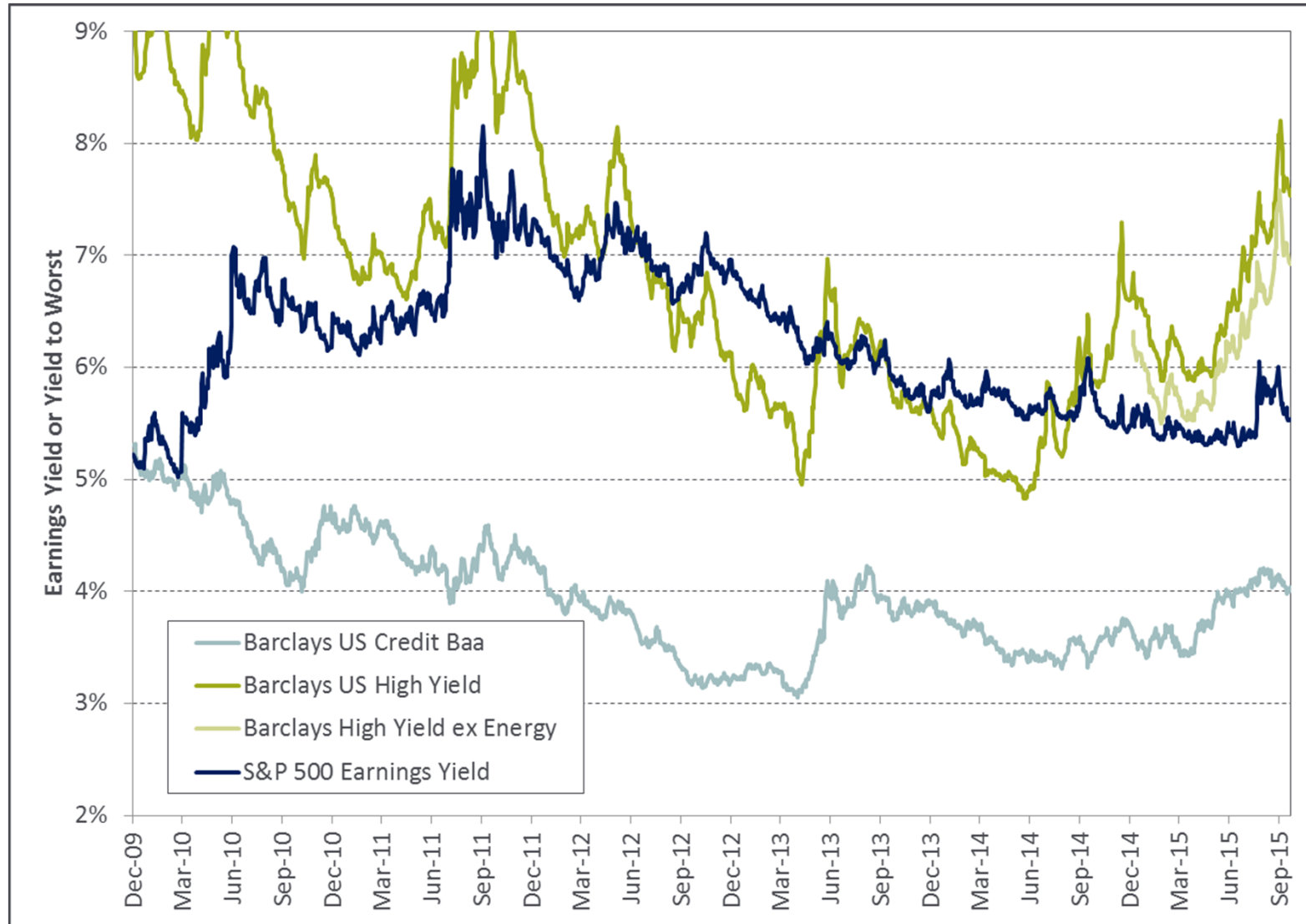
Source: Deutsche Borse, Goldman Sachs, CBOE, Bloomberg

Currency Risks are Not Only Unique by Country but also Vary Across Indices



- **MSCI EM Index dominated by Asia**
 - Lots of countries with sensitivity to Chinese growth and competitiveness
 - Despite possibility for further depreciation, most currencies appear cheap or reasonably valued

- **Debt indices more concentrated in Latin/South America with exposure to balance of payments challenged countries**
 - Currencies of major commodity exporters are sensitive to oil and other commodity price weakness – but also stand to benefit from a rebound
 - Structural issues in Turkey and Brazil pose significant challenges but with less contagion risk



Source: Barclays, Standard & Poors, Bloomberg

- **Risk-return profile of US high yield is attractive relative to US equities**
 - High yield credit spreads now exceed long-term averages with yields near 2012 levels
 - Make use of dynamic credit strategies as disruptions in credit markets move rapidly
 - Dollar strength is a headwind for equity earnings growth and profit margin expansion
- **Recommend an overweight exposure to developed market equities**
 - Suggest investors opportunistically exploit potential volatility to add to the overweight
 - Long-term opportunity remains as earnings improve off cyclical lows in Europe/Japan
 - Offers a more favorable return outlook with superior valuations relative to US equities
- **Recommend at minimum a market weight exposure to EM equities**
 - Reasonable equity valuations, depressed currencies, and the attractiveness of long-term fundamentals represent a solid investment foundation
 - Volatility likely to continue as falling commodity prices, trade linkages to China, and external debt levels pose idiosyncratic country risks
 - Encourage the use of benchmark agnostic strategies with a bias towards small-cap and consumer focused strategies
- **Inflation expectations at historical lows but value opportunities can be found in inflation-sensitive assets**
 - Encourage patience as volatility and opportunities evolve in commodity markets
 - Private strategies are evolving but provide compelling return opportunities

NEPC Updates

September 30, 2015

Highlights of Third Quarter Happenings at NEPC

NEPC Recognitions



- Two of NEPC's Partners were named on the *Chief Investment Officer* magazine's (CIO) annual ranking of the world's most influential investment consultants. NEPC's Chief Investment Officer, **Tim McCusker**, was named **the most influential general consultant on the 2015** list of Knowledge Brokers. **KC Connors**, Head of NEPC's Philanthropic Practice Team, **ranked 10th on the 2015 Knowledge Brokers – Specialist list**. The lists are CIO's annual rankings of the most influential investment consultants worldwide¹.



NEPC Client Recognitions

- Two of our clients were recognized for their work in the healthcare industry by *Institutional Investor* on October 7th. Mary O'Reilly, Director, Treasury and Investments at Rochester Health, received the II Investor Intelligence Award for Asset Allocation, and Joshua Rabuck, Executive Director, Investments at Indiana University Health, was accorded the II Investor Intelligence Award for Risk Management.

NEPC Research

Recent White Papers

- Best Practices: Managing Risk in Corporate VEBA and SERP Plans* (October 2015) - Mike Valchine, CAIA, CIPM, Senior Consultant
- NEPC's 2015 Defined Contribution Plan & Fee Survey: What a Difference a Decade Makes* (October 2015) - Ross Bremen, CFA, Partner
- Market Chatter – Has the China Bubble Burst?* (July 2015)
- Market Chatter – China's Devaluation of the Yuan* (August 2015)
- 2015 Third Quarter Market Thoughts*

Upcoming/Recent Events

- Healthcare Defined Contribution Fee Survey Results** - Tuesday, November 3, 2015, 3:00 to 4:00 p.m. (EST)
- NEPC's 2015 Defined Benefit Plan Trends Webinar** - Wednesday, October 21, 2015, 2:00 - 3:00 p.m. (EST)
- NEPC, Newton Capital Management, and the Centre for Endowment Asset Management are hosting a special event that delves into the influence of British economist John Maynard Keynes on the U.S. Endowment Model on October 15, 2015 in Boston, MA.

¹CIO Magazine interviews pension and non-profit CIOs, asset managers and former consultants, to approximate what it calls "the hierarchy of today's institutional consultant industry." The results should not be considered a recommendation of any specific firm or individual consultant. For more information, please visit CIO Magazine's web site at <http://www.ai-cio.com/2015-knowledge-brokers/>. Past performance is no guarantee of future results



Total Fund Performance

San Bernardino County Employees' Retirement Association

Total Fund Performance Summary (Gross)

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
Total Fund	\$8,112,094,828	-3.1%	1	0.8%	1	0.8%	18	8.2%	15	8.5%	25	5.3%	71
<i>Policy Index</i>		-3.5%	1	-2.5%	31	-1.6%	59	4.7%	97	6.4%	93	5.4%	66
<i>S&P 500</i>		-6.4%	74	-5.3%	98	-0.6%	40	12.4%	1	13.3%	1	6.8%	1
<i>Barclays Aggregate</i>		1.2%	1	1.1%	1	2.9%	1	1.7%	99	3.1%	99	4.6%	97
<i>60% MSCI ACWI (Gross)/40% CITI WGBI</i>		-4.4%	12	-4.2%	93	-4.1%	98	4.3%	98	5.4%	98	4.9%	89
<i>InvestorForce Public DB > \$1B Gross Median</i>		-5.6%		-2.9%		-1.1%		7.5%		7.7%		5.8%	

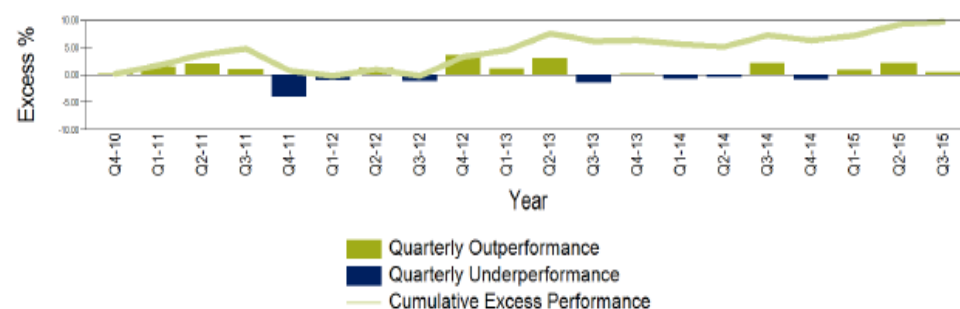
In the year ending September 30, 2015 the Fund returned 0.8% ranking in the 18th percentile of Public Funds > \$1Billion. The Fund's assets totaled \$8.1 billion, an increase of \$55.7 million from a year ago.

The Fund experienced a net investment gain of \$46.3 million in the year ended September 30, 2015 including a net investment loss of \$264.8 million in the third calendar quarter.

In the three -year period ending September 30, 2015 the Fund returned 8.2% and ranked in the 15th percentile among its peers and exceeded the assumed rate of 7.5%. The Sharpe Ratio over this period of 2.6 ranks in the 1st percentile, indicating that the Fund earned a much higher rate of return for each incremental unit of risk taken during the period versus its peers.

In the five-year period ending September 30, 2015 the Fund returned 8.5% per annum and ranked in the 25th percentile among its peers and exceeded the assumed rate of 7.5%. On a risk adjusted basis the Fund's Sharpe and Sortino Ratios rank in the 1st percentile indicating both strong returns per unit of risk taken and strong returns per unit of downside risk experienced when compared to a universe of public fund peers >\$1B.

Quarterly and Cumulative Gross Performance vs. Policy



Statistics Summary

3 Years Ending September 30, 2015

	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	2.6	1	5.5	1
InvestorForce Public DB > \$1B Gross Median	1.1	--	1.9	--

5 Years Ending September 30, 2015

	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	1.9	1	2.4	1
InvestorForce Public DB > \$1B Gross Median	1.0	--	1.4	--

Note: Universe data is preliminary and includes 28 plans with \$200 billion in assets.

Total Fund Performance Summary

Statistics Summary

1 Year Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	0.8%	18	3.4%	1	0.2	12	0.5	1
InvestorForce Public DB > \$1B Gross Median	-1.1%	--	6.3%	--	-0.2	--	-0.2	--

Statistics Summary

3 Years Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	8.2%	15	3.2%	1	2.6	1	5.5	1
InvestorForce Public DB > \$1B Gross Median	7.5%	--	6.4%	--	1.1	--	1.9	--

Statistics Summary

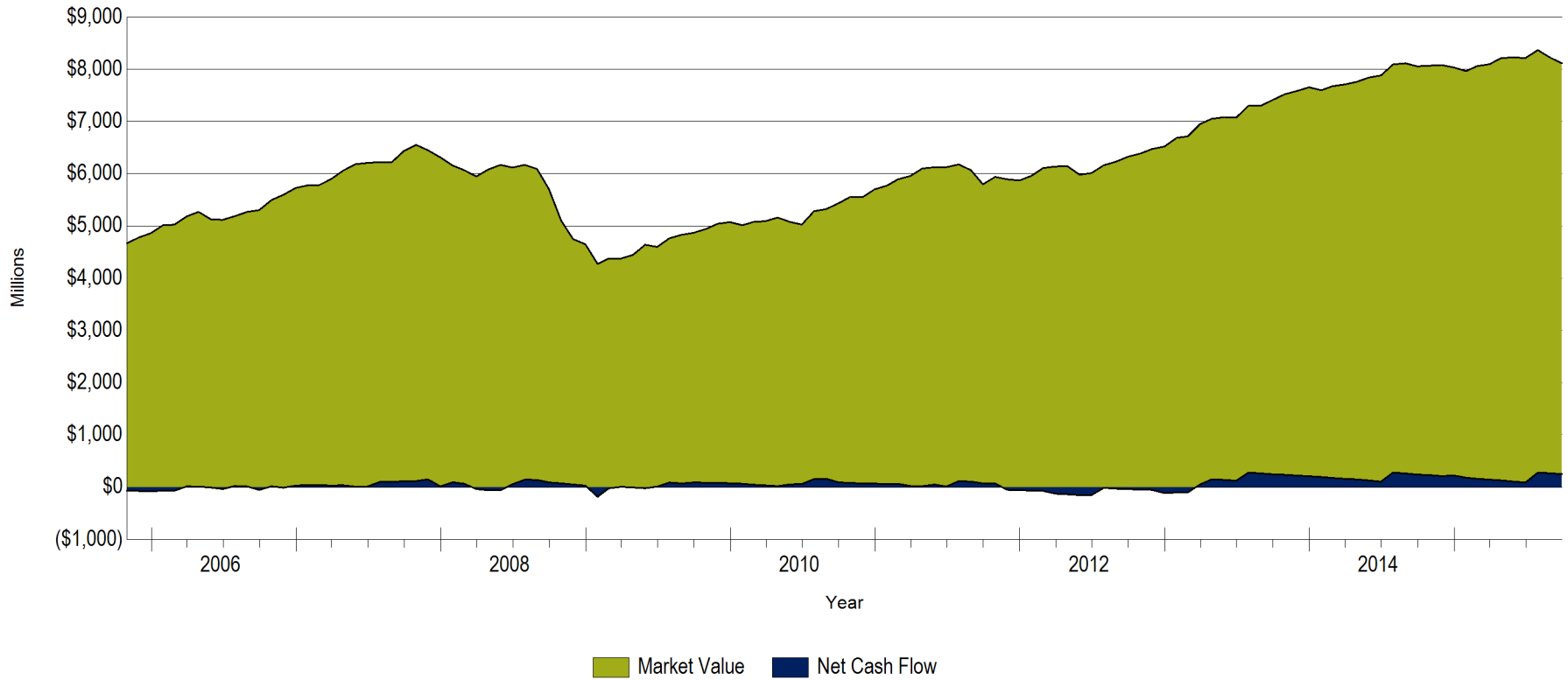
5 Years Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	8.5%	25	4.5%	1	1.9	1	2.4	1
InvestorForce Public DB > \$1B Gross Median	7.7%	--	7.5%	--	1.0	--	1.4	--

Sortino Ratio requires at least two negative points during the time period in order to calculate

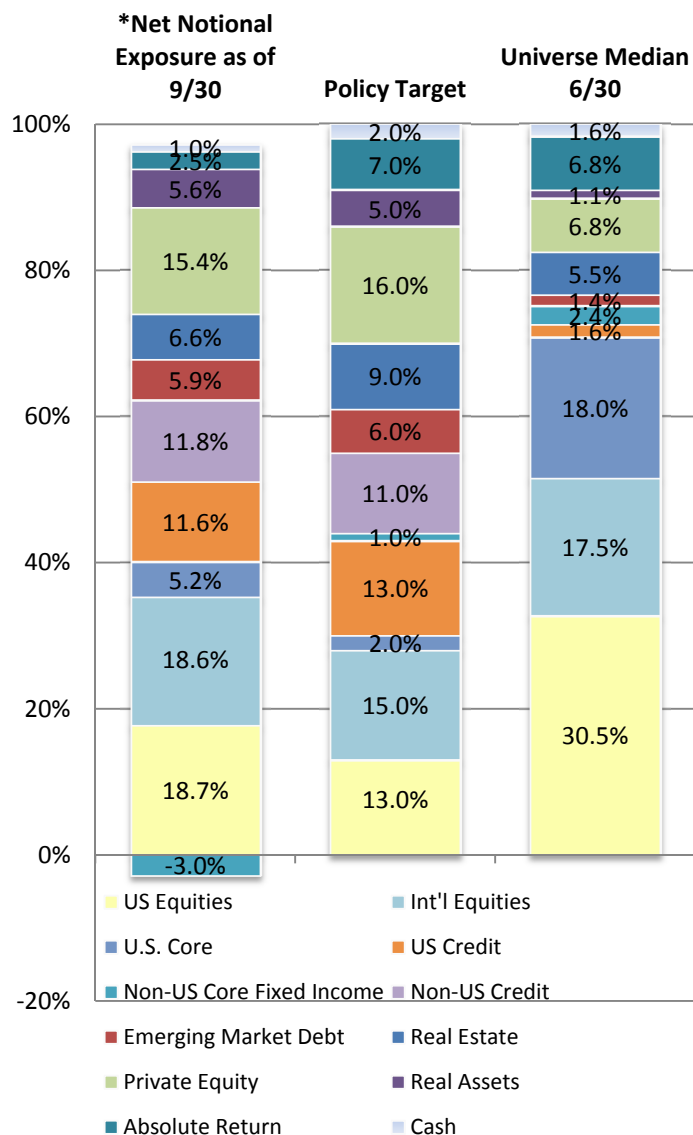
Total Fund Asset Growth Summary

10 Years Ending September 30, 2015



Sources of Portfolio Growth	Last Three Months	One Year	Five Years	Ten Years
Beginning Market Value	\$8,215,718,262	\$8,056,406,974	\$5,431,562,245	\$4,814,679,438
Net Additions/Withdrawals	\$161,250,479	\$9,425,428	\$156,898,626	\$249,344,125
Investment Earnings	-\$264,873,913	\$46,262,426	\$2,523,633,956	\$3,048,071,265
Ending Market Value	\$8,112,094,828	\$8,112,094,828	\$8,112,094,828	\$8,112,094,828

Total Fund Asset Allocation vs. Policy Targets



	*Net Notional Exposure	*Net Notional Exposure as of 9/30	Policy Target	*Difference	Policy Ranges	Within Range
US Equities	1,520,071	18.7%	13.0%	5.7%	8%-18%	No
Int'l Equities	1,508,704	18.6%	15.0%	3.6%	10%-20%	Yes
U.S. Core Fixed Income	420,036	5.2%	2.0%	3.2%	-3%-7%	Yes
US Credit	938,521	11.6%	13.0%	-1.4%	8%-18%	Yes
Non-US Core Fixed Income	(241,187)	-3.0%	1.0%	-4.0%	-4%-6%	Yes
Non-US Credit	959,063	11.8%	11.0%	0.8%	6%-16%	Yes
Emerging Market Debt	481,120	5.9%	6.0%	-0.1%	1%-11%	Yes
Real Estate	533,866	6.6%	9.0%	-2.4%	4%-14%	Yes
Private Equity	1,252,560	15.4%	16.0%	-0.6%	11%-21%	Yes
Real Assets	450,954	5.6%	5.0%	0.6%	0%-10%	Yes
Absolute Return	205,344	2.5%	7.0%	-4.5%	2%-12%	Yes
Cash	83,042	1.0%	2.0%	-1.0%	0%-10%	Yes
	8,112,095	100.0%	100.0%			

*Net Notional Exposure is the combination of physical exposures as reported by State Street and the synthetic exposures reported by Russell. Universe Median is a quarter lag due to data availability

San Bernardino County Employees' Retirement Association

SBCERA Delta Adjusted Asset Summary

<u>Asset Class</u>	<u>Physical Exposure</u>		<u>Delta Adjusted Synthetic Exposure</u>		<u>Net Position</u>		<u>Overlay Target</u>		<u>Policy Target</u>	
Total Market Value	8,054.7	100.0 %	0.0	0.0 %	8,054.7	100.0 %	8,054.7	100.0 %	8,054.7	100.00 %
Cash	1,535.9	19.1 %	-1,547.1	-19.2 %	-11.2	-0.1 %	0.0	0.0 %	0.0	0.00 %
Cash	1,535.9	19.1 %	-1,547.1	-19.2 %	-11.2	-0.1 %	0.0	0.0 %	0.0	0.00 %
Equity	1,337.1	16.6 %	1,721.5	21.4 %	3,058.6	38.0 %	3,039.5	37.7 %	3,060.8	38.00 %
Emerging Markets	230.3	2.9 %	359.3	4.5 %	589.6	7.3 %	639.9	7.9 %	644.4	8.00 %
Equity Delta Hedge	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
International Developed	180.1	2.2 %	778.1	9.7 %	958.2	11.9 %	959.8	11.9 %	966.6	12.00 %
US Large Cap	903.7	11.2 %	301.9	3.7 %	1,205.6	15.0 %	1,159.8	14.4 %	1,167.9	14.50 %
US Small Cap	23.1	0.3 %	282.2	3.5 %	305.3	3.8 %	279.9	3.5 %	281.9	3.50 %
Fixed	2,486.0	30.9 %	-174.4	-2.2 %	2,311.6	28.7 %	2,319.6	28.8 %	2,335.9	29.00 %
EM High Yield CDX	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
Global ex US Fixed Incom	1,552.7	19.3 %	-397.5	-4.9 %	1,155.3	14.3 %	1,159.8	14.4 %	1,167.9	14.50 %
High Yield **	933.3	11.6 %	0.0	0.0 %	933.3	11.6 %	739.9	9.2 %	745.1	9.25 %
US Fixed Income	0.0	0.0 %	223.1	2.8 %	223.1	2.8 %	419.9	5.2 %	422.9	5.25 %
Other	2,695.7	33.5 %	0.0	0.0 %	2,695.7	33.5 %	2,695.7	33.5 %	2,658.1	33.00 %
Alternatives	200.8	2.5 %	0.0	0.0 %	200.8	2.5 %	200.8	2.5 %	201.4	2.50 %
Commodities	125.2	1.6 %	0.0	0.0 %	125.2	1.6 %	125.2	1.6 %	136.1	1.69 %
Infrastructure	110.0	1.4 %	0.0	0.0 %	110.0	1.4 %	110.0	1.4 %	105.5	1.31 %
Private Equity	1,223.3	15.2 %	0.0	0.0 %	1,223.3	15.2 %	1,223.3	15.2 %	1,192.1	14.80 %
Real Estate	545.5	6.8 %	0.0	0.0 %	545.5	6.8 %	545.5	6.8 %	531.6	6.60 %
Tactical Cash	490.9	6.1 %	0.0	0.0 %	490.9	6.1 %	490.9	6.1 %	491.3	6.10 %

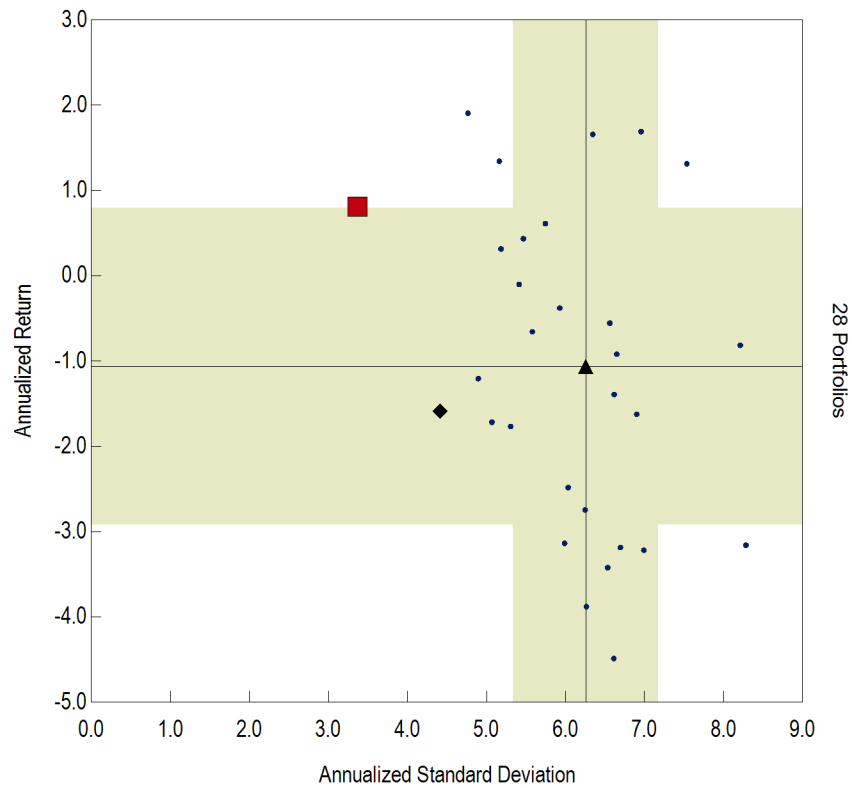
** HY CDX credit spread protection of \$775mm face is not reflected on Asset Summary

For illustrative purposes only.

Source: Russell Investments

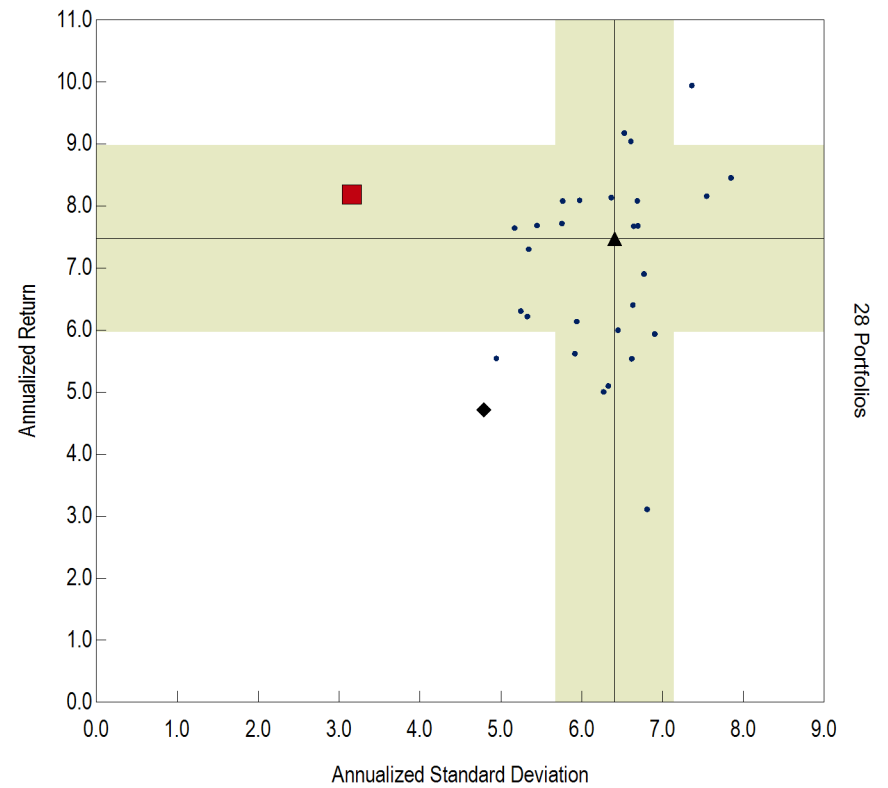
Total Fund Risk/Return

1 Year Ending September 30, 2015



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

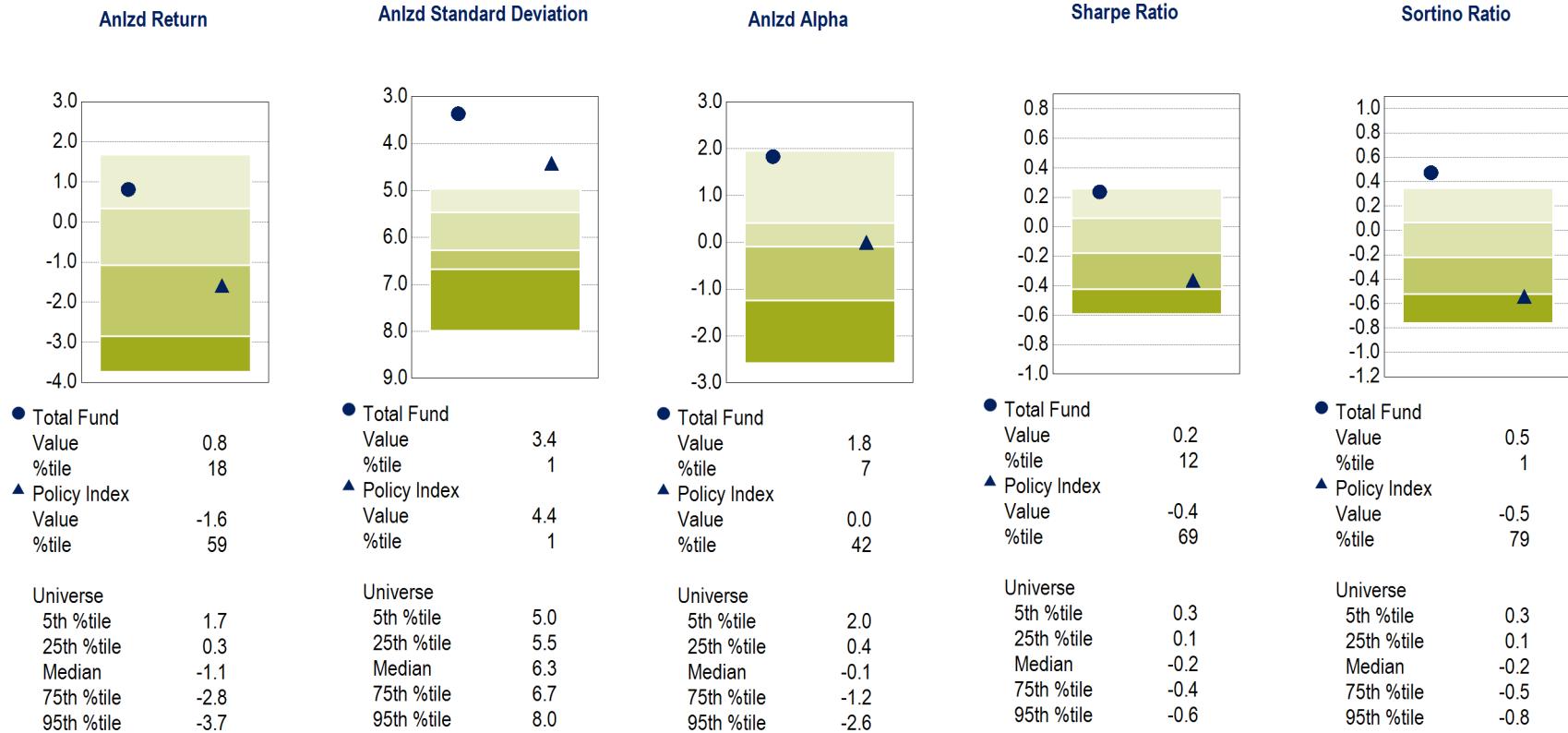
3 Years Ending September 30, 2015



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

Total Fund Risk Statistics vs. Peer Universe

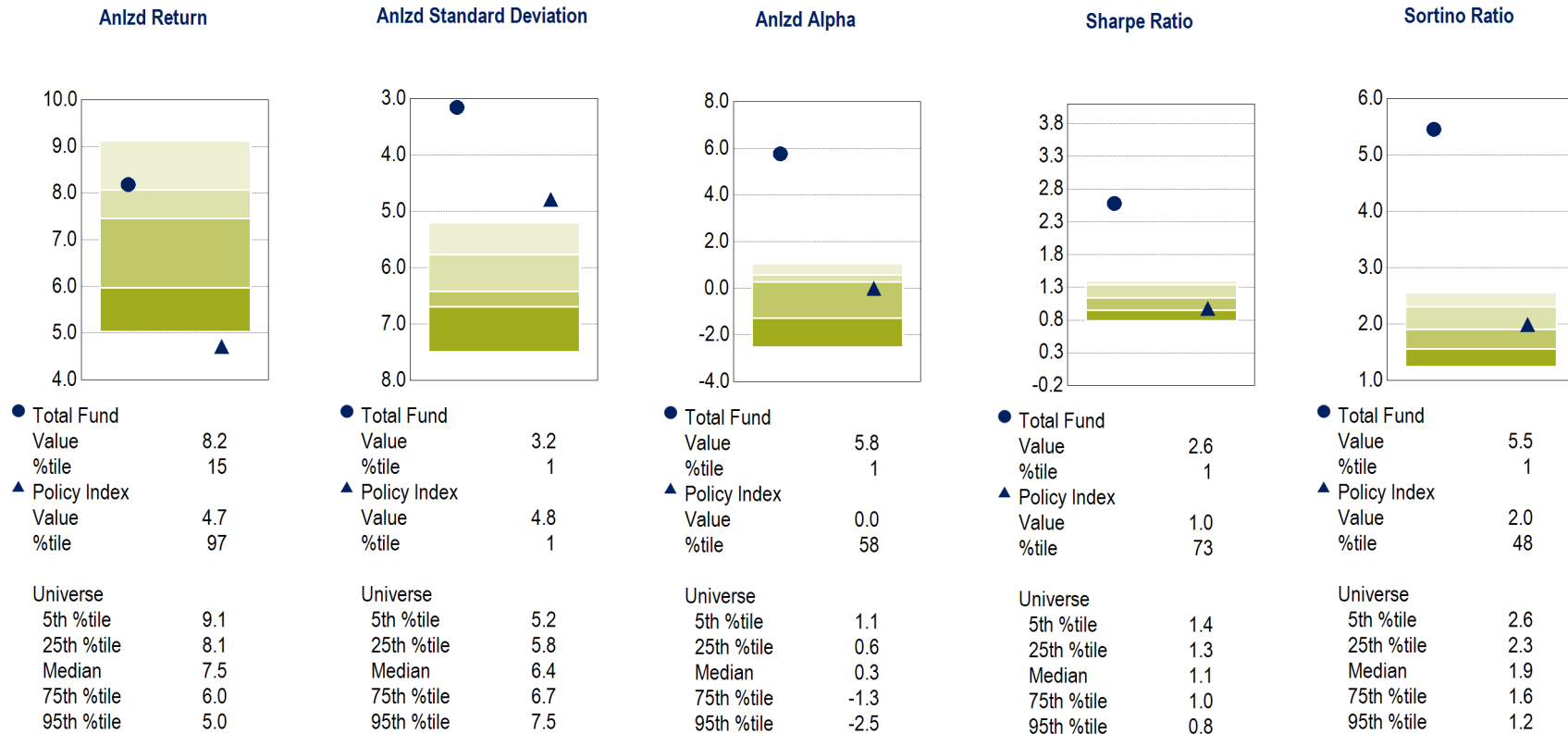
Total Fund vs. InvestorForce Public DB > \$1B Gross (USD)
1 Year



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 28 Portfolios

Total Fund Risk Statistics vs. Peer Universe

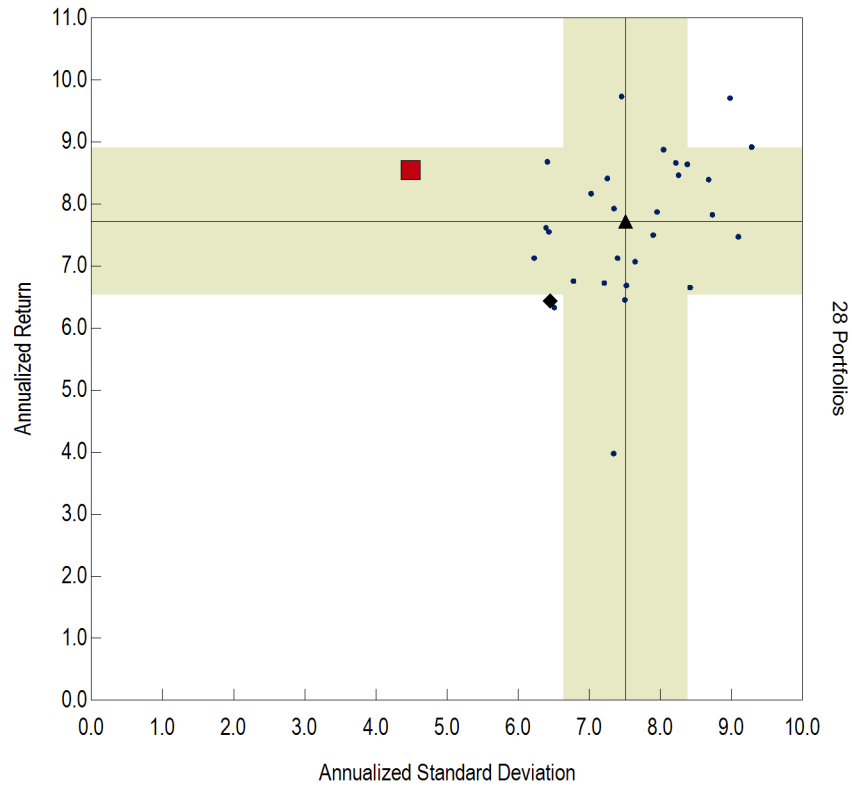
Total Fund vs. InvestorForce Public DB > \$1B Gross (USD)
3 Years



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 28 Portfolios

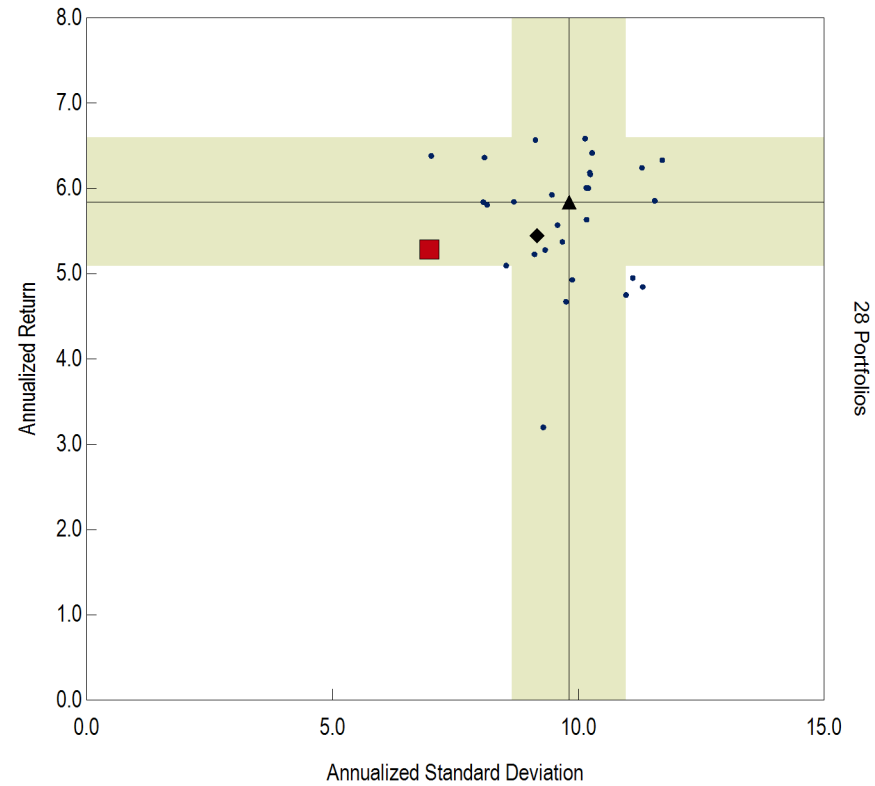
Total Fund Risk/Return

5 Years Ending September 30, 2015



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

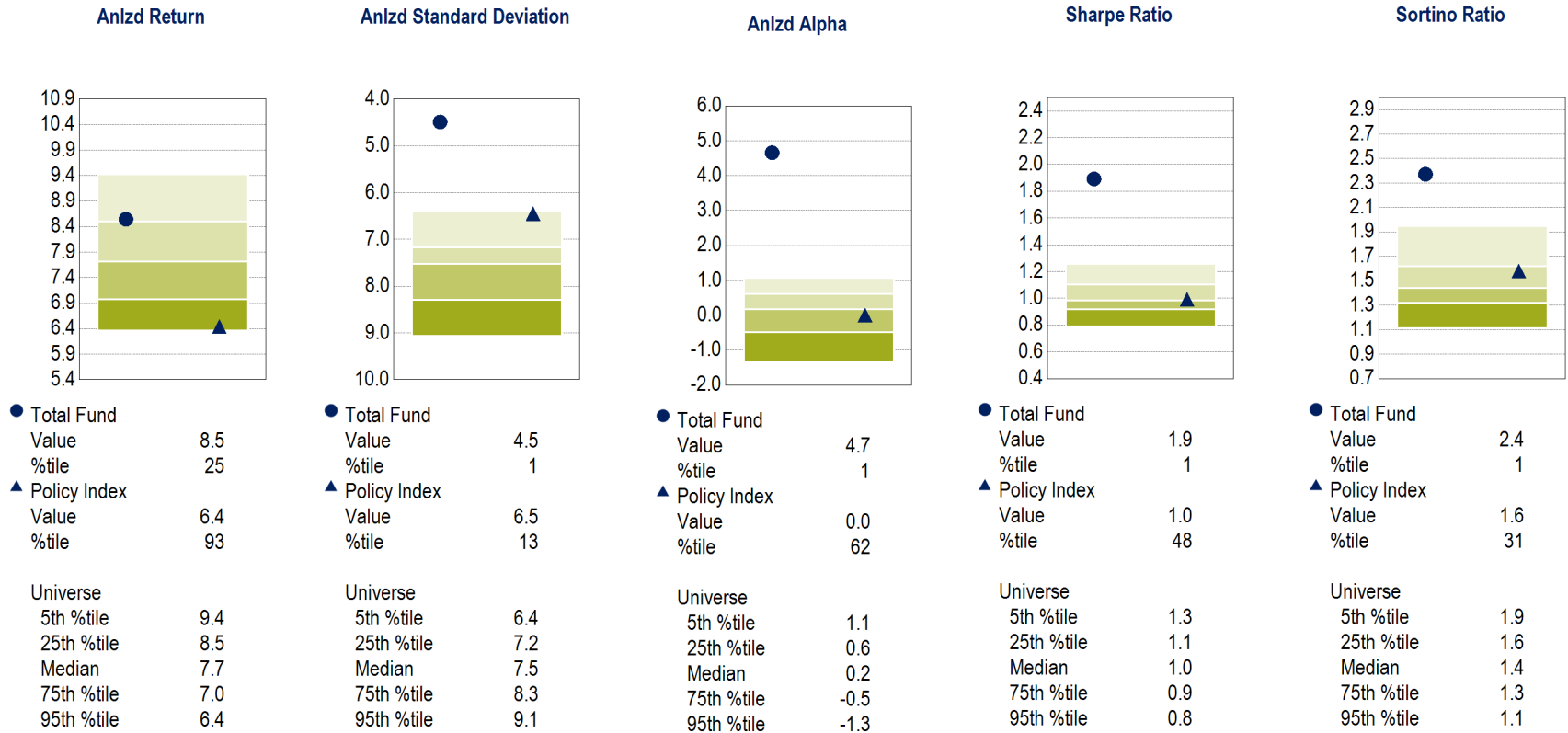
10 Years Ending September 30, 2015



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

Total Fund Risk Statistics vs. Peer Universe

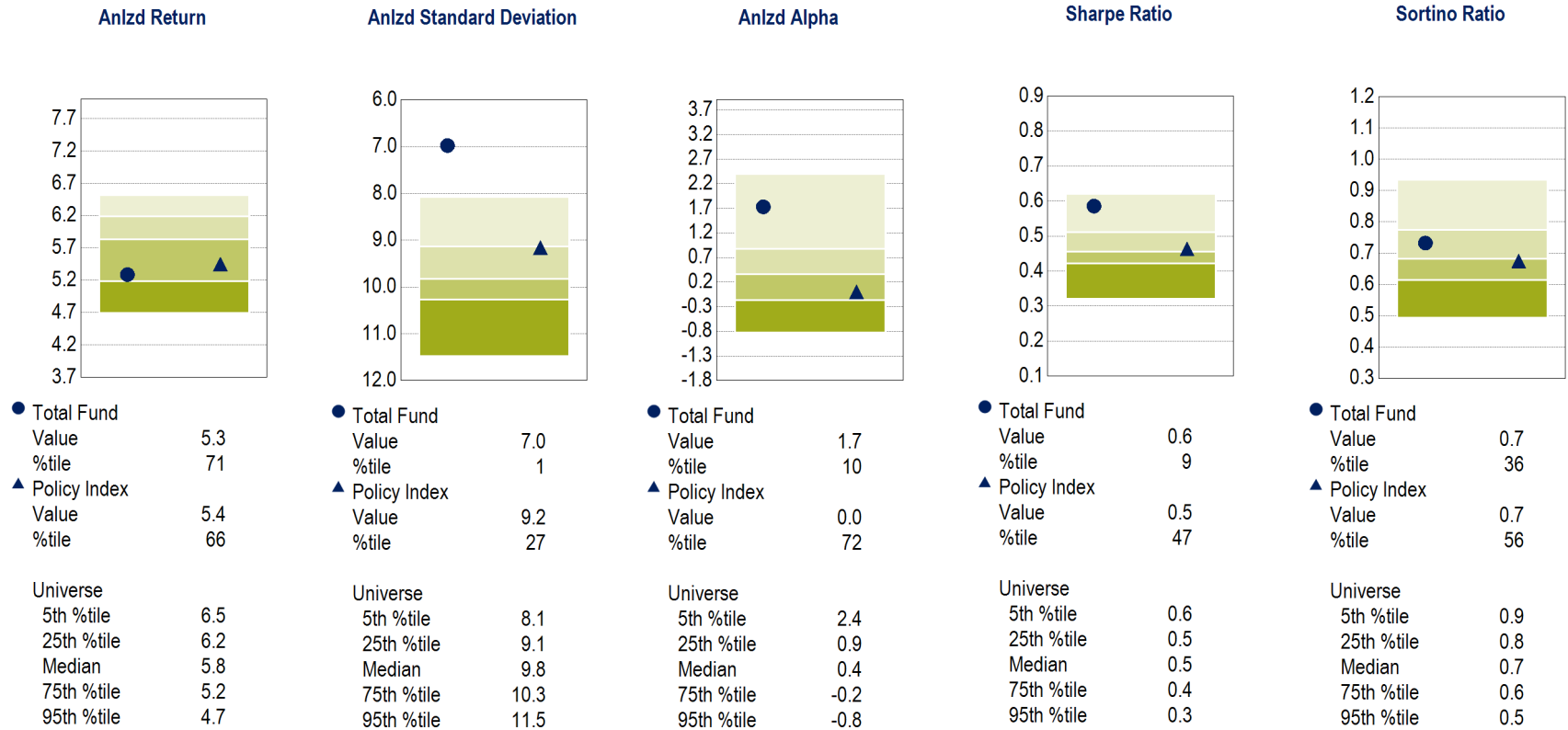
Total Fund vs. InvestorForce Public DB > \$1B Gross (USD)
5 Years



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 28 Portfolios

Total Fund Risk Statistics vs. Peer Universe

Total Fund vs. InvestorForce Public DB > \$1B Gross (USD)
10 Years



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 28 Portfolios

San Bernardino County Employees' Retirement Association

Total Fund Risk Statistics

3 Years Ending September 30, 2015

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sortino Ratio	Rank	Info Ratio	Rank
Total Fund	100.0%	8.2%	15	3.2%	1	5.5	1	1.1	8
Policy Index	--	4.7%	97	4.8%	1	2.0	48	--	--
Domestic Equity	11.4%	2.4%	99	5.1%	1	0.8	97	-0.8	93
Russell 3000	--	12.5%	56	9.9%	19	2.4	33	--	--
International Developed	1.9%	14.6%	4	19.7%	99	0.8	79	0.6	45
MSCI EAFE	--	5.6%	72	11.9%	79	0.8	74	--	--
International Emerging	2.6%	-5.2%	81	12.1%	12	-0.6	85	0.0	81
MSCI Emerging Markets	--	-5.3%	81	13.7%	62	-0.6	81	--	--
U.S. Credit Strategies	12.1%	8.1%	2	2.7%	2	8.2	1	1.3	3
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index	--	3.7%	21	3.1%	5	1.9	7	--	--
Non-U.S. Credit Composite	13.6%	8.2%	2	3.4%	6	5.6	1	0.7	2
BofA ML Euro HY Constrained	--	2.3%	44	9.9%	96	0.4	74	--	--
Non-U.S. Core Composite	1.2%	-0.6%	71	7.8%	91	-0.1	70	0.2	76
Barclays Global Aggregate	--	-1.6%	82	3.8%	32	-0.6	85	--	--
Emerging Markets Debt Composite	5.9%	-0.9%	51	5.8%	15	-0.2	50	0.6	56
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	-3.7%	65	8.0%	61	-0.7	62	--	--
Alpha Pool Composite	19.4%	5.1%	7	2.1%	5	3.2	2	1.0	2
91 Day T-Bill + 3%	--	3.0%	26	0.0%	1	--	--	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank
Private Equity Composite	15.4%	14.9%	5	4.4%	36	3.4	11
Cambridge Associates Global All PE (Qtr Lag)	--	15.0%	5	7.0%	87	2.1	35
Real Estate Composite	6.6%	10.3%	--	3.8%	--	2.7	--
NCREIF Property Index 1 Qtr Lag	--	11.6%	--	4.7%	--	2.5	--
Real Assets Composite	5.6%	4.4%	--	5.1%	--	0.8	--
Bloomberg Commodity Index	--	-16.0%	--	12.3%	--	-1.3	--

Percent of Total equals 95% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

San Bernardino County Employees' Retirement Association

Total Fund Risk Statistics

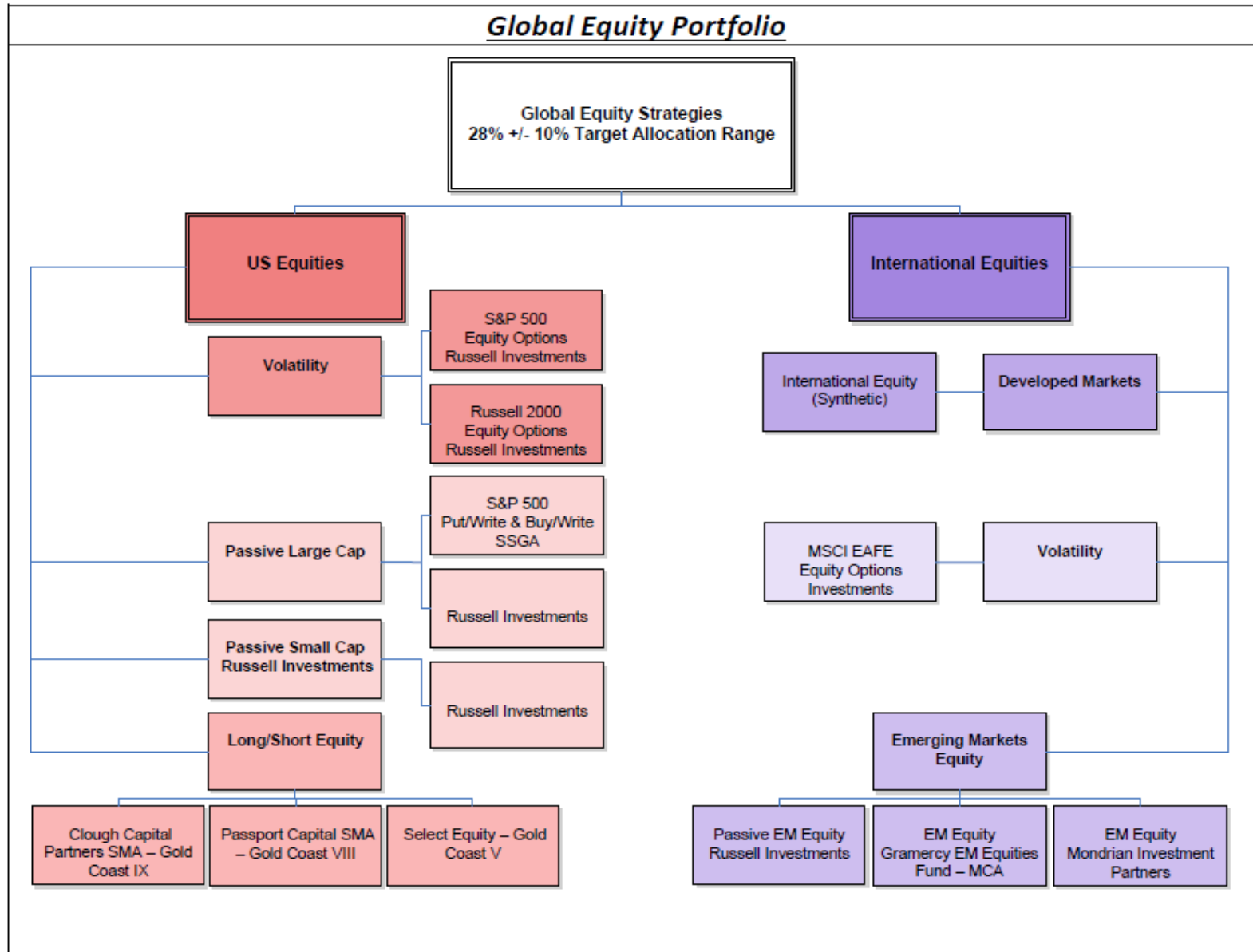
5 Years Ending September 30, 2015

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sortino Ratio	Rank	Info Ratio	Rank
Total Fund	100.0%	8.5%	25	4.5%	1	2.4	1	0.6	42
Policy Index	--	6.4%	93	6.5%	13	1.6	31	--	--
Domestic Equity	11.4%	3.9%	99	6.6%	1	0.7	98	-0.8	96
Russell 3000	--	13.3%	51	11.9%	24	1.8	29	--	--
International Developed	1.9%	8.5%	19	21.0%	99	0.5	62	0.4	62
MSCI EAFE	--	4.0%	83	15.2%	65	0.4	82	--	--
International Emerging	2.6%	-3.4%	80	16.2%	22	-0.3	87	0.0	79
MSCI Emerging Markets	--	-3.6%	83	17.8%	61	-0.3	86	--	--
U.S. Credit Strategies	12.1%	8.7%	1	4.5%	38	2.0	4	0.6	1
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index	--	5.4%	4	4.1%	18	1.8	10	--	--
Non-U.S. Credit Composite	13.6%	5.5%	3	6.7%	74	0.9	61	0.2	1
BofA ML Euro HY Constrained	--	3.2%	68	15.0%	99	0.3	89	--	--
Non-U.S. Core Composite	1.2%	0.6%	88	10.5%	92	0.1	90	0.0	86
Barclays Global Aggregate	--	0.8%	84	4.4%	28	0.2	80	--	--
Emerging Markets Debt Composite	5.9%	1.5%	61	7.9%	37	0.2	61	0.2	62
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	0.6%	63	8.9%	59	0.1	63	--	--
Alpha Pool Composite	19.4%	7.5%	2	2.8%	8	3.8	2	1.6	1
91 Day T-Bill + 3%	--	3.0%	50	0.0%	1	--	--	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank
Private Equity Composite	15.4%	13.7%	23	5.4%	22	2.5	8
Cambridge Associates Global All PE (Qtr Lag)	--	14.8%	1	8.4%	93	1.8	59
Real Estate Composite	6.6%	12.6%	--	5.5%	--	2.3	--
NCREIF Property Index 1 Qtr Lag	--	12.7%	--	5.1%	--	2.5	--
Real Assets Composite	5.6%	4.6%	--	4.4%	--	1.0	--
Bloomberg Commodity Index	--	-8.9%	--	15.4%	--	-0.6	--

Percent of Total equals 95% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

Global Equity Portfolio



San Bernardino County Employees' Retirement Association

Global Equity Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Equity	1,297,715,967	16.0	-6.3	24	-5.3	59	-7.5	78	3.1	92	3.3	90	--	--
MSCI ACWI			-9.4	64	-7.0	75	-6.7	76	7.0	77	6.8	78	4.6	82
Excess Return			3.1		1.7		-0.8		-3.9		-3.5			
eA All Global Equity Gross Median			-8.5		-4.6		-3.2		9.0		9.0		6.3	
Domestic Equity	926,923,198	11.4	1.7	2	1.5	5	-1.0	64	2.4	99	3.9	99	0.6	99
Russell 3000			-7.2	37	-5.4	55	-0.5	59	12.5	56	13.3	51	6.9	73
Excess Return			8.9		6.9		-0.5		-10.1		-9.4		-6.3	
eA All US Equity Gross Median			-8.2		-5.2		0.5		12.9		13.3		7.7	
Large Cap Equity	655,638,790	8.1	1.9	2	2.4	3	0.2	52	1.9	99	4.8	99	1.2	99
S&P 500			-6.4	27	-5.3	52	-0.6	60	12.4	58	13.3	49	6.8	77
Excess Return			8.3		7.7		0.8		-10.5		-8.5		-5.6	
eA All US Equity Gross Median			-8.2		-5.2		0.5		12.9		13.3		7.7	
SsgA S&P500	565,526,955	7.0	-2.7	4	1.8	4	1.1	46	6.8	96	7.6	98	3.2	99
S&P 500			-6.4	27	-5.3	52	-0.6	60	12.4	58	13.3	49	6.8	77
Excess Return			3.7		7.1		1.7		-5.6		-5.7		-3.6	
eA All US Equity Gross Median			-8.2		-5.2		0.5		12.9		13.3		7.7	
Russell US Large Cap Volatility	90,111,836	1.1	44.0	1	-28.7	99	-40.5	99	-41.8	99	-22.7	99	--	--
S&P 500			-6.4	27	-5.3	52	-0.6	60	12.4	58	13.3	49	6.8	77
Excess Return			50.4		-23.4		-39.9		-54.2		-36.0			
eA All US Equity Gross Median			-8.2		-5.2		0.5		12.9		13.3		7.7	

San Bernardino County Employees' Retirement Association

Global Equity Strategies Performance Detail - Gross

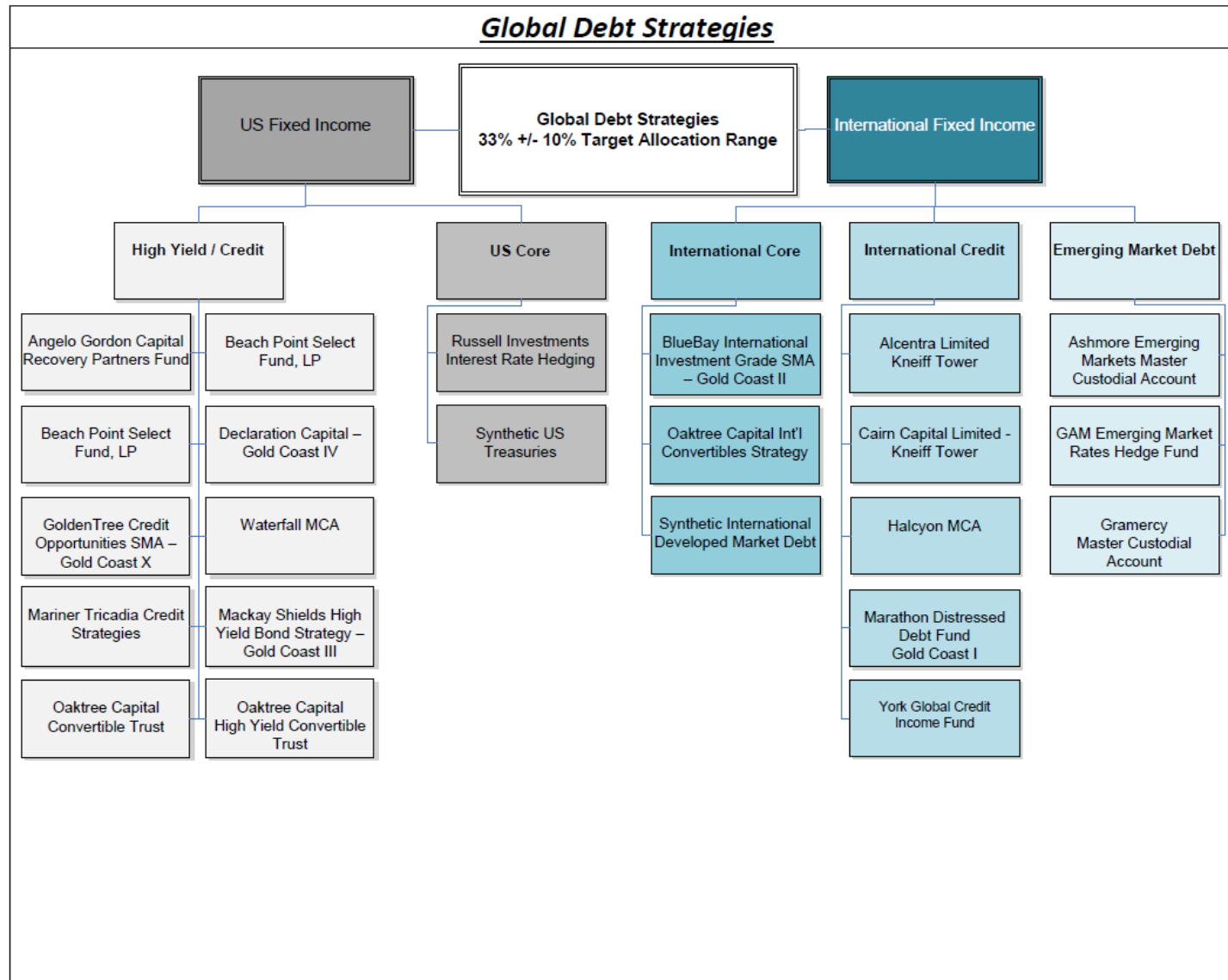
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Small Cap Equity	23,080,033	0.3	86.4	1	-24.6	99	-15.4	98	-50.1	99	-27.3	99	--	--
<i>Russell 2000</i>			<u>-11.9</u>	70	<u>-7.7</u>	71	<u>1.2</u>	57	<u>11.0</u>	71	<u>11.7</u>	73	<u>6.5</u>	80
Excess Return			98.3		-16.9		-16.6		-61.1		-39.0			
<i>eA US Small Cap Equity Gross Median</i>			-10.4		-5.7		2.3		12.6		13.3		7.9	
Russell US Small Cap Volatility	23,080,033	0.3	86.4	1	-24.6	99	-15.4	98	-50.1	99	-27.3	99	--	--
<i>Russell 2000</i>			<u>-11.9</u>	86	<u>-7.7</u>	77	<u>1.2</u>	45	<u>11.0</u>	75	<u>11.7</u>	76	<u>6.5</u>	82
Excess Return			98.3		-16.9		-16.6		-61.1		-39.0			
<i>eA All US Equity Gross Median</i>			-8.2		-5.2		0.5		12.9		13.3		7.7	
Long/Short Equity	248,204,374	3.1	-2.8	4	2.6	3	-2.7	75	8.3	93	--	--	--	--
<i>Credit Suisse Long Shrt Eqt USD</i>			<u>-1.5</u>	3	<u>1.9</u>	4	<u>4.2</u>	23	<u>9.0</u>	91	<u>6.1</u>	99	<u>5.9</u>	90
Excess Return			-1.3		0.7		-6.9		-0.7					
<i>eA All US Equity Gross Median</i>			-8.2		-5.2		0.5		12.9		13.3		7.7	
Clough	87,832,912	1.1	-1.5	3	3.8	2	1.9	39	9.0	91	--	--	--	--
Passport	97,322,029	1.2	4.0	1	12.8	1	5.5	17	9.3	90	--	--	--	--
Select Equity	63,049,433	0.8	-13.2	92	-11.2	93	-17.3	99	5.9	97	--	--	--	--
<i>Credit Suisse Long Shrt Eqt USD</i>			<u>-1.5</u>	3	<u>1.9</u>	4	<u>4.2</u>	23	<u>9.0</u>	91	<u>6.1</u>	99	<u>5.9</u>	90
Excess Return			-11.7		-13.1		-21.5		-3.1					
<i>eA All US Equity Gross Median</i>			-8.2		-5.2		0.5		12.9		13.3		7.7	

San Bernardino County Employees' Retirement Association

Global Equity Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity	370,792,770	4.6	-21.6	99	-19.1	99	-20.8	99	2.4	98	1.4	97	3.2	86
MSCI EAFE			-10.2	72	-5.3	77	-8.7	79	5.6	72	4.0	83	3.0	92
Excess Return			-11.4		-13.8		-12.1		-3.2		-2.6		0.2	
eA All EAFE Equity Gross Median			-9.2		-2.7		-5.2		7.1		5.9		4.6	
International Developed	156,324,625	1.9	-29.0	99	-22.9	99	-23.9	99	14.6	4	8.5	19	4.5	53
MSCI EAFE			-10.2	72	-5.3	77	-8.7	79	5.6	72	4.0	83	3.0	92
Excess Return			-18.8		-17.6		-15.2		9.0		4.5		1.5	
eA All EAFE Equity Gross Median			-9.2		-2.7		-5.2		7.1		5.9		4.6	
Russell International Volatility	156,299,651	1.9	-29.0	99	-22.9	99	-23.9	99	14.6	4	--	--	--	--
MSCI EAFE			-10.2	72	-5.3	77	-8.7	79	5.6	72	4.0	83	3.0	92
Excess Return			-18.8		-17.6		-15.2		9.0					
eA All EAFE Equity Gross Median			-9.2		-2.7		-5.2		7.1		5.9		4.6	
International Emerging	214,468,144	2.6	-15.1	30	-16.0	77	-18.2	68	-5.2	81	-3.4	80	4.9	71
MSCI Emerging Markets			-17.9	81	-15.5	69	-19.3	73	-5.3	81	-3.6	83	4.3	80
Excess Return			2.8		-0.5		1.1		0.1		0.2		0.6	
eA Emg Mkts Equity Gross Median			-16.3		-14.0		-16.8		-2.6		-1.8		6.1	
Mondrian	157,865,309	1.9	-15.3	31	-16.0	77	-18.7	70	-5.0	78	-1.6	49	5.6	59
MSCI Emerging Markets			-17.9	81	-15.5	69	-19.3	73	-5.3	81	-3.6	83	4.3	80
Excess Return			2.6		-0.5		0.6		0.3		2.0		1.3	
eA Emg Mkts Equity Gross Median			-16.3		-14.0		-16.8		-2.6		-1.8		6.1	
Gramercy Emerging Market Equity	56,503,667	0.7	-14.7	26	-15.8	72	-17.7	57	--	--	--	--	--	--
MSCI Emerging Markets			-17.9	81	-15.5	69	-19.3	73	-5.3	81	-3.6	83	4.3	80
Excess Return			3.2		-0.3		1.6							
eA Emg Mkts Equity Gross Median			-16.3		-14.0		-16.8		-2.6		-1.8		6.1	

Global Debt Portfolio



San Bernardino County Employees' Retirement Association

Global Debt Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed	2,564,084,774	31.6	-1.2	53	1.7	7	0.4	24	6.4	5	6.6	6	--	--
<i>eA All Global Fixed Inc Gross Median</i>			-0.9		-1.9		-2.7		1.7		3.0		4.8	
U.S. Credit Strategies	983,307,436	12.1	-1.7	73	3.3	1	3.0	8	8.1	2	8.7	1	8.9	1
<i>50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index</i>			-2.8	80	0.0	23	-0.4	32	3.7	21	5.4	4	5.6	42
<i>Excess Return</i>			1.1		3.3		3.4		4.4		3.3		3.3	
<i>BofA Merrill Lynch US High Yield Master II TR</i>			-4.9	94	-2.5	61	-3.6	68	3.5	23	5.9	1	7.1	1
<i>eA Global Credit Fixed Income Gross Median</i>			-0.6		-1.9		-2.2		1.9		4.1		5.0	
AG Capital	7,043,896	0.1	-2.2	76	-3.6	80	-5.3	82	8.6	2	7.5	1	--	--
Golden Tree Asset Management	326,168,980	4.0	-2.5	78	5.8	1	8.9	1	13.1	1	12.5	1	--	--
Beach Point Capital (Formerly Post)	121,745,552	1.5	-1.0	68	3.8	1	3.5	7	10.5	1	9.6	1	--	--
Golden Tree Distressed Debt	33,206,707	0.4	3.3	1	17.6	1	25.5	1	23.2	1	15.3	1	--	--
Mackay / Gold Coast	110,748,239	1.4	-4.2	92	-1.9	51	-4.3	76	5.8	4	7.0	1	8.2	1
Mariner Tricadia	79,459,449	1.0	0.0	29	2.9	2	3.2	7	8.1	2	7.0	1	--	--
MD SASS Waterfall Victoria	29,182,893	0.4	--	--	--	--	--	--	--	--	--	--	--	--
OCM Convertible	16,210,340	0.2	-6.3	95	-0.5	28	-4.4	76	9.5	1	8.8	1	--	--
OCM High Income	14,962,482	0.2	-1.5	72	2.1	4	-0.4	32	7.6	2	5.8	1	--	--
Russell Interest Rate Hedging	30,254,392	0.4	-12.6	99	-8.7	94	-27.5	99	-19.4	99	-21.4	99	--	--
Stone Tower Credit (Apollo)	71,519,508	0.9	-0.5	43	-0.9	37	-3.4	62	4.4	11	--	--	--	--
Sutherland REIT Holdings	87,127,146	1.1	1.5	--	--	--	--	--	--	--	--	--	--	--
Waterfall Asset Management	18,935,680	0.2	0.2	--	--	--	--	--	--	--	--	--	--	--
Waterfall Victoria	36,376,313	0.4	2.1	--	--	--	--	--	--	--	--	--	--	--

San Bernardino County Employees' Retirement Association

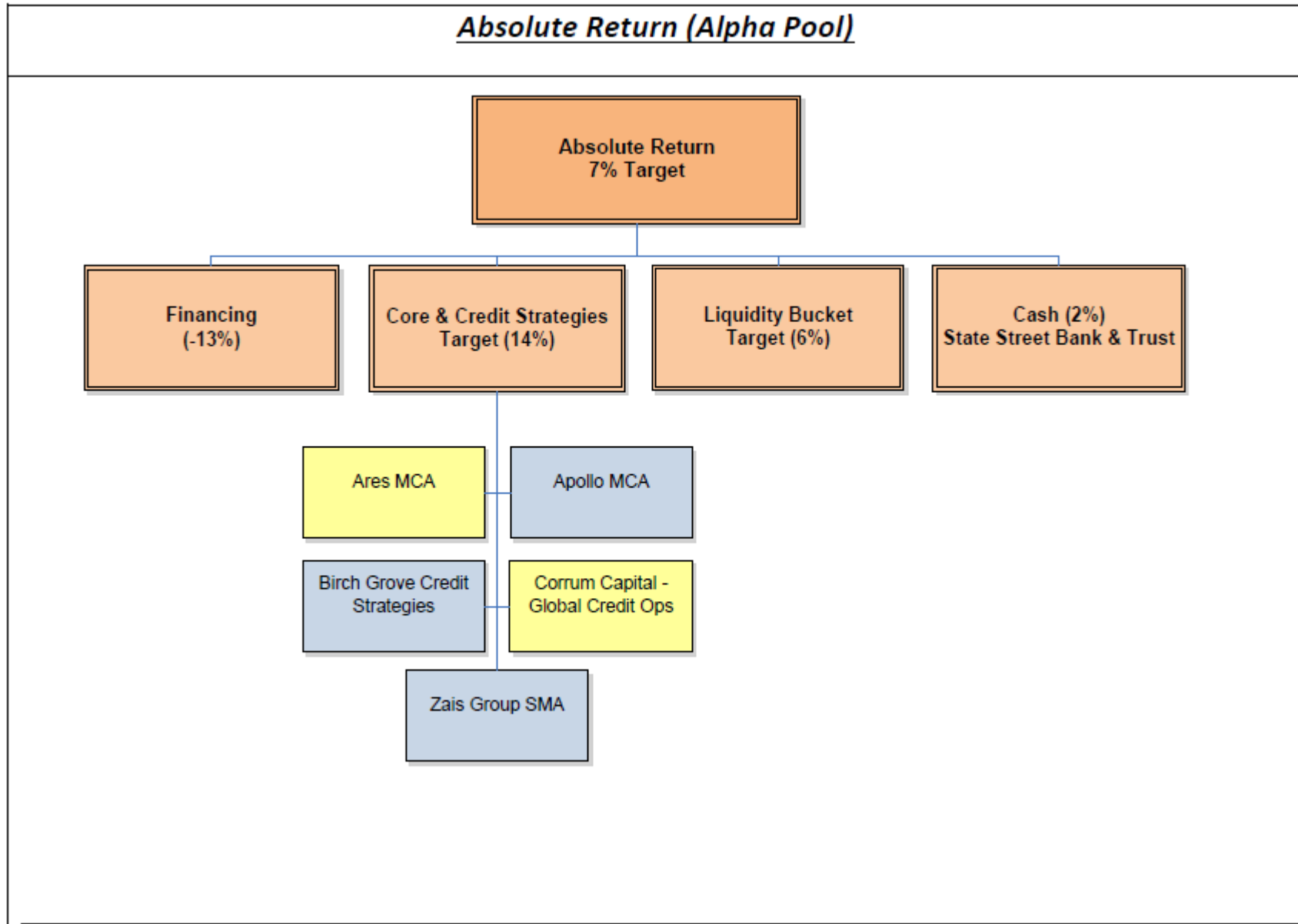
Global Debt Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Non-U.S. Fixed Income Composite	1,580,777,338	19.5	-0.8	49	0.6	16	-1.1	35	5.3	7	4.4	30	4.8	50
Barclays Global Aggregate			0.9	16	-2.3	59	-3.3	60	-1.6	82	0.8	84	3.7	87
Excess Return			-1.7		2.9		2.2		6.9		3.6		1.1	
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Non-U.S. Credit Composite	1,099,657,355	13.6	0.7	1	2.0	5	0.2	25	8.2	2	5.5	3	--	--
BofA ML Euro HY Constrained			-1.7	73	-7.9	92	-11.1	93	2.3	44	3.2	68	6.8	1
Excess Return			2.4		9.9		11.3		5.9		2.3		--	
eA Global Credit Fixed Income Gross Median			-0.6		-1.9		-2.2		1.9		4.1		5.0	
Marathon/Gold Coast	201,167,878	2.5	0.6	1	4.2	1	5.2	1	11.8	1	7.2	1	--	--
Alcentra Core European Credit	282,258,735	3.5	4.2	1	9.8	1	6.7	1	18.1	1	--	--	--	--
Halcyon Asset Management	50,055,556	0.6	--	--	--	--	--	--	--	--	--	--	--	--
BofA ML Euro HY Constrained			-1.7	73	-7.9	92	-11.1	93	2.3	44	3.2	68	6.8	1
Excess Return														
eA Global Credit Fixed Income Gross Median			-0.6		-1.9		-2.2		1.9		4.1		5.0	
Oaktree Capital	58,570,837	0.7	-3.7	88	-0.6	29	-3.8	69	3.0	26	2.2	87	--	--
York Global Credit	125,522,822	1.5	-2.2	76	-0.5	28	-1.7	39	7.9	2	--	--	--	--
BofA ML Euro HY Constrained			-1.7	73	-7.9	92	-11.1	93	2.3	44	3.2	68	6.8	1
Excess Return			-0.5		7.4		9.4		5.6					
eA Global Credit Fixed Income Gross Median			-0.6		-1.9		-2.2		1.9		4.1		5.0	
Cairn Composite	284,338,985	3.5	0.2	18	-0.7	30	-2.6	60	1.8	51	2.8	81	--	--
BofA ML Euro HY Constrained			-1.7	73	-7.9	92	-11.1	93	2.3	44	3.2	68	6.8	1
Excess Return			1.9		7.2		8.5		-0.5		-0.4			
eA Global Credit Fixed Income Gross Median			-0.6		-1.9		-2.2		1.9		4.1		5.0	
Non-U.S. Core Composite	97,742,543	1.2	-0.6	44	-8.9	96	-11.5	94	-0.6	71	0.6	88	--	--
Barclays Global Aggregate			0.9	16	-2.3	59	-3.3	60	-1.6	82	0.8	84	3.7	87
Excess Return			-1.5		-6.6		-8.2		1.0		-0.2			
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Bluebay/Goldcoast	97,742,543	1.2	-0.6	44	-8.9	96	-11.5	94	-0.6	72	0.5	88	--	--
Barclays Global Aggregate			0.9	16	-2.3	59	-3.3	60	-1.6	82	0.8	84	3.7	87
Excess Return			-1.5		-6.6		-8.2		1.0		-0.3			
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	

San Bernardino County Employees' Retirement Association

Global Debt Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Emerging Markets Debt Composite	481,119,983	5.9	-4.1	40	-2.2	42	-3.9	37	-0.9	51	1.5	61	4.1	98
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			-6.2	58	-7.7	65	-10.6	62	-3.7	65	0.6	63	5.7	83
Excess Return			2.1		5.5		6.7		2.8		0.9		-1.6	
eA All Emg Mkts Fixed Inc Gross Median			-4.9		-3.5		-6.9		-0.8		3.1		7.2	
Ashmore Emerging Markets Liquid Investments	156,303,099	1.9	-5.6	55	-0.6	21	-2.8	32	--	--	--	--	--	--
JP Morgan GBI - EM Global Diversified Index			-10.5	82	-14.9	84	-19.8	86	-8.7	90	-3.6	93	4.5	97
Excess Return			4.9		14.3		17.0							
eA All Emg Mkts Fixed Inc Gross Median			-4.9		-3.5		-6.9		-0.8		3.1		7.2	
Ashmore EM HY CRP DB FD I3	18,882,198	0.2	-9.6	--	--	--	--	--	--	--	--	--	--	--
Ashmore Emerging HY Master	7,097,279	0.1	-10.4	--	--	--	--	--	--	--	--	--	--	--
Ashmore Emerging Markets	20,963,255	0.3	-8.4	--	--	--	--	--	--	--	--	--	--	--
Ashmore Local Currency	55,781,246	0.7	-10.6	99	-14.7	99	-22.2	99	-9.9	99	--	--	--	--
JP Morgan ELMI+			-6.3	97	-7.5	92	-12.5	95	-5.2	98	-2.9	99	2.6	99
Excess Return			-4.3		-7.2		-9.7		-4.7					
JP Morgan EMBI Global Index			-2.0	63	-0.3	31	-2.0	41	0.5	60	4.4	30	6.8	14
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
GAM Emerging Markets Rates	40,957,988	0.5	-1.0	3	-0.3	17	-0.1	5	--	--	--	--	--	--
JP Morgan ELMI+			-6.3	61	-7.5	64	-12.5	68	-5.2	70	-2.9	78	2.6	99
Excess Return			5.3		7.2		12.4							
JP Morgan EMBI Global Index			-2.0	12	-0.3	17	-2.0	22	0.5	36	4.4	33	6.8	65
eA All Emg Mkts Fixed Inc Gross Median			-4.9		-3.5		-6.9		-0.8		3.1		7.2	
Gramercy Funds Management LLC	183,103,701	2.3	-0.9	2	2.1	1	6.4	1	--	--	--	--	--	--
JP Morgan ELMI+			-6.3	61	-7.5	64	-12.5	68	-5.2	70	-2.9	78	2.6	99
Excess Return			5.4		9.6		18.9							
JP Morgan EMBI Global Index			-2.0	12	-0.3	17	-2.0	22	0.5	36	4.4	33	6.8	65
eA All Emg Mkts Fixed Inc Gross Median			-4.9		-3.5		-6.9		-0.8		3.1		7.2	
Prudential Investment Management	44,973,950	0.6	-5.4	54	-8.7	70	-10.1	61	--	--	--	--	--	--
JP Morgan ELMI+			-6.3	61	-7.5	64	-12.5	68	-5.2	70	-2.9	78	2.6	99
Excess Return			0.9		-1.2		2.4							
JP Morgan EMBI Global Index			-2.0	12	-0.3	17	-2.0	22	0.5	36	4.4	33	6.8	65
eA All Emg Mkts Fixed Inc Gross Median			-4.9		-3.5		-6.9		-0.8		3.1		7.2	

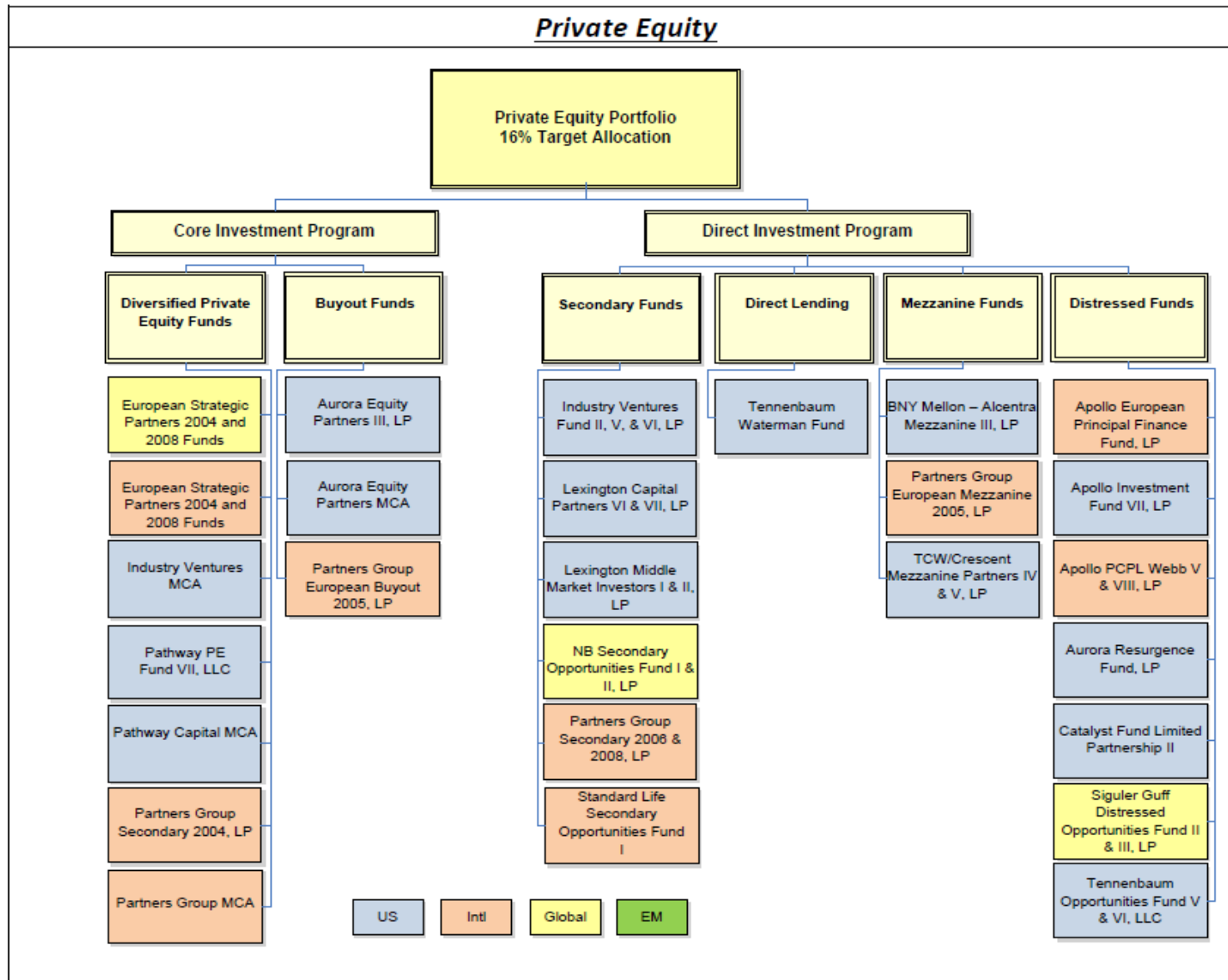


San Bernardino County Employees' Retirement Association

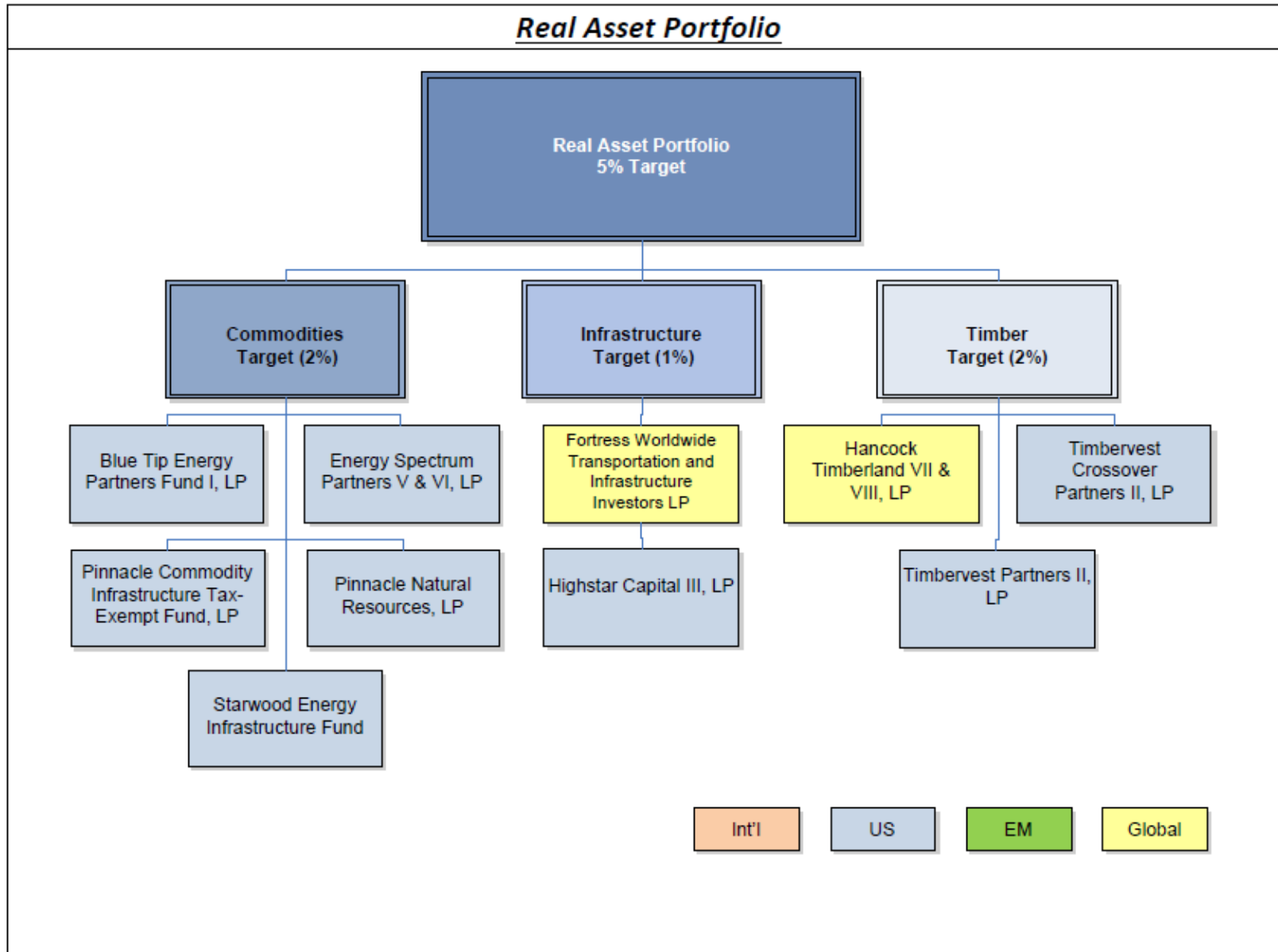
Alpha Pool Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Alpha Pool Composite	1,572,095,151	19.4	-2.3	65	-0.1	27	-0.4	28	5.1	7	7.5	2	--	--
91 Day T-Bill + 3%			0.7	19	2.3	4	3.0	7	3.0	26	3.0	50	4.2	73
Excess Return			-3.0		-2.4		-3.4		2.1		4.5			
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Alpha Liquidity (Ssga)	154,773,858	1.9	0.1	32	0.2	24	0.2	26	0.3	62	0.3	90	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Apollo Global Management	46,164,147	0.6	1.5	8	--	--	--	--	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Ares Eco Alpha	208,598,121	2.6	-4.1	84	-42.4	99	-43.7	99	-12.9	99	-2.4	99	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Ares Strategic Investment	234,502,237	2.9	-5.0	90	138.5	1	133.5	1	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Birch Grove Credit Strategies	100,779,607	1.2	0.5	23	4.4	1	5.9	1	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Sterling Stamos	153,850,786	1.9	1.0	14	2.2	4	2.2	11	6.3	5	3.7	41	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Stone Tower Off (Apollo)	369,869,859	4.6	-0.9	50	3.0	2	4.1	2	6.8	3	9.4	1	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Zais	117,305,964	1.4	-2.2	65	2.6	3	4.9	1	9.3	1	21.0	1	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	
Zais Group Invest Advisors	182,404,648	2.2	-6.0	95	-0.8	35	-0.8	31	7.4	2	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.9		-1.9		-2.7		1.7		3.0		4.8	

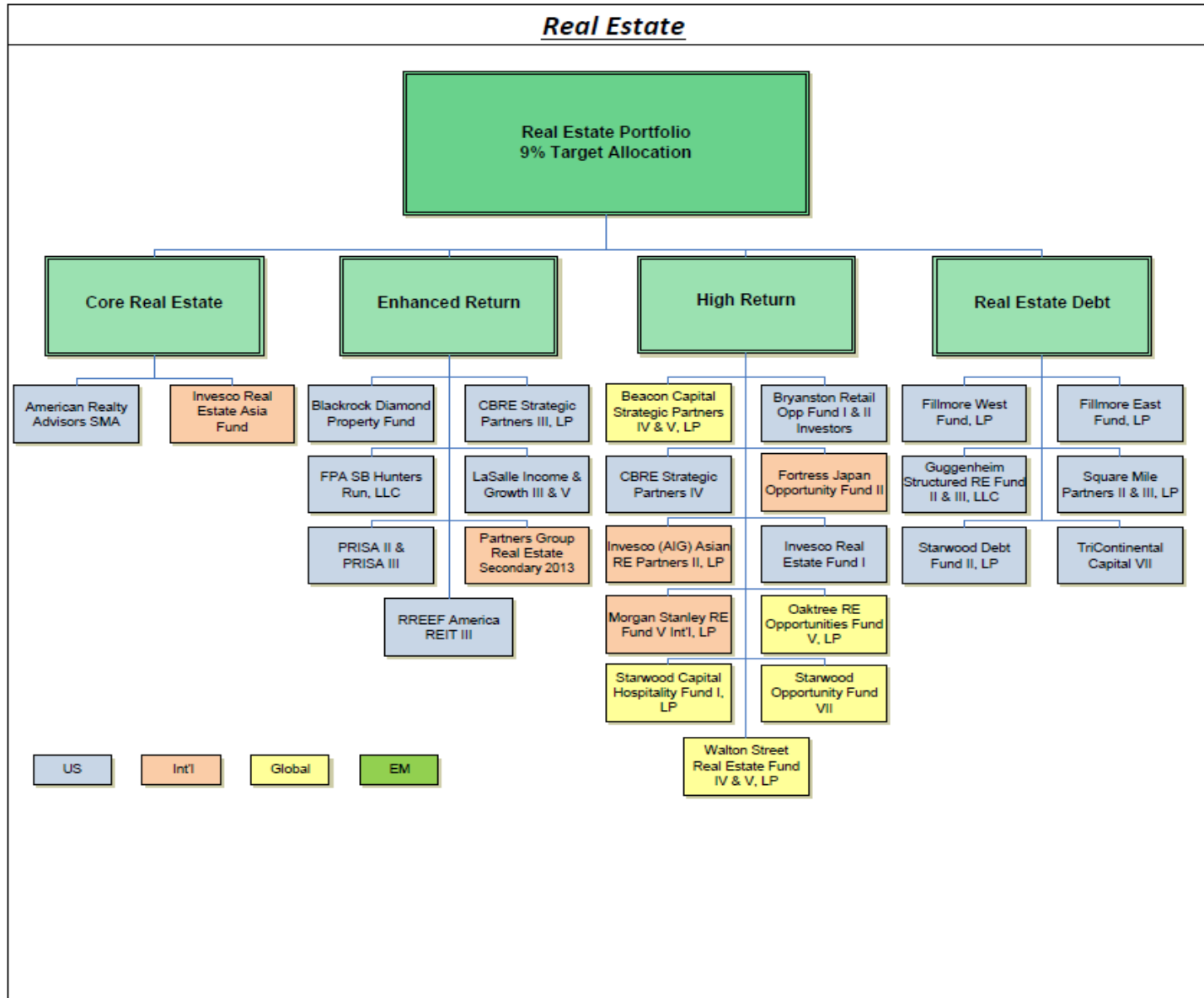
Private Equity Portfolio



Real Asset Portfolio



Real Estate Portfolio



San Bernardino County Employees' Retirement Association

Alternatives Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Equity Composite	1,252,559,832	15.4	3.4	7	9.6	7	11.6	29	14.9	5	13.7	23	8.5	62
Cambridge Associates Global All PE (Qtr Lag)			<u>4.9</u>	1	<u>8.8</u>	15	<u>8.9</u>	47	<u>15.0</u>	5	<u>14.8</u>	1	<u>12.8</u>	1
Excess Return			-1.5		0.8		2.7		-0.1		-1.1		-4.3	
Russell 3000			-7.2	99	-5.4	99	-0.5	99	12.5	35	13.3	31	6.9	90
Cambridge Associates US All PE 1 Qtr Lag			4.2	4	7.8	28	9.3	46	16.0	1	15.7	1	13.2	1
InvestorForce Public DB > \$1 Billion Private Equity Gross Median			0.0		6.6		7.3		9.4		10.9		9.3	
Real Estate Composite	533,865,527	6.6	3.4	--	7.6	--	11.0	--	10.3	--	12.6	--	4.6	--
NCREIF Property Index 1 Qtr Lag			<u>3.1</u>	--	<u>10.1</u>	--	<u>13.0</u>	--	<u>11.6</u>	--	<u>12.7</u>	--	<u>8.2</u>	--
Excess Return			0.3		-2.5		-2.0		-1.3		-0.1		-3.6	
InvestorForce Public DB > \$1 Billion Real Estate Gross Median			--		--		--		--		--		--	
Real Assets Composite	450,954,272	5.6	-1.3	--	1.9	--	3.5	--	4.4	--	4.6	--	3.0	--
Bloomberg Commodity Index			-14.5	--	-15.8	--	-26.0	--	-16.0	--	-8.9	--	-5.7	--
Excess Return			13.2		17.7		29.5		20.4		13.5		8.7	
NCREIF Timberland 1 Qtr Lag			0.5	--	8.4	--	10.0	--	9.8	--	6.1	--	8.0	--
Timber	200,827,743	2.5	-1.8	--	3.9	--	2.3	--	8.6	--	5.0	--	3.2	--
NCREIF Timberland 1 Qtr Lag			<u>0.5</u>	--	<u>8.4</u>	--	<u>10.0</u>	--	<u>9.8</u>	--	<u>6.1</u>	--	<u>8.0</u>	--
Excess Return			-2.3		-4.5		-7.7		-1.2		-1.1		-4.8	
Infrastructure	109,950,256	1.4	-0.9	--	6.7	--	13.6	--	1.7	--	6.9	--	--	--
Russell 3000			-7.2	--	-5.4	--	-0.5	--	12.5	--	13.3	--	6.9	--
Excess Return			6.3		12.1		14.1		-10.8		-6.4			

Appendix: Private Equity and Real Estate Performance



San Bernardino County Employees' Retirement Association

Private Equity Performance Ending June 30, 2015

Investment Name	Vintage Year	Commitment Amount	Contributed Capital	Distributions	Market Value	Net IRR	Investment Multiple
Apollo European Principal Finance Fund (Feeder), LP	2009	\$ 53,780,210	\$ 46,190,858	\$ 59,305,835	\$ 8,928,824	11.84	1.48x
Apollo Investment Fund VII, L.P.	2008	\$ 10,000,000	\$ 7,905,930	\$ 13,291,059	\$ 3,836,935	26.11	2.17x
Apollo PCPL Webb V*	2010	\$ 4,844,398	\$ 4,844,398	\$ 5,169,483	\$ 68,579	6.6	1.08x
Apollo PCPL Webb VIII*	2010	\$ 4,734,303	\$ 4,734,303	\$ 11,945,626	\$ 39,204	46.12	2.53x
Aurora Equity Partners III, L.P.	2005	\$ 25,000,000	\$ 23,544,536	\$ 41,140,682	\$ 2,330,594	14.4	1.73x
Aurora Equity Partners IV, L.P.	2012	\$ 20,000,000	\$ 15,014,579	\$ 1,381,143	\$ 20,479,631	13.12	1.28x
Aurora Resurgence Fund, L.P.	2008	\$ 15,000,000	\$ 5,653,009	\$ 10,350,965	\$ -	17.6	1.82x
Baring Asia Private Equity Fund IV, L.P.	2012	\$ 2,931,918	\$ 2,785,847	\$ 435,400	\$ 2,668,374	13.25	1.11x
BNY Mellon - Alcentra Mezzanine III	2012	\$ 25,000,000	\$ 23,254,658	\$ 26,583,881	\$ 69,559	12.57	1.15x
Catalyst Fund II, L.P.	2009	\$ 10,000,000	\$ 9,934,668	\$ 4,033,566	\$ 18,217,432	15.68	2.23x
Charlesbank Equity Fund VIII	2007	\$ 7,500,000	\$ 802,135	\$ -	\$ 942,526	17.93	1.18x
DRI II, L.P.*	2010	\$ 20,000,000	\$ 19,917,669	\$ 25,865,694	\$ (2,179,485)	13.48	1.20x
European Strategic Partners 2004	2004	\$ 240,692,555	\$ 219,356,847	\$ 181,445,056	\$ 85,440,486	3.63	1.22x
European Strategic Partners 2008	2010	\$ 31,361,356	\$ 21,851,068	\$ 4,052,789	\$ 20,658,211	4.53	1.12x
Industry Ventures Fund V	2008	\$ 10,000,000	\$ 9,500,000	\$ 15,018,762	\$ 12,978,675	34.79	2.95x
Industry Ventures Fund VI	2011	\$ 20,000,000	\$ 17,600,000	\$ 7,775,956	\$ 15,364,859	14.56	1.31x
Industry Ventures Partnership Holdings Fund II, L.P.	2012	\$ 25,000,000	\$ 19,000,000	\$ 3,172,557	\$ 38,173,942	46.69	2.18x
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	\$ 12,500,000	\$ 6,187,500	\$ 1,972,074	\$ 5,549,336	26.22	1.22x
Industry Ventures Partnership Holdings Fund III, L.P.	2013	\$ 25,000,000	\$ 10,500,000	\$ 663,054	\$ 11,518,157	24.16	1.16x
Industry Ventures Secondary VII, L.P.	2013	\$ 25,000,000	\$ 10,500,000	\$ 1,074,835	\$ 10,857,711	22.55	1.14x
Insight Venture Partners III Co-Invest	2014	\$ 4,000,000	\$ 3,384,000	\$ -	\$ 3,504,022	4.6	1.04x
Lexington Capital Partners VI-B	2006	\$ 25,000,000	\$ 24,591,319	\$ 24,248,162	\$ 10,026,036	7.16	1.39x
Lexington Capital Partners VII (Offshore)	2011	\$ 25,000,000	\$ 18,725,520	\$ 13,148,927	\$ 15,169,842	19.81	1.50x
Lexington Middle Market I	2005	\$ 25,000,000	\$ 24,771,942	\$ 26,810,858	\$ 10,406,219	11.27	1.50x
Lexington Middle Market II - Offshore	2008	\$ 10,000,000	\$ 9,044,597	\$ 6,055,361	\$ 6,562,444	13.9	1.40x
NB Secondary Opportunities I, LP	2005	\$ 20,000,000	\$ 18,500,843	\$ 19,074,834	\$ 5,861,139	7.47	1.35x
NB Secondary Opportunities II, LP	2008	\$ 20,000,000	\$ 16,717,976	\$ 18,046,857	\$ 9,453,911	19.39	1.64x
Partners Group Access 632, L.P.	2014	\$ 2,782,028	\$ 2,782,028	\$ -	\$ 2,545,340	-7.27	0.91x
Partners Group Access 648, L.P.	2014	\$ 4,432,944	\$ 4,028,602	\$ -	\$ 3,842,058	-4.8	0.95x
Partners Group Client Access 8 LP	2014	\$ 5,531,585	\$ 5,531,585	\$ -	\$ 7,895,269	28.97	1.43x
Partners Group Direct Investment 2012, L.P.	2013	\$ 18,177,034	\$ 10,696,931	\$ 258,604	\$ 11,700,095	8.02	1.12x
Partners Group European Mandate, L.P.	2004	\$ 237,607,791	\$ 195,215,661	\$ 163,674,993	\$ 97,155,583	6.02	1.34x
Partners Group European Mezzanine 2005	2005	\$ 101,076,654	\$ 101,076,654	\$ 92,354,001	\$ 47,559,615	5.46	1.39x
Partners Group Princess Learning IC LTD	2014	\$ 5,052,463	\$ 3,504,697	\$ 1,550,144	\$ 1,725,536	-11.76	0.93x
Partners Group Secondary 2006 LP	2006	\$ 54,426,156	\$ 51,077,528	\$ 44,829,332	\$ 15,984,255	3.98	1.19x
Partners Group Secondary 2008, L.P.	2009	\$ 26,612,109	\$ 23,690,725	\$ 17,287,438	\$ 17,807,247	10.75	1.47x
Partners Group Starfrost Limited	2014	\$ 6,247,886	\$ 3,687,483	\$ -	\$ 3,782,292	1.74	1.03x
Pathway Private Equity Fund VII, L.P.*	2004	\$ 904,500,000	\$ 716,298,044	\$ 556,215,779	\$ 549,618,604	9.87	1.51x
Siguler Guff DOF II	2006	\$ 30,000,000	\$ 30,000,000	\$ 39,222,595	\$ 3,819,423	9.11	1.44x
Siguler Guff DOF III	2008	\$ 10,000,000	\$ 9,700,000	\$ 9,947,294	\$ 5,053,536	11.52	1.55x
SL Capital SOF I LP	2014	\$ 25,000,000	\$ 8,892,703	\$ -	\$ 9,908,447	12.95	1.11x
TCW/Crescent Mezzanine IV, L.P.	2006	\$ 40,000,000	\$ 39,590,976	\$ 42,898,605	\$ 4,354,589	4.09	1.20x
TCW/Crescent Mezzanine V, L.P.	2008	\$ 20,000,000	\$ 19,688,757	\$ 19,675,589	\$ 6,220,171	10.02	1.32x
Tennenbaum Opportunities Fund V, L.P.	2007	\$ 10,000,000	\$ 10,000,000	\$ 7,545,116	\$ 5,130,730	4.33	1.27x
Tennenbaum Opportunities Fund VI, L.P.	2011	\$ 20,000,000	\$ 18,992,453	\$ 3,614,214	\$ 19,048,388	8.02	1.19x
Tennenbaum Waterman Fund, LP	2012	\$ 70,000,000	\$ 70,000,000	\$ 7,761,734	\$ 75,747,142	12.13	1.19x
The Resolute Fund III	2014	\$ 8,000,000	\$ 2,039,477	\$ -	\$ 2,129,737	7.23	1.04x
Thoma Bravo XI	2014	\$ 8,000,000	\$ 3,912,952	\$ -	\$ 3,885,066	-1.43	0.99x
Total		\$ 2,324,791,390	\$ 1,925,221,459	\$ 1,528,898,855	\$ 1,211,840,287	8.43	1.41x

Note: all metrics are calculated since inception

* Denotes cash adjusted

Cambridge Associates
Indexes not yet available

San Bernardino County Employees' Retirement Association

Real Estate Performance Ending June 30, 2015

Investment	Vintage Year	Commitment Amount	Contributed Capital	Distributions	Market Value	Net IRR	Investment Multiple
American Realty Advisors	1996	\$ 128,009,773	\$ 128,009,773	\$ 93,813,126	\$ 178,766,832	7.46	2.13
American Realty Value Add	2006	\$ 12,925,215	\$ 12,925,215	\$ 2,175,000	\$ 25,221,730	9.81	2.12
Beacon Capital Strategic Partners IV, L.P.	2006	\$ 39,000,000	\$ 38,000,000	\$ 21,076,045	\$ 11,164,526	-2.92	0.85
Beacon Capital Strategic Partners V, L.P.	2007	\$ 20,000,000	\$ 18,000,000	\$ 7,335,106	\$ 4,238,404	-7.79	0.64
BlackRock Diamond Property Fund	2005	\$ 25,000,000	\$ 25,000,000	\$ 12,647,572	\$ 4,944,647	-6.39	0.7
Bryanston Real Estate Opportunity Fund II, L.P.	2009	\$ 20,000,000	\$ 8,589,256	\$ 9,103,079	\$ 1,175,322	6.52	1.2
Bryanston Retail Opportunity Fund, L.P.	2004	\$ 20,000,000	\$ 8,228,165	\$ 18,301,226	\$ 4,184,145	71.05	2.73
CBRE Strategic Partners III	2003	\$ 10,000,000	\$ 10,000,000	\$ 12,698,783	\$ -	8.02	1.27
CBRE Strategic Partners IV	2005	\$ 40,000,000	\$ 40,000,000	\$ 1,395,603	\$ 3,428,747	-24.08	0.12
Fillmore East Fund	2006	\$ 25,000,000	\$ 31,403,818	\$ 20,262,179	\$ 368,163	-10.02	0.66
Fillmore West Fund	2008	\$ 20,000,000	\$ 20,104,834	\$ 9,917,482	\$ 12,529,606	1.91	1.12
Fortress Japan Opportunity Fund II	2012	\$ 21,739,130	\$ 12,850,711	\$ 583,449	\$ 19,637,691	22.03	1.6
Invesco Asian Real Estate Partners II (USD), LP	2007	\$ 20,000,000	\$ 8,314,147	\$ 6,297,511	\$ 3,340,893	4.25	1.16
Invesco High Yield Debt Fund I	2007	\$ 20,000,000	\$ 20,000,000	\$ 8,567,605	\$ -	-35.57	0.43
Invesco Real Estate Asia Fund	2014	\$ 51,732,500	\$ 51,732,500	\$ -	\$ 51,987,345	0.51	1
INVESCO Real Estate Fund I	2005	\$ 10,000,000	\$ 9,248,390	\$ 8,723,250	\$ 1,124,327	1.25	1.06
LaSalle Income & Growth Fund IV	2005	\$ 20,000,000	\$ 19,469,417	\$ 13,335,004	\$ 153,848	-5.51	0.69
Morgan Stanley Real Estate Fund V International	2005	\$ 27,500,000	\$ 27,377,414	\$ 30,824,620	\$ 2,230,545	7.11	1.21
Oaktree Real Estate Opportunities V	2012	\$ 25,000,000	\$ 25,000,000	\$ 15,975,000	\$ 21,085,730	14.96	1.48
Partners Group RE Secondary 2013 (USD) A	2014	\$ 65,000,000	\$ 13,664,848	\$ -	\$ 15,486,900	13.35	1.12
Prologis Japan Fund	2005	\$ 25,290,819	\$ 25,290,819	\$ 33,126,118	\$ -	4.81	1.31
Prudential PRISA II	2004	\$ 83,343,833	\$ 83,343,833	\$ 15,000,000	\$ 84,906,008	4.72	1.2
Prudential PRISA III	2003	\$ 40,000,000	\$ 35,703,965	\$ 10,000,000	\$ 26,687,091	0.74	1.03
RREEF America REIT III	2004	\$ 20,000,000	\$ 20,539,309	\$ 21,231,293	\$ 2,723,617	3.28	1.17
Square Mile Partners II	2007	\$ 20,000,000	\$ 19,831,232	\$ 4,356,164	\$ 1,232,478	-18.85	0.28
Square Mile Partners III LP	2008	\$ 20,000,000	\$ 21,561,599	\$ 24,795,954	\$ 5,836,489	12.42	1.42
Starwood Capital Hospitality Fund I-2	2006	\$ 30,000,000	\$ 30,000,000	\$ 18,084,672	\$ 13,913,305	1	1.07
Starwood Debt Fund II, LP	2008	\$ 20,000,000	\$ 17,599,882	\$ 18,832,783	\$ 2,580,538	5.91	1.22
Starwood Opportunity Fund VII - A	2006	\$ 25,000,000	\$ 25,000,000	\$ 8,486,257	\$ 12,285,140	-2.32	0.83
Structured Real Estate III, LP (Guggenheim)	2008	\$ 20,000,000	\$ 20,000,000	\$ 16,320,664	\$ -	-4.99	0.82
Tri Continental Capital VII	2005	\$ 23,000,000	\$ 22,343,057	\$ 1,083,940	\$ 2,249,069	-21	0.15
Tuckerman Multi-Family Development Fund III	2002	\$ 10,000,000	\$ 10,219,311	\$ 16,939,699	\$ -	26.67	1.66
Walton Street Real Estate Fund IV, LP	2003	\$ 10,000,000	\$ 9,770,890	\$ 14,126,364	\$ 1,898,981	10.97	1.64
Walton Street Real Estate Fund V, LP	2006	\$ 40,000,000	\$ 40,000,000	\$ 13,729,990	\$ 17,856,300	-3.14	0.79
Total		\$ 1,007,541,270	\$ 909,122,385	\$ 509,145,538	\$ 533,238,417	2.61	1.15

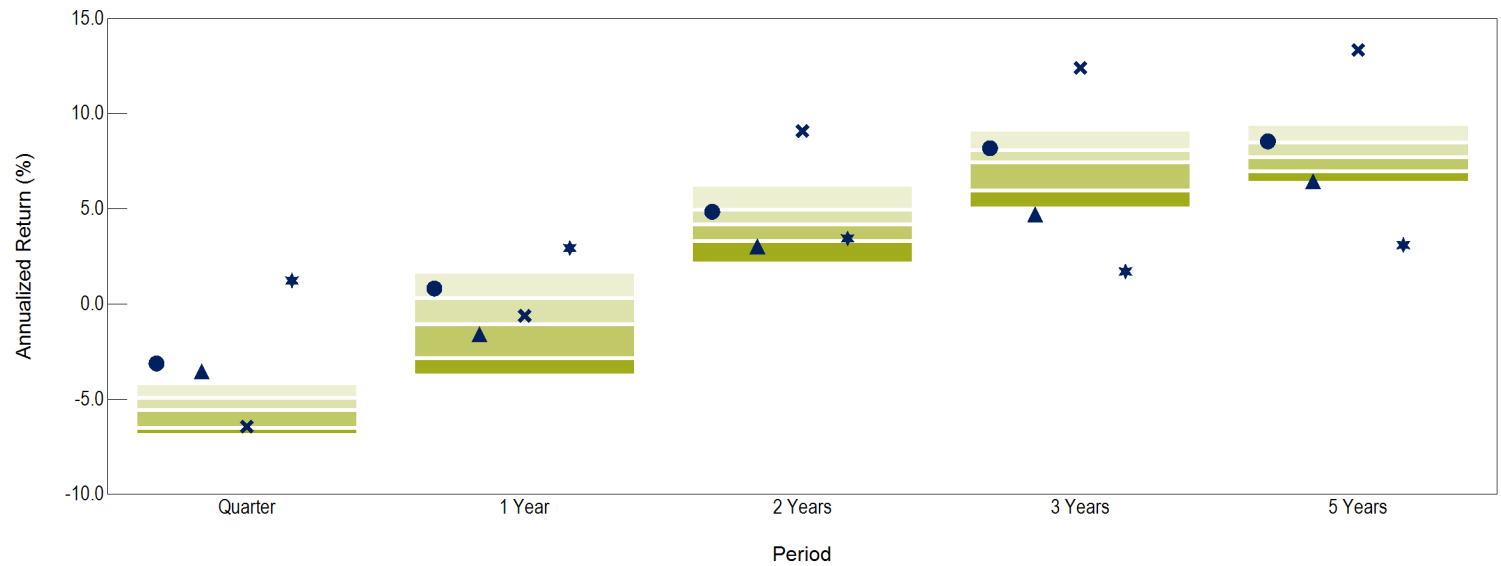
Note: all metrics are calculated since inception

Appendix: Market Environment



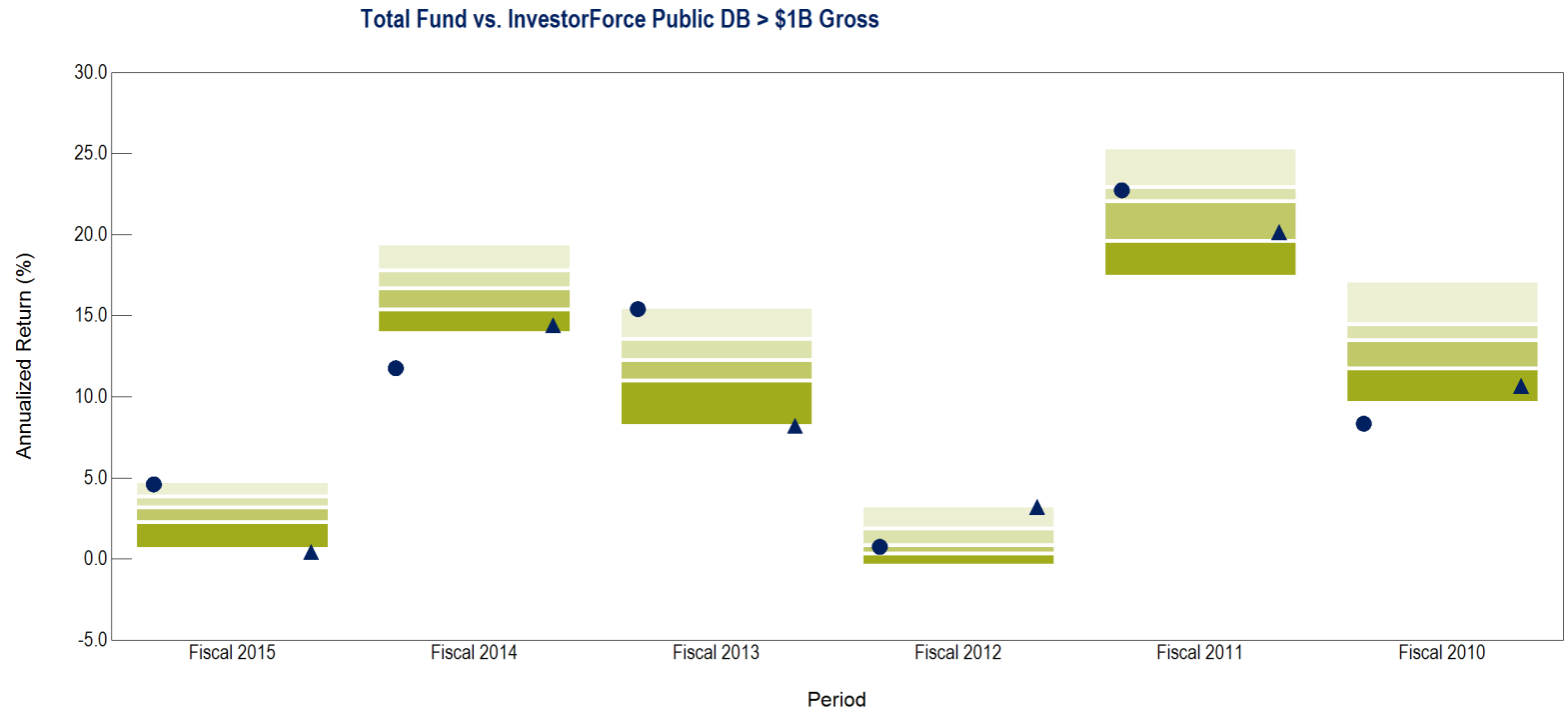
Total Fund Return Summary vs. Peer Universe

Total Fund vs. InvestorForce Public DB > \$1B Gross



	Return (Rank)									
5th Percentile	-4.2		1.7		6.2		9.1		9.4	
25th Percentile	-4.9		0.3		5.0		8.1		8.5	
Median	-5.6		-1.1		4.2		7.5		7.7	
75th Percentile	-6.5		-2.8		3.3		6.0		7.0	
95th Percentile	-6.9		-3.7		2.2		5.0		6.4	
# of Portfolios	28		28		28		28		28	
● Total Fund	-3.1	(1)	0.8	(18)	4.8	(31)	8.2	(15)	8.5	(25)
▲ Policy Index	-3.5	(1)	-1.6	(59)	3.0	(87)	4.7	(97)	6.4	(93)
× S&P 500	-6.4	(74)	-0.6	(40)	9.1	(1)	12.4	(1)	13.3	(1)
* Barclays Aggregate	1.2	(1)	2.9	(1)	3.4	(74)	1.7	(99)	3.1	(99)
◆ 60% MSCI World (Gross) / 40% CITI WGBI	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)

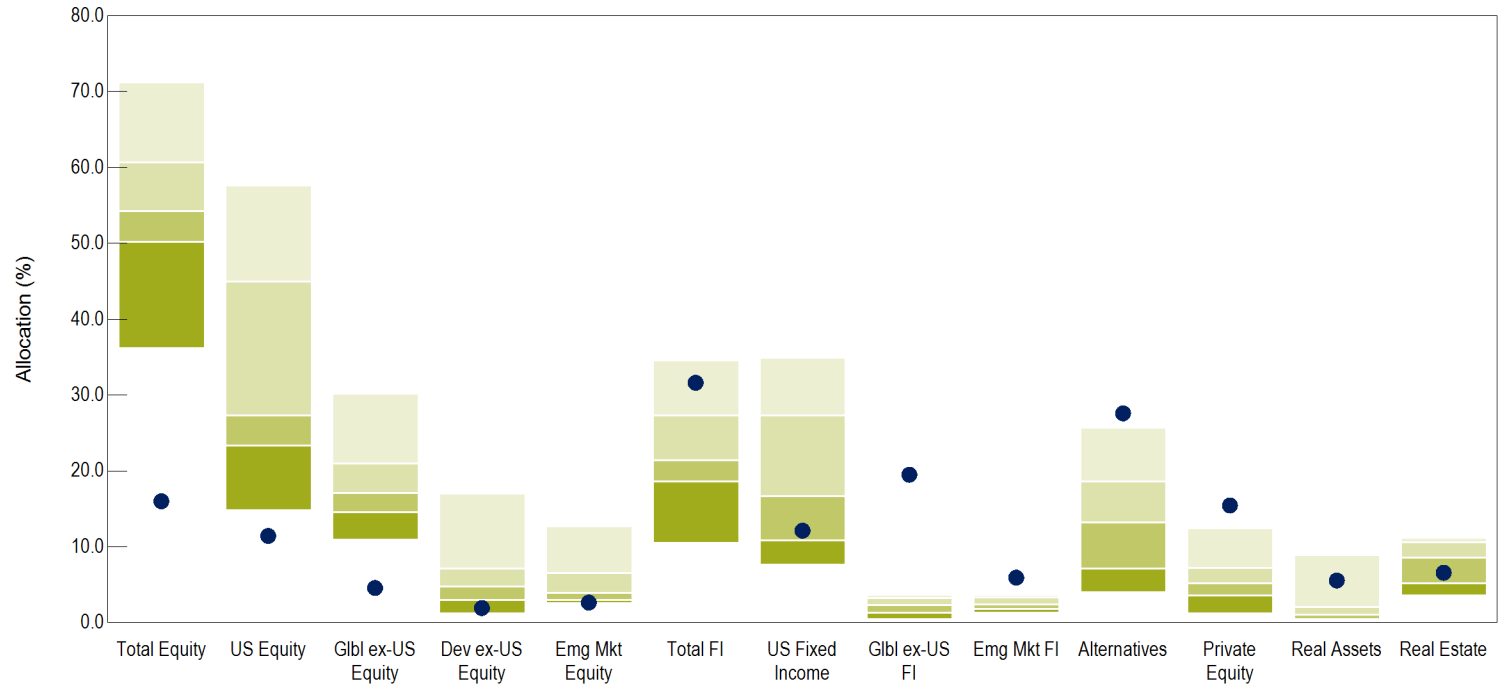
Fiscal Year Ending 6/30 Total Fund Return Summary vs. Peer Universe



	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	4.8	(96)	19.4	(87)	15.5	(7)	3.3	(58)	25.4	(32)
25th Percentile	3.9	(96)	17.8	(87)	13.6	(7)	1.9	(58)	22.9	(32)
Median	3.2	(96)	16.7	(87)	12.3	(7)	0.9	(58)	22.1	(32)
75th Percentile	2.3	(96)	15.4	(87)	11.0	(7)	0.3	(58)	19.6	(32)
95th Percentile	0.6	(96)	13.9	(87)	8.2	(7)	-0.4	(58)	17.4	(32)
# of Portfolios	92		65		78		70		67	
● Total Fund	4.6	(7)	11.8	(99)	15.4	(7)	0.8	(58)	22.7	(32)
▲ Policy Index	0.4	(96)	14.4	(87)	8.2	(96)	3.2	(6)	20.2	(71)

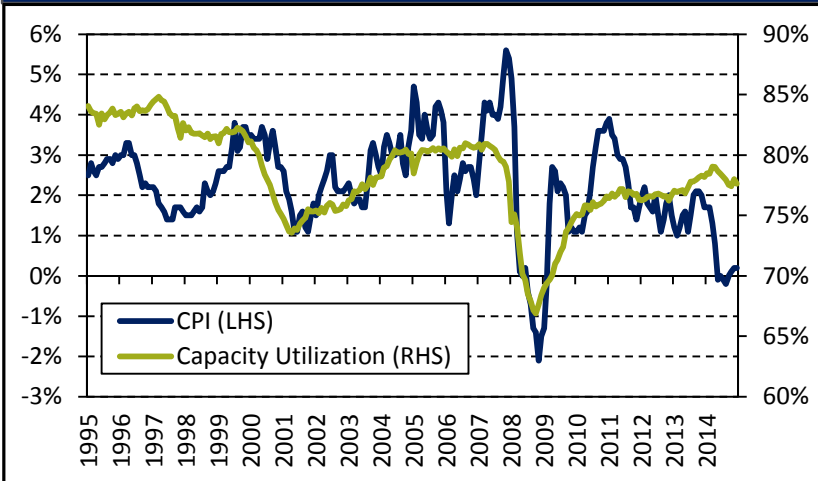
Total Fund Allocations vs. Peer Universe

Total Plan Allocation vs. InvestorForce Public DB > \$1B Gross



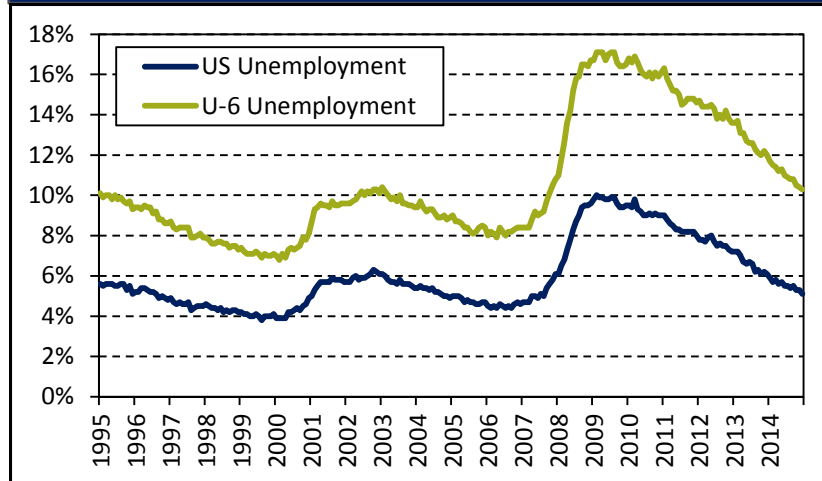
	Allocation (Rank)													
5th Percentile	71.2	57.6	30.2	17.0	12.7	34.5	34.9	3.6	3.6	25.7	12.5	8.9	11.2	--
25th Percentile	60.7	45.1	21.1	7.2	6.6	27.4	27.4	3.4	3.4	18.7	7.3	2.2	10.7	--
Median	54.3	27.4	17.2	4.9	4.0	21.5	16.8	2.4	2.5	13.3	5.3	1.2	8.6	--
75th Percentile	50.2	23.5	14.6	3.1	3.1	18.7	10.9	1.4	1.9	7.2	3.6	0.6	5.3	--
95th Percentile	36.2	14.9	11.0	1.3	2.6	10.6	7.7	0.5	1.4	4.1	1.3	0.3	3.6	--
# of Portfolios	26	25	24	6	17	26	23	9	8	18	17	8	19	--
● Total Fund	16.0 (99)	11.4 (97)	4.6 (99)	1.9 (88)	2.6 (95)	31.6 (15)	12.1 (71)	19.5 (1)	5.9 (1)	27.6 (1)	15.4 (1)	5.6 (10)	6.6 (63)	--

Inflation has stayed low



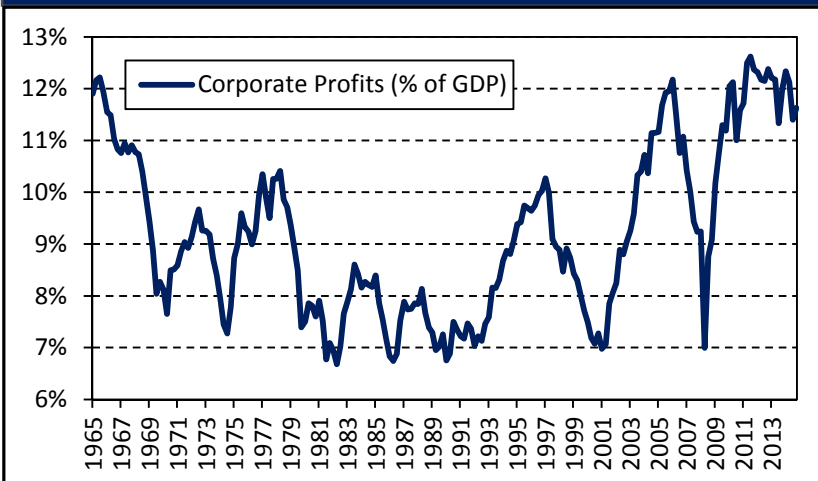
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

Unemployment steadily improving



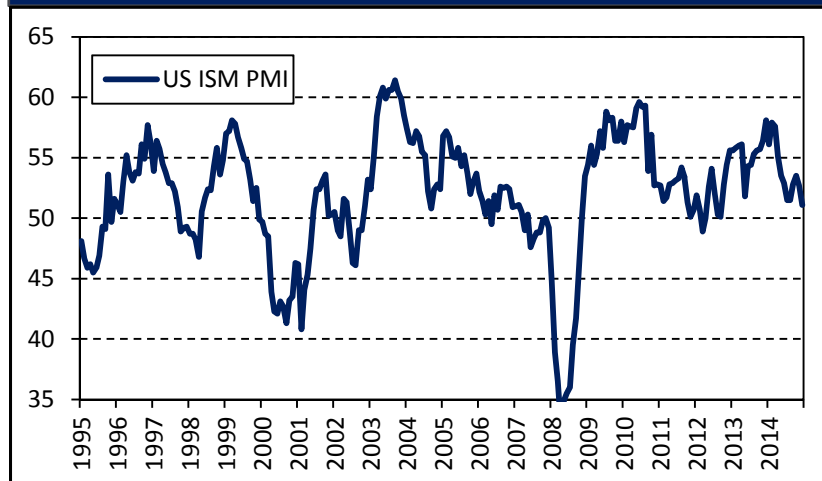
Source: Bloomberg, Bureau of Labor Statistics

Corporate profits at secular highs



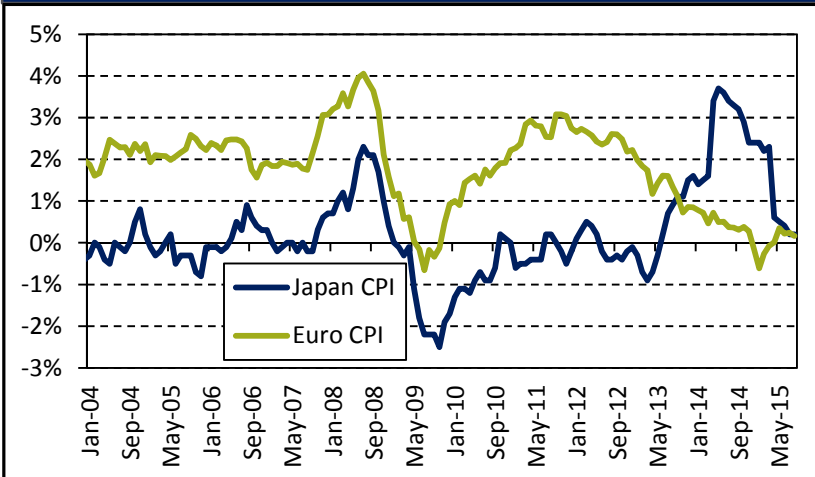
Source: Bloomberg, Bureau of Economic Analysis

Manufacturing above average but trending lower



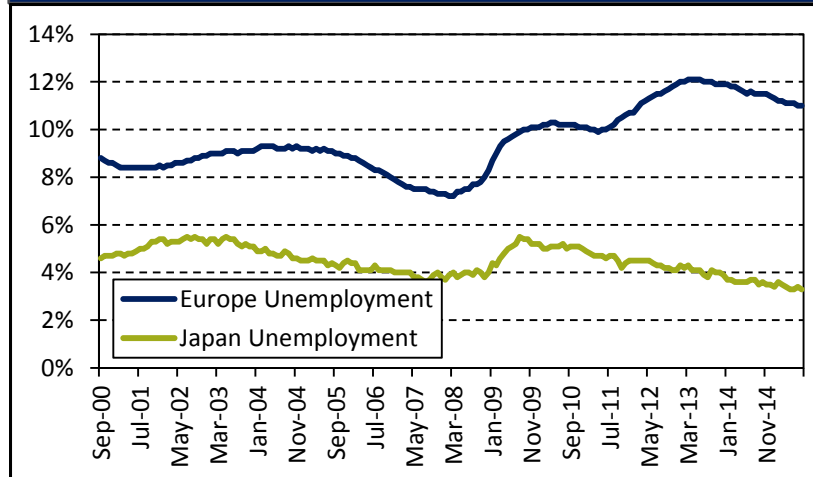
Source: Bloomberg, Institute for Supply Management

Inflation remains muted



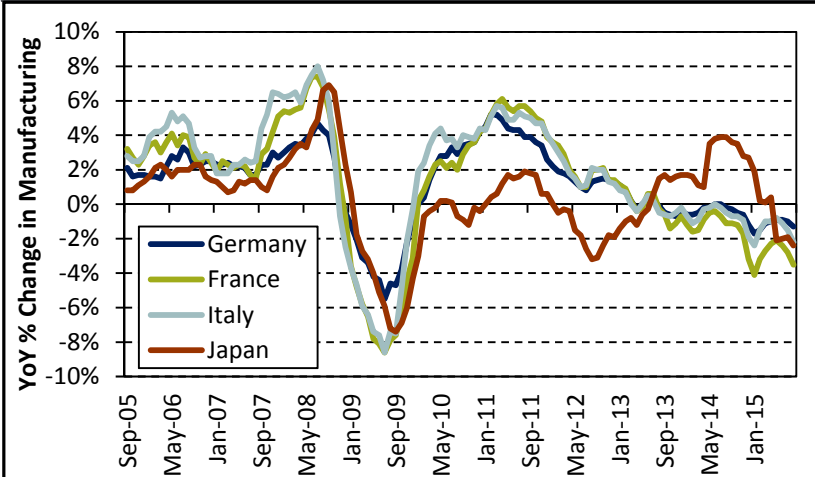
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Europe employment recovery lagging



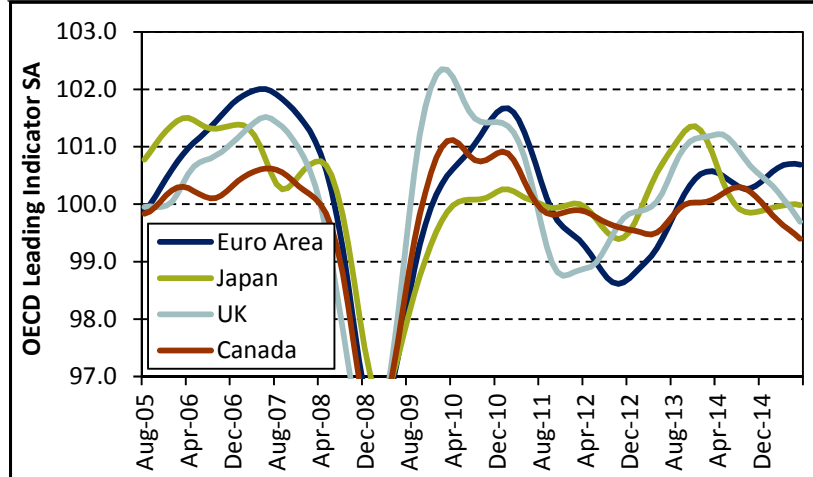
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Manufacturing in developed economies has lagged



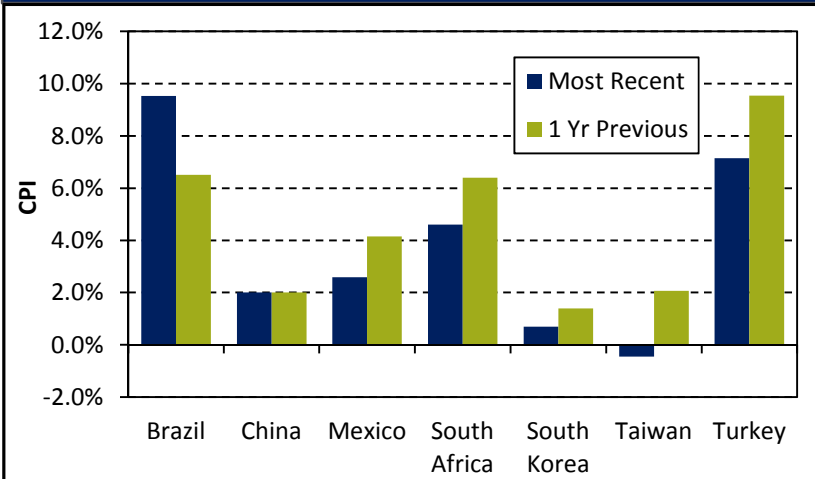
Source: Bloomberg, OECD, Eurostat

Leading indicators mostly neutral



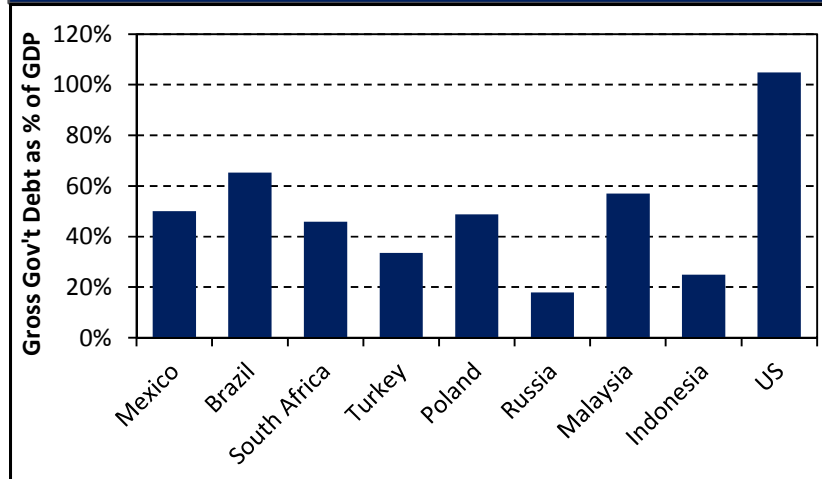
Source: Bloomberg, OECD

EM inflation is varied by country



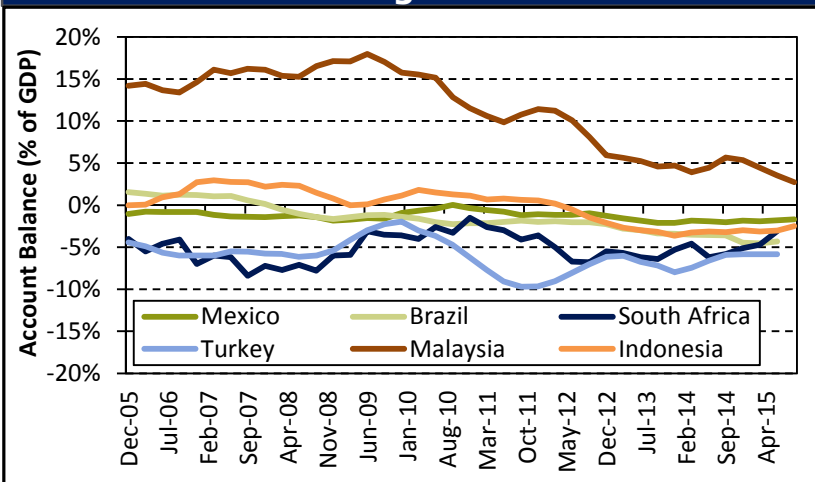
Source: Bloomberg

Relatively healthy Debt/GDP ratios



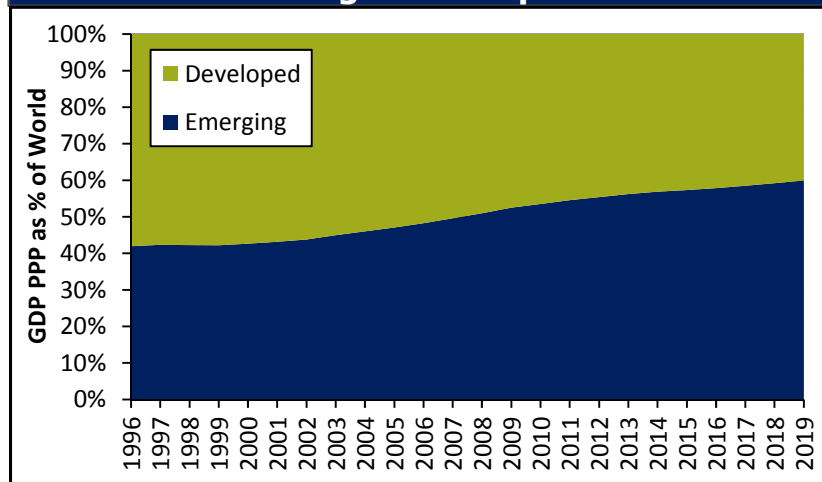
Source: Bloomberg, IMF

Some improvement in account balance challenged countries



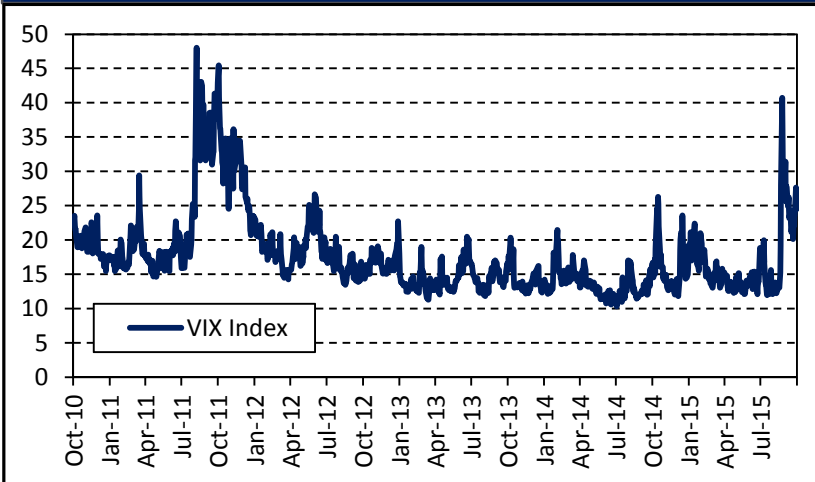
Source: Bloomberg

Emerging economies make up >50% of global output



Source: Bloomberg, IMF

Equity volatility has seen recent spike



Source: Bloomberg, CBOE

Treasury rates experiencing periods of higher volatility



Source: Bloomberg, Merrill Lynch

Sustained uptick in currency volatilities



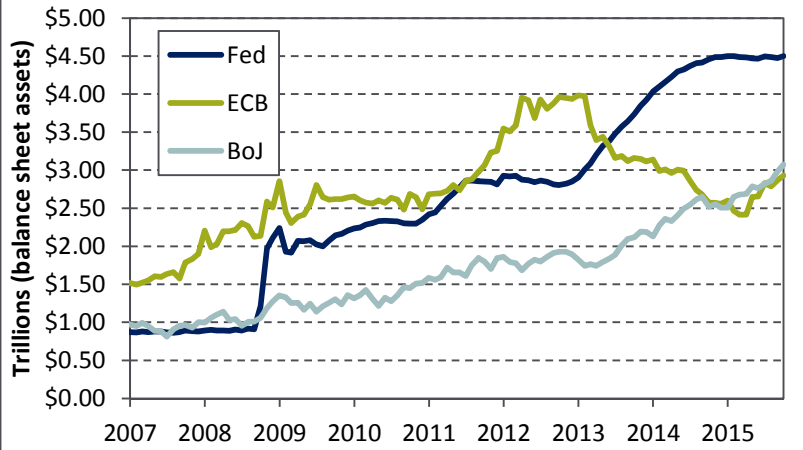
Source: Bloomberg, Deutsche Bank

Commodity pricing volatility has increased



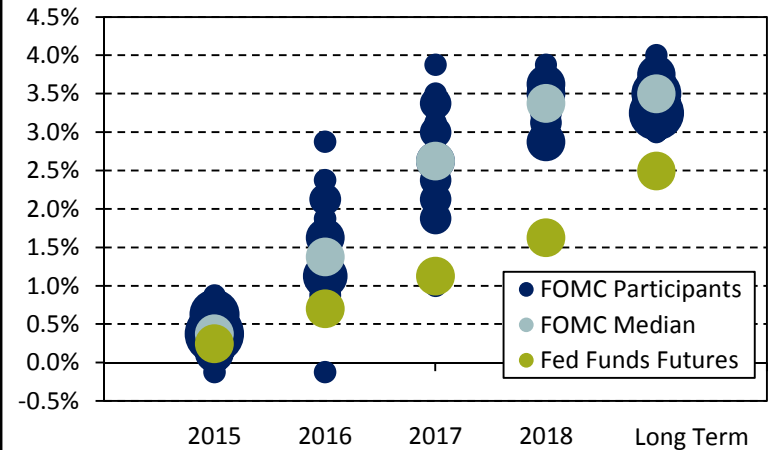
Source: Bloomberg, Merrill Lynch

Major central bank policy divergence



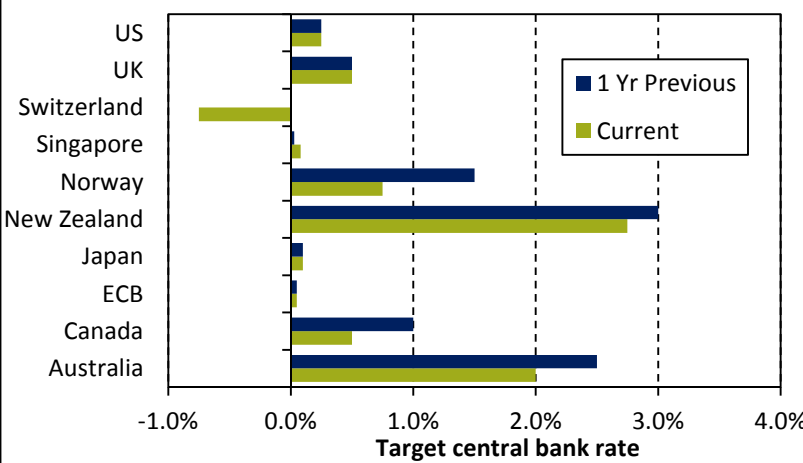
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

Fed's ideal rate of policy firming above market expectations



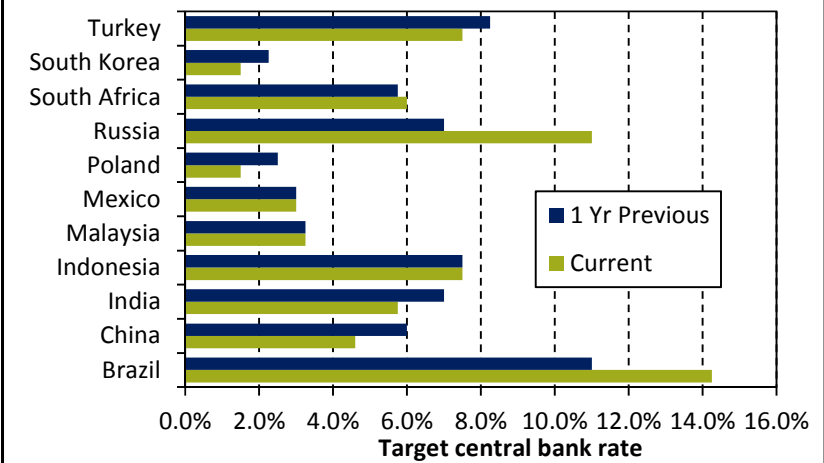
Source: Bloomberg, Federal Reserve, NEPC

Many developed central banks have maintained low interest rates



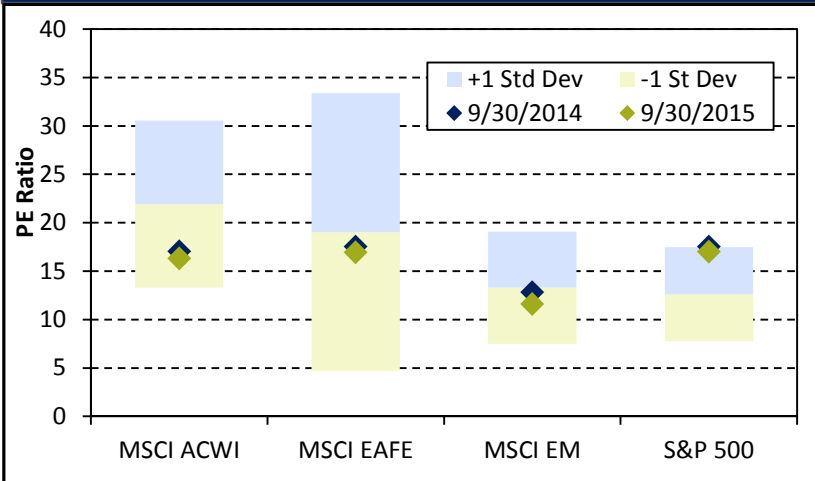
Source: Bloomberg

EM central bank policies have varied by circumstance



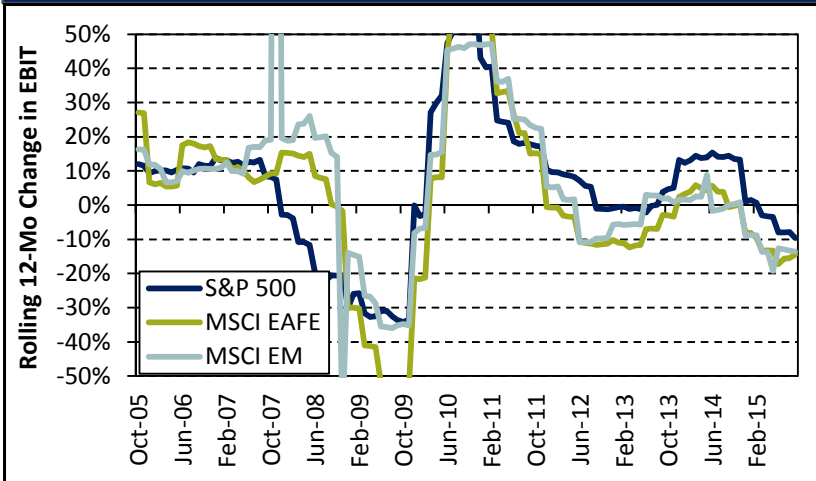
Source: Bloomberg

Global valuations are mixed



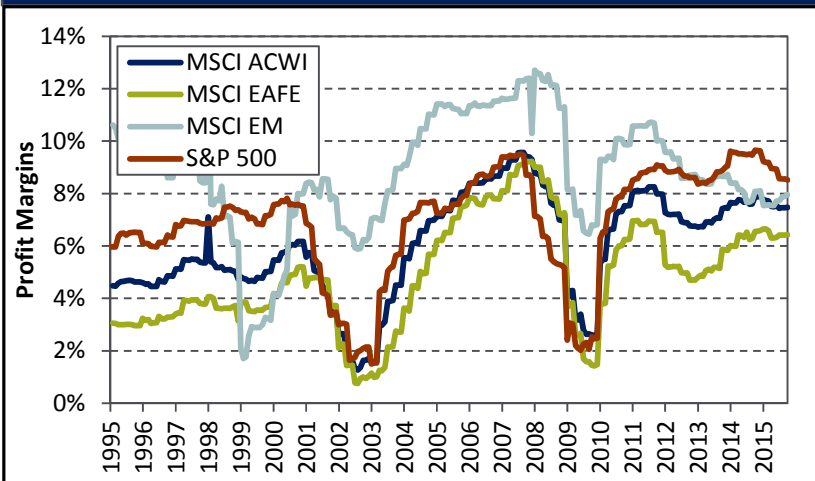
Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom

Earnings growth trending lower



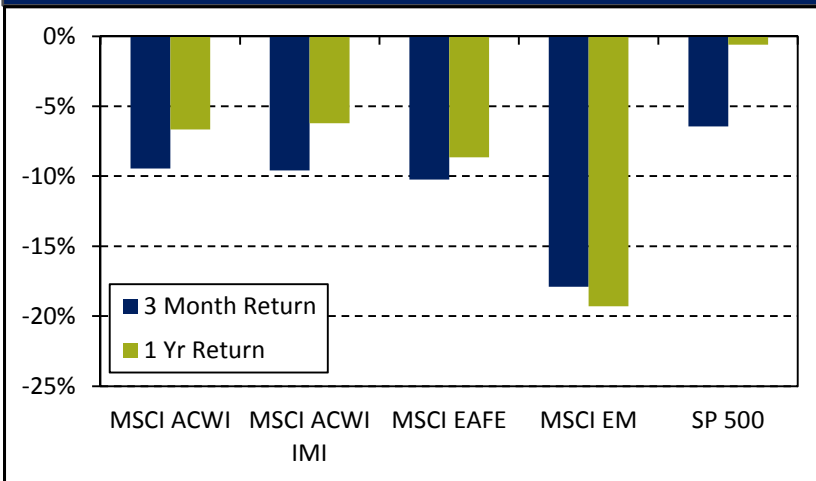
Source: Bloomberg, Standard and Poors, MSCI

Margins elevated, but largely a US story



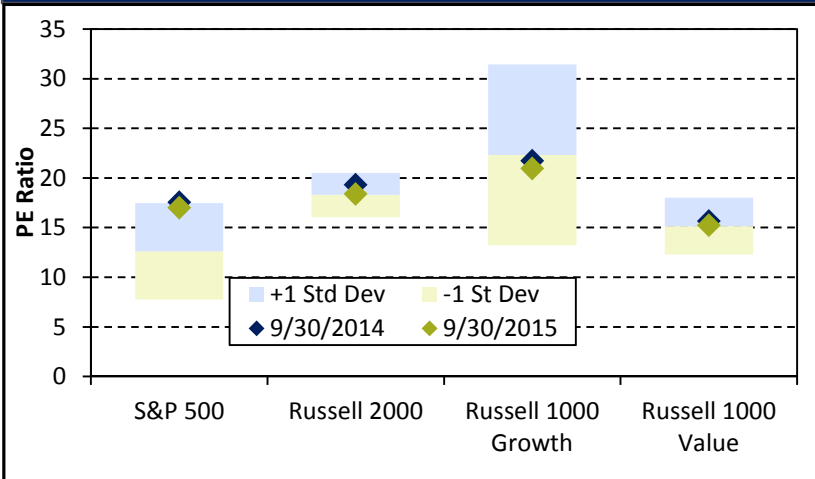
Source: Bloomberg, MSCI

Global equity returns mostly negative



Source: Bloomberg, MSCI

Valuations near or above historical norms



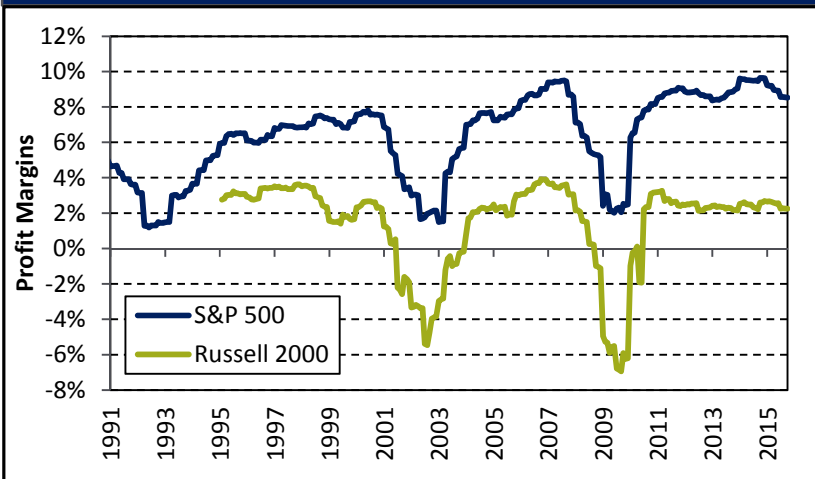
Source: Bloomberg, Standard and Poors, Russell *Russell 2000 PE is index adjusted positive

Growth recovery marked by inconsistency



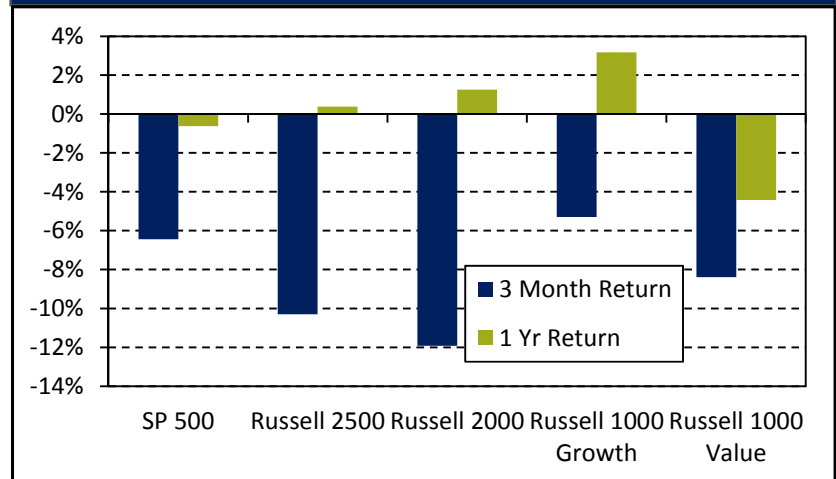
Source: Bloomberg, Bureau of Economic Analysis

Profit margins remain elevated



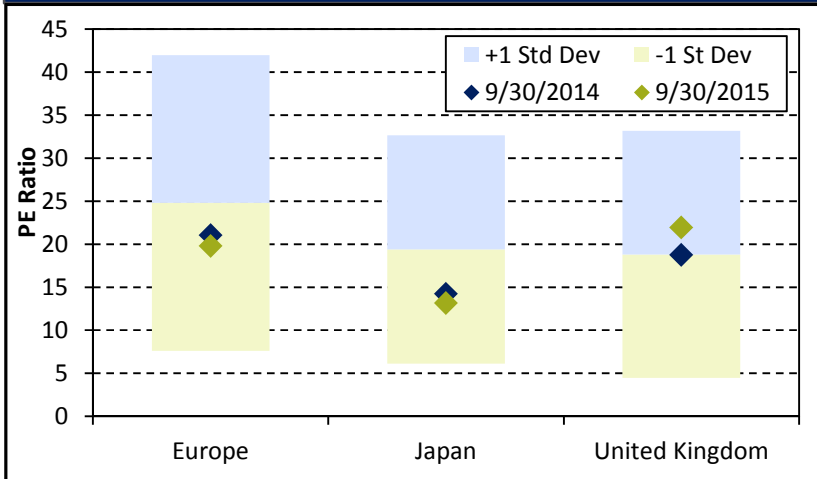
Source: Bloomberg, Standard and Poors, Russell

Trailing performance is negative in near term



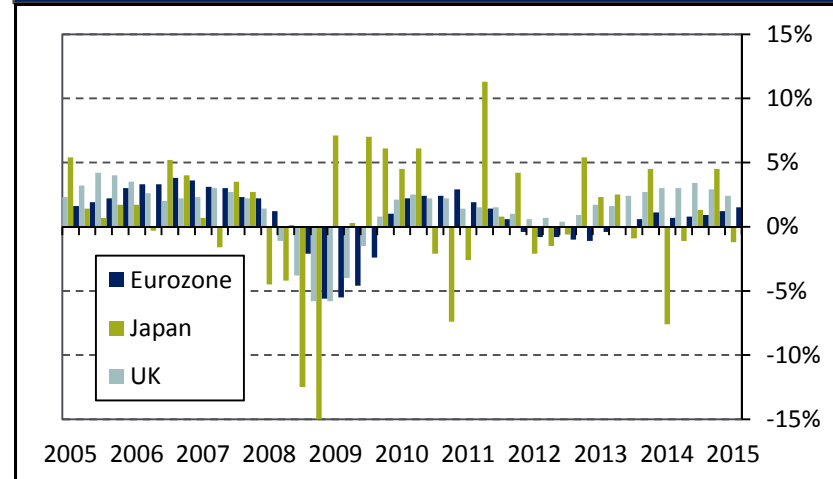
Source: Bloomberg, Standard and Poors, Russell

PEs near historical medians



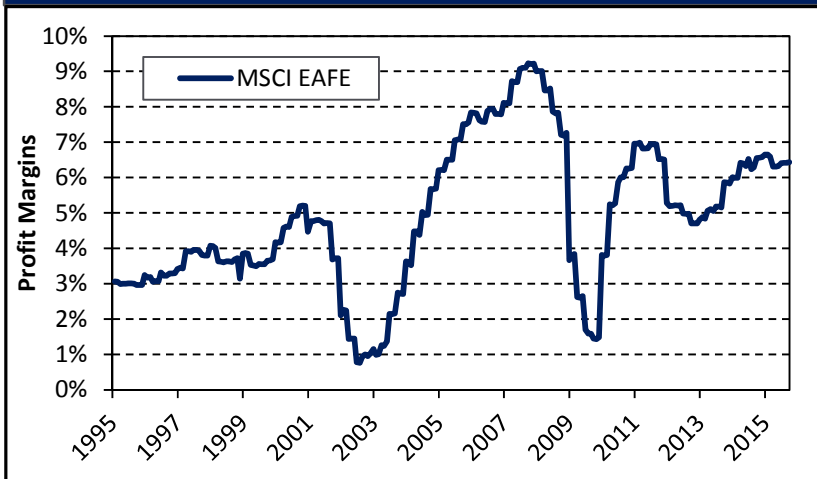
Source: Bloomberg, MSCI, FTSE *UK represented by FTSE 100 Index

Slow Global Growth



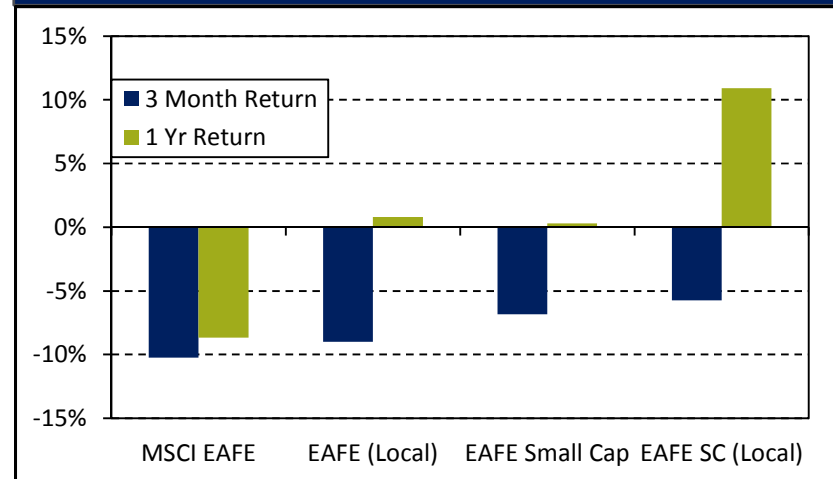
Source: Bloomberg

Margins elevated but not at extremes



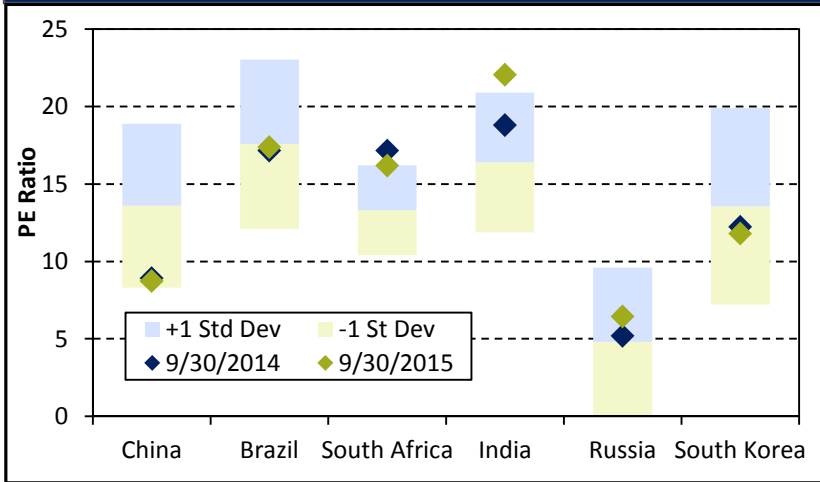
Source: Bloomberg, MSCI

Returns pulled lower by dollar strength



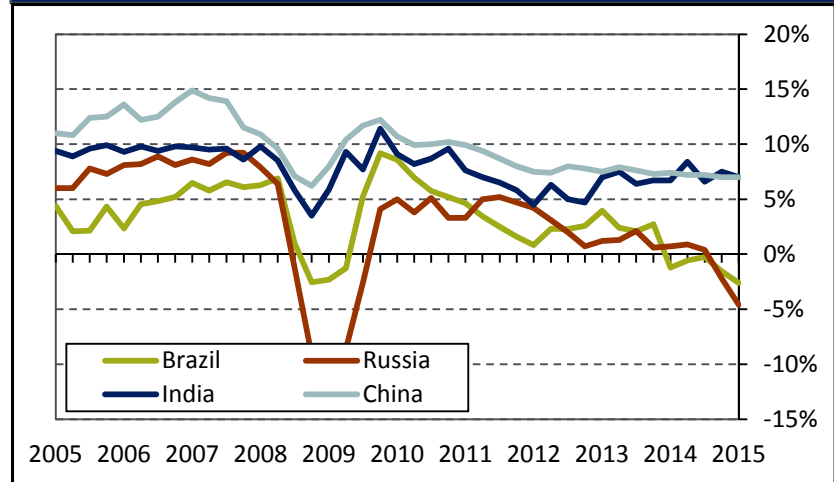
Source: Bloomberg, MSCI

Regional valuations show divergence



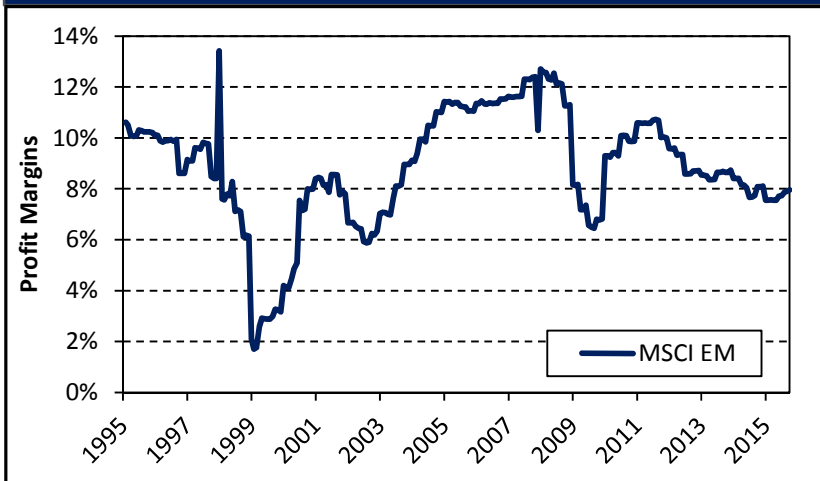
Source: Bloomberg, MSCI

Slowing growth in major economies



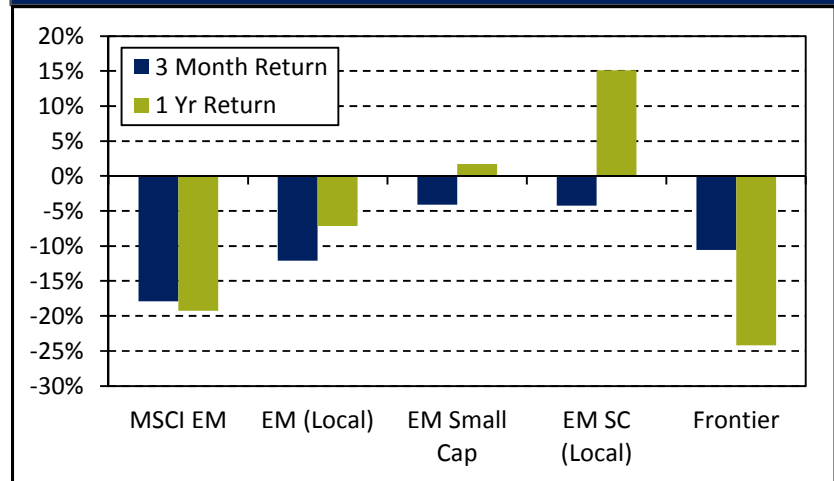
Source: Bloomberg

Profit margins in line with history



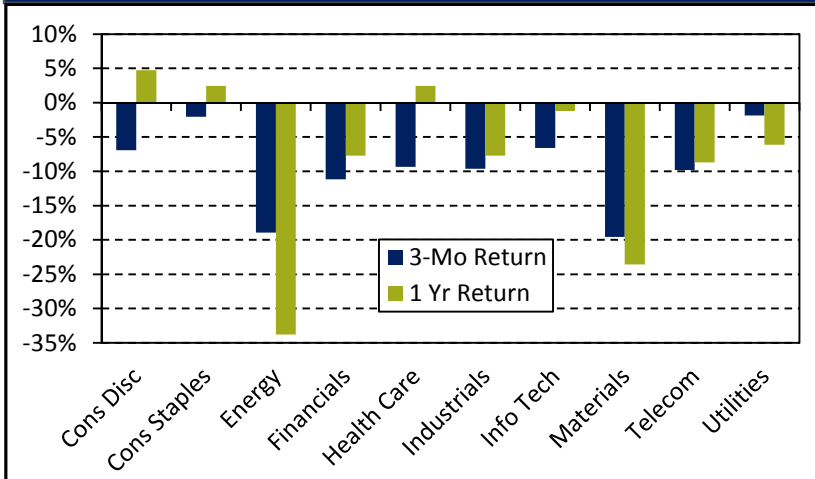
Source: Bloomberg, MSCI

EM returns especially negative



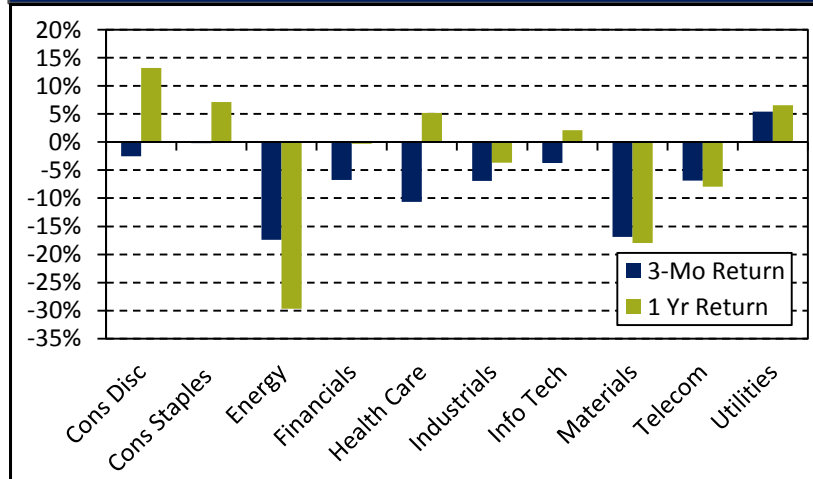
Source: Bloomberg, MSCI

Energy returns sharply negative



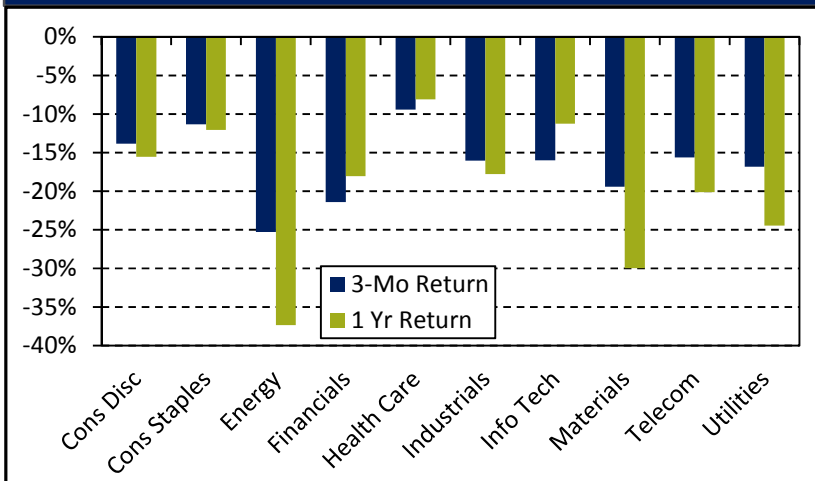
Source: Bloomberg, MSCI

Divergence among S&P 500 sectors



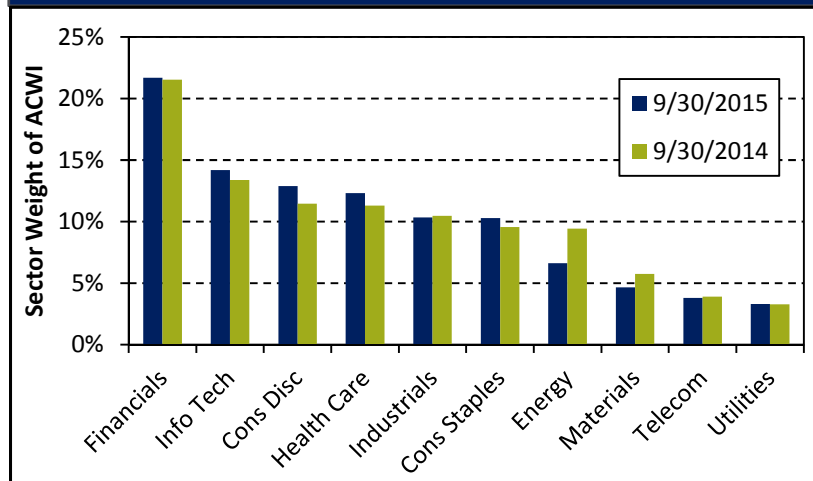
Source: Bloomberg, Standard and Poors

Energy sensitivity especially pronounced in EM

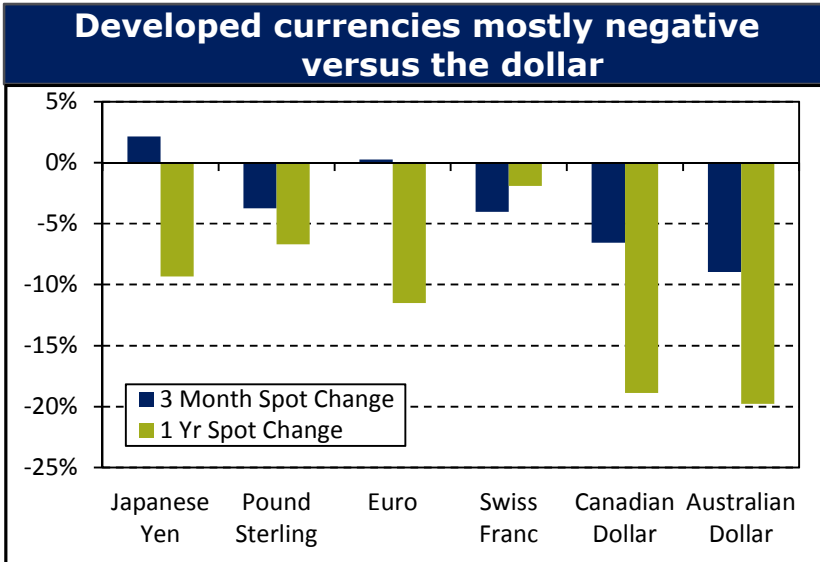


Source: Bloomberg, MSCI

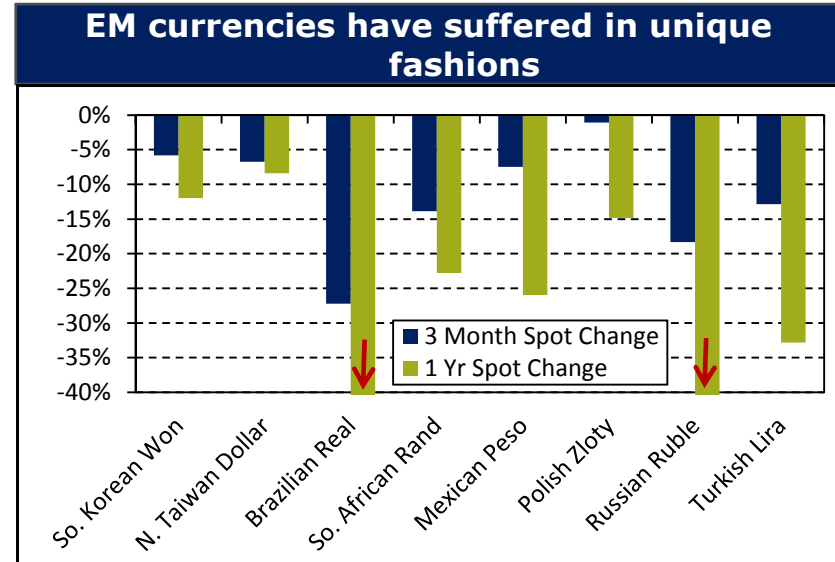
Global energy sector weight has fallen



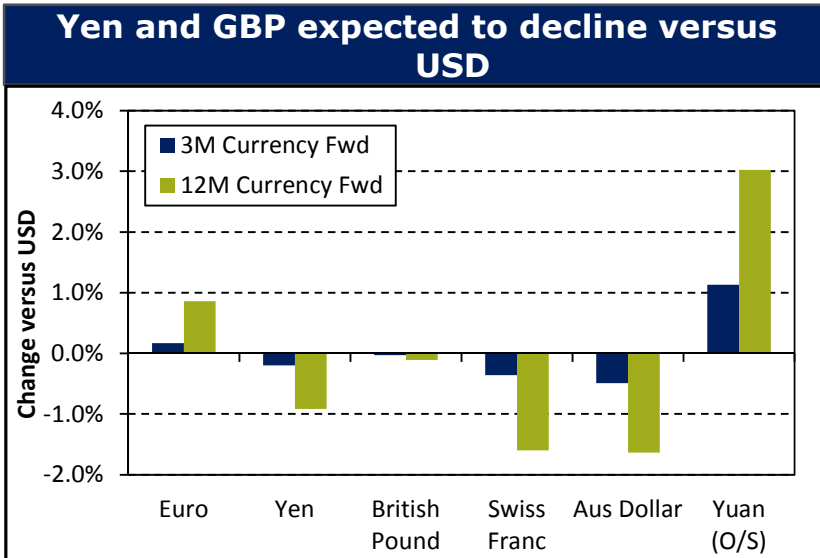
Source: Bloomberg, MSCI



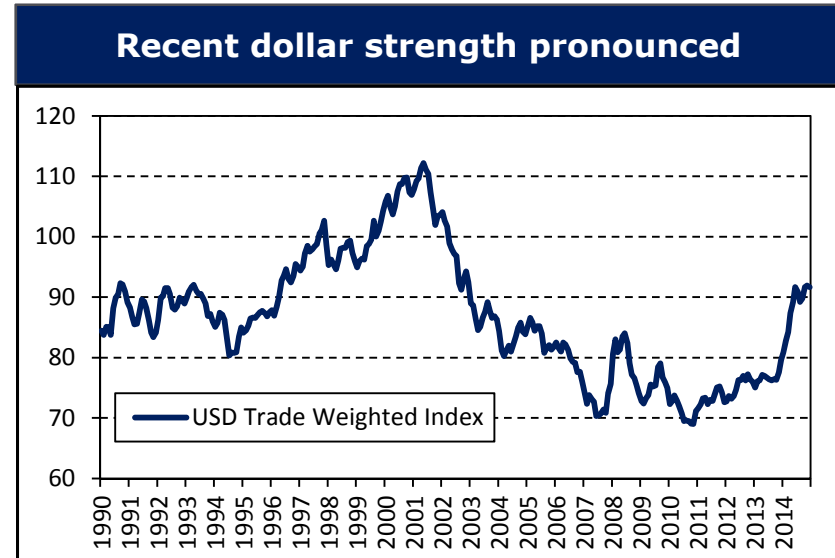
Source: Bloomberg



Source: Bloomberg

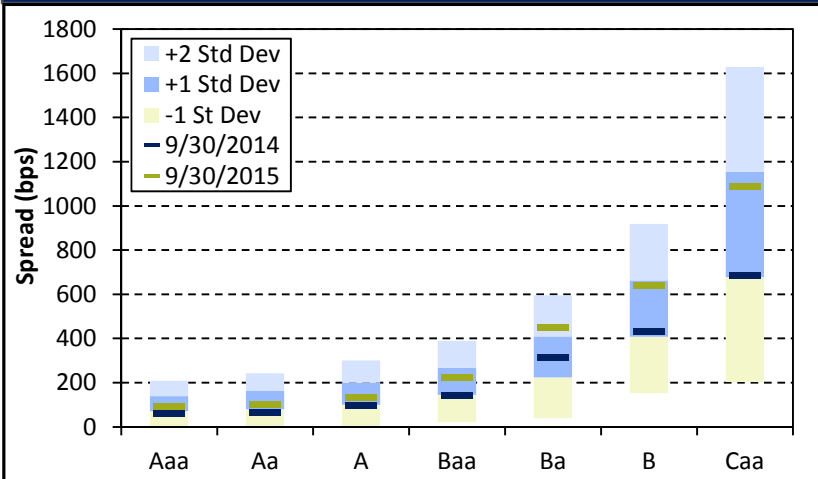


Source: Bloomberg



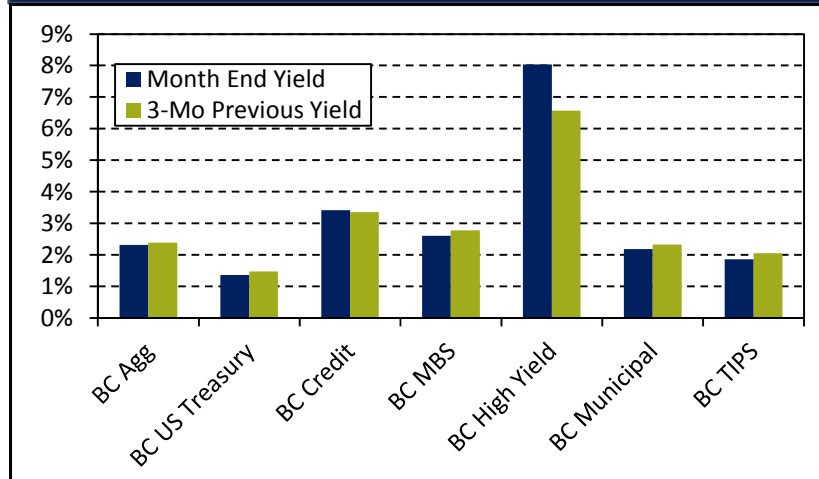
Source: Bloomberg, Federal Reserve

Spread levels drifting above historical medians



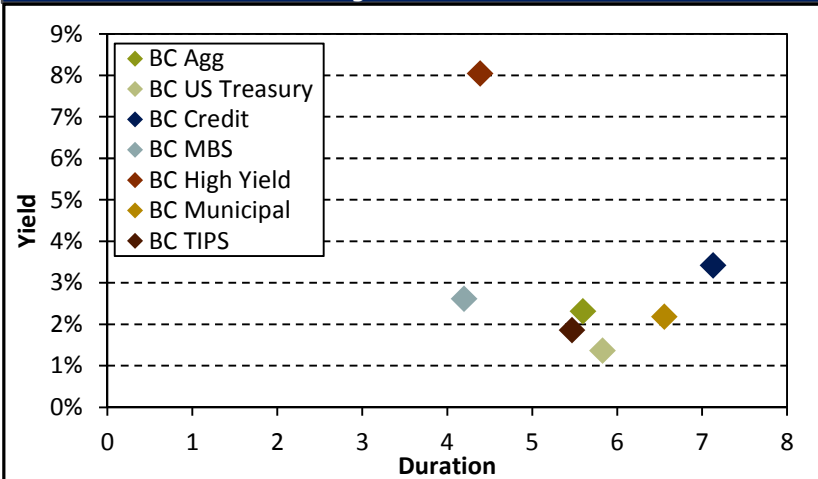
Source: Bloomberg, Barclays

High yield spreads have increased



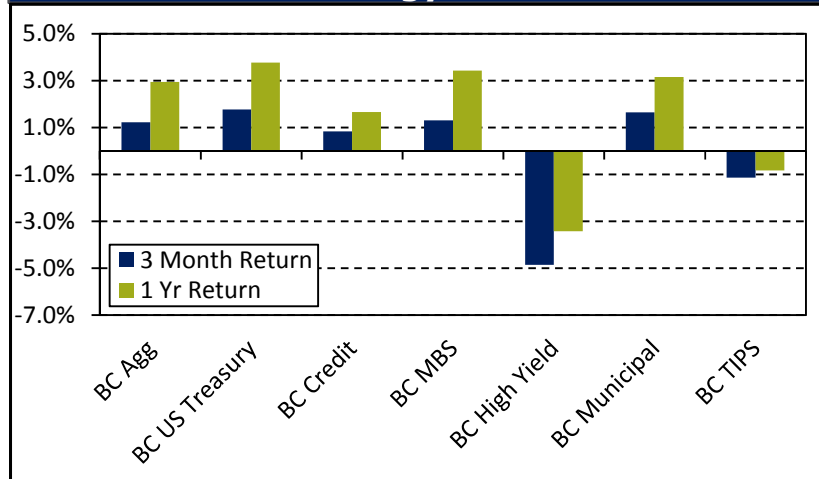
Source: Bloomberg, Barclays

Similar yield/duration tradeoff among major US indices

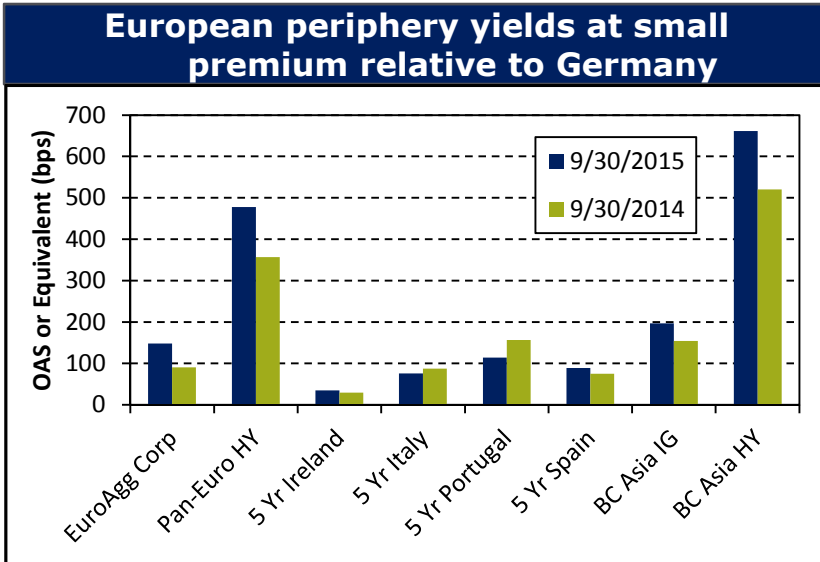


Source: Bloomberg, Barclays

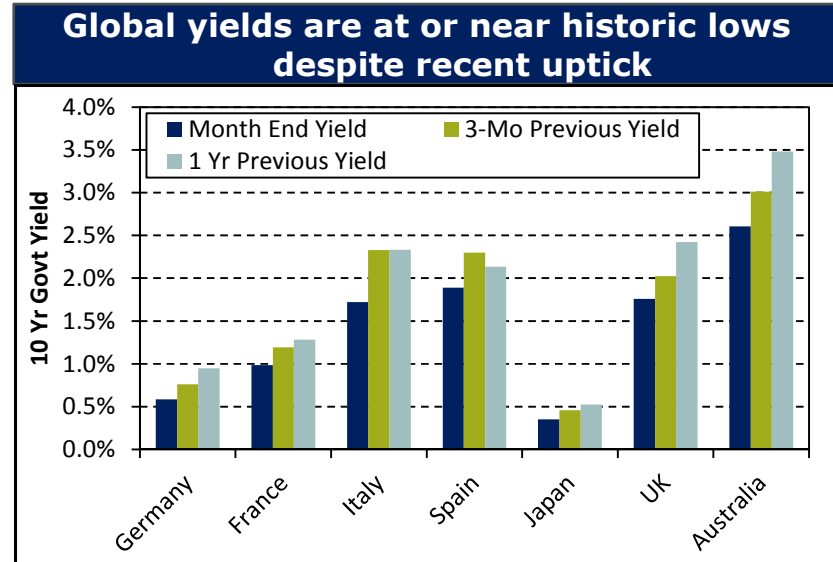
Negative high yield returns driven by energy distress



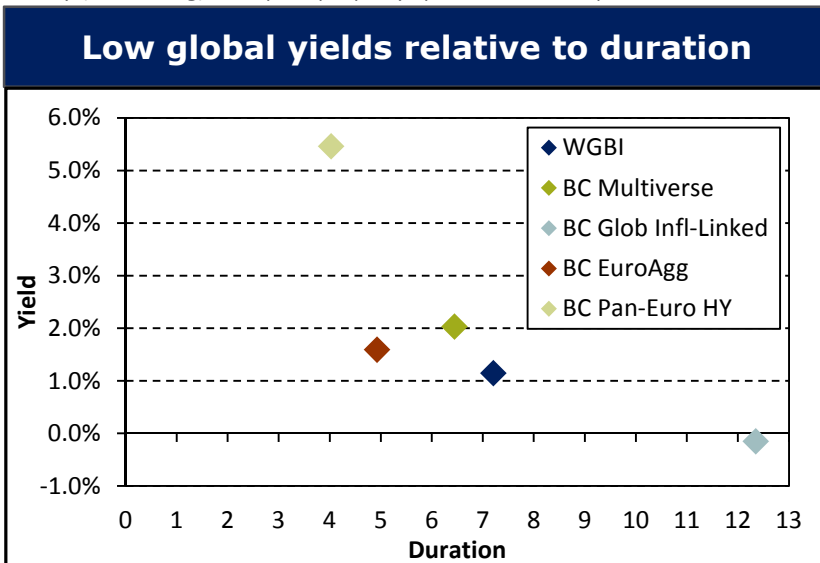
Source: Bloomberg, Barclays



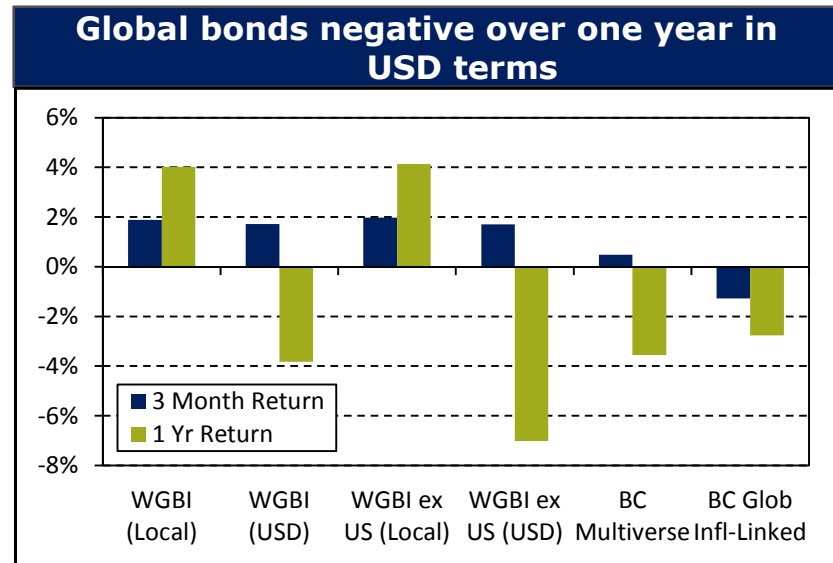
Source: Barclays, Bloomberg, *European periphery spreads are over equivalent German Bund



Source: Bloomberg

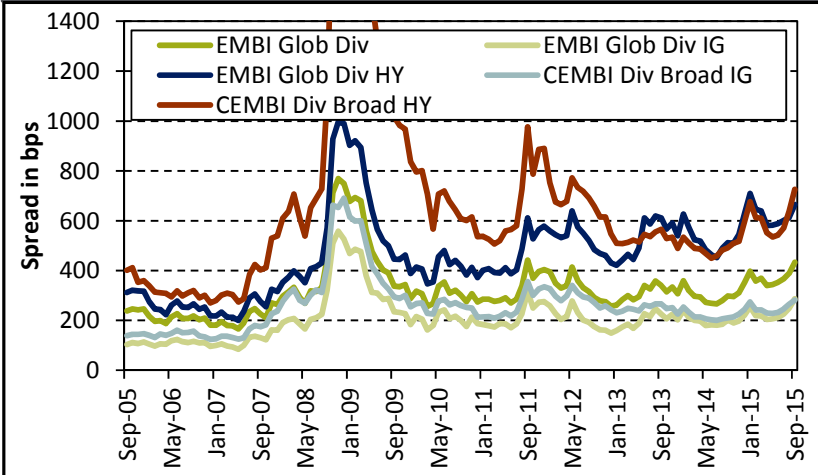


Source: Bloomberg, Citigroup, Barclays



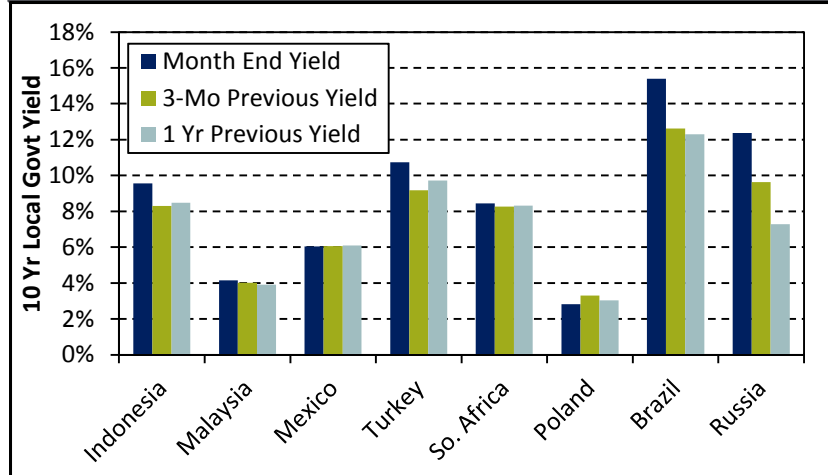
Source: Bloomberg, Citigroup, Barclays

Spreads have widened slightly, still in line with history



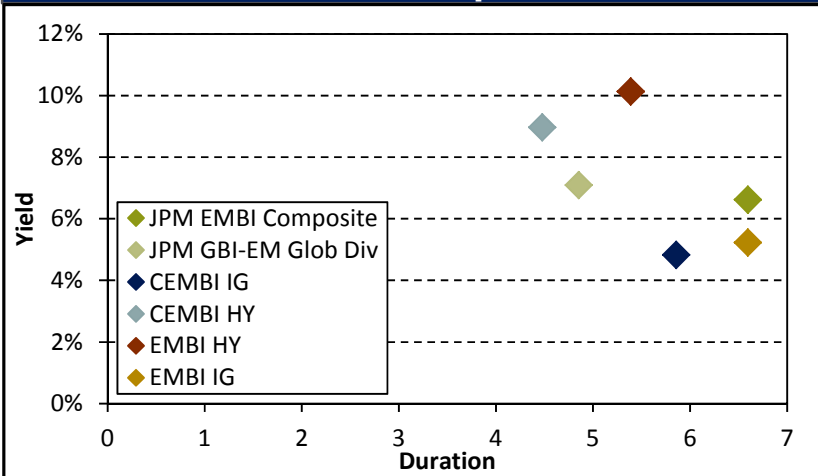
Source: Bloomberg, JP Morgan

Emerging market bond yield changes have varied directionally



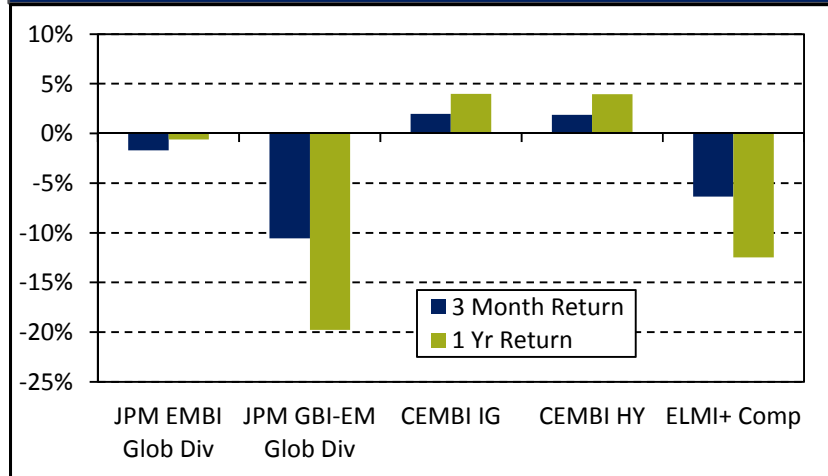
Source: Bloomberg

EM yields higher versus global counterparts



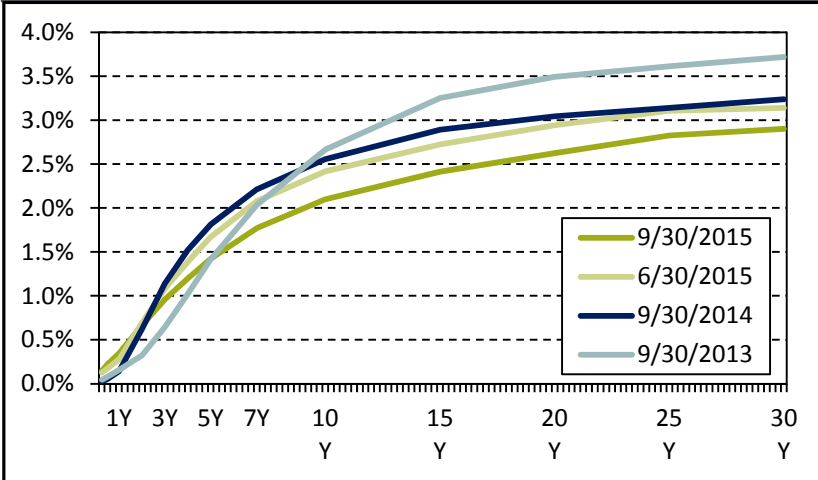
Source: Bloomberg, JP Morgan

Currency effect pronounced in EMD returns



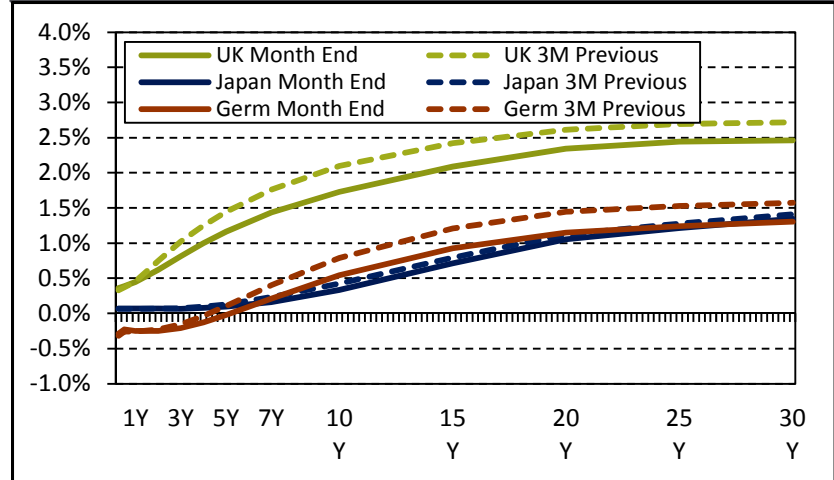
Source: Bloomberg, JP Morgan

Treasury yield curve moderately lower versus Q2



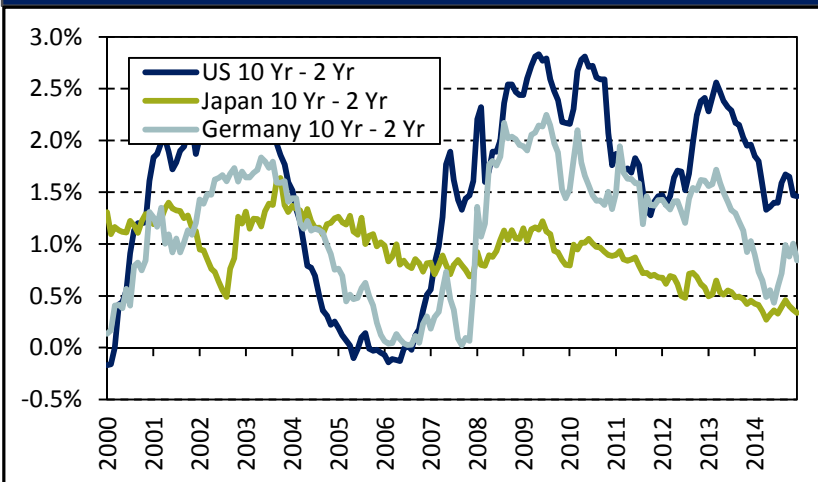
Source: Bloomberg

German and UK curves have shifted downwards



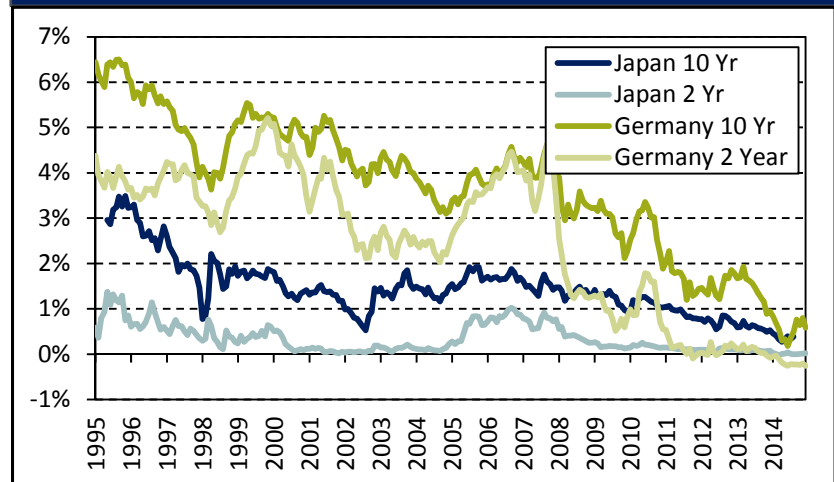
Source: Bloomberg

Global yield curves have flattened



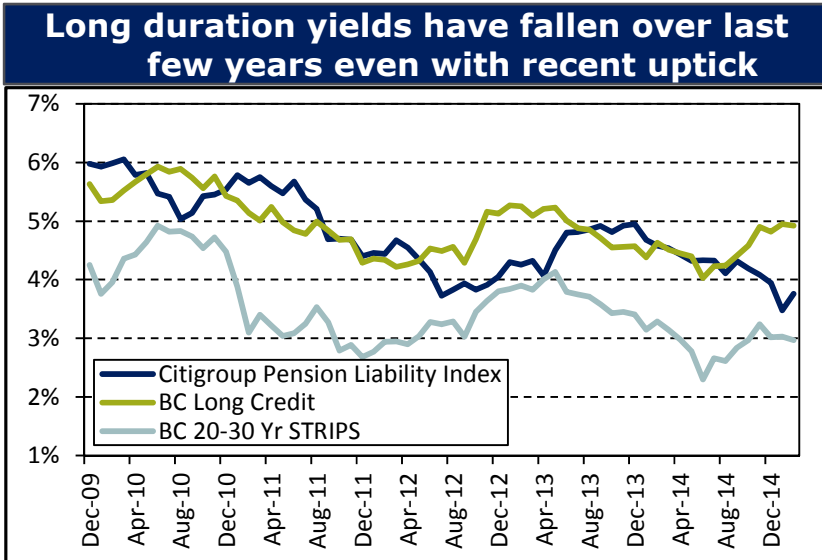
Source: Bloomberg

Global yields have trended lower over long term

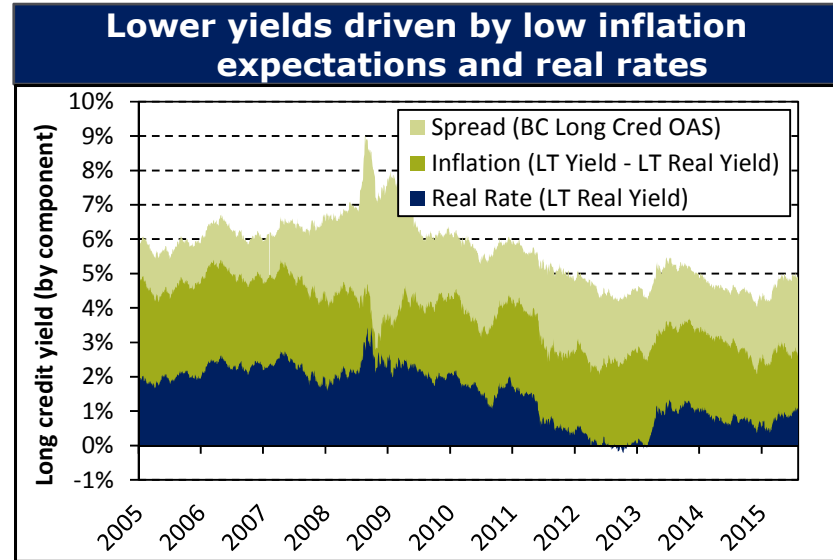


Source: Bloomberg

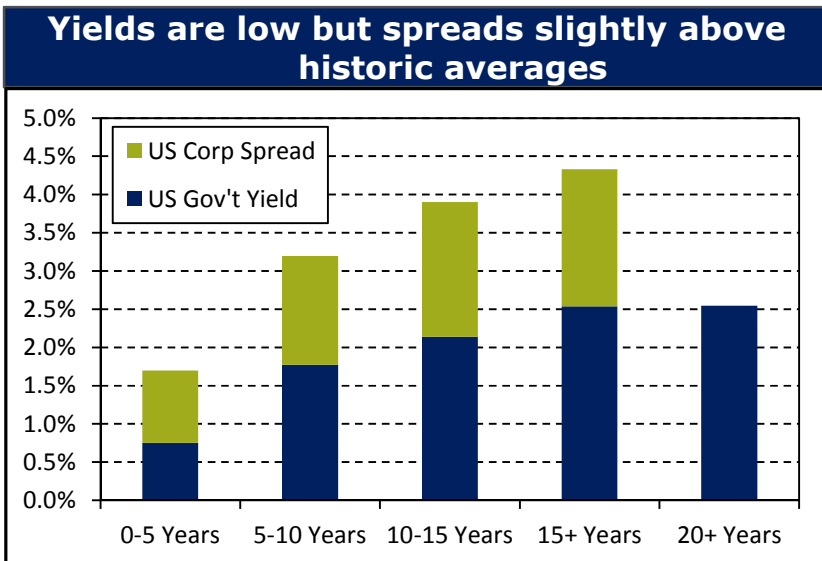




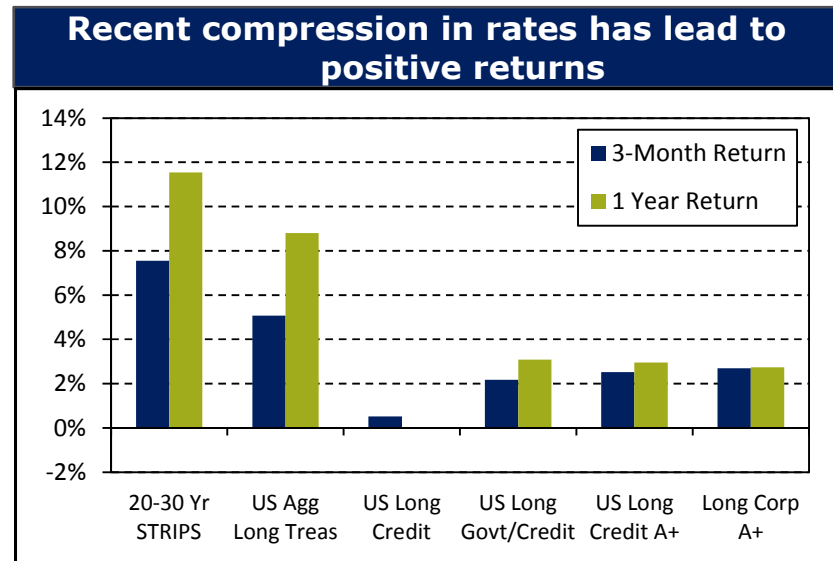
Source: Bloomberg, Citigroup, Barclays



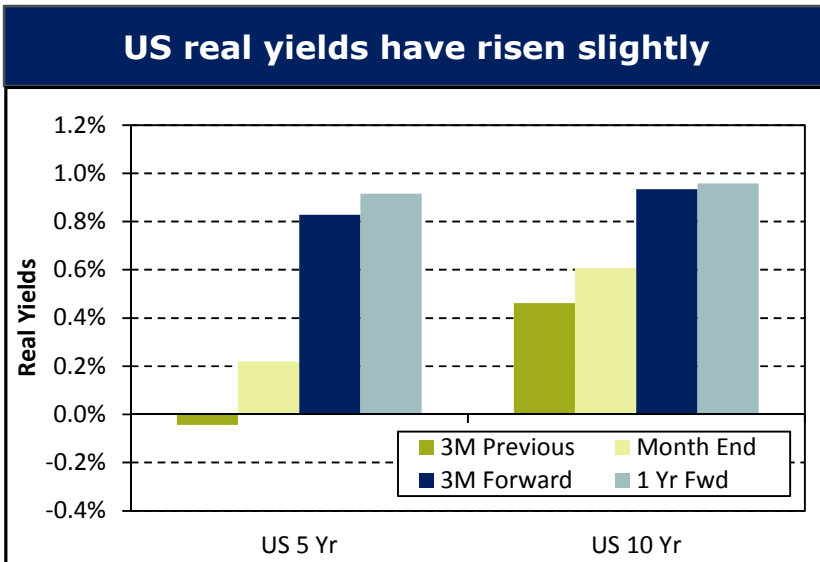
Source: Bloomberg, US Treasury, Barclays, NEPC



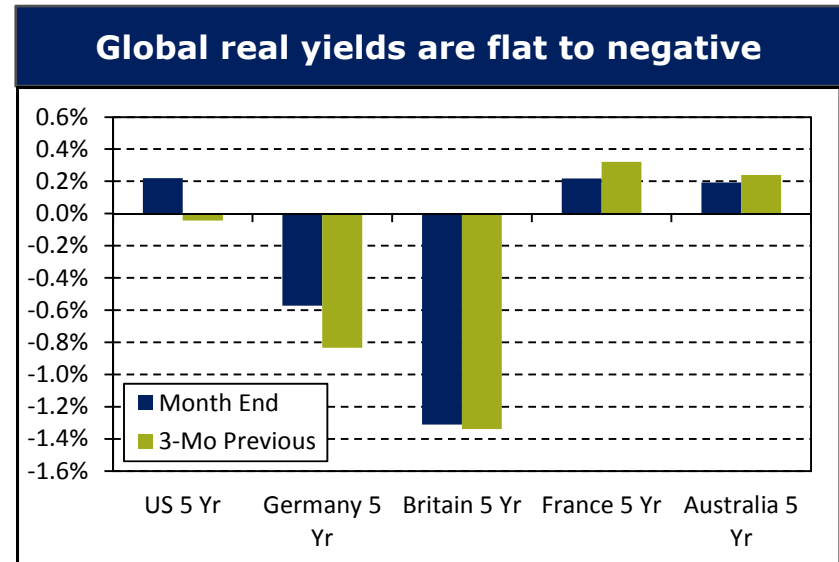
Source: Bloomberg, BofA Merrill Lynch, Barclays *No index for 20+ year corporate



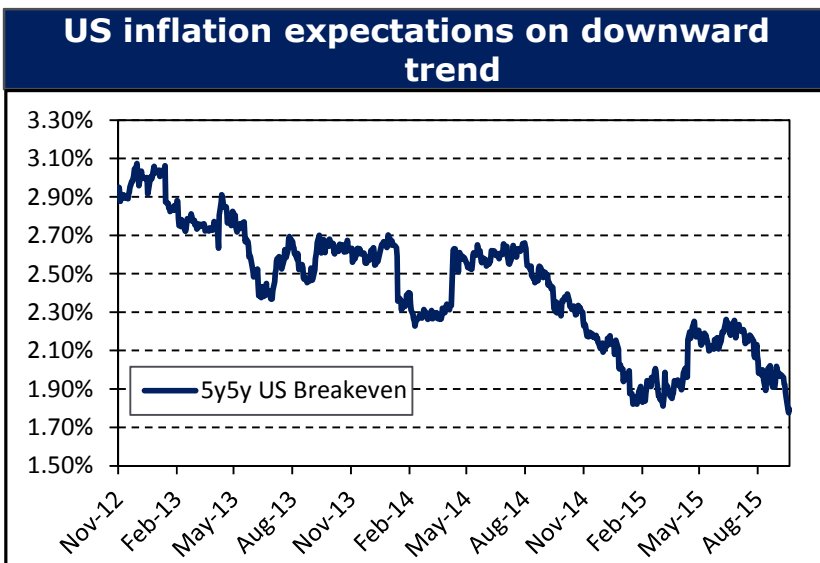
Source: Bloomberg, Barclays



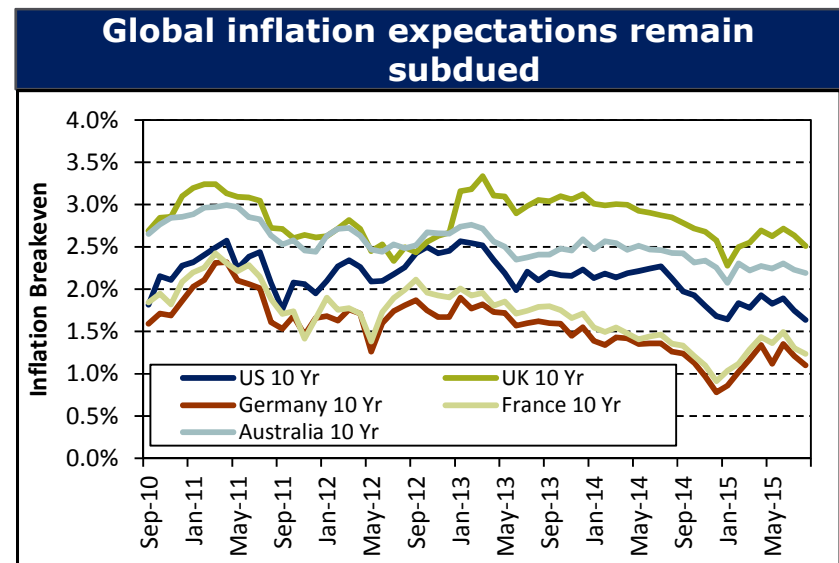
Source: Bloomberg



Source: Bloomberg

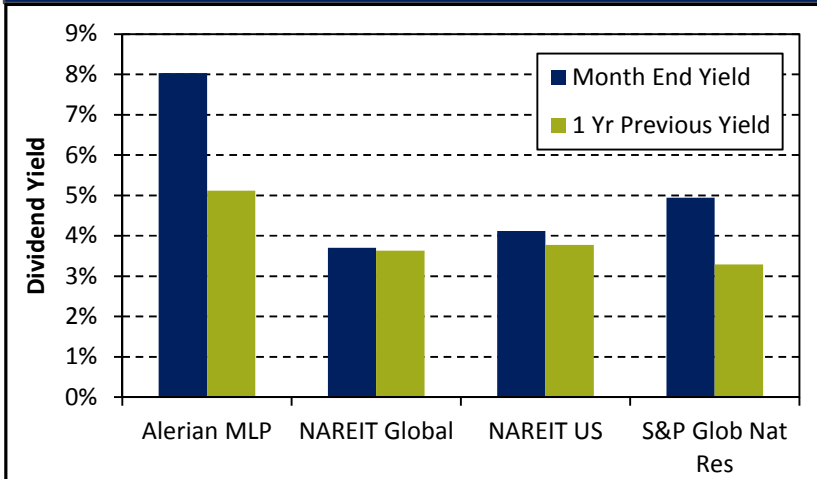


Source: Bloomberg



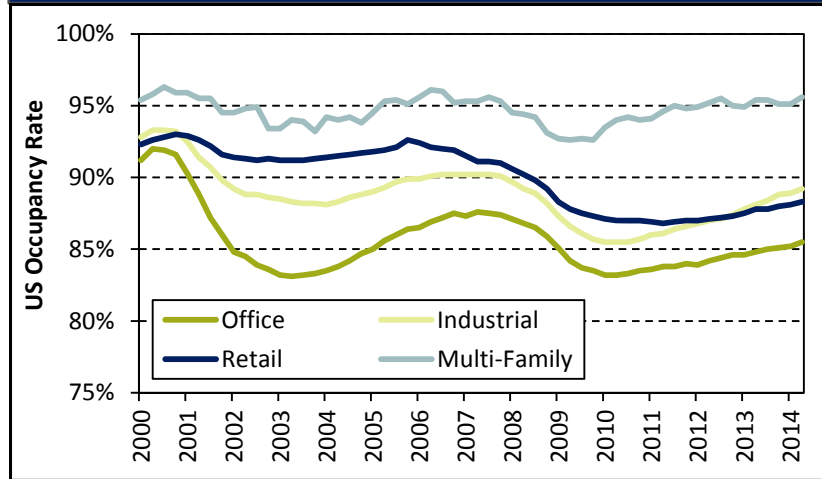
Source: Bloomberg

Yields slightly higher relative to last year



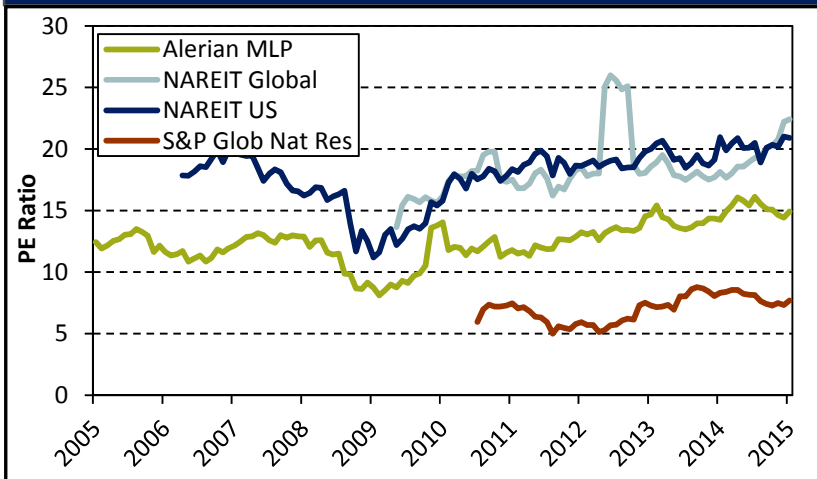
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Gradual recovery in occupancy rates



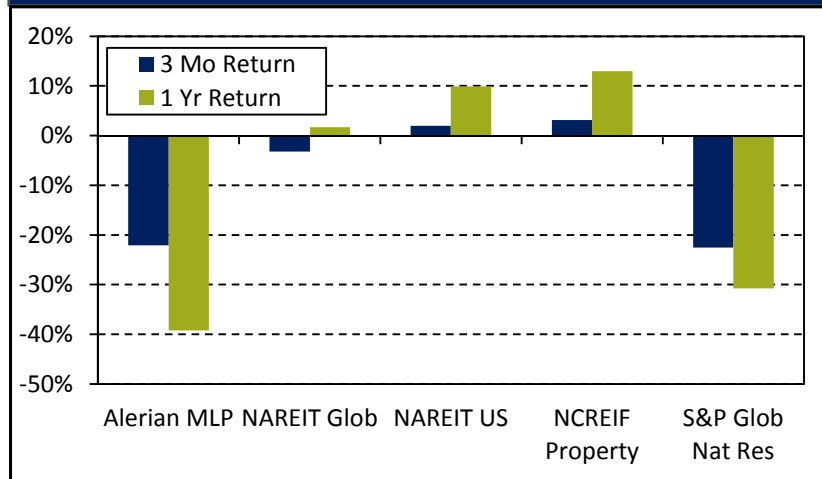
Source: Bloomberg, CB Richard Ellis

PE Ratios near or above averages



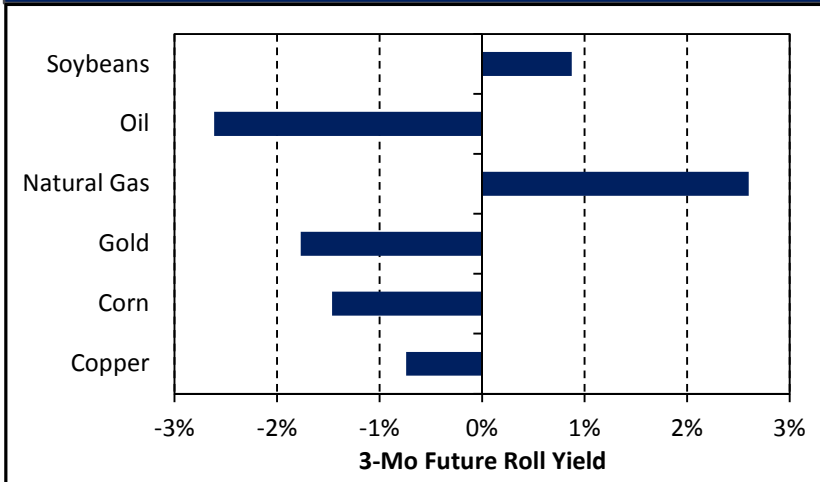
Source: Bloomberg, US Census Bureau

Recent REIT selloff has cut into long rally



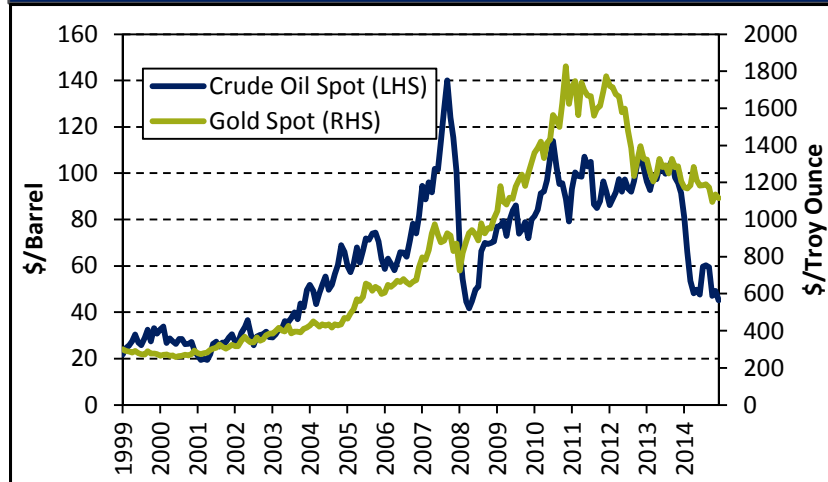
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Negative roll yields in major commodity futures



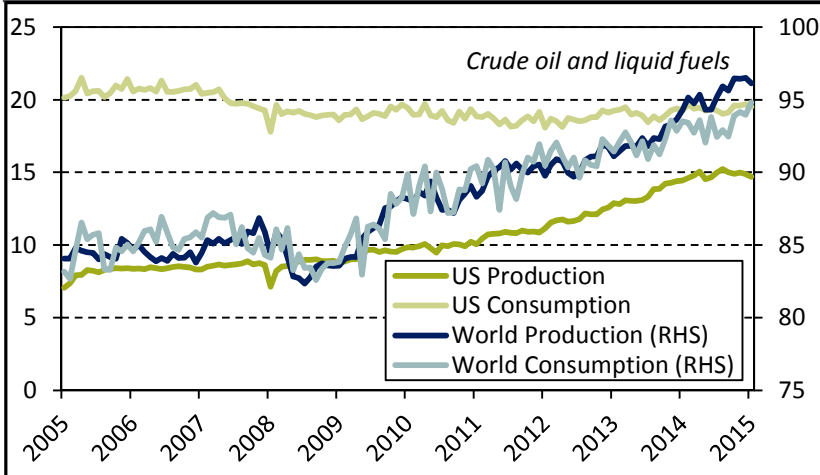
Source: Bloomberg

Precipitous fall in oil prices



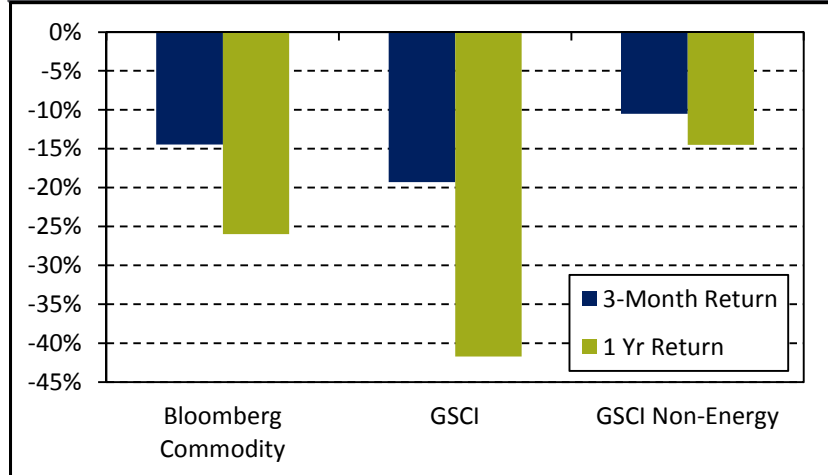
Source: Bloomberg

US fuel production closing gap with consumption



Source: Bloomberg, US Department of Energy *Crude oil and liquid fuels

Commodity indices negative after oil-induced decline



Source: Bloomberg, Standard and Poors