



**Investment Performance Analysis**For the period ending June 30, 2013

August 28, 2013

Dan LeBeau, Consultant Allan Martin, Partner

# Contents

	<u>Page</u>
Market Environment	2
Total Fund Performance	13
Appendix: Net of Fees Performance	37
Appendix: Policy Benchmark History; Performance Disclosures	43
Appendix: Market Environment	48

#### **Economic Environment**

- Advance estimate of second quarter 2013 GDP growth is 1.7%. First quarter 2013 GDP growth was revised down to 1.8%, after being originally estimated at 2.5%.
  - Retail sales rose to a 4.5% year-over-year growth rate in June 2013.
  - The inventory-to-sales ratio has remained mostly flat since early 2010 and closed at 1.29 in May 2013 after reaching its highest level since October 2009 in April.
  - Corporate profits as a percent of GDP fell slightly but remained near secular highs at 12.1% at the end of Q2 2013.
  - The trade deficit increased in May 2013.
- The unemployment rate remained flat at 7.6% in June, its lowest level since 2008; U-6, a broader measure of unemployment, increased to 14.3% during the second quarter.
  - JP Morgan has stated that sustained GDP growth of 1.5% is needed for positive job creation, and closer to 3% growth is needed to decrease the unemployment rate.
- Consumer confidence jumped to 81.4 in June, its highest level since January 2008; the Case-Schiller Home Price Index (as of 3/31) rose slightly through the first quarter.
- Rolling 12-month CPI increased to 1.8% at the end of June; Capacity Utilization increased slightly to 77.8% in the month.
- Fed Funds rate remains at 0.25% while the 10-year Treasury Yield finished June at 2.5%.
  - Represents more than a 35% increase.
- Fed balance sheets have increased in 2013, while European Central Bank balance sheets have decreased significantly.
- Both U.S. and non-U.S. equities appear cheap relative to long-term averages.

# Market Environment - Overview

	*	Otr	4 V-	2 ٧-	E V-	10 Yr.	1	
World Equity Benchmarks		Qtr.	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	10 fr.		
MSCI World	World	0.7%	18.6%	13.7%	2.7%	7.3%		
mod Work	Horia	Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	MSCI World	
Domestic Equity Benchmarks				2.11.	<u> </u>	30	S&P 500	
S&P 500	Large Core	2.9%	20.6%	18.5%	7.0%	7.3%	,707,200	
Russell 1000	Large Core	2.7%	21.2%	18.6%	7.1%	7.7%	Russell 1000	
Russell 1000 Growth	Large Growth	2.1%	17.1%	18.7%	7.5%	7.4%	Russell 1000 Growth	
Russell 1000 Value	Large Value	3.2%	25.3%	18.5%	6.7%	7.8%	Russell 1000 Value	
Russell 2000	Small Core	3.1%	24.2%	18.7%	8.8%	9.5%	Russell 2000	
Russell 2000 Growth	Small Growth	3.7%	23.7%	20.0%	8.9%	9.6%	Russell 2000 Growth	
Russell 2000 Value	Small Value	2.5%	24.8%	17.3%	8.6%	9.3%	Russell 2000 Value	
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
International Equity Benchmarks							MSCI EAFE	
MSCI EAFE	International Developed	-1.0%	18.6%	10.0%	-0.6%	7.7%	MSCI EM	
MSCIEM	Emerging Equity	-8.1%	2.9%	3.4%	-0.4%	13.7%	S&P EPAC SmallCap	
S&P EPAC SmallCap	Small Cap Int'l	-2.0%	20.6%	12.0%	1.8%	10.8%	MSCI ACWI ex-US	
MSCI ACWI ex-US	World ex-US	-3.1%	13.6%	8.0%	-0.8%	8.6%	Barclays Aggregate	
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Domestic Fixed Income Benchman	rks.						Barclays US High Yield	
Barclays Aggregate	Core Bonds	-2.3%	-0.7%	3.5%	5.2%	4.5%	BofA ML US HY BB/B	
Barclays US High Yield	High Yield	-1.4%	9.5%	10.7%	10.9%	8.9%	CSFB Levered Loans	
BofA ML US HY BB/B	High Yield	-1.6%	8.5%	10.1%	9.4%	8.0%	BofA ML US 3-Month T-Bill	
CSFB Levered Loans	Bank Loans	0.4%	7.6%	6.9%	5.8%	5.2%	Bardays US TIPS 1-10 Yr	
BofA ML US 3-Month T-Bill	Cash	0.0%	0.1%	0.1%	0.3%	1.7%	Citigroup WGBI	
Barclays US TIPS 1-10 Yr	Inflation	-5.5%	-3.1%	3.4%	3.3%	4.5%	BC Global Credit	
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Global Fixed Income Benchmarks	0						JPM GBI-EM Glob. Diversified	
Citigroup WGBI	World Gov. Bonds	-3.0%	-4.5%	2.7%	3.0%	4.7%	JPM EMBI+	
BC Global Credit	Global Bonds	-2.5%	3.7%	6.6%	5.5%	5.7%	DJ UBS Commodity Index	
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local)	-7.0%	1.3%	6.0%	6.7%	10.3%	DJCS HF Composite	
JPM EMBI+	Em. Mkt. Bonds	-6.3%	0.1%	7.5%	8.4%	9.0%	HFRI FoF Conservative	
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.		
Alternative Benchmarks							NCREIF Property Index**	
DJ UBS Commodity Index	Commodity	-9.5%	-8.0%	-0.3%	-11.6%	2.4%	Wilshire REIT Index	
DJCS HF Composite	Hedge Fund	0.1%	9.2%	6.3%	2.9%	6.5%	CPI + 2%	
HFRI FoF Conservative	Fund of Funds	0.0%	7.2%	3.0%	-0.6%	3.4%	-15	96
NCREF Property Index**	Real Estate	2.6%	10.5%	13.3%	2.3%	8.5%		30
Wilshire REIT Index	RET	-1.4%	8.4%	18.5%	7.2%	10.8%		
CPI + 2%	Inflation/Real Assets	2.3%	3.8%	4.4%	3.4%	4.7%	1	

Note: NCREIF Property Index is lagged by one quarter. Performance shown as of March 31, 2012.



#### **Domestic and International Equity**

- Starting in May, global equities trended downward, finishing the quarter with a return of -0.4% according to the MSCI ACWI.
- Domestic Equity (S&P 500) outperformed International Equity (MSCI ACWI ex-U.S.) in the second quarter (+6.0%).
  - In the U.S., equities proved to be more resilient than other asset classes, finishing the quarter with positive results. Performance was boosted by robust returns from stocks in the financial and consumer sectors amidst strong economic sentiment, healthy corporate earnings and continued strengthening in the housing market. Small cap stocks modestly outperformed large cap stocks, and growth outperformed value in small and mid-cap stocks, but value outperformed growth in the large cap segment. So far this year, U.S. equity markets have advanced more than 13%.
  - Developed non-U.S. markets posted a -1.0% during the quarter as measured by the MSCI EAFE Index. News out of Europe and China indicated weakness, while news from the U.S. and Japan indicated improvement. In Europe, economic data signaling contraction led the ECB to cut interest rates from 0.75% to 0.5%. In Japan, investors continued to show a positive reaction to Abenomics' "three arrows" and have begun to look for developments in the areas of structural reform.
  - Emerging markets were driven lower by political unrest in Egypt, a credit crunch among Chinese banks and higher yields in the U.S. market. While emerging markets stocks rebounded in June, they ended the quarter down 8.1%. Within emerging markets, the small cap (-7.4%) and consumer sectors (staples -3.7%; discretionary -3.0%) continue to outperform the broader emerging markets.

#### **Private Equity**

- Private equity fundraising during the first half of 2013 totaled \$136 billion 51% of the amount raised in 2012 pointing to an expected modest increase for 2013.
  - Investor commitments suggest economic optimism with 60% of commitments going to buyout and growth equity funds.
  - Venture capital continues to contract as fundraising fell to 8% of this year's total, well below its 10-year average of 17% of all new funds raised.
  - We remain guarded on the large buyout sector in the U.S. even as some industry data suggest that the capital overhang is declining.
     High transaction prices leave little room for operational missteps and do not provide protection in the event of a prolonged recession.
  - On the opportunistic side, private direct lending is an attractive fixed income alternative for investors and is competing with mezzanine funds by providing uni-tranche financing to lower- and middle-market businesses at attractive yields with lower fee structures.
- With the dust yet to settle on the near-term economic outlook, we believe a blend of growth- and value-oriented strategies is vital to balance the macroeconomic risk in a private equity program. We find secondary, turnaround/special situation, and direct lending strategies particularly attractive as they benefit from corporate restructurings and tighter regulation of the global banking industry.



#### **Fixed Income**

- Nearly all global fixed income sectors posted negative returns in the second quarter of 2013. The sharp sell-off, triggered by
  indications that the Fed could taper its quantitative easing as early as September, was quick and painful as the search for yield
  turned into a quest for liquidity and longer duration corporates and emerging market debt dropped dramatically.
- Global fixed income performance during the quarter may be best explained by the increase in the yield of 10-year Treasuries during the period.
  - Beginning the quarter at 1.87%, 10-year Treasuries were yielding 2.52% at the end of June an increase of 0.65%.
  - Longer-dated portions of the yield curve experienced similar increases, with 30-year Treasuries increasing 0.42% to finish the quarter at 3.53%.
- The increase in yields resulted in the Barclays Capital U.S. Aggregate Bond Index returning -2.3% in the quarter, bringing year-to-date performance to -2.4%.
  - Investment grade credit and mortgage-backed securities, the two largest non-government related components of the index, returned -3.4% and -2.0%, respectively.
- Non-investment grade debt led global fixed income performance, but were still negative.
  - The Barclays Capital High Yield Index returned -1.4% during the quarter, and the yield on the index jumped nearly 100 basis points to 6.7%.
  - Leveraged loans, as measured by the S&P/LSTA Leveraged Loan Index, were the only major fixed income asset class to post a positive return, albeit small at 0.2%.
- Weakness in Treasuries fueled losses in emerging market debt. Higher quality issues were most impacted since creditworthy borrowers are typically able to issue long-dated bonds, which are more interest rate sensitive.
  - Large sovereigns such as Mexico, Brazil and Uruguay often drive performance of the EMBI Index, which measures emerging market debt denominated in external currencies. The index returned -6.1% in the guarter and is down 8.2% so far in 2013.
  - Emerging market debt denominated in local currency also struggled in the period, returning -7.0% for the quarter, which brings year-to-date performance for the category to -7.2%.

#### **Commodities**

- Commodities were the worst performing segment of the market, down 9.5% in the second quarter according to the DJ/UBS Commodity Index.
  - Oil has been the outlier among commodities, which have mostly experienced downward pressure from slowing emerging markets growth forecasts.
  - Precious metals were hit the hardest, trading off nearly 25% as both gold and silver fell during the quarter.
  - Agriculture and livestock was the best performing segment, aided by strong hog prices.
- Macroeconomic data surprised investors, mostly on the downside, as slower emerging markets forecasts,
  particularly in China, impacted demand for commodities. In addition, speculation of the Fed's shift in monetary
  policy, including tapering the quantitative easing program later in the year, negatively impacted gold prices.
   Recent selling pressure, along with a possible overreaction to negative news in emerging markets, has created
  what appears to be a more favorable environment for commodities going forward.
  - However, future curtailing of growth forecasts or continued negative gold momentum could pose as significant headwinds.

#### **Real Estate**

- NEPC remains positive about opportunities in non-core markets, particularly in Europe. In the U.S., select
  opportunities exist in non-core real estate for skilled firms with a proven ability to identify undervalued assets,
  buy right, and create value.
  - That said, the significant operating and capital structure distress that followed the financial crisis has abated.
- In Europe, non-core properties are still undervalued relative to core, and significant capital structure distress remains and is compounded by macroeconomic and structural uncertainty.
  - Bank deleveraging has also contributed to continued capital structure weakness and has provided opportunities for buyers.
  - Banks in Europe historically provided over 90% of real estate lending compared to roughly 50% in the U.S.
  - Opportunity is still in the nascent stages.
  - Real estate debt strategies remain attractive in Europe as well given the distressed lending environment. Consideration should be given
    to hedging currency risk, when possible.



#### 2Q 2013 Market Review

- After strong performance across most asset classes in the 1<sup>st</sup> quarter, markets were roiled by...
  - Indications the Fed would taper its stimulative policy earlier than expected
  - Concern that growth is slowing in China and across the emerging markets
- The higher volatility environment has been challenging
  - Treasury yields spiked on expectations of tapering and continued to rise through June
  - Virtually all markets were down in May and June, leaving investors no place to hide
  - Traditional hedging assets, such as Treasuries, have not worked
  - Emerging markets equity and debt have struggled
- However...

#### 2Q 2013 Market Outlook - Staying the Course

- Despite the turbulent quarter many positives remain:
  - U.S. equities have posted strong gains through the first half of 2013
  - Interest rates remain low relative to historic levels and stimulation remains in place for now
  - The U.S. economy is recovering and the fiscal deficit has been declining
  - Growth in emerging markets, while slowing, remains higher than developed markets
- The long-term investment thesis for emerging markets remains intact and valuations remain attractive
- Inflation prospects remain muted in the near-term, however, the risk of rising inflation resulting from monetary expansion persists
- Illiquid strategies, particular direct lending funds, offer a compelling riskreturn profile
- Risk parity continues to represent a strong foundation for asset allocation
- We expect market volatility to remain elevated in coming months; investors can move at a measured pace to allocate to more attractive asset categories

#### **NEPC Updates**

#### NEPC research

- White Papers recently posted to <a href="http://www.nepc.com/research/">http://www.nepc.com/research/</a>
  - Absolute Tracking: Moving Past Absolute Return for Hedge Fund Benchmarking May 2013
  - Target Date Funds Tips for ERISA Plan Fiduciaries From the Department of Labor April 2013
- Case Study
  - A Discussion of Defined Contribution Plan Fees, One Plan Sponsor's Perspective May 2013
- First Quarter 2013 Market Thoughts
- Second Quarter 2013 Market Thoughts
- NEPC helped write a chapter for the new Claritas Investment Certificate textbook

#### Consultant Spotlight

- Jeffrey H. Mitchell, CFA, CAIA, Senior Consultant
  - Featured in *Money Management Intelligence's* Consultant Spotlight article: "Traditional Beta, Alternative Beta, and Alpha" May 2013

#### Professional staff hires

- Chris Hill, Research Consultant, Alternatives
  - Joined NEPC from the Louisiana State Employees' Retirement System (LASERS)

#### Recent events

- NEPC's 18<sup>th</sup> Annual Client Conference - May 14-15, 2013 in Boston

### NEPC Updates

### • NEPC's Cambridge office is moving effective September 9, 2013

New Address

255 State Street

• Boston, MA 02109

- Our phone number and fax number will remain the same

• Phone: 617.374.1300

• Fax: 617.374.1313



# **Total Fund Performance**



### Total Fund Performance Summary

	Market Value	3 Mo F	Rank	YTD F	Rank	1 Yr F	Rank	3 Yrs F	Rank	5 Yrs F	Rank	10 Yrs F	Rank	15 Yrs F	Rank	20 Yrs F	Rank	25 Yrs I	Rank	Return Sin	се
Total Fund	\$2,862,887,676	-1.0%	82	1.6%	92	9.9%	83	9.1%	93	4.0%	83	7.1%	51	6.7%	13	8.1%	43	8.8%	42	8.8% Mar-	71
Policy Benchmark		-0.9%	80	1.5%	92	8.1%	93	9.7%	87	3.6%	86	6.8%	68	6.3%	42					Mar-	71
Allocation Index		-1.0%	82	1.2%	94	7.8%	95	8.7%	96	3.8%	85	7.2%	46				-			Mar-	71
60% MSCI World (Gross) / 40% CITI WGBI		-0.7%	74	2.8%	80	9.2%	87	9.8%	86	3.6%	86	6.9%	63	5.6%	94	7.3%	93	_		Mar-	71
IFx Public DB > \$1B Gross Median		-0.1%		5.0%		12.0%		11.3%		5.0%		7.1%		6.2%		8.0%		8.7%		Mar-	71

For the fiscal year ending June 30, 2013, the Fund experienced a net investment gain of \$266.9 million, which includes a net investment loss of \$31.3 million in the second calendar quarter. Plan assets increased from \$2.65 billion twelve months ago to \$2.86 billion on June 30, 2013, with \$58.4 million in net distributions during the year.

The Fund returned 9.9% for the fiscal year ending June 30, 2013, outperforming the actuarial assumed rate of return of 7.25% by 2.4% after accounting for investment management fees. The Fund outperformed the policy benchmark by 1.8% for the year, but ranked in the bottom quartile of its peer group due in large part to the Plan's overweight to commodities relative to peers in a period when the DJ/UBS Commodity Index was down 8.0%. The Fund's volatility ranks slightly below median, resulting in a strong risk-adjusted return on an absolute basis. In addition, the Fund's Sortino Ratio, which is a risk-adjusted measure of performance that accounts for downside volatility only, ranks slightly better than median, meaning the Fund's performance holds up in down markets about as well as the median fund.

Over the past three years, the Fund returned 9.1% per annum, trailing the policy benchmark by 0.6% and ranking in the bottom quartile of the InvestorForce Public Funds > \$1 Billion Universe. The Fund's volatility was 8.2%, resulting in a Sharpe Ratio of 1.1.

For the five-year period ending June 30, 2013, the Fund returned 4.0%, outperforming the policy benchmark by 0.4%.

Please see appendix for additional performance disclosures. Performance is gross of fees.

#### 5 Years Ending June 30, 2013

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
Total Fund	4.0%	83	11.8%	45	0.3	81	0.4	76
Policy Benchmark	3.6%	86	11.3%	32	0.3	87	0.4	83
 IFx Public DB > \$1B Gross Median	5.0%		12.0%		0.4		0.5	

#### 3 Years Ending June 30, 2013

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Fund	9.1%	93	8.2%	41	1.1	98	1.8	79	
Policy Benchmark	9.7%	87	7.9%	32	1.2	76	2.1	25	
IFx Public DB > \$1B Gross Median	11.3%		8.5%		1.3		1.9		

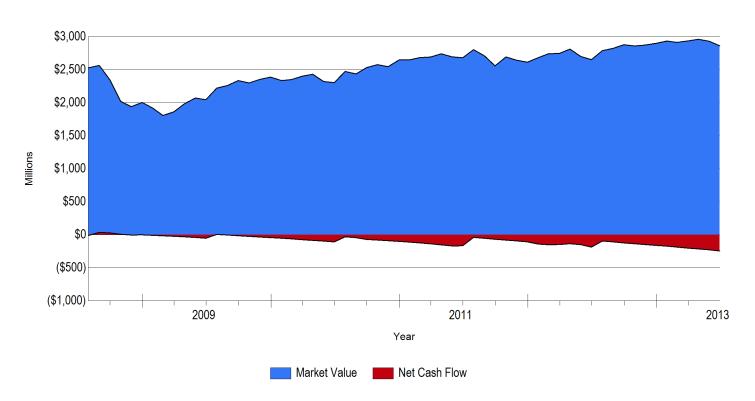
#### 1 Year Ending June 30, 2013

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
Total Fund	9.9%	83	4.2%	39	2.3	79	4.0	40
Policy Benchmark	8.1%	93	4.0%	31	2.0	88	4.0	40
IFx Public DB > \$1B Gross Median	12.0%		4.3%		3.0		3.6	



### Total Fund Asset Growth Summary

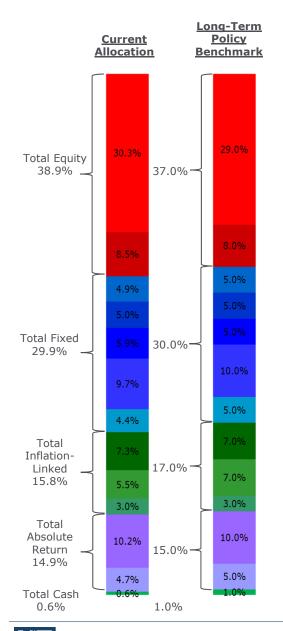
Market Value History
Since NEPC began tracking performance, April 1, 2008 thru June 30, 2013



Sources of Portfolio Growth	Last Three Months	Year-To-Date	One Year	Three Years	Inception Date
Beginning Market Value	\$2,937,371,855	\$2,901,575,300	\$2,654,365,686	\$2,306,035,512	\$2,583,363,926
Net Additions/Withdrawals	-\$43,135,855	-\$84,655,663	-\$58,417,286	-\$137,760,423	-\$246,258,038
Investment Earnings	-\$31,348,324	\$45,968,039	\$266,939,276	\$694,612,587	\$525,781,789
Ending Market Value	\$2,862,887,676	\$2,862,887,676	\$2,862,887,676	\$2,862,887,676	\$2,862,887,676



### Total Fund Asset Allocation vs. Policy Targets



	Current Mkt Value	Current Allocation	Long-Term Policy Benchmark <sup>1</sup>	<u>Difference</u>	Policy Range	Within
Public Equity	\$868,498,675	30.3%	29.0%	1.3%		
Global Equity <sup>2</sup>	\$102,782,975	3.6%				
U.S. Equity <sup>3</sup>	\$355,334,871	12.4%				
U.S. Large Cap	\$249,537,306	8.7%				
U.S. Small Cap	\$105,791,942	3.7%				
Non-U.S. Equity <sup>4</sup>	\$410,380,829	14.3%				
Non-U.S. Developed Markets	\$287,431,234	10.0%				
Non-U.S. Emerging Markets	\$122,667,915	4.3%				
Private Equity	\$244,119,289	8.5%	8.0%	0.5%		
Total Equity	\$1,112,617,964	38.9%	37.0%	1.9%	25% - 50%	Y
Fixed Income						
U.S. Core	\$139,823,924	4.9%	5.0%	-0.1%		
Non-U.S. Core	\$142,728,429	5.0%	5.0%	0.0%		
High Yield/Multi-Strat Corp. Credit <sup>5</sup>	\$169,148,459	5.9%	5.0%	0.9%		
Opportunistic/Private Debt	\$277,875,503	9.7%	10.0%	-0.3%		
Emerging Market Debt	\$127,373,744	4.4%	5.0%	-0.6%		
Total Fixed Income	\$856,950,059	29.9%	30.0%	-0.1%	20% - 40%	Y
Inflation-Linked Assets						
Real Estate	\$208,587,574	7.3%	7.0%	0.3%		
Commodities <sup>6</sup>	\$156,927,969	5.5%	7.0%	-1.5%		
Illiquid Inflation-Linked Assets <sup>6</sup>	\$85,789,752	3.0%	3.0%	0.0%		
Total Inflation-Linked Assets	\$451,305,295	15.8%	17.0%	-1.2%	12% - 25%	Y
Absolute Return						
Hedge Funds	\$292,599,445	10.2%	10.0%	0.2%		
Global Asset Allocation	\$133,575,474	4.7%	5.0%	-0.3%		
Total Absolute Return	\$426,174,919	14.9%	15.0%	-0.1%	5% - 25%	Y
Cash <sup>7</sup>	\$15,839,438	0.6%	1.0%	-0.4%	0% - 5%	Y

Please see appendix for details regarding footnotes.

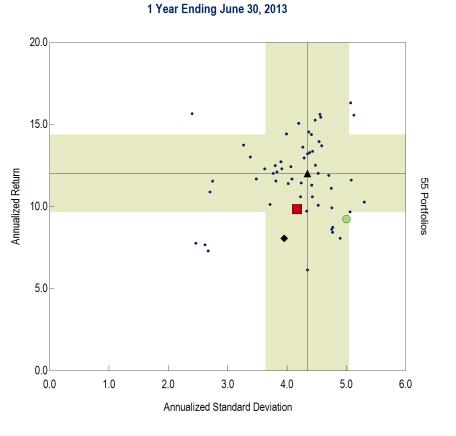
Note: Market values shown above include cash held in separately managed portfolios.

Totals may not add to 100% due to rounding.

Historical composition of Long-Term Policy Benchmark can be found in the appendix.



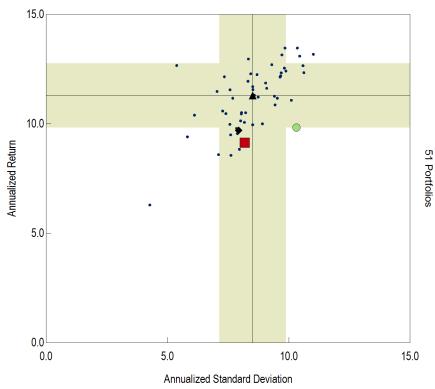
# Total Fund Risk/Return





- Policy Benchmark
- 60% MSCI World (Gross) / 40% CITI WGBI
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB > \$1B Gross

#### 3 Years Ending June 30, 2013

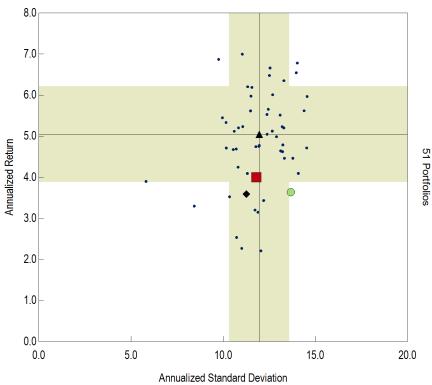


- Total Fund
- Policy Benchmark
- 60% MSCI World (Gross) / 40% CITI WGBI
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB > \$1B Gross



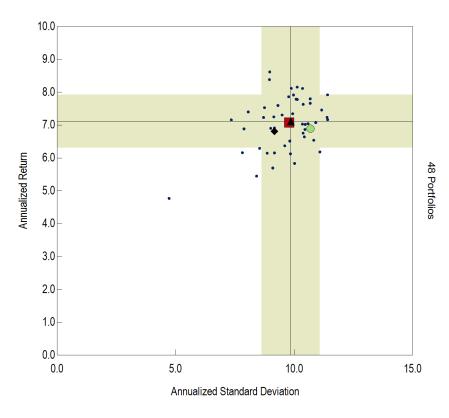
# Total Fund Risk/Return





- Total Fund
- ◆ Policy Benchmark
- 60% MSCI World (Gross) / 40% CITI WGBI
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB > \$1B Gross

#### 10 Years Ending June 30, 2013

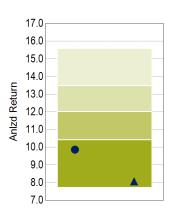


- Total Fund
- Policy Benchmark
- 60% MSCI World (Gross) / 40% CITI WGBI
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB > \$1B Gross



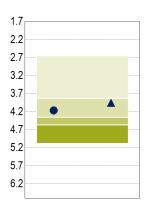
# Total Fund vs. IFx Public DB > \$1B Gross (USD) 1 Year

#### **Anizd Return**



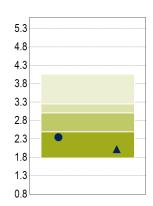
Total Fund Value 9.9 %tile 83 Policy Benchmark Value 8.1 %tile 93 Universe 5th %tile 15.6 13.5 25th %tile Median 12.0 75th %tile 10.4 95th %tile 7.7

#### **Anizd Standard Deviation**



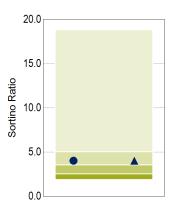
Total Fund Value 4.2 %tile 39 Policy Benchmark Value 4.0 %tile 31 Universe 5th %tile 2.7 25th %tile 3.8 Median 4.3 75th %tile 4.6 95th %tile 5.1

#### **Sharpe Ratio**



Total Fund Value 2.3 %tile 79 Policy Benchmark 2.0 Value %tile 88 Universe 5th %tile 4.1 25th %tile 3.3 Median 3.0 2.5 75th %tile 95th %tile 1.8

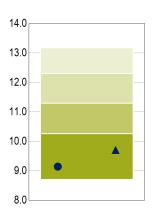
#### Sortino Ratio



Total Fund Value 4.0 %tile 40 ▲ Policy Benchmark Value 4.0 %tile 40 Universe 5th %tile 18.8 25th %tile 5.1 Median 3.6 75th %tile 2.6 95th %tile 1.9

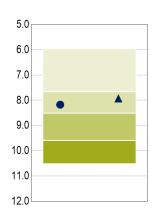
# Total Fund vs. IFx Public DB > \$1B Gross (USD) 3 Years

#### Anizd Return



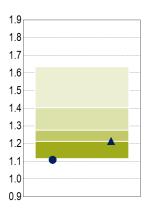
Total Fund Value 9.1 %tile 93 Policy Benchmark 9.7 Value 87 %tile Universe 5th %tile 13.2 25th %tile 12.3 Median 11.3 75th %tile 10.3 95th %tile 8.7

#### **Anizd Standard Deviation**



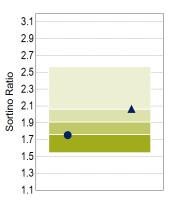
Total Fund Value 8.2 %tile 41 ▲ Policy Benchmark Value 7.9 32 %tile Universe 5th %tile 6.0 7.7 25th %tile Median 8.5 75th %tile 9.6 95th %tile 10.5

#### Sharpe Ratio



Total Fund Value 1.1 98 %tile ▲ Policy Benchmark Value 1.2 %tile 76 Universe 5th %tile 1.6 25th %tile 1.4 Median 1.3 75th %tile 1.2 95th %tile 1.1

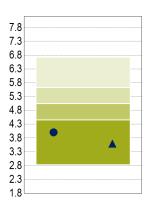
#### Sortino Ratio



Total Fund Value 1.8 %tile 79 ▲ Policy Benchmark Value 2.1 25 %tile Universe 5th %tile 2.6 25th %tile 2.1 Median 1.9 75th %tile 1.8 95th %tile 1.5

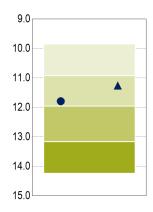
# Total Fund vs. IFx Public DB > \$1B Gross (USD) 5 Years

#### Anizd Return



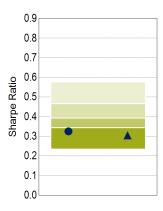
#### Total Fund Value 4.0 %tile 83 ▲ Policy Benchmark Value 3.6 86 %tile Universe 5th %tile 6.7 5.6 25th %tile 5.0 Median 75th %tile 4.5 2.8 95th %tile

#### **AnIzd Standard Deviation**



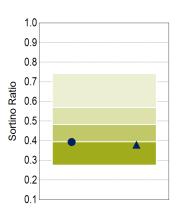
<ul><li>Total Fund Value %tile</li></ul>	11.8 45
Policy Benchmark Value %tile	11.3 32
Universe 5th %tile	99
25th %tile	10.9
Median	12.0
75th %tile	13.2
95th %tile	14.2

#### **Sharpe Ratio**



<ul><li>Total Fund</li></ul>	
Value	0.3
%tile	81
Policy Benchmark	
Value	0.3
%tile	87
Universe	
5th %tile	0.6
25th %tile	0.5
Median	0.4
75th %tile	0.3
95th %tile	0.2

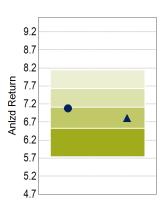
#### Sortino Ratio



•	Total Fund	
	Value	0.4
	%tile	76
•	Policy Benchmark	
	Value	0.4
	%tile	83
	Universe	
	5th %tile	0.7
	25th %tile	0.6
	Median	0.5
	75th %tile	0.4
	95th %tile	0.3

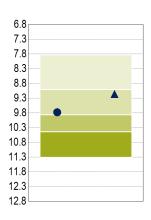
#### Total Fund vs. IFx Public DB > \$1B Gross (USD) 10 Years

#### **Anizd Return**



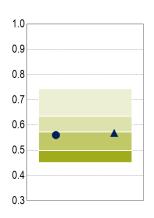
Total Fund Value 7.1 51 %tile ▲ Policy Benchmark Value 6.8 %tile 68 Universe 5th %tile 8.1 25th %tile 7.6 Median 7.1 75th %tile 6.5 95th %tile 5.7

#### **Anizd Standard Deviation**



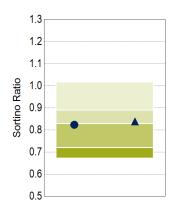
Total Fund Value 9.8 %tile 46 Policy Benchmark Value 9.2 %tile 35 Universe 5th %tile 7.8 25th %tile 9.0 Median 9.9 75th %tile 10.4 95th %tile 11.3

#### **Sharpe Ratio**



<ul><li>Total Fund Value %tile</li><li>▲ Policy Benchmark</li></ul>	0.6 55
Value	0.6
%tile	54
Universe	
5th %tile	0.7
25th %tile	0.6
Median	0.6
75th %tile	0.5
95th %tile	0.5

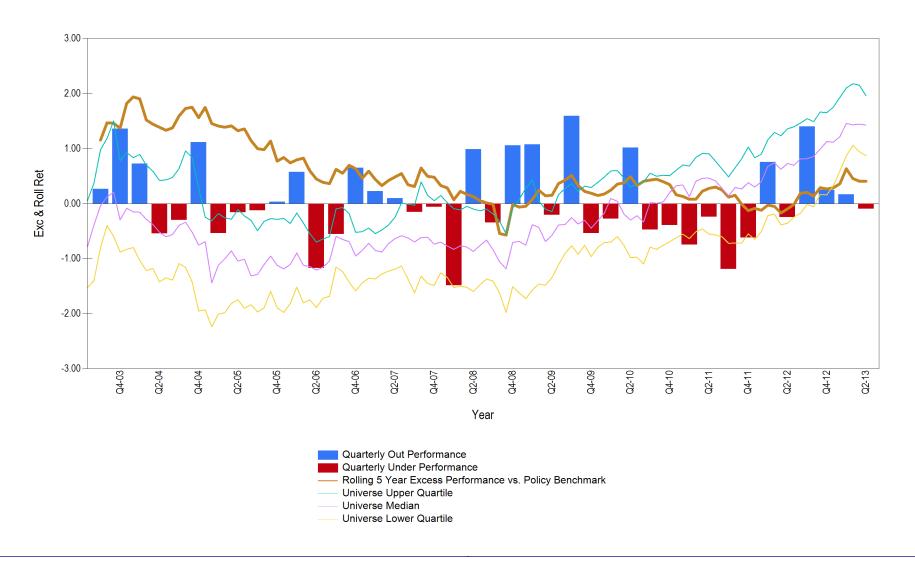
#### Sortino Ratio



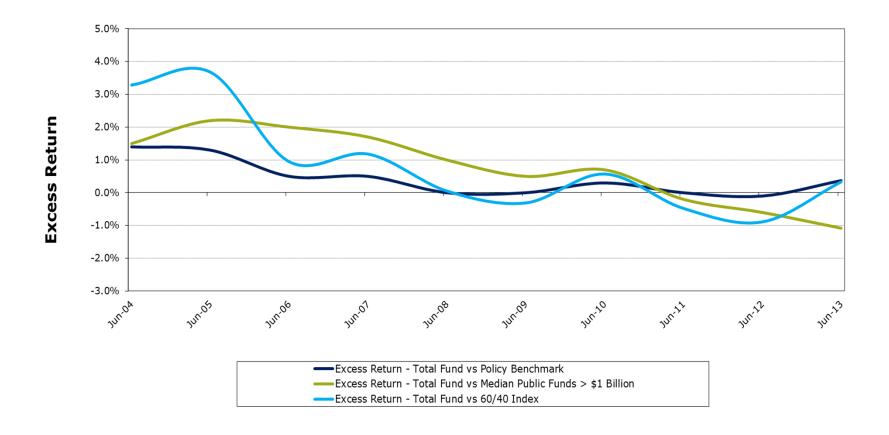
	Total Fund	
	Value	0.8
	%tile	53
•	Policy Benchmark	
	Value	0.8
	%tile	46
	Universe	
	5th %tile	1.0
	25th %tile	0.9
	Median	0.8
	75th %tile	0.7
	95th %tile	0.7

### Total Fund Rolling 5-Year Excess Returns

#### **Annualized Excess Performance**

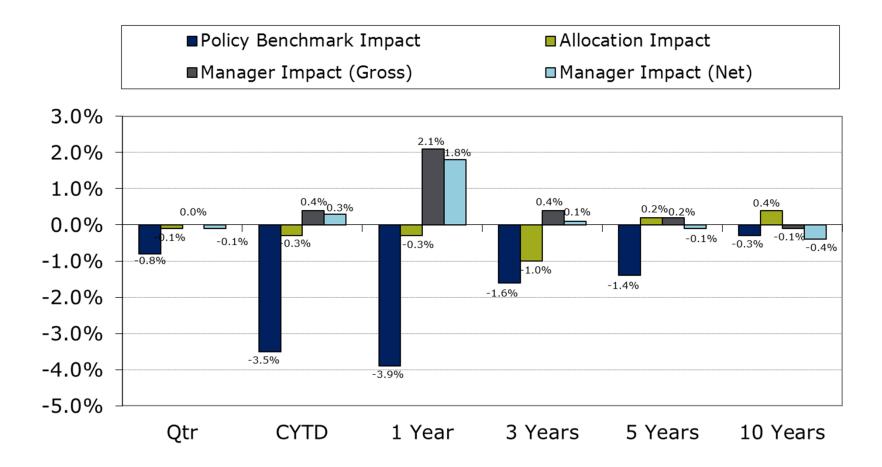


# Total Fund Rolling 5-Year Excess Returns





### Total Fund Performance Attribution



**Policy Impact:** The policy index is calculated by multiplying the target asset class weights times the return of the respective passive benchmark (re-balanced monthly). The policy impact, which is the difference between the policy index and the median fund's performance, measures the effectiveness of Plan Structure.

**Allocation Impact:** The allocation index is calculated by multiplying the actual asset class weights times the return of the respective passive benchmark. When the policy index is subtracted from the allocation index, the result measures the impact of deviating from the target weights.

**Manager Impact:** The Composite is calculated by multiplying the actual asset class weights times the actual manager return. The allocation index is then subtracted from the Composite. The result, manager impact, measures the contribution of active management.



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%) F	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%) F	Rank	Return (%)	Since
Total Equity Composite <sup>1</sup>	868,498,675	30.3	-0.5	63	5.7	68	17.2	62	12.7	72	3.6	56	-		-		3.3	Apr-08
MSCI ACWI IMI (Net)			<u>-0.5</u>	63	<u>6.4</u>	64	<u>17.1</u>	62	<u>12.6</u>	72	<u>2.8</u>	67	<u>3.8</u>	73	<u>8.0</u>	83	<u>2.4</u>	Apr-08
Over/Under			0.0		-0.7		0.1		0.1		0.8						0.9	
eA All Global Equity Gross Median			0.3		7.9		18.6	_	14.3		3.9		4.7		9.6		3.7	Apr-08
Global Equity Composite <sup>2</sup>	102,782,975	3.6	2.3	17										-	-		5.0	
MSCI ACWI IMI (Net)			<u>-0.5</u>	63	<u>6.4</u>	64	<u>17.1</u>	62	<u>12.6</u>	72	<u>2.8</u>	67	<u>3.8</u>	73	<u>8.0</u>	83	<u>1.5</u>	Mar-13
Over/Under			2.8														3.5	
eA All Global Equity Gross Median			0.3		7.9		18.6		14.3		3.9		4.7		9.6		2.6	Mar-13
Artisan Global Opportunities <sup>3</sup>	48,916,667	1.7		-	-								-		-			May-13
MSCI ACWI IMI (Net)			<u>-0.5</u>	63	<u>6.4</u>	64	<u>17.1</u>	62	<u>12.6</u>	72	<u>2.8</u>	67	<u>3.8</u>	73	<u>8.0</u>	83		May-13
Over/Under																	0.6	
eA All Global Equity Gross Median			0.3		7.9		18.6		14.3		3.9		4.7		9.6			May-13
Artisan Global Value <sup>4</sup>	53,344,127	1.9	3.8	7													6.7	
MSCI ACWI IMI (Net)			<u>-0.5</u>	63	<u>6.4</u>	64	<u>17.1</u>	62	<u>12.6</u>	72	<u>2.8</u>	67	<u>3.8</u>	73	<u>8.0</u>	83	<u>1.5</u>	Mar-13
Over/Under			4.3														5.2	
eA All Global Equity Gross Median			0.3		7.9		18.6		14.3		3.9		4.7		9.6		2.6	
U.S. Equity Composite <sup>5</sup>	355,334,871	12.4	3.6	36	15.6	40	28.1	20	20.0	31	7.8	54	5.9	69	8.4	71	8.9	Jun-95
Russell 3000			<u>2.7</u>	55	<u>14.1</u>	58	<u>21.5</u>	59	<u>18.6</u>	52	<u>7.2</u>	65	<u>5.8</u>	71	<u>7.8</u>	80	<u>8.5</u>	Jun-95
Over/Under			0.9		1.5		6.6		1.4		0.6		0.1		0.6		0.4	
eA All US Equity Gross Median	0.40 =0= 000		2.9	_,	14.6	10	22.8		18.7		8.1		6.7		9.7		10.4	Jun-95
Russell R1000 <sup>6</sup>	249,537,306	8.7	2.7	54	13.9	46											13.9	Jan-13
Russell 1000			<u>2.7</u>	55	<u>13.9</u>	46	<u>21.2</u>	47	<u>18.6</u>	36	<u>7.1</u>	51	<u>5.8</u>	62	<u>7.7</u>	68	<u>13.9</u>	Jan-13
Over/Under			0.0		0.0		00.0		47.0		7.0		0.0		0.0		0.0	
eA US Large Cap Equity Gross Median	105 704 040	0.7	2.8	•	13.6	40	20.8	•	17.9		7.2		6.3		8.3		13.6	Jan-13
RS Investments	105,791,942	3.7	5.7	9	19.7	13	36.4	6	47.0	70		70					19.0	Aug-10
Russell 2000 Value			<u>2.5</u>	61	<u>14.4</u>	67	<u>24.8</u>	67	<u>17.3</u>	76	<u>8.6</u>	79	<u>4.6</u>	91	<u>9.3</u>	94	<u>15.1</u>	Aug-10
Over/Under			3.2		5.3		11.6										3.9	
eA US Small Cap Value Equity Gross Median			2.9		15.7		26.9		19.2		10.5		7.5		11.7		17.2	Aug-10
International Equity Composite <sup>7</sup>	410,380,829	14.4	-4.3	89	-2.2	93	10.5	96	7.0	99	-0.2	78	2.9	73	9.7	77	9.3	Jun-95
MSCI AC WORLD ex US (NET)			<u>-3.1</u>	71	<u>0.0</u>	81	<u>13.6</u>	80	<u>8.0</u>	94	<u>-0.8</u>	91	<u>2.2</u>	89	<u>8.6</u>	96		Jun-95
Over/Under			-1.2		-2.2		-3.1		-1.0		0.6		0.7		1.1			
eA ACWI ex-US All Cap Equity Gross Median			-1.7		2.8		16.7		11.3		1.4		3.7		10.6		8.7	Jun-95



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Developed International Equity Composite <sup>1</sup>	287,712,914	10.0	-1.8	79	2.9	77	17.2	80	10.9	71	1.2	50	3.2	45	9.4	46	8.4	Jun-95
MSCI EAFE (Net)			<u>-1.0</u>	65	<u>4.1</u>	66	<u>18.6</u>	66	<u>10.0</u>	80	<u>-0.6</u>	83	<u>1.4</u>	85	<u>7.7</u>	88	<u>4.7</u>	Jun-95
Over/Under			-0.8		-1.2		-1.4		0.9		1.8		1.8		1.7		3.7	
eA All EAFE Equity Gross Median			-0.3		5.3		20.2		12.1		1.1		2.9		9.2		7.4	Jun-95
Russell MSCI EAFE + CAD <sup>2</sup>	229,010,204	8.0	-1.4	71	3.4	75						-					3.4	Jan-13
MSCI EAFE + CAD Over/Under			<u>-2.7</u> 1.3	88	<u>1.2</u> 2.2	87	<u>13.7</u>	93	<u>6.2</u>	97	<u>-3.7</u>	97	<u>-1.3</u>	99	<u>5.1</u>	99	<u>1.2</u> 2.2	Jan-13
eA All EAFE Equity Gross Median			-0.3		5.3		20.2		12.1		1.1		2.9		9.2		5.3	Jan-13
Russell MSCI EAFE + CAD Small Cap	58,421,030	2.0	-3.4	95	0.7	99	18.4	91				-					13.2	Dec-11
MSCI EAFE + CAD Small Cap Over/Under			<u>-3.5</u> 0.1	96	3.5 -2.8	93	<u>17.8</u> 0.6	92	<u>10.8</u>	99	<u>2.1</u>	81	<u>2.1</u>	92	<u>10.3</u>	93	<u>11.7</u> 1.5	Dec-11
eA EAFE Small Cap Equity Gross Median			-1.1		8.0		24.9		15.4		4.0		5.1		12.7		18.6	Dec-11
Emerging Markets Equity Composite	122,667,915	4.3	<b>-</b> 9.8	88	-12.9	95	-1.0	95	0.4	92	-1.4	78	4.6	87	12.7	95	12.9	Sep-01
MSCI Emg Mkts Free (Net) Over/Under			<u>-8.1</u> -1.7	61	<u>-9.6</u> -3.3	75	<u>2.9</u> -3.9	79	<u>3.4</u> -3.0	72	<u>-0.4</u> -1.0	67	<u>5.8</u> -1.2	68	<u>13.7</u> -1.0	76	<u>12.9</u> 0.0	Sep-01
eA Emg Mkts Equity Gross Median			-7.7		-7.3		6.2		5.5		0.8		6.9		15.3		14.3	Sep-01
Russell Emerging Markets	60,694,218	2.1	-10.1	91	-13.2	96	-1.4	95				-						
MSCI Emg Mkts Free (Net) Over/Under			<u>-8.1</u> -2.0	61	<u>-9.6</u> -3.6	75	<u>2.9</u> -4.3	79	<u>3.4</u>	72	<u>-0.4</u>	67	<u>5.8</u>	68	<u>13.7</u>	76	<u>-0.8</u> -2.6	Nov-11
eA Emg Mkts Equity Gross Median			-7.7		-7.3		6.2		5.5		0.8		6.9		15.3		2.7	Nov-11
Aberdeen <sup>3</sup> Vontobel <sup>3</sup>	1,973,697 60,000,000	0.1 2.1																



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%) F	Rank	Return (%)	Since
Total Private Equity Composite <sup>1</sup>	244,119,289	8.5	3.9	-	10.0		13.6		12.0	-	6.9		8.9	-			9.0	Oct-05
Cambridge PE 1 Qtr Lag			<u>4.5</u>		<u>8.1</u>		<u>12.8</u>		<u>15.1</u>		<u>7.5</u>		<u>10.7</u>		<u>15.7</u>		<u>12.6</u>	Oct-05
Over/Under			-0.6		1.9		8.0		-3.1		-0.6		-1.8				-3.6	
Venture Economics All Private Equity Lag			4.9		8.4		12.7		13.7		3.8		8.7		13.7		11.0	Oct-05
Russell 3000 Qtr Lag			11.1		11.4		14.6		13.0		6.3		5.1		9.2		6.1	Oct-05
Total Fixed Income Composite <sup>2</sup>	856,950,059	29.9	-1.5	34	-0.4	32	6.7	13	8.1	18	8.9	18	-				8.3	Apr-08
Barclays Aggregate			<u>-2.3</u>	63	<u>-2.4</u>	75	<u>-0.7</u>	86	<u>3.5</u>	67	<u>5.2</u>	65	<u>5.6</u>	61	<u>4.5</u>	63	<u>4.7</u>	Apr-08
Over/Under			0.8		2.0		7.4		4.6		3.7						3.6	
eA All US Fixed Inc Gross Median			-1.9		-1.5		0.8		4.4		5.8		5.9		4.9		5.3	Apr-08
Domestic Core Fixed Income Composite	139,823,924	4.9	-2.4	51	-2.4	64	-0.4	80	4.6	36	5.8	65	5.6	83	5.0	52	6.0	Jun-95
Barclays Aggregate			<u>-2.3</u>	38	<u>-2.4</u>	66	<u>-0.7</u>	87	<u>3.5</u>	88	<u>5.2</u>	90	<u>5.6</u>	84	<u>4.5</u>	87	<u>5.9</u>	Jun-95
Over/Under			-0.1		0.0		0.3		1.1		0.6		0.0		0.5		0.1	
eA US Core Fixed Inc Gross Median			-2.4		-2.3		0.3		4.3		6.1		6.2		5.0		6.3	Jun-95
Seix Core Fixed Income	139,823,924	4.9	-2.4	51	-2.4	64	-0.4	80	4.6	36	6.7	22	6.7	21	5.5	18	6.4	Oct-99
Barclays Aggregate			<u>-2.3</u>	38	<u>-2.4</u>	66	<u>-0.7</u>	87	<u>3.5</u>	88	<u>5.2</u>	90	<u>5.6</u>	84	<u>4.5</u>	87	<u>5.7</u>	Oct-99
Over/Under			-0.1		0.0		0.3		1.1		1.5		1.1		1.0		0.7	
eA US Core Fixed Inc Gross Median			-2.4		-2.3		0.3		4.3		6.1		6.2		5.0		6.2	Oct-99



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%) F	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Non-U.S. Core Fixed Income Composite	142,728,429	5.0	-2.5	66	-1.6	47		-	-	-	-	-	-				-1.6	Jan-13
Barclays Global Aggregate ex US Hedged Over/Under			<u>-1.2</u> -1.3	28	<u>-0.2</u> -1.4	25	<u>3.3</u>	50	<u>3.4</u>	90	<u>4.8</u>	68	<u>4.5</u>	86	<u>4.1</u>	93	<u>-0.2</u> -1.4	Jan-13
eA Global Fixed Inc Hedged Gross Median			-2.0		-1.8		3.2		5.5		5.7		5.9		5.7		-1.8	Jan-13
Russell BC Global Agg ex-U.S. <sup>1</sup>	142,728,429	5.0	-2.5	66	-1.6	47		-									-1.6	Jan-13
Barclays Global Aggregate ex US Hedged Over/Under			<u>-1.2</u> -1.3	28	<u>-0.2</u> -1.4	25	<u>3.3</u>	50	<u>3.4</u>	90	<u>4.8</u>	68	<u>4.5</u>	86	<u>4.1</u>	93	<u>-0.2</u> -1.4	Jan-13
eA Global Fixed Inc Hedged Gross Median			-2.0		-1.8		3.2		5.5		5.7		5.9		5.7		-1.8	Jan-13
Total Credit Composite <sup>2,6</sup>	447,023,962	15.6	0.4		3.5		23.7	-	13.5	-	11.6	-	-				11.6	Jul-08
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index			<u>-0.6</u>		<u>1.8</u>		<u>8.1</u>		<u>8.4</u>		<u>7.6</u>		<u>6.4</u>		<u>6.6</u>		<u>7.6</u>	Jul-08
Over/Under			1.0		1.7		15.6		5.1		4.0						4.0	
Domestic Credit Composite <sup>2</sup>	169,148,459	5.9	-2.2		-0.1		4.6	-	6.9	-		-				-	9.2	
Blended Domestic Credit Index <sup>3</sup> Over/Under			<u>-1.4</u> -0.8		<u>1.4</u> -1.5		<u>8.2</u> -3.6		<u>8.5</u> -1.6		<u>7.7</u>		<u>6.4</u>		<u>6.6</u>		<u>15.0</u> -5.8	Apr-09
Russell BC High Yield <sup>4</sup>	169,143,990	5.9	-2.2		-0.1			-				-	-				-0.1	Jan-13
Barclays High Yield Over/Under			<u>-1.4</u> -0.8		<u>1.4</u> -1.5		<u>9.5</u>		<u>10.7</u>		<u>10.9</u>		<u>9.0</u>		<u>8.9</u>		<u>1.4</u> -1.5	Jan-13
Opportunistic Credit Composite <sup>6</sup>	277,875,503	9.7	2.0		5.7		31.9	-	15.6		16.6						16.6	Jul-08
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index			<u>-0.6</u>		<u>1.8</u>		<u>8.1</u>		<u>8.4</u>		<u>7.6</u>		<u>6.4</u>		<u>6.6</u>		<u>7.6</u>	Jul-08
Over/Under			2.6		3.9		23.8		7.2		9.0						9.0	
Pimco Disco II	152,694,484	5.3	1.0		6.3		34.3	-	-			-	-				30.9	Nov-11
BofA Merrill Lynch US High Yield BB-B Rated Constrained Index			<u>-1.6</u>		<u>0.8</u>		<u>8.5</u>		<u>10.0</u>		<u>9.4</u>		<u>8.1</u>		<u>7.9</u>		<u>9.4</u>	Nov-11
Over/Under			2.6		5.5		25.8										21.5	
Marathon <sup>5</sup>	18,555,608	0.6	1.2		5.0			-				-	-				9.3	Oct-12
BofA ML Euro HY Constrained Over/Under			<u>1.8</u> -0.6		<u>0.7</u> 4.3		<u>19.4</u>		<u>13.5</u>		<u>8.1</u>		<u>8.8</u>		<u>10.5</u>		<u>9.8</u> -0.5	Oct-12



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%) F	Rank	5 Yrs (%) R	ank	7 Yrs (%) F	Rank	10 Yrs (%) F	Rank	Return (%)	Since
Direct Lending Composite <sup>1</sup>	106,625,411	3.7	3.6	-	5.4	-	16.4	-			-	-		-			8.3	Nov-10
3 Months LIBOR + 5% Over/Under			<u>1.3</u> 2.3		<u>2.6</u> 2.8		<u>5.<i>4</i></u> 11.0		<u>5.4</u>		<u>5.7</u>		<u>6.9</u>		<u>7.2</u>		<u>5.4</u> 2.9	Nov-10
White Oak	42,039,623	1.5	1.8		4.8		15.5										5.5	Nov-10
3 Months LIBOR + 5% Over/Under			<u>1.3</u> 0.5		<u>2.6</u> 2.2		<u>5.4</u> 10.1		<u>5.4</u>		<u>5.7</u>		<u>6.9</u>		<u>7.2</u>		<u>5.4</u> 0.1	Nov-10
GSO	33,458,018	1.2	5.5		7.3		17.7							-			20.0	Dec-10
3 Months LIBOR + 5% Over/Under			<u>1.3</u> 4.2		<u>2.6</u> 4.7		<u>5.4</u> 12.3		<u>5.4</u>		<u>5.7</u>		<u>6.9</u>		<u>7.2</u>		<u>5.4</u> 14.6	Dec-10
Medley Capital	31,127,770	1.1	4.3		4.3	-	17.0							-			7.0	Mar-11
3 Months LIBOR + 5% Over/Under			<u>1.3</u> 3.0		<u>2.6</u> 1.7		<u>5.4</u> 11.6		<u>5.4</u>		<u>5.7</u>		<u>6.9</u>		<u>7.2</u>		<u>5.4</u> 1.6	Mar-11
<b>Emerging Market Debt Composite</b>	127,373,744	4.4	-5.8	36	-9.2	97		-		-	-	-		-	-		-9.2	Jan-13
<i>JP Morgan EMBI+ TR</i> Over/Under			<u>-6.3</u> 0.5	49	<u>-9.4</u> 0.2	98	<u>0.1</u>	95	<u>7.5</u>	54	<u>8.4</u>	50	<u>8.4</u>	76	<u>8.9</u>	84	<u>-9.4</u> 0.2	Jan-13
eA All Emg Mkts Fixed Inc Gross Median			-6.3		-7.2		3.0		7.7		8.3		9.3		10.1		-7.2	Jan-13
Russell JPM EMBI Plus <sup>2</sup>	127,373,744	4.4	-5.8	36	-9.2	97											-9.2	Jan-13
<i>JP Morgan EMBI+ TR</i> Over/Under			<u>-6.3</u> 0.5	49	<u>-9.4</u> 0.2	98	<u>0.1</u>	95	<u>7.5</u>	54	<u>8.4</u>	50	<u>8.4</u>	76	<u>8.9</u>	84	<u>-9.4</u> 0.2	Jan-13
eA All Emg Mkts Fixed Inc Gross Median			-6.3		-7.2		3.0		7.7		8.3		9.3		10.1		-7.2	Jan-13



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%) F	Rank	3 Yrs (%) F	Rank	5 Yrs (%) F	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Total Real Estate Composite <sup>1</sup>	208,587,574	7.3	2.0	-	4.8	-	10.1		10.8		3.7		6.0	-	6.6		8.1	Jun-95
NCREIF Property Index			<u>2.9</u>		<u>5.5</u>		<u>10.7</u>		<u>13.1</u>		<u>2.8</u>		<u>5.6</u>		<u>8.6</u>		<u>9.6</u>	Jun-95
Over/Under			-0.9		-0.7		-0.6		-2.3		0.9		0.4		-2.0		-1.5	
American Realty/Kennedy Combined	20,157,064	0.7	4.0		7.4		15.9		12.8		7.2		9.1				10.0	Oct-03
NCREIF Property Index			<u>2.9</u>		<u>5.5</u>		<u>10.7</u>		<u>13.1</u>		<u>2.8</u>		<u>5.6</u>		<u>8.6</u>		<u>8.6</u>	Oct-03
Over/Under			1.1		1.9		5.2		-0.3		4.4		3.5				1.4	
American Realty Core Realty Fund	112,470,795	3.9	3.4		5.9		11.4										11.6	Sep-11
NCREIF Property Index			<u>2.9</u>		<u>5.5</u>		<u>10.7</u>		<u>13.1</u>		<u>2.8</u>		<u>5.6</u>		<u>8.6</u>		<u>12.5</u>	Sep-11
Over/Under			0.5		0.4		0.7										-0.9	
TA Realty <sup>2</sup>	2,013,786	0.1	0.7														0.7	Mar-13
NCREIF Property Index			<u>2.9</u>		<u>5.5</u>		<u>10.7</u>		<u>13.1</u>		<u>2.8</u>		<u>5.6</u>		<u>8.6</u>		<u>5.5</u>	Mar-13
Over/Under			-2.2														-4.8	
Russell Real Estate	73,945,929	2.6	-0.6		2.6												3.1	Dec-12
50% MSCI ACWI (Net) / 50% BC Global Aggregate			<u>-1.6</u>		<u>0.5</u>		<u>6.9</u>		<u>8.1</u>		<u>3.4</u>		<u>4.7</u>		<u>6.5</u>		<u>1.5</u>	Dec-12
Over/Under			1.0		2.1												1.6	
Inflation-Linked Assets Composite	242,717,721	8.5	-8.8	-	-13.2	-	-10.3		0.3					-			-2.5	Jan-10
Custom Commodity Risk Parity Index			<u>-7.5</u>		<u>-11.4</u>		<u>-7.8</u>											Jan-10
Over/Under			-1.3		-1.8		-2.5											
Dow Jones-UBS Commodity Index TR			-9.5		-10.5		-8.0		-0.3		-11.6		-3.4		2.4		-3.1	Jan-10
Credit Suisse	196,430,634	6.9	-7.4		-11.3		-7.1		-				-		-		-9.5	Apr-11
Custom Commodity Risk Parity Index			<u>-7.5</u>		<u>-11.4</u>		<u>-7.8</u>										<u>-9.9</u>	Apr-11
Over/Under			0.1		0.1		0.7										0.4	
Dow Jones-UBS Commodity Index TR			-9.5		-10.5		-8.0		-0.3		-11.6		-3.4		2.4		-12.8	Apr-11
First Quadrant	46,287,086	1.6	-11.7		-16.5		-15.1					-	-				-14.3	Apr-11
Custom Commodity Risk Parity Index			<u>-7.5</u>		<u>-11.4</u>		<u>-7.8</u>										<u>-9.9</u>	Apr-11
Over/Under			-4.2		-5.1		-7.3										-4.4	
Dow Jones-UBS Commodity Index TR			-9.5		-10.5		-8.0		-0.3		-11.6		-3.4		2.4		-12.8	Apr-11



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Return (%)	Since
Total Hedge Fund Composite	292,599,445	10.2	-1.0	-	0.5	-		-		-	-	-			-		1.0	Dec-12
San Jose Custom Hedge Fund Index <sup>1</sup>			<u>-0.3</u>		<u>0.9</u>											-	<u>1.2</u>	Dec-12
Over/Under			-0.7		-0.4												-0.2	
HFRI.FOF.Comp			0.0		3.4		7.3		3.0		-0.6		1.4		3.4		4.6	
Russell Hedge Funds	126,443,216	4.4	-0.3		0.3									-				Dec-12
Russell Hedge Index <sup>2</sup>			<u>-0.5</u>		<u>0.2</u>		<u>2.1</u>		<u>2.5</u>		<u>1.3</u>		<u>2.4</u>		<u>3.2</u>		<u>0.5</u>	Dec-12
Over/Under			0.2		0.1												0.1	
Total Hedge Fund Composite ex-Interim	166,156,229	5.8	-1.6		2.6	-		-	-	-			-	-		-		Dec-12
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>3.4</u>	Dec-12
Over/Under			-1.6		-0.8												-0.8	
Amici	9,759,521	0.3	-4.1			-								-			-2.4	
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.9</u>	Mar-13
Over/Under			-4.1														-3.3	
Arrowgrass	21,496,661	0.8	2.0		5.4													Nov-12
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>5.0</u>	Nov-12
Over/Under			2.0		2.0												2.5	
BlackRock	9,936,372	0.3	-2.8														-0.6	Mar-13
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.9</u>	Mar-13
Over/Under			-2.8														-1.5	
BlueTrend	8,525,425	0.3	-14.7														-14.7	Apr-13
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.0</u>	Apr-13
Over/Under			-14.7														-14.7	
Brevan Howard	20,489,173	0.7	-1.0		1.1												2.4	
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>4.6</u>	Dec-12
Over/Under			-1.0		-2.3												-2.2	
Cantab	8,233,031	0.3	-17.7					-		-				-			-17.7	Apr-13
HFRI.FOF.Comp			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.0</u>	Apr-13
Over/Under			-17.7														-17.7	



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%) Ra	ank	YTD (%)	ank	1 Yr (%)	ank	3 Yrs (%) R	ank	5 Yrs (%) R	lank	7 Yrs (%) R	ank	10 Yrs (%) F	Rank	Return (%)	Since
Davidson Kempner	20,806,521	0.7	2.2	-	4.0					-		-					4.0	Feb-13
<i>HFRI.FOF.Comp</i> Over/Under			<u>0.0</u> 2.2		<u>3.4</u> 0.6		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>1.2</u> 2.8	Feb-13
DE Shaw	20,778,184	0.7	3.9						-								3.9	Apr-13
HFRI.FOF.Comp Over/Under			<u>0.0</u> 3.9		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.0</u> 3.9	Apr-13
Kepos	4,503,545	0.2	-12.4	-						-							-9.9	Mar-13
<i>HFRI.FOF.Comp</i> Over/Under			<u>0.0</u> -12.4		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.9</u> -10.8	Mar-13
Pine River	21,408,238	0.7	0.6	-	7.0												7.0	Jan-13
<i>HFRI.FOF.Comp</i> Over/Under			<u>0.0</u> 0.6		3.4 3.6		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		3.4 3.6	Jan-13
Sandler	9,871,030	0.3							-				-				-1.3	May-13
<i>HFRI.FOF.Comp</i> Over/Under			<u>0.0</u>		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>-0.8</u> -0.5	May-13
Senator	10,348,528	0.4	3.5						-					-			3.5	Apr-13
HFRI.FOF.Comp Over/Under			<u>0.0</u> 3.5		<u>3.4</u>		<u>7.3</u>		<u>3.0</u>		<u>-0.6</u>		<u>1.4</u>		<u>3.4</u>		<u>0.0</u> 3.5	Apr-13



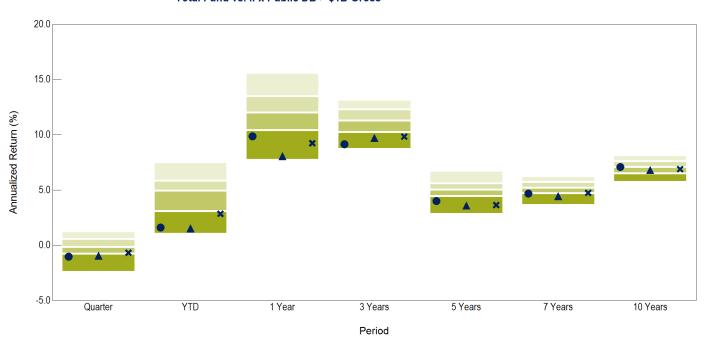
# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%) R	ank	YTD (%)	Rank	1 Yr (%)	ank	3 Yrs (%) F	Rank	5 Yrs (%) R	ank	7 Yrs (%) R	ank	10 Yrs (%) F	Rank	Return (%)	Since
Total GAA Composite	133,575,475	4.7	-1.9	-	1.5	-			-			-	-				1.5	Jan-13
60% MSCI World (Net) / 40% CITI WGBI Over/Under			<u>-0.8</u> -1.1		<u>2.6</u> -1.1		<u>8.9</u>		<u>9.5</u>		<u>3.3</u>		<u>4.4</u>		<u>6.5</u>		<u>2.6</u> -1.1	Jan-13
GMO <sup>1</sup>	45,933,049	1.6	0.2														1.9	Feb-13
60% MSCI World (Net) / 40% CITI WGBI Over/Under			<u>-0.8</u> 1.0		<u>2.6</u>		<u>8.9</u>		<u>9.5</u>		<u>3.3</u>		<u>4.4</u>		<u>6.5</u>		<u>0.1</u> 1.8	Feb-13
PIMCO All Asset	41,836,808	1.5	-5.7														-6.5	Feb-13
60% MSCI World (Net) / 40% CITI WGBI Over/Under			<u>-0.8</u> -4.9		<u>2.6</u>		<u>8.9</u>		<u>9.5</u>		<u>3.3</u>		<u>4.4</u>		<u>6.5</u>		<u>0.1</u> -6.6	Feb-13
Standard Life GARS	45,805,617	1.6	-0.1														2.2	Feb-13
60% MSCI World (Net) / 40% CITI WGBI Over/Under			<u>-0.8</u> 0.7		<u>2.6</u>		<u>8.9</u>		<u>9.5</u>		<u>3.3</u>		<u>4.4</u>		<u>6.5</u>		<u>0.1</u> 2.1	Feb-13
Cash																		
Cash <sup>2</sup>	16,746,184	0.6	0.0		0.1		0.1		0.3		0.9							Jul-02
91 Day T-Bills Over/Under			<u>0.0</u> 0.0		<u>0.0</u> 0.1		<u>0.1</u> 0.0		<u>0.1</u> 0.2		<u>0.2</u> 0.7		<u>1.2</u>		<u>1.6</u>		<u>1.6</u>	Jul-02



# Total Fund Return Summary vs. Peer Universe

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

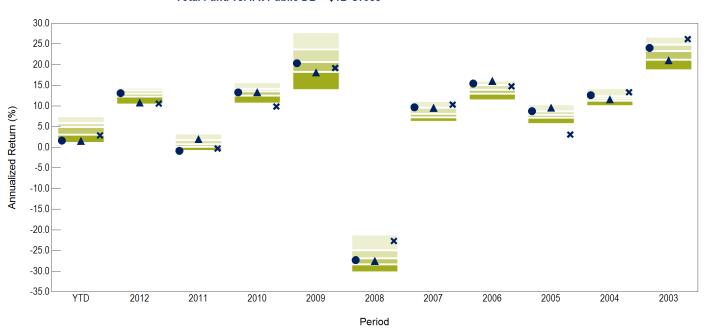


		Return (Rank)													
	5th Percentile	1.2		7.5		15.6		13.2		6.7		6.2		8.1	
	25th Percentile	0.6		5.9		13.5		12.3		5.6		5.7		7.6	
	Median	-0.1		5.0		12.0		11.3		5.0		5.2		7.1	
	75th Percentile	-0.8		3.1		10.4		10.3		4.5		4.7		6.5	
	95th Percentile	-2.4		1.1		7.7		8.7		2.8		3.7		5.7	
	# of Portfolios	58		57		55		51		51		50		48	
	Total Fund	-1.0	(82)	1.6	(92)	9.9	(83)	9.1	(93)	4.0	(83)	4.7	(78)	7.1	(51)
<b>A</b>	Policy Benchmark	-0.9	(80)	1.5	(92)	8.1	(93)	9.7	(87)	3.6	(86)	4.4	(82)	6.8	(68)
×	60% MSCI World (Gross) / 40% CITI WGBI	-0.7	(74)	2.8	(80)	9.2	(87)	9.8	(86)	3.6	(86)	4.7	(73)	6.9	(63)



# Total Fund Return Summary vs. Peer Universe

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



		Return (Rank)										
	5th Percentile	7.5	14.4	3.3	15.7	27.8	-21.2	11.1	16.1	10.4	14.3	26.7
	25th Percentile	5.9	13.8	1.8	14.2	23.7	-24.9	9.6	15.1	8.8	12.4	24.8
	Median	5.0	13.0	0.8	13.5	20.7	-26.8	8.1	13.9	7.9	11.8	23.3
	75th Percentile	3.1	12.3	0.1	12.5	18.3	-28.3	7.2	13.0	7.2	11.3	21.2
	95th Percentile	1.1	10.4	-0.9	10.6	13.9	-30.2	6.2	11.4	5.6	10.0	18.6
;	of Portfolios	57	51	49	49	49	48	47	41	41	39	39
•	Total Fund	1.6 (92)	13.1 (44)	-0.9 (96)	13.3 (59)	20.3 (55)	-27.3 (56)	9.7 (24)	15.4 (20)	8.7 (31)	12.6 (14)	24.0 (32)
<b>A</b>	Policy Benchmark	1.5 (92)	10.8 (94)	2.0 (24)	13.3 (57)	18.1 (76)	-27.5 (62)	9.5 (26)	16.1 (7)	9.6 (10)	11.6 (62)	21.0 (78)
×	60% MSCI World (Gross) / 40% CITI WGBI	2.8 (80)	10.6 (94)	-0.3 (82)	9.8 (99)	19.2 (61)	-22.7 (10)	10.3 (18)	14.7 (34)	3.1 (99)	13.3 (11)	26.2 (12)



# **Appendix: Net of Fees Performance**

# Preliminary Total Fund Performance Detail - Net of Fee

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund	2,862,887,676	100.0	-1.1	1.5	9.6	8.8	3.7	4.2	6.8	8.8	Mar-71
Policy Benchmark			<u>-0.9</u>	<u>1.5</u>	<u>8.1</u>	<u>9.7</u>	<u>3.6</u>	<u>4.4</u>	<u>6.8</u>		Mar-71
Over/Under			-0.2	0.0	1.5	-0.9	0.1	-0.2	0.0		
Allocation Index			-1.0	1.2	7.8	8.7	3.8	4.7	7.2		Mar-71
60% MSCI World (Gross) / 40% CITI WGBI			-0.7	2.8	9.2	9.8	3.6	4.7	6.9		Mar-71
Total Equity Composite <sup>1</sup>	868,498,675	30.3	-0.5	5.6	17.1	12.5	3.2			3.0	Apr-08
MSCI ACWI IMI (Net)			<u>-0.5</u>	<u>6.4</u>	<u>17.1</u>	<u>12.6</u>	<u>2.8</u>	<u>3.8</u>	<u>8.0</u>	<u>2.4</u>	Apr-08
Over/Under			0.0	-0.8	0.0	-0.1	0.4			0.6	
Global Equity Composite <sup>2</sup>	102,782,975	3.6	2.2							4.9	Mar-13
MSCI ACWI IMI (Net)			<u>-0.5</u>	<u>6.4</u>	<u>17.1</u>	<u>12.6</u>	<u>2.8</u>	<u>3.8</u>	<u>8.0</u>	<u>1.5</u>	Mar-13
Over/Under			2.7							3.4	
Artisan Global Opportunities <sup>3</sup>	48,916,667	1.7								-2.6	May-13
MSCI ACWI IMI (Net)			<u>-0.5</u>	<u>6.4</u>	<u>17.1</u>	<u>12.6</u>	<u>2.8</u>	<u>3.8</u>	<u>8.0</u>	<u>-3.0</u>	May-13
Over/Under										0.4	
Artisan Global Value <sup>4</sup>	53,344,127	1.9	3.8							6.6	Mar-13
MSCI ACWI IMI (Net)			<u>-0.5</u>	<u>6.4</u>	<u>17.1</u>	<u>12.6</u>	<u>2.8</u>	<u>3.8</u>	<u>8.0</u>	<u>1.5</u>	Mar-13
Over/Under <b>U.S.</b>			4.3							5.1	
Equity Composite <sup>5</sup>	355,334,871	12.4	3.5	15.5	27.8	19.7	7.6	5.7	8.1	8.8	Jun-95
Russell 3000			<u>2.7</u>	<u>14.1</u>	<u>21.5</u>	<u>18.6</u>	<u>7.2</u>	<u>5.8</u>	<u>7.8</u>	<u>8.5</u>	Jun-95
Over/Under			0.8	1.4	6.3	1.1	0.4	-0.1	0.3	0.3	
Russell R1000 <sup>6</sup>	249,537,306	8.7	2.7	13.9						13.9	Jan-13
Russell 1000			<u>2.7</u>	<u>13.9</u>	<u>21.2</u>	<u>18.6</u>	<u>7.1</u>	<u>5.8</u>	<u>7.7</u>	<u>13.9</u>	Jan-13
Over/Under			0.0	0.0						0.0	
RS Investments	105,791,942	3.7	5.6	19.3	35.7			-	-	18.3	Aug-10
Russell 2000 Value			<u>2.5</u>	<u>14.4</u>	<u>24.8</u>	<u>17.3</u>	<u>8.6</u>	<u>4.6</u>	<u>9.3</u>	<u>15.1</u>	Aug-10
Over/Under			3.1	4.9	10.9					3.2	



# Preliminary Total Fund Performance Detail - Net of Fee

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
International Equity Composite <sup>1</sup>	410,380,829	14.3	-4.3	-2.2	10.5	6.7	-0.6	2.4	9.1	9.0	Jun-95
MSCI AC WORLD ex US (NET)			<u>-3.1</u>	<u>0.0</u>	<u>13.6</u>	<u>8.0</u>	<u>-0.8</u>	<u>2.2</u>	<u>8.6</u>		Jun-95
Over/Under			-1.2	-2.2	-3.1	-1.3	0.2	0.2	0.5		
Developed International Equity Composite <sup>2</sup>	287,712,914	10.0	-1.8	2.9	17.2	10.6	0.8	2.7	8.9	8.1	Jun-95
MSCI EAFE (Net)			<u>-1.0</u>	<u>4.1</u>	<u>18.6</u>	<u>10.0</u>	<u>-0.6</u>	<u>1.4</u>	<u>7.7</u>	<u>4.7</u>	Jun-95
Over/Under			-0.8	-1.2	-1.4	0.6	1.4	1.3	1.2	3.4	
Russell MSCI EAFE + CAD <sup>3</sup>	229,010,204	8.0	-1.4	3.4						3.4	Jan-13
MSCI EAFE + CAD			<u>-2.7</u>	<u>1.2</u>	<u>13.7</u>	<u>6.2</u>	<u>-3.7</u>	<u>-1.3</u>	<u>5.1</u>	<u>1.2</u>	Jan-13
Over/Under			1.3	2.2						2.2	
Russell MSCI EAFE + CAD Small Cap	58,421,030	2.0	-3.4	0.6	18.3					13.1	Dec-11
MSCI EAFE + CAD Small Cap			<u>-3.5</u>	<u>3.5</u>	<u>17.8</u>	<u>10.8</u>	<u>2.1</u>	<u>2.1</u>	<u>10.3</u>	<u>11.7</u>	Dec-11
Over/Under			0.1	-2.9	0.5					1.4	
Emerging Markets Equity Composite	122,667,915	4.3	-9.8	-13.0	-1.1	0.0	-2.0	3.8	11.7	12.0	Sep-01
MSCI Emg Mkts Free (Net)			<u>-8.1</u>	<u>-9.6</u>	<u>2.9</u>	<u>3.4</u>	<u>-0.4</u>	<u>5.8</u>	<u>13.7</u>	<u>12.9</u>	Sep-01
Over/Under			-1.7	-3.4	-4.0	-3.4	-1.6	-2.0	-2.0	-0.9	
Russell Emerging Markets	60,694,218	2.1	-10.1	-13.2	-1.4					-3.5	Nov-11
MSCI Emg Mkts Free (Net)			<u>-8.1</u>	<u>-9.6</u>	<u>2.9</u>	<u>3.4</u>	<u>-0.4</u>	<u>5.8</u>	<u>13.7</u>	<u>-0.8</u>	Nov-11
Over/Under			-2.0	-3.6	-4.3					-2.7	
Vontobel <sup>4</sup>	60,000,000	2.1	-	-							Jul-13
Aberdeen <sup>4</sup>	1,973,697	0.1									Jul-13
Total Private Equity Composite <sup>5</sup>	244,119,289	8.5	3.8	9.9	13.4	11.3	6.0	8.2		8.4	Oct-05
Cambridge PE 1 Qtr Lag			<u>4.5</u>	<u>8.1</u>	<u>12.8</u>	<u>15.1</u>	<u>7.5</u>	<u>10.7</u>	<u>15.7</u>	<u>12.6</u>	Oct-05
Over/Under			-0.7	1.8	0.6	-3.8	-1.5	-2.5		-4.2	
Venture Economics All Private Equity Lag			4.9	8.4	12.7	13.7	3.8	8.7	13.7	11.0	Oct-05
Russell 3000 Qtr Lag			11.1	11.4	14.6	13.0	6.3	5.1	9.2	6.1	Oct-05



# Preliminary Total Fund Performance Detail - Net of Fee

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fixed Income Composite <sup>1</sup>	856,950,059	29.9	-1.6	-0.6	6.4	7.8	8.6	-		8.0	Apr-08
Barclays Aggregate			<u>-2.3</u>	<u>-2.4</u>	<u>-0.7</u>	<u>3.5</u>	<u>5.2</u>	<u>5.6</u>	<u>4.5</u>	<u>4.7</u>	Apr-08
Over/Under			0.7	1.8	7.1	4.3	3.4			3.3	
Domestic Core Fixed Income Composite	139,823,924	4.9	-2.4	-2.5	-0.5	4.5	5.7	5.5	4.8	5.9	Jun-95
Barclays Aggregate <sup>2</sup>			<u>-2.3</u>	<u>-2.4</u>	<u>-0.7</u>	<u>3.5</u>	<u>5.2</u>	<u>5.6</u>	<u>4.5</u>	<u>5.9</u>	Jun-95
Over/Under			-0.1	-0.1	0.2	1.0	0.5	-0.1	0.3	0.0	
Seix Core Fixed Income	139,823,924	4.9	-2.4	-2.5	-0.5	4.5	6.6	6.5	5.3	6.2	Oct-99
Barclays Aggregate			<u>-2.3</u>	<u>-2.4</u>	<u>-0.7</u>	<u>3.5</u>	<u>5.2</u>	<u>5.6</u>	<u>4.5</u>	<u>5.7</u>	Oct-99
Over/Under			-0.1	-0.1	0.2	1.0	1.4	0.9	0.8	0.5	
Non-U.S. Core Fixed Income Composite	142,728,429	5.0	-2.5	-1.7						-1.7	Jan-13
Barclays Global Aggregate ex US Hedged			<u>-1.2</u>	<u>-0.2</u>	<u>3.3</u>	<u>3.4</u>	<u>4.8</u>	<u>4.5</u>	<u>4.1</u>	<u>-0.2</u>	Jan-13
Over/Under			-1.3	-1.5						-1.5	
Russell BC Global Agg ex-U.S.	142,728,429	5.0	-2.5	-1.7						-1.7	Jan-13
Barclays Global Aggregate ex US Hedged			<u>-1.2</u>	<u>-0.2</u>	<u>3.3</u>	<u>3.4</u>	<u>4.8</u>	<u>4.5</u>	<u>4.1</u>	<u>-0.2</u>	Jan-13
Over/Under <b>Total</b>			-1.3	-1.5						-1.5	
Credit Composite <sup>3,6</sup>	447,023,962	15.6	0.3	3.2	22.9	12.7	10.9			10.9	Jul-08
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB-B Rated Constrained Index			<u>-0.6</u>	<u>1.8</u>	<u>8.1</u>	<u>8.4</u>	<u>7.6</u>	<u>6.4</u>	<u>6.6</u>	<u>7.6</u>	Jul-08
Over/Under			0.9	1.4	14.8	4.3	3.3			3.3	
Domestic Credit Composite <sup>3</sup>	169,148,459	5.9	-2.2	-0.2	4.5	6.6		-	-	9.0	Apr-09
Blended Domestic Credit Index <sup>4</sup>			<u>-1.4</u>	<u>1.4</u>	<u>8.2</u>	<u>8.5</u>	<u>7.7</u>	<u>6.4</u>	<u>6.6</u>	<u>15.0</u>	Apr-09
Over/Under			-0.8	-1.6	-3.7	-1.9				-6.0	
Russell BC High Yield	169,143,990	5.9	-2.2	-0.1				-		-0.1	Jan-13
Barclays High Yield			<u>-1.4</u>	<u>1.4</u>	<u>9.5</u>	<u>10.7</u>	<u>10.9</u>	<u>9.0</u>	<u>8.9</u>	<u>1.4</u>	Jan-13
Over/Under			-0.8	-1.5						-1.5	



# Preliminary Total Fund Performance Detail - Net of Fee

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
Opportunistic Credit Composite <sup>1</sup>	277,875,503	9.7	1.8	5.3	30.7	14.5	15.5			15.5	Jul-08
50% Credit Suisse Leveraged Loan Index / 50% BofA ML US HY BB- B Rated Constrained Index			<u>-0.6</u>	<u>1.8</u>	<u>8.1</u>	<u>8.4</u>	<u>7.6</u>	<u>6.4</u>	<u>6.6</u>	<u>7.6</u>	Jul-08
Over/Under			2.4	3.5	22.6	6.1	7.9			7.9	
Pimco Disco II	152,694,484	5.3	0.8	5.8	33.0					29.7	Nov-11
BofA Merrill Lynch US High Yield BB-B Rated Constrained Index			<u>-1.6</u>	<u>0.8</u>	<u>8.5</u>	<u>10.0</u>	<u>9.4</u>	<u>8.1</u>	<u>7.9</u>	<u>9.4</u>	Nov-11
Over/Under			2.4	5.0	24.5					20.3	
Marathon	18,555,608	0.6	1.2	5.0						9.3	Oct-12
BofA ML Euro HY Constrained			<u>1.8</u>	<u>0.7</u>	<u>19.4</u>	<u>13.5</u>	<u>8.1</u>	<u>8.8</u>	<u>10.5</u>	9.8	Oct-12
Over/Under			-0.6	4.3						-0.5	
Direct Lending Composite <sup>1</sup>	106,625,411	3.7	3.4	4.9	15.4					6.9	Nov-10
3 Months LIBOR + 5%			<u>1.3</u>	<u>2.6</u>	<u>5.4</u>	<u>5.4</u>	<u>5.7</u>	<u>6.9</u>	<u>7.2</u>	<u>5.4</u>	Nov-10
Over/Under			2.1	2.3	10.0					1.5	
White Oak	42,039,623	1.5	1.2	3.5	13.3					3.1	Nov-10
3 Months LIBOR + 5%			<u>1.3</u>	<u>2.6</u>	<u>5.4</u>	<u>5.4</u>	<u>5.7</u>	<u>6.9</u>	<u>7.2</u>	<u>5.4</u>	Nov-10
Over/Under			-0.1	0.9	7.9					-2.3	
GSO GSO	33,458,018	1.2	5.5	7.3	17.7					20.0	Dec-10
3 Months LIBOR + 5%			<u>1.3</u>	<u>2.6</u>	<u>5.4</u>	<u>5.4</u>	<u>5.7</u>	<u>6.9</u>	<u>7.2</u>	<u>5.4</u>	Dec-10
Over/Under			4.2	4.7	12.3					14.6	
Medley Capital	31,127,770	1.1	4.3	4.3	16.6					6.0	Mar-11
3 Months LIBOR + 5%			<u>1.3</u>	<u>2.6</u>	<u>5.4</u>	<u>5.4</u>	<u>5.7</u>	<u>6.9</u>	<u>7.2</u>	<u>5.4</u>	Mar-11
Over/Under			3.0	1.7	11.2					0.6	
Emerging Market Debt Composite	127,373,744	4.4	-5.8	-9.2					-	-9.2	Jan-13
<i>JP Morgan EMBI+ TR</i> Over/Under			<u>-6.3</u> 0.5	<u>-9.4</u> 0.2	<u>0.1</u>	<u>7.5</u>	<u>8.4</u>	<u>8.4</u>	<u>8.9</u>	<u>-9.4</u> 0.2	Jan-13
Russell JPM EMBI Plus <sup>3</sup>	127,373,744	4.4	-5.8	-9.2						-9.2	Jan-13
JP Morgan EMBI+ TR			<u>-6.3</u>	<u>-9.4</u>	<u>0.1</u>	<u>7.5</u>	<u>8.4</u>	<u>8.4</u>	<u>8.9</u>	<u>-9.4</u>	Jan-13
Over/Under			0.5	0.2						0.2	



# Preliminary Total Fund Performance Detail - Net of Fee

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Real Estate Composite <sup>1</sup>	208,587,574	7.3	1.8	4.6	9.4	10.1	3.1	5.5	6.2	7.9	Jun-95
NCREIF Property Index			<u>2.9</u>	<u>5.5</u>	<u>10.7</u>	<u>13.1</u>	<u>2.8</u>	<u>5.6</u>	<u>8.6</u>	<u>9.6</u>	Jun-95
Over/Under			-1.1	-0.9	-1.3	-3.0	0.3	-0.1	-2.4	-1.7	
American Realty/Kennedy Combined	20,157,064	0.7	3.8	7.0	15.0	12.0	6.7	8.6		9.4	Oct-03
NCREIF Property Index			<u>2.9</u>	<u>5.5</u>	<u>10.7</u>	<u>13.1</u>	<u>2.8</u>	<u>5.6</u>	<u>8.6</u>	<u>8.6</u>	Oct-03
Over/Under			0.9	1.5	4.3	-1.1	3.9	3.0		0.8	
American Realty Core Realty Fund	112,470,795	3.9	3.1	5.5	10.4			-		10.6	Sep-11
NCREIF Property Index			<u>2.9</u>	<u>5.5</u>	<u>10.7</u>	<u>13.1</u>	<u>2.8</u>	<u>5.6</u>	<u>8.6</u>	<u>12.5</u>	Sep-11
Over/Under			0.2	0.0	-0.3					-1.9	
TA Realty <sup>2</sup>	2,013,786	0.1	0.7							0.7	Mar-13
NCREIF Property Index			<u>2.9</u>	<u>5.5</u>	<u>10.7</u>	<u>13.1</u>	<u>2.8</u>	<u>5.6</u>	<u>8.6</u>	<u>5.5</u>	Mar-13
Over/Under			-2.2							-4.8	
Russell Real Estate	73,945,929	2.6	-0.6	2.6						3.1	Dec-12
50% MSCI ACWI (Net) / 50% BC Global Aggregate			<u>-1.6</u>	<u>0.5</u>	<u>6.9</u>	<u>8.1</u>	<u>3.4</u>	<u>4.7</u>	<u>6.5</u>	<u>1.5</u>	Dec-12
Over/Under			1.0	2.1						1.6	
Inflation-Linked Assets Composite	242,717,721	8.5	-8.8	-13.2	-10.4	0.0				-2.7	Jan-10
Custom Commodity Risk Parity Index			<u>-7.5</u>	<u>-11.4</u>	<u>-7.8</u>						Jan-10
Over/Under			-1.3	-1.8	-2.6						
Dow Jones-UBS Commodity Index TR			-9.5	-10.5	-8.0	-0.3	-11.6	-3.4	2.4	-3.1	Jan-10
Credit Suisse	196,430,634	6.9	-7.4	-11.4	-7.4					-9.8	Apr-11
Custom Commodity Risk Parity Index			<u>-7.5</u>	<u>-11.4</u>	<u>-7.8</u>					<u>-9.9</u>	Apr-11
Over/Under			0.1	0.0	0.4					0.1	
Dow Jones-UBS Commodity Index TR			-9.5	-10.5	-8.0	-0.3	-11.6	-3.4	2.4	-12.8	Apr-11
First Quadrant	46,287,086	1.6	-11.7	-16.5	-15.1					-14.5	Apr-11
Custom Commodity Risk Parity Index			<u>-7.5</u>	<u>-11.4</u>	<u>-7.8</u>					<u>-9.9</u>	Apr-11
Over/Under			-4.2	-5.1	-7.3					-4.6	÷
Dow Jones-UBS Commodity Index TR			-9.5	-10.5	-8.0	-0.3	-11.6	-3.4	2.4	-12.8	Apr-11

Real Estate valued quarterly



Appendix: Policy Benchmark History; Performance Disclosures



### Policy Benchmark History

- 6/1/95 9/30/01 35% S&P 500/10% MSCI EAFE/35% BC Aggregate/10% Citigroup WGBI/10% NCREIF Property
- 10/1/01 12/31/04 35% S&P 500/15% MSCI EAFE/5% MSCI Emg Mkts/28% BC Aggregate/5% Citigroup WGBI/12% NCREIF Property
- 1/1/05 3/31/08 34% S&P 500/20% MSCI EAFE/5% MSCI Emg Mkts/20% BC Aggregate/4% BC Long Gov't/Credit/12% NCREIF Property/5% Russell 2000
- 4/1/08 6/30/08 29% S&P 500/5% Russell 2000/20% MSCI EAFE/5% MSCI Emg Mkts/20% BC Aggregate/4% BC Long Gov't/Credit/12% NCREIF Property/5% Cambridge Private Equity (lagged 1 quarter)
- 7/1/08 12/31/09 22% S&P 500/5% Russell 2000/17% MSCI EAFE/5% MSCI Emg Mkts/18% BC Aggregate/5% ML US HY BB-B Constrained/10% NCREIF Property/8% Cambridge Private Equity (lagged 1 quarter)/5% DJ/UBS Commodities Index/5% HFRI FoF: Conservative
- 1/1/10 3/31/11 18% Russell 1000/5% Russell 2000/12% MSCI EAFE/5% MSCI Emg Mkts/5% BC Aggregate/10% TIPS/5% BC Long Gov't/Credit/5% ML US HY BB-B Constrained/10% NCREIF Property/5% Cambridge Private Equity (lagged 1 quarter)/10% DJ/UBS Commodities Index/5% HFRI FoF: Conservative/5% 3-Month LIBOR +5%
- 4/1/11 12/31/2011 18% Russell 1000/5% Russell 2000/12% MSCI EAFE/5% MSCI Emg Mkts/5% BC
  Aggregate/10% TIPS/5% BC Long Gov't/Credit/5% ML US HY BB-B Constrained/10% NCREIF Property/5% Cambridge
  Private Equity (lagged 1 quarter)/10% San Jose P&F Custom Commodity Risk Parity Index/5% HFRI FoF:
  Conservative/5% 3-Month LIBOR +5%
- 1/1/12 12/31/2012 12% MSCI All Country World Index/15% MSCI All Country World Index Value/2% Russell 3000/3% Russell 2000/3% MSCI EAFE + CAD Small Cap/5% MSCI Emg Mkts/5% BC Aggregate/10% TIPS/5% BC Long Gov't/Credit/5% ML US HY BB-B Constrained/10% NCREIF Property/5% Cambridge Private Equity (lagged 1 quarter)/10% San Jose P&F Custom Commodity Risk Parity Index/5% HFRI FoF: Conservative/5% 3-Month LIBOR +5
- 1/1/2013 present 29% MSCI All Country World Index IMI/5% Cambridge PE (lagged 1 quarter)/3% Russell 3000 (lagged 1 quarter)/5% BC Aggregate/5% BC Aggregate ex-U.S./5% BC High Yield/10% 50/50 DLJ Levered Loan Index/ML US HY BB-B Constrained/5% JP Morgan EMBI Plus/4% NCREIF ODCE (lagged 1 quarter)/3% 60/40 MSCI ACWI IMI/BC Global Aggregate/10% San Jose P&F Custom Commodity Risk Parity Index/2% HFRI Fund of Funds Index (lagged one month)/8% Russell Hedge Index/5% 60/40 MSCI World/Citi WGBI/1% 90 day T-bills



### Additional Performance Disclosures and Footnote Details

Note: All performance, ranks, asset allocation and asset growth detailed throughout this report is gross of fees and is as of June 30, 2013, unless otherwise noted. Total Fund performance calculations take into account an unrealized loss of \$906,746 in the Fund's securities lending cash collateral reinvestment pool. The unrealized loss was accounted for in June 2009 performance calculations, which negatively impacted performance by 51 basis points at the Total Fund level for the month. This impact will be negated over time as market conditions improve and pricing of fixed income assets becomes more normalized, assuming there are no impairments or defaults in the pool. To date, State Street (who manages the Fund's securities lending program), has not experienced any impairments or defaults in the Fund's securities lending cash collateral reinvestment pool. Performance results are reported gross of fees.

#### Page 15

- 1 Long-Term Policy Benchmark adopted by the Board of Administration at the August 2, 2012 meeting.
- 2 Global Equity market value includes \$522,181 of residual assets remaining in the equity transition account and terminated manager accounts.
- 3 U.S. Equity market value includes \$5,623 of residual assets remaining in terminated manager accounts.
- 4 Non-U.S. Equity market value includes \$281,680 of residual assets remaining in terminated manager accounts.
- 5 High Yield market value includes \$4,469 of residual assets remaining in terminated manager accounts.
- 6 Commodities market value has been split to account for interim exposure to illiquid inflation-linked assets for asset allocation purposes.
- 7 Cash market value includes unrealized loss in the Fund's securities lending cash collateral reinvestment pool, transition account and Russell Overlay.

#### Page 25

- 1 Total Equity Composite market value includes \$809,484 of residual assets remaining in the equity transition account and terminated manager accounts.
- 2 Global Equity Composite market value includes \$522,181 of residual assets remaining in the equity transition account and terminated manager accounts. Inception date for performance shown is March 1, 2013 to be consistent with the inception of the global equity portfolio managed by Artisan. Historically, the global equity composite was comprised of the MSCI ACWI and MSCI ACWI Value mandates that were managed by Russell from November 2011 November 2012. Performance of the global equity composite and underlying managers is included in the performance of the Total Fund from December 2012 February 2013.
- 3 Artisan Global Value portfolio was funded 2/22/2013. Inception date for performance reporting purposes is March 1, 2013.
- 4 Artisan Global Opportunities portfolio was funded 4/30/2013. Inception date for performance reporting purposes is May 1, 2013.
- 5 U.S. Equity Composite market value includes \$5,623 of residual assets remaining in terminated manager accounts.
- 6 Russell 1000 Index portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.
- 7 International Equity Composite market value includes \$281,680 of residual assets remaining in terminated manager accounts.

#### Page 26

- 1 Developed International Equity Composite market value includes \$281,680 of residual assets remaining in terminated manager accounts.
- 2 MSCI EAFE + CAD portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.
- 3 Vontobel Emerging Markets Equity and Aberdeen Frontier Markets Equity were funded on June 30, 2013.

#### Page 27

- 1 Total Private Equity Composite includes investments that have been funded through 6/30/2013 as well as \$113.2 million in interim exposure managed by Russell.
- 2 Total Fixed Income Composite market value includes \$4,947 of residual assets remaining in the fixed income transition account and terminated manager accounts.

#### Page 28

- 1 BC Global Agg ex-U.S. exposure is captured within the overlay account. Inception date for performance reporting purposes is January 1, 2013.
- 2 Total Credit and Domestic Credit Composite market value includes \$4,947 of residual assets remaining in terminated manager accounts.
- 3 Blended Domestic Credit Index comprised of 50% DLJ Leveraged Loan Index/50% BofA ML U.S. HY BB-B through 11/30/2012; Barclays Capital High Yield Index thereafter.
- 4 Barclays Capital High Yield portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.
- 5 Marathon performance is reported net of fees.
- 6 Effective 12/1/2012, the Fund's allocation to direct lending strategies will be included in the Total Credit and Opportunistic Credit Composites.



### Additional Performance Disclosures and Footnote Details

#### Page 29

- 1 Effective 12/1/2012, the Fund's allocation to direct lending strategies will be included in the Total Credit and Opportunistic Credit Composites.
- 2 JP Morgan EMBI + portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.

#### Page 30

- 1 Total Real Estate Composite includes investments that have been funded through 6/30/2013 as well as \$73.9 million in interim exposure managed by Russell.
- 2 TA Realty Fund X was funded 3/11/2013.

#### Page 31

- 1 San Jose Custom Hedge Fund Index comprised of 80% Russell Hedge Index, 20% HFRI FoF Comp (1 Mo. Lag) from 1/1/2013 3/31/2013; 60% Russell Hedge Index, 40% HFRI FoF Comp (1 Mo. Lag) from 4/1/2013 6/30/2013.
- 2 Russell Hedge Index comprised of 15% MSCI ACWI, 15% Barclays Capital Global Aggregate (Unhedged), 70% 90 day T-bills. The Russell Hedge Index is being used as a proxy for the Fund's allocation to hedge funds while searches are completed to fill the 10% target allocation.

#### Page 33

- 1 GMO and PIMCO were funded on 1/22/2013 and Standard Life was funded on 1/30/2013. Inception date for performance reporting purposes is February 1, 2013.
- 2 NEPC began calculated cash returns as of April 1, 2008 due to inconsistent historical data received from the Fund's prior investment consultant.

#### Page 37

- 1 Total Equity Composite market value includes \$809,484 of residual assets remaining in the equity transition account and terminated manager accounts.
- 2 Global Equity Composite market value includes \$522,181 of residual assets remaining in the equity transition account and terminated manager accounts. Inception date for performance shown is March 1, 2013 to be consistent with the inception of the global equity portfolio managed by Artisan. Historically, the global equity composite was comprised of the MSCI ACWI and MSCI ACWI Value mandates that were managed by Russell from November 2011 November 2012. Performance of the global equity composite and underlying managers is included in the performance of the Total Fund from December 2012 February 2013.
- 3 Artisan Global Value portfolio was funded 2/22/2013. Inception date for performance reporting purposes is March 1, 2013.
- 4 Artisan Global Opportunities portfolio was funded 4/30/2013. Inception date for performance reporting purposes is May 1, 2013.
- 5 U.S. Equity Composite market value includes \$5,623 of residual assets remaining in terminated manager accounts.
- 6 Russell 1000 Index portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.

#### Page 38

- 1 International Equity Composite market value includes \$281,680 of residual assets remaining in terminated manager accounts.
- 2 Developed International Equity Composite market value includes \$281,680 of residual assets remaining in terminated manager accounts.
- 3 MSCI EAFE + CAD portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.
- 4 Vontobel Emerging Markets Equity and Aberdeen Frontier Markets Equity were funded on June 30, 2013.
- 5 Total Private Equity Composite includes investments that have been funded through 6/30/2013 as well as \$113.2 million in interim exposure managed by Russell.

#### Page 39

- 1 Total Fixed Income Composite market value includes \$4,947 of residual assets remaining in the fixed income transition account and terminated manager accounts.
- 2 BC Global Agg ex-U.S. exposure is captured within the overlay account. Inception date for performance reporting purposes is January 1, 2013.
- 3 Total Credit and Domestic Credit Composite market value includes \$4,947 of residual assets remaining in terminated manager accounts.
- 4 Blended Domestic Credit Index comprised of 50% DLJ Leveraged Loan Index/50% BofA ML U.S. HY BB-B through 11/30/2012; Barclays Capital High Yield Index thereafter.
- 5 Barclays Capital High Yield portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.
- 6 Effective 12/1/2012, the Fund's allocation to direct lending strategies will be included in the Total Credit and Opportunistic Credit Composites.



# Additional Performance Disclosures and Footnote Details

#### Page 40

- 1 Effective 12/1/2012, the Fund's allocation to direct lending strategies will be included in the Total Credit and Opportunistic Credit Composites.
- 2 Marathon performance is reported net of fees.
- 3 JP Morgan EMBI + portfolio was funded 12/12/2012. Inception date for performance reporting purposes is January 1, 2013.

#### Page 41

- 1 Total Real Estate Composite includes investments that have been funded through 6/30/2013 as well as \$73.9 million in interim exposure managed by Russell.
- 2 TA Realty Fund X was funded 3/11/2013.



# **Appendix: Market Environment**



# Investment Market Update: As of June 30, 2013

Domestic Equity Benchmarks		Qtr.	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u> 10 Yr.</u>
Large Core	S&P 500	2.9%	20.6%	18.5%	7.0%	7.3%
Small Core	Russell 2000	3.1%	24.2%	18.7%	8.8%	9.5%
Small Growth	Russell 2000 Growth	3.7%	23.7%	20.0%	8.9%	9.6%
Small Value	Russell 2000 Value	2.5%	24.8%	17.3%	8.6%	9.3%
Large Core	Russell 1000	2.7%	21.2%	18.6%	7.1%	7.7%
Large Growth	Russell 1000 Growth	2.1%	17.1%	18.7%	7.5%	7.4%
Large Value	Russell 1000 Value	3.2%	25.3%	18.5%	6.7%	7.8%
Mid Core	S&P Mid Cap 400	1.0%	25.2%	19.5%	8.9%	10.7%
REIT	NAREIT Composite	2.3%	25.6%	19.6%	9.2%	10.3%
Int'l Equity Benchmarks		<u> Otr.</u>	<u> 1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	10 Yr.
International Developed	MSCI EAFE	-1.0%	18.6%	10.0%	-0.6%	7.7%
Emerging Equity	MSCI EM	-8.1%	2.9%	3.4%	-0.4%	13.7%
Small Cap Int'l	S&P EPAC SmallCap	-2.0%	20.6%	12.0%	1.8%	10.8%
World ex-US	MSCI ACWI ex-US	-3.1%	13.6%	8.0%	-0.8%	8.6%
Domestic FI Benchmarks		<u>Otr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u> 10 Yr.</u>
Core Bonds	Barclays Aggregate	-2.3%	-0.7%	3.5%	5.2%	4.5%
Municipal Bond	Barclays Municipal	-3.0%	0.2%	4.5%	5.3%	4.4%
High Yield	Barclays US High Yield	-1.4%	9.5%	10.7%	10.9%	8.9%
Intermediate Gov/Cred	Barclays Interm. Gov/Credit	-1.7%	0.3%	3.1%	4.6%	4.0%
Long Gov/Credit	Barclays Long Gov/Credit	-6.1%	-4.7%	7.0%	8.5%	6.2%
Long Credit	Barclays Long Credit	-6.3%	-2.0%	7.6%	9.2%	6.2%
Long Treasuries	Barclays US 20+ Yr Treas	-5.8%	-9.3%	6.4%	7.6%	6.2%
Cash	BofA ML US 3-Month T-Bill	0.0%	0.1%	0.1%	0.3%	1.7%
Inflation	Barclays US TIPS 1-10 Yr	-5.5%	-3.1%	3.4%	3.3%	4.5%
Global Inflation	Barclays Global ILB	-5.8%	-1.1%	6.1%	2.5%	5.7%
STRIPS	Barclays 20+ Yr STRIPS	-7.6%	-14.5%	8.8%	10.2%	N/A
Global FI Benchmarks		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u> 10 Yr.</u>
World Gov. Bonds	Citigroup WGBI	-3.0%	-4.5%	2.7%	3.0%	4.7%
Em. Mkt. Bonds (Local)	JPM GBI-EM Glob. Div.	-7.0%	1.3%	6.0%	6.7%	10.3%
Diversified Benchmark		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u> 10 Yr.</u>
Diversified	Diversified*	0.1%	13.3%	12.2%	5.7%	7.2%
Alternative Benchmarks		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u> 10 Yr.</u>
Commodities	DJ UBS Commodity Index	-9.5%	-8.0%	-0.3%	-11.6%	2.4%
Fund of Funds	HFRI Fund of Funds	0.0%	7.2%	3.0%	-0.6%	3.4%
Hedge Fund	DJCS HF Composite	0.1%	9.2%	6.3%	2.9%	6.5%
Hedge Fund	DJCS Equity Market Neutral	2.0%	5.1%	4.0%	-8.5%	-0.5%
Hedge Fund	DJCS Event Driven	2.1%	14.5%	6.0%	4.0%	7.8%
Hedge Fund	DJCS Long-Short	1.8%	13.3%	6.6%	2.5%	6.9%
Real Estate	NCREIF Property Index**	2.6%	10.5%	13.3%	2.3%	8.5%

<sup>\* 35%</sup> LC, 10% SC, 12% Int'l, 3% Emerging, 25% FI, 5% HY, 5% Global FI, 5% REITS

\*\*As of 3/31/2013



# Investment Market Update: As of June 30, 2013

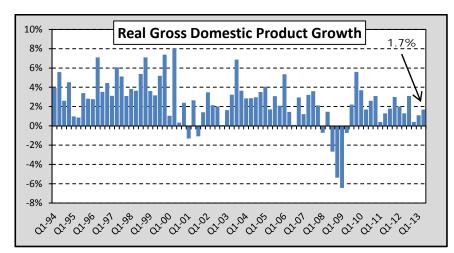
#### PERFORMANCE THROUGH 6/30/2013

<u>Sector</u>	<u>Index</u>	2008	2009	<u>2010</u>	<u>2011</u>	2012	<u>Q1</u>	<u>APR</u>	MAY	<u>JUN</u>	<u>Q2</u>	<u>2013</u>
Small Cap Growth	Russell 2000 Growth	-38.5%	34.5%	29.1%	-2.9%	14.6%	13.2%	-0.7%	5.1%	-0.6%	3.7%	17.4%
Large Cap Value	Russell 1000 Value	-36.8%	19.7%	15.5%	0.4%	17.5%	12.3%	1.5%	2.6%	-0.9%	3.2%	15.9%
Small Cap	Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	12.4%	-0.4%	4.0%	-0.5%	3.1%	15.9%
SMID Cap	Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	12.8%	0.3%	3.1%	-1.1%	2.3%	15.4%
Small Cap Value	Russell 2000 Value	-28.9%	20.6%	24.5%	-5.5%	18.1%	11.6%	-0.1%	3.0%	-0.4%	2.5%	14.4%
Large Cap	Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	11.0%	1.8%	2.2%	-1.4%	2.7%	13.9%
Large Cap	S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	10.6%	1.9%	2.3%	-1.3%	2.9%	13.8%
Large Cape Growth	Russell 1000 Growth	-38.4%	37.2%	16.7%	2.6%	15.3%	9.5%	2.1%	1.9%	-1.9%	2.1%	11.8%
Diversified	Diversified*	-24.5%	24.1%	13.5%	1.3%	12.7%	5.9%	2.0%	-0.1%	-1.8%	0.1%	6.1%
REITS	Wilshire US REIT	-39.2%	28.6%	28.6%	9.2%	17.6%	7.4%	6.6%	-5.9%	-1.7%	-1.4%	5.9%
Int'l Developed	MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	5.1%	5.2%	-2.4%	-3.6%	-1.0%	4.1%
High Yield	Barclays US High Yield	-26.2%	58.2%	15.1%	5.0%	15.8%	2.9%	1.8%	-0.6%	-2.6%	-1.4%	1.4%
Govt/Credit	Barclays US Govt/Credit 1-3	5.0%	3.8%	2.8%	1.6%	1.3%	0.2%	0.1%	-0.1%	-0.1%	-0.1%	0.1%
Govt/Credit	Barclays Govt/Credit 1-5 Yr	5.1%	4.6%	4.1%	3.1%	2.2%	0.3%	0.3%	-0.5%	-0.6%	-0.7%	-0.5%
Interm Govt/Credit	Barclays US Govt/Credit Inte	5.1%	5.2%	5.9%	5.8%	3.9%	0.3%	0.6%	-1.1%	-1.2%	-1.7%	-1.4%
Interm Core Bonds	Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	0.2%	0.6%	-1.3%	-1.1%	-1.8%	-1.6%
Core Bonds	Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-0.1%	1.0%	-1.8%	-1.5%	-2.3%	-2.4%
Muni Bonds	Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	0.3%	1.1%	-1.2%	-2.8%	-3.0%	-2.7%
Global Bonds	Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-2.8%	1.1%	-3.4%	-0.6%	-3.0%	-5.7%
EMD External	Barclays EM USD	-14.7%	34.2%	12.8%	7.0%	17.9%	-1.5%	2.0%	-2.7%	-4.5%	-5.1%	-6.5%
EMD Local	JPM GBI EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-0.1%	3.4%	-6.3%	-4.1%	-7.0%	-7.2%
Long Govt/Credit	Barclays US Govt/Credit Long	8.4%	1.9%	10.2%	22.5%	8.8%	-2.0%	3.9%	-5.4%	-4.5%	-6.1%	-8.0%
Long Credit	Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-1.8%	4.0%	-4.9%	-5.3%	-6.3%	-8.0%
Emerging Equities	MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-1.6%	0.8%	-2.6%	-6.4%	-8.1%	-9.6%
Commodities	DJ UBS Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-1.1%	-2.8%	-2.2%	-4.7%	-9.5%	-10.5%
Treasury STRIPS	Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-5.4%	7.2%	-10.0%	-4.2%	-7.6%	-12.6%

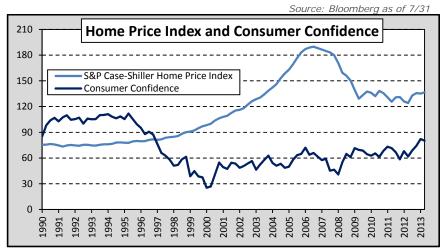
\* 35% LC, 10% SC, 12% Intl Equity, 3% Emerging Equity, 25% Core Bonds, 5% HY, 5% Global Bonds, 5% REITS Sources: Barclays, Bloomberg, Wilshire



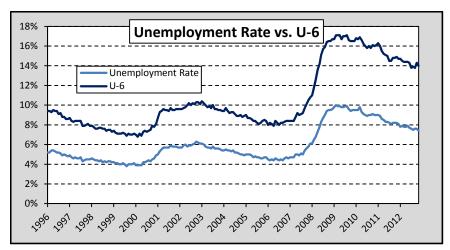
### **US Economic Environment**



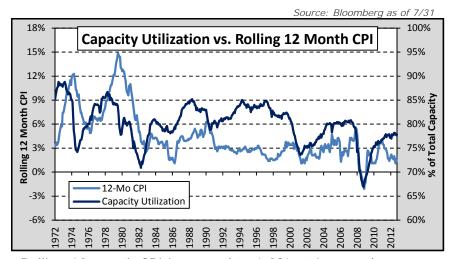
GDP growth accelerated in the second quarter, with initial estimates at 1.7%



Consumer receded slightly to 80.3 in July; the Case-Shiller home price index (as of 3/31) rose slightly through March



Unemployment fell to 7.4% in July; U-6 also decreased, to 14.0%

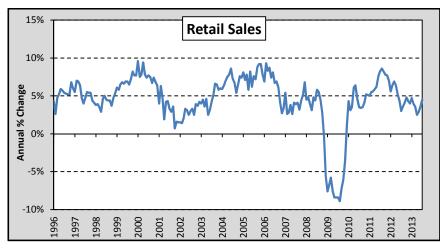


Rolling 12 month CPI increased to 1.8% at June end; capacity utilization increased to 77.8% in the month

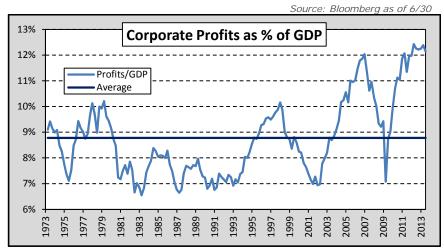
Source: Bloomberg as of 7/31



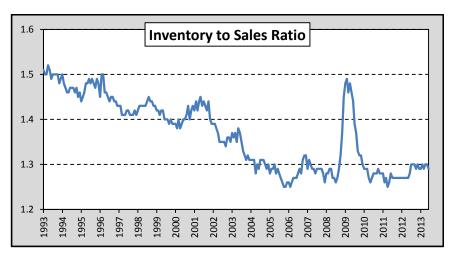
### Components of GDP



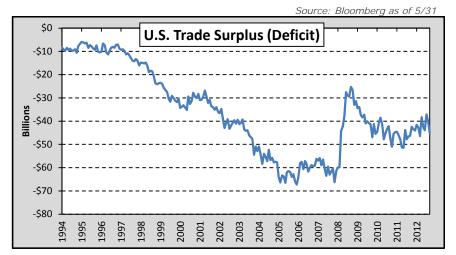
Retail sales rose to a 4.5% year-over-year growth rate in June



Corporate Profits as a percent of GDP fell slightly but remained near secular highs at 12.1% at Q2 end



The inventory-to-sales ratio has remained mostly flat since early 2010 and closed at 1.29 in May

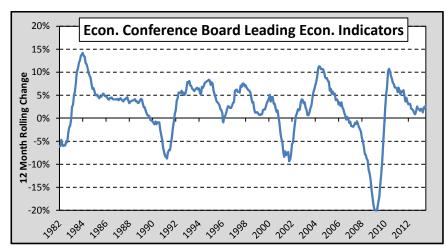


The trade deficit increased through May

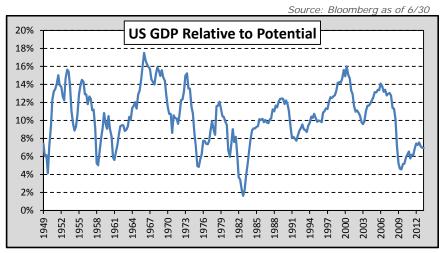




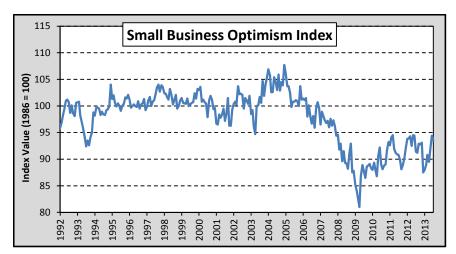
### Key Economic Indicators



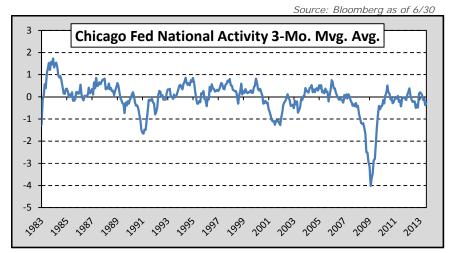
The rolling percentage change in the Leading Economic Indicators index rose to 2.8% through June



US GDP relative to potential GDP fell slightly through Q1 and remains near historic lows



The small business optimism index decreased slightly to 93.5 through June, still up from 88.0 at year end

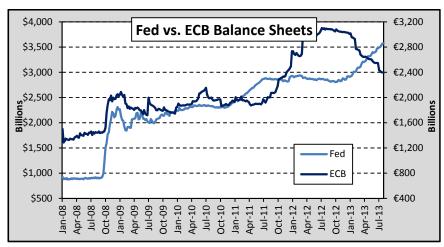


Chicago Fed National Activity 3 Month moving average remained negative through June

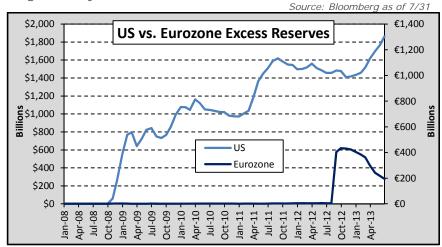
Source: Bureau of Economic Analysis, Congressional Budget Office as of 4/1



### Economic Environment – Monetary Policy and Banks

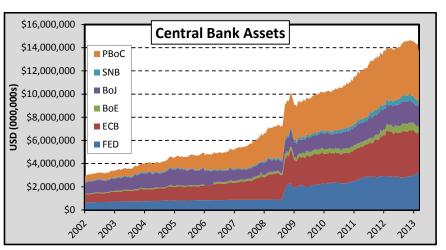


Federal Reserve Bank balance sheets have increased in 2013 while European Central Bank balance sheets have decreased significantly

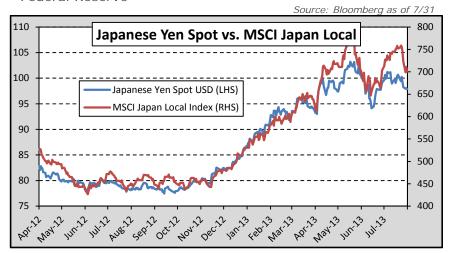


After more dramatic movements in 2012 Eurozone excess reserves have steadily decreased as US excess reserves experienced a sharp increase through June

Source: Bloomberg as of 6/30



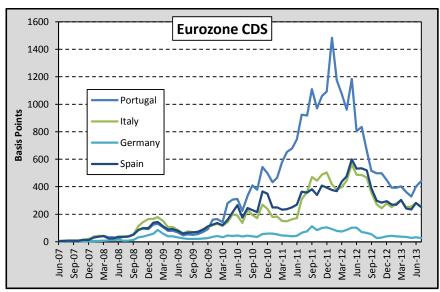
Central bank assets worldwide have risen significantly since 2008 but have experienced a recent slowdown outside of the Federal Reserve

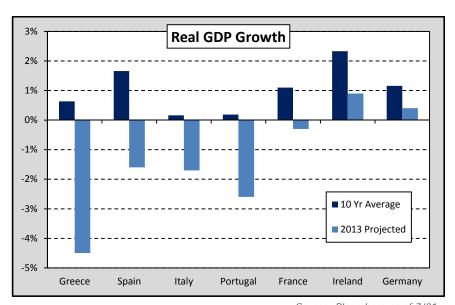


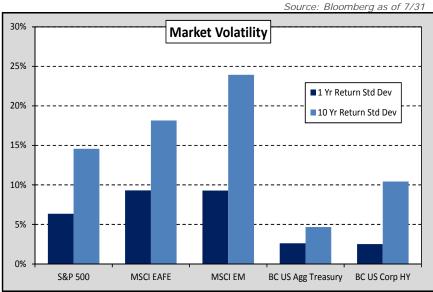
The Japanese Yen has weakened 12.8% relative to the US dollar in 2013; while the MSCI Japan TR Net Local Index returned 33.4%

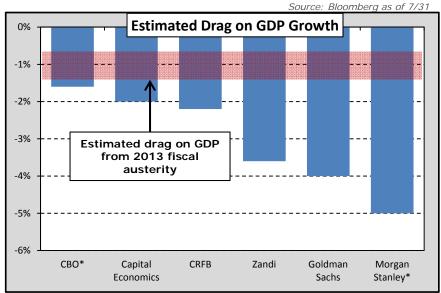


# Looming Macro Uncertainties







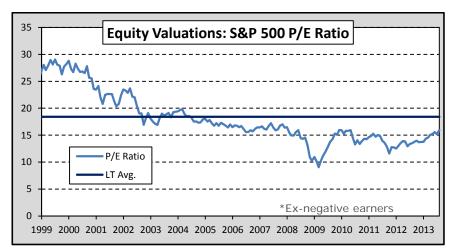


Source: Morningstar as of 6/30

\*Shown as the midpoint of a range; Source: CRFB, Capital Economics



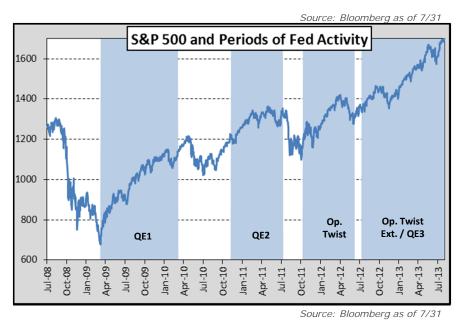
### Market Environment – US Equity



S&P valuations remain below the long-term average



The VIX fell 2.0% and the S&P 500 rose 5.1% in July



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The S&P 500's 50-day moving average remained above its 150-day moving average in July

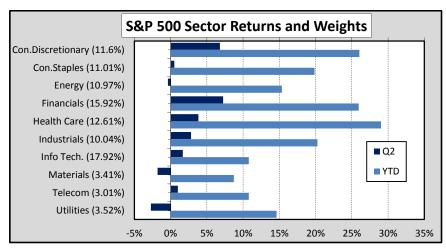
Source: Bloomberg as of 7/31

Source: Bloomberg as of 7/31

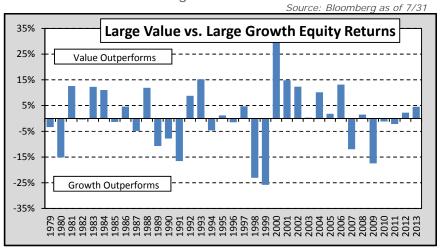


June 30, 2013

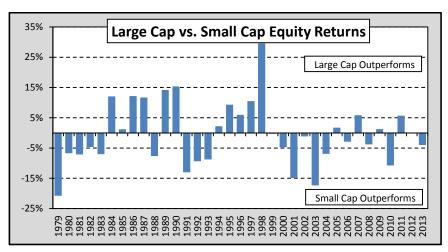
### US Stock Market Performance



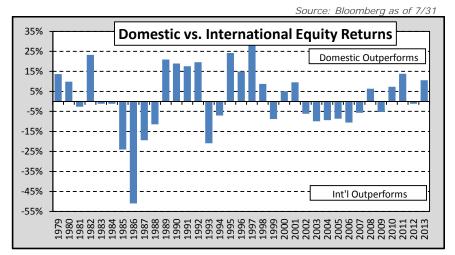
Healthcare lead all sectors through YTD as financials and consumer discretionary posted strong second quarters; Materials continued to lag



Large value stocks have outperformed large growth in 2013



Small cap has outperformed large cap in 2013



Domestic equity has outperformed international equity in 2013

Source: Bloomberg as of 7/31

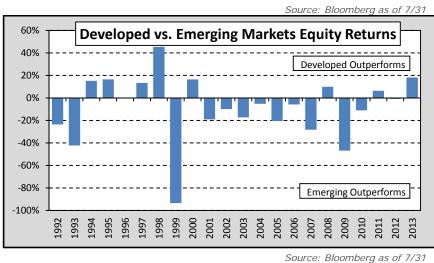


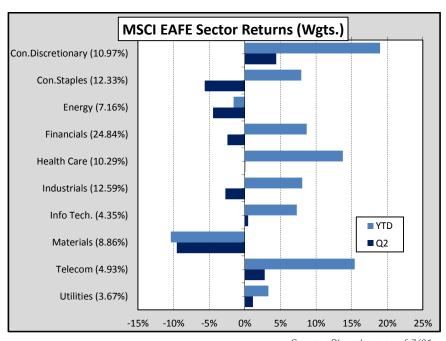
# Non-US Stock Performance

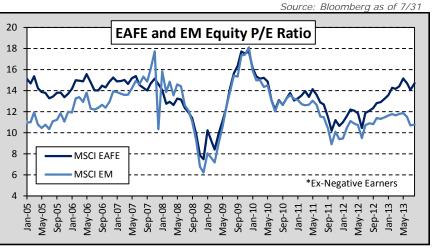
Developed Market E	quity Returns	(U.S. Dollars	<u>)</u>	
	<u>YTD</u>	<u>Q2</u>	<u>1 Yr.</u>	<u> 3 Yr. Ann.</u>
Europe ex UK	8.8%	-1.4%	27.7%	5.5%
United Kingdom	4.5%	-3.3%	13.3%	7.2%
Japan	16.1%	4.2%	23.4%	5.6%
Pacific Ex Japan	-3.5%	-11.9%	4.4%	4.5%
Canada	-2.6%	-8.0%	5.0%	1.5%
USA	18.3%	2.2%	22.5%	17.9%

US Dollar Return vs. Major Foreign Currencies								
(Negative = Dollar Depreciates, Positive = Dollar Appreciates)								
	<u>YTD</u>	<u>Q2</u>	<u>1 Yr.</u>	<u>3 Yr. Ann.</u>				
Euro	-0.8%	-1.5%	-8.1%	-0.6%				
Japanese Yen	11.4%	5.0%	20.2%	3.9%				
British Pound	6.4%	-0.1%	3.0%	1.0%				
Canada	3.5%	3.2%	2.4%	-0.1%				
Australia	13.6%	12.3%	14.5%	0.2%				

Currency Impact on D	kt. Returns			
(Negative = Currency Hurt,				
	<u>YTD</u>	<u>Q2</u>	<u>1 Yr.</u>	<u> 3 Yr. Ann.</u>
MSCI EAFE (Local)	15.7%	1.2%	28.3%	9.6%
MSCI EAFE (USD)	9.6%	-1.0%	23.5%	9.4%
Currency Impact	-6.1%	-2.2%	-4.9%	-0.3%

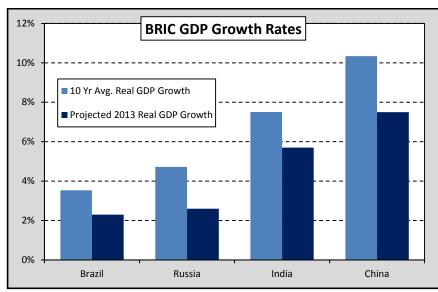








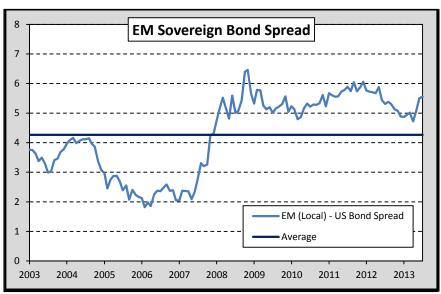
# Emerging Markets



Source: Bloomberg as of 7/31

Emerging Markets Valu	<u>ation</u>	
	MSCI EM	MSCI EM Small Cap
PE Ratio	11.42	20.56
PE Historical Avg	14.54	16.25
PB Ratio	1.45	1.20
Historical Avg	1.54	1.27
PS Ratio	0.97	0.67
Historical Avg	1.12	0.70

- MSCI EM PE Ratio is below its historical average
- MSCI EM PB and PS Ratios are below historical averages
- MSCI EM Small Cap PE Ratio is above its historical average
- MSCI EM Small Cap PB and PS Ratios are below historical averages



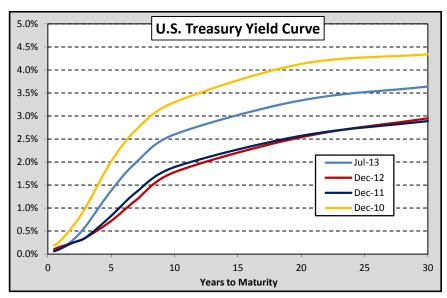
Source: Bloomberg as of 7/31

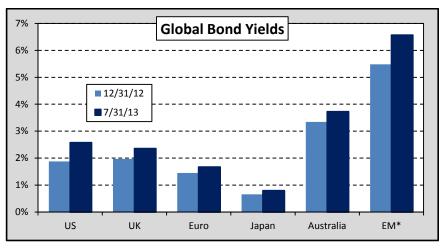
US Dollar Return vs. I	Major EM Cur	rencies		
(Negative = Dollar Deprecia	ates, Positive = I	Dollar Appreciate	es)	
	<u>YTD</u>	<u>Q2</u>	<u>1 Yr.</u>	<u>3 Yr. Ann.</u>
Brazilian Real	9.9%	9.4%	9.6%	7.6%
Russian Ruble	7.3%	5.3%	2.2%	2.8%
Indian Rupee	9.6%	8.7%	8.1%	7.8%
Chinese Renminbi	-1.7%	-1.2%	-3.8%	-3.5%
Singapore Dollar	-0.5%	-0.2%	-0.9%	-0.9%
Hungarian Forint	1.8%	-4.8%	-1.8%	1.1%
Turkish Lira	7.8%	6.2%	7.2%	7.3%
Mexican Peso	-1.0%	4.9%	-4.7%	0.2%
So. African Rand	14.2%	6.6%	16.2%	8.7%
So. Korean Won	5.2%	2.6%	-0.7%	-1.8%



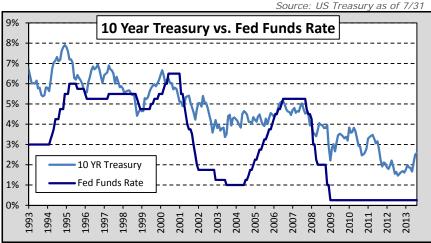


### Market Environment – Interest Rates

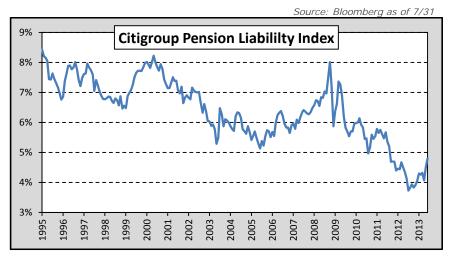




Bond yields across the globe have mostly risen in 2013



Fed Funds rate remained at 0.25% while the 10 Yr. Treasury Yield finished July at 2.6%

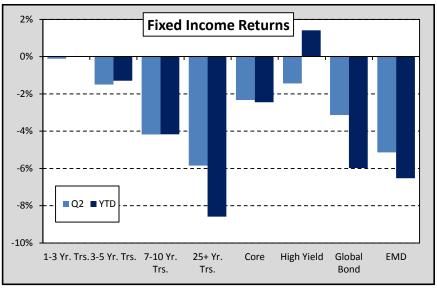


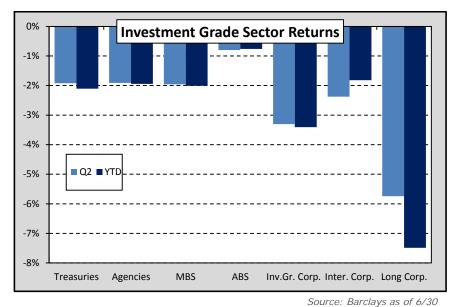
Citi Pension discount rose to 4.8% through July



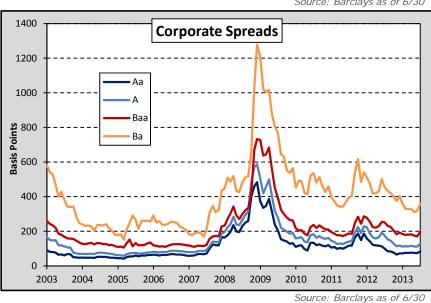


# Fixed Income Performance







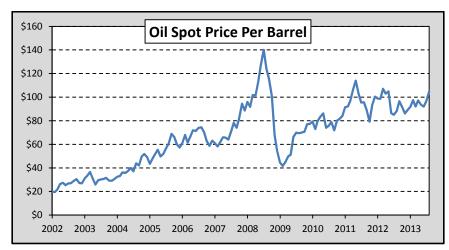


**Global Bond Returns** -2% -4% -6% -8% -10% -12% -14% US WGBI UK Australia JPM EMBI Japan Canada

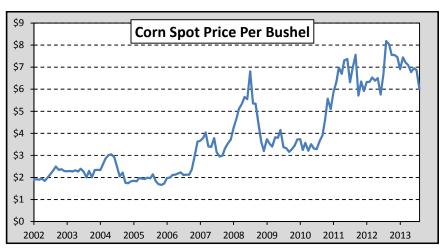
Source: Barclays, Bloomberg as of 6/30



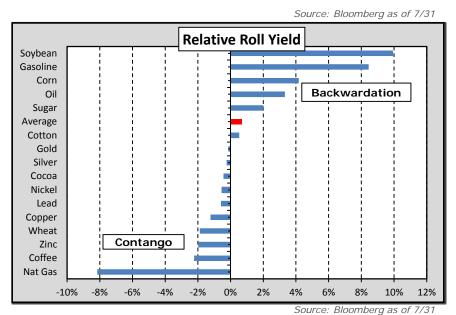
### Market Environment – Commodities







Corn prices finished July down at \$6.01 per bushel



\$2,000 Gold Spot Price Per Ounce
\$1,800
\$1,600
\$1,400
\$1,200
\$1,000
\$1,000
\$400
\$2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

Gold prices finished July at \$1325.25 per ounce



### **Information Disclosure**

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- The Investment Performance Analysis (IPA) is provided as a management aid for the client's internal use only. Portfolio performance reported in the IPA does not constitute a recommendation by NEPC.
- Information in this report on market indices and security characteristics is received from sources external to NEPC. While efforts are made to ensure that this external data is accurate, NEPC cannot accept responsibility for errors that may occur.