Report of the Blue Ribbon Panel on Public Pension Plan Funding

Robert Stein, Chair

Pennsylvania Association of Public Employee Retirement Systems

September 17, 2014

The Panel’s charge

- Assess the changing funded status of public pension trusts
- Develop recommendations to strengthen plan funding going forward.

Panel members

- Bob Stein, retired, Ernst & Young, chair
- Andrew Biggs, American Enterprise Institute, co-vice chair
- Douglas Elliott, Brookings Institution, co-vice chair
- Bradley Belt, Orchard Global Capitol Group and Palisades Capital Management
- Dana Bilyeu, formerly Nevada Public Employee Retirement System
- David Crane, Stanford University
- Malcolm Hamilton, retired, Mercer (Canada)
- Laurence Msall, The Civic Federation (Illinois)
- Mike Musuraca, Blue Wolf Capital Management
- Bob North, New York City Office of the Actuary
- Richard Ravitch, former Lt. Governor of New York
- Larry Zimpleman, Principal Financial Group

Panel findings

- Focus on funding: deliver on the benefit promises made to employees
- Funding principles…to guide recommendations
- Primary recommendations
  - Strengthen financial and risk management practices through new information to support decision making
  - Ask more of the actuary
  - Enhance system effectiveness

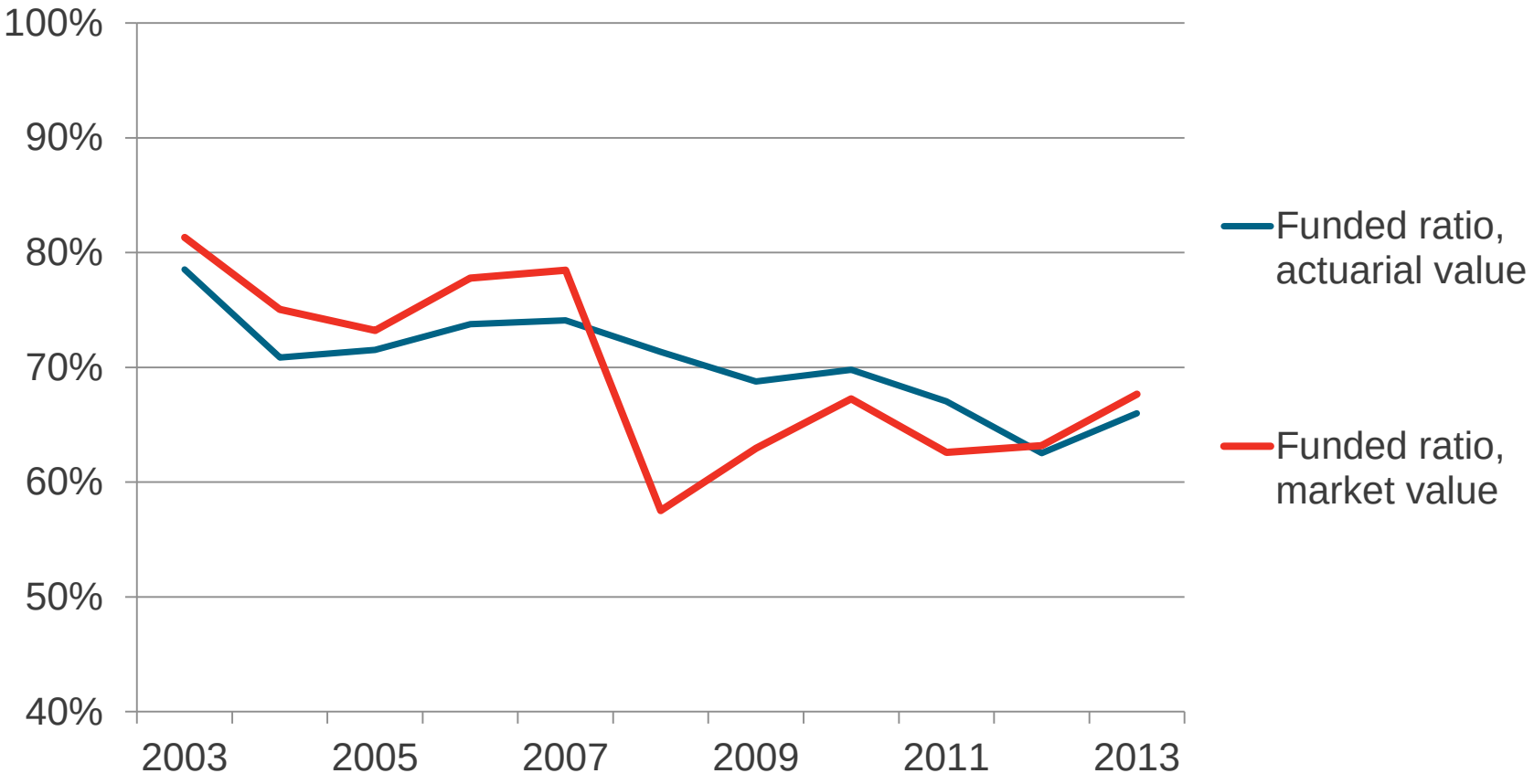
Funding concepts

- Adequacy
  - Fund to 100% of the value of promise
  - Returns should be achievable 50% of the time
  - Improve resiliency to economic conditions
- Maintain intergenerational equity
  - Restrain cost shifting to future generations
- Program costs and budget predictability
  - Avoid equating ‘predictable’ with ‘low’
  - Investment in risky assets is incompatible with stable costs, particularly for mature plan

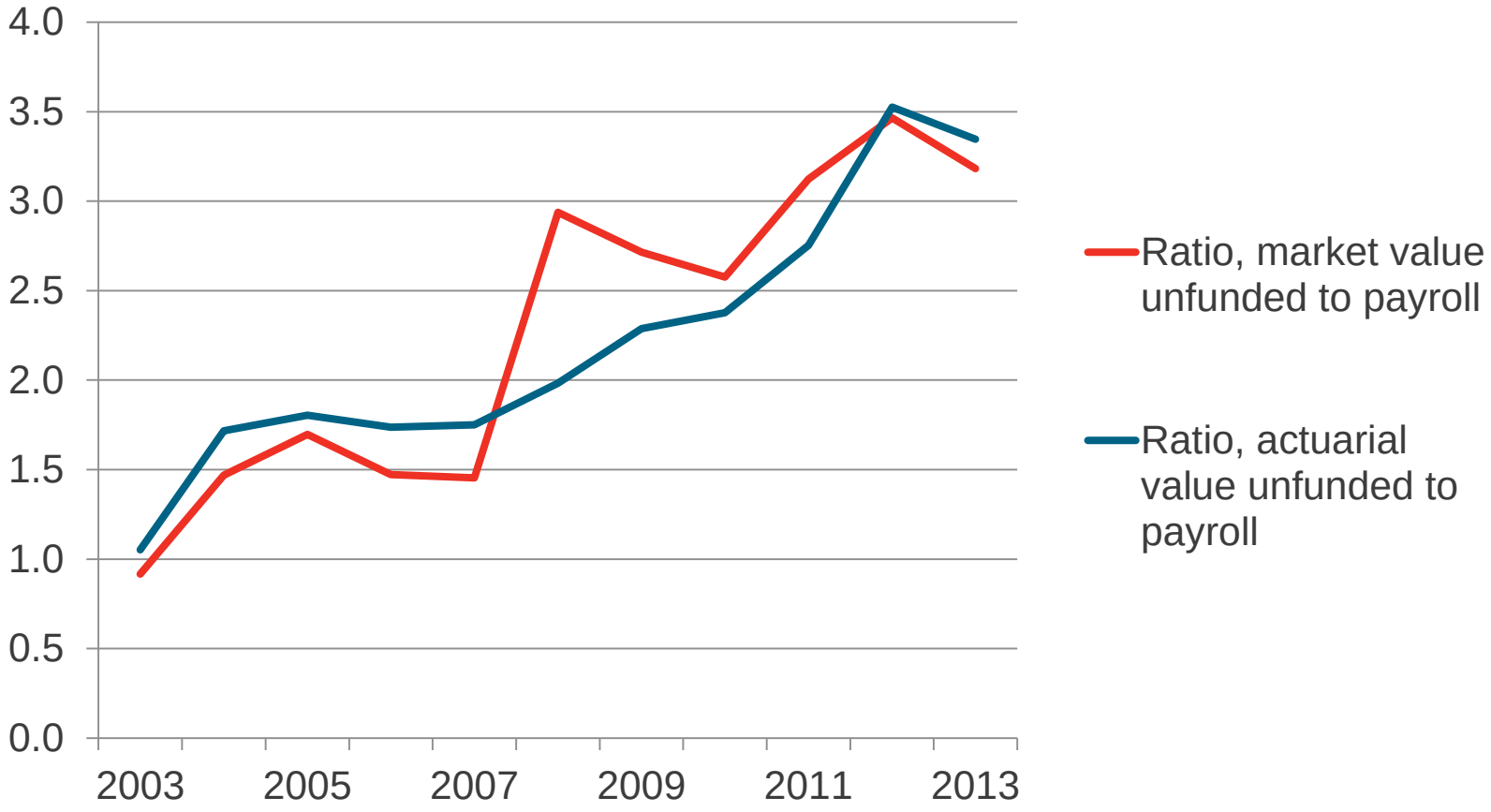
Recommendations: Risk and financial measures and disclosures

- Trends in key financial measures
  - Financial position
  - Plan cost
  - Plan maturity
- Measures of risk position
  - Investment risk
    - Portfolio standard deviation
    - Plan liability and normal cost at risk free rate
  - Aggregate risk - Standardized contribution
  - Stress testing

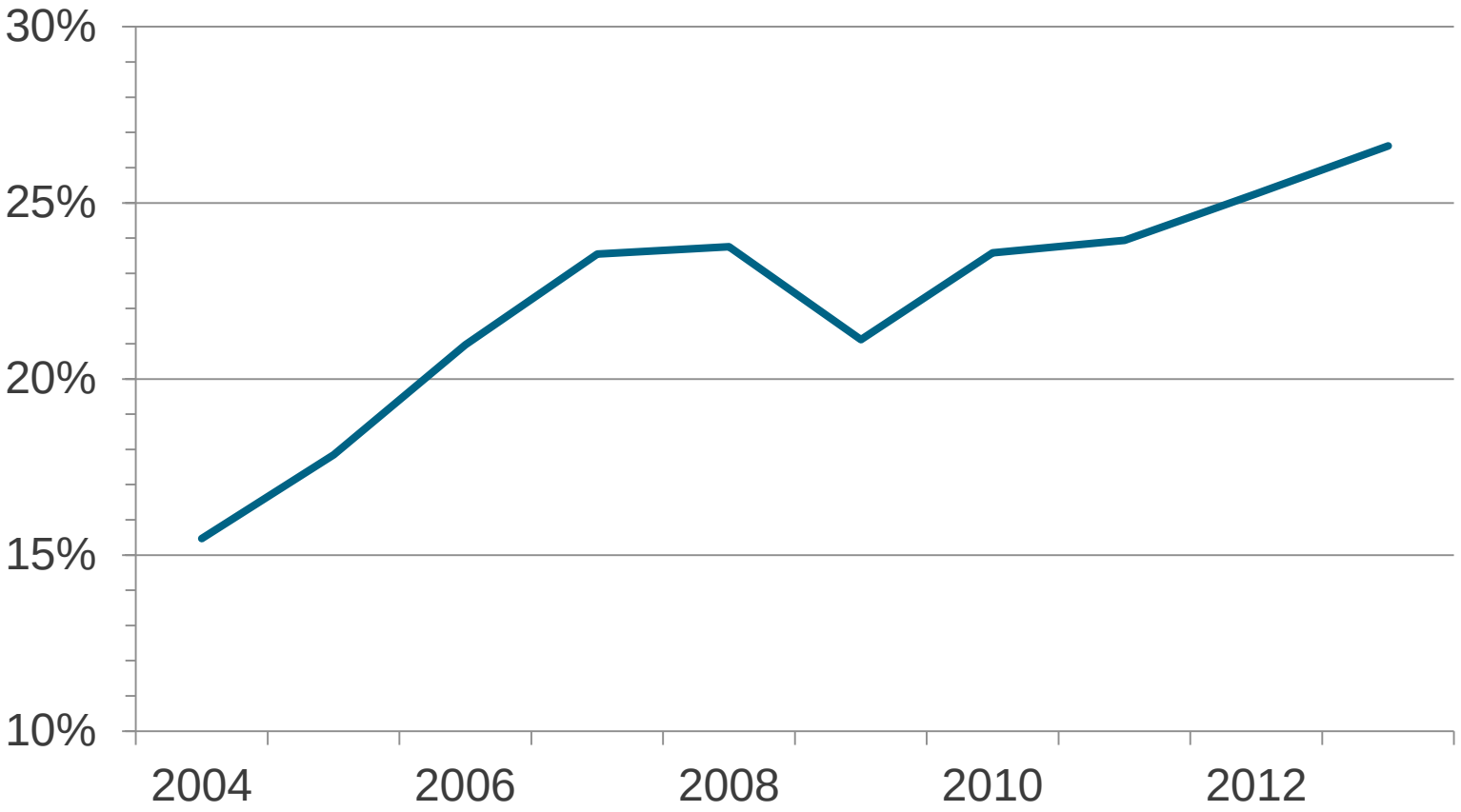
Funded ratios



Unfunded liabilities to payroll



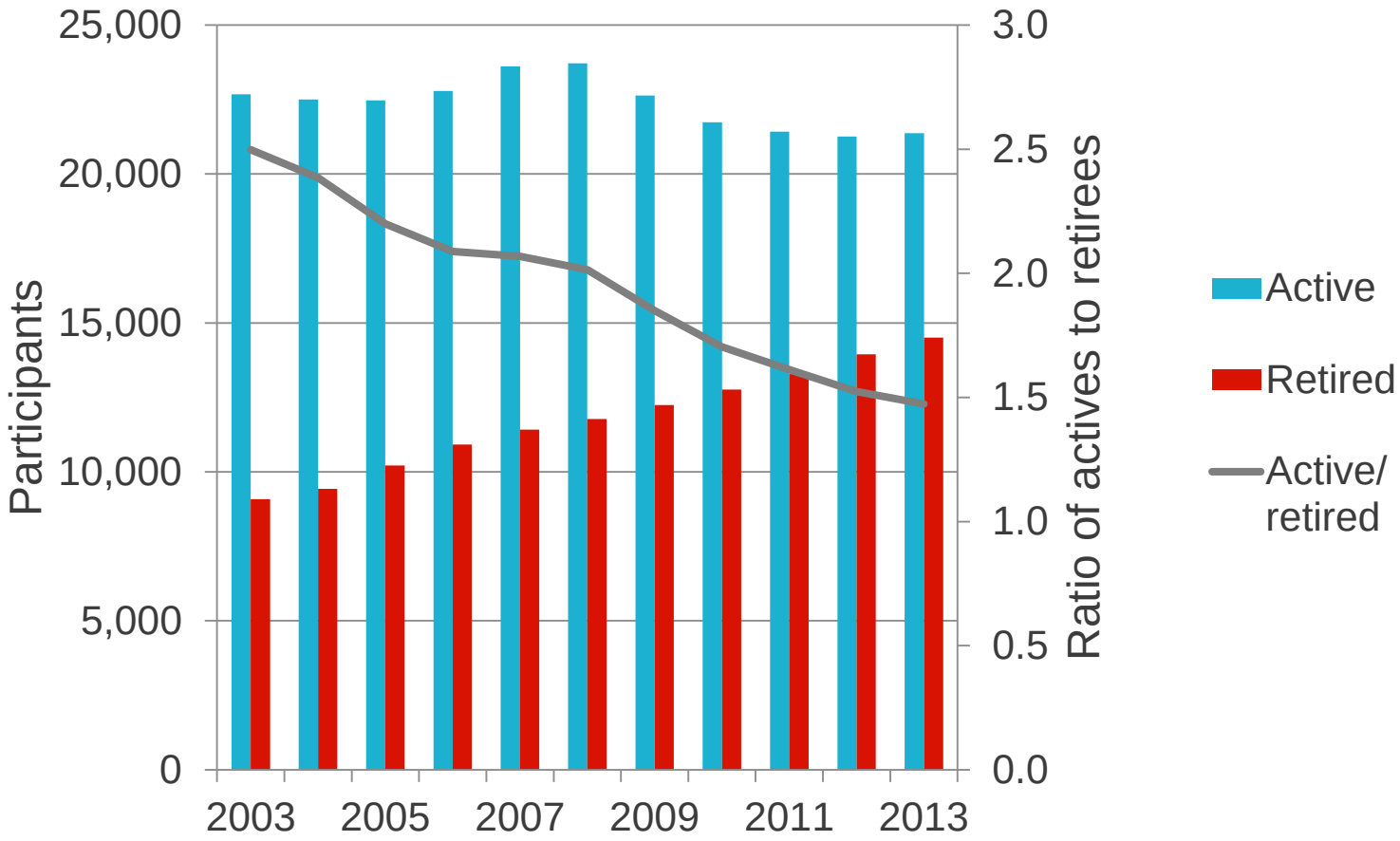
Employer contribution rate (as a percentage of payroll)



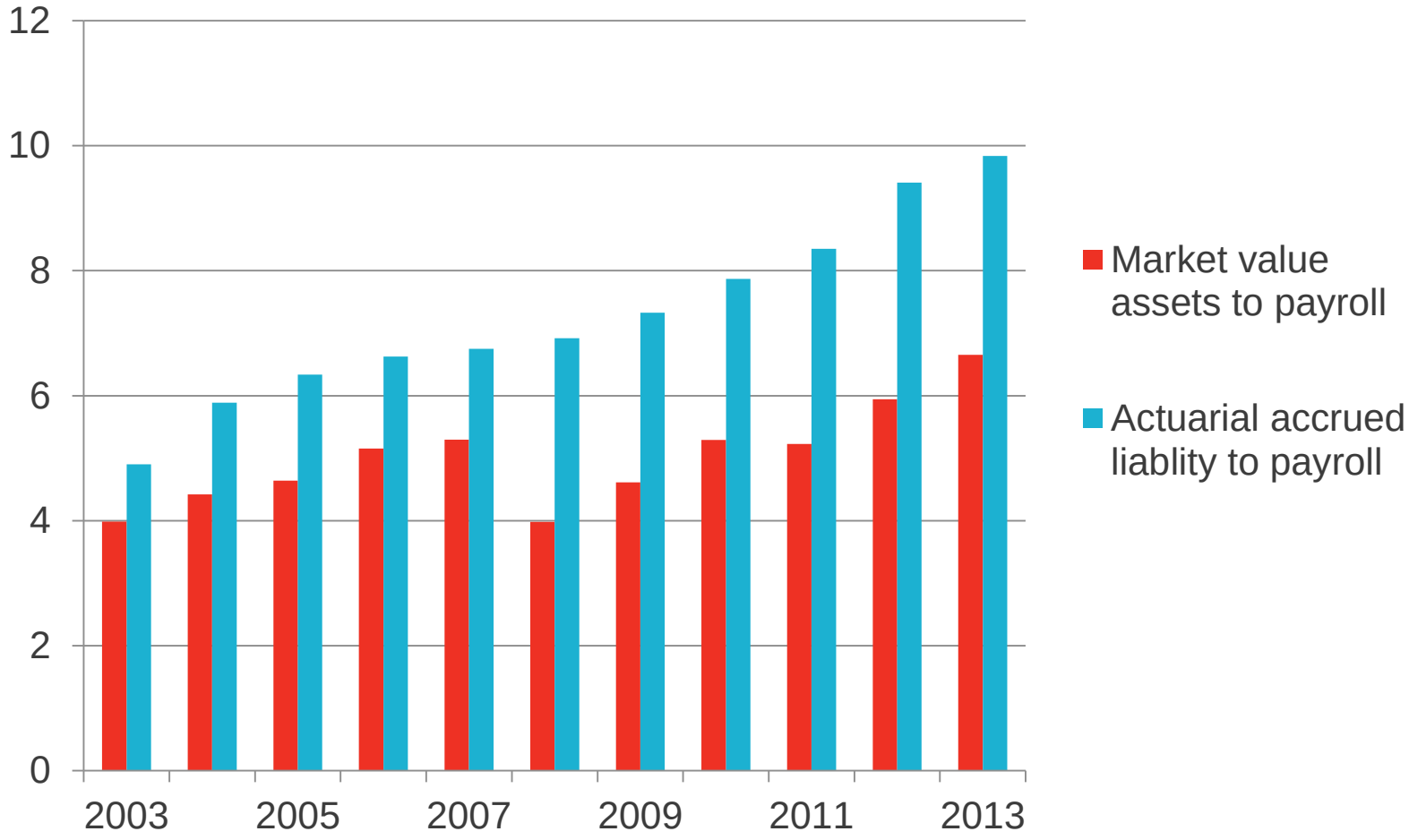
Demographic Trends

- Plan Maturity Measures
  - Ratio of actives/retirees
  - Ratio of benefit payments/payroll
  - Ratio of funding liabilities/payroll
  - Ratio of fair value of assets/payroll

Maturity of participants



Ratio of assets/liabilities to payroll



Measures of risk position

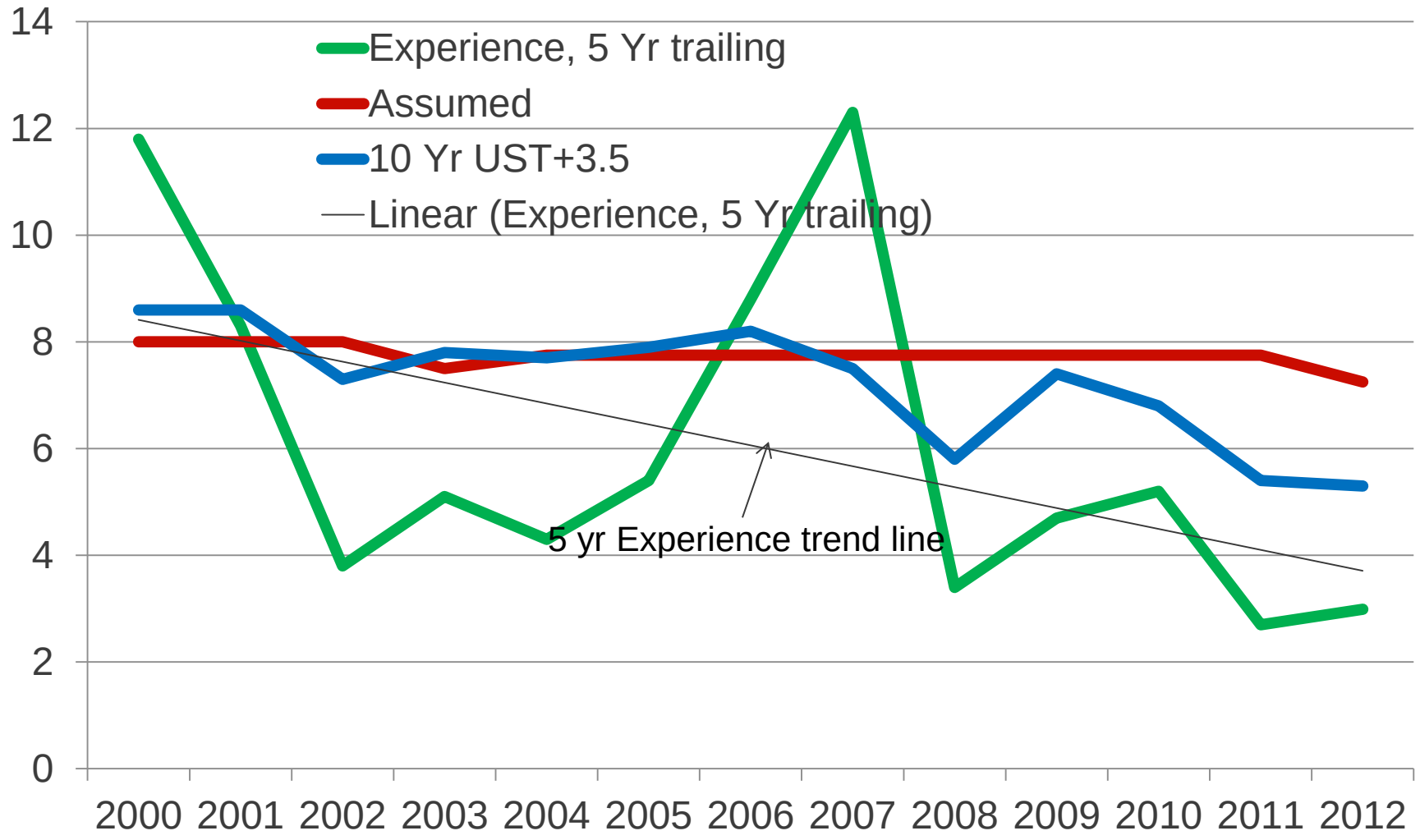
- Portfolio expected standard deviation
- Plan liability and NC at risk free rate
  - Measure of investment risk assumed
- Standardized contribution
  - Benchmark recommended contribution to assess funding risks
  - Adjust economic assumptions, funding methods to be consistent with Report’s funding principles

Plan liability and Normal Cost at risk free rate

- Enables a measure of credit risk assumed
- Not does measure exposure to volatile investment returns
- Uses plan assumptions and methods, except for assumed earnings rate
- Compare liability and Normal Cost to plan calculations to size risk

Sample City Employee Pension Plan Standardized Contribution Benchmark Calculation		
In $Millions	**Plan funding calculation**	**Standardized Contribution Benchmark**
Discount rate	7.0%	6.4%
Actuarial accrued liability (AAL)	$353.6	365.8
Actuarial value of assets	(316.7)	(316.7)
Unfunded (Surplus) AAL	$36.9	$49.1
Normal cost	11.4	11.9
Amortization`	2.8	4.2
Total cost	$14.2	$16.1
Employee contributions	(4.4)	(4.4)
Employer contribution	$ 9.8	$11.7
Employer cost as % of payroll	11.1%	13.3%

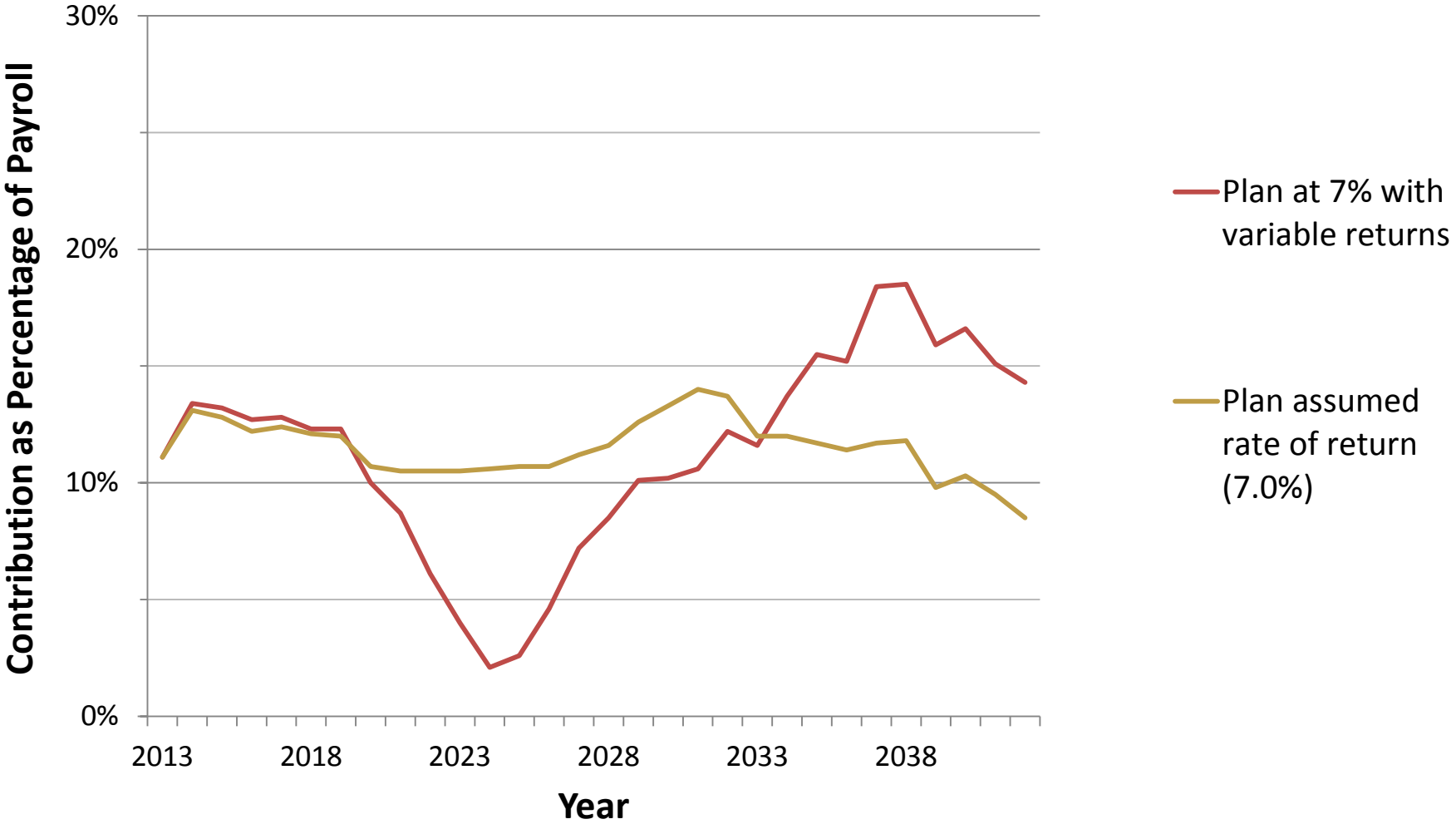
Actual and assumed investment return



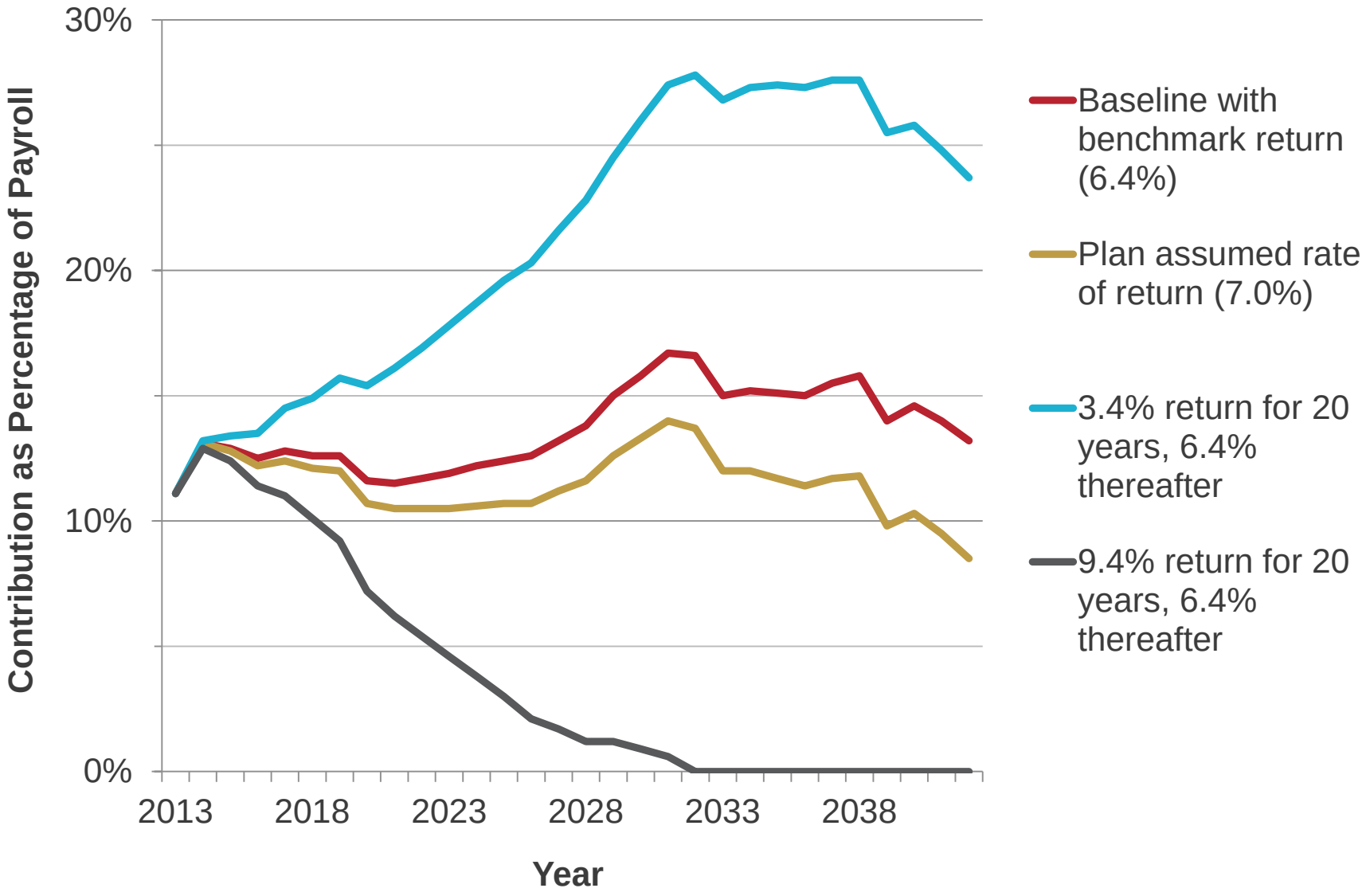
Stress testing

- “Normal” volatility around plan assumption
- 30-year projection, 20 years of “stress”
  - Plan assumptions
  - Baseline: standardized rate of return (6.4%)
  - Illustrate contributions, funded status
- Severe stress - effect of investment return 3% greater or 3% less than expected over 20 years
- Effect of paying only 80% of recommended contribution for 20 years

Employer contributions, assumed returns of 7% and volatility about 7%, sample plan



Sample Plan: Projected employer contributions, with investment return stress tests



Role of the actuary

- Actuary to opine on reasonableness of funding assumptions and methods
- Disclosure
- Assumptions and methods
  - Discount rate (forward looking)
  - Amortization periods (15 – 20 years)
  - Asset smoothing (5 year)
  - Direct rate smoothing

Plan governance

- Governance structures should maximize likelihood that recommended contributions are paid
- Failure to fund should be accompanied by credible alternative funding program
- Risk analysis capability of trustees
- Trustee training and experience
- Careful consideration of plan changes