

Board of Trustees



Handout Book

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Performance Update

March 21, 2019



February Performance Summary

	February	FYTD
U.S. Equity	3.7	0.2
S&P 500 Index	3.2	<i>3.8</i>
Int'l Developed	2.3	-3.5
MSCI World Ex-USA Index	2.6	-2.7
Int'l Emerging	0.2	2.7
MSCI Emerging Markets Index	0.2	0.0
U.S. Investment Grade	0.2	2.7
Barclay's Aggregate	-0.1	2.7
U.S. High Yield	1.7	2.8
Credit Suisse High Yield Index	1.7	3.5
EMD	-0.6	2.2
JPM GBI-EM Global Diversified Index	-1.1	4.6
GMS	-0.6	0.7
50/50 BC Agg/CS HY Index	0.5	2.4
Alternatives	0.3	2.7
TOTAL PLAN	1.6%	0.7%

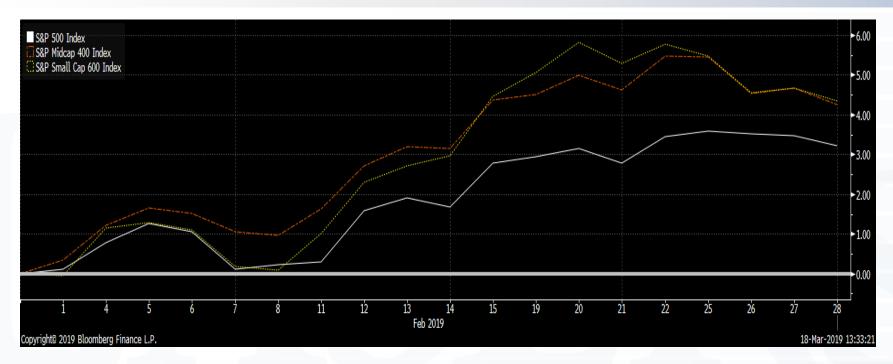


Historical Returns thru February

	Feb	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
U.S. Equity	3.7	0.2	3.8	14.4	9.1	12.3	16.9
Int'l Developed	2.3	-3.5	-5.6	10.0	2.9	6.0	10.2
Int'l Emerging	0.2	2.7	-8.1	15.4	5.1	3.5	12.3
U.S. Fixed Income	0.9	2.9	3.4	6.7	4.1	5.9	9.6
EMD	-0.6	2.2	-9.1	6.1	-0.8	n/a	n/a
GMS	1.2	2.6	4.2	n/a	n/a	n/a	n/a
Alternatives	0.3	2.7	7.7	9.4	6.6	7.2	7.8
Total Plan	1.6	0.7	0.9	11.0	6.1	7.7	11.1



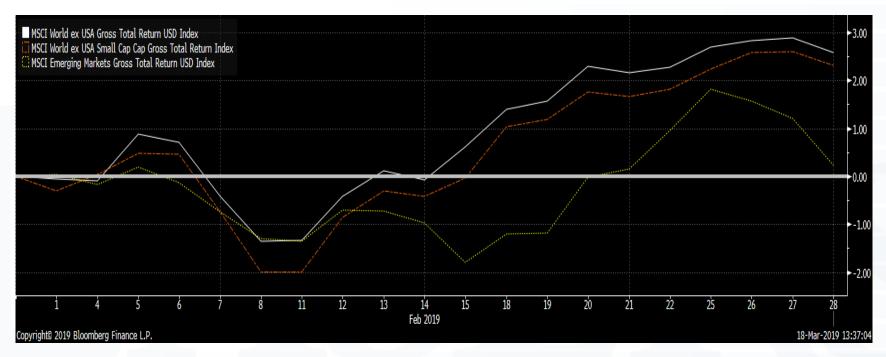
Domestic Equity - February



February 2019	LASERS	Index
Large Cap	3.2%	3.2%
Mid Cap	4.2%	4.2%
Small Cap	4.5%	4.4%



International Equity - February

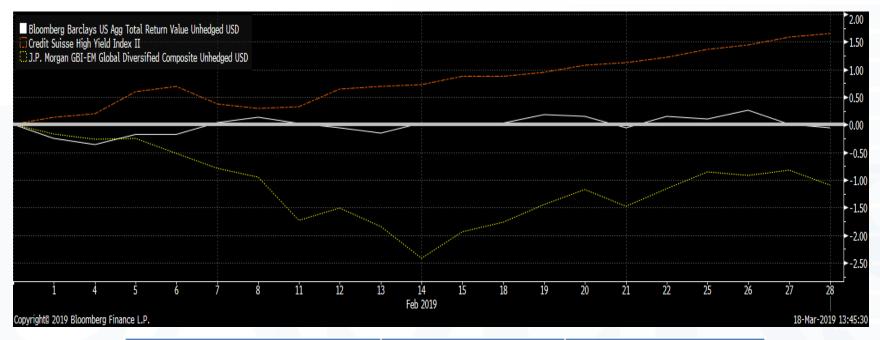


February 2019	LASERS	Index
Large Cap	2.5%	2.6%
Small Cap	1.9%	2.3%
Emerging Markets	0.2%	0.2%

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Fixed Income- February



February 2019	LASERS	Index
Investment Grade	0.2%	-0.1%
High Yield	1.7%	1.7%
Emerging Market Debt	-0.6%	-1.1%
Global Multi-Sector	1.2%	0.5%



February Performance

Nearly all assets classes experienced positive returns during February.

Domestic Equity

- S&P 500 Index returned 3.2%
- S&P 400 Index returned 4.2%
- S&P 600 Index returned 4.4%

International Equity

- MSCI World Ex-USA Index returned 2.6%
- MSCI World Ex-USA Small Cap Index returned 2.3%
- MSCI Emerging Markets Index returned 0.2%

Fixed Income

- Barclay's Aggregate Bond Index returned -0.1%
- Credit Suisse High Yield Index returned 1.7%
- J.P. Morgan GBI-EM Global Diversified Index returned -1.1%



Total Plan Returns

As of February 28

	LASERS Total Plan	S&P 500 Index
FYTD	0.7%	3.8%
1 year	0.9%	4.7%
3 years*	11.0%	15.3%
5 years*	6.1%	10.7%
7 years*	7.7%	13.1%
10 years*	11.1%	16.7%

^{*}annualized

March MTD Performance as March 18th was approximately 0.8%

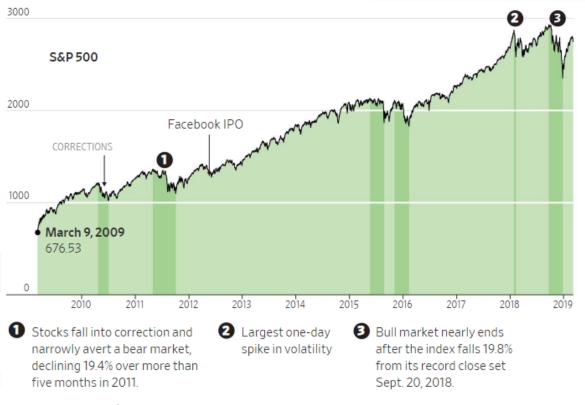


Market Notes

Lasers Unprecedented Bull Market

Retirement System

S&P 500 climbed more than 300% since hitting crisis low on March 9, 2009

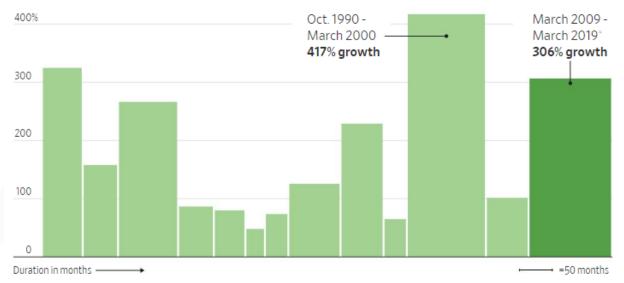


Source: Dow Jones Market Data

LASERS Current Bull Market is the Longest in U.S. History

Ranks third in market returns



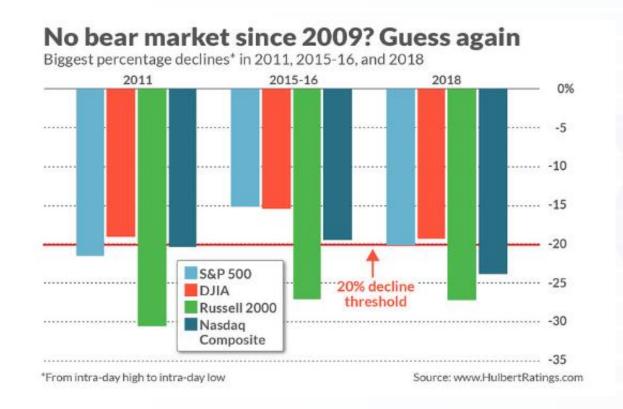


*Through March 7

Source: S&P Dow Jones Indices

Lasers Despite Extended Bull Market, Strong Corrections are not Abnormal

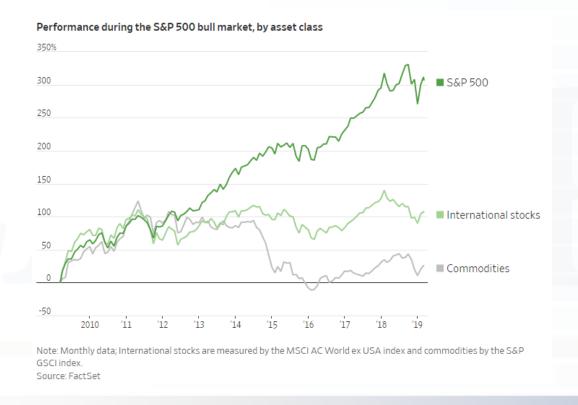
2018 was tough, but not atypical even within Bull Market



LASERS Domestic Stocks Outperform

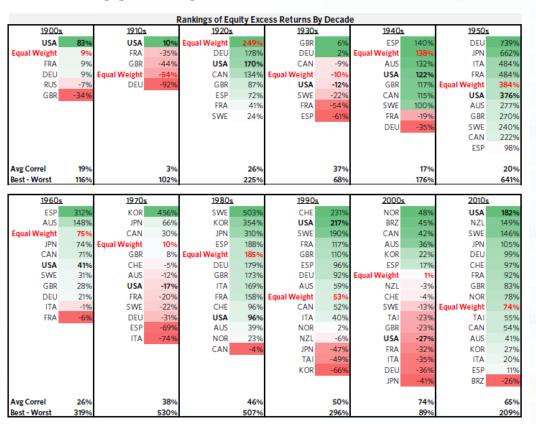
Retirement System

International Stocks lag their US counterparts, which is different from previous bull markets



LASERS U.S. Stocks Do Not Always Outperform

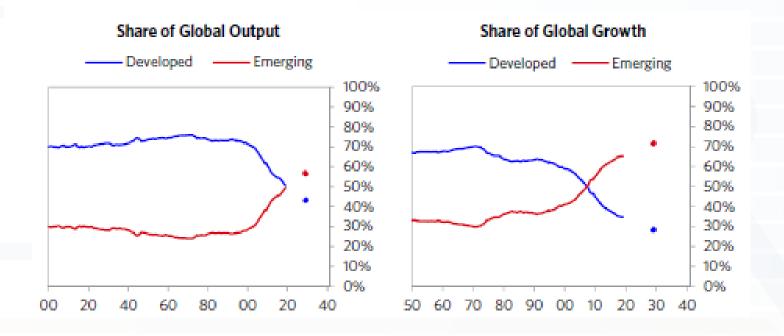
100 years of data suggests global diversification is prudent



Retirement System

LASERS Global Output and Growth Continue to Shift

Emerging Markets overtaking Developed Markets in Global GDP

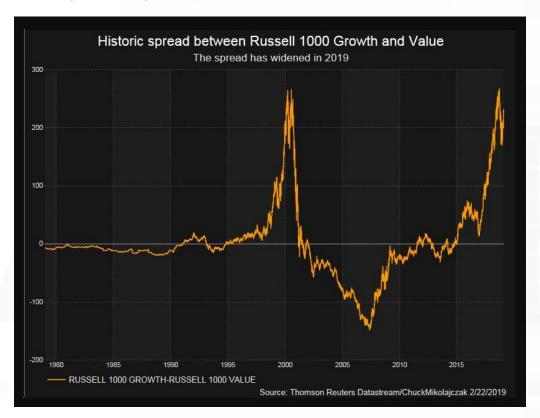


Retirement System

LASERS Growth Outperforms Value

Retirement System

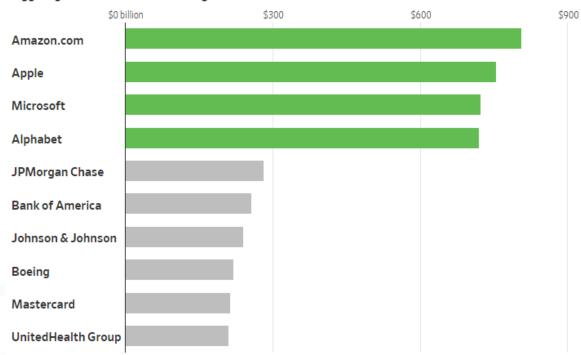
Mean reversion typically expected, but material spreads can persist



Lasers Technology Stocks Lead the Way

Top four companies increased in size by \$3 trillion





Note: Data are through March 5 and limited to current S&P 500 stocks that were in the index on March 9, 2009. Source: FactSet

Assets by Class, Capitalization & Style - Summary Total Return - Periods Ending December 2018

Inflection Points

	on Points				A									
	Market Trough		0 V					4 V			4 ٧	V	C Mantha	2.88==46=
	February 2009	10 Years	9 Years	8 Years	7 Years	6 Years	5 Years	4 Years	3 Years	2 Years	1 Year	Year to Date		3 Months
Large-Grwth	Real Estate	Large-Grwth	Large-Grwth	Large-Grwth	3 Month	3 Month	Interm-G/C	Interm-G/C						
145.1%	393.7%	15.3%	13.1%	12.6%	14.1%	14.0%	10.4%	9.8%	11.2%	13.2%	1.9%	1.9%	1.9%	1.7%
Mid-Growth	Large-Grwth	Mid-Growth	Mid-Growth	Large-Index	Large-Index	Large-Index	Large-Index	Large-Index	Emerging	Mid-Growth	Interm-G/C	Interm-G/C	Bonds-Agg	Bonds-Agg
118.3%	371.3%	15.1%	12.1%	11.2%	12.6%	12.0%	8.2%	7.0%	9.7%	9.2%	.9%	.9%	1.7%	1.6%
Large-Index	Mid-Growth	Mid-Index	Large-Index	Mid-Growth	Mid-Growth	Mid-Growth	Real Estate	Mid-Growth	Large-Index	Emerging	Bonds-Agg	Bonds-Agg	3 Month	Long-G/C
106.5%	363.5%	14.0%	11.7%	10.4%	12.3%	11.7%	7.9%	6.3%	9.1%	8.7%	.0%	.0%	1.1%	.8%
Mid-Index	Mid-Index	Small-Growth	Mid-Index	Mid-Index	Mid-Index	Small-Growth	Mid-Growth	Small-Growth	Mid-Growth	Large-Index	Large-Grwth	Large-Grwth	Long-G/C	3 Month
106.5%	345.6%	13.5%	11.4%	9.8%	11.5%	10.7%	7.4%	5.0%	8.6%	7.6%	-1.5%	-1.5%	.3%	.5%
Small-Growth	Mid-Value	Large-Index	Small-Growth	Large-Value	Small-Growth	Mid-Index	Mid-Index	Mid-Index	Small-Value	Small-Growth	Hedge Funds	Hedge Funds	Hedge Funds	Hedge Funds
104.7%	333.8%	13.3%	11.4%	9.6%	11.3%	10.6%	6.3%	4.6%	7.4%	5.3%	-3.5%	-3.5%	-4.2%	-4.4%
Long-G/C	Small-Growth	Mid-Value	Mid-Value	Small-Growth	Large-Value	Large-Value	Large-Value	Small-Index	Small-Index	EAFE Index	Long-G/C	Long-G/C	Real Estate	Real Estate
96.3%	329.2%	13.0%	10.9%	9.4%	11.0%	10.0%	5.9%	4.3%	7.4%	4.3%	-4.7%	-4.7%	-6.3%	-6.9%
Mid-Value	Large-Index	Real Estate	Real Estate	Mid-Value	Mid-Value	Mid-Value	Mid-Value	Large-Value	Small-Growth	Mid-Index	Mid-Growth	Mid-Growth	Large-Value	Emerging
96.3%	322.6%	12.2%	10.5%	9.3%	10.9%	9.7%	5.4%	4.2%	7.2%	3.8%	-4.7%	-4.7%	-6.7%	-7.4%
Small-Index	Small-Index	Small-Index	Small-Index	Small-Index	Small-Index	Small-Index	Long-G/C	Small-Value	Mid-Index	Long-G/C	Large-Index	Large-Index	Large-Index	Commodities
90.2%	296.7%	12.0%	10.4%	8.5%	10.4%	9.5%	5.4%	3.5%	7.0%	2.7%	-4.8%	-4.8%	-7.4%	-9.4%
Small-Value	Large-Value	Large-Value	Large-Value	Real Estate	Small-Value	Small-Value	Small-Growth	Mid-Value	Large-Value	Large-Value	Real Estate	Real Estate	Large-Grwth	Large-Value
75.3%	276.3%	11.2%	10.3%	8.4%	9.6%	8.2%	5.1%	3.2%	7.0%	2.1%	-4.8%	-4.8%	-8.2%	-11.7%
Large-Value	Small-Value	Small-Value	Small-Value	Small-Value	Real Estate	Real Estate	Small-Index	Emerging	Mid-Value	Hedge Funds	Large-Value	Large-Value	Emerging	EAFE Index
71.6%	264.4%	10.4%	9.3%	7.6%	8.3%	6.8%	4.4%	3.0%	6.1%	2.0%	-8.3%	-8.3%	-8.3%	-12.5%
Real Estate	Emerging	Emerging	Long-G/C	Long-G/C	EAFE Index	EAFE Index	Small-Value	Real Estate	Long-G/C	Bonds-Agg	Mid-Index	Mid-Index	Mid-Growth	Large-Index
64.3%	153.4%	8.4%	6.3%	5.9%	6.2%	4.4%	3.6%	2.6%	4.0%	1.8%	-9.1%	-9.1%	-9.6%	-13.8%
Bonds-Agg	EAFE Index	EAFE Index	EAFE Index	EAFE Index	Long-G/C	Long-G/C	Bonds-Agg	EAFE Index	EAFE Index	Interm-G/C	Small-Growth	Small-Growth	Mid-Index	Mid-Value
51.2%	138.7%	6.8%	4.3%	3.8%	3.7%	2.9%	2.5%	2.4%	3.4%	1.5%	-9.3%	-9.3%	-11.1%	-15.0%
Interm-G/C	Long-G/C	Long-G/C	Bonds-Agg	Bonds-Agg	Emerging	Hedge Funds	Emerging	Long-G/C	Real Estate	3 Month	Small-Index	Small-Index	Commodities	Mid-Index
42.9%	92.1%	5.9%	3.2%	2.8%	3.6%	2.7%	2.0%	2.1%	2.1%	1.4%	-11.0%	-11.0%	-11.2%	-15.4%
3 Month	Bonds-Agg	Bonds-Agg	Interm-G/C	Interm-G/C	Hedge Funds	Bonds-Agg	Interm-G/C	Bonds-Agg	Bonds-Agg	Small-Index	Commodities	Commodities	EAFE Index	Large-Grwth
7.9%	42.5%	3.5%	2.6%	2.2%	3.0%	1.7%	1.9%	1.7%	2.1%	1.0%	-11.2%	-11.2%	-11.3%	-15.9%
Hedge Funds	Hedge Funds	Hedge Funds	Emerging	Hedge Funds	Bonds-Agg	Interm-G/C	Hedge Funds	Interm-G/C	Interm-G/C	Mid-Value	Mid-Value	Mid-Value	Mid-Value	Mid-Growth
6.4%	36.2%	3.2%	2.5%	1.9%	2.1%	1.4%	1.5%	1.5%	1.7%	3%	-12.3%	-12.3%	-12.1%	-16.0%
EAFE Index	Interm-G/C	Interm-G/C	Hedge Funds	Emerging	Interm-G/C	Emerging	EAFE Index	Hedge Funds	Hedge Funds	Real Estate	Small-Value	Small-Value	Small-Growth	Small-Value
4.1%	34.5%	2.9%	2.3%	.6%	1.7%	1.3%	1.0%	1.1%	1.5%	4%	-12.9%	-12.9%	-17.3%	-18.7%
Emerging -2.3%	3 Month	3 Month	3 Month	3 Month	3 Month	3 Month	3 Month	3 Month	3 Month	Small-Value	EAFE Index	EAFE Index	Small-Index	Small-Index
	4.4%	.4%	.5%	.5%	.5%	.6%	.7%	.8%	1.0%	-3.1%	-13.4%	-13.4%	-17.4%	-20.2%
Commodities -55.6%	Commodities -24.8%	Commodities -3.8%	Commodities -6.0%	Commodities -8.5%	Commodities -7.8%	Commodities -8.9%	Commodities -8.8%	Commodities -6.6%	Commodities .3%	Commodities -5.0%	Emerging -14.2%	Emerging -14.2%	Small-Value -17.4%	Small-Growth -21.6%
Large-Value: F Large-Grwth: F Mid-Index: Rus	arge-Index: Russell 1000 Index arge-Index: Russell 2000 Index arge-Value: Russell 1000 Value Index small-Value: Russell 2000 Value Index arge-Growth: Russell 1000 Growth Index arge-Growth: Russell 1000 Growth Index small-Growth: Russell 2000 Growth Index small-Growth: Russell 2000 Growth Index small-Growth: Russell Midcap Index small-Growth: Russell 2000 Growth Index small-Growth: Russell Midcap Index small-Growth: Russell Midcap Index small-Growth: Russell Midcap Index small-Growth: Russell 2000 Growth Index small-Growth: Russell Midcap Index small													

Sources: FTSE Russell; Morgan Stanley Capital International; Ryan Labs, Inc.; Bloomberg Finance L.P.; Wilshire Associates; Hedge Fund Research, Inc.

3 Month: Ryan Labs 3 Month Treasury Index

The information presented herein was compiled from sources believed to be reliable. It is intended for illustrative purposes only, and is furnished without responsibility for completeness or accuracy. Past performance does not guarantee future results.

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Mid-Growth: Russell Midcap Growth Index

Hedge Funds: HFRI Fund of Funds Composite Index



LASERS Asset Class Performance

(1 Year Returns As of December 31 each year)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Emg Mkts	US Sm Cap	Risk Parity	Opp Cr/Mrtg.	US Sm Cap	Private Mkts	Private Mkts	US Sm Cap	Int'l Sm Cap	Private Mkts
76.0%	28.9%	18.3%	25.6%	40.4%	14.2%	8.6%	20.0%	33.5%	20.4%
High Yield	Emg Mkts	Private Mkts	Int'l Sm Cap	US Lg Cap	US Lg Cap	Int'l Sm Cap	High Yield	Emg Mkts	GMS
56.7%	26.3%	9.7%	25.5%	33.3%	13.8%	3.9%	17.5%	32.2%	1.5%
Int'l Sm Cap	Int'l Sm Cap	Inv Grade	Emg Mkts	Int'l Lg Cap	Opp Cr/Mrtg.	Opp Cr/Mrtg.	Emg Mkts	Int'l Lg Cap	Ab Resturn
52.0%	24.4%	7.8%	20.3%	21.1%	9.1%	3.4%	14.7%	23.7%	1.1%
US Sm Cap	Risk Parity	Global Fixed	High Yield	Int'l Sm Cap	Risk Parity	US Lg Cap	US Lg Cap	US Lg Cap	Inv Grade
29.1%	17.8%	5.8%	19.1%	18.3%	7.7%	0.8%	11.8%	21.5%	-0.6%
Int'l Lg Cap	High Yield	High Yield	US Lg Cap	Private Mkts	Inv Grade	Ab Return	EMD	Private Mkts	High Yield
29.0%	17.7%	3.5%	16.7%	15.6%	6.0%	-1.0%	10.2%	16.9%	-2.4%
US Lg Cap	Opp Cr/Mrtg.	Opp Cr/Mrtg.	US Sm Cap	High Yield	US Sm Cap	Inv Grade	Risk Parity	EMD	US Lg Cap
26.9%	16.5%	2.8%	16.3%	10.9%	5.9%	-1.8%	10.1%	16.4%	-5.7%
Opp Cr/Mrtg.	US Lg Cap	Ab Return	Int'l Lg Cap	Ab Return	Ab Return	Int'l Lg Cap	Private Mkts	US Sm Cap	Risk Parity
21.9%	15.4%	2.1%	16.1%	9.0%	4.1%	-2.3%	6.1%	12.0%	-8.4%
Inv. Grade	Private Mkts	US Lg Cap	Risk Parity	Opp Cr/Mrtg.	High Yield	US Sm Cap	Inv Grade	Risk Parity	EMD
17.5%	13.3%	1.4%	14.9%	8.5%	3.6%	-2.5%	6.0%	11.9%	-9.4%
Risk Parity	Ab Return	US Sm Cap	Private Mkts	Emg Mkts	Emg Mkts	High Yield	Int'l Sm Cap	GMS	US Sm Cap
9.5%	10.5%	0.8%	12.4%	0.9%	1.1%	-4.0%	5.3%	9.5%	-11.5%
Ab Return	Int'l Lg Cap	Int'l Sm Cap	Inv Grade	Inv Grade	Real Assets	Risk Parity	Int'l Lg Cap	High Yield	Emg Mkts
8.8%	9.5%	-8.0%	9.3%	-0.3%	-2.0%	-6.7%	3.5%	8.3%	-11.9%
Global Fixed	Inv Grade	Int'l Lg Cap	Ab Return	Risk Parity	Int'l Lg Cap	Real Assets	Ab Return	Inv Grade	Int'l Lg Cap
7.9%	9.5%	-10.7%	5.6%	-3.7%	-3.3%	-10.7%	3.1%	5.1%	-13.2%
Private Mkts	Global Fixed	Emg Mkts	Global Fixed	Real Assets	Int'l Sm Cap	Emg Mkts		Ab Return	Int'l Sm Cap
-8.4%	8.6%	-17.5%	1.7%	-4.3%	-4.1%	-14.9%		2.6%	-16.4%
			Real Assets 1.0%	EMD -11.4%	EMD -7.5%	EMD -14.9			19

LASERS Federal Reserve Balance Sheet

Quantitative Easing post-crisis helps Bull Market; Beginning to roll off



Retirement System

LASERS Interest Rates Have been at Historic Lows

Rates are likely to increase in the coming years, but are still accommodative in terms of monetary policy

Retirement System



	Contract	Approx.		ırr. Mkt.	Month	3	VTD	Fiscal	1	2	3	4	5	6
	Exp. Date	Mgt. Fees	va	lue (\$M)	Month	mos	YTD	YTD	Year	Years	Years	Years	Years	Years
U.S. EQUITY														
LARGE CAP VALUE														
AJO, LP	03/31/22	7.6 bps	\$	239.5	3.1	0.5	11.8	-0.4	0.7	6.4	13.2	6.1	8.3	11.0
S&P 500 VALUE INDEX	03/31/22	7.0 bp3	Ψ	200.0	2.2	0.5	11.0	3.4	2.7	5.6	12.7	7.1	8.4	10.5
S&P 500 INDEX					3.2	1.4	11.5	3.8	4.7	10.7	15.3	9.5	10.7	13.0
TOTAL LARGE VALUE		7.6 bps	\$	239.5	3.1	0.5	11.8	-0.4	0.7	6.4	13.2	6.1	8.3	11.0
LARGE CAP INDEX FUNDS														
LASERS S&P 500 INDEX FUND		1.3 bps	\$	1,245.7	3.2	1.4	11.5	3.9	4.7	10.7	15.3	9.5	10.7	13.0
S&P 500 INDEX		,	·	,	3.2	1.4	11.5	3.8	4.7	10.7	15.3	9.5	10.7	13.0
TOTAL DOMESTIC LARGE CAP		2.3 bps	\$	1,485.2	3.2	1.2	11.5	2.9	3.8	9.9	14.9	8.8	10.2	12.6
MID CAP INDEX FUNDS														
LASERS S&P 400 INDEX FUND		1.3 bps	\$	464.3	4.2	2.0	15.1	-1.1	4.1	6.8	14.5	7.9	8.5	11.4
S&P MIDCAP 400 INDEX		1.0 500	Ť	10 110	4.2	2.1	15.1	-1.1	4.1	6.8	14.5	7.8	8.5	11.3
TOTAL DOMESTIC MID CAP INDEX		1.3 bps	\$	464.3	4.2	2.0	15.1	-1.1	4.1	6.8	14.5	7.9	8.5	11.4
TOTAL DOMESTIC MID CAL INDEX		1.0 000	Ψ	404.0	7.2	2.0	10.1		77.1	0.0	17.0	7.0	0.0	11.7
SMALL CAP GROWTH														
RICE HALL JAMES	07/31/20	0.0bps	\$	223.0	5.6	0.9	16.2	-3.9	2.4	8.0	10.3	5.0	5.9	9.4
S&P 600 GROWTH INDEX		<u>'</u>			4.5	0.5	14.0	-2.0	9.5	11.0	17.8	10.9	10.4	13.8
S&P SMALLCAP 600 INDEX					4.4	1.5	15.5	-3.4	7.2	8.7	16.9	9.7	9.3	12.9
TOTAL SMALL GROWTH		0.0bps	\$	223.0	5.6	0.9	16.2	-3.9	2.4	8.0	10.3	5.0	5.9	9.4
SMALL CAP VALUE														
LSV	05/31/21	55.8 bps	\$	212.0	3.6	2.6	17.0	-5.0	0.9	3.2	12.4	6.9	8.9	12.8
S&P 600 VALUE INDEX		,			4.2	2.6	17.0	-4.6	5.2	6.6	15.9	8.6	8.3	11.9
S&P SMALLCAP 600 INDEX					4.4	1.5	15.5	-3.4	7.2	8.7	16.9	9.7	9.3	12.9
TOTAL SMALL VALUE		55.8 bps	\$	212.0	3.6	2.6	17.0	-5.0	0.9	3.2	12.4	6.6	7.4	10.9
SMALL CAP INDEX FUNDS														
LASERS S&P 600 INDEX FUND		1.3 bps	\$	292.5	4.4	1.5	15.4	-3.4	7.3	8.8	16.8	9.7	9.4	12.9
S&P SMALLCAP 600 INDEX		·			4.4	1.5	15.5	-3.4	7.2	8.7	16.9	9.7	9.3	12.9
TOTAL DOMESTIC SMALL CAP		16.8 bps	\$	727.6	4.5	1.5	16.2	-4.0	4.1	7.0	13.3	7.1	7.4	11.0
TOTAL U.S. EQUITY		6.1 bps	\$	2,677.1	3.7	1.4	13.4	0.2	3.8	8.5	14.4	8.2	9.1	12.0

	Contract Exp. Date	Approx. Mgt. Fees		urr. Mkt. alue (\$M)	Month	3 mos	YTD	Fiscal YTD	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years
	Lxp. Date	Mgt. 1 ees	V C	ilue (pivi)	WOTILIT	IIIOS	טוו	שוו	I Cai	I Cai S	i cai s	I Cai S	I Cars	I cars
NON-U.S. EQUITY														
LARGE CAP VALUE														
MONDRIAN INVESTMENT PARTNERS	12/31/20	28.1 bps	\$	240.4	2.2	4.5	9.1	1.4	-3.2	6.8	9,4	3.7	3.9	6.9
MSCI WORLD EX-USA VALUE INDEX	12/01/20	20.1 690	Ψ	240.4	1.8	3.5	9.2	-2.7	-6.4	5.0	10.5	2.1	1.3	4.3
MSCI WORLD EX-USA INDEX					2.6	4.3	9.9	-2.7	-4.8	6.6	10.0	3.1	2.5	5.0
TOTAL INT'L LARGE VALUE		28.1 bps	\$	240.4	2.2	4.5	9.1	1.4	-3.2	6.8	9.4	3.7	3.9	6.9
LARGE CAP CORE														
LASERS MSCI WORLD EX-USA INDEX FUND		1.3 bps	\$	1,449.9	2.5	4.2	9.6	-2.6	-4.9	6.3	9.7	2.9	2.3	4.7
MSCI WORLD EX-USA INDEX				.,	2.6	4.3	9.9	-2.7	-4.8	6.6	10.0	3.1	2.5	5.0
TOTAL INT'L LARGE CORE		1.3 bps	\$	1,449.9	2.5	4.2	9.6	-2.6	-4.9	6.3	9.7	2.9	2.3	4.7
LASERS TERROR-FREE INT'L FUND		1.3 bps	\$	27.7	2.5	4.4	9.5	-2.0	-4.3	5.7	10.3	3.3	2.7	5.1
MSCI WORLD EX-USA INDEX		1.5 bps	Ψ	21.1	2.6	4.3	9.9	-2.7	-4.8	6.6	10.0	3.1	2.5	5.0
MOOI WORLD EX GOA INDEX					2.0	7.0	3.3	2.1	-T.U	0.0	10.0	0.1	2.0	3.0
TOTAL INT'L LARGE CAP		5.1 bps	\$	1,718.1	2.5	4.2	9.6	-2.0	-4.7	6.3	9.6	3.0	2.5	5.0
INT'L SMALL CAP														
MONDRIAN INVESTMENT PARTNERS	02/14/21	70.5 bps	\$	226.9	1.9	2.0	9.5	-6.4	-5.6	8.5	10.3	6.1	4.5	6.2
GOLDMAN SACHS	02/17/21	50.9 bps	\$	359.1	2.0	5.2	11.7	-7.7	-9.6	7.0				
MSCI WORLD EX-USA SMALL CAP INDEX					2.3	3.9	11.0	-7.6	-9.3	6.6	10.6	6.0	4.0	7.2
TOTAL INT'L SMALL CAP		58.5 bps	\$	586.0	1.9	3.9	10.8	-7.3	-8.2	7.5	11.2	6.7	5.0	6.6
EMERGING MARKETS														
CITY OF LONDON	08/31/19	93.0 bps	\$	424.0	0.7	8.4	9.1	1.5	-7.6	9.1	15.2	5.2	6.1	4.6
WESTWOOD GLOBAL EMERGING MKTS	10/05/19	88.6 bps	\$	290.9	-0.9	4.3	5.2	-0.1	-9.9	6.2	16.2	5.5	5.5	4.7
LSV CUSTOM EMERGING MARKETS	08/22/23	50.0 bps	\$	736.2	0.3	7.2	8.7	5.5	-6.2	7.3	12.0	3.0	3.5	
MSCI EMERGING MARKETS INDEX					0.2	6.2	9.0	0.0	-9.5	8.8	15.5	4.3	4.5	2.7
TOTAL EMERGING MARKETS		70.3 bps	\$	1,451.1	0.2	6.7	8.0	2.7	-8.1	7.4	15.4	4.6	5.1	3.6
TOTAL NON-U.S. EQUITY		38.6 bps	\$	3,755.2	1.5	5.1	9.2	-1.1	-6.6	6.9	12.0	4.0	3.8	4.6
TOTAL EQUITY		25.1 hnc	¢	6 422 2	2.4	2.5	10.0	0.5	2.2	7.0	12.0		6.0	0.0
IOTAL EQUIT		25.1 bps	\$	6,432.3	2.4	3.5	10.9	-0.5	-2.3	7.6	13.0	5.9	6.3	8.2

	Contract	Approx.	Cı	ırr. Mkt.		3		Fiscal	1	2	3	4	5	6
	Exp. Date	Mgt. Fees	Va	lue (\$M)	Month	mos	YTD	YTD	Year	Years	Years	Years	Years	Years
US FIXED INCOME														
INVESTMENT GRADE														
LOOMIS SAYLES & CO	12/31/19	17.5 bps	\$	200.5	0.2	3.2	1.9	2.6	3.0	2.8	4.5	2.5	3.1	3.0
ORLEANS CAPITAL MGT	12/31/19	11.7 bps	\$	157.5	0.2	3.3	1.8	2.9	3.0	2.1	2.5	1.9	2.3	2.1
BB BC US AGGREGATE BOND INDEX					-0.1	2.9	1.0	2.7	3.2	1.8	1.7	1.6	2.3	2.0
TOTAL INVESTMENT GRADE		14.9 bps	\$	358.1	0.2	3.2	1.9	2.7	3.0	2.5	3.7	2.2	2.7	2.6
HIGH YIELD														
JPMORGAN	06/30/22	27.0 bps	\$	174.4	1.9	4.3	6.8	3.9	4.2	4.4	9.2	4.7	4.6	5.3
NOMURA	06/30/22	45.0 bps	\$	170.7	1.5	3.0	6.0	1.6	2.7	4.4	11.0	5.9	5.3	6.8
CREDIT SUISSE HY INDEX					1.7	3.8	6.2	3.5	3.9	3.9	10.0	4.9	4.3	5.0
TOTAL HIGH YIELD		35.9 bps	\$	345.1	1.7	3.7	6.4	2.8	3.6	4.4	10.1	5.3	5.0	6.1
TOTAL U.S. FIXED INCOME		25.2 bps	\$	703.2	0.9	3.5	4.0	2.9	3.4	3.6	6.7	3.9	4.1	4.7
EMERGING MARKET DEBT (+)														
STONE HARBOR	10/02/22	52.5 bps	\$	198.9	-1.1	5.7	5.1	3.0	-8.5	2.8	6.4	1.2	-0.7	-2.7
GRAMERCY*	OPEN	100.0 bps	\$	64.9	1.0	2.7	1.6							
J.P. MORGAN GBI-EM GLOBAL DIVERSIFII	ED INDEX				-1.1	5.7	4.3	4.6	-5.4	4.1	6.8	1.6	0.1	-1.7
TOTAL EMERGING MARKET DEBT (+)		64.2 bps	\$	263.7	-0.6	4.9	4.3	2.2	-9.1	2.4	6.1	1.0	-0.8	-2.8
GLOBAL MULTI-SECTOR (+)														
DOUBLELINE	05/05/21	60.0 bps	\$	239.3	0.9	1.9	2.7	3.0	4.0	5.5				
GOLDENTREE	05/01/21	75.0 bps	\$	242.9	2.3	3.2	5.4	3.5	6.0	6.7				
PIMCO*	OPEN	95.0 bps	\$	120.8	0.0	0.2	<u> </u>	0.0	0.0	U .,				
BLACKSTONE*	OPEN	78.1 bps	\$	11.5	-0.1									
50/50 BB BARCLAYS GLOBAL AGG/CS HY			<u> </u>		0.5	3.4	3.5	2.4	1.7	3.3				
TOTAL GLOBAL MULTI-SECTOR (+)		71.7 bps	\$	614.5	1.2	1.9	3.1	2.6	4.2	5.7				
TOTAL FIXED INCOME (+)		49.8 bps	\$	1,581.5	0.8	3.1	3.7	2.8	1.9	4.0	7.0	3.9	3.7	3.8
TOTAL TALD INCOMIL (*)		49.0 nh2	Φ	1,001.5	0.0	ა. I	ა./	2.0	1.9	4.0	7.0	ა.ყ	ა.1	ა.ఠ

	Contract	Approx	C	urr. Mkt.		2		Figeal	4	2	2	4	5	G
	Contract Exp. Date	Approx. Mgt. Fees		urr. MKt. alue (\$M)	Month	3 mos	YTD	Fiscal YTD	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years
		g		(VIII)										
ALTERNATIVE ASSETS*														
PRIVATE MARKETS* (for breakout see pages	s 5-6)													
TOTAL PRIVATE MARKETS*	•	89.3 bps	\$	1,693.6	-0.1	0.5	-0.4	5.7	15.7	17.6	14.4	13.0	12.8	13.3
ABSOLUTE RETURN STRATEGIES*														
BRIDGEWATER PURE ALPHA		182.5 bps	\$	230.8	-0.3	1.4	-3.3	2.1	1.9	3.8	4.6	1.6	2.9	3.4
PRISMA CAPITAL PARTNERS		65.0 bps	\$	258.4	1.3	0.4	3.1	-1.5	-1.2	2.6	3.7	0.8	1.4	2.6
ENTRUST CAPITAL PARTNERS		112.3 bps	\$	275.5	0.7	0.9	2.9	-2.8	1.4	-0.7	4.8	2.1	2.4	8.0
HFRI FUND OF FUNDS COMPOSITE INDEX		·			1.1	2.5	3.7	0.5	1.3	3.4	4.5	1.8	2.1	3.1
ABSOLUTE RETURN STRATEGIES*~		115.8 bps	\$	775.8	0.6	0.7	1.0	-0.7	8.0	1.5	3.9	8.0	1.7	3.0
~includes assets being liquidated: PAAMCO \$8.	8m; Stark \$2.3	m												
RISK PARITY*														
BRIDGEWATER CUSTOM		63.7 bps	\$	411.3	0.8	3.1	4.1	0.6	1.8					
AQR CAPITAL MANAGEMENT		110.0 bps	\$	372.1	1.4	5.0	8.4	-1.1	-2.5					
LASERS 8% NOMINAL BENCHMARK					0.6	1.9	1.3	5.3	8.0	8.0	8.0	8.0	8.0	8.0
TOTAL RISK PARITY*		85.7 bps	\$	783.4	1.1	4.0	6.1	-0.2	-0.3	3.1	6.7	2.0	3.2	2.7
TOTAL ALTERNATIVE ASSETS*		94.7 bps	\$	3,252.8	0.3	1.4	1.4	2.7	7.7	9.3	9.4	6.3	6.6	7.0
CASH EQUIVALENTS														
HOLDING ACCOUNT			\$	31.1										
EB TEMPORARY INVESTMENT FUND		9.0 bps	Ψ	01.1	0.20	0.64	0.42	1.60	2.27	1.80	1.41	1.13	0.94	0.81
90 DAY T-BILL INDEX		3.0 bp3			0.19	0.59	0.39	1.46	2.04	1.51	1.11	0.85	0.68	0.58
TOTAL PLAN														
FINANCIAL COMPOSITE		29.9 bps	\$	8,044.9	2.1	3.4	9.3	0.0	-1.5	7.0	11.9	5.6	5.9	7.4
FINANCIAL ALLOCATION INDEX				0,0 :	2.1	3.5	9.6	-0.3	-1.5	7.4	12.2	5.8	5.9	7.3
FINANCIAL POLICY INDEX					2.1		9.6	0.1	-0.9	7. 4 7.6				
IFINANCIAL FOLICT INDEX								() (-0.9	0.1	12.4	5.9	6.0	7.4
					2.1	3.7	9.0	0.1	0.0					
TOTAL PLAN		48.5 bps	\$	11,297.7	1.6	2.8	6.9	0.7	0.9	7.5	11.0	5.8	6.1	7.3
		48.5 bps	\$	11,297.7								5.8 6.4	6.1 6.3	7.3 7.5
TOTAL PLAN		48.5 bps	\$	11,297.7	1.6	2.8	6.9	0.7	0.9	7.5	11.0			
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX TOTAL PLAN POLICY INDEX	bonobrook	48.5 bps	\$	11,297.7	1.6 1.6	2.8 2.9	6.9 7.0	0.7 0.9	0.9 1.5	7.5 8.4	11.0 11.5 11.8	6.4 6.6	6.3 6.5	7.5 7.6
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX TOTAL PLAN POLICY INDEX Cells highlighted in green represent performance above the		•	\$	11,297.7	1.6 1.6	2.8 2.9	6.9 7.0	0.7 0.9	0.9 1.5	7.5 8.4	11.0 11.5	6.4	6.3	7.5
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX	pelow the benchma	ırk.	\$	11,297.7	1.6 1.6 1.6	2.8 2.9 3.1	6.9 7.0 7.1	0.7 0.9	0.9 1.5 2.3	7.5 8.4 8.8	11.0 11.5 11.8	6.4 6.6	6.3 6.5	7.5 7.6
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX TOTAL PLAN POLICY INDEX Cells highlighted in green represent performance above the Cells highlighted in yellow represent manager performance by	pelow the benchma	ırk.	\$	11,297.7	1.6 1.6 1.6	2.8 2.9 3.1	6.9 7.0 7.1	0.7 0.9 1.4	0.9 1.5 2.3	7.5 8.4 8.8	11.0 11.5 11.8 7 Years	6.4 6.6 8 Years	6.3 6.5 9 Years	7.5 7.6 10 Years
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX TOTAL PLAN POLICY INDEX Cells highlighted in green represent performance above the Cells highlighted in yellow represent manager performance be Cells highlighted in red represent asset class performance be Royal blue lines represent specific benchmarks. Light blue lines represent broad benchmarks.	pelow the benchma	ırk.	\$	11,297.7	1.6 1.6 1.6	2.8 2.9 3.1	6.9 7.0 7.1	0.7 0.9 1.4	0.9 1.5 2.3	7.5 8.4 8.8	11.0 11.5 11.8 7 Years	6.4 6.6 8 Years	6.3 6.5 9 Years	7.5 7.6 10 Years
TOTAL PLAN TOTAL PLAN ALLOCATION INDEX TOTAL PLAN POLICY INDEX Cells highlighted in green represent performance above the Cells highlighted in yellow represent manager performance because the Cells highlighted in red represent asset class performance because by the Cells highlighted in red represent asset class performance because the contract of the Cells highlighted in red represent asset class performance because the contract of the Cells highlighted in red represent asset class performance because the contract of the Cells highlighted in red represent specific benchmarks.	pelow the benchman	ırk. 'k.	\$	11,297.7	1.6 1.6 1.6	2.8 2.9 3.1	6.9 7.0 7.1	0.7 0.9 1.4	0.9 1.5 2.3	7.5 8.4 8.8	11.0 11.5 11.8 7 Years	6.4 6.6 8 Years	6.3 6.5 9 Years	7.5 7.6 10 Years

SUMMARY OF MANAGER PERFORMANCE RATES OF RETURN TOTAL NET OF FEES

	Vintage	Contract	Commit.	Approx.	Cı	ırr. Mkt.		3		Fiscal	1	2	3	4	5	6
	Year	Exp. Date	Amount	Mgt. Fees	Va	lue (\$M)	Month	mos	YTD	YTD	Year	Years	Years	Years	Years	Years
PRIVATE MARKETS BREAKOUT																
ADAMS STREET 2005 NON-US	2005	12/31/20 \$		18.6 bps	\$	3.4	0.0	-1.4	0.0	-1.1	6.5	10.3	7.9	5.9	6.1	6.2
ADAMS STREET PARTNERSHIP 2002 US	2002	12/31/19 \$		10.0 bps	\$	1.5	0.0	-0.2	0.0	6.2	9.0	11.4	10.7	9.1	9.4	10.7
ADAMS STREET PARTNERSHIP 2005 US	2005	12/31/20 \$	35.0	18.6 bps	\$	8.5	0.0	4.8	0.0	7.5	13.4	11.0	10.2	9.8	11.2	11.6
ADAMS STREET 2007 US FUND	2007	12/31/19	27.5	30.0 bps	\$	13.8	0.0	1.4	0.0	3.1	14.8	13.0	12.7	14.0	15.6	15.2
ADAMS STREET 2007 NON-US	2007	12/31/19	17.5	30.0 bps	\$	9.4	0.0	6.4	0.0	11.1	18.8	16.8	14.0	12.8	13.6	13.0
ADAMS STREET 2007 DIRECT	2007	12/31/19 \$	5.0	60.0 bps	\$	3.3	0.0	16.5	0.0	29.7	52.2	32.7	26.8	20.6	32.6	28.1
ADAMS STREET 2009 US FUND	2009	12/31/20 \$	25.0	50.0 bps	\$	20.1	0.0	3.2	0.0	5.5	19.0	14.5	12.4	13.6	14.7	13.9
ADAMS STREET 2009 NON-US DEV	2009	12/31/20 \$	15.0	50.0 bps	\$	9.9	0.0	3.9	0.0	10.8	18.9	21.8	18.7	15.7	14.6	13.6
ADAMS STREET 2009 NON-US EMG	2009	12/31/20	5.0	50.0 bps	\$	5.5	0.0	-1.0	0.0	-0.6	9.0	11.5	10.8	12.1	13.5	11.1
ADAMS STREET 2009 DIRECT	2009	12/31/20 \$	5.0	100.0 bps	\$	3.6	0.0	10.5	0.0	17.3	36.4	22.6	14.8	13.3	16.9	17.5
AEA INVESTORS FUND VI	2015	05/31/25 \$	50.0	175.0 bps	\$	40.6	9.2	9.0	9.2	8.8	17.6	14.9				
BCP ENERGY SERVICES FUND A	2015	09/23/25	50.0	200.0 bps	\$	46.4	0.0	0.0	0.0	3.0	31.1	29.5	22.1			
BCP FUND II A	2017	12/31/27 \$	75.0	200.0 bps	\$	2.0	0.0									
BRINSON (φ)	'97-'03	termed out \$	202.8	0.0 bps	\$	4.1	0.0	0.0	0.0	8.9	14.6	7.7	6.6	3.6	3.6	3.9
BROOKFIELD CAPITAL IV	2015	05/31/25	50.0	175.0 bps	\$	41.2	0.0	-2.3	-1.6	-6.2	7.0	68.3				
ADAMS STREET V	2003	08/08/19	15.0	0.0 bps	\$	4.1	0.0	0.0	0.0	1.4	1.9	1.3	-4.2	4.3	4.8	8.6
APOLLO INV FUND VII	2008	12/17/19	60.0	0.0 bps	\$	10.7	-14.8	-14.8	-14.8	-18.1	-11.9	-2.3	-4.0	-2.6	3.0	9.5
APOLLO INV FUND VIII	2013	06/30/23		150.0 bps	\$	59.2	-8.7	-8.7	-8.7	-6.5	-8.9	11.5	14.0	11.9	11.9	
APOLLO EUROPEAN FUND II	2011	12/31/19		175.0 bps	\$	35.4	0.9	0.9	0.9	-4.3	4.9	8.2	10.8	10.0	11.5	9.6
ARCLIGHT ENERGY FUND VI	2015	07/28/25		150.0 bps	\$	73.4	0.0	0.0	0.0	10.5	30.2	19.0	17.1			
CCMP CAPITAL III	2013	12/31/23		150.0 bps	\$	59.1	0.0	0.0	0.0	4.4	18.0	11.8	15.0	14.7	12.8	
CERBERUS VI	2016	08/31/26		150.0 bps	\$	111.0	0.0	-3.7	-3.7	-0.6	-21.6	1.1				
COLLER INTERNATIONAL PTNRS VI	2012	06/15/22		81.0 bps	\$	36.1	4.0	4.0	4.0	14.3	24.9	25.2	18.4	16.8	16.2	17.2
COLLER INTERNATIONAL PTNRS VII	2015	12/31/25		150.0 bps	\$	52.7	1.2	1.2	1.2	10.2	13.0	51.6	77.7			
DOUBLELINE MORTGAGE OPP FUND	2018	10/31/20 \$		100.0 bps	\$	76.3	0.0	0.0	·· -			0110				
DRUG ROYALTY FUND III	2013	06/30/23		150.0 bps	\$	6.8	0.0	-0.1	-0.1	3.2	53.1	33.8	30.0	24.1	16.1	
EIG ENERGY FUND XIV	2007	11/07/19 \$		125.0 bps	\$	5.6	0.0	-15.9	-15.8	-14.8	10.7	9.9	-5.8	-23.5	-20.7	-18.4
EIG ENERGY FUND XV	2010	06/06/20 \$		125.0 bps	\$	19.4	1.0	-3.1	-3.8	1.5	0.6	2.7	7.8	1.1	0.5	2.1
EIG ENERGY FUND XVI	2013	05/13/23		125.0 bps	\$	49.6	2.7	-2.5	-1.3	-0.7	9.7	13.2	22.6	15.6	-4.4	2. 1
ENERGY SPECTRUM FUND V	2007	04/01/19 \$		0.0 bps	\$	0.4	0.0	0.0	0.0	-18.2	-37.9	-6.9	-27.6	-34.3	77.0	67.6
ENERGY SPECTRUM FUND VI	2010	12/31/20 \$		175.0 bps	\$	9.4	0.0	0.0	0.0	67.6	102.9	75.7	46.2	23.4	27.1	23.5
GTCR FUND XI	2010	05/21/23		175.0 bps	\$	39.4	4.3	4.3	4.3	13.5	36.0	31.3	27.2	24.5	21.1	23.3
GTCR Fund XII	2014			•		8.1		-11.8		-70.9	30.0	31.3	21.2	24.5		
		09/14/27 \$		150.0 bps	\$		-10.0		n/a		20 E	E 0	.11 E	0.4	-4.0	2.4
LOUISIANA GROWTH FUND II	2004	11/13/19 \$		50.0 bps	\$	1.2	0.0	-4.4	0.0	-4.4	30.5	-5.8	-14.5	-9.4		-2.4
LOUISIANA GROWTH FUND II	2007	06/26/19 \$		50.0 bps	Φ	11.1	0.0	4.1	0.0	13.2	83.3	61.6	38.7	26.9	24.5	28.0
GAMUT FUND I	2016	07/28/26 \$		200.0 bps	\$	12.1	0.0	-0.1	-0.1	3.3	1.6	40.0	47.4	45.0	40.0	47.0
GOLDMAN SACHS PEP IX	2007	12/31/19 \$		10.7 bps	\$	25.5	0.0	3.3	0.0	8.5	18.9	19.6	17.4	15.8	16.6	17.0
GOLDENTREE DISTRESSED FUND III	2018	01/31/23 \$		125.0 bps	\$	8.4	0.0						40.4			
JOHN HANCOCK*	multiple	OPEN \$		0.0 bps	\$	0.2	0.0	0.0	0.0	-1.2	-36.5	-22.7	-13.1	-7.4	-5.2	-5.1
HIPEP PARTNERSHIP III	1997	12/31/19 \$	60.0	0.0 bps	\$	0.1	0.0	0.0	0.0	-6.9	-11.2	-5.2	-1.0	-3.0	-0.7	2.1

SUMMARY OF MANAGER PERFORMANCE RATES OF RETURN TOTAL NET OF FEES

	Vintage Year	Contract Exp. Date	Commit. Amount	Approx. Mgt. Fees	ırr. Mkt. ilue (\$M)	Month	3 mos	YTD	Fiscal YTD	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years
HARBOURVEST VI - BUYOUT	1999	termed out \$		0.0 bps	\$ 0.0	-6.1	-3.8	-6.1	-3.8	-7.4	-4.5	-2.1	-1.1	1.1	3.6
HARBOURVEST VI - DIRECT	1999	termed out \$		0.0 bps	\$ 1.5	0.0	4.3	0.0	4.3	-16.5	-15.4	-11.1	-15.2	-7.1	-3.9
HARBOURVEST VI - PTNR	1999	termed out \$		0.0 bps	\$ 1.6	0.0	0.4	0.0	13.5	16.0	2.0	5.1	3.5	4.2	4.6
HIPEP DIRECT IV	2000	12/31/19 \$		0.0 bps	\$ 0.3	0.0	-33.1	0.0	-17.6	35.7	45.5	18.9	15.9	13.8	28.3
HUFF ALTERNATIVE FUND	2001	10/15/19 \$	32.5	0.0 bps	\$ 10.2	0.0	0.0	0.0	-2.4	-3.1	6.3	6.0	3.6	3.5	6.1
INSIGHT VENTURE PARTNERS X	2017	07/14/27 \$	50.0	175.0 bps	\$ 25.3	0.9	0.9	n/a	5.4						
KKR ASIAN FUND III	2017	05/31/28 \$	50.0	125.0 bps	\$ 13.9	0.0	3.2	n/a	24.9						
MARATHON EUROPEAN CREDIT OPP	2012	12/31/19 \$	100.0	125.0 bps	\$ 9.6	0.3	7.0	6.3	13.8	28.9	19.9	16.2	14.2	11.8	11.3
MESIROW III	2005	04/06/19 \$	23.0	40.0 bps	\$ 5.2	0.0	-0.7	0.0	1.4	5.6	3.4	4.3	5.7	8.8	10.7
MESIROW IV	2006	11/21/19 \$	60.0	37.2 bps	\$ 29.3	0.0	2.2	0.0	7.4	10.6	13.9	12.5	12.8	14.6	14.6
MESIROW V	2008	11/05/20 \$	60.0	45.9 bps	\$ 48.3	0.0	2.9	0.0	8.8	18.2	20.0	17.5	18.0	18.6	17.9
NEWSTONE MEZZANINE II	2010	03/05/20 \$	40.0	100.0 bps	\$ 5.2	0.0	-2.5	0.0	2.7	16.0	11.4	9.7	14.1	13.3	12.1
OHA STRATEGIC CREDIT FUND II	2017	07/14/27 \$	50.0	175.0 bps	\$ 5.5	2.3	0.1	1.4	7.8	19.1					
OAKTREE EUROPEAN FUND III	2011	03/31/22 \$	45.1	175.0 bps	\$ 31.7	-0.8	-0.8	-1.8	5.3	2.9	15.2	14.0	15.3	9.5	11.0
PANTHEON EUROPE VI	2008	12/19/20 \$	44.9	60.8 bps	\$ 18.5	-0.8	5.6	-0.4	16.1	16.3	25.8	19.4	18.6	13.7	13.8
PANTHEON VI	2004	07/12/19 \$	50.0	38.4 bps	\$ 11.9	0.0	1.1	0.0	5.6	8.5	9.5	6.8	5.8	7.0	8.7
PANTHEON VII	2006	04/28/19 \$	50.0	54.7 bps	\$ 23.1	0.0	2.9	0.0	8.5	15.2	15.5	12.9	12.1	14.0	14.4
STEPSTONE FUND II	2006	05/12/19 \$	50.0	37.5 bps	\$ 33.1	0.0	9.1	0.0	27.3	36.9	29.6	20.2	20.6	22.8	21.3
STEPSTONE EUROPE FUND II	2010	12/15/22 \$	25.9	50.0 bps	\$ 17.5	-0.8	0.6	-0.4	-0.1	0.7	16.8	8.0	10.9	6.3	8.8
PRIVATE ADVISORS IV	2011	12/15/26 \$	35.0	60.8 bps	\$ 20.1	-0.7	9.2	-0.7	16.0	33.1	27.5	21.6	18.8	17.0	15.6
PRIVATE ADVISORS V	2012	06/30/25 \$	40.0	81.0 bps	\$ 37.1	-0.5	7.6	-0.5	14.0	26.5	20.4	17.0	16.6	13.7	10.9
PRIVATE ADVISORS VI	2014	06/30/26 \$	40.0	90.0 bps	\$ 25.1	-0.3	4.1	-0.3	6.1	15.6	14.3	9.5	5.3		
Q-BLK II	2005	12/04/19 \$	50.0	45.9 bps	\$ 16.2	0.0	11.2	11.2	12.2	17.7	15.8	10.2	7.7	10.1	11.0
Q-BLK III	2007	12/29/19 \$	60.0	43.9 bps	\$ 28.5	0.0	10.3	10.3	14.3	24.0	18.0	13.5	12.8	13.6	13.9
SIGULER GUFF DOF III	2008	12/31/19 \$	200.0	16.0 bps	\$ 33.7	0.0	-0.3	-0.1	3.1	8.9	11.3	9.1	8.0	8.1	8.9
SIGULER GUFF FUND IV	2011	09/03/23 \$	40.0	45.4 bps	\$ 17.3	0.0	1.8	2.4	3.1	4.6	7.4	7.5	8.7	9.3	10.1
SIGULER GUFF PELICAN GEM	2016	10/10/28 \$	100.0	75.0 bps	\$ 55.7	0.0	-1.0	1.3	4.2	2.1	7.0				
STERLING PARTNERS	2011	09/30/23 \$	35.0	200.0 bps	\$ 17.9	-8.7	-8.7	-8.7	-17.9	-15.6	-12.4	-9.7	-5.5	-2.7	-0.2
VISTA EQUITY PARTNERS IV	2011	03/31/22 \$	35.0	150.0 bps	\$ 28.5	0.0	-0.1	-0.1	11.5	20.8	17.6	18.1	25.3	22.3	21.3
VISTA EQUITY PARTNERS V	2014	10/15/24 \$	75.0	150.0 bps	\$ 83.0	0.0	0.0	0.0	15.4	69.7	40.5	29.3	24.6		
VISTA EQUITY PARTNERS VI	2015	03/11/26 \$	100.0	150.0 bps	\$ 104.9	0.0	-0.1	-0.1	20.3	34.8	18.2				
VISTA EQUITY PARTNERS VII	2018	02/28/28 \$	125.0	150.0 bps	\$ 4.3	-1.8									
WILLIAMS CAPITAL	2004	termed out \$	30.0	0.0 bps	\$ 1.3	0.0	-0.2	0.0	133.6	178.3	107.8	-8.9	-6.0	-4.7	0.6
TOTAL PRIVATE MARKETS*		\$	4,158.2	89.3 bps	\$ 1,693.6	-0.1	0.5	-0.4	5.7	15.7	17.6	14.4	13.0	12.8	13.3

LASERS FLASH REPORT

The return numbers are expressed as percentages and are listed in columns 5-14

The far left hand column lists the asset class headings, investment managers, benchmarks and composites The contract expiration date is listed in the second column

The % return for the month

Year to Date (YTD) is the % return since Jan. 1

The 1-6 year columns represent the % return per year for each number of years



	Contract Exp. Date	Mgt. Fees	T VAL (lillion)	Month	3 mos	YTD	Fiscal YTD	1 Year	2 Years
U.S. EQUITY									
LARGE CAP GROWTH									
GOLDMAN SACHS	01/31/08	44.0 bps	\$ 130.4	-0.5	6.4	10.7	11.5	10.7	7.7
CHICAGO EQUITY PARTNERS	01/31/08	30.0 bps	\$ 136.8	-0.1	5.3	15.0	11.3	15.0	10.4
S&P 500 / CITIGROUP GROWTH				0.4	5.6	11.0	12.1	11.0	6.0
S&P 500				1.4	6.7	15.8	12.7	15.8	10.2
TOTAL LARGE GROWTH		36.8 bps	\$ 267.2	-0.2	5.9	12.9	11.5	12.9	9.0

The broader benchmarks are in light blue and style specific ones in royal blue

The management fees charged are listed third (bps stands for basis points)

"36.8 bps" equals .368%

The market value column tells us the size of each account in millions. For example, \$267.2 equals \$267.200.000

Fiscal YTD is the % return since July 1

Green = manager outperformed style benchmark

Yellow = manager underperformed style benchmark

Red = composite underperformed style benchmark

LASERS FLASH REPORT

WHAT IS IT?

- A snapshot look at the composition and investment returns of LASERS Trust Fund
- Summary of investment manager performance

WHAT INFORMATION DOES IT PROVIDE?

- Asset classes and the investment managers we use to invest the money
- Fees charged by the investment managers who invest our money
- Amount of money we have allocated to each manager
- Investment returns of each investment

HOW CAN I USE THE INFORMATION?

- To evaluate investment manager returns against a set benchmark (1) return
- To evaluate the return of each asset or asset class
- Analyze LASERS investments gains/losses over time

HOW DO I READ THE REPORT?

Left Side (Asset Classes)

Broken down by each investment manager

Blue lines are benchmarks used to evaluate asset class

Top (contract data & returns):

Management fees in basis points (2)

Market value

Returns -

Month	% return that month
3 months	% return from the past 3 months
YTD	Year to date return (since January 1)
Fiscal YTD	Fiscal year to date return (since July 1)
1 year, 2 years, etc.	% return for the specified time period

Colors

Green – performance of asset was above benchmark (think *money*)

Yellow - manager performed below benchmark

Red – asset class as a whole performed below benchmark

Total Plan (last page of Flash Report)

Financial composite – portfolio excluding alternative investments asset class Total plan – includes alternative investments

Policy index – return of portfolio based on allocation set forth in investment policy Allocation index – return of portfolio based the actual allocation LASERS maintained (Investment policy provides a model for allocation; however, small deviations from this model may occur to take advantage of certain market conditions.)

DEFINITIONS:

- Benchmark an index whose returns can be used to measure investment performance
- 2. **Basis Point (bps)** 0.01%, 100 basis points equals 1%, investment managers charge fees as a percentage of the money invested, fees are usually defined in basis points



As of February 28, 2019

ASSET ALLOCATION

Asset Class	Target Weight	Actual Weight	Over/(Under) Weight
U.S. Equity	23%	23.7%	0.7%
Non-U.S. Equity	32%	33.2%	1.2%
U.S. Fixed Income	6%	6.2%	0.2%
Emerging Market Debt	3%	2.3%	-0.7%
Global Multi-Sector	7%	5.4%	-1.6%
Private Markets	15%	15.0%	0.0%
Absoulte Return	7%	6.9%	-0.1%
Risk Parity	7%	6.9%	-0.1%
Cash	0%	0.4%	0.4%

^{*}Target weights listed above were approved March 2018.



To: Trustees & Staff

Louisiana State Employees' Retirement System (LASERS)

From: Rhett Humphreys, CFA, Partner

David Barnes, CFA, CAIA, Sr. Consultant

Date: March 12, 2019

Subject: City of London Investment Group (CLIG) Management Change

PORTFOLIO BACKGROUND:

As of January 31, 2019, the Louisiana State Employees' Retirement System (LASERS) had approximately \$421.5 million invested with the City of London Emerging Markets Equity strategy, representing approximately 3.8% of the investment portfolio.

ISSUE SUMMARY:

City of London Investment Group (CLIG) recently informed NEPC that the firm's Chief Executive Officer (CEO)/ Chief Investment Officer (CIO) Barry Olliff will retire as of December 31, 2019. In preparation for Mr. Olliff's retirement, he has transitioned his role as CEO to Tom Griffith, Deputy CEO of CLIG since February 2018. Mr. Olliff's position as the firm's CIO has been transitioned to Mark Dwyer, CIO of City of London's Emerging Markets Closed-End Fund team. Mr. Dwyer will retain his other responsibilities. Both transitions were effective March 1, 2019.

Mr. Olliff will remain on the City of London Investment Group Board of Directors. The firm is currently in discussions to retain Mr. Olliff as a consultant to the firm for an additional two years subsequent to his retirement at the end of 2019.

RECOMMENDATION:

<u>NEPC recommends *No Action*</u> at this time. NEPC's research team believes that CLIG has implemented an effective succession plan to maintain continuity of leadership and does not view the recent announcement as a cause for concern.



To: LASERS Management Committee From: Ryan Babin, Audit Services Director

Subject: Conflict of Interest Affirmation Report (2019)

There were no conflicts disclosed on the affirmations returned. In addition, responses were not received from four trustees and one designee as noted below.

Board of Trustees

LASERS Staff

Trustee	Conflicts Disclosed
Shannon Templet	None
Barbara McManus	None
Beverly Hodges	None
Thomas Bickham	None
Virginia Burton	None
Lori Pierce	None
Judge William Kleinpeter	None
Lorry Trotter	None
Janice Lansing	None
John Broussard*	None
Amy Mathews*	None
Barbara Goodson**	None
Rick McGimsey**	None
Afranie Adomako**	No Response
Commissioner Jay Dardenne	No Response
Sen. Barrow Peacock	No Response
Rep. Kevin Pearson	No Response
Treasurer John M. Schroder	No Response

Conflicts **Staff Member** Disclosed Cindy Rougeou None Maris LeBlanc None Trey Boudreaux None Tina Grant None **Bobby Beale** None Darren Fournerat None Laney Sanders None Celeste Funderburk None Alisa Lacombe None M. Reeves Pearce, Jr. None Jacques Brousseau None

^{* 2019} Designee – John M. Schroder, State Treasurer

^{**2019} Designee – Jay Dardenne, Commissioner of Administration