



# Monthly Risk-Return Report

## As of December 31, 2017

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Based on actual BNY Mellon data through November 2017 and preliminary data for December 2017.



### Asset Allocation and Policy Guidelines

As of December 31, 2017

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
<b>Public Markets Equity</b>	<b>5,806</b>	<b>46.2%</b>	<b>45.0%</b>	<b>40.0%</b>	<b>50.0%</b>	<b>1.2%</b>	<b>Yes</b>
Global Equity	430	3.4%	3.0%	0.0%	10.0%	0.4%	Yes
US Equity	2,339	18.6%	18.0%	13.0%	23.0%	0.6%	Yes
Non-US Equity Developed	1,936	15.4%	15.0%	11.0%	19.0%	0.4%	Yes
Non-US Equity Emerging	1,100	8.8%	9.0%	5.0%	13.0%	-0.2%	Yes
<b>Fixed Income and Cash</b>	<b>3,009</b>	<b>24.0%</b>					
Risk-Reducing Fixed Income	2,280	18.2%	18.0%	13.0%	24.0%	0.2%	Yes
Return-Seeking Fixed Income	730	5.8%	6.0%	0.0%	12.0%	-0.2%	Yes
Opportunistic	999	8.0%	8.0%	0.0%	15.0%	0.0%	Yes
<b>Private Assets</b>	<b>2,739</b>	<b>21.8%</b>	<b>23.0%</b>	<b>10.0%</b>		<b>-1.2%</b>	<b>Yes</b>
Real Estate	1,063	8.5%	9.0%	5.0%	12.0%	-0.5%	Yes
Private Equity	881	7.0%	8.0%	3.0%	10.0%	-1.0%	Yes
Private Real Assets	795	6.3%	6.0%	3.0%	8.0%	0.3%	Yes
<b>Total Invested</b>	<b>12,553</b>	<b>100.0%</b>					



## Portfolio and Benchmark Returns

As of December 31, 2017

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	1.2%	3.8%	7.8%	16.0%	16.0%	7.0%	7.3%
SDCERA Policy Benchmark	1.2%	3.9%	7.9%	16.3%	16.3%	7.5%	7.2%
Balanced Benchmark	1.2%	4.0%	8.1%	17.3%	17.3%	7.4%	8.3%
Actuarial Rate of Return	0.6%	1.8%	3.6%	7.3%	7.3%	7.4%	7.6%

<b>SDCERA Public Markets</b>	1.3%	3.9%	8.3%	18.3%	18.3%	6.0%	7.7%
Balanced Benchmark	1.2%	4.0%	8.1%	17.3%	17.3%	7.4%	8.3%
<b>Total Public Markets Equity</b>	1.7%	5.7%	11.9%	25.7%	25.7%	8.6%	10.1%
MSCI ACWI IMI	1.6%	5.7%	11.3%	24.0%	24.0%	9.5%	11.0%
<b>Total Fixed Income and Cash</b>	0.4%	0.3%	1.3%	3.9%	3.9%	2.7%	2.2%
Bloomberg Barclays US Intermediate Aggregate	0.2%	-0.1%	0.7%	2.3%	2.3%	1.8%	1.7%

<b>Opportunistic</b>							
<b>Opportunistic</b>	1.6%	4.8%	9.5%	11.2%	11.2%	6.4%	7.9%
Balanced Benchmark	1.2%	4.0%	8.1%	17.3%	17.3%	7.4%	8.3%

<b>Private Assets</b>							
<i>The industry standard is to present private asset returns with a quarterly lag</i>							
<b>Real Estate</b>	1.4%	2.9%	4.8%	8.1%	8.1%	11.3%	11.1%
NCREIF ODCE	0.5%	1.6%	3.3%	6.5%	6.5%	9.4%	10.5%
<b>Private Equity</b>	0.1%	2.8%	7.3%	18.0%	18.0%	10.0%	13.8%
MSCI ACWI IMI	1.6%	5.7%	11.3%	24.0%	24.0%	9.5%	11.0%
<b>Private Real Assets</b>	0.6%	5.1%	6.0%	11.0%	11.0%	3.8%	6.5%
MSCI ACWI IMI	1.6%	5.7%	11.3%	24.0%	24.0%	9.5%	11.0%

<b>Equities by Sub-Asset Class</b>							
<b>Global Equity</b>	1.0%	5.9%	12.6%	25.2%	25.2%	10.2%	12.0%
MSCI ACWI IMI	1.6%	5.7%	11.3%	24.0%	24.0%	9.5%	11.0%
<b>US Equity</b>	1.0%	6.2%	11.4%	20.7%	20.7%	11.2%	13.3%
MSCI USA IMI	1.0%	6.2%	10.9%	20.6%	20.6%	10.5%	14.9%
<b>Non-US Equity Developed</b>	1.6%	4.1%	9.9%	25.3%	25.3%	8.1%	
MSCI EAFE IMI	1.8%	4.5%	10.5%	26.2%	26.2%	8.6%	
<b>Non-US Emerging</b>	3.7%	7.4%	15.5%	36.1%	36.1%	9.4%	4.6%
MSCI Emerging Markets	3.6%	7.4%	15.9%	37.3%	37.3%	9.1%	4.4%

<b>Fixed Income by Sub-Asset Class</b>							
<b>Risk-Reducing Fixed Income</b>	0.2%	0.2%	0.9%	3.0%	3.0%		
Bloomberg Barclays US Intermediate Aggregate	0.2%	-0.1%	0.7%	2.3%	2.3%		
<b>Return-Seeking Fixed Income</b>	0.8%	0.7%	2.6%	7.2%	7.2%		
ICE BofA Merrill Lynch US High Yield	0.3%	0.4%	2.5%	7.5%	7.5%		

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. The Risk-Reducing Fixed Income, Return-Seeking Fixed Income and ICE BofA Merrill Lynch US High Yield 3 and 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 December 31, 2017	10/31/17 Trailing three years		11/30/17 Trailing three years		12/31/17 Trailing three years	
Total Trust Fund	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.0%	N/A	5.0%	N/A	5.0%	N/A
SDCERA Policy Benchmark	6.0%	1.9%	6.0%	1.8%	6.0%	1.8%

  

	Forecasted		Forecasted		Forecasted	
Total Trust Fund	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.8%	N/A	5.8%	N/A	5.8%	N/A
SDCERA Policy Benchmark	7.3%	1.8%	7.3%	1.8%	7.3%	1.8%
Balanced Benchmark	7.0%	1.7%	7.0%	1.6%	7.0%	1.6%
SDCERA Public-Only Assets	6.7%	N/A	6.7%	N/A	6.7%	N/A
SDCERA Public Benchmark	7.1%	0.9%	7.1%	0.7%	7.1%	0.7%

  

Equities						
Global Equity	9.8%		9.8%		9.8%	
MSCI ACWI IMI	9.9%	1.7%	10.0%	1.7%	9.9%	1.7%
US Equity	9.7%		9.8%		9.8%	
MSCI USA IMI	9.7%	0.5%	9.7%	0.5%	9.7%	0.5%
Non-US Equity Developed	11.8%		11.8%		11.8%	
MSCI EAFE IMI	11.6%	0.8%	11.6%	0.8%	11.6%	0.8%
Non-US Emerging	14.4%		14.4%		14.4%	
MSCI Emerging Markets	14.5%	1.0%	14.5%	0.9%	14.4%	0.9%

  

Fixed Income						
Risk-Reducing Fixed Income	2.8%		1.9%		1.8%	
Bloomberg Barclays US Intermediate Aggregate	2.1%	1.2%	2.1%	0.2%	2.1%	0.2%
Return-Seeking Fixed Income	4.4%		4.4%		4.4%	
ICE BofA Merrill Lynch US High Yield	5.2%	1.1%	5.3%	1.1%	5.2%	1.1%

  

Opportunistic						
Opportunistic	5.9%		6.0%		6.0%	
Balanced Benchmark	7.0%	6.4%	7.0%	6.4%	7.0%	6.4%

  

Private Assets						
Real Estate	7.6%		7.6%		7.6%	
NCREIF ODCE	8.3%	9.1%	8.3%	9.1%	8.2%	9.0%
Private Equity	7.1%		7.1%		7.1%	
MSCI ACWI IMI	9.9%	4.9%	10.0%	4.9%	9.9%	4.9%
Private Real Assets	11.3%		11.3%		11.4%	
MSCI ACWI IMI	9.9%	13.3%	10.0%	13.3%	9.9%	13.3%



**Allocation Changes (millions)**

Increase Operational Cash: \$50  
 Decrease Genesis: \$50

**Public Markets Portfolio Changes in December 2017**

Portfolio %		Portfolio \$ millions		Summary Comments
Begin	End	Begin	End	
0.8%	0.7%	\$96	\$91	To move Public Markets Equity closer to policy targets; fund retiree payroll To move Public Markets Equity closer to policy targets; fund retiree payroll
1.9%	1.5%	\$230	\$187	

**Private Market Portfolio Changes in December 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.