



NEPC, LLC

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**San Bernardino County
Investment Summary
Quarter Ending December 31, 2015**

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Market Environment Update and Outlook



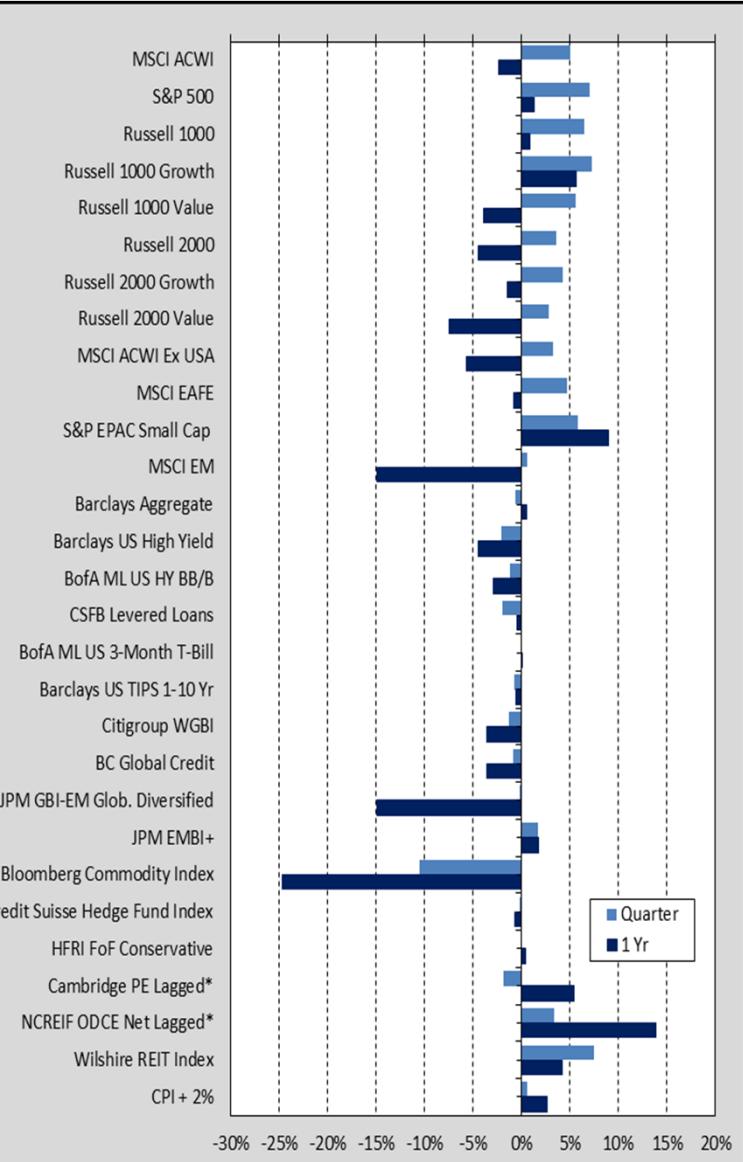
NEPC, LLC

- **Third quarter GDP growth rate (third estimate) printed at 2.0%.**
 - Retail sales (ended November) at +0.9% on a year-over-year growth rate basis. In the same period last year the YoY growth rate was 4.6%.
 - The inventory-to-sales ratio ending November 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 9.9% from 10.3% and remain elevated relative to historical levels.
 - The U.S. trade deficit declined slightly in November.
- **The unemployment rate fell to 5.0% in Q4 from 5.6% in Q4 2014; U-6, a broader measure of unemployment, fell to 9.9% during the fourth quarter.**
- **The Case-Shiller Home Price Index (as of 10/31) increased slightly to 175.7 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 increased to 0.6% from -0.02% at the end of September; Capacity Utilization decreased to 76.5% in December from 77.9% in September.**
- **Fed Funds rate was raised to 0.50% from 0.25%; The 10-year Treasury Yield (constant maturity) finished Q4 at 2.2% flat from Q3.**
- **The Fed balance sheet remained little changed in Q4 2015, while the European Central Bank balance sheet continues to increase.**
 - ECB continues asset purchases of €60 billion per month.
- **S&P valuations decreased in December remaining above the 10-year and long-term averages**
 - Cyclically adjusted Shiller PE ratio (23.95x) 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**
 - Currency volatility has seen a sustained uptick since Q1 2015.

Market Environment – Q4 2015 Overview

		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
World Equity Benchmarks						
MSCI ACWI	World	5.0%	-2.4%	7.7%	6.1%	4.8%
		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
Domestic Equity Benchmarks						
S&P 500	Large Core	7.0%	1.4%	15.1%	12.6%	7.3%
Russell 1000	Large Core	6.5%	0.9%	15.0%	12.4%	7.4%
Russell 1000 Growth	Large Growth	7.3%	5.7%	16.8%	13.5%	8.5%
Russell 1000 Value	Large Value	5.6%	-3.8%	13.1%	11.3%	6.2%
Russell 2000	Small Core	3.6%	-4.4%	11.7%	9.2%	6.8%
Russell 2000 Growth	Small Growth	4.3%	-1.4%	14.3%	10.7%	8.0%
Russell 2000 Value	Small Value	2.9%	-7.5%	9.1%	7.7%	5.6%
		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	3.2%	-5.7%	1.5%	1.1%	2.9%
MSCI EAFE	Int'l Developed	4.7%	-0.8%	5.0%	3.6%	3.0%
S&P EPAC Small Cap	Small Cap Int'l	5.9%	9.0%	10.7%	6.9%	5.7%
MSCI EM	Emerging Equity	0.7%	-14.9%	-6.8%	-4.8%	3.6%
		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	-0.6%	0.5%	1.4%	3.2%	4.5%
Barclays US High Yield	High Yield	-2.1%	-4.5%	1.7%	5.0%	7.0%
BofA ML US HY BB/B	High Yield	-1.1%	-2.9%	2.2%	5.3%	6.5%
CSFB Levered Loans	Bank Loans	-2.0%	-0.4%	2.6%	3.8%	4.1%
BofA ML US 3-Month T-Bill	Cash	0.0%	0.1%	0.1%	0.1%	1.2%
Barclays US TIPS 1-10 Yr	Inflation	-0.7%	-0.5%	-1.8%	1.6%	3.5%
		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
Global Fixed Income Benchmarks						
Citigroup WGBI	World Gov. Bonds	-1.2%	-3.6%	-2.7%	-0.1%	3.4%
BC Global Credit	Global Bonds	-0.8%	-3.5%	-0.3%	2.8%	4.3%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local)	-0.0%	-14.9%	-10.0%	-3.5%	4.3%
JPM EMBI+	Em. Mkt. Bonds	1.8%	1.8%	-0.3%	5.0%	6.7%
		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
Alternative Benchmarks						
Bloomberg Commodity Index	Commodity	-10.5%	-24.7%	-17.3%	-13.5%	-6.4%
Credit Suisse Hedge Fund Index	Hedge Fund	-0.1%	-0.7%	4.3%	3.6%	5.0%
HFRI FoF Conservative	Fund of Funds	0.1%	0.4%	3.7%	2.3%	2.0%
Cambridge PE Lagged*	Private Equity	-1.8%	5.4%	13.5%	14.1%	12.1%
NCREIF ODCE Net Lagged*	Real Estate	3.4%	13.9%	12.4%	12.9%	5.7%
Wilshire REIT Index	REIT	7.5%	4.2%	11.8%	12.4%	7.3%
CPI + 2%	Inflation/Real Assets	0.6%	2.7%	3.0%	3.6%	3.9%

* As of 9/30/2015



Global Equity

- **U.S. equities posted solid gains in the fourth quarter as global volatility continued.**
- **Small cap stocks underperformed large cap stocks during the quarter, with the Russell 2000 Index returning 3.6% and the Russell 1000 Index returning 6.5%.**
- **International equities underperformed U.S. markets during the quarter, returning 3.2%, as measured by the MSCI ACWI ex-U.S. Index.**
 - Developed markets returned 4.7% as measured by the MSCI EAFE Index. The Pacific Region led returns posting a 9.0% gain with New Zealand leading the group up 18.2%. Europe posted modest gains, up 2.5%
 - Emerging markets returned 0.7% as measured by the MSCI Emerging Markets Index in U.S. dollar terms. Indonesia and China led gains returning 20.8% and 13.1% respectively.

Private Equity

- **New private equity commitments totaled \$312 billion in calendar year 2015.**
 - Represents a 14% decline from the \$360 billion raised in 2014, resulting from public equity market volatility and increased economic uncertainties.
- **Buyout and Special Situations fundraising down over 20% from post crisis high in 2014.**
- **Venture capital raised approximately \$43.9 billion in calendar 2015.**
 - VC fundraising as a percent of total new PE funds is in line with historical post-dot com levels at approximately 14%.
- **Energy funds raised \$38.6 billion representing 12% of capital raised in 2015.**
 - Investors are opportunistically approaching the energy market dislocation.
- **Asian private equity commitments slowed to total 8% of total funds raised down from 11% in 2014.**
- **European commitments comprised 23% of all new PE commitments in 2015.**
 - Fifteen pan-European buyout managers with closes on over \$1 billion each raised over half of 2015 total

Fixed Income

- **The yield curve shifted up with intermediate yields increasing 21-39 basis points and long duration yields increasing 14 basis points.**
- **The spread between two and 10-year rates decreased to 121 basis points from 141 basis points ended December. Treasury Inflation-Protected Securities, or TIPS, returned -0.7% during the quarter, as measured by the Barclays US TIPS 1-10 Yr Index.**
- **The Barclays Long Duration Credit Index lost -0.67% as the long end of the curve ended the quarter 14 basis points higher.**
- **Long Treasuries lost -1.38% and investment-grade corporate debt lost -0.52%.**
- **The Barclays 1-3 year Government/ Credit Index returned -0.36% and US high yield bonds lost -2.1%.**
- **Emerging markets debt continued to slow in local currency and was modestly positive in US denominated terms.**
 - US dollar-denominated debt, as measured by the JP Morgan EMBI Index, gained 1.8%; local currency debt was flat, according to the JP Morgan GBI-EM Index.

Real Assets/Inflation-Linked Assets

- **Massive energy market dislocation.**
 - Seek inflation sensitive asset classes that offer positive yield.
 - Oil prices trending lower.
 - Private equity and private debt opportunities may be relatively 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

Market Environment

Commodities

- **Commodities retracted significantly with the Bloomberg Commodity Index posting a -10.5%.**
 - Commodities ended the year down -24.6% with 21 of the 22 single-commodity indexes posting losses.

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.
- **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.



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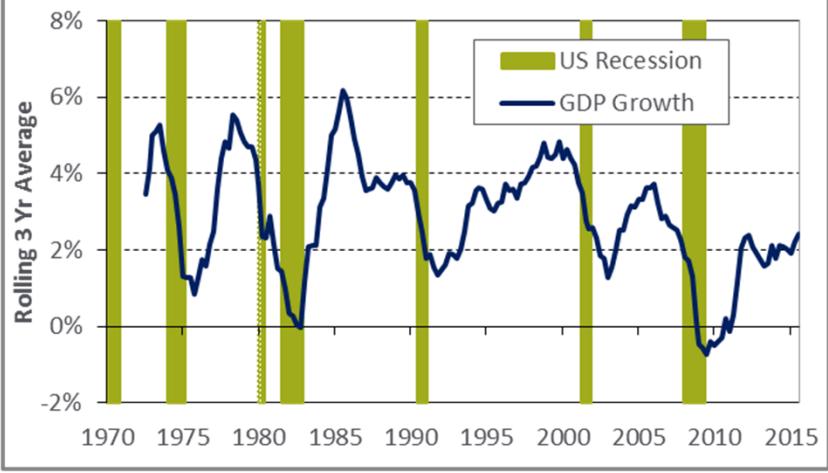
December 31, 2015

Corporate Profits: Mid-Late Cycle



Source: St. Louis Federal Reserve

Economic Growth Levels: Mid Cycle



Source: St. Louis Federal Reserve

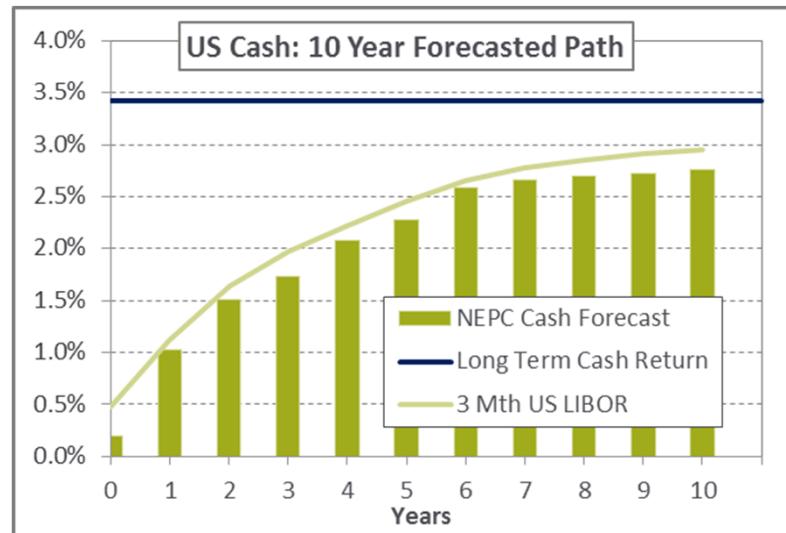
Wage Growth: Early Cycle



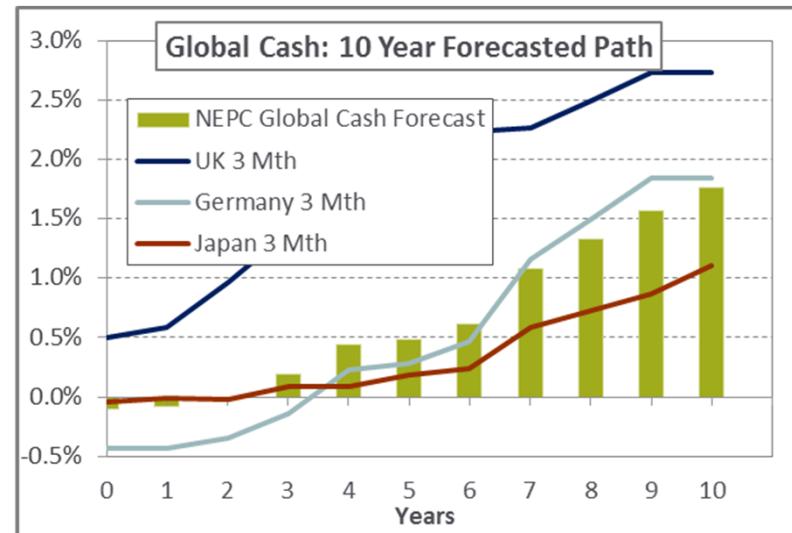
Source: St. Louis Federal Reserve

Where Are We In the Economic Cycle?

- Relative to the average length of economic cycles the US expansion is in its later stages**
- Improvement in wage growth and consumer spending can potentially extend the expansion**
- Continued US expansion provides a positive foundation for US risk assets**

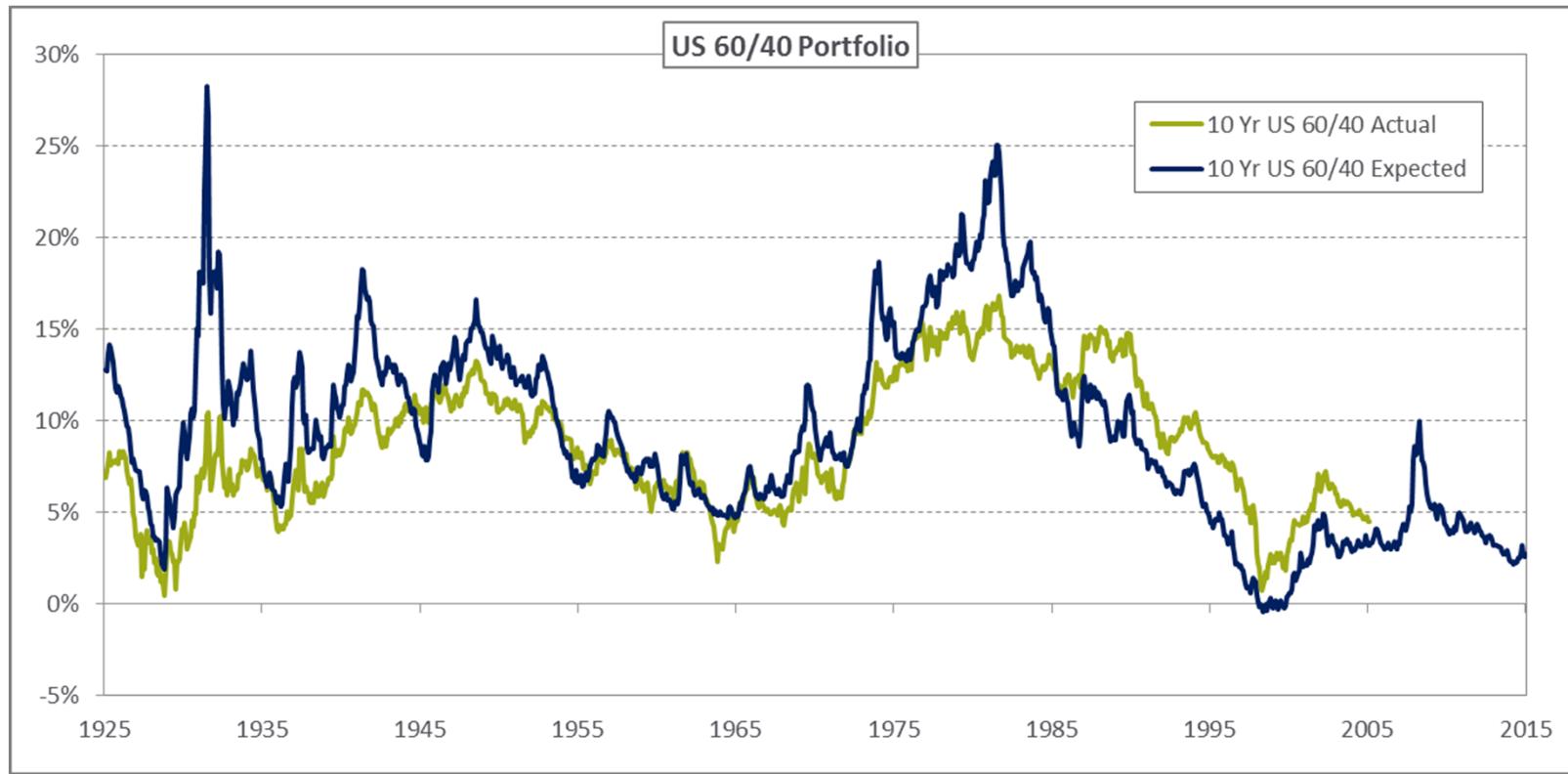


Source: Bloomberg, NEPC



Source: Bloomberg, NEPC

- **Accommodative global monetary policies flow through to markets distorting the traditional asset return profile**
 - QE and negative interest rates suppress income while supporting higher valuations
 - Provides near term support for market conditions in Europe and Japan
- **Potential extended period of low cash rates beyond the market expectations pose challenges for all investors**
 - Subdued long term cash expectations in the developed world compress long term expected returns for both fixed income and equity



Source: Shiller Data, NEPC

- **US centric portfolios like 60/40 have worked historically but forward looking return prospects are subdued**
 - Asset prices can be sustained but low yields portend below average expected returns
- **Conventional investment approaches may fall short going forward**
 - Index focused approaches, such as core bonds, suboptimal in current environment
 - Adjustments will be necessary to effectively meet and exceed long-term objectives

- **Maintain exposure to US risk assets in a low return environment**
 - Lower returns expected but risk premia can still be harvested as cycle extends
 - Economic cycle is in the advanced stages but macro policy remains supportive
 - Low core bond returns warrant a more positive tilt to equity, especially after sell-offs
- **Overweight non-US developed market equities**
 - Central bank support and dollar strength provide a positive economic backdrop
 - Corporate earnings remain well below 2007 levels despite recent earnings recovery
 - EAFE equity markets offer the potential for outsized returns relative to US equities
- **Reaffirm commitment to emerging market equities**
 - Valuations and long-term fundamentals suggest an overweight
 - China uncertainty, dollar pressure and idiosyncratic country risks temper excitement
 - Overweight small-cap and consumer focused strategies relative to broad mandates
- **Seek tactical fixed income strategies but preserve duration exposure**
 - Spreads have widened but credit selection is critical as credit cycle matures
 - US duration continues to have a role in a diversified and risk-aware portfolio
 - TIPS offer an attractive duration profile with inflation expectations at secular lows
- **Explore positive yielding assets revealed from energy market distress**
 - Private strategy returns are compelling but suggest patience
 - Focus on segments of the public markets that offer a yield

NEPC Updates

December 31, 2015

Highlights of Fourth Quarter Happenings at NEPC

After 30 Years NEPC's Founder has Transitioned to Chairman Emeritus

- NEPC's founder and chairman Richard "Dick" Charlton retired on January 1, 2016 after overseeing a decade-long succession process that involved a change in corporate structure and a planned approach to distributing his ownership shares. Dick had the foresight to begin distributing equity to partners 25 years ago and the formal succession process began in late 2007. Dick's vision for a client-focused organization continues to be the hallmark of NEPC and this deep-rooted culture will live on for generations to come. Mike Manning continues in his leadership role as Managing Partner with the guidance of our Partnership; a Partnership recognized throughout the industry for its depth, talent and culture. We are well positioned to lead in this increasingly competitive marketplace. NEPC has never been stronger.



Professional Staff Updates

- **New Principals:** Lenia Ascenso, Principal and Director of Discretionary Operations; Devan Dewey, Principal and Chief Technology Officer; and Matt Lombardi, Principal and Chief Financial Officer
- We are also pleased to announce that Wyatt Crumpler joined NEPC in November as a Principal and Senior Consultant from American Beacon Advisors, Inc., and Sam Pollack joined NEPC as a Senior Consultant from DiMeo Schneider and Associates. Wyatt is a member of NEPC's Corporate consulting group and Sam is a member of NEPC's Endowment & Foundation consulting group.

Upcoming/Recent Events

- 2016 Market Outlook Webinar: January 26, 2016 at 2:00 PM EST.
- NEPC's 21st Annual Client Conference: May 10-11, 2016 in Boston at the Hynes Convention Center.
 - This year we will be offering an optional pre-conference workshop on Monday, May 9th at NEPC's Boston office.
- NEPC hosted a Manager Diversity Program event at our Boston office on October 12, 2015 in an effort to continue and enhance our firm's efforts in this area. The purpose of the gathering was to provide an opportunity for diverse managers to meet NEPC and have an open discussion about our research efforts in the arena of minority- and female-owned firms.

NEPC Updates

December 31, 2015

Highlights of Fourth Quarter Happenings at NEPC - continued

NEPC Research

Recent White Papers

- *2015 Fourth Quarter Market Thoughts*
- *Governance: The Cornerstone of Successful Investment Programs* (January 2016) – Endowment & Foundation Practice Team
- *Green Bonds: An Overview* (December 2015) – NEPC Impact Investing Committee
- *Completing the Analysis: ESG Integration* (November 2015) – NEPC Impact Investing Committee
- *NEPC's Survey on Hedge Fund Operations* (November 2015) – Hedge Fund Operational Due Diligence team
- *Market Chatter: The Rise and Fall (and Rise?) of Oil Prices* (October 2015)



NEPC Recognitions

- NEPC, LLC was awarded "Best Full-Service Investment Consulting Firm - USA" by Acquisition International for the 2016 Hedge Fund Awards ¹

NEPC Client Recognitions

- Congratulations to the following NEPC clients for their nominations as Asset Owner Finalists for the 2015 CIO Industry Innovation Awards. Five NEPC clients who won awards in their categories are also highlighted below.
 - **Foundation:** Wisconsin Alumni Research Foundation (Carrie Thome) - Category Winner; Northwest Area Foundation (Amy Jensen)
 - **Endowment:** Fordham University (Eric Wood); Texas Tech University System (Tim Barrett)
 - **Public Defined Benefit Plan Below \$15B:** Orange County Employees Retirement System (Girard Miller) - Category Winner; MoDOT and Patrol Employees' Retirement System (Larry Krummen)
 - **Public Defined Benefit Plan Between \$15B and \$100B:** Massachusetts PRIM (Michael Trotsky) - Category Winner
 - **Public Defined Benefit Plan Above \$100B:** New York City Retirement System (Scott Evans); State of Wisconsin Investment Board (David Villa)
 - **Health Care Organization:** Baylor Scott and White Health (Mark Amiri) - Category Winner; Trinity Health (Dina Richards)
 - **Next Generation:** Massachusetts PRIM (Sarah Samuels) - Category Winner

¹ This award pertains to NEPC's past performance only and is not indicative of NEPC's future performance. It should not be considered an endorsement of NEPC.

December 31, 2015

Total Fund Performance

San Bernardino County Employees' Retirement Association

Total Fund Performance Summary (Gross)

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
Total Fund	\$8,016,829,561	-0.4%	99	-3.5%	72	0.5%	32	6.5%	64	7.3%	37	5.0%	80
Policy Index		2.0%	78	-1.6%	16	-0.5%	67	5.1%	92	5.8%	93	5.4%	71
S&P 500		7.0%	1	0.2%	1	1.4%	21	15.1%	1	12.6%	1	7.3%	1
Barclays Aggregate		-0.6%	99	0.7%	1	0.5%	31	1.4%	99	3.2%	99	4.5%	95
60% MSCI ACWI (Gross)/40% CITI WGBI		2.9%	33	-1.6%	15	-1.4%	89	5.0%	93	5.0%	95	5.0%	79
InvestorForce Public DB > \$1B Gross Median		2.6%		-2.7%		-0.1%		7.5%		7.0%		5.9%	

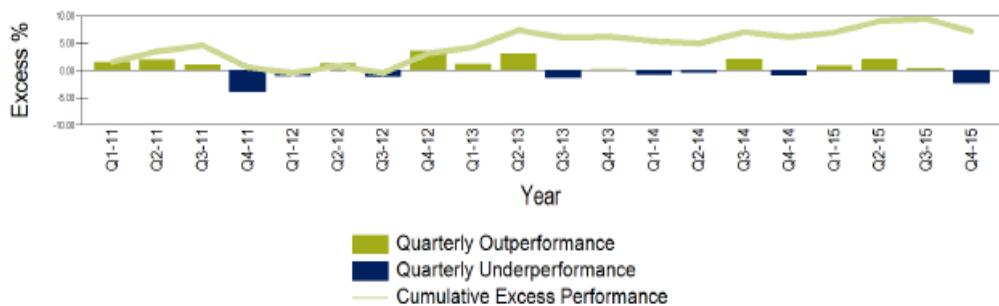
In the year ending December 31, 2015 the Fund returned 0.5% ranking in the 32nd percentile of Public Funds > \$1Billion. The Fund's assets totaled \$8.0 billion, a decrease of \$18.0 million from a year ago.

The Fund experienced a net investment gain of \$15.4 million in the year ended December 31, 2015 including a net investment loss of \$34.8million in the fourth calendar quarter.

In the three -year period ending December 31, 2015 the Fund returned 6.5% and ranked in the 64th percentile among its peers. The Sharpe Ratio over this period of 1.9 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 December 31, 2015 the Fund returned 7.3% per annum and ranked in the 37th percentile among its peers. 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 December 31, 2015

	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	1.9	1	4.0	1
InvestorForce Public DB > \$1B Gross Median	1.1	--	2.0	--

5 Years Ending December 31, 2015

	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	1.6	1	2.1	1
InvestorForce Public DB > \$1B Gross Median	0.9	--	1.3	--

Note: Universe data is preliminary and includes 33 plans with \$239.5 billion in assets.



NEPC, LLC

December 31, 2015

San Bernardino County Employees' Retirement Association

Total Fund Performance Summary

Statistics Summary

1 Year Ending December 31, 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	0.5%	32	3.9%	4	0.1	32	0.2	26
InvestorForce Public DB > \$1B Gross Median	-0.1%	--	7.2%	--	0.0	--	0.0	--

Statistics Summary

3 Years Ending December 31, 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	6.5%	64	3.3%	1	1.9	1	4.0	1
InvestorForce Public DB > \$1B Gross Median	7.5%	--	6.4%	--	1.1	--	2.0	--

Statistics Summary

5 Years Ending December 31, 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	7.3%	37	4.4%	1	1.6	1	2.1	1
InvestorForce Public DB > \$1B Gross Median	7.0%	--	7.3%	--	0.9	--	1.3	--

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



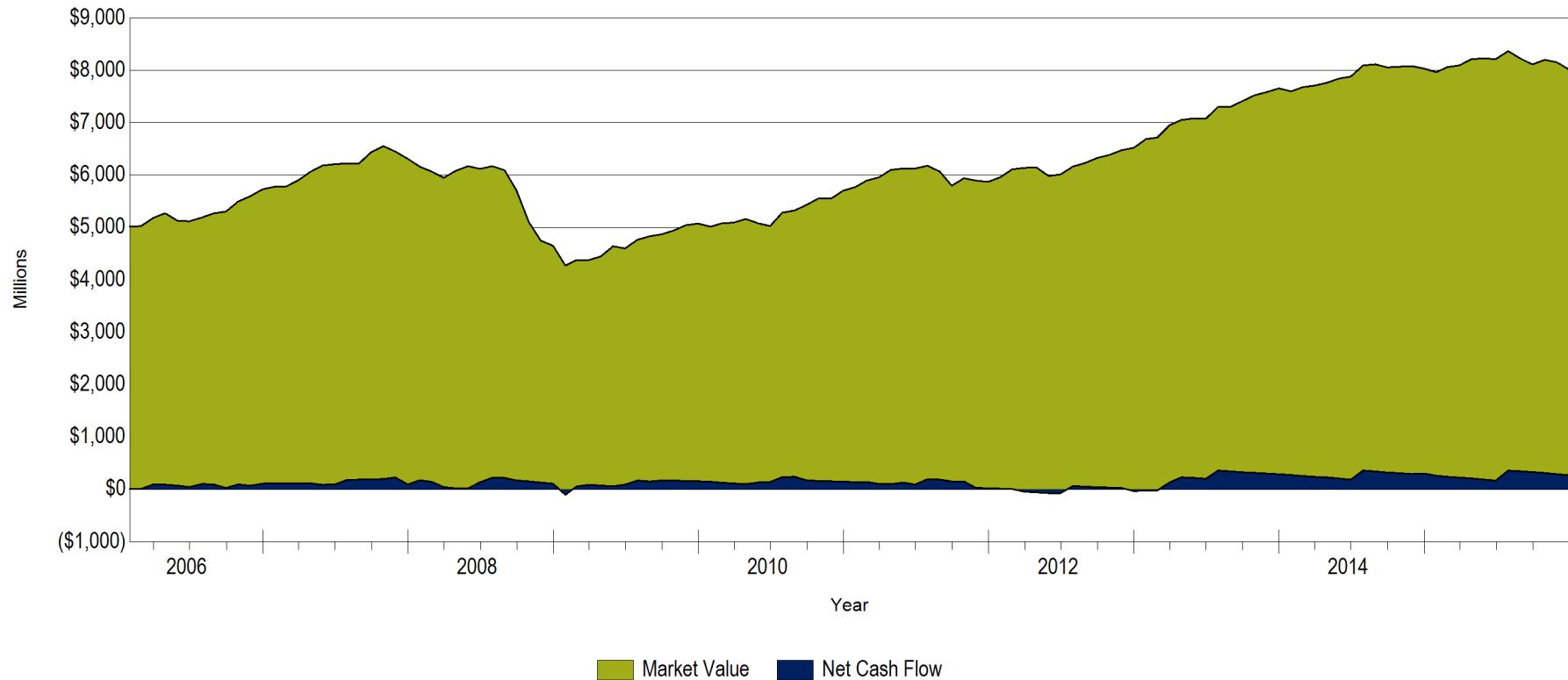
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San Bernardino County Employees' Retirement Association

Total Fund Asset Growth Summary

10 Years Ending December 31, 2015



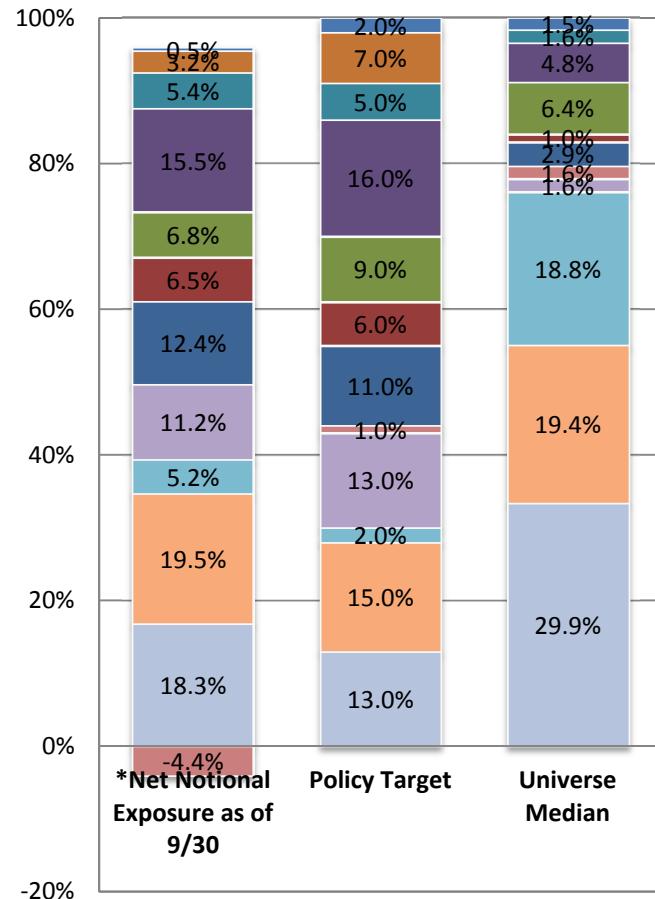
Sources of Portfolio Growth	Last Three Months	One Year	Five Years	Ten Years
Beginning Market Value	\$8,112,094,828	\$8,034,830,748	\$5,701,685,422	\$4,862,166,014
Net Additions/Withdrawals	-\$60,421,158	-\$33,376,075	\$121,000,154	\$267,354,699
Investment Earnings	-\$34,844,108	\$15,374,887	\$2,194,143,985	\$2,887,308,848
Ending Market Value	\$8,016,829,561	\$8,016,829,561	\$8,016,829,561	\$8,016,829,561



NEPC, LLC

December 31, 2015

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						
US Equities	1,464,448	18.3%	13.0%	5.3%	8%-18%	No
Int'l Equities	1,559,432	19.5%	15.0%	4.5%	10%-20%	Yes
U.S. Core Fixed Income	413,145	5.2%	2.0%	3.2%	-3%-7%	Yes
US Credit	899,394	11.2%	13.0%	-1.8%	8%-18%	Yes
Non-US Core Fixed Income	(355,347)	-4.4%	1.0%	-5.4%	-4%-6%	No
Non-US Credit	996,135	12.4%	11.0%	1.4%	6%-16%	Yes
Emerging Market Debt	523,010	6.5%	6.0%	0.5%	1%-11%	Yes
Real Estate	544,850	6.8%	9.0%	-2.2%	4%-14%	Yes
Private Equity	1,241,218	15.5%	16.0%	-0.5%	11%-21%	Yes
Real Assets	431,050	5.4%	5.0%	0.4%	0%-10%	Yes
Absolute Return	258,911	3.2%	7.0%	-3.8%	2%-12%	Yes
Cash	40,683	0.5%	2.0%	-1.5%	0%-10%	Yes
Total						
	8,016,930	100.0%	100.0%			

- US Equities
- Int'l Equities
- U.S. Core
- US Credit
- Non-US Core Fixed Income
- Non-US Credit
- Emerging Market Debt
- Real Estate
- Real Assets
- Cash

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



NEPC, LLC

December 31, 2015

San Bernardino County Employees' Retirement Association

SBCERA Delta Adjusted Asset Summary

<u>Asset Class</u>	<u>Delta Adjusted</u>				<u>Net Position</u>	<u>Overlay Target</u>	<u>Policy Target</u>
	<u>Physical Exposure</u>	<u>Synthetic Exposure</u>	<u> </u>	<u> </u>			
Total Market Value	7,999.9	100.0 %	0.0	0.0 %	7,999.9	100.0 %	7,999.9 100.00 %
Cash	1,502.4	18.8 %	-1,507.7	-18.8 %	-5.3	-0.1 %	0.0 0.00 %
Cash	1,502.4	18.8 %	-1,507.7	-18.8 %	-5.3	-0.1 %	0.0 0.00 %
Equity	1,261.6	15.8 %	1,770.9	22.1 %	3,032.6	37.9 %	3,026.4 37.8 %
Emerging Markets	166.2	2.1 %	462.7	5.8 %	628.9	7.9 %	637.1 8.0 %
Equity Delta Hedge	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0 0.00 %
International Developed	183.0	2.3 %	769.4	9.6 %	952.4	11.9 %	955.7 11.9 %
US Large Cap	889.3	11.1 %	261.2	3.3 %	1,150.5	14.4 %	1,154.8 14.4 %
US Small Cap	23.1	0.3 %	277.7	3.5 %	300.8	3.8 %	278.8 3.5 %
Fixed	2,572.1	32.2 %	-263.2	-3.3 %	2,308.8	28.9 %	2,309.6 28.9 %
EM High Yield CDX	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0 0.00 %
Global ex US Fixed Income	1,629.7	20.4 %	-480.7	-6.0 %	1,149.0	14.4 %	1,154.8 14.4 %
High Yield	942.4	11.8 %	0.0	0.0 %	942.4	11.8 %	736.7 9.2 %
US Fixed Income	0.0	0.0 %	217.5	2.7 %	217.5	2.7 %	418.1 5.2 %
Other	2,663.8	33.3 %	0.0	0.0 %	2,663.8	33.3 %	2,663.8 33.3 %
Alternatives	196.4	2.5 %	0.0	0.0 %	196.4	2.5 %	196.4 2.5 %
Commodities	136.4	1.7 %	0.0	0.0 %	136.4	1.7 %	136.4 1.7 %
Infrastructure	83.9	1.0 %	0.0	0.0 %	83.9	1.0 %	83.9 1.0 %
Private Equity	1,224.1	15.3 %	0.0	0.0 %	1,224.1	15.3 %	1,224.1 15.3 %
Real Estate	567.1	7.1 %	0.0	0.0 %	567.1	7.1 %	567.1 7.1 %
Tactical Cash	456.0	5.7 %	0.0	0.0 %	456.0	5.7 %	456.0 5.7 %

Source: Russell Investments



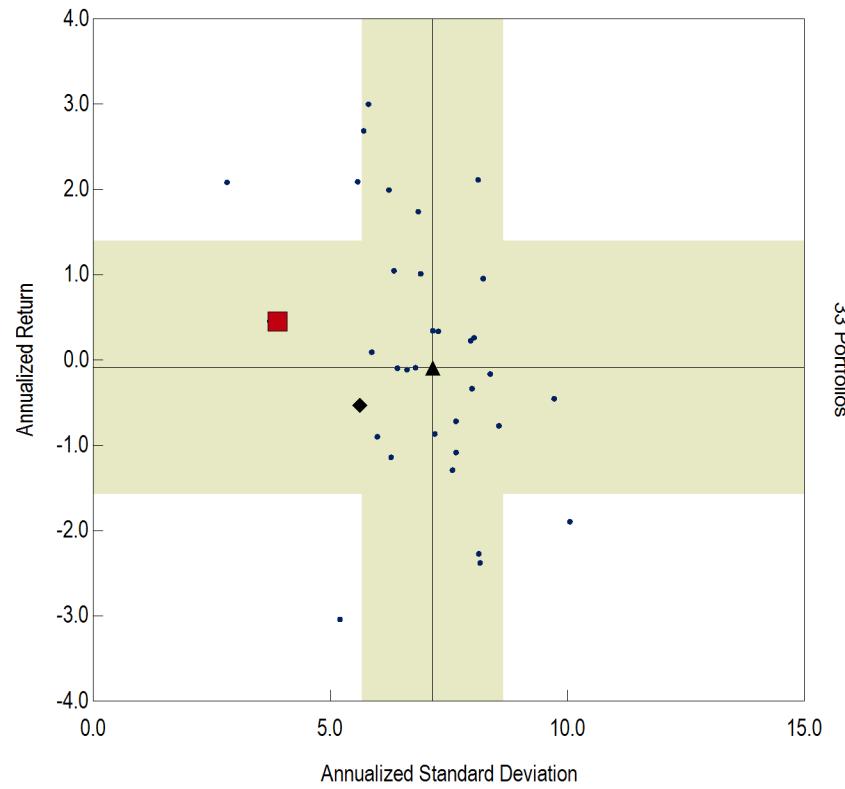
NEPC, LLC

December 31, 2015

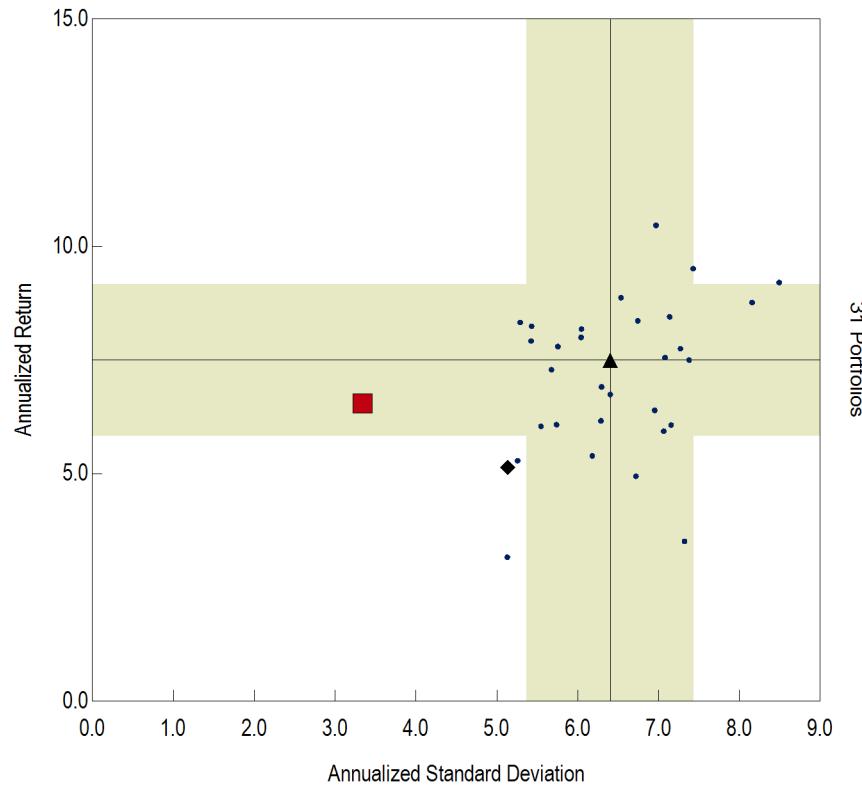
San Bernardino County Employees' Retirement Association

Total Fund Risk/Return

1 Year Ending December 31, 2015



3 Years Ending December 31, 2015



NEPC, LLC

December 31, 2015

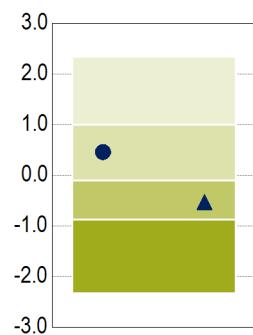
San Bernardino County Employees' Retirement Association

Total Fund Risk Statistics vs. Peer Universe

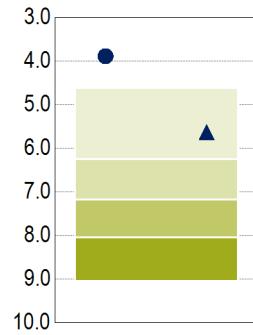
Total Fund vs. InvestorForce Public DB > \$1B Gross (USD)

1 Year

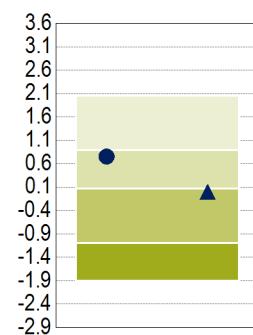
Anlzd Return



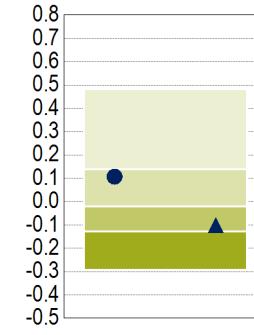
Anlzd Standard Deviation



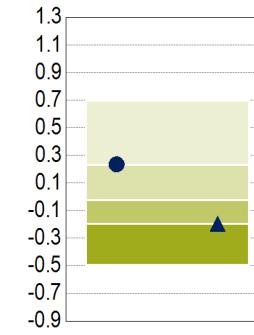
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



● Total Fund

Value 0.5
%tile 32

▲ Policy Index

Value -0.5
%tile 67

Universe

5th %tile 2.3
25th %tile 1.0
Median -0.1
75th %tile -0.9
95th %tile -2.3

● Total Fund

Value 3.9
%tile 4

▲ Policy Index

Value 5.6
%tile 11

Universe

5th %tile 4.6
25th %tile 6.2
Median 7.2
75th %tile 8.0
95th %tile 9.0

● Total Fund

Value 0.8
%tile 29

▲ Policy Index

Value 0.0
%tile 54

Universe

5th %tile 2.1
25th %tile 0.9
Median 0.1
75th %tile -1.1
95th %tile -1.9

● Total Fund

Value 0.1
%tile 32

▲ Policy Index

Value -0.1
%tile 73

Universe

5th %tile 0.5
25th %tile 0.1
Median 0.0
75th %tile -0.1
95th %tile -0.3

● Total Fund

Value 0.2
%tile 26

▲ Policy Index

Value -0.2
%tile 76

Universe

5th %tile 0.7
25th %tile 0.2
Median 0.0
75th %tile -0.2
95th %tile -0.5

Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 33 Portfolios



NEPC, LLC

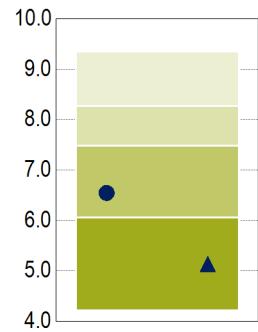
December 31, 2015

San Bernardino County Employees' Retirement Association

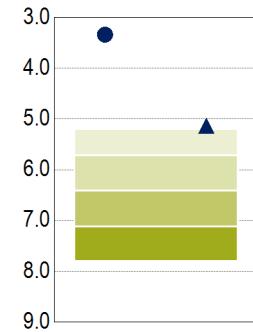
Total Fund Risk Statistics vs. Peer Universe

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

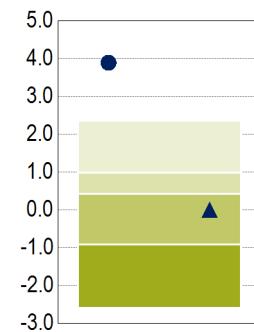
Anlzd Return



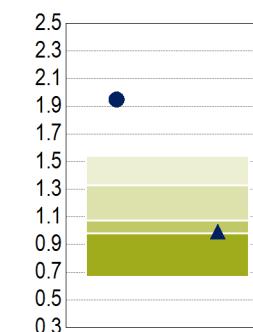
Anlzd Standard Deviation



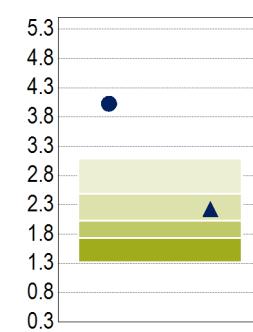
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 33 Portfolios



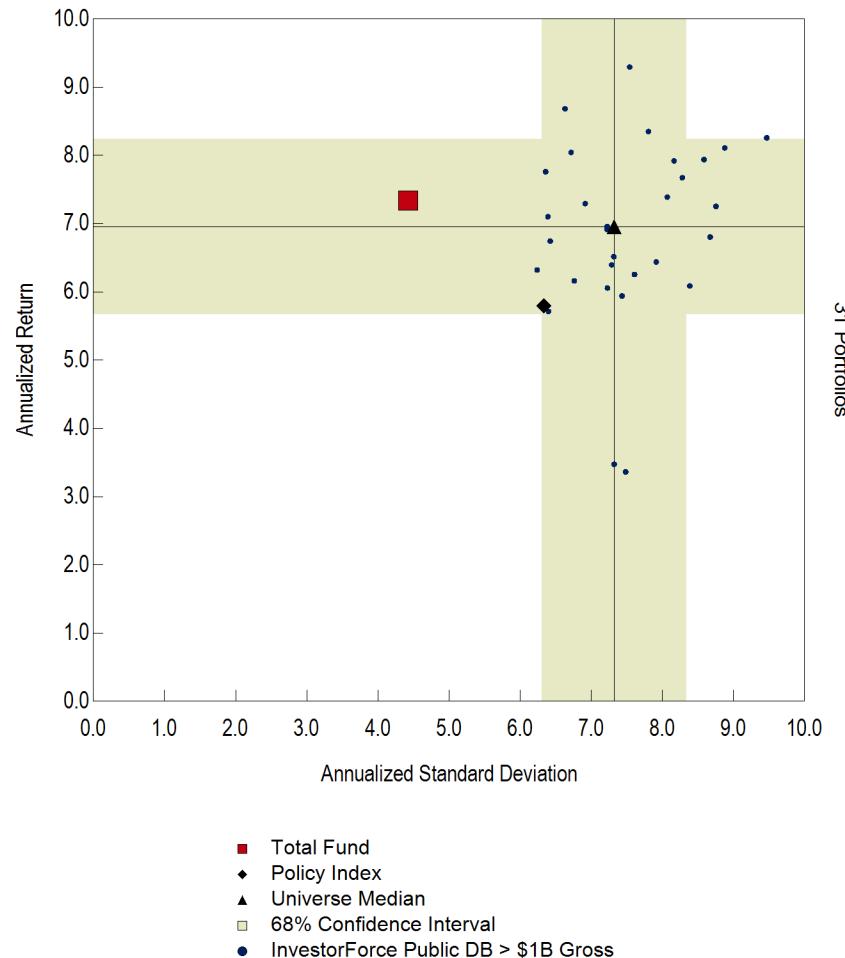
NEPC, LLC

December 31, 2015

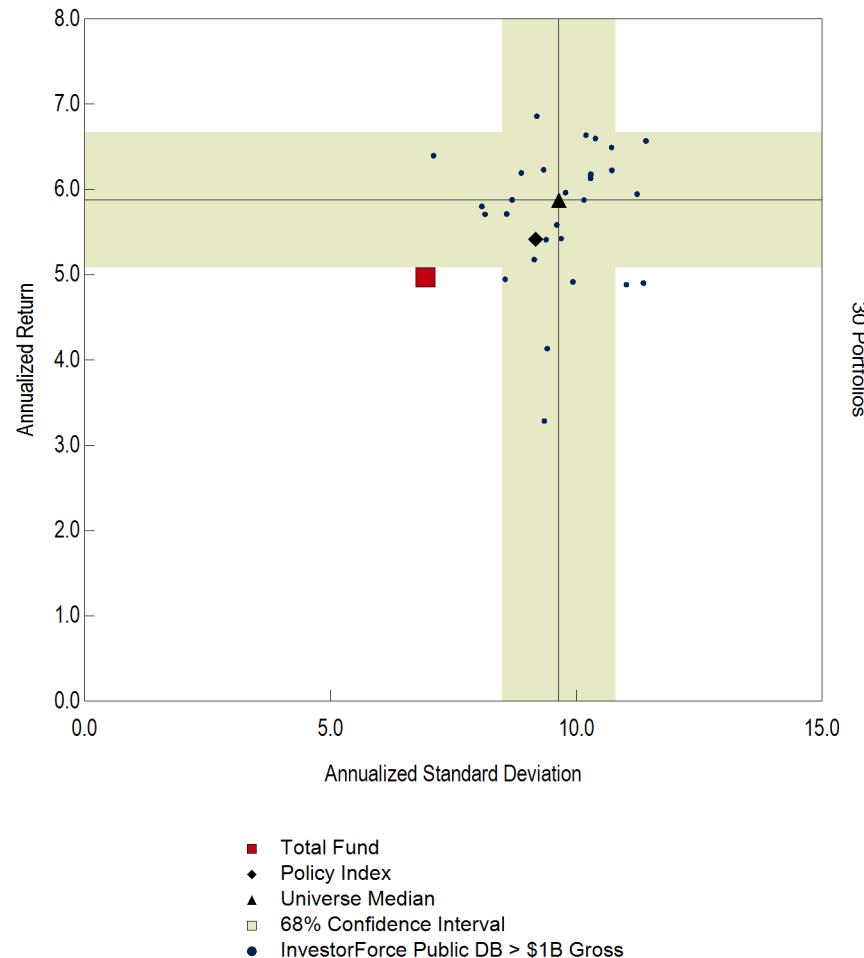
San Bernardino County Employees' Retirement Association

Total Fund Risk/Return

5 Years Ending December 31, 2015



10 Years Ending December 31, 2015

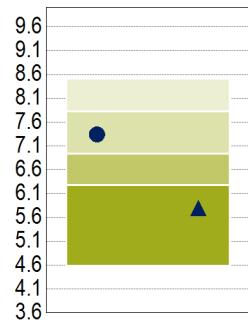


San Bernardino County Employees' Retirement Association

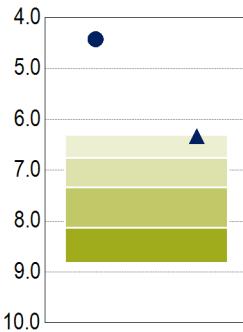
Total Fund Risk Statistics vs. Peer Universe

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

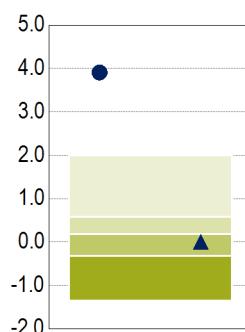
Anlzd Return



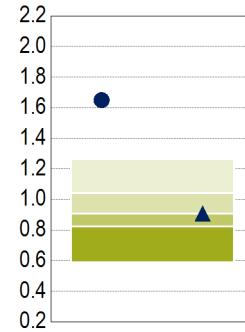
Anlzd Standard Deviation



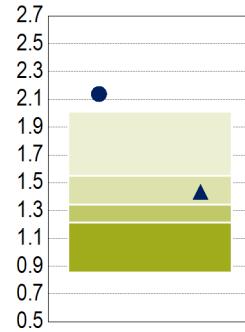
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 33 Portfolios



NEPC, LLC

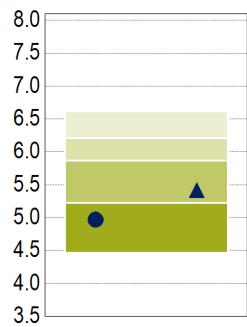
December 31, 2015

San Bernardino County Employees' Retirement Association

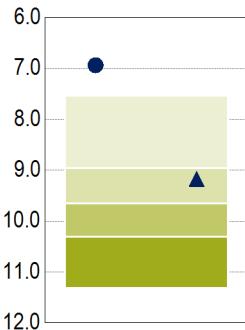
Total Fund Risk Statistics vs. Peer Universe

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

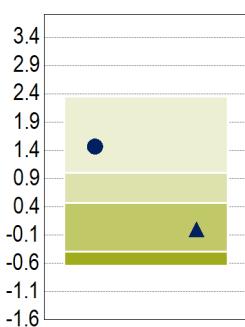
Anlzd Return



Anlzd Standard Deviation



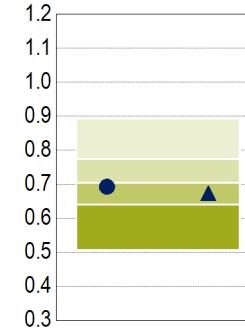
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



Sortino Ratio requires at least two negative points during the time period in order to calculate
Sample size is 33 Portfolios



NEPC, LLC

December 31, 2015

San Bernardino County Employees' Retirement Association

Total Fund Risk Statistics

	3 Years Ending December 31, 2015								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sortino Ratio	Rank	Info Ratio	Rank
Total Fund	100.0%	6.5%	64	3.3%	1	4.0	1	--	--
Policy Index	--	5.1%	92	5.1%	4	2.2	44	--	--
Domestic Equity	11.5%	1.5%	99	5.3%	1	0.5	99	-1.0	92
Russell 3000	--	14.7%	43	10.7%	22	2.9	27	--	--
International Developed	2.0%	6.7%	50	19.8%	99	0.4	93	0.1	67
MSCI EAFE	--	5.0%	73	12.6%	86	0.8	73	--	--
International Emerging	2.1%	-6.8%	78	12.3%	11	-0.8	85	0.0	78
MSCI Emerging Markets	--	-6.8%	78	14.3%	63	-0.8	81	--	--
U.S. Credit Strategies	11.9%	6.7%	2	2.8%	3	7.0	1	1.2	3
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index	--	2.4%	23	3.4%	6	1.2	11	--	--
Non-U.S. Credit Composite	13.7%	6.5%	2	3.2%	5	4.5	1	0.9	2
BofA Merrill Lynch Euro High Yield Constrained	--	-1.3%	84	9.8%	97	-0.2	79	--	--
Non-U.S. Core Composite	1.1%	-3.0%	90	7.9%	88	-0.6	80	-0.2	84
Barclays Global Aggregate	--	-1.7%	77	4.0%	38	-0.6	81	--	--
Emerging Markets Debt Composite	6.5%	-1.4%	46	5.9%	19	-0.3	47	0.7	55
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	-4.6%	64	8.2%	63	-0.9	62	--	--
Alpha Pool Composite	19.3%	3.2%	14	2.6%	9	1.6	11	0.1	13

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank
Private Equity Composite	15.5%	13.4%	--	4.5%	--	3.0	--
Cambridge Associates Global All PE (Qtr Lag)	--	12.9%	--	7.0%	--	1.8	--
Real Estate Composite	6.8%	10.4%	--	3.7%	--	2.8	--
NCREIF Property Index 1 Qtr Lag	--	11.9%	--	4.8%	--	2.5	--
Real Assets Composite	5.4%	2.0%	--	6.3%	--	0.3	--
Bloomberg Commodity Index	--	-17.3%	--	12.7%	--	-1.4	--

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



NEPC, LLC

December 31, 2015

San Bernardino County Employees' Retirement Association

Total Fund Risk Statistics

5 Years Ending December 31, 2015

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sortino Ratio	Rank	Info Ratio	Rank
Total Fund	100.0%	7.3%	37	4.4%	1	2.1	1	--	--
Policy Index	--	5.8%	93	6.3%	6	1.4	34	--	--
Domestic Equity	11.5%	2.0%	99	6.5%	1	0.4	99	-0.9	95
Russell 3000	--	12.2%	42	12.1%	24	1.7	28	--	--
International Developed	2.0%	7.9%	19	21.6%	99	0.5	60	0.3	60
MSCI EAFE	--	3.6%	80	15.0%	70	0.4	79	--	--
International Emerging	2.1%	-4.2%	72	16.2%	19	-0.4	81	0.1	74
MSCI Emerging Markets	--	-4.8%	83	17.8%	62	-0.4	84	--	--
U.S. Credit Strategies	11.9%	7.0%	1	4.4%	34	1.7	18	0.4	3
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index	--	4.5%	32	4.2%	21	1.5	28	--	--
Non-U.S. Credit Composite	13.7%	5.5%	7	6.0%	74	1.0	60	0.2	6
BofA Merrill Lynch Euro High Yield Constrained	--	3.3%	68	14.1%	99	0.3	91	--	--
Non-U.S. Core Composite	1.1%	1.0%	81	9.9%	92	0.1	88	0.0	82
Barclays Global Aggregate	--	0.9%	83	4.1%	26	0.3	75	--	--
Emerging Markets Debt Composite	6.5%	1.6%	58	7.8%	33	0.2	58	0.2	58
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	0.9%	60	8.9%	56	0.1	59	--	--
Alpha Pool Composite	19.3%	5.7%	10	2.9%	12	2.6	5	0.9	2

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank
Private Equity Composite	15.5%	12.8%	--	5.2%	--	2.4	--
Cambridge Associates Global All PE (Qtr Lag)	--	12.9%	--	8.1%	--	1.6	--
Real Estate Composite	6.8%	11.6%	--	4.8%	--	2.4	--
NCREIF Property Index 1 Qtr Lag	--	12.5%	--	5.1%	--	2.5	--
Real Assets Composite	5.4%	2.9%	--	5.3%	--	0.5	--
Bloomberg Commodity Index	--	-13.5%	--	14.6%	--	-0.9	--

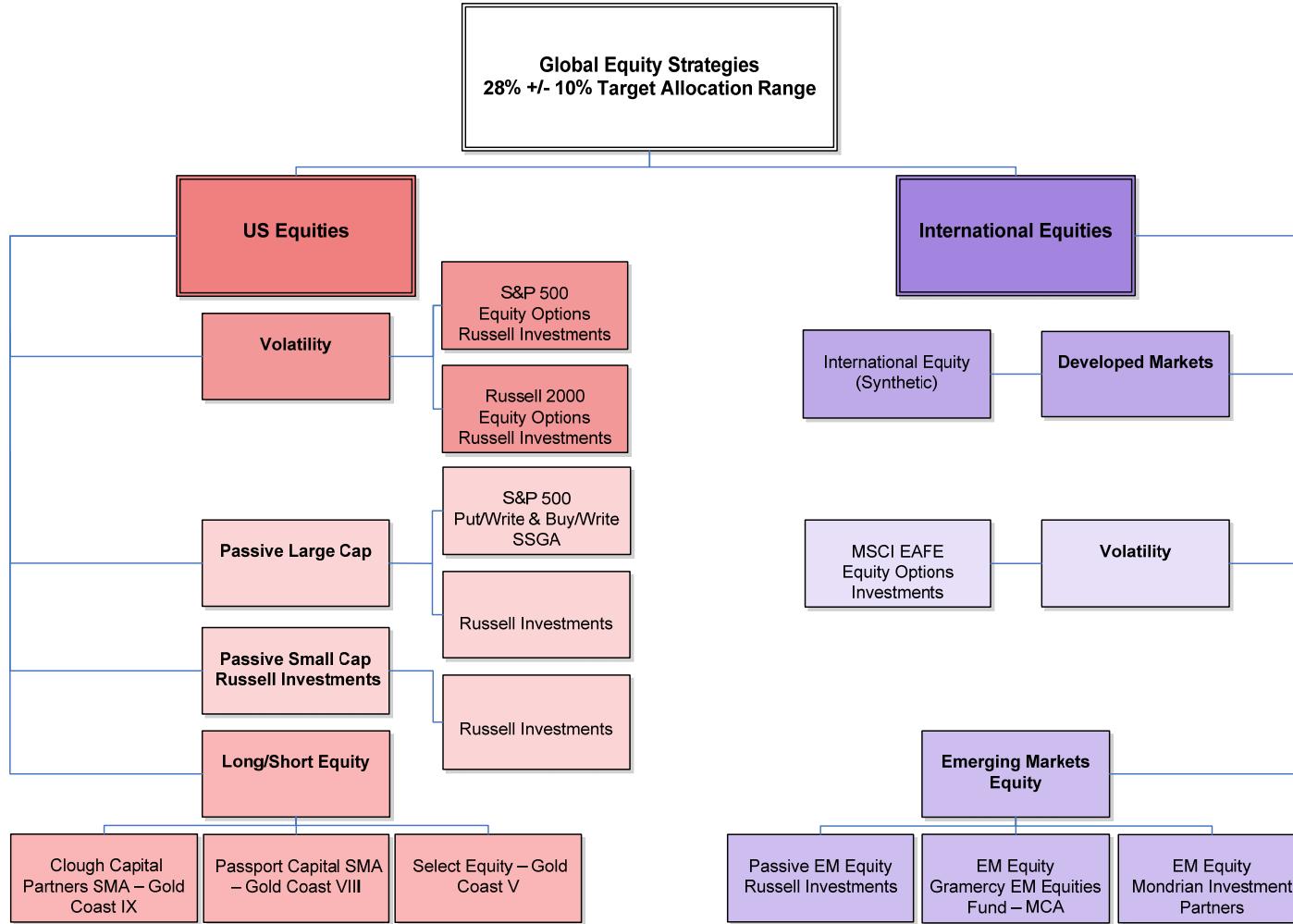
Percent of Total equals 95% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.



NEPC, LLC

December 31, 2015

Global Equity Portfolio



San Bernardino County Employees' Retirement Association

Global Equity Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Beta Overlay	318,898,733	4.0	13.9	1	-30.7	99	-16.5	95	25.0	1	24.6	1	--	--
eA All Global Balanced / TAA Gross Median			0.8		-4.3		-3.9		3.3		4.4		5.4	
Total Equity	1,246,910,441	15.6	-0.9	96	-7.1	80	-6.2	87	0.9	94	1.9	92	--	--
MSCI ACWI			5.0	46	-4.9	64	-2.4	73	7.7	75	6.1	77	4.8	81
Excess Return			-5.9		-2.2		-3.8		-6.8		-4.2			
eA All Global Equity Gross Median			4.8		-3.7		0.1		9.9		8.1		6.3	
Domestic Equity	920,089,341	11.5	-1.9	98	-0.2	21	-0.4	49	1.5	99	2.0	99	0.2	99
Russell 3000			6.3	27	-1.4	30	0.5	41	14.7	43	12.2	42	7.4	70
Excess Return			-8.2		1.2		-0.9		-13.2		-10.2		-7.2	
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7		8.0	
Large Cap Equity	653,284,713	8.1	-2.0	99	-0.2	21	0.3	42	1.0	99	3.0	99	0.8	99
S&P 500			7.0	17	0.2	18	1.4	34	15.1	38	12.6	35	7.3	72
Excess Return			-9.0		-0.4		-1.1		-14.1		-9.6		-6.5	
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7		8.0	
SsgA S&P500	586,919,817	7.3	3.8	62	0.9	14	5.7	10	8.2	94	7.1	95	3.4	99
S&P 500			7.0	17	0.2	18	1.4	34	15.1	38	12.6	35	7.3	72
Excess Return			-3.2		0.7		4.3		-6.9		-5.5		-3.9	
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7		8.0	
Russell US Large Cap Volatility	66,364,897	0.8	-36.5	99	-8.6	82	-54.7	99	-52.0	99	-33.5	99	--	--
S&P 500			7.0	17	0.2	18	1.4	34	15.1	38	12.6	35	7.3	72
Excess Return			-43.5		-8.8		-56.1		-67.1		-46.1			
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7		8.0	

San Bernardino County Employees' Retirement Association
 Global Equity Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Small Cap Equity	23,089,901	0.3	0.0	90	86.5	1	-24.6	99	-51.5	99	-30.5	99	--	--
Russell 2000			3.6	38	-8.8	64	-4.4	65	11.7	68	9.2	73	6.8	80
Excess Return			-3.6		95.3		-20.2		-63.2		-39.7			
eA US Small Cap Equity Gross Median			3.0		-7.5		-2.6		13.2		10.8			8.1
Russell US Small Cap Volatility	23,089,901	0.3	0.0	95	86.5	1	-24.6	99	-51.5	99	-30.5	99	--	--
Russell 2000			3.6	65	-8.8	83	-4.4	78	11.7	81	9.2	84	6.8	83
Excess Return			-3.6		95.3		-20.2		-63.2		-39.7			
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7			8.0
Long/Short Equity	243,714,726	3.0	-1.8	98	-4.6	54	0.8	38	7.2	96	1.9	99	--	--
Credit Suisse Long Shrt Eqt USD			1.6	87	0.0	19	3.6	19	8.8	93	5.2	98	5.8	94
Excess Return			-3.4		-4.6		-2.8		-1.6		-3.3			
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7			8.0
Clough	86,926,553	1.1	-1.0	97	-2.5	38	2.7	24	7.7	95	2.2	99	--	--
Passport	93,090,926	1.2	-4.3	99	-0.5	23	7.9	5	8.0	95	6.7	96	--	--
Select Equity	63,697,247	0.8	1.0	91	-12.4	94	-10.3	95	4.9	98	6.2	97	--	--
Credit Suisse Long Shrt Eqt USD			1.6	87	0.0	19	3.6	19	8.8	93	5.2	98	5.8	94
Excess Return			-0.6		-12.4		-13.9		-3.9		1.0			
eA All US Equity Gross Median			4.7		-4.1		-0.7		14.2		11.7			8.0

San Bernardino County Employees' Retirement Association

Global Equity Strategies Performance Detail - Gross

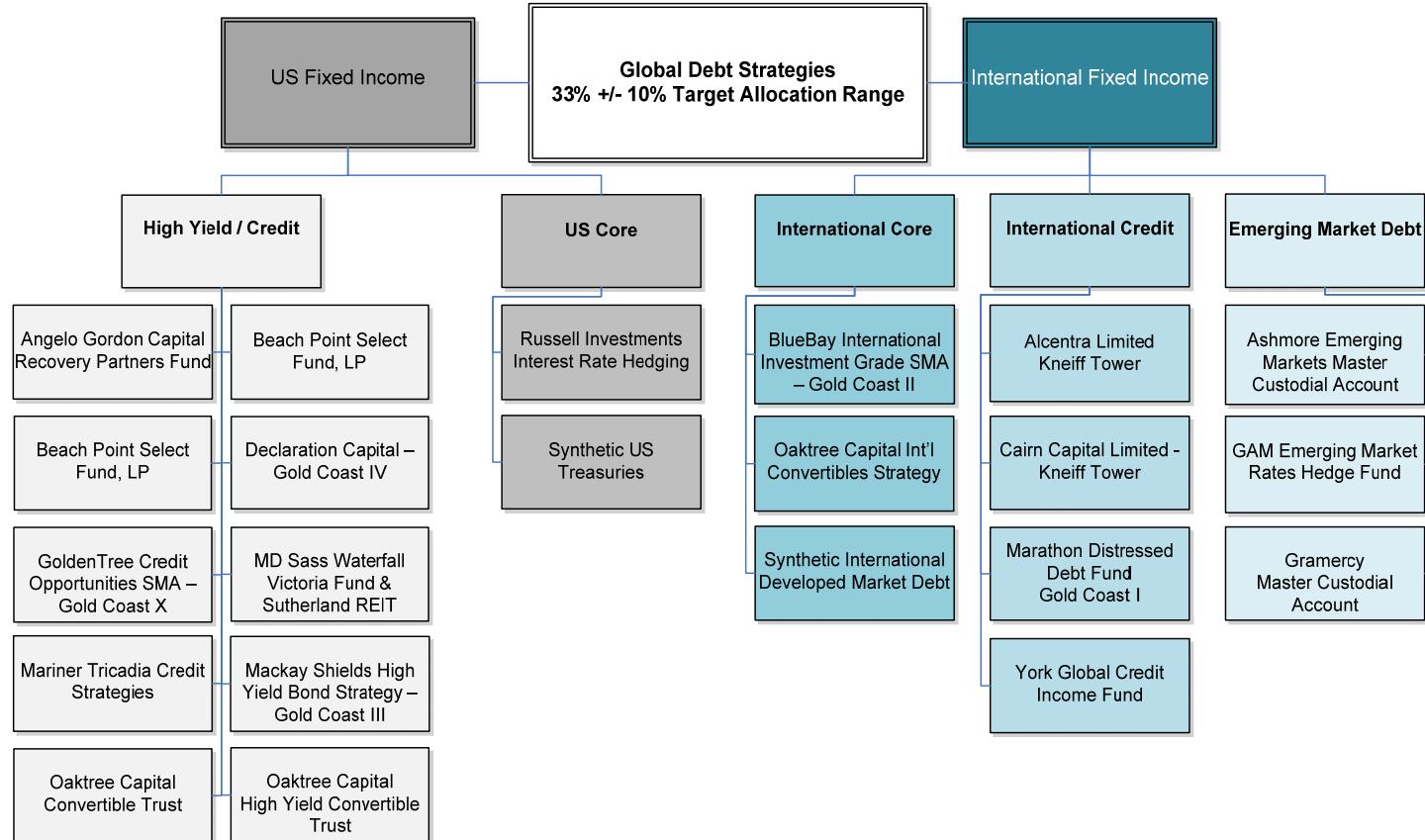
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity	326,821,100	4.1	0.9	95	-20.9	99	-18.4	99	-1.4	99	0.5	98	2.7	94
MSCI EAFE			4.7	53	-6.0	66	-0.8	74	5.0	73	3.6	80	3.0	91
Excess Return			-3.8		-14.9		-17.6		-6.4		-3.1		-0.3	
eA All EAFE Equity Gross Median			4.8		-4.7		1.4		6.7		5.3		4.7	
International Developed	157,920,650	2.0	1.0	95	-28.3	99	-22.1	99	6.7	50	7.9	19	4.0	67
MSCI EAFE			4.7	53	-6.0	66	-0.8	74	5.0	73	3.6	80	3.0	91
Excess Return			-3.7		-22.3		-21.3		1.7		4.3		1.0	
eA All EAFE Equity Gross Median			4.8		-4.7		1.4		6.7		5.3		4.7	
Russell International Volatility	157,896,344	2.0	1.0	95	-28.3	99	-22.1	99	6.7	50	8.3	15	--	--
MSCI EAFE			4.7	53	-6.0	66	-0.8	74	5.0	73	3.6	80	3.0	91
Excess Return			-3.7		-22.3		-21.3		1.7		4.7			
eA All EAFE Equity Gross Median			4.8		-4.7		1.4		6.7		5.3		4.7	
International Emerging	168,900,450	2.1	1.5	53	-13.8	41	-14.7	68	-6.8	78	-4.2	72	4.3	68
MSCI Emerging Markets			0.7	64	-17.4	80	-14.9	70	-6.8	78	-4.8	83	3.6	78
Excess Return			0.8		3.6		0.2		0.0		0.6		0.7	
eA Emg Mkts Equity Gross Median			1.6		-14.7		-12.2		-4.3		-3.0		5.0	
Mondrian	109,621,498	1.4	0.1	76	-15.2	56	-15.9	82	-7.3	86	-2.6	45	5.3	46
MSCI Emerging Markets			0.7	64	-17.4	80	-14.9	70	-6.8	78	-4.8	83	3.6	78
Excess Return			-0.6		2.2		-1.0		-0.5		2.2		1.7	
eA Emg Mkts Equity Gross Median			1.6		-14.7		-12.2		-4.3		-3.0		5.0	
Gramercy Emerging Market Equity	59,179,785	0.7	4.7	12	-10.6	11	-11.8	47	--	--	--	--	--	--
MSCI Emerging Markets			0.7	64	-17.4	80	-14.9	70	-6.8	78	-4.8	83	3.6	78
Excess Return			4.0		6.8		3.1							
eA Emg Mkts Equity Gross Median			1.6		-14.7		-12.2		-4.3		-3.0		5.0	



NEPC, LLC

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Global Debt Strategies



San Bernardino County Employees' Retirement Association

Global Debt Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed	2,572,985,252	32.1	0.3	22	-0.9	43	2.0	5	5.1	5	5.7	10	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
U.S. Credit Strategies	950,342,370	11.9	-0.9	68	-2.7	76	2.3	6	6.7	2	7.0	1	8.6	1
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index			-1.5	78	-4.2	78	-1.6	37	2.4	23	4.5	32	5.3	35
Excess Return			0.6		1.5		3.9		4.3		2.5		3.3	
BofA Merrill Lynch US High Yield Master II TR			-2.2	87	-7.0	99	-4.6	74	1.6	36	4.8	20	6.8	1
eA Global Credit Fixed Income Gross Median			-0.4		-0.7		-2.8		0.6		3.9		4.4	
AG Capital	4,780,792	0.1	-3.0	99	-5.2	81	-6.6	88	5.1	4	6.3	2	--	--
Golden Tree Asset Management	320,930,982	4.0	-1.4	78	-3.9	77	4.3	3	11.5	1	10.6	1	--	--
Beach Point Capital (Formerly Post)	121,775,761	1.5	0.0	35	-1.0	53	3.8	4	9.1	1	8.7	1	--	--
Golden Tree Distressed Debt	33,246,111	0.4	0.1	34	3.4	1	17.7	1	21.8	1	14.8	1	--	--
Mackay / Gold Coast	89,035,116	1.1	-1.6	79	-5.7	93	-3.5	64	3.6	9	5.4	11	7.8	1
Mariner Tricadia	77,656,779	1.0	-2.3	88	-2.2	70	0.6	17	5.6	3	5.7	6	--	--
MD SASS Waterfall Victoria	29,283,524	0.4	2.8	--	--	--	--	--	--	--	--	--	--	--
OCM Convertible	16,024,369	0.2	-1.1	73	-7.4	99	-1.7	37	7.6	1	6.4	2	--	--
OCM High Income	14,935,029	0.2	-0.2	37	-1.7	62	1.9	7	6.6	2	4.1	45	--	--
Russell Interest Rate Hedging	27,129,905	0.3	-10.3	99	-21.6	99	-18.1	99	-21.6	99	-26.6	99	--	--
Stone Tower Credit (Apollo)	71,581,580	0.9	0.1	26	-0.4	34	-0.8	35	5.0	5	--	--	--	--
Sutherland REIT Holdings	87,247,191	1.1	0.1	--	1.7	--	--	--	--	--	--	--	--	--
Waterfall Asset Management	19,034,227	0.2	1.5	--	1.6	--	--	--	--	--	--	--	--	--
Waterfall Victoria	37,297,989	0.5	2.5	--	4.6	--	--	--	--	--	--	--	--	--



NEPC, LLC

December 31, 2015

San Bernardino County Employees' Retirement Association

Global Debt Strategies Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Non-U.S. Fixed Income Composite	1,622,642,883	20.2	1.1	10	0.2	21	1.7	7	4.1	7	4.4	27	4.9	45
Barclays Global Aggregate			-0.9	63	-0.1	28	-3.2	61	-1.7	77	0.9	83	3.7	88
Excess Return			2.0		0.3		4.9		5.8		3.5		1.2	
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Non-U.S. Credit Composite	1,099,632,575	13.7	1.1	15	1.8	5	3.1	5	6.5	2	5.5	7	--	--
BofA Merrill Lynch Euro High Yield Constrained			-1.5	78	-3.5	77	-9.5	92	-1.3	84	3.3	68	6.7	1
Excess Return			2.6		5.3		12.6		7.8		2.2			
eA Global Credit Fixed Income Gross Median			-0.4		-0.7		-2.8		0.6		3.9		4.4	
Marathon/Gold Coast	203,204,713	2.5	1.0	20	1.7	5	5.3	1	10.7	1	4.8	20	--	--
Alcentra Core European Credit	292,820,593	3.7	3.7	3	8.1	1	14.0	1	16.2	1	--	--	--	--
Halcyon Asset Management	68,747,361	0.9	0.3	30	--	--	--	--	--	--	--	--	--	--
BofA Merrill Lynch Euro High Yield Constrained			-1.5	78	-3.5	77	-9.5	92	-1.3	84	3.3	68	6.7	1
Excess Return			1.8											
eA Global Credit Fixed Income Gross Median			-0.4		-0.7		-2.8		0.6		3.9		4.4	
Oaktree Capital	34,593,578	0.4	1.2	15	-2.6	72	0.6	17	1.0	41	1.5	92	--	--
York Global Credit	124,627,302	1.6	-0.7	63	-2.9	76	-1.2	35	7.6	1	--	--	--	--
BofA Merrill Lynch Euro High Yield Constrained			-1.5	78	-3.5	77	-9.5	92	-1.3	84	3.3	68	6.7	1
Excess Return			0.8		0.6		8.3		8.9					
eA Global Credit Fixed Income Gross Median			-0.4		-0.7		-2.8		0.6		3.9		4.4	
Cairn Composite	284,879,872	3.6	0.2	33	0.4	20	-0.5	31	-0.1	71	2.6	80	--	--
BofA Merrill Lynch Euro High Yield Constrained			-1.5	78	-3.5	77	-9.5	92	-1.3	84	3.3	68	6.7	1
Excess Return			1.7		3.9		9.0		1.2		-0.7			
eA Global Credit Fixed Income Gross Median			-0.4		-0.7		-2.8		0.6		3.9		4.4	
Non-U.S. Core Composite	90,759,157	1.1	-1.3	76	-1.9	53	-10.1	95	-3.0	90	1.0	81	--	--
Barclays Global Aggregate			-0.9	63	-0.1	28	-3.2	61	-1.7	77	0.9	83	3.7	88
Excess Return			-0.4		-1.8		-6.9		-1.3		0.1			
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Bluebay/Goldcoast	90,759,157	1.1	-1.3	76	-1.9	53	-10.1	95	-3.0	90	0.9	82	--	--
Barclays Global Aggregate			-0.9	63	-0.1	28	-3.2	61	-1.7	77	0.9	83	3.7	88
Excess Return			-0.4		-1.8		-6.9		-1.3		0.0			
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	



NEPC, LLC

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San Bernardino County Employees' Retirement Association

Global Debt Strategies Performance Detail - Gross

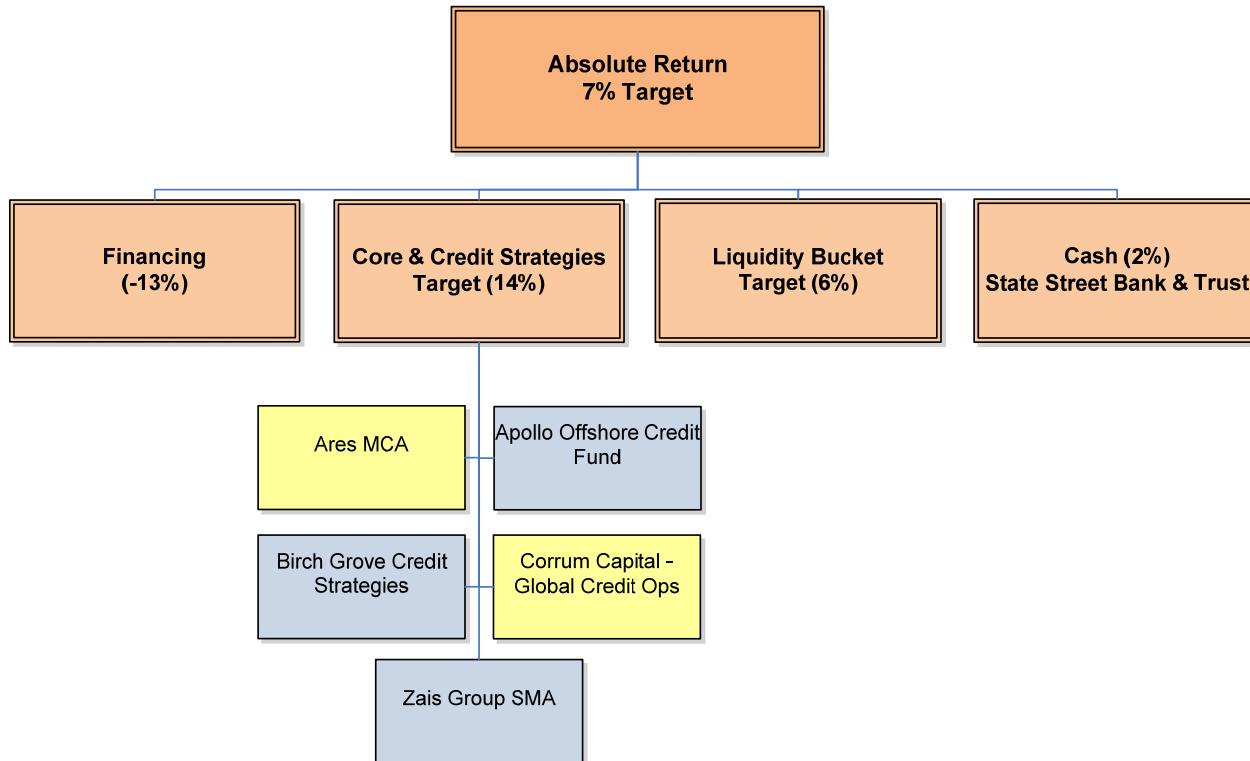
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Emerging Markets Debt Composite	523,010,308	6.5	1.1	34	-3.0	40	-1.2	41	-1.4	46	1.6	58	4.0	96
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			0.6	49	-5.6	59	-7.1	64	-4.6	64	0.9	60	5.7	77
Excess Return			0.5		2.6		5.9		3.2		0.7		-1.7	
eA All Emg Mkts Fixed Inc Gross Median			0.6		-4.1		-2.6		-1.5		2.9		6.9	
Ashmore Emerging Markets Liquid Investments	125,682,381	1.6	0.1	69	-5.5	58	-0.5	35	--	--	--	--	--	--
JP Morgan GBI - EM Global Diversified Index			0.0	73	-10.6	81	-14.9	84	-10.0	88	-3.5	88	4.3	95
Excess Return			0.1		5.1		14.4							
eA All Emg Mkts Fixed Inc Gross Median			0.6		-4.1		-2.6		-1.5		2.9		6.9	
Ashmore EM HY CRP DB FD I3	9,378,761	0.1	-2.2	--	-11.6	--	--	--	--	--	--	--	--	--
Ashmore Emerging HY Master	6,393,408	0.1	-9.9	--	-19.3	--	--	--	--	--	--	--	--	--
Ashmore Emerging Markets	21,261,782	0.3	1.4	--	-7.1	--	--	--	--	--	--	--	--	--
Ashmore Local Currency	82,218,626	1.0	-1.3	77	-11.8	99	-15.8	99	-11.0	99	-4.5	99	--	--
JP Morgan ELMI+			-0.1	33	-6.5	94	-7.6	90	-5.6	96	-3.0	99	2.4	98
Excess Return			-1.2		-5.3		-8.2		-5.4		-1.5			
JP Morgan EMBI Global Index			1.5	6	-0.5	36	1.2	13	-0.1	59	5.1	17	6.7	12
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
GAM Emerging Markets Rates	40,917,935	0.5	-0.1	75	-1.1	12	-0.4	34	--	--	--	--	--	--
JP Morgan ELMI+			-0.1	76	-6.5	64	-7.6	68	-5.6	67	-3.0	80	2.4	98
Excess Return			0.0		5.4		7.2							
JP Morgan EMBI Global Index			1.5	19	-0.5	8	1.2	16	-0.1	35	5.1	23	6.7	59
eA All Emg Mkts Fixed Inc Gross Median			0.6		-4.1		-2.6		-1.5		2.9		6.9	
Gramercy Funds Management LLC	199,363,046	2.5	3.4	1	2.5	1	5.6	1	--	--	--	--	--	--
JP Morgan ELMI+			-0.1	76	-6.5	64	-7.6	68	-5.6	67	-3.0	80	2.4	98
Excess Return			3.5		9.0		13.2							
JP Morgan EMBI Global Index			1.5	19	-0.5	8	1.2	16	-0.1	35	5.1	23	6.7	59
eA All Emg Mkts Fixed Inc Gross Median			0.6		-4.1		-2.6		-1.5		2.9		6.9	
Prudential Investment Management	74,828,320	0.9	-1.0	92	-6.3	63	-9.6	72	--	--	--	--	--	--
JP Morgan ELMI+			-0.1	76	-6.5	64	-7.6	68	-5.6	67	-3.0	80	2.4	98
Excess Return			-0.9		0.2		-2.0							
JP Morgan EMBI Global Index			1.5	19	-0.5	8	1.2	16	-0.1	35	5.1	23	6.7	59
eA All Emg Mkts Fixed Inc Gross Median			0.6		-4.1		-2.6		-1.5		2.9		6.9	



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Absolute Return (Alpha Pool)



San Bernardino County Employees' Retirement Association

Alpha Pool Strategies Performance Detail - Gross

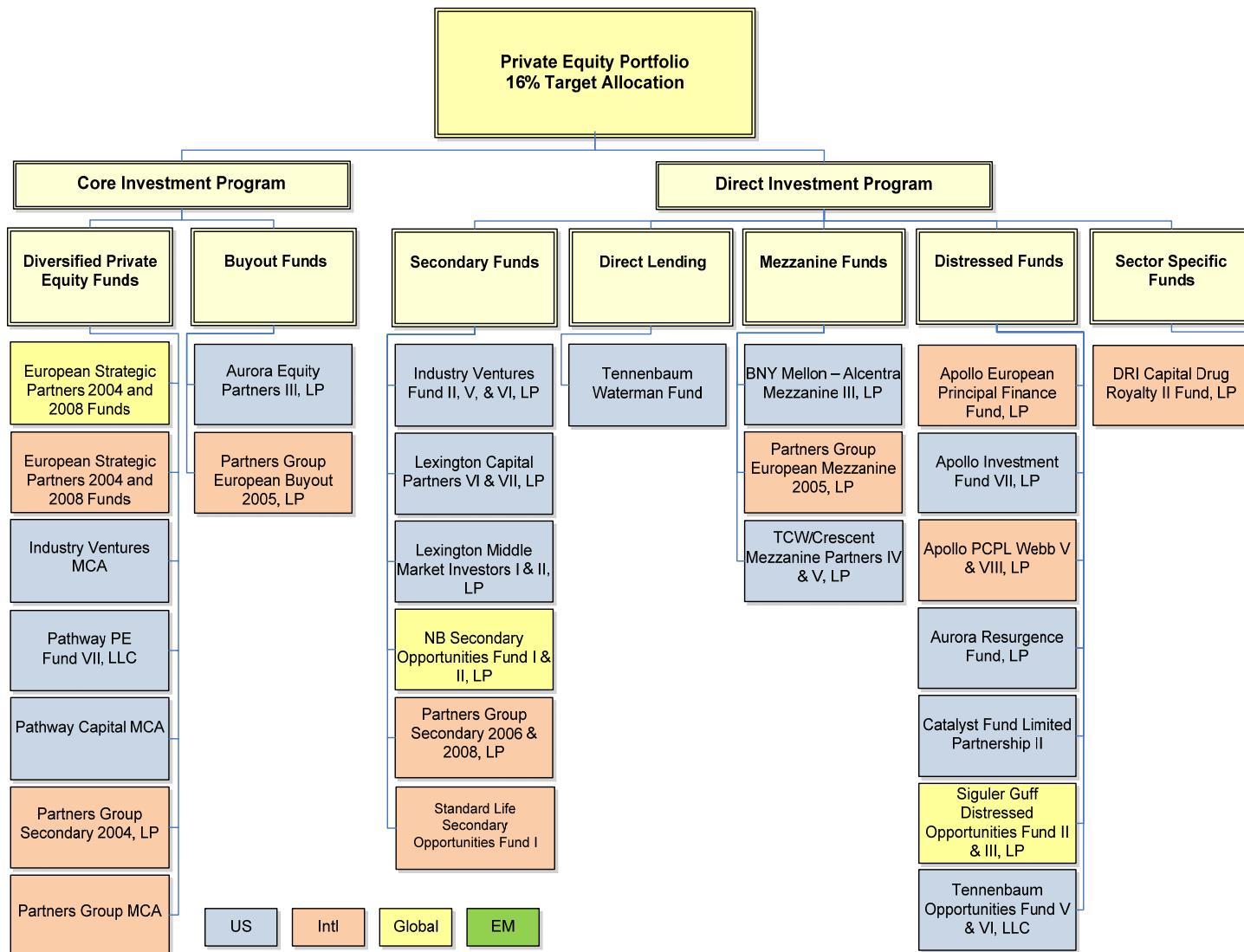
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Alpha Pool Composite	1,547,245,236	19.3	-3.2	96	-5.4	86	-3.3	63	3.2	14	5.7	10	--	--
91 Day T-Bill + 3%			0.8	13	1.5	5	3.0	3	3.0	15	3.0	48	4.1	77
Excess Return			-4.0		-6.9		-6.3		0.2		2.7			
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Alpha Liquidity (Ssga)	154,835,669	1.9	0.0	28	0.1	24	0.2	26	0.2	57	0.3	89	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Apollo Global Management	57,919,943	0.7	1.5	7	3.0	1	--	--	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Ares Eco Alpha	196,161,918	2.4	-3.8	97	-7.8	96	-44.6	99	-15.0	99	-4.5	99	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Ares Strategic Investment	220,652,986	2.8	-5.9	99	-10.6	99	124.4	1	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Birch Grove Credit Strategies	100,535,716	1.3	-0.2	36	0.2	21	4.1	2	--	--	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Sterling Stamos	151,815,640	1.9	-1.3	77	-0.3	32	0.9	17	5.9	3	2.8	52	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Stone Tower Off (Apollo)	365,104,701	4.6	-1.3	76	-2.2	57	1.7	8	5.8	3	8.1	1	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Zais	109,771,111	1.4	-6.4	99	-8.5	97	-4.0	74	5.1	5	14.3	1	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Zais Group Invest Advisors	171,827,296	2.1	-8.5	99	-13.9	99	-9.1	91	3.4	10	--	--	--	--
eA All Global Fixed Inc Gross Median			-0.6		-1.5		-2.4		0.6		2.9		4.7	
Zais Zephyr	14,766,885	0.2	0.0	--	--	--	--	--	--	--	--	--	--	--



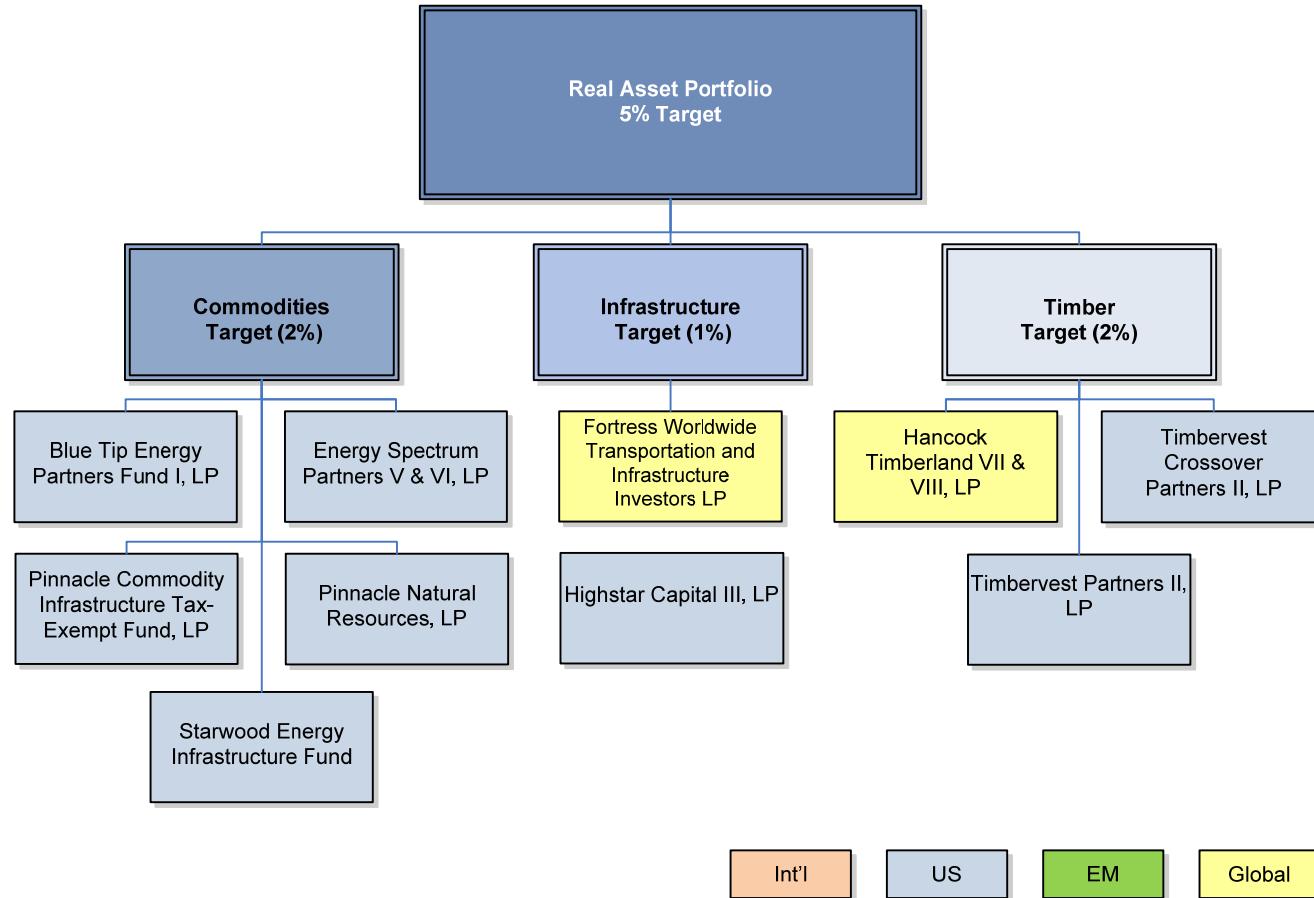
NEPC, LLC

December 31, 2015

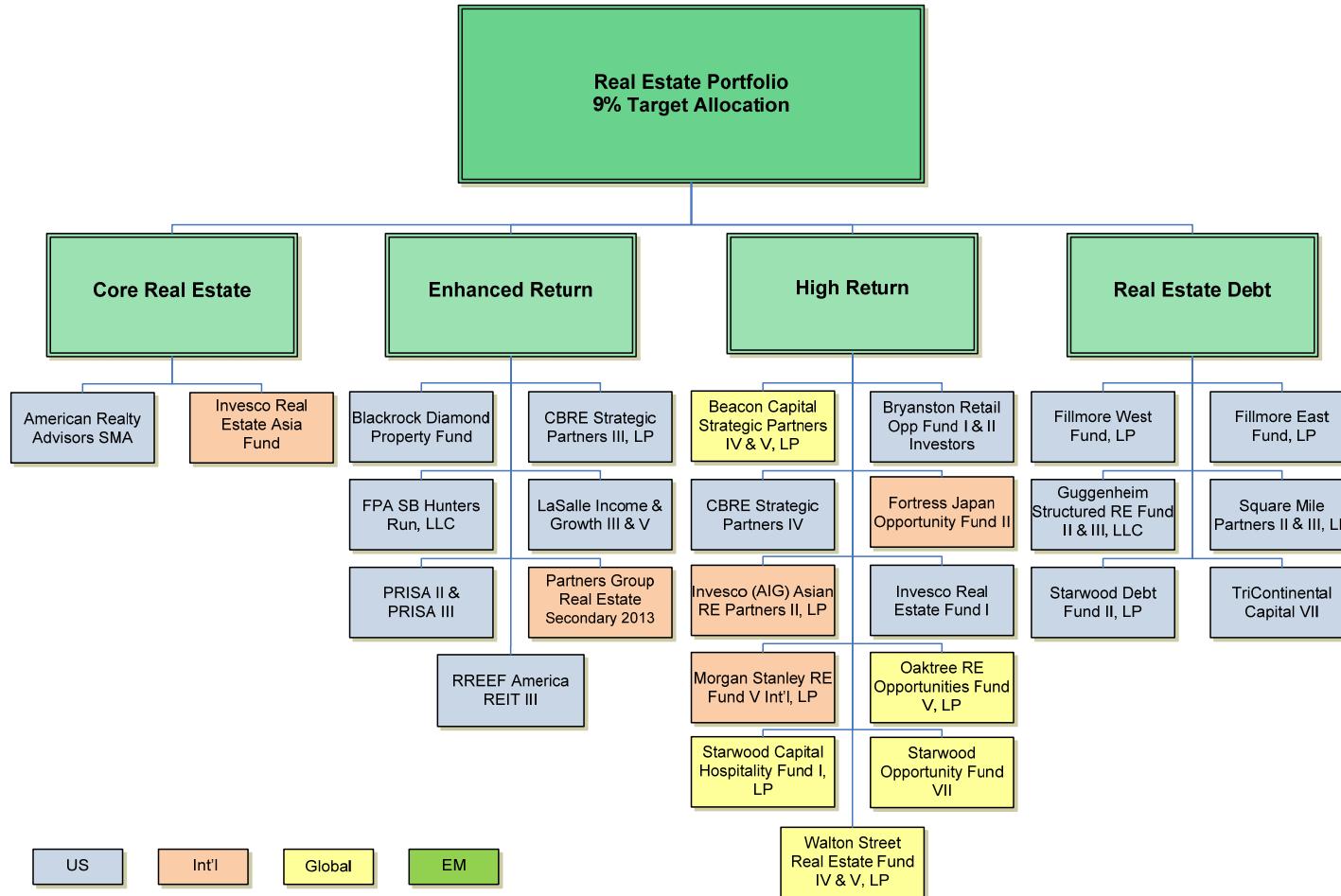
Private Equity



Real Asset Portfolio



Real Estate



San Bernardino County Employees' Retirement Association

Alternatives Performance Detail - Gross

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Equity Composite	1,241,217,578	15.5	-0.1	--	3.3	--	9.5	--	13.4	--	12.8	--	8.9	--
Cambridge Associates Global All PE (Qtr Lag)			-1.7	--	3.0	--	6.8	--	12.9	--	12.9	--	11.8	--
Excess Return			1.6		0.3		2.7		0.5		-0.1		-2.9	
Russell 3000			6.3	--	-1.4	--	0.5	--	14.7	--	12.2	--	7.4	--
Cambridge Associates US All PE 1 Qtr Lag			-1.8	--	1.9	--	5.4	--	13.5	--	14.1	--	12.1	--
InvestorForce Public DB > \$1 Billion Private Equity Gross Median			--		--		--		--		--		--	
Real Estate Composite	544,850,323	6.8	2.6	--	6.0	--	10.4	--	10.4	--	11.6	--	4.4	--
NCREIF Property Index 1 Qtr Lag			3.1	--	6.3	--	13.5	--	11.9	--	12.5	--	8.0	--
Excess Return			-0.5		-0.3		-3.1		-1.5		-0.9		-3.6	
InvestorForce Public DB > \$1 Billion Real Estate Gross Median			--		--		--		--		--		--	
Real Assets Composite	431,049,747	5.4	-6.2	--	-7.4	--	-4.3	--	2.0	--	2.9	--	2.5	--
Bloomberg Commodity Index			-10.5	--	-23.5	--	-24.7	--	-17.3	--	-13.5	--	-6.4	--
Excess Return			4.3		16.1		20.4		19.3		16.4		8.9	
NCREIF Timberland 1 Qtr Lag			0.8	--	1.3	--	9.3	--	9.8	--	6.3	--	7.9	--
Timber	196,228,051	2.4	-1.5	--	-3.3	--	2.3	--	8.1	--	4.7	--	3.1	--
NCREIF Timberland 1 Qtr Lag			0.8	--	1.3	--	9.3	--	9.8	--	6.3	--	7.9	--
Excess Return			-2.3		-4.6		-7.0		-1.7		-1.6		-4.8	
Infrastructure	83,855,100	1.0	-22.9	--	-23.6	--	-17.8	--	-8.5	--	0.4	--	--	--
Russell 3000			6.3	--	-1.4	--	0.5	--	14.7	--	12.2	--	7.4	--
Excess Return			-29.2		-22.2		-18.3		-23.2		-11.8			
Commodities	150,966,595	1.9	0.4	--	-0.6	--	-3.6	--	0.5	--	2.6	--	--	--
Bloomberg Commodity Index			-10.5	--	-23.5	--	-24.7	--	-17.3	--	-13.5	--	-6.4	--
Excess Return			10.9		22.9		21.1		17.8		16.1			



NEPC, LLC

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Appendix: Private Equity and Real Estate Performance



NEPC, LLC

San Bernardino County Employees' Retirement Association

Private Equity Performance Ending Sepetember 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	\$ 53,803,897	\$ 46,228,348	\$ 60,382,012	\$ 7,768,734	11.69	1.47x
Apollo Investment Fund VII, L.P.	2008	\$ 10,000,000	\$ 8,086,202	\$ 13,578,244	\$ 3,422,548	25.37	2.11x
Apollo PCPL Webb V*	2010	\$ 4,844,398	\$ 4,844,398	\$ 5,169,483	\$ 72,631	6.64	1.08x
Apollo PCPL Webb VIII*	2010	\$ 4,734,303	\$ 4,734,303	\$ 12,107,739	\$ 41,520	46.13	2.53x
Aurora Equity Partners III, L.P.	2005	\$ 25,000,000	\$ 23,544,536	\$ 41,140,682	\$ 2,636,164	14.5	1.74x
Aurora Equity Partners IV, L.P.	2012	\$ 20,000,000	\$ 15,519,589	\$ 1,381,143	\$ 21,529,893	12.68	1.30x
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	\$ 2,359,290	0.37	1.00x
BNY Mellon - Alcentra Mezzanine III	2012	\$ 25,000,000	\$ 23,254,658	\$ 26,583,881	\$ 70,731	12.57	1.15x
Catalyst Fund II, L.P.	2009	\$ 10,000,000	\$ 9,934,668	\$ 4,033,566	\$ 18,031,976	14.99	2.21x
Catalyst Fund LP IV, L.P.	2015	\$ 8,000,000	\$ 1,571,095	\$ -	\$ 1,482,791	-6.61	0.94x
Charlesbank Equity Fund VIII	2007	\$ 7,500,000	\$ 1,883,305	\$ -	\$ 1,958,069	7.94	1.04x
DRI II, L.P.	2010	\$ 20,000,000	\$ 19,917,669	\$ 25,865,694	\$ 427,500	19.76	1.33x
European Strategic Partners 2004	2004	\$ 240,760,684	\$ 219,356,847	\$ 187,592,714	\$ 82,058,287	3.76	1.23x
European Strategic Partners 2008	2010	\$ 31,397,208	\$ 22,695,761	\$ 5,016,613	\$ 20,667,403	4.38	1.12x
Industry Ventures Fund V	2008	\$ 10,000,000	\$ 9,500,000	\$ 18,190,637	\$ 10,985,036	34.98	3.07x
Industry Ventures Fund VI	2011	\$ 20,000,000	\$ 17,600,000	\$ 9,516,706	\$ 13,739,424	13.72	1.32x
Industry Ventures Partnership Holdings Fund II, L.P.	2012	\$ 25,000,000	\$ 20,000,000	\$ 3,371,120	\$ 39,313,233	42	2.13x
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	\$ 12,500,000	\$ 8,812,500	\$ 1,972,074	\$ 8,266,777	21.47	1.16x
Industry Ventures Partnership Holdings Fund III, L.P.	2013	\$ 25,000,000	\$ 12,250,000	\$ 752,711	\$ 13,220,894	17.63	1.14x
Industry Ventures Secondary VII, L.P.	2013	\$ 25,000,000	\$ 12,750,000	\$ 1,307,027	\$ 13,680,343	23.95	1.18x
Insight Venture Partners III Co-Invest	2014	\$ 4,000,000	\$ 3,544,000	\$ -	\$ 3,847,016	8.7	1.09x
Lexington Capital Partners VI-B	2006	\$ 25,000,000	\$ 24,591,319	\$ 24,825,116	\$ 9,267,477	7.18	1.39x
Lexington Capital Partners VII (Offshore)	2011	\$ 25,000,000	\$ 18,840,486	\$ 14,183,342	\$ 14,782,460	19.57	1.53x
Lexington Middle Market I	2005	\$ 25,000,000	\$ 24,771,942	\$ 27,974,745	\$ 9,904,241	11.49	1.53x
Lexington Middle Market II - Offshore	2008	\$ 10,000,000	\$ 9,044,597	\$ 6,433,942	\$ 6,527,832	14.26	1.43x
NB Secondary Opportunities I, LP	2005	\$ 20,000,000	\$ 18,500,843	\$ 19,579,286	\$ 5,240,862	7.29	1.34x
NB Secondary Opportunities II, LP	2008	\$ 20,000,000	\$ 16,744,388	\$ 19,002,432	\$ 8,261,238	18.56	1.62x
Partners Group Access 632, L.P.*	2014	\$ 2,782,028	\$ 2,782,028	\$ -	\$ 2,545,340	-6.11	0.91x
Partners Group Access 648, L.P.*	2014	\$ 4,418,214	\$ 4,028,602	\$ 19,449	\$ 3,822,608	-4.39	0.95x
Partners Group Client Access 8 LP	2014	\$ 5,531,585	\$ 5,531,585	\$ -	\$ 10,231,103	45.17	1.85x
Partners Group Direct Investment 2012, L.P.	2013	\$ 18,189,061	\$ 14,310,638	\$ 2,365,041	\$ 14,087,740	11.38	1.15x
Partners Group European Mandate, L.P.	2004	\$ 237,733,889	\$ 196,356,003	\$ 172,880,736	\$ 94,842,770	6.32	1.36x
Partners Group European Mezzanine 2005	2005	\$ 101,076,654	\$ 101,076,654	\$ 101,015,824	\$ 38,092,400	5.31	1.38x
Partners Group Princess Learning IC LTD*	2014	\$ 5,057,405	\$ 3,504,697	\$ 1,550,144	\$ 1,725,536	-9.48	0.93x
Partners Group Seabras Holdings, LLC*	2015	\$ 4,800,000	\$ 1,610,000	\$ -	\$ 1,610,000	0	1.00x
Partners Group Secondary 2006 LP	2006	\$ 54,436,849	\$ 51,077,528	\$ 45,937,935	\$ 14,279,663	3.72	1.18x
Partners Group Secondary 2008, L.P.	2009	\$ 26,621,437	\$ 23,690,725	\$ 19,066,822	\$ 15,474,914	10.02	1.45x
Partners Group Starfrost Limited*	2014	\$ 6,256,062	\$ 3,687,483	\$ -	\$ 3,782,292	1.48	1.03x
Pathway Private Equity Fund VII, L.P.*	2004	\$ 904,500,000	\$ 728,914,174	\$ 589,521,066	\$ 551,019,455	10.02	1.53x
Siguler Guff DOF II	2006	\$ 30,000,000	\$ 30,000,000	\$ 39,430,740	\$ 3,353,289	8.96	1.43x
Siguler Guff DOF III	2008	\$ 10,000,000	\$ 9,700,000	\$ 10,427,158	\$ 4,462,371	11.14	1.54x
SL Capital SOF I LP	2014	\$ 25,000,000	\$ 12,395,991	\$ 519,171	\$ 13,532,733	16.16	1.13x
TCW/Crescent Mezzanine IV, L.P.	2006	\$ 40,000,000	\$ 39,590,976	\$ 42,898,605	\$ 3,082,781	3.52	1.16x
TCW/Crescent Mezzanine V, L.P.	2008	\$ 20,000,000	\$ 19,688,757	\$ 20,746,669	\$ 5,173,613	9.88	1.32x
Tennenbaum Opportunities Fund V, L.P.	2007	\$ 10,000,000	\$ 10,000,000	\$ 7,590,718	\$ 5,559,158	4.88	1.31x
Tennenbaum Opportunities Fund VI, L.P.	2011	\$ 20,000,000	\$ 18,992,453	\$ 3,645,269	\$ 19,365,398	7.98	1.21x
Tennenbaum Special Situations Fund IX	2015	\$ 30,000,000	\$ 5,400,000	\$ -	\$ 5,459,527	1.1	1.01x
Tennenbaum Waterman Fund, LP	2012	\$ 70,000,000	\$ 70,000,000	\$ 10,211,734	\$ 74,162,477	11.16	1.21x
The Resolute Fund III	2014	\$ 8,000,000	\$ 2,048,008	\$ -	\$ 2,193,204	8.2	1.07x
Thoma Bravo XI	2014	\$ 8,000,000	\$ 4,890,887	\$ -	\$ 4,861,714	-0.94	0.99x
Total		\$ 2,367,875,593	\$ 1,966,237,498	\$ 1,608,574,355	\$ 1,212,122,344	8.54	1.42x

Note: all metrics are calculated since inception

* Denotes cash adjusted

Cambridge Associates
Indexes not yet available



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December 31, 2015

San Bernardino County Employees' Retirement Association
 Real Estate Performance Ending September 30, 2015

Investment	Vintage Year	Commitment	Contributed Capital	Unfunded Commitment	Additional Fees	Cash	Reported Valuation	Net IRR	TVPI
American Realty Advisors	1996	\$ 128,009,773	\$ 128,009,773	\$ -	\$ -	\$ 95,963,126	\$ 182,883,369	7.54	2.18
American Realty Value Add	2006	\$ 12,925,215	\$ 12,925,215	\$ -	\$ -	\$ 2,675,000	\$ 24,980,555	9.65	2.14
Beacon Capital Strategic Partners IV, L.P.	2006	\$ 39,000,000	\$ 38,000,000	\$ 1,000,000	\$ -	\$ 26,763,990	\$ 5,481,139	-2.88	0.85
Beacon Capital Strategic Partners V, L.P.	2007	\$ 20,000,000	\$ 18,000,000	\$ 1,000,000	\$ -	\$ 7,924,215	\$ 3,782,389	-7.45	0.65
BlackRock Diamond Property Fund	2005	\$ 25,000,000	\$ 25,000,000	\$ -	\$ -	\$ 12,952,792	\$ 4,580,857	-6.37	0.7
Bryanston Real Estate Opportunity Fund II, L.P.	2009	\$ 20,000,000	\$ 8,589,256	\$ 11,410,744	\$ -	\$ 9,103,079	\$ 1,174,593	6.45	1.2
Bryanston Retail Opportunity Fund, L.P.	2004	\$ 20,000,000	\$ 8,228,165	\$ 11,771,835	\$ -	\$ 18,492,031	\$ 3,978,869	71	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	\$ 3,428,064	-23.57	0.12
Fillmore East Fund	2006	\$ 25,000,000	\$ 31,403,818	\$ -	\$ -	\$ 20,262,179	\$ 454,433	-9.88	0.66
Fillmore West Fund	2008	\$ 20,000,000	\$ 20,104,834	\$ 1	\$ -	\$ 10,902,319	\$ 8,043,367	-1.03	0.94
Fortress Japan Opportunity Fund II	2012	\$ 21,739,130	\$ 12,320,691	\$ 9,418,439	\$ (226,193)	\$ 1,650,566	\$ 18,540,789	21	1.67
Invesco Asian Real Estate Partners II (USD), LP	2007	\$ 20,000,000	\$ 8,314,147	\$ 1,667,742	\$ -	\$ 6,297,511	\$ 4,157,862	6.28	1.26
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	\$ -	\$ -	\$ -	\$ 51,570,556	-0.26	1
INVESCO Real Estate Fund I	2005	\$ 10,000,000	\$ 9,248,390	\$ 751,610	\$ -	\$ 8,723,250	\$ 1,236,734	1.45	1.08
LaSalle Income & Growth Fund IV	2005	\$ 20,000,000	\$ 19,469,417	\$ 530,583	\$ -	\$ 13,335,004	\$ 154,242	-5.5	0.69
Morgan Stanley Real Estate Fund V International	2005	\$ 27,500,000	\$ 27,377,414	\$ 122,586	\$ 48,668	\$ 30,824,620	\$ 2,226,782	7.07	1.21
Oaktree Real Estate Opportunities V	2012	\$ 25,000,000	\$ 25,000,000	\$ -	\$ 87,098	\$ 15,975,000	\$ 21,231,453	14.37	1.48
Partners Group RE Secondary 2013 (USD) A	2014	\$ 65,000,000	\$ 13,664,848	\$ 51,335,152	\$ 138,419	\$ -	\$ 16,503,915	20.93	1.2
Prologis Japan Fund	2005	\$ 25,290,819	\$ 25,290,819	\$ -	\$ -	\$ 33,126,118	\$ -	4.81	1.31
Prudential PRISA II	2004	\$ 86,225,523	\$ 86,225,523	\$ -	\$ -	\$ 15,000,000	\$ 91,262,735	5.28	1.23
Prudential PRISA III	2003	\$ 40,000,000	\$ 35,703,965	\$ 4,296,035	\$ -	\$ 10,000,000	\$ 28,370,752	1.82	1.07
RREEF America REIT III	2004	\$ 20,000,000	\$ 20,539,309	\$ -	\$ -	\$ 22,410,053	\$ 1,407,492	3.15	1.16
Square Mile Partners II	2007	\$ 20,000,000	\$ 19,831,232	\$ 168,768	\$ -	\$ 4,628,319	\$ 935,541	-18.75	0.28
Square Mile Partners III LP	2008	\$ 20,000,000	\$ 21,561,599	\$ -	\$ -	\$ 25,845,529	\$ 4,938,052	12.41	1.43
Starwood Capital Hospitality Fund I-2	2006	\$ 30,000,000	\$ 30,000,000	\$ -	\$ -	\$ 18,084,672	\$ 13,990,593	1.02	1.07
Starwood Debt Fund II, LP	2008	\$ 20,000,000	\$ 17,599,882	\$ 2,400,118	\$ -	\$ 20,783,138	\$ 968,119	6.3	1.24
Starwood Opportunity Fund VII - A	2006	\$ 25,000,000	\$ 25,000,000	\$ -	\$ -	\$ 10,079,280	\$ 10,707,114	-2.27	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	\$ 656,943	\$ -	\$ 1,083,940	\$ 2,135,038	-20.95	0.14
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	\$ 229,110	\$ -	\$ 14,126,364	\$ 1,906,963	10.93	1.64
Walton Street Real Estate Fund V, LP	2006	\$ 40,000,000	\$ 40,000,000	\$ -	\$ -	\$ 14,352,676	\$ 17,473,570	-2.99	0.8
Total		\$ 1,010,422,960	\$ 911,474,055	\$ 96,759,666	\$ 47,992	\$ 527,287,126	\$ 528,505,936	2.74	1.16

Note: all metrics are calculated since inception



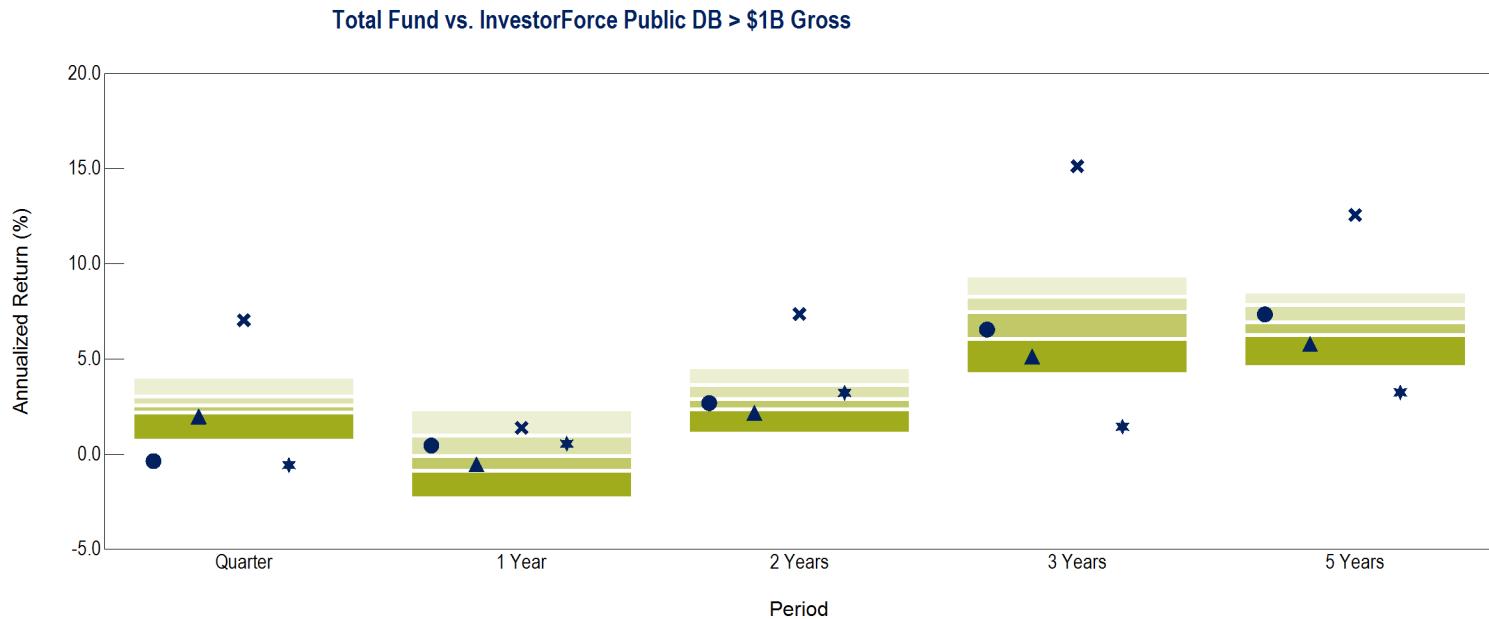
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December 31, 2015

Appendix: Market Environment

San Bernardino County Employees' Retirement Association

Total Fund Return Summary vs. Peer Universe



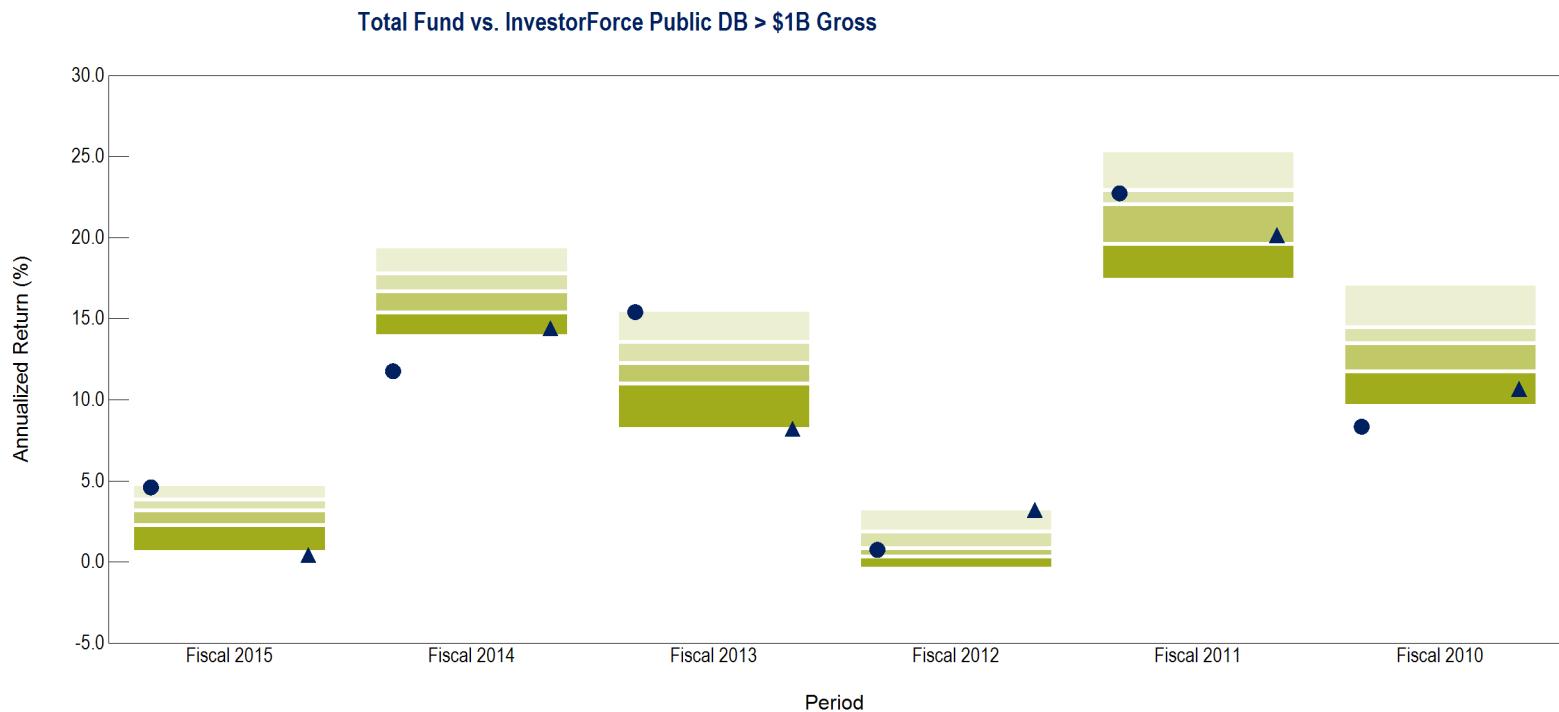
	Return (Rank)								
5th Percentile	4.1		2.3		4.6		9.4		8.5
25th Percentile	3.0		1.0		3.7		8.3		7.8
Median	2.6		-0.1		2.9		7.5		7.0
75th Percentile	2.2		-0.9		2.4		6.1		6.3
95th Percentile	0.7		-2.3		1.1		4.2		4.6
# of Portfolios	33		33		32		31		31
● Total Fund	-0.4	(99)	0.5	(32)	2.7	(55)	6.5	(64)	7.3
▲ Policy Index	2.0	(78)	-0.5	(67)	2.2	(83)	5.1	(92)	5.8
✖ S&P 500	7.0	(1)	1.4	(21)	7.4	(1)	15.1	(1)	12.6
* Barclays Aggregate	-0.6	(99)	0.5	(31)	3.2	(39)	1.4	(99)	3.2
◆ 60% MSCI World (Gross) / 40% CITI WGBI	--	(-)	--	(--)	--	(--)	--	(-)	--



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San Bernardino County Employees' Retirement Association
 Fiscal Year Ending 6/30 Total Fund Return Summary vs. Peer Universe



	Return (Rank)						
5th Percentile	4.8	19.4	15.5	3.3	25.4	17.2	
25th Percentile	3.9	17.8	13.6	1.9	22.9	14.5	
Median	3.2	16.7	12.3	0.9	22.1	13.5	
75th Percentile	2.3	15.4	11.0	0.3	19.6	11.8	
95th Percentile	0.6	13.9	8.2	-0.4	17.4	9.6	
# of Portfolios	92	65	78	70	67	66	
● Total Fund	4.6	(7)	11.8	(99)	15.4	(7)	0.8
▲ Policy Index	0.4	(96)	14.4	(87)	8.2	(96)	3.2
					(58)	(6)	(58)
					(32)	(71)	(22.7)
					(71)		8.3
							(99)
							10.7
							(91)



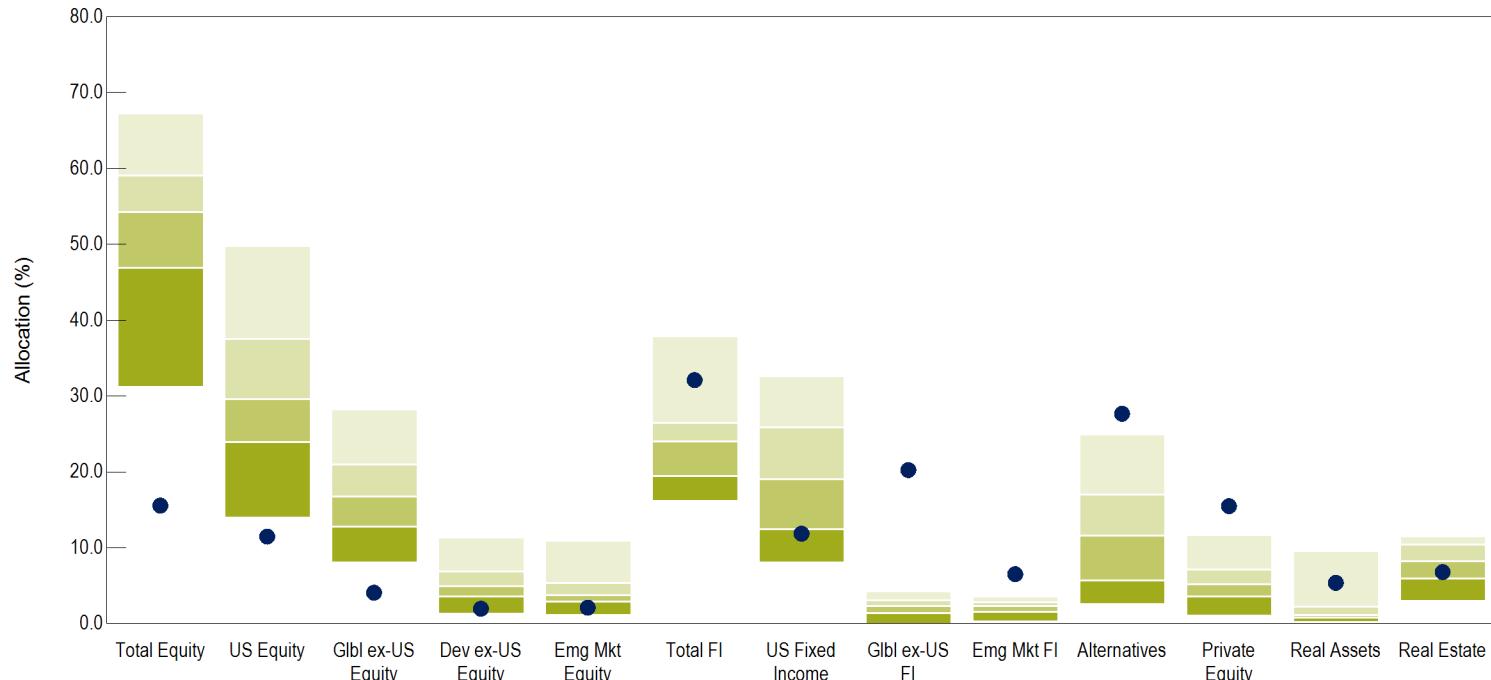
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San Bernardino County Employees' Retirement Association

Total Fund Allocations vs. Peer Universe

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



Allocation (Rank)

5th Percentile	67.3	49.7	28.2	11.4	10.9	37.8	32.6	4.3	3.6	24.9	11.7	9.6	11.6	--
25th Percentile	59.1	37.6	21.0	7.0	5.4	26.5	25.9	3.2	3.0	17.1	7.2	2.3	10.5	--
Median	54.3	29.6	16.9	5.0	3.9	24.1	19.1	2.4	2.4	11.7	5.3	1.3	8.3	--
75th Percentile	47.0	24.0	12.8	3.7	3.0	19.6	12.5	1.5	1.7	5.8	3.7	0.9	6.0	--
95th Percentile	31.3	14.1	8.1	1.4	1.2	16.3	8.2	0.0	0.4	2.7	1.1	0.3	3.1	--
# of Portfolios	30	28	28	7	16	30	26	10	7	20	19	9	23	--
● Total Fund	15.6 (99)	11.5 (97)	4.1 (99)	2.0 (90)	2.1 (90)	32.1 (13)	11.9 (78)	20.2 (1)	6.5 (1)	27.7 (1)	15.5 (1)	5.4 (13)	6.8 (67)	--

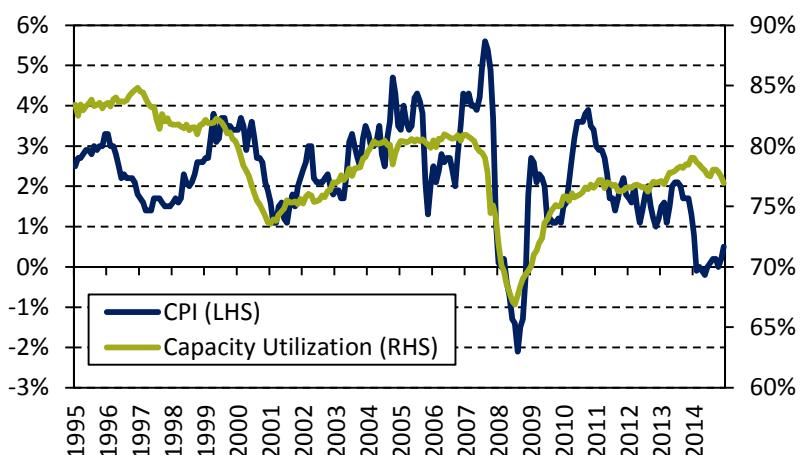


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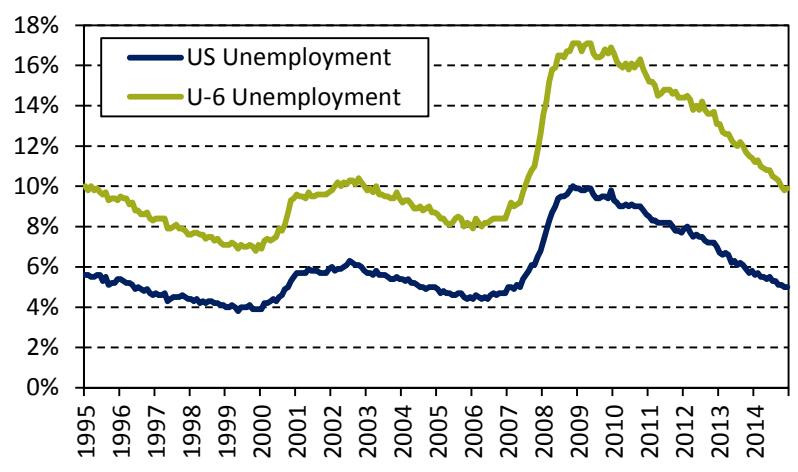
San Bernardino County Employees' Retirement Association
US Economic Indicators

Inflation has stayed low



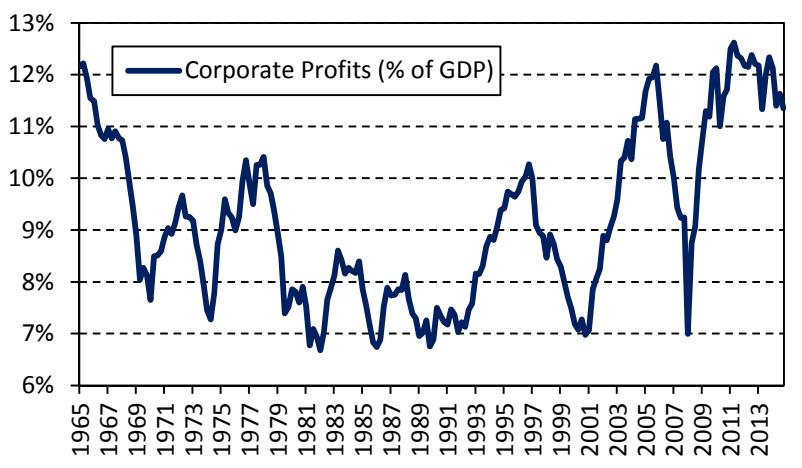
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

Unemployment steadily improving



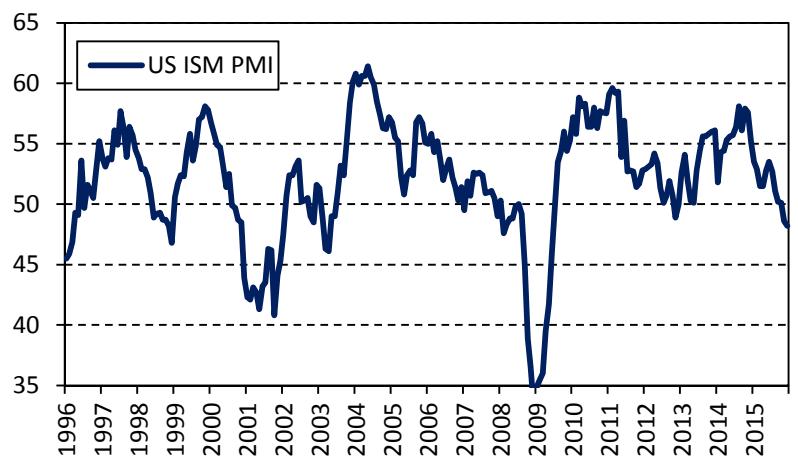
Source: Bloomberg, Bureau of Labor Statistics

Corporate profits slightly off secular highs



Source: Bloomberg, Bureau of Economic Analysis

Manufacturing trending lower



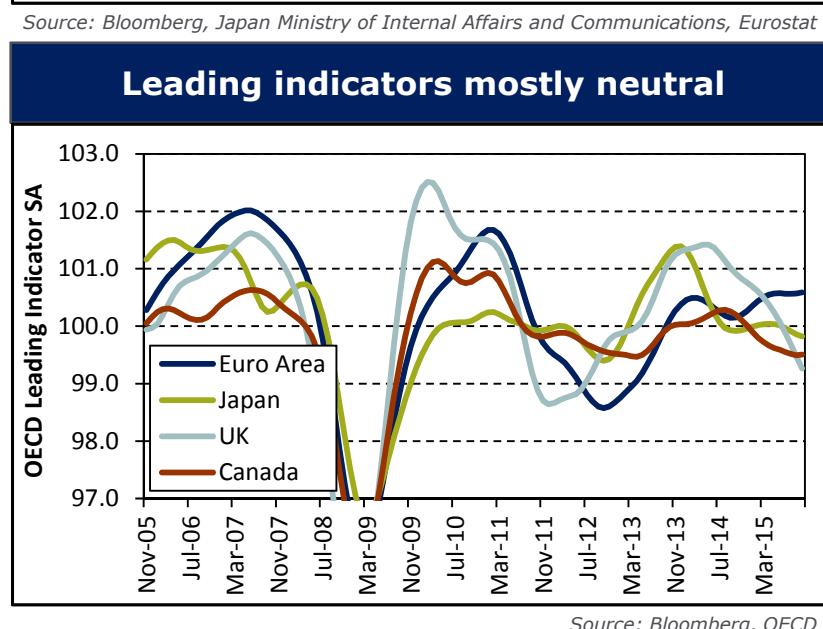
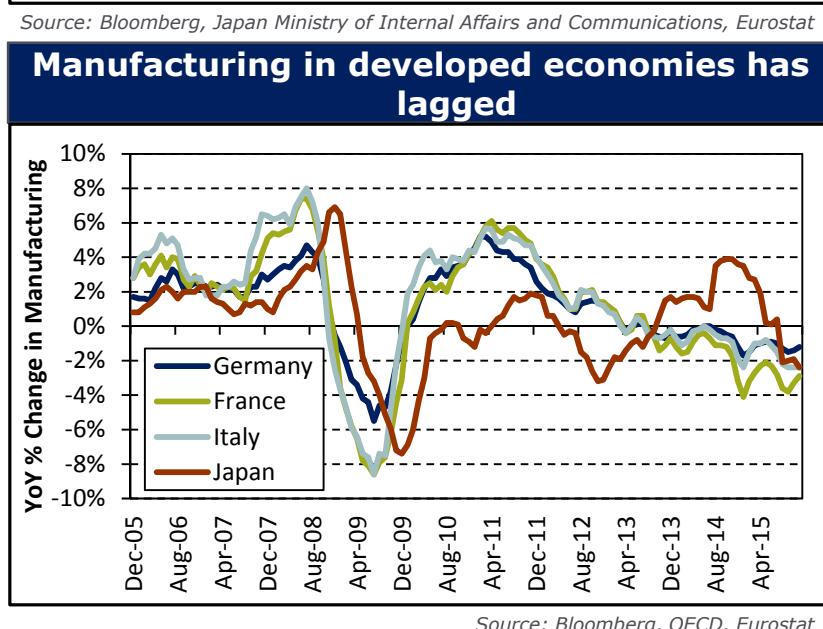
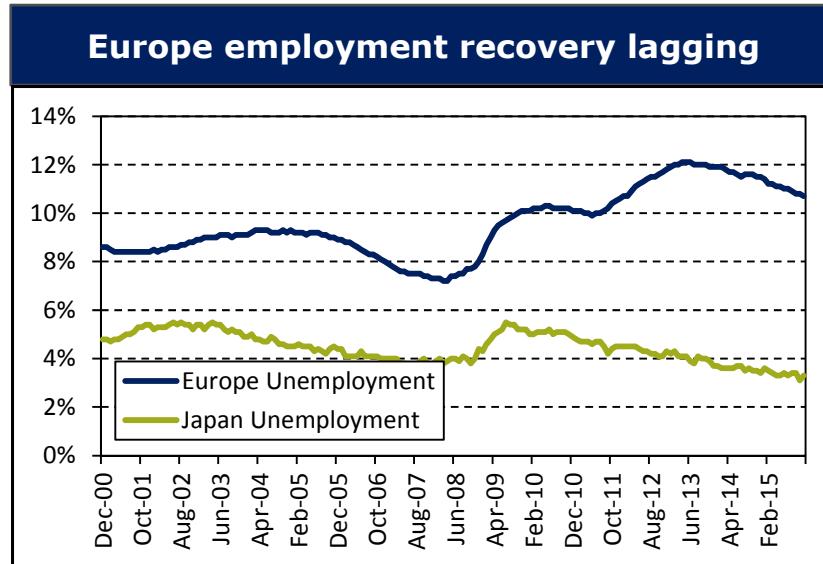
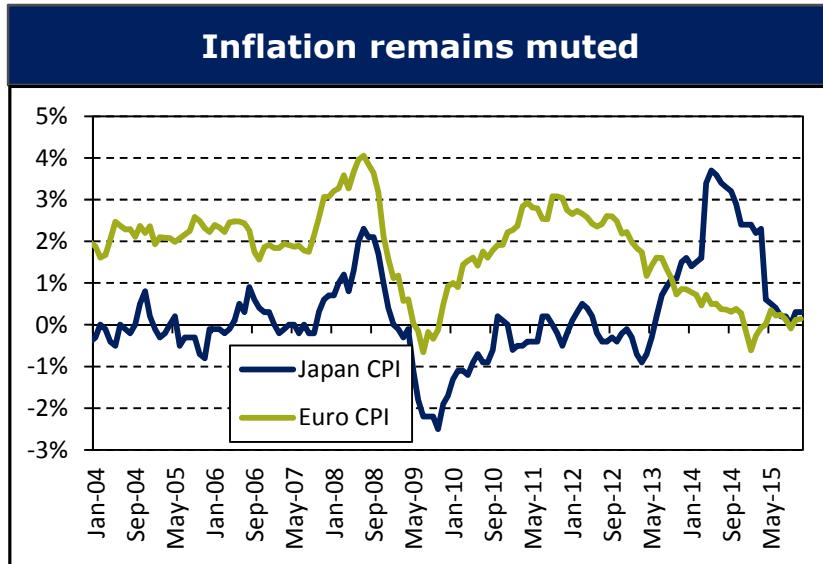
Source: Bloomberg, Institute for Supply Management



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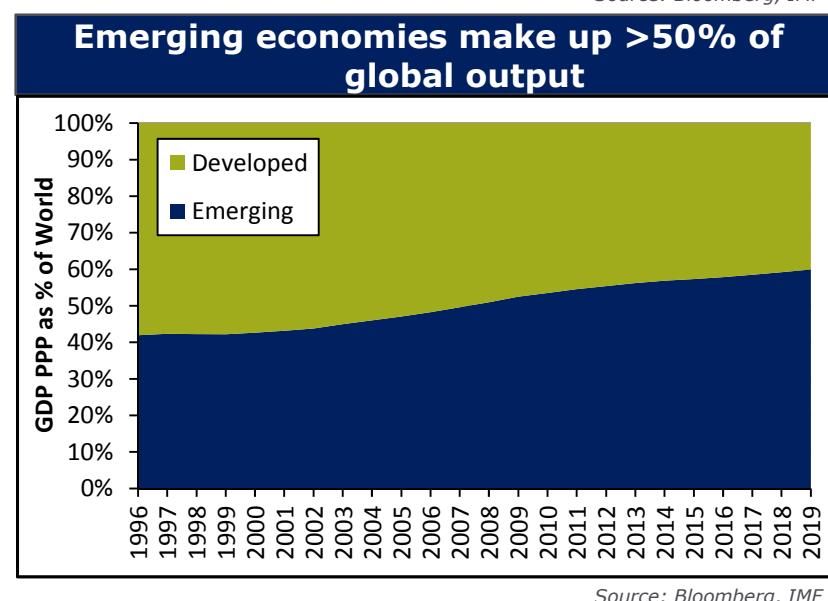
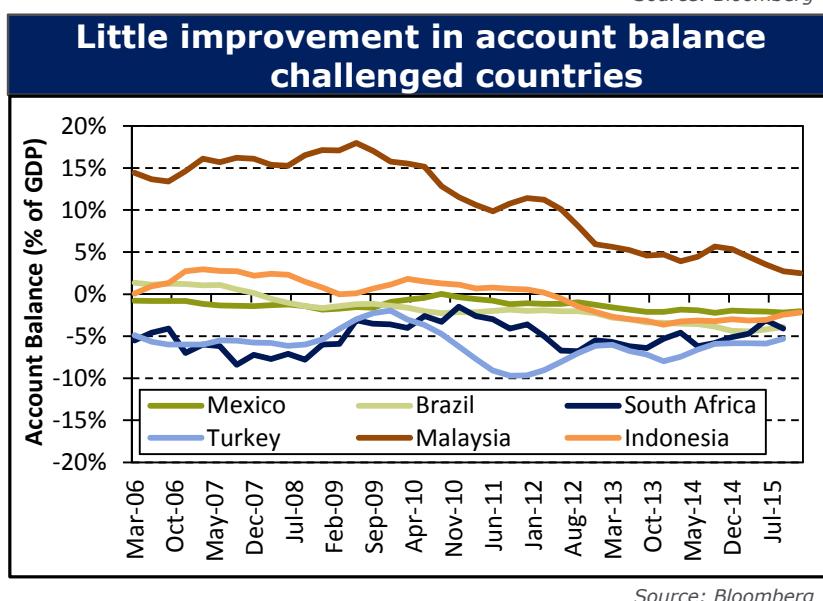
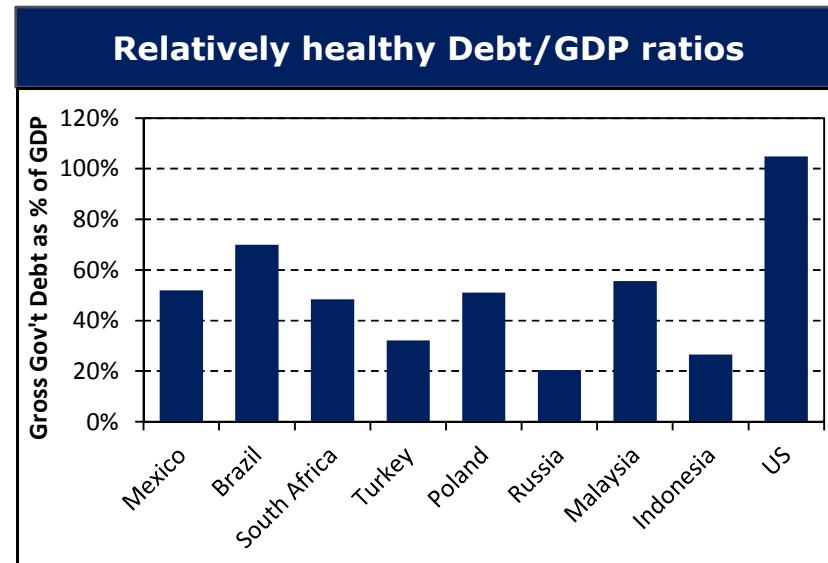
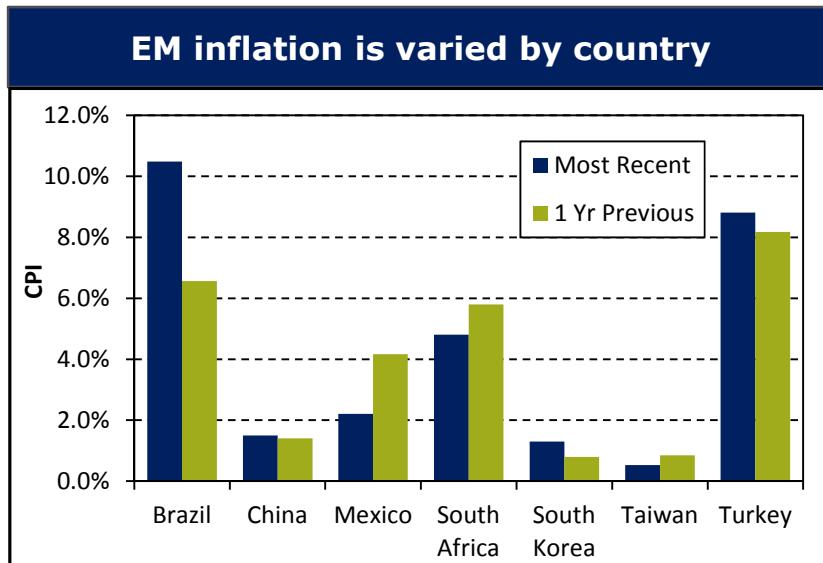
San Bernardino County Employees' Retirement Association
International Economic Indicators



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San Bernardino County Employees' Retirement Association
Emerging Market Economic Indicators

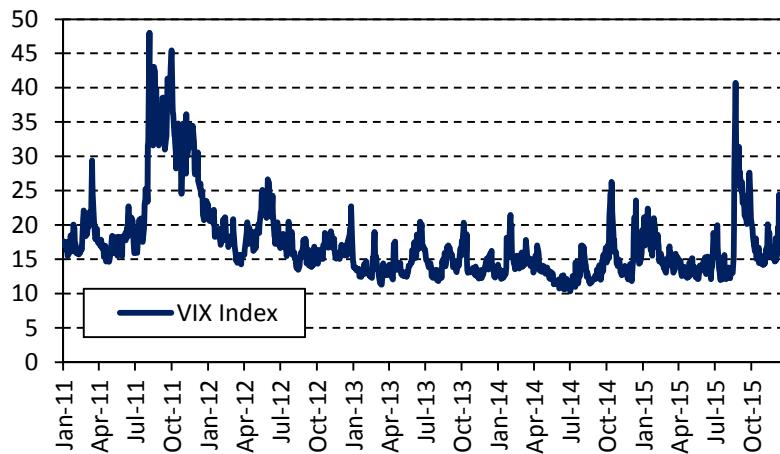


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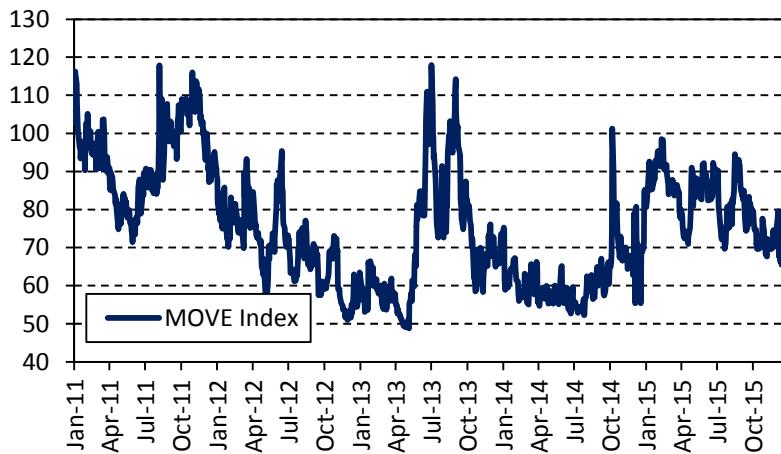
San Bernardino County Employees' Retirement Association
Volatility

Equity volatility has seen recent spike and decline



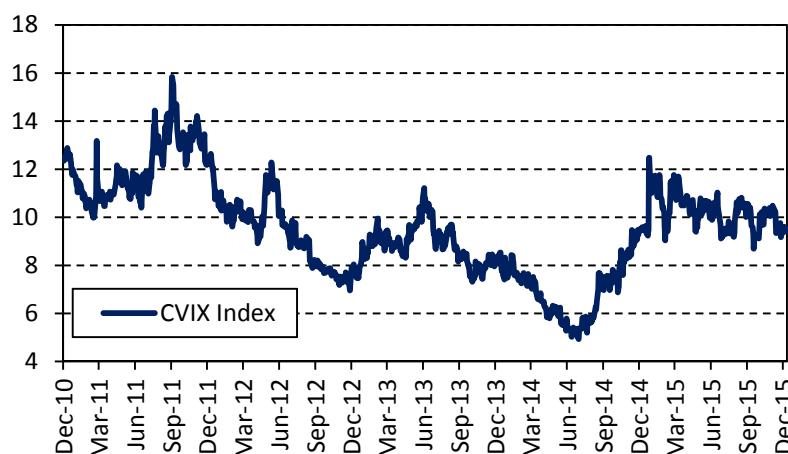
Source: Bloomberg, CBOE

Treasury rates experiencing periods of higher volatility



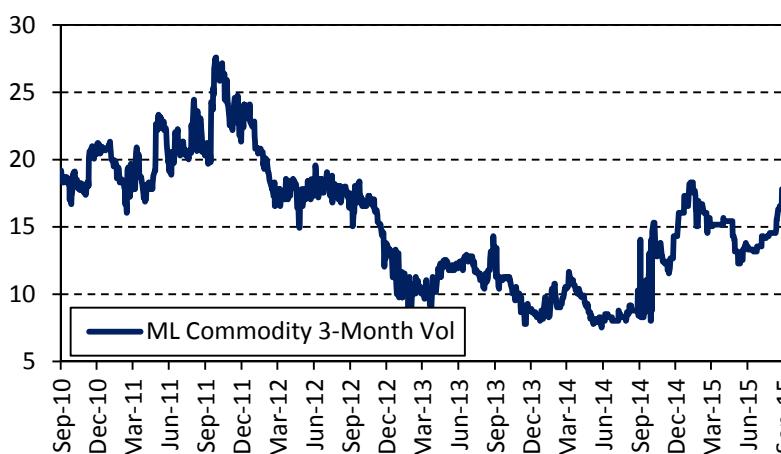
Source: Bloomberg, Merrill Lynch

Sustained uptick in currency volatilities



Source: Bloomberg, Deutsche Bank

Commodity pricing volatility has increased



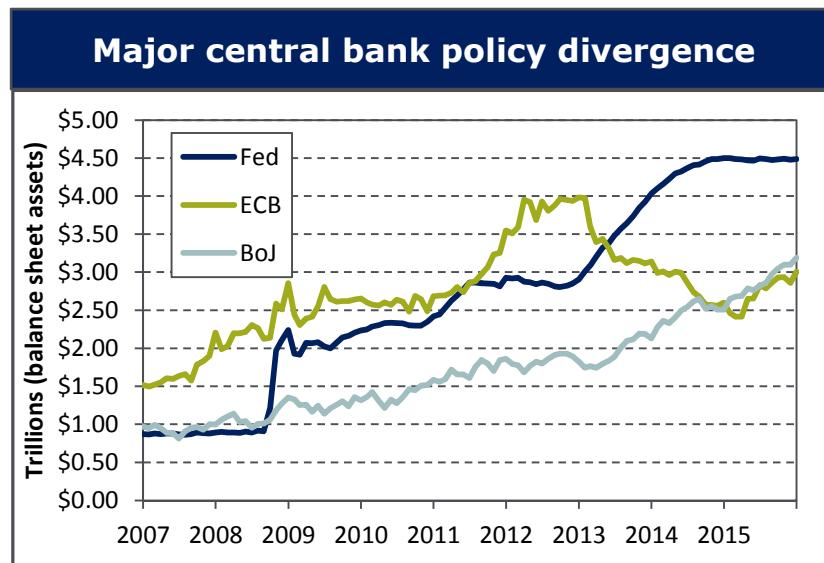
Source: Bloomberg, Merrill Lynch



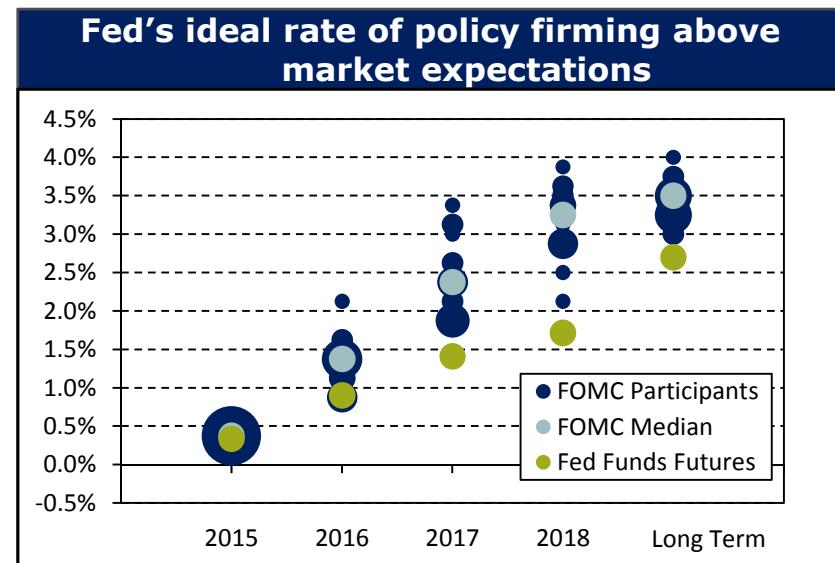
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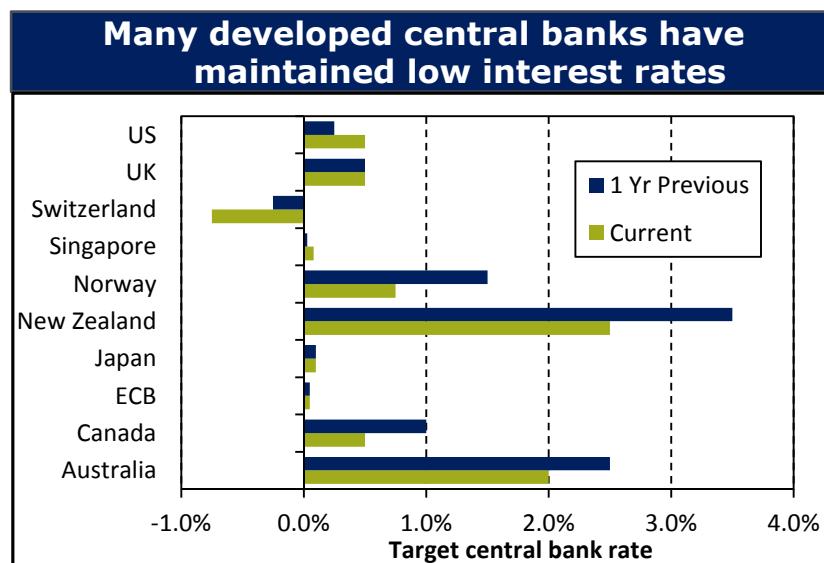
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Central Banks



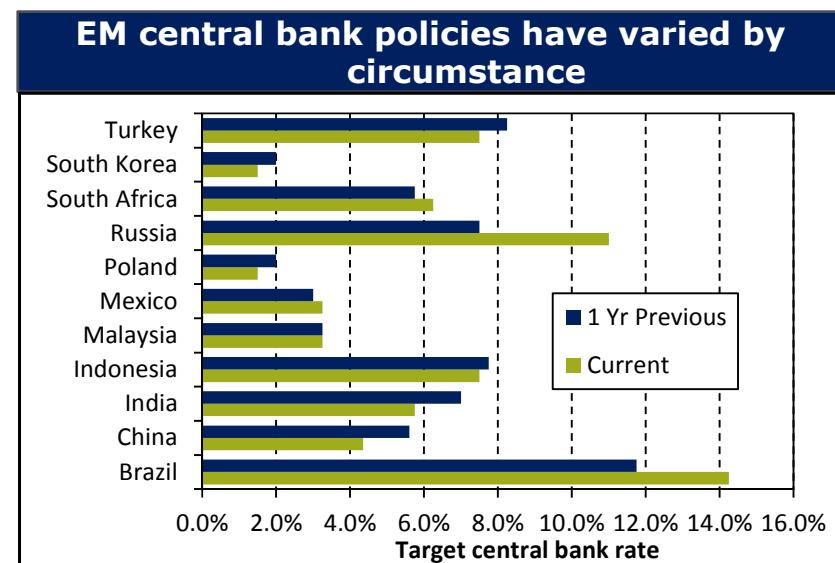
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC



Source: Bloomberg, Federal Reserve, NEPC



Source: Bloomberg



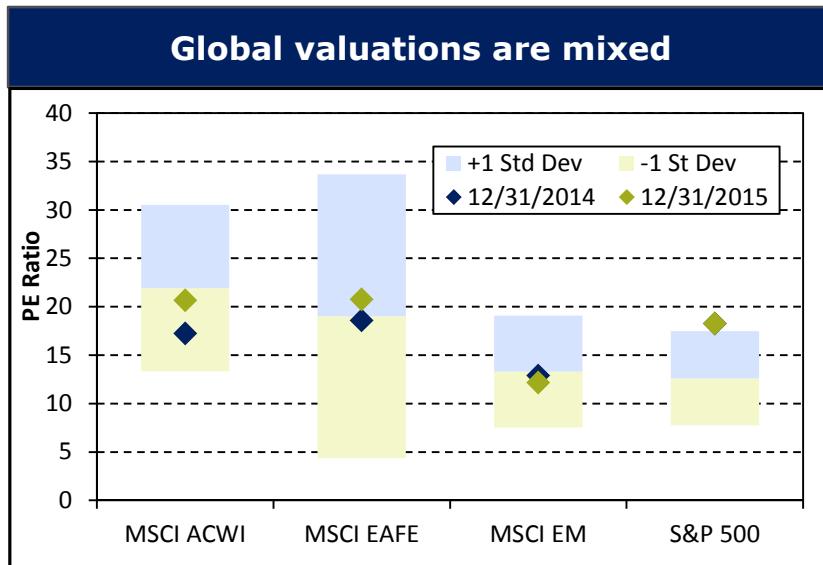
Source: Bloomberg



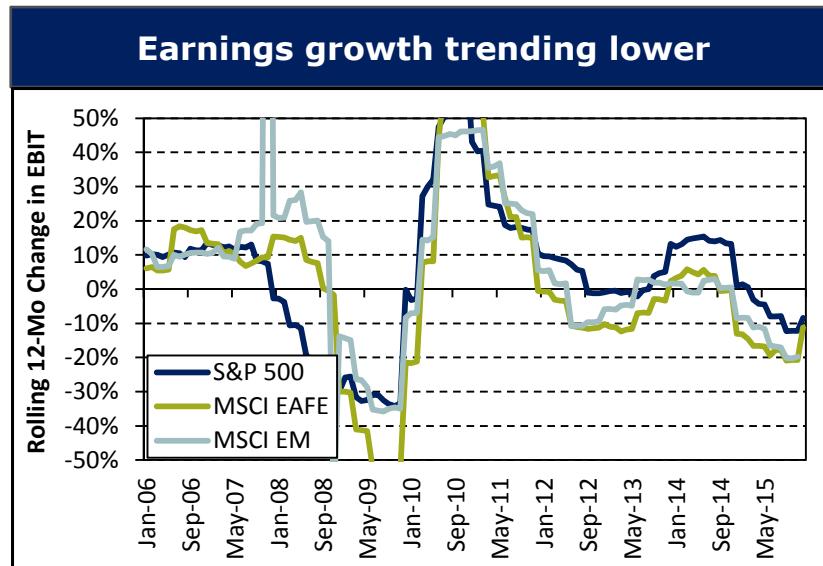
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December 31, 2015

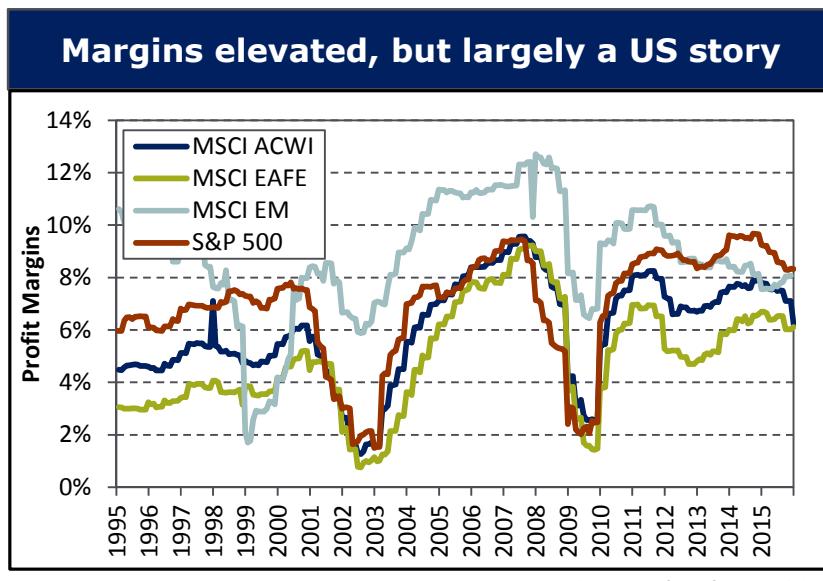
San Bernardino County Employees' Retirement Association
Global Equity



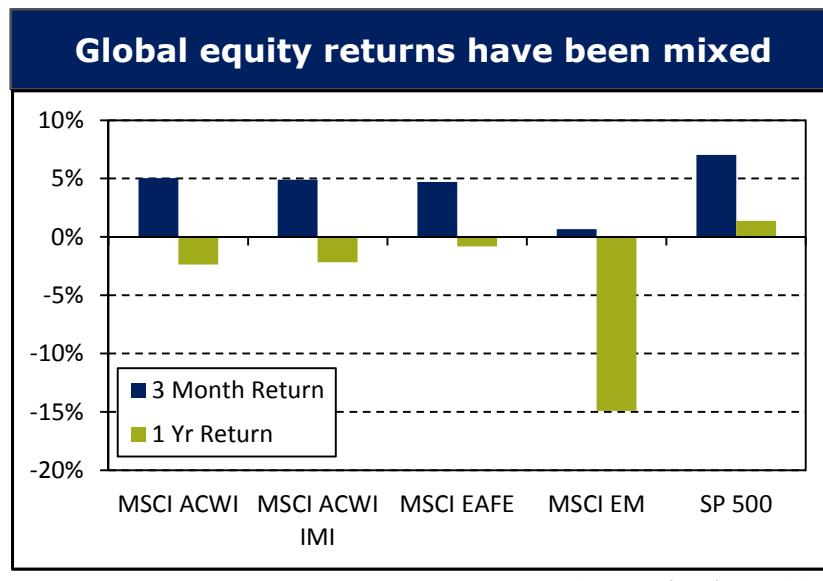
Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom



Source: Bloomberg, Standard and Poors, MSCI



Source: Bloomberg, MSCI



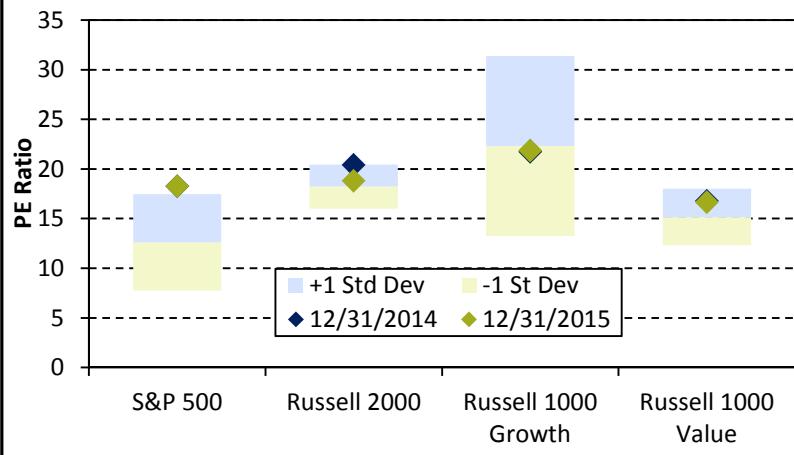
Source: Bloomberg, MSCI



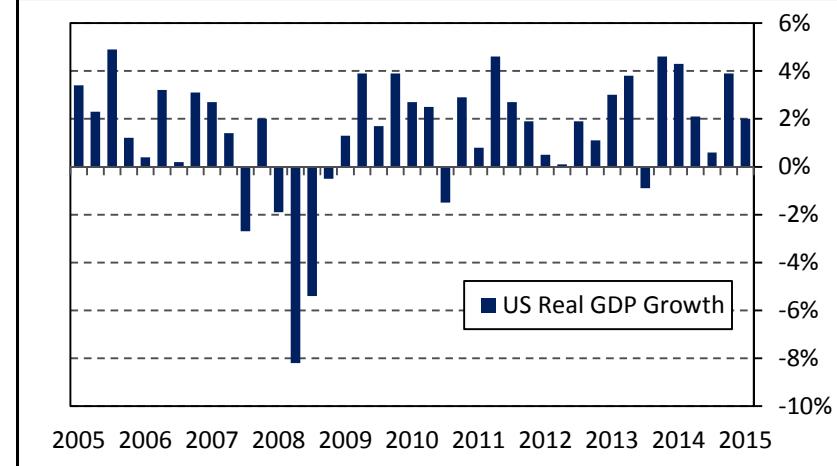
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Valuations near or above historical norms

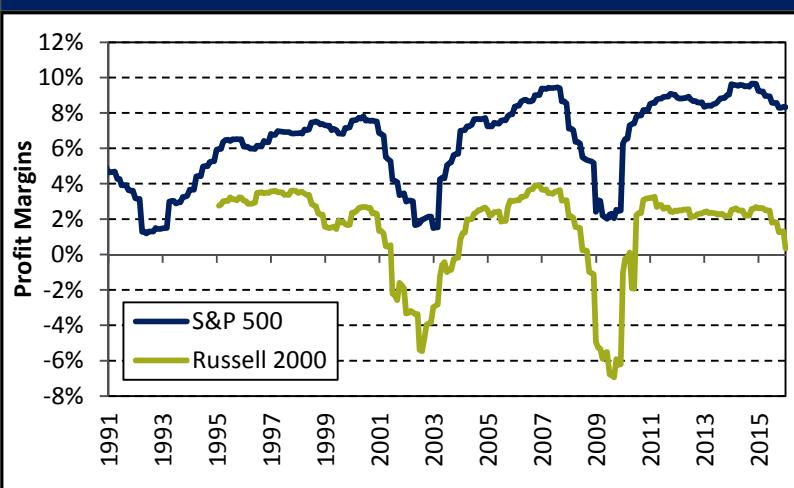


Growth recovery marked by inconsistency



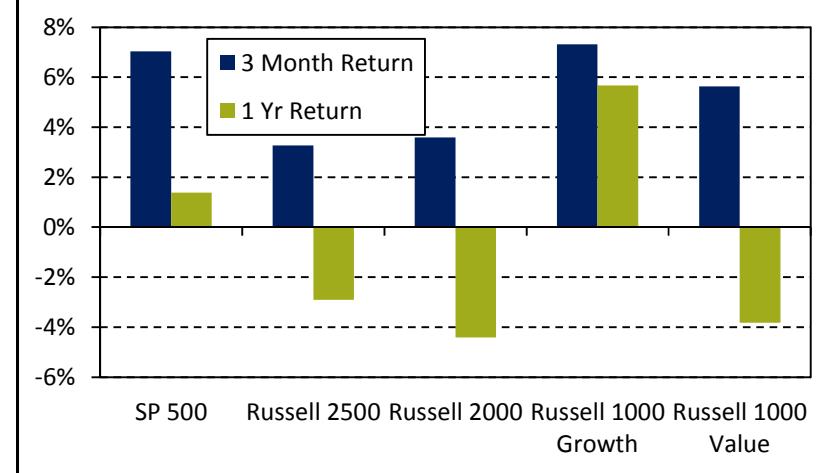
Source: Bloomberg, Standard and Poors, Russell *Russell 2000 PE is index adjusted positive

Profit margins remain elevated



Source: Bloomberg, Standard and Poors, Russell

Trailing performance is positive in near term



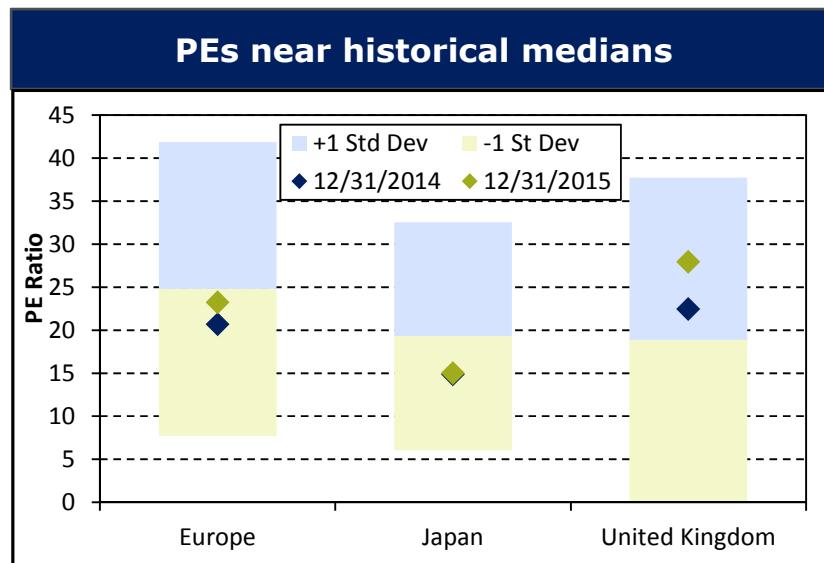
Source: Bloomberg, Standard and Poors, Russell



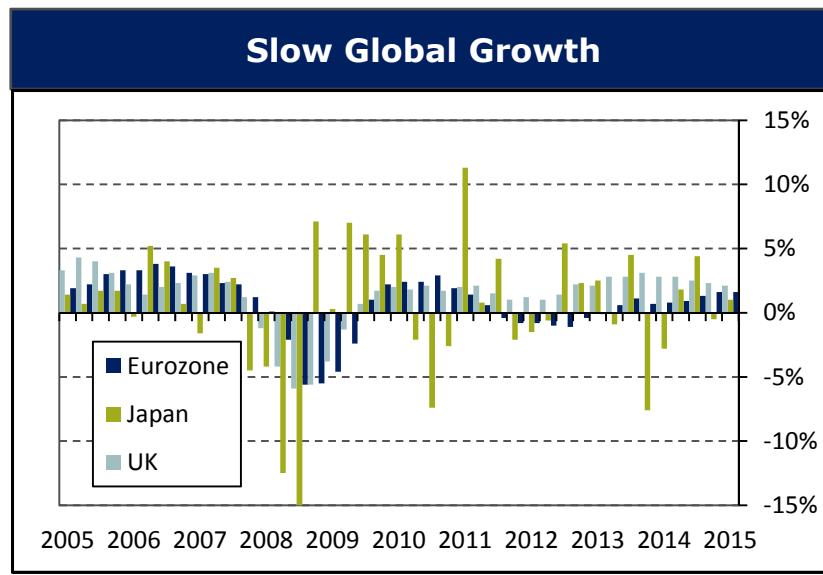
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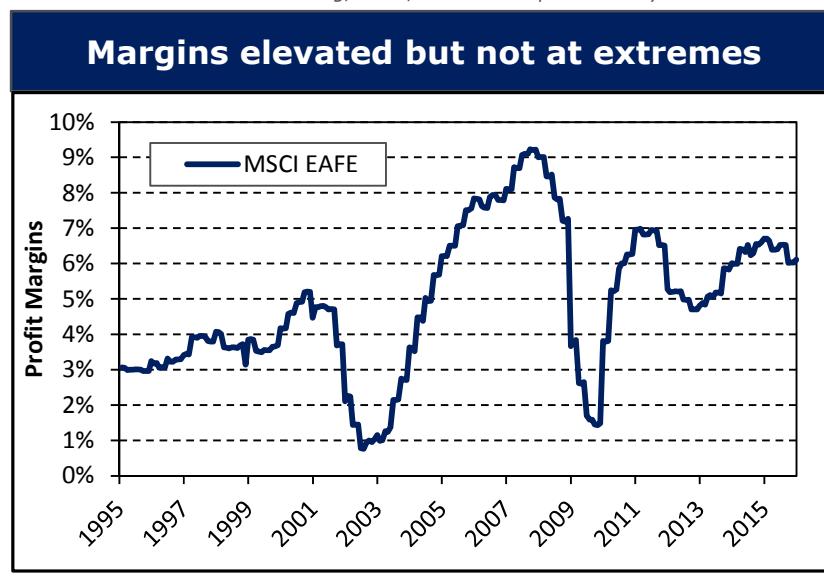
San Bernardino County Employees' Retirement Association
International Equity



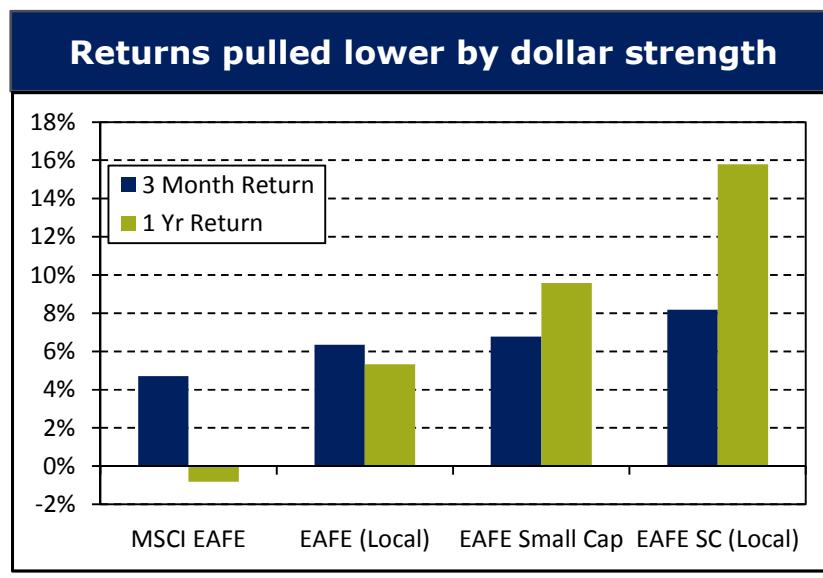
Source: Bloomberg, MSCI, FTSE *UK represented by FTSE 100 Index



Source: Bloomberg



Source: Bloomberg, MSCI



Source: Bloomberg, MSCI

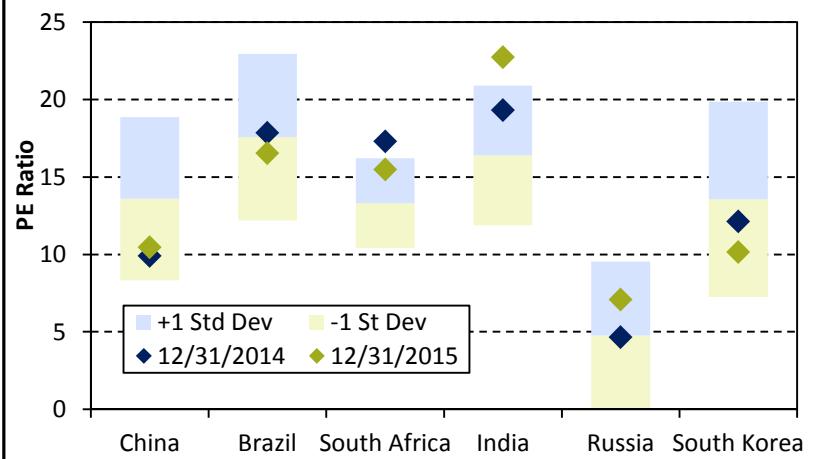


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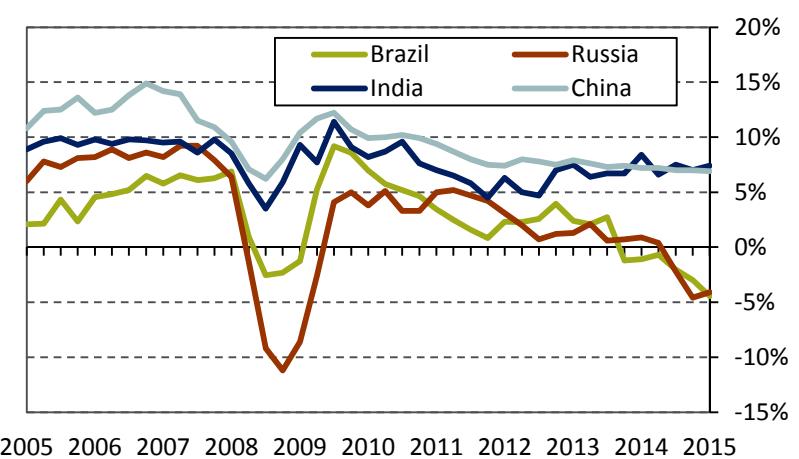
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Emerging Markets Equity

Regional valuations show divergence



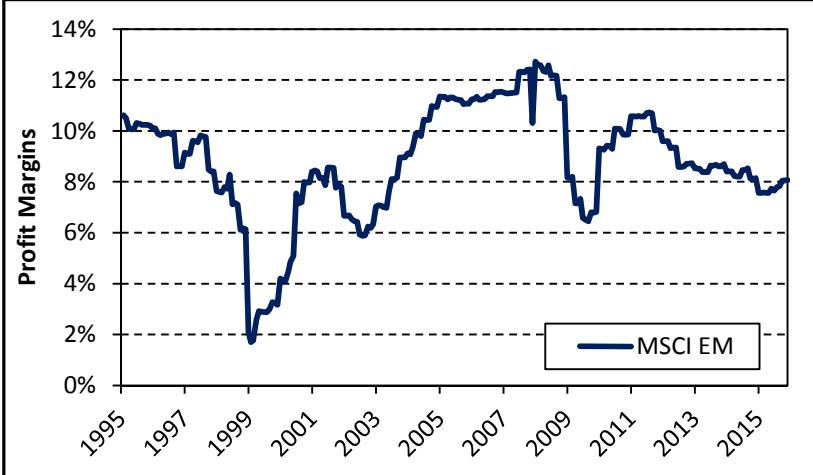
Source: Bloomberg, MSCI

Slowing growth in major economies



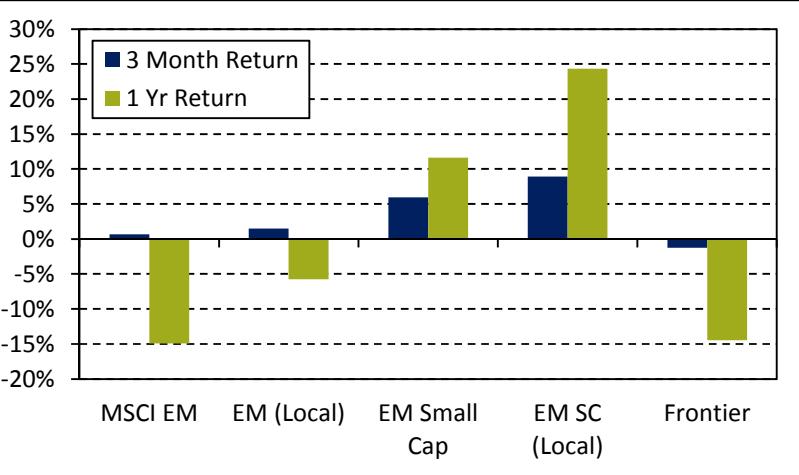
Source: Bloomberg

Profit margins in line with history



Source: Bloomberg, MSCI

Small cap EM issues have outperformed



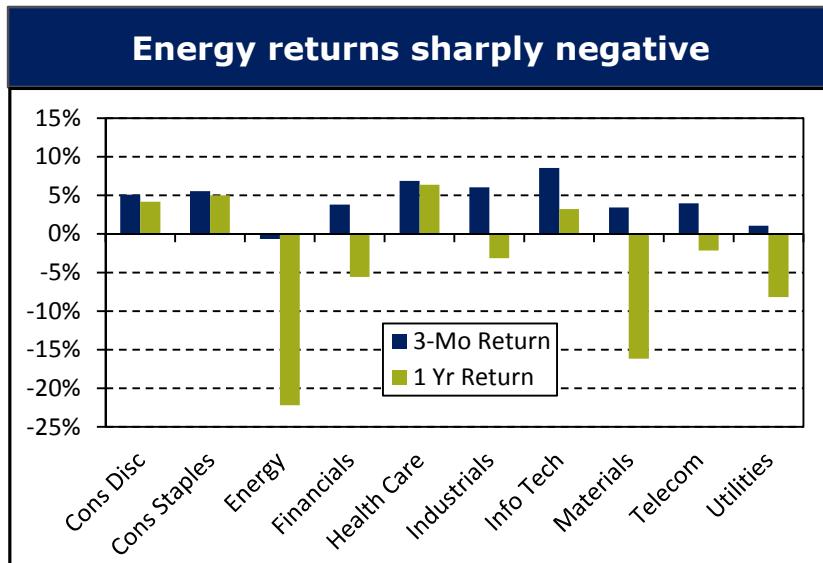
Source: Bloomberg, MSCI



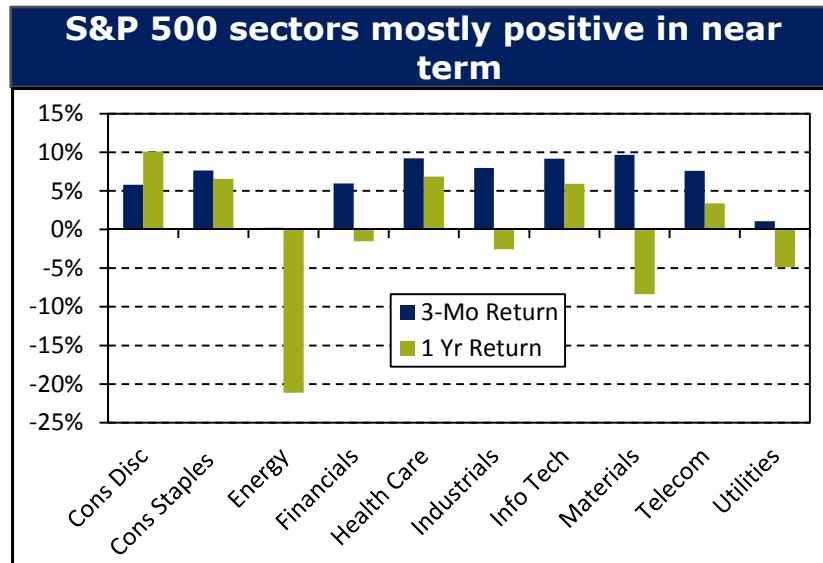
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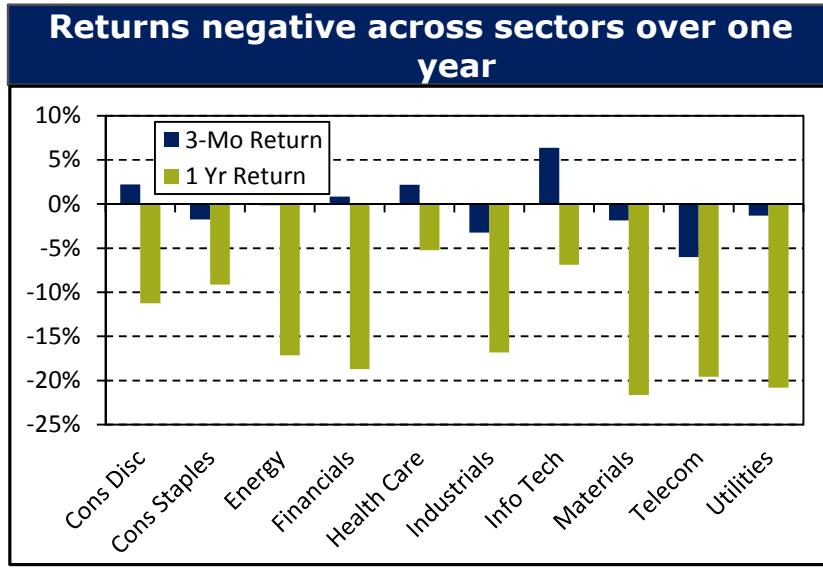
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Global Equity by Sector



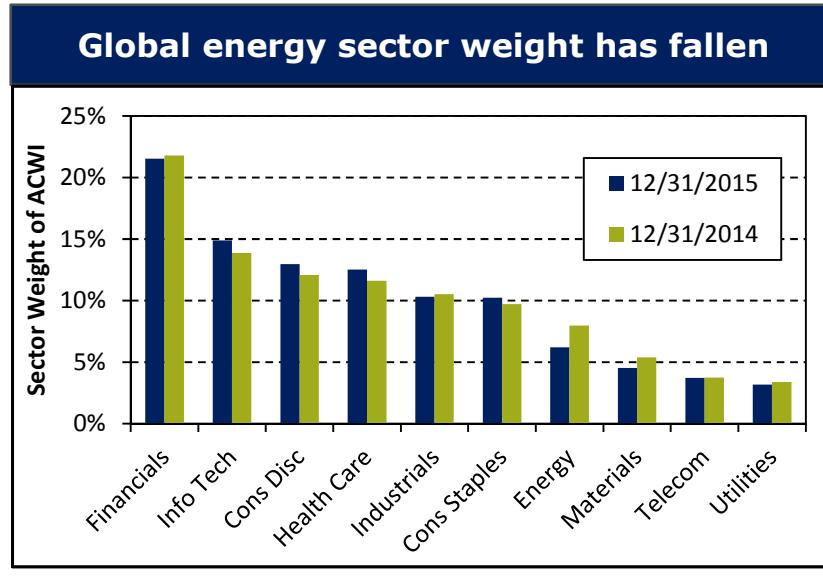
Source: Bloomberg, MSCI



Source: Bloomberg, Standard and Poors



Source: Bloomberg, MSCI



Source: Bloomberg, MSCI

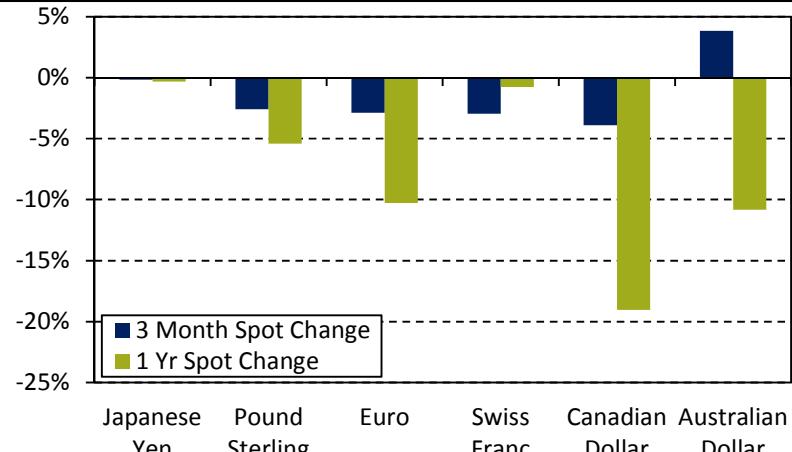


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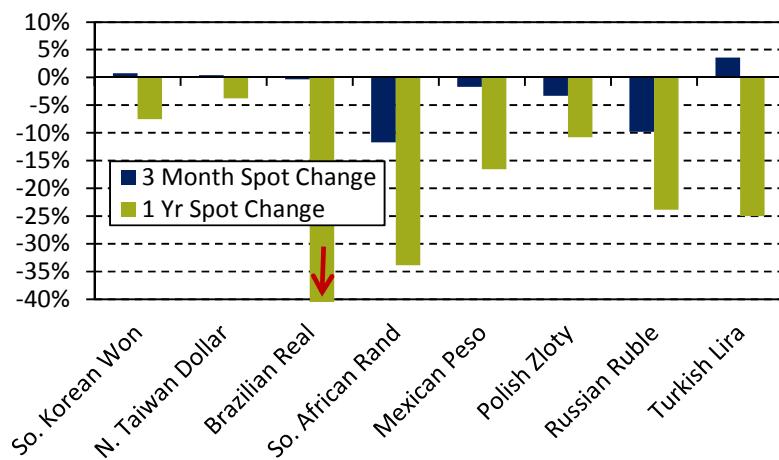
San Bernardino County Employees' Retirement Association
Currencies

Developed currencies mostly negative versus the dollar



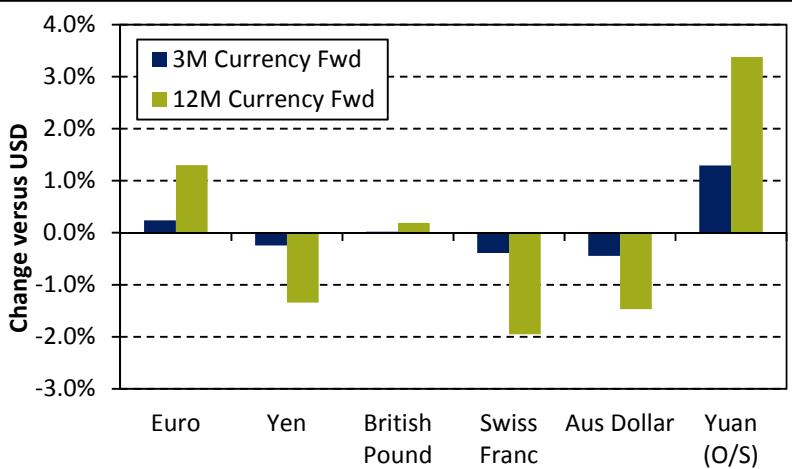
Source: Bloomberg

EM currencies have suffered in unique fashions



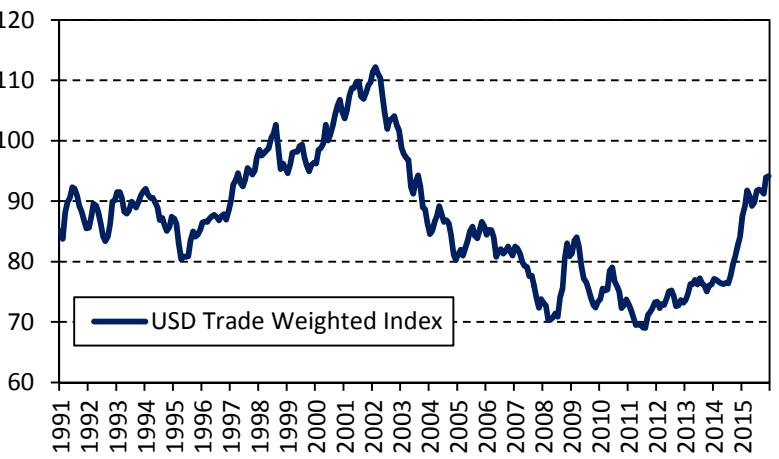
Source: Bloomberg

Yen expected to decline versus USD



Source: Bloomberg

Recent dollar strength pronounced



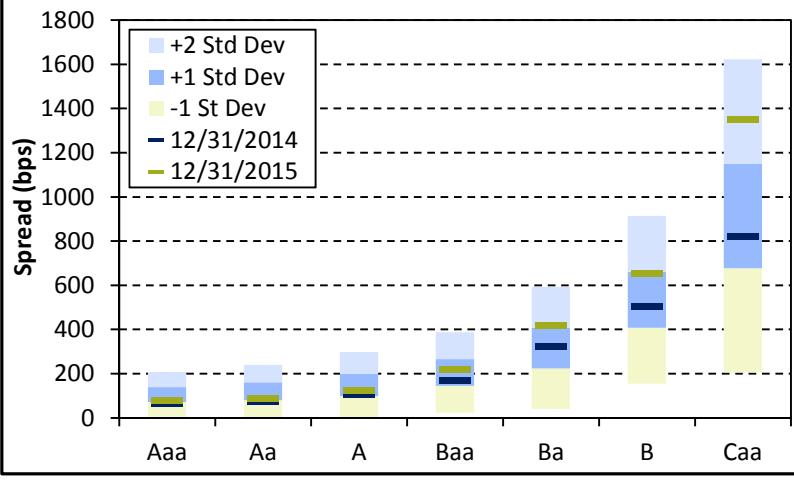
Source: Bloomberg, Federal Reserve



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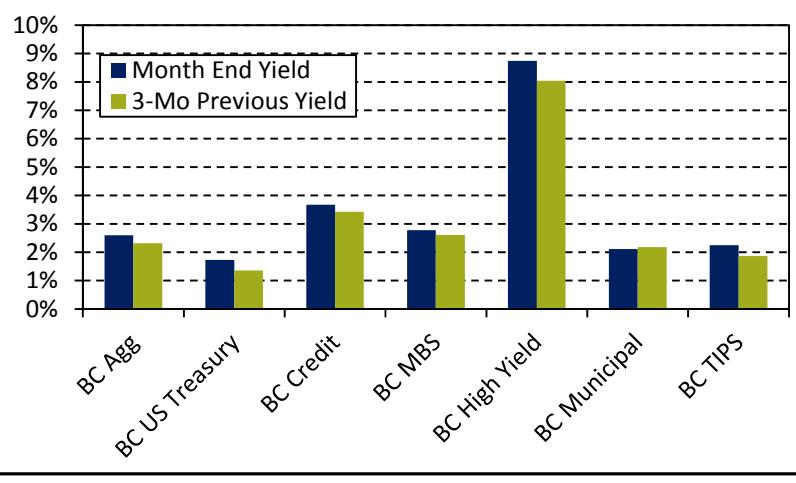
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Spread levels above historical medians



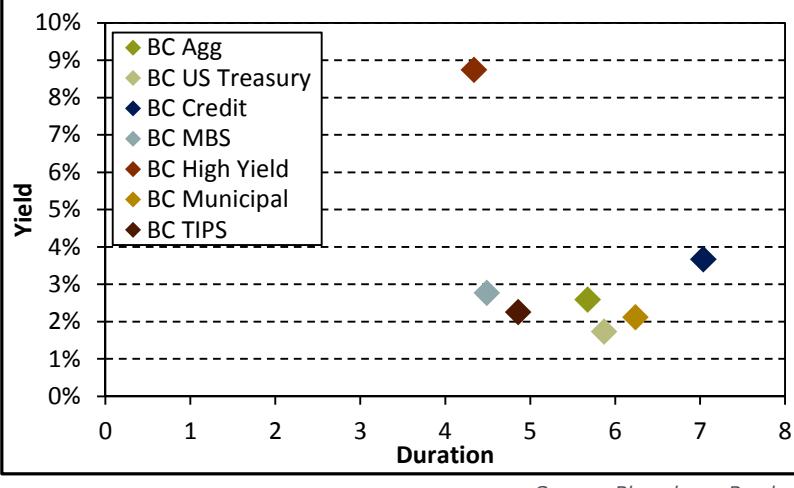
Source: Bloomberg, Barclays

Most yields have increased



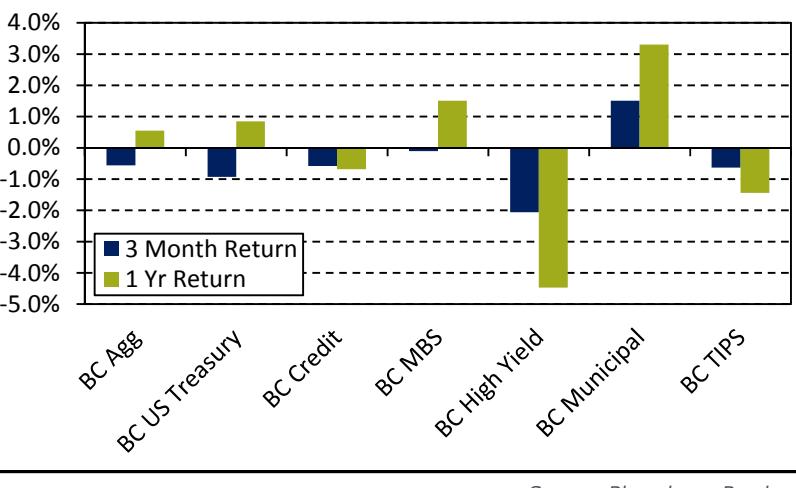
Source: Bloomberg, Barclays

Similar yield/duration tradeoff among major US indices



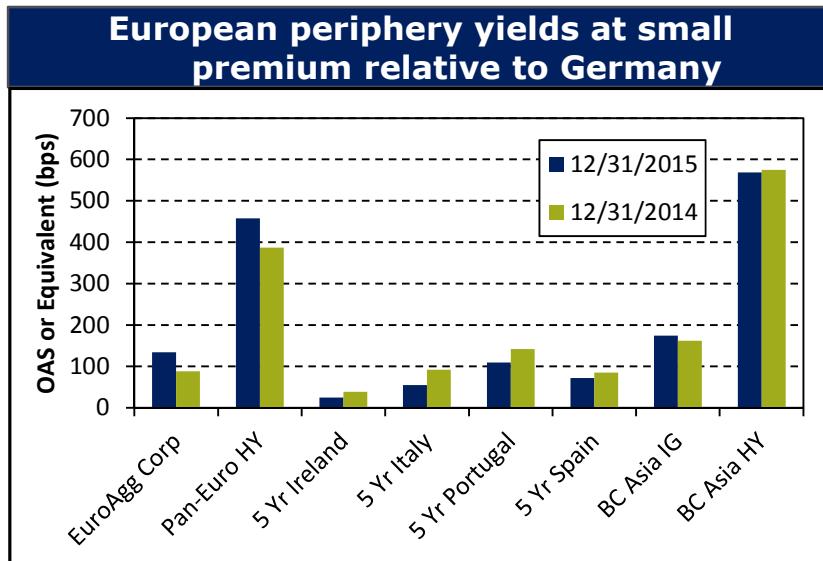
Source: Bloomberg, Barclays

Negative high yield returns driven by energy distress

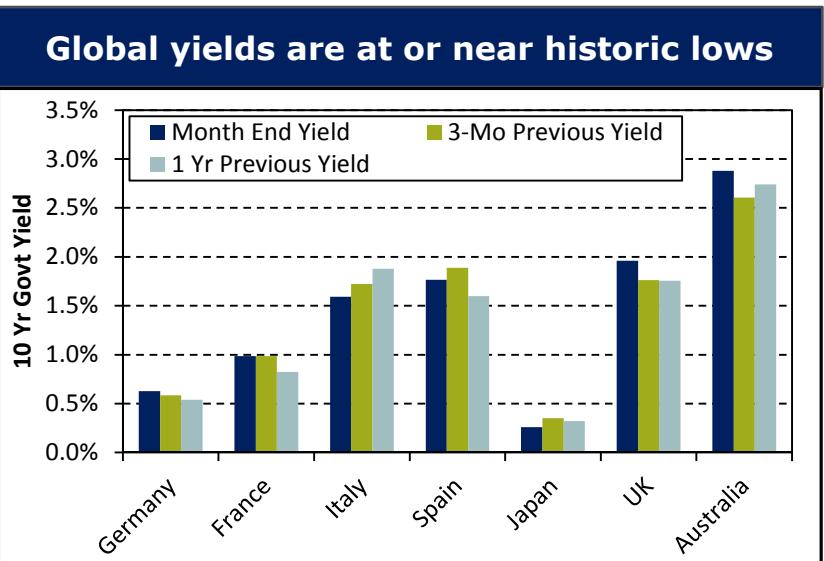


Source: Bloomberg, Barclays

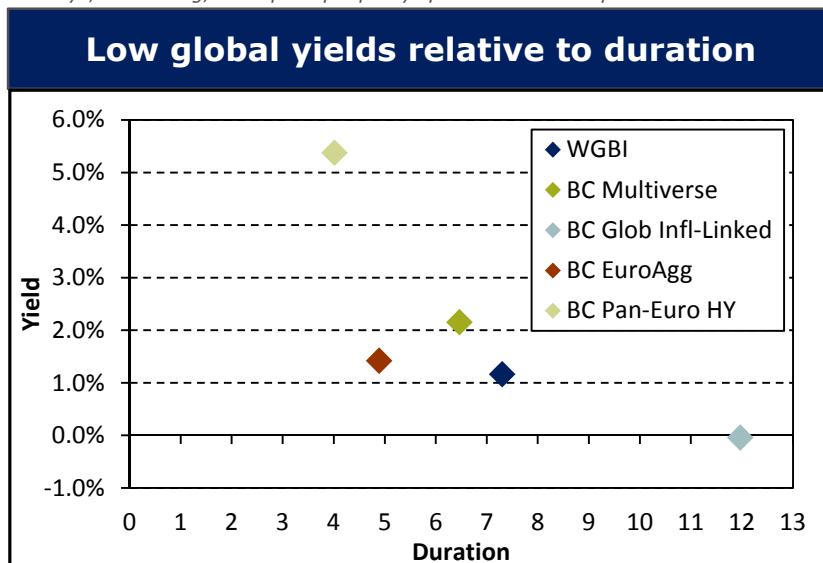
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International Developed Fixed Income



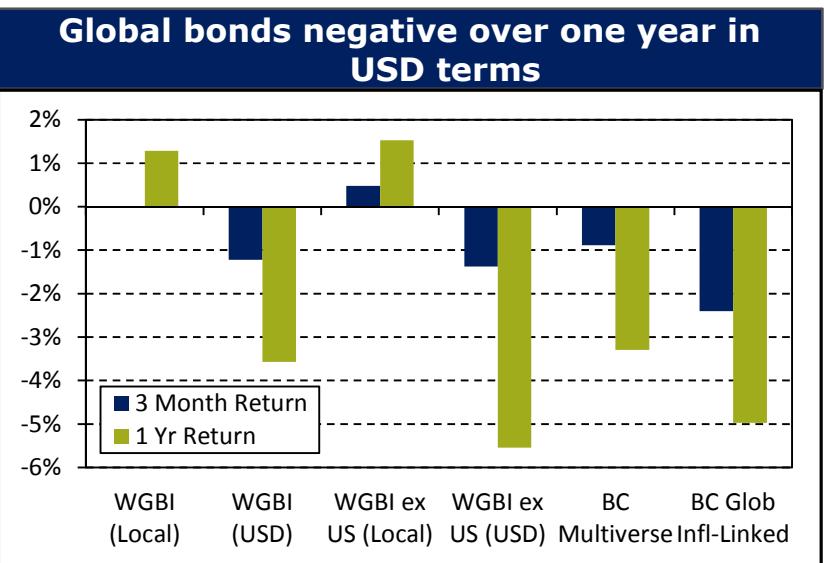
Source: Barclays, Bloomberg, *European periphery spreads are over equivalent German Bund



Source: Bloomberg



Source: Bloomberg, Citigroup, Barclays



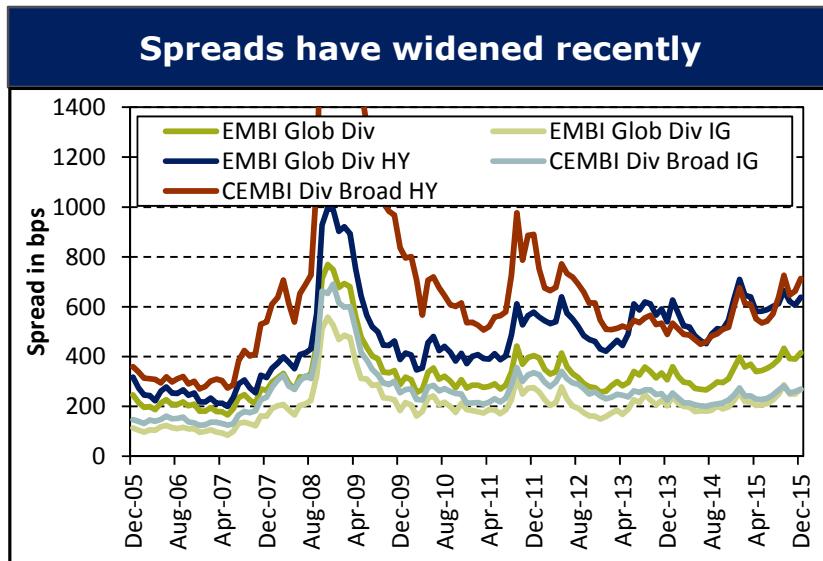
Source: Bloomberg, Citigroup, Barclays



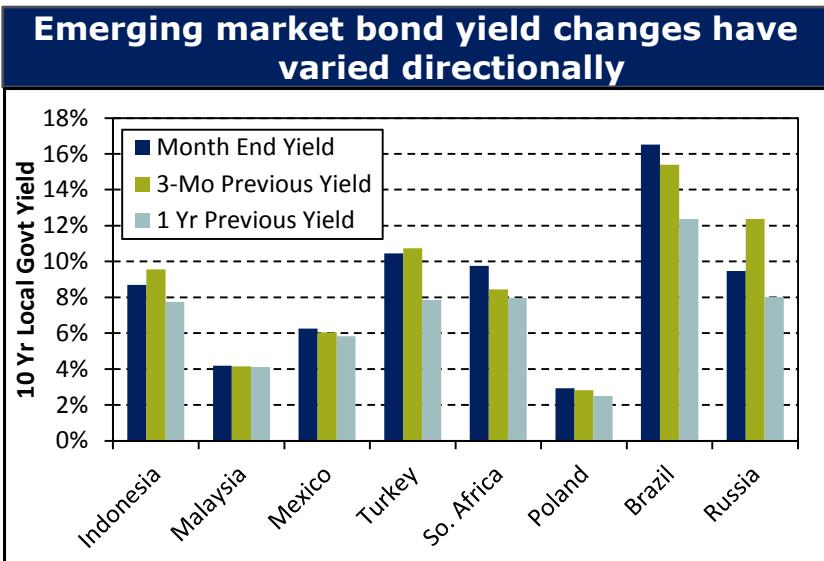
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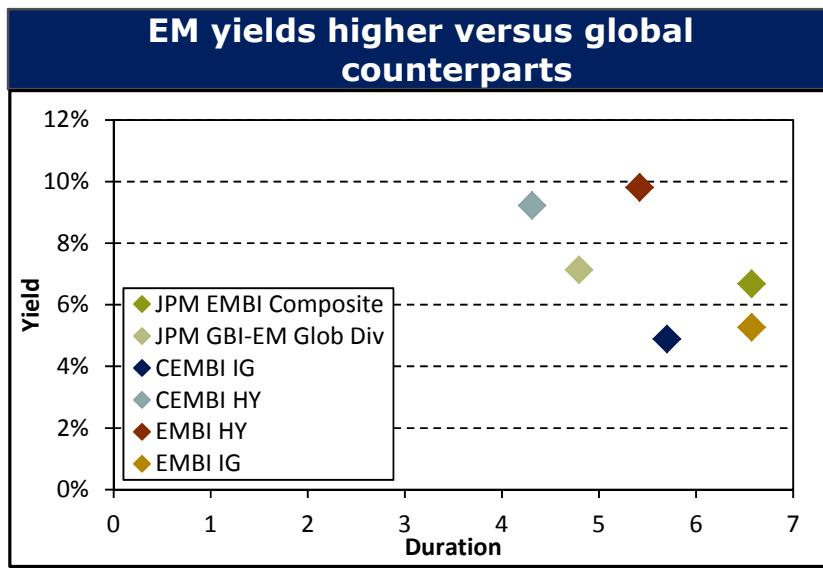
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Emerging Markets Fixed Income



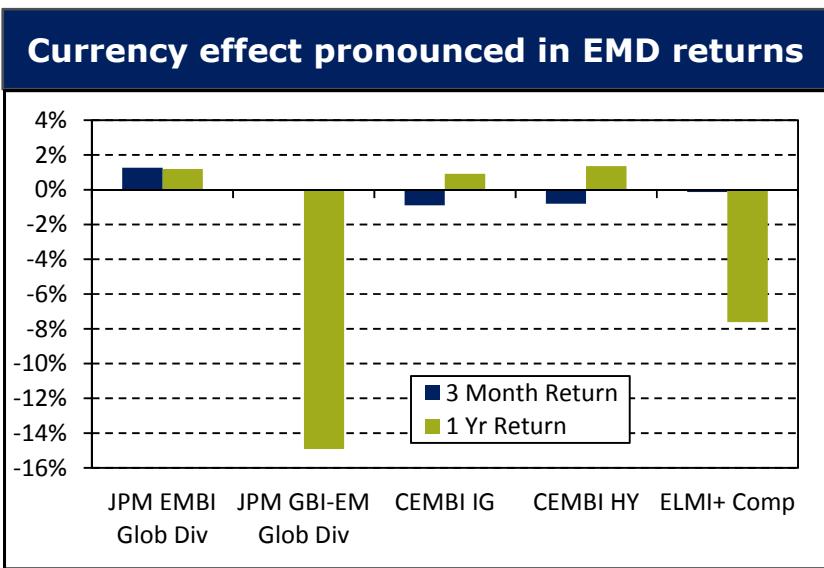
Source: Bloomberg, JP Morgan



Source: Bloomberg



Source: Bloomberg, JP Morgan



Source: Bloomberg, JP Morgan

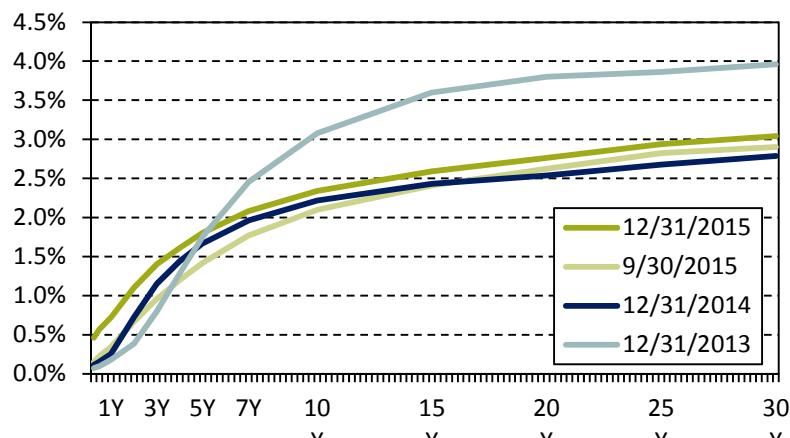


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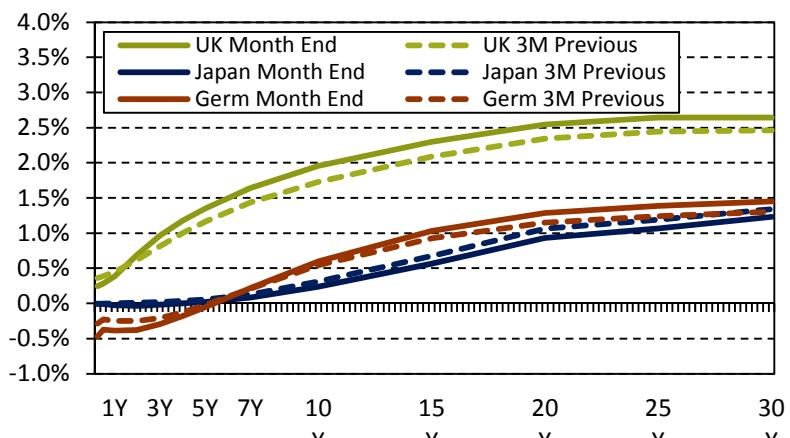
San Bernardino County Employees' Retirement Association
Rates

Treasury yield curve moderately rising



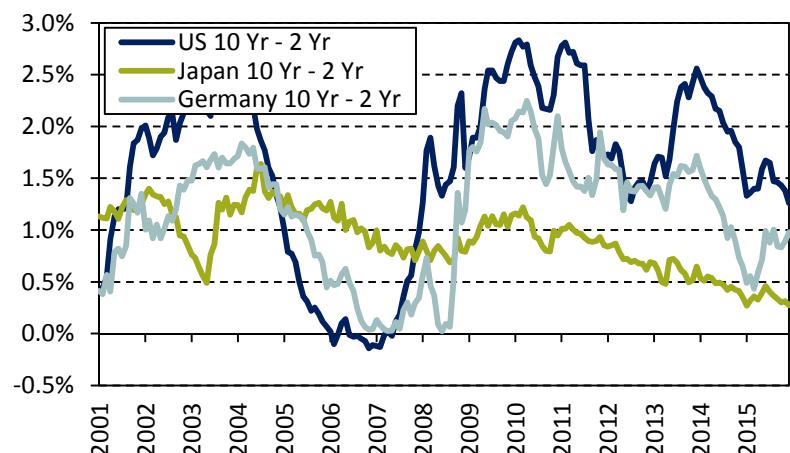
Source: Bloomberg

UK and German yield curves have shifted slightly upwards



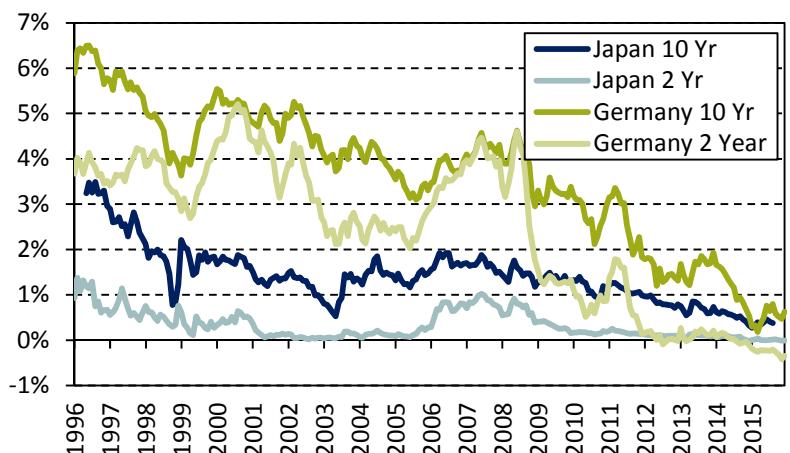
Source: Bloomberg

Global yield curves have mostly flattened



Source: Bloomberg

Global yields have trended lower over long term



Source: Bloomberg

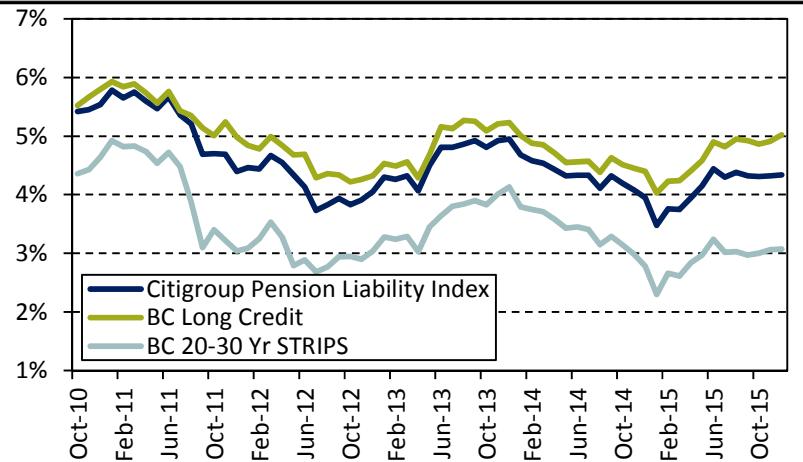


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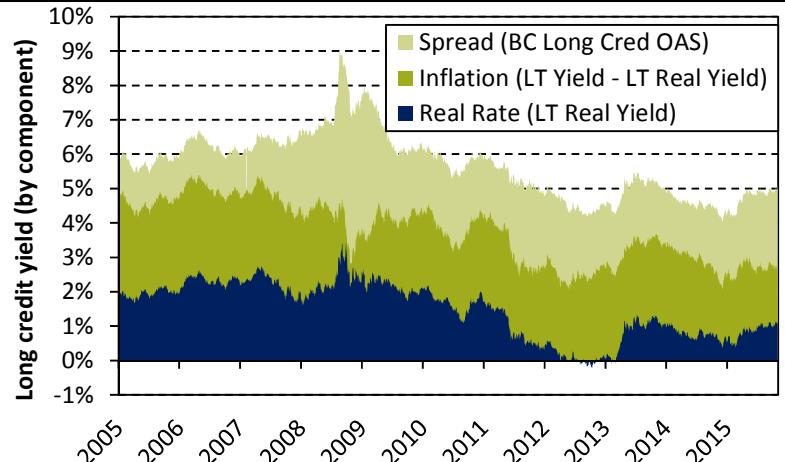
San Bernardino County Employees' Retirement Association
Long Rates and Liability

Long duration yields have fallen over last few years even with recent uptick



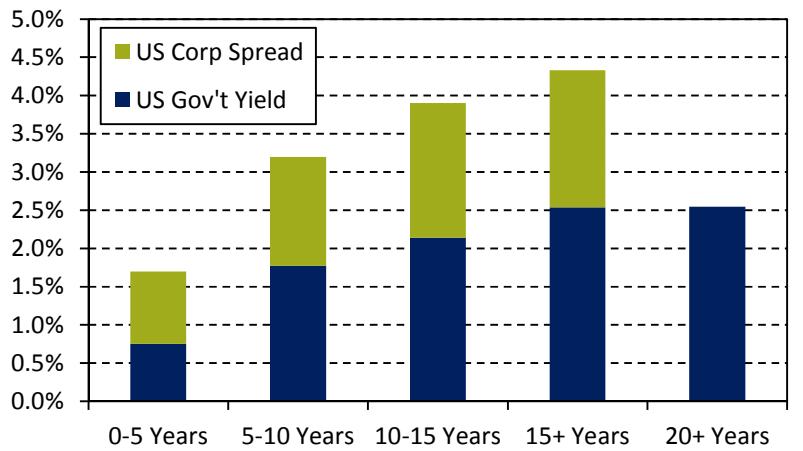
Source: Bloomberg, Citigroup, Barclays

Lower yields driven by low inflation expectations and real rates



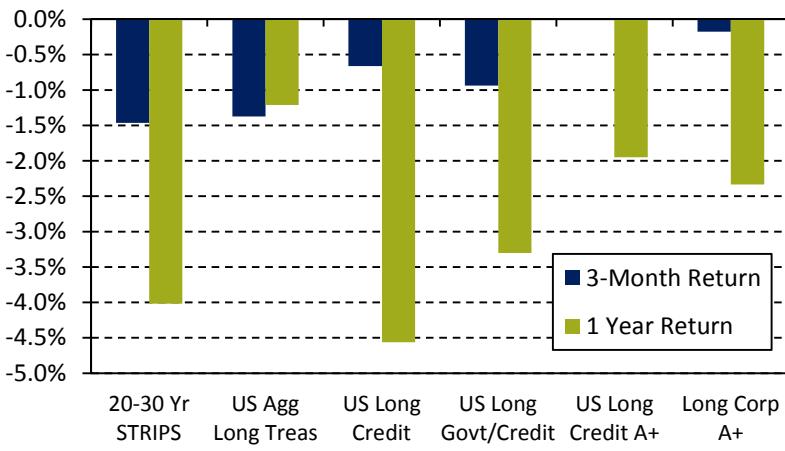
Source: Bloomberg, US Treasury, Barclays, NEPC

Yields are low but spreads above historic averages



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

Returns recently negative



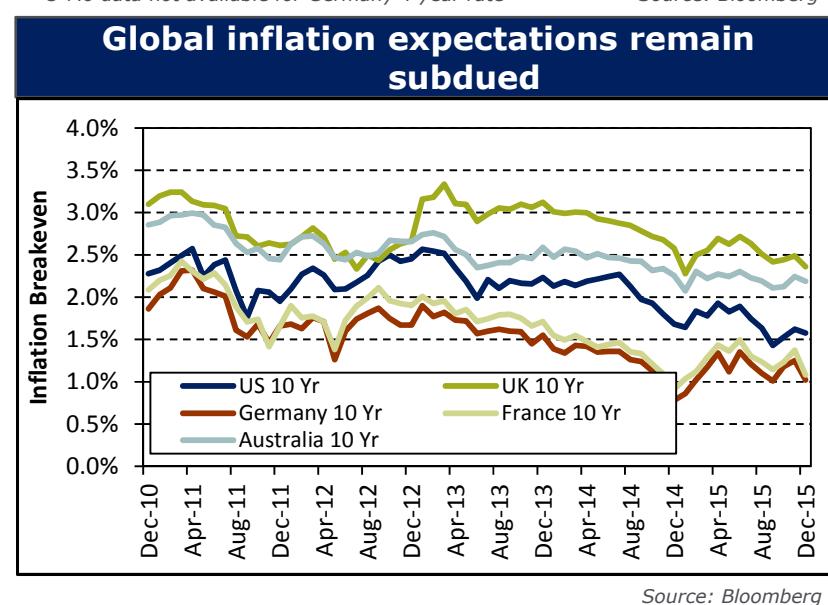
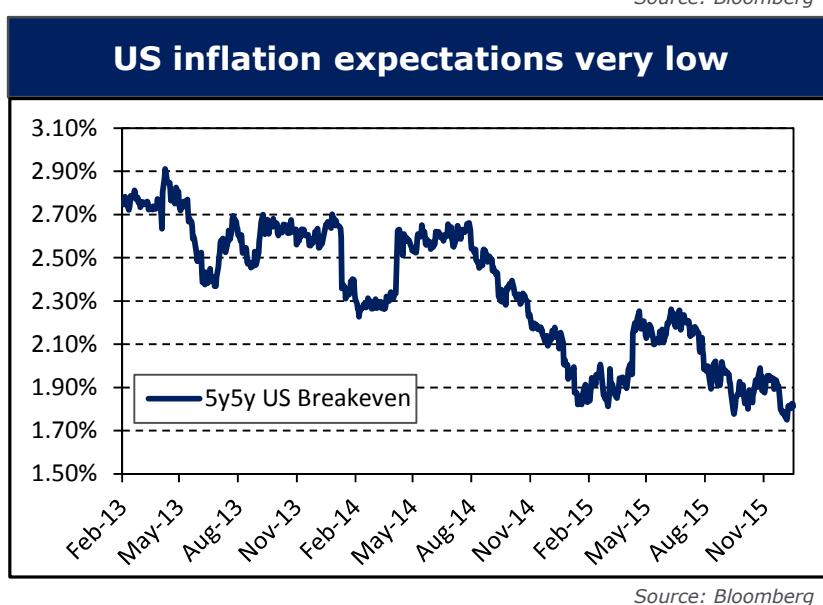
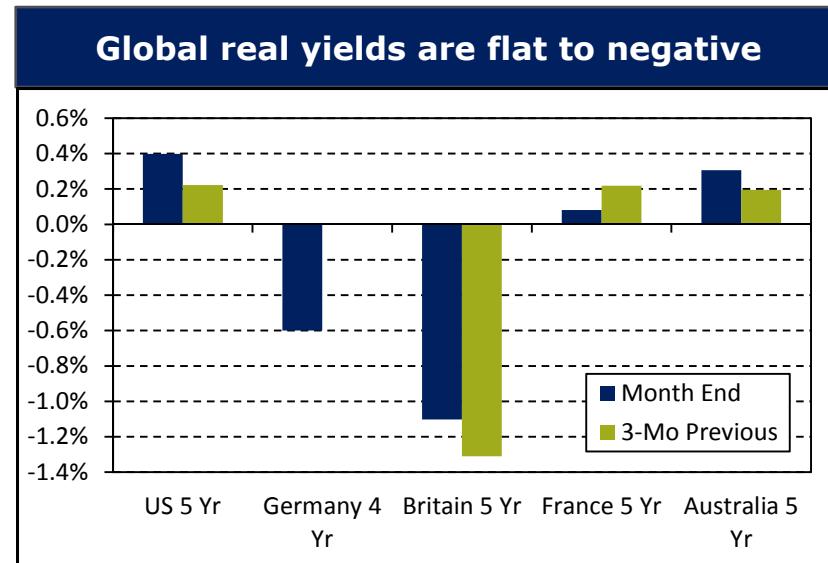
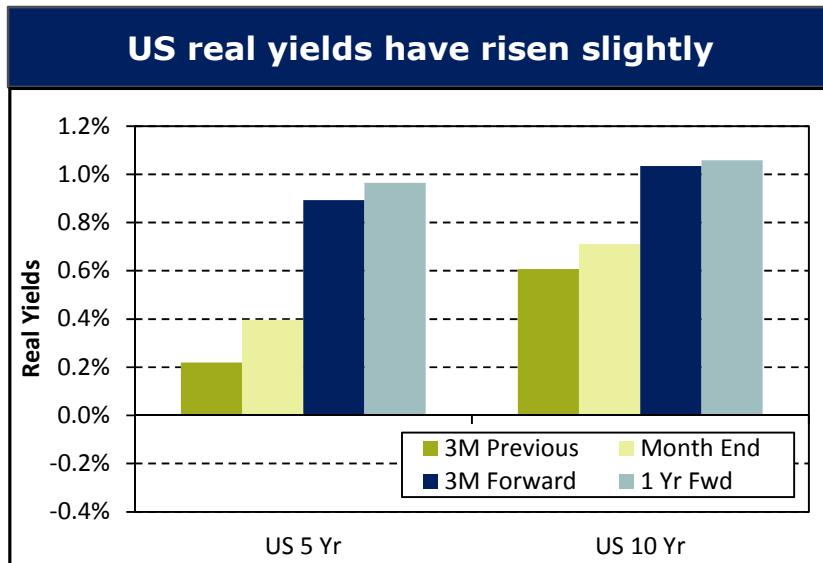
Source: Bloomberg, Barclays



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Inflation and Real Rates

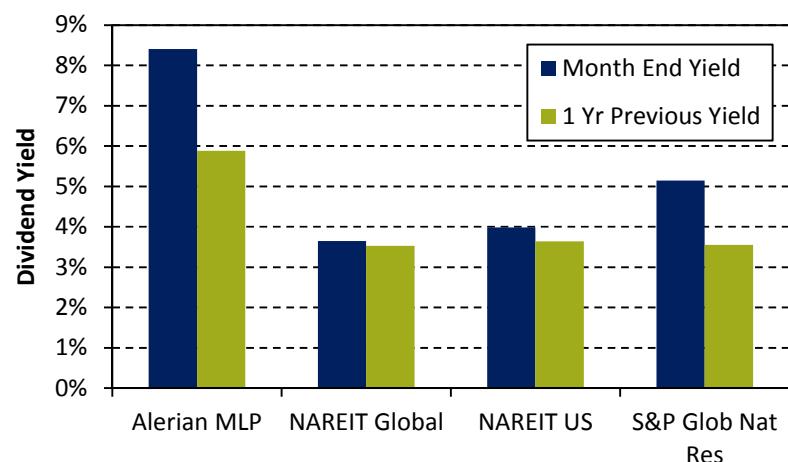


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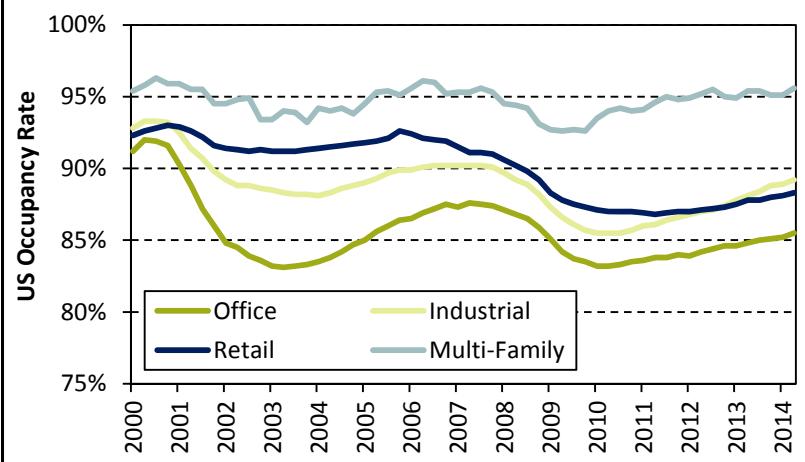
San Bernardino County Employees' Retirement Association
Inflation Sensitive Growth Assets

Yields higher relative to last year



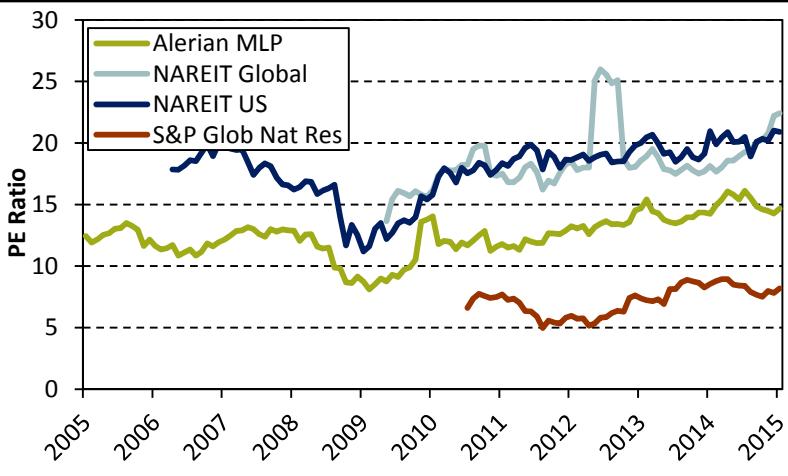
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Gradual recovery in occupancy rates



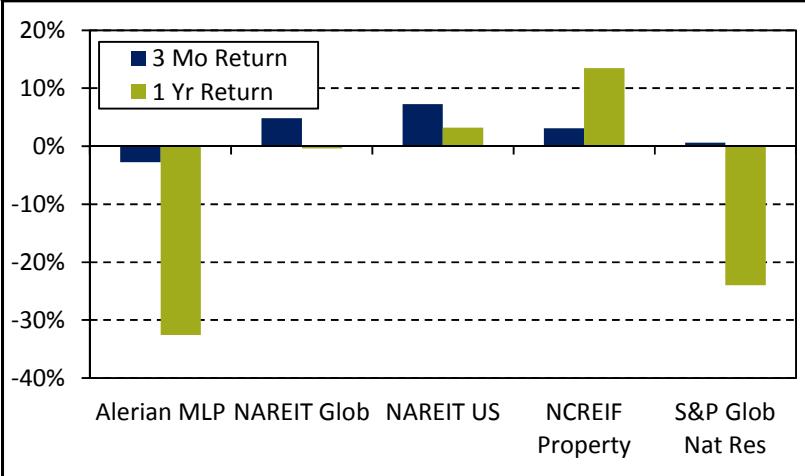
Source: Bloomberg, CB Richard Ellis

PE Ratios near or above averages



Source: Bloomberg, US Census Bureau

Recent MLP selloff and energy pressure



Source: Bloomberg, Alerian, Nareit, Standard and Poors

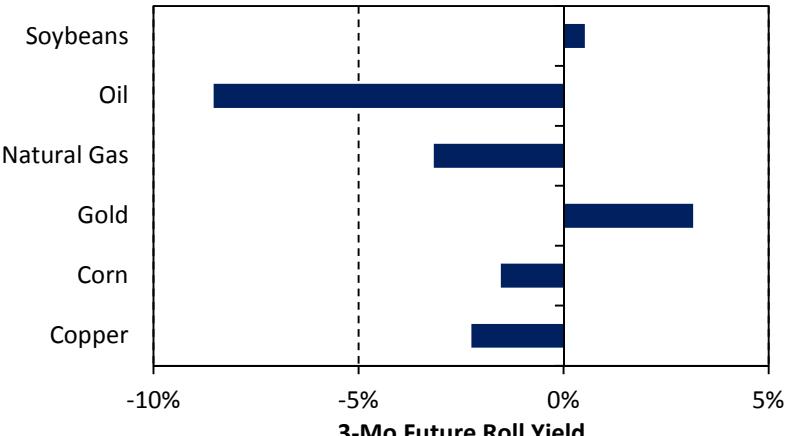


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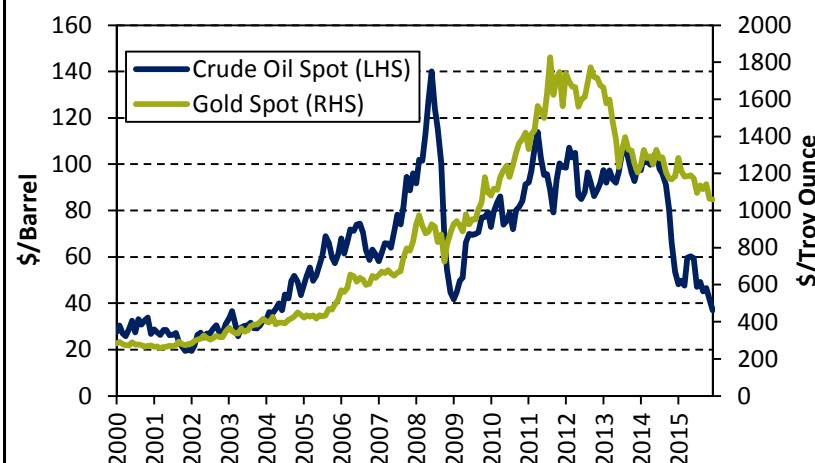
San Bernardino County Employees' Retirement Association
Commodities

Contango in major commodity futures



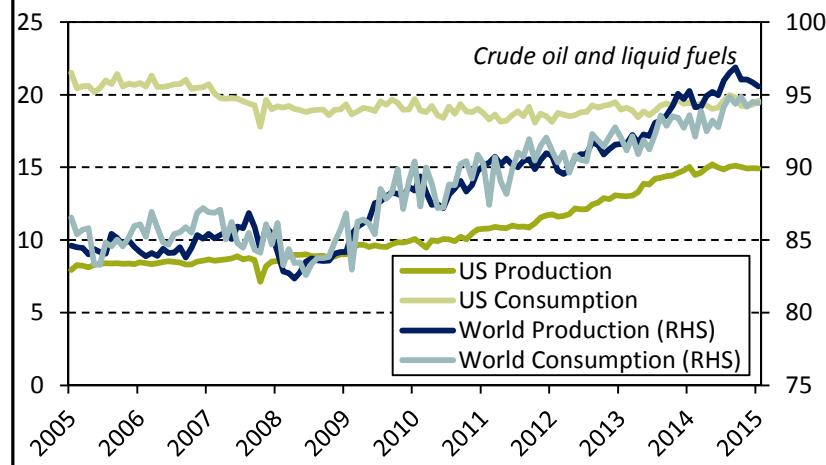
Source: Bloomberg

Precipitous fall in oil prices



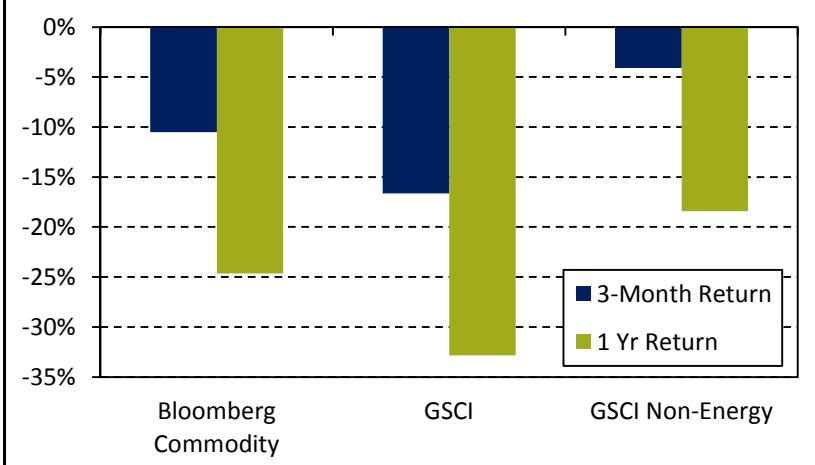
Source: Bloomberg

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



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Information Disclaimer and Reporting Methodology

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
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Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.