Current Trends in Asset Allocation

AndCo Consulting
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Disclosures

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Public Pension Plan Basics

Funding Basics: Benefits + Expenses = Contributions + Investment Earnings
Pension Plan Basics and the Current Environment

Public Pension Sources of Revenue, 1989-2018

- Employer Contributions: 26% ($2.10 trillion)
- Employee Contributions: 11% ($933 billion)
- Investment Earnings: 63% ($5.06 trillion)

Source: Compiled by NASRA based on U.S. Census Bureau Data
The Role of Asset Allocation

- The ASSET ALLOCATION DECISION is the largest contributor to a portfolio’s short and long-term RATE OF RETURN and RISK
  - Asset Allocation is responsible for over 90% of the variability of portfolio returns
  - Asset Allocation is responsible for 100% of portfolio returns
  - Asset Allocation is responsible for 40% of return variation between funds (relative variability)

- Plan assets can be invested across a variety of different investment types, each with their own risk and return characteristics
  - Traditional: Equities and Fixed Income
  - Alternatives: Real estate, Private Equity, Hedge Funds, etc.

Trends in Asset Allocation – Macro Level

• Asset Allocation and Asset Liability Modeling Requests Going Up
  • Public Funds Need to Justify Returns

• Sense of Tactical vs. Strategic Thinking
  • Short Term vs. Long Term Investing

• Increased Plan Risk Through Allocations to Higher Return Asset Classes
  • International (Stock and Bonds)
  • Real Estate (Core to Value Add)
  • Alternatives (Across the Board – Equity and Fixed Income)
  • Real Assets (Commodities)

• Movement Toward Private Market Investments
  • Trading Liquidity for Return

• Seeking Lower Cost Options in Traditional Asset Classes (Implementation)
  • Trading Potential Excess Return for Lower Cost
Return Assumptions Have Trended Lower

10-15 Year Expected Return Projections Since 2010

Source: JP Morgan 2019 Long-Term Capital Market Assumptions. This contains representations of future expectations and assumptions which are inherently speculative and actual results, performance or events may differ materially from those expressed or implied in this report.
Pension Plan Basics and the Current Environment

Distribution of Public Pension Investment Return Assumptions
Fiscal Year 2001 – Fiscal Year 2019

%
>8.5
8.5
>8.0 < 8.5
8.0
>7.5 < 8.0
7.5
>7.0 < 7.5
7.0
7.0
< 7.0

Fiscal Year
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19

Public Fund Survey, NASRA Feb-19

Source: NASRA Issue Brief: Public Pension Plan Return Assumption, February 2019
What Are Plans Doing to Meet This Challenge?

Target Investment Asset Allocation

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>Domestic Equity</td>
<td>30.1%</td>
<td>36.0%</td>
</tr>
<tr>
<td>International Equity</td>
<td>18.8%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Domestic Fixed Income</td>
<td>18.8%</td>
<td>24.0%</td>
</tr>
<tr>
<td>International Fixed Income</td>
<td>6.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>High Yield Bond</td>
<td>7.8%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>9.8%</td>
<td>8.0%</td>
</tr>
<tr>
<td>PE / Hedge / Alternatives</td>
<td>14.7%</td>
<td>10.0%</td>
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<tr>
<td>Commodities</td>
<td>4.6%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Cash Equivalents</td>
<td>1.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Other</td>
<td>10.1%</td>
<td>9.0%</td>
</tr>
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</table>

Source: 2018 NCPERS Public Fund Survey
Cumulative Equity Flows

Cumulative Equity Flows

Source: Morningstar Direct Mutual Fund and ETF Universe
Shift Toward Private Real Estate

- Allocations to Private Real Estate Have Increased as Investors Trade Liquidity for Increased Return Potential
Shift Toward Private Equity

- Allocations to Private Equity Have Increased as Investors Trade Liquidity for Increased Return Potential

Source: Preqin
Shift Toward Private Market Investments

- Allocations to Private Market Investments Have Increased as Investors Trade Liquidity for Increased Return Potential

Source: Preqin. Private Market Investments include Private Equity, Private Debt, Private Real Estate, Private Infrastructure and Private Natural Resources Funds.
Shift Toward Lower Fee Investments

- Allocations to Cheap, Passively Managed Investments Have Increased as Investors Trade Excess Return Potential for Lower Costs
Shift Toward Higher Risk Assets – Manager Level

- **Domestic Equity – Maintain / Slight Increase:**
  - Style Bias Toward Growth Equities
  - Increased Allocations to Mid, Small and Micro-Cap Strategies
  - Indexing

- **International Equity – Increase:**
  - Increased Allocations to Emerging Markets
  - Increased Allocations to Country Specific Strategies - China
  - Increased Allocations to Small Cap
Shift Toward Higher Risk Assets – Manager Level

- **Fixed Income – Reduction / Maintain**
  - Increased Allocations to Emerging Market Debt
  - Increased Allocations to High Yield
  - Increased Allocations to Bank Loans
  - Increased Allocations to Private Credit
  - Reduced Allocations to High Grade Fixed Income

- **Real Estate – Maintain / Slight Increase**
  - Increased Allocations to Value Add and Opportunistic Real Estate

- **Alternatives – Increase**
  - Private Equity Strategies (Growth, Venture and Buyout)
  - Opportunistic Strategies
  - Infrastructure
Trailing Performance and End Point Sensitivity

<table>
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<tr>
<th>Sample Public Plan Returns as of 9/30/2018</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>QTR</td>
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<tr>
<td>Sample Public Plan</td>
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<tr>
<td>3.60</td>
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<table>
<thead>
<tr>
<th>Sample Public Plan Returns as of 12/31/2018</th>
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<tr>
<td>QTR</td>
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<tr>
<td>Sample Public Plan</td>
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<td>-7.67</td>
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<table>
<thead>
<tr>
<th>Sample Public Plan</th>
<th>1st Qtr</th>
<th>2nd Qtr</th>
<th>3rd Qtr</th>
<th>4th Qtr</th>
<th>Year</th>
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<tbody>
<tr>
<td>2018</td>
<td>-0.76</td>
<td>1.70</td>
<td>3.60</td>
<td>-7.67</td>
<td>-3.46</td>
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<td>2017</td>
<td>4.07</td>
<td>2.86</td>
<td>3.29</td>
<td>3.79</td>
<td>14.75</td>
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<td>2016</td>
<td>1.09</td>
<td>1.82</td>
<td>3.26</td>
<td>1.08</td>
<td>7.44</td>
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<td>2015</td>
<td>2.34</td>
<td>0.01</td>
<td>-4.08</td>
<td>3.67</td>
<td>1.77</td>
</tr>
<tr>
<td>2014</td>
<td>1.77</td>
<td>3.69</td>
<td>-0.53</td>
<td>2.66</td>
<td>7.76</td>
</tr>
<tr>
<td>2013</td>
<td>5.96</td>
<td>0.72</td>
<td>5.10</td>
<td>5.66</td>
<td>18.51</td>
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<tr>
<td>2012</td>
<td>7.77</td>
<td>-1.64</td>
<td>4.57</td>
<td>1.37</td>
<td>12.36</td>
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<tr>
<td>2011</td>
<td>3.88</td>
<td>1.35</td>
<td>-8.25</td>
<td>6.56</td>
<td>2.94</td>
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<tr>
<td>2010</td>
<td>3.39</td>
<td>-5.73</td>
<td>8.93</td>
<td>6.29</td>
<td>12.84</td>
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<tr>
<td>2009</td>
<td>-8.31</td>
<td>10.99</td>
<td>10.63</td>
<td>2.67</td>
<td>15.60</td>
</tr>
</tbody>
</table>

Source: AndCo Consulting, based on data derived from Morningstar Direct. Sample Public Plan Portfolio consists of 45% Russell 3000, 15% MSCI EAFE NR, 30% BbgBarc US Aggregate Bond, 10% NCREIF ODCE (VW). For illustrative purposes only. The above demonstrates a hypothetical scenario and contains projections which are speculative whereby the actual results could differ from those indicated.
Long-Term Rolling Returns

30-Year Rolling Returns

Source: AndCo Consulting, based on data derived from Morningstar Direct. Equity is represented by 75% Russell 3000/25% MSCI EAFE NR Indices, Fixed Income is represented by the BbgBarc US Aggregate Bond Index, Real Estate is represented by the NCREIF ODCE (VW) Index and Private Equity is represented by the Cambridge Private Equity Index. For illustrative purposes only. The above demonstrates hypothetical scenarios and contains projections which are speculative whereby the actual results could differ from those indicated.
Takeaways

1) Maintain a Strategic Focus – The Asset Allocation Should not be Viewed as Tactical.
2) Understand the Difference Between Timing and Time.
3) Avoid Near Term Trends – Stay Focused on the Long Term.
4) There is no Silver Bullet.
Questions?

Q & A

Thank You!