SUMMARY

40 Years of Service
1975 – 2015

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

Purpose and Background

Members of the S.C. General Assembly asked the Legislative Audit Council to review the operations of South Carolina's state-administered pension funds.

We reviewed federal and state law, accounting and actuarial standards, investment returns, funded status, contributions, asset allocation, transparency, and conflicts of interest.

The pension system is administered by the Public Employee Benefit Authority (PEBA), while the assets are invested by the Retirement System Investment Commission (RSIC).

As of FY 13-14, the five state-administered pensions reported $29.9 billion in assets and $49.2 billion in liabilities.

The system is comprised of approximately 70% local public employees and 30% state employees.

DECEMBER 2015

Issues Related to the Operation and Investment of S.C. Public Pensions

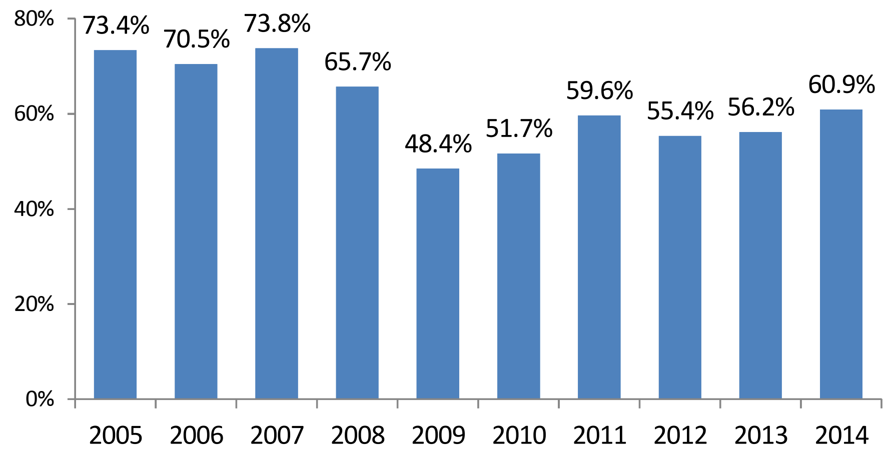
WE IDENTIFIED THE FOLLOWING ISSUES DURING OUR REVIEW.

- 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.
- The returns on pension investments have been below the assumed rate of return established by state law, as well as the returns in other states.
- Over the last decade, an increasing percentage of pension dollars has been placed in investments with higher expected rates of return and higher fees. The risks associated with these investments have not been fully stated in the annual reports of the pension system.
- When selecting an assumed rate of return on pension investments, the General Assembly is not required by state law to consider the impact of its decision on asset allocation, various forms of investment risk, 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.
- Controls regarding potential conflicts of interest could be improved.

FUNDED STATUS OF SOUTH CAROLINA'S PENSIONS

South Carolina's state-administered pensions are significantly underfunded due to inadequate contributions over time and the underperformance of investments. From FY 04-05 through FY 13-14, the funded ratio (market value of assets divided by liabilities) reported for the state's two largest pensions combined decreased from 73.4% to 60.9%. South Carolina's funded status in FY 13-14 was 16 percentage points below the national average of 77% as reported by Wilshire Consulting.

COMBINED FUNDED RATIOS FOR THE SOUTH CAROLINA RETIREMENT SYSTEM AND THE POLICE OFFICERS RETIREMENT SYSTEM (MARKET VALUE OF ASSETS)

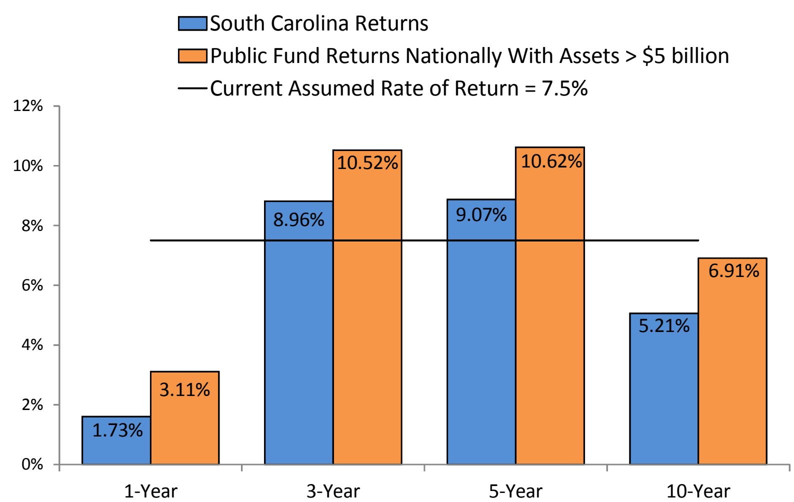


Source: Gabriel Roeder Smith & Company

INVESTMENT PERFORMANCE COMPARISON WITH OTHER PUBLIC PENSIONS

The RSIC and the Bank of New York Mellon reported that, for the 10-year period ending in FY 14-15, South Carolina's annualized rate of return on pension investments was 5.21%, compared with a current assumed rate of return of 7.50%. For the same period, public pensions nationally had an annualized return of 6.91%.

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

Projection of Investment Returns and Funded Status

At the request of the LAC, in July 2015, the RSIC's primary investment consultant projected the investment returns and funded status of the two largest pension funds combined for a 30-year period based on two inflation rate assumptions.

The first projection was based on the assumed inflation rate of 2.75% currently used by PEBA's actuary. The RSIC's consulting firm calculated 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%.
- Funding shortfall of $7 billion.

Using its own inflation rate assumption of 2.1%, the RSIC's consulting firm calculated a 50% probability that in 2043 the two largest pension funds combined will have a:

- 30-year rate of return of 6.8%.
- Funded ratio of 87%.
- Funding shortfall of $11 billion.

The current inflation projection of the Federal Reserve Bank is approximately 2%.

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

In 2012, the South Carolina General Assembly established an assumed rate of investment return of 7.5%. The RSIC is charged with achieving the assumed rate of return over the long run to ensure full funding of the pensions.

State law, however, does not require the General Assembly to consider the impact of the assumed rate of return selected on asset allocation, investment risk, the probability of success, or pension liabilities.

According to the Governmental Accounting Standards Board, the interest rate selected by a public pension for its assumed rate of return on investments may also be used as a discount rate to value future liabilities. When a public pension increases the assumed rate of return on its investments, it decreases its reported liabilities.

When a pension decreases the assumed rate of return on investments, it increases its reported liabilities.

Public pensions nationwide may be understating their liabilities. They use significantly higher interest rates (generally 7% to 8%) to value future pension liabilities than the interest rates (3% to 5%) currently used by corporations, a major bond credit rating agency, and financial economists.

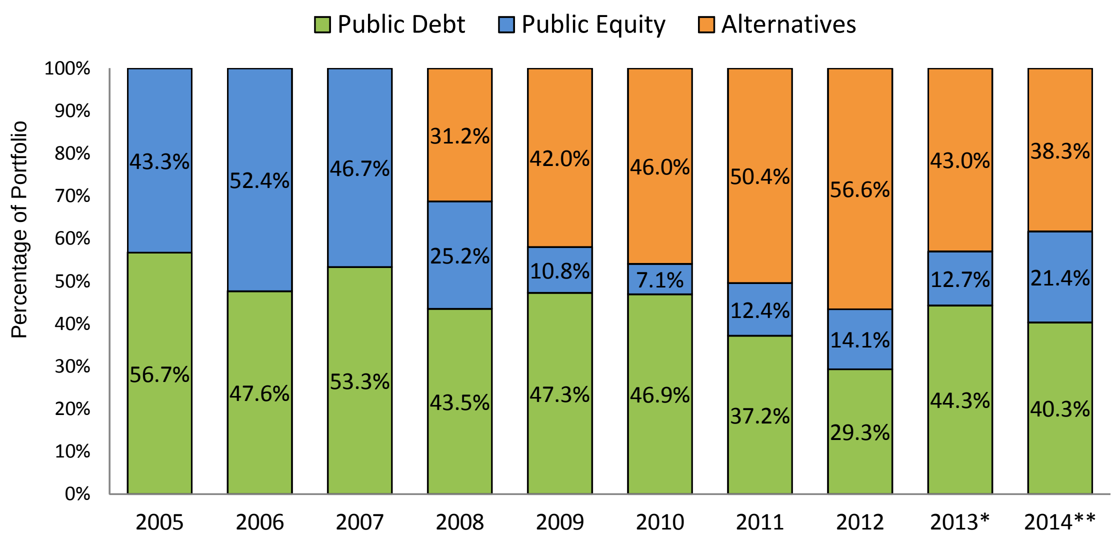
During our review, we requested that the PEBA actuary calculate the effect of various assumed rates of return on pension liabilities. If South Carolina had used an assumed rate of return one percentage point lower (6.5%) at the end of 2014, the reported liabilities for its two largest plans would have increased from $48.9 billion to $54.7 billion.

ASSET ALLOCATION

Amendments to the South Carolina Constitution have allowed the state pension portfolio to transition from all fixed income investments (cash and corporate and government bonds) to a portfolio that also includes stocks and alternative investments, such as hedge funds, private equity funds, real estate, and commodities.

The chart below 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.

INVESTMENT ALLOCATIONS BY CATEGORY AND INVESTMENT RETURNS



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

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

Reporting of Risk

Although these additional categories of investment have higher expected rates of return, they are accompanied by an increase in risk that has been underreported by the RSIC and PEBA in their annual reports.

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. Developing a portfolio with diverse investments that are not highly-correlated can reduce the overall volatility of the portfolio.

It is important to note that the correlation between investments can increase significantly during severe downturns in the investment markets.

In addition to volatility, there are other investment risks. Private equity funds and real estate are examples of investments with significant other risks, such as:

- Illiquidity that makes an asset difficult or time-consuming to sell.
- Less frequent and less precise asset valuation, which makes volatility estimates and measures of risk-adjusted returns less precise.
- Lack of transparency regarding the terms of the investment.
- Complexity of the terms of the investment.
- Leverage is the financing of an investment using debt. RSIC officials reported during our review that "[w]hile we do not allow leverage at the plan level, we do invest in assets that use leverage (stocks, real estate, private equity, etc.)."

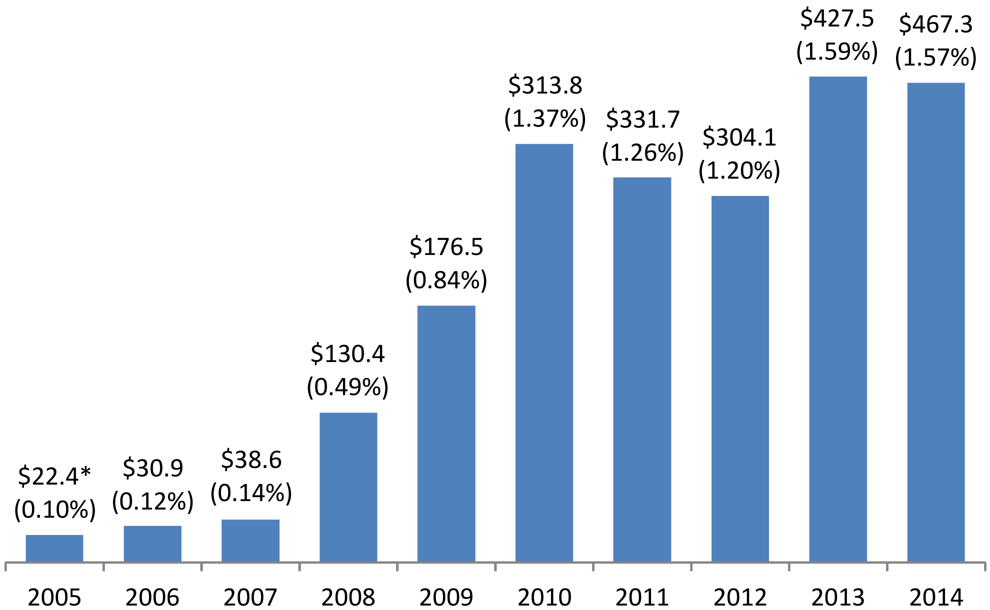
Independent of its annual reports, the RSIC has made public presentations to a state Senate subcommittee in which various categories of risk and risk mitigation processes were addressed, such as asset allocation, complexity, diversification, valuation of assets, liquidity, and due diligence prior to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

INVESTMENT FEES AND ADMINISTRATIVE EXPENSES

In addition to added risk, the change in asset allocation of South Carolina's pension portfolio has resulted in higher investment fees and expenses. Private equity funds, hedge funds, private debt funds, and real estate, in particular, have significantly higher fees than investments in fixed income assets and publicly-traded stocks.

As shown below, during the ten-year period from 2005 through 2014, fees increased from $22.4 million, 0.1% of assets, to $467 million, 1.6% of assets.

SOUTH CAROLINA RETIREMENT SYSTEMS
INVESTMENT FEES AND EXPENDITURES
(IN MILLIONS)



Source: PEBA and RSIC

Excessive Period for Eliminating Unfunded Liabilities

The period over which unfunded liabilities are paid off (amortized) may exceed the 30-year limit in state law.

Excessive amortization periods can lead to inter-generational inequity and negative amortization (payments that are not sufficient to cover the interest cost).

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.

In order to establish state bond credit ratings, Moody's Investors Service uses a 20-year amortization period to assess the impact of public pension unfunded liabilities.

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 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.

FOR MORE INFORMATION

Our full report, including comments from relevant agencies, is published on the Internet. Copies can also be obtained by contacting our office.

LAC.SC.GOV

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PENSION STAFF AND GOVERNANCE ISSUES

We found three areas in which South Carolina's pension system could reduce potential and actual conflicts of interest.

First, in 2013, an RSIC employee resigned and later accepted a position with a timberland investment company in which the RSIC had an investment. In 2015, an RSIC employee accepted a position with a company with which the RSIC had a contract. Although RSIC officials report that neither of these former employees has since made contact with the agency in an attempt to influence its actions, the restrictions on such contact in state law may not be adequate.

Second, investment proposals are sometimes directly or indirectly made by RSIC commissioners, including:

- An investment of up to $30 million in a timberland investment company in November 2011.
- An investment of up to $55 million in a private equity fund in October 2014.

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.

Third, 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. Agency policy requires disclosure of the use of placement agents during its due diligence process. From June 2010 through June 2012, agency records indicate that nine investments involved placement agents. Although placement agents may enable smaller investment fund companies to compete more effectively with larger companies, those benefits have been accompanied by corruption in New York and California. In addition, a recent national study found that, on average, investments involving placement agents underperform similar investments without placement agents.