OPEB ASSET ALLOCATION REVIEW

STATE OF RHODE ISLAND

MAY, 2022

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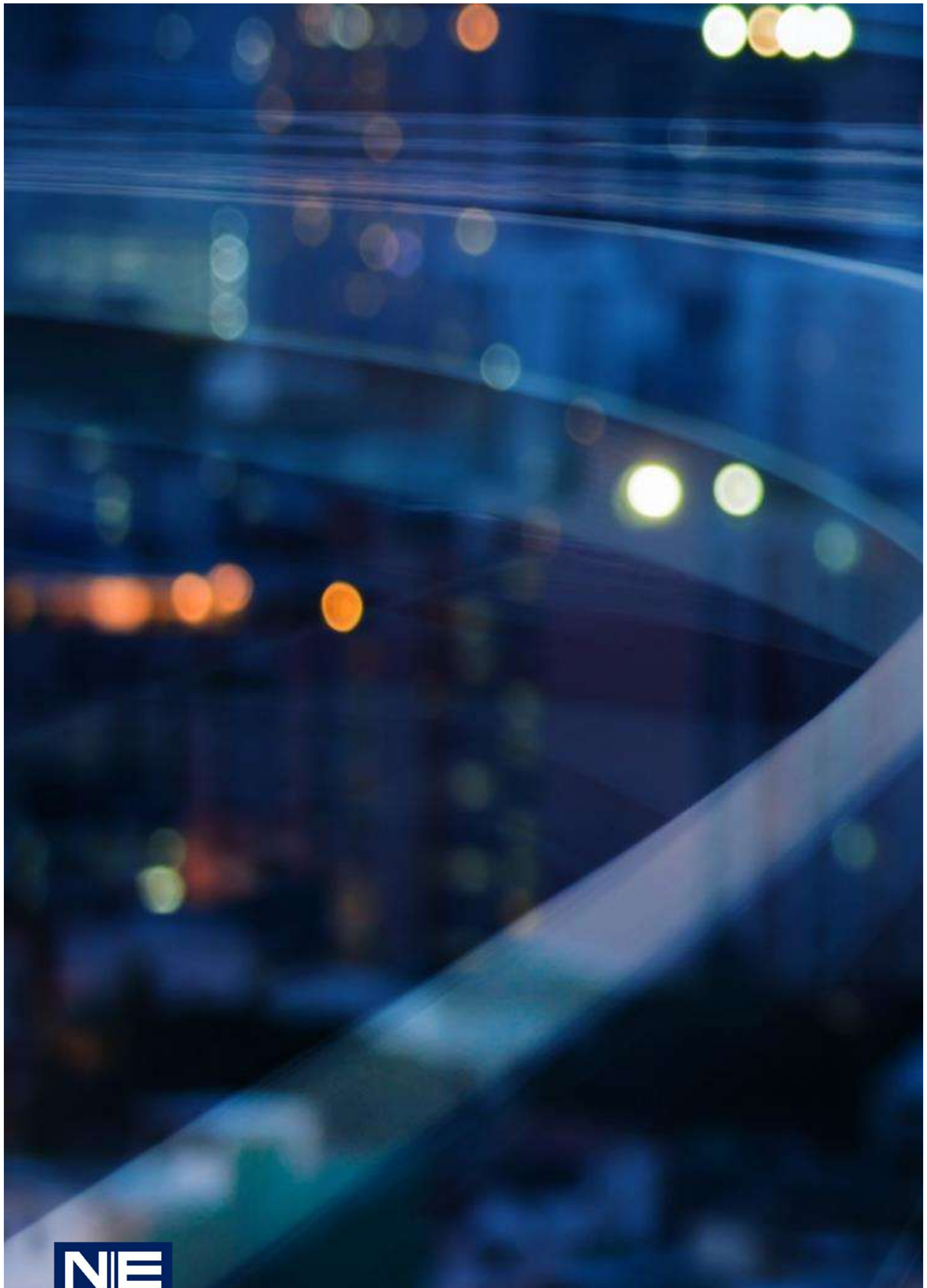


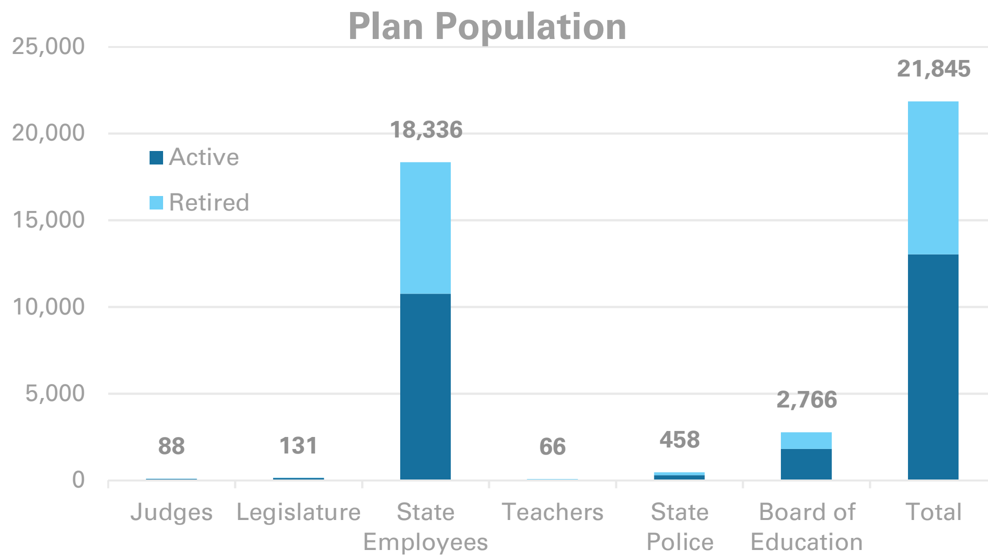
OPEB PLAN OVERVIEW

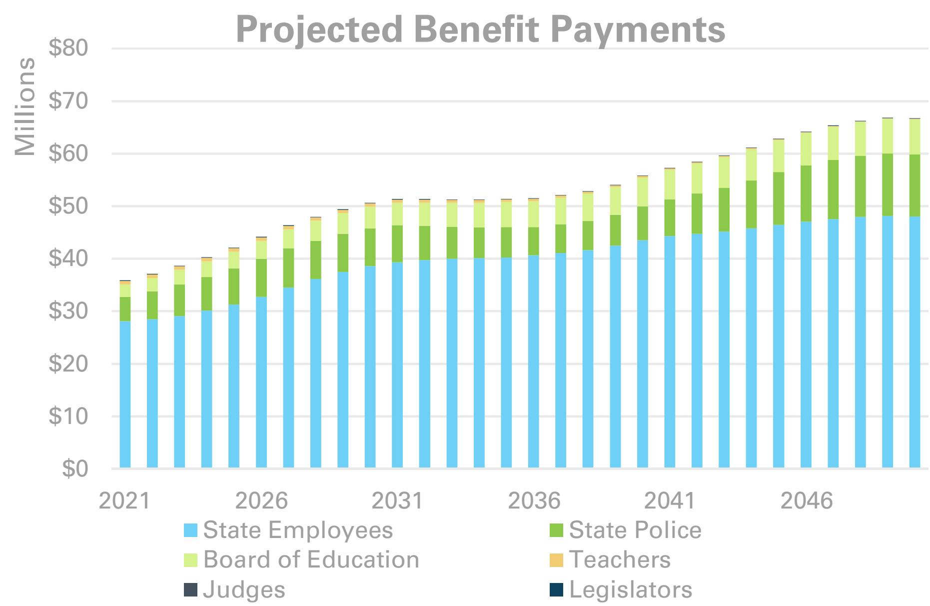
Asset-Liability Analysis

RHODE ISLAND OPEB

PLAN CHARACTERISTICS

- **The OPEB plan consists of 6 subplans with varying levels of health benefits**
- **State Employees remain the main driver of OPEB liabilities**
  - Consists of 84% of all participants and 78% of all liabilities
- **As of July 1, 2021, the OPEB plan was 60.1% funded based on a 5% discount rate**
- **Unfunded liabilities are being amortized over 30 years with 15 years remaining**
  - OPEB plan is scheduled to be fully funded by 2038 under this method
- **Asset allocation approach has been simple with 65/35 US large cap equity and US aggregate bond targets**



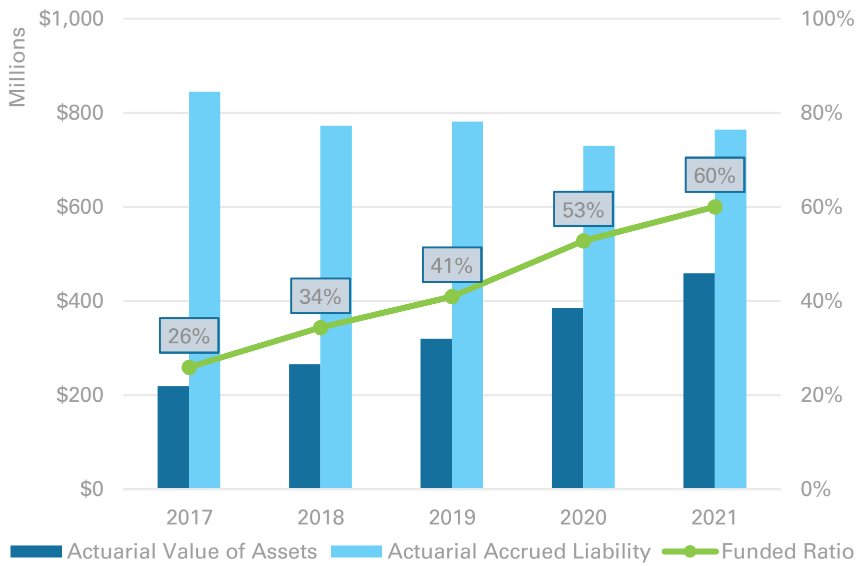


Notes: Plan population as of 7/1/2021
Source: GRS

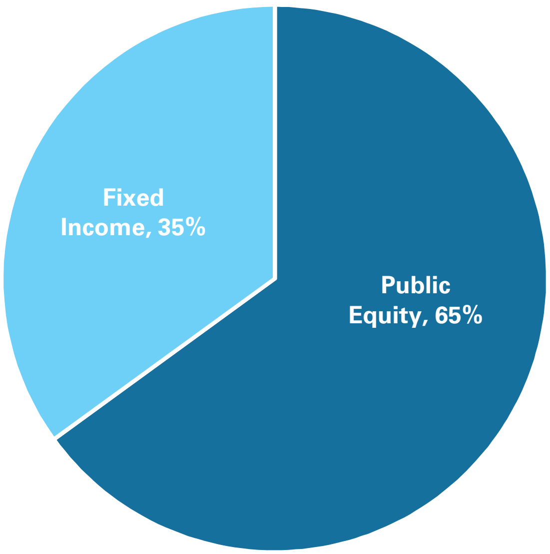
RHODE ISLAND OPEB

PLAN RISK PROFILE

Funded Status



Asset Allocation[1]



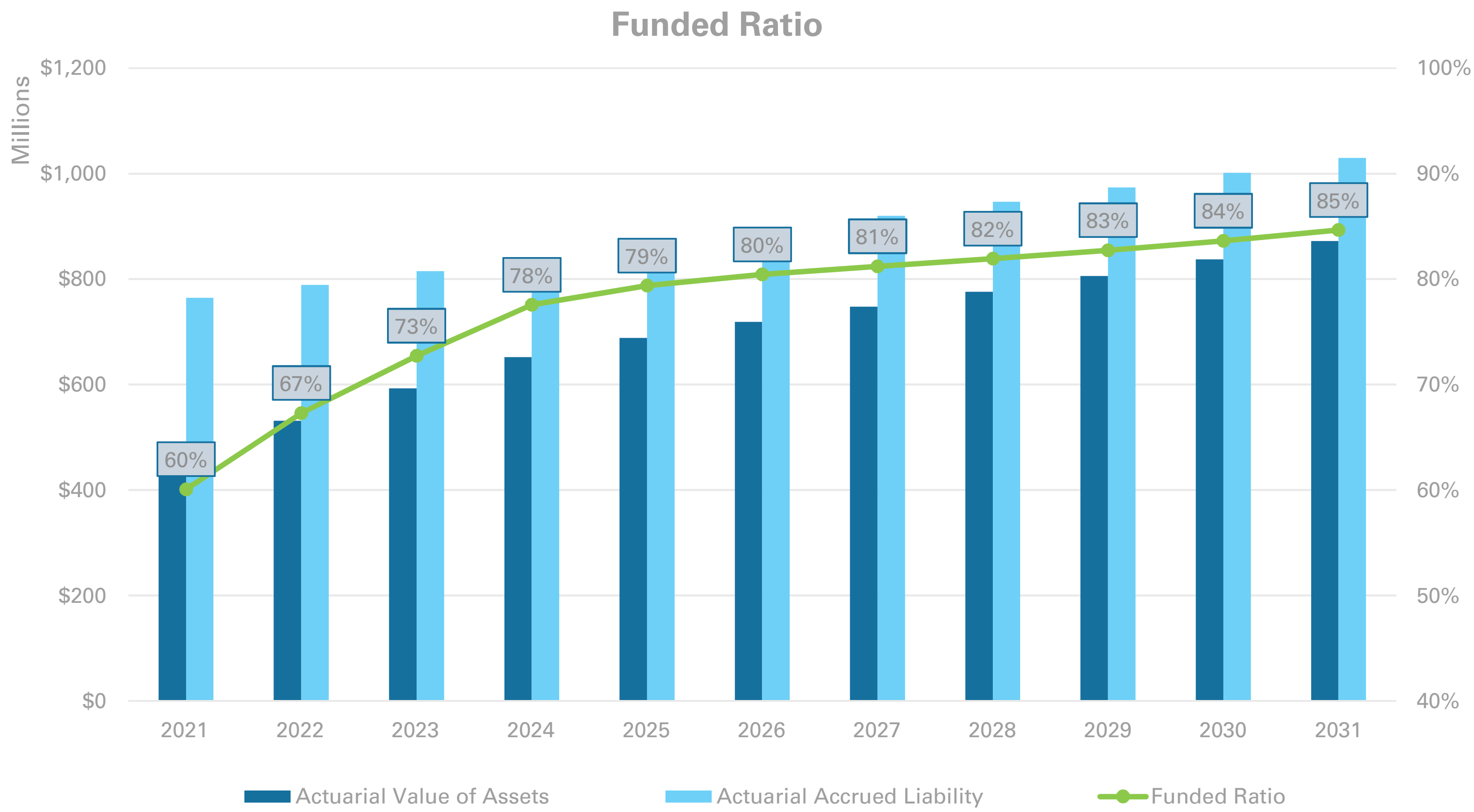
Expected Liability Growth[2]	**5.0%**
Funded Status	**60.1%**
Hurdle Rate[3]	**8.3%**

Expected Return on Assets (10 years)	**4.4%**
Expected Return on Assets (30 years)	**5.8%**
Asset Volatility	**11.0%**

Notes: [1]Expected risk and return is based on NEPC's Q1 2022 asset class assumptions; [2] Represents interest cost only because employer/member contributions cover normal cost; [3] Hurdle rate = Expected Liability Growth / Funded Status

RHODE ISLAND OPEB

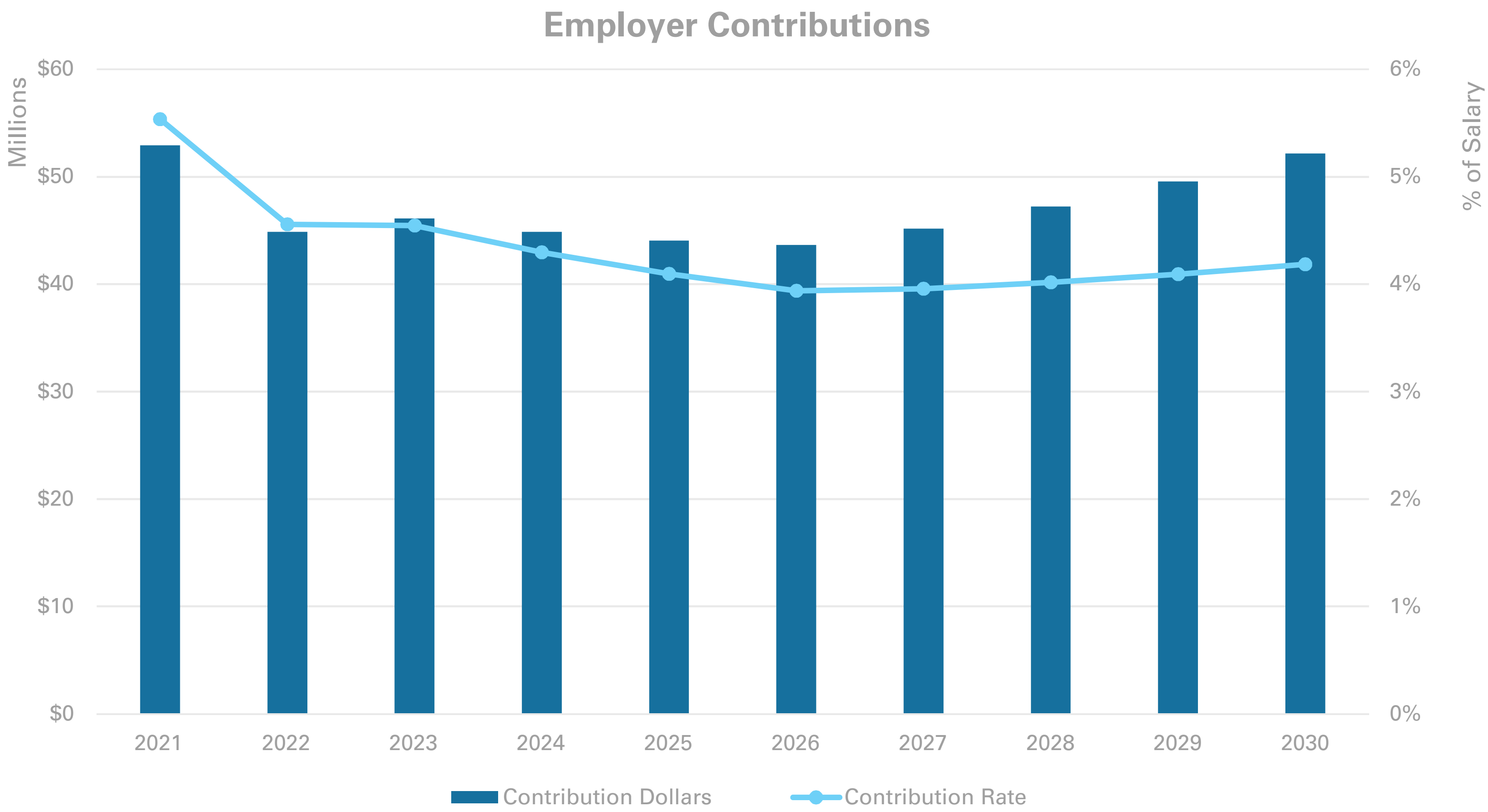
10-YR FUNDED STATUS PROJECTION



Notes: Plan population as of 7/1/2021 Source: GRS

RHODE ISLAND OPEB

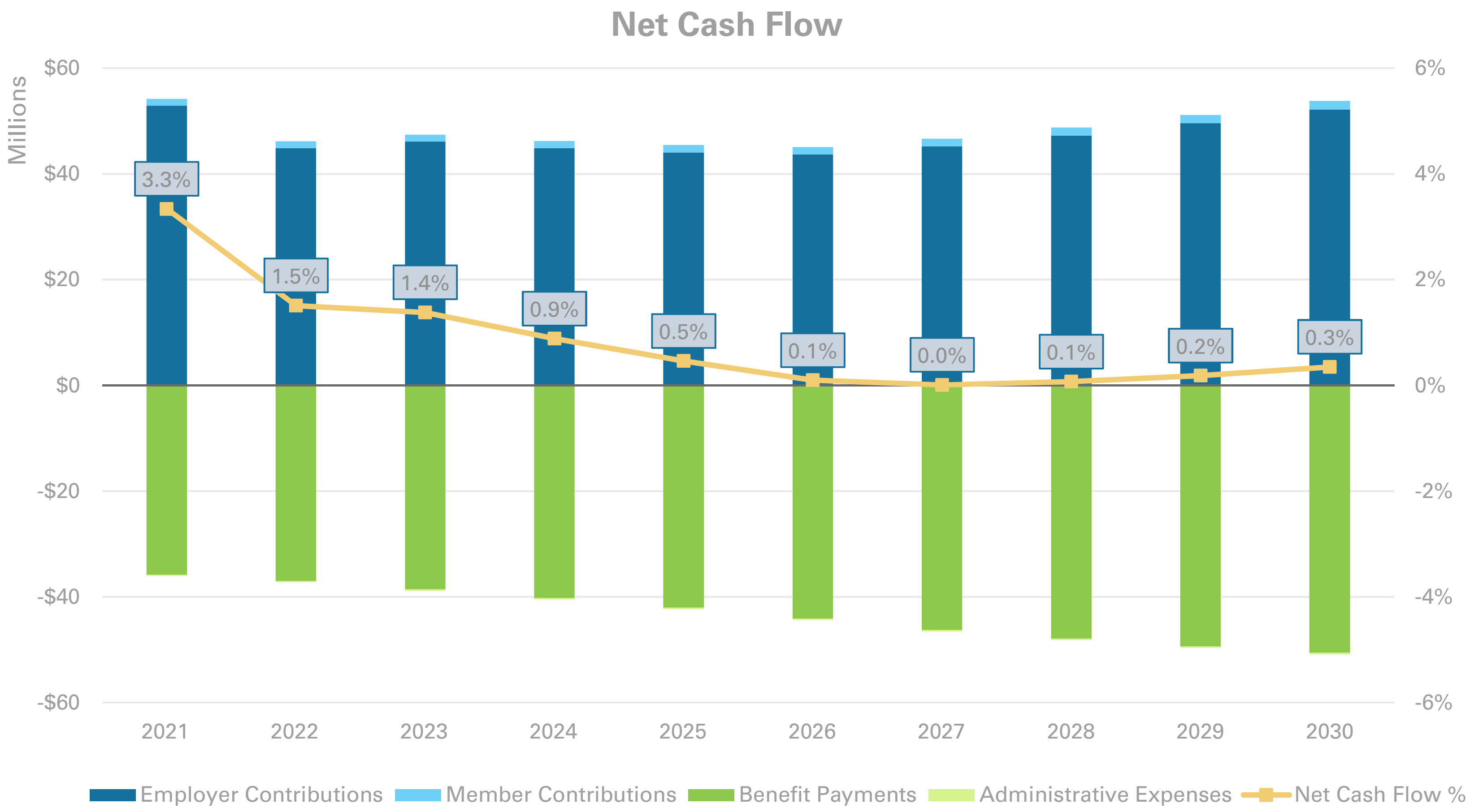
10-YR CONTRIBUTION PROJECTION



Notes: Plan population as of 7/1/2021 Source: GRS

RHODE ISLAND OPEB

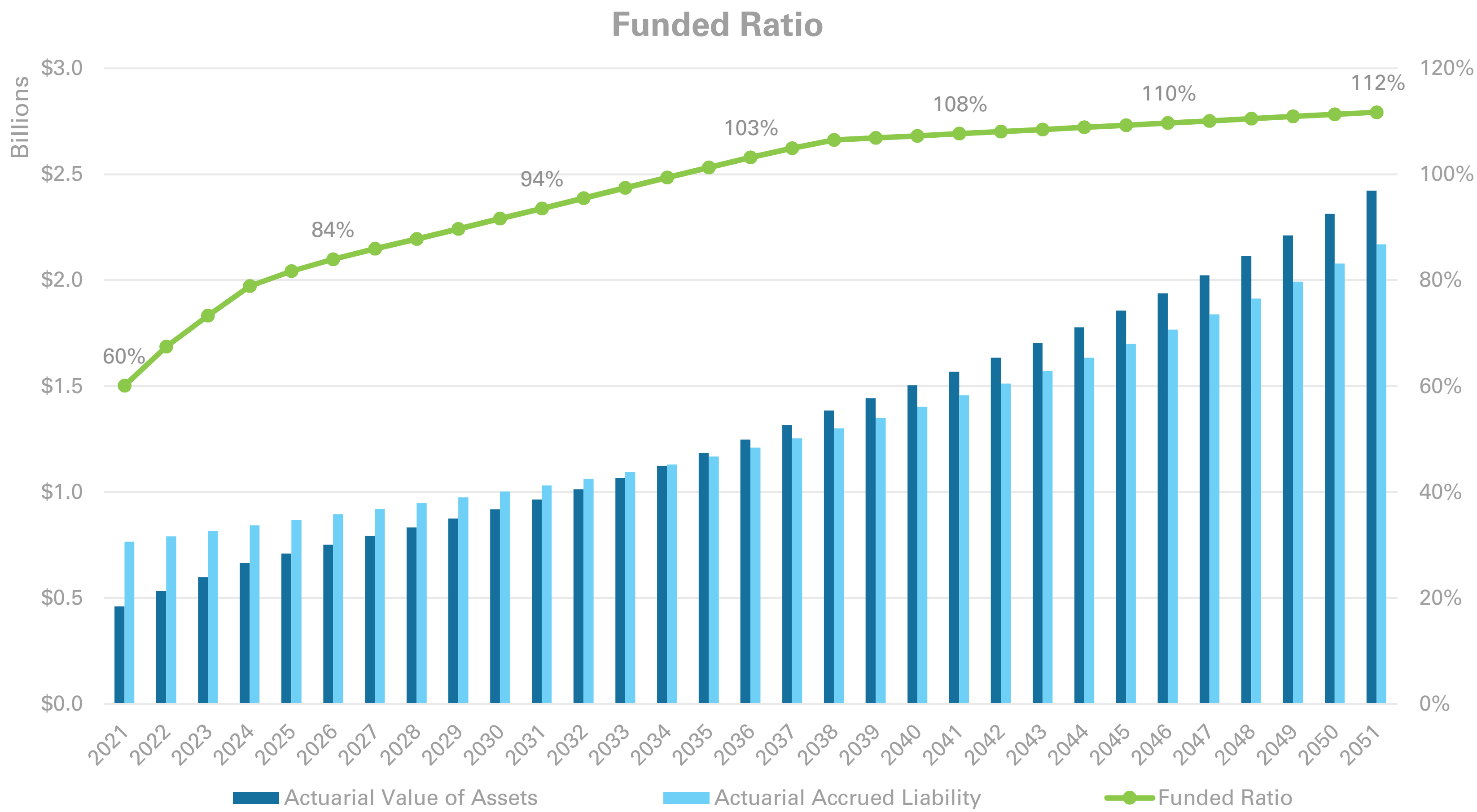
10-YR NET CASH FLOW



Notes: Plan population as of 7/1/2021 Source: GRS

RHODE ISLAND OPEB

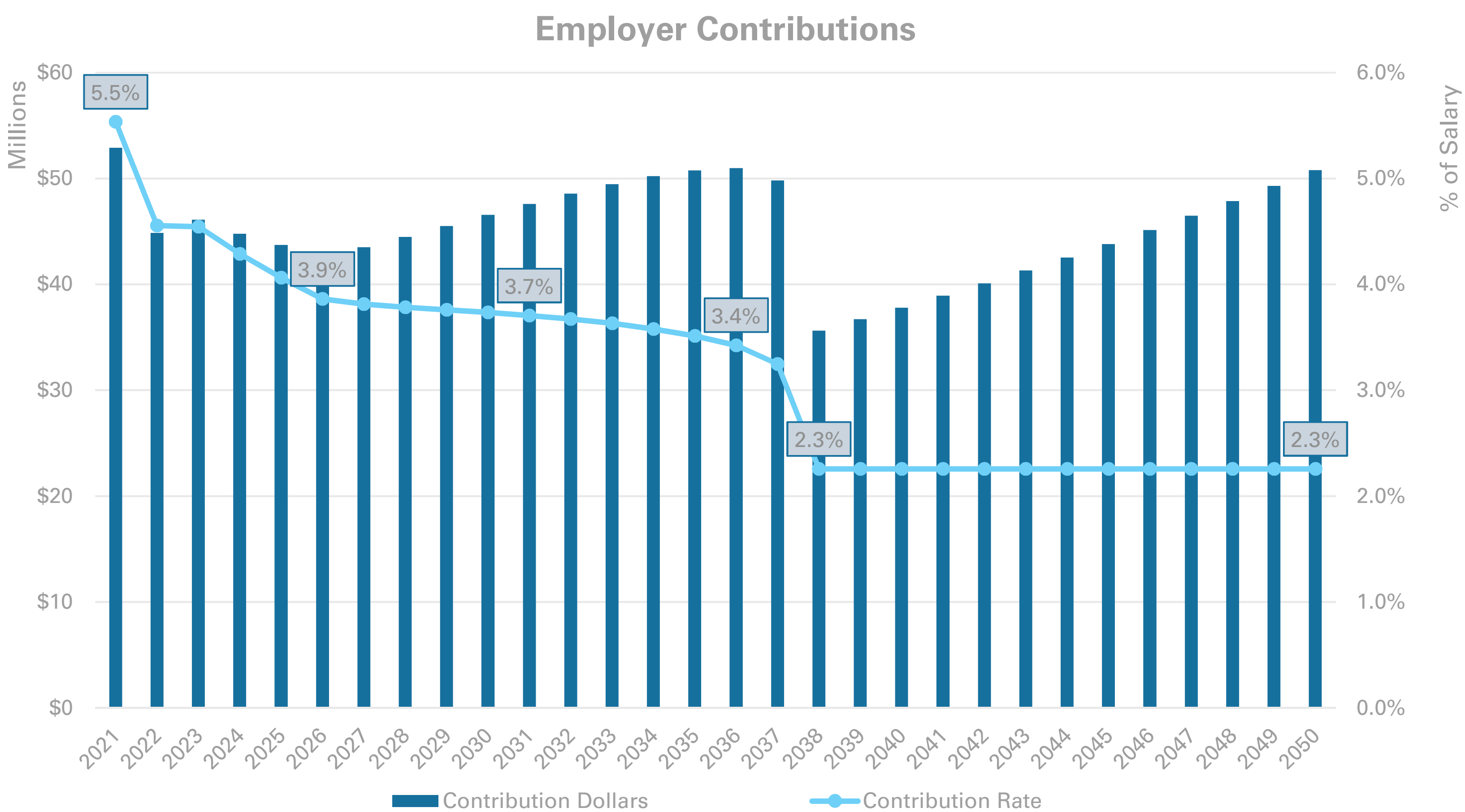
30-YR FUNDED STATUS PROJECTION



Notes: Plan population as of 7/1/2021 Source: GRS

RHODE ISLAND OPEB

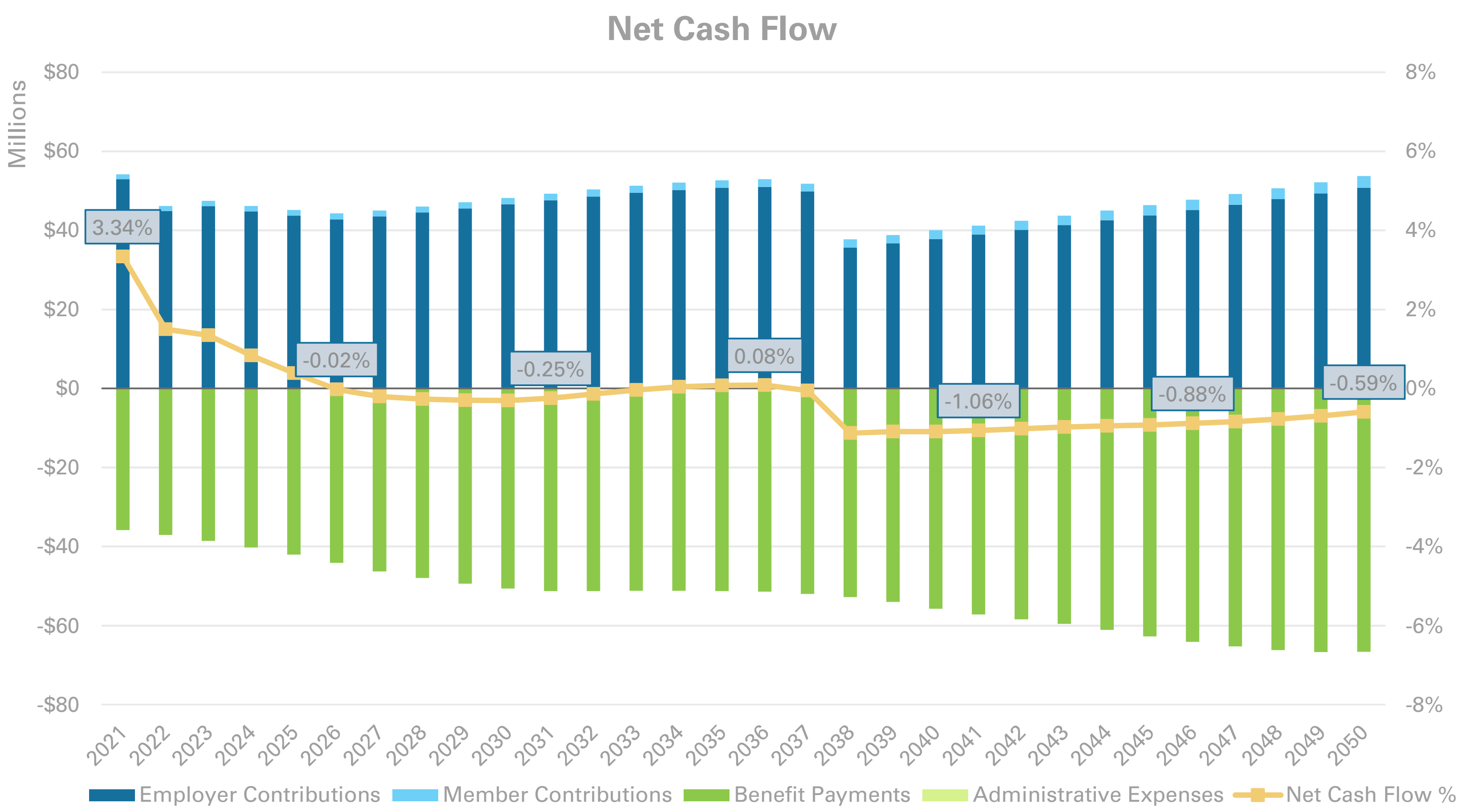
30-YR CONTRIBUTION PROJECTION



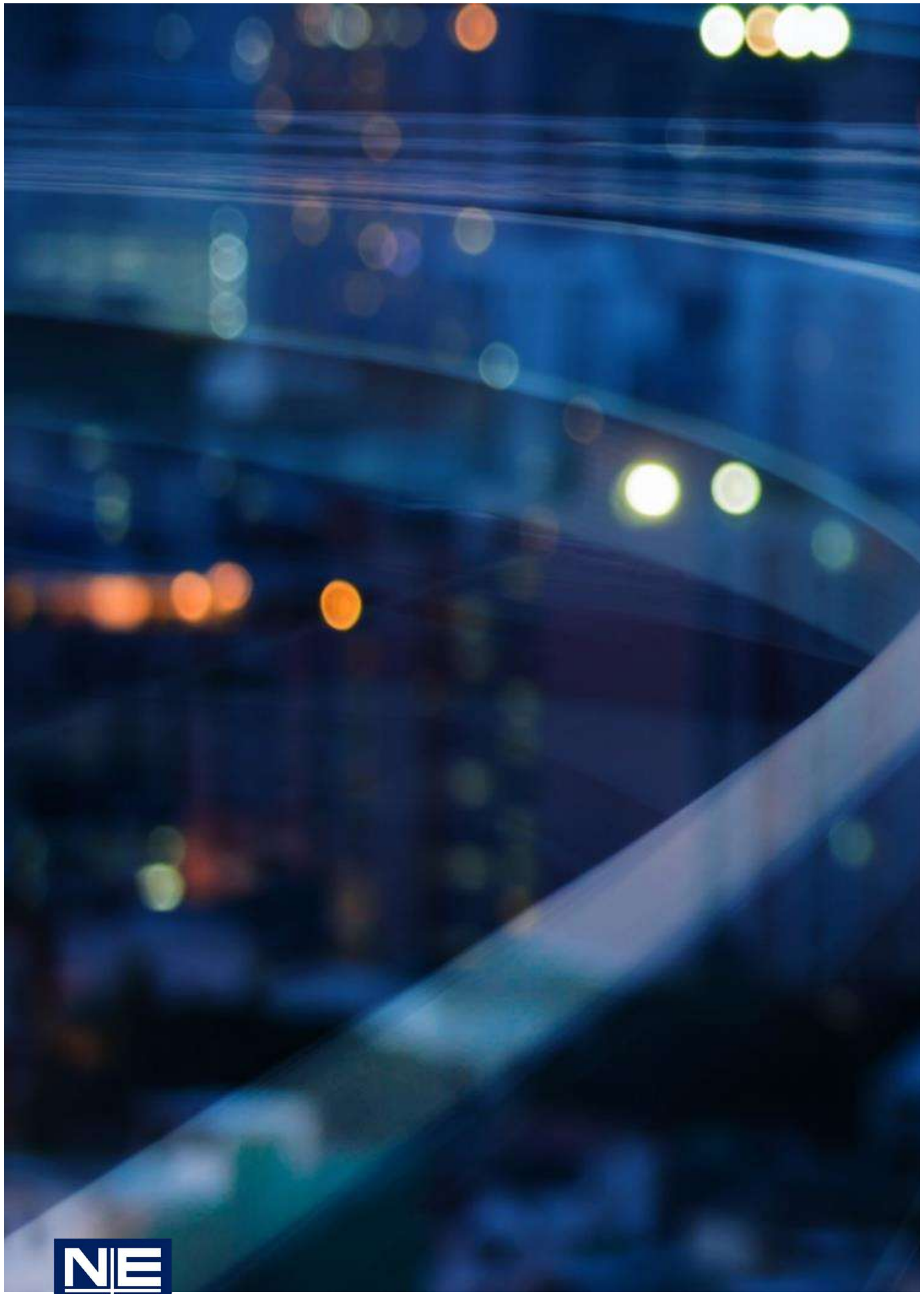
Notes: Plan population as of 7/1/2021 Source: GRS

RHODE ISLAND OPEB

30-YR NET CASH FLOW



Notes: Plan population as of 7/1/2021 Source: GRS



NEPC ASSET CLASS ASSUMPTIONS

Overview of NEPC Asset Class Assumptions

ASSET CLASS ASSUMPTIONS

OVERVIEW

- **NEPC's capital market assumptions are available each quarter and currently reflect March 31, 2022 market data**
- **We encourage a neutral risk posture as our market outlook reflects more uncertainty surrounding economic growth and inflation dynamics**
- **Higher interest rates lifted fixed income return assumptions and temper the outlook for equities given the expected valuation headwinds**
- **We encourage investors to hold a dedicated safe-haven fixed income allocation to be a source of portfolio liquidity and downside protection**
- **NEPC's expectation for inflation has increased over the near-term, but the long-term outlook reflects a subdued inflation environment**

ASSET CLASS BUILDING BLOCKS

METHODOLOGY

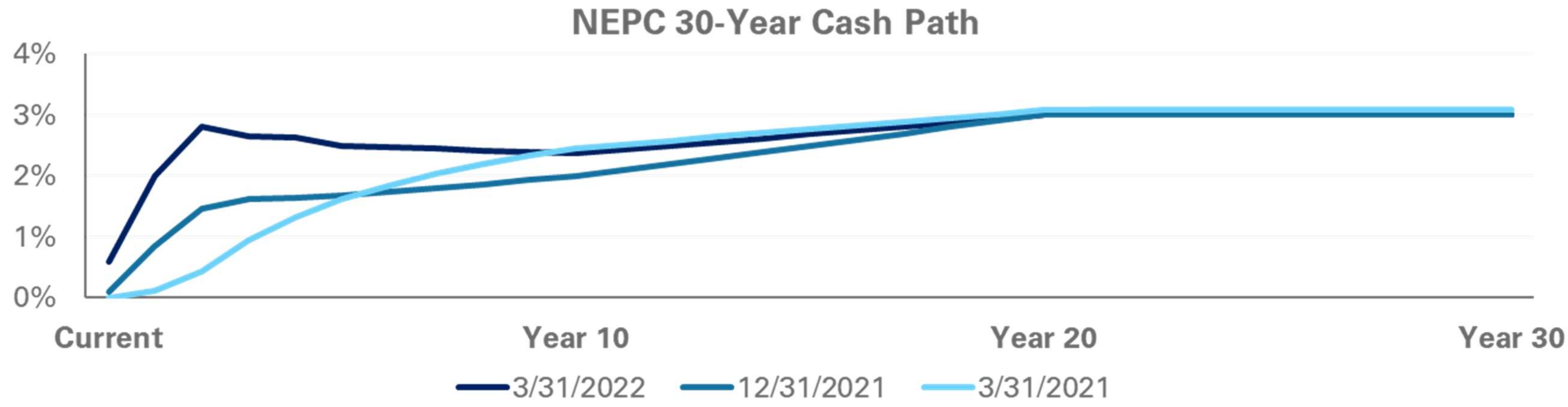
- **Asset models reflect current and forecasted market data to inform expected returns**
- **Systematic inputs are paired with a long-term trend to terminal values**
- **Model inputs are aggregated to capture key return drivers for each asset class**
- **Building block inputs will differ across asset class categories**

INFLATION ASSUMPTIONS
OVERVIEW

- **Inflation is a key building block to develop asset class assumptions**
- **Inflation assumptions are model-driven and informed by multiple inputs for both the U.S. and global assets**
  - Includes forecasts from international organizations (e.g. IMF), local consumer and producer price indices, global interest rate curves, and break-even inflation expectations
- **NEPC's U.S. expectations reflect stickier inflation over the near-term, but a stable inflation outlook over the long-term**
  - We anticipate continued volatility among inflation measures as market-based inflation expectations diverge from current consumer inflation metrics

Region	10-Year Inflation Assumption	30-Year Inflation Assumption
United States	2.7%	2.7%

U.S. CASH
EXPECTATIONS



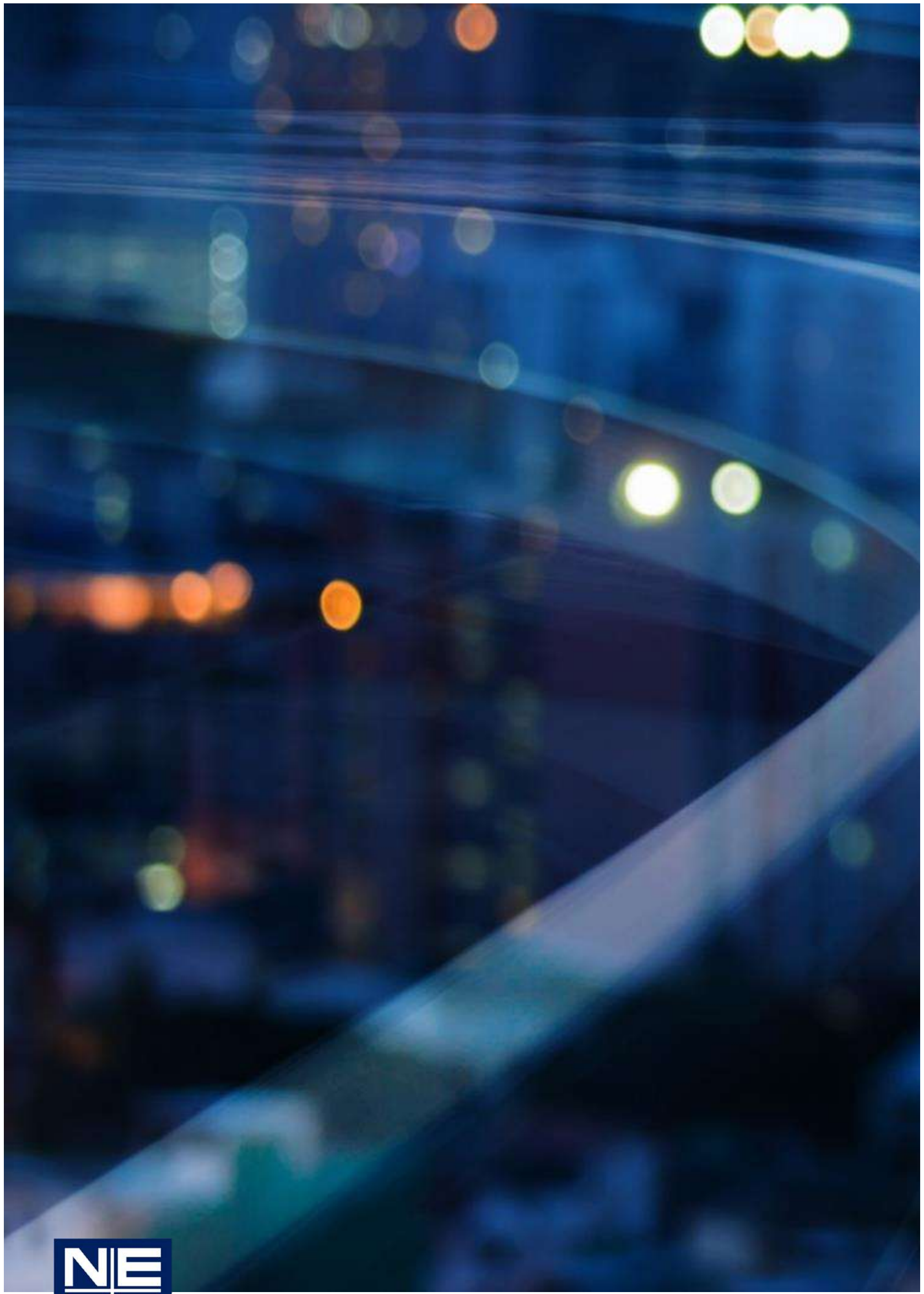
- **Cash is a foundational input for all asset class return expectations**
  - Cash + risk premia is an input for long-term asset class return projections
- **Cash assumptions reflect inflation and real interest rates**
- **U.S. nominal rate forecasts reflect an aggressive rate hike path in the near-term, though long-term expectations remain subdued relative to history**

Sources: Bloomberg, FactSet, NEPC

CORE ASSET CLASS RETURN ASSUMPTIONS

	Asset Class	03/31/22 10-Year Return	03/31/21 10-Year Return	Delta
	Cash	2.4%	1.3%	+1.1%
	U.S. Inflation	2.7%	2.3%	+0.4%
Equity	U.S. Large-Cap Equity	4.7%	5.1%	-0.4%
	Non-U.S. Developed Equity	5.6%	5.3%	+0.3%
	Emerging Market Equity	8.5%	7.4%	+1.1%
	Global Equity*	5.8%	5.8%	-
	Private Equity*	9.0%	9.0%	-
Fixed Income	U.S. Treasury Bond	2.6%	1.6%	+1.0%
	U.S. Aggregate Bond*	3.1%	2.1%	+1.0%
	U.S. TIPS	2.1%	1.7%	+0.4%
	U.S. High Yield Corporate Bond	4.5%	3.2%	+1.3%
	Private Debt*	7.3%	6.5%	+0.8%
Real Assets	Commodity Futures	1.7%	1.7%	-
	REIT	5.1%	5.0%	+0.1%
	Gold	3.9%	3.6%	+0.3%
	Real Estate - Core	4.8%	4.6%	+0.2%
	Private Real Assets - Infrastructure	5.4%	5.4%	-
Multi-Asset	60% S&P 500 & 40% U.S. Aggregate	4.3%	4.2%	+0.1%
	60% MSCI ACWI & 40% U.S. Agg.	5.1%	4.6%	+0.5%
	Hedge Fund*	5.0%	4.3%	+0.7%

*Calculated as a blend of other asset classes



OPEB ASSET ALLOCATION THOUGHTS

OPEB ASSET ALLOCATION

- **The historical OPEB asset allocation is reflective of a traditional 65/35 split between U.S. Equities and US Core Bonds**
  - While this provides a simplistic and liquid approach, it is not reflective of major market opportunities
- **In our review of the asset allocation, NEPC & Staff felt it prudent to further diversify the OPEB asset allocation and leverage the success of Pension investment framework and manager roster**
- **As such, NEPC & Staff recommend the Committee consider several key items:**
  - 1) Move towards a more diversified asset allocation and adopt the functional bucket framework of the Pension
  - 2) Think about leveraging the size, scale, and resources of the Pension to access asset classes and managers that would otherwise be unavailable

OPEB ASSET ALLOCATION

		OPEB Policy	Mix A (Similar Return)	Mix B (Similar Risk)	Mix C (55% Growth)	Mix D (55% Growth)	Pension
Equity	Global Equity	0%	30%	40%	45%	45%	
	US Large Cap	65%	0%	0%	0%	0%	
	Public Growth	**65%**	**30%**	**40%**	**45%**	**45%**	**40%**
	Private Growth	**0%**	**0%**	**5%**	**10%**	**10%**	**15%**
	TOTAL GROWTH	**65%**	**30%**	**45%**	**55%**	**55%**	**55%**
Income	Equity Options	0.0%	4.0%	4.0%	3.0%	4.0%	
	Liquid Credit	0.0%	4.0%	4.0%	3.0%	4.0%	
	EMD (Blended)	0.0%	4.0%	4.0%	3.0%	4.0%	
	CLOs	0.0%	4.0%	4.0%	3.0%	4.0%	
	Private Credit	0.0%	0.0%	5.0%	4.0%	5.0%	
	TOTAL INCOME	**0%**	**16%**	**21%**	**16%**	**21%**	**12%**
Stability	**CPC**	**0%**	**0%**	**0%**	**0%**	**0%**	**10%**
	Core Real Estate	0%	4%	4%	4%	4%	
	Private Real Assets (ex-Real Estate)	0%	0%	4%	4%	4%	
	Inflation Protection	**0%**	**4%**	**8%**	**8%**	**8%**	**8%**
	US Aggregate Bond	35%	50%	26%	21%	16%	
	Volatility Protection	**35%**	**50%**	**26%**	**21%**	**16%**	**15%**
	TOTAL STABILITY	**35%**	**54%**	**34%**	**29%**	**24%**	**33%**

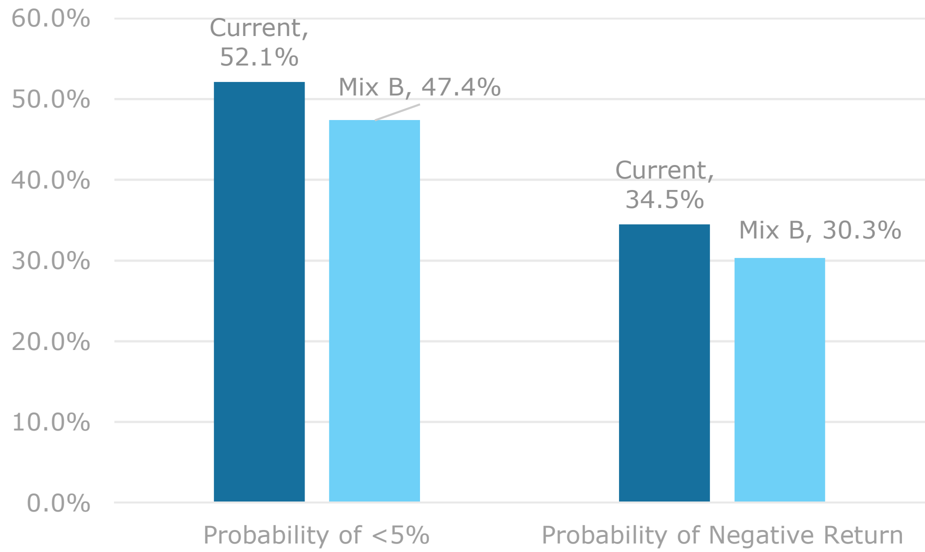
	OPEB Policy	Mix A (Similar Return)	Mix B (Similar Risk)	Mix C (55% Growth)	Mix D (55% Growth)	Pension
Expected Return 10 yrs	4.41%	4.67%	5.59%	5.89%	6.01%	5.82%
Expected Return 30 yrs	5.79%	5.55%	6.62%	6.97%	7.11%	6.88%
Standard Dev	11.04%	7.94%	10.92%	12.45%	12.84%	12.69%
Sharpe Ratio (10 years)	0.18	0.28	0.29	0.28	0.28	0.40

*Equity options and CLOs are modeled using custom assumptions created by NEPC's Asset Allocation team

CONSIDERATIONS

IMPROVED RISK PROLFIE

- **The expected risk/return of Mix B, relative to the existing OPEB asset allocation, remains compelling**
  - The risk profile of Mix B is slightly lower than the existing asset allocation but has a higher expected return
- **Moving from the existing asset allocation to Mix B would reduce the probability of falling short of the discount rate or producing negative returns**

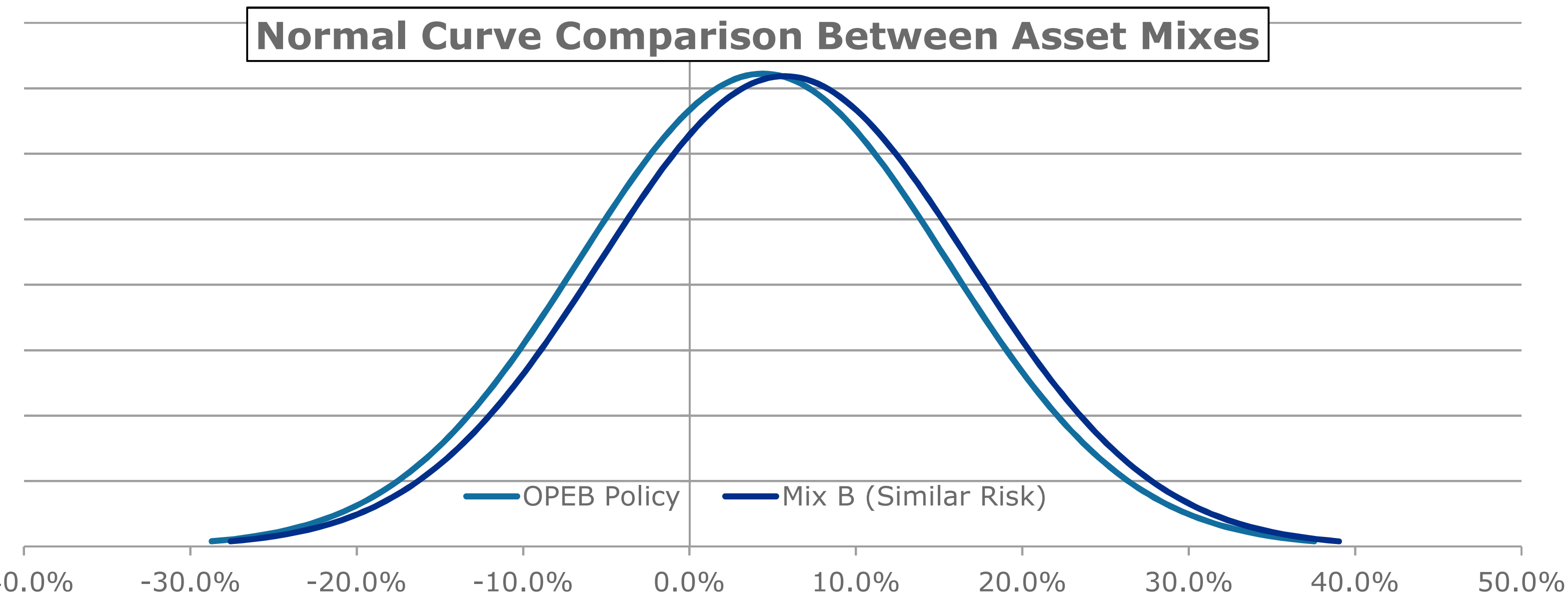


*The probability of loss in any given year below the 5% discount rate is based on NEPC's Q1 asset allocation projections

CONSIDERATIONS

BROADER OPPORTUNITY SET

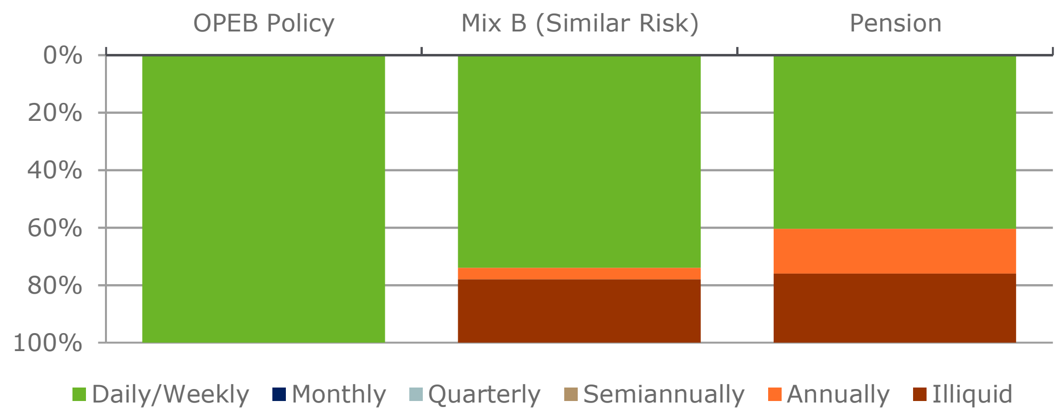
- **The current OPEB asset allocation takes a simplified approach and has a very limited opportunity set**
  - 65% US Large Cap Equity & 35% US Agg. Bond
- **While it may not show up meaningfully in standard deviation numbers, increasing the opportunity set across regions, market cap, and asset classes can help improve outcomes, particularly on the downside**



CONSIDERATIONS
ACCESSING PRIVATE MARKETS

- **NEPC believes that private markets will play a critical role in the success of investment programs given the current market environment**
  - We believe that the investment case for the use of private markets is clear but it's subject how much illiquidity the plan can take

- **The OPEBs positive cash flow can support the allocation to private markets and would exhibit a stronger liquidity profile relative to the Pension**



*Liquidity is based on NEPC's standard liquidity categories for specific asset classes and may differ from the specific liquidity terms of managers

CONSIDERATIONS

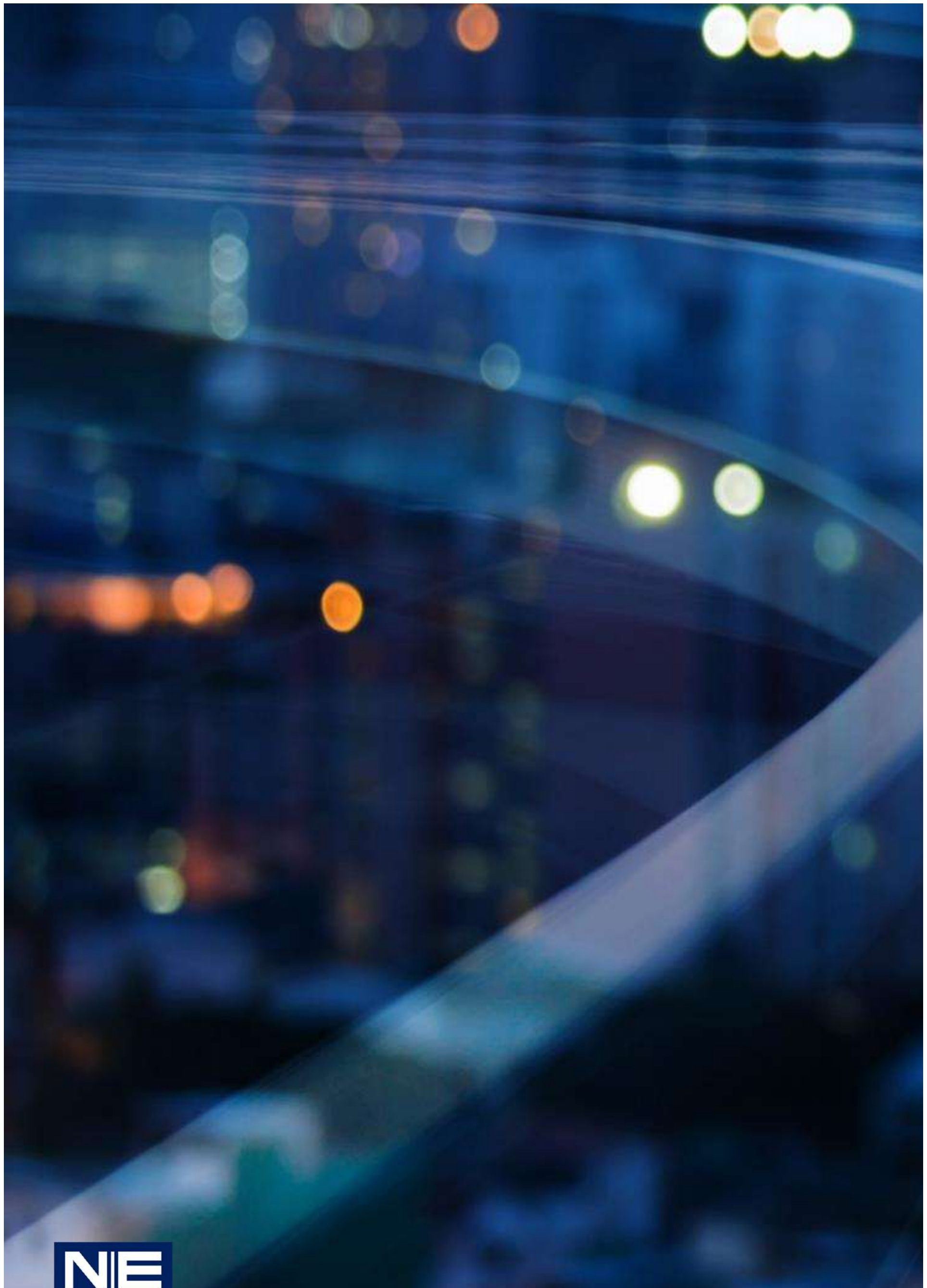
ADDITIONAL DOWNSIDE PROTECTION

- **Of note, the recommended mixes do not include allocations to the Absolute Return and Crisis Protection Class ("CPC") that are within the Pension**
  - Given the size of the OPEB, building out a direct absolute return portfolio could be challenging
  - The positive cash flow profile of the OPEB helps mitigate the need for a dedicated CPC allocation

RECOMMENDATION

- **NEPC & Staff recommend the adoption of Mix B for the OPEB's asset allocation**
  - Mix B would help to further diversify the plan's asset allocation
  - In addition, it helps improve the plan's risk and return profile meaningfully

- **Mix C & D offer compelling opportunities and can be potential future considerations for the OPEB**
  - Mix C and D have meaningful allocations to private equity, private credit, and private real assets which will take time to ramp up to and build out
  - Revisiting the OPEB asset allocation annually will give us the opportunity to reassess these options again



APPENDIX

Public Equity

PUBLIC EQUITY ASSUMPTIONS
OVERVIEW

- **Elevated inflation levels and expectations for tighter monetary policy suggest a more neutral equity risk posture**
  - With a more muted risk asset outlook, we recommend adding value exposure to U.S. large-cap equity and utilizing active global equity strategies
- **Equity valuation multiples are sensitive to higher nominal rates, though inflation can positively impact nominal revenue growth**
- **We recommend strategic asset allocation targets for emerging market equity reflect an overweight compared to the MSCI ACWI IMI**
  - The return assumption for emerging equity is highest among public equity and we recommend using non-U.S. developed equity as the funding source
- **NEPC encourages a strategic bias to small-cap with the use of active management relative to small-cap exposure in the MSCI ACWI IMI**

PUBLIC EQUITY ASSUMPTIONS

BUILDING BLOCKS

Illiquidity Premium	The return expected for assets with illiquidity risk
Valuation	Represents P/E multiple contraction or expansion relative to long-term trend
Inflation	Market-specific inflation based on country-level revenue exposure
Real Earnings Growth	Market-specific real growth based on a weighted-average of country revenue exposure and GDP growth
Dividend Yield	Income distributed to shareholders adjusted to reflect market trends

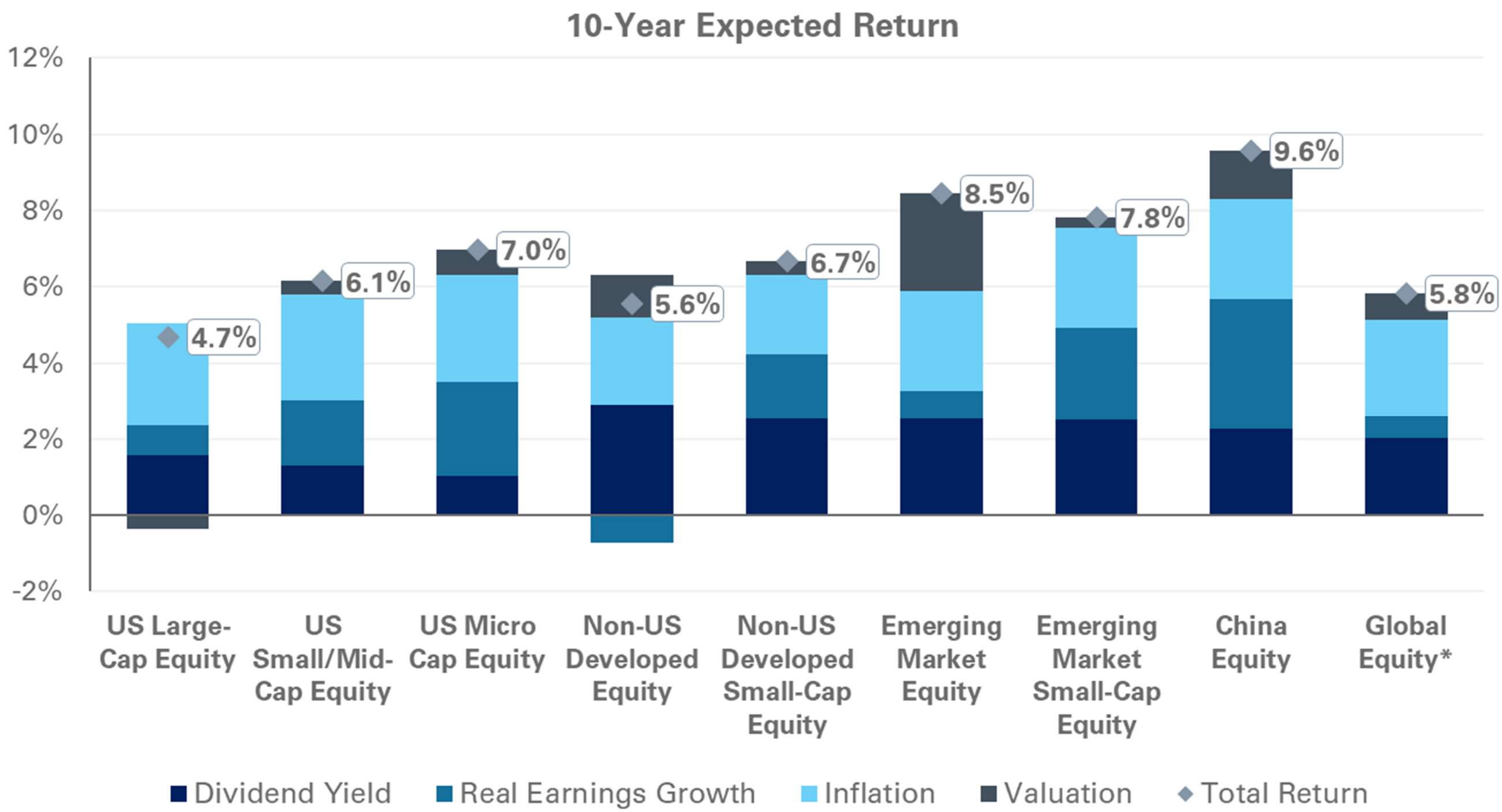
Asset Class	03/31/22 10-Yr Return	12-Month Change
U.S. Large-Cap Equity	4.7%	-0.4%
U.S. Small/Mid-Cap Equity	6.1%	+1.0%
U.S. Microcap Equity	7.0%	+1.6%
Non-U.S. Developed Equity	5.6%	+0.3%
Non-U.S. Developed Small-Cap Equity	6.7%	+1.4%
Emerging Market Equity	8.5%	+1.1%
Emerging Market Small-Cap Equity	7.8%	-0.2%
China Equity	9.6%	+2.4%
Hedge Fund - Equity	4.8%	+0.6%
Global Equity*	5.8%	-
Private Equity*	9.0%	-

Source: NEPC

*Calculated as a blend of other asset classes

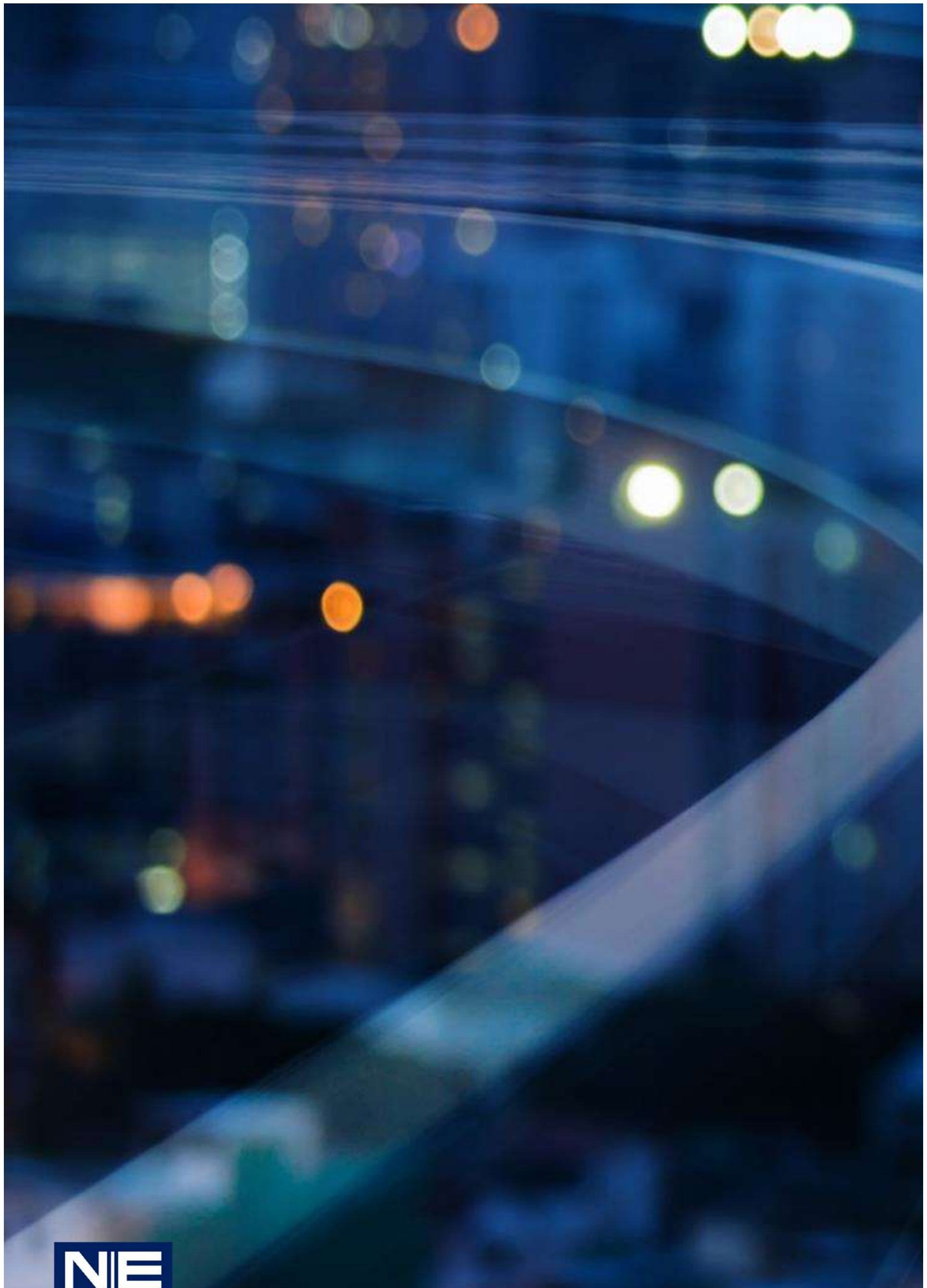
PUBLIC EQUITY

BUILDING BLOCKS



Source: NEPC

*Calculated as a blend of other classes



APPENDIX

Fixed Income

FIXED INCOME ASSUMPTIONS

OVERVIEW

- **Fixed income return assumptions reflect a transition to tighter monetary policy to offset ongoing inflationary pressures**

- **We endorse a dedicated Treasury allocation for liquidity, downside protection, and fee savings, despite the muted return expectations**

- **Safe-haven fixed income exposure will differ by investor objective**
  - The fixed income asset-type and duration profile should reflect portfolio objectives, asset-liability glide path, and desire for capital efficiency

- **The use of return-seeking credit investments requires a more dynamic posture to manage shifts in credit spreads and market cycles**
  - A strategic blend of 50% high yield, 25% levered loans, and 25% blended EMD offers an improved strategic beta profile for return-seeking credit

FIXED INCOME ASSUMPTIONS

BUILDING BLOCKS

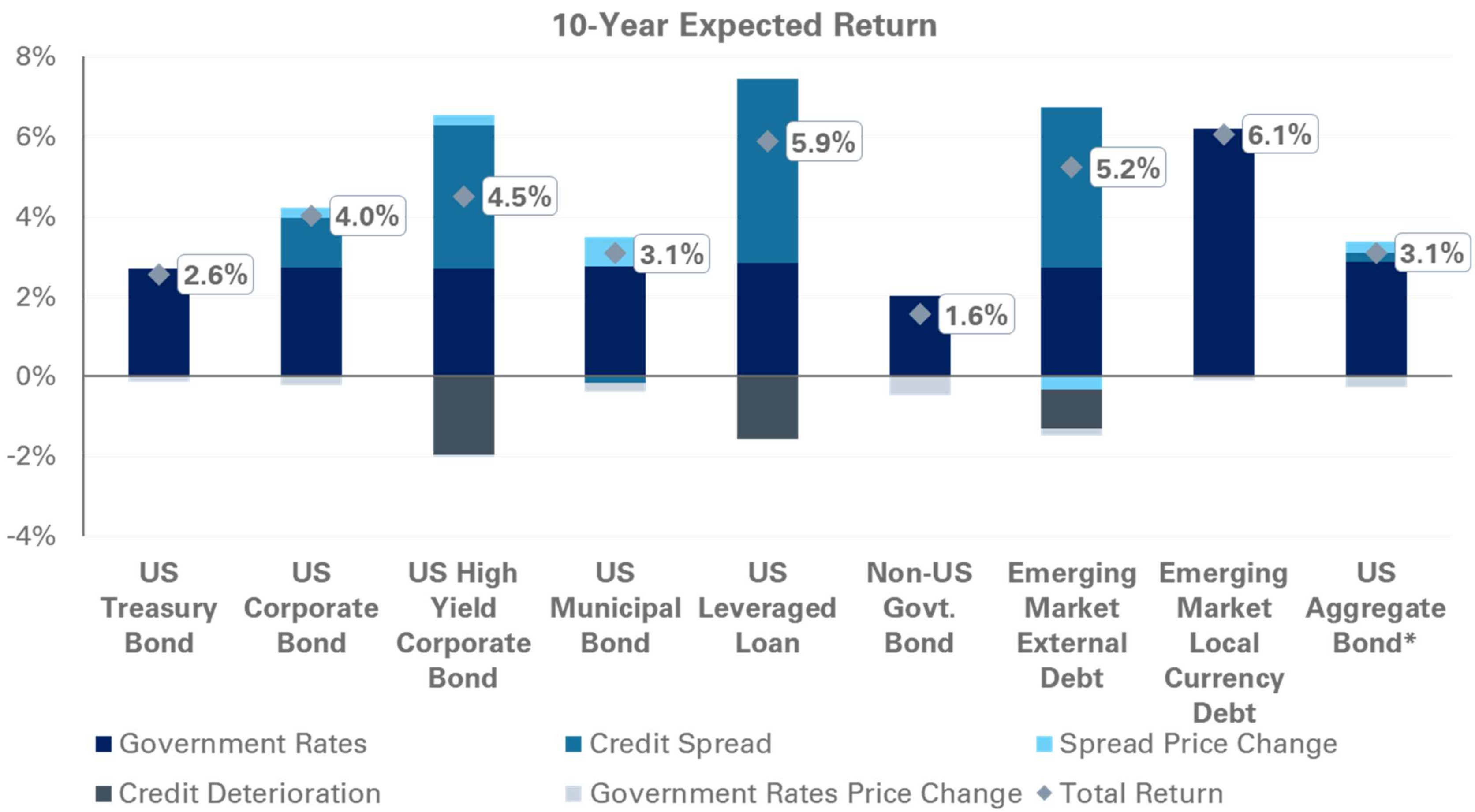
Illiquidity Premium	The return expected for assets with illiquidity risk
Government Rates Price Change	Change due to shifts in current yields relative to forecasted rates
Credit Deterioration	The average loss for credit assets due to defaults and recovery rates
Spread Price Change	Valuation change due to changes in credit spreads relative to long-term targets
Credit Spread	Yield premium provided by securities with credit risk
Government Rates	The yield attributed to sovereign bonds that do not have credit risk

Asset Class	03/31/22 10-Yr Return	12-Month Change
U.S. TIPS	2.1%	+0.4%
U.S. Treasury Bond	2.6%	+1.0%
U.S. Corporate Bond	4.0%	+1.1%
U.S. MBS	2.8%	+0.9%
U.S. High Yield Corporate	4.5%	+1.3%
U.S. Leveraged Loan	5.9%	+1.5%
EMD External Debt	5.2%	+1.3%
EMD Local Currency Debt	6.1%	+0.3%
Non-U.S. Govt. Bond	1.6%	+0.7%
U.S. Muni Bond (1-10 Year)	2.4%	+1.0%
U.S. High Yield Muni Bond	3.4%	+1.3%
Hedge Fund – Credit	5.2%	+1.0%
U.S. Aggregate Bond*	3.1%	+1.0%
Private Debt*	7.3%	+0.8%

Source: NEPC
*Calculated as a blend of other asset classes

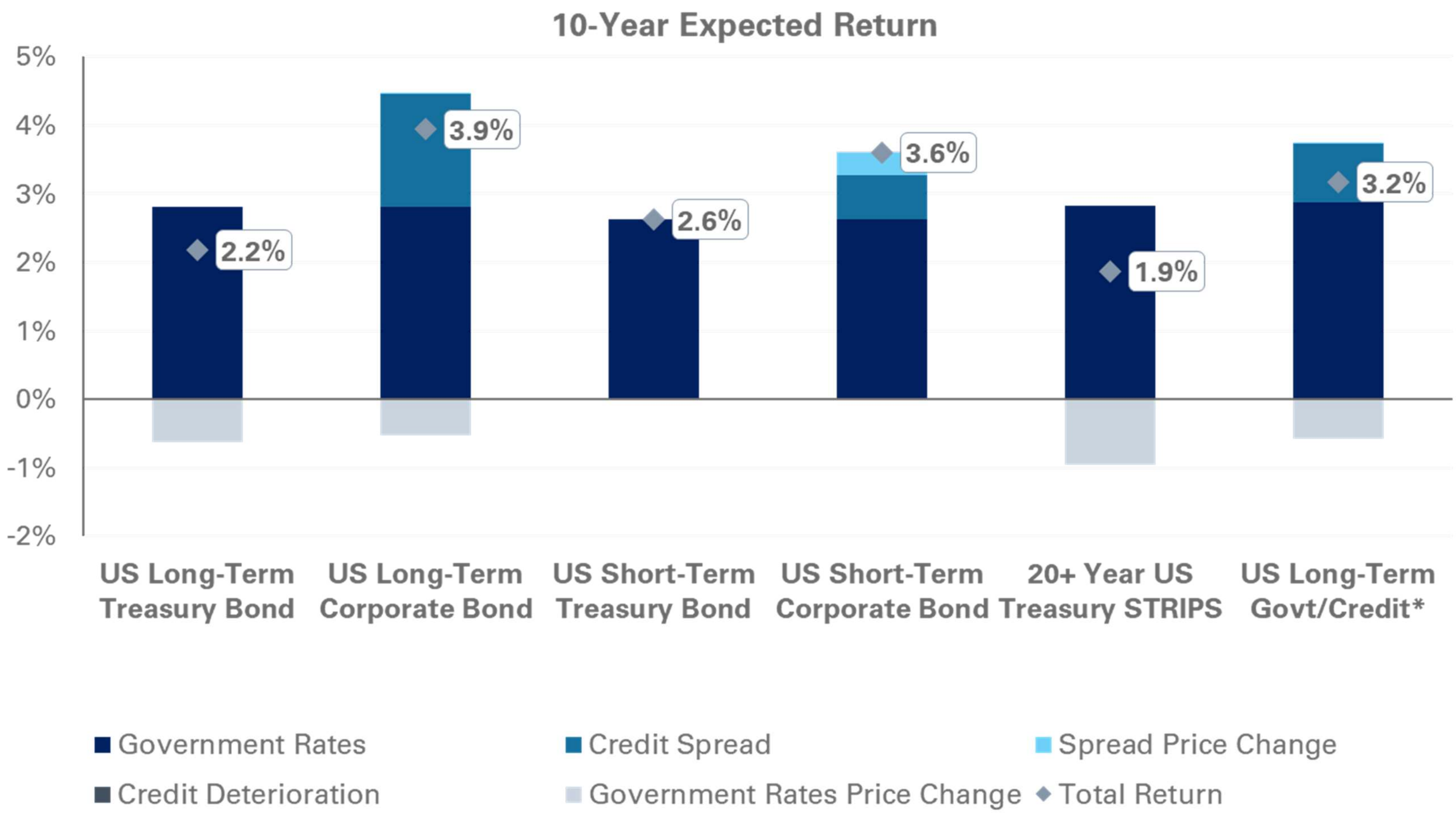
FIXED INCOME

BUILDING BLOCKS

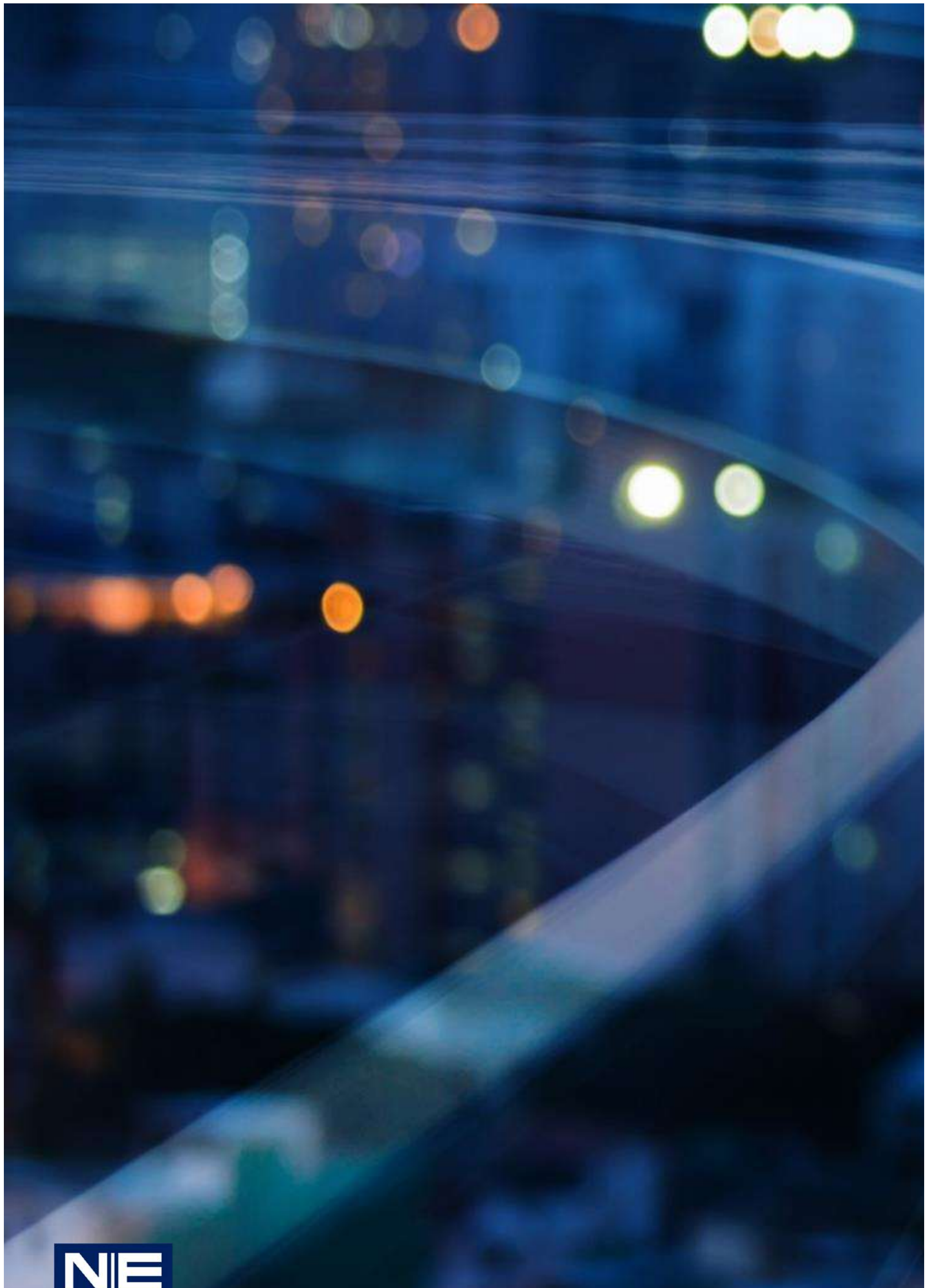


Source: NEPC
*Calculated as a blend of other classes

FIXED INCOME
BUILDING BLOCKS



Source: NEPC
*Calculated as a blend of other classes



APPENDIX

Real Assets

REAL ASSET ASSUMPTIONS

OVERVIEW

- **The strategic outlook for real assets reflects a high level of uncertainty due to the elevated near-term inflation environment**
- **Real assets offer a meaningful portfolio diversification benefit, but are sensitive to a wide range of potential inflation scenarios**
- **Real assets exhibit different betas to inflation and each asset class is exposed to various economic factors**
  - Diversification and correlation benefits are helpful to a portfolio but must be carefully considered relative to the expected risk premium
- **Inflation-sensitivity and portfolio objectives influence an investor's strategic allocation to real assets**
  - We recommend private markets to meet strategic real asset allocation targets
  - Relative to portfolio objectives, we prefer the use of public market strategies to mitigate short-term inflation risks

REAL ASSET ASSUMPTIONS

BUILDING BLOCKS

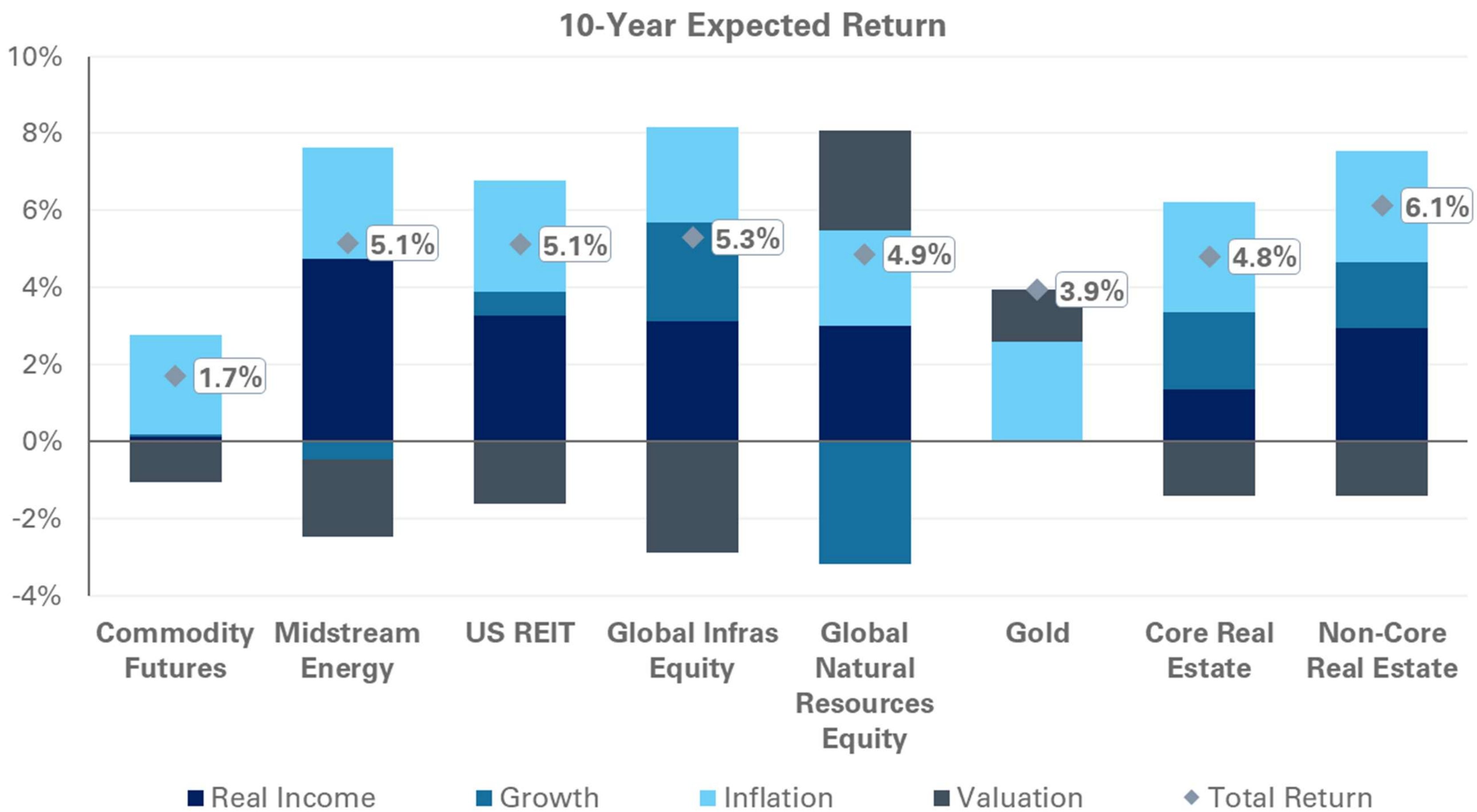
Illiquidity Premium	The return expected for assets with illiquidity risk
Valuation	The change in price of the asset moving to a terminal value or real average level
Inflation	Based on the inflation path as defined by breakeven-inflation rates and NEPC assumptions
Growth	Market-specific real growth based on a weighted-average of country-level revenue exposure and GDP growth
Real Income	The inflation-adjusted income produced by the asset

Asset Class	03/31/22 10-Yr Return	12-Month Change
Commodity Futures	1.7%	-
Midstream Energy	5.1%	-1.5%
REIT	5.1%	0.1%
Global Infrastructure Equity	5.3%	-0.2%
Global Natural Resources Equity	4.9%	-0.7%
Gold	3.9%	0.3%
Real Estate - Core	4.8%	0.2%
Real Estate – Non-Core	6.1%	0.4%
Private Debt - Real Estate	5.2%	0.7%
Private Real Assets - Natural Resources	7.1%	-0.4%
Private Real Assets - Infrastructure	5.4%	-

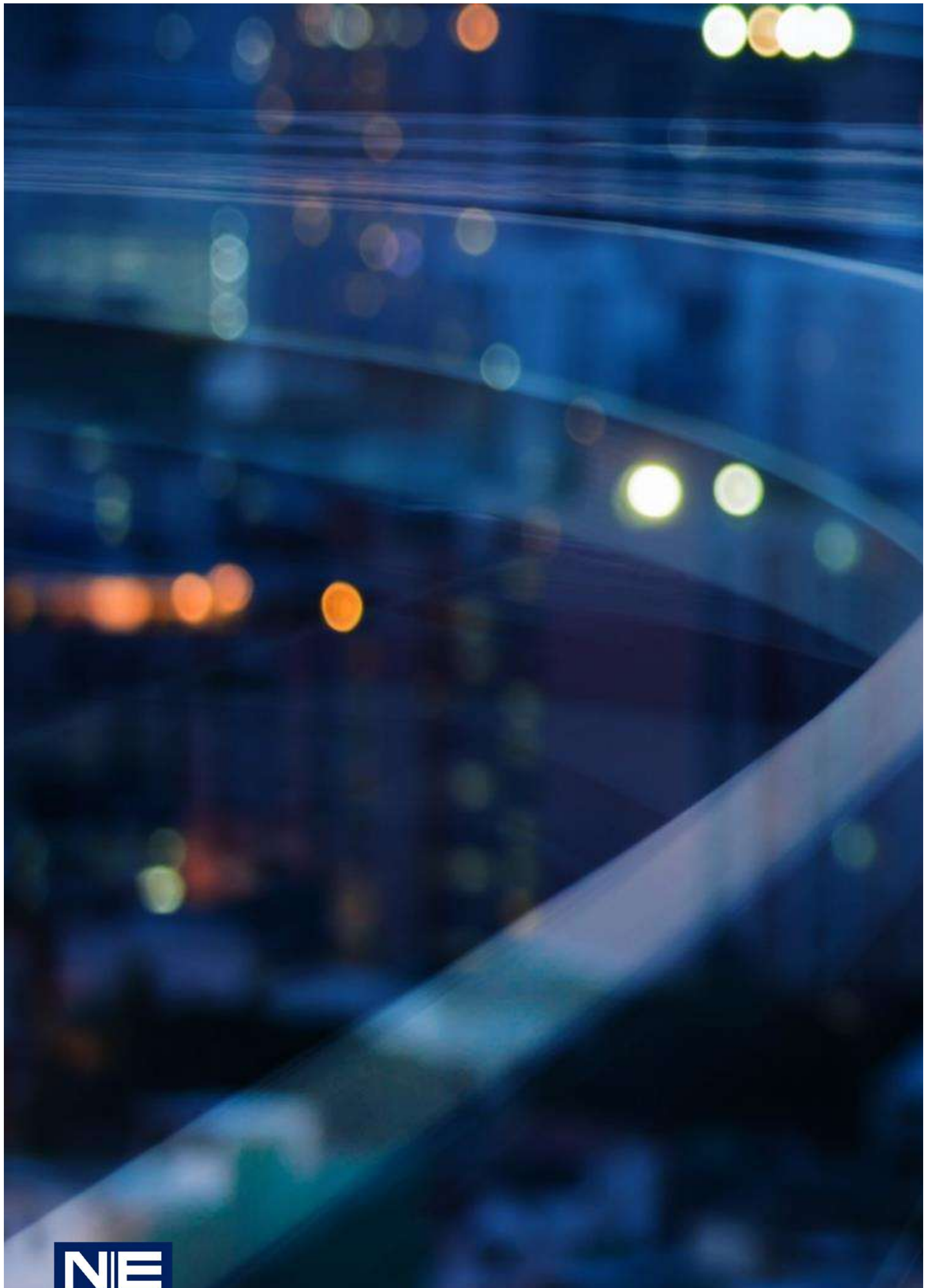
Source: NEPC

*Calculated as a blend of other asset classes

REAL ASSET
BUILDING BLOCKS



Source: NEPC

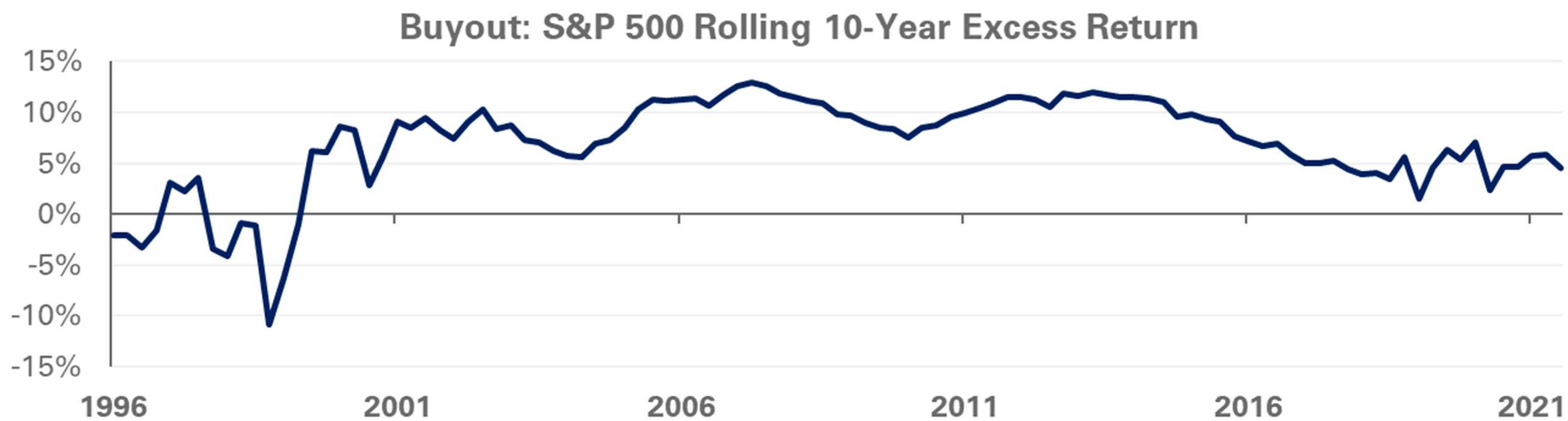


APPENDIX

Alternative Assets

ALTERNATIVE ASSETS

METHODOLOGY

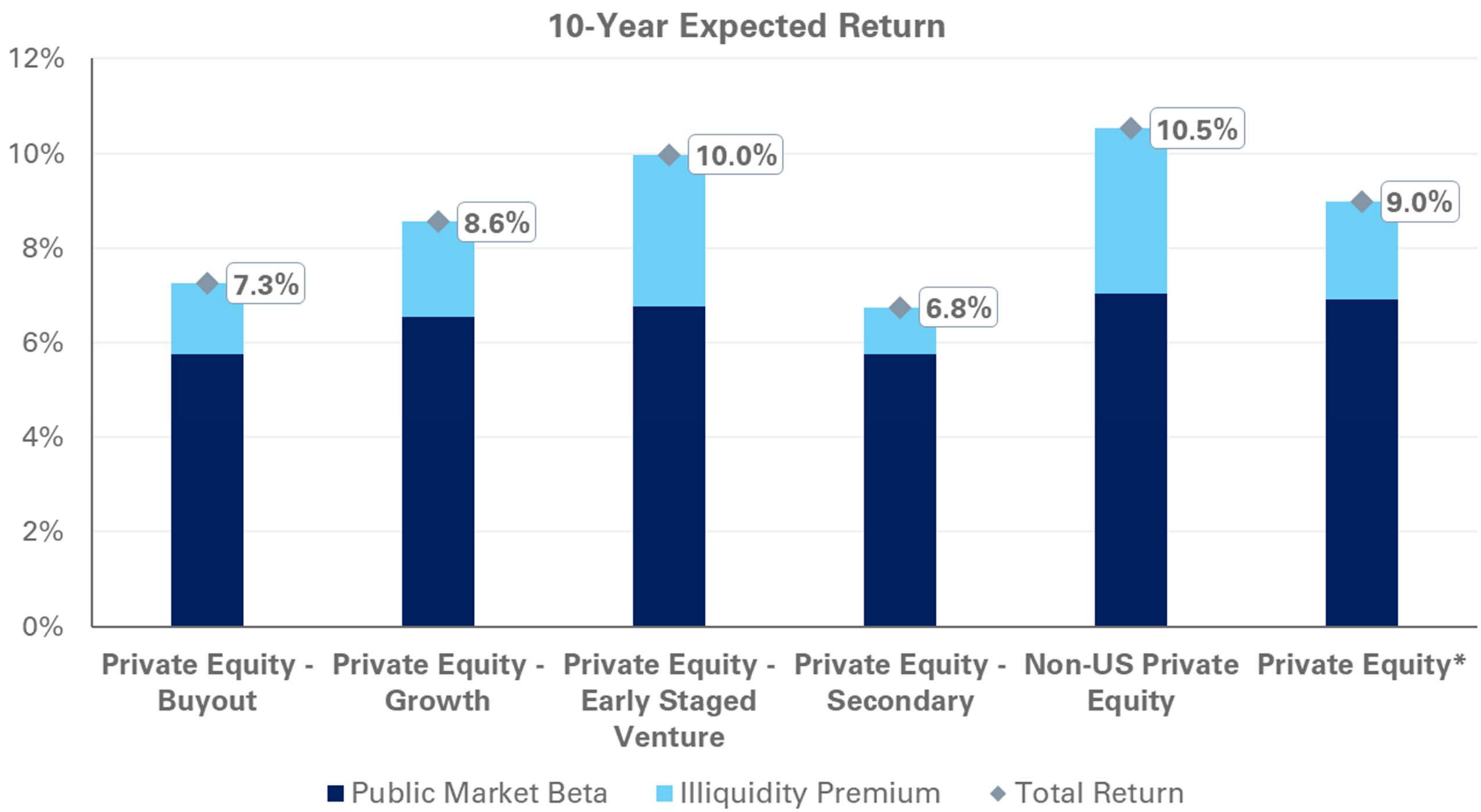


- **Private market assumptions are constructed from betas to public markets with an added illiquidity premia**
  - Historically, the observed illiquidity premium has been a significant component driving private market returns

- **Hedge fund assumptions are constructed from betas to public markets with an added alpha assumption**

Sources: Thomson One, S&P, FactSet

PRIVATE EQUITY
BUILDING BLOCKS

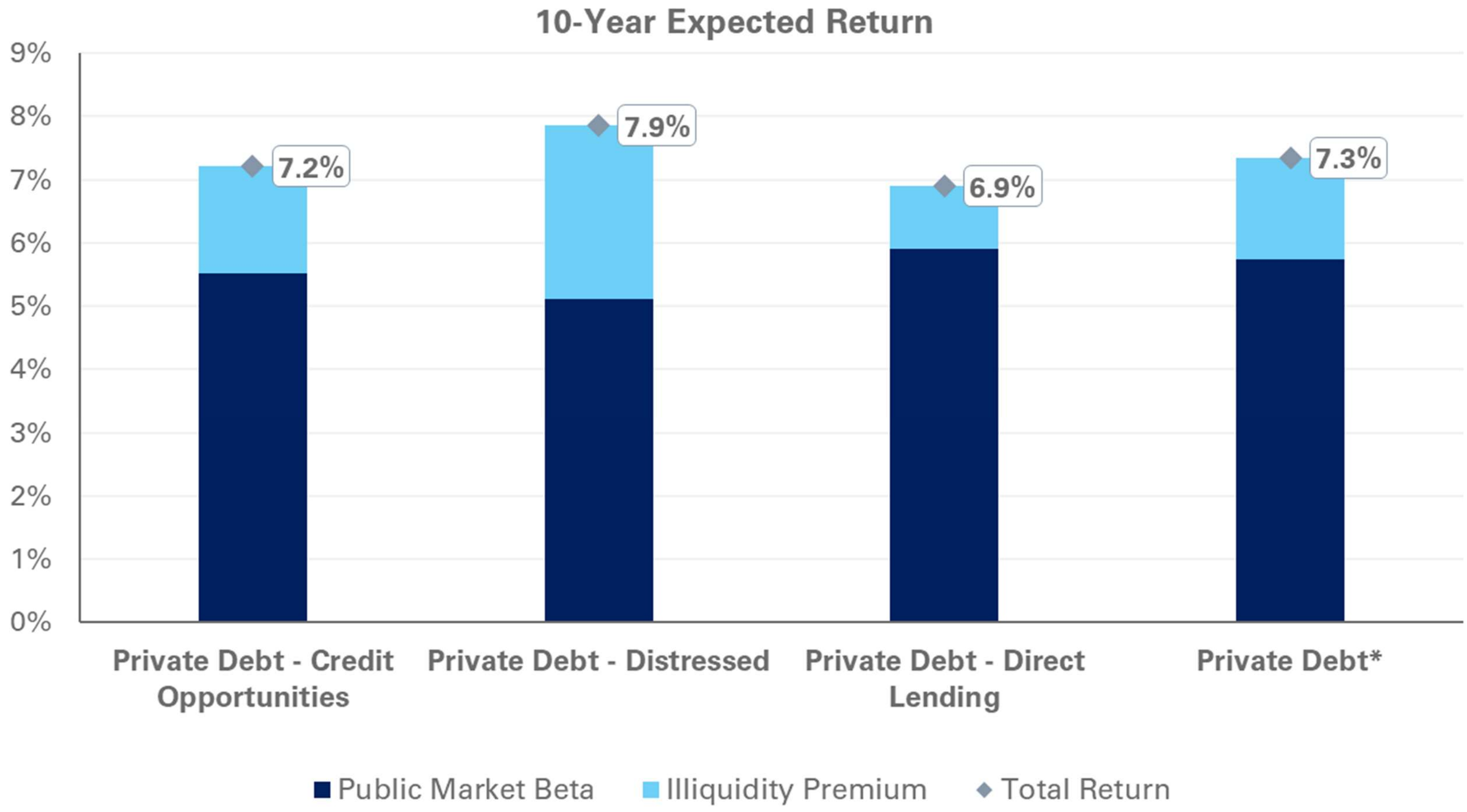


Source: NEPC

*Private Equity is a derived composite of 34% U.S. Buyout, 34% U.S. Growth, 8.5% U.S. Secondary, 8.5% U.S. Venture, 15% Non-U.S. PE

PRIVATE DEBT

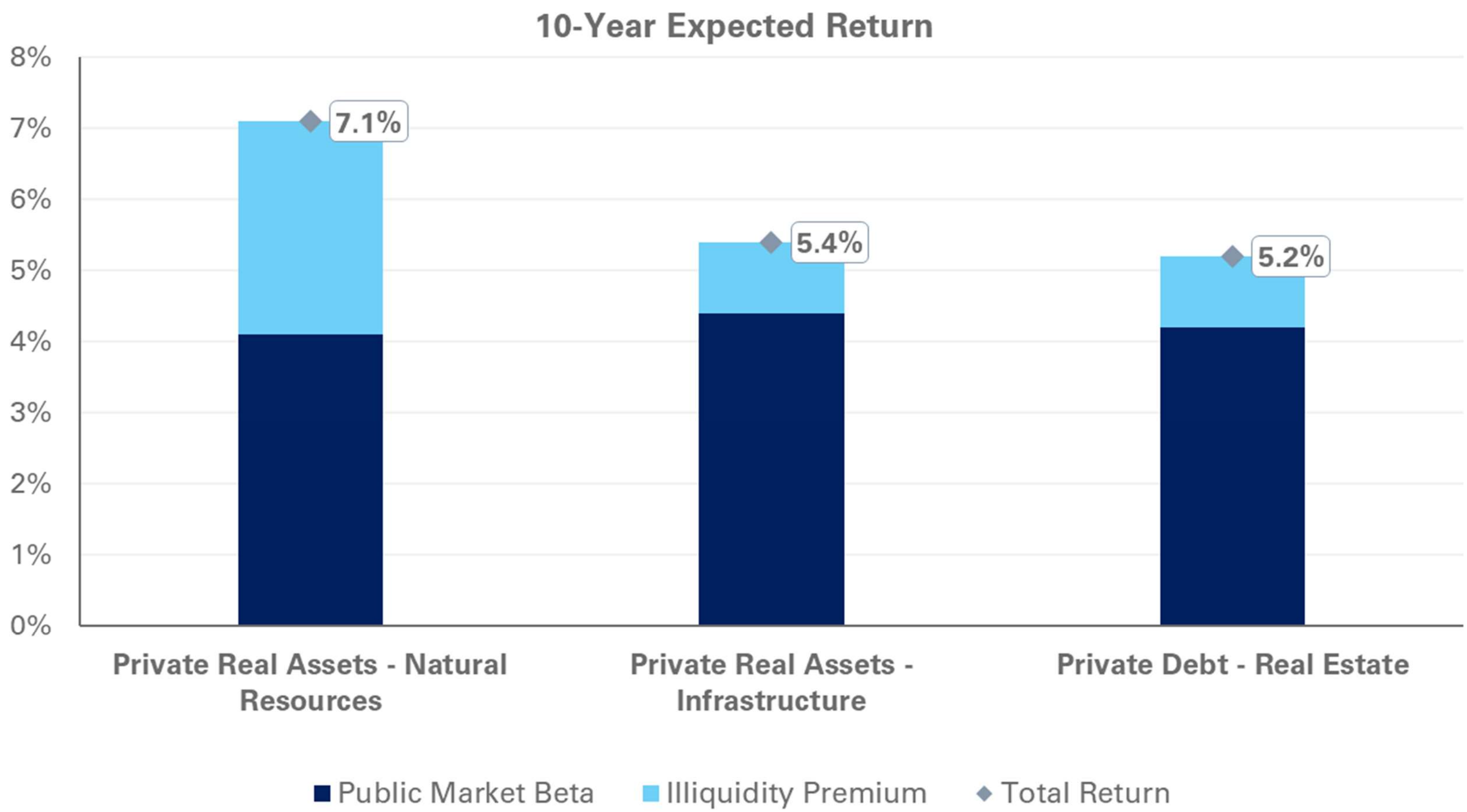
BUILDING BLOCKS



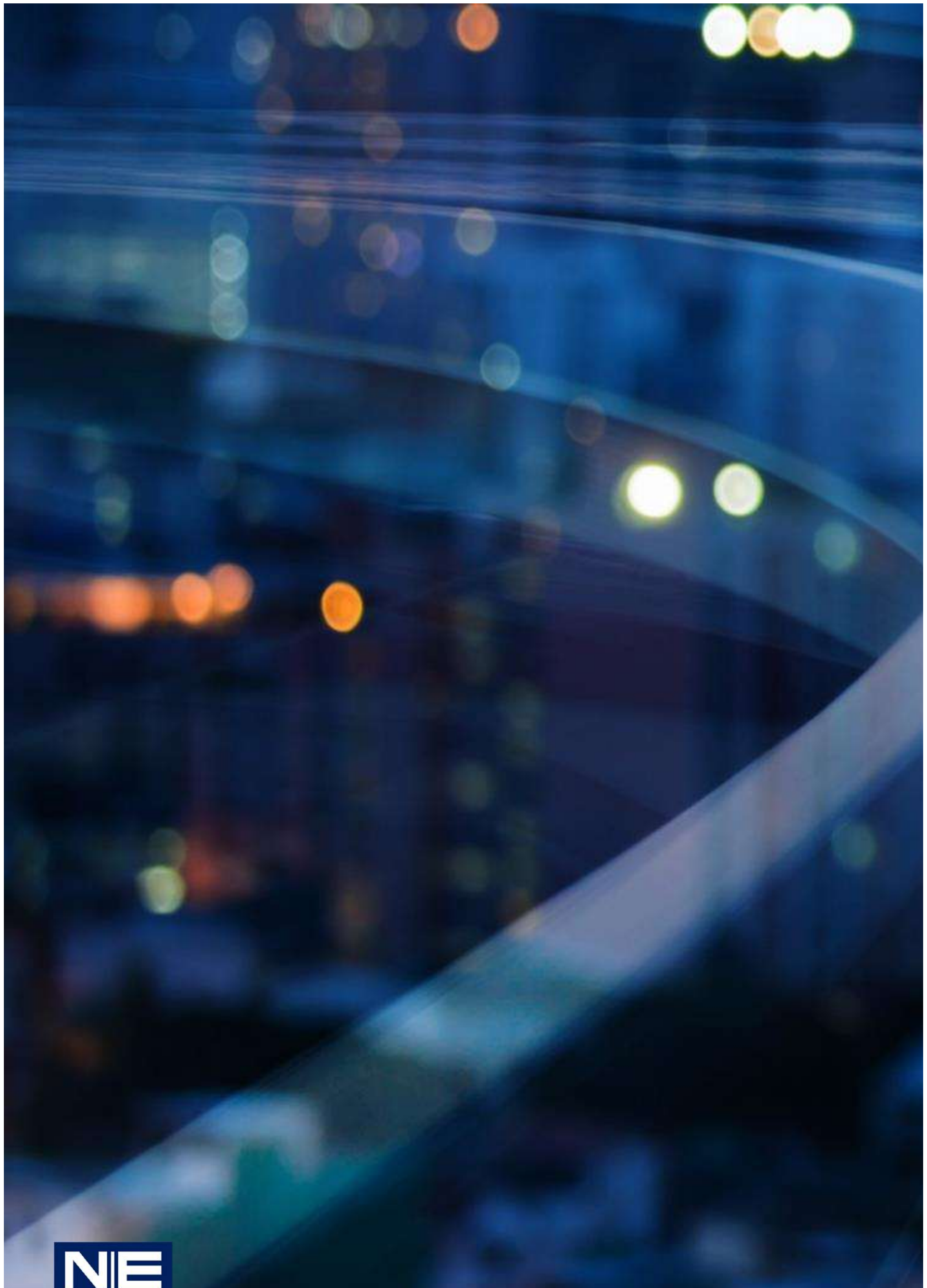
Source: NEPC

*Private Debt is a derived composite of 25% Mezzanine, 25% Distressed, 50% Direct Lending

PRIVATE REAL ASSET
BUILDING BLOCKS



Source: NEPC



APPENDIX

Assumptions

10-YEAR RETURN FORECASTS
EQUITY

Geometric Expected Return			
Asset Class	**03/31/2022**	**03/31/2021**	**Delta**
U.S. Large-Cap Equity	4.7%	5.1%	-0.4%
U.S. Small/Mid-Cap Equity	6.1%	5.1%	+1.0%
Non-U.S. Developed Equity	5.6%	5.3%	+0.3%
Non-U.S. Developed Equity (USD Hedge)	5.8%	5.5%	+0.3%
Non-U.S. Developed Small-Cap Equity	6.7%	5.3%	+1.4%
Emerging Market Equity	8.5%	7.4%	+1.1%
Emerging Market Small-Cap Equity	7.8%	8.0%	-0.2%
Hedge Fund - Equity	4.8%	4.2%	+0.6%
Private Equity - Buyout	7.3%	7.4%	-0.1%
Private Equity - Growth	8.6%	8.5%	+0.1%
Private Equity - Early Stage Venture	10.0%	9.9%	+0.1%
Private Equity - Secondary	6.8%	6.9%	-0.1%
Non-U.S. Private Equity	10.5%	10.4%	+0.1%
China Equity	9.6%	7.2%	+2.4%
U.S. Microcap Equity	7.0%	5.4%	+1.6%
Global Equity*	5.8%	5.8%	-
Private Equity*	9.0%	9.0%	-

*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

SAFE-HAVEN FIXED INCOME

Geometric Expected Return			
Asset Class	**03/31/2022**	**03/31/2021**	**Delta**
Cash	2.4%	1.3%	+1.1%
U.S. TIPS	2.1%	1.7%	+0.4%
U.S. Treasury Bond	2.6%	1.6%	+1.0%
U.S. Corporate Bond	4.0%	2.9%	+1.1%
U.S. Corporate Bond - AAA	3.3%	2.3%	+1.0%
U.S. Corporate Bond - AA	3.3%	2.4%	+0.9%
U.S. Corporate Bond - A	3.7%	2.6%	+1.1%
U.S. Corporate Bond - BBB	4.3%	3.2%	+1.1%
U.S. Mortgage-Backed Securities	2.8%	1.9%	+0.9%
U.S. Securitized Bond	3.6%	2.4%	+1.2%
U.S. Collateralized Loan Obligation	4.2%	2.8%	+1.4%
U.S. Municipal Bond	3.1%	1.4%	+1.7%
U.S. Municipal Bond (1-10 Year)	2.4%	1.4%	+1.0%
U.S. Taxable Municipal Bond	3.7%	3.0%	+0.7%

10-YEAR RETURN FORECASTS

SAFE-HAVEN FIXED INCOME

Geometric Expected Return			
Asset Class	**03/31/2022**	**03/31/2021**	**Delta**
Non-US Government Bond	1.6%	0.9%	+0.7%
Non-US Government Bond (USD Hedge)	1.8%	1.1%	+0.7%
Non-US Inflation-Linked Bond (USD Hedge)	1.4%	0.6%	+0.8%
U.S. Short-Term TIPS (1-3 Year)	2.1%	1.4%	+0.7%
U.S. Short-Term Treasury Bond (1-3 Year)	2.6%	1.4%	+1.2%
U.S. Short-Term Corporate Bond (1-3 Year)	3.6%	2.3%	+1.3%
U.S. Intermediate-Term TIPS (3-10 Year)	2.3%	1.7%	+0.6%
U.S. Intermediate-Term Treasury Bond (3-10 Year)	2.7%	1.6%	+1.1%
U.S. Intermediate-Term Corporate Bond (3-10 Year)	4.3%	3.0%	+1.3%
U.S. Long-Term Treasury Bond (10-30 Year)	2.2%	1.9%	+0.3%
U.S. Long-Term TIPS (10-30 Year)	1.9%	2.0%	-0.1%
U.S. Long-Term Corporate Bond (10-30 Year)	3.9%	3.1%	+0.8%
20+ Year U.S. Treasury STRIPS	1.9%	1.7%	+0.2%
10 Year U.S. Treasury Bond	2.7%	2.0%	+0.7%
10 Year Non-U.S. Government Bond (USD Hedge)	0.8%	0.1%	+0.7%
U.S. Aggregate Bond*	3.1%	2.1%	+1.0%

*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

RETURN-SEEKING CREDIT

Geometric Expected Return			
Asset Class	**03/31/2022**	**03/31/2021**	**Delta**
U.S. High Yield Corporate Bond	4.5%	3.2%	+1.3%
U.S. Corporate Bond - BB	5.3%	4.2%	+1.1%
U.S. Corporate Bond - B	4.8%	3.4%	+1.4%
U.S. Corporate Bond - CCC/Below	-1.4%	-3.2%	+1.8%
U.S. Short-Term High Yield Corp Bond (1-3 Year)	3.6%	2.5%	+1.1%
U.S. Leveraged Loan	5.9%	4.4%	+1.5%
Emerging Market External Debt	5.2%	3.9%	+1.3%
Emerging Market Local Currency Debt	6.1%	5.8%	+0.3%
U.S. High Yield Securitized Bond	5.6%	3.3%	+2.3%
U.S. High Yield Collateralized Loan Obligation	6.5%	5.1%	+1.4%
U.S. High Yield Municipal Bond	3.4%	2.1%	+1.3%
Hedge Fund - Credit	5.2%	4.2%	+1.0%
Private Debt - Credit Opportunities	7.2%	6.3%	+0.9%
Private Debt - Distressed	7.9%	7.4%	+0.5%
Private Debt - Direct Lending	6.9%	5.9%	+1.0%
Private Debt*	7.3%	6.5%	+0.8%

*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

REAL ASSETS

Geometric Expected Return			
Asset Class	**03/31/2022**	**03/31/2021**	**Delta**
Commodity Futures	1.7%	1.7%	-
Midstream Energy	5.1%	6.6%	-1.5%
REIT	5.1%	5.0%	+0.1%
Global Infrastructure Equity	5.3%	5.5%	-0.2%
Global Natural Resources Equity	4.9%	5.6%	-0.7%
Gold	3.9%	3.6%	+0.3%
Real Estate - Core	4.8%	4.6%	+0.2%
Real Estate - Non-Core	6.1%	5.7%	+0.4%
Private Debt - Real Estate	5.2%	4.5%	+0.7%
Private Real Assets - Natural Resources	7.1%	7.5%	-0.4%
Private Real Assets - Infrastructure	5.4%	5.4%	-

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Past performance is no guarantee of future results.

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