



Monthly Risk-Return Report

As of February 28, 2018

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



Asset Allocation and Policy Guidelines

As of February 28, 2018

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Public Markets Equity	5,794	46.2%	45.0%	40.0%	50.0%	1.2%	Yes
Global Equity	343	2.7%	3.0%	0.0%	10.0%	-0.3%	Yes
US Equity	2,373	18.9%	18.0%	13.0%	23.0%	0.9%	Yes
Non-US Equity Developed	1,943	15.5%	15.0%	11.0%	19.0%	0.5%	Yes
Non-US Equity Emerging	1,136	9.1%	9.0%	5.0%	13.0%	0.1%	Yes
Fixed Income and Cash	3,010	24.0%					
Risk-Reducing Fixed Income	2,282	18.2%	18.0%	13.0%	24.0%	0.2%	Yes
Return-Seeking Fixed Income	729	5.8%	6.0%	0.0%	12.0%	-0.2%	Yes
Opportunistic	1,002	8.0%	8.0%	0.0%	15.0%	0.0%	Yes
Private Assets	2,733	21.8%	23.0%	10.0%		-1.2%	Yes
Real Estate	1,065	8.5%	9.0%	5.0%	12.0%	-0.5%	Yes
Private Equity	867	6.9%	8.0%	3.0%	10.0%	-1.1%	Yes
Private Real Assets	801	6.4%	6.0%	3.0%	8.0%	0.4%	Yes
Total Invested	12,540	100.0%					



Portfolio and Benchmark Returns

As of February 28, 2018

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
SDCERA Total Trust Fund	-2.4%	0.6%	8.4%	0.6%	13.1%	6.4%	7.0%
SDCERA Policy Benchmark	-2.9%	0.5%	8.5%	0.5%	12.7%	7.0%	6.9%
Balanced Benchmark	-3.1%	0.3%	8.4%	0.3%	13.0%	6.4%	7.7%
Actuarial Rate of Return	0.6%	1.2%	4.8%	1.2%	7.3%	7.4%	7.6%

SDCERA Public Markets	-3.1%	0.4%	8.6%	0.4%	13.8%	4.8%	7.1%
Balanced Benchmark	-3.1%	0.3%	8.4%	0.3%	13.0%	6.4%	7.7%
Total Public Markets Equity	-4.2%	1.4%	13.5%	1.4%	20.6%	7.4%	9.3%
MSCI ACWI IMI	-4.2%	1.0%	12.5%	1.0%	18.6%	8.5%	10.2%
Total Fixed Income and Cash	-0.5%	-1.0%	0.3%	-1.0%	1.5%	2.1%	1.9%
Bloomberg Barclays US Intermediate Aggregate	-0.5%	-1.5%	-0.9%	-1.5%	0.1%	1.0%	1.4%

Opportunistic							
Opportunistic	-5.0%	-1.6%	7.7%	-1.6%	6.6%	4.4%	7.1%
Balanced Benchmark	-3.1%	0.3%	8.4%	0.3%	13.0%	6.4%	7.7%

Private Assets							
<i>The industry standard is to present private asset returns with a quarterly lag</i>							
Real Estate	0.6%	1.4%	6.3%	1.4%	9.7%	11.8%	11.4%
NCREIF ODCE	0.6%	1.2%	4.8%	1.2%	6.9%	9.1%	10.4%
Private Equity	0.2%	2.4%	9.8%	2.4%	18.6%	10.4%	13.5%
MSCI ACWI IMI	-4.2%	1.0%	12.5%	1.0%	18.6%	8.5%	10.2%
Private Real Assets	0.2%	0.9%	6.9%	0.9%	12.7%	4.1%	6.9%
MSCI ACWI IMI	-4.2%	1.0%	12.5%	1.0%	18.6%	8.5%	10.2%

Equities by Sub-Asset Class							
Global Equity	-3.9%	1.9%	14.7%	1.9%	20.8%	9.5%	11.4%
MSCI ACWI IMI	-4.2%	1.0%	12.5%	1.0%	18.6%	8.5%	10.2%
US Equity	-3.7%	1.4%	12.9%	1.4%	16.2%	10.3%	12.5%
MSCI USA IMI	-3.8%	1.3%	12.4%	1.3%	15.7%	10.0%	13.7%
Non-US Equity Developed	-4.5%	0.3%	10.3%	0.3%	20.4%	5.9%	
MSCI EAFE IMI	-4.4%	0.4%	10.9%	0.4%	21.2%	6.5%	
Non-US Emerging	-4.6%	3.3%	19.3%	3.3%	29.3%	9.8%	5.2%
MSCI Emerging Markets	-4.6%	3.3%	19.8%	3.3%	30.5%	9.0%	5.0%

Fixed Income by Sub-Asset Class							
Risk-Reducing Fixed Income	-0.4%	-1.3%	-0.3%	-1.3%	1.0%		
Bloomberg Barclays US Intermediate Aggregate	-0.5%	-1.5%	-0.9%	-1.5%	0.1%		
Return-Seeking Fixed Income	-0.8%	-0.2%	2.4%	-0.2%	3.9%		
ICE BofA Merrill Lynch US High Yield	-0.9%	-0.3%	2.2%	-0.3%	4.1%		

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 February 28, 2018	12/31/17 Trailing three years		1/31/18 Trailing three years		2/28/18 Trailing three years	
Total Trust Fund	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.0%	N/A	5.2%	N/A	5.4%	N/A
SDCERA Policy Benchmark	6.0%	1.8%	6.2%	1.7%	6.5%	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	5.9%	N/A	6.0%	N/A
SDCERA Policy Benchmark	7.3%	1.8%	7.3%	1.7%	7.5%	1.8%
Balanced Benchmark	7.0%	1.6%	7.0%	1.5%	7.2%	1.6%
SDCERA Public-Only Assets	6.7%	N/A	6.7%	N/A	6.9%	N/A
SDCERA Public Benchmark	7.1%	0.7%	7.1%	0.7%	7.3%	0.7%

Equities						
Global Equity	9.8%		9.8%		10.0%	
MSCI ACWI IMI	9.9%	1.7%	10.0%	2.1%	10.2%	2.1%
US Equity	9.8%		9.8%		10.0%	
MSCI USA IMI	9.7%	0.5%	9.7%	0.5%	10.0%	0.5%
Non-US Equity Developed	11.8%		11.8%		12.0%	
MSCI EAFE IMI	11.6%	0.8%	11.6%	0.8%	11.8%	0.8%
Non-US Emerging	14.4%		14.8%		14.9%	
MSCI Emerging Markets	14.4%	0.9%	14.8%	0.9%	15.0%	0.9%

Fixed Income						
Risk-Reducing Fixed Income	1.8%		1.5%		1.7%	
Bloomberg Barclays US Intermediate Aggregate	2.1%	0.2%	2.1%	0.4%	2.1%	0.3%
Return-Seeking Fixed Income	4.4%		4.4%		4.4%	
ICE BofA Merrill Lynch US High Yield	5.2%	1.1%	5.2%	1.1%	5.3%	1.1%

Opportunistic						
Opportunistic	6.0%		6.2%		5.9%	
Balanced Benchmark	7.0%	6.4%	7.0%	6.4%	7.2%	6.0%

Private Assets						
Real Estate	7.6%		7.2%		7.3%	
NCREIF ODCE	8.2%	9.0%	8.4%	8.8%	8.7%	8.8%
Private Equity	7.1%		7.3%		7.5%	
MSCI ACWI IMI	9.9%	4.9%	10.0%	4.8%	10.2%	4.8%
Private Real Assets	11.4%		11.1%		11.2%	
MSCI ACWI IMI	9.9%	13.3%	10.0%	13.2%	10.2%	13.3%



Public Markets Portfolio Changes in February 2018

Allocation Changes (millions)

Increase PAAMCO Alt Beta: \$100
 Increase AACA REIT: \$50
 Increase Allianz Multi-Asset Long Short: \$100*
 Decrease Operational Cash: \$108.9
 Decrease Cantab: \$80

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
	0.0%	0.8%	\$0	\$100	Rebalance portfolio and increase manager alignment
	0.4%	0.8%	\$51	\$94	Public Markets capital call per IMA
	0.0%	0.8%	\$0	\$100	Rebalance portfolio and increase manager alignment
	2.3%	1.3%	\$292	\$162	Rebalance portfolio and increase manager alignment
	2.5%	1.7%	\$326	\$217	Rebalance portfolio and increase manager alignment

Private Market Portfolio Changes in February 2018

Increase Brookfield Sr. Mezz RE Fin Fund: \$38.9

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
	0.0%	0.3%	\$0	\$39	Rebalance portfolio and increase manager alignment

* Settlement/funding date was 3/5/2018; included in February reporting as part of a larger rebalancing.

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 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% ICE BofA Merrill Lynch US High Yield Index, and 10.3% Balanced Benchmark.