SOUTH CAROLINA GENERAL ASSEMBLY

Legislative Audit Council

December 2015

A REVIEW OF THE PUBLIC PENSIONS ADMINISTERED BY THE STATE OF SOUTH CAROLINA

LAC.SC.GOV

LAC/WP-14-2

Legislative Audit Council

1331 Elmwood Ave., Suite 315
Columbia, SC 29201
(803) 253-7612 VOICE
(803) 253-7639 FAX

Public Members
Philip F. Laughridge, CPA, Chairman
Jane P. Miller, Vice Chairman
John B. Dangler, JSC (ret)
Thomas F. Hartnett
Charles L. A. Terreni, Esq.

Members Who Serve Ex Officio
Tom Young, Jr.
Senate Judiciary Committee
Michael L. Fair
Senate Finance Committee
Walton J. McLeod
House Judiciary Committee
Garry R. Smith
House Ways and Means Committee

Director
K. Earle Powell

The Legislative Audit Council performs audits of state agencies and programs, in which we identify ways to reduce the cost and improve the performance of state agencies, and provide information to the General Assembly and the public. We help ensure that operations are efficient and that agencies follow the law to achieve the desired results. We provide information, analysis, and recommendations to help the General Assembly improve state agencies and to help the citizens of South Carolina oversee state government. The LAC is part of the legislative branch of state government and, therefore, it is organizationally independent of the executive branch agencies it audits. Our audits must be requested by the General Assembly, either by statute or on an as-needed basis, Senate Oversight Committee, or House Oversight Committee.

The Legislative Audit Council is composed of five public members, one of whom must be a practicing certified or licensed public accountant and one of whom must be an attorney. In addition, four members of the General Assembly serve ex officio.

Audits by the Legislative Audit Council are conducted in accordance with generally accepted government auditing standards as set forth by the Comptroller General of the United States.

Copies of all LAC audits are available at no charge. We encourage you to visit our website to view and print copies of LAC reports.

LAC.SC.GOV

Audit Manager
Andrew M. Young

Auditors
Alicia McIntire
Yolanda D. Wardlaw

SOUTH CAROLINA GENERAL ASSEMBLY

Legislative Audit Council

A Review of the Public Pensions Administered by the State of South Carolina

LAC.SC.GOV

LAC/WP-14-2

Contents

Chapter 1 Background and Overview of South Carolina's Pensions

Audit Objectives 1
Scope and Methodology 2
General Description of Pension Plans 3
Overview of South Carolina's State-Administered Plans 3
Pension History 5
Accounting and Actuarial Standards 7

Chapter 2 Funded Status, Investment Performance, and Asset Allocation

Funded Status 11
Investment Performance 13
Asset Allocation and Its Effect on Risk, Expenses, and Fees 17

Chapter 3 Selecting the Assumed Rate of Return on Investments and Determining the Value of Pension Liabilities

Improvement Needed in the Process for
Selecting the Assumed Rate of Return on Investments and
Determining the Value of Pension Liabilities 25
Excessive Period to Pay for Unfunded Pension Liabilities 30
Options for Reducing Unfunded Liabilities 34

Chapter 4 Pension Staff and Governance Issues

State Employees Accepting Jobs from Companies with State Contracts 37
Initiation of Pension Investments 39
Placement Agents 40

Appendices

A Glossary 43
B Pension Plan Detail 49
C Pension Investment and Funded Status Projections 55
D Agency Comments 59

Background and Overview of South Carolina's Pensions

Audit Objectives

Members of the General Assembly asked the Legislative Audit Council to review the operations of South Carolina's state-administered pension funds, including the Retirement System Investment Commission (RSIC), the Public Employee Benefit Authority (PEBA), and the State Budget and Control Board (B&CB).

Our audit objectives were to:

- Document the legal history of South Carolina's public pensions.
- Document the accounting standards for pension funds.
- Evaluate the historical and projected contributions, investment returns, and funded status regarding South Carolina's public pensions.
- Evaluate the methods used to calculate the funded status of South Carolina's public pensions.
- Evaluate the changing asset allocations in South Carolina's public pension funds.
- Determine the internal controls used to ensure the reliability of the data reported and used by South Carolina's public pensions.
- Determine the extent to which the operations of South Carolina's public pensions are transparent to the public.
- Determine the potential for conflicts of interest in the operation of South Carolina's public pensions.
- Compare South Carolina's public pensions with those in other states.

Scope and Methodology

The period of our review included primarily FY 04-05 through FY 13-14, with limited consideration of other periods. Information used in this report was obtained from a variety of sources including:

- Federal and state laws and regulations.
- RSIC, PEBA, and B&CB policies, directives, and guidelines.
- Corporate and government accounting standards.
- Actuarial standards.
- Financial reports.
- Actuarial reports.
- Investment consultant reports.
- Contracts.
- Interviews with staff at PEBA, RSIC, B&CB, the Office of the Comptroller General, and the Office of the State Treasurer.
- Securities and Exchange Commission reports.
- United States Treasury reports.
- Federal Reserve reports.
- Finance and economics research.
- Public pensions in other states.
- Bond credit ratings agencies.

The criteria used to measure performance included corporate and government accounting standards, actuarial standards, bond credit rating agencies, financial economists, federal and state laws and regulations, and agency policies.

During our review, we requested a copy of a PEBA legal opinion on whether its projected payment schedule for paying off the unfunded liability exceeds the maximum time period specified in the S.C. Code of Law. We were denied access due to attorney-client privilege and PEBA did not agree to waive this privilege. As a result, the scope of our review was limited in this area.

We assessed internal controls in reviewing the PEBA and RSIC data. We also reviewed the reliability of the data from those agencies and found limitations that are inherent in the valuation of certain assets.

Based on our audit objectives, we believe that the evidence obtained provides a reasonable basis for our findings and conclusions.

The LAC did not review the S.C. Other Post Employment Benefit plan.

General Description of Pension Plans

There are two general types of pension plans — defined-benefit plans and defined-contribution plans.

Defined-Benefit Plan

Under a defined-benefit plan, the employer agrees to pay the employee a definite benefit upon retirement. The plan administrator invests the contributions made to the plan. Each employee's retirement benefit is determined by a calculation that takes into consideration the individual's salary, years of employment, and other factors while a member of the plan.

Defined-Contribution Plan

Under a defined-contribution plan, there is no guaranteed benefit. Each employee is responsible for choosing the investments for his or her pool of funds, maintained in an individual account. The future benefit to the employee is equal to the account's contributions and investment earnings.

Overview of South Carolina's State-Administered Plans

The state's five defined-benefit pension plans are:

- S.C. Retirement System (SCRS)
- Police Officers Retirement System (PORS)
- General Assembly Retirement System (GARS)
- Judges and Solicitors Retirement System (JSRS)
- S.C. National Guard (SCNG)

The state's defined-contribution plans are:

- Optional Retirement Program (ORP)
- Deferred Compensation Program

Public employees are required to participate in one of the five defined-benefit plans (membership based on employment) or the Optional Retirement Program, unless they are exempt. Participation in the Deferred Compensation Program is voluntary.

The state-administered pension plans serve the following employers — state agencies, institutions of higher education, public school districts, and other employers covered by separate agreement. Other employers may include a county, municipality, or other political subdivision of the State, a service organization, and any nonprofit corporation created under the provision of Chapter 35 of Title 33, for the purpose of supplying water and sewer, in its discretion. A more complete description of the pension plans is available in *Appendix B*. Below is a summary of the employers and contributing membership of the two largest pension plans.

Table 1.1: SCRS Summary of Contributing Membership Data

	Members			
	July 1, 2014	July 1, 2013	July 1, 2012	July 1, 2011
State Employees	69,838 (30%)	69,940 (30%)	71,072 (31%)	69,004 (31%)
Public School Employees	104,611 (45%)	105,090 (45%)	100,979 (44%)	101,637 (45%)
Other Agency Employees	57,026 (25%)	57,369 (25%)	57,271 (25%)	55,600 (24%)
TOTAL	**231,475 (100%)**	**232,399 (100%)**	**229,322 (100%)**	**226,241 (100%)**

Includes ORP participants (portion of employer contribution goes to defined benefit plan).
Figures are rounded.
Source: PEBA Actuarial Valuation Reports

Table 1.2: PORS Summary of Contributing Membership Data

	Members			
	July 1, 2014	July 1, 2013	July 1, 2012	July 1, 2011
State Employees	10,478 (35%)	10,494 (36%)	10,074 (35%)	10,328 (36%)
Public School Employees	53 (0%)	60 (0%)	130 (0%)	177 (0%)
Other Agency Employees	19,192 (65%)	18,952 (64%)	18,570 (65%)	18,342 (64%)
TOTAL	**29,723 (100%)**	**29,506 (100%)**	**28,774 (100%)**	**28,847 (100%)**

Figures are rounded.
Source: PEBA Actuarial Valuation Reports

Table 1.3: SCRS and PORS Participating Employer Data

FY 2014 CAFR: Statistical Section	SCRS	PORS
State Agency & Institutions of Higher Education	35 (5%)	31 (7%)
Public School Districts	116 (16%)	57 (14%)
Employers Covered by Separate Agreement	577 (79%)	323 (79%)
TOTAL	**728 (100%)**	**411 (100%)**

Figures are rounded.
Source: 2014 PEBA Comprehensive Annual Financial Report

Pension History

South Carolina's first state-administered pension plan was established in 1945. Plans have been added and modified over time to include changes in benefits, cost-of-living adjustments, retirement eligibility changes based on age and/or years of service, and income limitations for retired-rehired workers.

Key Changes in South Carolina's State-Administered Pension System

1945 South Carolina Retirement System (SCRS) plan established.

1949 Retirement eligibility changed from age 60 to age 60 or 35 years of credited service. Also provided for early retirement at age 60 with at least 20 years of credited service.

1962 Police Officers Retirement System (PORS) plan established.

1966 General Assembly Retirement System (GARS) plan established.

1975 South Carolina National Guard (SCNG) plan established.

1979 Judges and Solicitors Retirement System (JSRS) plan established.

1984 Benefit reduction for retirement prior to age 65 or 30 years of credited service.

1987 Optional retirement program for publicly-supported four-year and postgraduate institutions of higher education.

1990 Implementation of early retirement at age 55 with 25 years of credited service with a reduction of 4% for each year of credit less than 30.

1997 Investment of pension funds in public equities (stocks) authorized.

1998 Investment in equities restricted to 40% of assets with an exception to allow for the growth of the 40% equity investment without a requirement to sell and maintain the initial 40% limit.

2000 Optional retirement plan authorized for K-12 educators and administrators employed after June 30, 2000.

2001
- Implementation of an early retirement option called Teacher Employee Retention Incentive (TERI) program.
- Modification of the cost-of-living adjustment to be capped at no more than 4% or the Consumer Price Index, whichever is less.
- Twenty-eight service years required to be eligible for full retirement for SCRS.
- Establish requirement of the minimum 5 years of earned service to be eligible for retirement.
- GARS members authorized to retire and continue working in the General Assembly upon reaching age 70½ years with 40 years of service.
- Optional retirement program modified to include state employees and consolidate similar programs.

2005
- Transfer of pension fund investment authority from the Budget and Control Board to the newly-established Retirement System Investment Commission (RSIC).
- Additional contributions required of new TERI program entrants.
- Cost-of-living increases changed to the lesser of 1% or the Consumer Price Index.
- Modification of the investment plan asset allocation restrictions.
- Extended Freedom of Information Act exemptions for RSIC meetings when investment decisions could be jeopardized if discussed publicly.
- Equity investments limited to not exceed 70% of total assets.
- Retirees returning to work required to make employee contributions without earning additional service credit.

2006
- Modification in categories of authorized pension fund investments.
- Liability coverage extended for members of the RSIC.
- Definition of "indirect interest" modified to allow RSIC to waive "indirect interest" disclosure in certain instances with quarterly reporting of any such waivers.

2007 Equity investments no longer limited to domestic entities.

2008 Cost-of-living changed to the lesser of 2% or the Consumer Price Index. The adjustment may be increased by the board up to a cap of 4% if certain conditions are met.

2009 Investment rate of return changed from 7.25% to 8% beginning FY 08-09.

2012

- Annual cost-of-living increase changed to the lesser of 1% or $500 for SCRS and PORS.
- Modifications of benefits and retirement eligibility for SCRS and PORS.
- Closure of the GARS pension plan to newly-elected legislators. New legislators permitted to participate in SCRS or the Optional Retirement plan.
- Authority to manage the pension funds, excluding investments, transferred from the State Budget and Control Board to the newly-established Public Employee Benefit Authority (PEBA).
- An assumed rate of return on investments of 7.5% annually established in state law.
- Income limit established for early retirees returning to work.
- TERI program set to close effective 6/30/2018.
- Effective after 6/30/2015, the PEBA Board of Directors may increase employee and employer contribution rates subject to certain restrictions.

Accounting and Actuarial Standards

Calculating and reporting pension plan information is guided by multiple organizations, including the Governmental Accounting Standards Board (GASB), the Financial Accounting Standards Board (FASB), the Actuarial Standards Board (ASB), other organizations, and federal and state law.

Accounting and Actuarial Guidance Organizations

GASB is an independent organization that sets financial reporting standards for state and local governments. In June of 2012, GASB issued updated governmental accounting standards (No. 67 and 68). With the issuance of the new standards, GASB changed its focus to financial reporting rather than the funding of pensions.

FASB is the entity that establishes financial reporting standards for non-governmental pensions. The non-governmental guidelines have been changed to focus more on the financial reporting and disclosure of pension plan information.

ASB is the entity that establishes standards of actuarial practice. Actuarial information and methodologies are used to forecast activity for private and public pension plans, such as estimating future benefits, employee mortality, estimating pension funding status, etc.

Standards and Methodology

Actuarial Method of Projecting the Cost of an Employee's Pension

GASB requires that the cost of providing a defined pension benefit be calculated using the entry-age normal actuarial cost method. This method allocates the projected future benefits (retirement) for each individual over the period of service from the employee's age at workforce entry to an assumed exit age. The calculated benefits are then adjusted to determine the present value.

For private pensions, FASB requires the calculation of the expected postretirement benefit obligation. This calculation is the actuarial present value based on the expected amount and timing of future benefits (retirement) with consideration for the future cost of providing the benefits and the potential sharing of the cost by the employee, employer, or others.

Mortality Tables

Increasing participant life expectancy can significantly increase the cost of a pension plan. Non-governmental pension plans are required by the Internal Revenue Service to use the mortality assumptions based on the Society of Actuaries (SOA) RP-2000 Mortality Tables Report through 2015. South Carolina currently uses the RP-2000 mortality tables as a starting point and may make adjustments to include the actual experience of the retirement system. According to PEBA, "The current mortality assumption is a generational mortality assumption that explicitly assumes life expectancy will continuously improve in future years."

New mortality tables were recently issued by the Society of Actuaries (RP-2014 Mortality Tables). Based on a 6% discount rate, the overall impact of the new mortality data is an increase in life expectancy that could increase pension liabilities by 3% to 8%. Although the table is based only on private pension plan experience, the SOA recommends that public plans consider the use of the new tables while it determines whether separate mortality tables should be established for public pensions. The next formal review of South Carolina's mortality assumptions will be conducted as of July 1, 2015.

Percentage Rate Used to Determine the Present Value of Pension Liabilities

GASB allows public pensions to use their projected rates of return on investments to discount the value of future pension liabilities. The revised GASB guidelines will allow this practice to continue if the pension plan funding is projected to be sufficient to pay benefits and the pension plan assets are invested using a strategy to achieve the anticipated return. If either requirement is not met, the entity must use a lower, tax-exempt municipal bond rate when determining the value of a portion of its liabilities.

FASB requires non-governmental pensions to determine the value of pension liabilities based on the discount rates at which the pension benefits could effectively be settled. Rates may be based on current annuity contracts that might be used to settle the obligation or high-quality fixed-income investments such as bonds. As a result, a private pension with the same obligations as a public pension will report significantly higher liabilities.

Annual Required Contribution (ARC)

Past GASB statements provided guidance on determining the employer's annual required contribution. However, the new GASB standards do not provide guidance on pension plan funding, which includes calculating the ARC. According to the PEBA, it will continue to determine the annual required contribution based on funding requirements established by the S.C. Code of Laws and actuarial standards of practice.

According to Internal Revenue Service regulations, contributions to a defined-benefit pension plan are based on what is needed to provide future retirement benefits for plan participants. Actuarial valuations are completed to determine the needed contributions.

Funded Status

Prior to 2014, public pensions were required by GASB standards to report their funded status as a percentage of a multi-year annual average of assets divided by current liabilities. Under new GASB standards, public pensions report their funded status by dividing the market value of assets by total pension liabilities. This change will result in more volatility when reporting the funded status since market fluctuations, and other changes, will be immediately reflected rather than being averaged over a period of at least five years.

Private, multiemployer pension plans are required to disclose funding information to include employer contribution information, declaration as to whether the pension plan is subject to a funding improvement plan, the expiration date(s) of collective bargaining agreements or minimum funding arrangements (if applicable), documentation of any changes that affect comparability for each period presented, and the funded status of the plan as required by the Pension Protection Act of 2006.

Employee Retirement Income Security Act (ERISA)

ERISA established minimum pension plan standards for non-governmental pensions and provides for rules on the federal income tax effects of employee benefit plan transactions. ERISA was implemented to protect private plan employee benefit plan participants and their beneficiaries by:

- Requiring financial disclosure and additional relevant information.
- Providing standards of conduct for plan fiduciaries.
- Providing for appropriate remedies and access to the federal courts if needed.

ERISA is enforced by the U.S. Department of Labor, the U.S. Department of the Treasury, and the Pension Benefit Guarantee Corporation (PBGC). The PBGC is a federal agency created by ERISA for the purpose of protecting retirement incomes of American workers in private-sector defined benefit pension plans. PBGC is funded through insurance premiums, investment earnings, and fees.

Funded Status, Investment Performance, and Asset Allocation

In this chapter, we address:

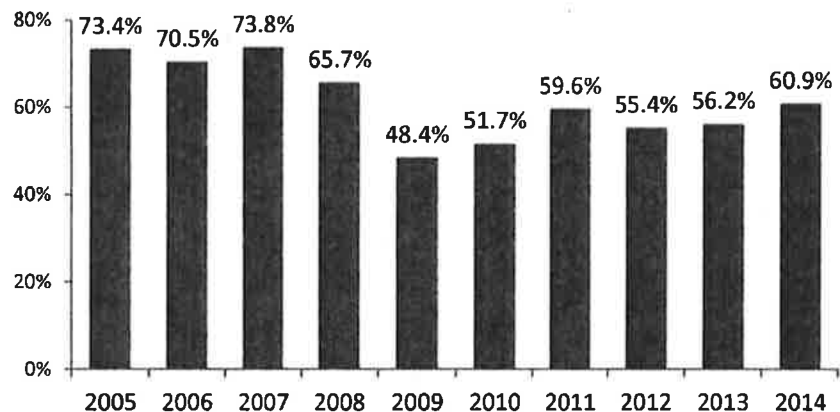
- The decline of the funded status of South Carolina's state pension plans.
- The past and projected underperformance of South Carolina's pension portfolio in relation to its objectives.

Funded Status

Public pensions across the nation have seen their financial assets fall as compared to their liabilities. For South Carolina, this gap between assets and liabilities has grown over the last decade as shown in Chart 2.1.

The funded status as reported by the Public Employee Benefit Authority (PEBA) declined over the period from 2005 to 2014. The funded ratio (market value of assets as a percentage of liabilities) for South Carolina's two largest pensions combined decreased from 73.4% to 60.9%. The South Carolina Retirement System (SCRS) declined from 72% to 60%. The Police Officers Retirement System (PORS) declined from 87% to 68%.

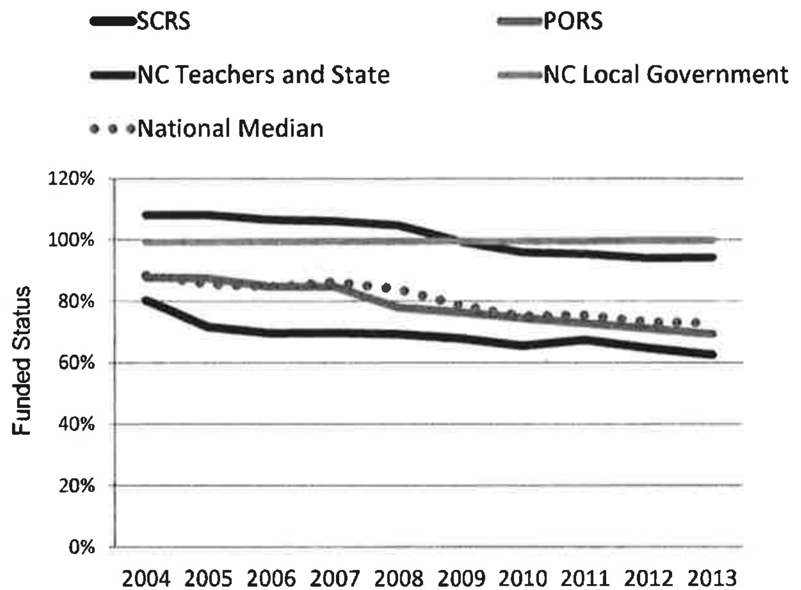
Chart 2.1: Combined Funded Ratios for the South Carolina Retirement System and the Police Officers Retirement System (Market Value of Assets)



Source: Gabriel Roeder Smith & Company

According to an LAC analysis of data from Boston College of 112 state pension plans, pensions around the country have experienced a decline in their funded status.

Chart 2.2: National, North Carolina, and South Carolina Pension Funding 2004–2013 (Actuarial Value of Assets)



Source: Boston College CRS and LAC

While South Carolina's decline is part of a national trend, the state's largest pensions, particularly the SCRS, tracked below the national median over the given period. Besides the LAC analysis, Wilshire Consulting, an investment consulting group, reports that the national median funded ratio declined from 85% to 76% from FY 2005 to FY 2014 based on actuarial value of assets.

Even some well-funded pensions trended downward. For example, North Carolina's Teachers and State Employees Retirement System declined from 108% to 94% from 2003 to 2013. While those trends are similar to that of South Carolina, South Carolina's two largest pensions began with a low funded status and declined further. As the next section will show, South Carolina's funded status may continue to decline if it does not meet its assumed investment returns.

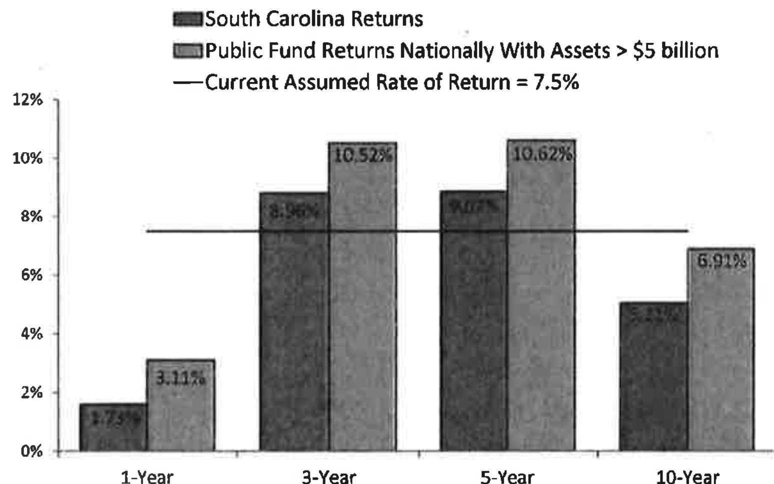
It is important to note that the annual reports issued by PEBA prior to 2012 did not include the full impact of cost-of-living adjustments (COLAs) on pension liabilities. This may have led PEBA to understate pension liabilities thus overstating funded status. Current accounting standards require more complete reporting of the impact of COLAs.

While some of the decline shown may be due to calculation changes, the funded ratio declined even though COLAs were not fully recognized in the pension calculations before 2012.

Investment Performance

Under the current assumptions, South Carolina needs a long-term 7.5% rate of return to have the assets to pay off its liabilities over the next 30 years. South Carolina's pension portfolio has not met its rate of return target over the past decade, and it has consistently performed below most other public pensions. Additionally, the portfolio is not projected to meet its target over the next 30 years.

Chart 2.3: South Carolina's Annualized Investment Returns Ending FY 14-15



These figures are gross of fees. According to BNY Mellon, "[g]ross of fees return is actually a mixed return. In general, the alternative investments are only reported on a net of fee basis; therefore, the total plan gross of fee return consists of the gross returns for the traditional assets [stocks, bonds, etc.] and the net returns for the alternatives [hedge funds, private equity, etc]."

Source: RSIC and Bank of New York Mellon

As shown in Chart 2.3, the 3-year and 5-year annualized returns exceeded the 7.5% target. However, over the last 10-years the pensions have only earned a 5.2% return. Besides performing below its target, South Carolina's portfolio performs below those of most other public pensions.

Table 2.4: Investment Performance of State Pension Portfolios, FY 12-13

	National Median Performance	South Carolina Performance	South Carolina Percentile
3-Year	10.9%	9.3%	11%
5-Year	5.2%	3.8%	13%
10-Year	7.2%	5.0%	0%

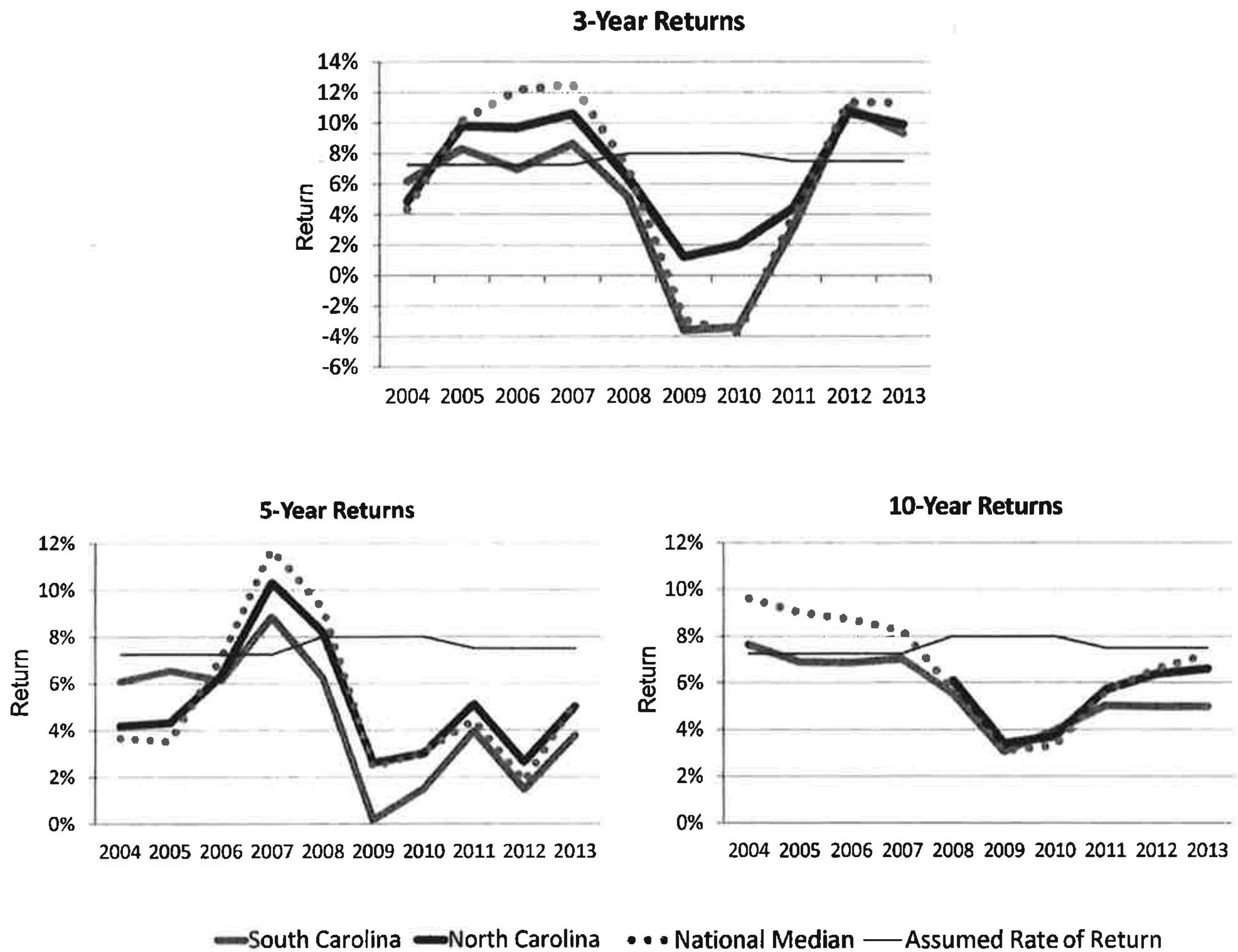
Source: Boston College and LAC

In a study conducted by the LAC, we found that in FY 12-13, the most recent year for which other states' data was available from the Boston College database, South Carolina's 3-, 5-, and 10-year annualized returns were in the bottom quartile of performance. Of the 110 other state pension plans included in the survey, at least 87% of them had the same or higher investment returns than those of South Carolina pensions.

As shown in Chart 2.5, we compared the RSIC's annualized returns with the national median over the period from FY 03-04 through FY 12-13 to determine whether South Carolina has achieved competitive returns, and we included North Carolina as a point of reference.

South Carolina generally fell below the national average, particularly when comparing 10-year returns. For most years, South Carolina's investments performed below those of North Carolina.

Chart 2.5: National, North Carolina, and South Carolina Rates of Return 2004-2013



Source: Boston College and state reports. Ten-year data for North Carolina database prior to 2008 was not in the Boston College database.

Projection of Investment Returns and Funded Status

At the request of the LAC in July 2015, Aon Hewitt, an investment consultant to the RSIC, projected investment returns and funded status for SCRS and PORS based on the current asset allocation and other potential allocations for a 30-year period (see *Appendix C*). Aon Hewitt conducted this analysis using its own inflation rate assumption of 2.1% and the 2.75% inflation rate assumption currently used by Gabriel Roeder Smith & Company (GRS), an actuarial consultant to PEBA. Both projections fall short of the assumed rate of return of 7.5%.

Using its own 2.1% inflation assumption, Aon Hewitt projected an annual rate of return over 30 years of 6.8%. Using the 2.75% inflation assumption, the projected rate of return was 7.3%. For reference, a March 2015 Federal Reserve Board projection estimated that long-term inflation will be around 2%.

Aon Hewitt Projections

Aon Hewitt projected a 50% probability that in 2043 the two largest pensions combined will have a:

- 30-year annualized rate of return of 6.8%.
- 87% funded status.
- $11 billion shortfall.

These projections are based on a 2.1% assumed rate of inflation.

Aon Hewitt Projections Based on GRS Inflation Assumption

Using the current GRS inflation assumption, Aon Hewitt projected a 50% probability that in 2043 the two largest pensions combined will have a:

- 30-year rate of return of 7.3%.
- Funded ratio of 93%.
- $7 billion shortfall.

These projections are based on a 2.75% expected rate of inflation.

Previous Projection

In 2012, GRS made projections based on a 30-year rate of return of 7.5% and presented them to the General Assembly on behalf of PEBA. The firm projected a 50% probability that in 2041 the two largest pensions combined will have a:

- Funded ratio of 85%.
- $14.7 billion shortfall.

Asset Allocation and Its Effect on Risk, Expenses, and Fees

Changes in South Carolina's Constitution have given the State Budget and Control Board and Retirement System Investment Commission (RSIC) authority to invest in a wider array of assets. We found that the higher-investment risks associated with this changing asset allocation have not been communicated in the annual reports of the RSIC and the Public Employee Benefit Authority (PEBA). Investment and administrative expenses have also increased significantly as the asset allocation has changed.

Investment Categories

Below are specific categories of investment included in the FY 13-14 RSIC annual investment report:

Traditional Investments

PUBLIC EQUITIES
Stock in publicly-traded companies.

FIXED INCOME SECURITIES
Government and corporate bonds.

CASH AND CASH EQUIVALENTS

Alternative Investments

Alternative investments generally include assets other than traditional investments. Examples include:

PRIVATE EQUITY
Ownership in companies that are not publicly-traded. Some of the companies may have been publicly-traded when they were acquired.

HEDGE FUNDS
Private investment pools with wide-ranging strategies involving various categories of assets.

PRIVATE DEBT
Non-publicly traded loans and related securities that are issued to companies seeking capital.

REAL ESTATE
Commercial properties such as office buildings, apartments, and retail.

Reporting of Risk

The RSIC annual investment report does not adequately include the risks associated with the assets in the state-administered pension portfolio. The report often refers to risk without defining it. According to RSIC staff, when the agency refers to "risk" it is usually referring to the volatility of investment returns and the extent to which investments within the portfolio have returns that are correlated with each other.

The 2014 Comprehensive Annual Financial Report from PEBA contains a more complete description of the risks. Examples of investment risk in the report include volatility as well as credit risk, interest rate risk, and foreign currency risk. However, only a limited presentation is made of the risks inherent in alternative investments, specifically regarding the difficulties in determining the value of the investments.

Following are examples of risk that can affect the assets within a portfolio, including the most-commonly reported category of volatility as well as categories of risk that have not been adequately addressed in annual reports.

Volatility

Developing a portfolio with diverse investments that are not highly correlated can reduce the overall volatility of the portfolio. On average, investments with higher volatility risk have higher expected returns. It is important to note, however, that investments with returns that are not highly correlated during a normal economic environment may become highly correlated during severe downturns in the investment markets.

Illiquidity

Some investments, such as private equity, hedge funds, and real estate are illiquid, reducing investor access to cash when it is needed for liability payments, other investment opportunities, or to reduce risk. Selling these investments is time-consuming and may be subject to restrictions on the frequency of trades. Research has indicated that, in certain circumstances, illiquid investments are associated with higher expected returns.

Leverage

Leverage is the financing of an investment using debt. RSIC officials reported that "[w]hile we do not allow leverage at the plan level, we do invest in assets that use leverage…." Examples of investments that often use leverage include derivatives, private equity, hedge funds, and real estate.

Valuation and Investment Returns

Measures of valuation and investment returns will generally be less precise for investments that are not publicly traded than for publicly traded stocks and bonds. For example, whereas the reported values of stocks and bonds are determined by market prices, the reported values of private equity and real estate are based on estimates and appraisals. To lessen the risk of imprecise valuation, the RSIC has an extensive due diligence process of reviewing the figures reported by investment fund management.

Nonetheless, as noted in the 2014 PEBA Comprehensive Annual Financial Report:

> The estimated fair value of [alternative] investments may differ from values that would have been used had a liquid public market existed.

In addition, because private equity and real estate are not frequently bought and sold, volatility that occurs between transactions may not be reported and the volatility numbers that are reported will be imprecise.

Complexity

Certain categories of investment are significantly more complex than others. Private equity, hedge funds, and real estate can include complex contracts and fee structures that require extensive due diligence, auditing, monitoring, and reliance on outside consultants. As will be addressed later, the RSIC has been recognized as having an exemplary process for calculating the fees and expenses of the portfolio.

Transparency

Private equity contracts and hedge fund contracts are often prohibited from being publicly disclosed, reducing oversight and monitoring by third parties without access to the contracts. In addition, the fees paid to alternative investment managers are less transparent than the fees paid, for example, to public equity managers. The RSIC, however, has a nationally-recognized process for measuring the fees it pays.

Independent of its annual reports, the RSIC has made public presentations to a state Senate subcommittee in which various categories of risk and risk mitigation processes were addressed, such as asset allocation, complexity, diversification, valuation of assets, liquidity, and due diligence prior to investing.

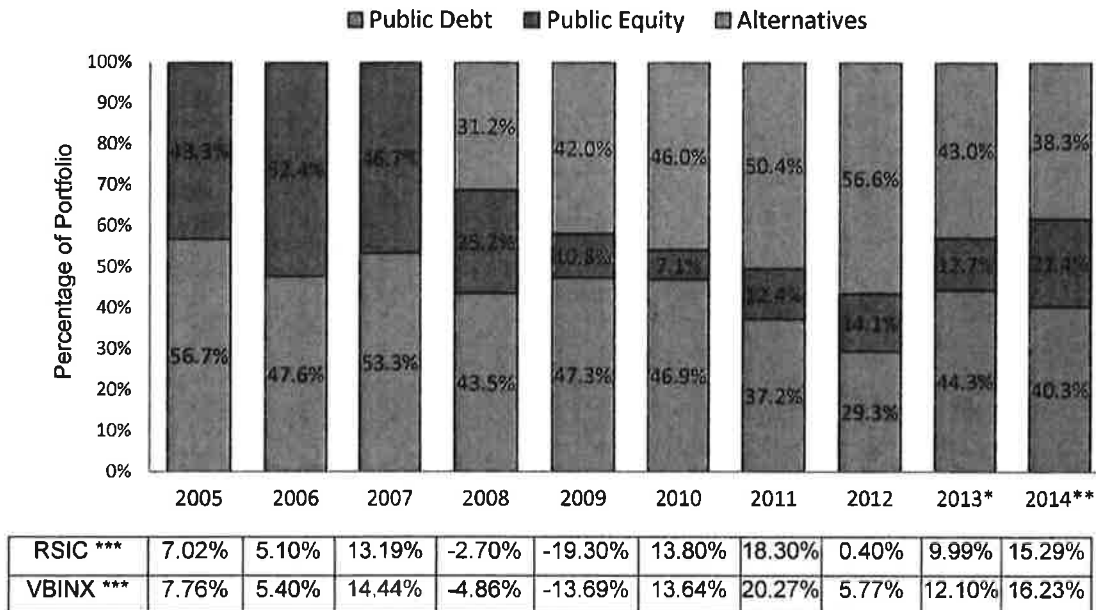
Historical Asset Allocation in South Carolina and Other States

Until a change in the S.C. Code of Laws in 1998, South Carolina had a conservative asset allocation in its investment portfolio, because state law only allowed investment in cash and fixed income securities such as corporate and government bonds.

Following a change in state law in 1998, South Carolina's pensions began to invest in publicly traded equities. Amendments to this law in 2005 and 2006 allowed the RSIC to invest in alternative classes such as hedge funds, private equity funds, and real estate.

Chart 2.6 shows this transition as well as a comparison of RSIC investment returns and the returns of the Vanguard Balanced Index Fund (VBINX) comprised of 60% stocks and 40% bonds.

Chart 2.6: Investment Allocations by Category and Investment Returns



	2005	2006	2007	2008	2009	2010	2011	2012	2013*	2014**
RSIC ***	7.02%	5.10%	13.19%	-2.70%	-19.30%	13.80%	18.30%	0.40%	9.99%	15.29%
VBINX ***	7.76%	5.40%	14.44%	-4.86%	-13.69%	13.64%	20.27%	5.77%	12.10%	16.23%

* Prior to FY 12-13, cash, short duration and high yield held in strategic partnerships were classified as Alternatives. Beginning in FY 12-13, these investments have been presented as cash and cash equivalents under Short Term Investments / Fixed Income.

** Prior to FY 13-14, derivatives such as futures, options, and swaps were recorded as Alternatives. Beginning in FY 13-14, based on reclassifications, these amounts have been presented in the categories to which they pertain.

*** The RSIC returns for 2007 through 2014 and all VBINX returns are reported net of fees.

Source: PEBA and Vanguard

Chart 2.7: Annualized Returns as of June 30, 2014*

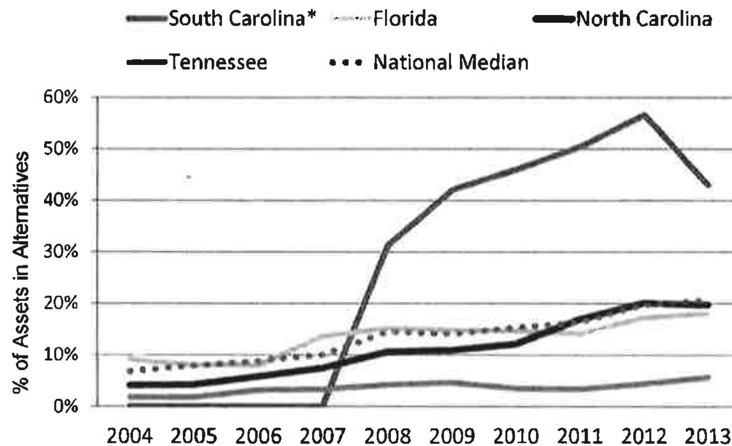
	One-Year	Three-Year	Five-Year	Ten-Year
RSIC	15.29%	8.37%	11.48%	5.60%
VBINX	16.23%	11.28%	13.50%	7.23%

*Net of fees.

Source: RSIC, BNY Mellon, and Vanguard

South Carolina's portfolio has a higher allocation in alternatives compared to other state pensions. The following graph shows the asset allocation in South Carolina and the national median for FY 12-13 from an LAC study of 101 pensions.

Chart 2.8: Alternative Investments: FY 03-04 – FY 12-13



* Prior to FY 12-13, cash, short duration and high yield held in South Carolina's strategic partnerships were classified as Alternatives. Beginning in FY 12-13, South Carolina has presented these investments as cash and cash equivalents under Short Term Investments / Fixed Income.

Source: Boston College Center for Retirement Research, PEBA, state annual reports, and LAC

Before a 2006 change in South Carolina code, the pension portfolio did not have alternative investments. By FY 12-13, South Carolina had more than 20 percentage points more of its assets in alternatives than the national median. Some states have fewer alternative investments, because they limit the category. For example, Georgia prohibits the Georgia Teachers' Retirement System from investing in alternatives. The Georgia Employee Retirement System may invest up to 5% of its portfolio in alternatives, but it had not done so by FY 12-13.

Table 2.9: Asset Allocation of State Plans – FY 12-13

	Public Pension Plan Median	South Carolina
Public Equities	51.1%	12.7%
Fixed Income	23.1%	31.8%
Cash/Short Term	1.3%	12.4%
Alternatives	20.6%	43.0%
Other Investments	0%	0%

Sources: Boston College Center for Retirement Research and PEBA

While the previous chart data set does not list all of the specific alternative asset categories, a Cliffwater report for FY 13-14 listed the average allocations as follows:

Table 2.10: Alternative Asset Allocation of Public Pension Plans – FY 13-14

Asset Class	Average* Allocation	South Carolina
Private Equity	9%	9.2%
Real Estate	6%	3.5%
Hedge Funds/GTAA	4%	19.8%
Real Assets	3%	0.1%
Other Alternatives	1%	5.7%
TOTAL	**24%**	**38.3%**

*Averages are rounded.
Sources: Cliffwater LLC and PEBA

Investment Fees and Administrative Expenses

In 2014, Funston Advisory Services noted that the RSIC's "disclosure of total external management fees is the most complete in the industry," particularly with regard to private equity. This difference in reporting practices among public pensions makes comparisons between them imprecise. Nonetheless, because South Carolina ranks high in the percentage of its portfolio in high-fee, alternative investments, it may also rank high in total expenses as a percentage of assets.

Although the RSIC reports the fee and expense ratio for its portfolio, it does not report ratios by investment category. Using data from the PEBA annual financial report, we calculated the fee ratio by investment category for FY 13-14, as shown in Table 2.11. The fees paid for most alternative investments were significantly higher than for other investments.

Table 2.11: FY 13-14 Investment Fees and Administrative Expenses (in thousands)

Investment Category	End of Year Fair Value of Assets	Investment Manager Fees	Investment Manager Fee Ratio
Short Duration Bonds	$1,099,729	$2,761	0.25%
Domestic Fixed Income	3,270,639	11,208	0.34%
Global Fixed Income	1,932,017	5,661	0.29%
Domestic Equity	2,531,084	9,651	0.38%
Global Equity	3,813,622	12,370	0.32%
Alternative Investments:			
Global Tactical Asset Allocation	2,119,233	14,615	0.69%
Hedge Funds	3,754,027	151,050	4.02%
Private Debt/Opportunistic Credit	1,689,708	83,981	4.97%
Private Equity	2,708,272	84,623	3.12%
Real Estate	1,106,705	64,860	5.86%
Commodities	0	300	-
*Strategic Partnership cash**	1,145,140	12,220	1.07%
Beta Overlay	997,760	1,232	0.12%
Internally Managed Assets	3,410,538	-	-
Other	121	-	-
TOTAL	**$29,578,595**	**$454,532**	-
Adjustments, Cash, Receivables and Payables	223,816	-	-
Other Investment Fees, Bank Fees, and Administrative Expenses	-	12,737	-
TOTAL	**$29,802,411** **Net Asset Value**	**$467,269** **Fees & Expenses**	**1.57%** **Ratio**

* Represents management and other fees at the Strategic Partnership level and not fees at the underlying investment level which are included in each applicable asset class.

Source: PEBA and RSIC

As shown in Table 2.12, the increase in public equities and alternative investments in South Carolina from 2005 to 2014 has been accompanied by an increase in expenses from $22.4 million (0.09%) to $467.3 million (1.57%).

Table 2.12: Fees as a Percentage of Total Assets

Fiscal Year	Total Plan Assets (Billions)	Investment Fees & Administrative Expenses (Millions)	Fee & Expense Ratio
2005	$24.80	$22.40	0.09%
2006	$25.40	$30.90	0.12%
2007	$28.00	$39.00	0.14%
2008	$26.60	$130.40	0.49%
2009	$21.00	$176.50	0.84%
2010	$23.00	$313.80	1.37%
2011	$26.20	$331.70	1.26%
2012	$25.30	$304.10	1.20%
2013	$26.80	$427.50	1.59%
2014	$29.80	$467.30	1.57%

Source: PEBA and RSIC

Recommendations

1. The General Assembly should amend state law to require the Retirement System Investment Commission and the Public Employee Benefit Authority to include in their annual reports the various risks of each asset and investment category in the state-administered pension portfolio, the specific risks of the total portfolio, the extent to which these risks are material, and the process undertaken to mitigate the risks.

2. The General Assembly should consider amending state law to limit the maximum percentage of alternative investments in the state-administered pension portfolio.

3. The Retirement System Investment Commission should report annually its investment fees and expenses for each investment category / asset class.

Selecting the Assumed Rate of Return on Investments and Determining the Value of Pension Liabilities

In this chapter, we report that:

- When selecting an assumed rate of return on pension investments, the General Assembly is not required by state law to consider the impact of the rate selected on the investment decisions made by the RSIC or the liabilities of the pensions.
- Public pensions nationwide may be underreporting their liabilities.
- South Carolina is paying off its unfunded liabilities over an excessive period of time.

Improvement Needed in the Process for Selecting the Assumed Rate of Return on Investments and Determining the Value of Pension Liabilities

According to the Government Accounting Standards Board (GASB), the interest rate used by a public pension as the assumed rate of return on its investments may also be used as the discount rate to calculate the present value of future liabilities. We found the following regarding South Carolina's process for selecting this interest rate:

- State law does not require that the General Assembly use a structured process for considering the impact on asset allocation, investment risk, the probability of success, or pension liabilities.
- Public pensions nationwide may be underreporting their liabilities based on a comparison of their calculation methods with those used by a major bond credit rating agency, corporations, and financial economists.
- The General Assembly does not require that the information it receives from PEBA and RSIC be reported in a format that can be understood by an interested reader without expertise in finance or pensions.

Background

In 2011, the State Budget and Control Board received a report from an actuarial firm, contracted by PEBA, which recommended a 7.5% assumed rate of return. The firm based its recommendation on the fund's target asset allocation and a projected rate of return for each asset category. In 2012, the General Assembly amended state law to require that the state-administered pensions operate using a 7.5 % assumed rate of return on invested assets.

Effect of the Assumed Rate of Return on Asset Allocation, Fees, and Risk of Underperformance

State law does not require that the General Assembly consider the effect of the assumed rate of return on asset allocation, fees, investment risk, or the risk of underperformance.

When public pensions assume a higher rate of return, they may respond by decreasing their investments in lower-risk government and corporate bonds and increasing their investments in riskier assets such as stocks, private equity, hedge funds, and real estate. Also, as discussed in *Chapter 2*, South Carolina's fees have increased significantly as it has increased its allocation to higher-risk investments.

During our review, RSIC's investment consultant projected a 50% probability that pension assets in 2043 will be $11 billion less than the fully-funded level of $81 billion.

Effect of the Discount Rate on Reported Pension Liabilities

Pensions use an interest rate called a *discount* rate to calculate the present value of future pension liabilities, recognizing that a dollar liability in the future is worth less than a dollar today. Reported pension liabilities can be decreased with a higher discount rate and increased with a lower discount rate.

By using higher discount rates, public pensions nationwide may be underreporting their liabilities when compared with the pension reporting practices of a major bond credit rating agency, corporations, and financial economists.

Public Pensions

Under government accounting standards, the assumed rate of return on Pension investments may be used as the discount rate. As a result, South Carolina currently uses a 7.5% discount rate. A May 2015 survey reported by the National Association of State Retirement Administrators found that public pensions nationwide used an assumed rate of return and discount rate ranging from 6.5% to 8.5% with an average of 7.68%. During our review, state pensions in New York and California decided to reset their rates below their current levels of 7.5%

Moody's Investors Service

In 2013, Moody's initiated a practice of adjusting reported pension liabilities when reviewing the creditworthiness of state and local pensions. Part of this adjustment includes the use of a more conservative discount rate based on corporate bond rates. The interest rate index used by Moody's at the end of FY 13-14 was 4.33%.

Corporate Pensions

Corporate pensions generally use discount rates that are based on corporate bond interest rates, which are currently less than the assumed rate of return. Milliman, a national actuarial firm, reported that the median discount rate used by corporate pension funds at the end of FY 13-14 was 4.08%.

Financial Economists

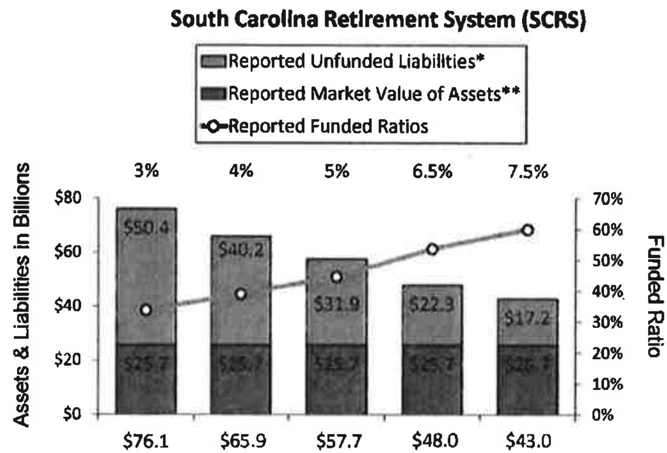
Financial economists generally believe that the discount rate should be based on the certainty of the obligation made to public employees. Public pensions have obligations to public employees that can be viewed as nearly certain or nearly risk-free from the perspective of the public employees. Local governments rarely file for bankruptcy even if allowed by their states, while state governments are not authorized under federal law to file for bankruptcy.

Therefore, financial economists generally use risk-free discount rates for valuing public pension liabilities. An example of a risk-free discount rate at the end of FY 13-14 is the 3.08% interest rate on 20-year United States Treasury bonds. An economist at Boston College uses an adjusted risk-free rate of about 5%.

The Effect of Various Discount Rates on Reported Liabilities and Funded Ratios

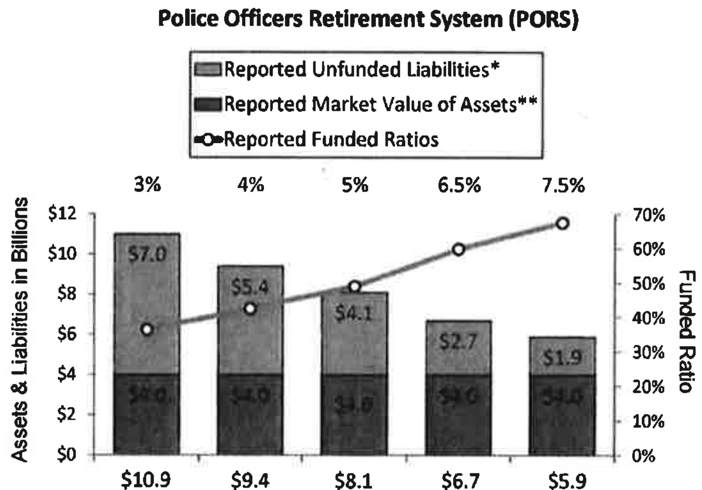
During our review, we requested that PEBA's actuary calculate the effect on liabilities of using various discount rates, as illustrated in Chart 3.1 and Chart 3.2. If South Carolina had used a 6.5% discount rate at the end of FY 13-14, the reported liabilities for its two largest plans would have increased from $48.9 billion to $54.7 billion.

Chart 3.1: SCRS – Various Discount Rates and Their Effect on Reported Pension Assets and Liabilities as of June 30, 2014



* Net Pension Liability
** Plan Fiduciary Net Position
Figures are rounded.
Source: Gabriel Roeder Smith & Company

Chart 3.2: PORS – Various Discount Rates and Their Effect on Reported Pension Assets and Liabilities as of June 30, 2014



* Net Pension Liability
** Plan Fiduciary Net Position
Figures are rounded.
Source: Gabriel Roeder Smith & Company

Proposed Legislation Regarding the Selection of an Assumed Rate of Return

In 2015, legislation regarding state-administered pensions was proposed but not enacted in the General Assembly. Among the requirements in the legislation, the following pertain to the process for selecting an assumed rate of return:

- The assumed rate of return shall expire every four years, beginning in 2016 "…. unless the General Assembly enacts a joint resolution that continues or amends the assumed rate of return."
- Prior to the expiration date of the assumed rate of return, PEBA shall submit a proposed assumed rate of return for the next four years "…developed in consultation with the [PEBA] board's actuary and the [RSIC] commission, and must be submitted to the Chairman of the Senate Finance Committee and the Chairman of the House Ways and Means Committee."
- "If the General Assembly does not continue or amend the assumed annual rate of return prior to expiration, the assumed annual rate of return developed and submitted by the board will take effect for the corresponding four year period until subsequent action of the General Assembly."

This proposed legislation does not require that PEBA and the General Assembly formally address tolerance for investment risk, the extent to which potential specific asset allocations and assumed rates of return conform to the stated tolerance for risk, or the impact on reported pension liabilities and the funded ratio.

Format for Presenting Information Regarding the Selection of an Expected Rate of Return and Discount Rate

The General Assembly does not require that the information it receives from PEBA and RSIC be reported in a format that can be understood by an interested reader who does not have expertise in finance or pensions. Without such a format, there is a greater chance that the selection of an assumed rate of return and discount rate will be based on incomplete information.

Recommendations

4. The General Assembly should amend state law to require that the process through which it selects an assumed rate of return and discount rate for South Carolina's state-administered pensions be coordinated by the Public Employee Benefit Authority with input from the Retirement System Investment Commission and address the following:

   - Tolerance for risk.
   - The different asset allocations, categories of risk, and degrees of risk associated with various assumed rates of return.
   - The degree to which asset volatility and correlation change over time.
   - The probability of significant investment underperformance.
   - The impact of various assumed rates of return on the present value of pension liabilities and the funded ratio based on the market value of assets.

5. The General Assembly should amend state law to require the Public Employee Benefits Authority and the Retirement System Investment Commission to report information to the General Assembly and the public using a format that can be understood by an interested reader without expertise in finance or pensions.

Excessive Period to Pay for Unfunded Pension Liabilities

The time frame to amortize (pay off) the pension plans' unfunded liabilities may exceed the 30-year limit in state law. In addition, the amortization period may exceed the remaining service years of the average current employee. As a result, the inequity of pension costs between generations is excessive.

Current Practice

According to the 2014 PEBA Comprehensive Annual Financial Report and actuarial valuation reports, South Carolina's state-administered pensions reported unfunded liabilities for its five defined benefit pension plans of:

- $18 billion based on the actuarial accrued liability less the actuarial value of assets (Unfunded Actuarial Accrued Liability).
- $19.3 billion based on total pension liabilities minus the market value of assets (Net Pension Liability).

The amortization / projected cost schedules that have been presented to the PEBA Board annually include an assumption that the *market value of assets* earn 7.5% each future year and that existing deferred investment losses would be recognized in future years. According to the schedules, the payoff of the unfunded liabilities may exceed 30 years. For example:

- The 2012 amortization schedule (projected cost) for the largest pension plan (SCRS) indicated that the unfunded liabilities will not be paid off until 2046.
- The 2013 schedule indicated that unfunded liabilities will not be paid off until 2047.
- The 2014 schedule indicated that unfunded liabilities will not be paid off until 2046. In the July 1, 2014 actuarial valuation report, the actuarial unfunded liability was $16 billion and after a period of 30 years the unfunded liability was expected to be $6.5 billion.

After reviewing the LAC draft report, PEBA's actuary, Gabriel Roeder Smith & Company (GRS), presented the LAC with a new projected cost schedule whereby the earnings projection reflected an assumption that the *actuarial value of assets* earn a 7.50% return each future year and that the current deferred investment losses will be offset by future investment gains or recognized as future investment losses. According to this schedule, the SCRS pension fund may be fully funded in 30 years.

In July 2015, RSIC investment consulting firm Aon Hewitt estimated that in 2043 the two largest pensions combined will have an 87% funded status with a remaining unfunded liability of $11 billion.

State Law, Accounting Standards, and Policy

S.C. Code of Laws §9-1-1085 requires "... an amortization schedule of no more than 30 years."

The Governmental Accounting Standards Boards' funding guidance allows for amortization schedules from 10 up to 30 years.

The current PEBA funding policy, first enacted by the State Budget and Control Board in 1996, includes the following goals and amortization requirements:

- Maintain stable or increasing system assets in comparison to accrued liabilities.
- Accumulate the required assets to fund the benefits promised to members.
- Maintain steady contribution rates expressed as a percentage of payroll.
- Provide for inter-generational equity for taxpayers relative to system costs.
- Maintain an amortization period for the unfunded liability that is constant or declining without exceeding 30 years "for any reason."

When Moody's Investors Service conducts bond credit rating reviews, it uses a 20-year amortization period for the unfunded pension liability.

Negative Amortization

When the contributions to pay off an unfunded liability are less than the interest charges, the resulting increase in unfunded liabilities is known as negative amortization.

The 2014 SCRS actuarial report for the defined-benefit pension plans indicated that South Carolina's contributions were not sufficient to cover the interest charges on the unfunded liability. Moody's Investors Service states that some public pensions have pension liabilities that will increase for years even when full payments are made and all actuarial and investment projections are accurate.

In a 2012 report, the actuarial firm GRS stated that amortization plans are more likely to generate negative amortization when the amortization period equals or exceeds 15 years. GRS states "... open amortization period which allows negative amortization may be inconsistent with reaching a funding target of 100% in a reasonable period of time." GRS states in the 2014 SCRS actuarial report that the unfunded liability is expected to increase until the funding period decreases below 19 years.

Inter-Generational Equity

When a public pension uses an extended period of time to pay off unfunded liabilities, the underpayment of pension contributions by one generation of employees and taxpayers is being offset, in part, through a surcharge imposed on the following generation. By contrast, inter-generational equity occurs when each generation fully pays the amount necessary to fund its own future pension obligations.

Amortization Methods: Open and Closed

General categories of amortization methods include:

Open

Open amortization allows for refinancing the liability, presenting the possibility that it will never be eliminated.

According to GASB, there are two methods of open amortization. Under the first method, the pension refinances its liability each year for the same number of years so that it is never fully paid off.

Under the second method, the pension amortization period is recalculated at each valuation date. The total amortization period may be increased, decreased, or remain the same subject to a maximum number of years typically established by law. According to the actuarial reports, this method is used for the S.C. Retirement System, the Police Officers Retirement System and the Judges and Solicitors Retirement System.

The open amortization methodology may result in pension fund contributions which are not sufficient to pay down the pension liability due to negative amortization. It can also, however, reduce the volatility in the contribution rate.

Closed

Closed amortization results in a pay down of the unfunded liability by a specific date. Once the period of time is set, the amortization period is reduced each year until it ultimately reaches zero. This method tends to create more volatility in required contributions. Negative amortization is minimal. South Carolina currently utilizes closed amortization for the General Assembly Retirement System and the S.C. National Guard Retirement System.

Fixed

Fixed amortization is a hybrid type of amortization method. If a new, unfunded liability occurs in any year, it is paid off by a specific date over a fixed period of time. At any point in time, there can be multiple unfunded liabilities that began in different years, each with a separate, fixed amortization period.

Options for Reducing Unfunded Liabilities

South Carolina's state-administered pensions have been significantly underfunded for more than a decade and are projected to remain underfunded for more than 30 years. Severe downturns in the investment markets could cause the already low funded status of the pensions to decline to significantly lower levels. Such downturns may occur during a time of economic recession and reduced tax revenues. Therefore, state and local governments might not be able to address the impaired funded status of the pensions without increasing taxes or decreasing funding for other agencies and programs.

By shortening the period for amortizing unfunded liabilities to 20 years, there will be less inequity in which future generations of workers and taxpayers are required to pay for the pension debts incurred by prior generations. Twenty years is the period used by the bond credit rating firm Moody's Investors Service.

There is a range of options to achieve a shorter period for paying off unfunded liabilities. This range depends, in part, on whether the level of benefits remains constant or is subject to adjustment. For example:

- Without a reduction in existing pension benefits, paying off unfunded liabilities over a shorter period of time would require an increase in contributions, which is more certain to be successful, or improvement in investment returns.

- If reducing benefits were considered, a number of current practices could be examined, including the cost-of-living raises paid to retirees. To minimize new liabilities, the General Assembly could examine the option of transitioning from a pension-based (defined benefit) system to a defined contribution system in which each employee manages her own retirement account.

It is important to note that increasing required employee contributions or decreasing benefits could make it more difficult to recruit and retain qualified staff. In certain instances, market conditions could require that salaries be increased to offset a significant decrease in net retirement benefits. In 2015, the General Assembly funded an independent study of the salaries of state agency employees in South Carolina compared with the salaries of employees with similar jobs in other organizations. The study is projected to be completed in 2016.

Recommendations

6. The General Assembly should amend state law to require that each new unfunded liability be paid in full no more than 20 years after the year in which it was incurred.

7. If *Recommendation 6* is not implemented through an amendment of state law, the PEBA board of directors should implement it through an amendment of its policies and procedures.

Chapter 3
Selecting the Assumed Rate of Return on Investments and Determining the Value of Pension Liabilities

Pension Staff and Governance Issues

In this chapter we address:

- State employees, not limited to pension fund administration, who accept positions with employers that do business with the state or are regulated by the state.
- RSIC commissioners who directly or indirectly initiate pension investment proposals.
- Placement agents and lobbyists who seek to broker contracts between the RSIC and external investment fund managers.

In the above areas, the RSIC has significant reporting controls; however, we recommend ways in which the controls could be strengthened.

State Employees Accepting Jobs from Companies with State Contracts

In 2013, an RSIC investment employee resigned and later accepted a position with a timberland company in which RSIC had an investment. In 2015, an RSIC employee accepted a position with a company with which RSIC had a contract. RSIC officials report that neither of these former employees has since made contact with the agency in an attempt to influence agency decisions.

Nonetheless, the restrictions in state law regarding post-employment contact throughout South Carolina state government may not be adequate.

South Carolina Law

S.C. Code of Laws §8-13-755 states that:

> A former public official, former public member, or former public employee holding public office, membership, or employment on or after January 1, 1992, may not for a period of one year after terminating his public service or employment:
>
> (1) serve as a lobbyist or represent clients before the agency or department on [in] which he formerly served in a matter which he directly and substantially participated during his public service or employment; or

(2) accept employment if the employment:

(a) is from a person who is regulated by the agency or department on [in] which the former public official, former public member, or former public employee served or was employed; and
(b) involves a matter in which the former public official, former public member, or former public employee directly and substantially participated during his public service or public employment.

Restrictions on Federal and Other State Employees

Federal law, 18 U.S.C.§207, prohibits former federal employees from representing another person or entity by communicating or appearing before a federal department or agency concerning the same matter such as a contract or grant with which the former employee was involved while working for that agency or department. If that matter was pending under the employee's official responsibility during the employees' last year of federal employment, then the prohibition lasts two years. However, if the matter in question was one with which the former employee had been "personally and substantially" involved, then the prohibition against representation, communication, or appearances is permanent.

State employees or consultants who leave employment and subsequently work for an organization doing business with their former employer must wait one year before appearing or communicating with that former employer.

Prior LAC Audits

In 2007, we reported that South Carolina law allowed state employees who review environmental permit applications at the Department of Health and Environment Control to resign and immediately begin representing clients seeking environmental permits. In 2011, we reported a potential conflict of interest when two employees of the Department of Health and Human Services resigned and accepted employment with companies that were doing business with the agency.

Recommendations

8. The General Assembly should amend §8-13-755 of the S.C. Code of Laws to prohibit former state employees from being compensated to appear before or communicate with their former state agency employers for the purpose of influencing action for a period of at least one year after termination, regardless of the matters in which they participated while employed by the state.

9. The General Assembly should amend §8-13-755 of the S.C. Code of Laws to establish a lifetime prohibition against former state employees being compensated to appear before or communicate with their former state agency employers for the purpose of influencing action on matters in which the employee was directly and substantially involved while a state employee.

Initiation of Pension Investments

Most RSIC pension investments are initiated and analyzed by RSIC staff and recommended to the agency's commission for its approval. State law requires final approval of all investments by the commission. However, neither state law nor agency policy prohibits commissioners from directly or indirectly initiating investments, a practice that can reduce the objectivity of the investment process.

RSIC officials report that from May 2010 through April 2015, the commission approved the investment of up to $85 million in two funds that commissioners assisted in bringing to the attention of the agency. In November 2011, the commission approved an investment of up to $30 million in American Timberlands after the investment proposal was indirectly initiated by an RSIC commissioner. The commissioner stated that:

> No commissioner proposed that investment; at best, one commissioner introduced the staff [RSIC] to a third-party who subsequently did make a proposal to the staff.

In October 2014, the commission approved an investment of up to $55 million in Azalea Fund IV after the investment proposal was initiated by another commissioner.

It is important to note that the RSIC has "sourcing and conflict disclosure forms" that all staff and commissioners are required to complete and sign if they are involved in initiating a proposed investment or involved in the due diligence process of determining the merits of a proposed investment. These officials are required to indicate their knowledge of the state law prohibiting them or their immediate family members benefiting financially from a proposed investment. They are also required to indicate how the proposed investment was brought to the attention of the agency.

Even though the RSIC requires commissioners to disclose their involvement in identifying proposed investments, commissioner involvement may reduce the objectivity of staff when analyzing the merits of the proposals. Commissioner involvement may also reduce the objectivity of other RSIC commissioners, who may be less likely to reject an investment proposal knowing that it comes from a colleague.

Recommendation

10. The General Assembly should amend state law to prohibit the direct or indirect initiation of investment proposals by Retirement System Investment Commission commissioners.

Placement Agents

Under RSIC policy, intermediaries called placement agents are allowed to broker contracts between the RSIC and external investment fund companies such as hedge funds and private equity funds. A recent national study of public pensions found that, on average, investments involving placement agents underperformed similar investments not involving placement agents.

Placement agents are used by some investment fund companies to obtain business with public pensions. According to agency staff, these agents do not work for and are not paid by the RSIC. The most recent investment by RSIC that involved a placement agent was in June 2012, with eight additional investments involving placement agents from June 2010 through March 2012. Agency officials also report that lobbyists who function as placement agents sometimes attempt to influence the investment selection process.

The current due diligence policy of the RSIC requires transparency when placement agents are used. Prior to each investment, the external investment manager must disclose whether a placement agent is involved in the transaction, the name of the agent, and a description of the business relationship with the agent.

Although placement agents may enable smaller investment fund companies to compete more effectively with larger companies, those benefits may be accompanied by an increased risk of corruption. Placement agents have been found to have been involved in corruption in states including New York and California. Currently, the City of New York and the State of New York ban the involvement of placement agents in pension fund investments.

A 2015 national study by economists at Stanford University, the University of Oregon, and the Securities and Exchange Commission found that private equity investment funds using placement agents underperformed other private equity funds by an average of 3.5 percentage points per year. Some private equity funds that used placement agents, however, outperformed those that did not. As a result, the authors of the study do not recommend a ban on placement agents.

Recommendation

11. The Retirement System Investment Commission should enact a policy to:

    - Prohibit the involvement of placement agents and individuals functioning as placement agents in investments made by South Carolina's state-administered pension funds; or

    - Annually report investments in the state-administered pension funds that involve placement agents or individuals functioning as placement agents.

Chapter 4
Pension Staff and Governance Issues

Glossary

Accrued Benefit or Accumulated Plan Benefit — The amount of a participant's benefit (whether or not vested) as of a specified date, determined in accordance with the terms of a retirement plan and based on compensation (if applicable) and service to that date.

Accumulated Contribution — The sum of all the amounts deducted from the compensation of a member and credited to the member's individual account in the employee annuity savings fund, together with regular interest on the account.

Active Member — An employee who is compensated by an employer participating in the system and who is making regular retirement contributions to the system.

Actuarial Accrued Liability (AAL) — The portion of the actuarial present value of projected benefits (and expenses, if applicable), as determined under a particular actuarial cost method, that is not provided for by future normal costs. Under certain actuarial cost methods, the actuarial accrued liability is dependent upon the actuarial value of assets.

Actuarial Assumptions — Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income, and salary increases.

Actuarial Gain/Loss — A measure of the difference between actual experience and what was expected based upon the actuarial assumptions used for the period between two actuarial valuation dates, in accordance with the actuarial cost method being used. Actuarial gains (losses), as they occur, reduce (increase) the unfunded actuarial accrued liability.

Actuarial Investment Rate of Return — The dollar-weighted rate of return resulting from the investment income implied by (1) the valuation assets at the beginning of the year, (2) the valuation assets at the end of the year, and (3) the non-investment net cash flow during the year.

Actuarial Value of Assets or Valuation Assets (AVA) — The value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation. The actuarial value of assets may represent an average value over time and normally differs from the amount reported in the financial statements. This valuation dampens year-to-year fluctuations and smooths the effect of volatility in the market.

Amortization — Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution (ARC) — The actuarially determined level of employer contribution that would be required on a sustained, ongoing basis to systematically fund the normal cost and to amortize the UAAL attributed to past service.

Asset Risk — The risk that the amount or timing of items of cash flow connected with assets will differ from expectations or assumptions for reasons other than a change in investment rates of return. Asset risk includes delayed collectability, default, or other financial nonperformance.

Average Final Compensation — For Class One and Class Two members retiring on or after July 1, 1986, means the average annual earnable compensation for a member during the 12 consecutive quarters of his creditable service on which regular contributions as a member were made to the system producing the highest such average; a quarter means a period January through March, April through June, July through September, or October through December. An amount up to and including forty-five days' termination pay for unused annual leave at retirement may be added to the average final compensation. Average final compensation for an elected official may be calculated as the average annual earnable compensation for the 36 consecutive months before the expiration of the elected official's term of office. For Class Three members, the average annual earnable compensation of a member during the 20 consecutive quarters of the member's creditable service on which regular contributions as a member were made to the system producing the highest such average. Termination pay for unused annual leave at retirement may not be added to the average final compensation.

Creditable Service — A member's earned service, prior service, and purchased service.

Defined Benefit Plan (DB) — An employer-sponsored retirement plan where employee benefits are sorted out based on a formula using factors such as salary history and duration of employment. Investment risk and portfolio management are entirely under the control of the company. There are also restrictions on when and how you can withdraw these funds without penalties.

Defined Contribution Plan (DC) — A retirement plan in which a certain amount or percentage of money is set aside each year by a company for the benefit of the employee. There are restrictions as to when and how you can withdraw these funds without penalties.

Derivative — A security with a price that is dependent upon or derived from one or more underlying assets. It is a contract between two or more parties based upon the asset or assets. Value is determined by fluctuations in the underlying asset.

Discount Rate — The interest rate used in discounted cash flow (DCF) analysis to determine the present value of future cash flows. It takes into account the time value of money and risk or uncertainty of future cash flows. The greater the uncertainty of future cash flows, the higher the discount rate. It is also the rate used by pension plans and insurance companies for discounting their liabilities.

Earned Service — (1) Paid employment as a teacher or employee of an employer participating in the system where the teacher or employee makes regular retirement contributions to the system. (2) Service rendered while participating in the State Optional Retirement Program, the Optional Retirement Program for Teachers and School Administrators, or the Optional Retirement program for Publicly Supported Four-Year and Postgraduate Institutions of Higher Education that has been purchased. (3) Service earned as a participant in the system, the South Carolina Police Officers Retirement System, the Retirement System for Members of the General Assembly, or the Retirement System for Judges and Solicitors that is transferred to or purchased in the system.

Entry Age Actuarial Cost Method or Entry Age Normal Actuarial Cost Method — A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normal cost*.

Fair Market Value — The price that a given property or asset would bring in the marketplace, subject to the following conditions: (1) Prospective buyers and sellers are reasonably knowledgeable about the asset free of undue pressure to trade and (2) A reasonable time period is given for the transaction to be completed.

Financial Accounting Standards Board (FASB) — The entity charged with establishing standards of financial accounting that govern the preparation of financial reports by nongovernmental organizations. The standards are officially recognized as authoritative by the Securities and Exchange Commission (SEC) and the American Institute of Certified Public Accountants (AICPA).

Financial Statement — A report prepared for the purpose of presenting the financial position and the change in the financial position for the reporting period of an entity, prepared in accordance with the accounting requirements prescribed or permitted by state regulators, governmental accounting standards, or applicable generally accepted accounting principles.

Fully Funded — **[1]** A phrase that indicates that a particular measure of plan assets equals or exceeds a particular measure of plan liabilities.

Funded Status — Any comparison of a particular measure of plan assets to a particular measure of plan obligations.

Governmental Accounting Standards Board (GASB) — An arm of the Financial Accounting Foundation established to promulgate standards of financial accounting and reporting with respect to activities and transactions of state and local governmental entities.

Internal Control — The plan, policies, methods, and procedures adopted by management to meet its mission, goals, and objectives. Internal control includes the processes for planning, organizing, directing, and controlling program operations. It also includes the systems for measuring, reporting, and monitoring program performance. Internal control serves as a defense in safeguarding assets and in preventing and detecting errors; fraud; violations of law, regulations, and provisions of contracts and grant agreements; or abuse.

Investment Risk — **[1]** Uncertainty surrounding the realization of a specified investment income stream. **[2]** The extent to which the level or timing of actual investment proceeds is likely to differ from what is expected.

Investment-Rate-of-Return Risk — The risk that investment rates of return will differ from expectations or assumptions, causing a change in the amount or timing of asset, policy, or other liability cash flows. This has been commonly referred to in actuarial literature as the C-3 risk or asset/liability mismatch risk.

Leverage — The use of various financial instruments or borrowed capital, such as margin, to increase the potential return of an investment.

Liquidity Risk — The risk stemming from limited marketability of an investment.

Market Risk — Uncertainty regarding the future market value of an asset.

Measurement Date — **[1]** The date as of which the value of the pension obligation is determined (sometimes referred to as the *valuation date*); **[2]** The date as of which the actuarial present value is determined. The measurement date may be different from the allocation date. **[3]** The date as of which the retiree group benefit obligation is determined (sometimes referred to as the *valuation date)*; **[4]** The date as of which the values of the pension obligations and, if applicable, assets are determined (sometimes referred to as the valuation date); **[5]** The date as of which the actuarial value of assets is determined (sometimes referred to as the *valuation date*).

Measurement Period — **[1]** The period subsequent to the **measurement date** during which a particular economic assumption will apply in a given measurement); **[2]** The period subsequent to the measurement date during which a particular demographic assumption will apply in a given measurement; **[3]** The period subsequent to the measurement date during which the chosen assumptions or other model components apply.

Member — A retiree or beneficiary currently receiving benefits, a current employee, or an inactive employee entitled to benefits and not yet receiving benefits.

Mortality Rate — The probability that a pension plan retiree will die in a given year.

Non-Qualified Service — Purchased service other than public service, educational service, military service, leave of absence, and reestablishment of withdrawals.

Normal Cost — The portion of the actuarial present value of projected benefits (and expenses, if applicable) that is allocated to a period, typically twelve months, under the actuarial cost method. Under certain actuarial cost methods, the normal cost is dependent upon the actuarial value of assets.

Political Subdivision — Local governments created by the states including counties, cities, towns, villages, and special districts such as school districts, water districts, park districts, and airport districts.

Present Value — The value on a given date of a future payment or series of future payments, discounted to reflect the time value of money.

Program Assets — The investments held by the trust fund, including any cash balance, available to meet program costs.

Projected Benefits — Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of actuarial assumptions, taking into account such items as the effect of advancement in age, past and anticipated future compensation, and service credits. That portion of an individual's projected benefit allocated to service to date, determined in accordance with the terms of a pension plan and based on future compensation as projected to retirement, is called the *credited projected benefit.*

Rate of Investment Return — Investment income earned on funds held over time, generally expressed as an annualized percentage of the amount invested.

Retirement Plan — An employment-related arrangement for determining the amount and timing of retirement benefit payments, eligibility for payments, etc. A retirement plan may be a defined benefit pension plan, a defined contribution plan, or a hybrid plan with both defined benefit and defined contribution elements. It may be a plan qualified under the Internal Revenue Code, a nonqualified plan of deferred compensation, or a governmental plan sponsored by the United States or its agencies or a state or local government.

Risk-Adjusted Rate of Return — An expected or target annual return to the investor that includes a risk-free return that compensates the investor for the use of the funds (recognizing anticipated inflation so as to maintain the real value of those funds), plus a risk premium above the risk-free rate that compensates the investor for the risk that actual returns will deviate from expected. The size of the risk premium varies with the degree of risk associated with the returns.

Rule of Ninety — Requirement that the total of the member's age and the member's creditable service equals at least 90 years.

Trust Fund — An account to which income is credited and from which benefits and often administrative expenses are deducted for a specified program.

Unfunded Actuarial Accrued Liability (UAAL) — The excess of the actuarial accrued liability over the actuarial value of assets.

Appendix A
Glossary

Pension Plan Detail

Public employees are required to participate in one of the five defined-benefit plans (membership based on employment) or the Optional Retirement Program, unless they are exempt. Employees exempt from participation include:

- School bus drivers.
- Employees earning less than $100 per month.
- Non-permanent positions.
- Day laborers.
- Hospital workers (non-state agency hospital).
- Elected officials who do not serve full-time and earn at or less than $9,000 per year.
- Employer admission (employees that work for an employer on the date the employer's admission into SCRS may elect non-membership within six months from the employer's admission date).
- Members of the General Assembly who were first elected at or after the November 2012 election.

S.C. Retirement System (SCRS)

Eligible members of SCRS include the following groups:

- Employees of the state.
- Higher education employees.
- Public school district employees.
- Employees of counties, cities, and municipalities that elect to participate in SCRS.
- Employees of other political subdivisions.
- Employees of governmental entities that choose to participate in SCRS.
- Members of the S.C. General Assembly first elected as of the November 2012 election.

SCRS membership is separated into two classifications:

- Class Two
- Class Three

Class Two Membership

Class Two includes individuals who joined prior to July 1, 2012. Members are eligible for retirement when they leave employment with at least 5 years of earned service and have reached age 65 or earned a total of 28 years of service credit. Early retirement is available for those who have reached age 55 with at least 25 years of service credit. Individuals who are age 60 with at least 5 years of earned service may retire with a reduced benefit.

The Average Final Compensation (AFC) is the sum of the following divided by three:

- The highest 12 consecutive quarters of earnable compensation.
- Up to 45 days of unused annual leave paid at termination.

The monthly retirement benefit is equal to $1/12^{th}$ of the sum of the AFC *x* 1.82% *x* the period of credited service. Up to 90 days of unused sick leave may be included as credited service.

Class Three Membership

Class Three includes individuals who joined the pension plan on or after July 1, 2012. Members are eligible for early retirement if they have a minimum of 8 years of earned service and are at least age 60. Standard retirement may occur when the member's age plus credited service years are greater than or equal to 90 with 8 years of earned service or age 65 with 8 years of earned service.

The AFC is the highest 20 consecutive quarters of earnable compensation divided by five. The monthly retirement benefit is equal to $1/12^{th}$ of the sum of the AFC *x* 1.82% *x* the period of credited service.

Police Officers Retirement System (PORS)

PORS was established in 1962 to provide retirement allowances and other benefits to police officers and firemen of the state and local governments. PORS membership includes:

- Police officers and firefighters.
- Certified peace officers with the Departments of Corrections, Juvenile Justice, or Mental Health.
- Magistrates.
- Probate judges, full-time coroners, and full-time deputy coroners may elect to participate.

Members, other than magistrates and probate judges, are required to earn at least $2,000 per year and devote at least 1,600 hours per year to this work. Exemptions to this requirement are provided by statute.

PORS Membership is separated into two classifications:

- Class Two
- Class Three

Class Two Membership

Class Two includes individuals who earned service prior to July 1, 2012. Members are eligible for retirement when they leave employment with at least 5 years of earned service and have attained either age 55 or 25 years of service credit, regardless of age.

The AFC is the sum of the following divided by three:

- The highest 12 consecutive quarters of compensation.
- Up to 45 days of unused annual leave paid at termination.

The monthly retirement benefit is equal to 1/12th of the sum of the AFC *x* 2.14% *x* the period of credited service. Up to 90 days of unused sick leave may be included as credited service.

Class Three Membership

Class Three includes individuals who joined on or after July 1, 2012. Members are eligible for retirement when they leave employment with a minimum of 8 years of earned service and have reached age 55 or have 27 years of service.

The AFC is the highest 20 consecutive quarters of compensation divided by five. The monthly retirement benefit is equal to 1/12th of the sum of the AFC *x* 2.14% *x* the period of credited service.

General Assembly Retirement System (GARS)

GARS was established to provide retirement allowances and other benefits for members of the General Assembly. Legislators elected prior to November 2012 are required to participate. As of the November 2012 election, GARS was closed to newly-elected individuals in the Senate or House of Representatives.

Members of GARS are required to contribute 11% of earnable compensation. Earnable compensation is defined as the $10,400 + (40 *x* the daily remuneration). Certain offices have additional compensation. Monthly compensation is equal to 1/12th of the earnable compensation. The retirement benefit is equal to 4.82% *x* monthly compensation *x* the years of credited service.

Judges and Solicitors Retirement System (JSRS)

JSRS was established to provide retirement allowances and other benefits for judges, solicitors, and circuit public defenders.

The following individuals are required to participate:

- Solicitors.
- Circuit public defenders.
- Judges of Circuit or Family Court.
- Judges of the Administrative Law Court.
- Justices of the Court of Appeals and Supreme Court.

Members contribute 10% of their compensation to the pension plan.
Members are eligible for retirement when they meet one of the following criteria:

- Age 70 with 15 years of service.
- Age 65 with 20 years of service.
- Completion of 25 years creditable service for judges and 24 years for solicitors and public defenders regardless of age. Members with retirement allowances of 90% of salary may elect to "retire in place" and start receiving benefits while employed.
- Mandatory retirement at age 72.

The retirement benefit is 71.3% of the member's current active salary + 2.67% of compensation for each year of service beyond 25 for judges and 24 for solicitors and public defenders. The retirement benefit may not exceed 90% of salary.

S.C. National Guard (SCNG)

SCNG was established to provide supplemental retirement benefits to qualified National Guard members who have served in the S.C. National Guard.

Retirement eligibility begins at age 60 if the individual is honorably discharged from active service with a minimum of 20 years of total creditable military service. The 20-year requirement is further defined to require 15 of the 20 years be served in the S.C. National Guard and the last 10 of the 15 years must be served in the S.C. National Guard.

Retirement benefits are $50 per month for 20 years of creditable service and $5 per month for each additional year of service over 20 years. The maximum benefit is $100 per month.

Optional Retirement Program (ORP)

This defined-contribution plan was established in 1987 for certain employees and was modified to include all state, public school, and higher education employees. This plan is also available to General Assembly members elected at or subsequent to the November 2012 election.

Contributions are made by both the employee and employer. The member directs his/her investment of the funds into a plan administered by one of four investment providers. The state's obligation is limited to the required contribution. The state currently has four ORP investment providers that include: MassMutual, MetLife Resource, TIAA-CREFF, and Valic.

State ORP members may choose to change investment providers or irrevocably switch to SCRS membership (must be between the 1st and 5th anniversary of initial enrollment) during the open enrollment period that occurs each year (January 1 – March 1).

Deferred Compensation Program

As a supplement to the defined-benefit and defined-contribution plans offered, the state also offers a deferred compensation program that includes voluntary plans for 401(k) and 457 savings. Contributions and investments within this program are made only by the individual employees who participate.

Appendix B
Pension Plan Detail

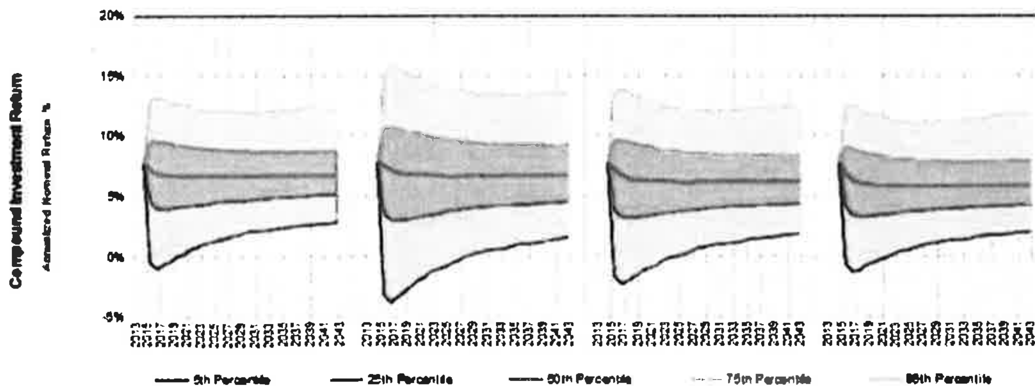
Pension Investment and Funded Status Projections

The following data shows the results of a July 2015 analysis by Aon Hewitt (an RSIC investment consultant) including projections for the current portfolio and other possible investment strategies. This analysis was requested by the LAC.

Projected Rates of Return

The following shows the projected returns of various portfolios none of which project more than a 42% probability of reaching the 7.5% assumed rate of return over 30 years ending in 2043. The current allocation and an allocation made up of 85% public equity (stocks) and 15% fixed income (bonds) come closest to the target with projections of 6.8% and 6.7% respectively. However, the 85/15 portfolio has more volatility risk as shown by the wider distribution of outcomes around the median.

Projected Investment Rates of Return of Various Portfolios



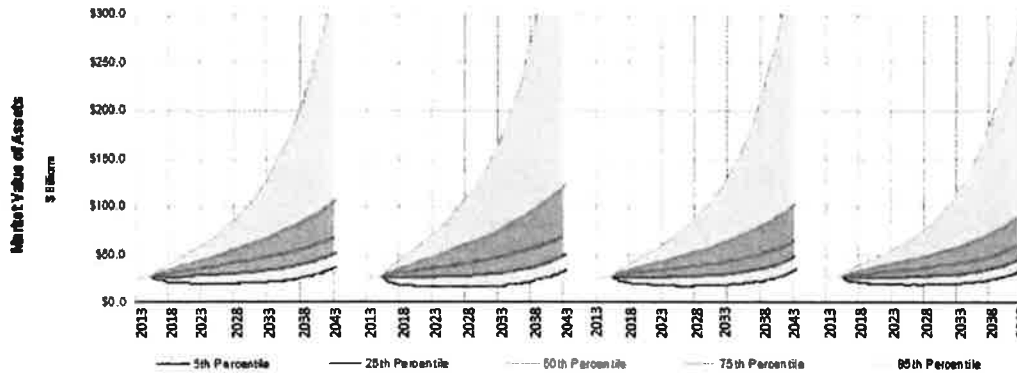
	Current Portfolio Target			85% Public Equities and 15% Fixed Income Securities			70% Public Equities and 30% Fixed Income Securities			60% Public Equities and 40% Fixed Income Securities		
Percentile	10-Year	20-Year	30-Year	10-Year	20-Year	30-Year	10-Year	20-Year	30-Year	10-Year	20-Year	30-Year
5th	0.80%	2.20%	2.80%	-1.20%	0.60%	1.50%	-0.30%	1.10%	1.90%	0.20%	1.40%	2.00%
25th	4.30%	4.80%	5.10%	3.50%	4.20%	4.50%	3.60%	4.10%	4.40%	3.60%	4.00%	4.20%
50th	**6.70%**	**6.70%**	**6.80%**	**6.80%**	**6.70%**	**6.70%**	**6.30%**	**6.20%**	**6.30%**	**5.90%**	**5.90%**	**5.90%**
75th	9.00%	8.70%	8.70%	9.90%	9.30%	9.30%	8.80%	8.40%	8.40%	8.10%	7.80%	7.90%
95th	12.30%	12.00%	12.30%	14.40%	13.40%	13.60%	12.60%	12.10%	12.50%	11.30%	11.30%	11.90%
Probability > 7.5%	41%	40%	41%	44%	42%	42%	38%	36%	36%	32%	29%	30%

Source: Aon Hewitt

Projected Market Values

According to Aon Hewitt's projections, the current portfolio will be worth about $70 billion by 2043. This is lower than the projections for the 85/15 allocation. However, the 85/15 allocation is the most variable of the four options as shown by the wide spread around the median of that allocation's projection.

Projected Market Values of Various Portfolios (in Billions)



	CURRENT PORTFOLIO TARGET			85% PUBLIC EQUITIES AND 15% FIXED INCOME			70% PUBLIC EQUITIES AND 30% FIXED INCOME			60% PUBLIC EQUITIES AND 40% FIXED INCOME		
Percentile	2023	2033	2043	2023	2033	2043	2023	2033	2043	2023	2033	2043
5th	$21	$23	$38	$17	$18	$35	$19	$20	$36	$20	$20	$36
25th	$29	$35	$53	$27	$31	$51	$27	$31	$50	$27	$31	$49
50th	**$37**	**$49**	**$70**	**$37**	**$49**	**$72**	**$35**	**$45**	**$67**	**$34**	**$43**	**$64**
75th	$46	$69	$109	$50	$77	$125	$45	$66	$105	$42	$60	$95
95th	$62	$134	$339	$75	$172	$481	$63	$136	$362	$57	$119	$310

Source: Aon Hewitt

Projected Funded Ratios

None of the allocations are projected to reach full funding by 2043. Based on the current portfolio target, the pensions have only a 39% likelihood of reaching full funding.

Projected Funded Ratio of Various Portfolios

	Current Portfolio Target			85% Public Equities and 15% Fixed Income			70% Public Equities and 30% Fixed Income			60% Public Equities and 40% Fixed Income		
Percentile	2023	2033	2043	2023	2033	2043	2023	2033	2043	2023	2033	2043
5th	35%	33%	54%	28%	26%	47%	31%	29%	49%	33%	30%	51%
25th	48%	50%	69%	44%	45%	65%	45%	44%	65%	45%	44%	64%
50th	**61%**	**67%**	**87%**	**61%**	**67%**	**88%**	**58%**	**62%**	**82%**	**56%**	**59%**	**79%**
75th	75%	92%	117%	81%	103%	134%	74%	88%	114%	69%	80%	104%
95th	100%	151%	256%	121%	204%	421%	103%	160%	284%	92%	135%	225%
Probability > 100%	<5%	22%	39%	16%	27%	43%	7%	22%	36%	<5%	18%	29%

Source: Aon Hewitt

Appendix C
Pension Investment Projections

Agency Comments

Appendix D
Agency Comments

Serving those who serve South Carolina

December 17, 2015

K. Earle Powell
Director
Legislative Audit Council
1331 Elmwood Avenue, Suite 315
Columbia, SC 29201

Dear Mr. Powell:

Thank you for providing the South Carolina Public Employee Benefit Authority (PEBA) with an opportunity to provide final comments to the report entitled *A Review of the Public Pensions Administered by the State of South Carolina* (Report) prepared by the Legislative Audit Council (LAC). PEBA understands that the LAC had a difficult task before it in being asked to review and make recommendations on the actuarial and accounting complexities of the funding of the state's public pension plans. However, as explained below, PEBA has several fundamental disagreements with the discussion in the Report regarding the funding of the state's retirement systems, particularly relating to the reporting of the systems' liabilities and the amortization of the systems' unfunded liabilities.

PEBA's administration of the state's retirement systems complies with the actuarial, accounting, and legal standards applicable to the funding of public pension plans

At the outset, it is important to emphasize that the financial and actuarial reporting of the state's retirement systems is and always has been extensively reviewed and audited by a number of firms with nationally recognized expertise in the financing of public pension plans. These reviews include annual actuarial valuations that report upon the actuarial condition of the systems and five-year experience studies that review the actuarial assumptions and methods used to prepare those valuations. These valuations and experience studies are prepared by the actuarial firm hired for the state's retirement systems, currently Gabriel Roeder Smith & Company (GRS), a national actuarial and benefits consulting firm that focuses on the public sector. The reviews also include the annual audit of the retirement systems' financial statements performed by an external audit firm hired by the State Auditor's Office. Currently, the State Auditor retains the national accounting firm of Clifton Larson Allen LLP (CLA) to audit the retirement systems' financial statements.

The results of these annual actuarial and financial reviews are publically available in PEBA's *Comprehensive Annual Financial Report* (CAFR), which has been annually recognized by the Government Finance Officers Association of the United States and Canada (GFOA) with its Certificate of Achievement for Excellence in Financial Reporting for nearly 30 years. In addition, the state's retirement systems have received the Public Pension Coordinating Council's Public Pension Standards Award for 12 consecutive years in recognition of meeting professional plan design and administration standards. The retirement systems' assets and liabilities are also reported in the statewide CAFR prepared by the Comptroller General's Office and are subject to review by the preparers and auditors of that report. (See *State of*

Executive Director Peggy G. Boykin, CPA
803.737.6800 | 888.260.9430 | www.peba.sc.gov
202 Arbor Lake Dr., Columbia, SC 29223

South Carolina, Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2014, Pages 58-59, 103-111.)

PEBA's administration of the state's retirement systems was also recently the subject of a comprehensive fiduciary performance audit obtained by the State Inspector General's Office pursuant to Section 9-4-40 of the South Carolina Code of Laws. The Inspector General hired Funston Advisory Services, LLC, a nationally recognized advisor to public retirement systems in the areas of governance, operations and risk intelligence, to perform the fiduciary audit. That audit, completed in January 2015, is also publicly available.

Not one of the experts who have performed these various actuarial, financial, and fiduciary reviews found that PEBA has understated the retirement systems' liabilities, that PEBA has amortized the retirement systems' unfunded liabilities over an excessive period of time, or that PEBA has otherwise failed to comply with the actuarial, accounting, and legal standards applicable to the funding of public pension plans.

To the extent that the Report reaches conclusions to the contrary, it may be attributable to the Report's misdirected scope of review. In the Scope and Methodology section on Page 2 of the Report, the LAC identifies the criteria used to measure performance in the Report to include corporate accounting standards, bond credit rating agency practices, and recommendations made by certain financial economists. Accordingly, in the discussion of the reporting of public pension plan liabilities on Page 3 of the Report summary and Pages 26 and 27 of the full Report, the Report relies upon the practices of Moody's Investors Service, the accounting rules for corporate pension plans, and recommendations from certain academic economists to evaluate the reporting of public pension plan liabilities. Similarly, in the discussion of the amortization schedule of the state's retirement systems on Page 7 of the Report summary and on Page 31 of the full Report, the Report refers to the practices of Moody's Investors Service for its bond reviews as part of the relevant accounting standards. However, there are fundamental differences between the accounting standards for private and public pension plans, such that a plan cannot satisfy both sets of standards at once. It appears, then, that instead of auditing PEBA's compliance with the actuarial and accounting standards applicable for public pension plans, the Report is, in essence, advocating for those standards to be changed to reflect the standards used by corporate pension plans and bond rating agencies.

In addition to this general concern regarding the proper scope of the audit, PEBA has several specific concerns with certain conclusions reached in the Report, as set out below.

PEBA has not understated the state's public pension liabilities

In the Summary section and in Chapter 3, the Report asserts that public pension plans "may be underreporting their liabilities." However, with respect to the state's retirement systems, PEBA has fully and accurately reported the systems' liabilities in accordance with the generally accepted actuarial and accounting standards applicable to public pension plans in the United States. PEBA reports the liabilities of the state's retirement systems in accordance with the requirements of the Governmental Accounting Standards Board (GASB), which sets the accounting principles for all governmental pension plans in the country. PEBA's valuation of its public pension liabilities also complies with actuarial standards of practice applicable to the external actuarial firm retained to perform actuarial services for the retirement systems. In particular, in the actuarial section of the retirement systems' most recent *Comprehensive Annual Financial Report* (CAFR), the actuaries from GRS certified as follows:

"We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Retirement Systems as of July 1, 2014. All of our work conforms with generally accepted actuarial principles and practices, and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of South Carolina Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board."

(See South Carolina Public Employee Benefit Authority, South Carolina Retirement Systems, *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2015* (2015 CAFR) Page 113.)

Notably, the reporting of the liabilities for the state's retirement systems has been subject to review by at least two external, independent auditors, neither of which has found that the plans' liabilities are understated, underreported, or otherwise materially misstated. In its most recent annual review of the retirement systems' financial statements, CLA, the external audit firm hired by the State Auditor's Office, concluded that "the financial statements referred to above present fairly, in all material respects, the financial position of the Systems as of June 30, 2015, and the respective changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America." (See 2015 CAFR, Page 27.) Similarly, Funston Advisory Services, the external audit firm contracted by the State Inspector General to perform the fiduciary audit of PEBA, concluded that PEBA complies with all of the statutory funding and valuation requirements of South Carolina law and that the "actuarial valuations and experience study are of good quality and consistent with those provided for public pension and health plans generally." (See Funston Advisory Services, LLC, *Investing in PEBA for the Future: A Transformation Agenda* (Funston Report), Pages 58-60, 105.)

PEBA takes its responsibility to accurately report the financial condition of the state's retirement systems very seriously. As noted above, the external actuarial firm hired to make valuations of the retirement systems' assets and liabilities, the external auditor hired by the State Auditor to review the retirement systems' financial statements, and the fiduciary auditor hired by the State Inspector General to review PEBA's operation of the state's retirement and insurance plans have concluded that the liabilities of the state's retirement systems have been reported in accordance with the generally accepted accounting and actuarial standards applicable to governmental pension plans in the United States and have made no findings that the systems' liabilities are significantly understated or underreported. Accordingly, PEBA disagrees with the Report to the extent that it suggests that PEBA has understated or underreported the liabilities of the state's retirement systems.

As discussed earlier, the Report's suggestion that public pension plan liabilities are underreported does not appear to be based upon an audit of PEBA's compliance with the generally accepted actuarial and accounting standards applicable to public pension plans, but upon the opinion that the standards for public pension plans should be changed to reflect the accounting standards for corporate pension plans and the review practices of bond rating agencies.

PEBA does not amortize the unfunded liabilities of the retirement systems over an excessive period

The Report also asserts that the retirement systems' unfunded liabilities are being paid off "over an excessive period of time" and that this amortization period "may exceed the 30-year limit in state law." However, PEBA has, at all times, set the contribution rates for the retirement systems at rates that fully

amortize the unfunded liabilities of the retirement systems on a sound actuarial basis and within the requirements of state law. The external actuary for the retirement systems, GRS, has determined that the contribution rates currently in effect, as well as those scheduled to be in effect through fiscal year 2017, fully comply with the maximum 30-year amortization period required by the South Carolina Code of Laws. (See, e.g., GRS, South Carolina Retirement System (SCRS) Actuarial Valuation Report as of July 1, 2014 (2014 Valuation), Page 3 ("The employer and member contribution rates that are certified and scheduled to be in effect for fiscal year 2016 continue to be sufficient to maintain a funding period that does not exceed 30 years. Therefore, the employer and member contribution rates for fiscal year 2017 will remain unchanged from the rates scheduled to become effective July 1, 2015.").) As noted above, the actuaries have certified that their calculation of the contribution rates necessary to amortize the unfunded liabilities of the retirement systems within 30 years, like all of their actuarial calculations for the systems, "conforms with generally accepted actuarial principles and practices, ... is in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. ... [and] also compl[ies] with the requirements of South Carolina Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board." (2014 Valuation cover letter, Page 3.) Further, as also referenced above, Funston Advisory Services, the firm hired by the Inspector General to perform the fiduciary audit of PEBA, concluded that "PEBA complies with the statutory funding mandates set forth in the South Carolina Code of Laws" with respect to the retirement systems. (See Funston Report, Pages 59-60.) There is no circumstance under which PEBA would adopt a contribution schedule that would fail to fund the retirement systems as required by state law.

It appears that the Report's conclusion that the amortization period for the retirement systems' unfunded liabilities may exceed the 30-year limit in state law is based upon investment projections under which the actuarial value of the retirement systems' assets does not increase over the funding period by the assumed rate of return of 7.5 percent adopted by the Budget and Control Board in 2011 and subsequently set in statute by Act 278 of 2012. Consideration of the appropriate assumed rate of return for the investment of the retirement systems' assets will be a significant component of the upcoming experience study GRS is conducting to evaluate the actuarial assumptions and methods used for the valuation of the retirement systems. However, it would be inappropriate to suggest that current or prior contribution rates and amortization schedules fail to comply with actuarial or legal standards because of future potential changes to investment assumptions.

In the discussion of the amortization period, the Report also mischaracterizes the actuary's projection that current contribution rates will be sufficient to fully fund the retirement systems within 30 years as a "new projected cost schedule" under which the systems "may be fully funded in 30 years." Although the actuary provided the LAC with an amortization schedule based upon the actuarial value of assets in a new format to assist the LAC in comparing that schedule with projected schedules based upon the market value of assets, the methodology underlying the amortization schedule was not new, but reflected the very methodology the actuary has consistently used to calculate contribution rates in each annual valuation of the systems. Further, it must be made clear, again, that the amortization schedule based upon the actuarial value of assets fully funds the retirement systems within 30 years under current assumptions.

The Report also suggests on Page 2 that the LAC was limited in the scope of its review of whether the amortization period of the retirement systems exceeds the requirements of state law because PEBA did not provide it with a copy of an attorney-client privileged legal opinion that PEBA's general counsel had provided to the PEBA Board in 2013. However, PEBA does not believe that the LAC's scope of review was materially limited in this matter. Not only did the LAC have access to all of the actuarial information

necessary to determine whether the amortization period of the retirement systems' unfunded liabilities falls within 30 years, but PEBA's general counsel also provided the LAC with a full legal analysis of the statutes applicable to the setting of contribution rates and amortization periods for the retirement systems.

The state has determined, and paid, the appropriate contributions to the retirement systems

In the Summary section, the Report states that, in addition to underperforming investments, the retirement systems are significantly underfunded "due to inadequate contributions over time." This comment is misleading. The state has always paid the contributions required to be made to the retirement systems as determined by the annual actuarial valuations of the systems and the requirements of the applicable law, and the state has never taken a contribution holiday or otherwise purposefully contributed less than the required amount. The retirement systems' unfunded liability is not the result of the failure to make the required contributions to the systems, but is caused by other factors, including adverse experience (including investment experience), plan design changes, and adjustments in actuarial assumptions and methods.

The state made significant changes to the benefit structure of the retirement systems in 2012

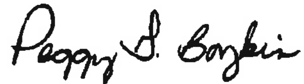
In the Summary section and in Chapter 3, the Report suggests that the state consider making changes to the benefit structure of the retirement systems as a means of reducing the unfunded liabilities of the systems. However, PEBA would note that the General Assembly recently went through an exhaustive review of the benefit structure of the retirement systems during 2011 and 2012, resulting in the enactment of Act 278 of 2012. The changes made by that act, particularly to the benefits accrued by new hires after July 1, 2012, have set the systems on a sound footing with regard to concerns about increases in unfunded liabilities as a result of the systems' benefit structure. For example, only a small percentage of the increase in the South Carolina Retirement System's unfunded liability since the implementation of Act 278 is the result of increased benefit liabilities, while the vast majority of the increase is due to the recognition of deferred investment losses that occurred prior to July 2012. Further, it is important to recognize that some 60 percent of the retirement systems' existing liabilities are attributable to benefits already accrued by retirees that would not be affected by any changes to future benefit accruals.

In closing, it should be emphasized that the comments in this letter only apply to the matters addressed herein. The omission of comment on other matters contained in the Report does not imply that PEBA concurs with the conclusions reached by the Report on those other matters. In addition, PEBA has not endeavored to comment on matters addressed in the Report that pertain primarily to issues within the purview of the South Carolina Retirement System Investment Commission (RSIC) rather than PEBA. We would like to note, however, that PEBA will work closely with the RSIC to determine how best to implement the Report's recommendations regarding the reporting of investment risks in the annual financial reporting for the retirement systems and the overall readability of those annual reports.

Finally, it should also be noted that the discussions in this letter related to the funding status, required contributions, and other matters concerning the financial condition of the retirement systems are based upon the actuarial valuations and financial reporting for the systems as of December 10, 2015. Future changes in the systems' actuarial assumptions and the systems' actual future experience will impact

future calculations of the systems' liabilities and required contributions. In particular, as required by state law, GRS is currently conducting an experience study of the retirement systems that encompasses a review of all of the actuarial assumptions used in the valuation of the systems; and, as a result of that study, PEBA may make adjustments to its current actuarial assumptions and methods. However, such adjustments are a part of the normal actuarial process for the valuation of pension plans and do not render previous calculations made under differing assumptions inaccurate at the time they were calculated.

Sincerely,



Peggy G. Boykin, CPA
Executive Director

Rebecca M. Gunnlaugsson, Ph.D
Vice Chair

Peggy G. Boykin, CPA
Commissioner

Allen R. Gillespie, CFA
Commissioner

Curtis M. Loftis, Jr.
Commissioner

Retirement System Investment Commission
1201 Main Street, Suite 1510, Columbia, SC 29201

Edward N. Giobbe, MBA
Chairman

Ronald P. Wilder, Ph.D
Commissioner

Reynolds Williams, J.D., CFP
Commissioner

Geoffrey Berg, CFA
Acting Chief Investment Officer

Michael Hitchcock
Chief Executive Officer

December 17, 2015

VIA EMAIL

Mr. Philip F. Laughridge, CPA
Chairman
S.C. Legislative Audit Council
1331 Elmwood Avenue, Suite 315
Columbia, S.C. 29201

Mr. K. Earle Powell
Director
S.C. Legislative Audit Council
1331 Elmwood Avenue, Suite 315
Columbia, S.C. 29201

RE: LAC Report "A Review of the Public Pensions Administered by The State of South Carolina"

Dear Messrs. Laughridge and Powell:

We commend the South Carolina Legislative Audit Council for the professionalism with which LAC staff has conducted its research and produced this report. LAC's staff has done an admirable job of grasping a great deal of complicated investment, actuarial, legal, and other information. LAC staff showed respect and courtesy towards the members of the Commission and Retirement System Investment Commission ("RSIC") staff during this entire process, and we appreciate LAC's efforts.

We hope that this report serves to reemphasize to our stakeholders both the importance of RSIC's work and the dedication with which the Commissioners and professional staff carry out their responsibilities to our hardworking state and local employees.

LAC has offered observations and recommendations in several areas which impact the Commission. Please accept the following as RSIC's response to each specific observation or recommendation.

1. **The General Assembly should amend state law to require the Retirement System Investment Commission and the Public Employee Benefit Authority to include in their annual reports the various risks of each asset and investment category in the state-managed pension portfolio, the specific risks of the total portfolio, the extent to which these risks are material, and the process undertaken to mitigate these risks.**

PHONE 803.737.6885 | FAX 803.737.7070

One of RSIC's core investment beliefs is that investors are compensated when they expose their capital to risk. This becomes especially important in an environment when the "risk free" investment (cash) provides an investor with little to no return. RSIC agrees with LAC that each of the various asset classes in which it invests pose risk beyond simply the volatility of the particular asset class or investment. These risks include, but are not limited to, interest rate risk, credit risk, concentration risk, foreign currency risk, liquidity risk, leverage risk, custody risk, and valuation risk. RSIC believes that we do an outstanding job of understanding and, where possible, mitigating these and other risks through the combined efforts of our dedicated portfolio risk management, enterprise risk management, and investment and operational due diligence functions.

However, RSIC agrees that the manner in which it discloses these types of risks can be improved. As a result, beginning with the Annual Investment Report for Fiscal Year 2014-2015, RSIC will include disclosures that describe these risks and our efforts to reduce and manage these risks. Just as RSIC has been recognized by this report as a leader in investment management fee disclosure, RSIC welcomes the opportunity to be a leader among pension funds in disclosing risk. RSIC believes that this effort will lead to a beneficial understanding by our stakeholders of the risks associated with our portfolio and the efforts RSIC employs to minimize those risks.

2. **The General Assembly should consider amending state law to limit the maximum percentage of alternative investments in the state-managed portfolio.**

RSIC understands the perception and corresponding concern of LAC and others regarding alternative investments. These investments are mostly private and, as a result, are not as transparent or as liquid as their public market equivalents.

RSIC is concerned that placing a cap on alternative investments would likely be arbitrary and could result in RSIC being required to forgo opportunities to earn superior returns through various market conditions. However, not only does RSIC feel that it is incumbent to limit these investments to those in which we have conviction, but also to do a better job of communicating to our stakeholders the need for and place of alternatives in the portfolio.

Over the past few months, RSIC has exclusively focused its efforts on challenging its investment beliefs and convictions, including whether alternative investments have a place in the portfolio. As a result of this challenge, RSIC believes that, if deployed correctly with a superior understanding of the strategy and nuances of the investment manager, these types of investments can and should provide superior risk-adjusted returns than their public market equivalents. RSIC has already begun to take steps to ensure that future investments in alternatives will only be with managers in which we have deep conviction and confidence to deliver superior risk-adjusted returns. RSIC is confident that we can focus our investments in alternatives to these opportunities without the need of a statutory limitation.

3. **The Retirement Investment Commission should report annually its investment fees and expenses for each investment category/asset class.**

RSIC greatly appreciates LAC's recognition of our role as a leader in investment management fee disclosure. We believe that our efforts, along with many other pension funds, are pushing the industry towards much needed transparency and understanding of investment management fees. In recent years through collaboration with PEBA, we have included investment fee data by asset class and investment manager in the CAFR. RSIC agrees that this recommendation will further enhance these efforts at transparency and we will now also include this level of disclosure in the Fiscal Year 2014-2015 Annual Investment Report.

4. **The General Assembly should amend Section 8-13-755 of the South Carolina Code of Laws to prohibit former state employees from being compensated to appear before or communicate with their former state agency employers for the purpose of influencing action for a period of at least one year after termination, regardless of the matters in which they participated while employed by the state.**

AND

5. **The General Assembly should amend Section 8-13-755 of the South Carolina Code of Laws to establish a lifetime prohibition against former state employees being compensated to appear before or communicate with their former state agency employers for the purpose of influencing action on matters in which the employee was directly and substantially involved while a state employee.**

RSIC appreciates LAC's efforts through these recommendations to reduce potential conflicts of interests in greater state government and to promote public confidence in the objectivity of state officials. By way of response, RSIC would note that both Sections 9-16-360(b)(5) and (11) of the South Carolina Code provide additional restrictions on former RSIC employee's contact and interaction with the commission. However, RSIC is certainly willing to engage in dialogue with the General Assembly on means to improve these restrictions with the goal of increasing public confidence in the objectivity of RSIC investment decisions.

6. **The General Assembly should amend state law to prohibit the direct or indirect initiation of investment proposals by RSIC commissioners.**

RSIC certainly understands the impetus for this recommendation but respectfully suggests that this type of prohibition should focus on preventing commissioners and others from financially benefiting from an investment recommendation. To that end, RSIC does believe that it has robust procedures and strong controls in place to identify and document how new investments ideas are sourced and identify potential conflicts of interest. RSIC believes that these procedures and controls when combined with the provisions of Section 9-16-350 of the South Carolina Code, which make it a felony for commissioners to obtain an economic interest through use of

Commission information, mitigate against and act as a significant disincentive for commissioners to attempt to benefit from an investment recommendation.

RSIC is also concerned that prohibiting commissioners from in any way recommending an investment could inhibit a commissioner from completely fulfilling the commissioner's fiduciary obligation to the trust. In accordance with the stringent requirements to serve as a commissioner, many of our commissioners have a great deal of investment industry experience, and as such are likely to see attractive investment opportunities that pursuant to their fiduciary duty they would like for RSIC to consider.

As a result, RSIC would recommend that any effort to limit commissioners from recommending investments strike the practical balance between prohibiting commissioners from financially benefiting from an investment recommendation and permitting commissioners to share with staff and other Commissioners attractive opportunities in the market they are seeing and in which they have no interest.

7. **The Retirement System Investment Commission should enact a policy to:**
   a. **Prohibit the involvement of placement agents and individuals functioning as placement agents in investments made by South Carolina's state-administered pension funds; or**
   b. **Annually report investments in the state administered pension funds that involve placement agents or individuals functioning as placement agents.**

RSIC believes that it has a strong Placement Agent Policy in place that was unanimously approved by the Commission in September of 2012, and is annually reviewed and approved as part of the Statement of Investment Objective and Policies process.

As noted in the LAC report, this policy prohibits RSIC from employing placement agents, but does not prohibit the investment manager from employing a placement agent. The policy does require the investment manager to disclose whether a placement agent was involved in the transaction, the name of the agent, and a description of the business relationship with the agent. This information is included with the proposed investment summary term sheet that is part of all Commission meeting material.

However, RSIC does agree that this policy can be improved by annually reporting any investment that RSIC enters into for which the investment manager employed a placement agent. RSIC will determine the best means by which to annually make this disclosure and implement the recommendation as soon as possible.

8. Challenges to meeting the statutory assumed rate of return.

LAC's report serves as an appropriate reminder that the Commission, like all institutional investors, faces difficult challenges in meeting the statutorily set assumed rate of return. At RSIC, we have and continue to believe that asset allocation is the most significant driver of the risk and investment return of the portfolio. As briefly discussed above, RSIC has spent the past few months challenging every investment conviction and belief regarding our portfolio, during which we have taken a "zero-based budgeting" approach to our asset allocation. Every asset class in which we invest has and continues to be subject to scrutiny in that each asset class must prove its place in the portfolio and to what extent.

We believe these actions are timely and crucial especially given what we expect to be a sustained low interest rate and low return investment environment for the near term. However, at RSIC we are invigorated by these efforts and sincerely believe that they will yield an asset allocation that provides the best opportunity for us to meet our obligations to our beneficiaries.

Conclusion

On behalf of the entire Commission and its staff, please accept our gratitude for your work. We believe the timing of this report is opportune, coming during a period in which RSIC is solely focused on areas of improvement, especially in regards to asset allocation and increasing investment returns.

We look forward to working with the General Assembly, our Trustees, and our stakeholders on implementing these and other recommendations to improve the service we provide to our beneficiaries.

Sincerely,

Michael R. Hitchcock
Chief Executive Officer

This report was published for a
total cost of $65;
35 bound copies were printed
at a cost of $1.86 per unit.