

South Carolina Retirement System Investment Commission

Michael Hitchcock

August 20, 2015



Performance – FY 2015 Asset Class Benchmarks

As of June 30, 2015

Benchmark Performance	Month	3 Month	YTD	FYTD	1 Year	3 Years	5 Years
POLICY BENCHMARK	-1.02%	0.67%	2.13%	1.21%	1.21%	7.74%	8.05%
Real Estate	3.36%	3.50%	6.96%	14.20%	14.20%	13.41%	15.27%
Private Equity	-0.71%	3.30%	7.07%	12.63%	12.63%	17.98%	16.02%
Private Debt	0.52%	2.61%	2.30%	4.04%	4.04%	6.41%	6.56%
Global Fixed Income	-1.24%	-2.20%	-0.39%	2.96%	2.96%	3.27%	3.71%
HF (Low Beta)	-1.26%	0.27%	2.48%	2.31%	2.31%	6.38%	5.13%
Core Fixed Income	-1.09%	-1.68%	-0.10%	1.86%	1.86%	1.83%	3.35%
Mixed Credit	-0.89%	-0.02%	1.89%	1.25%	1.25%	4.54%	5.67%
Short Duration	-0.03%	0.13%	0.72%	0.93%	0.93%	0.94%	1.17%
Global Public Equity	-2.35%	0.35%	2.66%	0.71%	0.71%	13.01%	11.93%
Cash ³	0.00%	0.01%	0.01%	0.02%	0.02%	0.06%	0.08%
GTAA	-1.30%	-0.61%	-0.67%	-3.85%	-3.85%	5.69%	7.12%
EM Debt	-1.39%	-0.64%	-1.63%	-7.72%	-7.72%	0.22%	3.89%
Commodity	1.73%	4.66%	-1.56%	-23.71%	-23.71%	-8.76%	-3.91%



Performance – Plan and Asset Class*

As of June 30, 2015

Executive Summary	Month	3 Month	YTD	Fiscal Year	3 Years	5 Years
TOTAL PLAN (Net of Fees)¹	-1.06%	0.44%	2.43%	1.60%	8.81%	8.87%
<i>POLICY BENCHMARK</i>	-1.02%	0.67%	2.13%	1.21%	7.74%	8.05%
Relative Performance	-0.04%	-0.23%	0.30%	0.39%	1.07%	0.82%
<i>Cumulative Benefit Payments (Net)²</i>	<i>(\$68)</i>	<i>(\$287)</i>	<i>(\$558)</i>	<i>(\$1,067)</i>	<i>(\$3,078)</i>	<i>(\$5,021)</i>

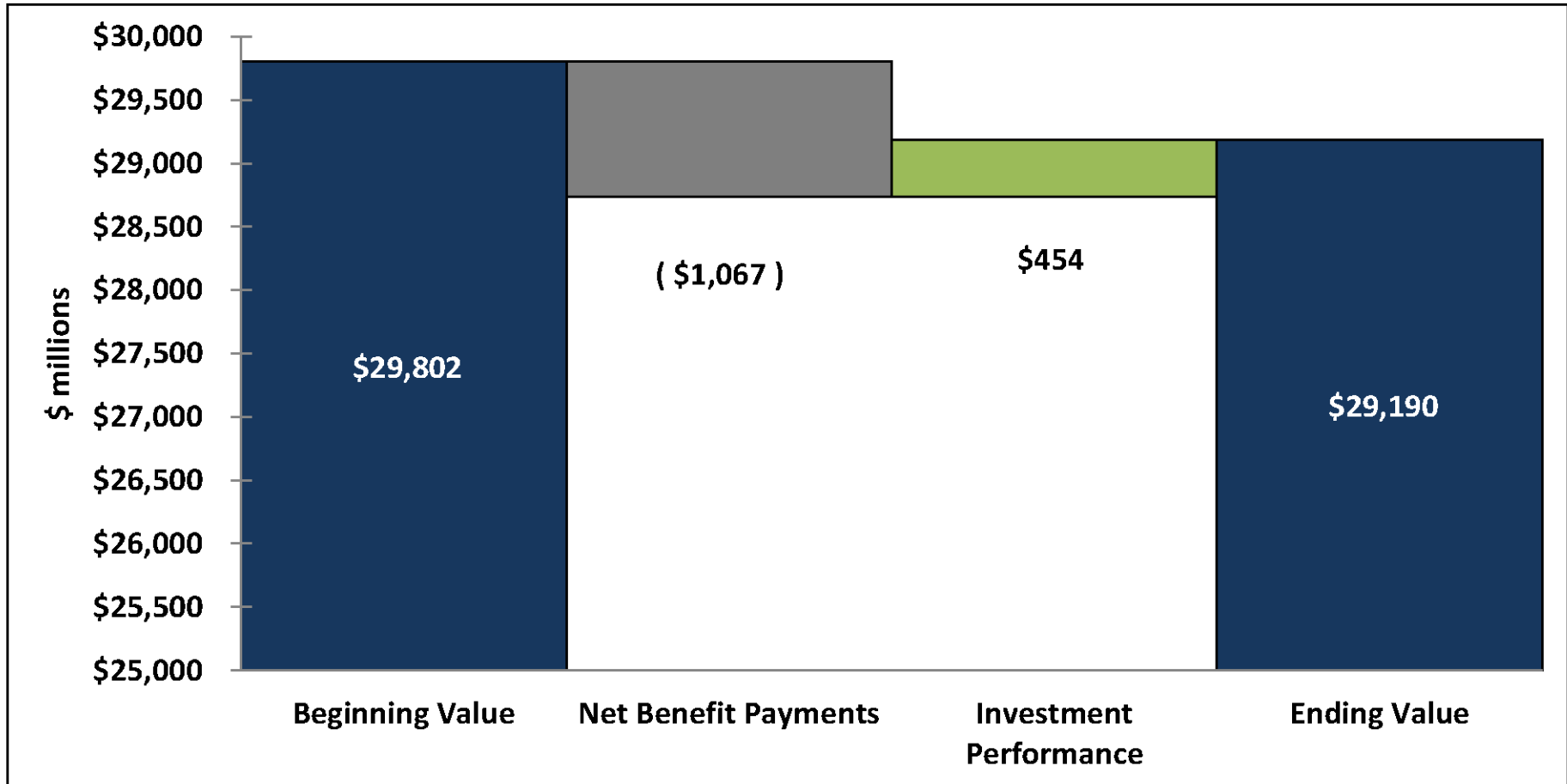
Real Estate	2.06%	4.05%	9.20%	19.32%	18.97%	12.81%
Private Equity	1.53%	4.02%	4.16%	9.71%	15.82%	14.39%
HF (Low Beta)	-1.04%	0.08%	6.02%	8.62%		
Private Debt	-0.37%	2.15%	2.88%	4.87%	11.86%	9.78%
Global Public Equity	-2.05%	0.38%	2.94%	1.79%	12.68%	11.56%
Core Fixed Income	-0.90%	-1.51%	0.43%	1.62%	2.05%	3.64%
Short Duration	-0.02%	0.21%	0.95%	1.12%	1.40%	1.72%
Cash ³	0.00%	0.01%	0.01%	0.02%	0.06%	0.08%
Mixed Credit	-0.88%	0.41%	1.66%	-1.88%	5.65%	6.74%
GTAA	-2.17%	-1.60%	-0.02%	-2.51%	5.54%	8.57%
Global Fixed Income	-2.19%	-1.50%	-0.45%	-3.41%	2.28%	4.29%
EM Debt	-1.42%	-0.27%	-1.17%	-7.88%	-0.13%	3.22%
Commodity	1.06%	3.58%	-3.17%	-24.02%	-9.05%	-5.58%

*Includes blended active and passive returns. (EM Debt, GTAA, Global Public Equity, Real Estate, and Commodities)



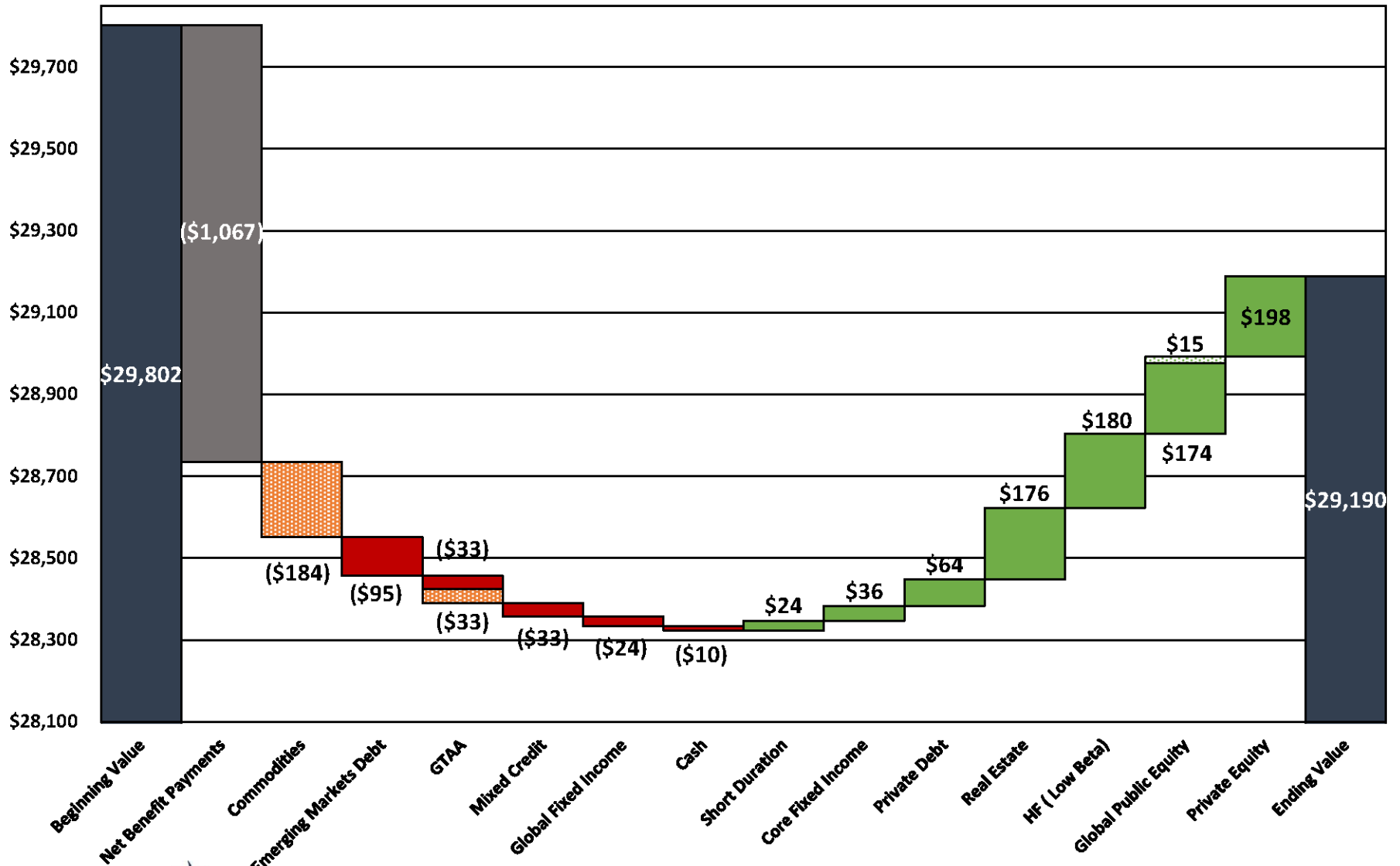
Fiscal YTD Benefits & Performance

As of June 30, 2015



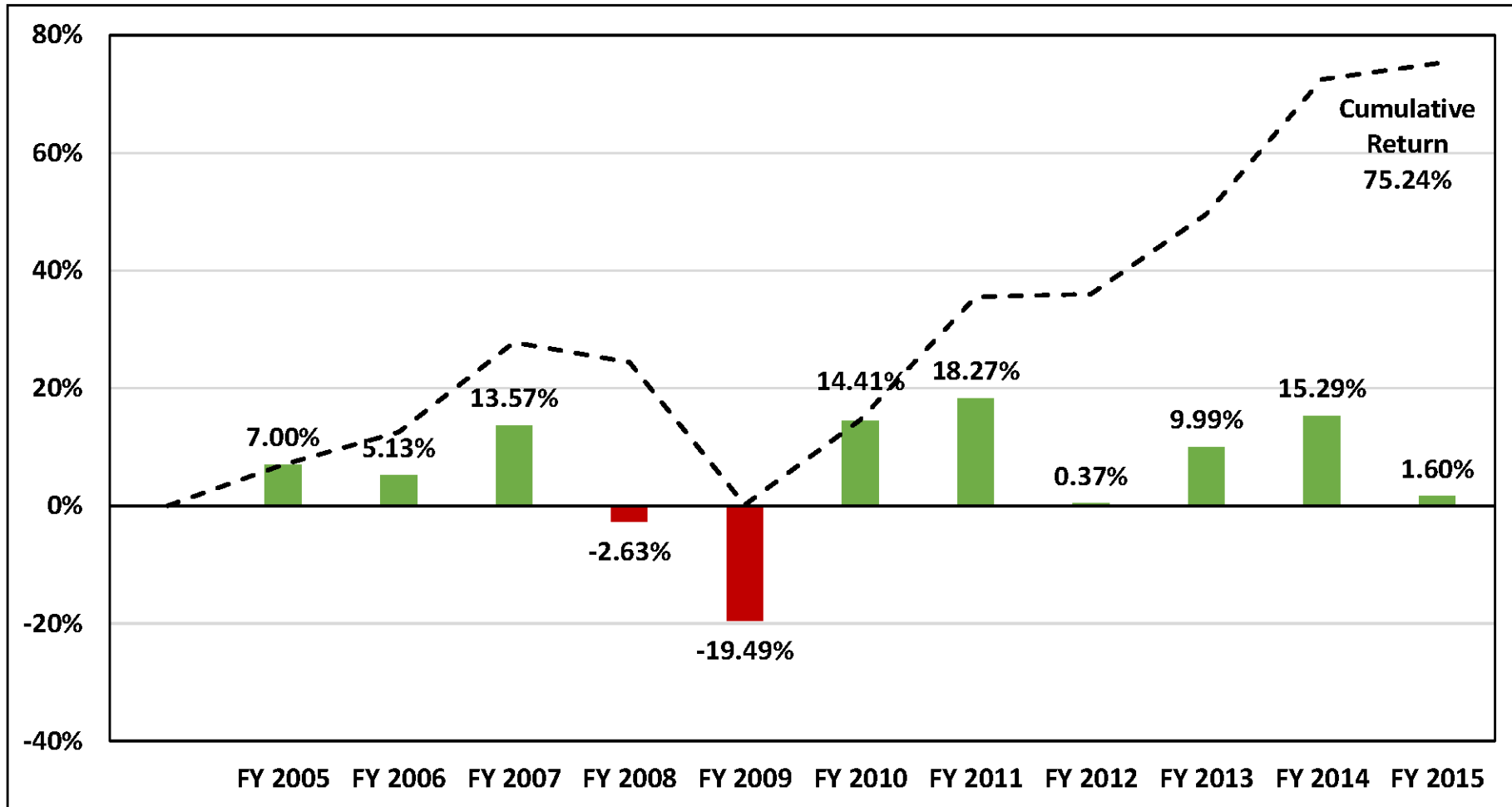
Fiscal YTD Contribution by Asset Class

As of June 30, 2015



Cumulative and Fiscal Year Plan Performance (as Reported)¹

As of June 30, 2015

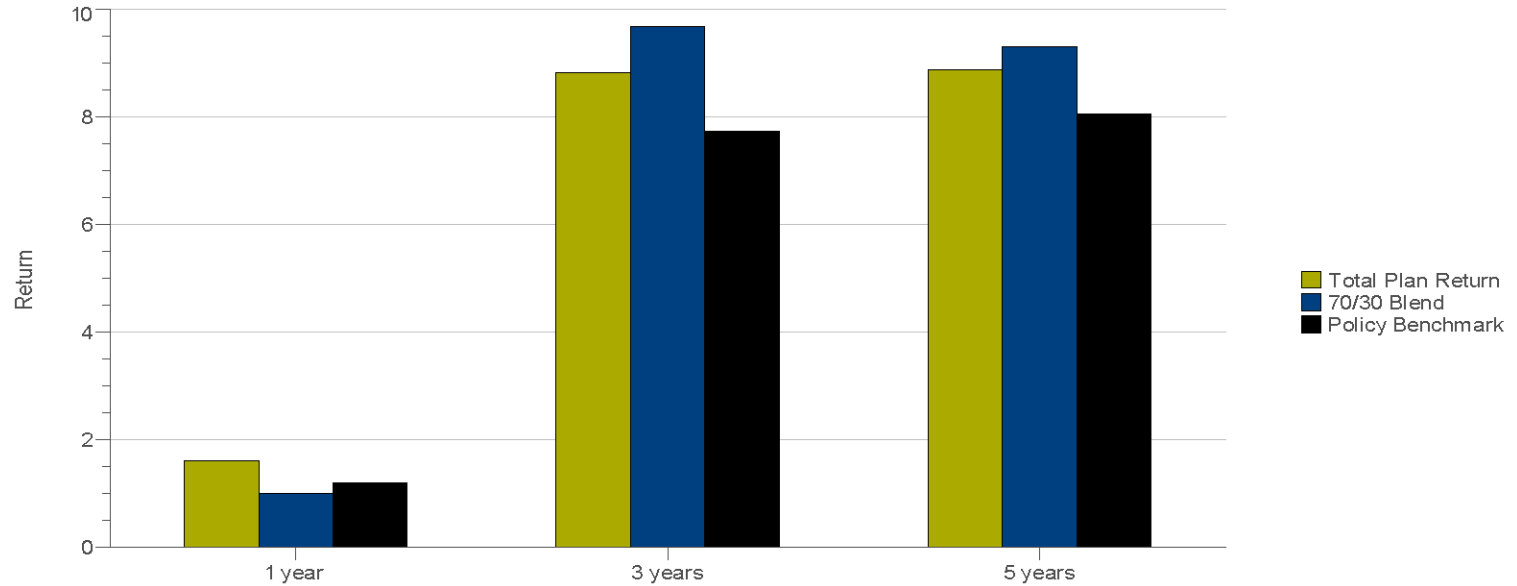


Zephyr Plan Comparison⁴

As of June 30, 2015

Manager vs Benchmark: Return

July 2010 - June 2015 (not annualized if less than 1 year)



Manager vs Benchmark: Return

July 2010 - June 2015 (not annualized if less than 1 year)

	6 months	1 year	2 years	3 years	4 years	5 years
Total Plan Return	2.44%	1.61%	8.24%	8.82%	6.64%	8.88%
70/30 Blend	1.94%	1.00%	9.00%	9.67%	6.51%	9.31%
Policy Benchmark	2.13%	1.20%	7.53%	7.73%	5.90%	8.05%



Framework for Expected Returns

$$\underline{E(R)} = \underline{Rf} + \underline{\beta p} + \underline{\alpha}$$

Since 1970*

$$\boxed{9.6\%} = 5.4\% + 4.2\% + \textcircled{0.0\%}$$

Definitions:

1. E(R) is the expected return based on the variables within the equations.
2. Rf is for the risk-free rate. The 3-month U.S. Treasury bill is typically used as the proxy.
3. βp is the return that a passive, diversified portfolio earns above the risk-free rate.
4. α is the alpha, or the risk-adjusted excess return earned for active management.

*Source: Bridgewater Associates and RSIC. This is a backtest using the current asset allocation and passively managed strategies to create the historical perspective on how the current portfolio would have potentially performed.

Impact of Current Environment on Expected Returns

$$\underline{E(R)} = \underline{Rf} + \underline{\beta p} + \underline{\alpha}$$

Current Environment

$$\boxed{6.0\%} = 0.8\% + \textcircled{4.2\%} + \textcircled{1.0\%}$$

Definitions:

1. $E(R)$ is the expected return based on the variables within the equations.
2. Rf is for the risk-free rate. The 3-month U.S. Treasury bill is typically used as the proxy.
3. βp is the return that a passive, diversified portfolio earns above the risk-free rate.
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Where were we in 2013?

Alternative Allocations - Capital Market Expectations

Asset Class	Current Target	60/40 No Alternatives
Global Equity ¹	40%	60%
Real Assets ²	8%	0%
Opportunistic ³	18%	0%
Diversified Credit ⁴	19%	0%
Conservative Fixed Income ⁵	15%	40%
10 Year Expected Return	7.20%	6.17%
10 Year Expected Risk	11.01%	11.84%
10 Year Sharpe Ratio	0.4270	0.3103
10 Year Expected Inflation	2.10%	2.10%
30 Year Expected Return	7.80%	6.79%
30 Year Expected Risk	11.57%	12.64%
30 Year Sharpe Ratio	0.3458	0.2369
30 Year Expected Inflation	2.20%	2.20%

¹ Global Equity is comprised of Global Public Equity and Private Equity

² Real Assets is comprised of Real Estate and Commodities

³ Opportunistic is comprised of Hedge Funds and Global Asset Allocation (GAA) – GAA consists of GTAA and Risk Parity strategies

⁴ Diversified Credit is comprised of High Yield Bonds, Bank Loans, Emerging Market Debt, and Private Debt/Opportunistic Credit

⁵ Fixed Income is comprised of Core Fixed Income, Global Bonds, Intermediate Credit, Short Credit, Short Gov't Bonds, and Cash

And 2015?

Alternative Allocations - Capital Market Expectations

Asset Class	Current Target	60/40 No Alternatives
Global Equity ¹	40%	60%
Real Assets ²	8%	0%
Opportunistic ³	18%	0%
Diversified Credit ⁴	19%	0%
Conservative Fixed Income ⁵	15%	40%
10 Year Expected Return	6.31%	5.37%
10 Year Expected Risk	11.23%	10.90%
10 Year Sharpe Ratio	0.4196	0.3457
10 Year Expected Inflation	2.10%	2.10%
30 Year Expected Return	6.60%	5.64%
30 Year Expected Risk	11.57%	11.26%
30 Year Sharpe Ratio	0.3802	0.3056
30 Year Expected Inflation	2.10%	2.10%

¹ Global Equity is comprised of Global Public Equity and Private Equity

² Real Assets is comprised of Real Estate and Commodities

³ Opportunistic is comprised of Hedge Funds and Global Asset Allocation (GAA) – GAA consists of GTAA and Risk Parity strategies

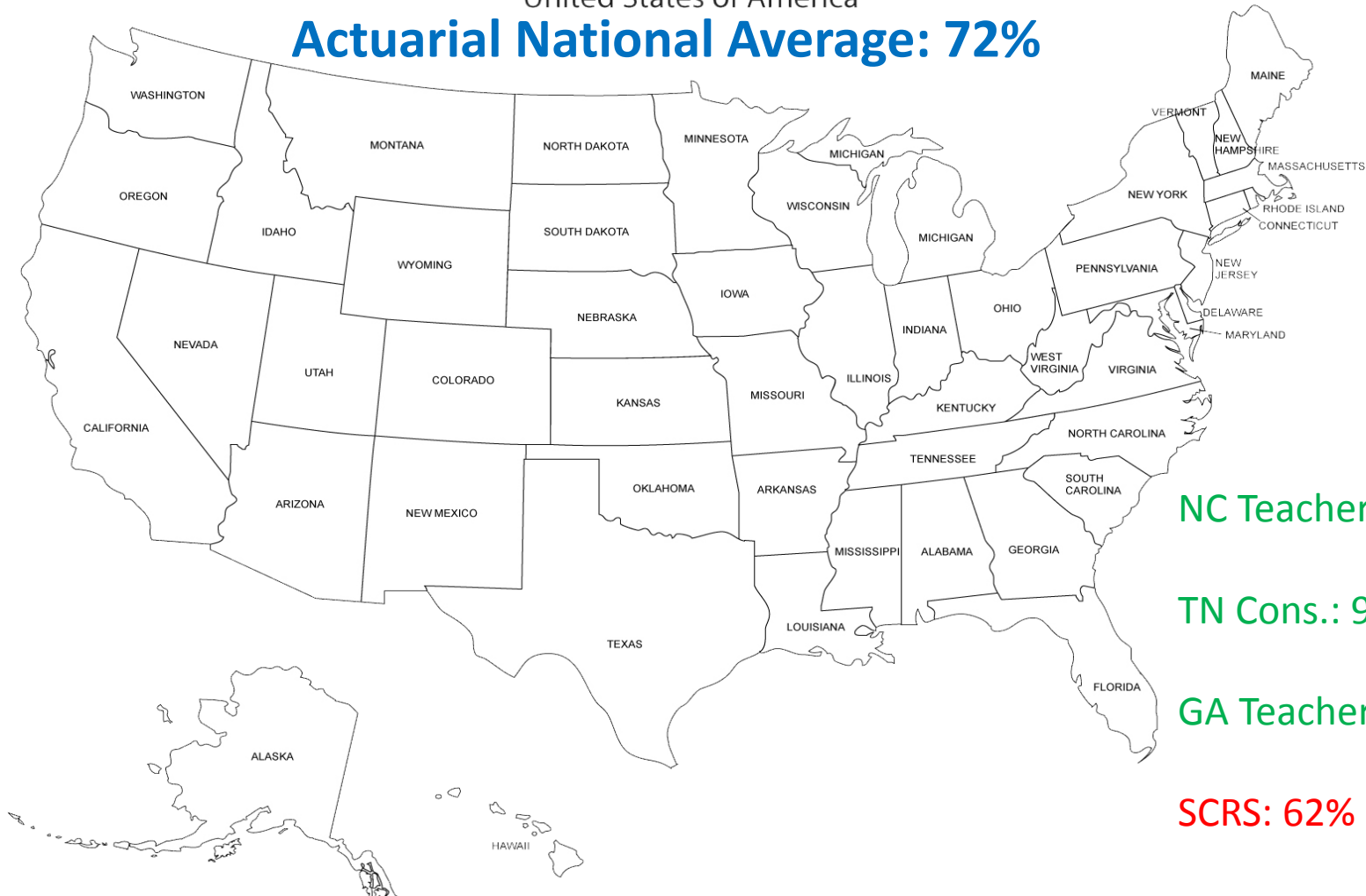
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Peers- Well vs. Poorly Funded

United States of America

Actuarial National Average: 72%



NC Teachers: 91% ↑

TN Cons.: 90% ↑

GA Teachers: 78% ↑

SCRS: 62% ↓



CEM, April 2015

“After reviewing SCRISC’s cost collection process, we conclude that they are simply reporting more costs than other funds rather than incurring more costs.”

-CEM Benchmarking

“RSIC believes that part of our duty to stakeholders and policy makers is the most complete fee transparency we can achieve. We are pleased to be a leader in this field, and we hope that our practices along with other plans’ needs in this area help move the industry towards improving and standardizing private equity fee disclosure.”

-Michael Hitchcock



Footnotes and Disclosures

Footnotes

1. Effective October 1, 2005, the State Retirement System Preservation and Investment Reform Act (“Act 153”) established the Commission and devolved fiduciary responsibility for investment and management of the assets of the South Carolina Retirement Systems upon RSIC.
2. Benefit payments are net of Plan contributions and disbursements.
3. “Cash” market value is the aggregate cash held at the custodian, Russell Investments, and strategic partnerships. Cash performance is estimated using the Merrill Lynch 3-Month T-Bill rate.

Disclosures

- Market values are presented in millions of USD except as otherwise indicated.
- Returns are provided by BNY Mellon and are time-weighted, total return calculations. Net of fee performance is calculated and presented after the deduction of management fees and trading expenses. Periods greater than one year are annualized. Past performance is no guarantee of future results. Policy benchmark is the blend of asset class policy benchmarks using policy weights. Asset class benchmarks and policy weights are reviewed annually by the Commission’s consultant and adopted by the Commission and have changed over time. The policy benchmark return history represents a blend of these past policies.
- Overlay allocation detail is provided by Russell Investments.
- This report was compiled by the Staff of the South Carolina Retirement System Investment Commission and has not been reviewed, approved or verified by the external investment managers. No information contained herein should be used to calculate returns or compare multiple funds, including private equity funds.





BENEFICIARIES FIRST:
THEIR FUTURE, OUR MISSION.

