



# Monthly Risk-Return Report

## As of September 30, 2018

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Based on actual BNY Mellon data through August 2018 and preliminary data for September 2018.  
Private asset valuations and returns are presented with a quarterly lag per industry standard.



### Asset Allocation and Policy Guidelines

As of September 30, 2018

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Public Markets Equity	5,979	46.2%	45.0%	40.0%	50.0%	1.2%	Yes
Global Equity	345	2.7%	3.0%	0.0%	10.0%	-0.3%	Yes
US Equity	2,715	21.0%	20.0%	15.0%	25.0%	1.0%	Yes
Non-US Equity Developed	1,912	14.8%	15.0%	11.0%	19.0%	-0.2%	Yes
Non-US Equity Emerging	1,007	7.8%	7.0%	3.0%	11.0%	0.8%	Yes
Fixed Income and Cash	3,344	25.8%					
Risk-Reducing Fixed Income	2,598	20.1%	18.0%	13.0%	24.0%	2.1%	Yes
Return-Seeking Fixed Income	746	5.8%	6.0%	0.0%	12.0%	-0.2%	Yes
Opportunistic	935	7.2%	8.0%	0.0%	15.0%	-0.8%	Yes
Private Assets	2,691	20.8%	23.0%	10.0%		-2.2%	Yes
Real Estate	1,087	8.4%	9.0%	5.0%	12.0%	-0.6%	Yes
Private Equity	821	6.3%	8.0%	3.0%	10.0%	-1.7%	Yes
Private Real Assets	784	6.1%	6.0%	3.0%	8.0%	0.1%	Yes
<b>Total Invested</b>	<b>12,949</b>	<b>100.0%</b>					



## Portfolio and Benchmark Returns

As of September 30, 2018

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	0.1%	2.2%	2.2%	2.3%	6.2%	8.8%	7.0%
SDCERA Policy Benchmark	0.1%	2.9%	2.9%	2.9%	6.9%	9.8%	7.0%
Balanced Benchmark	0.0%	2.7%	2.7%	2.4%	6.4%	9.8%	6.8%

<b>SDCERA Public Markets</b>	0.1%	2.3%	2.3%	1.0%	4.9%	9.5%	6.4%
Balanced Benchmark	0.0%	2.7%	2.7%	2.4%	6.4%	9.8%	6.8%
<b>Total Public Markets Equity</b>	0.4%	3.7%	3.7%	2.6%	8.4%	13.3%	7.8%
MSCI ACWI IMI	0.2%	3.9%	3.9%	3.7%	9.6%	13.5%	8.7%
<b>Total Fixed Income and Cash</b>	-0.2%	0.6%	0.6%	0.1%	0.4%	3.1%	1.9%
Bloomberg Barclays US Intermediate Aggregate	-0.5%	0.1%	0.1%	-0.9%	-0.9%	1.0%	1.7%

<b>Opportunistic</b>							
<b>Opportunistic</b>	-0.3%	-0.1%	-0.1%	-4.7%	-0.2%	3.0%	6.3%
Balanced Benchmark	0.0%	2.7%	2.7%	2.4%	6.4%	9.8%	6.8%

<b>Private Assets</b>							
<i>The industry standard is to present private asset returns with a quarterly lag</i>							
<b>Real Estate</b>	-0.3%	1.8%	1.8%	6.4%	9.5%	8.7%	11.4%
NCREIF ODCE	0.6%	1.8%	1.8%	5.7%	7.6%	7.8%	9.7%
<b>Private Equity</b>	0.0%	3.7%	3.7%	12.2%	15.4%	13.0%	13.1%
MSCI ACWI IMI	0.2%	3.9%	3.9%	3.7%	9.6%	13.5%	8.7%
<b>Private Real Assets</b>	0.1%	0.1%	0.1%	2.3%	7.6%	6.0%	6.3%
MSCI ACWI IMI	0.2%	3.9%	3.9%	3.7%	9.6%	13.5%	8.7%

<b>Equities by Sub-Asset Class</b>							
<b>Global Equity</b>	0.4%	4.1%	4.1%	2.6%	8.7%	13.5%	9.2%
MSCI ACWI IMI	0.2%	3.9%	3.9%	3.7%	9.6%	13.5%	8.7%
<b>US Equity</b>	0.2%	7.2%	7.2%	10.5%	17.4%	16.5%	11.6%
MSCI USA IMI	0.1%	6.9%	6.9%	10.2%	17.0%	16.5%	12.9%
<b>Non-US Equity Developed</b>	0.9%	1.4%	1.4%	-1.4%	2.7%	9.7%	
MSCI EAFE IMI	0.6%	1.0%	1.0%	-1.6%	2.9%	9.7%	
<b>Non-US Emerging</b>	-0.3%	-1.0%	-1.0%	-7.6%	-0.7%	12.5%	3.6%
MSCI Emerging Markets	-0.5%	-1.1%	-1.1%	-7.7%	-0.8%	12.4%	3.6%

<b>Fixed Income by Sub-Asset Class</b>							
<b>Risk-Reducing Fixed Income</b>	-0.4%	0.2%	0.2%	-0.4%	-0.2%		
Bloomberg Barclays US Intermediate Aggregate	-0.5%	0.1%	0.1%	-0.9%	-0.9%		
<b>Return-Seeking Fixed Income</b>	0.5%	2.1%	2.1%	2.0%	2.7%		
ICE BofA Merrill Lynch US High Yield	0.6%	2.4%	2.4%	2.5%	2.9%		

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 September 30, 2018	7/31/18 Trailing three years		8/31/18 Trailing three years		9/30/18 Trailing three years	
<b>Total Trust Fund</b>	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.4%	N/A	4.9%	N/A	4.8%	N/A
SDCERA Policy Benchmark	6.5%	1.7%	6.0%	1.6%	5.8%	1.5%

  

	Forecasted		Forecasted		Forecasted	
<b>Total Trust Fund</b>	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.7%	N/A	5.7%	N/A	5.6%	N/A
SDCERA Policy Benchmark	7.2%	1.9%	7.2%	1.9%	7.0%	1.8%
Balanced Benchmark	7.0%	1.9%	6.9%	1.8%	6.8%	1.9%
SDCERA Public-Only Assets	6.5%	N/A	6.5%	N/A	6.4%	N/A
SDCERA Public Benchmark	7.0%	0.7%	6.9%	0.7%	6.8%	0.6%

  

<b>Equities</b>						
Global Equity	9.8%		9.7%		9.5%	
MSCI ACWI IMI	10.0%	2.2%	9.9%	2.2%	9.7%	2.1%
US Equity	9.9%		9.8%		9.7%	
MSCI USA IMI	9.8%	0.5%	9.7%	0.4%	9.7%	0.4%
Non-US Equity Developed	11.6%		11.6%		11.1%	
MSCI EAFE IMI	11.3%	0.8%	11.4%	0.8%	10.9%	0.8%
Non-US Emerging	14.8%		14.8%		14.6%	
MSCI Emerging Markets	14.9%	0.8%	14.9%	0.8%	14.7%	0.8%

  

<b>Fixed Income</b>						
Risk-Reducing Fixed Income	1.5%		1.7%		1.5%	
Bloomberg Barclays US Intermediate Aggregate	2.0%	0.3%	2.0%	0.3%	2.0%	0.3%
Return-Seeking Fixed Income	4.2%		4.2%		4.2%	
ICE BofA Merrill Lynch US High Yield	5.0%	1.1%	5.0%	1.1%	5.0%	1.1%

  

<b>Opportunistic</b>						
Opportunistic	5.6%		5.4%		5.8%	
Balanced Benchmark	7.0%	5.8%	6.9%	5.3%	6.8%	4.8%

  

<b>Private Assets</b>						
Real Estate	10.6%		10.6%		10.6%	
NCREIF ODCE	8.4%	10.8%	8.3%	10.6%	8.3%	10.6%
Private Equity	7.2%		7.1%		7.1%	
MSCI ACWI IMI	10.0%	4.6%	9.9%	4.7%	9.7%	4.6%
Private Real Assets	11.7%		11.7%		11.9%	
MSCI ACWI IMI	10.0%	13.5%	9.9%	13.4%	9.7%	13.4%



**Public Markets Portfolio Changes in September 2018**

**Allocation Changes (millions)**

Increase BlackRock MSCI US Equity Index: \$788.5  
 Decrease BlackRock S&P 500: \$788.5  
 Increase BlackRock MSCI EAFE IMI: \$261.2  
 Decrease BlackRock EAFE Index: \$261.2  
 Increase Operational Cash: \$165  
 Decrease AQR Delta: \$165

Portfolio %		Portfolio \$ millions		Summary Comments
Begin	End	Begin	End	
1.9%	8.1%	\$250	\$1,042	Rebalance portfolio to move closer to benchmark
6.1%	0.0%	\$787	\$0	Rebalance portfolio to move closer to benchmark
0.8%	2.9%	\$109	\$373	Rebalance portfolio to move closer to benchmark
2.0%	0.0%	\$261	\$0	Rebalance portfolio to move closer to benchmark
1.0%	2.0%	\$125	\$261	Rebalance portfolio and fund retiree payroll
2.4%	1.1%	\$308	\$141	Rebalance portfolio and fund retiree payroll

**Private Markets Portfolio Changes in September 2018**

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% ICE 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 ICE 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 25 Emerging Markets (EM) countries.
- The SDCERA Public Markets Risk Benchmark is an aggregate of 3.9% MSCI ACWI IMI, 26.0% MSCI USA IMI, 19.5% MSCI EAFE IMI, 9.1% MSCI Emerging Markets Index, 23.4% Bloomberg Barclays U.S. Intermediate Aggregate Index, 7.8% ICE BofA Merrill Lynch US High Yield Index, and 10.3% Balanced Benchmark.