Affiliate Trust Asset Allocation Review: California Employers’ Pension Prefunding Trust (CEPPT)

Trust Level Portfolio Management
Global Equity, Affiliate Investment Program
June 17th, 2019
Overview of Program Characteristics

Strategic Asset Allocation and Recommendation
Required pension contributions are on track to rise over the next several years.

As one option to address this challenge, the California Legislature established the California Employers' Pension Prefunding Trust (CEPPT) effective 1/1/2019 to allow state and local public agency employers that provide a defined benefit pension plan to their employees to prefund their required pension contributions and invest those contributions within a trust that is intended to meet the requirements of Section 115 of the Internal Revenue Code.

The CEPPT will be:

- Exempt from taxation
- For a defined governmental purpose (i.e. prefunding pension contributions)
- Irrevocable for contributions and earnings to the trust
- Open to terminations with a transfer to another Section 115 trust with same purpose
- Same trust type used for CERBT

Trust participants do not need to be CalPERS pension participants.
Contributions are voluntary.
## CEPPT - Program Overview: Benefits and Alternatives

### Potential Employer Benefits

- Budget stabilization, smoothing of pension payments
- Diversified investments with strategic asset allocation
- Established relationship with CalPERS
- CalPERS is a low cost provider

### Potential Employer Alternatives to the CEPPT

- Employer self-managed investments
- Local Agency Investment Fund
- Contribute to the PERF
- Other prefunding trust providers
- Reduce services
- Increase taxes
# CEPPT - Program Overview: Projected Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible participants</td>
<td>State of CA and CA public agency employers offering a defined benefit plan to their employees</td>
</tr>
</tbody>
</table>
| Contributions/distributions | Voluntary, determined by employer  
Variable in size and timing                                 |
| Time horizon             | Short to medium-term                                                        |
| Risk tolerance           | Low to moderate                                                             |
| Use of funds             | Paying pension contributions  
Transferring to Section 115 trust for same purpose                         |
Overview of Program Characteristics

Strategic Asset Allocation and Recommendations
# CEPPT - Plan Characteristics and Effect on Asset Allocation

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>If it is…</th>
<th>…Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions / Distributions</td>
<td>Voluntary and variable</td>
<td>Uncertain cash in/out, at uncertain times</td>
<td>Requires liquid &amp; less risky portfolios</td>
</tr>
<tr>
<td>Investor Time Horizon</td>
<td>Employers may have differing time horizons</td>
<td>Shorter time horizon</td>
<td>Low risk portfolios</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium time horizon</td>
<td>Medium risk portfolios</td>
</tr>
<tr>
<td>Investor Risk Tolerance</td>
<td>Employers may have differing risk tolerance</td>
<td>Low tolerance</td>
<td>Low risk portfolios</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium tolerance</td>
<td>Medium risk portfolios</td>
</tr>
</tbody>
</table>
# CEPPT - 2019 Capital Market Assumptions and Constraints

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Arithmetic Return</th>
<th>Geometric Return</th>
<th>Volatility (Std. Dev)</th>
<th>Global Equity</th>
<th>Fixed Income</th>
<th>TIPS</th>
<th>REITs</th>
<th>Floor</th>
<th>Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity</td>
<td>8.03%</td>
<td>6.70%</td>
<td>16.90%</td>
<td>1.00</td>
<td>-0.13</td>
<td>0.12</td>
<td>0.78</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>3.46%</td>
<td>3.35%</td>
<td>4.75%</td>
<td>-0.13</td>
<td>1.00</td>
<td>0.75</td>
<td>0.15</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>TIPS²</td>
<td>3.17%</td>
<td>3.00%</td>
<td>6.00%</td>
<td>0.12</td>
<td>0.75</td>
<td>1.00</td>
<td>0.30</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>REITs³</td>
<td>7.20%</td>
<td>5.50%</td>
<td>19.00%</td>
<td>0.78</td>
<td>0.15</td>
<td>0.30</td>
<td>1.00</td>
<td>8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

U.S. Inflation Assumption: 2.10%

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1. Assumptions of 1-10 year forecasted expected returns.
2. Treasury Inflation-Protected Securities (TIPS)
3. Real Estate Investment Trusts (REITs); REITs expected returns are estimated using a Dividend Discount Model.
CEPPT - Efficient Frontier

Note: Portfolios shown on the efficient frontier are net of fees of 25 basis points.
## CEPPT - Candidate and Recommended Portfolios

<table>
<thead>
<tr>
<th>Asset Class Component</th>
<th>Asset Allocation of Candidate Portfolios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1</td>
</tr>
<tr>
<td>Global Equity</td>
<td>3%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>84%</td>
</tr>
<tr>
<td>TIPS</td>
<td>5%</td>
</tr>
<tr>
<td>REITs</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Asset Allocation of Candidate Portfolios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1</td>
</tr>
<tr>
<td>Expected Volatility (Standard Deviation)</td>
<td>4.8%</td>
</tr>
<tr>
<td>Expected Compound Return (1-10 Years)</td>
<td>3.5%</td>
</tr>
<tr>
<td>Expected Tail Risk - Monte Carlo VaR</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Recommendation for Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CEPPT Strategy 2</td>
</tr>
</tbody>
</table>

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1. Expected Compound Returns shown are net of fees of 25 basis points.
2. Expected Tail Risk - Value at Risk (VaR) calculates the maximum loss expected (or worst case scenario), over a 1 year period given a 95% level of confidence.
## CEPPT - Recommended Benchmarks

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity</td>
<td>MSCI ACWI IMI (Net)</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>Bloomberg Barclays U.S. Aggregate Bond Index</td>
</tr>
<tr>
<td>TIPS</td>
<td>Bloomberg Barclays U.S. TIPs Index, Series L</td>
</tr>
<tr>
<td>REITs</td>
<td>FTSE EPRA/NAREIT Developed Liquid (Net)</td>
</tr>
<tr>
<td>Liquidity</td>
<td>91-day Treasury Bill (asset class utilized for operating cash)</td>
</tr>
</tbody>
</table>

CalPERS
### CEPPT - Recommended Asset Class Ranges

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity</td>
<td>+/- 5%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>+/- 5%</td>
</tr>
<tr>
<td>TIPS</td>
<td>+/- 3%</td>
</tr>
<tr>
<td>REITs</td>
<td>+/- 5%</td>
</tr>
<tr>
<td>Liquidity</td>
<td>+ 2%</td>
</tr>
</tbody>
</table>

**Objectives:**

- Provide flexibility for changing market conditions between portfolio rebalances
- Reduce rebalancing frequency and costs
- Facilitate contribution & distribution activity
CEPPT – Recommendation & Next Steps

**Recommendation**

- Approve Portfolio P2 for CEPPT Strategy 2 (more conservative)
- Approve Portfolio P4 for CEPPT Strategy 1 (less conservative)
- Approve Recommended Benchmarks and Ranges
- Approve Investment Policy

**Next Steps**

- Complete setup work for the CEPPT
- Open CEPPT by 7/1/19
- Update Board in future Program reviews
Appendix
Cumulative Returns Through Various Economic Conditions

Cumulative Return %

- 220%
- 200%
- 180%
- 160%
- 140%
- 120%
- 100%
- 80%


Legend:
- P1
- P2
- P3
- P4
- P5

CalPERS
Cumulative Returns (Drawdown) Under Historic Market Distress

<table>
<thead>
<tr>
<th>Event</th>
<th>Date Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Financial Crisis</td>
<td>Nov. 2007 to Feb. 2009</td>
</tr>
</tbody>
</table>

Bar chart showing cumulative returns and drawdown percentages for different market distress events.