



Introduction to the Experience Review to be Presented at the October 2015 Board of Trustees Meeting

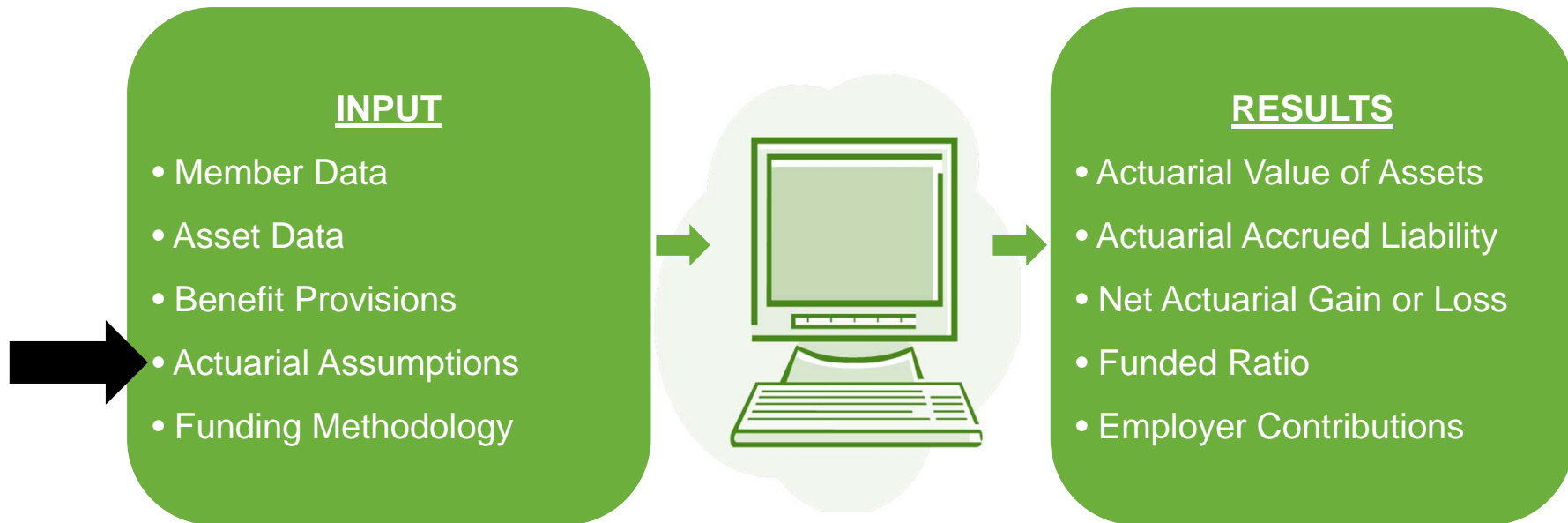
Board of Trustees Meeting
Larry Langer and Mike Ribble
July 16, 2015

Purpose of the Annual Actuarial Valuation

- As of the end of each calendar year:
 - An annual actuarial valuation is performed on each of the North Carolina Retirement Systems
 - The actuary determines the amount of employer contributions to be made to the System during each member's career that, when combined with investment return and member contributions, such contributions are expected to be sufficient to pay for retirement benefits.
- In addition, the annual actuarial valuation is performed to:
 - Determine the progress on funding the System,
 - Explore why the results of the current valuation differ from the results of the valuation of the previous year, and
 - Satisfy regulatory and accounting requirements.

The Valuation Process

The following diagram summarizes the inputs and results of the actuarial valuation process.



A detailed summary of the valuation process and a glossary of actuarial terms are provided in Appendix A of the actuarial reports.

“Sustainable Funding Practices of Defined Benefit Pension Plans” (as recommended by the Government Finance Officers Association)

“Actuarial assumptions should be carefully reviewed by retirement system staff, discussed with outside experts (including investment advisors), and explicitly approved by trustees. Assumptions that should be carefully reviewed include the long-term return on assets, salary growth, inflation, mortality tables, age eligibility, and any anticipated changes in the covered population of plan participants. Have an actuarial experience study performed at least once every five years, and update actuarial assumptions as needed.”

Valuation Input Actuarial Assumptions

- Demographic (future events that relate to people)
 - Retirement
 - Termination
 - Disability
 - Death
- Economic (future events that relate to money)
 - Interest rate – 7.25% per year
 - Salary increase (individual, varies by service)
 - Inflation – 3.00%
 - Real wage growth – 0.50%



The latest assumptions were adopted for use with the December 31, 2009 actuarial valuation, based on the experience study prepared as of December 31, 2009 and adopted by the Board of Trustees on October 21, 2010.

The next experience study will be prepared as of December 31, 2014 and presented to the Board in October 2015. This policy of reviewing assumptions every five years is a best practice.

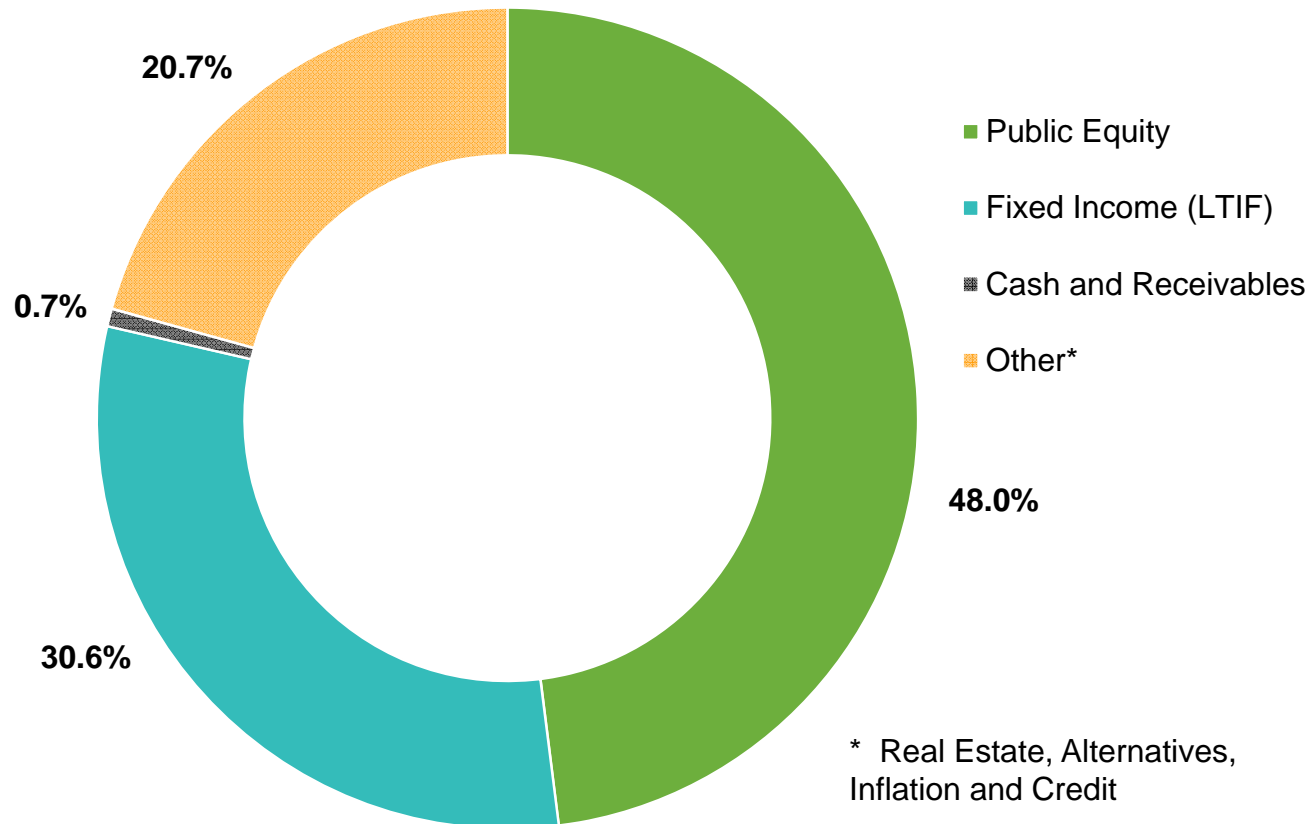
A detailed summary of the actuarial assumptions and methods is provided in Appendix D of the actuarial reports.

Developing assumptions



- Demographic assumptions (future events that relate to people) will be reviewed as follows:
 - Retirement
 - Compare actual number of retirements over five year period versus expected, adjust for atypical events and recommend changes as appropriate
 - Termination
 - Compare actual number of terminations over five year period versus expected, adjust for atypical events and recommend changes as appropriate
 - Disability
 - Compare actual number of disabilities over five year period versus expected, adjust for atypical events and recommend changes as appropriate
 - Death
 - Compare actual number of deaths over five year period versus expected, and select standard table that best fits experience. Update projected mortality improvement based on standard industry tables adjust for atypical events and recommend changes as appropriate
- Economic (future events that relate to money) will be reviewed as follows:
 - Salary increases
 - Compare actual versus expected salary increases. Make adjustments being mindful of the relationship to other economic assumptions

Developing the investment return assumption



Based on historical market returns, the current asset allocation, the current investment policy, and the expectation of future asset returns, as reviewed in the last experience study, the 7.25% discount rate used in this valuation is reasonable and appropriate.

The discount rate will be reviewed at the next experience study to be presented to the Board in October 2015.

The investment return assumptions, currently 7.25% for most of the systems, will be reviewed based on the expectation of future market returns of the asset allocation.

Key Takeaways

The North Carolina Retirement Systems are well funded compared to their peers. This is due to:

- Stakeholders working together to keep the Systems well-funded since inception
- A history of appropriating and contributing the recommended contribution requirements
- Assumptions that in aggregate are more conservative than peers *and are reviewed and revised every five years as a result of an experience review*
- A funding policy that aggressively pays down unfunded liability
- An ad hoc cost-of-living adjustment, which typically only provides benefit increases when certain financial conditions are met, supports the health of the system
- Modest changes in benefits when compared to peers

As has been done over the past 70 years, continued focus on these measures will be needed to maintain the solid status of the Systems well into the future.

Certification

The results were prepared under the direction of Michael Ribble and Larry Langer 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.

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Questions?

THANK YOU