South Carolina Retirement System Investment Commission Verification and Total Fund Composite Performance Examination Report

June 30, 2021

Verification and Performance Examination Report

We have verified whether South Carolina Retirement System Investment Commission (the "Asset Owner") has, for the periods from July 1, 2017 through June 30, 2021, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to total fund and additional composite maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on an Asset Owner-wide basis. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. We have also examined the Asset Owner's Total Fund for the periods from July 1, 2017 through June 30, 2021.

The Asset Owner's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying Total Fund Composite's GIPS composite report. Our responsibilities are to be independent from the Asset Owner and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from July 1, 2017 through June 30, 2021, the Asset Owner's policies and procedures for complying with the GIPS standards related to total fund and additional composite maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on an asset owner-wide basis.

Also, in our opinion, the Asset Owner has, in all material respects:

- Constructed the Total Fund and calculated the Total Fund's performance for the periods from July 1, 2017 through June 30, 2021 in compliance with the GIPS standards; and

- Prepared and presented the accompanying Total Fund's GIPS asset owner report for the periods from July 1, 2017 through June 30, 2021 in compliance with the GIPS standards.

This report does not relate to or provide assurance on any specific performance report of the Asset Owner other than the Asset Owner's accompanying Total Fund's GIPS asset owner report, or on the operating effectiveness of the Asset Owner's controls or policies and procedures for complying with the GIPS standards.

ACA Group

ACA Group, Performance Services Division

December 2, 2021

GIPS Asset Owner Report
Total Fund
July 1, 2017 through June 30, 2021

South Carolina Retirement System
Investment Commission

Fiscal Year	Total Fund Net Return %	Net-of-External-Cost-Only Return %	Net Money Weighted Return (IRR) %	Policy Benchmark Return %	% of Externally Managed Assets	Total Fund Assets (Equals Total Asset Owner Assets) ($ billions)	3-Year Annualized Information			
							Total Fund Net		Benchmark	
							Standard Deviation	Return %	Standard Deviation	Return %
2018	7.79	7.82	7.89	7.28	95	31.2	n/a	n/a	n/a	n/a
2019	5.80	5.84	5.76	6.50	93	31.9	n/a	n/a	n/a	n/a
2020	-1.65	-1.58	-1.61	0.13	94	30.9	10.0	3.90	8.7	4.59
2021	28.55	28.57	28.47	24.86	98	39.1	11.2	10.18	9.7	10.02

South Carolina Retirement System Investment Commission (RSIC) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. RSIC has been independently verified for the periods from July 1, 2017 through June 30, 2021.

An asset owner that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the asset owner's policies and procedures related to total fund and composite maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on an asset owner-wide basis. The Total Fund has had a performance examination for the periods from July 1, 2017 through June 30, 2021. The verification and performance examination reports are available upon request.

Accompanying Notes

1. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization nor does it warrant the accuracy or quality of the content contained herein.

2. For the purpose of complying with the GIPS standards, the Asset Owner is defined as the South Carolina Retirement System Investment Commission (RSIC) which was established October 1, 2005 by the State Retirement System Preservation and Investment Reform Act (Act 153) and is responsible for investing and managing all assets held in trust for the participants and beneficiaries of the five defined benefit plans: South Carolina Retirement System (SCRS), South Carolina Police Officers Retirement System (PORS), Retirement System for Judges and Solicitors of the State of South Carolina (JSRS), Retirement System for Members of the General Assembly of the State of South Carolina (GARS), and the National Guard Retirement System (SCNG), collectively referred to hereinafter as the ("Retirement System") or ("Systems").

3. The Total Fund includes all discretionary assets held in trust and managed by RSIC for the benefit of participants and beneficiaries in the Retirement System. The Total Fund was both created and incepted on July 1, 2017. The Policy Benchmark is calculated and rebalanced quarterly using a blend of asset class benchmarks based on the target weights for the respective asset classes. Prior to January 1, 2021, the Policy Benchmark was calculated and rebalanced monthly. The equity benchmark is net of foreign dividend withholdings. The target weight to Private Equity is its actual beginning adjusted market value weights as calculated by the custodial bank. When flows have occurred in the asset classes, adjusted weights more accurately reflect the impact of the asset class weights. The target allocation to Public Equity floats in relation to Private Equity such that the combined target weight of both asset classes shall equal 55% of the Plan. Portable Alpha Hedge Funds are expressed as gross exposure but, as collateral supporting the Overlay program, net to zero when calculating total Plan market value. For benchmarking purposes, there is a 0% weight assigned to Portable Alpha Hedge Funds in the Policy benchmark. The asset class weights listed below are as of June 30, 2021. Asset class benchmarks and policy weights are reviewed annually by the Commission's consultant and adopted by the Commission and have changed overtime. The policy benchmark return history represents a blend of these past policies. Information for asset class benchmarks and weights for other periods is available upon request.

Asset Allocation	Policy Target 06/30/2021	Actual Weight 06/30/2021	Policy Benchmark
Public Equity	45.4%	47.2%	MSCI All Country World Index IMI Net
Bonds	26.0%	23.5%	Bloomberg Barclays US Aggregate Bond Index
Private Equity	9.6%	9.6%	Burgiss All Private Equity Universe
Private Debt	7.0%	8.1%	S&P LSTA Index + 150 bps
Real Assets	12.0%	11.6%	NCREIF ODCE Net
Portable Alpha Hedge Funds	0.0%	11.2%	
Total Plan	**100.0%**	**100.0%**	

Sub-asset class percentages may not add up to asset class percentages due to rounding.

Asset Class Descriptions
Public Equity
The public equity asset class includes domestic equity, international equity, and emerging markets equity. Domestic equity purchases are limited to common stocks, preferred stocks, mutual funds, Exchange Traded Funds (“ETFs”), American Depository Receipts (“ADRs”) and convertibles that are publicly traded. Convertible bonds, convertible preferred stocks, warrants, rights, and ETFs may be purchased as equity substitutes as long as they meet the equity guidelines. Equity accounts are expected to be fully invested and managers are encouraged to utilize suitable ETFs relative to the account benchmark to keep cash from exceeding 5%. International managers may enter into forward exchange contracts on currency provided that use of such contracts is designed to dampen account volatility or to facilitate the settlement of securities transactions. Current equity implementation is in passive mandates.
Bonds
The bonds asset class includes investments in core bonds (investment grade), mixed credit (non-investment grade), emerging markets debt, short duration fixed income, and cash. The core fixed income portfolio includes investment grade securities across several sectors, including treasuries/sovereign, government-related (agency), corporate, and asset-backed securities. The mixed credit asset class includes investments in high yield and bank loans. The emerging market debt asset class is a blend of USD-denominated and local market emerging debt securities. The short duration mandates include portfolios holding securities that may include, but are not limited to, U.S. government securities, sovereign and supranational denominated in U.S. Dollars, money market instruments, repurchase agreements, municipal securities, mortgage backed securities, asset backed securities, corporate debt securities, high yield securities, and treasuries. The portfolio uses a combination of active and passive strategies.
Private Equity
The private equity asset class is a floating target of the actual weight (beginning adjusted market value weight) in the portfolio. With the absence of a fixed target, RSIC looks to allocate to private equity by seeking long-term relationships with the best-in-class managers expected to generate superior returns (net of fees) over time. Thus, the actual private equity allocation may vary over time based on both availability of attractive investment opportunities and prevailing market conditions. Private equity strategies include buy-out, venture, growth, distressed, and secondaries.
Private Debt
The private debt asset class consists of direct lending, mezzanine, distressed, and opportunistic mandates. Global banking regulations continue to curtail the aggregate lending activities of the banking sector thereby creating opportunity for non-bank lenders. This creates meaningful opportunities for institutional investors to capture attractive returns.
Real Assets
The real assets asset class includes investments in public and private real estate investments as well as public and private infrastructure investments. The public real estate portfolio investments include US, long only, equity real estate investment trusts (REIT) and real estate operating companies (REOC). The private real estate portfolio is divided into three main strategies: core, value-add, and opportunistic, and encompasses both debt and equity real estate investments. Infrastructure investments include private infrastructure funds as well as a fund of publicly traded infrastructure companies. These assets have a tendency to benefit from a rising inflation environment. All real estate and infrastructure investments are in fund structures and no real estate or infrastructure is owned directly by RSIC.
Portable Alpha Hedge Funds
These are hedge funds, used as the alpha strategy in the portable alpha implementation, which are expected to generate uncorrelated alpha while minimizing embedded market beta over time. For Policy benchmark purposes there is a zero target allocation but RSIC can allocate up to 12% as gross exposure as collateral supporting the Overlay program. Portable alpha hedge funds net to zero when calcuating the total Plan allocation.

4. The assets of the RSIC are invested with a long-term horizon and are structured to achieve a diversified portfolio that earns a rate of return greater than the actuarially assumed rate of return, earns a rate of return greater than that of the Policy Asset Allocation return while maintaining a similar risk profile, earns a rate of return for each asset class greater than its benchmark return with a prudent level of risk, provides sufficient liquidity to pay benefits in a timely manner, and achieves an implementation of the asset allocation in an efficient manner. As of June 30, 2021, the actuarial rate of return is 7.25%.

5. Total Fund returns calculated as "Net Return" are calculated monthly using time-weighted rates of return and reflect the deduction of trading costs and are net of all external and internal investment costs. Returns calculated as "Net-of-External-Cost-Only Return" are calculated monthly using time-weighted rates of return, reflect the deduction of trading costs, are net of external investment costs only, and includes cash that is in the Plan but not available for investment. Returns calculated as "Net Money Weighted Return" are calculated using internal rate of return (IRR) for the fiscal year and reflect the deduction of trading costs and are net of all external and internal investment costs. External investment expenses include management fees, performance fees and carried interest (net of offsets and rebates), and other expenses and for Fiscal Year 2021 totaled $546,341,091.58 or 1.77% of Total Fund Assets at the beginning of the fiscal year. Internal investment expenses are all RSIC budgeted expenses which include RSIC compensation, overhead, research and technology services, legal expenses, and consultant fees. Custody costs are paid through income generated from a securities lending program with the custodian bank. All returns reflect the reinvestment of dividends, net of withholding tax, and other earnings. All returns and asset values are calculated and expressed in US Dollars.

6. Policies for valuing investments, calculating performance, and preparing GIPS Asset Owner Reports are available upon request.

7. For all periods, RSIC hires external managers and allocates assets to them to manage. As of June 30, 2021 the percent of externally managed assets for the Total Fund was 98.3%. RSIC utilizes an overlay program, managed by an external manager, to efficiently gain passive exposures to manage incremental shifts in broad market exposures and manage risk in an efficient manner using both physical and synthetic securities, including, but not limited to, exchange-traded-funds/notes, equity or fixed income baskets, options, futures, swaps and forward currency contracts. Actual asset allocation weights as of June 30, 2021 include exposures gained through the overlay program. While leverage is inherent in derivative securities, RSIC fully collateralizes these positions. A portable alpha strategy is run in conjunction with the overlay program where the collateral is invested along the risk spectrum of market neutral hedge funds, short duration securities, and cash investments. Leverage may also be present at the manager portfolio level due to the use of derivatives, short positions, and credit facilities.

8. The Total Fund includes all individual portfolios that are combined into one aggregate portfolio. The performance of the combined portfolio reflects the overall mandate of the plan. Because the Total Fund is a single aggregate portfolio for all periods, no measure of internal dispersion of annual portfolio returns is presented. Because the Total Fund represents 100% of the assets managed by RSIC, this presentation represents RSIC's list of composite descriptions.

9. The three-year annualized ex-post standard deviation measures the variability of the Total Fund and the benchmark for the 36 month period ended for the fiscal year. Periods that have not achieved 36 months of compliant history will be marked as not available (n/a). Standard deviation for the Total Fund is calculated using the Total Fund Net Return monthly returns.