



## Monthly Risk-Return Report As of January 31, 2017

---

<b>Asset Allocation</b> .....	Page 1
<b>Returns</b> .....	Page 2
<b>Risk</b> .....	Page 3
<b>Portfolio Changes</b> .....	Page 4
<b>Benchmarks</b> .....	Page 5

---

Based on actual BNY Mellon data through December 2016 and preliminary data for January 2017.



### Asset Allocation and Policy Guidelines

As of January 31, 2017

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Total Public Markets Equity	5,033	45.8%	45.0%	42.0%	48.0%	0.8%	Yes
Global Equity	444	4.0%	3.0%	0.0%	6.0%	1.0%	Yes
US Equity	1,934	17.6%	18.0%	13.0%	23.0%	-0.4%	Yes
Non-US Equity Developed	1,586	14.4%	15.0%	12.0%	18.0%	-0.6%	Yes
Non-US Equity Emerging	1,068	9.7%	9.0%	6.0%	11.0%	0.7%	Yes
Fixed Income	2,745	25.0%	24.0%	21.0%	27.0%	1.0%	Yes
Alternative Beta/Opportunistic/Other	694	6.3%	8.0%	0.0%	9.0%	-1.7%	Yes
Total Private Assets	2,520	22.9%	23.0%	10.0%		-0.1%	Yes
Real Estate	936	8.5%	9.0%	5.0%	12.0%	-0.5%	Yes
Private Equity	860	7.8%	8.0%	3.0%	10.0%	-0.2%	Yes
Private Real Assets	724	6.6%	6.0%	3.0%	8.0%	0.6%	Yes
<b>Total Invested</b>	<b>10,992</b>	<b>100.0%</b>					



## Portfolio and Benchmark Returns

As of January 31, 2017

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
<b>SDCERA Total Trust Fund</b>	1.6%	1.6%	5.9%	1.6%	11.5%	5.7%	6.3%
SDCERA Policy Benchmark	1.8%	1.8%	6.3%	1.8%	12.8%	5.3%	6.1%
Balanced Benchmark	2.0%	2.0%	6.1%	2.0%	13.4%	4.8%	7.0%
Actuarial Rate of Return	0.6%	0.6%	4.2%	0.6%	7.4%	7.6%	7.7%

<b>SDCERA Public Markets</b>	2.3%	2.3%	6.5%	2.3%	14.4%	4.3%	7.1%
Balanced Benchmark	2.0%	2.0%	6.1%	2.0%	13.4%	4.8%	7.0%
<b>Total Public Markets Equity</b>	3.0%	3.0%	10.0%	3.0%	18.9%	5.0%	9.5%
MSCI ACWI IMI	2.7%	2.7%	9.8%	2.7%	18.7%	5.5%	8.9%
<b>Fixed Income</b>	0.5%	0.5%	-0.4%	0.5%	4.9%	1.8%	2.2%
Bloomberg Barclays US Intermediate Aggregate	0.2%	0.2%	-1.6%	0.2%	0.9%	2.1%	1.8%

<b>Alternative Beta/Oppportunistic/Other/HF</b>							
<b>Hedge Funds and Relative Value</b>	0.4%	0.4%	4.5%	0.4%	0.2%	3.9%	4.2%
<b>Managed Futures</b>	-0.6%	-0.6%	-2.9%	-0.6%	-2.6%	8.4%	5.1%
US T-Bills Plus 500 basis points	0.4%	0.4%	3.1%	0.4%	5.3%	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>	0.2%	0.2%	5.7%	0.2%	11.8%	13.2%	11.1%
NCREIF ODCE Plus 50 basis Points	0.7%	0.7%	4.7%	0.7%	8.3%	11.5%	11.7%
<b>Private Equity</b>	1.5%	1.5%	6.5%	1.5%	10.0%	10.4%	12.4%
MSCI ACWI IMI Plus 200 Basis Points	2.9%	2.9%	11.1%	2.9%	21.1%	7.6%	11.1%
<b>Private Real Assets</b>	-0.1%	-0.1%	9.0%	-0.1%	7.6%	5.4%	5.8%
MSCI ACWI IMI Plus 200 Basis Points	2.9%	2.9%	11.1%	2.9%	21.1%	7.6%	11.1%

<b>Equities by Sub-Asset Class</b>							
<b>Global Equity</b>	2.8%	2.8%	9.7%	2.8%	18.5%	6.1%	9.7%
MSCI ACWI IMI	2.7%	2.7%	9.8%	2.7%	18.7%	5.5%	8.9%
<b>US Equity</b>	1.9%	1.9%	10.6%	1.9%	21.0%	7.5%	10.9%
MSCI USA IMI	2.0%	2.0%	10.4%	2.0%	21.0%	9.7%	13.3%
<b>Non-US Equity Developed</b>	3.0%	3.0%	9.3%	3.0%	12.8%		
MSCI EAFE IMI	3.0%	3.0%	8.8%	3.0%	12.4%		
<b>Non-US Emerging</b>	5.3%	5.3%	10.2%	5.3%	26.7%	1.8%	1.0%
MSCI Emerging Markets IMI	5.4%	5.4%	9.6%	5.4%	24.1%	1.4%	0.4%
<b>Total Public Markets Equity</b>	3.0%	3.0%	10.0%	3.0%	18.9%	5.0%	9.5%
MSCI ACWI IMI	2.7%	2.7%	9.8%	2.7%	18.7%	5.5%	8.9%

Please note: The Non-US Equity Developed and MSCI EAFE IMI (3 yr & 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 cannot be indexed because Global Stocks + 2% for the private market assets subcomponent and NCREIF ODCE plus 50 basis points for Real Estate subcomponent cannot be indexed.



**Portfolio Risk and Tracking Error**

As of January 31, 2017	11/30/16 Trailing three years		12/31/16 Trailing three years		1/31/17 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	5.3%	N/A	5.3%	N/A
SDCERA Policy Benchmark	6.1%	1.9%	6.2%	1.9%	6.2%	1.9%
	<b>Forecasted</b>		<b>Forecasted</b>		<b>Forecasted</b>	
<b>Total Trust Fund</b>						
SDCERA Total Trust Fund Assets	6.3%	N/A	6.3%	N/A	6.3%	N/A
SDCERA Policy Benchmark	7.5%	1.6%	7.5%	1.6%	7.3%	1.4%
Balanced Benchmark	8.0%	2.1%	8.0%	2.1%	7.9%	2.0%
SDCERA Public-Only Assets	7.1%	N/A	7.2%	N/A	7.1%	N/A
SDCERA Public Benchmark	6.9%	0.7%	6.9%	0.7%	6.8%	0.6%
<b>Equities</b>						
Global Equity	11.4%		11.4%		11.2%	
MSCI ACWI IMI	11.4%	0.6%	11.4%	0.6%	11.2%	0.6%
US Equity	9.5%		9.5%		9.3%	
MSCI USA IMI	10.7%	0.9%	10.7%	0.9%	10.5%	0.9%
Non-US Equity Developed	13.6%		13.6%		13.5%	
MSCI EAFE IMI	13.4%	0.9%	13.4%	0.9%	13.3%	0.9%
Non-US Emerging	16.5%		16.5%		15.8%	
MSCI Emerging Markets IMI	15.9%	1.0%	15.9%	1.0%	15.3%	1.0%
<b>Fixed Income</b>						
Fixed Income	4.0%		3.9%		3.1%	
Bloomberg Barclays US Intermediate Aggregate	2.1%	1.4%	2.1%	1.4%	2.1%	1.2%
<b>Alternative Beta/Oppportunistic/HF</b>						
Alternative Beta/Oppportunistic/Other/HF	3.7%		3.7%		3.8%	
50% BarclayHedge CTA, 50% HFRI Macro	4.1%	3.6%	4.1%	3.6%	4.1%	3.7%
<b>Private Assets</b>						
Real Estate	8.5%		7.9%		7.9%	
NCREIF ODCE + 50 bps	9.0%	10.3%	9.0%	9.8%	8.9%	9.8%
Private Equity	7.7%		7.7%		7.7%	
MSCI ACWI IMI + 200 bps	11.4%	5.6%	11.4%	5.6%	11.2%	5.5%
Private Real Assets	10.9%		10.3%		10.5%	
MSCI ACWI IMI + 200 bps	11.4%	11.8%	11.4%	12.1%	11.2%	12.0%



**Public Markets Portfolio Changes in January 2017**

**Allocation Changes (millions)**

Increase Blackrock Intermediate Agg Fund: \$1,300  
 Increase Operational Cash: \$50  
 Decrease Blackrock US Agg Fund: \$1,324  
 Decrease Blackrock US LT GVT Fund: \$26  
  
 Increase Ryan Labs Core Fixed: \$100  
 Decrease PIMCO Short Term Fixed: \$100

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
	0.0%	11.9%	\$0	\$1,300	Decrease interest rate sensitivity: move closer to benchmark Retiree payroll/cash management Decrease interest rate sensitivity: move closer to benchmark Decrease interest rate sensitivity: move closer to benchmark
	0.8%	1.1%	\$86	\$124	
	12.2%	0.0%	\$1,324	\$0	
	0.2%	0.0%	\$26	\$0	
	0.0%	0.9%	\$0	\$100	Increase yield in fixed income portfolio Increase yield in fixed income portfolio
	4.2%	3.2%	\$455	\$355	

**Private Market Portfolio Changes in January 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), 24% Bloomberg Barclays US Intermediate Aggregate Index, 8% US T-Bills + 500 bps, 23% SDCERA Private Asset Benchmark.
- The SDCERA Balanced benchmark is composed of 70% MSCI ACWI IMI and 30% Bloomberg Barclays U.S. 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 IMI.
- The Total Fixed Income Benchmark is the Bloomberg Barclays 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 T-Bills plus 500 basis points.
- The Total Private Assets Benchmark is composed of 1/3 NCREIF and 2/3 MSCI ACWI IMI 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 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 58.4% MSCI ACWI IMI, 31.2% Bloomberg Barclays U.S. Intermediate Aggregate, 5.2% BarclayHedge CTA, and 5.2% HFRI Macro.
- The BarclayHedge CTA Index is comprised 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.