



# Monthly Risk-Return Report

## As of June 30, 2016

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Based on actual BNY Mellon data through May 2016 and preliminary data for June 2016



### Asset Allocation and Policy Guidelines

As of June 30, 2016

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Total Public Markets Equity	4,499	43.9%	45.0%	42.0%	48.0%	-1.1%	Yes
Global Equity	644	6.3%	3.0%	0.0%	6.0%	3.3%	No
US Equity	1,492	14.6%	18.0%	13.0%	23.0%	-3.4%	Yes
Non-US Equity Developed	1,451	14.2%	15.0%	12.0%	18.0%	-0.8%	Yes
Non-US Equity Emerging	912	8.9%	9.0%	6.0%	11.0%	-0.1%	Yes
Fixed Income	2,635	25.7%	24.0%	21.0%	27.0%	1.7%	Yes
Alternative Beta/Opportunistic/Other	719	7.0%	8.0%	7.0%	9.0%	-1.0%	Yes
Total Private Assets	2,392	23.3%	23.0%	10.0%	N/A	0.3%	Yes
Real Estate	975	9.5%	9.0%	5.0%	N/A	0.5%	Yes
Private Equity	768	7.5%	8.0%	3.0%	N/A	-0.5%	Yes
Private Real Assets	649	6.3%	6.0%	3.0%	N/A	0.3%	Yes
<b>Total Invested</b>	<b>10,246</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 June 30, 2016

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	0.4%	1.6%	0.5%	2.7%	0.5%	5.4%	5.9%
Actuarial Rate of Return	0.6%	1.9%	7.6%	3.8%	7.6%	7.7%	7.8%
SDCERA Policy Benchmark	0.0%	1.3%	-0.1%	2.5%	-0.1%	5.1%	5.5%
Balanced Benchmark	0.0%	1.4%	-0.8%	2.7%	-0.8%	5.7%	5.2%
<b>SDCERA Public Markets</b>	0.3%	1.6%	-5.5%	2.6%	-5.5%	4.4%	6.0%
SDCERA Public Markets Benchmark	-0.7%	1.1%	-3.9%	1.4%	-3.9%	6.1%	5.4%
<b>Equities</b>							
<b>Global Equity</b>	-0.6%	1.2%	-2.5%	1.5%	-2.5%	7.0%	6.8%
MSCI ACWI IMI	-0.7%	1.1%	-3.9%	1.4%	-3.9%	6.1%	5.4%
<b>US Equity</b>	0.3%	2.8%	0.0%	3.4%	0.0%	9.0%	8.4%
MSCI USA IMI	0.2%	2.6%	1.6%	3.4%	1.6%	10.5%	11.0%
<b>Non-US Equity Developed</b>	-3.2%	-1.2%	-9.8%	-4.2%	-9.8%		
MSCI EAFE	-3.6%	-1.6%	-9.3%	-4.3%	-9.3%		
<b>Non-US Emerging</b>	4.1%	1.4%	-8.9%	7.8%	-8.9%	-1.0%	-2.4%
MSCI Emerging Markets	3.8%	0.6%	-12.2%	5.7%	-12.2%	-1.4%	-3.6%
<b>Total Public Markets Equity</b>	-0.3%	1.0%	-8.4%	1.3%	-8.4%	6.2%	5.9%
MSCI ACWI IMI	-0.7%	1.1%	-3.9%	1.4%	-3.9%	6.1%	5.4%
<b>Fixed Income</b>							
<b>Fixed Income</b>	2.3%	3.8%	4.5%	7.8%	4.5%	4.9%	6.3%
Barclay's US Intermediate Aggregate	1.2%	1.4%	4.4%	3.8%	4.4%	3.2%	3.0%
<b>Alternative Beta/Opportunistic/Other</b>							
<b>Alternative Beta/Opportunistic/Other</b>	0.4%	-2.7%	-1.3%	-4.5%	-1.3%	3.1%	3.2%
US T-Bills Plus 500 basis points	0.4%	1.3%	5.1%	2.6%	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>	0.4%	4.9%	14.6%	6.1%	14.6%	13.3%	
NCREIF ODCE Plus 50 basis Points	0.7%	2.1%	11.4%	4.2%	11.4%	12.6%	
<b>Private Equity</b>	-0.3%	-0.3%	5.4%	4.6%	5.4%	11.7%	10.8%
MSCI ACWI IMI Plus 200 Basis Points	-0.6%	1.6%	-1.9%	2.4%	-1.9%	8.3%	7.5%
<b>Private Real Assets</b>	-0.2%	-0.3%	-3.5%	-2.8%	-3.5%	2.9%	1.3%
MSCI ACWI IMI Plus 200 Basis Points	-0.6%	1.6%	-1.9%	2.4%	-1.9%	8.3%	7.5%

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 June 30, 2016	4/30/16 Trailing three years	5/31/16 Trailing three years	6/30/16 Trailing three years			
<b>Total Trust Fund</b>	<b>Volatility</b>	<b>Tracking Error</b>	<b>Volatility</b>	<b>Tracking Error</b>	<b>Volatility</b>	<b>Tracking Error</b>
SDCERA Total Trust Fund Assets	5.9%	N/A	5.8%	N/A	5.5%	N/A
SDCERA Policy Benchmark	6.8%	2.0%	6.7%	2.0%	6.5%	1.9%
	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>
<b>Total Trust Fund</b>	<b>Volatility</b>	<b>Tracking Error</b>	<b>Volatility</b>	<b>Tracking Error</b>	<b>Volatility</b>	<b>Tracking Error</b>
SDCERA Total Trust Fund Assets	9.9%	N/A	9.9%	N/A	9.7%	N/A
SDCERA Policy Benchmark	11.8%	2.7%	11.6%	2.6%	11.5%	2.7%
Balanced Benchmark	10.5%	1.9%	10.4%	1.9%	10.3%	1.9%
SDCERA Public-Only Assets	9.8%	N/A	9.8%	N/A	9.8%	N/A
SDCERA Public Benchmark	10.8%	1.8%	10.6%	1.8%	10.5%	2.0%
<b>Equities</b>						
Global Equity	15.3%		15.2%		15.3%	
MSCI ACWI IMI	15.1%	1.5%	15.0%	1.6%	14.8%	1.9%
US Equity	13.7%		13.8%		13.5%	
MSCI USA IMI	14.6%	1.3%	14.5%	1.1%	14.3%	1.4%
Non-US Equity Developed	17.7%		17.5%		17.8%	
MSCI EAFE	17.3%	0.7%	17.1%	0.7%	16.8%	1.5%
Non-US Emerging	18.1%		17.8%		18.4%	
MSCI Emerging Markets	18.5%	1.4%	18.2%	1.4%	18.2%	1.4%
<b>Fixed Income</b>						
Fixed Income	4.3%		4.3%		4.3%	
Barclay's US Intermediate Aggregate	2.9%	2.8%	2.9%	2.8%	2.7%	2.8%
<b>Alternative Beta/Opportunistic/Other</b>						
Alternative Beta/Opportunistic/Other	5.7%		6.1%		6.1%	
50% Barclays CTA, 50% HFRI Macro	3.7%	5.3%	3.7%	6.1%	3.7%	6.0%
<b>Private Assets</b>						
Real Estate	9.5%		9.4%		9.2%	
NCREIF ODCE + 50 bps	10.0%	1.6%	9.8%	1.5%	9.6%	1.5%
Private Equity	18.5%		18.4%		16.4%	
MSCI ACWI IMI + 200 bps	15.1%	9.5%	15.0%	9.3%	14.8%	8.2%
Private Real Assets	17.8%		17.7%		16.1%	
MSCI ACWI IMI + 200 bps	15.1%	9.5%	15.0%	9.3%	14.8%	8.2%



### Public Markets Portfolio Changes in June 2016

Allocation Changes (millions)

No changes.

Portfolio %		Portfolio \$ millions		Summary Comments
Begin	End	Begin	End	

### Private Market Portfolio Changes in June 2016

Portfolio %		Portfolio \$ millions		Summary Comments
Begin	End	Begin	End	

## 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.