



# Monthly Risk-Return Report

## As of April 30, 2016

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Based on actual BNY Mellon data through March 2016 and preliminary data for April 2016



### Asset Allocation and Policy Guidelines

As of April 30, 2016

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ ( MM )	%				From Policy Target	Within Target?
Total Public Markets Equity	4,529	43.9%	45.0%	42.0%	48.0%	-1.1%	Yes
Global Equity	646	6.3%	3.0%	0.0%	6.0%	3.3%	No
US Equity	1,459	14.2%	18.0%	13.0%	23.0%	-3.8%	Yes
Non-US Equity Developed	1,512	14.7%	15.0%	12.0%	18.0%	-0.3%	Yes
Non-US Equity Emerging	911	8.8%	9.0%	6.0%	11.0%	-0.2%	Yes
Fixed Income	2,610	25.3%	24.0%	21.0%	27.0%	1.3%	Yes
Alternative Beta/Opportunistic/Other	739	7.2%	8.0%	7.0%	9.0%	-0.8%	Yes
Total Private Assets	2,432	23.6%	23.0%	10.0%	N/A	0.6%	Yes
Real Estate	1,024	9.9%	9.0%	5.0%	N/A	0.9%	Yes
Private Equity	773	7.5%	8.0%	3.0%	N/A	-0.5%	Yes
Private Real Assets	635	6.2%	6.0%	3.0%	N/A	0.2%	Yes
<b>Total Invested</b>	<b>10,309</b>	<b>100.0%</b>					

Global Equity is 0.3% above maximum target due to market appreciation. SDCERA will monitor, but will not take action at this point.



## Portfolio and Benchmark Returns

As of April 30, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	1.1%	1.1%	0.0%	2.2%	-1.9%	3.6%	5.6%
Actuarial Rate of Return	0.6%	1.9%	6.3%	2.5%	7.6%	7.7%	7.8%
SDCERA Policy Benchmark	1.1%	1.1%	-0.3%	2.3%	-1.0%	3.6%	5.2%
Balanced Benchmark	1.2%	1.2%	-1.0%	2.5%	-2.8%	4.5%	4.6%
<b>SDCERA Public Markets</b>	1.5%	1.5%	-5.6%	2.5%	-9.0%	2.5%	5.4%
SDCERA Public Markets Benchmark	1.6%	1.6%	-3.4%	1.9%	-5.5%	5.2%	4.7%
<b>Equities</b>							
<b>Global Equity</b>	1.5%	1.5%	-2.1%	1.9%	-4.1%	6.2%	6.1%
MSCI ACWI IMI	1.6%	1.6%	-3.4%	1.9%	-5.5%	5.2%	4.7%
<b>US Equity</b>	0.6%	0.6%	-2.2%	1.1%	-2.5%	8.3%	7.0%
MSCI USA IMI	0.6%	0.6%	-0.4%	1.4%	-0.8%	10.1%	9.9%
<b>Non-US Equity Developed</b>	3.0%	3.0%	-6.1%	-0.3%	-9.2%		
MSCI EAFE	2.8%	2.8%	-5.2%	0.1%	-8.0%		
<b>Non-US Emerging</b>	1.3%	1.3%	-8.9%	7.8%	-14.4%	-4.3%	-3.0%
MSCI Emerging Markets	0.7%	0.7%	-12.1%	5.7%	-17.6%	-4.3%	-4.4%
<b>Total Public Markets Equity</b>	1.7%	1.7%	-7.8%	2.0%	-11.8%	2.9%	5.2%
MSCI ACWI IMI	1.6%	1.6%	-3.4%	1.9%	-5.5%	5.2%	4.7%
<b>Fixed Income</b>							
<b>Fixed Income</b>	0.9%	0.9%	1.6%	4.7%	0.8%	3.1%	5.6%
Barclay's US Intermediate Aggregate	0.2%	0.2%	3.1%	2.5%	2.5%	2.0%	2.9%
<b>Alternative Beta/Opportunistic/Other</b>							
<b>Alternative Beta/Opportunistic/Other</b>	-2.6%	-2.6%	-1.3%	-4.5%	-1.3%	3.4%	3.2%
US T-Bills Plus 500 basis points	0.4%	0.4%	4.3%	1.7%	5.1%	5.1%	5.1%
<b>Private Assets</b>							
	<i>The industry standard is to present private asset returns with a quarterly lag</i>						
<b>Real Estate</b>	4.4%	4.4%	14.0%	5.5%	17.4%	13.6%	
NCREIF ODCE Plus 50 basis Points	0.7%	0.7%	9.9%	2.8%	12.6%	13.0%	
<b>Private Equity</b>	0.3%	0.3%	6.0%	5.2%	7.0%	12.6%	11.1%
MSCI ACWI IMI Plus 200 Basis Points	1.8%	1.8%	-1.8%	2.6%	-3.6%	7.3%	6.8%
<b>Private Real Assets</b>	-1.5%	-1.5%	-4.8%	-4.0%	-8.7%	3.3%	-1.9%
MSCI ACWI IMI Plus 200 Basis Points	1.8%	1.8%	-1.8%	2.6%	-3.6%	7.3%	6.8%

Please note: The MSCI EAFE (3 yr & 5 yr) and Real Estate (5 yr) returns are blank because the current composite returns calculated by BNY Mellon do not cover these time periods. The SDCERA Benchmark is before fees and includes an unattainable benchmark index of Global Stocks + 2% for the private market assets and NCREIF ODCE plus 50 basis points for Real Estate.



**Portfolio Risk and Tracking Error**

As of April 30, 2016	2/29/16 Trailing three years		3/31/16 Trailing three years		4/30/16 Trailing three years	
	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
<b>Total Trust Fund</b>						
SDCERA Total Trust Fund Assets	5.7%	N/A	6.0%	N/A	6.2%	N/A
SDCERA Policy Benchmark	6.2%	1.9%	6.8%	2.0%	6.8%	1.9%
	<b>Forecasted</b>		<b>Forecasted</b>		<b>Forecasted</b>	
<b>Total Trust Fund</b>						
SDCERA Total Trust Fund Assets	9.4%	N/A	9.8%	N/A	9.7%	N/A
SDCERA Policy Benchmark	9.3%	1.6%	10.2%	1.7%	10.3%	1.8%
Balanced Benchmark	10.3%	2.0%	10.4%	1.9%	10.5%	2.0%
SDCERA Public-Only Assets	9.5%	N/A	9.8%	N/A	9.9%	N/A
SDCERA Public Benchmark	8.6%	1.6%	8.8%	1.8%	8.9%	1.9%
<b>Equities</b>						
Global Equity	14.7%		15.0%		15.2%	
MSCI ACWI IMI	14.7%	1.6%	15.0%	1.6%	15.1%	1.8%
US Equity	13.2%		13.6%		13.5%	
MSCI USA IMI	14.4%	1.5%	14.7%	1.4%	14.6%	1.6%
Non-US Equity Developed	17.1%		17.5%		17.7%	
MSCI EAFE	16.7%	0.7%	17.1%	0.7%	17.3%	1.1%
Non-US Emerging	17.6%		17.9%		18.4%	
MSCI Emerging Markets	17.9%	1.1%	17.9%	1.6%	18.5%	1.2%
<b>Fixed Income</b>						
Fixed Income	4.4%		4.5%		4.5%	
Barclay's US Intermediate Aggregate	2.7%	2.7%	2.8%	2.8%	2.9%	2.9%
<b>Alternative Beta/Oppportunistic/Other</b>						
Alternative Beta/Oppportunistic/Other	6.9%		7.1%		5.7%	
50% Barclays CTA, 50% HFRI Macro	3.9%	6.5%	3.8%	6.7%	3.8%	5.7%
<b>Private Assets</b>						
Real Estate	9.3%		9.4%		9.5%	
NCREIF ODCE + 50 bps	9.7%	1.6%	9.9%	1.6%	10.0%	1.6%
Private Equity	17.9%		18.5%		16.7%	
MSCI ACWI IMI + 200 bps	14.7%	9.3%	15.0%	9.5%	15.1%	8.5%
Private Real Assets	17.1%		17.3%		16.1%	
MSCI ACWI IMI + 200 bps	14.7%	9.4%	15.0%	9.3%	15.1%	8.4%



**Public Markets Portfolio Changes in April 2016**

**Allocation Changes (millions)**

- 1. Increased Oaktree High Yield: \$60
- 2. Increased AQR Delta Fund: \$50
- 3. Increase bank loans; Allianz separate account: \$50
- 4. Decrease SSGA Master LP Index Fund: -\$118

Portfolio %	
Begin	End
2.6%	3.1%
2.8%	3.3%
0.0%	0.5%
1.2%	0.0%

Portfolio \$ millions	
Begin	End
\$264	\$314
\$290	\$340
\$0	\$50
\$118	\$0

Summary Comments
Added to current Oaktree portfolio
Added to AQR Delta fund; moved to lower fee fund vehicle
Added to existing Allianz agreement: Separate account bank loan portfolio
Eliminate SSGA real assets completion portfolio index fund

**Private Market Portfolio Changes in April 2016**

Portfolio %	
Begin	End

Portfolio \$ millions	
Begin	End

Summary Comments
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## Benchmarks

- The actuarial rate of return represents the long-term return assumption adopted by the Board of Retirement based on the analysis provided by SDCERA's actuary. SDCERA's actuarial rate of return is 7.5 percent.
- The SDCERA Policy benchmark is composed as follows: 45% MSCI ACWI IMI, 24% Barclays US Intermediate Aggregate Index, 8% US T-Bills, 23% SDCERA Private Asset Benchmark.
- The SDCERA Balanced benchmark is composed of 70% MSCI ACWI IMI index and 30% Barclay's U.S. Aggregate index – this is an investable index and represents an alternative to asset allocation and to active managers.
- The Total Public Markets Equity Benchmark is the MSCI ACWI IMI Index.
- The Global Equity Benchmark is the MSCI ACWI IMI Index.
- The US Equity Benchmark is the MSCI USA IMI Stock Market Index.
- The Non-US Equity (Developed) Benchmark is the MSCI EAFE IMI Index.
- The Non-US Equity Emerging Markets Benchmark is the MSCI Emerging Markets IMI Index.
- The Total Fixed Income Benchmark is the Barclay's U.S. Intermediate Aggregate Index and is a broad based benchmark that measures the investment grade, U.S. fixed-rate, and taxable bond market.
- The Alternative Beta/ Opportunistic/Other Benchmark is the T-Bills plus 500 basis points.
- The Total Private Assets Benchmark is composed of 1/3 NCREIF and 2/3 MSCI ACWI IMI index plus 200 basis points.
- The Real Estate Benchmark is the NCREIF ODCE Index plus 50 basis points.
- The Private Equity Benchmark is the MSCI ACWI IMI plus 200 basis points.
- The Private Real Assets Benchmark is the MSCI ACWI IMI plus 200 basis points.

- The MSCI ACWI Investable Market Index (IMI) captures large, mid and small cap representation across 23 Developed Markets (DM) and 23 Emerging Markets (EM) countries.
- The SDCERA Public Markets Risk Benchmark is an aggregate of 58.44% ACWI IMI, 31.77% Barclay's Intermediate Aggregate, 5.19% Barclay's CTA, and 5.19% HFRI Macro.
- The Barclay CTA index is an index of 535 representative commodity-trading advisors.
- The HFRI Macro index is based on investment managers which trade a broad range of strategies predicated on movements in underlying economic variables.

Note: The MSCI and T-Bills benchmarks plus a basis point spread (500, 50, and 200) are not investable indexes. The purpose of having a higher-than-market index benchmark, such as MSCI ACWI plus 200 basis points, is to set the expectation for that asset class. For example, the illiquid nature and lower transparency of Private Equity is matched by an expectation of higher returns than can be realized in public markets.