

Investment Portfolio Priorities

Board and Executive Staff Offsite
July 13, 2015

What We Hope to Accomplish Today

- Inform – Progress since last update
- Understand – Portfolio priorities and other key initiatives
- Discuss – Continue dialogue
 - Illustrative examples
 - Outcomes
 - Next steps

Contents

Inform

- i. Refresh – Portfolio Priority Characteristics
- ii. How did we get to this point
- iii. Where are we trying to get to

Refresh| Why Are Portfolio Priorities Important?

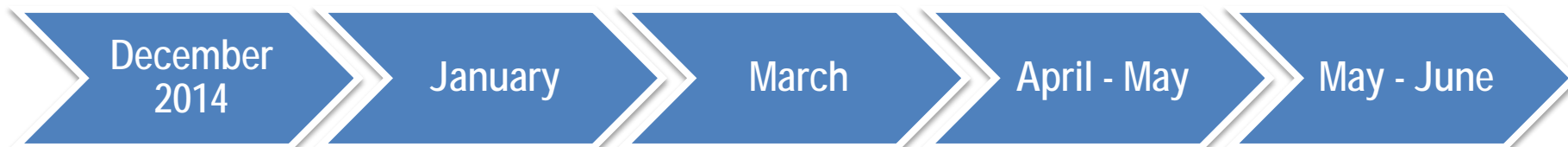
1. Focus attention on the overall mission
 - *Investment Belief 2 – Long Time Horizon*
2. Provide clear basis for portfolio trade-off considerations (e.g., appreciation vs. income)
 - *Investment Belief 9 – Multi-faceted Risk*
3. Align Investment Staff activities
 - *Investment Belief 5 – Accountability*
4. Define asset allocation strategic levers
 - *Investment Belief 6 – Strategic Allocation*

Portfolio Priorities| What do we have today

In order to be implementable, there must be a small number of specific priorities that support our fiduciary considerations

1. Protect the Funded Ratio
2. Stabilize Employer Contribution Rates
3. Ensure Sufficient Cash to Pay Benefits
4. Achieve Long-term Required Rate of Return

Refresh| Recap Since January 2015



- Portfolio priorities – Benchmark evaluation tools

- Consensus that the concept adds value for CalPERS

- Investment, Actuarial, and Financial Office Staff Working Session

- Senior Staff Focus Groups

- Review and Discuss Results

4 potential priorities

7 potential priorities

2-4 priorities

Portfolio Priorities | Anticipated Outcomes

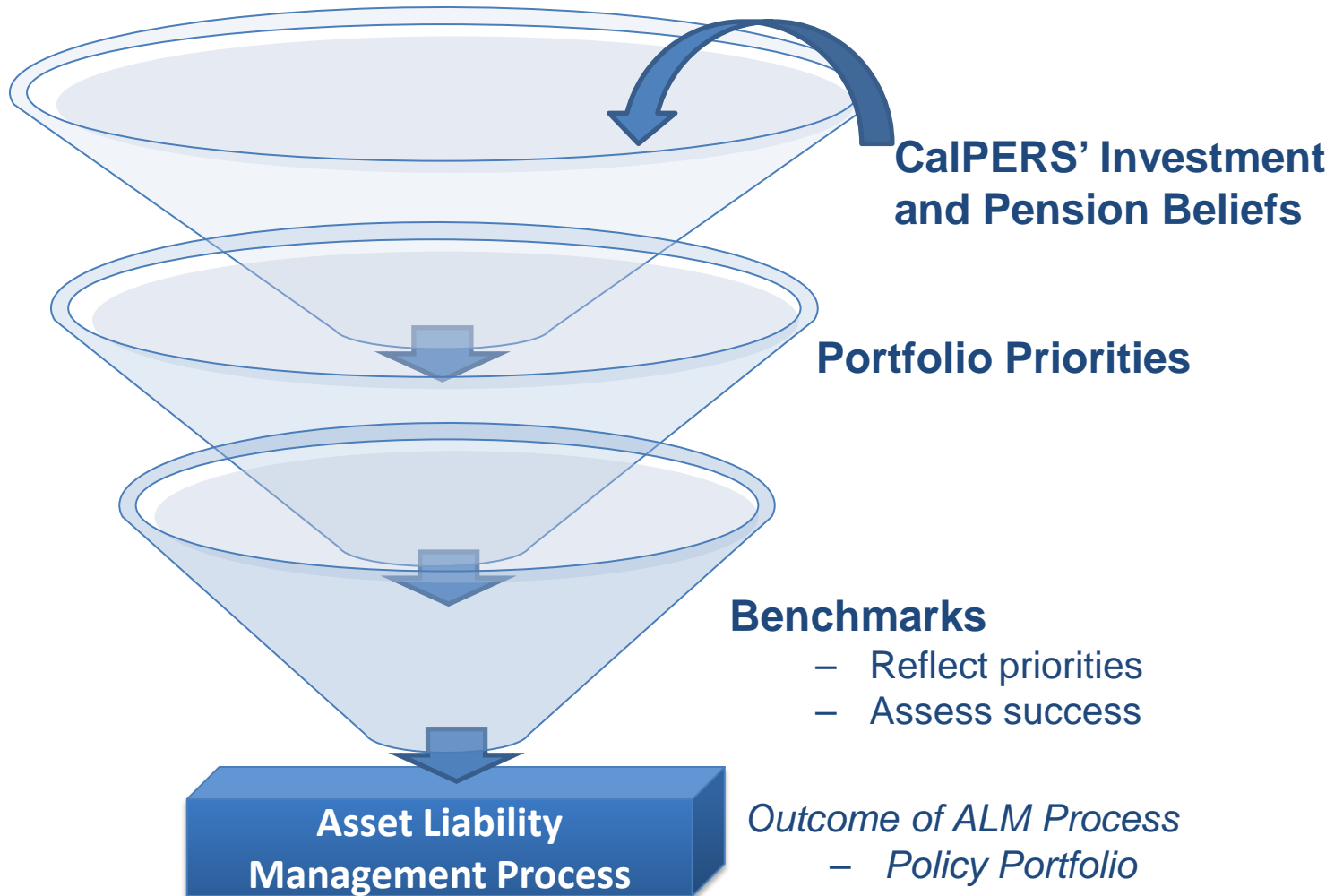
1. Enhance Asset Liability Management (ALM) process and benchmark selection methodology
2. Opportunity for dialogue and shared understanding

Contents

Understand – Portfolio Priorities & Other Work

- i. Investment Beliefs
- ii. Liabilities Management
- iii. Investment Office 2020 Vision
- iv. CalPERS Strategic Plan

Portfolio Construction | Reflects Our Priorities



Portfolio Priorities & Investment Beliefs |

May 2015 Towers Watson Presentation Highlights

- “How do you turn beliefs into execution?”
- “Investment Beliefs inform portfolio construction priorities”

Priorities | Investment Beliefs

Top-level Investment Beliefs, and their sub-beliefs, are supported by the prospective portfolio priorities

Priority: Protect the Funded Ratio

Supporting language in Investment Beliefs:

- ...adequate funding status... (Belief 1)
- ...consider the long-term impact...long-term sustainable value...(Belief 2)
- ...primary stakeholders are members/beneficiaries, employers and California taxpayers... (Belief 3)

Priorities | Investment Beliefs

Top-level Investment Beliefs, and their sub-beliefs, are supported by the prospective portfolio priorities

Priority: Stabilize Employer Contribution Rates

Supporting language in Investment Beliefs:

- ...hedge inflation (Belief 1)
- ...Tolerate some volatility... (Belief 2)
- The path of returns matters... (Belief 9)

Portfolio Priorities | Investment Beliefs

Top-level Investment Beliefs, and their sub-beliefs, are supported by the prospective priorities

Priority: Ensure Sufficient Cash to Pay Benefits

Supporting language in Investment Beliefs:

- ...growing cash requirement... (Belief 1)
- ...cares about income and appreciation components... (Belief 1)
- ...Aligns interests... (Belief 10)

Priorities | Investment Beliefs

Top-level Investment Beliefs, and their sub-beliefs, are supported by the prospective portfolio priorities

Priority: Achieve Long-term Required Rate of Return

Supporting language in Investment Beliefs:

- ...Invest in illiquid assets, provided appropriate premium is earned... (Belief 2)
- ...delivery of long-term target return... (Belief 5)
- ...material impact on portfolio risk and return (Belief 6)

Interrelated Initiatives |



Priorities & Liabilities

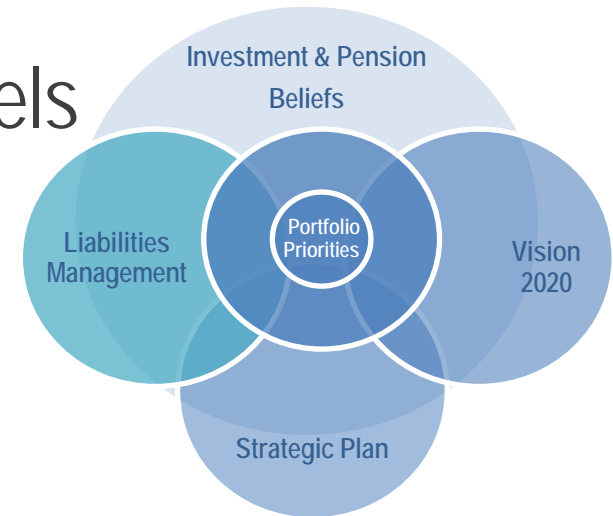
May 2015 ALM Board Workshop Highlights

- “Focus of risk mitigation should be a desired risk level, not a discount rate”
- “Where do we want to be as our goal?”
- “The volatility of investments is more important than the discount rate”
- “Focusing on risk allocation instead of asset allocation”

Priorities & Liabilities

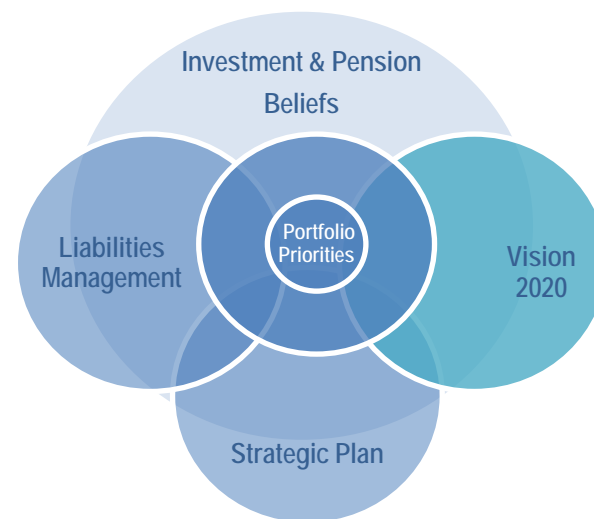
Key Risk Considerations

- Funded Ratio
- Employer Contribution Rate Levels
- Employer Contribution Rate Volatility



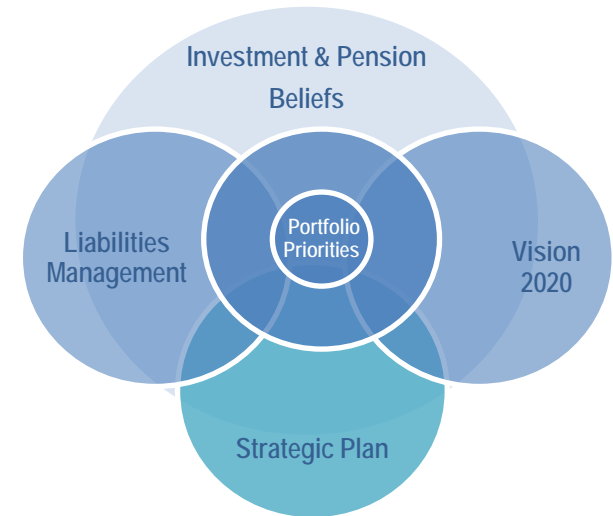
Priorities & 2020 Vision

- Focused Portfolio
- Reduce Complexity
- Manage Risks



Priorities & CalPERS Strategic Plan

- Strategic Plan Goal: Improve long-term pension...sustainability



– Comments & Questions

Contents

Discuss – Continue Dialogue

- i. Refined Portfolio Priorities
- ii. Illustrative Examples
- iii. Implications and Outcomes
- iv. Next Steps

Focus Group Outcomes |

Widely Embraced Across All Groups

1. Protect the Funded Ratio
2. Stabilize Employer Contribution Rates

Focus Group Outcomes |

Wide Support, but With Interpretive Differences

3. Ensure Sufficient Cash to Pay Benefits
4. Achieve Long-term Required Rate of Return

Portfolio Priorities | Ensure Sufficient Cash to Pay Benefits

Focus Group Discussion Observations

- “Checking Account” vs. “Reserve Account”
- Harvesting Income vs. Tapping Liquidity

Portfolio Priorities | Achieve Long-term Required Rate of Return

Focus Group Discussion Observations

- “Given” vs. Constraint
- Interplay with risk mitigation goals
- Long-term, not annual goal

– Comments & Questions

Divergent Time Horizons

1-3 year

- Incentives

4 year

- ALM Cycle

10 year

- Capital Market Assumptions

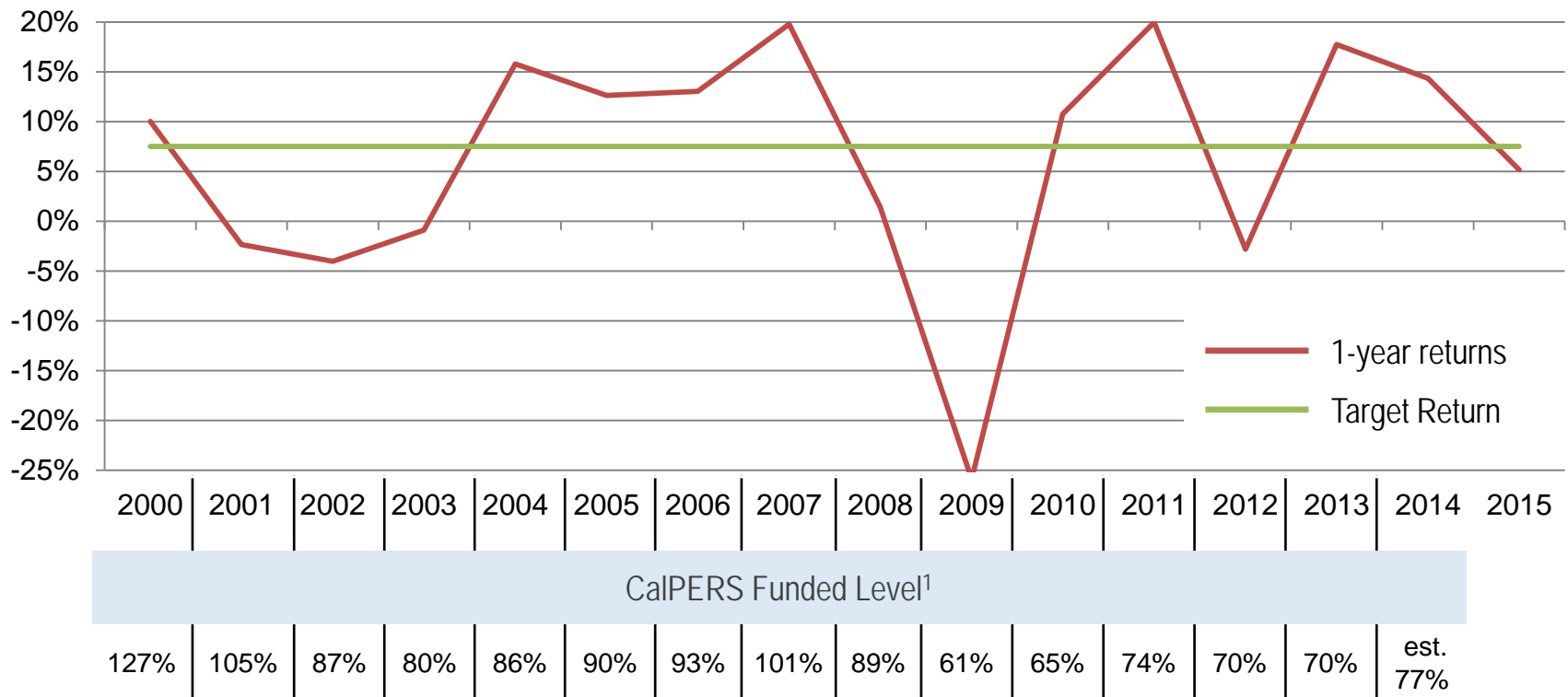
60 year

- ALM Horizon – Blended Expected Returns

Volatility Over Time

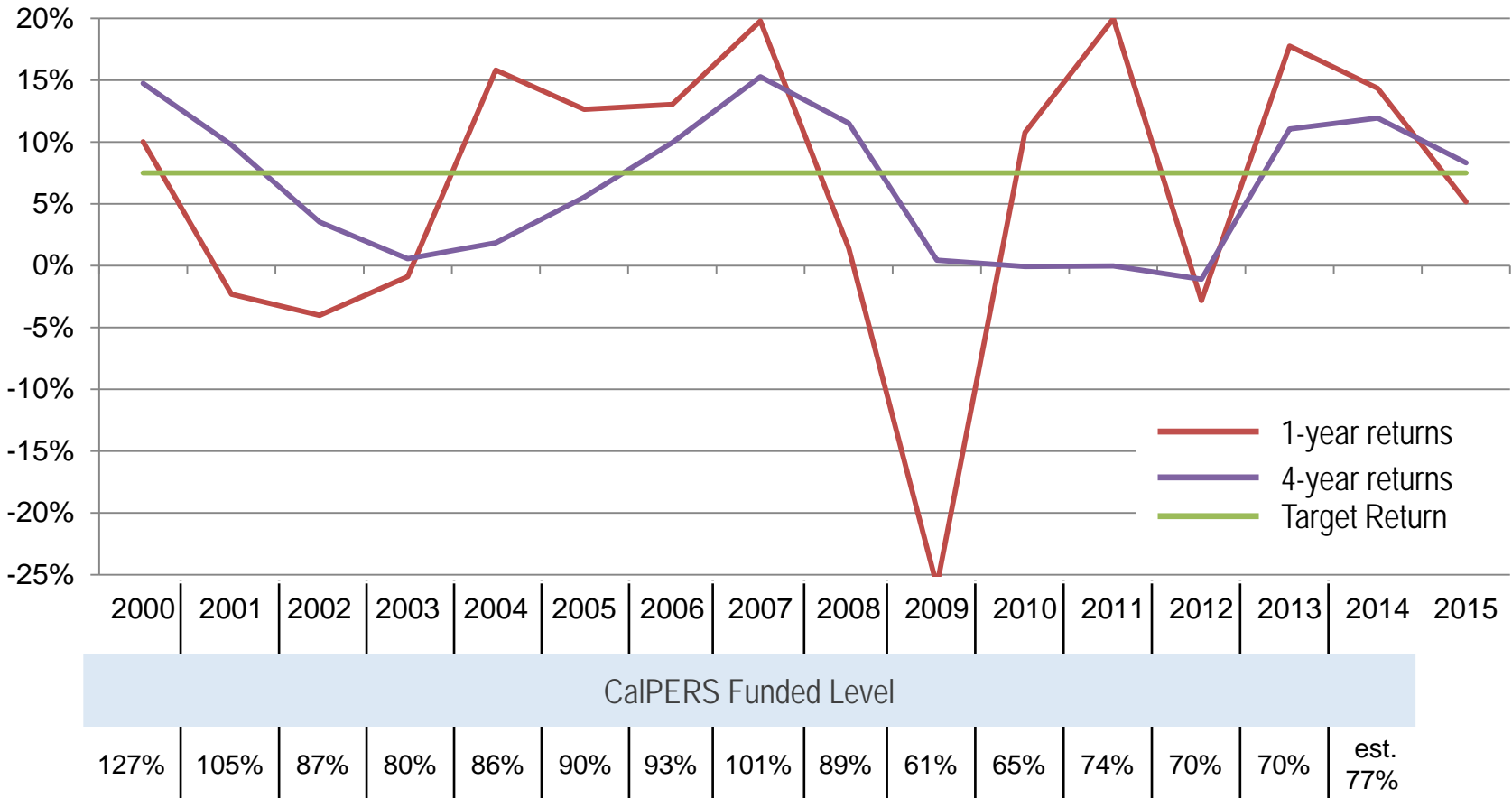
Perspective: Annual Total Return for the Fund

Total Fund Annualized Rolling Returns May 2000-May 2015



Volatility Over Time

Perspective: 1-year vs. 4-year Returns for the Fund



Portfolio Priorities| How Might They Look?

Illustrative Example: Protect the Funded Ratio

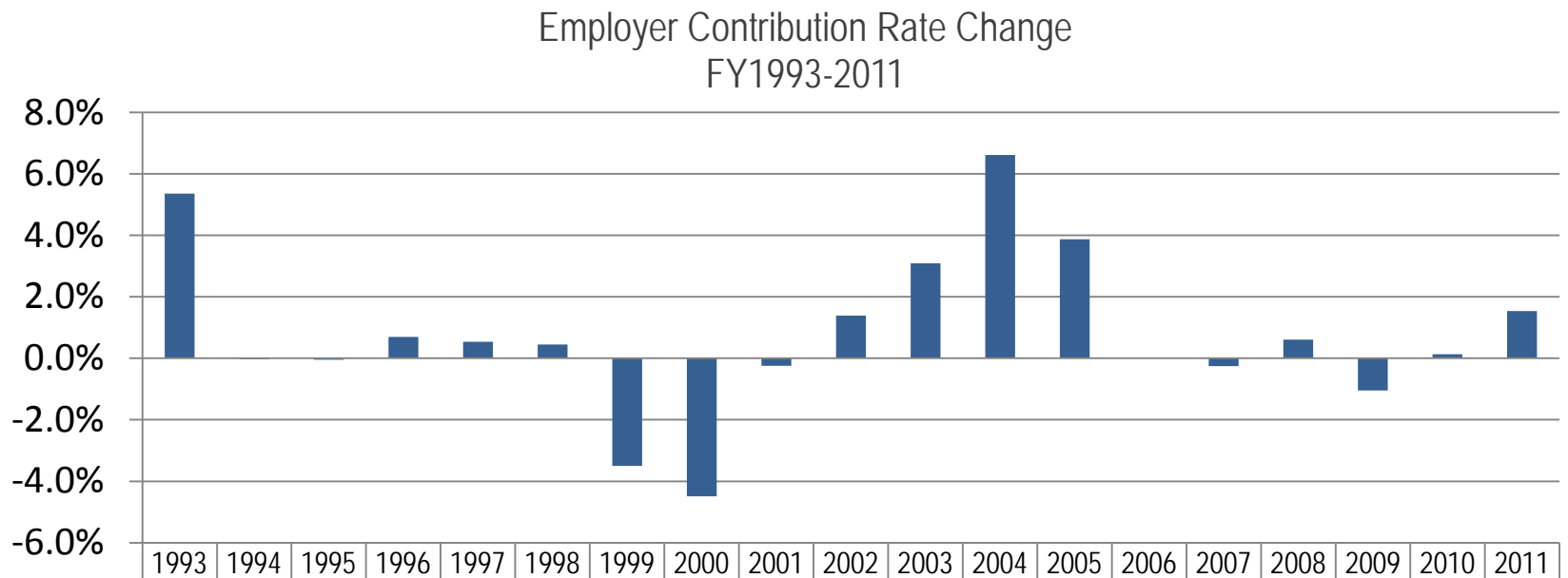
- Example Goal: Mitigate Extreme Drawdowns
- Reduced volatility comes with reduced expected returns

If the Funded Ratio is in:	Assets <u>could be</u> structured to:
Danger Zone	Emphasize drawdown protection
Vulnerable	Balance return and protection
Comfortable	Emphasize return and manage volatility

Portfolio Priorities| How Might They Look?

Illustrative Example: Stabilize Employer Contribution Rates

- Example Goal: Manage volatility to stabilize contributions



Portfolio Priorities| How Might They Look?

Stabilize Employer Contribution Rates *Continued*

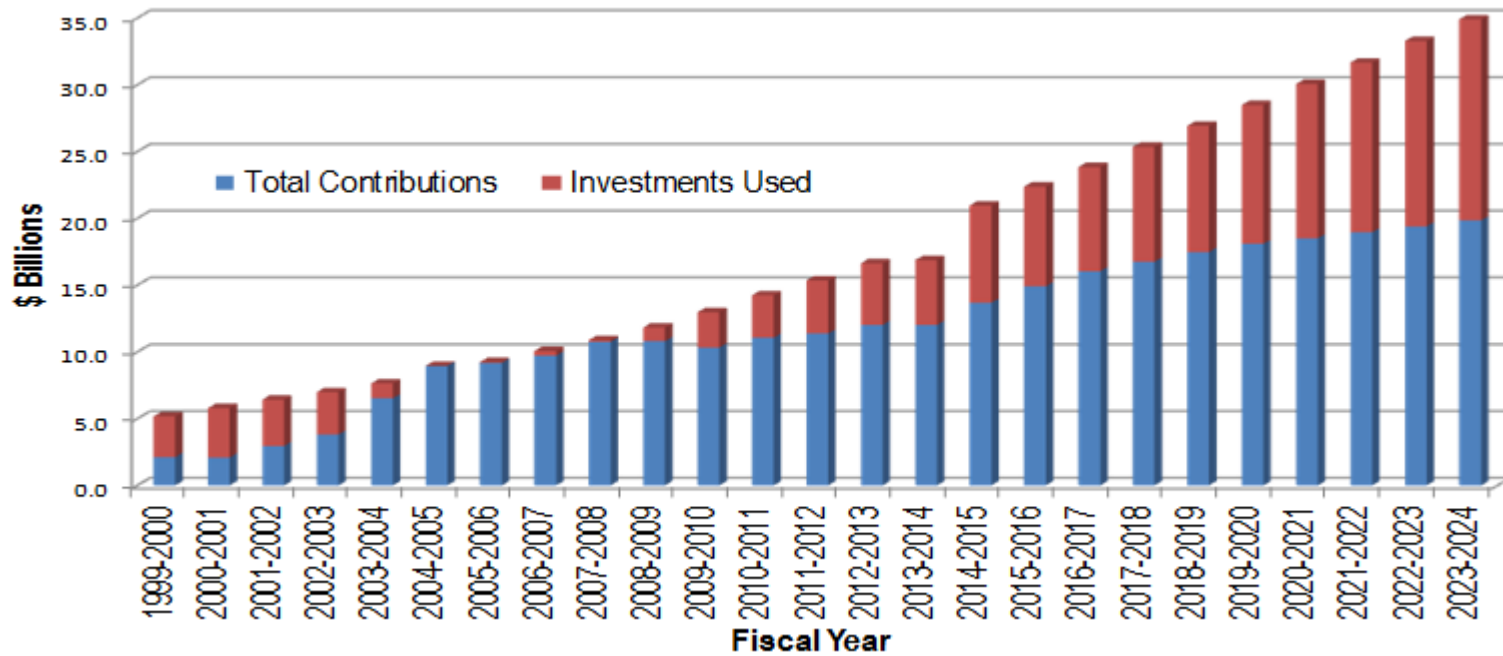
- Mitigating overall volatility through effective use of diversification
- Focus on total risk

Portfolio Priorities| How Might They Look?

Ensure Sufficient Cash to Pay Benefits

Example Goal: Maintain sufficient liquidity and increase investment income

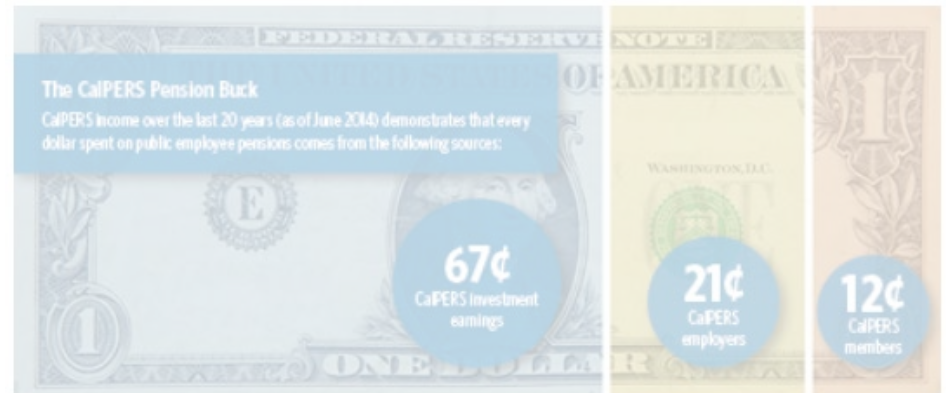
Historic and Projected PERF* Contributions and Investments for Benefit Payments



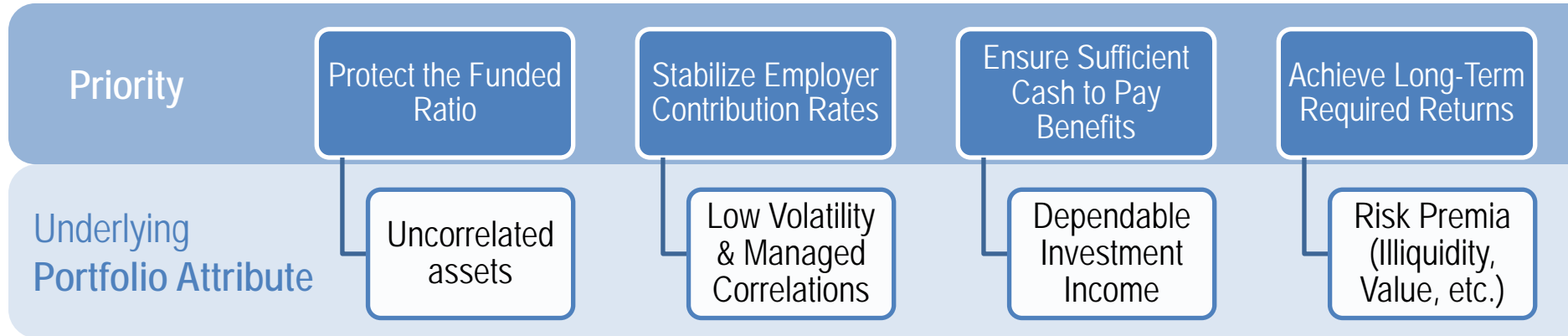
Portfolio Priorities| How Might They Look?

Achieving Required Long-Term Rate of Return

- Current return targets come with significant market risk
- Goal is to refine our market exposure to best reflect chosen risk and return tradeoffs



Portfolio Attributes to Address Priorities-Examples



– Comments & Questions

ALM Implications

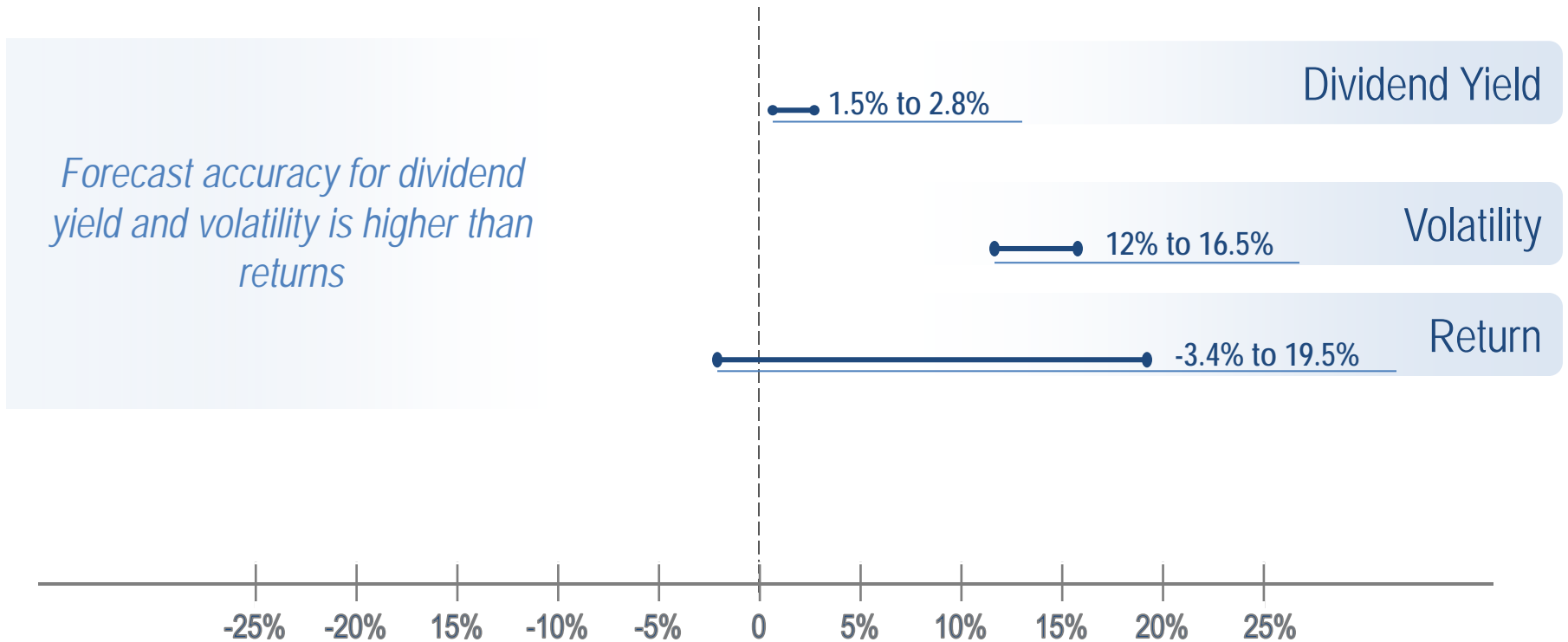
Prior ALM processes have focused on forecasts of:

- Returns
- Volatility
- Correlation

How could the 2017-18 ALM be different?

Illustration | Analysis Must Account for Uncertainty

Ranges for S&P 500 Over 10-year Periods
(1988-2015)

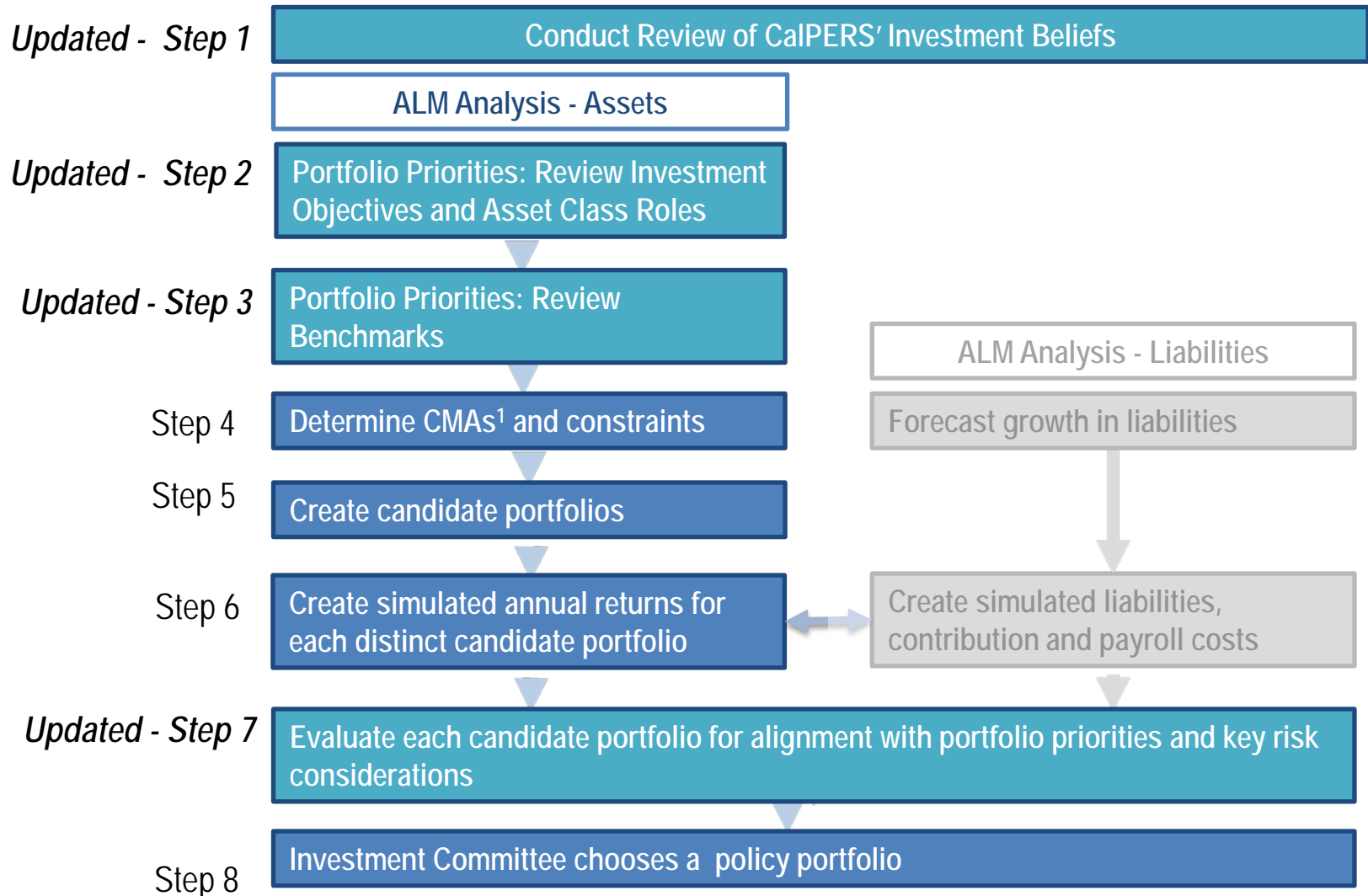


Asset Allocation Implications

For 2017-18 ALM we expect:

- Board focus on risk profile and balancing priorities
- Continuing integration of risk exposures (assets and liabilities)
- Analysis and success criteria (including benchmarks) reflect the portfolio priorities

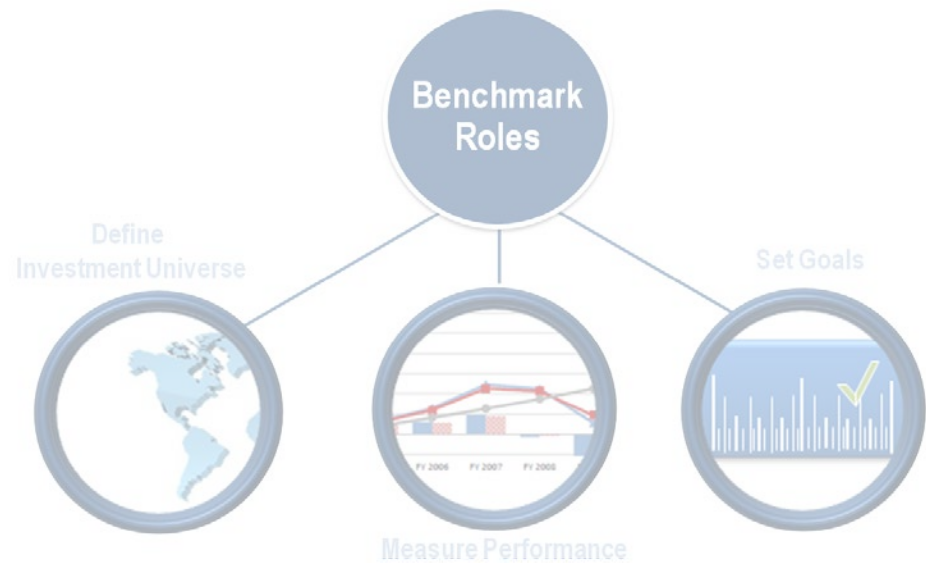
Portfolio Priorities| Potential Enhancements to Next ALM



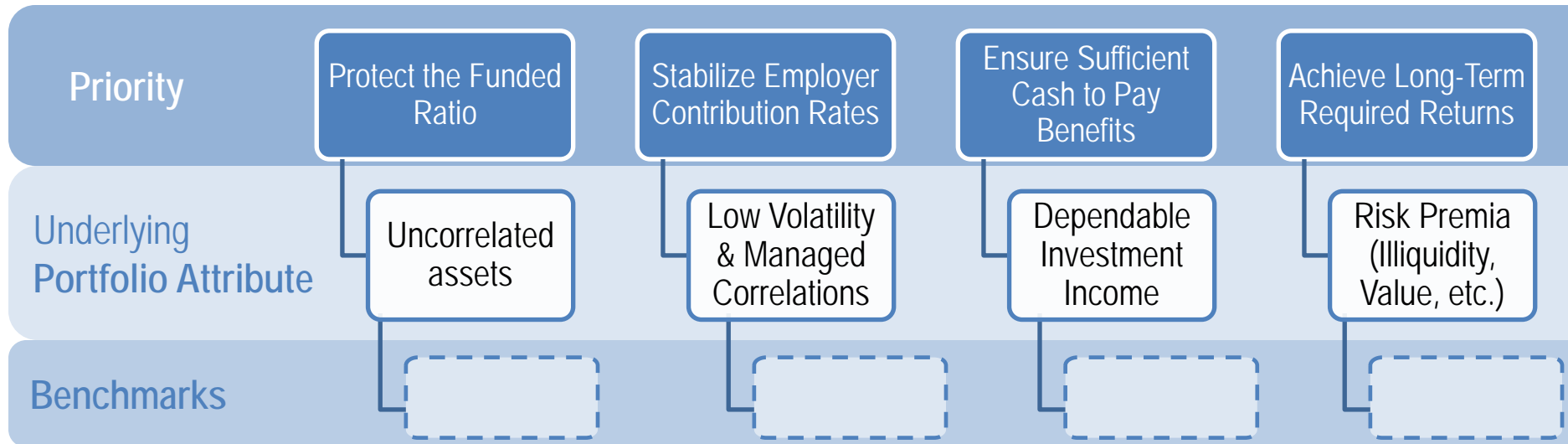
¹ Capital Market Assumptions (CMAs)

Benchmark Considerations

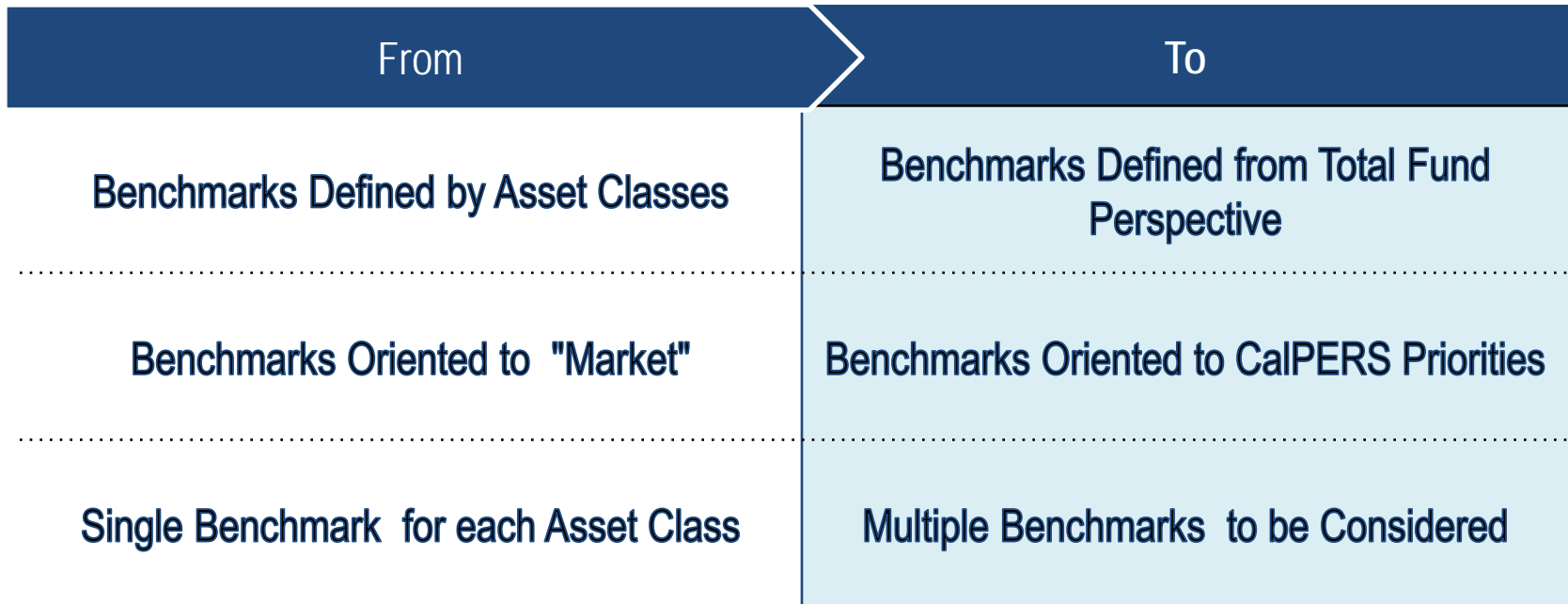
- Reflect our priorities
- Are measurable and representative
- Are long-term in nature
- Represents shared goals
- Consider multiple benchmarks to fit specific purposes



Benchmarks | Selected to Emphasize Desired Attributes



Summary| Benchmark Implications



– Comments & Questions

– Next Steps