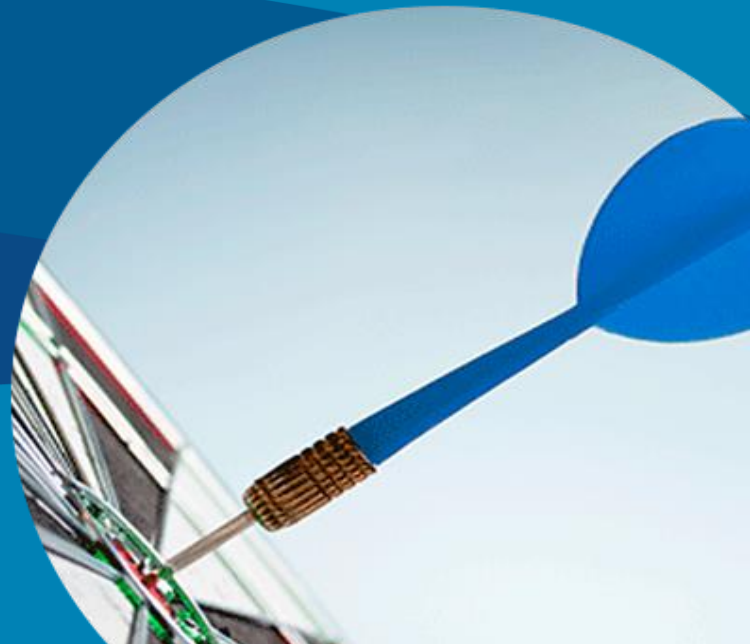
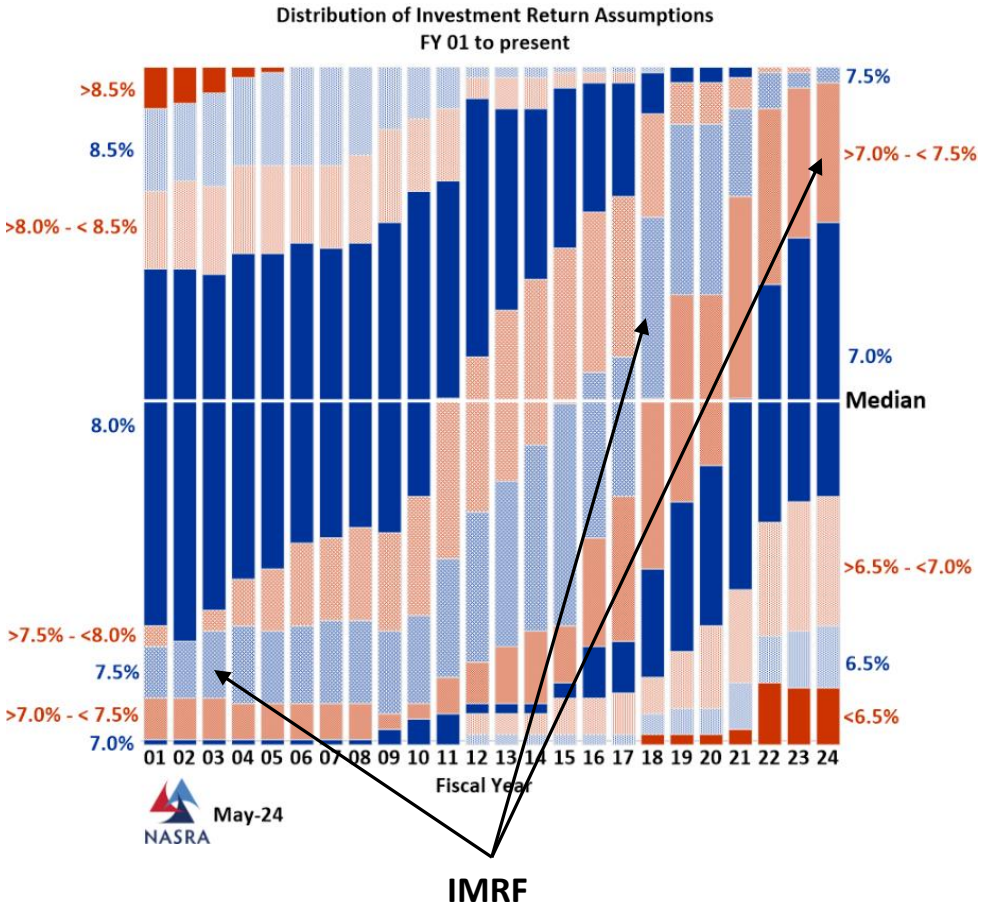
Illinois Municipal Retirement Fund

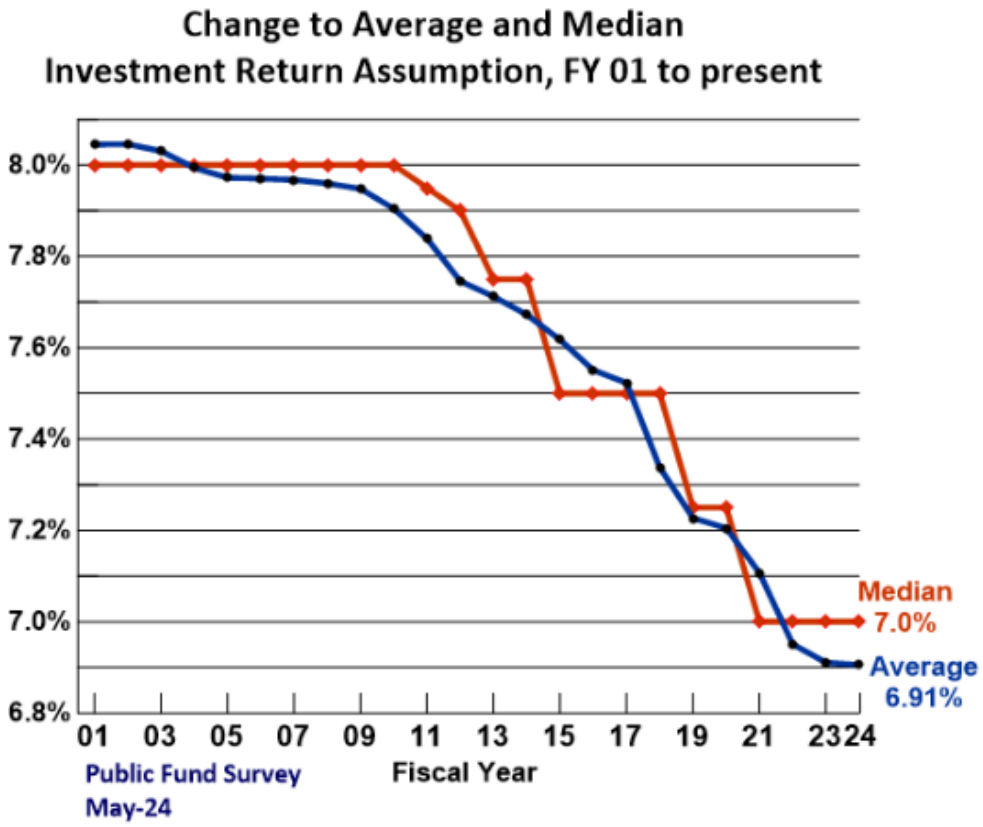
Developing a More Dynamic and Flexible Assumed Investment Rate of Return Assumption – Discussion Guide

November 22, 2024



Assumed Rate of Return Assumption Universe





Why Are We Talking About It?

- IMRF's assumed rate of return was 7.5% from 1993 to 2018
- In 2001 (for statewide systems tracked by NASRA/Public Fund Survey):
  - Average assumed rate of return: Slightly above 8.00%
  - Median assumed rate of return: 8.00%
  - IMRF assumed rate of return: 7.50% (approx. 10th percentile of statewide systems)
- In 2018:
  - Average assumed rate of return: Slightly above 7.30%
  - Median assumed rate of return: 7.50%
  - IMRF assumed rate of return: Reduced to 7.25% (7.50% 50th – 75th percentile; 7.25% 25th – 50th percentile)
- In 2024:
  - Average assumed rate of return: 6.91%
  - Median assumed rate of return: 7.00%
  - IMRF assumed rate of return: 7.25% (above 75th percentile)

Approach Presented at August Board Meeting

- Adjust assumed rate of return annually based on market performance
  - Changes in assumed rates:
    - Decrease assumed rate by 0.05% if gross return exceeds assumed rate of return AND assumed rate of return exceeds target return; otherwise no change; and
    - Increase assumed rate by 0.05% if gross return is below assumed rate of return AND assumed rate of return is below target return; otherwise no change.
  - Could use either the 10-year or 30-year Wilshire Assumption as target return

Recommended adjustments to original approach

- Use the 5-year smoothed return instead of the 1 year gross return
  - Will mirror the actual impact on annual valuation
  - Will result in offsetting adjustments in any given valuation year
- Use 10-year Capital Market Assumptions Modeler (CMAM) (survey data) for target return instead of the 10-year Wilshire return
  - Will be more consistent with national averages (NASRA data)
  - Using the average of multiple investment consultants will reduce volatility of target return on year-to-year basis

What is the impact on plan costs?

	Baseline Valuation Results	Hypothetical Valuation Results	
		Reduction in assumed return of 5 bp	Reduction in assumed return of 5 bp and 100 bp increase in 5-Yr. Smoothed return over assumed return
Assumed Return	**7.25%**	**7.20%**	**7.20%**
Actual Return (5-Yr Smoothed)	**6.40%**	**6.40%**	**8.20%**
Target Return (10-Yr CMAM)	**6.63%**	**6.63%**	**6.63%**
Normal Cost%	4.64%	4.71%	4.71%
Amortization Payment%	1.49%	1.76%	1.21%
Other Costs%	0.86%	0.86%	0.86%
Total%	**6.99%**	**7.33%**	**6.78%**

Reduction in assumed rate of 5 bp increases Unfunded Liability by approximately $250M
Recognized asset gain (over assumed) of 100 bp decreases Unfunded Liability by approximately $500M

Hypothetical Example

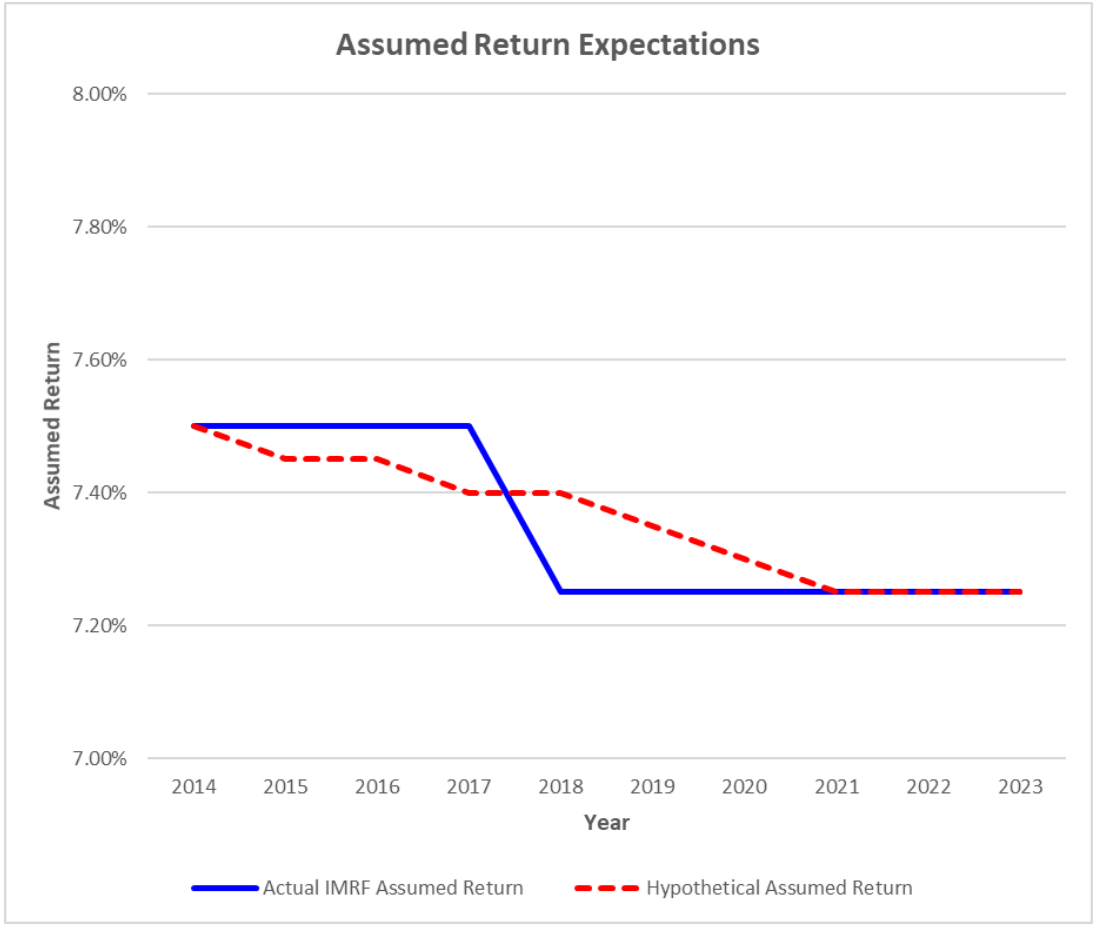
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Valuation Year	**Target Retun (10-Yr CMAM)**	**Actual Return (5-Yr Smoothed)**	**Hypothetical Assumed Return (before adjustment)**	**Actual IMRF Assumed Return**	**Test 1 Is (3) Higher/Lower than (4)**	**Test 2 Is (4) Higher/Lower than (2)**	**Assumed Return Adjustment**	**Hypothetical Assumed Return (after adjustment)**	**Hypothetical Impact on Contribution Requirement***
2014	6.71%	N/A	7.50%	7.50%	N/A	N/A	N/A	7.50%	N/A
2015	6.51%	8.47%	7.50%	7.50%	**Higher**	**Higher**	-0.05%	7.45%	-0.16%
2016	6.63%	7.18%	7.45%	7.50%	Lower	Higher	0.00%	7.45%	0.14%
2017	6.18%	8.81%	7.45%	7.50%	**Higher**	**Higher**	-0.05%	7.40%	-0.36%
2018**	5.99%	6.50%	7.40%	7.25%	Lower	Higher	0.00%	7.40%	0.45%
2019	6.31%	8.16%	7.40%	7.25%	**Higher**	**Higher**	-0.05%	7.35%	-0.06%
2020	5.85%	10.03%	7.35%	7.25%	**Higher**	**Higher**	-0.05%	7.30%	-1.02%
2021	5.36%	12.04%	7.30%	7.25%	**Higher**	**Higher**	-0.05%	7.25%	-2.05%
2022	5.15%	7.20%	7.25%	7.25%	Lower	Higher	0.00%	7.25%	0.03%
2023	6.63%	6.39%	7.25%	7.25%	Lower	Higher	0.00%	7.25%	0.43%

* This is the combined impact on the average contribution rate (as a percentage of payroll) due to the actual investment performance and any potential change in assumed rate of return for the valuation year.

** Decreasing the assumed rate of return from 7.50% to 7.25% increased the average Regular contribution rate by approximately 1.57% of payroll.

Test 1 – Is Actual Return (5-Yr Smoothed) higher or lower than Hypothetical Assumed Return?
Test 2 – Is Hypothetical Assumed Return higher or lower than Target Return (10-Yr CMAM)?
If both answers are higher, then reduce assumed return by 5 basis points
If both answers are lower, then increase assumed return by 5 basis points

Hypothetical Example



Advantages to approach

- Helps expectation stay within national averages (not be an outlier)
- Small incremental changes would have minimal impact to plan costs in any given year
- Avoids having to make any large changes at once during difficult economic times:
  - 2008 had largest one time impact to pension plans across the county
  - Employers across the country were forced to lower future expectations (increasing costs) at the worst possible time
- Helps maintain a healthy funded status

What have Other Public Retirement Systems done?

- CALPERS – described in CALPERS Risk Mitigation Policy
- Michigan Retirement Systems (MORS)
- Michigan Employees Retirement System (MERS)
- These systems have mechanisms in place to reduce the assumed rate of return if investment return exceeds a certain threshold
- They do not increase assumed rates of return if investment returns are below a certain threshold

Other considerations

- Do you want to change the assumed rate annually?
  - The change affects interest on IMRF Voluntary Additional Contributions (VAC)
  - The change affects any interest on member contribution refunds paid either at retirement or as death benefits
  - The change affects purchasing of IMRF past service credit
  - Impacts the calculation of actuarial factors and optional forms of payment (could change every 3 years as an option)
  - Will IT systems be able to handle a frequent change in the assumed rate?