



ASSET ALLOCATION REVIEW

UNIVERSITY OF MAINE SYSTEM



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ASSET CLASS ASSUMPTIONS

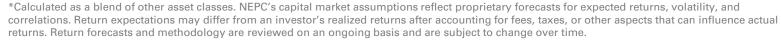
OVERVIEW

- NEPC's capital market assumptions are available each quarter with this release reflecting December 31, 2024 market data
- We adjusted our equity assumption methodology to better reflect the pathway for valuation multiples, profit margins, and share buybacks
- Fixed income returns moved higher, reflecting market expectations of fewer rate cuts priced-in to forward base rates
- We encourage a dedicated safe-haven fixed income allocation to serve as a critical liquidity source for the portfolio
- We recommend adding strategic policy targets to U.S. TIPS given elevated levels of real yields and attractive breakeven inflation levels
- We see a favorable environment for diversified real assets exposure given the inflation backdrop and ongoing geopolitical risks



CORE ASSET CLASS RETURN ASSUMPTIONS

| Asset Class | 12/31/2024 10-Year Return | 12/31/2023 10-Year Return | Delta |
|--------------------------------------|---|---|---|
| Cash | 4.1% | 3.9% | +0.2% |
| U.S. Inflation | 2.6% | 2.6% | - |
| U.S. Large-Cap Equity | 5.6% | 4.4% | +1.2% |
| Non-U.S. Developed Equity | 5.3% | 4.6% | +0.7% |
| Emerging Market Equity | 8.0% | 8.6% | -0.6% |
| Global Equity* | 6.1% | 5.4% | +0.7% |
| Private Equity* | 8.5% | 9.0% | -0.5% |
| U.S. Treasury Bond | 4.7% | 4.2% | +0.5% |
| U.S. Municipal Bond | 3.8% | 3.5% | +0.3% |
| U.S. Aggregate Bond* | 5.0% | 4.6% | +0.4% |
| U.S. TIPS | 4.9% | 4.6% | +0.3% |
| U.S. High Yield Corporate Bond | 6.3% | 6.1% | +0.2% |
| Private Debt* | 8.3% | 8.3% | - |
| Commodity Futures | 4.4% | 4.6% | -0.2% |
| REIT | 5.3% | 6.0% | -0.7% |
| Gold | 4.7% | 4.9% | -0.2% |
| Real Estate - Core | 5.9% | 5.4% | +0.5% |
| Private Real Assets - Infrastructure | 6.0% | 6.8% | -0.8% |
| 60% S&P 500 & 40% U.S. Aggregate | 5.7% | 4.8% | +0.9% |
| 60% MSCI ACWI & 40% U.S. Agg. | 6.0% | 5.4% | +0.6% |
| Hedge Fund* | 6.4% | 6.1% | +0.3% |
| | Cash U.S. Inflation U.S. Large-Cap Equity Non-U.S. Developed Equity Emerging Market Equity Global Equity* Private Equity* U.S. Treasury Bond U.S. Municipal Bond U.S. Aggregate Bond* U.S. TIPS U.S. High Yield Corporate Bond Private Debt* Commodity Futures REIT Gold Real Estate - Core Private Real Assets - Infrastructure 60% S&P 500 & 40% U.S. Aggregate 60% MSCI ACWI & 40% U.S. Agg. | Asset Class Cash 4.1% U.S. Inflation 2.6% U.S. Large-Cap Equity 5.6% Non-U.S. Developed Equity 5.3% Emerging Market Equity 8.0% Global Equity* 6.1% Private Equity* 8.5% U.S. Treasury Bond 4.7% U.S. Aggregate Bond 5.0% U.S. TIPS 4.9% U.S. High Yield Corporate Bond 6.3% Private Debt* 8.3% Commodity Futures 4.4% REIT 5.3% Gold 4.7% Real Estate - Core 5.9% Private Real Assets - Infrastructure 6.0% 60% S&P 500 & 40% U.S. Aggregate 5.7% 60% MSCI ACWI & 40% U.S. Agg. 6.0% | Cash 4.1% 3.9% U.S. Inflation 2.6% 2.6% U.S. Large-Cap Equity 5.6% 4.4% Non-U.S. Developed Equity 5.3% 4.6% Emerging Market Equity 8.0% 8.6% Global Equity* 6.1% 5.4% Private Equity* 8.5% 9.0% U.S. Treasury Bond 4.7% 4.2% U.S. Municipal Bond 3.8% 3.5% U.S. Aggregate Bond* 5.0% 4.6% U.S. TIPS 4.9% 4.6% U.S. High Yield Corporate Bond 6.3% 6.1% Private Debt* 8.3% 8.3% Commodity Futures 4.4% 4.6% REIT 5.3% 6.0% Gold 4.7% 4.9% Real Estate - Core 5.9% 5.4% Private Real Assets - Infrastructure 6.0% 6.8% 60% S&P 500 & 40% U.S. Aggregate 5.7% 4.8% 60% MSCI ACWI & 40% U.S. Agg. 6.0% 5.4% |





STRATEGIC ASSET ALLOCATION OUTLOOK

We encourage Strategic Views be adopted in strategic policy targets, performance reporting benchmarks, and investment policy documents

NEPC's updated public equity guidance reflects a recommendation for benchmark-neutral regional weights relative to the MSCI ACWI IMI

We recommend creating a distinct strategic asset allocation target exclusively for safe-haven fixed income exposure

Consider if a strategic policy target to real assets aligns with investment objectives given the value of diversification in the current environment



PUBLIC EQUITY STRATEGIC VIEW IN PRACTICE

NEPC STRATEGIC VIEWS

Implementation Guidance

MSCI USA IMI 65.3% **MSCI World Ex-Public Market Equity** U.S. IMI **Strategic Target** (MSCI ACWI IMI) 24.3% **MSCI Emerging** Markets IMI 10.3%

Global Equity Emerging Market Small EM Large Non-U.S. Dev. **Small-Cap** Non-U.S. Dev. (Hedged) Non-U.S. Dev. U.S. SMID Cap U.S. Diversified Large-Cap

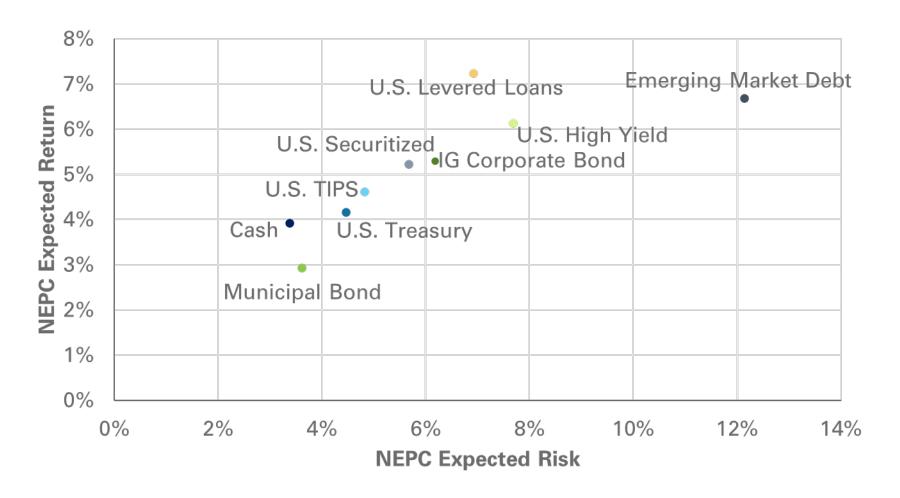
U.S. Large-Cap

Note: Data as of 12/31/2024 Sources: S&P, MSCI, FactSet



PUBLIC MARKET FIXED INCOME

NEPC STRATEGIC VIEWS





PORTFOLIO POSITIONING VIEWS

CURRENT OPPORTUNITIES

Diversify S&P 500 exposure and complement with value and quality factors to produce a balanced U.S. large-cap position

Global equity strategies offer a compelling alpha opportunity, we encourage greater use of active equity approaches

With attractive real interest rates, we recommend introducing dedicated U.S. TIPS exposure to strategic policy targets

We are comfortable holding excess liquidity and maintaining neutral duration targets relative to safe-haven fixed income



MIP ASSET ALLOCATION

| | | Necommendation | |
|--|----------------|-----------------------|--------------------------------|
| | Current Policy | EM Small Cap Shift | Equity Weights Realigned |
| US Large-Cap Equity | 14.5% | 14.5% | 15.5% |
| US Small/Mid-Cap Equity | 3.0% | 3.0% | 3.25% |
| Non-US Developed Equity | 7.25% | 7.25% | 7.25% |
| Emerging Market Equity | - | 4.25% | 3.0% |
| Emerging Market Small-Cap Equity | 4.25% | - | - |
| Global Equity | 30.0% | 30.0% | 30.0% |
| Total Equity | 59.0% | 59.0% | 59.0% |
| High-Quality | 11.5% | 11.5% | 11.5% |
| US TIPS | 5.0% | 5.0% | 5.0% |
| US Aggregate Bond | 6.5% | 6.5% | 6.5% |
| Safe-Haven | 5.0% | 5.0% | 5.0% |
| US Treasury Bond | 5.0% | 5.0% | 5.0% |
| Return-Seeking | 10.0% | 10.0% | 10.0% |
| US Leveraged Loan | 5.0% | 5.0% | 5.0% |
| Absolute Return Fixed Income | 5.0% | 5.0% | 5.0% |
| Total Fixed Income | 26.5% | 26.5% | 26.5% |
| Hedge Fund | 7.0% | 7.0% | 7.0% |
| Global Asset Allocation Strategy | 7.5% | 7.5% | 7.5% |
| Total Multi Asset | 14.5% | 14.5% | 14.5% |
| | | | |
| Expected Return 10 yrs (median) | 6.2% | 6.2% | 6.2% |
| Expected Return 30 yrs (median) | 7.2% | 7.2% | 7.1% |
| Expected Return 30 yrs (68th percentile) | 8.2% | 8.2% | 8.2% |
| Standard Dev | 12.4% | 12.3% | 12.2% |

0.17

0.29

- **NEPC** is recommending the following changes to long-term targets:
 - Reallocate Emerging Markets Small Cap exposure to Emerging Markets All Cap in-line with the accompanied manager search
 - Realign Equity targets to NEPC's preferred MSCI ACWI IMI benchmark neutral weights
- All three asset allocation options can support the portfolio's 7.25% return goal
 - 30-year range of returns (7.1% -8.2%), beta only



Sharpe Ratio 10 yrs

Sharpe Ratio 30 yrs

Note: Based on NEPC's 12/31/24 capital market return assumptions. Returns are beta only and do not assume alpha from the Plan's active managers. Far right column equity split reflects MSCI USA IMI / MSCI World ex-US IMI / MSCI EME breakouts shown on Slide 5.

0.17

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PENSION FUND ASSET ALLOCATION

Recommendation

| | Current Policy | Eliminate EM & Diversify Global Equity | Increase to |
|----------------------------------|-------------------|--|-------------|
| Cash | 3.0% | 3.0% | 3.0% |
| Total Cash | 3.0% | 3.0% | 3.0% |
| Emerging Market Equity | - | - | - |
| Emerging Market Small-Cap Equity | 3.0% | - | - |
| Global Equity | 30.0% | 33.0% | 43.0% |
| Total Equity | 33.0% | 33.0% | 43.0% |
| High-Quality | 33.0% | 33.0% | 26.0% |
| US TIPS | 8.0% | 8.0% | 6.0% |
| US Aggregate Bond | 25.0% | 25.0% | 20.0% |
| Safe-Haven | 5.0% | 5.0% | 4.0% |
| US Treasury Bond | 5.0% | 5.0% | 4.0% |
| Return-Seeking | 10.0% | 10.0% | 8.0% |
| US Leveraged Loan | 5.0% | 5.0% | 4.0% |
| Absolute Return Fixed Income | 5.0% | 5.0% | 4.0% |
| Total Fixed Income | 48.0% | 48.0% | 38.0% |
| Real Estate - Core | 3.0% | 3.0% | 3.0% |
| Total Real Assets | 3.0% | 3.0% | 3.0% |
| Hedge Fund | 5.0% | 5.0% | 5.0% |
| Global Asset Allocation Strategy | 8.0% | 8.0% | 8.0% |
| Total Multi Asset | 13.0% | 13.0% | 13.0% |

| Expected Return 10 yrs (median) | 6.0% | 5.9% | 6.0% |
|---------------------------------|------|------|------|
| Expected Return 30 yrs (median) | 6.6% | 6.6% | 6.8% |
| Expected Return 30 yrs (68th | | | |
| percentile) | 7.4% | 7.2% | 7.6% |
| Standard Dev | 8.3% | 8.1% | 9.7% |
| Sharpe Ratio 10 yrs | 0.22 | 0.22 | 0.19 |
| Sharpe Ratio 30 yrs | 0.37 | 0.37 | 0.33 |

- The current Policy Target can support the 6.25% return goal
 - 30-year range of returns (6.6% 7.4%), beta only
 - Based on the 30-year range, the System should have discussions with the Actuary to see if increasing the Expected Return on Assets (EROA) would make sense
 - Increasing the EROA would reduce the Plan's liability and improve funded status
- Given concerns around Mondrian EM Small Cap and the size of the allocation, NEPC recommends removing the allocation and implementing solely through Global Equity
 - Recommend adding Lindsell Train and Impax (two managers in the MIP) to diversify the Global Equity Allocation
- NEPC also profiled a mix which increases risk by shifting 10% to Equities from Fixed Income given questions surrounding on if the Portfolio is taking enough risk (Not recommended)
 - The allocation would only increase total risk (i.e., standard deviation) with only marginal increases in return
- Given the size of the Pension, there have been discussions with Staff about allocating assets to a blend of MIP and Operating Fund to achieve the return goal and minimize complexity



OPERATING FUND ASSET ALLOCATION

| | Current Policy |
|------------------------------|-------------------|
| Cash | 30.0% |
| Total Liquidity Pool | 30.0% |
| US Aggregate Bond | 7.5% |
| US Leveraged Loan | 7.0% |
| Absolute Return Fixed Income | 7.0% |
| Short Term Bonds | 26.0% |
| Total Income Pool | 47.5% |
| Global Equity | 9.5% |
| Hedge Fund | 5.0% |
| Global Asset Allocation | 8.0% |
| Total Return Pool | 22.5% |

| Expected Return 10 yrs (median) | 5.4% |
|--|------|
| Expected Return 30 yrs (median) | 5.4% |
| Expected Return 30 years (68th percentile) | 5.7% |
| Standard Dev | 3.7% |
| Sharpe Ratio 10 yrs | 0.34 |
| Sharpe Ratio 30 yrs | 0.49 |

- NEPC is not recommending changes to the asset allocation
- The current Policy Target can support the 4.0% return goal
 - 30-year range of returns (5.4% 5.7%), beta only



INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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