



Monthly Risk-Return Report

As of December 31, 2015

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Based on actual BNY Mellon data through November 2015 and preliminary data for December 2015



San Diego County Employees Retirement Association
Asset Allocation and Policy Guidelines

As of December 31, 2015

Asset Class	Assets and Allocation		Policy Target	Minimum Target	Maximum Target	Difference	
	\$ (MM)	%				From Policy Target	Within Target?
Total Public Markets Equity	4,333	42.2%	45.0%	42.0%	48.0%	-2.8%	Yes
Global Equity	581	5.7%	3.0%	0.0%	6.0%	2.7%	Yes
US Equity	1,391	13.5%	18.0%	13.0%	23.0%	-4.5%	Yes
Non-US Equity Developed	1,515	14.8%	15.0%	12.0%	18.0%	-0.2%	Yes
Non-US Equity Emerging	846	8.2%	9.0%	6.0%	11.0%	-0.8%	Yes
Fixed Income	2,733	26.6%	24.0%	21.0%	27.0%	2.6%	Yes
Alternative Beta/Oppportunistic/Other	804	7.8%	8.0%	7.0%	9.0%	-0.2%	Yes
Total Private Assets	2,403	23.4%	23.0%	10.0%	N/A	0.4%	Yes
Real Estate	1,002	9.8%	9.0%	5.0%	N/A	0.8%	Yes
Private Equity	736	7.2%	8.0%	3.0%	N/A	-0.8%	Yes
Private Real Assets	665	6.5%	6.0%	3.0%	N/A	0.5%	Yes
Total Invested	10,273	100.0%					



San Diego County Employees Retirement Association
Portfolio and Benchmark Returns

As of December 31, 2015

Returns	MTD	QTD	FYTD	CYTD	1 Year	3 Years	5 Years
SDCERA Total Trust Fund	-1.1%	1.7%	-2.2%	-1.0%	-1.0%	4.7%	6.6%
Actuarial Rate of Return	0.6%	1.9%	3.8%	7.7%	7.7%	7.8%	7.9%
SDCERA Policy Benchmark	-1.0%	3.3%	-2.5%	-0.3%	-0.3%	4.5%	6.2%
Balanced Benchmark	-1.4%	3.3%	-3.3%	-1.2%	-1.2%	6.0%	5.5%
SDCERA Public Markets							
SDCERA Public Markets	-1.7%	2.6%	-7.9%	-6.4%	-6.4%	5.1%	6.8%
SDCERA Public Markets Benchmark	-1.9%	4.9%	-5.2%	-2.2%	-2.2%	7.9%	6.1%
Equities							
Global Equity	-1.8%	5.1%	-3.9%	-1.4%	-1.4%	9.1%	7.8%
MSCI ACWI IMI	-1.9%	4.9%	-5.2%	-2.2%	-2.2%	7.9%	6.1%
US Equity	-1.2%	6.1%	-3.1%	2.0%	2.0%	11.4%	8.6%
MSCI USA IMI	-2.1%	6.2%	-1.8%	0.0%	0.0%	14.1%	11.5%
Non-US Equity Developed	-1.7%	5.3%	-5.9%	-0.8%	-0.8%		
MSCI EAFE	-1.1%	5.0%	-5.3%	0.5%	0.5%		
Non-US Emerging	-2.4%	0.4%	-15.5%	-14.5%	-14.5%	-6.5%	-3.7%
MSCI Emerging Markets	-1.9%	1.0%	-16.9%	-13.9%	-13.9%	-6.1%	-4.6%
Total Public Markets Equity	-1.8%	4.4%	-9.6%	-5.7%	-5.7%	6.1%	7.7%
MSCI ACWI IMI	-1.9%	4.9%	-5.2%	-2.2%	-2.2%	7.9%	6.1%
Fixed Income							
Fixed Income	-0.8%	-0.1%	-3.0%	-1.0%	-1.0%	3.3%	5.8%
Barclay's US Intermediate Aggregate	-0.2%	-0.5%	0.6%	1.2%	1.2%	1.4%	2.7%
Alternative Beta/Oppportunistic/Other							
Alternative Beta/Oppportunistic/Other	1.4%	0.9%	3.4%	7.8%	7.8%	5.9%	4.5%
US T-Bills Plus 500 basis points	0.4%	1.2%	2.5%	5.0%	5.0%	5.0%	5.1%
Private Assets							
	<i>The industry standard is to present private asset returns with a quarterly lag</i>						
Real Estate	-0.4%	0.0%	8.0%	14.2%	14.2%	11.9%	
NCREIF ODCE Plus 50 basis Points	1.2%	3.6%	7.3%	14.9%	14.9%	13.5%	
Private Equity	1.1%	-0.7%	0.8%	3.0%	3.0%	13.9%	10.5%
MSCI ACWI IMI Plus 200 Basis Points	-1.7%	5.4%	-4.2%	-0.2%	-0.2%	10.0%	8.2%
Private Real Assets	-1.3%	-0.6%	-0.8%	-4.6%	-4.6%	5.4%	4.5%
MSCI ACWI IMI Plus 200 Basis Points	-1.7%	5.4%	-4.2%	-0.2%	-0.2%	10.0%	8.2%

Please note: The MSCI EAFE (3 yr & 5 yr) and Real Estate (5 yr) returns are blank because the current composite returns calculated by BNY Mellon do not cover these time periods.



Portfolio Risk and Tracking Error

As of December 31, 2015	10/31/15 Trailing three years		11/30/15 Trailing three years		12/31/15 Trailing three years	
	Volatility	Tracking Error	Volatility	Tracking Error	Volatility	Tracking Error
Total Trust Fund						
SDCERA Total Trust Fund Assets	5.4%		5.4%		5.4%	
SDCERA Policy Benchmark	5.9%	1.9%	5.9%	1.8%	5.9%	2.0%
	Forecasted		Forecasted		Forecasted	
Total Trust Fund						
SDCERA Total Trust Fund Assets	9.0%		8.8%		8.7%	
SDCERA Policy Benchmark	9.5%	1.6%	9.5%	1.7%	9.3%	1.7%
Balanced Benchmark	9.6%	1.8%	9.7%	1.8%	9.5%	1.9%
SDCERA Public-Only Assets	9.1%		8.8%		8.7%	
SDCERA Public Benchmark	8.2%	1.8%	8.2%	1.5%	8.1%	1.7%
Equities						
SDCERA Public Equities	14.2%		14.3%		13.3%	
MSCI ACWI IMI	13.9%	1.5%	13.9%	1.9%	13.7%	1.8%
SDCERA Public US Equity	13.2%		13.2%		12.7%	0.0%
MSCI USA IMI	13.7%	0.8%	13.8%	0.9%	13.6%	1.3%
SDCERA Public EAFE Equity	15.8%		16.7%		14.1%	0.0%
MSCI EAFE IMI	16.0%	1.6%	15.9%	1.0%	15.5%	1.7%
SDCERA Public EM Equities	17.2%		17.1%		17.3%	0.0%
MSCI EM IMI	17.2%	1.1%	17.3%	1.1%	17.0%	1.2%
Fixed Income						
SDCERA Fixed Income	4.6%		3.6%		4.4%	
Barclays US Intermediate Agg	3.1%	3.2%	3.1%	2.0%	3.2%	2.5%
Alternative Beta/Oppportunistic/Other						
Alternative Beta/Oppportunistic/Other	7.6%		7.5%		5.8%	
50% Barclays CTA, 50% HFRI Macro	3.8%	6.9%	3.8%	6.9%	3.8%	5.5%
Private Assets						
Real Estate	9.0%		9.0%		9.0%	
NCREIF ODCE	9.5%	1.4%	9.5%	1.4%	9.5%	1.4%
Private Equity	16.3%		16.5%		16.2%	
MSCI ACWI IMI	13.9%	8.2%	13.9%	8.4%	13.7%	8.2%
Private Real Assets	16.1%		16.2%		16.0%	
MSCI ACWI IMI	13.9%	8.7%	13.9%	8.8%	13.7%	8.7%



Public Markets Portfolio Changes in December 2015

Allocation Changes (millions)

1. Decrease/Eliminate \$407 EM Debt

2. Increase ACWI \$300

3. Decrease/Eliminate S&P Materials index fund \$137

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
1. Decrease/Eliminate \$407 EM Debt	3.9%	0.0%	\$407	0	Take EM risk in equities
2. Increase ACWI \$300	2.8%	5.6%	\$288	\$588	Bring equities to 42% per IPS
3. Decrease/Eliminate S&P Materials index fund \$137	9.2%	7.8%	\$137	0	Reduce "real assets" exposure in Alternatives/Other

Private Market Portfolio Changes in December 2015

1. None

	Portfolio %		Portfolio \$ millions		Summary Comments
	Begin	End	Begin	End	
1. None					

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 7.5 percent.
- The SDCERA Policy benchmark is composed as follows: 45% MSCI ACWI IMI, 24% Barclays US Intermediate Aggregate Index, 8% US T-Bills, 23% SDCERA Private Asset Benchmark.
- The SDCERA Balanced benchmark is composed of 70% MSCI ACWI IMI index and 30% Barclay's U.S. Aggregate index – this is an investable index and represents an alternative to asset allocation and to active managers.
- The Total Public Markets Equity Benchmark is the MSCI ACWI IMI Index.
- The Global Equity Benchmark is the MSCI ACWI IMI Index.
- The US Equity Benchmark is the MSCI USA IMI Stock Market Index.
- The Non-US Equity (Developed) Benchmark is the MSCI EAFE IMI Index.
- The Non-US Equity Emerging Markets Benchmark is the MSCI Emerging Markets IMI Index.
- The Total Fixed Income Benchmark is the Barclay's 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 the T-Bills plus 500 basis points.
- The Total Private Assets Benchmark is composed of 1/3 NCREIF and 2/3 MSCI ACWI IMI index 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 Investable Market Index (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 58.44% ACWI IMI, 31.77% Barclay's Intermediate Aggregate, 5.19% Barclay's CTA, and 5.19% HFRI Macro.
- The Barclay CTA index is an index 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 investible 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.