

Performance Pulse

December 2018



Semi-Annual Investment Performance Summary

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PERFORMANCE PULSE

The Performance Pulse is a semi-annual summary of SamCERA's investment performance answering key questions to explain the performance of the fund, where the fund was invested and any significant updates or changes.

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SamCERA continues to actively rebalance the portfolio to its longterm policy asset allocation weights to keep a balanced risk posture without relying too much on any single asset, strategy, or return stream.

THE KEY QUESTIONS



How Did We Do?

Learn about SamCERA's total fund performance and how it compares to the policy benchmark.

Where Did We Invest?

Discover where the fund was invested. Compare the market value and allocation percentages for the current period and the prior period.

What Did We Do?

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Explore details about updates to policies and any changes to the fund that occurred during the current period.

HOW DID WE DO?

Table One shows SamCERA's total fund performance over various trailing time periods. As seen in the table, the portfolio returned -4.3% net of investment manager fees for the calendar year ended December 31, 2018, underperforming SamCERA's policy benchmark return of -3.5%. This calendar-year performance resulted in 3rd quartile performance relative to SamCERA's peers, as defined by large (greater than \$1 billion in assets) public plans.

TABLE ONE: SAMCERA TOTAL FUND NET PERFORMANCE ENDING DECEMBER 31, 2018

	1 Year	3 Years	5 Years	10 Years
SamCERA Return	-4.3%	5.9%	4.8%	8.5%
Benchmark Return	-3.5%	6.7%	5.1%	9.1%
Excess Return	(0.8%)	(0.8%)	(0.3%)	(0.6%)
Peer Rank Return (Percentile)	63rd	63rd	36th	36th
SamCERA Risk (Std Dev)	6.6	5.7	6.1	8.9
Benchmark Risk (Std Dev)	6.9	6.1	6.5	9.4
SamCERA Sharpe Ratio	(1.0)	0.9	0.7	0.9
Benchmark Sharpe Ratio	(0.8)	0.9	0.7	0.9

RETURN/RISK MEASURE

SamCERA also looks at "risk-adjusted" returns to compare how much return was received given the risk (measured by standard deviation of returns) taken to achieve that return. This is typically measured by the Sharpe Ratio. The higher the ratio, the better, as it measures the return provided per unit of risk taken. For example, if a fund has a lower return than the benchmark but also a much lower risk level (as measured by standard deviation of returns), it may result in a higher risk-adjusted outcome. Conversely, if a fund has a higher return but also takes higher than commensurate risk than the benchmark, then its risk-adjusted return may be lower than that of the benchmark. While SamCERA had lower risk than the benchmark over all trailing periods, underperformance in the current fiscal year resulted in a lower risk-adjusted return relative to the benchmark over the trailing one-year period. Over longer-term periods, SamCERA had a similar risk-adjusted return relative to the benchmark.

Table Two shows performance for each of SamCERA's five primary composites. Three of the five SamCERA asset class composites were negative on the year. Public Equity was the lowest performing composite and returned -9.4%. Risk Parity and Inflation Hedge returned -7.2% and -1.4%, respectively, while Fixed Income was up 0.3%. Alternatives was up 2.4% and was the highest returning composite for the year.

Alternatives, while providing the highest absolute returns, was the overwhelming main detractor in terms of relative performance versus the benchmark (primarily from hedge funds/absolute return). Risk Parity and Inflation Hedge also detracted, while Fixed Income and Public Equity outperformed during the year.

TABLE TWO: SAMCERA COMPOSITE NET PERFORMANCE FOR TRAILING YEAR ENDING DECEMBER 31, 2018

Composite	Composite Return	Benchmark Return	Excess Return
Public Equity	-9.4%	-9.6%	+0.2%
Fixed Income	0.3%	-0.6%	+0.9%
Alternatives	2.4%	9.6%	-7.2%
Inflation Hedge	-1.4%	-0.8%	-0.6%
Risk Parity	-7.2%	-4.4%	-2.8%

WHERE DID WE INVEST?

In this section we show where the fund is invested, displaying both the market value and resulting allocation percentages for the current period end as well as six months ago. The allocation percentages include exposures from SamCERA's cash overlay program. Table Three shows that SamCERA's total market value was \$4.254 billion as of December 31, 2018, a decrease of \$93.1 million from June 30, 2018. In terms of allocation changes, decreases in Public Equity assets funded investments in Alternatives and Cash.

	12/31/2018		6/30/2018		Change
	Market Value (\$m)	Allocation (%)	Market Value (\$m)	Allocation (%)	in %
Public Equity	1,684.6	39.6	1,782.2	41.0	-1.4
Fixed Income	851.5	20.0	951.0	21.9	-1.9
Alternatives	537.4	12.6	507.7	11.7	+1.0
Inflation Hedge	759.8	17.9	761.6	17.5	+0.3
Risk Parity	331.2	7.8	311.1	7.2	+0.6
Cash	89.6	2.1	33.6	0.8	+1.3

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TABLE THREE: SAMCERA ASSET ALLOCATION COMPARISON

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WHAT DID WE DO?

During the second half of 2018, SamCERA implemented the target policy portfolio changes that the Board approved during its annual asset allocation review. SamCERA funded two new low-volatility equity mandates and implemented a currency hedge program. The currency hedge program will be legged into by increasing the hedge ratio at 10% increments on a quarterly basis until a 50% target ratio is reached, which is expected by the end of the third quarter of 2019.

