Teachers’ and State Employees’ Retirement Systems of North Carolina

Analysis of Stabilization of Employer Contribution Rates

January 21, 2016

buckconsultants

xerox

Employer Contribution Rate Stabilization

- The projections from the earlier presentation show the impact of assumptions recommended as the result of our experience study as well as showing the impact of 2015 asset return of 0.23%.
    - Those projections assumed contributions are made to TSERS in the amount determined by the Annual Required Contribution (ARC).
    - To promote security of benefits and stabilize the employer contribution rate, a policy of making employer contributions greater than the ARC could be established.
    - For purposes of this presentation, we refer to such a policy as an “Employer Contribution Rate Stabilization Policy” or the “Policy”
    - Such a policy can be used to increase contributions in a period when investment returns are less likely to achieve 7.25%

Employer Contribution Rate Stabilization Policy - Example

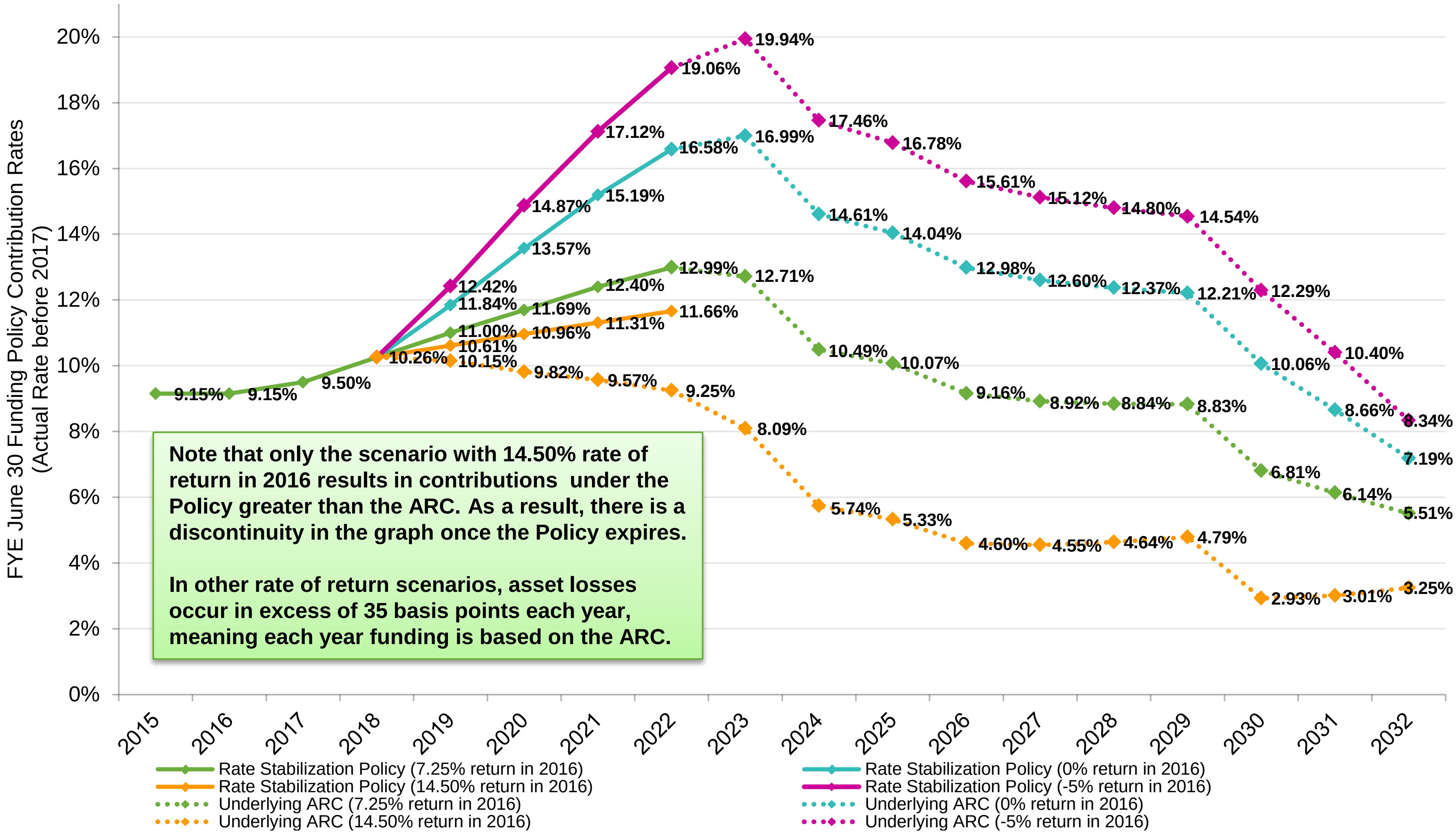
- The projections that follow demonstrate one example of an "Employer Contribution Rate Stabilization Policy". This example assumes contributions to the System equal to the maximum of (1) and (2) but not greater than (3), as described below:

  - (1) Current year's calculated ARC
  - (2) Prior year's appropriated contribution rate under the Policy increased by 35 basis points
    - For FYE 2017, assumed to be the FYE 2016 appropriation of 9.15% plus 35 basis points
  - (3) Contribution rate determined using a discount rate indexed by the 30-year Treasury Rate as of the actuarial valuation date
    - 30-year Treasury Rate is 2.75% as of December 31, 2014
    - Maximum contribution rate based on 30-year Treasury Rate is estimated to be 53.48% as of December 31, 2014

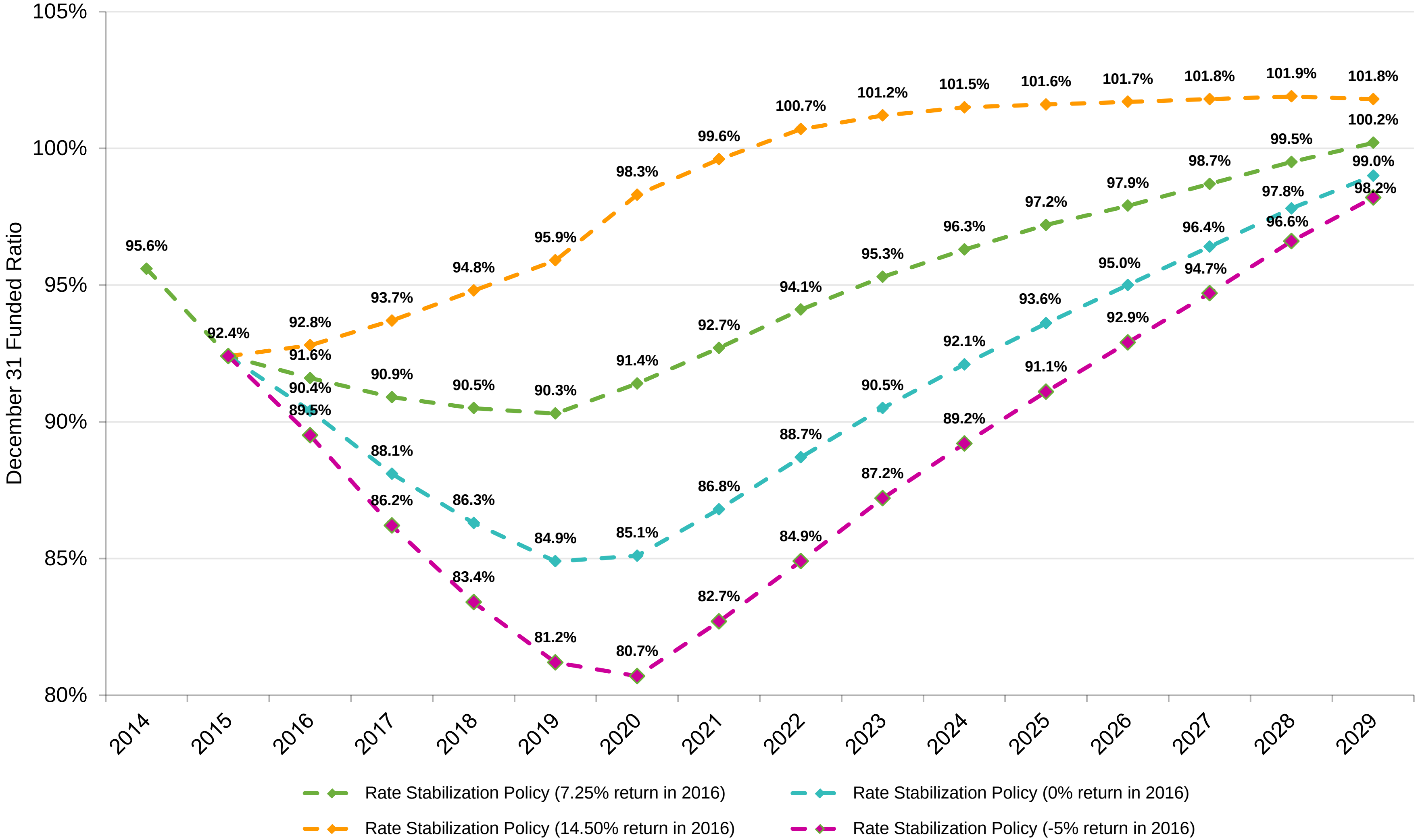
Projections Utilizing An Employer Contribution Rate Stabilization Policy

- The Employer Contribution Rate Stabilization Policy projections described on the previous slide rely on the following data, methods and assumptions:
    - December 31, 2014 valuation results of TSERS, except that proposed economic and demographic assumptions have been reflected based on the experience study presented in October 2015 as modified to reflect the latest mortality projection scale (MP-2015)
        - No cost-of-living adjustments granted
        - Assumes future pay increases based on long-term valuation
        - Assumes active headcount will remain level in future years
        - Assumes rate of return for 2015 of 0.23%
        - Four different rate of return scenarios for 2016: -5%, 0%, 7.25% and 14.5%
        - Assumes rate of return for 2017 and beyond equal to 7.25%
        - Assumes Policy is in place for FYE 2017 to FYE 2022 and then reverts to funding the ARC for FYE 2023 and beyond

Projected Employer Required Contribution Rates (Employer Contribution Rate Stabilization Policy)



Projected Funded Ratio
(Employer Contribution Rate Stabilization Policy)



Certification

These results were prepared under the direction of Larry Langer and Michael Ribble who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. These results have been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about them.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law.

Except where otherwise indicated, an analysis of the potential range of such future differences is beyond the scope of this report.

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Questions?

THANK YOU