OFFICE OF THE GENERAL TREASURER
HOPE

IMPLEMENTATION DISCUSSION

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

JANUARY 2024

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NEPC

IMPLEMENTATION OVERVIEW

- The SIC completed a full asset/liability study in 2023 and approved only modest changes to the target asset allocation (see next page).
- Over the coming months, we plan to engage the SIC in a series of implementation discussions.
- These discussions will be at the total portfolio level as well as the underlying categories (Growth, Income, and Stability).
- At the total portfolio level, examples of topics include the liquidity framework that was presented in 2023 as well as private market pacing plans.
- We provide detailed topics for each of the categories on page 4.
- We would like the SIC to provide feedback on the topic areas that are of most interest.

REMINDER OF APPROVED TARGET

		Prior Target	New Target
Growth	**Global Equity**	**40.0%**	**40.0%**
	Private Equity	12.5%	12.5%
	Non-Core Real Estate	2.5%	2.5%
	Private Growth	**15.0%**	**15.0%**
	TOTAL GROWTH	**55.0%**	**55.0%**
Income	Equity Options	2.0%	2.0%
	Liquid Credit	3.0%	5.0%
	EMD (Blended)	2.0%	0.0%
	CLO Mezz/Equity	2.0%	2.0%
	Private Credit	3.0%	3.0%
	TOTAL INCOME	**12.0%**	**12.0%**
Stability	Long Treasuries	5.0%	5.0%
	Systematic Trend	5.0%	5.0%
	CPC	**10.0%**	**10.0%**
	Core Real Estate	4.0%	4.0%
	Private Real Assets (ex-Real Estate)	4.0%	4.0%
	Inflation Protection	**8.0%**	**8.0%**
	Inv. Grade Fixed (ex-Treasuries)	6.5%	6.5%
	Absolute Return	6.5%	6.5%
	Strategic Cash	2.0%	2.0%
	Volatility Protection	**15.0%**	**15.0%**
	TOTAL STABILITY	**33.0%**	**33.0%**

- **The "New Target" portfolio was approved by the SIC in 2023.**
- **The only change was the removal of EMD with a corresponding increase in exposure to Liquid Credit.**

POTENTIAL IMPLEMENTATION TOPICS

Portfolio Category	Current Approach	Potential Topics
Growth	• Passively managed global equity with regional weights similar to the MSCI ACWI Index • Actively managed private equity • Actively managed non-core real estate	• Review active/passive decision with public equity • Review the role of factor investing • Review regional and market cap allocations within public equity • Pacing plan analysis for private market exposure • Liquidity planning and guardrails for private markets
Income	• Actively managed “traditional” income exposure (high yield, convertible bonds) • Actively managed “non-traditional” income exposure (equity options, CLO equity) • Actively managed private credit	• Revisit the mix of “traditional” income assets • Discuss implementation of non-traditional income assets in today’s higher yield environment • Pacing plan analysis for private credit exposure (to be combined with other private assets)
Stability	• Three sub-categories, primarily actively managed • **Crisis Protection**: Long Treasuries and Systematic Trend • **Inflation Protection**: Core Real Estate and Private Real Assets • **Volatility Protection**: IG Fixed Income, Absolute Return, and Cash	• Deep dive on each of the sub-categories to revisit the goals, objectives, and mix of underlying assets • Pacing plan analysis for private real assets exposure (to be combined with other private assets)

GROWTH PORTFOLIO

GROWTH PORTFOLIO

OVERVIEW

- **The current Growth Portfolio includes allocations to Public Equity, Private Equity, and Non-Core Real Estate**

- **Public and private market equities often serve as the primary source of return in portfolios**
  - Equity markets generally exhibit the highest volatility, but long-term return potential warrants a large exposure in most portfolios

- **Strategic asset allocation targets are often determined by investor objectives, including the need for additional return**
  - Liquidity needs are often the primary consideration when determining the strategic allocation to alternative and illiquid investments

PUBLIC MARKET EQUITY

NEPC STRATEGIC VIEWS

- **The MSCI ACWI IMI represents the global opportunity set and is an appropriate benchmark for evaluating strategic asset allocation decisions**
  - As the equity opportunity cost, MSCI ACWI IMI can be used to assess tracking error risk and can act as a starting point for evaluating implementation options
- **NEPC's preferred strategic allocation for public equities is 60% U.S., 25% non-U.S. developed and 15% emerging markets**
  - This posture reflects an underweight to non-U.S. developed markets given the prevalence of structural macro headwinds
  - Our strategic view includes an overweight to emerging markets given the growth potential in Asia, supported by expanding domestic consumption
  - Client portfolios may differ from this view based on specific portfolio objectives and risk tolerance
- **Within small-cap, we have a preference for an overweight in non-U.S. developed and emerging markets relative to the MSCI ACWI IMI given an attractive alpha profile**
  - The non-U.S. DM small cap overweight offers unique exposures to industries, countries, and corporate earnings in a relatively inefficient universe
  - The EM small cap overweight presents a distinct country composition relative to large-cap, which offers a more focused exposure to local consumption
  - Client allocations to small cap may differ based on the overall size of the equity allocation and specific return/risk objectives

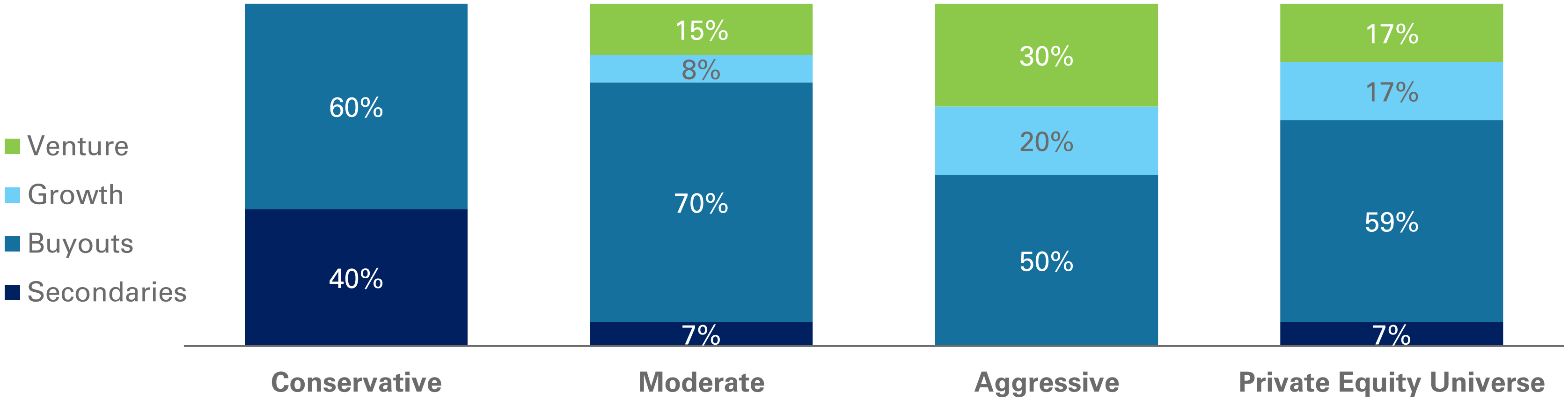
PUBLIC MARKET EQUITY

NEPC STRATEGIC VIEWS

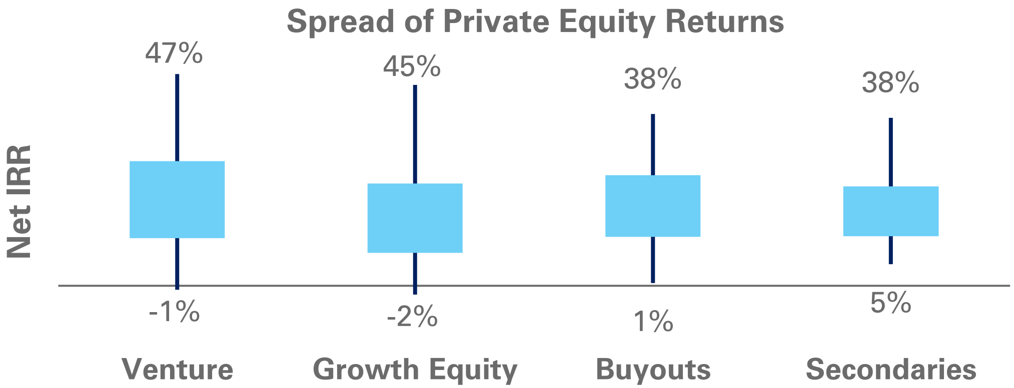
- **Public Market Equity Strategic Target**
  - **U.S. Equity**
    60.0%
    Index Weight: 61.4%
    - **Large Cap (S&P 500)**
      51.0%
      Index Weight: 52.8%
    - **SMID Cap**
      9.0%
      Index Weight: 8.6%
  - **Non-U.S. Developed Equity**
    25.0%
    Index Weight: 27.7%
    - **Large Cap**
      20.0%
      Index Weight: 23.9%
    - **Small Cap**
      5.0%
      Index Weight: 3.8%
  - **Emerging Market Equity**
    15.0%
    Index Weight: 10.9%
    - **Large Cap**
      12.0%
      Index Weight: 9.3%
    - **Small Cap**
      3.0%
      Index Weight: 1.5%

Sources: S&P, MSCI, FactSet, NEPC; index data as of 12/31/2023
Bolded numbers represent NEPC Strategic View

NEPC PRIVATE EQUITY MODEL PORTFOLIOS



	Conservative	Moderate	Aggressive	Private Equity Universe
Expected Return	7.4%	8.2%	8.9%	
POP*	7.2%	8.0%	8.3%	
Expected Return + POP*	14.6%	16.2%	17.2%	



	Check Size	POP*
Venture	1.0%	900 bps
Growth	1.25%	800 bps
Buyouts	1.5%	800 bps
Secondaries	2.0%	600 bps

Source: NEPC, C|A. Private Equity Universe represents market cap of funds raised and invested from 2013-2022. IRR spread calculated as pooled 10-yr IRR through 2019. Vertical lines represent 5th percentile (top) and 95th percentile (bottom). Blue bars represent spread between 25th and 75th percentiles. Check size is a % of the total client NAV. Fund of Fund allocations are included in relevant strategy types (LBO, VC, etc). Expected return reflects NEPC capital market assumptions as of 6/30/23.

*Potential Out-Performance: upside potential from strong manager selection (25th percentile to 50th percentile spread)

INCOME PORTFOLIO

INCOME PORTFOLIO

OVERVIEW

- **The current Income Portfolio includes allocations to high yield, convertible bonds, equity options, CLO equity, and private credit.**

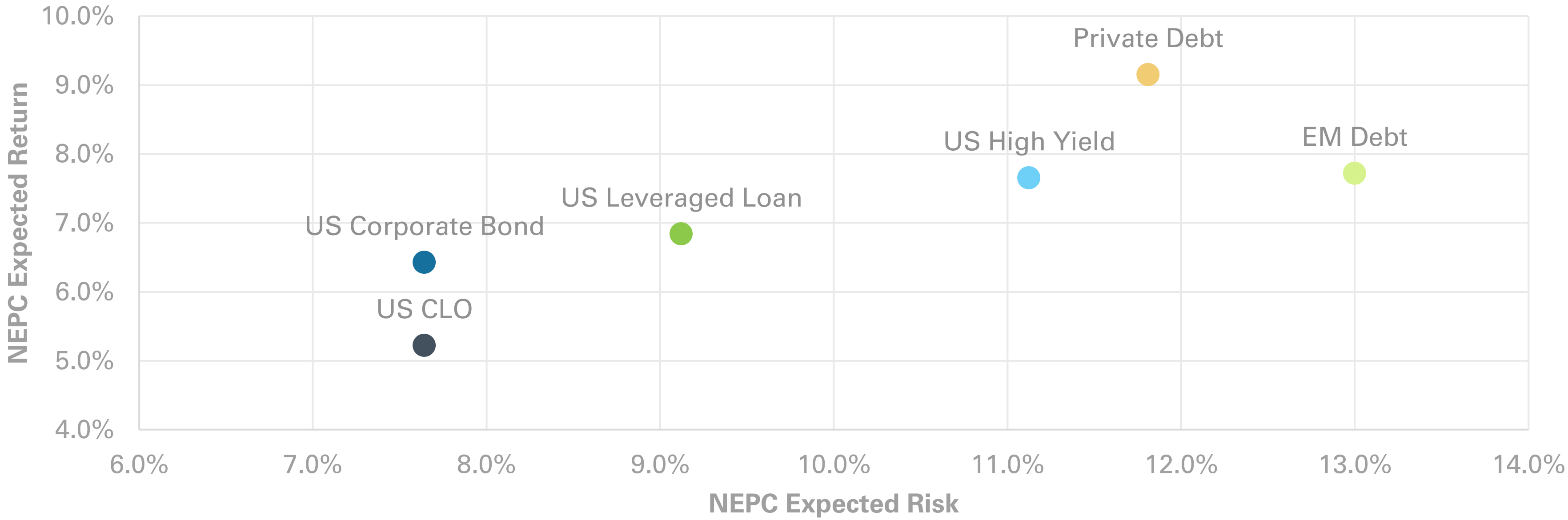
- **Return-seeking credit investments look to enhance returns and exploit credit spread changes across credit cycles**
  - When possible, being nimble and flexible may be appropriate within return-seeking credit as market conditions evolve

- **High yield corporate debt is often an appropriate starting point for return-seeking credit when evaluating portfolio allocation and strategy decisions**
  - A defined starting point helps guide decision-making when identifying niche, specialized, or opportunistic mandates that arise during the credit cycle

INCOME PORTFOLIO

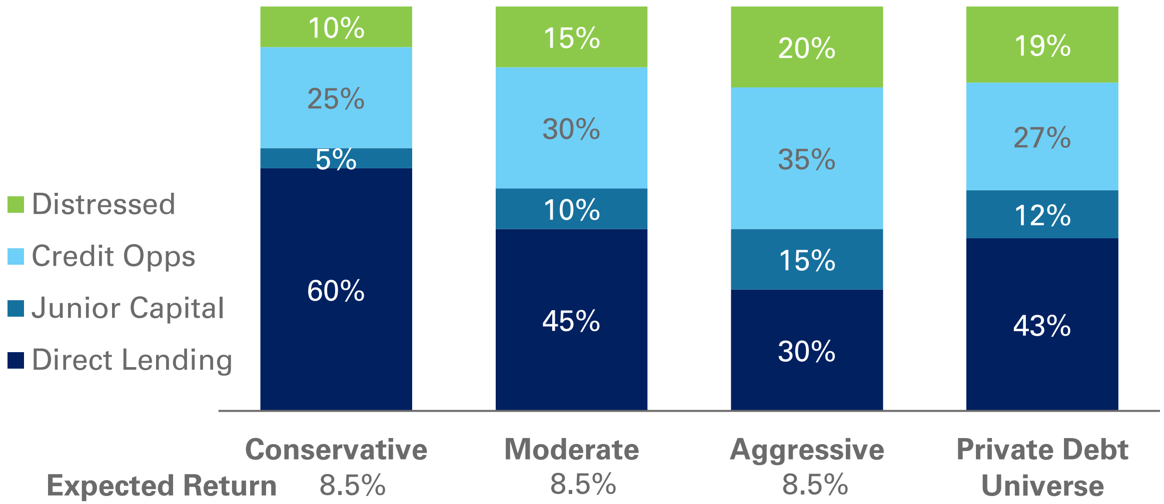
NEPC STRATEGIC VIEWS

- **The size of the strategic allocation to income asset classes, liquidity preferences, and investor risk-tolerance will likely inform the selection of public credit and private credit approaches beyond U.S. high yield bonds**
  - The use of credit complexity, illiquidity, and active management should offer an appropriate return premium



Sources: NEPC 9-30-23 30-Year Asset Class Assumptions

NEPC PRIVATE DEBT MODEL PORTFOLIOS



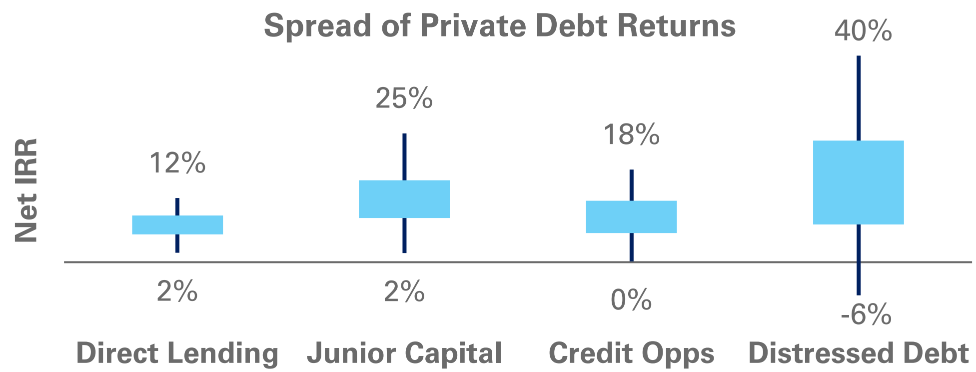
	Conservative	Moderate	Aggressive
Expected Return	8.5%	8.5%	8.5%
POP*	3.3%	3.9%	4.6%
Expected Return + POP*	11.8%	12.4%	13.1%

Distressed: Companies with bad balance sheets; can involve more liquid trading strategies and less liquid control strategies

Credit Opportunities: Investment strategy involving various credit-linked opportunities

Junior Capital: Subordinated capital to grow or restructure companies

Direct Lending: Primarily floating rate senior and/or unitranche (senior and subordinated debt in one instrument) debt capital used for various situations



	Check Size	POP*
Distressed	1.0%	1000 bps
Credit Opps	1.5%	300 bps
Junior Capital	1.0%	600 bps
Direct Lending	1.5%	200 bps

Source: NEPC, C|A, Preqin. Private Debt Universe represents market cap of funds raised and invested from 2013-2022. IRR spread calculated as pooled 10-yr IRR through 2019. Vertical lines represent 5th percentile (top) and 95th percentile (bottom). Blue bars represent spread between 25th and 75th percentiles. Check size is a % of the total client NAV. Expected return reflects NEPC capital market assumptions as of 6/30/23.

*Potential Out-Performance: upside potential from strong manager selection (25th percentile to 50th percentile spread)

STABILITY PORTFOLIO

STABILITY PORTFOLIO
OVERVIEW

- **The current Stability Portfolio includes allocations to three sub-categories.**
  - Crisis Protection: Long Treasuries and Systematic Trend
  - Inflation Protection: Core Real Estate and Private Real Assets
  - Volatility Protection: IG Fixed Income, Absolute Return, and Cash

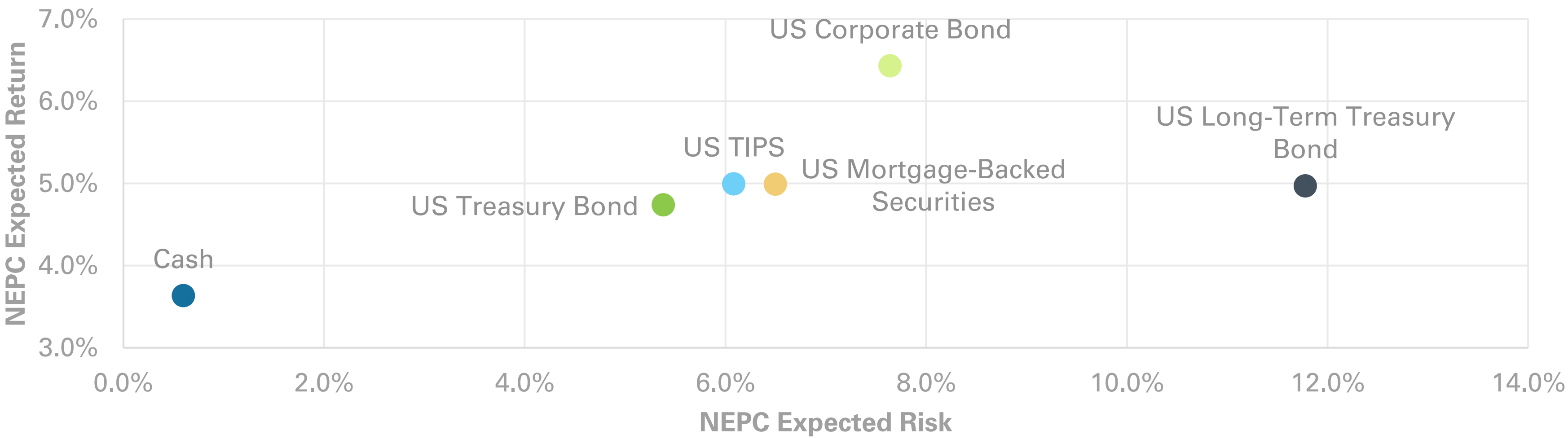
- **The stability portfolio should provide a liquidity source for the portfolio and offer downside protection in periods of market stress**
  - Sizing of the exposure is a strategic exercise and reflects investor return objectives, risk-tolerance, and private market pacing plan needs

- **The liquidity profile is vital as market stress can impair the portfolio's ability to meet cash flow needs**
  - The inability to service capital calls, support benefit payments, or rebalance in times of market stress hinders the portfolio's strategic investment objectives

STABILITY PORTFOLIO

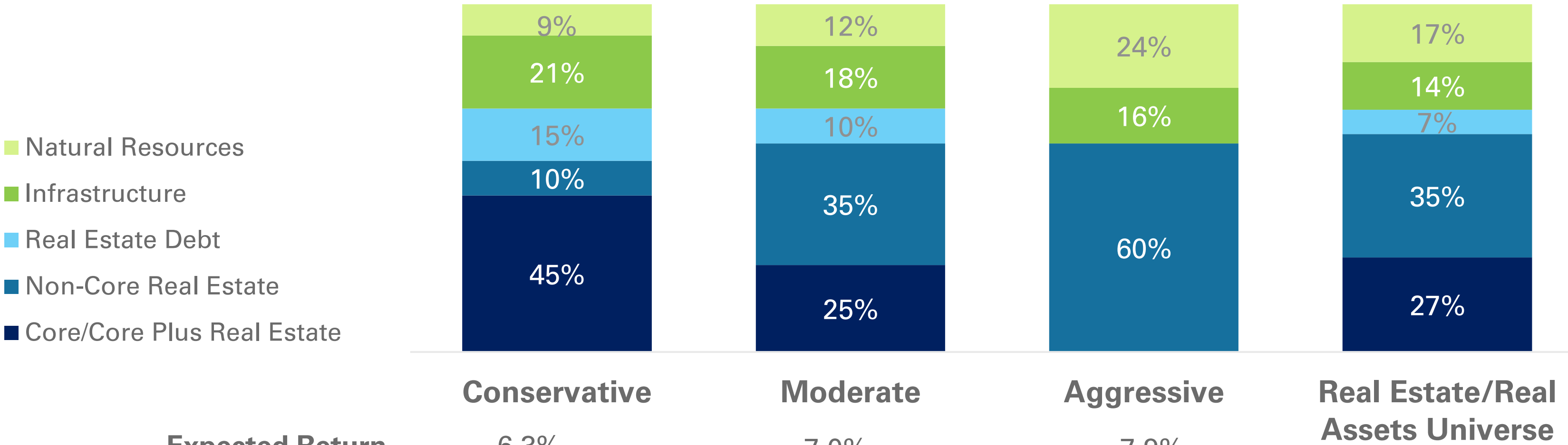
NEPC STRATEGIC VIEWS

- **For many investors, strategic policy targets to stable assets are applied with a broad brush and hold conflicting investment objectives**
  - The goal of safety and return are in conflict and the need for liquidity and downside protection can be overlooked when reaching for yield
- **We recommend investors build a diversified stability portfolio with exposure to safe-haven assets (e.g., Treasuries) and other high-quality fixed income (e.g., corporate bonds)**
  - Separate targets for high-quality and safe-haven fixed income align the objective and benchmark with each mandate and clarify their portfolio role



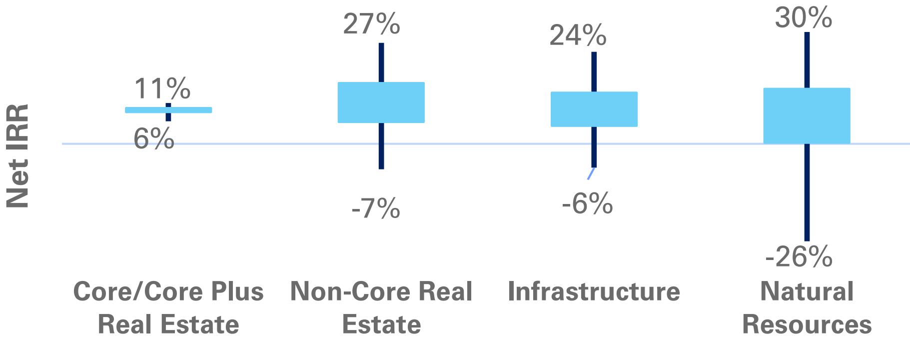
Sources: NEPC 9-30-23 30-Year Asset Class Assumptions

NEPC PRIVATE REAL ASSETS MODEL PORTFOLIOS



	Conservative	Moderate	Aggressive
Expected Return	6.3%	7.0%	7.9%
POP*	2.5%	3.6%	5.2%
Expected Return + POP*	8.8%	10.6%	13.1%

Spread of Private Real Estate/Real Assets Returns



	Check Size	POP*
Natural Resources	1.0%	600 bps
Infrastructure	1.5%	500 bps
Real Estate Debt	1.5%	Not available
Non-Core Real Estate	1.5%	500 bps
Core/Core Plus Real Estate	2.25%	100 bps

Source: NEPC, C|A. Real Estate/Real Asset Universe represents market cap of funds raised and invested from 2013-2022. IRR spread calculated as pooled 10-yr IRR through 2019. Vertical lines represent 5th percentile (top) and 95th percentile (bottom). Blue bars represent spread between 25th and 75th percentiles. Check size is a % of the total client NAV. Expected return reflects NEPC capital market assumptions as of 6/30/23.

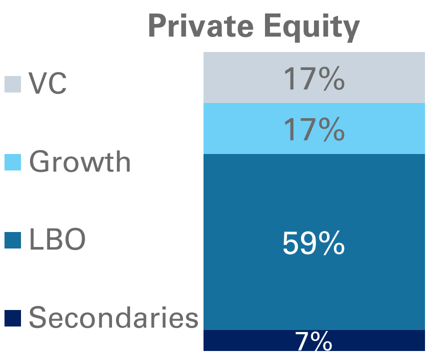
*Potential Out-Performance: upside potential from strong manager selection (25th percentile to 50th percentile spread). Not available for Real Estate Debt as no universe data.

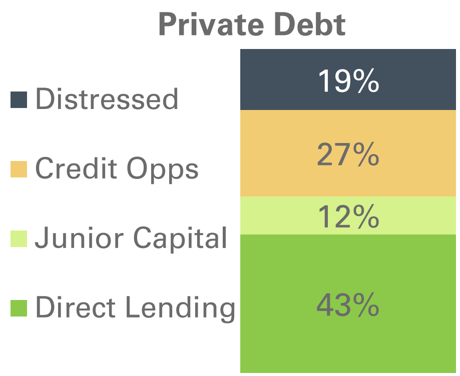
APPENDIX

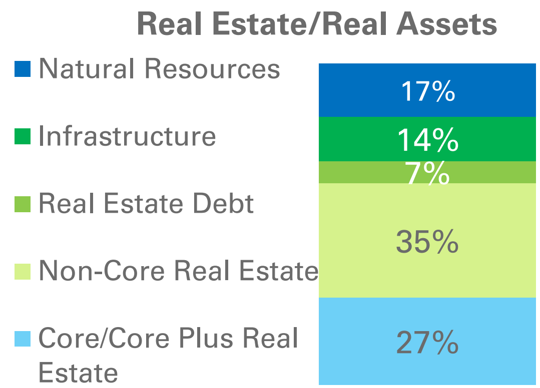
MODEL PORTFOLIO ASSUMPTIONS

HOW WE BUILD OUR MODEL PORTFOLIOS

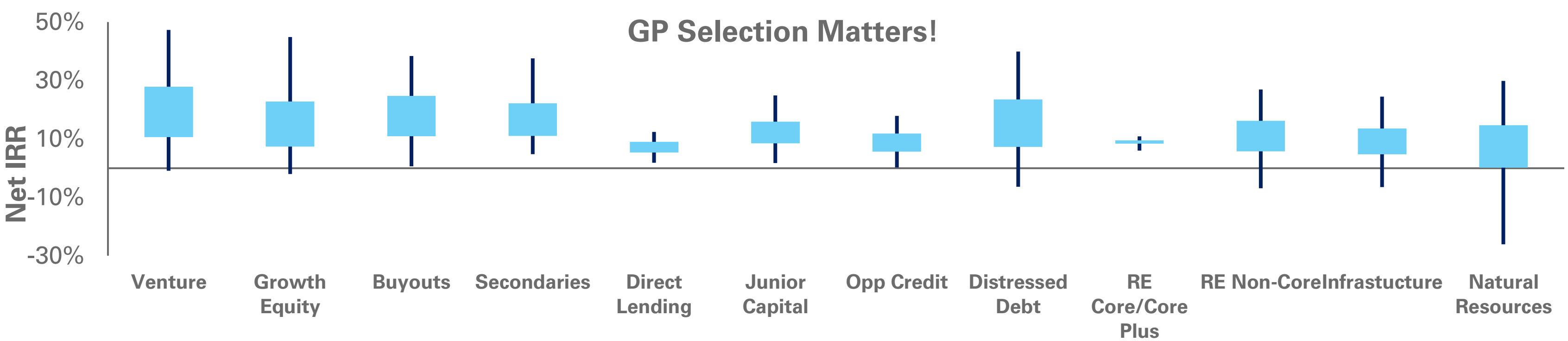
Market composition is a reasonable starting point







Check sizing driven by risk in underlying investments and in manager selection. Larger checks recommended for less risky strategies.



Source: C|A, Preqin. Market composition represents market cap of funds raised and invested from 2013-2022. IRR spread calculated as pooled 10-yr IRR through 2019. Vertical lines represent 5th percentile (top) and 95th percentile (bottom). Blue bars represent spread between 25th and 75th percentiles.

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Past performance is no guarantee of future results.

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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.

The projection of liabilities in this report uses standard actuarial projection methods and does not rely on actual participant data. Asset and liability information was received from the plan's actuary, and other projection assumptions are stated in the report.

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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