



# PORTFOLIO LIQUIDITY REVIEW

EMPLOYEES' RETIREMENT SYSTEM OF RHODE ISLAND

### **APRIL 2024**

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## LIQUIDITY OVERVIEW

- At the most recent SIC meeting, pacing plans for individual private market asset classes were presented
- The goal of today's discussion is to take a holistic view of liquidity across the entire portfolio
- The projected pacing plans from Cliffwater and Meketa were incorporated into our portfolio review
- We also utilized information from the Plan's actuary to forecast out contributions and benefit payments
- Finally, we introduce the concept of "liquidity guardrails" to help monitor and manage portfolio liquidity on an ongoing basis



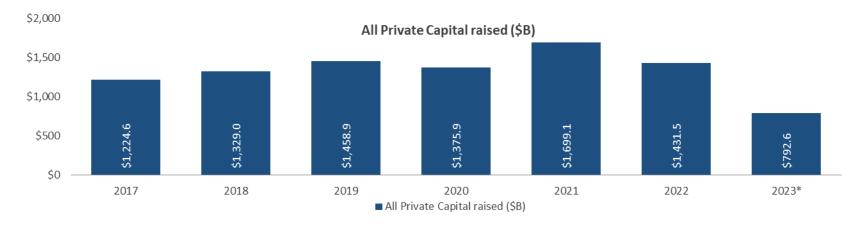


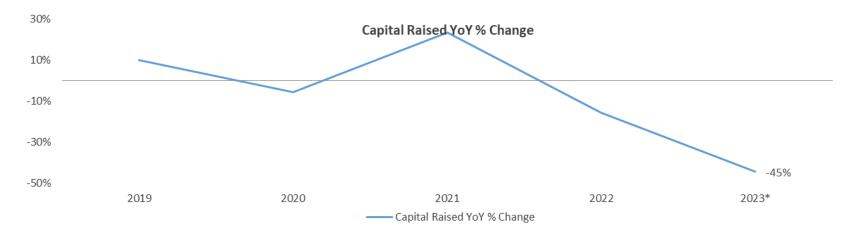
# CONTEXT ON PRIVATE MARKET ENVIRONMENT



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### **2023 IN REVIEW – WHAT A DIFFERENCE A YEAR MAKES** MARKET FUNDRAISING DOWN VS. 2021 PEAKS



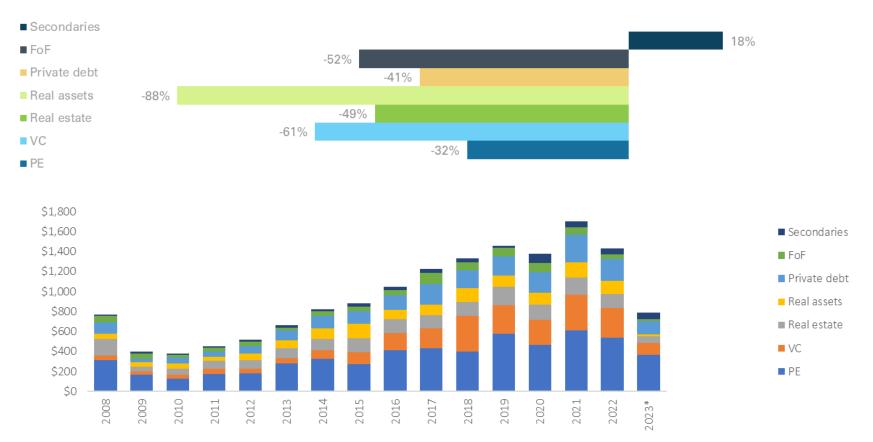




Source: Pitchbook (as of 9/30/23), NEPC (as of 11/30/23)

### **2023 IN REVIEW – WHAT A DIFFERENCE A YEAR MAKES** GLOBAL FUNDRAISING BY STRATEGY TYPE







Source: Pitchbook (as of 9/30/23), NEPC (as of 11/30/23)

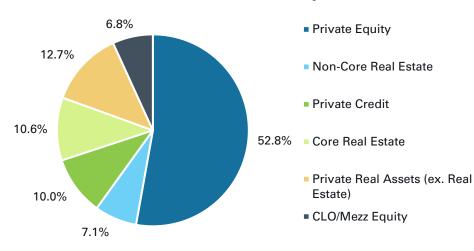


# LIQUIDITY REVIEW



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## **PORTFOLIO SUMMARY**



#### **Private Markets Total Exposure**

Total Portfolio Assets	\$11,025
Private Markets NAV (% of Portfolio)	31.4%
Private Markets NAV + Uncalled Capital (% of Portfolio)	40.6%
Target Private Markets Allocation	28.0%
Ann. Expected Return Total Portfolio	7.4%
Annual Contributions	\$739M
Annual Payouts	(\$1,046M)

		Current Target	Actual – 2/29/2024
	Global Equity	40.0%	38.1%
÷	Private Equity	12.5%	16.6%
Growth	Non-Core Real Estate	2.5%	2.2%
Ģ	Private Growth	15.0%	18.8%
	TOTAL GROWTH	55.0%	57.0%

	Equity Options	2.0%	1.7%
e	Liquid Credit	5.0%	4.2%
Income	CLO Mezz/Equity	2.0%	2.1%
ľ	Private Credit	3.0%	3.1%
	TOTAL INCOME	12.0%	11.1%

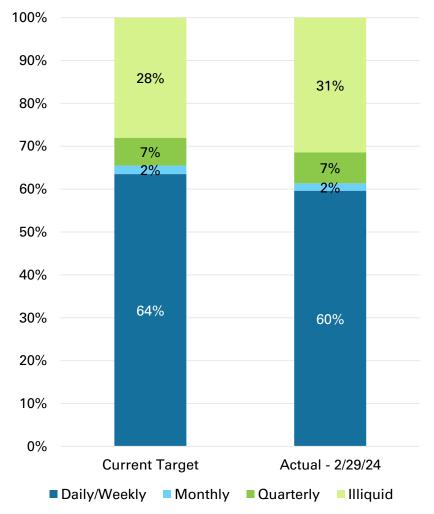
	Long Treasuries	5.0%	4.5%
	Systematic Trend	5.0%	4.6%
	CPC	10.0%	9.1%
	Core Real Estate	4.0%	3.3%
ity	Private Real Assets (ex-RE)	4.0%	4.0%
Stability	Inflation Protection	8.0%	7.3%
St	Inv. Grade Fixed (ex-Treas.)	6.5%	5.4%
	Absolute Return	6.5%	7.2%
	Strategic Cash	2.0%	1.7%
	Volatility Protection	15.0%	14.3%
	TOTAL STABILITY	33.0%	30.7%



Assets and NAV as of February 28, 2024. Private markets NAV and target includes CLO/Mezz Equity. Expected return based on target asset allocation using assumptions from 2023 asset/liability study. Contributions and payouts provided by the plan actuary and based on an average of the next 5 years.

# **EXISTING LIQUIDITY PROFILE**

- 69% of the Plan's assets have regular liquidity provisions (daily / monthly / quarterly liquidity).
  - These assets are available for regular liquidity needs such as benefit payments, expenses, rebalancing, and capital calls
- The remaining 31% of assets are relatively illiquid with most of these assets having multi-year lock-up's
  - As a result, these assets have intermittent distributions (hard to plan around) and while they could be sold in secondary markets, it would likely come at steep discount
- Translated into market value, \$6.6 billion of the current portfolio has daily/weekly liquidity. \$4.4 billion has worse than annual liquidity.



#### **Target and Actual Liquidity Allocations**

### **LIQUIDITY GUARDRAILS** DATA, CONTEXT, RISK MANAGEMENT

### Apply these guideposts as a gut check to your commitment pacing plan

- CIO mindset approach to measuring and managing liquidity
- Context matters as fiduciaries, you need a system for this
- Liquidity Guardrails: are you in the red?

Annual Commitment Rate	2024	2025	2026	2027	Acceptable	Monitor Closely	Watch for Liquidity
Annual Commitment / Private Markets NAV	14%	14%	15%	15%	20-40%	40-50%	>50%
Uncalled Committed Capital	2024	2025	2026	2027	Acceptable	Monitor Closely	Watch for Liquidity
Uncalled Capital + Benefit Payments / Monthly Liquidity	30%	29%	29%	29%	<40%	40-60%	>60%
Uncalled Capital / Total Pool NAV	10%	10%	10%	10%	<15%	15-20%	>20%



Source: NEPC

Liquidity guardrails may need to be adjusted to reflect a client's liquidity profile, private markets exposure, and maturity of program.

# LIQUIDITY GUARDRAILS

### ANNUAL COMMITMENT / PRIVATE MARKETS NAV

- Annual Commitment Rate: Private Markets Annual Commitment / Private Markets NAV
  - Considers fundraising cycles and other call/distribution characteristics
  - In general, committing 20% 40% of the private markets NAV in a given year:
    - Is acceptable
    - Implies a 2.5 year 5 year fundraising cadence
    - Commitment amounts below 25% can be appropriate for a mature private markets program, one that is overallocated or reducing exposure, or one that has specific spending patterns
  - Committing 40-50% in a given year:
    - Should be monitored closely
    - Implies a 2 year to 2.5 year fundraising cadence
  - Committing over 50% in a given year:
    - Should be watched closely
    - Implies a less than 2 year fundraising cycle
    - May lead to vintage year concentration or breaching liquidity guardrails



### **LIQUIDITY GUARDRAILS** UNCALLED COMMITTED CAPITAL

- Uncalled committed capital is a fixed liability (ie, it doesn't decline with the markets) and is a tax on the rest of the liquid portfolio because it could be called at anytime, forcing a liquidation of public markets
- Uncalled committed capital liquidity guardrail ranges can be interpreted as follows:
  - Uncalled Capital + Benefit Payments / Monthly Liquid Assets
    - If uncalled capital + benefit payments is over 60% of monthly liquid assets, the portfolio has less than two years of liquidity to cover calls and benefit payments
    - If uncalled capital + benefit payments is 50% of monthly liquid assets, the portfolio has 2 years to figure out how to source liquidity to cover calls and benefit payments
    - If uncalled capital + benefit payments is <40% of monthly liquid assets, the portfolio has at least 2.5 years of liquidity to cover calls and benefit payments
  - Uncalled Capital / Total Pool NAV
    - If uncalled capital is >20% of Total Pool NAV, the portfolio has less than 5 years of liquidity to cover calls
    - If uncalled capital is 20% of Total Pool NAV, the portfolio has at least 5 years of liquidity to cover calls
    - If uncalled capital is <15% of Total Pool NAV, the portfolio has at least 6-7 years of liquidity to cover calls



### **LIQUIDITY GUARDRAILS** STRESS SCENARIO FORECASTS

 Using the output from the scenario analysis earlier, we have forecasted out the liquidity guardrails for the next four years

Annual Commitment / Private Markets NAV	2024	2025	2026	2027
Base Case	14%	14%	15%	15%
Depression	19%	21%	19%	19%
Expansion	13%	13%	16%	18%
Recession	16%	16%	16%	17%
Stagflation	15%	14%	15%	16%

Uncalled Capital + Benefit Payments / Monthly Liquidity	2024	2025	2026	2027
Base Case	30%	29%	29%	29%
Depression	47%	62%	65%	62%
Expansion	26%	24%	26%	27%
Recession	38%	41%	42%	39%
Stagflation	40%	40%	37%	35%

Uncalled Capital / Total Pool NAV	2024	2025	2026	2027
Base Case	10%	10%	10%	10%
Depression	18%	25%	26%	24%
Expansion	8%	8%	9%	9%
Recession	14%	16%	16%	15%
Stagflation	15%	15%	13%	13%



See appendix for details of each scenario.

## LIQUIDITY REVIEW – KEY TAKEAWAYS

- The plan's liquidity position is expected to be favorable in many economic scenarios except in the event of a depression
- There are several reasons why the portfolio is positioned favorably:
  - The private markets program is mature with expected distributions more than offsetting expected capital calls in the base case
  - There is currently an overweight position in private equity leading to lower commitments in the next several years
  - Inflows via employee contributions are expected to offset a meaningful portion of the expected benefit payments
  - Total net cash outflow as a percentage of total assets is relatively low
  - The liquid portion of the portfolio has a relatively modest risk profile with assets diversified across public equity and public fixed income



## LIQUIDITY DECISIONS

MANAGING CHANGES TO THE PORTFOLIO'S LIQUIDITY POSTURE

- Private Market Commitment Pacing
- Private Market Secondary Sales
- Sourcing Liquidity from Equities vs. Other Asset Classes
- Portfolio Leverage
- Cash Buffer Sizing
- Income Harvesting vs. Reinvestment
- Others?





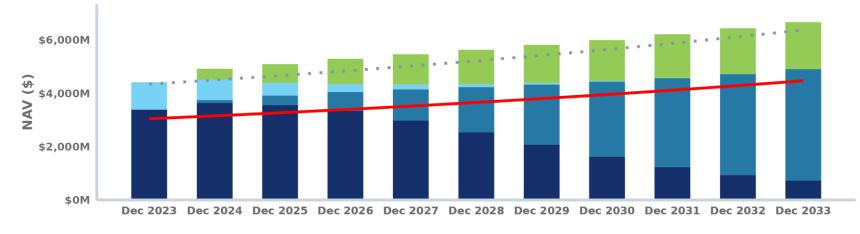
# DETAILED SCENARIO ANALYSIS



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### **PRIVATE MARKET ASSET PROJECTIONS**

### **Base Case – Private Markets Portfolio Projections**



Existing Investment NAV
New Investment NAV

Existing Investment Uncalled Capital
New Investment Uncalled Capital

OverCommitment NAV
Target NAV

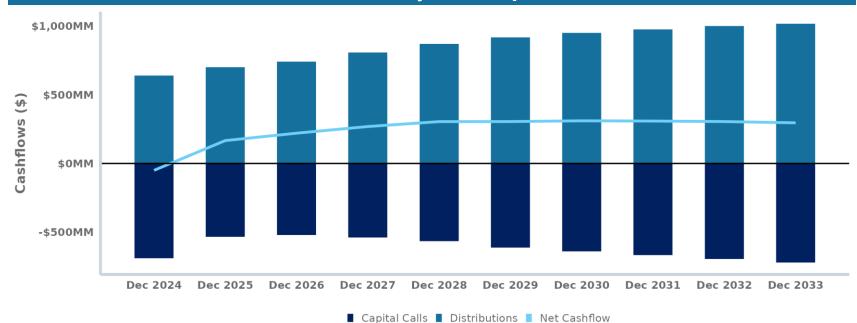
#### **Projection Summary**

Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Net Asset Value (NAV)	\$3,385.8	\$3,742.9	\$3,911.4	\$4,043.9	\$4,145.2	\$4,226.9	\$4,323.9	\$4,433.3	\$4,563.7	\$4,718.2	\$4,904.3
Uncalled Capital	\$1,025.1	\$1,173.3	\$1,179.2	\$1,248.2	\$1,314.1	\$1,403.3	\$1,485.6	\$1,560.5	\$1,648.2	\$1,717.7	\$1,761.3
NAV + Uncalled Capital	\$4,410.9	\$4,916.3	\$5,090.6	\$5,292.1	\$5,459.3	\$5,630.2	\$5,809.5	\$5,993.8	\$6,211.8	\$6,435.9	\$6,665.6
Target NAV	\$3,043.3	\$3,151.9	\$3,266.9	\$3,388.7	\$3,517.6	\$3,654.1	\$3,798.6	\$3,951.6	\$4,113.5	\$4,285.0	\$4,466.5
NAV (%)	31.2%	33.3%	33.5%	33.4%	33.0%	32.4%	31.9%	31.4%	31.1%	30.8%	30.7%
NAV + Uncalled Capital (%)	40.6%	43.7%	43.6%	43.7%	43.5%	43.1%	42.8%	42.5%	42.3%	42.1%	41.8%
Target Allocation (%)	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%	28.0%



## **PRIVATE MARKET CASH FLOW PROJECTIONS**

**Base Case – Private Markets Projected Capital Calls & Distributions** 



#### **Projected Cashflows (in millions)**

Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Capital Calls	-\$690.1	-\$534.1	-\$521.0	-\$539.1	-\$565.8	-\$612.7	-\$640.1	-\$667.3	-\$695.5	-\$721.3
Distributions	\$639.9	\$700.7	\$741.2	\$807.8	\$870.4	\$917.7	\$950.6	\$975.9	\$1,000.5	\$1,017.1
Net Cash Flow	-\$50.2	\$166.5	\$220.2	\$268.6	\$304.6	\$305.0	\$310.4	\$308.6	\$305.0	\$295.7



## **SCENARIO ANALYSIS SUMMARY OUTPUT**

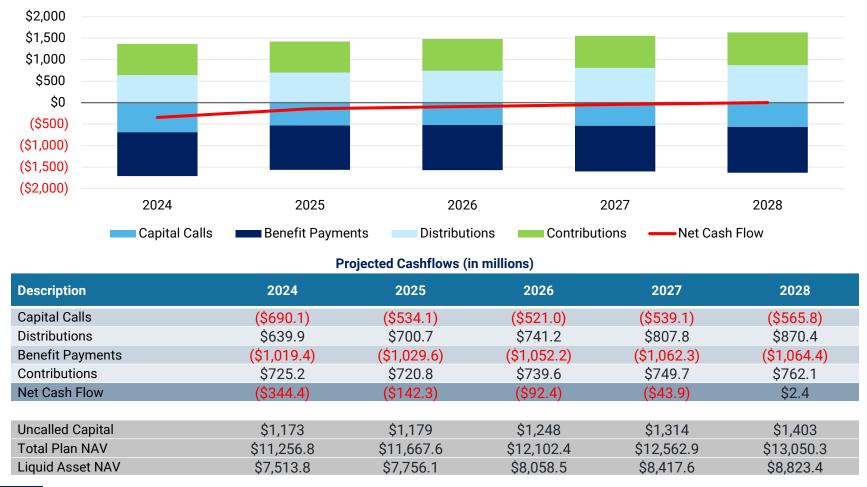
- The following pages have stress scenarios from our liquidity review
- The table below summarizes the cumulative impact over the next five years
- Benefit payments and plan contributions were set to the base case (as provided by the actuary) in each scenario

Private Markets Portfolio Projections (\$millions)							
	Base Case	Depression	Expansion	Recession	Stagflation		
Cumulative Capital Calls (Next 5 Years)	(\$2,850)	(\$2,718)	(\$2,958)	(\$2,861)	(\$2,871)		
Cumulative Distribution (Next 5 Years)	\$3,760	\$2,249	\$4,380	\$3,072	\$3,326		
Cumulative Benefit Payments (Next 5 Years)	(\$5,228)	(\$5,228)	(\$5,228)	(\$5,228)	(\$5,228)		
Cumulative Contributions (Next 5 Years)	\$3,697	\$3,697	\$3,697	\$3,697	\$3,697		
Cumulative Net Cash Flow (Next 5 Years)	(\$621)	(\$1,999)	(\$108)	(\$1,319)	(\$1,076)		
Total Uncalled Capital (End of Year 5)	\$1,403	\$1,535	\$1,367	\$1,399	\$1,393		
Total Plan NAV (End of Year 5)	\$13,050	\$6,920	\$13,038	\$9,887	\$10,102		
Total Plan Liquid NAV (End of Year 5)	\$8,823	\$3,302	\$9,753	\$6,137	\$6,310		
Liquid NAV as a % of Total Plan NAV	68%	48%	75%	62%	62%		



### TOTAL PORTFOLIO CASH FLOW PROJECTIONS BASE CASE

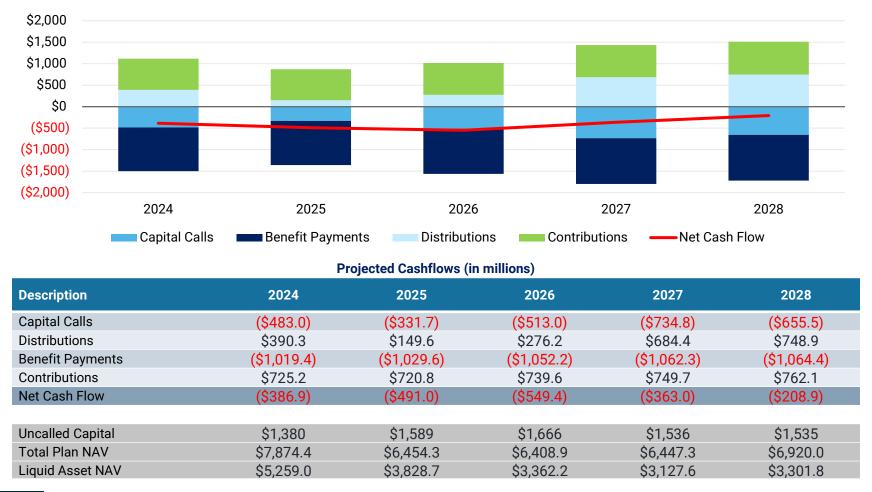
**Projected Benefit Payments, Contributions, Capital Calls & Distributions** 





### TOTAL PORTFOLIO CASH FLOW PROJECTIONS DEPRESSION

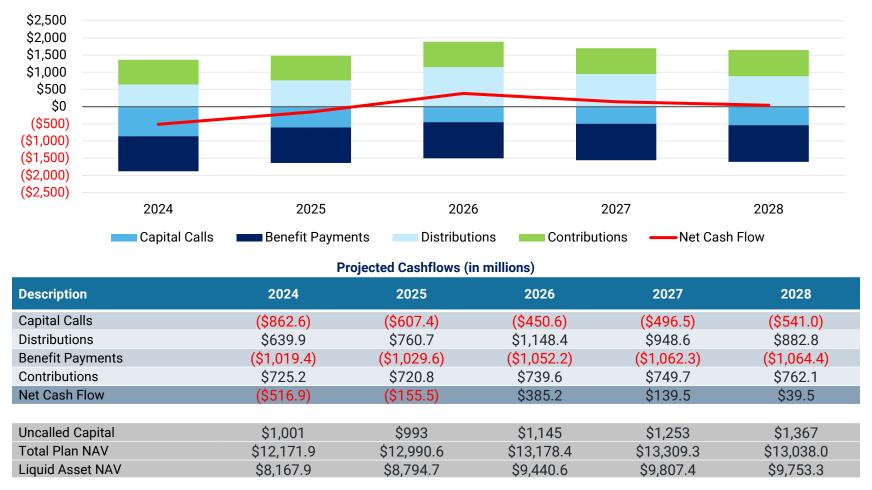
**Projected Benefit Payments, Contributions, Capital Calls & Distributions** 





### TOTAL PORTFOLIO CASH FLOW PROJECTIONS EXPANSION

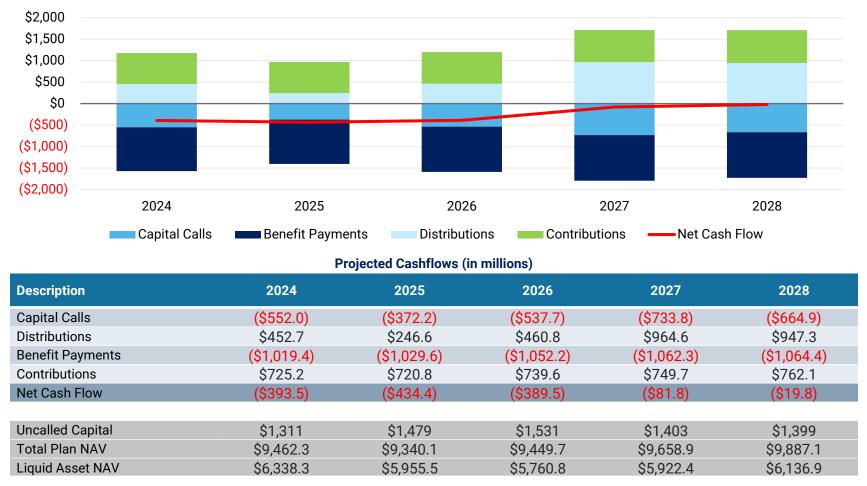
**Projected Benefit Payments, Contributions, Capital Calls & Distributions** 





### TOTAL PORTFOLIO CASH FLOW PROJECTIONS RECESSION

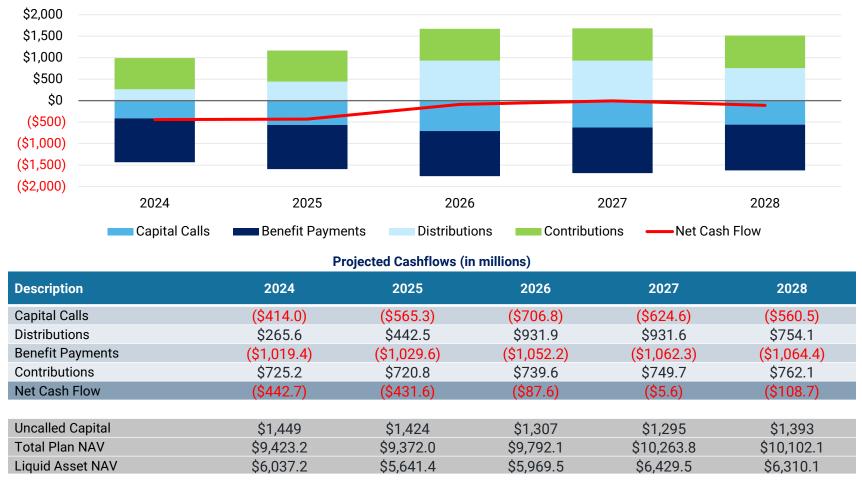
**Projected Benefit Payments, Contributions, Capital Calls & Distributions** 





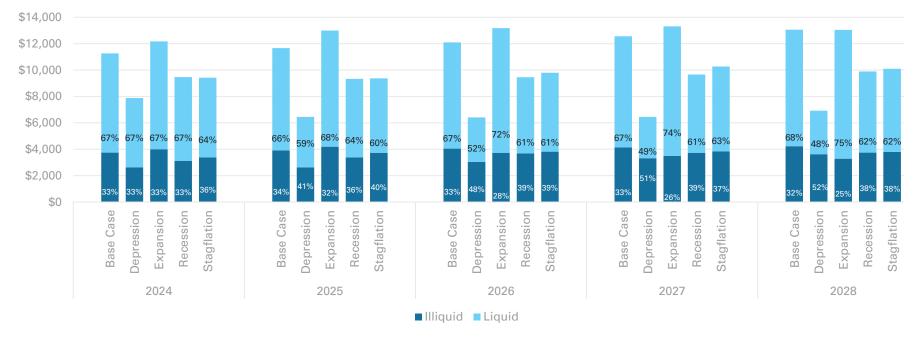
### **TOTAL PORTFOLIO CASH FLOW PROJECTIONS** STAGFLATION

**Projected Benefit Payments, Contributions, Capital Calls & Distributions** 





# LIQUIDITY SCENARIO SUMMARY – NAV

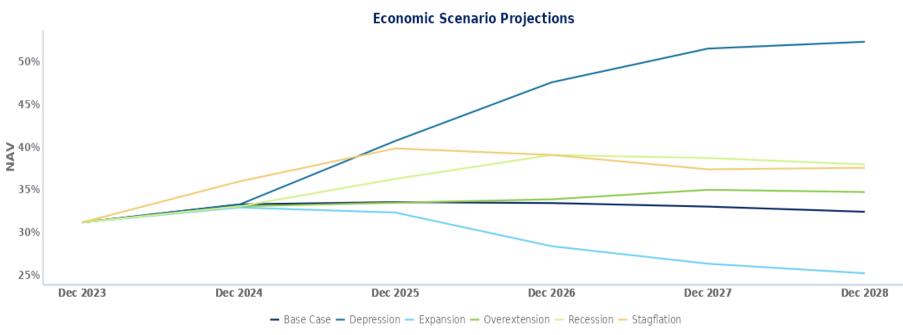


Forecasted Portfolio NAV (\$millions)

- NEPC modeled five economic scenarios to see the impact on the private markets portfolio.
- The above chart shows the total portfolio forecasted NAV over the next five years under each scenario along with the split between liquid and illiquid assets.



## LIQUIDITY SCENARIO SUMMARY – NAV



- The chart above shows the same five economic scenarios, but focuses on the total percentage of portfolio assets.
- In the depression scenario, private market assets could represent >50% of total portfolio assets.
- The recession and stagflation scenarios also result in elevated private market allocations (~30-40%).





# APPENDIX



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## LIQUIDITY MAPPING

		Current Target	Liquidity Category
	Global Equity	40.0%	Daily/Weekly
£	Private Equity	12.5%	Illiquid
Ň	Non-Core Real Estate	2.5%	Illiquid
Gro	Private Growth	15.0%	
	TOTAL GROWTH	55.0%	

Income	Equity Options	2.0%	Monthly
	Liquid Credit	5.0%	Daily/Weekly
	CLO Mezz/Equity	2.0%	Illiquid
	Private Credit	3.0%	Illiquid
	TOTAL INCOME	12.0%	

Stability	Long Treasuries	5.0%	Daily/Weekly
	Systematic Trend	5.0%	Daily/Weekly
	CPC	10.0%	
	Core Real Estate	4.0%	Illiquid
	Private Real Assets (ex-Real Estate)	4.0%	Illiquid
	Inflation Protection	8.0%	
	Inv. Grade Fixed (ex-Treasuries)	6.5%	Daily/Weekly
	Absolute Return	6.5%	Quarterly
	Strategic Cash	2.0%	Daily/Weekly
	Volatility Protection	15.0%	
	TOTAL STABILITY	33.0%	



## SCENARIO ANALYSIS: REGIME CHANGES

# NEPC scenario analysis highlights the impact of shifting economic and market regimes on the portfolio and potential asset allocation mixes

 Risk asset returns are informed by credit returns which are based on changes in real rate, inflation, and credit spreads experienced across market regimes

### **Expansion**

Informed by rising interest rates, moderately rising inflation, elevated positive real rates, spread tightening, and increasing growth

### **Stagflation**

Informed by rising interest rates, rising inflation, depressed negative real rates, spread widening, and slowing growth

### **Overextension**

Informed by rising interest rates, high inflation, negative real rates, spread tightening, and increasing growth

### Recession

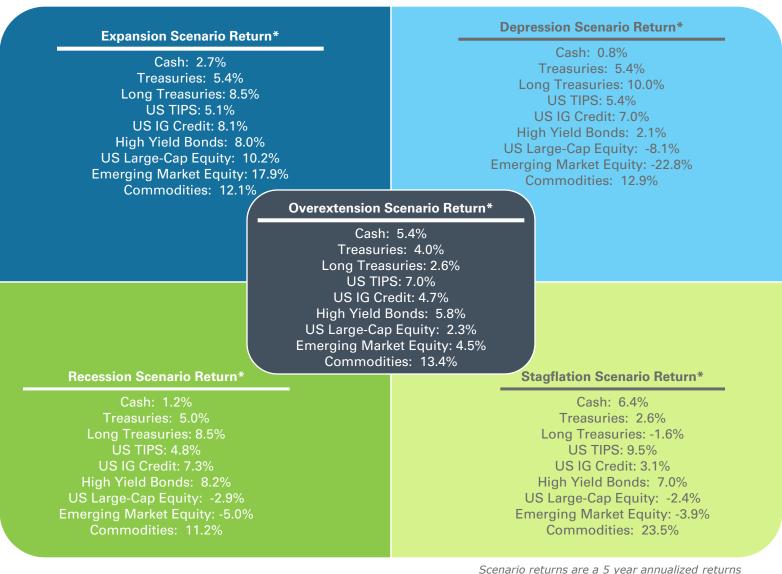
Informed by depressed interest rate levels, falling inflation, depressed positive real rates, spread widening and slowing growth

### **Depression**

Informed by negative interest rates, deflation, severe credit defaults and downgrades, and negative growth



### **SCENARIO ANALYSIS: REGIME RETURNS**





## **NEPC DISCLOSURES**

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.

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