



Monthly Risk-Return Report As of July 31, 2018

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



Asset Allocation and Policy Guidelines

As of July 31, 2018

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Public Markets Equity	5,929	45.8%	45.0%	40.0%	50.0%	0.8%	Yes
Global Equity	339	2.6%	3.0%	0.0%	10.0%	-0.4%	Yes
US Equity	2,619	20.2%	20.0%	15.0%	25.0%	0.2%	Yes
Non-US Equity Developed	1,931	14.9%	15.0%	11.0%	19.0%	-0.1%	Yes
Non-US Equity Emerging	1,040	8.0%	7.0%	3.0%	11.0%	1.0%	Yes
Fixed Income and Cash	3,321	25.7%					
Risk-Reducing Fixed Income	2,584	20.0%	18.0%	13.0%	24.0%	2.0%	Yes
Return-Seeking Fixed Income	737	5.7%	6.0%	0.0%	12.0%	-0.3%	Yes
Opportunistic	1,000	7.7%	8.0%	0.0%	15.0%	-0.3%	Yes
Private Assets	2,695	20.8%	23.0%	10.0%		-2.2%	Yes
Real Estate	1,079	8.3%	9.0%	5.0%	12.0%	-0.7%	Yes
Private Equity	829	6.4%	8.0%	3.0%	10.0%	-1.6%	Yes
Private Real Assets	787	6.1%	6.0%	3.0%	8.0%	0.1%	Yes
Total Invested	12,946	100.0%					



Portfolio and Benchmark Returns

As of July 31, 2018

	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
SDCERA Total Trust Fund	1.6%	1.6%	1.6%	1.7%	7.6%	7.1%	7.1%
SDCERA Policy Benchmark	1.9%	1.9%	1.9%	2.0%	7.9%	7.3%	7.1%
Balanced Benchmark	1.9%	1.9%	1.9%	1.6%	7.5%	6.9%	7.2%

SDCERA Public Markets	1.7%	1.7%	1.7%	0.4%	6.3%	6.3%	6.9%
Balanced Benchmark	1.9%	1.9%	1.9%	1.6%	7.5%	6.9%	7.2%
Total Public Markets Equity	2.8%	2.8%	2.8%	1.7%	10.3%	8.6%	9.0%
MSCI ACWI IMI	2.8%	2.8%	2.8%	2.6%	11.2%	9.1%	9.1%
Total Fixed Income and Cash	0.2%	0.2%	0.2%	-0.3%	0.5%	2.4%	1.9%
Bloomberg Barclays US Intermediate Aggregate	0.0%	0.0%	0.0%	-1.0%	-0.8%	1.1%	1.8%

Opportunistic							
Opportunistic	0.1%	0.1%	0.1%	-4.5%	2.7%	3.6%	6.1%
Balanced Benchmark	1.9%	1.9%	1.9%	1.6%	7.5%	6.9%	7.2%

Private Assets							
<i>The industry standard is to present private asset returns with a quarterly lag</i>							
Real Estate	1.9%	1.9%	1.9%	6.5%	11.7%	11.6%	12.0%
NCREIF ODCE	0.6%	0.6%	0.6%	4.4%	7.5%	8.2%	9.9%
Private Equity	1.4%	1.4%	1.4%	9.7%	16.5%	12.4%	13.0%
MSCI ACWI IMI	2.8%	2.8%	2.8%	2.6%	11.2%	9.1%	9.1%
Private Real Assets	0.0%	0.0%	0.0%	2.2%	8.2%	5.9%	6.0%
MSCI ACWI IMI	2.8%	2.8%	2.8%	2.6%	11.2%	9.1%	9.1%

Equities by Sub-Asset Class							
Global Equity	2.3%	2.3%	2.3%	0.9%	9.9%	8.9%	9.5%
MSCI ACWI IMI	2.8%	2.8%	2.8%	2.6%	11.2%	9.1%	9.1%
US Equity	3.4%	3.4%	3.4%	6.6%	16.4%	11.6%	11.7%
MSCI USA IMI	3.3%	3.3%	3.3%	6.5%	15.9%	11.6%	12.2%
Non-US Equity Developed	2.5%	2.5%	2.5%	-0.4%	6.3%	5.3%	
MSCI EAFE IMI	2.2%	2.2%	2.2%	-0.4%	6.8%	5.7%	
Non-US Emerging	2.3%	2.3%	2.3%	-4.6%	4.3%	10.1%	5.3%
MSCI Emerging Markets	2.2%	2.2%	2.2%	-4.6%	4.4%	8.9%	5.3%

Fixed Income by Sub-Asset Class							
Risk-Reducing Fixed Income	0.0%	0.0%	0.0%	-0.6%	0.0%		
Bloomberg Barclays US Intermediate Aggregate	0.0%	0.0%	0.0%	-1.0%	-0.8%		
Return-Seeking Fixed Income	0.9%	0.9%	0.9%	0.9%	2.1%		
ICE BofA Merrill Lynch US High Yield	1.1%	1.1%	1.1%	1.2%	2.5%		

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 July 31, 2018	5/31/18 Trailing three years		6/30/18 Trailing three years		7/31/18 Trailing three years	
Total Trust Fund	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	5.5%	N/A	5.3%	N/A	5.4%	N/A
SDCERA Policy Benchmark	6.5%	1.8%	6.5%	1.7%	6.5%	1.7%

	Forecasted		Forecasted		Forecasted	
Total Trust Fund	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
SDCERA Total Trust Fund Assets	6.0%	N/A	5.9%	N/A	5.7%	N/A
SDCERA Policy Benchmark	7.5%	1.9%	7.4%	1.9%	7.2%	1.9%
Balanced Benchmark	7.2%	1.8%	7.1%	1.8%	7.0%	1.9%
SDCERA Public-Only Assets	6.9%	N/A	6.7%	N/A	6.5%	N/A
SDCERA Public Benchmark	7.3%	0.7%	7.2%	0.8%	7.0%	0.7%

Equities						
Global Equity	10.0%		10.0%		9.8%	
MSCI ACWI IMI	10.3%	2.2%	10.1%	2.2%	10.0%	2.2%
US Equity	10.1%		10.0%		9.9%	
MSCI USA IMI	10.0%	0.5%	10.0%	0.5%	9.8%	0.5%
Non-US Equity Developed	11.9%		11.7%		11.6%	
MSCI EAFE IMI	11.6%	0.8%	11.5%	0.8%	11.3%	0.8%
Non-US Emerging	15.0%		14.8%		14.8%	
MSCI Emerging Markets	15.0%	0.9%	14.9%	0.8%	14.9%	0.8%

Fixed Income						
Risk-Reducing Fixed Income	1.8%		1.7%		1.5%	
Bloomberg Barclays US Intermediate Aggregate	2.1%	0.2%	2.0%	0.3%	2.0%	0.3%
Return-Seeking Fixed Income	4.4%		4.3%		4.2%	
ICE BofA Merrill Lynch US High Yield	5.2%	1.1%	5.0%	1.1%	5.0%	1.1%

Opportunistic						
Opportunistic	5.7%		5.6%		5.6%	
Balanced Benchmark	7.2%	5.8%	7.1%	5.8%	7.0%	5.9%

Private Assets						
Real Estate	10.4%		10.4%		10.6%	
NCREIF ODCE	8.6%	10.7%	8.7%	10.8%	8.4%	10.8%
Private Equity	7.6%		7.6%		7.2%	
MSCI ACWI IMI	10.3%	4.7%	10.1%	4.6%	10.0%	4.6%
Private Real Assets	11.4%		11.4%		11.7%	
MSCI ACWI IMI	10.3%	13.4%	10.1%	13.2%	10.0%	13.5%



Public Markets Portfolio Changes in July 2018

Allocation Changes (millions)

Increase BlackRock MSCI US Equity: \$120
 Increase BlackRock MSCI US Small Cap: \$20
 Increase Hoisington: \$100
 Increase PIMCO Short Term Fixed: \$100

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
	0.9%	1.9%	\$114	\$242	Invest County contributions within asset allocation targets
	1.0%	1.1%	\$118	\$140	Invest County contributions within asset allocation targets
	1.7%	2.4%	\$213	\$311	Invest County contributions within asset allocation targets
	3.2%	3.9%	\$396	\$497	Invest County contributions within asset allocation targets

Private Markets Portfolio Changes in July 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 24 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.