Asset/Liability Study

Amy C. McGarrity, Interim Executive Director/Chief Investment Officer

September 22, 2023
Asset/Liability Modeling: Context

• Asset allocation is the primary determinant of a portfolio’s risk (i.e., volatility) and return

• PERA’s strategic asset allocation (targets and ranges) is determined by the PERA Board through an extensive asset/liability study (A/L study)

• The asset/liability study process is a cornerstone of prudent governance of a pension plan
  • Conducted generally every five years
  • Explicitly acknowledge evolution within the capital markets
  • Establish reasonable risk/return expectations, which will ultimately inform a strategic asset allocation policy
Asset/Liability Modeling: Process

• The Board’s external experts (investment and actuarial consultants) inform the process
  • Aon’s models incorporate Segal’s liability data and assumptions

• Consultants (and others) develop long-term capital market expectation assumptions for numerous asset classes
  • Used to model different portfolios, depending on the Board’s objectives
  • Modeled portfolios produce an expected return and volatility, based on the building blocks of the asset class components and their weights

• Aon and Segal may have different capital market assumption sets, though Aon’s assumptions will be the foundation for this study
Historical Context

PERA's Historical Strategic Asset Allocation Targets and Actuarial Assumed Rates of Return

- Global Equity
- Fixed Income
- Private Equity
- Real Estate
- Alternatives
- Cash
- Actuarial Assumed ROR
### Historical Context

#### Early 1990s

- **A very low allocation to fixed income**

#### Early 2000s

- **Barclays Global Investors led study which resulted in a marked increase to the fixed income allocation (from 10% to 25%)**

#### 2002

- **Creation of the Opportunity Fund (Alternatives) with a 3% allocation (1% from the Timber allocation (which moved into the Opportunity Fund/Alternatives) and 2% from Global Equity)**

#### 2007

- **Ennis Knupp (now Aon) led study which resulted in reducing Global Equity by 2% and increasing the Opportunity Fund (Alternatives) by 2%**

#### 2015

- **Study done by Aon Hewitt (now Aon). Global Equity was reduced by 2%, Fixed Income reduced by 2%, Private Equity and Real Estate increased by 1.5%, the Opportunity Fund (Alternatives) increased by 1%, and a new Cash target allocation of 1% was established**

#### 2019

- **Most recent study done by Aon. Cash allocation was removed and the long-term target for Global Equity was increased 1%**
Asset Allocation and Long-Term Expectations

- Individual asset class volatility/return expectations are used to ‘build’ a portfolio’s expected volatility/return
  - Each asset class serves a role in the context of a portfolio
    - Diversification
    - Return enhancement
    - Income generation
    - Risk mitigation
- When combined in a portfolio, asset classes may behave differently than they would on a standalone basis
Asset Allocation and Long-Term Expectations (continued)

### Real Estate: 8.5%*
- Expected 30-year return: 6.8%
- Source of alternative income and downside protection

### Global Equities: 54.0%*
- Expected 30-year return: 8.9%
- Primary driver of portfolio return in the long-run
- Provides liquidity to the portfolio

### Alternatives: 6.0%*
- Expected 30-year return: 7.1%
- Provides good risk-adjusted returns and diversification

### Private Equity: 8.5%*
- Expected 30-year return: 9.6%
- Enhances returns beyond what is available in public equity
- Provides diversification

### Fixed Income: 23.0%*
- Expected 30-year return: 3.6%
- Provides diversification and liquidity while reducing portfolio volatility

Return expectations are as of the 2019 A/L Study
Today’s Objective

• Learn about the asset/liability framework and process
• Gather information on capital market assumptions
• Discuss the next steps and timeline
Questions?