



IMD Performance Review

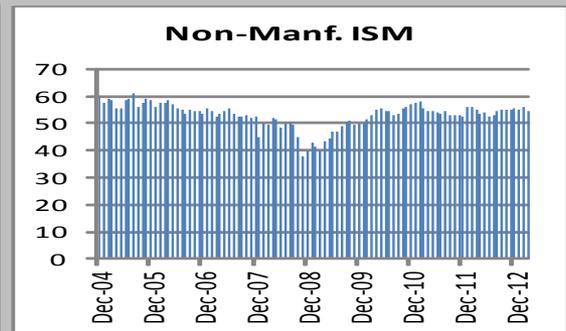
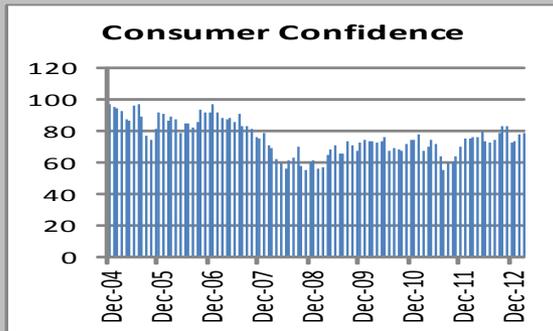
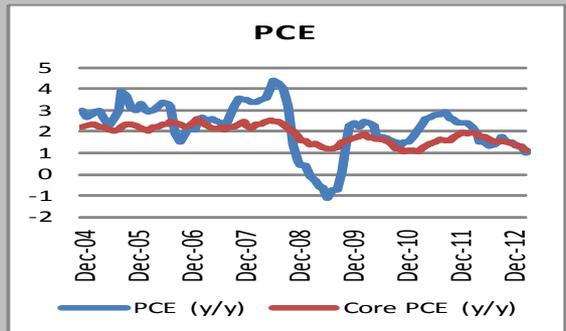
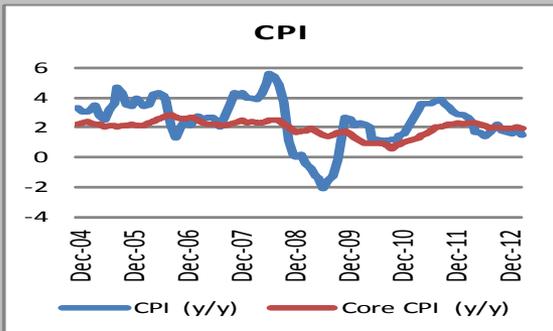
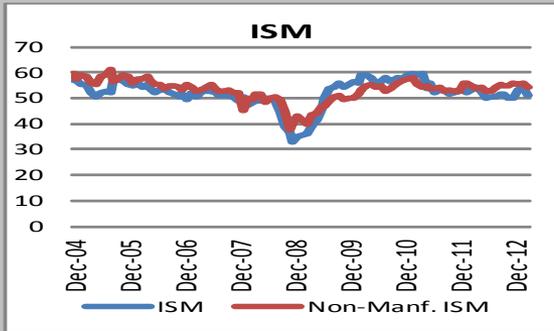
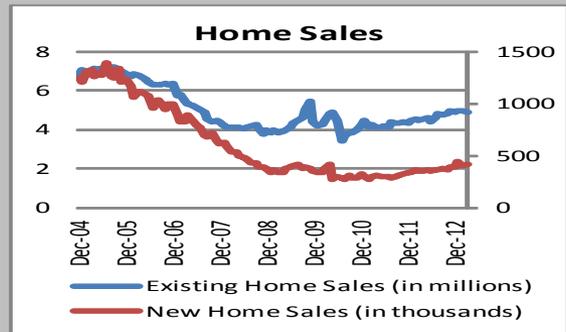
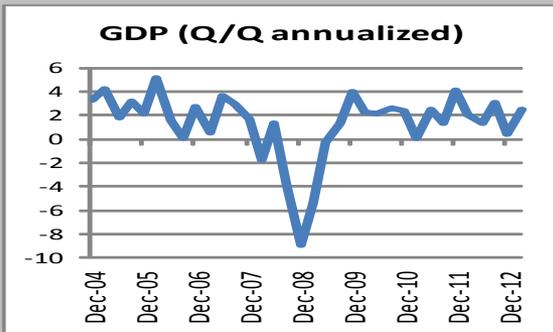
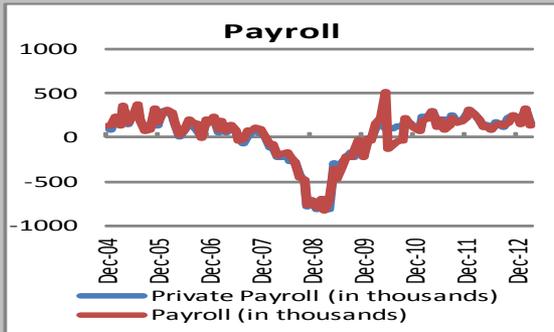
May 29, 2013

Investment Challenges and Opportunities

- Slow global economic growth
- Low global interest rates
- Uncertainty about future inflation
- Uneven availability of debt and equity financing
- High dispersion in results for Winners/Improvers and Losers/Laggards



U.S. Economic Environment

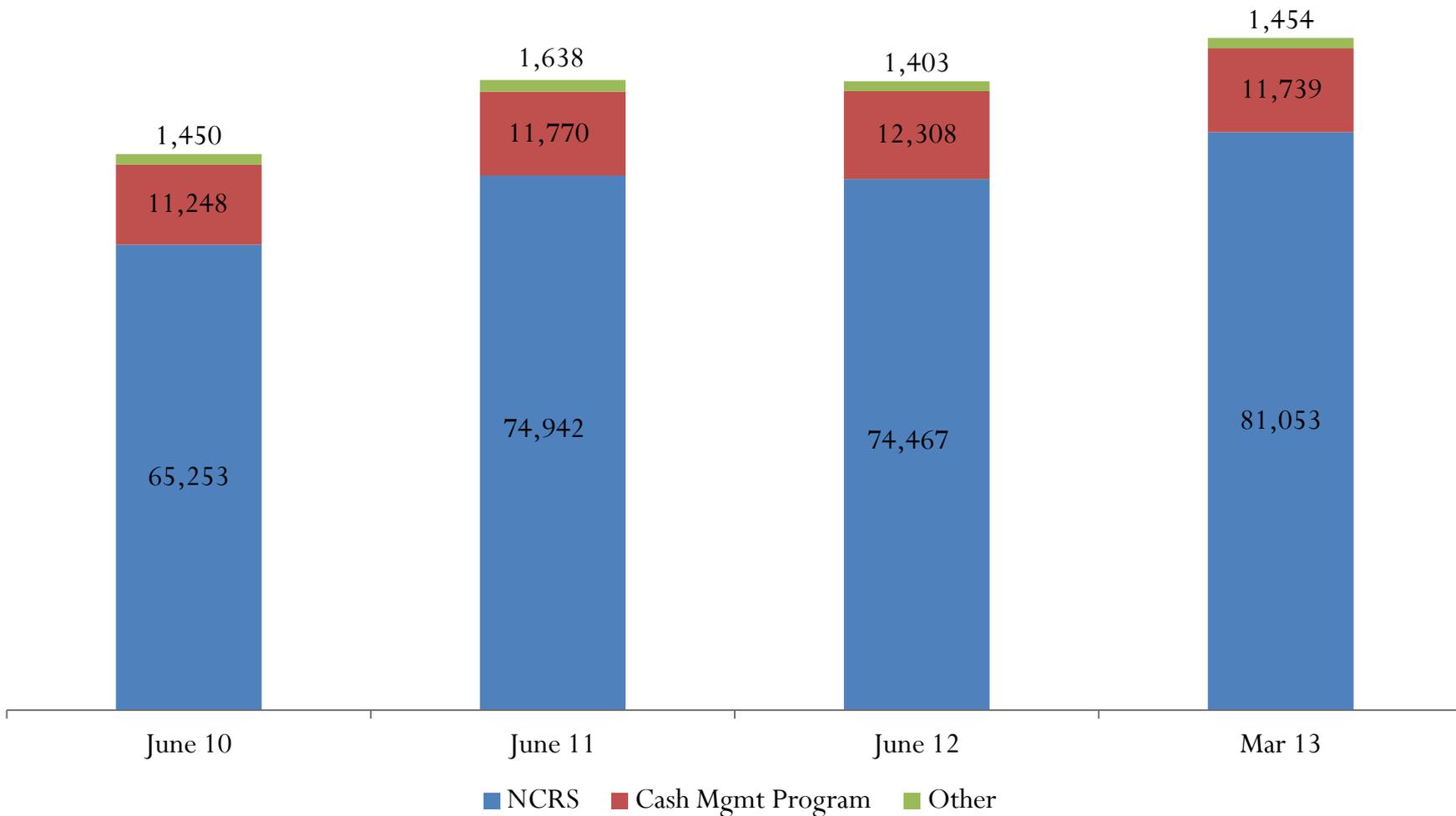


Global Economic Environment

Countries	<u>Real GDP YoY</u>		<u>Unemployment</u>		<u>CPI YoY</u>		Countries	<u>Real GDP YoY</u>		<u>Unemployment</u>		<u>CPI YoY</u>	
	Date	Value	Date	Value	Date	Value		Date	Value	Date	Value	Date	Value
U.S.	03/13	1.8	03/13	7.6	03/13	1.5	Asia/Pacific/Latam						
Europe							China	03/13	7.7			03/13	2.1
Germany	12/12	0.4	03/13	6.9	03/13	1.4	India	12/12	4.5			03/13	11.44
France	12/12	-0.3	03/13	11	03/13	1	Japan	12/12	0.5	03/13	4.1	03/13	-0.9
U.K.	03/13	0.6	02/13	7.9	03/13	2.8	Indonesia	12/12	6.11			03/13	5.9
Italy	12/12	-2.8	03/13	11.5	03/13	1.6	Brazil	12/12	1.38			03/13	6.59
Spain	03/13	-2	03/13	26.7	03/13	2.4	Australia	12/12	3.1	03/13	5.6	03/13	2.5



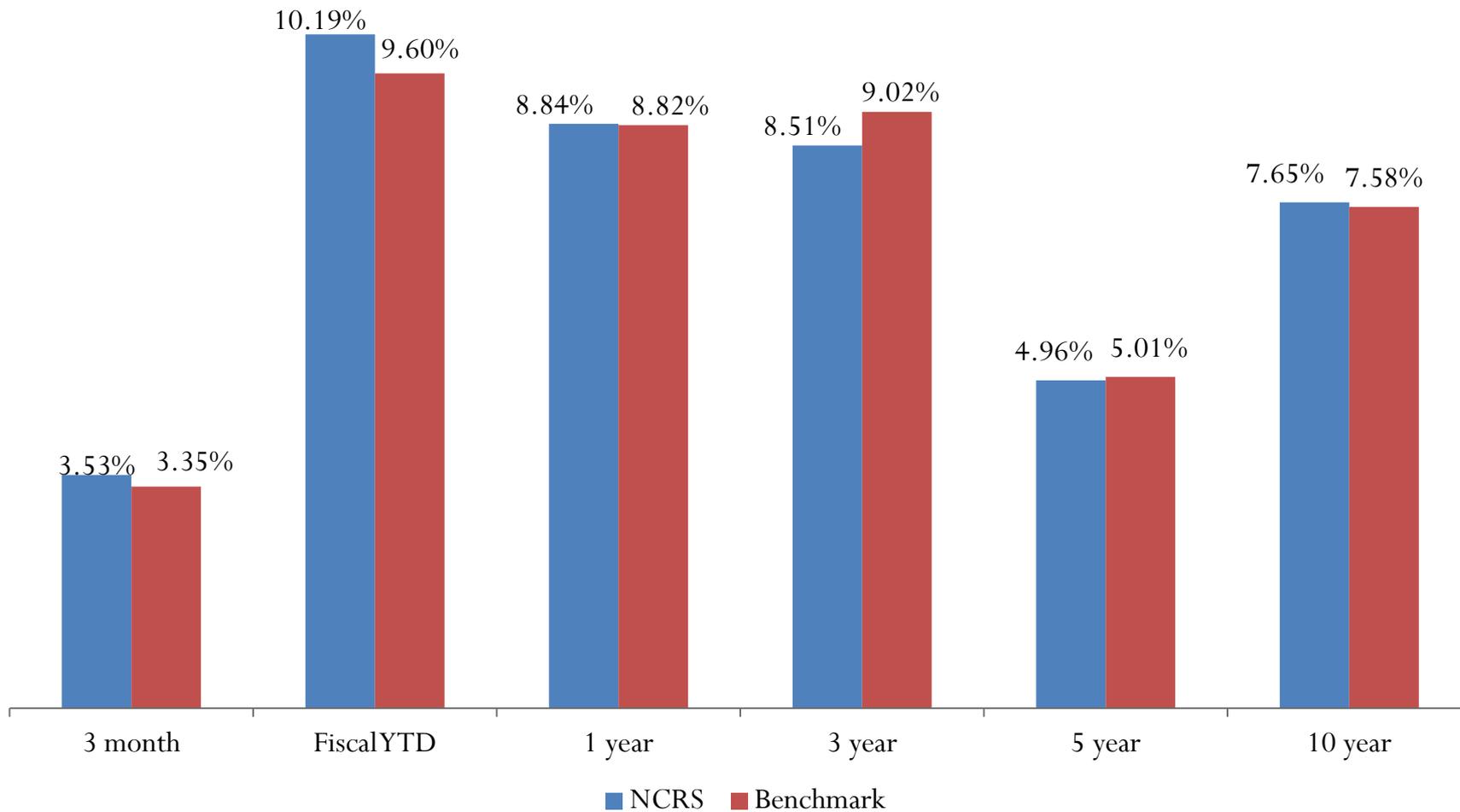
Investment Management Division Assets Under Management (\$mil)
\$94.25 Billion as of March 31, 2013



NCRS Asset Allocation as of March 31, 2013

	Market Value	Current	Strategic Target	Transitional Target
Global Equity	\$37,250,038,177	45.96%	40.50%	44.04%
Total Fixed Income	\$27,869,581,356	34.38%	36.00%	36.30%
LTIF	\$26,989,042,101	33.30%		
Real Estate	\$6,237,504,361	7.70%	8.00%	7.70%
Alternatives	\$3,821,162,883	4.71%	6.50%	4.71%
Private Equity	\$3,552,884,410	4.38%		
Hedge Funds	\$268,278,473	0.33%		
Credit	\$3,239,630,724	4.00%	4.50%	4.00%
<u>Inflation</u>	<u>\$2,635,522,624</u>	<u>3.25%</u>	<u>4.50%</u>	<u>3.25%</u>
Total Fund	\$81,053,440,125	100.00%	100.00%	100.00%

NCRS Total Net Portfolio Return vs. Benchmark as of March 31, 2013



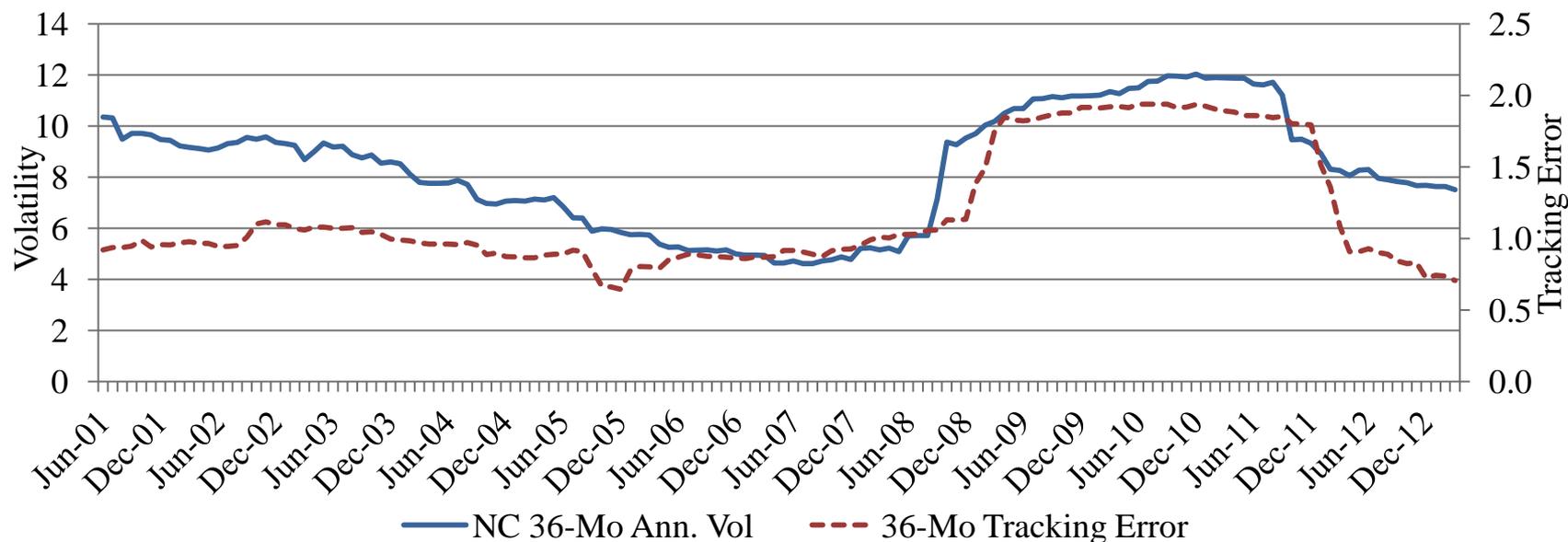
NCRS Net Return Attribution
Contribution to Total Fund Performance vs. Benchmark

	3 months	1 Year	3 Years	5 Years
Global Equity	0.09	0.01	-0.01	0.22
Fixed Income	0.09	0.19	-0.08	0.23
Real Estate	-0.01	-0.30	-0.33	-0.33
Private Equity	-0.09	-0.36	-0.25	-0.21
Hedge Funds	0.00	0.00	0.01	-0.05
Credit Strategies	0.12	0.54	0.23	0.13
Inflation Portfolio	-0.02	-0.06	-0.08	-0.05
Total NCRS	0.18	0.02	-0.51	-0.05

NCRS Gross of Fees Return and Risk
BNY Mellon Universe - Public Funds > \$1B

Returns	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>10 Years</u>
25th percentile	11.23	10.23	5.98	9.17
Median	10.32	9.62	5.09	8.41
75th percentile	9.55	8.69	4.31	7.74
NCRS	9.30	8.95	5.40	7.96
Percentile Rank	83	70	33	65
Risk	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>10 Years</u>
25th percentile	6.77	9.83	12.87	10.43
Median	5.99	8.96	12.17	9.75
75th percentile	5.00	7.80	11.08	9.01
NCRS	5.00	7.52	10.23	8.30
Percentile Rank	75	79	82	90

NCRS Rolling 3 Year Total Fund Volatility & Tracking Error as of March 31, 2013



NCRS Risk and Return Metrics as of March 31, 2013

Program	POSITION		36-MONTH					60-MONTH				
	\$ Bil	% Wgt	Return	St. Dev	Active Return	TE	IR	Return	St. Dev	Active Return	TE	IR
Global Equity	37.3	46.0	8.8	16.7	0.1	0.6	0.2	3.7	20.4	0.6	1.1	0.5
Fixed Income	27.9	34.4	8.3	3.6	0.0	0.9	0.0	7.8	5.5	0.6	1.0	0.6
Real Estate	6.2	7.7	9.6	3.5	-5.0	5.0	-1.0	-5.2	7.9	-5.0	7.3	-0.7
Private Equity	3.6	4.4	8.4	3.3	-5.4	11.5	-0.5	2.6	6.0	-2.1	17.2	-0.1
Hedged Strategies	0.3	0.3	1.8	3.8	-0.8	3.3	-0.2	-0.8	7.1	-4.2	7.1	-0.6
Credit Strategies	3.2	4.0	11.1	4.3	7.8	4.4	1.8	--	--	--	--	--
Inflation Portfolio	2.6	3.3	-8.5	16.1	-7.7	12.6	-0.6	--	--	--	--	--
Total NCRS	81.1	100.0	8.5	7.5	-0.5	0.7	-0.7	5.0	10.2	-0.1	1.5	0.0

Note: Active Return= Net Managed less benchmark returns; TE=Tracking Error; IR = Information Ratio

NCRS Liquidity Profile as of March 31, 2013

Invested

31-Mar-13	Global Equity	Credit Portfolio	Inflation Portfolio	Hedge Fund Portfolio	Private Equity	Real Estate	Fixed Income	TOTAL	Allocation
Level 1	\$36,248,902,562	\$376,001,589	\$1,136,618,403	-	\$74,385,195	\$583,255,450	\$27,869,581,356	\$66,288,744,554	81.8%
Level 2	\$1,001,135,616	\$1,165,938,251	\$684,572,577	-	-	\$836,315,328	-	\$3,687,961,772	4.6%
Level 3	-	\$880,579,993	-	\$247,674,377	\$184,678,712	-	-	\$1,312,933,082	1.6%
Level 4	-	\$817,110,890	\$814,331,644	\$20,604,096	\$3,293,820,504	\$4,817,933,583	-	\$9,763,800,717	12.0%
TOTAL	\$37,250,038,178	\$3,239,630,724	\$2,635,522,624	\$268,278,473	\$3,552,884,410	\$6,237,504,361	\$27,869,581,356	\$81,053,440,125	

Invested-Unfunded

31-Mar-13	Global Equity	Credit Portfolio	Inflation Portfolio	Hedge Fund Portfolio	Private Equity	Real Estate	Fixed Income	TOTAL	Allocation
Level 1	\$33,345,076,850	\$376,001,589	\$1,136,618,403	-	\$74,385,195	\$583,255,450	\$25,605,387,873	\$61,120,725,359	75.4%
Level 2	\$1,001,135,616	\$1,165,938,251	\$684,572,577	-	-	\$836,315,328	-	\$3,687,961,772	4.6%
Level 3	-	\$880,579,993	-	\$247,674,377	\$184,678,712	-	-	\$1,312,933,082	1.6%
Level 4	-	\$1,170,313,741	\$1,741,193,788	\$20,604,096	\$4,917,581,221	\$7,082,127,066	-	\$14,931,819,912	18.4%
TOTAL	\$34,346,212,466	\$3,592,833,575	\$3,562,384,768	\$268,278,473	\$5,176,645,127	\$8,501,697,844	\$25,605,387,873	\$81,053,440,125	

The Liquidity Level defines the level of liquidity for each investment.

Level 1: Highly liquid (T+3 or less)

Level 2: Separate or Commingled Funds with Monthly, Quarterly or Semi-Annual redemption period

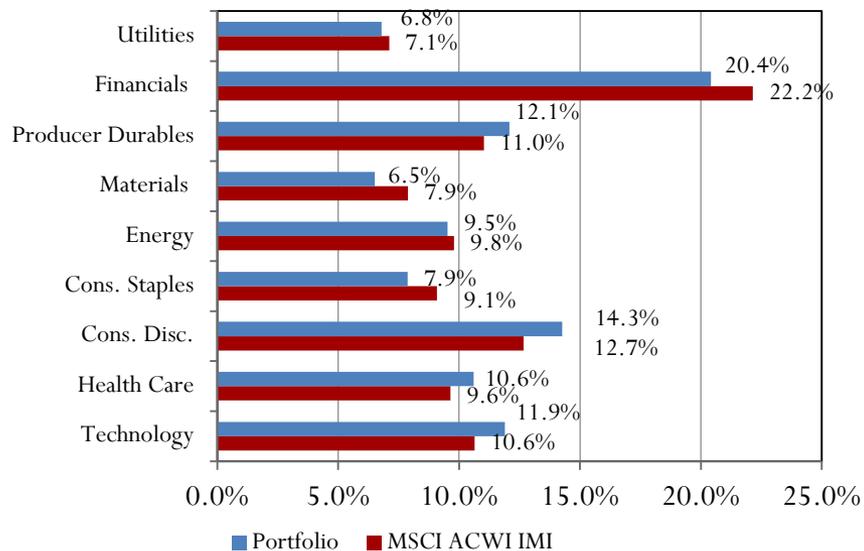
Level 3: Annual to 24 month redemption period

Level 4: Illiquid (> 24 month redemption period)

NCRS Global Equity Net Performance as of March 31, 2013

	3 Month	1 Year	3 Years	5 Years	10 Years
Global Equity	7.13	11.45	8.76	3.70	8.71
Custom Equity Benchmark ¹	6.93	11.47	8.65	3.13	8.25
Domestic Portfolio	11.12	13.70	12.80	6.70	9.41
Russell 3000	11.07	14.56	12.97	6.32	9.15
Non-US Portfolio	3.63	8.92	4.19	(0.48)	10.46
Custom Non-US Benchmark ²	3.57	8.62	4.16	(1.07)	9.59
Global Portfolio	9.49	15.19	10.24	4.67	-
MSCI ACWI	6.50	10.55	7.78	2.06	9.36
Equity Rebalance	6.47	11.93	-	-	-
Rebalance Custom Benchmark ³	7.18	11.55	-	-	-
Equity Hedge	2.27	-	-	-	-
Equity Hedge Custom Benchmark ⁴	1.91	-	-	-	-

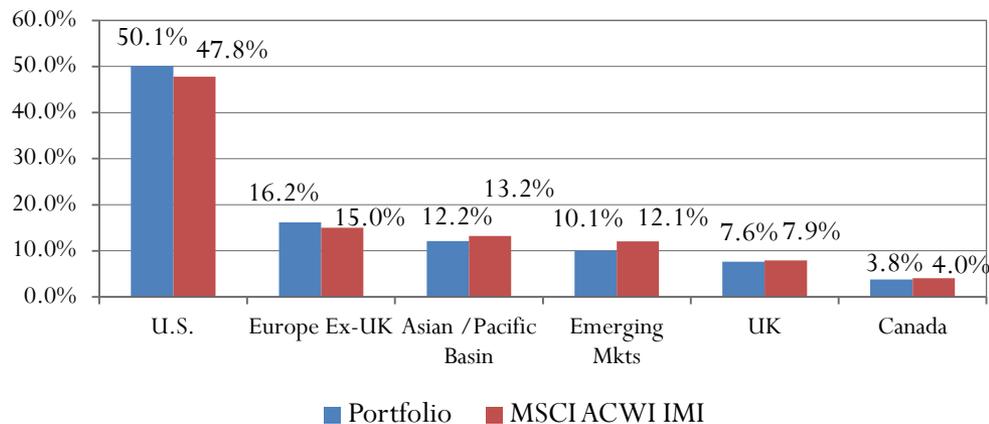
Total Equity Sector Allocation



Portfolio Characteristics

	Portfolio	MSCI ACWI IMI
Price/Earnings	17.3	17.2
Dividend Yield (%)	2.41	2.56
Price/Book	1.88	1.87
Debt/Equity	0.82	0.86
Market Cap (\$ Weighted Median)	27,937	30,157
Return on Equity – 1 Year	15.4	15.7

Total Equity Regional Allocation



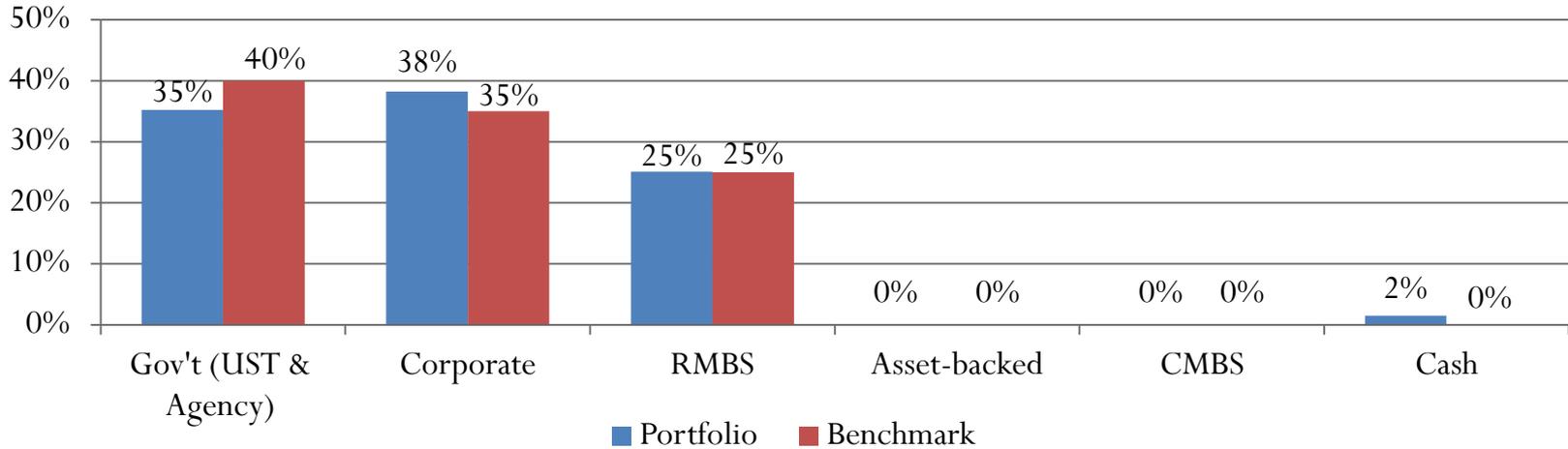
NCRS Fixed Income Net Performance as of March 31, 2013

	3 Month	1 Year	3 Years	5 Years	10 Years
Total Fixed Income	(0.25)	6.51	8.29	7.81	6.46
ML Custom Benchmark ⁵	(0.51)	5.97	8.29	7.22	6.13
Core Fixed Income	(0.25)	6.43	8.43	7.81	6.51
Non-Core Fixed Income	(0.44)	11.06	8.91	9.64	-
ML Custom Benchmark ⁵	(0.51)	5.97	8.29	7.22	6.13

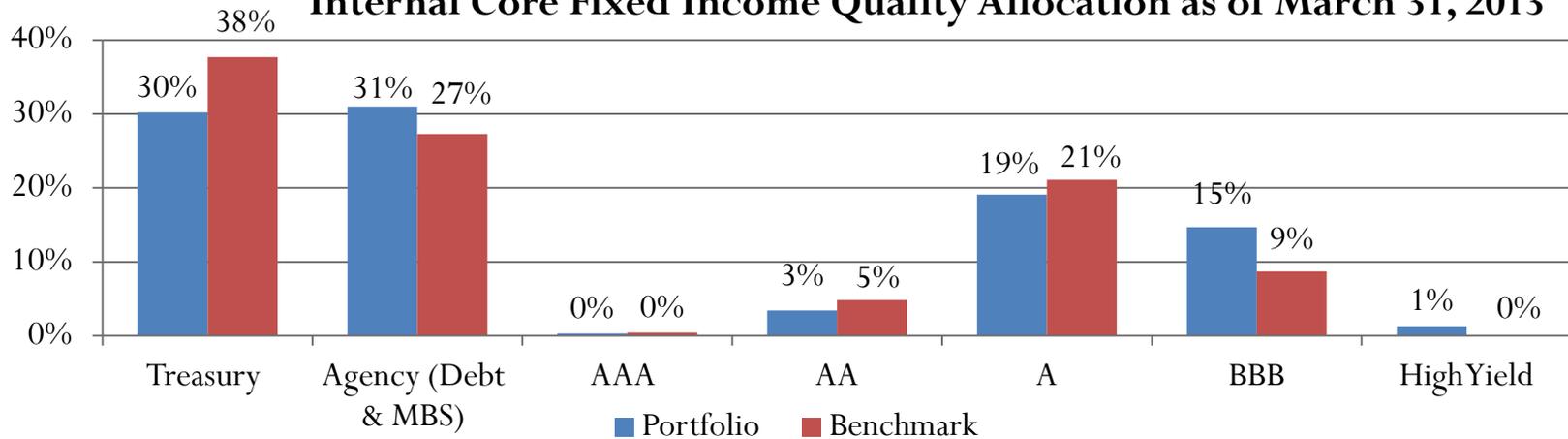
Internal Core Fixed Income Portfolio Characteristics as of March 31, 2013

	<u>Avg. Coupon</u>	<u>Yield to Maturity</u>	<u>Duration</u>
Government (Treasury & Agency)	5.37%	1.68%	8.4
Corporate	5.79%	3.46%	8.9
Mortgage	4.36%	2.04%	3.4
Total	5.27%	2.46%	7.3

Internal Core Fixed Income Sector Allocation as of March 31, 2013



Internal Core Fixed Income Quality Allocation as of March 31, 2013



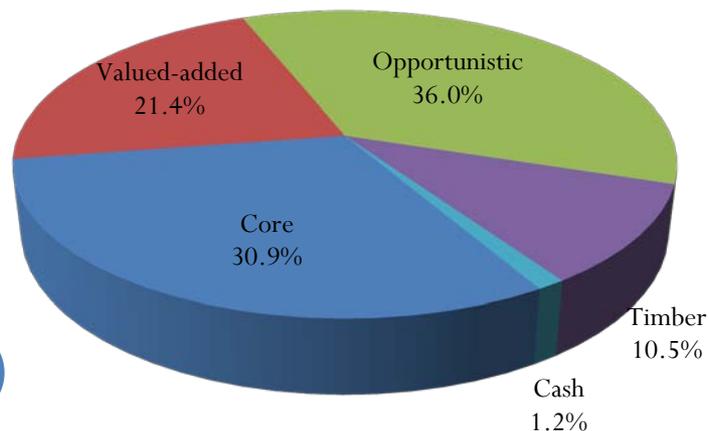
NCRS Real Estate Net Performance as of March 31, 2013

	3 Month	1 Year	3 Years	5 Years	10 Years
Total Real Estate	2.63	8.08	9.57	(5.19)	4.07
Custom Real Estate Benchmark ⁶	2.74	11.96	14.56	(0.22)	6.93
Core Private Real Estate (w/o Timber)	0.94	7.74	9.85	(1.42)	5.58
Value Add Private Real Estate	3.72	10.27	12.62	(3.97)	3.50
Opportunistic Private Real Estate	1.59	5.65	7.95	(10.61)	4.49
Timber	7.28	7.54	(5.12)	(3.29)	11.18
REITS	4.62	18.31	12.90	3.83	-

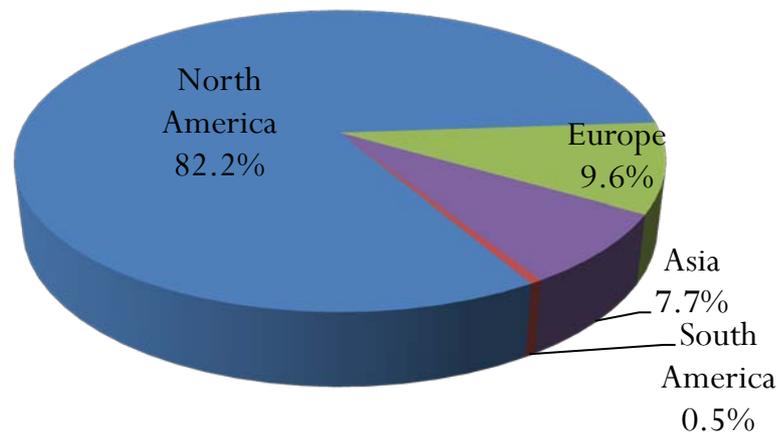
Real Estate IRR by Vintage Year

	<u>Pre-04</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>Total</u>
NCRS	7.69	10.05	-3.37	-3.77	0.79	3.05	6.58	8.54	-10.20	0.00	3.22
Funds	20	4	15	19	13	6	5	8	8	1	99

Strategy Allocation by Value



Geographic Allocation by Value



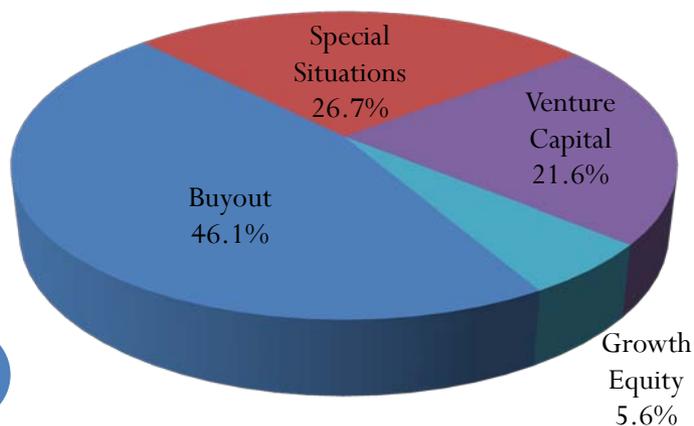
NCRS Alternatives Net Performance as of March 31, 2013

	3 Month	1 Year	3 Years	5 Years	10 Years
Alternatives	1.71	5.11	7.75	2.10	5.53
Custom Alternatives Benchmark ⁷	3.78	12.50	12.36	5.72	7.92
Private Equity	1.64	5.28	8.41	2.58	6.74
Custom Private Equity Benchmark ⁸	3.89	13.16	13.84	4.71	10.27
Hedge Funds	2.58	2.96	1.81	(0.77)	2.87
Custom Hedge Fund Benchmark ⁹	2.40	4.12	2.63	3.45	5.30

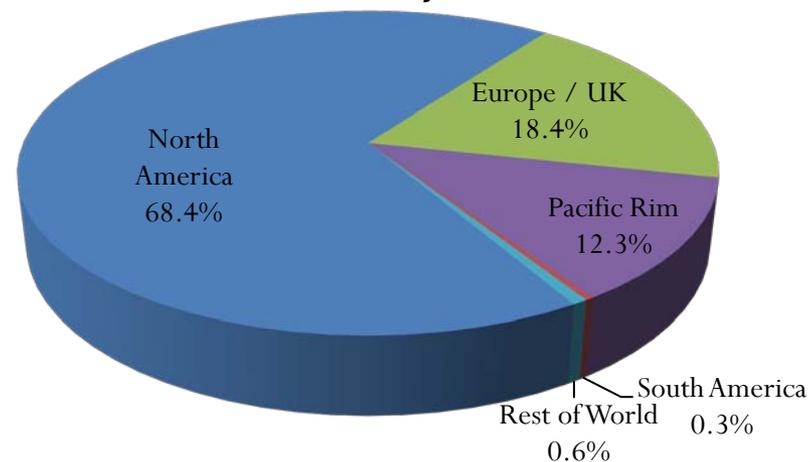
Private Equity IRR by Vintage Year

	<u>Pre-03</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>Total</u>
NCRS	12.58	13.25	6.55	5.12	2.27	4.47	6.08	4.22	8.77	-5.45	-22.94	-19.39	5.63
Funds	26	2	3	11	21	13	17	3	1	4	5	2	108

Private Equity Strategy Allocation by Commitments



Private Equity Geographic Allocation by Value



NCRS Credit Strategies & Inflation Portfolio Net Performance as of March 31, 2013

	3 Month	1 Year	3 Years	5 Years	10 Years
Total Credit Strategies	4.67	15.01	11.07	-	-
Custom Credit Benchmark ¹⁰	1.82	1.77	3.30	-	-
Total Inflation Portfolio	(0.77)	(2.84)	(8.46)	-	-
Custom Inflation Benchmark ¹¹	(0.24)	(1.26)	(0.80)	-	-

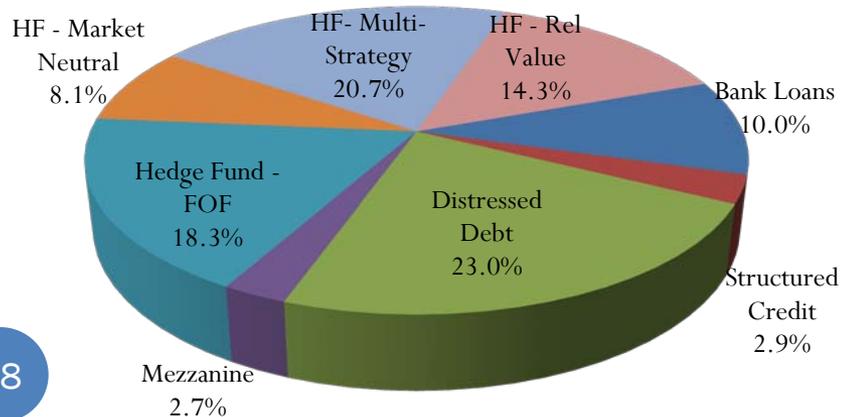
Credit Strategies IRR by Vintage Year

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>Total</u>
NCRS	2.94	14.25	10.68	22.42	12.45	5.31	4.23	0.00	9.55
Funds	1	1	3	1	3	10	2	2	23

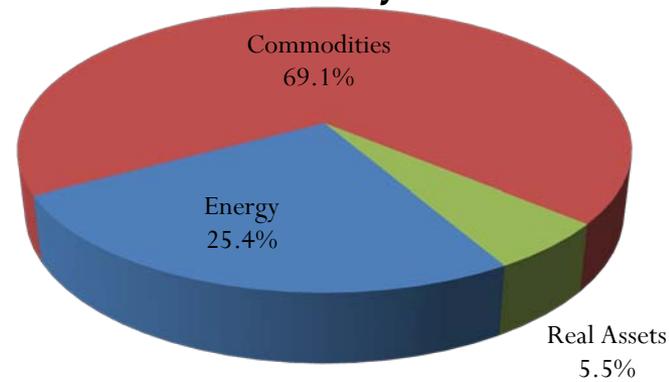
Inflation Portfolio IRR by Vintage Year

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>Total</u>
NCRS	5.17	13.03	13.70	n/a	-5.05	-8.06	9.21	0.00	-3.48
Funds	1	2	2	0	3	9	7	3	27

Credit Strategies Strategy Allocation by Value



Inflation Portfolio Strategy Allocation by Value



New Investments – Calendar Year-to-date

<u>Fund Name</u>	<u>Firm Name</u>	<u>Commitment</u>	<u>Closing Date</u>
<u>Global Equity</u>			
Russell 1000 strategy Emerging Managers	Leading Edge	\$150,000,000	5/3/13
MSCI ACWI ex-U.S. strategy Emerging Managers	FIS Group	\$150,000,000	5/3/13
<u>Private Equity</u>			
Catterton Partners VII	Catterton Partners	\$100,000,000	1/2/13
Milestone Partners IV	Milestone Partners	\$50,000,000	2/8/13
HGCapital 7	HG Capital Partners	£65,000,000	4/2/13
Marlin Equity IV	Marlin Equity Partners	\$49,000,000	4/15/13
<u>Real Estate</u>			
Harrison St. Real Estate Partners IV	Harrison Street Real Estate Capital Partners	\$100,000,000	3/13/13
<u>Credit Strategies</u>			
CVI Credit Value Fund II	CarVal Investors	\$150,000,000	2/1/13
<u>Inflation Portfolio</u>			
North Star Investment Co-Invest	Wood Creek Capital Management	\$15,000,000	3/6/13
MTP Energy Fund	Magnetar Financial	\$125,000,000	3/15/13
MTP Energy Opportunities Fund	Magnetar Financial	\$75,000,000	3/15/13
Lindsay Goldberg III Formation Energy	Lindsay Goldberg	\$10,000,000	5/3/13
<u>Hedge Funds</u>			
None			

Appendix: NCRS Asset Class Net Performance
As of March 31, 2013

	1 Year	3 Years	5 Years	10 Years
Global Equity	11.45%	8.76%	3.70%	8.71%
Benchmark	11.47%	8.65%	3.13%	8.25%
Fixed Income	6.51%	8.29%	7.81%	6.46%
Benchmark	5.97%	8.29%	7.22%	6.13%
Real Estate	8.08%	9.57%	-5.19%	4.07%
Benchmark	11.96%	14.56%	-0.22%	6.93%
Private Equity	5.28%	8.41%	2.58%	6.74%
Benchmark	12.91%	13.76%	4.66%	10.25%
Hedge Funds	2.96%	1.81%	-0.77%	2.87%
Benchmark	4.12%	2.63%	3.45%	5.30%
Credit Strategies	15.01%	11.07%		
Benchmark	1.77%	3.30%		
Inflation Portfolio	-2.84%	-8.46%		
Benchmark	-1.26%	-0.80%		

NOTES:

1. As of 5/1/12, the Global Equity Benchmark is the dynamically weighted return of the Domestic Benchmark, the Non-US Benchmark, the Global Benchmark, the Rebalance Benchmark, and the Equity Hedge Benchmark
2. As of 10/1/10, the Custom Non-US Benchmark is the MSCI ACWI ex US IMI Index
3. The Equity Rebalance (Gladius) Custom Benchmark is a combination of the return of the underlying benchmarks within share class A, and share class B's performance minus the accrued premium of share class B.
4. The Equity Hedge Custom Benchmark is the return of the MSCI World Index beta adjusted to the target beta of the Equity Hedge portfolio.
5. The ML Custom Benchmark consists of 40% Gov't 5+yr / 35% Corp. (Inv. Grade - BBB Max 25%) 5+yr / 25% Mtg. Master
6. As of 7/1/07, the Custom Real Estate Benchmark consists of 90% NCREIF ODCE Index / 10% FTSE EPRA/NAREIT Global Securities Index
7. As of 7/1/11, the Custom Alternatives Benchmark is the dynamically weighted return of the Custom Private Equity Benchmark and the Custom Hedge Fund Benchmark
8. As of 7/1/11, The Custom Private Equity Benchmark is the custom Cambridge Associates benchmark
9. As of 7/1/11, The Custom Hedge Fund Benchmark is the HFRI FOF Conservative Index
10. As of 7/1/11, The Custom Credit Benchmark consists of 50% HFRX Distressed / 20% HFRX Relative Value / 15% CS Leveraged Loan / 15% BOA High Yield
11. As of 7/1/11, The Custom Inflation Benchmark is the dynamically weighted return of the Private Energy benchmark (Cambridge Energy) and the Commodities benchmark (DJ-UBS Commodities Index)
12. As of 7/1/11, the Total Pension Custom Benchmark consists of the dynamically weighted return of the Fixed Income Benchmark, Custom Equity Benchmark, Custom Real Estate Benchmark, Custom Alternatives Benchmark, Custom Credit Benchmark, & Custom Inflation Benchmark