

Portfolio Performance Review

Quarter Ending September 30, 2012



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Executive Summary



Market Commentary

U.S. Equity

The U.S. stock market rallied 6.2% in the third quarter, posting gains across each month. The market has now risen in four consecutive months, up 10.3% during that period, and has recouped all losses from the previous high on October 9, 2007. As was the case in the previous quarter, returns during the third quarter were comparable across size and style segments.

The market's third quarter rally was broad based, with all economic sectors advancing. Utilities, the worst performing sector, posted a 0.5% total return while Energy was the best performer, up 10.0%. The Telecom Services sector was a strong performer during the quarter, up 7.9%, and leads other segments in 2012 with a 25.7% return year-to-date.

The U.S. monetary base has expanded dramatically since the beginning of the global financial crisis in 2008, and is continuing to do so. The first round of quantitative easing (QE1) began in 2008 while QE2 was announced in 2010. The Fed's recently announced QE3, which commits to purchasing \$40 billion per month of agency MBS, representing nearly half a trillion in stimulus over the course of a year, is likely to push the monetary base over \$3 trillion by the end of 2013.

Non-U.S. Equity

Most global equity markets rallied in the third quarter, with surprising resilience in the European exchanges. The European Central Bank's actions to shore up the euro, and record low yields on the safest European sovereign debt, gave investors confidence to buy local-market stocks, even in the face of public unrest in Spain and Greece late in the quarter. The Asia-Pacific region's performance experienced headwinds from Japan, but still managed positive returns. Emerging markets sprinted to stellar performance in the third quarter, despite continued signs of an economic slowdown in China.

Fixed Income

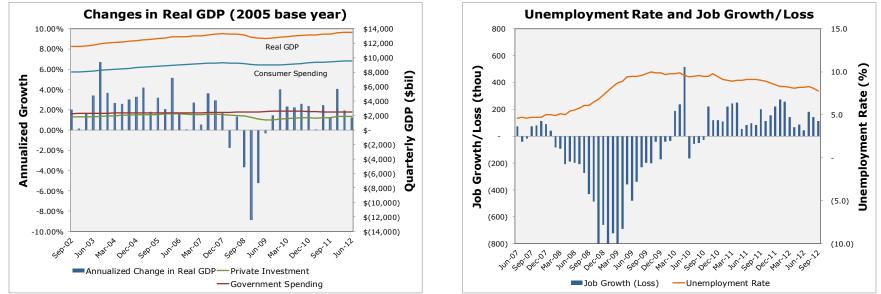
With the Federal Reserve holding fast on low interest rates and buying mortgage-backed paper to spur the job market, bond investors accelerated their move into riskier asset space, snapping up higher-yielding corporate paper whether investment-grade or "junk." The yields on long-dated Treasuries rose slightly during the third quarter, while short-term yields actually ticked downward. Despite the considerable turmoil in continental European fixed income markets, the quest for yield kept global investors buying bonds in developed and emerging economies.



Economic Review

September 30, 2012		Key Econ	omic Indicators	
CPI (all items)	Monthly Ch	ange	Cumulati	ive Change
Seasonally adjusted	Sep-12	0.6	3-Month	า 1.2
	Aug-12	0.6	12-Month	า 2.0
	Jul-12	0.0	10-Yr Annua	l 2.5
Breakeven Inflation	10-Year	2.5		
Consumer Sentiment	Sep-12	78.3		
Unv. of Michigan Survey	Aug-12	74.3		
	1-Yr Ago	59.5	10-Yr Avg	g 79.1
Manufacturing	Sep-12	51.5	Change in Manufac	cturing Sector
Inst. for Supply Mgmt	Aug-12	49.6	>50	Expansion
Purchasing Mngrs' ldx	1-Yr Avg	52.2	<50	Contraction

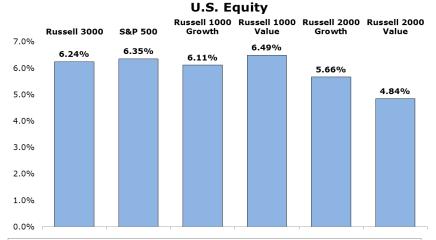
Note: Seasonally adjusted CPI data is utilized to better reflect short-term pricing activity.

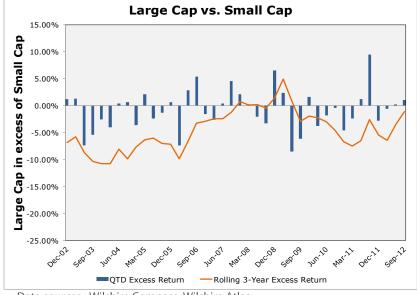


Data sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Barclays Capital

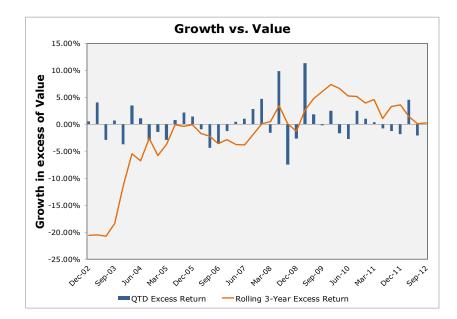
Executive Summary 2







- U.S. Equity markets rallied in 3Q2012 posting positive gains each month of the quarter.
- U.S. GDP posted annualized growth rate of 1.3% in 3Q12, a decrease from 1.9% in 2Q12.
- Consumer Price Index rose to .84% for the quarter, much higher than .04% in 2Q12.
- Large cap stocks performed strongest this quarter.

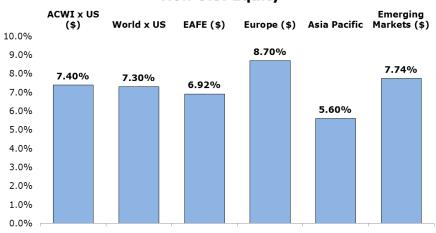


U.S. Capital Markets: Equity

Data sources: Wilshire Compass, Wilshire Atlas

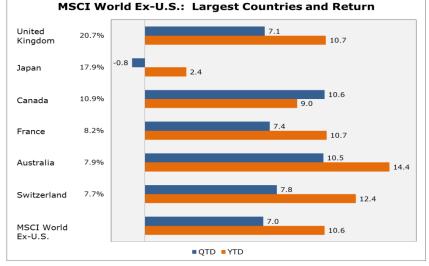


Non-U.S. Capital Markets



Non U.S. Equity

- Despite financial uncertainty in Europe, global equity markets also rallied during the quarter.
- Asia-Pacific generated positive returns despite headwinds in Japan.
- European efforts to shore up the Euro and low yields on sovereign debt gave investors confidence to buy local-market stocks.
- Emerging Markets had excellent performance despite continued signs of an economic slowdown in China.

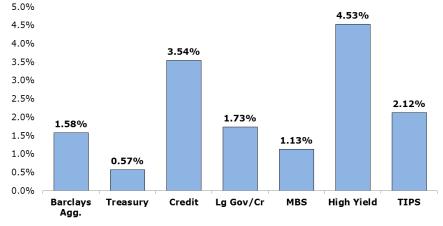




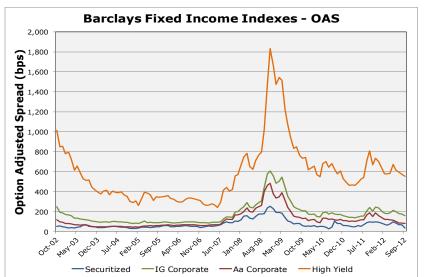
Data sources: Wilshire Compass, MSCI Barra



U.S. Capital Markets: Fixed Income

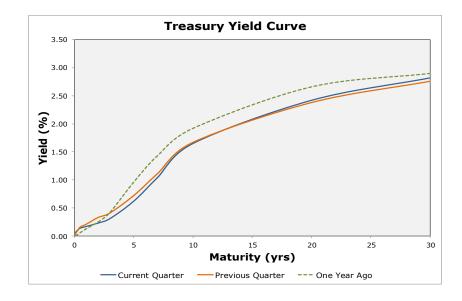


Fixed Income



Data sources: Wilshire Compass, Barclays Capital, U.S. Treasury

- With interest rates still low, bond investors moved into riskier asset space looking for stronger returns.
- Short-term yields dropped even lower while long-term yields rose slightly.
- High Yield outperformed investment grade bond market due to strong stock market performance and investors searching for yield.





Performance Overview

- LACERS investment portfolio ended the 3rd quarter with a market value of \$11.4 billion, an increase of \$0.8 billion from the previous quarter. The Fund's net of fee return was 4.6% for the quarter and 17.8% for the one-year period.
- The Total Fund underperformed its policy benchmark by -0.6% for the quarter and -2.0% for the one-year period.
- In a comparison to other public funds with market values greater than \$1 billion in TUCS (Trust Universe Comparison Service), LACERS ranged in the 45th percentile for the quarter and in the 18th percentile for the one-year period.
- All asset classes produced positive returns for the 3rd quarter of 2012.
- Non-U.S. Equity and Fixed Income outperformed its respective benchmarks, while U.S. Equity underperformed its benchmark for the quarter.
- Alternative Investments and Private Real Estate underperformed its benchmark by -6.9% and -2.0%, respectively.

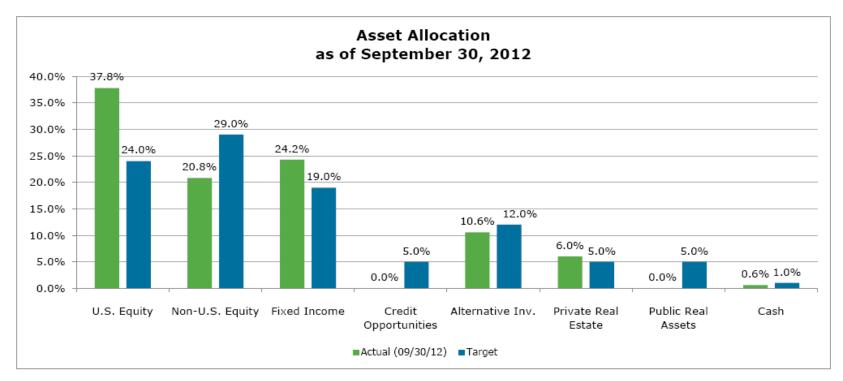
<u>Note</u>: Due to the J-curve effect in early stages of a fund's life, returns may lag prior to realization of proceeds in later years.



Fund Overview







	Actual	Target*	Min.	Мах
U.S. Equity	37.8%	24.0%	19.0%	29.0%
Non-U.S. Equity	20.8%	29.0%	24.0%	34.0%
Fixed Income	24.2%	19.0%	15.0%	22.0%
Credit Opportunities	0.0%	5.0%	0.0%	10.0%
Alternative Inv.	10.6%	12.0%	n/a	n/a
Private Real Estate	6.0%	5.0%	n/a	n/a
Public Real Assets	0.0%	5.0%	2.0%	8.0%
Cash	0.6%	1.0%	0.0%	2.0%

* Revised 1st Qtr 2012: decrease U.S. Equity from 37% to 24%; increase Non-U.S. Equity from 20% to 29%; decrease Fixed Income from 26% to 19%; allocate 5% in Credit Opportunities; increase Alternative Inv. From 9% to 12%; decrease Private Real Estate from 7% to 5%; allocate 5% in Public Real Assets. The implementation of the new Asset Allocation will be in stages over a period of 18 months.

Fund Overview 1



Detail Actual vs Target Allocation

Asset Class / Style	Benchmark	 et Value Billion)	Market Value to Total Fund (%)	Target to Total Fund (%)	Difference from Target (%)
	Equity	\$ 7.87	69.2%	65.0%	4.2%
U.S. Equity		\$ 4.30	37.8%	24.0%	13.8%
Passive		\$ 2.71	23.8%	17.5%	6.3%
Large Cap Core	S&P 500	2.21	19.5%	16.6%	2.9%
Large Cap Growth	Russell 1000 Growth	-	0.0%	1.0%	-1.0%
Large Cap Value	Russell 1000 Value	0.49	4.3%	0.0%	4.3%
Active		\$ 1.59	14.0%	6.5%	7.5%
All Cap	Russell 3000	0.08	0.7%	0.2%	0.5%
Large Cap Core	S&P 500	-	0.0%	0.0%	0.0%
Large Cap Growth	Russell 1000 Growth	-	0.0%	0.0%	0.0%
Large Cap Value	Russell 1000 Value	0.48	4.2%	1.0%	3.3%
Mid Cap Core	Russell Mid Cap	0.06	0.5%	1.2%	-0.7%
Small Cap Core	Russell 2000	0.32	2.8%	1.2%	1.6%
Small Cap Growth	Russell 2000 Growth	0.38	3.4%	1.4%	1.9%
Small Cap Value	Russell 2000 Value	0.26	2.3%	1.4%	0.9%
Non-U.S. Equity		\$ 2.37	20.8%	29.0%	-8.2%
Passive		\$ 1.07	9.4%	10.2%	-0.8%
World ex-U.S.	MSCI World ex-U.S.	1.07	9.4%	10.2%	-0.8%
Active		\$ 1.30	11.5%	18.8%	-7.3%
European	MSCI Europe/10% Abs.	0.47	4.1%	0.0%	4.1%
Asia/Pacific Basin	MSCI Asia/Pacific	0.42	3.7%	0.0%	3.7%
Developed Core	MSCI EAFE/World ex-U.S.	0.12	1.1%	2.9%	-1.8%
Developed Growth	MSCI EAFE/World ex-U.S. Growth	-	0.0%	2.9%	-2.9%
Developed Value	MSCI EAFE/World ex-U.S. Value	-	0.0%	2.9%	-2.9%
Emerging Markets Core	MSCI Emerging Markets	0.11	0.9%	2.6%	-1.7%
Emerging Markets Growth	MSCI Emerging Market Growth	-	0.0%	2.3%	-2.3%
Emerging Markets Core	MSCI Emerging Market Value	0.19	1.6%	2.3%	-0.7%
Small Cap Core	MSCI EAFE Small Cap	-	0.0%	2.9%	-2.9%
Alternative Investments	Vintage Year	\$ 1.20	10.6%	12.0%	-1.4%



Detail Actual vs Target Allocation

Asset Class / Style	Benchmark	 cet Value Billion)	Market Value to Total Fund (%)	Target to Total Fund (%)	Difference from Target (%)
Fixed	Income	\$ 2.76	24.2%	24.0%	0.2%
Core		\$ 2.76	24.2%	19.0%	5.2%
Passive	Barclays Capital (BC) Aggregate	\$ -	0.0%	6.7%	-6.7%
Active		\$ 2.76	24.2%	12.3%	12.0%
Core Core Plus Intermediate Core	Barclays Capital (BC) Aggregate Barclays Capital (BC) Universal BC U.S. Govt/Credit Intermediate	- 2.51 0.25	0.0% 22.1% 2.2%	10.4% 0.0% 1.9%	-10.4% 22.1% 0.3%
Credit Opportunities U.S. High Yield Emerging Market Debt Leveraged Loans/Opp. Credits	BC U.S. High Yield 2% Capped JP Morgan - EMBI Global Diversified JP Morgan - EMBI Global Diversified	\$ - - -	0.0% 0.0% 0.0% 0.0%	5.0% 2.8% 1.8% 0.4%	-5.0% -2.8% -1.8% -0.4%
Rea	Assets	\$ 0.68	6.0%	10.0%	-4.0%
Public Real Assets TIPS REITS Commodities Multi Asset Real Assets	BC U.S. TIPS Wilshire REIT S&P-GSCI Total Index CPI + 5%	\$ 	0.0% 0.0% 0.0% 0.0%	5.0% 3.0% 0.5% 1.0% 0.5%	-5.0% -3.0% -0.5% -1.0% -0.5%
Private Real Estate		\$ 0.68	6.0%	5.0%	1.0%
	Cash	\$ 0.07	0.6%	1.0%	-0.4%
TOTAL	PORTFOLIO	\$ 11.38	100.0%	100.0%	0.0%

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Fund Performance





LACERS Total Fund

(Returns are Net of Fees)

	-	rket Value \$million)	% to Total Fund	Current Quarter	One Year	Three Years	Five Years	Ten Years	Fifteen Years ¹	Since Inception ¹	5 Year Tracking Error
LACERS Master Trust	\$	11,380	100.0%	4.6	17.8	9.3	1.4	8.2	5.9	8.0	2.5
Policy Benchmark				5.2	19.8	9.8	2.1	8.4	6.2	8.1	
Excess Return				-0.6	-2.0	-0.5	-0.7	-0.2	-0.3	-0.1	
U.S. Equity Russell 3000	\$	4,300	37.8%	5.7 6.2	30.2 30.2	12.6 13.3	0.8 1.3	8.5 8.5	5.4 4.4	9.4 8.0	1.4
Excess Return				-0.5	0.0	-0.7	-0.5	0.0	1.0	1.4	
Non-U.S. Equity <i>MSCI ACWI ex U.S.*</i>	\$	2,370	20.8%	7.7 7.4	15.1 14.5	3.4 3.2	-3.9 -4.1	9.5 9.8	3.6 4.6	4.6 5.2	1.7
Excess Return				0.3	0.6	0.2	0.2	-0.3	-1.0	-0.6	
Total Fixed Income BC U.S. Universal *	\$	2,759	24.2%	3.1 2.0	9.6 6.5	8.1 6.7	7.6 6.6	7.0 5.7	7.1 6.0	7.6 6.6	2.7
Excess Return Private Real Estate *** NCREIF Property Lagged + 1001	\$ bps *:	681	6.0%	1.1 0.9 2.9	3.1 6.3 12.3	1.4 2.1 8.9	1.0 -7.7 2.6	1.3 2.5 <i>8.3</i>	1.1 4.9 9.4	1.0 5.7 9.4	10.3
Excess Return				-2.0	-6.0	-6.8	-10.3	-5.8	-4.5	-3.7	
Alternative Investments *** <i>Russell 3000 + 300bps **</i>	[:] \$	1,201	10.6%	0.3 7.2	7.3 34.2	15.5 17.3	5.2 5.3	12.0 12.5	10.7 8.4	9.7 12.0	20.3
Excess Return				-6.9	-26.9	-1.8	-0.1	-0.5	2.3	-2.3	

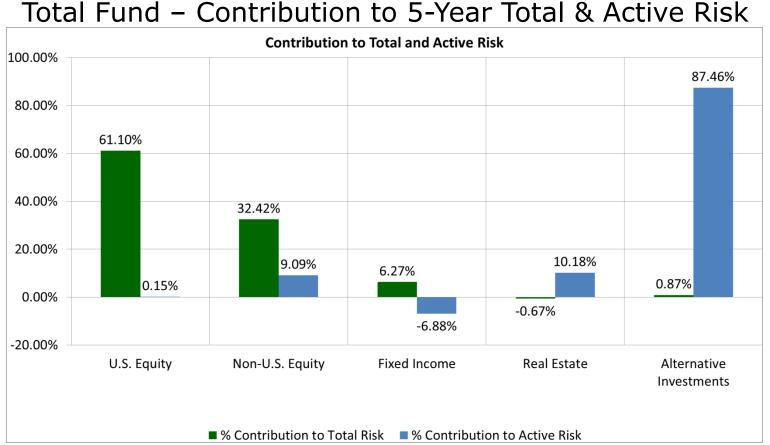
¹ Indicates gross returns

* Both the MS ACWI ex US and Barclays US Universal indices are historically blended with other indices.

** Effective July 1, 2012; previous benchmark for Private Real Estate: NCREIF Property Lagged and for Alternative Investments: Russell 3000 + 400 bps.

*** Due to the J-Curve effect in early stages of a fund's life, returns may lag prior to realization of proceeds in later years.

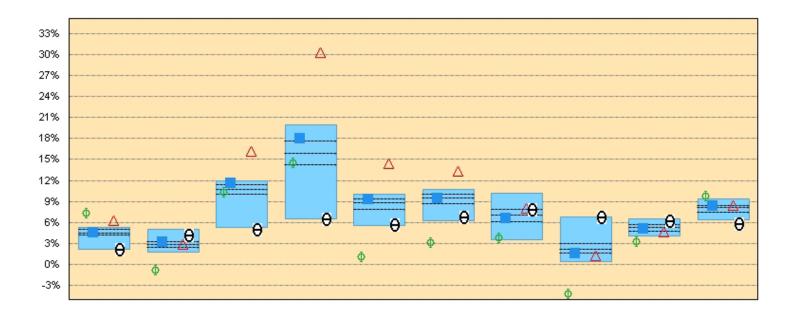




- Public equities comprises 93% of total risk despite actual weighting of 61%
- Private markets (Real Estate and Private Equities) comprises 97% of active risk as it is difficult to separate active from 'beta' exposures in those asset classes
- Fixed Income provided reduction to active risk, but not total risk as desired
- Real Estate has provided modest total risk reduction

Trust Universe Comparison Service Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$1 Billion Cumulative Periods Ending : September 30, 2012

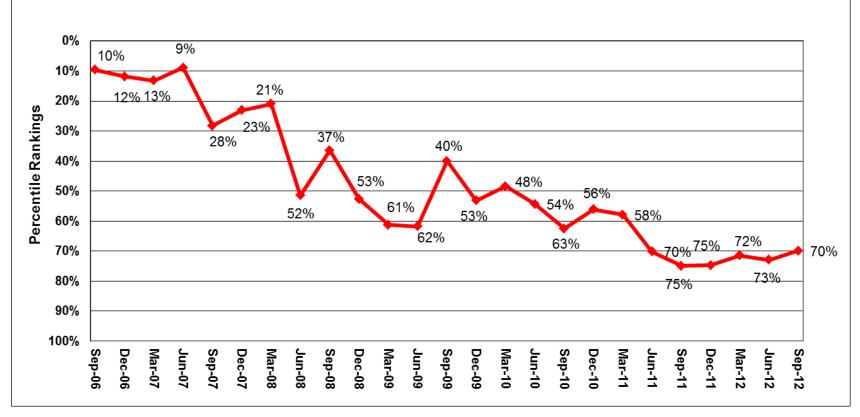


Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	5.29	4.99	12.01	19.93	10.01	10.73	10.17	6.85	6.58	9.32
25th	4.98	3.26	11.40	17.63	9.32	9.99	7.93	2.99	5.76	8.47
50th	4.53	2.91	10.67	15.91	8.79	9.54	7.05	2.23	5.31	8.21
75th	4.16	2.39	10.11	14.25	7.91	8.71	6.16	1.61	4.81	7.47
95th	2.18	1.78	5.31	6.59	5.59	6.32	3.60	0.47	4.05	6.34
No. Of Obs	66	65	63	63	60	60	60	60	60	58
LosAngeles City	4.59 (45)	3.23 (28)	11.68 (12)	18.00 (18)	9.32 (26)	9.54 (50)	6.66 (65)	1.61 (75)	5.18 (56)	8.44 (30)
A Russell 3000	6.24 (1)	2.90 (50)	16.13 (1)	30.21 (1)	14.42 (1)	13.26(1)	7.98 (21)	1.30 (81)	4.60 (85)	8.49 (21)
MSCI World Ex US (N)	7.40 (1)	-0.77 (100)	10.38 (61)	14.48 (66)	1.05 (100)	3.17 (99)	3.85 (93)	-4.12 (100)	3.33 (100)	9.84 (1)
😝 Barclays US Univ Indx	2.00 (96)	4.04 (5)	4.93 (95)	6.44 (95)	5.60 (93)	6.69 (92)	7.73 (26)	6.63 (5)	6.07 (16)	5.74 (95)



Return to Risk Ratio Comparison

TUCS Public Funds > \$1 billion



- Return to risk ratio comparison puts funds with different asset allocation objectives on even footing
- LACERS currently ranks 70th percentile versus peers on return/risk ratio basis



U.S. Equity Managers



U.S. Equity Managers

(Returns are Net of Fees)

	Inception Date	ket Value million)	% to Total U.S. Equity	Current Quarter	One Year	Three Years	Five Years	Ten Years	Since Inception ¹	5 Year Tracking Error
U.S. Equity	Oct-94	\$ 4,300	100.0%	5.7	30.2	12.6	0.8	8.5	9.4	1.4
Russell 3000				6.2	30.2	13.3	1.3	8.5	8.0	
Excess Return				-0.5	0.0	-0.7	-0.5	0.0	1.4	
Aronson, Johnson & Ortiz	Oct-01	\$ 484	11.2%	7.2	32.1	13.2	-0.1	8.8	6.9	3.4
Russell 1000 Value				6.5	30.9	11.8	-0.9	8.2	5.7	
Excess Return				0.7	1.2	1.4	0.8	0.6	1.2	
Blackrock Russell 1000 Value <i>Russell 1000 Value</i>	Dec-98	\$ 493	11.5%	6.5 6.5	30.8 30.9	12.0 11.8	-0.8 -0.9	8.3 8.2	4.6 4.5	0.1
Excess Return				0.0	-0.1	0.2	0.1	0.1	0.1	
Thomson Horstmann <i>Russell 2000</i>	Oct-95	\$ 244	5.7%	4.4 5.3	32.6 31.9	11.9 13.0	1.0 2.2	9.8 10.2	10.0 7.7	6.5
Excess Return				-0.9	0.7	-1.1	-1.2	-0.4	2.3	
Franklin Advisers Russell 2000 Growth	Sep-94	\$ 191	4.4%	1.7 4.8	25.1 31.2	16.2 14.2	1.7 3.0	9.0 10.6	8.3 6.2	4.9
Excess Return				-3.1	-6.1	2.0	-1.3	-1.6	2.1	
Sit Investments Russell 2000 Growth	Jan-01	\$ 191	4.4%	2.3 4.8	26.9 31.2	15.1 14.2	1.3 3.0	10.4 10.6	3.4 3.4	6.0
Excess Return				-2.5	-4.3	0.9	-1.7	-0.2	0.0	
Donald Smith & Co. Russell 2000 Value	Feb-06	\$ 95	2.2%	6.7 5.7	21.5 <i>32.</i> 6	9.7 11.7	2.6 1.4		4.3 2.6	9.5
Excess Return				1.0	-11.1	-2.0	1.2		1.7	
PanAgora Asset Management Russell 2000 Value	Feb-06	\$ 168	3.9%	6.0 5.7	34.5 32.6	15.1 11.7	1.6 1.4		1.9 2.6	3.2
Excess Return				0.3	1.9	3.4	0.2		-0.7	

¹ Indicates gross returns



U.S. Equity Managers (Returns are Net of Fees)

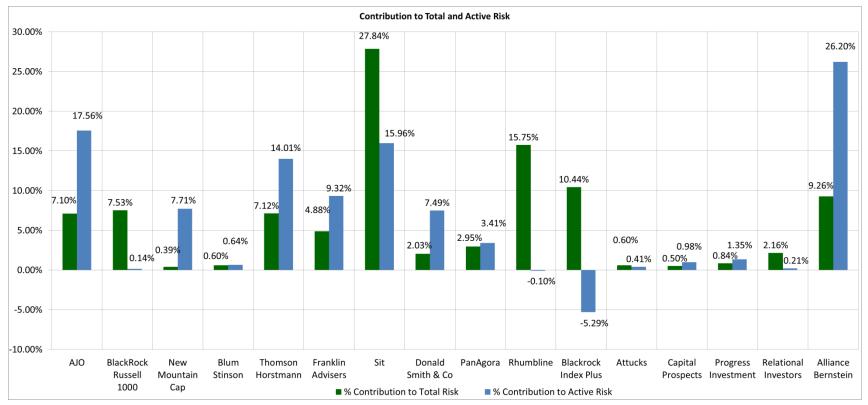
	Inception Date	ket Value million)	% to Total U.S. Equity	Current Quarter	One Year	Three Years	Five Years	Ten Years	Since Inception ¹	5 Year Tracking Error
Blum Stinson	Sep-08	\$ 47	1.1%	-4.3	10.4	-7.1			0.4	
Russell 2000				5.3	31.9	13.0			6.9	
Excess Return				-9.6	-21.5	-20.1			-6.5	
New Mountain Cap Group Russell Midcap Blend	Mar-08	\$ 59	1.4%	3.6 5.6	12.2 28.0	8.5 10.3	 	 	3.7 1.4	
Excess Return				-2.0	-15.8	-1.8			2.3	
Rhumbline Advisors <i>S&P 500</i>	Mar-93	\$ 737	17.1%	6.3 6.4	30.1 <i>30.2</i>	13.4 13.2	1.3 1.1	8.2 8.0	8.3 8.2	0.3
Excess Return				-0.1	-0.1	0.2	0.2	0.2	0.1	
Blackrock S&P 500 Index Plus <i>S&P 500</i>	Feb-10	\$ 1,476	34.3%	6.4 6.4	30.3 30.2	 	 	 	13.2 13.0	
Excess Return				0.0	0.1				0.2	

	Inception Date	Market V (\$millic		% to Total U.S. Equity	Current Quarter	One Year	Three Years	Five Years	Ten Years	Since Inception ¹	5 Year Tracking Error
Manager-of-Manager Pro	grams			2.7%							
Attucks <i>Russell 2000</i>	Nov-05	\$	33	0.8%	5.1 5.3	31.0 <i>31.9</i>	12.8 13.0	1.2 2.2		4.4 4.6	3.4
Excess Return					-0.2	-0.9	-0.2	-1.0		-0.2	
Capital Prospects <i>Russell 3000</i>	Dec-05	\$	31	0.7%	4.9 6.2	27.4 30.2	11.9 13.3	0.1 1.3	 	3.8 4.5	2.8
Excess Return					-1.3	-2.8	-1.4	-1.2		-0.7	
Progress Investment <i>Russell 3000</i>	Oct-06	\$	52	1.2%	5.5 6.2	25.7 30.2	10.3 13.3	-0.9 1.3	 	1.7 3.1	2.5
Excess Return					-0.7	-4.5	-3.0	-2.2		-1.4	

¹ Indicates gross returns



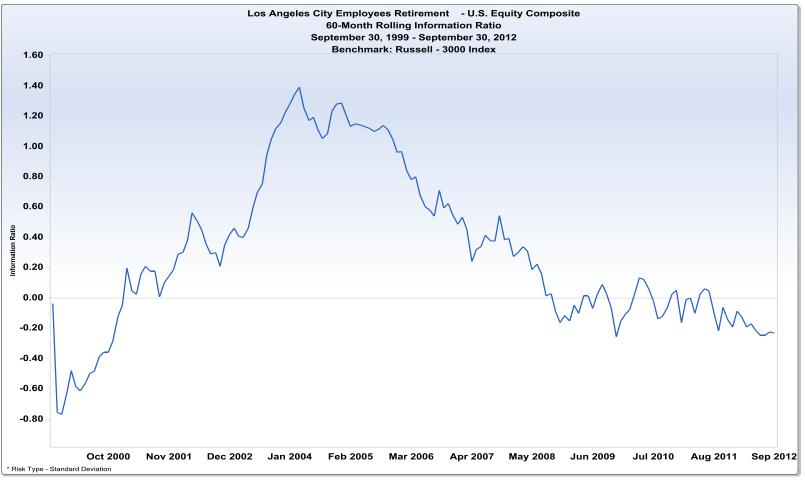
U.S. Equity – Contribution to 5-Year Total & Active Risk



- Over last 5-years, Alliance Bernstein (now terminated) was largest contributor to active risk
- Most managers provided contribution to total risk in line with their portfolio weights, which is desirable. Exceptions were: Alliance and Sit.
- Additionally, most managers provided contribution to active risk in line with their respective contribution to total risk. Exceptions were AJO, Donald Smith, Blum, New Mountain, Sit, and Alliance Bernstein



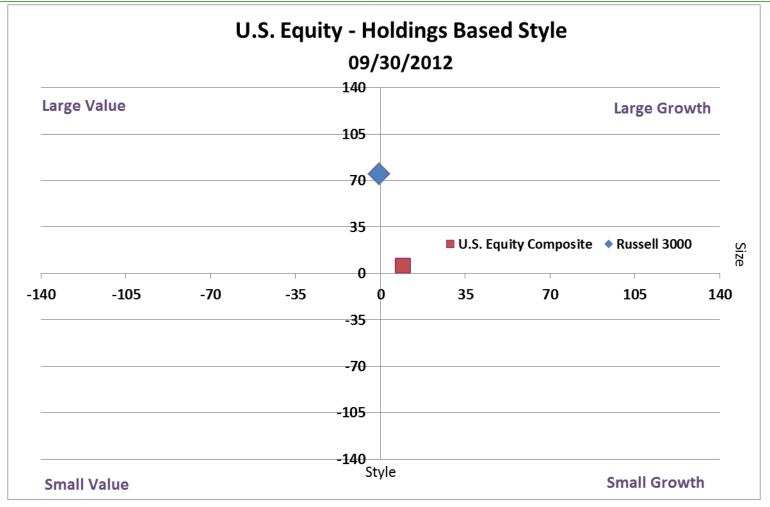
5-Year Rolling Risk-Adjusted Active Returns*



- Active returns are returns earned over/(under) benchmark return
- LACERS' information ratio has been negative for five years

* Risk-adjusted active returns are referred to as "Information Ratio". Information Ratio = Excess return (alpha) / Excess risk (tracking error)





- LACERS U.S. Equity Portfolio exhibits significant smaller cap bias versus Russell 3000 benchmark
- As large cap stocks currently outperforming small cap stocks, this bias is source for underperformance versus benchmark



MANAGER REPORT CARD¹

	U.S. Managers	Inception Date	Mandate		rent irter	One	Year		ree ars		ve ars	Since Inception	Comments ²
				IUIU		U	I	U	I	U	I		
۶	Aronson, Johnson & Ortiz	Oct-01	Large Cap Value	✓	1	✓	<	~	✓	✓	×	√	Performance satisfactory.
≻	Thomson Horstmann	Oct-95	Small Cap	×	×	✓	✓	×	×	×	×	✓	Performance mixed. Monitoring manager.
۶	Franklin Advisers	Sep-94	Small Cap Growth	x	x	×	×	✓	~	×	×	✓	Performance lagging. Monitoring manager.
≻	Sit Investments	Jan-01	Small Cap Growth	*	×	×	×	~	×	×	×	=	Performance lagging. Monitoring manager.
۶	Donald Smith	Feb-06	Small Cap Value	✓	✓	×	×	×	×	✓	×	✓	Performance mixed. Monitoring manager.
۶	Panagora	Feb-06	Small Cap Value	✓	✓	✓	✓	✓	✓	✓	×	*	"On Watch" since 10/11 - organization.
۶	Blum Stinson	Sep-08	Corp Gov	×	n/a	×	n/a	×	n/a	n/a	n/a	×	Redeemed on Sep. 30, 2012
۶	New Mountain Cap Grp	Mar-08	Corp Gov	×	n/a	*	n/a	×	n/a	n/a	n/a	√	Limited track record.
۶	Attucks	Nov-05	Fund of Funds	×	n/a	×	n/a	×	n/a	×	n/a	×	"On Watch" since 6/11 - performance.
۶	Capital Prospects	Dec-05	Fund of Funds	×	n/a	×	n/a	×	n/a	×	n/a	×	"On Watch" since 6/11 - performance.
۶	Progress	Oct-06	Fund of Funds	x	n/a	*	n/a	×	n/a	×	n/a	*	"On Watch" since 10/09 - performance.
۶	BlackRock R1000 Value	Dec-98	R1000 Value Index	=	×	*	✓	✓	✓	✓	×	~	Performance satisfactory.
۶	BlackRock S&P 500 Index Plus	Feb-10	S&P 500 Index	=	✓	✓	✓	n/a	n/a	n/a	n/a	✓	Limited track record.
۶	Rhumbline Advisors	Mar-93	S&P 500 Index	×	✓	×	✓	~	✓	✓	×	✓	Performance satisfactory.

¹Current Quarter, 1-Yr, 3-Yrs, and 5-Yrs returns are net of fees. Since Inception returns are gross of fee.

² Managers are placed on the Watch List for concerns with organization, process, and performance. Managers are normally on the Watch List for 6 months though can be longer if manager issues still remain but not severe enough to warrant contract termination recommendation.

		LEGEND		
•	~	outperformed index	Ι	index
	×	underperformed index	U	universe median
	Ш	equal to index		



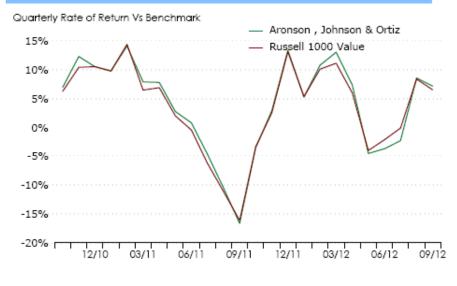
Aronson, Johnson & Ortiz

Mandate: Large Cap Value Benchmark: Russell 1000 Value

Strategy

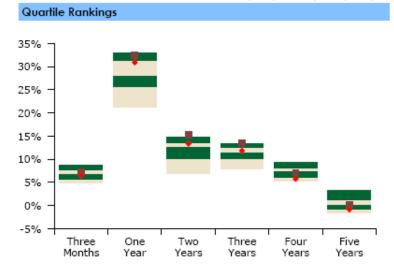
Aronson invests in U.S. stocks with large market caps, low P/E ratios and lower historical earnings per share that are expected to increase.

Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Aronson, Johnson &	7.2	32.1	15.0	13.2	(0.1)	6.9	Oct-2001
Russell 1000 Value	6.5	30.9	13.3	11.8	(0.9)	5.7	
Excess Return	0.7	1.2	1.7	1.4	0.8	1.2	

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Aronson, Johnson & Ortiz	7.2	32.5	15.2	13.5	7.1	0.2
Rank	41	16	6	10	63	51
🔶 Russell 1000 Value	6.5	30.9	13.3	11.8	5.7	(0.9)
Rank	60	29	34	45	83	72
10th Percentile 1st Quartile Median	7.7				9.3 8.2 7.5	3.2 1.3 0.2

25.6

21.2

189

10.1

6.8

164

10.0

7.9

134

6.2

5.2

118

(1.1)

(1.7)

105

5.6

4.8

217

3rd Quartile

90th Percentile

Number Of Observations



Thomson, Horstmann & Bryant

Mandate: Small Cap

Benchmark: Russell 2000

Strategy

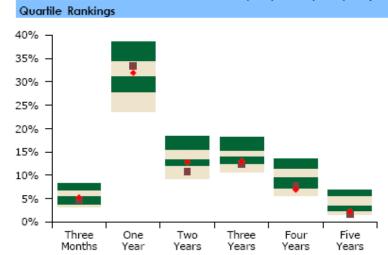
Thomson invests in U.S. stocks with small market caps and low P/E ratios.

Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Thomson Horstmann	4.4	32.6	10.1	11.9	1.0	10.0	Oct-1995
Russell 2000	5.3	31.9	12.8	13.0	2.2	7.7	
Excess Return	(0.9)	0.7	(2.7)	(1.1)	(1.2)	2.3	

Objective: Outperform the benchmark by 250 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Thomson Horstmann	4.6	33.4	10.8	12.4	7.7	1.6
Rank	69	32	85	76	70	90
🔶 Russell 2000	5.3	31.9	12.8	13.0	6.9	2.2
Rank	60	41	62	69	81	80
10th Percentile	8.2	38.5	18.5	18.2	13.6	6.8
1st Quartile	6.9	34.4	15.6	15.3	11.4	5.7
Median	5.5	31.2	13.6	14.2	9.6	3.7
3rd Quartile	3.8	27.7	12.1	12.5	7.3	2.5
90th Percentile	3.2	23.6	9.2	10.6	5.6	1.5
Number Of Observations	175	167	142	118	115	96



Franklin Advisers

Small Cap Growth Mandate: Benchmark: Russell 2000 Growth

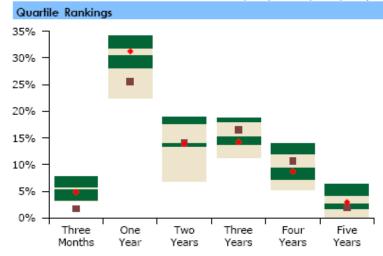
Strategy

Franklin invests in U.S. stocks with small market caps, low P/E ratios and earnings per share that are expected to increase at rates much greater than the overall market.



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Franklin Advisers	1.7	25.1	13.7	16.2	1.7	8.3	Sep-1994
Russell 2000 Growth	4.8	31.2	13.9	14.2	3.0	6.2	
Excess Return	(3.1)	(6.1)	(0.2)	2.0	(1.3)	2.1	

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Franklin Global Advisers	1.8	25.5	14.0	16.5	10.6	2.0
Rank	96	82	51	45	34	68
Russell 2000 Growth	4.8	31.2	13.9	14.2	8.7	3.0
Rank	58	35	60	69	55	43
10th Percentile	7.8	34.0	18.9	18.8	13.9	6.2
1st Quartile	5.8	31.7	17.7	18.0	12.0	4.1
Median	5.4	30.5	14.1	15.3	9.6	2.7
3rd Quartile	3.4	28.1	13.3	13.8	7.2	1.7
90th Percentile	3.1	22.4	6.8	11.3	5.3	0.0
Number Of Observations	67	61	52	34	44	36



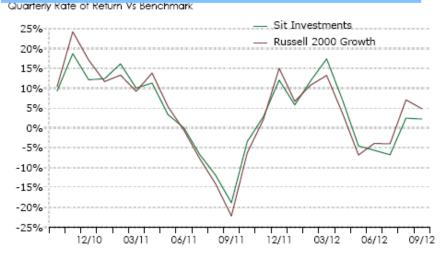
Sit Investments

Mandate: Small Cap Growth Benchmark: Russell 2000 Growth

Strategy

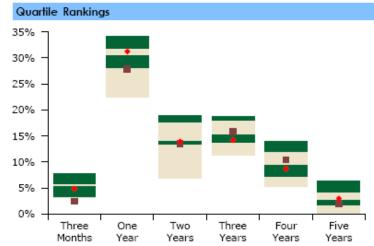
SIT invests in U.S. stocks with small market caps, low P/E ratios and earnings per share that are expected to increase at rates much greater than the overall market.

Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Sit Investments	2.3	26.9	12.7	15.1	1.3	3.4	Jan-2001
Russell 2000 Growth	4.8	31.2	13.9	14.2	3.0	3.4	
Excess Return	(2.5)	(4.3)	(1.2)	0.9	(1.7)	0.0	

Objective: Outperform the benchmark by 300-450 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Sit Investments	2.4	27.8	13.5	15.8	10.4	2.0
Rank	94	76	74	47	34	69
🔶 Russell 2000 Growth	4.8	31.2	13.9	14.2	8.7	3.0
Rank	58	35	60	69	55	43
10th Percentile	7.8	34.0	18.9	18.8	13.9	6.2
1st Quartile	5.8	31.7	17.7	18.0	12.0	4.1
Median	5.4	30.5	14.1	15.3	9.6	2.7
3rd Quartile	3.4	28.1	13.3	13.8	7.2	1.7
90th Percentile	3.1	22.4	6.8	11.3	5.3	0.0
Number Of Observations	67	61	52	34	44	36



Donald Smith & Co.

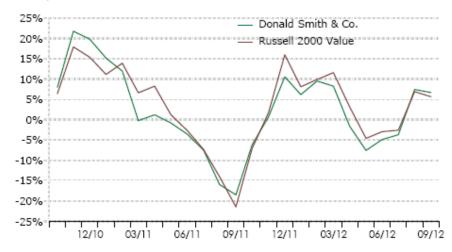
Mandate: Small Cap Value Benchmark: Russell 2000 Value

Strategy

Donald Smith invests in U.S. stocks with small market caps, low P/E ratios and lower historical earnings per share that are expected to increase.

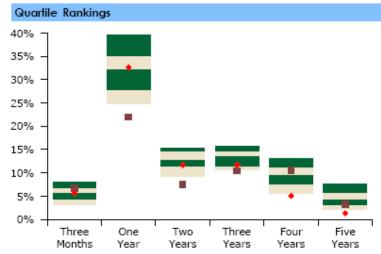
Performance

Quarterly Kate of Return Vs Benchmark



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Donald Smith & Co.	6.7	21.5	6.8	9.7	2.6	4.3	Feb-2006
Russell 2000 Value	5.7	32.6	11.7	11.7	1.4	2.6	
Excess Return	1.0	(11.1)	(4.9)	(2.0)	1.2	1.7	

Objective: Outperform the benchmark by 300 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Donald Smith & Co.	6.7	21.9	7.5	10.5	10.6	3.4
Rank	32	95	97	91	32	70
🔶 Russell 2000 Value	5.7	32.6	11.7	11.7	5.1	1.4
Rank	52	47	74	75	95	99
10th Percentile	8.1	39.5	15.4	15.7	13.0	7.7
1st Quartile	6.9	35.2	14.6	14.6	11.2	5.8
Median	5.8	32.2	12.8	13.8	9.6	4.5
3rd Quartile	4.5	27.8	11.4	11.5	7.6	3.1
90th Percentile	3.2	24.8	9.2	10.6	5.7	2.1
Number Of Observations	101	100	79	81	71	60

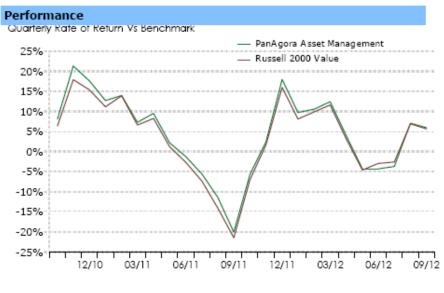


PanAgora Asset Management

Mandate: Small Cap Value Benchmark: Russell 2000 Value

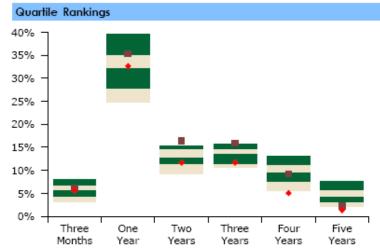
Strategy

Panagora invests in U.S. stocks with small market caps, low P/E ratios and lower historical earnings per share that are expected to increase.



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
PanAgora Asset Mgmt	6.0	34.5	15.7	15.1	1.6	1.9	Feb-2006
Russell 2000 Value	5.7	32.6	11.7	11.7	1.4	2.6	
Excess Return	0.3	1.9	4.0	3.4	0.2	(0.7)	

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
PanAgora Asset Mgmt	6.1	35.3	16.5	15.9	9.2	2.3
Rank	47	25	3	8	59	87
🔶 Russell 2000 Value	5.7	32.6	11.7	11.7	5.1	1.4
Rank	52	47	74	75	95	99
10th Percentile	8.1	39.5	15.4	15.7	13.0	7.7
1st Quartile	6.9	35.2	14.6	14.6	11.2	5.8
Median	5.8	32.2	12.8	13.8	9.6	4.5
3rd Quartile	4.5	27.8	11.4	11.5	7.6	3.1
90th Percentile	3.2	24.8	9.2	10.6	5.7	2.1
Number Of Observations	101	100	79	81	71	60



Non-U.S. Equity

Managers



Non-U.S. Equity Managers

Inception DateMarket Value (\$million)% to Total Non-U.S. EquityCurr QuarNon-U.S. EquityOct-94\$ 2,370100.0%7.MSCI ACWI ex U.S.*Jun-12\$ 29512.4%7.Excess ReturnJun-12\$ 29512.4%7.MSCI Emerging Markets MSCI Emerging Markets NDSep-08\$ 1084.5%7.Batterymarch MSCI Emerging Markets ND Excess ReturnSep-08\$ 1084.5%7.Batterymarch MSCI Emerging Markets ND Excess ReturnJan-03\$ 1877.9%8.Developed ex-U.S. MSCI EAFE ND ** Excess ReturnJun-12\$ 2,07587.6%7.Developed ex-U.S. MSCI Europe Excess ReturnJun-12\$ 2,07587.6%7.Developed ex-U.S. MSCI Europe Excess ReturnJun-12\$ 2,07587.6%7.Developed ex-U.S. MSCI Europe Excess ReturnJun-12\$ 2,07587.6%7.Developed ex-U.S. MSCI Europe Excess ReturnDec-95\$ 1898.0%3.	ter Year 15.1 14.5 0.6 	r Years 1 3.4 5 3.2	Five Years - 3.9 -4.1 0.2	Ten Years 9.5 9.8 -0.3	Since Inception ¹	5 Year Tracking Error
MSCI ACWI ex U.S.* 7.4 Excess Return 0. Emerging Markets Jun-12 \$ 295 MSCI Emerging Markets ND ** 295 Excess Return 0. Batterymarch Sep-08 \$ 108 MSCI Emerging Markets ND 5 MSCI Emerging Markets ND 5 Excess Return 0. Batterymarch Sep-08 \$ 108 MSCI Emerging Markets ND 2.075 Excess Return -0. Boston Company Jan-03 \$ 187 MSCI Emerging Markets ND -0. Excess Return 0. Capital Guardian May-96 \$ 420 MSCI Europe 0. Excess Return 0. Daiwa Dec-95 \$ 189	14.5 0.6 	5 <i>3.2</i> 0.2	-4.1	9.8		17
Excess Return Jun-12 \$ 295 12.4% 7.7 MSCI Emerging Markets ND ** Jun-12 \$ 295 12.4% 7.7 Excess Return Sep-08 \$ 108 4.5% 7.7 Batterymarch Sep-08 \$ 108 4.5% 7.7 Excess Return Sep-08 \$ 108 4.5% 7.7 Excess Return Jan-03 \$ 187 7.9% 8.7 Boston Company Jan-03 \$ 187 7.9% 8.7 MSCI Emerging Markets ND Jan-03 \$ 187 7.9% 8.7 MSCI Emerging Markets ND Jan-12 \$ 2,075 87.6% 7.7 Excess Return 0 0 0 0 0 Developed ex-U.S. Jun-12 \$ 2,075 87.6% 7.7 MSCI EAFE ND ** 0 0 0 0 0 0 Capital Guardian May-96 \$ 420 17.7% 8.7 MSCI Europe 5 189 8.0%	0.6 	0.2			5.2	1.7
MSCI Emerging Markets ND ** 7.1 Excess Return 0. Batterymarch Sep-08 \$ 108 4.5% 7. MSCI Emerging Markets ND 2.1 7.1 7.1 Excess Return -0. 7.1 7.1 Excess Return -0. 7.1 7.1 Boston Company Jan-03 \$ 187 7.9% 8. MSCI Emerging Markets ND 187 7.9% 7.1 Excess Return 0. 0. 7.1 Excess Return 0. 0. 7.1 Excess Return 0. 0. 7.1 Capital Guardian May-96 \$ 420 17.7% 8. MSCI Europe 8. 8. 8. 8. Excess Return 0. 0. 8. 8. Daiwa Dec-95 \$ 189 8.0% 3.	·				-0.6	
Batterymarch MSCI Emerging Markets NDSep-08\$1084.5%7.Excess Return-0.Boston Company MSCI Emerging Markets NDJan-03\$1877.9%8.MSCI Emerging Markets ND-00.0.7.31877.9%8.MSCI Emerging Markets NDJun-12\$2,07587.6%7.3Excess Return0.0.0.0.0.Developed ex-U.S. MSCI EAFE ND ** Excess ReturnJun-12\$2,07587.6%7.3MSCI EAFE ND ** Excess Return0.0.0.0.0.Capital Guardian MSCI Europe Excess ReturnMay-96\$42017.7%8.3DaiwaDec-95\$1898.0%3.3					7.9 7.7	
MSCI Emerging Markets ND7.7Excess Return-0.Boston Company MSCI Emerging Markets NDJan-03 \$ 187Excess Return0.Developed ex-U.S. MSCI EAFE ND **Jun-12 \$ 2,075Excess Return0.Capital Guardian MSCI EuropeMay-96 \$ 420Capital Guardian MSCI EuropeMay-96 \$ 189Excess Return0.DaiwaDec-95 \$ 189BaiwaDec-95 \$ 189BaiwaDec-95 \$ 189BaiwaDec-95 \$ 189					0.2	
Excess ReturnJan-03 \$ 1877.9%Boston Company MSCI Emerging Markets ND Excess ReturnJan-03 \$ 1877.9%Boston Company MSCI Emerging Markets NDJan-03 \$ 1877.9%Capital Guardian MSCI Europe Excess ReturnJun-12 \$ 2,07587.6%Capital Guardian May-96 \$ 42017.7%8.1MSCI Europe Excess Return0.10.1Capital Guardian May-96 \$ 42017.7%8.1MSCI Europe Excess Return0.10.1DaiwaDec-95 \$ 1898.0%3.1					8.0 9.3	
MSCI Emerging Markets ND 7.7 Excess Return 0. Developed ex-U.S. Jun-12 \$ 2,075 MSCI EAFE ND ** 6.9 Excess Return 0. Capital Guardian May-96 \$ 420 MSCI Europe 87.6% Excess Return 0. Daiwa Dec-95 \$ 189	5 -5.5	5 -2.6			-1.3	
Developed ex-U.S. Jun-12 \$ 2,075 87.6% 7. MSCI EAFE ND ** 6.9 0.1	16.9	9 5.6	-0.7 -1.3		16.4 16.5	5.3
MSCI EAFE ND ** 6.9 Excess Return 0. Capital Guardian May-96 \$ 420 17.7% 8. MSCI Europe 8. 8. 8. Excess Return 0. 0. 0. Daiwa Dec-95 \$ 189 8.0% 3.	-3.1	1 -3.4	0.6		-0.1	
Capital Guardian May-96 \$ 420 17.7% 8.7 MSCI Europe 8.7 8.7 8.7 Excess Return 0. 0. 3.7 Daiwa Dec-95 \$ 189 8.0% 3.7					7.7 6.9	
MSCI Europe 8.7 Excess Return 0. Daiwa Dec-95 \$ 189 8.0% 3.					0.8	
Daiwa Dec-95 \$ 189 8.0% 3.		3 2.0	-5.0 -5.7	9.1 8.8	8.3 6.2	2.9
		1.3	0.7	0.3	2.1	
		2.6	-5.0 -4.0	7.5 7.0	3.6 0.3	2.3
Excess Return 0.	3.5 6.4 7.7	3 -1.5	-1.0	0.5	3.3	
Franklin TempletonNov-91 \$ 2299.7%MS AC Asia Pacific *5.6	3.5 6.4 7.7		1.3 - <i>3.2</i>	13.0 <i>8.9</i>	7.9 3.1	5.6
Excess Return 4.	. 3.5 6.4 7.7 -1.3 22.4 11.3	3 3.9	4.5	4.1	4.8	

¹ Indicates gross returns



Non-U.S. Equity Managers

			(Returns a	re Net of Fees)					
	Inception Date	ket Value million)	% to Total Non-U.S. Equity	Current Quarter	One Year	Three Years	Five Years	Ten Years	Since Inception ¹	5 Year Tracking Error
State Street Equity	Aug-93	\$ 1,067	45.0%	7.5	14.1	3.2	-4.1	9.0	5.3	0.6
MSCI World ex U.S.				7.5	13.6	2.9	-4.5	8.7	4.6	
Excess Return				0.0	0.5	0.3	0.4	0.3	0.7	
TT International	May-01	\$ 124	5.2%	5.4	12.5	0.2	-7.3	7.1	3.2	4.3
MSCI World ex U.S.				7.3	13.8	2.5	-4.8	8.5	4.1	
Excess Return				-1.9	-1.3	-2.3	-2.5	-1.4	-0.9	
Knight Vinke Asset Knight Vinke 10%	Apr-06	\$ 46	1.9%	11.9 2.4	2.1 10.0	-12.3 10.0	-13.3 10.0		-9.6 10.0	31.1
Excess Return				9.5	-7.9	-22.3	-23.3		-19.6	

Returns are Net of Fees)

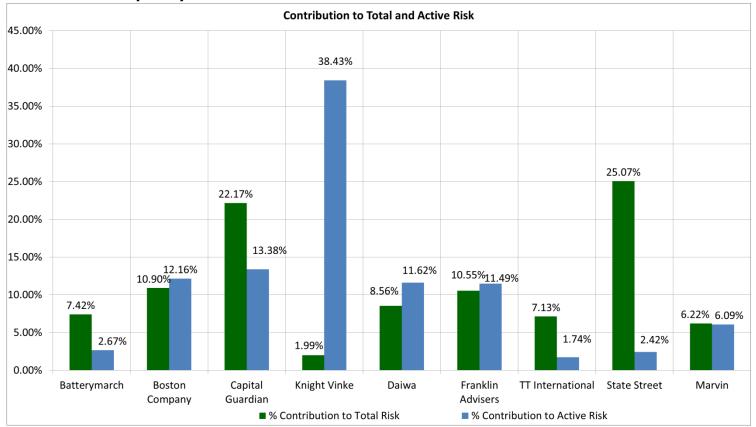
¹ Indicates gross returns

* The MS ACWI ex U.S., MSCI Pacific, and MSCI AC Asia Pacific indices are historically blended with other indices.

** Effective July 1, 2012.



Non-U.S. Equity – Contribution to 5-Year Total & Active Risk

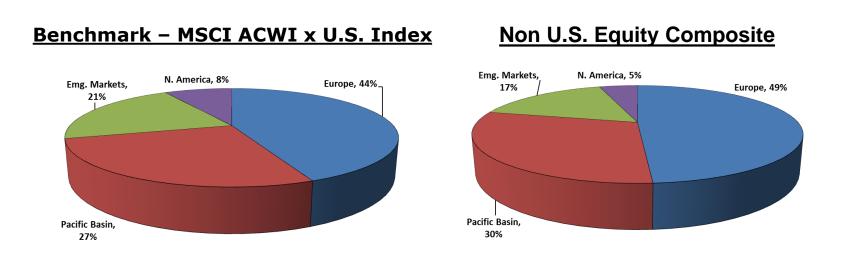


- Knight Vinke had small contribution to total risk due to its small weight, but large contribution to active risk due to large negative active return
- All managers have contributed to total risk in proportion to their portfolio weights, which is positive





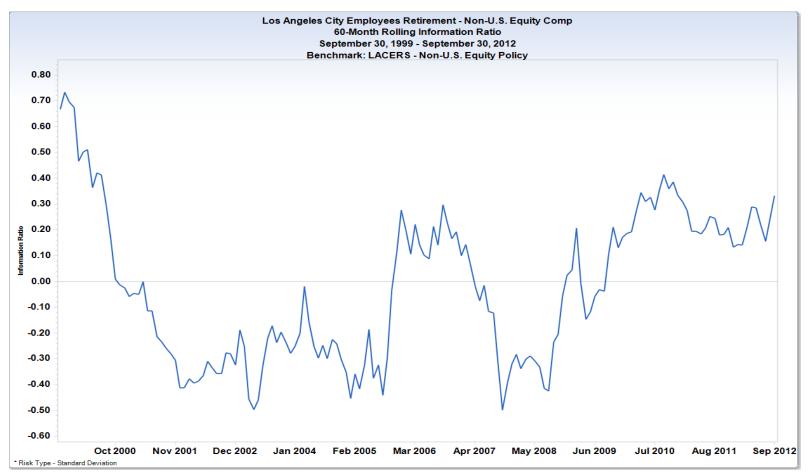
Country Allocation



- Objective is to be region neutral versus benchmark so no biases introduced which could increase risk without expected reward
- Portfolio is underweight Emerging Markets and overweight Europe which benefitted as Europe rebounded year to date



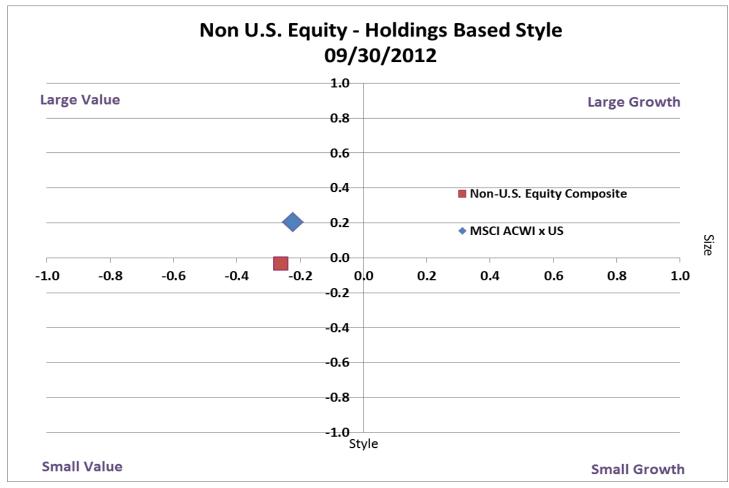
5-Year Rolling Risk-Adjusted Active Returns*



- Active returns are returns earned over/(under) benchmark return
- Non-U.S. Equity's rolling information ratio has been steadily increasing for past 3 years

* Risk-adjusted active returns are referred to as "Information Ratio". Information Ratio = Excess return (alpha) / Excess risk (tracking error)





• LACERS Non-U.S. Equity Portfolio has exhibited modest value bias compared to MSCI ACWI x US index as well as small cap bias



MANAGER REPORT CARD¹

	Non-U.S. Managers	Inception Date	Mandate		rent irter	One	Year		ree ars		ve ars	Since Inception	Comments ²
				Ι	U	I	U	Ι	U	Ι	U	I	
\succ	Batterymarch	Sep-08	Emerging Markets	×	×	×	×	×	×	n/a	n/a	×	Performance lagging. Monitoring manager.
≻	Boston Company	Jan-03	Emerging Markets	~	✓	×	×	×	×	✓	~	*	"On Watch" since 02/12 - performance improving. Monitoring manager.
	Capital Guardian	May-96	Europe	~	×	~	✓	✓	×	✓	×	✓	Performance satisfactory; removed from Watch list 08/12.
≻	Daiwa	Dec-95	Asia Pacific	=	×	×	×	×	×	×	n/a	✓	"On Watch" since 10/11 - organization. Performance lagging. Monitoring manager.
	Franklin Templeton	Nov-91	Asia Pacific	✓	✓	✓	✓	✓	✓	✓	n/a	\checkmark	Performance satisfactory.
۶	TT International	May-01	Non US Developed	×	×	×	×	×	×	×	×	×	"On Watch" since 1/09 - performance.
≻	State Street	Aug-93	Non US Developed	=	✓	✓	×	~	×	~	×	✓	Performance satisfactory.
۶	Knight Vinke	Apr-06	Corp Gov - Europe	✓	n/a	×	n/a	*	n/a	×	n/a	×	In redemption process.

¹Current Quarter, 1-Yr, 3-Yrs, and 5-Yrs returns are net of fees. Since Inception returns are gross of fee.

² Managers are placed on the Watch List for concerns with organization, process, and performance. Managers are normally on the Watch List for 6 months though can be longer if manager issues still remain but not severe enough to warrant contract termination recommendation.

		LEGEND	
ist	✓	outperformed index	I index
	*	underperformed index	U universe median
	=	equal to index	



Batterymarch

Mandate: Emerging Markets Equity Benchmark: MSCI Emerging Markets ND

Strategy

Batterymarch invests in Non-U.S. stocks in emerging countries that are part of the MSCI Emerging Markets index.

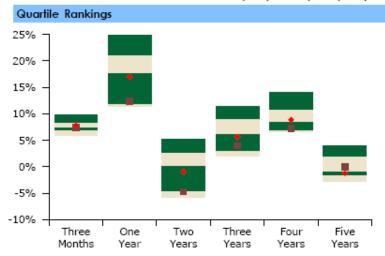
Performance





Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Batterymarch	7.2	11.4	(5.6)	3.0		8.0	Sep-2008
MSCI Emerging Mark	7.7	16.9	(1.0)	5.6		9.3	
Excess Return	(0.5)	(5.5)	(4.6)	(2.6)		(1.3)	

Objective: Outperform the benchmark by 300 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Batterymarch	7.4	12.3	(4.7)	3.9	7.2	
Rank	48	72	77	69	67	
🔶 MSCI Emerging Marke	7.7	16.9	(1.0)	5.6	8.8	
Rank	40	52	58	57	47	56
10th Percentile	9.8	24.9	5.2	11.3	13.9	4.0
1st Quartile	8.3	21.2	2.7	9.0	10.9	2.1
Median	7.4	17.7	0.0	6.3	8.6	(1.1)
3rd Quartile	6.9	11.9	(4.7)	3.0	7.0	(1.8)
90th Percentile	5.9	11.4	(5.8)	2.0	6.6	(2.9)
Number Of Observations	70	68	64	58	55	49



Boston Company

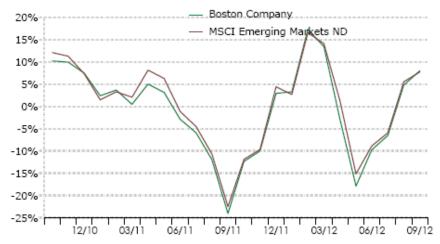
Mandate: Emerging Markets Equity Benchmark: MSCI Emerging Markets ND

Strategy

Boston Co. invests in Non-U.S. stocks in emerging countries that are part of the MSCI Emerging Markets index.

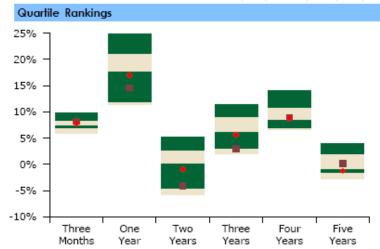
Performance

Quarterly Rate of Return Vs Benchmark



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Boston Company	8.0	13.8	(4.8)	2.2	(0.7)	16.4	Jan-2003
MSCI Emerging Mark	7.7	16.9	(1.0)	5.6	(1.3)	16.5	
Excess Return	0.3	(3.1)	(3.8)	(3.4)	0.6	(0.1)	
Excess Ketam	0.5	(311)	(0.0)	(517)	0.0	(0.1)	

Objective: Outperform the benchmark by 200-300 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Boston Company	8.2	14.6	(4.1)	3.0	8.8	0.1
Rank	28	63	72	76	49	36
🔶 MSCI Emerging Marke	7.7	16.9	(1.0)	5.6	8.8	(1.3)
Rank	40	52	58	57	47	56
10th Percentile	9.8	24.9	5.2	11.3	13.9	4.0
1st Quartile	8.3	21.2	2.7	9.0	10.9	2.1
Median	7.4	17.7	0.0	6.3	8.6	(1.1)
3rd Quartile	6.9	11.9	(4.7)	3.0	7.0	(1.8)
90th Percentile	5.9	11.4	(5.8)	2.0	6.6	(2.9)
Number Of Observations	70	68	64	58	55	49



Capital Guardian

Mandate: Europe Region Equity Manager

Quarterly Rate of Return Vs Benchmark

Benchmark: MSCI Europe ND

Strategy

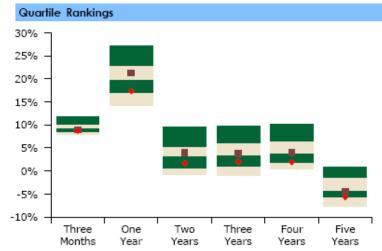
Capital Guardian invests in Non-U.S. stocks across all developed European countries.

Performance

20% Capital Guardian MSCI Europe ND 15% 10% 5% 0% -5% -10% -15% -20% -25% r 12/10 03/11 09/11 12/11 03/12 06/12 09/12 06/11

Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Capital Guardian	8.8	20.8	3.6	3.3	(5.0)	8.3	May-1996
MSCI Europe ND	8.7	17.3	1.7	2.0	(5.7)	6.2	
Excess Return	0.1	3.5	1.9	1.3	0.7	2.1	

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Capital Guardian	8.9	21.3	4.0	3.8	4.0	(4.6)
Rank	70	40	40	50	50	55
🔶 MSCI Europe ND	8.7	17.3	1.7	2.0	1.9	(5.7)
Rank	75	75	70	65	75	75
10th Percentile	11.7	27.1	9.5	9.8	10.2	1.0
1st Quartile	10.2	22.8	5.4	6.1	6.4	(1.6)
Median	9.4	19.9	3.4	3.5	3.9	(4.3)
3rd Quartile	8.5	17.0	0.7	1.0	1.9	(5.8)
90th Percentile	7.9	14.2	(0.7)	(0.9)	0.6	(7.7)
Number Of Observations	123	120	118	114	110	101

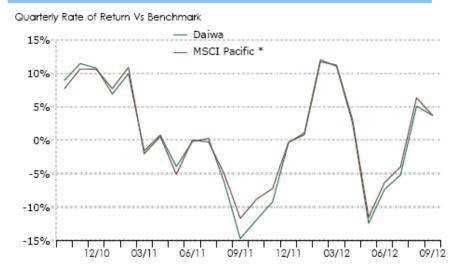


Mandate: Pacific Basin Manager Benchmark: MSCI Pacific

Strategy

DAIWA invests in Non-U.S. stocks primarily in Japan and Australia. Investment opportunities in other Asian countries are also pursued.

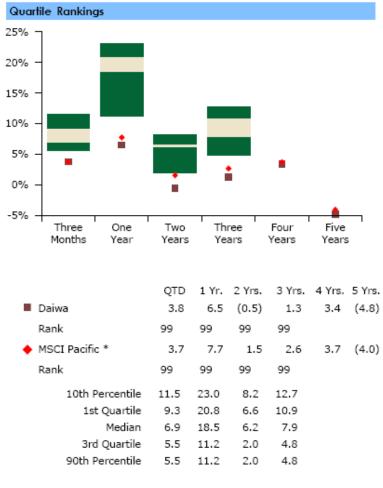
Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Daiwa	3.7	6.4	(0.7)	1.1	(5.0)	3.6	Dec-1995
MSCI Pacific *	3.7	7.7	1.6	2.6	(4.0)	0.3	
Excess Return	0.0	(1.3)	(2.3)	(1.5)	(1.0)	3.3	

Daiwa

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).



Number Of Observations 9 9 9 9



Franklin Templeton

Benchmark: MS AC Asia Pacific *

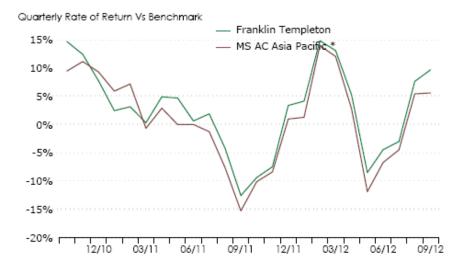
Pacific Basin Manager

Strategy

Mandate:

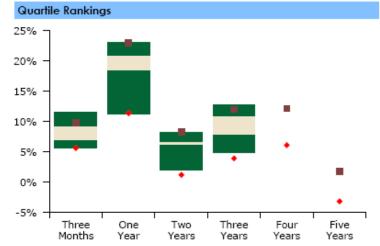
Franklin invests in Non-U.S. stocks in the Asia/Pacific region. Investments are in both developed and emerging countries.

Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Franklin Templeton	9.7	22.4	7.8	11.5	1.3	7.9	Nov-1991
MS AC Asia Pacific *	5.6	11.3	1.2	3.9	(3.2)	3.1	
Excess Return	4.1	11.1	6.6	7.6	4.5	4.8	

Objective: Outperform the benchmark by 200 bps , annualized over a full market cycle (normally 3-5 years).

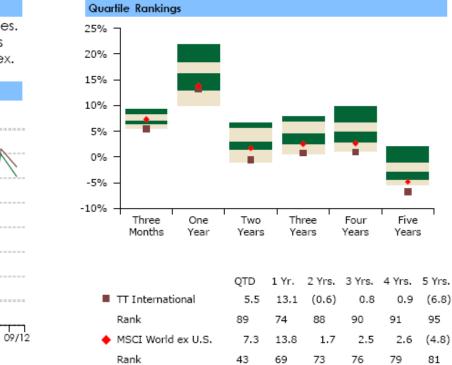


		QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Fran	nklin Templeton	9.8	22.9	8.3	12.0	12.1	1.7
Ran	k	25	25	1	25		
🔶 MS	AC Asia Pacific *	5.6	11.3	1.2	3.9	6.1	(3.2)
Ran	k	75	75	99	99		
	10th Percentile	11.5	23.0	8.2	12.7		
	1st Quartile	9.3	20.8	6.6	10.9		
	Median	6.9	18.5	6.2	7.9		
	3rd Quartile	5.5	11.2	2.0	4.8		
	90th Percentile	5.5	11.2	2.0	4.8		
Number	f Obs@rvations	9	9	9	9		



TT International

Objective: Outperformed the benchmark in U.S.\$ by 3% per annum, net-of-fees, over a full market cycle normally 3-5 years).



	Kdlik	45	69	/5	70	/9	01
	10th Percentile	9.3	21.8	6.5	7.9	9.9	2.1
_	1st Quartile	8.4	18.4	5.6	7.0	6.8	(1.3)
	Median	7.2	16.3	3.0	4.6	4.9	(2.9)
	3rd Quartile	6.4	12.9	1.4	2.6	2.9	(4.5)
_	90th Percentile	5.5	10.0	(1.0)	0.6	1.1	(5.5)
=							

186

169

152

126

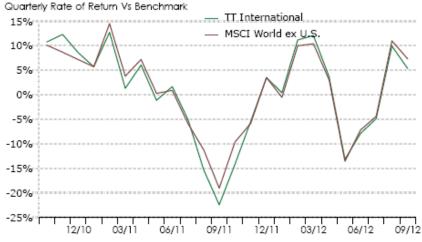
Number Of Observations 209 200

Mandate: Non-U.S. Developed Equity Mgrs. Benchmark: MSCI World ex U.S.

Strategy

TT Intl invests in Non-U.S. stocks primarily in developed countries. There is no regional focus. Potential investment opportunities are pursued in all countries within the MSCI World ex U.S. index.

Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
TT International	5.4	12.5	(1.2)	0.2	(7.3)	3.2	May-2001
MSCI World ex U.S.	7.3	13.8	1.7	2.5	(4.8)	4.1	
Excess Return	(1.9)	(1.3)	(2.9)	(2.3)	(2.5)	(0.9)	

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Fixed Income Managers





Fixed Income Managers

(Returns are Net of Fees)

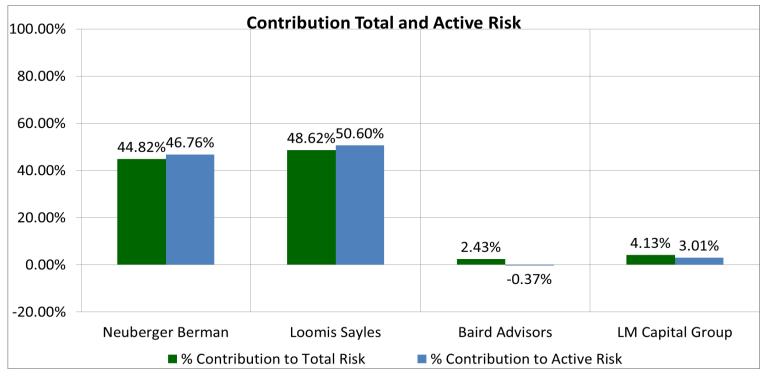
	Inception Date		ket Value million)	% to Total Fixed	Current Quarter	One Year	Three Years	Five Years	Ten Years	Since Inception ¹	5 Year Tracking
		•		Income							Error
Total Fixed Income	Oct-94	\$	2,759	100.0%	3.1	9.6	8.1	7.6	7.0	7.6	2.7
BC U.S. Universal *					2.0	6.5	6.7	6.6	5.7	6.6	
Excess Return					1.1	3.1	1.4	1.0	1.3	1.0	
Core Fixed Income BC U.S. Universal *	Jun-12	\$	2,759	100.0%	3.1 2.0					3.1 2.0	
Excess Return					1.1					1.1	
Loomis Sayles BC U.S. Universal *	Jun-80	\$	1,109	40.2%	3.2 2.0	9.1 6.5	7.7 6.7	7.5 6.6	7.8 5.7	10.2 <i>8.6</i>	4.2
Excess Return					1.2	2.6	1.0	0.9	2.1	1.6	
Neuberger Berman BC U.S. Universal *	Nov-90	\$	1,132	41.0%	3.3 2.0	10.8 6.5	9.2 6.7	8.8 6.6	7.4 5.7	7.9 7.0	3.4
Excess Return					1.3	4.3	2.5	2.2	1.7	0.9	
Baird Advisors BC U.S. Govt/Credit Intermed	Mar-05	\$	246	8.9%	2.1 1.4	6.3 4.4	7.0 5.2	6.3 5.7	 	5.9 5.3	1.5
Excess Return					0.7	1.9	1.8	0.6		0.6	
LM Capital Group <i>BC U.S. Universal</i> *	Mar-05	\$	272	9.8%	2.7 2.0	8.2 6.5	6.9 5.9	6.8 6.1	 	6.3 5.5	3.0
Excess Return					0.7	1.7	1.0	0.7		0.8	

¹ Indicates gross returns

 * The BC U.S. Universal index has historical data blended with other indices.



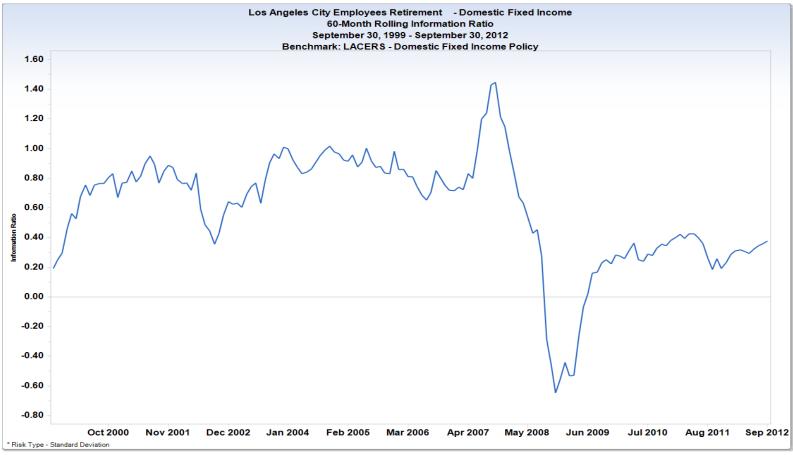
Fixed Income – Contribution to 5-Year Total & Active Risk



- Fixed Income managers had similar contribution to active risk as total risk
- Contribution to total risk for Baird and LM Capital is much lower than the actual portfolio weights as their effects are dominated by Neuberger Berman and Loomis Sayles
- Baird provided very modest active risk reduction



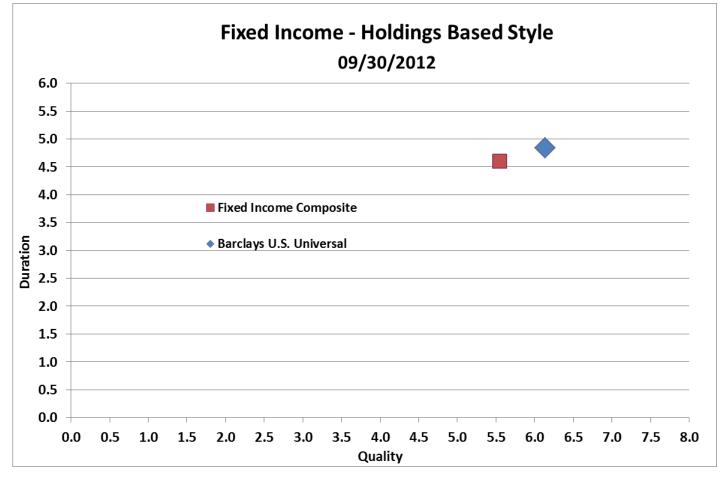
5-Year Rolling Risk-Adjusted Active Returns*



- Active returns are returns earned over/(under) benchmark return
- Despite dip in 2008, fixed income composite has provided mostly positive risk-adjusted active returns since inception

* Risk-adjusted active returns are referred to as "Information Ratio". Information Ratio = Excess return (alpha) / Excess risk (tracking error)





- LACERS Fixed Income portfolio has similar duration to benchmark
- Portfolio is modestly lower quality versus benchmark



MANAGER REPORT CARD¹

Core Fixed Income	Inception Date	Mandate		rent arter	-	ne ear	Three Years							ve ars	Since Inception	Comments ²
			Ι	U	Ι	U	Ι	U	Ι	U	I					
> Neuberger Berman	Nov-90	Core - Plus	✓	~	✓	~	✓	✓	✓	✓	1	Performance satisfactory.				
> Loomis Sayles	Jun-80	Core - Plus	1	1	✓	~	~	~	✓	~	1	Performance satisfactory.				
Baird Advisors	Mar-05	Intermediate	1	1	✓	~	~	~	✓	~	✓	Performance satisfactory.				
LM Capital Group	Feb-05	Core - Plus	~	~	✓	~	✓	1	✓	~	✓	Performance satisfactory.				

¹Current Quarter, 1-Yr, 3-Yrs, and 5-Yrs returns are net of fees. Since Inception returns are gross of fee.

² Managers are placed on the Watch List for concerns with organization, process, and performance. Managers are normally on the Watch List for 6 months though can be longer if manager issues still remain but not severe enough to warrant contract termination recommendation.

		LEGEND)	
•	1	outperformed index	Ι	index
	×	underperformed index	U	universe median
	Ш	equal to index		



Neuberger Berman

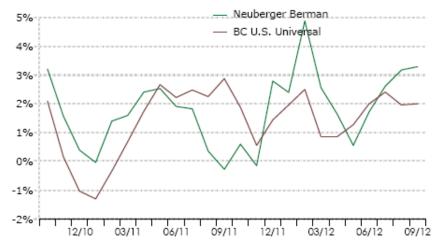
U.S. Fixed Income Manager Mandate: Benchmark: BC U.S. Universal

Strategy

Nueberger invests in investment-grade bonds rated BBB- or higher by Moodys.

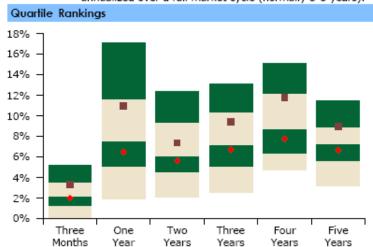
Performance

Quarterly Rate of Return Vs Benchmark



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Neuberger Berman	3.3	10.8	7.2	9.2	8.8	7.9	Nov-1990
BC U.S. Universal	2.0	6.5	5.6	6.7	6.6	7.0	
Excess Return	1.3	4.3	1.6	2.5	2.2	0.9	

Objective: Outperform the benchmark by 100 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Neuberger Berman	3.3	10.9	7.4	9.4	11.8	8.9
Rank	29	29	34	31	27	25
🔶 BC U.S. Universal	2.0	6.5	5.6	6.7	7.7	6.6
Rank	57	60	58	57	63	61
10th Percentile	5.1	17.1	12.4	13.1	15.1	11.5
1st Quartile	3.5	11.6	9.4	10.3	12.2	8.9
Median	2.2	7.5	6.1	7.1	8.7	7.2
3rd Quartile	1.3	5.1	4.5	5.1	6.4	5.7
90th Percentile	0.0	1.9	2.1	2.6	4.7	3.2
Number Of Observations	484	446	409	362	305	268



Loomis Sayles

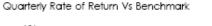
Mandate: U.S. Fixed Income Manager

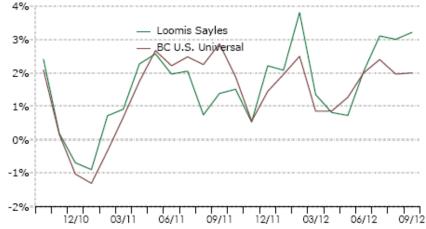
Benchmark: BC U.S. Universal

Strategy

Loomis invests primarily in U.S. investment-grade bonds rated BBB- or higher by Moody's.

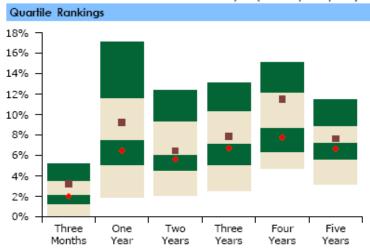
Performance





LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
3.2	9.1	6.3	7.7	7.5	10.2	Jun-1980
2.0	6.5	5.6	6.7	6.6	8.6	
1.2	2.6	0.7	1.0	0.9	1.6	
	3.2 2.0	3.2 9.1 2.0 6.5	3.2 9.1 6.3 2.0 6.5 5.6	3.2 9.1 6.3 7.7 2.0 6.5 5.6 6.7	3.2 9.1 6.3 7.7 7.5 2.0 6.5 5.6 6.7 6.6	LCQ 1 Yr. 2 Yrs. 3 Yrs. 5 Yrs. Return 3.2 9.1 6.3 7.7 7.5 10.2 2.0 6.5 5.6 6.7 6.6 8.6

Objective: Outperform the benchmark by 50 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Loomis Sayles	3.2	9.2	6.4	7.8	11.5	7.6
Rank	30	39	42	40	28	43
🔶 BC U.S. Universal	2.0	6.5	5.6	6.7	7.7	6.6
Rank	57	60	58	57	63	61
10th Percentile	5.1	17.1	12.4	13.1	15.1	11.5
1st Quartile	3.5	11.6	9.4	10.3	12.2	8.9
Median	2.2	7.5	6.1	7.1	8.7	7.2
3rd Quartile	1.3	5.1	4.5	5.1	6.4	5.7
90th Percentile	0.0	1.9	2.1	2.6	4.7	3.2
Number Of Observations	484	446	409	362	305	268





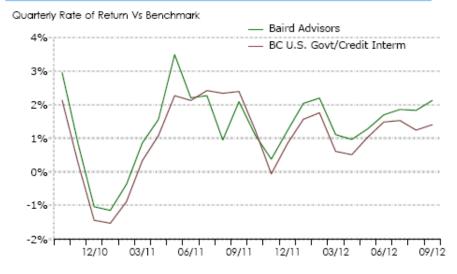
Mandate: Intermediate Fixed Income

Benchmark: BC U.S. Govt/Credit Intermediate

Strategy

Baird invests primarily in U.S. investment-grade bonds in the govenment and credit sectors with 3-5 year maturities.

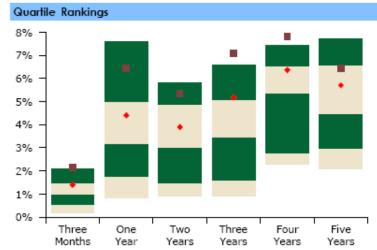
Performance



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
Baird Advisors	2.1	6.3	5.2	7.0	6.3	5.9	Mar-2005
BC U.S. Govt/Crdt Int.	1.4	4.4	3.9	5.2	5.7	5.3	
Excess Return	0.7	1.9	1.3	1.8	0.6	0.6	

Baird Advisors

Objective: Outperform the benchmark by 15-40 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
Baird Advisors	2.2	6.4	5.4	7.1	7.8	6.5
Rank	10	15	15	8	9	26
🔶 BC U.S. Govt/Crdt Int.	1.4	4.4	3.9	5.2	6.4	5.7
Rank	39	40	36	22	29	32
10th Percentile	2.1	7.6	5.8	6.6	7.4	7.7
1st Quartile	1.5	5.0	4.9	5.1	6.5	6.6
Median	1.0	3.2	3.0	3.5	5.4	4.5
3rd Quartile	0.6	1.8	1.5	1.6	2.8	3.0
90th Percentile	0.2	0.9	0.9	0.9	2.3	2.1
Number Of Observations	62	61	59	46	39	36

Fixed Income Managers 8



LM Capital Group

Mandate: Intermediate Fixed Income

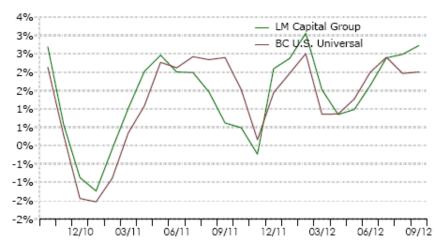
Benchmark: BC U.S. Universal

Strategy

LM Capital invests primarily in U.S. investment-grade bonds in the government and credit sectors with 3-5 year maturities.

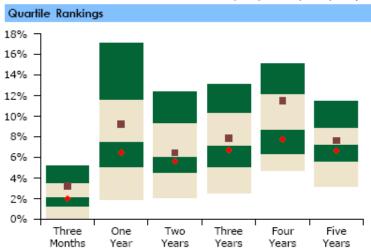
Performance

Quarterly Rate of Return Vs Benchmark



Net Returns %	LCQ	1 Yr.	2 Yrs.	3 Yrs.	5 Yrs.	Gross ITD Return	Inception Date
LM Capital Group	2.7	8.2	5.5	6.9	6.8	6.3	Mar-2005
BC U.S. Universal	2.0	6.5	4.9	5.9	6.1	5.5	
Excess Return	0.7	1.7	0.6	1.0	0.7	0.8	

Objective: Outperform the benchmark by 30-80 bps , annualized over a full market cycle (normally 3-5 years).



	QTD	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.
LM Capital Group	2.8	8.4	5.6	7.0	9.1	6.9
Rank	5	9	12	8	5	17
🔶 BC U.S. Universal	2.0	6.5	4.9	5.9	6.9	6.1
Rank	13	15	22	17	16	29
10th Percentile	2.1	7.6	5.8	6.6	7.4	7.7
1st Quartile	1.5	5.0	4.9	5.1	6.5	6.6
Median	1.0	3.2	3.0	3.5	5.4	4.5
3rd Quartile	0.6	1.8	1.5	1.6	2.8	3.0
90th Percentile	0.2	0.9	0.9	0.9	2.3	2.1
Number Of Observations	62	61	59	46	39	36

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Definitions







I. Asset Allocation

- Market %: market value as a percent of the total fund's market value.
- Target %: investment policy on target allocation for each asset classes.
- Minimum and Maximum %: range of allocation for each asset classes.

II. Policy Benchmarks

• Current (adopted January 24, 2012)

- U.S Equity: 24% Russell 3000
- Non-U.S Equity: 29% MS ACWI ex US Net Div
- Fixed Income: 19% Barclays Capital (BC) Aggregate
- Credit Opportunities: 5% 65% Barclays U.S. High Yield Capped / 35% JP Morgan EMBI Global Diversified
- Public Real Assets: 5% CPI + 5%
- Private Real Estate: 5% NCREIF + 100 bps annually
- Alternative Investments: 12% Russell 3000 plus 300 bps annually. Calculated on a dollar-weighted basis, and holding cash flows at 0% return for the first 36 months
- Cash: 1% 90-day Treasury Bill
- Total: 24% U.S. Equity; 29% Non-U.S. Equity; 19% Fixed Income; 5% Credit Opportunities; 5% Public Real Assets; 5% Private Real Estate; 12% Alternative Investments; 1% Cash

• Prior (adopted October 13, 2009)

- U.S Equity: 27% Russell 3000
- Non-U.S Equity: 20% MS ACWI ex US Net Div
- Core Fixed Income: 26% Barclays Capital (BC) Universal
- Real Estate: 7% NCREIF
- Alternative Investments: 9% Russell 3000 plus 400 bps annually. Calculated on a dollar-weighted basis, and holding cash flows at 0% return for the first 36 months.
- Cash: 1% 90-day Treasury Bill
- Total: 37% U.S. Equity; 20% Non-U.S. Equity; 26% Core Fixed Income; 7% Private Real Estate; 9% Alternative Investments; 1% Cash



lll. Indices

Cash

Salomon Brothers 3-Month Treasury Bills: an average of the last three 3-month treasury bill issues' monthly return equivalents of yield averages, which are not marked to market. Month-end discount yields are converted to bond-equivalent yields, then a simple average is taken, and that number is decompounded to a monthly return using the actual number of days in the month and a 365-day year.

- Equity
 - Dow Jones Industrial Average: This index is the price-weighted average of 30 actively traded blue chip stocks.
 - NASDAQ: A market value weighted index that measures all domestic and non-US based securities, more than 4700 companies listed on the NASDAQ stock market.
 - Russell Midcap Value: contains Russell Midcap stocks having less-than-average growth orientation and are included in the Russell 1000 Value Index.
 - Russell 1000: consists of the 1000 largest securities in the Russell 3000 Index. The Russell 1000 is capitalizationweighted.
 - **Russell 1000 Growth:** contains Russell 1000 stocks having greater-than-average growth orientation. Stocks tend to exhibit lower dividend yields and higher price-to-book ratios, price-earnings ratios and forecast growth values than the Value universe. The index is capitalization-weighted (as opposed to equal-weighted).
 - Russell 1000 Value: contains those Russell 1000 securities with a less-than-average growth orientation. Securities
 in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower
 forecasted growth values than the Growth universe. Russell 1000 Value is capitalization-weighted.
 - **Russell 2000:** contains the smallest 2,000 stocks in the Russell 3000 Index, representing approximately 11% of the Russell 3000 total market capitalization. The index is capitalization-weighted (as opposed to equal-weighted).
 - Russell 2000 Growth: contains those Russell 2000 securities with a greater-than-average growth orientation. Securities in this index tend to exhibit higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values than the Value universe.
 - Russell 2000 Value: contains those Russell 2000 securities with a less-than-average growth orientation. Securities
 in this index tend to exhibit lower price-to-book and price-earnings ratios, higher dividend yields and lower
 forecasted growth values than the Growth universe.
 - **Russell 3000:** measures performance of the 3000 largest US companies based on total market capitalization. This index represents approximately 98% of the investable US equity market. The Russell 3000 is capitalization-weighted.



lll. Indices

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 - **Russell 3000:** measures performance of the 3000 largest US companies based on total market capitalization. This index represents approximately 98% of the investable US equity market. The Russell 3000 is capitalization-weighted.



- Standard and Poor 500: the S&P, which represents approximately 75% of NYSE market capitalization and 30% of NYSE issues, contains 500 industrial, utility, transportation and financial companies in the U.S. markets (mostly NYSE issues). The S&P is capitalization-weighted (as opposed to equal-weighted), calculated on a total return basis with dividends reinvested.
- Morgan Stanley All Country World ex USA: an arithmetic, market value-weighted average of approx. 1800 securities from outside the United States. The index is calculated on a total return basis, including reinvestment of gross dividends before deduction of withholding taxes.
- Morgan Stanley Capital International Emerging Markets Free: contains securities of the following counties which are available to all investors regardless of local status: Argentina, Brazil, Chile, Colombia, Greece, India, Indonesia, Israel, Jordan, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Portugal, South Africa, Sri Lanka, Thailand, Turkey and Venezuela.
- Morgan Stanley Capital International EAFE: an arithmetic, market value-weighted average of over 900 securities from Europe, Australia, and the Far East. The index is calculated on a total return basis, including reinvestment of gross dividends before deduction of withholding taxes. The following countries are represented: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, Malaysia, Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland and the United Kingdom.
- Morgan Stanley Capital International Europe: includes companies representing 15 European countries: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.
- Morgan Stanley Capital International Pacific: includes companies representing 5 countries: Australia, Hong Kong, Japan, New Zealand and Singapore.
- Morgan Stanley Capital International Pacific ex Japan: includes companies representing 4 countries: Australia, Hong Kong, New Zealand and Singapore.
- Morgan Stanley All Country Asia Pacific: includes companies representing 14 countries: Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Pakistan, Philippines, Korea, New Zealand, Singapore, Thailand, and Taiwan. It is calculated on a total return basis with dividends reinvested.

Fixed Income

 Barclays Capital Aggregate: an aggregate of the Government/Corporate Bond Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The index contains fixed rate debt issues with at least oneyear maturity, \$100 million par value outstanding, and investment grade ratings by Moody's, S&P or Fitch (in that order). Returns are market-value weighted inclusive of accrued interest.



- Barclays Capital Universal: This index contains the Barclays Capital Aggregate index bonds plus approximately 10% of the remaining index includes US High Yield, Eurodollar, Emerging Markets, 144A Private Placements, and CMBS bonds.
- Barclays Capital US Govt/Credit Intermediate: This index is a sub-component of the Barclays Capital Aggregate index. Bonds consist of the US Treasury, US Agency (non-MBS), and US Investment-grade credit holdings with a maturity range of 1 to 10 years.
- Bond Rating Methodology: Bond ratings are intended to characterize the risk associated with holding a particular bond or categories of bonds. These ratings are the risk assessed by the market and that the bond issuer must pay to attract purchasers to the bond. These ratings are expressed as a series of letters and sequences.

Rating Categories in descending order:

- AAA: The best quality rating, stable cash flows, very protective bond covenants, very low probability of default.
- Aa: The second best rating. Stable cash flows, less protective bond covenants, very low probability of default.
- A: Stable cash flows, less protective bond covenants, long-term probability of default is higher than AAA or Aa.
- Baa: Medium quality rating, reliable cash flows short term, less-reliable cash flows long term, bond covenants offer limited protection. Moderate probability of default. Downgrade to a lower rating is also possible. Baa bonds are the lowest rating still considered 'investment grade.
- Ba thru B: Highly speculative. Long-term assurance of cash flows and protective elements are low.
 Purchasers of these bonds generally specialize in assessing credit risk of specific bond issues.
 Much higher spreads versus investment grade bonds provide the incentive for purchasers. High default or downgrade risk.
- ◊ Caa thru C: Poor standing. Either close to default or in default. Highly probable loss of principal.
- Coupon payments were not paid on the due date which puts the bond In default. Unless both Protective covenants and issuer assets are adequate (not likely), holder loses all likelihood of recovering principal.

Real Estate

NCREIF Property Index: the NPI contains investment-grade, non-agricultural, income-producing properties which may be financed in excess of 5% gross market value; were acquired on behalf of tax exempt institutions; and are held in a fiduciary environment. Data is collected quarterly from a membership of investment managers and plan sponsors.



Returns are gross of fees; include income, realized gains/losses, and appreciation/depreciation; and are market-value weighted. Property values are determined by consistent appraisal methodology and sold properties are removed in the quarter of the sale (the historical data remains). Current quarter performance is preliminary.

IV. Universe Comparison

All Northern Trust Universes are gross of fees. Universe breaks are at 10, 25, 50, 75 and 90 percentiles.

• TUCS Plan Universes

Published on a quarterly basis using monthly observations. Over time, the plan population members will change due to new plans being introduced and other plans closing or leaving the universe.

Public Funds

Includes the range of performance of all Public Funds greater than 1 billion dollars. Monitored by the Wilshire's Trust Universe Comparison Services Group. Plans include state and municipal plans and systems.

Manager Universes

Created using the performance of managers used by sponsor subscribers to the Risk & Performance Services Group (RPS). Each occurrence of a manager is considered as an observation. The manager universes are used to describe the actual experience of plan sponsors use of the managers; no manager supplied representative portfolios or composites are used in the creation of the universes. All occurrences of a manager are included in the magnitudes they are used by the sponsors; no stratification or judgments are introduced by RPS to alter a manager's representation. Manager portfolios are used from all market segments (ERISA, Public, Foundation & Endowments, and Wealth) since managers are hired to fulfill a specific policy objective that is not unique by plan type. Inclusion in a universe is based upon quantitative screening using the criteria described; an RPS analyst determines the comparison of a manager to this style background for reporting purposes. The portfolio criteria are applied as the average of the values over the time period being observed and not simply the current point in time value.

US Equity - Large Cap Core

Includes portfolios with a portfolio average market capitalization greater than \$10 billion but not displaying any significant growth or value bias. The Barra Growth and Barra Book to Price risk factors are used to determine style orientation. Most of the portfolios also display a market-like beta.



US Equity - Large Cap Growth

Includes portfolios with a portfolio average market capitalization greater than \$10 billion. Portfolios will also display a significant growth bias as represented by a Barra Growth Risk Factor in the top 40% of all US equity portfolios and a Barra Price/Book score in the bottom 70% of all US equity portfolios monitored by RPS. Most growth portfolios display an above market beta.

US Equity - Large Cap Value

Includes portfolios with a portfolio average market capitalization greater than \$10 billion. Portfolios will also display a significant value bias as represented by a Barra Price/Book score in the top 30% of all US equity portfolios monitored by RPS. Most value portfolios display a below market beta and above market dividend yield.

US Equity - Small Cap Growth

Includes portfolios with a portfolio average market capitalization of less than \$2 billion. Small Cap Growth portfolios will also display a growth bias as represented by a Barra Growth Risk Factor in the top 31% of all US equity portfolios monitored by RPS.

US Equity - Small Cap Value

Includes portfolios with a portfolio average market capitalization of less than \$2 billion. Small Cap Value portfolios will also display a value bias as represented by a Barra Price/Book score in the top 27% and a Barra Growth factor score in the bottom 31% of all US equity portfolios monitored by RPS.

Non-US Equity - Developed Markets

Includes all managers investing in developed markets outside of North America. The majority of the portfolios in this universe are EAFE-oriented but may contain an opportunistic allocation to emerging markets equity (extended EAFE). There are a few regional non-US equity managers (Europe & Pacific Basin) also represented.

Non-US Equity - Emerging Markets

Includes all managers investing in emerging markets. The universe includes emerging markets managers that are diversified across all emerging markets as well as specialists in regional emerging markets.

US Core Fixed Income

Includes all managers, active and passive, investing in US Fixed Income.



Credit Opportunities

Includes all managers, active and passive, investing in US high yield and emerging market debt managers.

Public Real Assets

Includes all managers investing in Public REITS, TIPS, Commodities, and Multi Asset Real Asset/Return managers.

V. Investment Performance

- Time: the internal rate of return (accounting for daily cash flows) monthly based on trade-date, full accrual accounting, and using market values. For periods of greater than one month, a time series of linked monthly returns is maintained, introducing a time weighted effect.
- The Real Estate and the Alternative Investments returns are lagged one quarter.
- The LACERS Total Fund return is dollar-weighted to include Alternative investments.

VI. Performance Attribution

Holdings-Based Attribution.

US Equity, Non-US Equity, and Fixed Income tables are Holdings-based. The table details various attribution subcategories which impacted each manager's performance such as: selection, weighting, duration, yield, quality, etc.

VII. Terminology

- **Duration**: A measure of the sensitivity of the price (the value of principal) of a fixed-income portfolio given a 1% change in the US Treasury yield curve (interest rates). A portfolio with a duration of 4 would be expected to lose 4% of its value when interest rates rise 1%. Duration is expressed as a number of years. Rising interest rates mean falling bond prices, while declining interest rates mean rising bond prices.
- Information ratio: A ratio of portfolio returns above the returns of a benchmark (usually an index) to the volatility of those returns. The information ratio (IR) measures a portfolio manager's ability to generate excess returns relative to a benchmark, but also attempts to identify the consistency of the investor. This ratio will identify if a manager has beaten



the benchmark by a lot in a few months or a little every month. The higher the IR the more consistent a manager is and consistency is an ideal trait.

- Standard deviation: A statistical measure of volatility or the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. A manager with a one-year return of 5% and a standard deviation of 5, indicates the range of returns for this manager will likely fall between 0% and 10% during most annual time periods.
- Tracking error: A measure of the difference between returns of the portfolio and that of the benchmark it was
 attempting to imitate; reported as a "standard deviation percentage" difference.

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