POWER UP YOUR PENSION PLANS

NEPC discusses potential adjustments to defined benefit plans to help them meet their investment goals in this low-return environment.

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Low investment returns will likely pose a challenge to many pension plans in the years to come, jeopardizing their financial aims while forcing corporate employers to make some difficult decisions. A low-return environment may cause these investors to fall short of their long-term portfolio objectives and face tough choices on funding, spending, return targets, asset allocation, and portfolio risk and complexity.

Given these muted expectations, we believe investors may need to consider adjustments to their asset allocation strategy in an effort to drive expected returns closer to objectives over the coming market cycle.

A cocktail of subdued inflation, declining bond yields and expanding valuations have helped deliver heady returns to investors. These outsized gains have also resulted in many assets becoming fully- or over-valued. As a result, expected returns across major asset classes have been steadily declining in recent years.

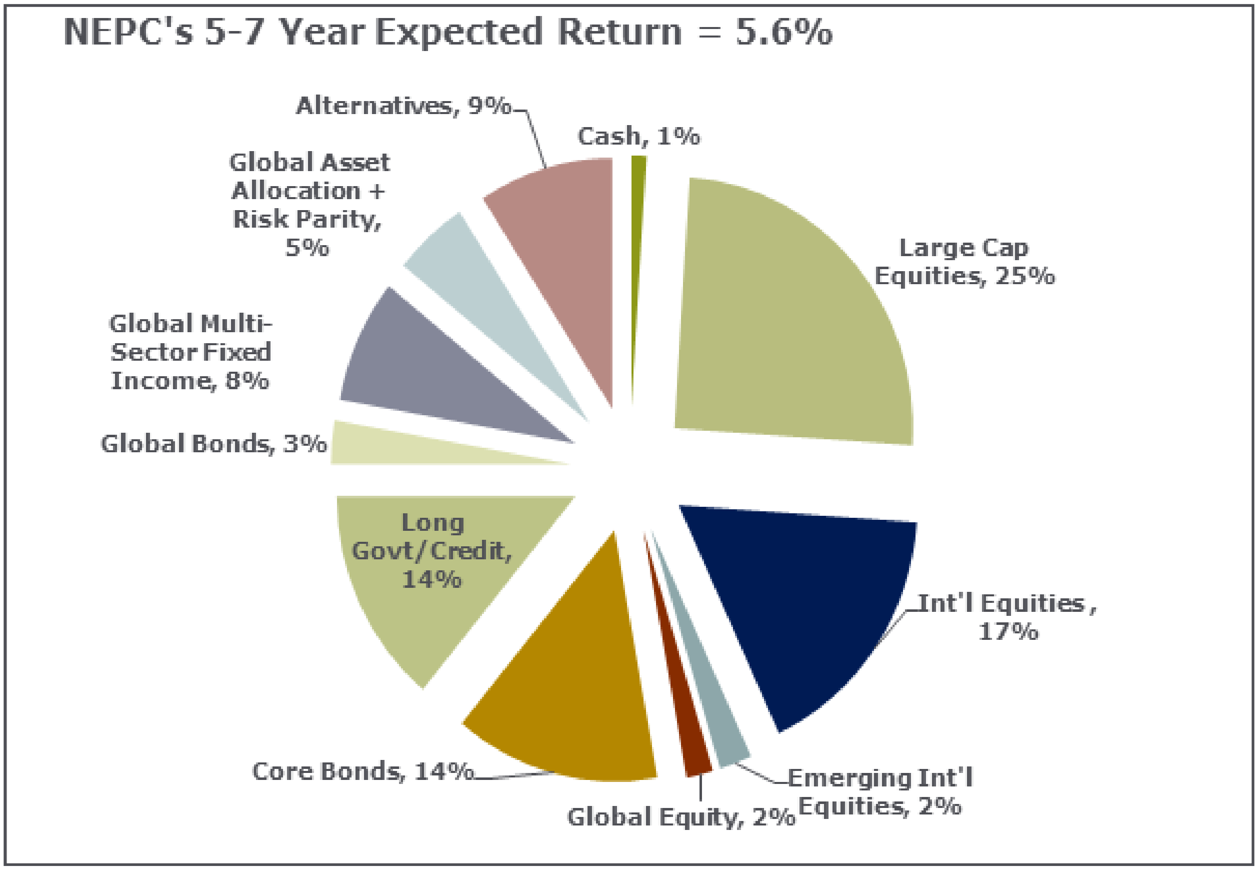
Investors may have trouble reconciling this prediction of low returns with the strong showing of investment portfolios. While we observe a general trend of investors reducing their return assumptions, estimates are still relatively high compared to our expectations. NEPC's 2016 Corporate Defined Benefit Trends Survey indicated that over half the participants expected returns of at least 7.0%; the survey included 180 plans and $280 billion in assets.

However, prudent forecasting requires that we look at current valuations and adjust expectations accordingly. Our analyses show allocations that historically provided superior returns may fall short in the future due to expectations of subdued capital market returns. As a result, the asset allocation needed to achieve an expected return of 7.5% must evolve. Typically, US stocks and bonds are the two biggest building blocks in institutional portfolios. NEPC's five-to-seven year assumption for domestic large-cap equities is 5.75% and 2.65% for core bonds.

From a total portfolio perspective, our assumption for a traditional US 60/40 portfolio for the next five-to-seven years is 4.80%. Diversifying beyond 60/40 is expected to be beneficial but return expectations are still below most investors' goals. For example, our assumption for the average corporate plan, as represented by the InvestorForce universe, is 5.60% for the next five-to-seven years (Exhibit 1 shows the average allocation in the InvestorForce Corporate Universe, which includes both liability-driven and total-return investors).

Many institutional investors have a long-term horizon, which is a key advantage and can allow a portfolio to withstand shorter-term volatility. As a result, we

Exhibit 1: Average Asset Allocation for Corporate Defined Benefit Plans



Source: InvestorForce; NEPC Capital Market Assumptions

encourage investors to consider altering their investment programs such that potential returns can meet their long-term financial objectives. We initially broached this topic in September 2014 in the paper, "Investing in a Low-Return World: Avoiding Portfolio Paralysis." This paper discusses our best ideas for potentially maximizing investment outcomes for liability-driven and total-return investors. We also address incremental changes that can be made for additional savings and to enhance returns.

ENHANCING RETURNS

A) Liability-Driven Investing Opportunities

Investors with relatively low-funded status and long-liability duration are trying to maintain a relatively high expected return in addition to hedging interest rate risk. At NEPC, we recommend the following for our clients at the earlier stages of hedging liabilities:

(i) STRIPS

Investors should consider capital-efficient long-duration strategies such as Treasury Separate Trading of Registered Interest and Principal of Securities, or STRIPS. STRIPS can be especially powerful for plans with a relatively low-funded status or long-liability duration. Capital-efficient instruments, such as STRIPS, allow investors to achieve long duration with a relatively low amount of assets compared to a traditional long-bond approach.

For instance, a pension plan at the earlier stages of its de-risking strategy has a 20% allocation to long duration benchmarked to the Bloomberg Barclays Long Government/Credit Index. Assuming the duration of the allocation is consistent with the index, the contribution to total plan asset duration would be three years (20% x 15-year duration). If the investor wanted to achieve total portfolio duration of three years via Treasury STRIPS, how much of an allocation would be required?

With the recent duration of the Bloomberg Barclays 20-to-30 year STRIPS index at around 24 years, an investor could achieve the same total portfolio duration with only 12% of the investments in long bonds; 8%of assets could be reallocated to higher return-seeking assets (Exhibit 2).

Exhibit 2: Advantages of STRIPS

Long Duration ***20% allocation x 15-year duration*** ***= 3-year total portfolio duration***
STRIPS ***12% allocation x 25-year duration*** ***= 3-year total portfolio duration***
Difference in Allocation ***20% long-duration allocation*** ***-*** ***12% STRIPS allocation*** ***=*** ***8% to reallocate to higher-return-seeking assets***

Source: NEPC Corporate Team

(ii) Dual-Beta Strategies

Dual-beta strategies allow an investor to obtain two market exposures in a single fund. The most common combination for liability-driven investors is US large-cap equity and US long duration. By combining two market exposures in a single fund, investors are able to help preserve expected returns while introducing or adding to liability-hedging assets. That said, prospective investors should understand that combining two return sources in a single fund can lead to distortions in asset allocation in the event of an extreme move in either asset class. This may require additional monitoring and rebalancing relative to an approach focusing on a dedicated asset class.

(iii) Active Management

We encourage investors to consider active management for traditional long-bond allocations. For plans further along in their de-risking process, physical long bonds may comprise 50% or more of the portfolio. The benefits from potential manager outperformance can be very meaningful at the total portfolio level for an allocation of this size. Investment-grade fixed-income indexes, due to their construction rules, allow for plenty of opportunities for managers to add value through yield-curve positioning, sector allocation and issue selection. Allowing some flexibility for non-benchmark positions can further increase return potential.

Active management can also help avoid or reduce downgrade risk. Long-duration indexes are exposed to potential downgrades while liabilities are not, leading to a potential mismatch. An active manager with strong credit-research capabilities can potentially avoid or significantly reduce this risk.
Other potential benefits of active management include customizing portfolios to align with a plan’s yield-curve profile and preparing a portfolio for de-risking activities such as lump sum payouts or annuities.

For most plans, long duration should serve the primary goal of a liability hedge with the secondary objective of delivering excess returns. Therefore, a careful review is required when selecting active management in the long-credit space. The financial crisis laid bare the credit risk that many active fixed-income managers took relative to the benchmark. To be sure, many managers who underperformed significantly in 2008 subsequently recovered. However, prospective investors should understand the potential downside and mismatch versus plan liabilities of actively-managed strategies.

TOTAL-RETURN OPPORTUNITIES

Fixed Income: We support a diversified approach to fixed-income investments. Our return assumption for US core bonds is below 3% for the upcoming market cycle. While retaining an allocation to core bonds may make sense for many investors who seek to reduce and maintain liquidity, there are numerous ways to improve results. To be sure, the potential return premium from diversifying has to be weighed against the additional risk being assumed, which can be meaningful. We often encourage investors to fund at least a portion of their allocation to higher-return bond sectors from equities depending on their goals and risk tolerance.

Within fixed income, we recommend direct-lending strategies in private markets. This approach may not be suitable for investors unable to lock up capital while pursuing a de-risking strategy and an eventual termination of the pension plan. However, those at the earlier stages of de-risking may find private-debt strategies more appealing, given their relatively shorter lives and attractive return potential. Direct lending has helped fill the void left by banks that have scaled back their loan activity as a result of the Dodd-Frank legislation. While NEPC's return assumption for private debt is 7.5% over the next five-to-seven years, expected returns for individual opportunities vary by manager. Skilled managers in the space are able to achieve returns in the 8%-to-10% range on an unlevered basis. Incorporating an allocation to Treasuries, as part of a fixed-income allocation that includes private markets, can help maintain liquidity and diversify risk.

Within US credit, we are not constructive on high-yield debt. While defaults outside of the energy sector have remained low, debt levels are elevated and spreads are tight. We find bank loans marginally more attractive than high yield. Bank loans, given their floating-rate structure, should perform better in a rising-rate environment. They are senior in the capital structure and trade at better valuations than high yield. Our assumption for high-yield issues is 4.75% for the next five-to-seven years compared to 5.25% for bank loans (Exhibit 3).

Outside the United States, emerging market debt denominated in US dollars and in local currency offer opportunities for return enhancement relative to core bonds. We believe local-currency emerging-market debt leads the pack in expected returns in public fixed-income markets with a return assumption of 6.75% over the next five-to-seven years; expected returns from emerging market debt denominated in US dollars is a bit lower, at 4.75%, but still outperforms core bonds. Investors may also consider managers employing a blended approach, which allows strategic allocations to both US dollar- and local currency-emerging market debt with tactical adjustments based on their relative attractiveness.

While many investors recognize the low-return potential in core fixed income, they may have limited ability to make dedicated allocations to several bond sectors. In this case, unconstrained and multi-sector fixed-income strategies may be an attractive way to diversify portfolios and enhance returns relative to core bonds. Unconstrained and multi-sector strategies can invest across the public fixed-income market spectrum. As such, expected volatility levels may be similar to core bond or as risky as high yield. Also, these strategies can vary significantly in terms of their interest-rate and credit-risk profile, and manager allocations run the gamut from strategic to highly tactical. As a result, modeling expected returns may be challenging. Despite these considerations and potential drawbacks, there are several strategies in the space that have, over time, delivered returns similar to high yield with meaningfully lower risk, making them a potential alternative to building a bond allocation sector by sector.

Exhibit 3: Return Expectations for Fixed Income

Class	5-to-7 year Expected Return	30-year Expected Return	Expected Volatility
Core	2.65%	4.00%	6.00%
High Yield	4.75%	5.75%	13.00%
Loans	5.25%	6.00%	9.00%
EMD USD	4.75%	5.75%	13.00%
EMD Local	6.75%	6.50%	15.00%
Private Debt	7.25%	8.00%	14.00%

Source: NEPC Asset Allocation Committee (geometric return assumptions; market returns only)

Equities: We believe US large-cap equities are unlikely to help investors meet their return objectives (Exhibit 4). In recent times, domestic equity returns have been fueled by an expansion in P/E multiples rather than earnings growth, which is the key driver of returns over time. While economic conditions at home may support continued gains, we think it is an opportune time to diversify for investors with a meaningful overweight versus the global equity benchmark.

Our expected return assumptions over the next five-to-seven years for un-hedged and hedged non-US developed equities are 175 and 150 basis points, respectively, over US stocks. Within public equities, emerging markets carry our highest expected return assumptions at an expected premium of 375 basis points over US large-cap securities. A note of caution: Investing outside the United States is deemed riskier and positions should be sized according to investors' appetite for risk.

From an implementation perspective, we favor a global equity approach within public market stocks. We find that most investment portfolios are still overweight the US relative to international equities. We believe that now may be an opportune time to consider moving to a global equity structure to gain additional non-US exposure and increase the potential for returns through active management. Global equity mandates tend to have a larger cap bias. As such, we think it makes sense to retain dedicated small-cap exposure. Depending on the implementation, it may also make sense to retain dedicated emerging markets exposure if your global managers are focused on developed markets.

We observe many total-return investors are addressing the low-expected return environment by adding or increasing allocations to private equity. That said, increasing capital flows into this space over the last several years have fueled questions on the return potential going forward. While we acknowledge that generating outsized gains in private equity may be challenging, our return assumption for private equity is still meaningfully higher than traditional US stocks. Manager selection is crucial at this point in the cycle; we favor disciplined managers with a value bias. Within private equity, we recommend special situations and Asia.

Exhibit 4: Equity Assumptions

Class	5-to-7 year Expected Return	30-year Expected Return	Expected Volatility
Large Cap	5.75%	7.50%	17.50%
Small/Mid	6.00%	7.75%	21.00%
Intl	7.25%	7.75%	21.00%
Intl Hedged	7.57%	8.14%	18.00%
Emerging	9.50%	9.50%	28.00%
Global Equity	7.20%	8.40%	18.40%
Private Equity	8.25%	9.50%	23.00%

Source: NEPC Asset Allocation Committee (geometric return assumptions; market returns only)

Niche Investment Ideas: NEPC's Research team launched a Discovery Platform in 2017 to allow for a more timely delivery of potentially attractive investment ideas to our clients. For investors looking to take advantage of new and focused strategies with limited capacity, it may make sense to consider an opportunistic allocation. The allocation can be reserved for niche ideas or opportunities that arise from market dislocations.

B) Incremental Opportunities

Policy Overlay: Many investors have significant net cash outflows and need to maintain a cash balance to meet ongoing payments. Some may maintain a strategic target allocation to cash. The opportunity cost of holding cash can be meaningful over time. We tend to see a drag from cash in the order of 10-to-20 basis points, depending on the size of the allocation. Investors can reduce this opportunity cost over time by securitizing their cash via a futures overlay that seeks to replicate their policy target allocation as closely as possible. This allows investors to maintain liquidity while staying more fully invested; 10-to-20 basis points of incremental return at the total portfolio level can be meaningful in dollar terms.

Fee Reductions: When we expect low returns, every basis point counts. NEPC actively seeks fee savings for our clients by leveraging our scale. Investment managers recognize the fee pressures facing their businesses and are increasingly reducing fees on a voluntary basis, offering different fee structures such as performance-based fees or launching new products at lower fees than traditional approaches. We acknowledge the importance of fees but, at the same time, caution investors to also weigh the value being added net of fees and the potential opportunity cost. In general, we encourage investors to pay reasonable fees where you anticipate the greatest benefit and to pursue low cost approaches where expected value-add is low.

THE NEPC APPROACH

We recognize that the ideas discussed above may not be a fit for all investors. At NEPC, we work hard to understand your goals and objectives so we may help in building portfolios customized to your requirements. Our process starts with a detailed questionnaire to understand your plan characteristics and goals. We then prepare an asset/liability study with a proposed strategy to meet your needs. Our proposal for our defined benefit clients managing funded status volatility includes the development of a glide path to guide the de-risking strategy over time. We review asset allocation on an ongoing basis and look to add value through strategic and tactical allocations and manager selection. We seek to deliver savings to our clients wherever and whenever possible while maintaining the potential to add value.

CONCLUSION

While many markets appear to be fully valued, we believe there are opportunities to maintain or enhance your expected return and meet your financial objectives. We encourage investors to embrace non-traditional diversification and to maintain or pursue active management strategies where expected rewards are the greatest.

DISCLAIMERS AND DISCLOSURES

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.
- The information in this report has been obtained from sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
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