



## Monthly Risk-Return Report As of September 30, 2017

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Based on actual BNY Mellon data through August 2017 and preliminary data for September 2017.



### Asset Allocation and Policy Guidelines

As of September 30, 2017

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Public Markets Equity	5,604	45.9%	45.0%	40.0%	50.0%	0.9%	Yes
Global Equity	406	3.3%	3.0%	0.0%	10.0%	0.3%	Yes
US Equity	2,230	18.3%	18.0%	13.0%	23.0%	0.3%	Yes
Non-US Equity Developed	1,858	15.2%	15.0%	11.0%	19.0%	0.2%	Yes
Non-US Equity Emerging	1,110	9.1%	9.0%	5.0%	13.0%	0.1%	Yes
Risk-Reducing Fixed Income	2,318	19.0%	18.0%	13.0%	24.0%	1.0%	Yes
Return-Seeking Fixed Income	724	5.9%	6.0%	0.0%	12.0%	-0.1%	Yes
Opportunistic	953	7.8%	8.0%	0.0%	9.0%	-0.2%	Yes
Private Assets	2,617	21.4%	23.0%	10.0%		-1.6%	Yes
Real Estate	959	7.9%	9.0%	5.0%	12.0%	-1.1%	Yes
Private Equity	893	7.3%	8.0%	3.0%	10.0%	-0.7%	Yes
Private Real Assets	764	6.3%	6.0%	3.0%	8.0%	0.3%	Yes
<b>Total Invested</b>	<b>12,217</b>	<b>100.0%</b>					



## Portfolio and Benchmark Returns

As of September 30, 2017

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	1.2%	3.8%	3.8%	11.7%	11.9%	6.2%	7.0%
SDCERA Policy Benchmark	1.4%	3.9%	3.9%	12.0%	12.7%	6.2%	6.8%
Balanced Benchmark	1.4%	3.9%	3.9%	12.8%	12.8%	6.3%	8.0%
Actuarial Rate of Return	0.6%	1.8%	1.8%	5.4%	7.3%	7.5%	7.6%

<b>SDCERA Public Markets</b>	1.2%	4.2%	4.2%	13.9%	13.3%	4.3%	7.5%
Balanced Benchmark	1.4%	3.9%	3.9%	12.8%	12.8%	6.3%	8.0%
<b>Total Public Markets Equity</b>	1.9%	5.8%	5.8%	18.9%	19.5%	6.0%	10.2%
MSCI ACWI IMI	2.1%	5.3%	5.3%	17.2%	18.7%	7.7%	10.4%
<b>Risk-Reducing Fixed Income</b>	-0.3%	0.8%	0.8%	2.6%	0.7%	1.6%	1.4%
Bloomberg Barclays US Intermediate Aggregate	-0.4%	0.7%	0.7%	2.3%	0.3%	2.3%	1.8%
<b>Return-Seeking Fixed Income</b>	0.9%	1.9%	1.9%	6.4%	8.5%	5.1%	6.2%
BofA Merrill Lynch US High Yield	0.9%	2.0%	2.0%	7.1%	9.1%	5.9%	6.4%

<b>Opportunistic</b>							
<b>Opportunistic</b>	1.2%	4.5%	4.5%	6.1%	6.5%	7.8%	7.5%
Balanced Benchmark	1.4%	3.9%	3.9%	12.8%	12.8%	6.3%	8.0%

<b>Private Assets</b>							
<i>The industry standard is to present private asset returns with a quarterly lag</i>							
<b>Real Estate</b>	1.9%	1.8%	1.8%	5.1%	5.4%	11.4%	11.0%
NCREIF ODCE	0.5%	1.5%	1.5%	4.6%	6.5%	9.8%	10.5%
<b>Private Equity</b>	0.3%	4.3%	4.3%	14.8%	16.8%	10.5%	13.4%
MSCI ACWI IMI	2.1%	5.3%	5.3%	17.2%	18.7%	7.7%	10.4%
<b>Private Real Assets</b>	0.8%	0.9%	0.9%	5.6%	12.3%	2.6%	6.1%
MSCI ACWI IMI	2.1%	5.3%	5.3%	17.2%	18.7%	7.7%	10.4%

<b>Equities by Sub-Asset Class</b>							
<b>Global Equity</b>	2.2%	6.3%	6.3%	18.3%	19.8%	8.5%	11.2%
MSCI ACWI IMI	2.1%	5.3%	5.3%	17.2%	18.7%	7.7%	10.4%
<b>US Equity</b>	2.6%	4.8%	4.8%	13.7%	17.9%	9.6%	12.4%
MSCI USA IMI	2.4%	4.5%	4.5%	13.6%	17.9%	10.1%	13.5%
<b>Non-US Equity Developed</b>	2.5%	5.6%	5.6%	20.3%	19.7%	5.3%	
MSCI EAFE IMI	2.5%	5.7%	5.7%	20.7%	19.5%	5.8%	
<b>Non-US Emerging</b>	-0.5%	7.5%	7.5%	26.7%	22.2%	4.8%	4.4%
MSCI Emerging Markets	-0.4%	7.9%	7.9%	27.8%	22.5%	4.9%	4.0%
<b>Total Public Markets Equity</b>	1.9%	5.8%	5.8%	18.9%	19.5%	6.0%	10.2%
MSCI ACWI IMI	2.1%	5.3%	5.3%	17.2%	18.7%	7.7%	10.4%

Please note: The Non-US Equity Developed and MSCI EAFE IMI 5 yr returns are blank because the current composite returns calculated by BNY Mellon do not cover these time periods. SDCERA Benchmark returns are before fees.



**Portfolio Risk and Tracking Error**

As of September 30, 2017	7/31/17 Trailing three years		8/31/17 Trailing three years		9/30/17 Trailing three years	
	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
<b>Total Trust Fund</b>						
SDCERA Total Trust Fund Assets	5.2%	N/A	5.1%	N/A	5.0%	N/A
SDCERA Policy Benchmark	6.1%	1.9%	6.1%	1.9%	6.0%	1.9%
	<b>Forecasted</b>		<b>Forecasted</b>		<b>Forecasted</b>	
<b>Total Trust Fund</b>						
SDCERA Total Trust Fund Assets	5.9%	N/A	5.8%	N/A	5.8%	N/A
SDCERA Policy Benchmark	7.4%	1.7%	7.3%	1.9%	7.3%	1.8%
Balanced Benchmark	7.1%	1.6%	7.1%	1.7%	7.0%	1.7%
SDCERA Public-Only Assets	6.8%	N/A	6.6%	N/A	6.6%	N/A
SDCERA Public Benchmark	7.1%	0.8%	7.1%	1.0%	7.1%	0.9%
<b>Equities</b>						
Global Equity	9.8%		9.8%		9.7%	
MSCI ACWI IMI	10.0%	1.7%	10.0%	1.7%	10.0%	1.7%
US Equity	9.7%		9.8%		9.9%	
MSCI USA IMI	9.8%	0.6%	9.8%	0.5%	9.8%	0.5%
Non-US Equity Developed	11.9%		11.9%		11.8%	
MSCI EAFE IMI	11.7%	0.8%	11.7%	0.8%	11.6%	0.8%
Non-US Emerging	14.6%		14.6%		14.4%	
MSCI Emerging Markets	14.6%	0.9%	14.6%	1.0%	14.4%	1.0%
<b>Fixed Income</b>						
Risk-Reducing Fixed Income	2.6%		2.8%		2.8%	
Bloomberg Barclays US Intermediate Aggregate	2.0%	1.0%	2.1%	1.2%	2.1%	1.1%
Return-Seeking Fixed Income	4.4%		4.4%		4.4%	
BofA Merrill Lynch US High Yield	5.3%	1.0%	5.3%	1.0%	5.2%	1.0%
<b>Opportunistic</b>						
Opportunistic	5.8%		5.9%		5.8%	
Balanced Benchmark	7.1%	6.5%	7.1%	6.5%	7.0%	6.3%
<b>Private Assets</b>						
Real Estate	7.3%		7.4%		7.4%	
NCREIF ODCE	8.1%	8.7%	8.1%	8.9%	8.1%	8.9%
Private Equity	7.3%		7.3%		7.3%	
MSCI ACWI IMI	10.0%	5.0%	10.0%	4.9%	10.0%	4.9%
Private Real Assets	9.9%		10.3%		11.0%	
MSCI ACWI IMI	10.0%	12.3%	10.0%	12.6%	10.0%	12.9%



Allocation Changes (millions)

**Public Markets Portfolio Changes in September 2017**

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

**Private Market Portfolio Changes in September 2017**

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 7.25 percent.
- The SDCERA Policy benchmark is composed as follows: 45% MSCI ACWI Investable Market Index (IMI), 18% Bloomberg Barclays US Intermediate Aggregate Index, 6% BofA Merrill Lynch U. S. High Yield Index, 8% Balanced Benchmark, 23% SDCERA Private Asset Benchmark.
- The SDCERA Balanced Benchmark is composed of 70% MSCI ACWI IMI and 30% Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Total Public Markets Equity Benchmark is the MSCI ACWI IMI.
- The Global Equity Benchmark is the MSCI ACWI IMI.
- The US Equity Benchmark is the MSCI USA IMI.
- The Non-US Equity (Developed) Benchmark is the MSCI EAFE IMI.
- The Non-US Equity Emerging Markets Benchmark is the MSCI Emerging Markets Index.
- The Risk-Reducing Fixed Income Benchmark is the Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Return-Seeking Fixed Income Benchmark is the BofA Merrill Lynch U.S. High Yield Index.
- The Opportunistic Benchmark is 70% MSCI ACWI IMI and 30% Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Total Private Assets Benchmark is composed of 1/3 NCREIF and 2/3 MSCI ACWI IMI.
- The Real Estate Benchmark is the NCREIF ODCE Index.
- The Private Equity Benchmark is the MSCI ACWI IMI.
- The Private Real Assets Benchmark is the MSCI ACWI IMI.
- The MSCI ACWI IMI captures large, mid and small cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries.
- The SDCERA Public Markets Risk Benchmark is an aggregate of 3.9% MSCI ACWI IMI, 23.4% MSCI USA IMI, 19.5% MSCI EAFE IMI, 11.7% MSCI Emerging Markets Index, 23.4% Bloomberg Barclays U.S. Intermediate Aggregate Index, 7.8% BofA Merrill Lynch US High Yield Index, and 10.3% Balanced Benchmark.