Joint Committee on Pension Systems Review

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Senator Darrell Jackson
Senator Floyd Nicholson
Senator John L. Scott, Jr.
Senator Sean M. Bennett
Senator Mike Gambrell

Representative Bill Herbkersman
Representative Gilda Cobb-Hunter
Representative J. Mike Anthony
Representative Bill Whitmire
Representative Tommy Stringer
Representative Jeff Bradley

Wednesday, February 14th, 2018
2:30 p.m
105 Gressette

Agenda*

I. South Carolina Retirement System Investment Commission
Michael Hitchcock, Chief Executive Officer

II. South Carolina Public Employee Benefit Authority
Peggy Boykin, Executive Director

*Agenda subject to change

SCRS Pension Plan Closure

Investment Analysis & Considerations

Joint Committee on Pension Systems Review

February 14, 2018

Bottom Line: Closing the Defined Benefit Pension Plan

- RSIC's investment strategy will likely evolve from one that focuses on seeking returns to one that focuses on providing liquidity and muting volatility (investment risk).
- The change in investment strategy means that RSIC's investments will likely earn less than they otherwise would moving forward.
- Lower investment returns means that the percentage of benefit payments funded through state and local budgets will increase.
- Contribution rates will either increase or stay higher for longer.
- More contributions will need to come from non-member payroll.
- Closure increases the risk that the Fund will run out of assets before all benefits are paid.

Assumptions Used in Pension Closure Analysis

- SCRS closes to new entrants in 2018.
- Active SCRS members continue to accrue years of service in the closed system.
- All new employees become members of the Optional Retirement Plan ("ORP").
- Contribution rates remain at current scheduled increases per 2017 legislation.*
- Total contribution rate rises to 27.56% by 2023.*
  - Employers 18.56%*
  - Employees 9%*
- 17.4% of the employer contribution rate for SCRS members is dedicated to the UAAL by 2023.
- 13.6% of the employer contribution rate for ALL ORP members is dedicated to the UAAL by 2023.
- All ORP members continue to receive the 5% contribution match.

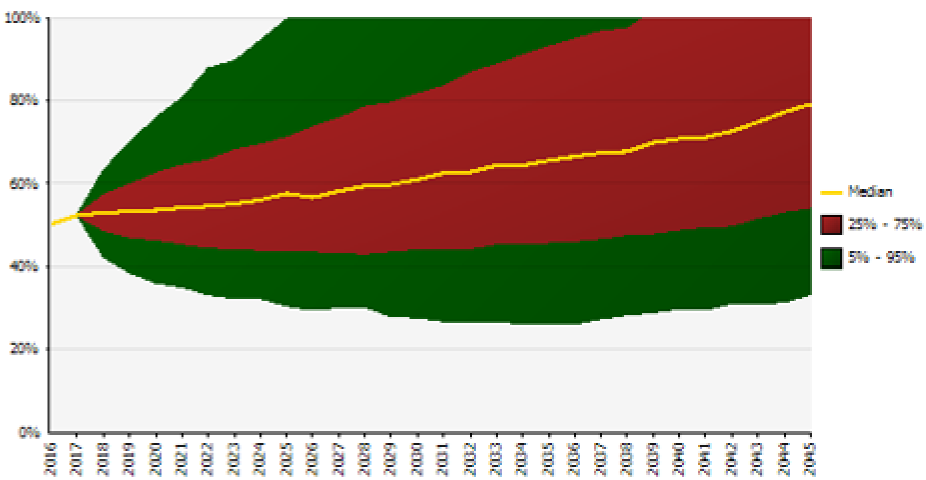
**Contribution rates may be required to increase beyond current schedule if the assumed rate is decreased below the current assumed rate of 7.25% or if adverse investment experience occurs over the forecast period. The approach used throughout this presentation assumes that the assumed rate remains at 7.25% irrespective of investment results and that total contribution rates decline by 1%/year once funded status reaches at least 85% and decline to normal cost once funded status reaches at least 100%.*

SCRS Projections Prior to 2017 Reform

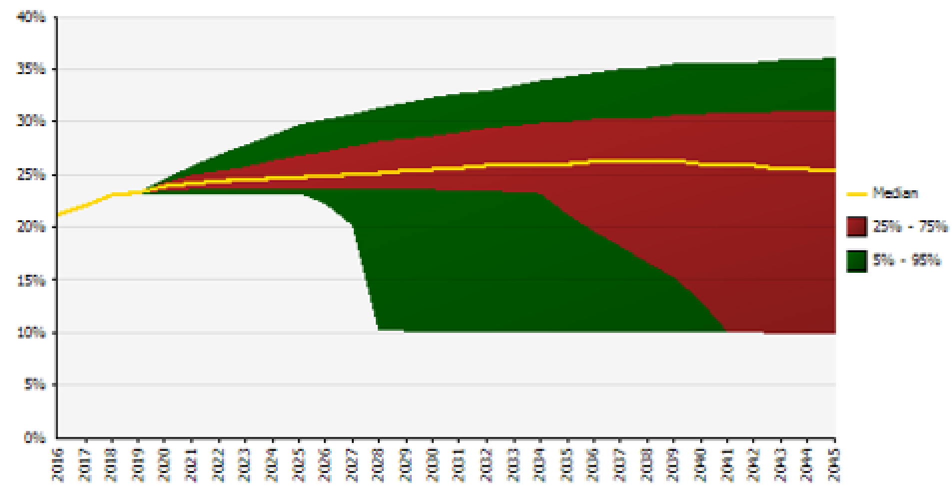
Prior to 2017 Reform Legislation

- No requirement to progress through the amortization schedule.
- Insufficient contributions targeting the UAAL.
- The median outcome does not reach fully funded.
- Contribution rates stay at only the minimum needed to keep the UAAL funding period <30 years.

Projected Funded Status



Projected Total Contribution Rates



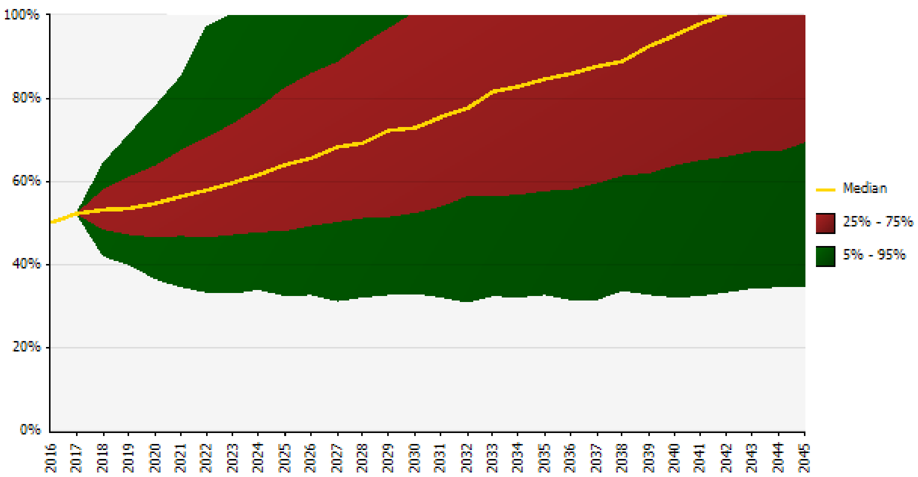
RSIC simulated results based on 1,000 iterations using GRS actuarial projections.

SCRS Projections Following 2017 Reform

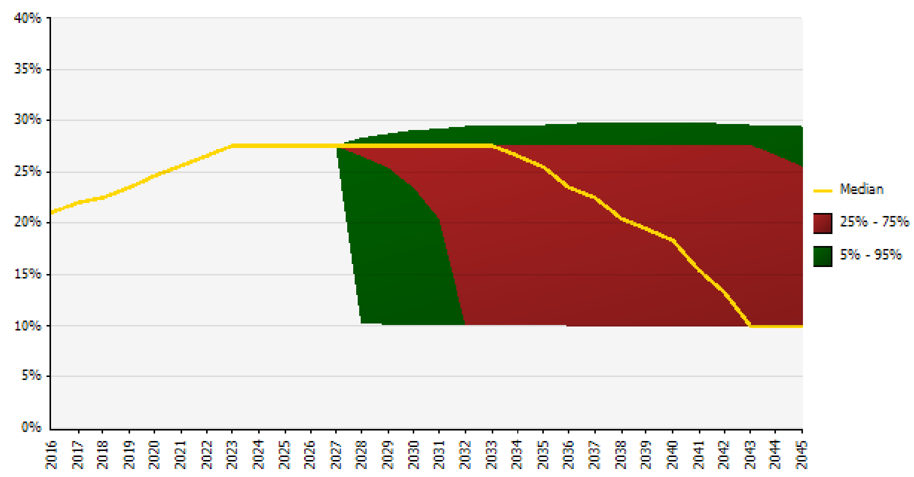
Impact of 2017 Reform Legislation – A New Path

- New funding policy greatly improves the fiscal outlook of the plan.
- The median outcome reaches fully funded status by 2042.
- The median outcome is that contribution rates begin to decrease in 2033 and additional contributions end in 2043.
- Results are based on the current asset allocation that is projected to earn a 7.4% annualized rate of return with a 13.4% volatility.

Projected Funded Status



Projected Total Contribution Rates



RSIC simulated results based on 1,000 iterations using GRS actuarial projections.

Current Portfolio

- RSIC currently invests in a portfolio with allocations to higher-returning but less liquid asset classes.
- SCRS closure would require a transition to a new asset allocation over the next 5-10 years.
- Any new asset allocation would be focused more on servicing the higher net benefit payments rather than on earning the highest returns.

Assumptions

Asset Class	Return	Volatility
Cash	2.91%	1.00%
Bonds	3.95%	4.00%
Stocks	9.35%	19.00%
Private Equity	12.94%	27.00%
Credit	5.84%	11.12%
Real Assets	8.01%	12.25%
Opportunistic	5.54%	8.50%

Meketa long-term capital market expectations as of 2018, based on RSIC implementation (arithmetic)

Asset Allocation: Current and Prospective if SCRS Closed

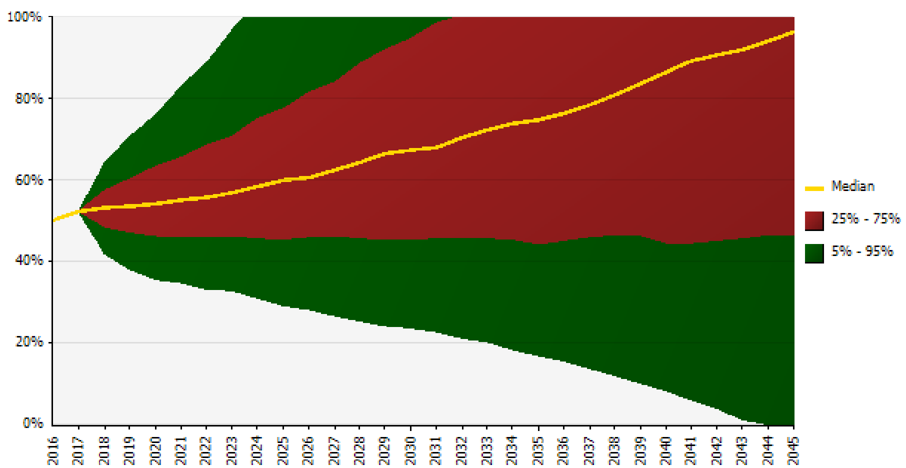
Asset Class	Current	Aggressive	Conservative
Cash	2%	7%	21%
Bonds	10%	33%	50%
Stocks	39%	60%	29%
Private Equity	9%	0%	0%
Credit	18%	0%	0%
Real Assets	10%	0%	0%
Opportunistic	12%	0%	0%
Total	**100%**	**100%**	**100%**
Expected Return	**7.40%**	**7.10%**	**5.80%**
Volatility	**13.40%**	**13.70%**	**6.15%**

SCRS Projections if Closed – Current Portfolio

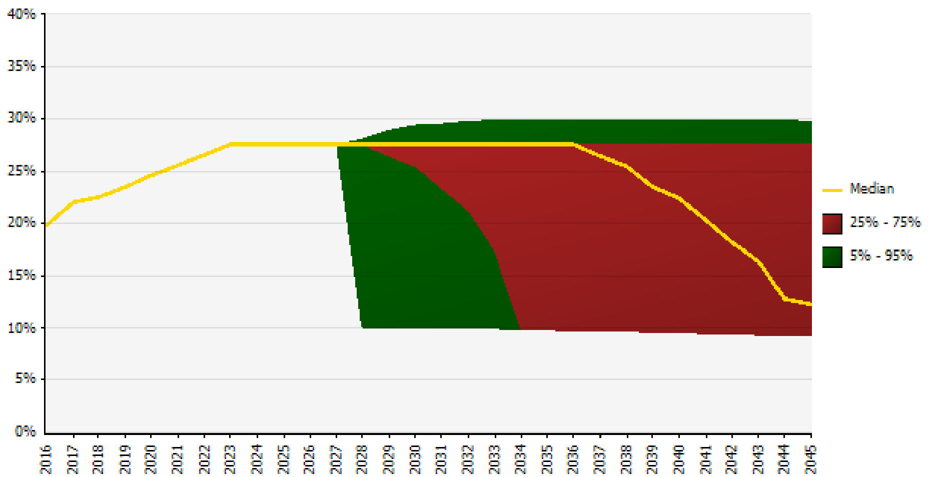
Current Portfolio (Impossible) - 2018 System Closure

- Assumes that RSIC can continue to hold the current portfolio that earns a 7.4% annualized return with a 13.4% volatility.
- Impossible portfolio because of the need to increase liquidity and reduce risk.
- Contribution rates do not begin to decline for **5 more years** and higher contributions continue for **13 years** versus an open system.

Projected Funded Status



Projected Total Contribution Rates



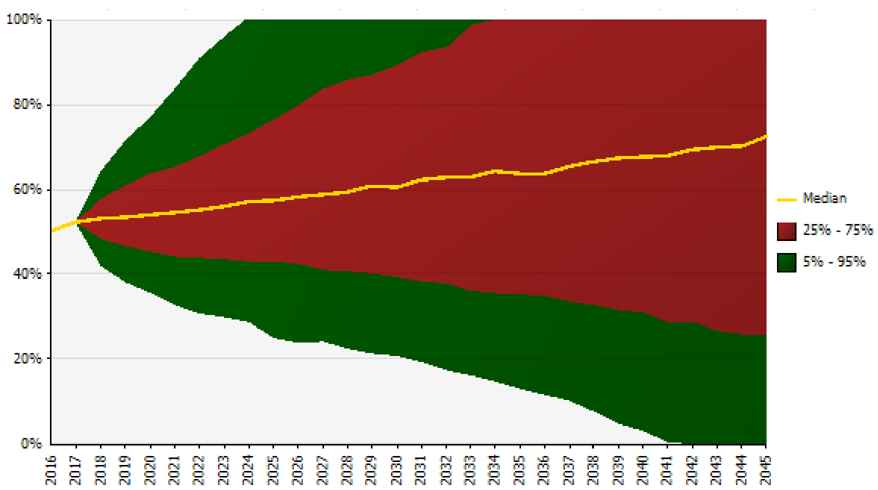
RSIC simulated results based on 1,000 iterations using GRS actuarial projections.

SCRS Projections if Closed – Aggressive Portfolio

Aggressive Asset Strategy if SCRS Closed

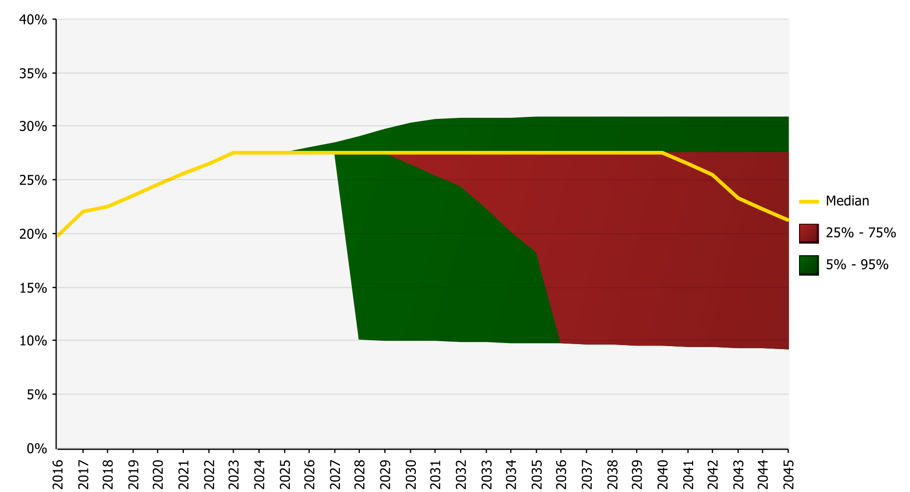
- Portfolio - 7% Cash, 33% Bonds, and 60% Stocks
- Projected 7.1% annualized return with a 13.7% volatility
- Additional cash allocation equals expected annual negative cash flow.
- Portfolio still seeks return through a higher allocation to risk assets.
- Contribution rates do not begin to decline for **9 more years** and higher contributions continue for **21 years** versus an open system.

Projected Funded Status



RSIC simulated results based on 1,000 iterations using GRS actuarial projections.

Projected Total Contribution Rates

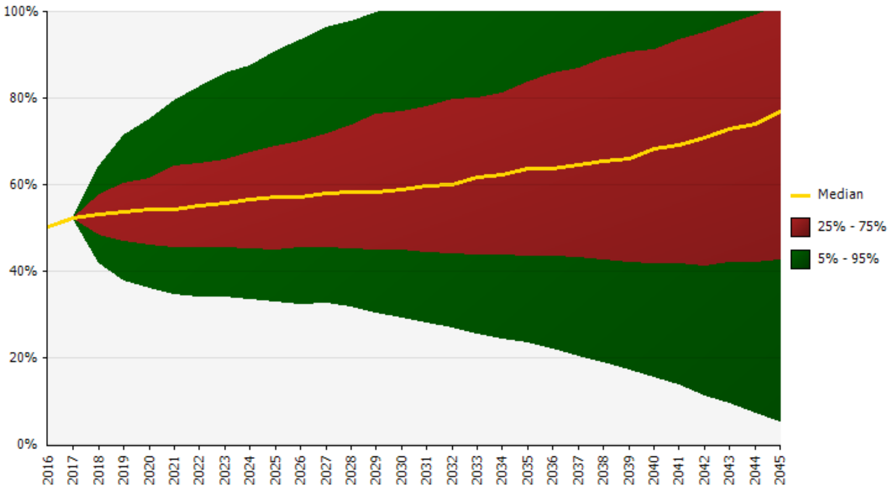


SCRS Projections if Closed – Conservative Portfolio

Conservative Asset Strategy if SCRS Closed

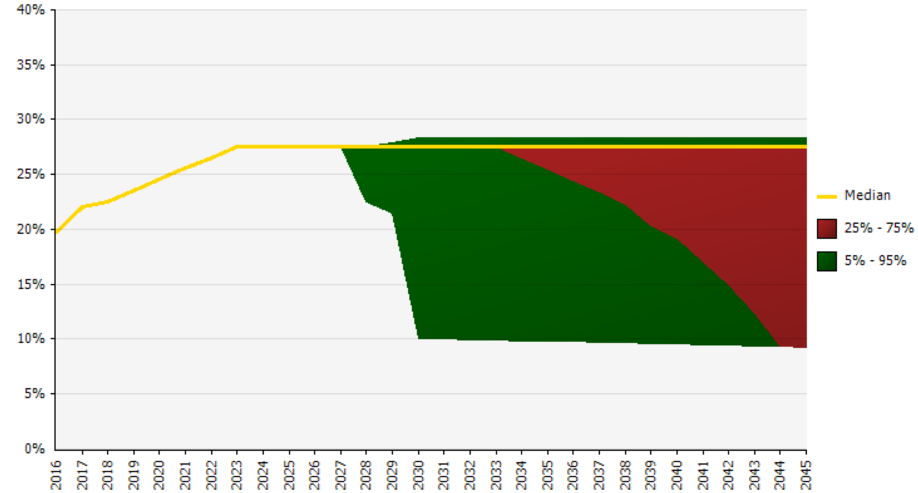
- Portfolio - 21% Cash, 50% Bonds, and 29% Stocks
- Projected 5.8% annualized return with a 6.2% volatility
- Conservative approach to holding additional cash and less exposure to risk assets maximizes liquidity and reduces the risk of a catastrophic result in a downturn.
- Contribution rates do not begin to decline for **13 more years** and higher contributions continue for **27 years** versus an open system.

Projected Funded Status

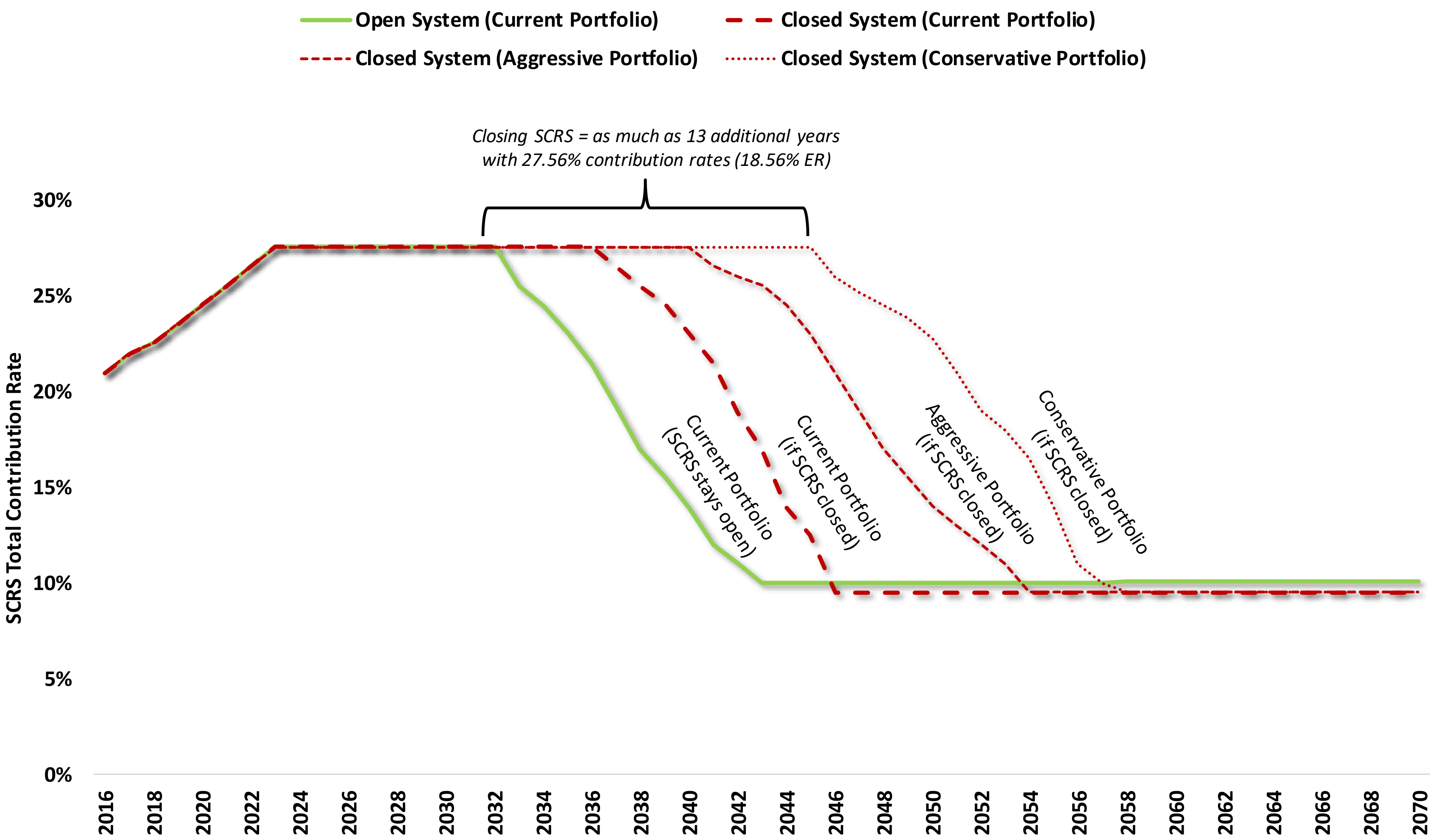


RSIC simulated results based on 1,000 iterations using GRS actuarial projections.

Projected Total Contribution Rates



Time Horizon of Additional Contributions



Median outcomes shown from RSIC simulated results based on 1,000 iterations using GRS actuarial projections. This analysis assumes no change in the assumed rate, despite emerging investment experience differing materially from the assumed rate in some cases. The current assumed rate will likely not be supportable throughout the forecast period, and, if decreased, could lead to higher minimum contribution rates than those shown here.

Impact in Dollars

- **Current Portfolio Closed (Impossible) vs. Current Portfolio Open**
  - Requires $24.5 billion in additional contributions from non-member (ORP) payroll over the next 27 years versus an open system

- **Aggressive Portfolio Closed vs. Current Portfolio Open**
  - Requires $39.7 billion in additional contributions from non-member (ORP) payroll over the next 33 years versus an open system

- **Conservative Portfolio Closed vs. Current Portfolio Open**
  - Requires $63.7 billion in additional contributions from non-member (ORP) payroll over the next 38 years versus an open system

Conclusions

- The 2017 Pension Reform Bill greatly improved the fiscal outlook of the plan.

- Closing the pension plan will mean:
  - RSIC will likely need to change the way it invests.
  - Investments will likely earn less money.
  - Benefit payments will be made more through contributions rather than investment returns.
  - $40-$60 billion in additional contributions will need to come from non-member payroll.
  - Contribution rates will either increase or stay higher for longer.
  - The risk that the pension plan runs out of assets before all benefits have been paid increases.