

Texas Pension Review Board

Senate Committee on State Affairs

April 4, 2018



PENSION REVIEW BOARD

PRB Overview

- Oversees all Texas **public retirement systems**, both state and local, in regard to their actuarial soundness and compliance with state law.
- Service population consists of the members, administrators and trustees of **340** individual public retirement plans, state and local government officials, and the public.
- Current PRB activities:
 - **intensive actuarial reviews** of certain retirement systems facing significant funding shortfall
 - **interim studies** to develop legislative recommendations on the following topics: Funding Policies for Fixed Rate Pension Plans and Pooling of Assets for Smaller Plans
 - **online pension dashboard** to provide accessible current, historical, and comparative data on Texas defined benefit plans



PUBLIC PENSION PLAN TYPES IN TEXAS



Public Pension Plan Types

- A **defined benefit (DB) plan** promises the participant a specified benefit at retirement, which is not tied to actual investment performance. For public sector plans, generally, both the employee and employer contribute to the plan, and plan assets are pooled and invested by the plan.
- For participants in a **defined contribution (DC) plan**, the contribution amount is defined, but the benefit at retirement is variable as a result of investment returns and based on the ending account balance.
- **Hybrid plans** utilize both DB and DC components. In Texas, cash balance plans utilize “notional accounts” that receive contributions and interest credits. Benefits are valued and funded like a DB plan.



Landscape of Texas Public Pensions by Plan Type

- **340 Public Retirement Systems in Texas: 99** actuarially funded DB plans (including **2** hybrid plans); **160 defined contribution** and **81 pay-as-you-go** volunteer firefighter plans.
- **The two hybrid/cash-balance** plans are **Texas Municipal Retirement System (TMRS)** and **Texas County and District Retirement System (TCDRS)**. Currently, **872** municipalities are participating in **TMRS**, and **738** counties and districts are participating in **TCDRS**.
- **DC plans** are primarily offered as supplemental plans by school districts, housing authorities, municipal districts, COGs, and MHMR facilities. Plan types include 401(a), 401(k), 403(b), and 457(b) plans.



ACTUARIAL ASSUMPTIONS AND PLAN LIABILITIES



Actuarial Assumptions

- Funding a **defined benefit (DB) plan** requires assumptions to be made about future events. Actuarial assumptions (along with current plan participant data and the benefit formula) are used to estimate future benefit obligations/the cost of the plan.
- Assumptions do not drive costs, actual plan experience does.
- Actuarial assumptions can be split into two broad categories: **economic** and **demographic**.
- Key **economic** assumptions: investment return, inflation, salary increases, payroll growth.



ASOP Standards: Reasonable Economic Assumptions

Actuarial Standard of Practice #27

1. Appropriate for the purpose of the measurement
2. Reflects actuary's professional judgement
3. Takes into account relevant historical and current economic data (the actuary should not give undue weight to recent experience)
4. Reflects the actuary's estimate of future experience
5. It has no significant bias (i.e., it is not significantly optimistic or pessimistic)



Process for Developing Investment Return Assumption

Plan actuary develops a recommendation for pension board consideration

➤ Plan actuary considers the following:

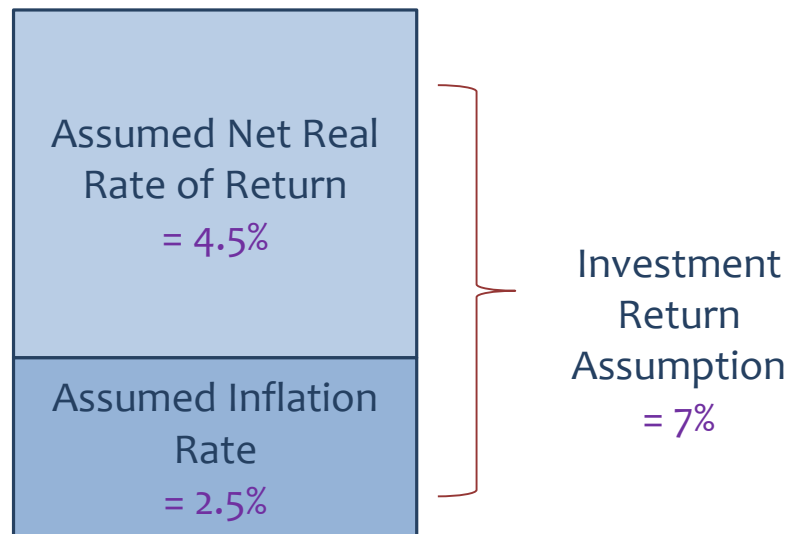
- plan's investment policy statement
- capital market assumptions to estimate future expected returns
- current and historical plan experience
- investment and administrative expenses
- cash flow timing



Process for Developing Investment Return Assumption

- A common approach is the building block method:
 - expected price inflation
 - real rate of return for each asset class

Example



Process for Developing Investment Return Assumption

Pension board adopts investment return assumption

- Considers the following:
 - plan actuary's recommendation
 - investment consultant's projections regarding the plan's expected return on assets
 - fiduciary duty to plan to choose an appropriate assumption
 - ✓ not overly optimistic or pessimistic
 - ✓ ability to weather adverse experience
 - peer comparison data and national trends



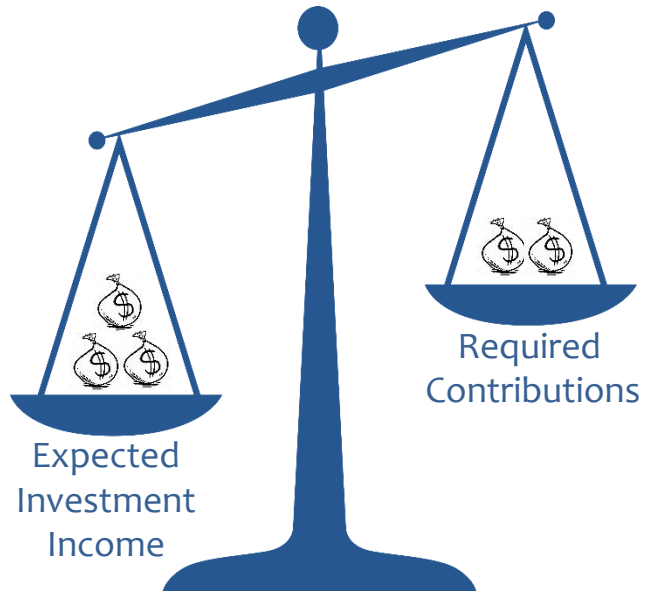
Process for Developing Investment Return Assumption

- Short-term fluctuations should not overly influence the expected **long-term investment return assumption**; however order matters. Lower returns in the near term will result in lower total assets even if actual long-term average returns are closer to the return assumption.
- Plans should **regularly review** their investment return and inflation assumptions to ensure those assumptions align with the systems' investment strategy, asset allocation, risk tolerance, and expected future returns on assets.

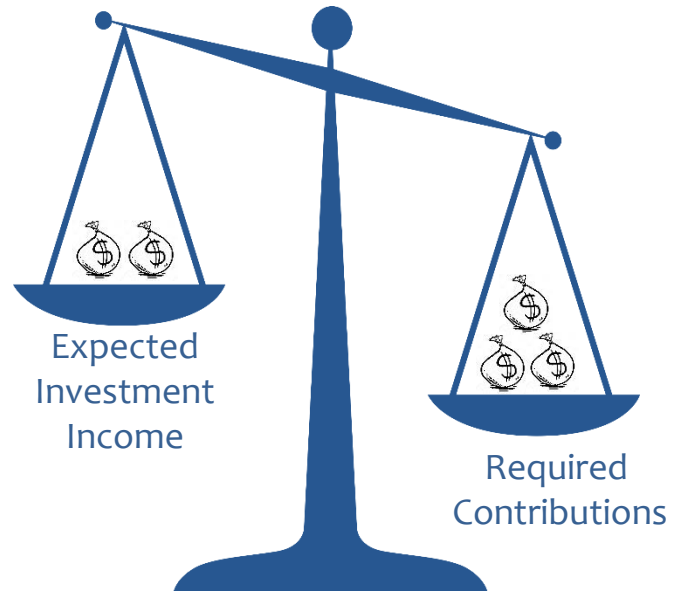


Impact of Investment Return Assumption

Investment Return Assumption = 8%



Investment Return Assumption = 6%



Impact of Investment Return Assumption

- Has a direct, **inverse correlation** with the liability and expected contribution requirements of a plan.
- A higher return assumption leads to a lower liability calculation and vice versa. Therefore, reducing the return assumption leads to an increase in the unfunded liability of a plan.
- **Lowering the return assumption** results in **higher contribution requirement**.
- If a retirement plan receives the increased contribution, its actuarial soundness should not be affected in the long term.



Investment Return Assumption Trends

- The average investment return assumption for Texas public retirement systems is currently **7.46%**. The national average is **7.36%** (NASRA, Feb. 2018).
- In response to projected market conditions and actual plan experience, retirement systems across the country including Texas have reduced their return assumptions in recent years, and we expect this trend to continue.

Texas Plans' Investment Return Assumptions		
	Current AV Effective Date	Prior AV Effective Date
> 8.00%	1	3
8.00%	16	22
> 7.50%, < 8.00%	26	22
7.50%	16	17
> 7.00%, < 7.50%	13	7
7.00%	10	14
< 7.00%	11	6
Total Plans Registered	93	91



Average Actual Investment Returns

Average Returns by Plan Type			
Plan Type	1-Year Net	3-Year Net	10-Year Net
Statewide	9.10%	5.70%	5.52%
Municipal	8.26%	3.50%	4.66%
Local Fire Fighter	6.46%	2.96%	4.18%
Special District/ Supplemental	6.70%	4.39%	4.90%
Total	7.04%	4.39%	4.90%

According to the most recent fiscal year-end Investment Returns and Assumptions Report.

Additional Resources

- * Blue Ribbon Panel on Public Pension Plan Funding, Society of Actuaries. <http://www.soa.org/blueribbonpanel/>
- * ASOP 27, Selection of Economic Assumptions for Measuring Pension Obligations, Actuarial Standards Board. http://www.actuarialstandardsboard.org/wp-content/uploads/2014/02/asop027_172.pdf
- * Pension Plan Valuation: Views on Using Multiple Measures to Offer a More Complete Financial Picture, Government Accountability Office. <http://www.gao.gov/products/GAO-14-264>
- * Measuring Pension Obligations: Discount Rates Serve Various Purposes, American Academy of Actuaries. https://www.actuary.org/files/IB_Measuring-Pension-Obligations_Nov-21-2013.pdf
- * Public Pension Plan Investment Return Assumptions, NASRA. <http://www.nasra.org/files/Issue%20Briefs/NASRAInvReturnAssumptBrief.pdf>
- * 2014 Study of the Financial Health of Texas Public Retirement Systems, PRB. http://www.prb.state.tx.us/files/reports/Financial_Health_Study_Final.pdf



Educational Resources

- **PRB Online Courses:** Actuarial Matters, Benefits Administration, Investments, Governance, Fiduciary Matters, Ethics, Risk Management
- Available at: <http://www.prb.state.tx.us/resource-center/trustees-administrators/educational-training-program/>
- Login: enter office and name. No password required.

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