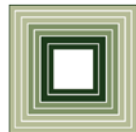


***Discussion of Section 30.29
of 2015 Senate Budget***

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**Retirement Boards of Trustees
December 7, 2015**



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A Staff Agency of the North Carolina General Assembly

Context of Senate Budget

- Passed in June 2015.
- ARC of 8.69% of pay, 0.46% less than FY 2014-15 contribution of 9.15% of pay.
- Contribution had increased from 3.36% in FY 2008-09. Many have criticized reduction taken around year 2000.
- No across-the-board salary increase to active employees.
- Experience study impact unknown and would apply for FY 2016-17 at earliest.
- Board had twice considered lowering assumption in last experience study, but did not change from 7.25%, partly citing concern with adding burden in State budget.
- Knew asset return was biggest driver of ARC and easy to understand (relative to say mortality tables).

Context of Senate Budget

- **LRC study committee found in 2014 that “gradually lowering the return assumption would eventually restore the fiscal conservatism that North Carolina had in the 1960s through early 1990s when the probability of meeting or exceeding the return assumption was closer to 100%.”**
- **LRC committee recommended “that the General Assembly consider legislative action to implement measures or to implement a review process to decrease the assumed rate of return over time.” Primary concern with a more concrete recommendation was budgetary impact.**
- **Senators have access to current interest rates and public reports suggesting low investment returns in coming years.**

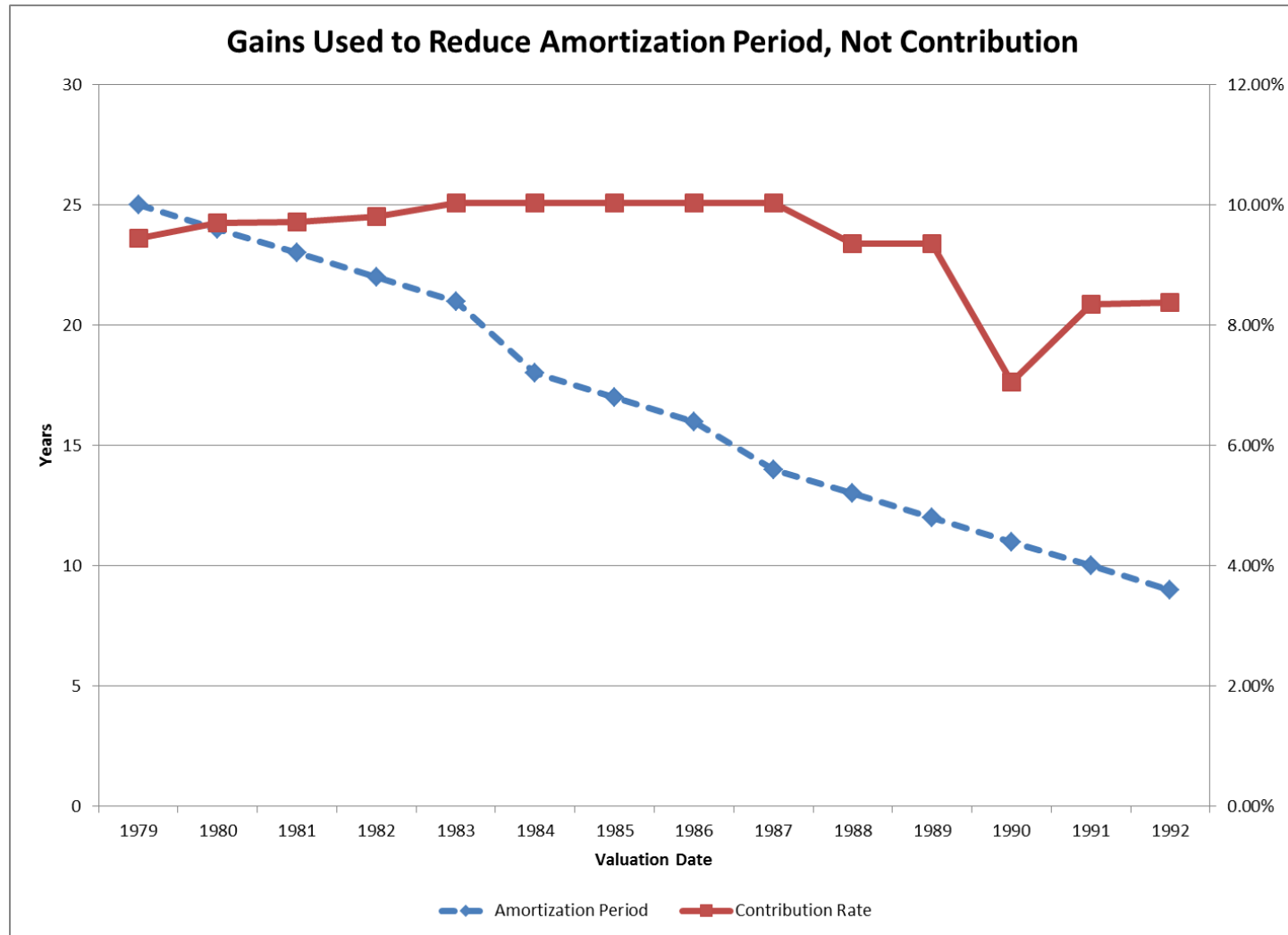
Section 30.29

- Required Board to use 7.20% return assumption for FY 2015-16 for setting employer contribution only.
- Required Board to lower assumption by additional 0.05% in each subsequent year. Increases ARC by 0.45% each time.
- No ending point, but it would take 65 years to reach original assumption of 4% and 145 years to reach 0%.
- Board retained authority to use a different assumption for accounting, most valuation report exhibits, other disclosures, etc.

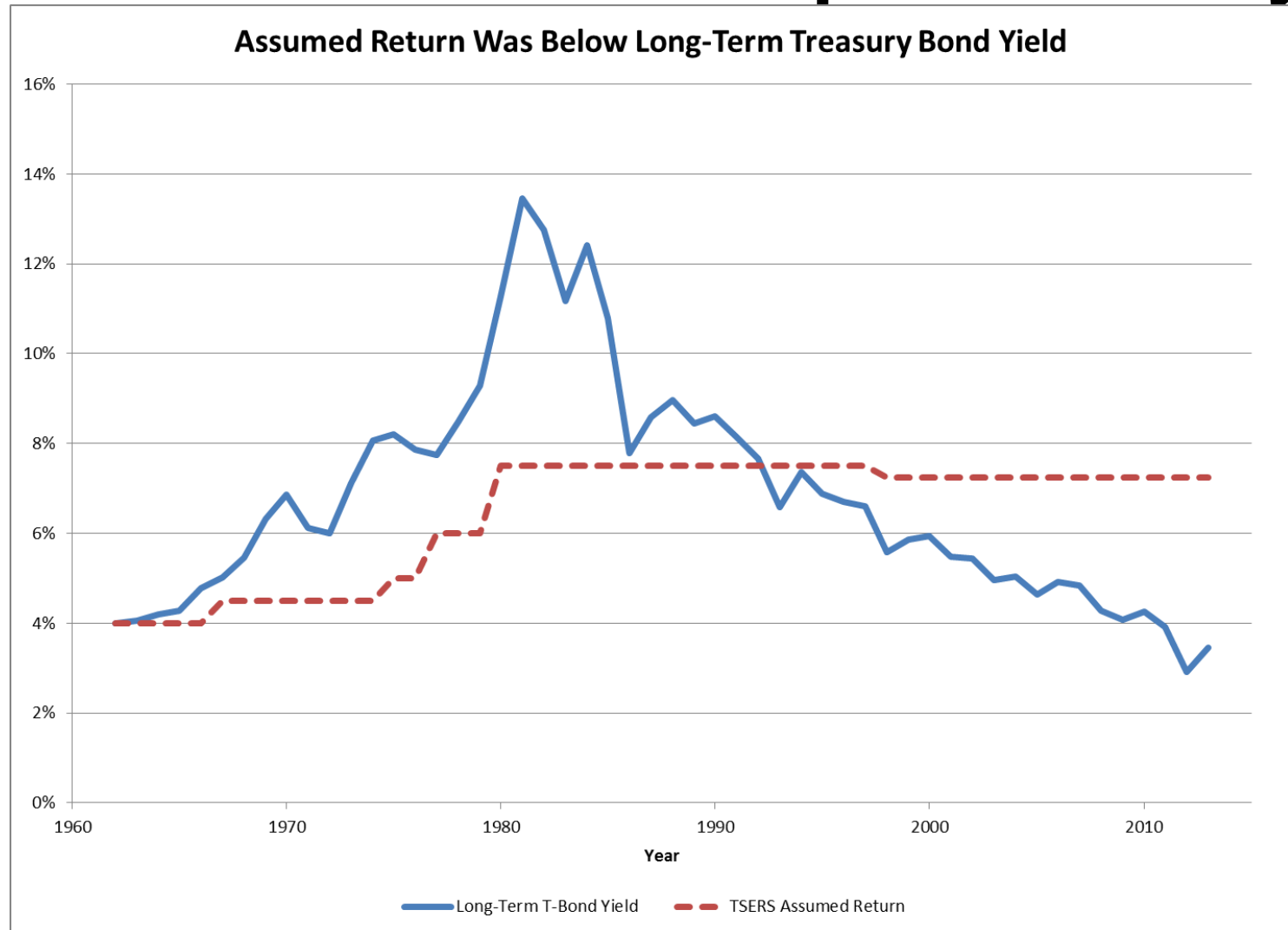
N.C. Pension Funding History

- Frequently cited as a model for other states**
- Reduced amortization period in 1980s and 12 year period is one of the shortest among public pensions**
- Often used assumptions and methods that gave high probability of good news**
 - Low turnover assumption in early years**
 - Low asset return assumption in 1960s to 1990s**
 - Book value accounting until 1996**
 - Moved closer to median assumptions in recent years, in line with actuarial practice nationally**

N.C. Pension Funding History



Asset Return Assumption History



Asset Return Assumption History

- **Why did we raise it? Why did we not lower it?**
- **1979 experience study report by Buck Consultants to Board of Trustees:**
 - **Cited actual earnings of 6.78% to 7.72% in preceding years**
 - **Cited 8% expected yield on the book value of assets as of June, 1980**
 - **“On the basis of the foregoing and the general expectation for continued inflation a valuation interest rate of 7-1/2% is recommended for consideration.”**
- **Current asset return assumption is one of the last vestiges of out-of-control 1970s inflation**
- **It is really hard to bring the assumption back down because short-term appropriations have to go up**

General Budgetary Context

- Focus is on year-over-year change in General Fund (GF) appropriations to pensions.
- May 2015 forecast projects roughly \$600 million per year increases in revenue.
- TSERS GF payroll is \$10 billion, so each 0.25% increase in ARC requires \$25 million of additional funding.
- Recent reserve appropriations:

Fiscal Year	Pension Reserve Appropriation
FY 2014-15	\$45 million (\$81 million over previous biennium)
FY 2013-14	\$36 million
FY 2012-13	\$88 million (\$336 million over previous biennium)
FY 2011-12	\$248 million
FY 2010-11	\$139 million (\$160 million over previous biennium)
Average	\$111 million

Impact of Assumption/Funding Policy Alternatives

#	Description	ΔCtb first 2 years ¹	ΔCtb after 2 years ²	ΔCtb if 0% return ³	BOT Controls Assumps	Constrains Future GAs ⁴	Probability Ctb sufficient ⁵
1.	Old assumptions, 7.25%	-0.68%	-0.10%/year	+0.80%	Yes	Yes	Same
2.	Old assumptions, reduce 5 bps/year (Senate Budget)	+0.35%	+0.35%/year	+1.25%	No	Yes	Much higher over time
3.	New assumptions, 7.25%	+0.64%	-0.10%/year	+0.80%	Yes	Yes	A little higher
4.	New assumptions, 7.00%	+2.98%	-0.10%/year	+0.80%	Yes	Yes	Higher
5.	New assumptions, reduce 5 bps/year for 5 years	+0.99%	+0.35%/year	+1.25%	Yes	Yes	Higher
6.	Steady Funding Policy with min and max, new assumptions, 7.25% ⁶	+0.64%	+0.25%/year	+0.25% to +0.80%	Yes	Yes	Much higher over time
7.	Ad Hoc Excess Funding (as in Conference Budget), new assumptions, 7.25%	+0.64%	+ ?? / year	0% to +0.80%	Yes	No	Depends on future actions

Ctb = Contribution

GA = General Assembly

Old assumptions = prior to 2010-2014 experience study, new assumptions = reflecting 2010-2014 experience study

¹ Change relative to FY 2014-15 contribution of 9.15% of pay. -0.68% = 8.47% (12/31/2014 val ARC) - 9.15%; 0.64% = 9.79% (experience study report) - 9.15%; 2.98% = 12.13% (experience study) - 9.15%; 0.99% = 0.64% + 0.45% (5 bps rate reduction) - 0.10% (projected gain); 0.35% = 0.45% - 0.10%;

² Assumes roughly 0.10% per year gains shown in projection in 12/31/2014 valuation report. Steady Funding Policy impact assumes policy is to increase contribution by 0.25% per year prior to applying min and max.

³ 0.80% impact is first year impact from projection in 12/31/2014 valuation report assuming 0% return in 2015, minus 0.10% gain otherwise. Lower amounts are possible under Steady Funding Policy and Ad Hoc Excess Funding if there is sufficient gap between prior year contribution and ARC or minimum.

⁴ Assuming future General Assemblies feel political and/or cultural pressure to contribute the recommended amount.

⁵ Relative to old assumptions and 7.25% return assumption

⁶ Example of Steady Funding Policy: contribute 0.25% of pay more than previous fiscal year, subject to minimum (min) of ARC using new assumptions and 7.25% asset return assumption, subject further to a maximum (max) of ARC using new assumptions and long-term Treasury bond yield as asset return