StanCERA

Sept. 23, 2025
1:30 P.M.
BOARD ROOM

# BOARD OF RETIREMENT

# AGENDA

832 12th Street
Suite 600
Modesto, CA

The Board of Retirement welcomes you to its meetings, which are regularly held on the fourth Tuesday of each month. Your interest is encouraged and appreciated.

The StanCERA boardroom, is currently open to public access. If you wish to make a public comment during the Public Comment section of the meeting, alert the Chair that you wish to speak. As permitted by Gov. Code § 54954.3(b)(1), each public comment is limited to three minutes.
You may also submit public comments in writing. If you wish to make a general public comment or a comment on a specific agenda item in writing, please submit your comment via email or fax no later than 4:30 p.m. on the day before a Board meeting. Comments can be submitted via email at taaa@stancera.org or via fax at (209) 558-4976. If your comment pertains to a specific agenda item, please include the agenda item number in the subject line. As permitted by Gov. Code § 54954.3(b)(1), each public comment is limited to 400 words. Comments submitted in writing will be read aloud during the meeting.

**CONSENT/ACTION ITEMS**: Consent matters include routine administrative actions and are identified under the Consent Items heading. All other items are action items, "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.
**BOARD AGENDAS & MINUTES:** Board agendas, minutes and copies of items to be considered by the Board of Retirement are customarily posted on the Internet by Friday afternoon preceding a meeting at the following website: www.stancera.org.
**NOTICE REGARDING NON-ENGLISH SPEAKERS**: Board of Retirement meetings are conducted in English and translation to other languages is not provided. Please make arrangements for an interpreter if necessary.
**In compliance with the Americans with Disabilities Act**: If you require an accommodation, auxiliary aid, or service in order to participate in this meeting, please contact StanCERA at (209) 525-6393 as far in advance as possible but no later than 48 hours before the scheduled event.

1) Call Meeting to Order

2) Pledge of Allegiance

3) Roll Call

4) Announcements

5) Public Comment

6) Emergency Declaration

7) Consent Items:

(a) Approval of August 26, 2025 Meeting Minutes View

(b) Application for Service Retirement(s)
Government Code Section 31499.17, 31670, 31662.2 & 31810
*See attached for details* View

(c) Application for Disability Retirement – Government Code Section 31724

i. Davidson, Lisa – Stanislaus County – Effective 09-24-2025

(d) Investment Matrix View

(e) IRS Proposed Penalty Update View

(f) Conference Summary View

8) Investment:

(a) Investment Consultant – August Flash Report – NEPC View

(b) Asset Allocation Education – NEPC View

(c) Liquidity Sub-Portfolio Review – NEPC View

(d) Liquidity Sub-Portfolio Annual Funding Plan View

9) Administrative

(a) RESCO Insurance Response Update View

10) Closed Session:

(a) CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION
Pursuant to Government Code Section 54946.9 (d)(1)

(b) PERSONNEL MATTER
Government Code Section 54957 (b)(1)

13) Members' Forum (Information and Future Agenda Requests Only)

14) Adjournment

August 26, 2025
1:30 P.M.
BOARD ROOM

# BOARD OF RETIREMENT

# MINUTES

832 12th Street
Suite 600
Modesto, CA 3

1) Call Meeting to Order

2) Pledge of Allegiance

3) Roll Call

**Trustees**
Donna Riley
Delilah Vasquez
Darin Gharat
Terry Withrow (Arrived 1:50 p.m.)
Joshua Clayton
Rhonda Biesemeier

**Trustees Absent**
Mike Lynch
Samuel Sharpe
Jeff Grover
Doris Foster

**Others Present**
Tom Stadelmaier, Executive Director
Carmen Gusman- Retirement Fiscal Manager
Stan Conwell, Retirement Investment Officer
Jamie Gingerich, Member and Employer Services Specialist
Alaine Taa, Executive Assistant/Clerk of the Board
Fred Silva, General Legal Counsel
Jeff MacLean, CEO, Verus
Vincent Phan, Associate Director, Verus
Daniel Hennessy, NEPC, Investment Consultant
Daniel Wade, Principal, Milliman (Virtual)
Nick Collier, Principal, Milliman (Virtual)
Julie Smith, Consulting Actuary, Milliman (Virtual)
Phil Edwards, Principal, Curio Webb (Virtual)
Uma Kolluri, Consultant, Curcio Webb (Virtual)
Michael O'Neal – Member of the public

4) Announcements
Announcement of Board of Retirement Seat #2 filled by Doris Foster.
Trustee Foster's first Board of Retirement Meeting will be on September 23, 2025.

5) Public Comment - NONE

6) Emergency Declaration - NONE

7) Consent Items:

(a) Approval of June 24, 2025 Meeting Minutes

(b) Application for Service Retirement(s)
Government Code Section 31499.17, 31670, 31662.2 & 31810
*See attached for details*

(c) Application for Disability Retirement – Government Code Section 31724

i. Meza, Elizabeth – Stanislaus County – Effective 05-14-2025

(d) Investment Matrix

(e) Private Market Commitment Notice
i. Graceada Partners Fund IV
ii. Great Hill Equity Partners IX
iii. Monroe Capital Private Credit Fund V
iv. Pimco European Data Centre Opportunity Fund

(f) Private Markets Report as of December 31, 2024

(g) Value Added Reports as of March 2025

(h) StanCERA Strategic Goals Action Update

(i) Disability Officers Contract

(j) Board of Retirement Committee assignments

(k) Board of Retirement Election Seat #2

(l) Internal Governance Committee – Audit Entrance Meeting Update

(m) Due Diligence Committee – Annual Committee Managers Review

Motion was made by Trustee Biesemeier and seconded by Trustee Riley to approve all consent items as presented.

Motion passed unanimously.

Item 10.a was moved out of original order to discuss after Consent items as requested by Trustee Biesemeier.

10) Administrative (II)

(a) RESCO Insurance Broker Deductions - Discussion and Action Item

The Board heard public comments from Michael O'Neal expressing his concerns regarding StanCERA's proposed administrative fees. His concerns are listed as follows:

1. How was the administrative fee determined?
2. RESCO is being singled out. Believes it is egregious to apply a $5 monthly fee.
3. RESCO requests that approval of the $5 fee be tabled while they review and work with the new insurance broker.

Motion was made by Trustee Gharat and seconded by Trustee Riley to discontinue insurance deductions for the current insurance broker PGA, and to support deductions for insurance offered through the new RESCO insurance broker selected by RESCO for a period of 90 days and find a solution regarding the administrative fees. The administrative fee for insurance deductions will be revisited at the October Board of Retirement meeting.

Roll Call Vote was as follows:

| | |
|---|---|
| Trustee Riley | YES |
| Trustee Vasquez | YES |
| Trustee Gharat | YES |
| Trustee Withrow | YES |
| Trustee Clayton | YES |
| Trustee Biesemeier | YES |

Motion passed unanimously.

8) Administrative (I)

(a) Actuarial Audit Update - Discussion and Action Item – Milliman

Motion was made by Trustee Gharat and seconded by Trustee Vazquez to approve the presented Actuarial Audit Report.

Motion passed unanimously.

9) Investment:

(a) Verus – Private Equity and Private Credit Review
(b) Public Equity Education – NEPC
(c) Investment Consultant – June/July Flash Report – NEPC
(d) Quarterly Investment Performance Report – NEPC
(e) Quarterly Private Real Assets Report – NEPC

11) Committee Reports and Recommendations

(a) Private Markets Consulting Committee – Private Markets Consulting Services – Discussion and Action Item

Motion was made by Trustee Riley and seconded by Trustee Vasquez to authorize staff to negotiate and execute a final contract with Meketa for private markets consulting services.

Motion passed unanimously.

Motion was made by Trustee Gharat and seconded by Trustee Riley to move into closed session.

Motion passed unanimously.

12) Closed Session:

(a) CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION
Pursuant to Government Code Section 54946.9 (d)(1) (2 Cases)

i. Vincent L. Hooper v. StanCERA
County of Sacramento Superior Court Case No. 25WM000093
ii. StanCERA v. Ruby Esparza
County of Stanislaus Superior Court Case No. CV-25-005766

(b) PERSONNEL MATTER
Government Code Section 54957 (b)(1)

Motion was made by Trustee Gharat and seconded by Trustee Biesemeier to move into open session.

Motion passed unanimously.

There was no reportable action to report from Closed Session.

13) Members' Forum (Information and Future Agenda Requests Only)

i. Trustee Biesemeier will attend SACRS Board Meeting on September 5, 2025
ii. Trustee Clayton attended the July UC Berkeley SACRS Conference in Berkeley, CA and highly recommends it to other trustees
iii. Trustee Gharat stated that Stanislaus County charges $20 per person to administer benefits (in regard to item 10.a).

14) Adjournment Time: 3:48 p.m.

Respectively submitted,

By _____

Thomas Stadelmaier, Executive Director

APPROVED AS TO FORM

By _____

Fred A. Silva, General Legal Counsel

# *StanCERA APPLICATIONS FOR SERVICE RETIREMENT(S)*

## *GOVERNMENT CODE SECTIONS 31499.14, 31670, 31662.2, 31810 & 31700*

## *09/23/25 Item 7.b*

Boddy, Lisa - Stanislaus County - Effective 09/27/2025
Cox, Monique - Stanislaus County - Effective 08/17/2025
De Leon Park, Rosa - Stanislaus Council of Govt. - Effective 08/15/2025
Eppler, Sheryl - Stanislaus County - Effective 09/06/2025
Hodge, Rebecca - Stanislaus County - Effective 09/06/2025
Jackson, Eric - Stanislaus County - Effective 08/23/2025
MONTGOMERY, ANN - City of Ceres - Effective 09/13/2025
Moon, Elizabeth - Stanislaus County - Effective 09/06/2025
Myers-Hart, Amber - Stanislaus County - Effective 09/06/2025
Sanders, Cecelia - Stanislaus Superior Court - Effective 09/06/2025
Stambaugh, Brian - Stanislaus County - Effective 08/29/2025
Tristao, Rose - Stanislaus County - Effective 08/21/2025
Valtierra-Gongora, Andrea - Stanislaus County - Effective 08/30/2025
Verver, Steven - Stanislaus County - Effective 09/15/2025
Walker, Leslie - Stanislaus County - Effective 08/09/2025
Watson, Karyn - Stanislaus County - Effective 09/25/2025

**September 23, 2025**

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

I. SUBJECT: Investment Matrix

II. ITEM NUMBER: 7.d

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: N/A

V. ANALYSIS:

a) *Investment Program Activities:*

Following the Board's approval to engage Meketa as StanCERA's private markets consultant, staff has been working with counsel and Curcio Webb to negotiate and finalize the contract. To ensure a smooth transition, staff has begun reaching out to managers to inform them of the upcoming change.

The Due Diligence Committee also met during the month and identified managers for its annual review. The committee will be reviewing PanAgora, Graham Capital Management, and Raven Capital Management and a visit to NEPC is also planned. A comprehensive due diligence questionnaire (DDQ) has been distributed, and an onsite visit is scheduled for mid-October. To maximize efficiency, additional manager meetings will be held during the same trip.

b) *Money Transfer Report:*

August 2025: Capital Calls & Private Market Proxy Trades

| From | | | To | | |
|---|---|---|---|---|---|
| **Manager** | **Asset Class** | **Amount** | **Manager** | **Asset Class** | **Amount** |
| NT STIF Fund | Cash | -$1,015,864.17 | Pimco EDCO Fund | Private Infrastructure | $1,015,864.17 |
| NT STIF Fund | Cash | -$12,026,558.00 | Monroe Private Credit Fund V | Private Credit | $12,026,558.00 |

| | | | | | |
|---|---|---|---|---|---|
| NTAM Russell 3000 Index Fund | Public Equities | -$5,000,000.00 | NT STIF Fund | Cash | $5,000,000.00 |
| NT STIF Fund | Cash | -$8,920,528.00 | Graceada Partners Fund IV | Private Real Estate | $8,920,528.00 |
| BlackRock US High Yield Index Fund | Fixed Income | -$10,000,000.00 | NT STIF Fund | Cash | $10,000,000.00 |
| NT STIF Fund | Cash | -$414,968.25 | Ares SDL Fund III | Private Credit | $414,968.25 |
| NT STIF Fund | Cash | -$1,458,714.97 | Callodine Asset Based Loan Fund II | Private Credit | $1,458,714.97 |
| NT STIF Fund | Cash | -$134,367.01 | Audax Private Equity Fund VII | Private Equity | $134,367.01 |
| NT STIF Fund | Cash | -$172,174.00 | Grandview Partners II | Private Real Estate | $172,174.00 |
| NT STIF Fund | Cash | -$810,271.00 | SSC Partners II | Private Equity | $810,271.00 |

c) *Manager Monitor:*

| **Manager Monitor August 2025** | | | | |
|---|---|---|---|---|
| **Manager** | **Organizational Health** | **Performance Status** | **Regulatory action in the last 12 months? (Y/N)** | **Comments** |
| **Liquidity Sub-Portfolio** | | | | |
| **Northern Trust STIF Fund** | Stable | Performing | N | |
| **Insight Investment** | **Watch** | Performing | N | Portfolio Manager Retirement; Succession Management Plan in place |
| **Growth Sub-Portfolio** | | | | |
| **BlackRock Russell 1000 Growth** | Stable | Performing | Y | Minor fines pending from state courts and foreign regulatory authorities. |

| | | | | |
|---|---|---|---|---|
| **BlackRock Russell 1000 Value** | Stable | Performing | Y | Minor fines pending from state courts and foreign regulatory authorities. |
| **Dodge & Cox-Equity** | Stable | Performing | N | |
| **Attucks Small Cap** | Stable | Performing | N | |
| **LSV International Value** | Stable | Performing | N | |
| **Fidelity International Growth** | Stable | Performing | N | |
| **MS Prime Property Fund** | **Watch** | Performing | N | Large exit queue from fund; queue size is moderating |
| **PGIM Real Estate US Debt Fund** | **Watch** | Performing | N | Organizational changes under new CEO |
| **ARA American Strategic Value Realty Fund** | Stable | Performing | N | Weak short-term performance, Good long-term performance. |
| **Greenfield Acquisition Partners VII** | Stable | Performing | N | |
| **Grandview Property Partners I** | Stable | Performing | N | |
| **Grandview Property Partners II** | Stable | Performing | N | |
| **TA Realty Value Fund XIII** | Stable | Too Soon To Tell | N | |
| **KSL Credit Opportunities IV** | Stable | Too Soon To Tell | N | |
| **MS Infrastructure Partners II** | Stable | Performing | N | |
| **Northern Trust Infrastructure Fund** | Stable | Performing | N | |
| **Palistar Communications Infrastructure Fund II** | Stable | Performing | N | |
| **JP Morgan IIF Hedged LP** | Stable | Performing | Y | JPMorgan Chase affiliates settle actions related to retail broker-dealer customers. |
| **IFM Global Infrastructure Fund** | Stable | Performing | N | |
| **Carlyle Renewable and Sustainable Energy Fund II** | Stable | Too Soon To Tell | Y | SEC penalty for violating certain recordkeeping provisions. |
| **Upwelling (Medley Opp Fund II)** | Stable | **Not Performing** | N | Largely liquidated. Some residual income expected. |

| | | | | |
|---|---|---|---|---|
| **White Oak Pinnacle Fund** | **Watch** | **Not Performing** | N | Maintaining enhanced oversight; Working with GP and LPs to influence prioritization of realizations while maximizing value. |
| **Raven Opportunity Fund III** | **Watch** | **Not Performing** | N | Maintaining enhanced oversight; Working with GP and LPs to influence prioritization of realizations while maximizing value. |
| **Blue Owl First Lien Fund** | Stable | Performing | N | |
| **Monroe Capital Private Credit Fund IV** | Stable | Performing | N | |
| **Callodine ABL II** | Stable | Performing | N | |
| **Ares SDL Fund III** | Stable | Too Soon To Tell | N | |
| **Comvest Partners Fund VII** | Stable | Too Soon To Tell | N | |
| **SVP Special Situations Fund V** | Stable | Performing | N | |
| **ABRY Senior Equity VI** | Stable | Performing | N | |
| **Crestline Opportunity Fund V** | Stable | Performing | N | |
| **Crayhill Principal Strategies Fund III** | Stable | Too Soon To Tell | N | |
| **Vista Foundation IV** | Stable | **Not Performing** | N | Early returns not in line with expectations. Conviction maintained |
| **CD&R XI** | Stable | Performing | N | |
| **Gryphon Partners VI** | Stable | Too Soon To Tell | N | Some portfolio companies facing delayed value creation |
| **Sole Source Fund II** | Stable | Performing | N | |
| **Blue Wolf Fund V** | Stable | Too Soon To Tell | N | |
| **Audax Private Equity Fund VII** | Stable | Too Soon To Tell | N | |
| **Gridiron Capital Fund V** | Stable | Too Soon To Tell | N | |
| **Insight Partners Fund XI** | Stable | Performing | N | |
| **Great Hill Equity Partners** | Stable | Too Soon To Tell | N | Delayed deployment from market headwinds. Conviction maintained. |

| | | | | |
|---|---|---|---|---|
| **Eclipse Fund V** | Stable | Too Soon To Tell | N | |
| **NIS Opportunistic Credit** | Stable | Performing | N | |
| **Risk-Diversifying Sub-Portfolio** | | | | |
| **AQR Global Risk Premium** | Stable | **Under Review** | N | Performance low vs 60/40 benchmark. Recent performance improving. |
| **PanAgora Risk Parity Multi Asset** | Stable | **Under Review** | N | Performance low vs 60/40 benchmark. Recent performance improving. |
| **Northern Trust Intermediate Gov't Bond** | Stable | Performing | N | |
| **Northern Trust Intermediate Gov't Bond** | Stable | Performing | N | |
| **Northern Trust US TIPS** | Stable | Performing | N | |
| **Graham Proprietary Matrix** | Stable | Performing | N | |
| **Wellington Global Macro** | Stable | Performing | N | |

**Manager Monitor Ratings Key:**

Organizational Health

- **Stable** – No known organizational concerns. Team continuity, ownership and strategy AUM remain strong.
- **Watch** – Notable changes (personnel, ownership, strategy) that warrant monitoring.
- **Concern** – Material issues that could impair long-term effectiveness (key departures, instability, strategy outflows).

Performance Status

- **Performing** – Manager is meeting or exceeding performance expectations
- **Not Performing** - Manager is persistently underperforming expectations without sufficient explanation
- **Too Soon To Tell / Under Review** – Manager results are inconclusive due to strategy vintage, recent changes, or short-term volatility. Monitoring for clearer performance trends.

Regulatory actions are monitored across the whole organization and may not impact the fund directly.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: None

StanCERA Stanislaus County Employees' Retirement Association

**September 23, 2025**
Retirement Board Agenda Item

TO: Retirement Board

FROM: Carmen Gusman, Financial Services Manager

I. SUBJECT: IRS Proposed Penalty Update

II. ITEM NUMBER: 7.e

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: N/A

V. ANALYSIS: Regarding the late filing of the 2021 1099-R forms, I'm pleased to report that the IRS has waived the proposed penalty fees. Staff had submitted all required documents as part of the mitigation process, and the waiver has now been confirmed in writing. Staff would like to thank Judy Boyette, Mikaela Habib and the staff at Hanson Bridgett for their assistance in the process.

Please let us know if you require additional information or have any further questions or feedback regarding this item.

VI. RISK: N/A

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: None

StanCERA

# Conference Summary

1. **Attendee Name:** Tom Stadelmaier
2. **Event Name:** Nossaman Fiduciary Forum
3. **Event Date:** August 22, 2025
4. **Event Location:** Sacramento
5. **Describe what was good about the event:**

   This event provided an opportunity to get legal perspective on current fiduciary concerns. There was also an opportunity to meet in-person with legal staff and like-minded fiduciaries from across the country. I was able to connect with contacts working on critical issues with us right now. As a Nossaman client this was also a great opportunity and a low-cost event.

6. **Would you recommend this event to other trustees/staff:**

   It is a great event especially for staff. The presentations on investment contracts and current pension litigation was especially timely.

7. **Number of Education Credits:**

# Conference Summary

1. **Attendee Name:** Tom Stadelmaier
2. **Event Name:** Carlyle Global Investor Conference
3. **Event Date:** Sept 9-10, 2025
4. **Event Location:** Washington DC
5. **Describe what was good about the event:**

   This event provided a great opportunity to get to know one of our newest managers. StanCERA is invested in the Renewable and Sustainable Energy Fund 2 as part of our infrastructure portfolio. Carlye also offers a wide range of additional private investments. The firm is very connected to the political arena and the event offered unique insights from experts in the field.

6. **Would you recommend this event to other trustees/staff:**

   Yes. This event was well suited to staff especially investment professionals. It was also a good opportunity to connect with people at the firm that are part of the StanCERA relationship.

7. **Number of Education Credits:**

# Conference Summary

1. **Attendee Name:** Tom Stadelmaier
2. **Event Name:** Fiduciary Investors Symposium
3. **Event Date:** Sept 17-18, 2025
4. **Event Location:** Stanford
5. **Describe what was good about the event:**

   This event covered more technical investment-related topics with a focus on technology, infrastructure, geopolitics and current topics facing the largest pension plans and investors in the world. Several aspects of this event were more unique than most including many of the topics were covered by academics and not just by investment managers or industry professionals. That provides a different perspective which is very helpful. The event also provides a more international perspective on the topic of investing and managing large-scale pension plans with representation from not only California but also New York, North Carolina, Canada, Australia, Norway, Singapore and many other states and countries. Speakers included not only world-leading academics but managers that work with StanCERA today and people that have deep relevant experience in prestigious political posts. The quality of the presenters and fellow colleagues was top notch.

   The event was offered with no registration cost through partnership with our custodian Northern Trust.

6. **Would you recommend this event to other trustees/staff:**

   Yes. This event was well suited to staff especially investment professionals.

7. **Number of Education Credits:**



# MONTHLY PERFORMANCE FLASH REPORT

## STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

AUGUST 31, 2025

Dan Hennessy, CFA, CAIA, Senior Consultant
Sam Austin, Partner
John Tolar, Senior Consulting Analyst

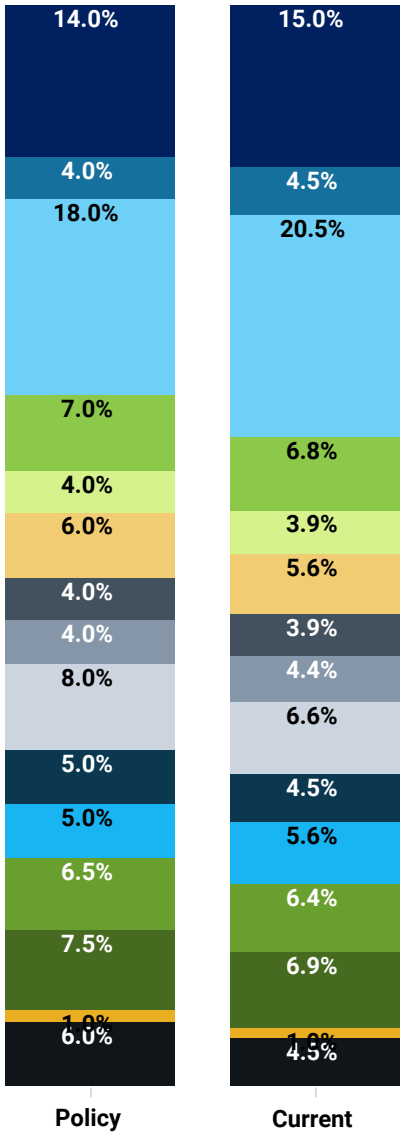
# CALENDAR YEAR INDEX PERFORMANCE

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Aug | YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **S&P 500** | 1.4% | 12.0% | 21.8% | -4.4% | 31.5% | 18.4% | 28.7% | -18.1% | 26.3% | 25.0% | 2.0% | 10.8% |
| **Russell 1000** | 0.9% | 12.1% | 21.7% | -4.8% | 31.4% | 21.0% | 26.5% | -19.1% | 26.5% | 24.5% | 2.1% | 10.8% |
| **Russell 2000** | -4.4% | 21.3% | 14.6% | -11.0% | 25.5% | 20.0% | 14.8% | -20.4% | 16.9% | 11.5% | 7.1% | 7.1% |
| **Russell 2500** | -2.9% | 17.6% | 16.8% | -10.0% | 27.8% | 20.0% | 18.2% | -18.4% | 17.4% | 12.0% | 5.2% | 7.8% |
| **MSCI EAFE** | -0.8% | 1.0% | 25.0% | -13.8% | 22.0% | 7.8% | 11.3% | -14.5% | 18.2% | 3.8% | 4.3% | 22.8% |
| **MSCI EM** | -14.9% | 11.2% | 37.3% | -14.6% | 18.4% | 18.3% | -2.5% | -20.1% | 9.8% | 7.5% | 1.3% | 19.0% |
| **MSCI ACWI** | -2.4% | 7.9% | 24.0% | -9.4% | 26.6% | 16.3% | 18.5% | -18.4% | 22.2% | 17.5% | 2.5% | 14.3% |
| **Private Equity** | 12.6% | 9.9% | 9.0% | 21.0% | 11.1% | 17.6% | 32.9% | 39.4% | -9.1% | 5.8% | - | - |
| **BBG TIPS** | -1.4% | 4.7% | 3.0% | -1.3% | 8.4% | 11.0% | 6.0% | -11.8% | 3.9% | 1.8% | 1.5% | 6.4% |
| **BBG Municipal** | 3.3% | 0.2% | 5.4% | 1.3% | 7.5% | 5.2% | 1.5% | -8.5% | 6.4% | 1.1% | 0.9% | 0.3% |
| **BBG Muni High Yield** | 1.8% | 3.0% | 9.7% | 4.8% | 10.7% | 4.9% | 7.8% | -13.1% | 9.2% | 6.3% | 0.5% | -1.3% |
| **BBG US Corporate HY** | -4.5% | 17.1% | 7.5% | -2.1% | 14.3% | 7.1% | 5.3% | -11.2% | 13.4% | 8.2% | 1.2% | 6.4% |
| **BBG US Agg Bond** | 0.5% | 2.6% | 3.5% | 0.0% | 8.7% | 7.5% | -1.5% | -13.0% | 5.5% | 1.3% | 1.2% | 5.0% |
| **BBG Global Agg** | -3.2% | 2.1% | 7.4% | -1.2% | 6.8% | 9.2% | -4.7% | -16.2% | 5.7% | -1.7% | 1.5% | 7.2% |
| **BBG Long Treasuries** | -1.2% | 1.3% | 8.5% | -1.8% | 14.8% | 17.7% | -4.6% | -29.3% | 3.1% | -6.4% | 0.3% | 2.5% |
| **BBG US Long Credit** | -4.6% | 10.2% | 12.2% | -6.8% | 23.4% | 13.3% | -1.2% | -25.3% | 10.7% | -2.0% | 0.8% | 4.5% |
| **BBG US STRIPS 20+ Yr** | -3.7% | 1.4% | 13.7% | -4.1% | 20.9% | 24.0% | -5.2% | -39.6% | 1.1% | -13.8% | -1.5% | -3.1% |
| **JPM GBI-EM Global Div** | -14.9% | 9.9% | 15.2% | -6.2% | 13.5% | 2.7% | -8.7% | -11.7% | 12.7% | -2.4% | 2.2% | 13.8% |
| **JPM EMBI Glob Div** | 1.2% | 10.2% | 10.3% | -4.3% | 15.0% | 5.3% | -1.8% | -17.8% | 11.1% | 6.5% | 1.6% | 8.7% |
| **CS Hedge Fund** | -0.7% | 1.2% | 7.1% | -3.2% | 9.3% | 6.4% | 8.2% | 1.1% | 5.8% | 9.8% | - | 4.8% |
| **BBG Commodity** | -24.7% | 11.8% | 1.7% | -11.2% | 7.7% | -3.1% | 27.1% | 16.1% | -7.9% | 5.4% | 1.9% | 7.1% |
| **Alerian Midstream** | -37.3% | 33.8% | -2.4% | -13.3% | 24.0% | -23.4% | 38.4% | 21.5% | 14.0% | 44.5% | 1.0% | 4.8% |
| **FTSE NAREIT Equity REITs** | 3.2% | 8.5% | 5.2% | -4.6% | 26.0% | -8.0% | 43.2% | -24.4% | 13.7% | 8.7% | 4.4% | 3.4% |

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One

# ASSET ALLOCATION VS. POLICY

## Asset Allocation vs. Target




| | Current ($) | Current (%) | Policy (%) | Differences* (%) | Policy Range (%) | Within Range |
|---|---|---|---|---|---|---|
| Large Cap Equity | 474,530,797 | 15.0 | 14.0 | 1.0 | 10.0 - 18.0 | Yes |
| Small Cap Equity | 143,083,692 | 4.5 | 4.0 | 0.5 | 0.0 - 7.0 | Yes |
| International Equity | 651,436,243 | 20.5 | 18.0 | 2.5 | 12.0 - 24.0 | Yes |
| Intermediate | 216,870,310 | 6.8 | 7.0 | -0.2 | 4.0 - 10.0 | Yes |
| Credit | 123,610,576 | 3.9 | 4.0 | -0.1 | 0.0 - 6.0 | Yes |
| Treasury | 177,024,073 | 5.6 | 6.0 | -0.4 | 4.0 - 8.0 | Yes |
| TIPS | 122,135,414 | 3.9 | 4.0 | -0.1 | 2.0 - 6.0 | Yes |
| Risk Parity | 138,944,542 | 4.4 | 4.0 | 0.4 | 0.0 - 8.0 | Yes |
| Private Credit | 209,619,255 | 6.6 | 8.0 | -1.4 | 0.0 - 10.0 | Yes |
| Absolute Return | 143,254,841 | 4.5 | 5.0 | -0.5 | 0.0 - 7.0 | Yes |
| Private Equity | 177,315,361 | 5.6 | 5.0 | 0.6 | 0.0 - 8.0 | Yes |
| Real Estate - Core | 201,695,886 | 6.4 | 6.5 | -0.1 | 0.0 - 10.0 | Yes |
| Infrastructure | 219,947,751 | 6.9 | 7.5 | -0.6 | 0.0 - 12.0 | Yes |
| Cash | 31,059,010 | 1.0 | 1.0 | 0.0 | 0.0 - 4.0 | Yes |
| Non-Core Real Estate | 141,327,970 | 4.5 | 6.0 | -1.5 | 0.0 - 10.0 | Yes |
| **Total** | **3,171,855,722** | **100.0** | **100.0** | **0.0** | | |

*Difference between Policy and Current Allocation

# TOTAL FUND PERFORMANCE DETAIL

| | Allocation | | Performance (%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % of Portfolio | 1 Mo (%) | FYTD (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| **Total Fund** | **3,171,855,722** | **100.0** | **1.8** | **2.3** | **8.4** | **8.6** | **9.0** | **7.6** | **7.0** | **7.5** | **8.6** | **Jan-95** |
| *Policy Index* | | | *1.6* | *2.0* | *8.1* | *9.0* | *10.2* | *8.1* | *7.6* | *8.0* | *8.0* | |
| *Allocation Index* | | | *1.9* | *2.2* | *8.1* | *8.6* | *8.3* | *7.1* | | | | |
| **Liquidity Sub-Portfolio** | **247,929,320** | **7.8** | **0.9** | **1.0** | **4.6** | **5.1** | **4.9** | **2.3** | **3.7** | **2.8** | **2.6** | **Aug-14** |
| *StanCERA Liquidity Blended BM* | | | *1.1* | *1.0* | *5.0* | *4.7* | *4.2* | *1.3* | *2.9* | *2.3* | *2.1* | |
| **Cash** | **31,059,010** | **1.0** | **0.4** | **0.9** | **3.5** | **5.3** | **5.5** | **4.2** | **3.4** | **2.7** | **2.5** | **Aug-14** |
| *FTSE 1 Month T-Bill* | | | *0.4* | *0.7* | *2.9* | *4.6* | *4.8* | *3.0* | *2.6* | *2.0* | *1.8* | |
| **Cashflow-Matched Bonds** | **216,870,310** | **6.8** | **1.0** | **1.0** | **4.8** | **5.1** | **4.7** | **1.8** | **3.5** | | **3.0** | **Jul-17** |
| *Blmbg. Intermed. U.S. Government/Credit* | | | *1.2* | *1.1* | *5.3* | *4.7* | *4.1* | *0.7* | *2.5* | | *2.1* | |
| Insight | 216,870,310 | 6.8 | 1.0 | 1.0 | 4.8 | 5.1 | 4.7 | 1.8 | 3.5 | | 3.0 | Jul-17 |
| *Blmbg. Intermed. U.S. Government/Credit* | | | *1.2* | *1.1* | *5.3* | *4.7* | *4.1* | *0.7* | *2.5* | | *2.1* | |
| **Growth Sub-Portfolio** | **2,342,567,532** | **73.9** | **2.0** | **2.8** | **9.7** | **10.0** | **11.0** | **10.0** | **8.5** | **9.2** | **8.3** | **Jan-04** |
| *StanCERA Growth Blended BM* | | | *2.1* | *3.0* | *11.4* | *12.7* | *12.5* | *11.0* | *9.8* | *10.2* | | |
| **US Equities** | **617,614,489** | **19.5** | **3.4** | **5.1** | **10.0** | **14.5** | **18.4** | **15.0** | **12.5** | **13.2** | **10.7** | **Jan-04** |
| *Russell 3000 Index* | | | *2.3* | *4.6* | *10.6* | *15.8* | *18.8* | *14.1* | *13.2* | *14.0* | *10.5* | |
| **US Large Equity** | **474,530,797** | **15.0** | **2.3** | **4.2** | **10.8** | **16.0** | **19.4** | **14.8** | **13.8** | **14.3** | **13.0** | **Jan-95** |
| *Russell 1000 Index* | | | *2.1* | *4.4* | *10.8* | *16.2* | *19.3* | *14.3* | *13.7* | *14.3* | *11.1* | |
| BlackRock Russell 1000 Growth | 248,666,366 | 7.8 | 1.1 | 4.9 | 11.3 | 22.5 | 25.0 | 15.2 | 17.3 | 17.9 | 17.3 | Aug-10 |
| *Russell 1000 Growth Index* | | | *1.1* | *4.9* | *11.3* | *22.6* | *25.0* | *15.2* | *17.3* | *17.9* | *17.3* | |
| BlackRock Russell 1000 Value | 111,591,108 | 3.5 | 3.2 | 3.8 | 10.0 | 9.3 | 12.9 | 12.9 | 9.4 | 10.3 | 11.6 | Aug-09 |
| *Russell 1000 Value Index* | | | *3.2* | *3.8* | *10.0* | *9.3* | *12.9* | *13.0* | *9.3* | *10.2* | *11.5* | |
| Dodge & Cox-Equity | 114,273,323 | 3.6 | 4.1 | 2.9 | 10.7 | 10.1 | 15.3 | 16.4 | 11.1 | 12.3 | 12.1 | Jan-95 |
| *Russell 1000 Value Index* | | | *3.2* | *3.8* | *10.0* | *9.3* | *12.9* | *13.0* | *9.3* | *10.2* | *10.0* | |
| **US Small Equity** | **143,083,692** | **4.5** | **7.3** | **8.5** | **7.1** | **9.0** | **14.6** | **16.8** | **8.2** | **9.4** | **12.1** | **Jan-09** |
| *Russell 2000 Index* | | | *7.1* | *9.0* | *7.1* | *8.2* | *10.3* | *10.1* | *5.9* | *8.9* | *11.3* | |
| **Attucks Small Cap** | **143,083,692** | **4.5** | **7.3** | **8.5** | **7.1** | **9.0** | **14.6** | **16.8** | **8.2** | **10.3** | **12.2** | **Jan-09** |
| *Russell 2000 Value Index* | | | *8.5* | *10.4* | *6.9* | *5.8* | *8.8* | *13.1* | *5.7* | *8.6* | *10.1* | |
| **International Equity** | **651,436,243** | **20.5** | **3.9** | **4.8** | **25.8** | **20.1** | **18.7** | **11.9** | **8.6** | **8.6** | **7.3** | **Oct-04** |
| *MSCI AC World ex USA (Net)* | | | *3.5* | *3.2* | *21.6* | *15.4* | *15.1* | *8.9* | *7.0* | *7.3* | *6.5* | |
| LSV Int'l Large Cap Value | 333,933,665 | 10.5 | 4.6 | 6.2 | 31.5 | 26.5 | 22.3 | 15.0 | 9.6 | 9.3 | 7.5 | Oct-04 |
| *MSCI AC World ex USA Value (Net)* | | | *4.1* | *4.9* | *25.7* | *19.9* | *17.9* | *12.8* | *7.4* | *7.2* | *6.1* | |
| Fidelity Int'l Growth | 317,502,578 | 10.0 | 3.2 | 3.3 | 20.0 | 13.5 | 14.9 | 8.7 | 7.4 | 7.6 | 5.1 | May-06 |
| *MSCI AC World ex USA Growth (Net)* | | | *2.8* | *1.6* | *17.7* | *11.2* | *12.5* | *5.2* | *6.4* | *7.3* | *4.9* | |

- Cash Composite includes the Transaction Account Value.

# TOTAL FUND PERFORMANCE DETAIL

| | Allocation | | Performance (%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % of Portfolio | 1 Mo (%) | FYTD (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| **Core Real Estate** | **201,695,886** | **6.4** | **0.0** | **0.0** | **2.6** | **4.8** | **1.5** | **5.7** | **4.3** | **5.1** | **3.0** | **Apr-08** |
| *NCREIF ODCE* | | | *0.0* | *0.0* | *2.1* | *3.5* | *-5.4* | *3.4* | *3.7* | *5.3* | *4.5* | |
| Prime Property Fund | 91,005,741 | 2.9 | 0.0 | 0.0 | 1.5 | 2.3 | -3.0 | 4.6 | 4.6 | | 5.7 | Oct-15 |
| *NCREIF ODCE* | | | *0.0* | *0.0* | *2.1* | *3.5* | *-5.4* | *3.4* | *3.7* | | *5.0* | |
| PGIM Real Estate US Debt Fund | 110,690,146 | 3.5 | 0.0 | 0.0 | 3.6 | 6.9 | 6.6 | 5.9 | 5.6 | | 5.6 | Sep-18 |
| *Blmbg. U.S. Investment Grade: CMBS Index* | | | *1.5* | *1.4* | *5.9* | *5.8* | *4.6* | *1.0* | *2.9* | | *2.9* | |
| **Value-Add Real Estate** | **141,327,970** | **4.5** | **0.0** | **0.0** | **0.6** | **0.4** | **-2.9** | **5.1** | **6.1** | **8.1** | **7.8** | **Aug-14** |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | *-2.1* | *5.8* | *4.9* | *6.4* | *6.9* | |
| American Strategic Value Realty | 77,145,447 | 2.4 | 0.0 | 0.0 | 0.5 | 0.6 | -5.2 | 2.5 | 3.6 | 6.1 | 6.6 | Jan-15 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | *-2.1* | *5.8* | *4.9* | *6.4* | *6.5* | |
| Greenfield Acquisition Partners VII | 604,720 | 0.0 | 0.0 | 0.0 | -11.0 | -7.3 | -1.2 | 11.0 | 10.5 | 11.6 | 11.0 | Aug-14 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | *-2.1* | *5.8* | *4.9* | *6.4* | *6.9* | |
| Grandview Property Partners I | 15,311,546 | 0.5 | 0.0 | 0.0 | -6.7 | -4.5 | 0.8 | 12.2 | 12.2 | | 14.4 | Apr-18 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | *-2.1* | *5.8* | *4.9* | | *4.8* | |
| Grandview Property Partners II | 19,207,768 | 0.6 | 0.0 | 0.0 | 7.8 | 3.3 | 2.9 | | | | 1.3 | Dec-21 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | *-2.1* | | | | *1.4* | |
| TA Realty Value Fund XIII | 17,571,571 | 0.6 | 0.0 | 0.0 | 0.7 | 0.1 | | | | | -2.6 | Dec-23 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | | | | | *-1.7* | |
| KSL Credit Opportunities IV | 2,566,389 | 0.1 | 0.0 | 0.0 | 1.6 | 5.6 | | | | | 5.4 | Apr-24 |
| *C\|A Global Real Estate* | | | *0.0* | *0.0* | *0.6* | *-1.2* | | | | | *-0.9* | |
| Graceada PR Fund IV | 8,920,528 | 0.3 | | | | | | | | | | Sep-25 |
| *C\|A Global Real Estate* | | | | | | | | | | | | |

# TOTAL FUND PERFORMANCE DETAIL

| | Allocation | | Performance (%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % of Portfolio | 1 Mo (%) | FYTD (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| **Infrastructure** | **219,947,751** | **6.9** | **0.0** | **0.0** | **3.9** | **10.5** | **7.3** | **3.0** | **5.2** | **7.0** | **5.5** | **Jun-15** |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | *7.6* | *11.4* | | | | |
| *CPI + 5% 1 Qtr Lag (Unadjusted)* | | | *0.6* | *1.3* | *5.3* | *7.5* | *8.4* | *9.9* | *8.7* | *8.2* | *8.3* | |
| MS Infrastructure Partners II | 13,163,168 | 0.4 | 0.0 | 0.0 | 10.4 | 18.2 | 7.2 | 6.1 | 7.4 | 8.5 | 7.0 | Jun-15 |
| *CPI + 5% 1 Qtr Lag (Unadjusted)* | | | *0.6* | *1.3* | *5.3* | *7.5* | *8.4* | *9.9* | *8.7* | *8.2* | *8.3* | |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | *7.6* | *11.4* | | | | |
| Palistar Communications Infrastructure Fund II | 18,704,269 | 0.6 | 0.0 | 0.0 | 6.1 | 8.5 | 7.9 | | | | 7.7 | Feb-22 |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | *7.6* | | | | *9.1* | |
| JP Morgan IIF Hedged LP | 40,369,673 | 1.3 | 0.0 | 0.0 | 5.2 | 10.2 | 10.4 | | | | 9.6 | Apr-22 |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | *7.6* | | | | *7.8* | |
| Northern Trust Infrastructure Fund | 75,111,632 | 2.4 | 0.0 | 0.0 | -0.7 | 8.6 | 5.1 | | | | 2.0 | Jul-21 |
| *67% STOXX Global Broad Infra/33% Blmbg. US TIPS 1 Qtr Lag* | | | *0.0* | *0.0* | *-0.6* | *8.2* | *4.6* | | | | *1.8* | |
| IFM Global Infrastructure Fund | 62,260,010 | 2.0 | 0.0 | 0.0 | 5.8 | 10.7 | 7.6 | | | | 7.4 | Aug-22 |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | *7.6* | | | | *7.4* | |
| Carlyle Renewable and Sustainable Energy Fund II | 9,177,398 | 0.3 | 0.0 | 0.0 | 11.7 | 22.6 | | | | | 26.1 | Feb-24 |
| *C\|A Global Infrastructure* | | | *0.0* | *0.0* | *1.5* | *7.1* | | | | | *8.2* | |
| PIMCO Euro Data Centre Opp Fund | 1,161,602 | 0.0 | | | | | | | | | | Sep-25 |
| *C\|A Global Infrastructure* | | | | | | | | | | | | |
| **Private Equity** | **177,315,361** | **5.6** | **0.2** | **0.4** | **2.0** | **4.4** | **4.8** | **8.4** | | | **11.1** | **Dec-18** |
| *C\|A Global All PE* | | | *0.0* | *0.0* | *2.6* | *6.7* | *2.4* | *14.9* | | | *11.8* | |
| *Russell 3000 + 3% QTR Lagged* | | | *6.6* | *6.1* | *5.3* | *16.5* | *17.2* | *18.8* | | | *15.5* | |
| **Private Equity** | **162,143,689** | **5.1** | **0.0** | **0.0** | **1.3** | **3.1** | **0.4** | **11.4** | | | **10.5** | **Apr-20** |
| *C\|A Global All PE* | | | *0.0* | *0.0* | *2.6* | *6.7* | *2.4* | *14.9* | | | *11.7* | |
| **Private Equity Proxy** | **15,171,672** | **0.5** | **2.3** | **4.6** | **10.5** | **15.8** | **18.8** | **14.1** | **14.1** | **14.6** | **10.8** | **Dec-03** |
| *C\|A Global All PE* | | | *0.0* | *0.0* | *2.6* | *6.7* | *2.4* | *14.9* | *12.0* | *12.0* | *13.2* | |
| **Private Credit** | **209,619,255** | **6.6** | **0.4** | **0.5** | **-3.4** | **-9.1** | **-0.2** | **-0.1** | **-0.7** | **0.2** | **1.4** | **Jun-13** |
| *C\|A Global Credit* | | | *0.0* | *0.0* | *1.4* | *5.4* | *5.1* | *12.3* | *8.4* | *8.6* | *9.1* | |
| *S&P/LSTA Leveraged Loan Index +2% Qtr Lag* | | | *1.7* | *1.8* | *5.7* | *8.9* | *10.8* | *9.7* | *7.6* | *7.1* | *6.9* | |
| **Private Credit** | **148,270,870** | **4.7** | **0.0** | **0.0** | **-7.9** | **-17.0** | **-4.9** | **-0.7** | **-1.2** | **-0.1** | **1.1** | **Jun-13** |
| *C\|A Global Credit* | | | *0.0* | *0.0* | *1.4* | *5.4* | *5.1* | *12.3* | *8.4* | *8.6* | *9.1* | |
| **Private Credit Proxy** | **61,348,385** | **1.9** | **1.3** | **1.7** | **6.3** | **8.2** | **9.1** | | | | **3.8** | **Jul-21** |
| *C\|A Global Credit* | | | *0.0* | *0.0* | *1.4* | *5.4* | *5.1* | | | | *8.2* | |

# TOTAL FUND PERFORMANCE DETAIL

| | Allocation | | Performance (%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % of Portfolio | 1 Mo (%) | FYTD (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| **Public Credit** | **123,610,576** | **3.9** | **-0.1** | **1.6** | | | | | | | **2.9** | **Apr-25** |
| *Public Credit Benchmark* | | | *0.9* | *1.3* | | | | | | | *3.7* | |
| NIS Opportuntistic Credit | 123,610,576 | 3.9 | -0.1 | 1.6 | | | | | | | 2.9 | Apr-25 |
| *NIS Blend* | | | *1.1* | *1.3* | | | | | | | *3.6* | |
| **Risk-Diversifying Sub-Portfolio** | **581,358,870** | **18.3** | **1.2** | **1.0** | **4.9** | **5.0** | **3.1** | **0.9** | **2.3** | **2.5** | **4.0** | **Dec-03** |
| *StanCERA Risk-Diversifying Blended BM* | | | *1.7* | *1.8* | *9.0* | *8.0* | *8.3* | *3.4* | *4.2* | *3.2* | | |
| **Risk Parity** | **138,944,542** | **4.4** | **2.5** | **3.1** | **9.0** | **7.2** | **3.3** | **1.8** | **3.6** | | **3.3** | **Dec-17** |
| *S&P Risk Parity Index - 10% Target Volatility (TR)* | | | *2.6* | *2.5* | *9.7* | *8.4* | *7.3* | *6.9* | *7.6* | | *7.1* | |
| AQR Global Risk Premium - EL | 69,152,657 | 2.2 | 2.5 | 2.9 | 8.0 | 5.9 | 5.1 | 3.4 | 4.2 | | 4.3 | Apr-18 |
| *S&P Risk Parity Index - 10% Target Volatility (TR)* | | | *2.6* | *2.5* | *9.7* | *8.4* | *7.3* | *6.9* | *7.6* | | *7.6* | |
| PanAgora Risk Parity Multi Asset | 69,791,885 | 2.2 | 2.6 | 3.3 | 9.9 | 8.6 | 1.4 | 0.2 | 2.9 | | 2.4 | Dec-17 |
| *S&P Risk Parity Index - 10% Target Volatility (TR)* | | | *2.6* | *2.5* | *9.7* | *8.4* | *7.3* | *6.9* | *7.6* | | *7.1* | |
| **US Treasury Bonds** | **177,024,073** | **5.6** | **0.9** | **0.4** | **4.1** | **1.2** | **1.3** | **-2.3** | **1.0** | **1.6** | **3.6** | **Dec-03** |
| *Blmbg. U.S. Treasury: 7-10 Year* | | | *1.7* | *1.1* | *6.5* | *3.0* | *1.8* | *-2.2* | *1.4* | *1.2* | *3.4* | |
| Northern Trust Intermediate Gov't Bond | 120,749,540 | 3.8 | 1.2 | 0.9 | 4.9 | 4.2 | 3.3 | 0.2 | 2.0 | | 1.6 | Aug-17 |
| *Blmbg. U.S. Government: Intermediate* | | | *1.2* | *1.0* | *5.0* | *4.2* | *3.4* | *0.3* | *2.0* | | *1.7* | |
| Northern Trust Long Term Gov't Bond | 56,274,533 | 1.8 | 0.3 | -0.6 | 2.4 | -4.5 | -3.3 | -7.7 | -1.0 | | -0.8 | Aug-17 |
| *Blmbg. U.S. Government: Long Term Bond Index* | | | *0.3* | *-0.6* | *2.5* | *-4.4* | *-3.2* | *-8.2* | *-1.3* | | *-1.1* | |
| **Liquid Absolute Return** | **143,254,841** | **4.5** | **0.0** | **-0.8** | **1.6** | **6.5** | **5.7** | | | | **8.3** | **Oct-21** |
| *30 Day T-Bill + 4%* | | | *0.7* | *1.4* | *5.7* | *8.8* | *9.0* | | | | *8.0* | |
| Graham Proprietary Matrix | 81,339,190 | 2.6 | 0.0 | -1.0 | 4.3 | 9.2 | 6.5 | | | | 11.6 | Nov-21 |
| *HFRI Macro (Total) Index* | | | *1.5* | *1.6* | *0.3* | *2.5* | *1.8* | | | | *3.3* | |
| Wellington Global Macro | 61,915,650 | 2.0 | 0.0 | -0.5 | -1.7 | | | | | | 4.6 | Oct-24 |
| *HFRI Macro (Total) Index* | | | *1.5* | *1.6* | *0.3* | | | | | | *0.9* | |
| **US Short Duration TIPS** | **122,135,414** | **3.9** | **1.3** | **1.6** | **5.7** | **6.6** | | | | | **7.0** | **Jun-24** |
| *Blmbg. U.S. TIPS 0-5 Year* | | | *1.3* | *1.6* | *5.7* | *6.7* | | | | | *7.0* | |
| Northern Trust US TIPS | 122,135,414 | 3.9 | 1.3 | 1.6 | 5.7 | 6.6 | | | | | 7.0 | Jun-24 |
| *Blmbg. U.S. TIPS 0-5 Year* | | | *1.3* | *1.6* | *5.7* | *6.7* | | | | | *7.0* | |

# CASH FLOW SUMMARY BY MANAGER

| | 1 Month Ending August 31, 2025 | | | | |
|---|---|---|---|---|---|
| | Beginning Market Value | Contributions | Withdrawals | Ending Market Value | Net Investment Change |
| Abry Senior Equity VI, L.P. | $13,308,162 | - | - | $13,308,162 | - |
| American Strategic Value Realty | $77,145,447 | - | - | $77,145,447 | - |
| AQR Global Risk Premium - EL | $67,460,015 | - | - | $69,152,657 | $1,692,642 |
| Ares Sr Direct Lending Fund III | $5,258,538 | $414,968 | -$164,338 | $5,509,168 | - |
| Audax Private Equity VII | $11,119,484 | $134,367 | - | $11,253,851 | - |
| Blackrock High Yield Fund | $70,620,912 | - | -$10,000,000 | $61,348,385 | $727,473 |
| BlackRock Russell 1000 Growth | $245,952,000 | - | - | $248,666,366 | $2,714,366 |
| BlackRock Russell 1000 Value | $108,156,867 | - | - | $111,591,108 | $3,434,240 |
| Blue Wolf Capital Fund V-A, L.P. | $17,721,737 | - | - | $17,721,737 | - |
| Callodine Loan Fund II LP | $15,161,512 | $1,458,715 | -$333,649 | $16,286,578 | - |
| Cash Account | $38,917,220 | $33,456,812 | -$41,466,888 | $31,010,135 | $102,990 |
| Carlyle Renewable and Sustainable Energy Fund II | $9,177,398 | - | - | $9,177,398 | - |
| Channing | $34,994,904 | - | -$63,360 | $37,204,204 | $2,272,660 |
| Clayton, Dublier, & Rice | $18,695,605 | - | - | $18,695,605 | - |
| Comvest Credit Partners VII | $10,811,868 | - | - | $10,811,868 | - |
| Crayhill Principal Strategies Fund III | $6,624,134 | - | - | $6,624,134 | - |
| Crestline Opportunity Fund IV | $11,427,724 | - | - | $11,427,724 | - |
| Dodge & Cox-Equity | $109,708,884 | - | - | $114,273,323 | $4,564,439 |
| Eclipse Fund V | $2,484,280 | - | - | $2,484,280 | - |
| Fidelity Int'l Growth | $307,646,331 | - | - | $317,502,578 | $9,856,247 |
| Genstar Capital Partners X | $15,504,300 | - | - | $15,504,300 | - |
| Graceada PR Fund IV | - | $8,920,528 | - | $8,920,528 | - |
| Graham Proprietary Matrix | $81,339,190 | - | - | $81,339,190 | - |
| Grandview Property Partners I | $15,311,546 | - | - | $15,311,546 | - |
| Grandview Property Partners II | $19,035,594 | $172,174 | - | $19,207,768 | - |
| Great Hill EP VIII | $10,928,291 | - | - | $10,928,291 | - |
| Greenfield Acquisition Partners VII | $643,549 | - | -$38,829 | $604,720 | - |
| Gridiron Capital Fund V | $8,006,454 | - | - | $8,006,454 | - |
| Gryphon Partners VI LP | $16,175,585 | - | - | $16,175,585 | - |

# CASH FLOW SUMMARY BY MANAGER

| | Beginning Market Value | Contributions | Withdrawals | Ending Market Value | Net Investment Change |
|---|---|---|---|---|---|
| IFM Global Infrastructure Fund | $62,260,010 | - | - | $62,260,010 | - |
| Insight | $219,021,152 | - | -$4,326,586 | $216,870,310 | $2,175,744 |
| Insight Partners XI | $23,672,675 | - | - | $23,672,675 | - |
| JP Morgan IIF Hedged LP | $40,369,673 | - | - | $40,369,673 | - |
| KSL Credit Opportunities IV | $2,608,337 | - | -$41,948 | $2,566,389 | - |
| LSV Int'l Large Cap Value | $321,027,655 | - | -$2,060,294 | $333,933,665 | $14,966,304 |
| Upwelling Capital | $36,738 | - | - | $36,738 | - |
| Monroe Capital Fund V | - | $12,026,558 | - | $12,026,558 | - |
| Monroe Private Credit IV | $16,413,892 | - | -$417,339 | $15,996,553 | - |
| MS Infrastructure Partners II | $13,163,168 | - | - | $13,163,168 | - |
| NIS Opportuntistic Credit | $123,610,576 | $123,090 | - | $123,610,576 | -$123,090 |
| Northern Trust Infrastructure Fund | $75,111,632 | - | - | $75,111,632 | - |
| Northern Trust Intermediate Gov't Bond | $119,294,895 | $12,209 | - | $120,749,540 | $1,442,436 |
| Northern Trust Long Term Gov't Bond | $56,102,279 | $5,953 | - | $56,274,533 | $166,301 |
| Northern Trust Russell 3000 | $19,835,333 | $1,370 | -$5,000,000 | $15,171,672 | $334,969 |
| Northern Trust US TIPS | $120,523,767 | - | - | $122,135,414 | $1,611,647 |
| Owl Rock First Lien Fund | $6,008,122 | - | - | $6,008,122 | - |
| Pacific Ridge | $22,430,056 | - | -$55,350 | $24,625,511 | $2,250,805 |
| Palistar Communications Infrastructure Fund II | $18,704,269 | - | - | $18,704,269 | - |
| PanAgora Risk Parity Multi Asset | $68,032,231 | - | - | $69,791,885 | $1,759,653 |
| PIMCO Euro Data Centre Opp Fund | - | $1,161,602 | - | $1,161,602 | - |
| PGIM Real Estate US Debt Fund | $110,690,146 | - | - | $110,690,146 | - |
| Phocas' | $32,405,077 | - | -$54,043 | $34,195,254 | $1,844,221 |
| Prime Property Fund | $91,005,741 | - | - | $91,005,741 | - |
| Raven Opportunity III | $15,449,100 | - | - | $15,449,100 | - |
| Seizert | $43,703,164 | - | -$63,017 | $47,058,723 | $3,418,576 |
| Sole Source Capital Partners II | $17,445,149 | $810,271 | - | $18,255,420 | - |
| Strategic Values Special Situations Fund V, L.P. | $11,505,377 | - | - | $11,505,377 | - |
| TA Realty Value Fund XIII | $17,599,135 | - | -$27,564 | $17,571,571 | - |

# CASH FLOW SUMMARY BY MANAGER

| | Beginning Market Value | Contributions | Withdrawals | Ending Market Value | Net Investment Change |
|---|---|---|---|---|---|
| Transition Account | $48,700 | - | - | $48,876 | $176 |
| Vista Foundation Fund IV | $19,445,492 | - | - | $19,445,492 | - |
| Wellington Global Macro | $61,915,650 | - | - | $61,915,650 | - |
| White Oak Pinnacle | $23,280,788 | - | - | $23,280,788 | - |
| **Total** | **$3,122,057,508** | **$58,698,618** | **-$64,113,204** | **$3,171,855,722** | **$55,212,800** |

# NOTES

- All performance is shown net of investment management fees. Fiscal year end date is June 30th. Wellington Global Macro and Graham Matrix values are carried from prior month; NIS value is carried by NT. PanAgora value is preliminary.
- Performance history is provided by Verus through June 2020. As of July 1, 2020 performance is calculated and reported by NEPC.
- Policy Index history:
  - **Inception - 6/30/2017:** 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4% Russell 2000 Value, 3.7% Russell 2000 Growth, 18% MSCI ACWI ex USA Gross, 29.8%Bloomberg US Aggregate TR, 3.5% DJ US Select RESI TR USD, 7.5% 9% Annual, 3% CPI + 4%
  - **7/1/2017 - 8/31/2018:** 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex USA Gross, 19% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3% Bloomberg US Treasury 7-10 Yr TR, 7.7% NCREIF Property Index, 1.7% NCREIF Property Index +2%, 0.6% CPI + 5%, 5% Bloomberg US High Yield + 2%, 14% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
  - **9/1/2018 - 5/30/2019:** 10% Russell 1000, 3% Russell 2000, 6% Russell 3000 +3%, 27% MSCI ACWI ex USA Gross, 20% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3%Bloomberg US Treasury 7-10 Yr TR, 5% NCREIF Property Index, 5% NCREIF Property Index +2%, 1% CPI + 5%, 6% S&P/LSTA Leveraged Loan Index+2%, 13% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
  - **6/1/2019 - 6/30/2020**: 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate
  - **7/1/2020 - 12/31/2020**: 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate, 11%Bloomberg US Intermediate.
  - **1/1/2021 - 06/30/2021**: 16% Russell 1000, 3.5% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 5% Bloomberg US Treasury 7-10 Yr, 6% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 4.5% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate, 7%Bloomberg US Intermediate.
  - **7/1/2021 - 6/30/2023:** 16% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 20% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 6% Bloomberg US Treasury 7-10 Yr TR, 10% 60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg, 3% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
  - **7/1/2023 - Present:** 16% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 20% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% 1 Qtr Lag (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 6% Bloomberg US Treasury 7-10 Yr TR, 10% 60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg, 3% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
  - **5/1/2024 - Present:** 14% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 18% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% 1 Qtr Lag (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 4% Public Credit Custom Benchmark (50% Bloomberg US Corp Investment Grade Index/25% Bloomberg US HY 2% Cap/25% Morningstar LTSA US Leveraged Loan Index), 6% Bloomberg US Treasury 7-10 Yr TR, 4% Bloomberg US TIPS 0-5 Yr, 4% S&P Risk Parity Index 10% Target Volatility, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
  - **4/1/2025 - Present:** 14% Russell 1000, 4% Russell 2000, 5% C|A Global Credit, 18% MSCI ACWI ex USA Gross, 6.5% NCREIF ODCE, 6% C|A Global Real Estate, 7.5% C|A Global Infrastructure, 8% C|A Global Credit, 4% Public Credit Custom Benchmark (50% Bloomberg US Corp Investment Grade Index/25% Bloomberg US HY 2% Cap/25% Morningstar LTSA US Leveraged Loan Index), 6% Bloomberg US Treasury 7-10 Yr TR, 4% Bloomberg US TIPS 0-5 Yr, 4% 60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg, 5% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.

- As of July 1, 2020, the small Capital Prospects transition cash balance is moved from the Cash composite to the Capital Prospects account. Historical performance for Capital Prospects, US Small, US Equities, Growth Sub-Portfolio, Cash, and Liquidity Sub-Portfolio prior to July 1, 2020 reflects performance of these composites before this change.
- Private Equity and Private Credit investments are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months. As of July 1, 2023, Infrastructure funds and NT Infrastructure benchmark are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months. Value-Add Real Estate managers are valued quarterly adjusted for current cash flows.

# DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A "since inception" return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC's preferred data source is the plan's custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

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

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





StanCERA

# ASSET ALLOCATION EDUCATION

## STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION



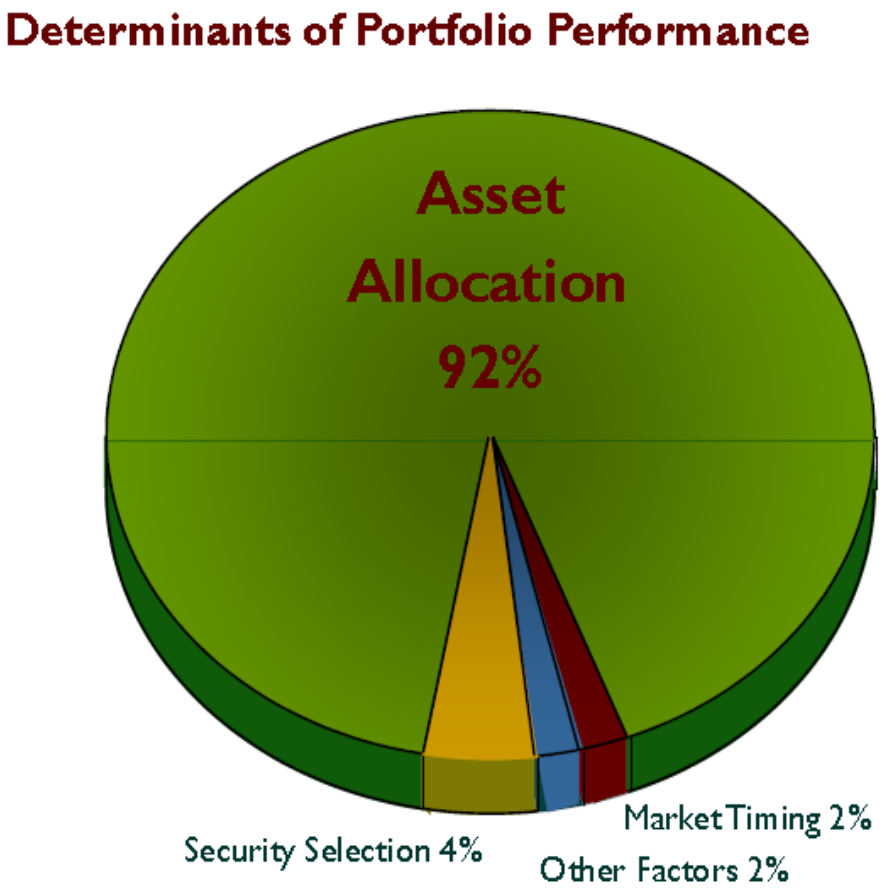
SEPTEMBER 23, 2025

Dan Hennessy, CFA, CAIA, Senior Consultant
Sam Austin, Partner
John Tolar, Senior Consulting Analyst

NEPC

PROPRIETARY & CONFIDENTIAL

# ASSET ALLOCATION: THE KEY INVESTMENT DECISION




*Source: Determinants of Portfolio Performance II: An Update, Brinson, et al, Financial Analysts Journal, May/June 1991, pp 40-48.*

# STANCERA'S INVESTMENT OBJECTIVES

**The investment objectives of the Investment Program are:**

- **To provide liquidity to meet retiree benefit payments in a timely manner;**
  - Liquidity sub-portfolio
- **To produce long-term growth to meet future retiree benefit payments and, if applicable, to close a funding gap over time; and**
  - Growth sub-portfolio
- **To protect the assets against the adverse impacts of rising inflation and investment market volatility.**
  - Diversifying sub-portfolio

# ASSET CLASS OBJECTIVES

| Asset Class | Portfolio Role | Current Target |
|---|---|---|
| **Liquidity** | | |
| Cash and Cashflow-Matched Bonds | • Covers shortfall between contributions and benefits/fees<br>• Ensures short-term needs so the rest of the portfolio can be managed for the long-term | 8% |
| **Growth** | | |
| Public Equity | • Capital appreciation<br>• Capture global growth | 36% |
| Public Credit | • Blend of income, diversification, and stable returns | 4% |
| Private Equity and Private Credit | • Higher return expectations than public equity and credit | 13% |
| Real Assets (Real Estate and Infrastructure) | • Inflation hedge<br>• Income production potential | 20% |
| **Risk-Diversifying** | | |
| Treasuries and Other Safe-Haven Bonds | • Downside protection<br>• Adds diversification | 10% |
| Risk Parity | • Adds diversification | 4% |
| Liquid Absolute Return Strategies | • Skill-based active management<br>• Adds diversification | 5% |

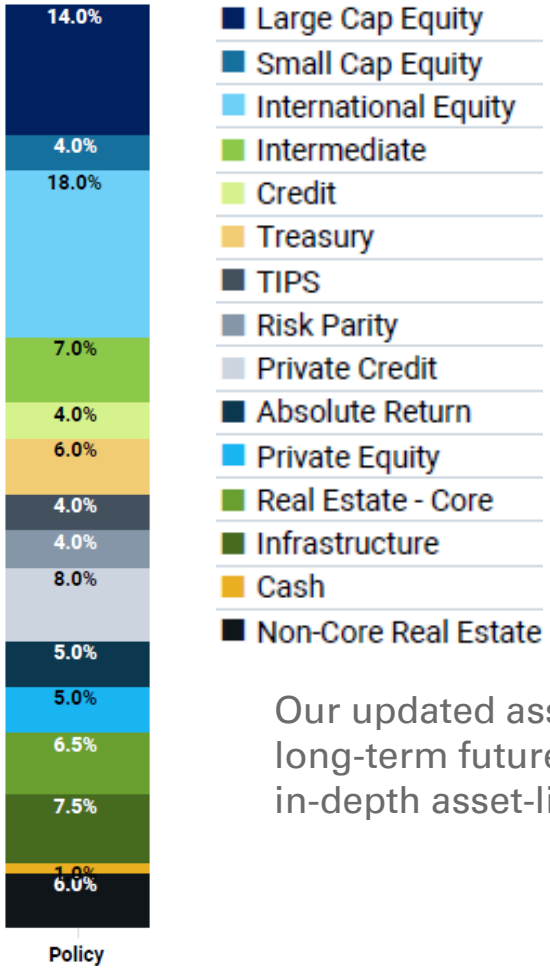
# CORE ASSET CLASS RETURN ASSUMPTIONS

| | Asset Class | 6/30/2025 10-Year Return | 6/30/2024 10-Year Return | Delta |
|---|---|---|---|---|
| | Cash | 3.8% | 4.2% | -0.4% |
| | U.S. Inflation | 2.6% | 2.6% | - |
| Equity | U.S. Large-Cap Equity | 5.3% | 4.0% | +1.3% |
| | Non-U.S. Developed Equity | 5.3% | 4.5% | +0.8% |
| | Emerging Market Equity | 6.6% | 7.8% | -1.2% |
| | Global Equity* | 5.7% | 5.0% | +0.7% |
| | Private Equity* | 8.6% | 8.7% | -0.1% |
| Fixed Income | U.S. Treasury Bond | 4.4% | 4.6% | -0.2% |
| | U.S. Municipal Bond | 4.3% | 3.8% | +0.5% |
| | U.S. Aggregate Bond* | 4.8% | 5.0% | -0.2% |
| | U.S. TIPS | 4.6% | 4.8% | -0.2% |
| | U.S. High Yield Corporate Bond | 6.1% | 6.3% | -0.2% |
| | Private Debt* | 8.3% | 8.3% | - |
| Real Assets | Commodity Futures | 4.8% | 4.4% | +0.4% |
| | REIT | 5.5% | 6.3% | -0.8% |
| | Gold | 4.0% | 5.0% | -1.0% |
| | Real Estate - Core | 5.4% | 6.0% | -0.6% |
| | Private Real Assets - Infrastructure | 5.7% | 6.6% | -0.9% |
| Multi-Asset | 60% S&P 500 & 40% U.S. Aggregate | 5.4% | 4.7% | +0.7% |
| | 60% MSCI ACWI & 40% U.S. Agg. | 5.7% | 5.3% | +0.4% |
| | Hedge Fund* | 6.2% | 6.2% | - |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time.

# STANCERA'S EXPECTED FUTURE RETURNS

## BASED ON NEPC'S 6/30/2025 AND 6/30/2023 ASSUMPTIONS

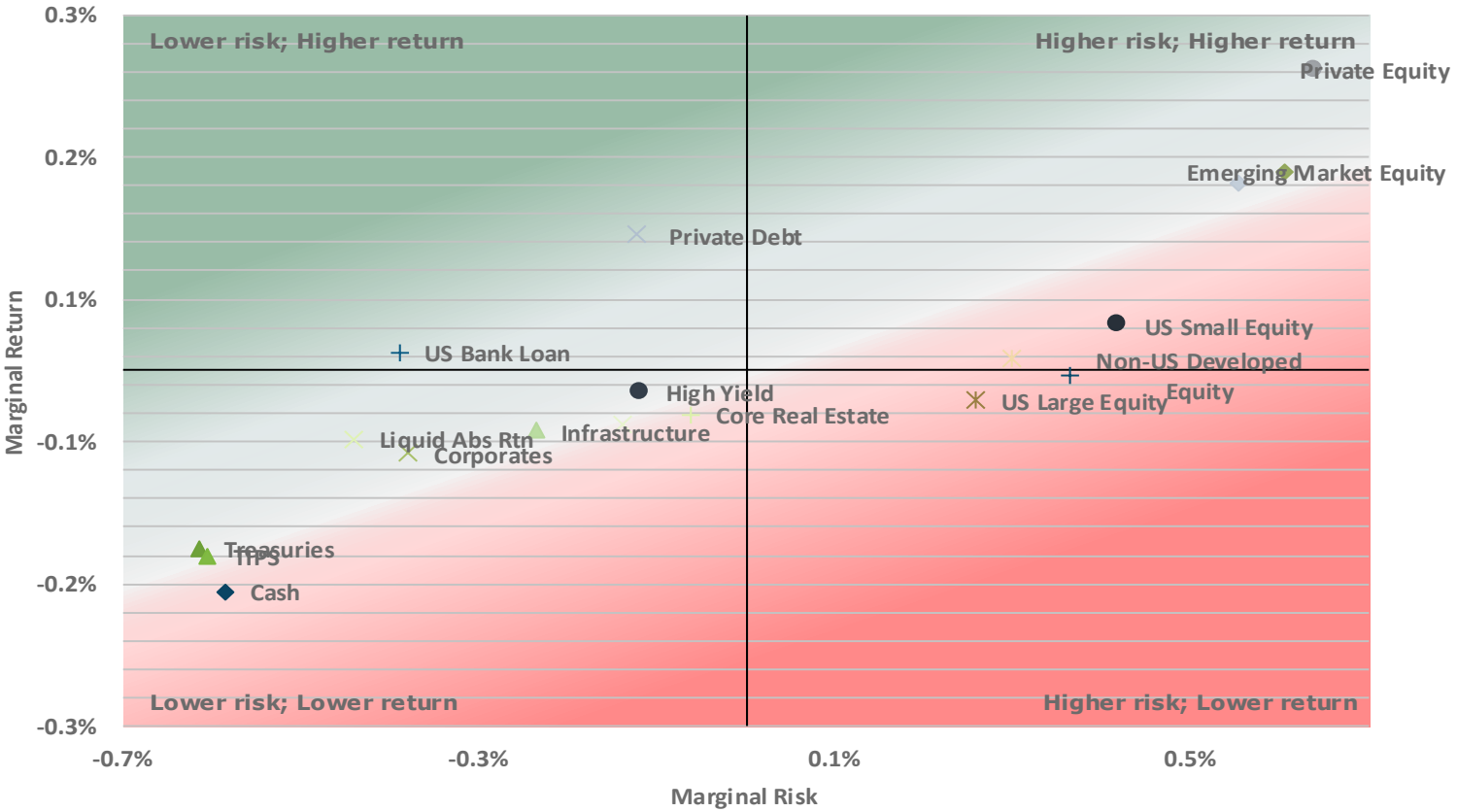



| | 10 Year Annualized | | 30 Year Annualized | |
|---|---|---|---|---|
| | 2025 | 2023 | 2025 | 2023 |
| Expected Return | 6.4% | 6.4% | 7.5% | 7.3% |
| Expected Volatility | 11.8% | 12.0% | 11.8% | 12.0% |
| Return/ Volatility | 0.54 | 0.53 | 0.64 | 0.61 |
| Sharpe Ratio | 0.22 | 0.20 | 0.34 | 0.33 |

Our updated asset class assumptions now predict slightly less volatile and better long-term future investment returns than we expected when we last performed an in-depth asset-liability study for StanCERA

# MARGINAL RISK/RETURN HEAT MAP

## ESTIMATED 10-YEAR ANNUALIZED IMPACT OF A 5% SHIFT




This heat map shows how various potential investments would impact the expected long-term risk/return of StanCERA's current policy target



# ASSET CLASS ASSUMPTIONS

PROPRIETARY & CONFIDENTIAL

# ASSET CLASS ASSUMPTIONS

## OVERVIEW

- **NEPC's capital market assumptions are available each quarter with this release reflecting June 30, 2025 market data**
- **U.S. equity markets fully recovered from the early April selloff – hitting new highs to end the quarter**
- **Despite recent valuation expansion, Non-U.S. developed market equity return assumptions improved, reflecting a modest increase in long-term earnings expectations**
- **Fixed income assumptions are lower as market rate expectations shifted modestly lower, pulling down interest rate forecasts**
- **Credit spreads remain tight and are below long-term medians, limiting the upside return potential within risk-seeking credit**

# CAPITAL MARKET ASSUMPTION PRINCIPLES

## HOW SHOULD RETURN ASSUMPTIONS BE INTERPRETED

- **NEPC return assumptions are meant to reflect a nominal return expectation, net of fees, over a 10-year and 30-year investment horizon**
- **With this in mind, NEPC asset class return assumptions look to include all sources of return that flow to an asset class over time**
  - Each major contributing source of return is a building block in our models
- **NEPC's asset class models are designed to be forward-looking and not to replicate the past, which requires both model scrutiny and iteration**
- **Forecasting asset class returns, requires forward-looking assumptions about building block contributors and how they evolve over time**
- **Developing market trends require scrutiny and time to analyze data and research market shifts to understand whether they are cyclical or structural inputs contributing to an asset class's building blocks**

# ASSET CLASS ASSUMPTIONS

## DEVELOPMENT

- **Capital market assumptions are published for over 70 core asset classes and over 30 composites**
- **Market data as of 06/30/2025**
- **NEPC proprietary models used to develop return forecasts based on a building block approach**
- **The 10-year return outlook is intended to support strategic asset allocation analysis**
- **30-year return assumptions are used for actuarial inputs and long-term planning**

### Asset Allocation Process

1. Finalize list of new asset classes
2. Calculate asset class volatility and correlation assumptions
3. Set model terminal values, growth, and inflation inputs
4. Model data updated at quarter-end
5. Review model outputs and produce asset class return assumptions
6. Assumptions released on the 15th calendar day after quarter-end

# 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**





# MACROECONOMIC

PROPRIETARY & CONFIDENTIAL

# U.S. INFLATION ASSUMPTIONS

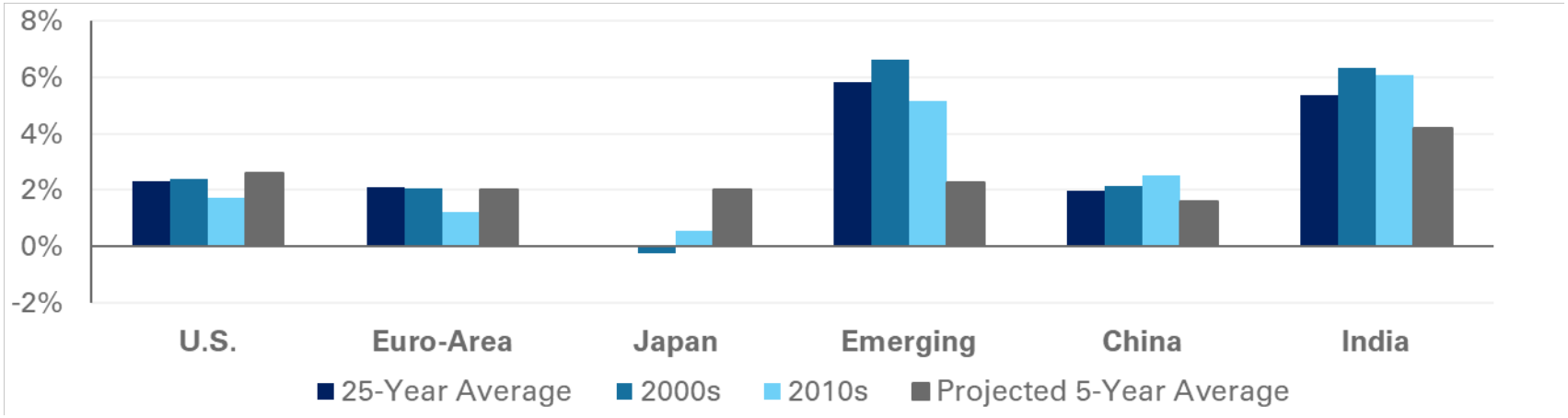
## OVERVIEW

- **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**
- **NEPC's inflation assumption forecasts near-term paths for major Consumer Price Index (CPI) components including food, energy, core services, and shelter costs**
  - CPI is expected to converge with breakeven inflation forecast over the long-term
- **The composite inflation assumption reflects a blend of NEPC's inflation forecast and market-implied breakeven inflation rates**

| U.S. Inflation Assumption | | |
|---|---|---|
| **Time Horizon** | **Current** | **12-Month Change** |
| 10-Year | 2.6% | — |
| 30-Year | 2.7% | +0.1% |

# GLOBAL INFLATION

## HISTORICAL INFLATION

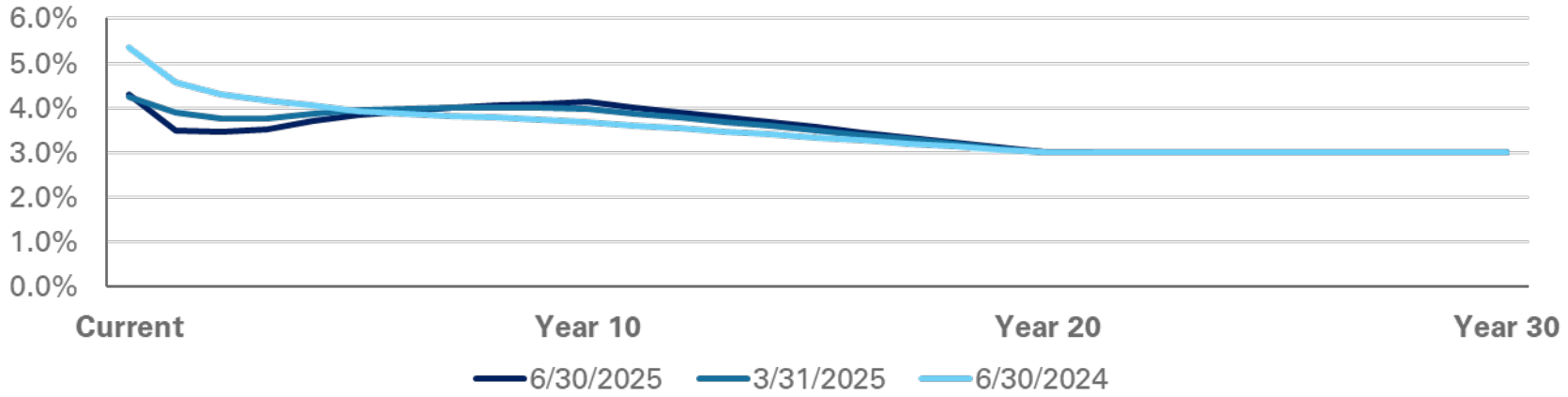



- **Non-U.S. forecasts are guided by IMF forecasts, local consumer and producer price indices, and global interest rate curves**

- **Near-term inflation levels for developed markets are projected to be higher relative to history**
  - Long-term inflation assumptions reflect NEPC's path and central bank targets

Sources: IMF, FactSet, NEPC

# U.S. CASH
## EXPECTATIONS




- **Cash is a foundational input for all asset class return expectations that reflects forward expectations of inflation and real interest rates**
  - Cash + risk premia is an input for long-term asset class return projections

- **The composite cash assumption is built from a blend of NEPC's cash forecast and market forward pricing of short-term interest rates**

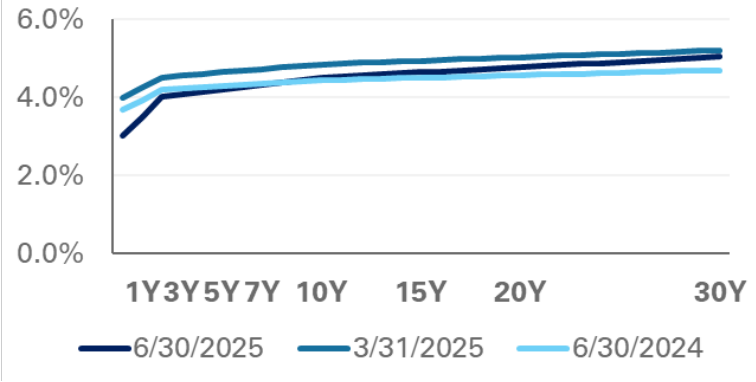
| Time Horizon | Current | 12-Month Change |
|---|---|---|
| 10-Year | 3.8% | -0.4% |
| 30-Year | 3.5% | — |

Sources: Bloomberg, FactSet, NEPC

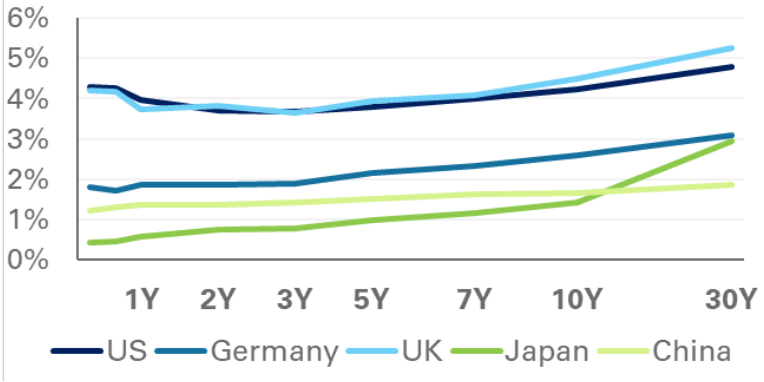
# GLOBAL INTEREST RATES
## EXPECTATIONS

- **NEPC's outlook on U.S. interest rates has remained consistent over the past few years, generally above market expectations**
- **As interest rate expectations shift lower, the return outlook for base interest rates gradually declines**
- **The outlook is less attractive for non-U.S. developed markets due to the nominal yield differential relative to the U.S.**
  - Differing regional growth and inflation conditions have led to diverging central bank actions

**NEPC 10-Year Forward U.S. Treasury Curve**




**Global Yield Curves**




Sources: FactSet, NEPC



# PUBLIC EQUITY

PROPRIETARY & CONFIDENTIAL

# PUBLIC EQUITY ASSUMPTIONS

## OVERVIEW

- **Recent equity performance has been strong across all regions, weighing on forward-looking return expectations**
  - U.S. equity return assumptions remain subdued relative to history given the extended valuation environment
- **Non-U.S. developed market equity return assumptions improved, reflecting a modest increase in earnings expectations for the region**
- **Emerging market forecasts declined meaningfully, reflecting the impact of significant valuation expansion among countries with a higher beta to U.S. markets**
- **We recommend the MSCI ACWI IMI be adopted as the strategic asset allocation target and investment policy benchmark for public equity**
  - NEPC's strategic recommendation for public equity reflects benchmark-neutral regional weights relative to 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 |
| **Shareholder Yield** | Income distributed to shareholders via dividend distributions and net share repurchases |

| Asset Class | 6/30/25 10-Yr Return | 12-Month Change |
|---|---|---|
| U.S. Large-Cap Equity | 5.3% | +1.3% |
| U.S. Small/Mid-Cap Equity | 5.7% | -0.5% |
| Non-U.S. Developed Equity | 5.3% | +0.8% |
| Non-U.S. Developed Small-Cap Equity | 6.0% | -0.7% |
| Emerging Market Equity | 6.6% | -1.2% |
| Emerging Market Small-Cap Equity | 6.6% | -0.5% |
| Hedge Fund - Equity | 5.7% | +0.2% |
| Global Equity* | 5.7% | +0.7% |
| Private Equity* | 8.6% | -0.1% |

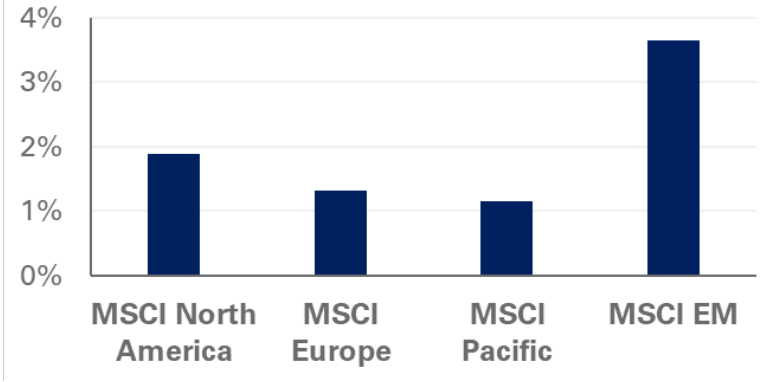
*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# PUBLIC EQUITY

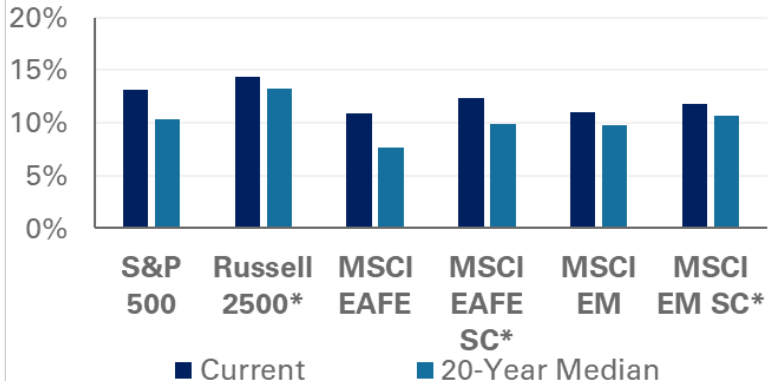
## REAL EARNINGS GROWTH

- **U.S. equities benefit from higher sales growth forecasts, reflecting the impact of a resilient U.S. consumer**
  - U.S. large cap companies also have global revenue exposure that benefits from global growth rates
- **Cyclically-high profit margin levels temper real earnings growth forecasts given expectations for normalization**
  - Profit margin assumptions reflect a lower path towards long-term targets that consider the shift in index composition through time

**Expected 5-Year Real Growth**




**Profit Margins Relative Median**

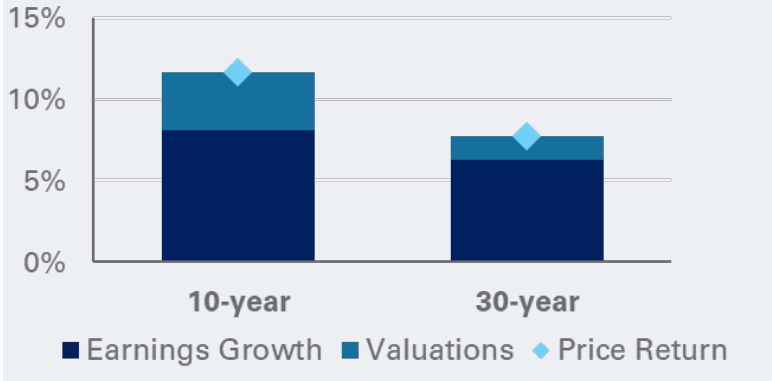



Note: *Small cap indices margins based on EBITDA margins
Sources: S&P, Russell, MSCI, FactSet, NEPC

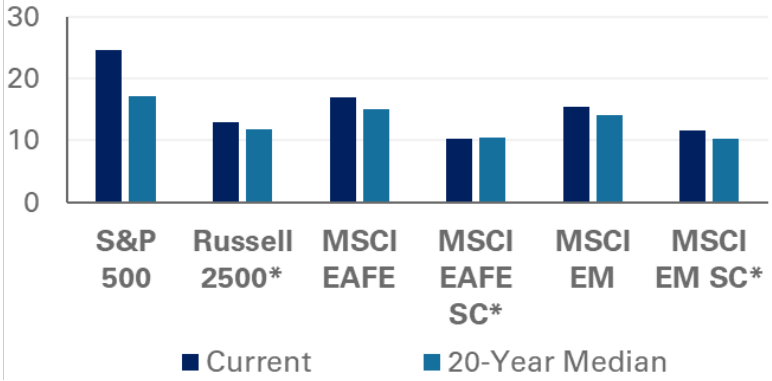
# PUBLIC EQUITY
## VALUATION

- **Valuations can heavily influence short- to medium-term returns, but earnings growth is the main driver of long-term equity returns**
- **Valuations across the equity spectrum are elevated relative to long-term target levels**
  - U.S. large-cap valuations represent the largest drag on returns across the equity complex
- **Non-U.S. developed market valuations have expanded after an extended period of perceived U.S. exceptionalism**

**Historical S&P 500 Price Return**



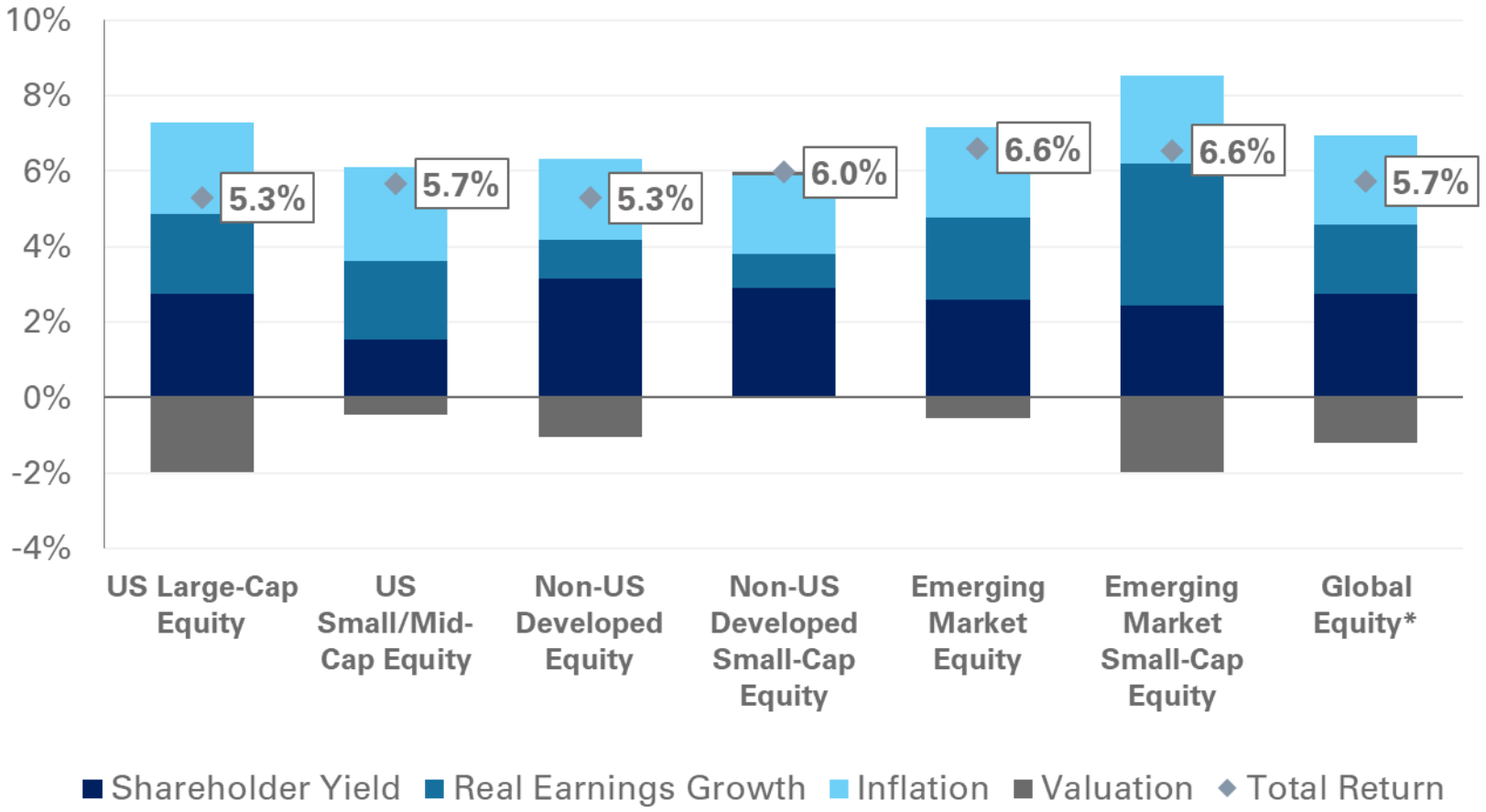

**Trailing P/E Relative Median**




Note: *Small cap indices valuations based on EV/EBITDA multiples
Sources: S&P, Shiller, Russell, MSCI, FactSet, NEPC; Shiller PE long-term average beginning in 1924

# PUBLIC EQUITY

## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time.

Source: NEPC



# FIXED INCOME

PROPRIETARY & CONFIDENTIAL

# FIXED INCOME ASSUMPTIONS

## OVERVIEW

- **Expected returns across fixed income assets declined as markets react to ongoing uncertainty surrounding the path for economic growth and inflation**
- **Market interest rate expectations reflect an accelerated path for Fed easing – diverging from more hawkish short-term rate expectations expressed in the Fed's dot plot**
- **NEPC's internal interest rate forecast has remained consistent relative to changes in Fed expectations and market pricing**
- **Safe-haven fixed income exposure is a critical liquidity source for the portfolio and offers downside protection in periods of market stress**
  - Sizing of the safe-haven exposure is a strategic exercise and reflects investor return objectives, risk-tolerance, and private market pacing plan needs
- **High-quality fixed income is an asset class group designed to support lower volatility portfolios and larger strategic targets to fixed income**

# 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 | 6/30/25 10-Yr Return | 12-Month Change |
|---|---|---|
| U.S. TIPS | 4.6% | -0.2% |
| U.S. Treasury Bond | 4.4% | -0.2% |
| U.S. Corporate Bond | 5.5% | -0.2% |
| U.S. MBS | 4.7% | -0.1% |
| U.S. High Yield Corporate | 6.1% | -0.2% |
| U.S. Leveraged Loan | 7.0% | -0.4% |
| EMD External Debt* | 6.6% | -1.1% |
| EMD Local Currency Debt | 6.2% | -0.7% |
| Non-U.S. Govt. Bond | 2.7% | - |
| U.S. Muni Bond (1-10 Year) | 3.7% | +0.3% |
| U.S. High Yield Muni Bond | 5.0% | +0.8% |
| Hedge Fund – Credit | 6.6% | -0.1% |
| U.S. Aggregate Bond* | 4.8% | -0.2% |
| Private Debt* | 8.3% | - |

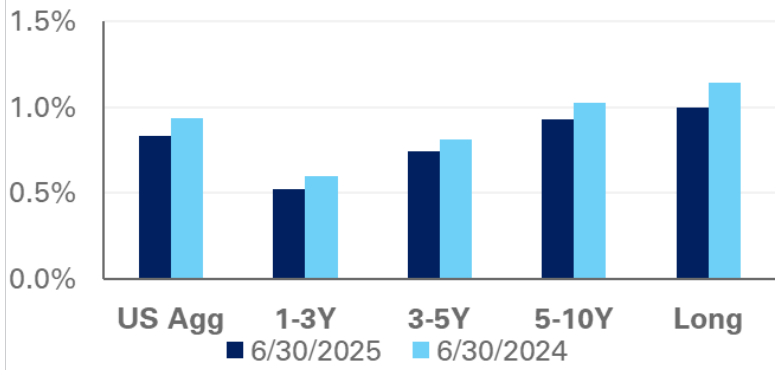
*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# FIXED INCOME

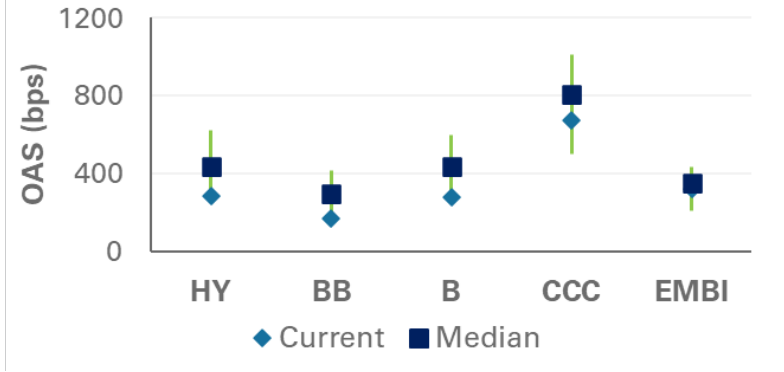
## CREDIT SPREADS

- **Credit spreads have tightened further below median levels**
  - Lower spread levels weigh on future return expectations given less overall carry return
- **Credit spread assumptions reflect a reversion towards long term medians**
- **Default and recovery rate assumptions are informed by long-term history**

**U.S. Corporate OAS by Maturity**




**Return-Seeking Option Adjusted Spread**



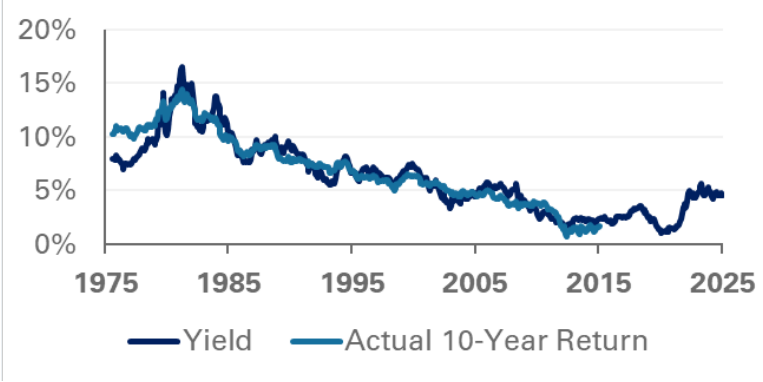

Sources: Bloomberg, JPM, FactSet, NEPC; Spread medians as of 12/31/2000 and range represents 5th to 75th percentile

# FIXED INCOME

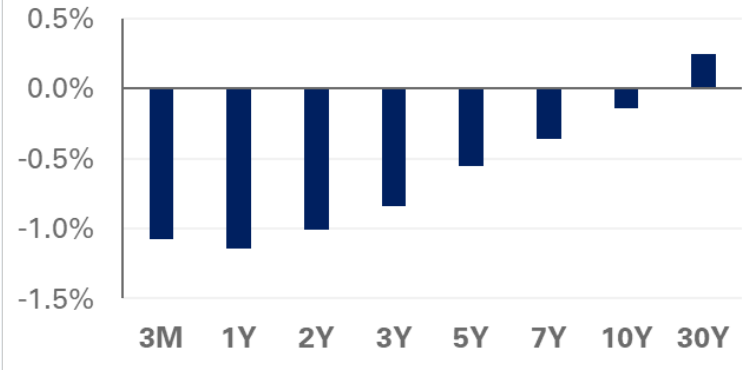
## GOVERNMENT RATES

- **Government rates price change reflects shifts in interest rates, the yield curve, and roll down**
  - Roll down refers to the price change due to the aging of a bond along the yield curve
- **The U.S. Treasury yield curve has steepened over the last quarter, with short-term rates declining and long-terms rates increasing**
- **A normal, upward-sloping yield curve provides optimal return potential for fixed income**

**Barclays U.S. Aggregate Bond**



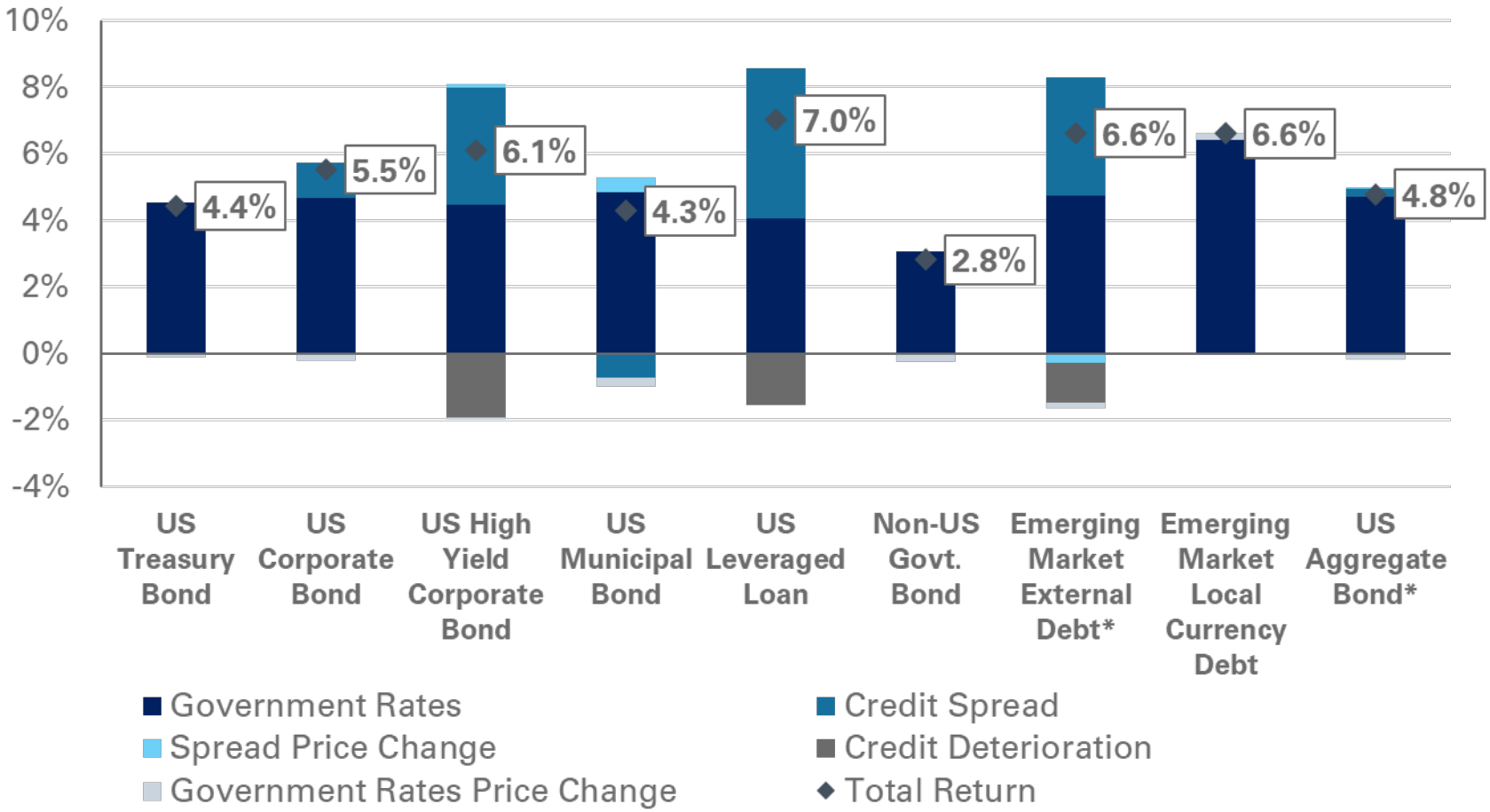

**Annual Change in Treasury Yields**




Sources: Bloomberg, FactSet, NEPC

# FIXED INCOME

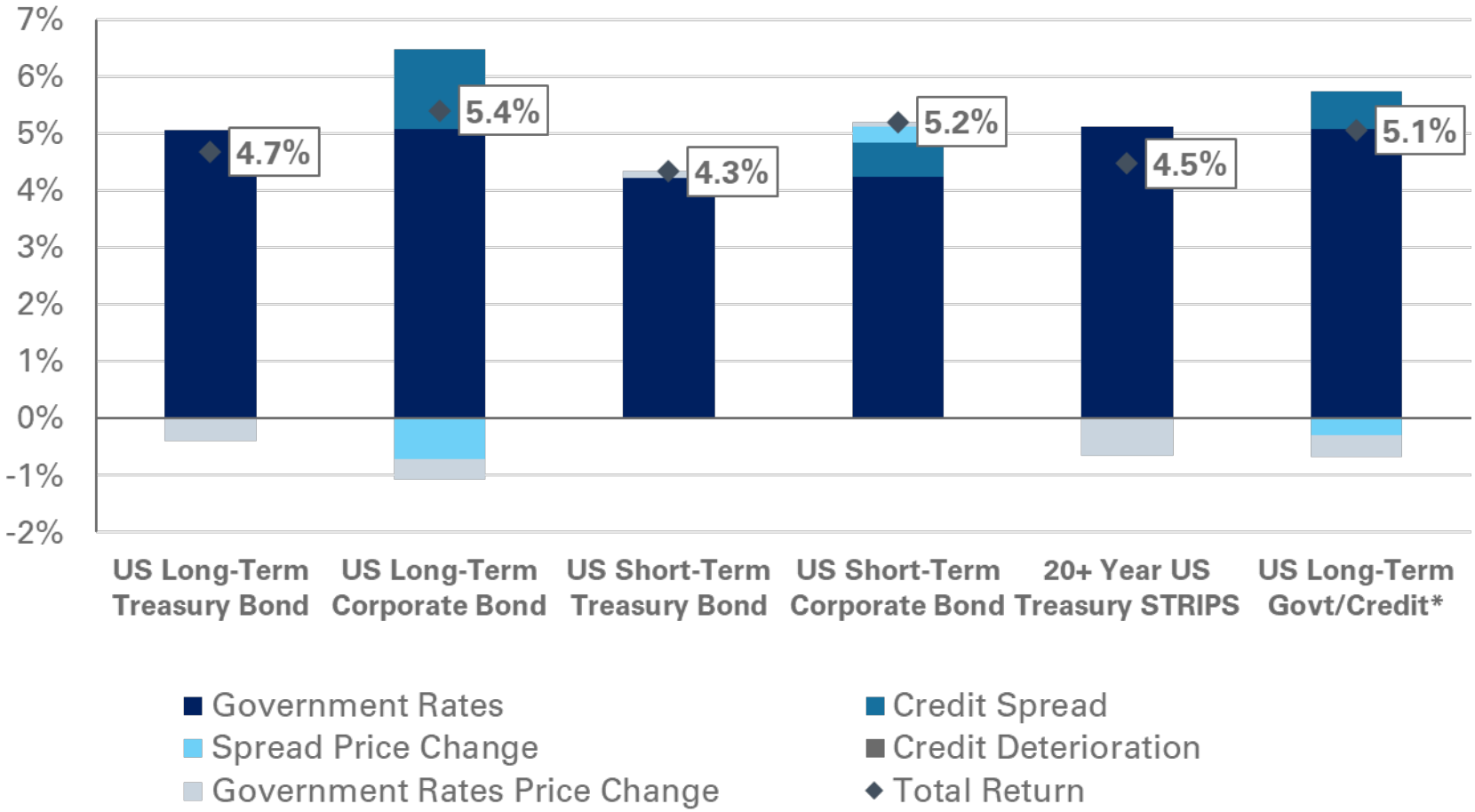
## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# FIXED INCOME

## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC



# REAL ASSET

PROPRIETARY & CONFIDENTIAL

# REAL ASSET ASSUMPTIONS

## OVERVIEW

- **Real assets are highly sensitive to global growth and inflation dynamics**
  - Lingering uncertainty surrounding the economic impact of policy changes in the U.S. suggests a more neutral near-term outlook
- **Return forecasts across the real asset complex have broadly declined as elevated valuations relative to long-term targets weigh on returns**
- **The commodity futures assumption reflects the impact of global supply-demand dynamics on spot prices and the shape of futures curves**
- **We encourage investors to evaluate strategic real asset exposure relative to their long-term investment objectives and spending needs**
  - We believe building portfolio inflation sensitivity is a strategic exercise and public real assets serve as a complement to private market investments
- **NEPC recommends a strategic real assets target comprising an equal-weight blend to commodity futures, natural resource equity, public infrastructure equity, REITs, and gold**

# 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 | 6/30/25 10-Yr Return | 12-Month Change |
|---|---|---|
| Commodity Futures | 4.8% | +0.4% |
| Midstream Energy | 5.4% | +0.4% |
| REIT | 5.5% | -0.8% |
| Global Infrastructure Equity | 4.7% | -1.5% |
| Global Nat Resource Equity | 6.0% | -0.4% |
| Gold | 4.0% | -1.0% |
| Real Estate - Core | 5.4% | -0.6% |
| Real Estate – Non-Core | 7.1% | -0.7% |
| Private Debt - Real Estate | 6.4% | -0.2% |
| Private Real Assets - Natural Resources | 8.0% | -0.1% |
| Private Real Assets - Infrastructure | 5.7% | -0.9% |

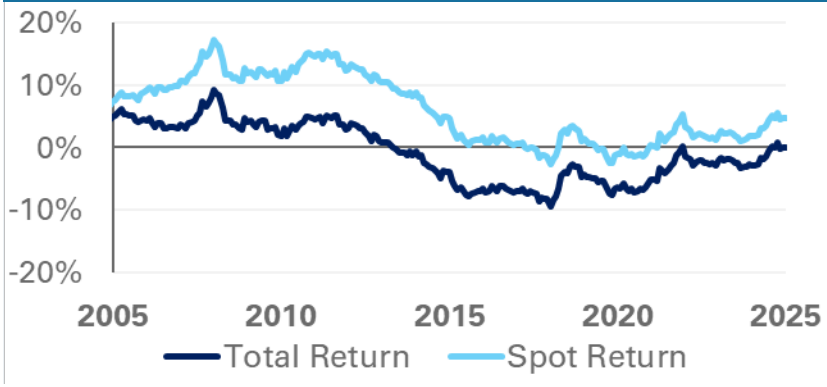
*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# REAL ASSET

## REAL INCOME

- **Equity: Real income is inflation-adjusted dividend yield**
  - Includes public infrastructure, REITS, midstream energy, and natural resource equity
- **Real Estate: Real income is net operating income (NOI)**
  - NOI growth tracks the business cycle and economic regimes
- **Commodity Futures: Real income reflects collateral return and the futures roll yield**
  - Collateral is based on a cash proxy over the time horizon and has increased in-line with cash rates

**Commodities Rolling 10-Year Returns**




**Real Asset Yields**

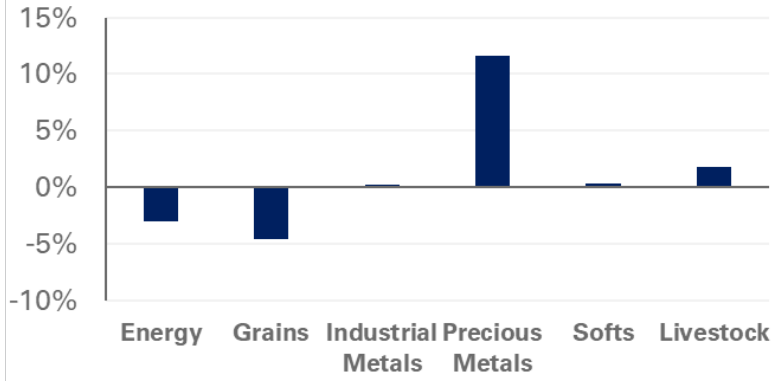
| | 6/30/25 | 6/30/24 |
|---|---|---|
| Midstream Energy | 4.5% | 5.1% |
| Real Estate - Core | 3.2% | 2.9% |
| U.S. REITs | 4.3% | 4.5% |
| Global Infrastructure Equities | 3.6% | 3.7% |
| Natural Resource Equities | 3.3% | 3.7% |
| U.S. 10-Year Breakeven Inflation | 2.3% | 2.5% |
| Commodity Index Roll Yield* | 0.6% | -0.8% |

Note: *Commodity Index Roll Yield represents a proprietary calculation methodology
Sources: Bloomberg, NCREIF, Alerian, NAREIT, S&P, FactSet, NEPC

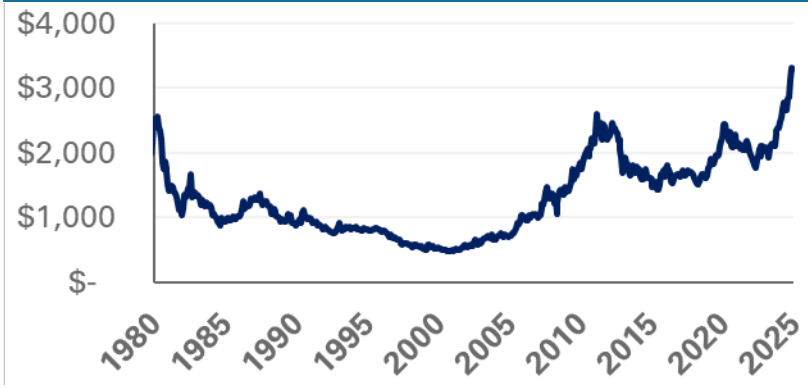
# REAL ASSET
## VALUATION

- **Commodity valuation inputs reflect the long-term average of spot prices**
  - Precious metals are trading at a large premium to long-term real averages given significant momentum in gold prices
- **Valuation assumptions for other real assets are based on asset-specific valuation inputs**
  - Capitalization rates are used for core real estate, price-to-earnings for global infrastructure and global natural resources equity
  - Gold's valuation incorporates the asset's historical risk premia and the impact of the macro regime

**Discount/Premium to 10-Year Real Average**



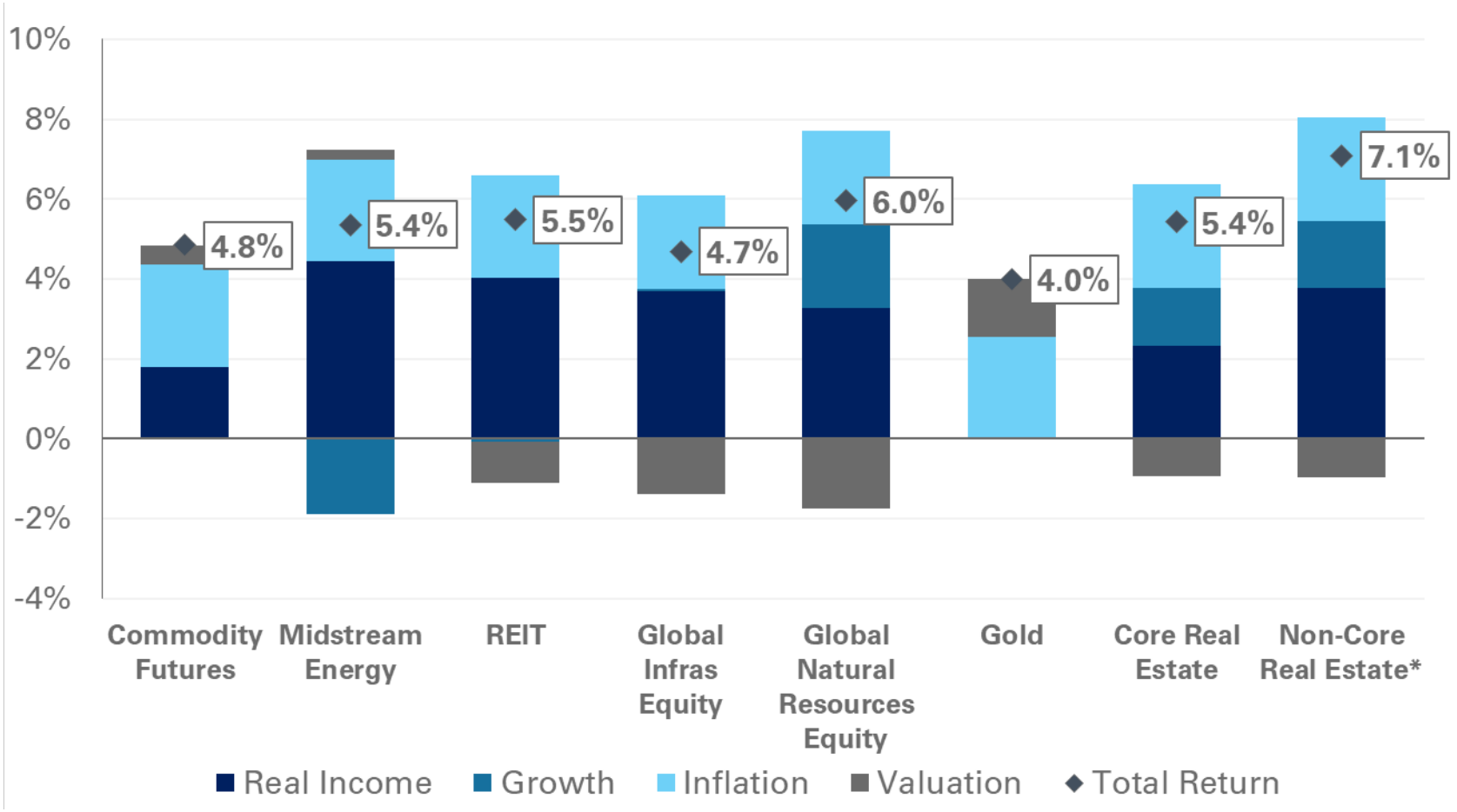

**Real Price of Gold**




Note: Real price of gold reflects inflation-adjusted price of gold, i.e. price of gold in today's dollars
Sources: FactSet, NEPC

# REAL ASSET

## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

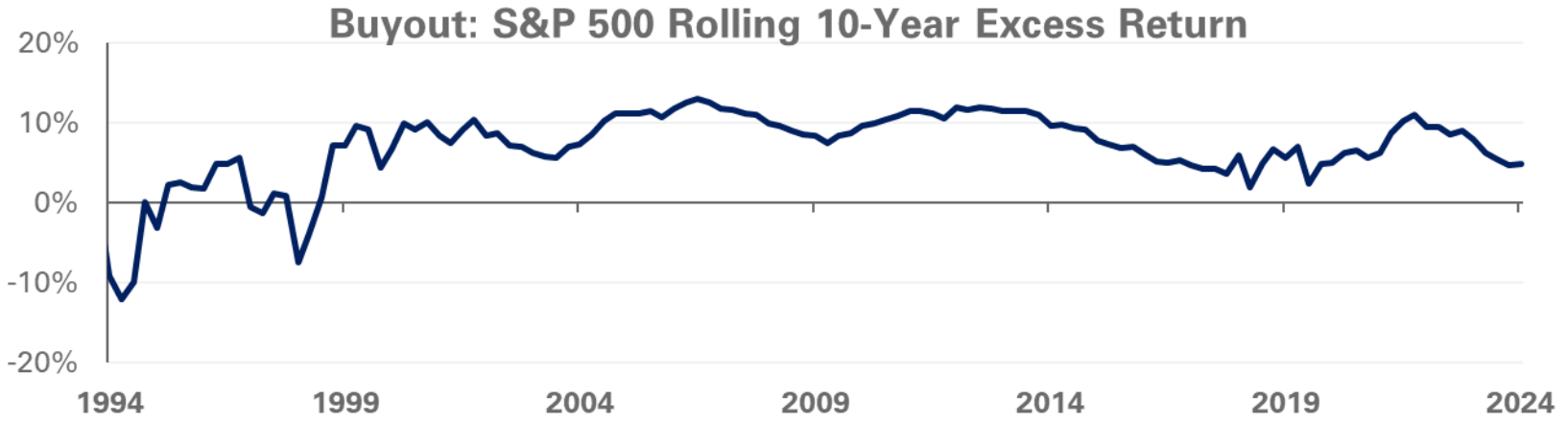


# ALTERNATIVE ASSETS

PROPRIETARY & CONFIDENTIAL

# ALTERNATIVE ASSETS

## METHODOLOGY

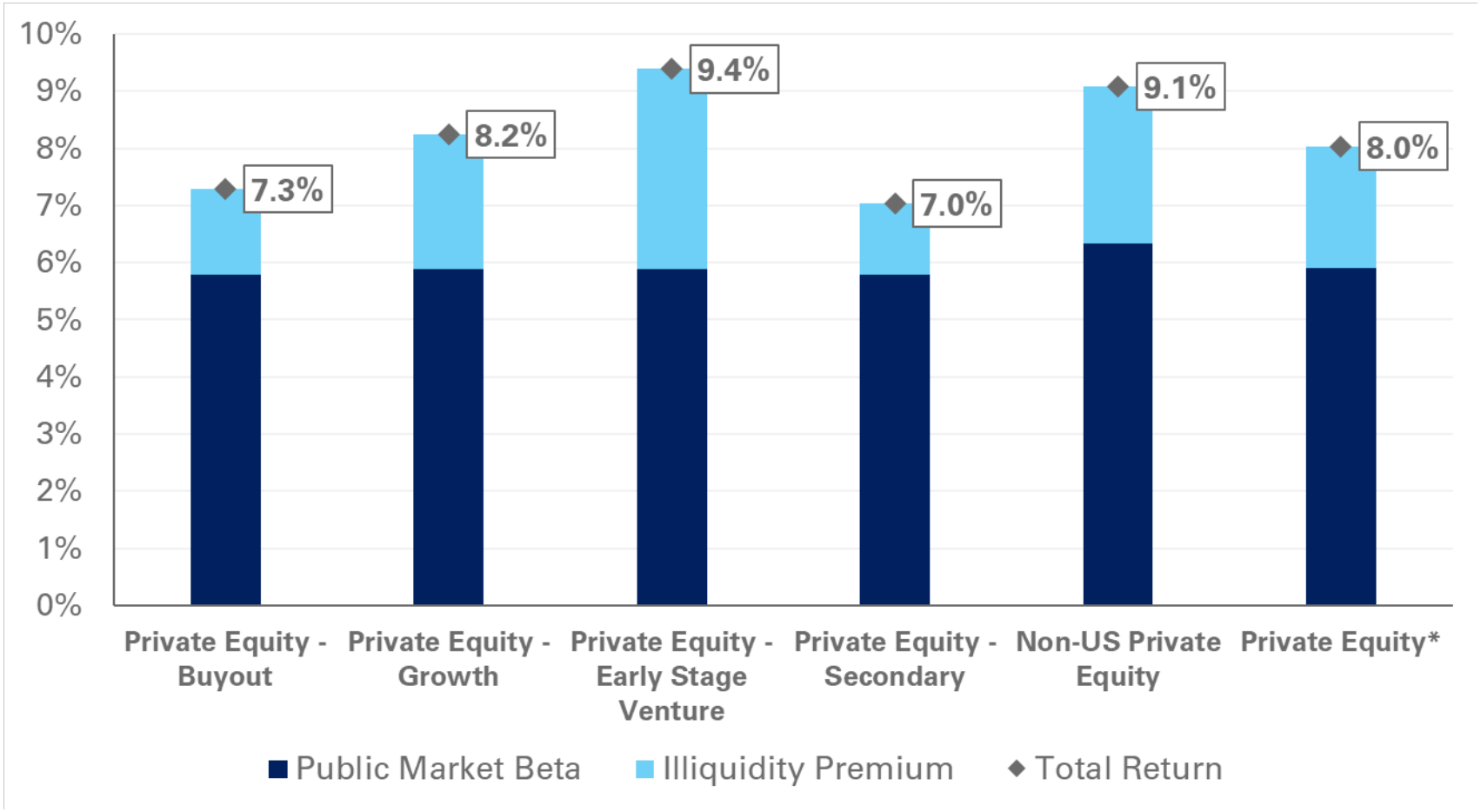



- **Private market assumptions are constructed from public market betas with an added illiquidity premia**
  - Historically, the observed illiquidity premium has been a significant component driving private market returns
- **Hedge fund assumptions are constructed from betas to public markets with an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

Sources: Cambridge Associates, NEPC

# PRIVATE EQUITY

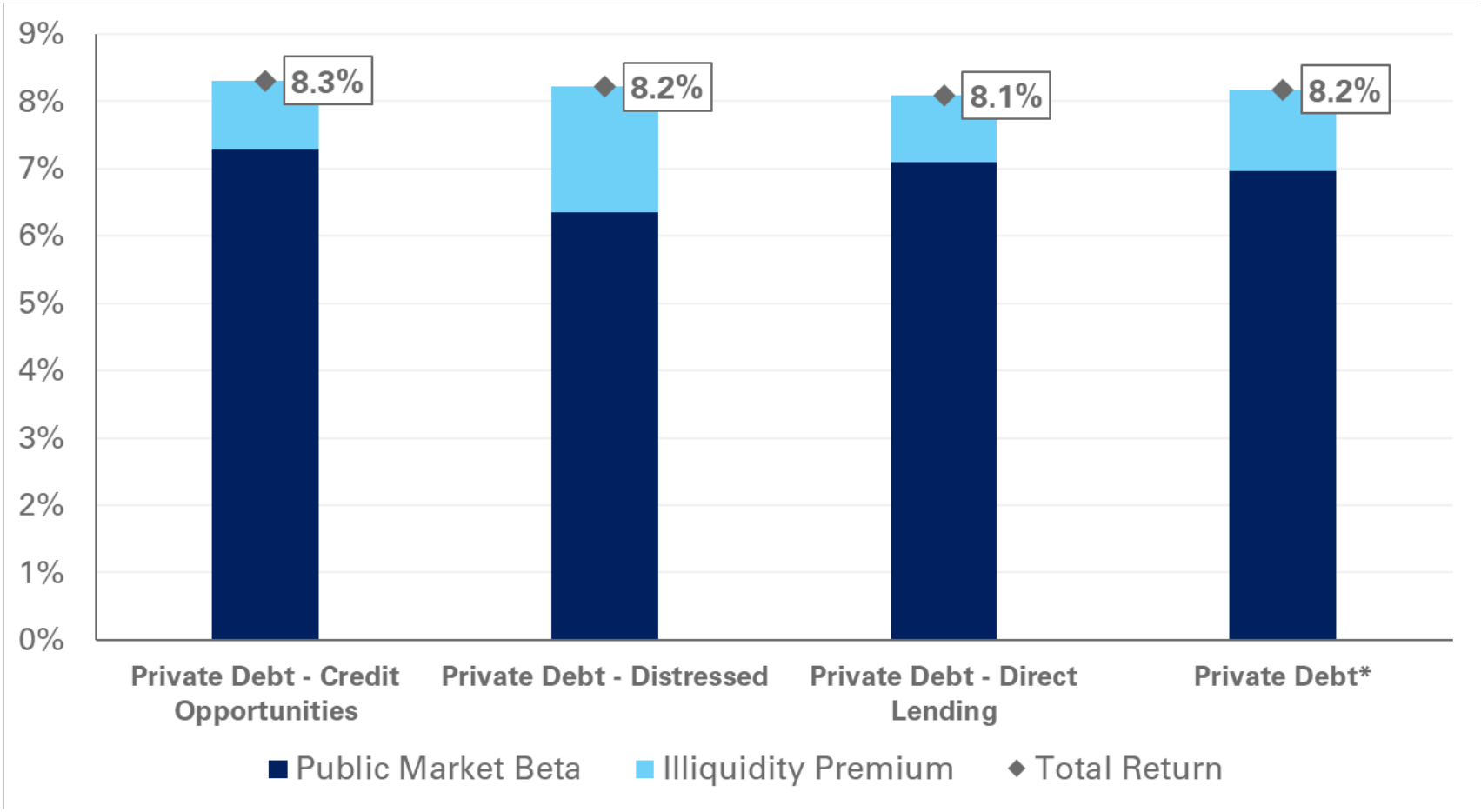
## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*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. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# PRIVATE DEBT

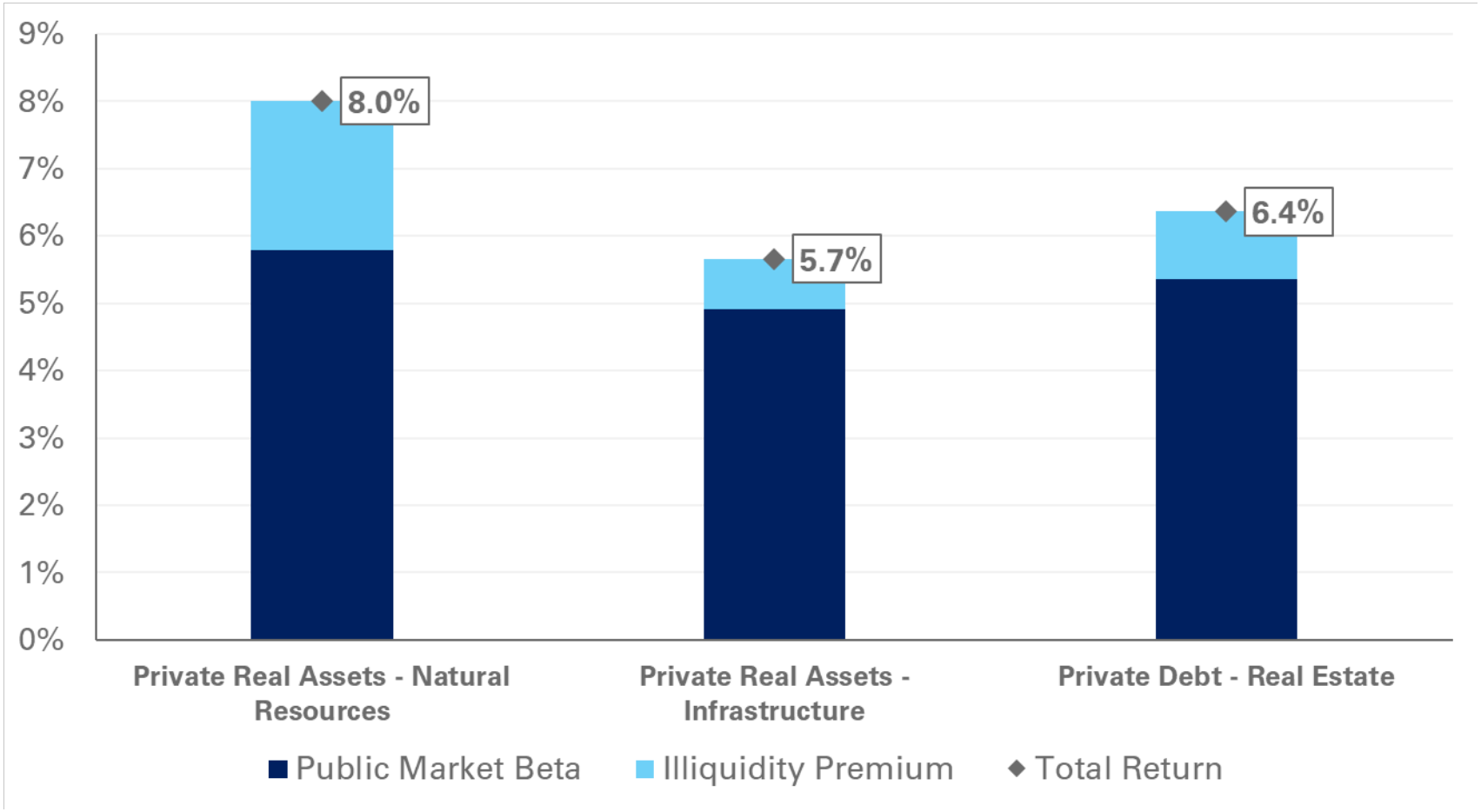
## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Private Debt is a derived composite of 25% Credit Opportunities, 25% Distressed, 50% Direct Lending. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# PRIVATE REAL ASSET

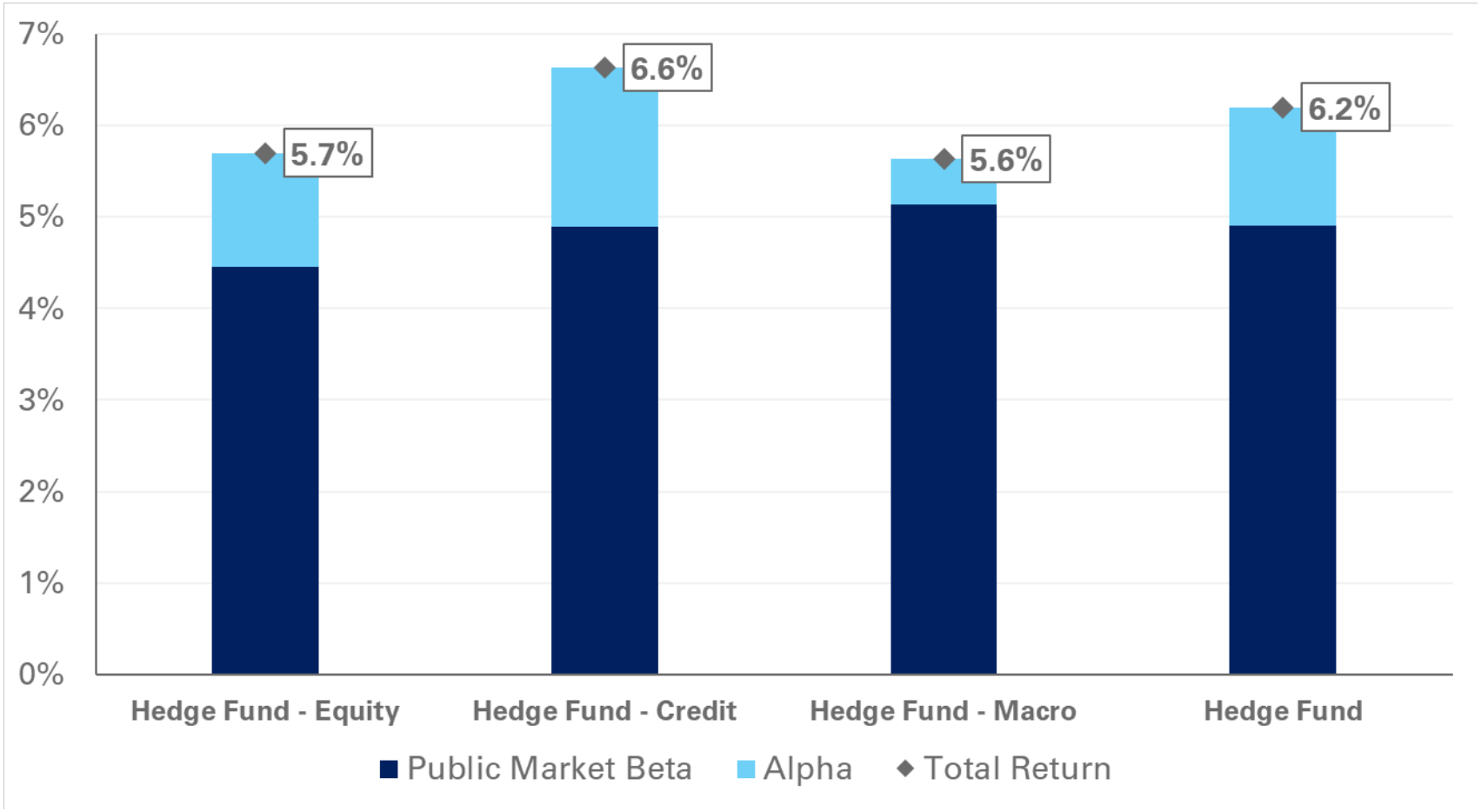
## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# HEDGE FUND

## BUILDING BLOCKS: 10-YEAR EXPECTED RETURN




*Hedge Funds is a derived composite of 40% Long/Short, 40% Credit, 20% Macro. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC



# APPENDIX

PROPRIETARY & CONFIDENTIAL

# PRIVATE MARKETS COMPOSITES

## PUBLIC MARKET BETA INPUTS FOR PRIVATE MARKETS

### PRIVATE EQUITY

**Buyout:** 25% U.S. Large Cap, 75% U.S. Small/Mid Cap
**Secondary:** 25% U.S. Large Cap, 75% U.S. Small/Mid Cap
**Growth:** 100% U.S. Small/Mid Cap
**Early-Stage Venture:** 100% U.S. Small/Mid Cap
**Non-U.S.:** 70% International Small Cap, 30% Emerging Small Cap
**Composite:** 34% Buyout, 34% Growth, 15 % Non-U.S., 8.5% Secondary, 8.5% Early Venture

### PRIVATE DEBT

**Direct Lending:** 100% Bank Loans
**Distressed:** 20% U.S. Small/Mid Cap, 60% U.S. High Yield, 20% Bank Loans
**Credit Opportunities:** 34% High Yield Securitized, 33% U.S. High Yield, 33% Bank Loans
**Composite:** 50% Direct Lending, 25% Credit Opportunities, 25% Distressed

### PRIVATE REAL ASSETS

**Energy:** 30% Comm., 35% Midstream, 35% Public Resource Equity
**Infra/Land:** 30% Commodities, 70% Public Infrastructure
**Private Real Estate Debt:** 50% CMBS, 50% Real Estate - Core

# 10-YEAR RETURN FORECASTS

## EQUITY

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| U.S. Large-Cap Equity | 5.3% | 4.0% | +1.3% |
| U.S. Small/Mid-Cap Equity | 5.7% | 6.2% | -0.5% |
| Non-U.S. Developed Equity | 5.3% | 4.5% | +0.8% |
| Non-U.S. Developed Equity (USD Hedge) | 5.5% | 4.7% | +0.8% |
| Non-U.S. Developed Small-Cap Equity | 6.0% | 6.7% | -0.7% |
| Emerging Market Equity | 6.6% | 7.8% | -1.2% |
| Emerging Market Small-Cap Equity | 6.6% | 7.1% | -0.5% |
| Hedge Fund - Equity | 5.7% | 5.5% | +0.2% |
| Private Equity - Buyout | 7.3% | 7.2% | +0.1% |
| Private Equity - Growth | 8.2% | 8.5% | -0.3% |
| Private Equity - Early Stage Venture | 9.4% | 9.7% | -0.3% |
| Private Equity - Secondary | 7.0% | 6.7% | +0.3% |
| Non-U.S. Private Equity | 9.1% | 9.7% | -0.6% |
| China Equity | 7.0% | 9.8% | -2.8% |
| Global Equity* | 5.7% | 5.0% | +0.7% |
| Private Equity* | 8.6% | 8.7% | -0.1% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 10-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Cash | 3.8% | 4.2% | -0.4% |
| US TIPS | 4.6% | 4.8% | -0.2% |
| US Treasury Bond | 4.4% | 4.6% | -0.2% |
| US Corporate Bond | 5.5% | 5.7% | -0.2% |
| US Corporate Bond - AAA | 4.9% | 4.9% | - |
| US Corporate Bond - AA | 5.0% | 5.1% | -0.1% |
| US Corporate Bond - A | 5.3% | 5.5% | -0.2% |
| US Corporate Bond - BBB | 5.8% | 6.0% | -0.2% |
| US Mortgage-Backed Securities | 4.7% | 4.8% | -0.1% |
| US Securitized Bond | 5.2% | 5.4% | -0.2% |
| US Collateralized Loan Obligation | 5.4% | 5.7% | -0.3% |
| US Municipal Bond | 4.3% | 3.8% | +0.5% |
| US Municipal Bond (1-10 Year) | 3.7% | 3.4% | +0.3% |
| US Taxable Municipal Bond | 5.6% | 5.5% | +0.1% |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 10-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Non-US Government Bond | 2.7% | 2.7% | - |
| Non-US Government Bond (USD Hedge) | 2.9% | 3.0% | -0.1% |
| Non-US Inflation-Linked Bond (USD Hedge) | 3.9% | 3.7% | +0.2% |
| US Short-Term TIPS (1-3 Year) | 4.4% | 4.8% | -0.4% |
| US Short-Term Treasury Bond (1-3 Year) | 4.3% | 4.7% | -0.4% |
| US Short-Term Corporate Bond (1-3 Year) | 5.2% | 5.6% | -0.4% |
| US Intermediate-Term TIPS (3-10 Year) | 4.5% | 4.8% | -0.3% |
| US Intermediate-Term Treasury Bond (3-10 Year) | 4.3% | 4.6% | -0.3% |
| US Intermediate-Term Corporate Bond (3-10 Year) | 5.7% | 6.0% | -0.3% |
| US Long-Term TIPS (10-30 Year) | 5.2% | 4.9% | +0.3% |
| US Long-Term Treasury Bond (10-30 Year) | 4.7% | 4.3% | +0.4% |
| US Long-Term Corporate Bond (10-30 Year) | 5.4% | 5.4% | - |
| 20+ Year US Treasury STRIPS | 4.5% | 4.2% | +0.3% |
| 10 Year US Treasury Bond | 4.5% | 4.7% | -0.2% |
| 10 Year Non-US Government Bond (USD Hedge) | 2.7% | 2.6% | +0.1% |
| US Aggregate Bond* | 4.8% | 5.0% | -0.2% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 10-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| US High Yield Corporate Bond | 6.1% | 6.3% | -0.2% |
| US Corporate Bond - BB | 6.6% | 6.9% | -0.3% |
| US Corporate Bond - B | 6.3% | 6.4% | -0.1% |
| US Corporate Bond - CCC/Below | 0.0% | 0.8% | -0.8% |
| US Short-Term High Yield Corporate Bond (1-3 Year) | 5.6% | 5.8% | -0.2% |
| US Leveraged Loan | 7.0% | 7.4% | -0.4% |
| Emerging Market Investment Grade External Debt | 5.5% | 5.4% | +0.1% |
| Emerging Market High Yield External Debt | 7.4% | 9.7% | -2.3% |
| Emerging Market Local Currency Debt | 6.2% | 6.9% | -0.7% |
| US High Yield Securitized Bond | 8.8% | 9.3% | -0.5% |
| US High Yield Collateralized Loan Obligation | 7.6% | 8.0% | -0.4% |
| US High Yield Municipal Bond | 5.0% | 4.2% | +0.8% |
| Hedge Fund - Credit | 6.6% | 6.7% | -0.1% |
| Private Debt - Credit Opportunities | 8.3% | 7.7% | +0.6% |
| Private Debt - Distressed | 8.2% | 8.5% | -0.3% |
| Private Debt - Direct Lending | 8.1% | 8.3% | -0.2% |
| Private Debt* | 8.3% | 8.3% | - |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 10-YEAR RETURN FORECASTS

## REAL ASSETS

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Commodity Futures | 4.8% | 4.4% | +0.4% |
| Midstream Energy | 5.4% | 5.0% | +0.4% |
| REIT | 5.5% | 6.3% | -0.8% |
| Global Infrastructure Equity | 4.7% | 6.2% | -1.5% |
| Global Natural Resources Equity | 6.0% | 6.4% | -0.4% |
| Gold | 4.0% | 5.0% | -1.0% |
| Real Estate - Core | 5.4% | 6.0% | -0.6% |
| Real Estate – Value-Add | 6.5% | 7.2% | -0.7% |
| Real Estate - Opportunistic | 7.6% | 8.3% | -0.7% |
| Private Debt - Real Estate | 6.4% | 6.6% | -0.2% |
| Private Real Assets - Natural Resources | 8.0% | 8.1% | -0.1% |
| Private Real Assets - Infrastructure | 5.7% | 6.6% | -0.9% |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 30-YEAR RETURN FORECASTS

## EQUITY

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| U.S. Large-Cap Equity | 7.0% | 6.3% | +0.7% |
| U.S. Small/Mid-Cap Equity | 7.2% | 7.5% | -0.3% |
| Non-U.S. Developed Equity | 6.8% | 6.1% | +0.7% |
| Non-U.S. Developed Equity (USD Hedge) | 7.1% | 6.4% | +0.7% |
| Non-U.S. Developed Small-Cap Equity | 7.6% | 7.9% | -0.3% |
| Emerging Market Equity | 8.6% | 9.0% | -0.4% |
| Emerging Market Small-Cap Equity | 8.3% | 8.5% | -0.2% |
| Hedge Fund - Equity | 6.2% | 6.0% | +0.2% |
| Private Equity - Buyout | 8.7% | 8.7% | - |
| Private Equity - Growth | 9.5% | 9.7% | -0.2% |
| Private Equity - Early Stage Venture | 10.4% | 10.5% | -0.1% |
| Private Equity - Secondary | 8.2% | 8.2% | - |
| Non-U.S. Private Equity | 10.4% | 10.6% | -0.2% |
| China Equity | 8.5% | 9.5% | -1.0% |
| Global Equity* | 7.4% | 7.0% | +0.4% |
| Private Equity* | 9.9% | 10.0% | -0.1% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 30-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Cash | 3.5% | 3.5% | - |
| US TIPS | 5.0% | 4.8% | +0.2% |
| US Treasury Bond | 4.8% | 4.6% | +0.2% |
| US Corporate Bond | 6.3% | 6.1% | +0.2% |
| US Corporate Bond - AAA | 5.7% | 5.4% | +0.3% |
| US Corporate Bond - AA | 5.6% | 5.4% | +0.2% |
| US Corporate Bond - A | 6.0% | 5.8% | +0.2% |
| US Corporate Bond - BBB | 6.6% | 6.4% | +0.2% |
| US Mortgage-Backed Securities | 5.0% | 4.8% | +0.2% |
| US Securitized Bond | 5.6% | 5.5% | +0.1% |
| US Collateralized Loan Obligation | 5.0% | 5.1% | -0.1% |
| US Municipal Bond | 4.3% | 4.0% | +0.3% |
| US Municipal Bond (1-10 Year) | 4.0% | 3.7% | +0.3% |
| US Taxable Municipal Bond | 6.4% | 6.2% | +0.2% |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 30-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Non-US Government Bond | 3.3% | 3.2% | +0.1% |
| Non-US Government Bond (USD Hedge) | 3.6% | 3.4% | +0.2% |
| Non-US Inflation-Linked Bond (USD Hedge) | 4.0% | 3.7% | +0.3% |
| US Short-Term TIPS (1-3 Year) | 4.5% | 4.5% | - |
| US Short-Term Treasury Bond (1-3 Year) | 4.4% | 4.4% | - |
| US Short-Term Corporate Bond (1-3 Year) | 5.4% | 5.4% | - |
| US Intermediate-Term TIPS (3-10 Year) | 4.9% | 4.8% | +0.1% |
| US Intermediate-Term Treasury Bond (3-10 Year) | 4.7% | 4.6% | +0.1% |
| US Intermediate-Term Corporate Bond (3-10 Year) | 6.4% | 6.3% | +0.1% |
| US Long-Term TIPS (10-30 Year) | 5.5% | 5.1% | +0.4% |
| US Long-Term Treasury Bond (10-30 Year) | 5.2% | 4.7% | +0.5% |
| US Long-Term Corporate Bond (10-30 Year) | 6.7% | 6.3% | +0.4% |
| 20+ Year US Treasury STRIPS | 5.4% | 4.7% | +0.7% |
| 10 Year US Treasury Bond | 5.4% | 5.1% | +0.3% |
| 10 Year Non-US Government Bond (USD Hedge) | 3.6% | 3.3% | +0.3% |
| US Aggregate Bond* | 5.3% | 5.1% | +0.2% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 30-YEAR RETURN FORECASTS

## FIXED INCOME

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| US High Yield Corporate Bond | 7.5% | 7.3% | +0.2% |
| US Corporate Bond - BB | 7.7% | 7.6% | +0.1% |
| US Corporate Bond - B | 7.3% | 7.1% | +0.2% |
| US Corporate Bond - CCC/Below | 1.4% | 1.5% | -0.1% |
| US Short-Term High Yield Corporate Bond (1-3 Year) | 5.9% | 5.9% | - |
| US Leveraged Loan | 6.6% | 6.7% | -0.1% |
| Emerging Market Investment Grade External Debt | 6.4% | 5.4% | +1.0% |
| Emerging Market High Yield External Debt | 8.2% | 9.7% | -1.5% |
| Emerging Market Local Currency Debt | 5.5% | 5.9% | -0.4% |
| US High Yield Securitized Bond | 8.8% | 8.6% | +0.2% |
| US High Yield Collateralized Loan Obligation | 7.4% | 7.4% | - |
| US High Yield Municipal Bond | 5.4% | 4.9% | +0.5% |
| Hedge Fund - Credit | 7.2% | 7.1% | +0.1% |
| Private Debt - Credit Opportunities | 8.9% | 8.4% | +0.5% |
| Private Debt - Distressed | 9.4% | 9.4% | - |
| Private Debt - Direct Lending | 8.9% | 8.9% | - |
| Private Debt* | 9.1% | 9.0% | +0.1% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 30-YEAR RETURN FORECASTS

## REAL ASSETS

| Geometric Expected Return | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Commodity Futures | 4.3% | 3.8% | +0.5% |
| Midstream Energy | 6.1% | 6.4% | -0.3% |
| REIT | 7.1% | 7.4% | -0.3% |
| Global Infrastructure Equity | 6.3% | 6.8% | -0.5% |
| Global Natural Resources Equity | 7.1% | 7.2% | -0.1% |
| Gold | 4.8% | 4.9% | -0.1% |
| Real Estate - Core | 6.2% | 6.5% | -0.3% |
| Real Estate – Value-Add | 7.5% | 7.8% | -0.3% |
| Real Estate - Opportunistic | 8.4% | 8.7% | -0.3% |
| Private Debt - Real Estate | 6.8% | 6.8% | - |
| Private Real Assets - Natural Resources | 8.9% | 8.9% | - |
| Private Real Assets - Infrastructure | 6.8% | 7.0% | -0.2% |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# VOLATILITY FORECASTS

## EQUITY

| Volatility | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| U.S. Large-Cap Equity | 17.4% | 17.2% | +0.2% |
| U.S. Small/Mid-Cap Equity | 21.4% | 21.0% | +0.4% |
| Non-U.S. Developed Equity | 19.6% | 19.7% | -0.1% |
| Non-U.S. Developed Equity (USD Hedge) | 17.4% | 17.7% | -0.3% |
| Non-U.S. Developed Small-Cap Equity | 23.3% | 24.2% | -0.9% |
| Emerging Market Equity | 27.4% | 28.1% | -0.7% |
| Emerging Market Small-Cap Equity | 30.6% | 31.4% | -0.8% |
| Hedge Fund - Equity | 10.9% | 11.0% | -0.1% |
| Private Equity - Buyout | 20.7% | 20.0% | +0.7% |
| Private Equity - Growth | 30.8% | 31.5% | -0.7% |
| Private Equity - Early Stage Venture | 48.0% | 46.5% | +1.5% |
| Private Equity - Secondary | 20.4% | 20.4% | - |
| Non-U.S. Private Equity | 29.0% | 32.0% | -3.0% |
| China Equity | 30.4% | 30.6% | -0.2% |
| Global Equity* | 18.2% | 18.2% | - |
| Private Equity* | 25.8% | 25.9% | -0.1% |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# VOLATILITY FORECASTS

## FIXED INCOME

| Volatility | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Cash | 0.6% | 0.6% | - |
| US TIPS | 6.0% | 6.0% | - |
| US Treasury Bond | 5.5% | 5.4% | +0.1% |
| US Corporate Bond | 7.9% | 7.7% | +0.2% |
| US Corporate Bond - AAA | 7.0% | 6.8% | +0.2% |
| US Corporate Bond - AA | 6.7% | 6.6% | +0.1% |
| US Corporate Bond - A | 7.7% | 7.6% | +0.1% |
| US Corporate Bond - BBB | 8.6% | 8.4% | +0.2% |
| US Mortgage-Backed Securities | 6.5% | 6.5% | - |
| US Securitized Bond | 7.9% | 8.0% | -0.1% |
| US Collateralized Loan Obligation | 6.5% | 7.7% | -1.2% |
| US Municipal Bond | 6.0% | 6.0% | - |
| US Municipal Bond (1-10 Year) | 4.5% | 4.5% | - |
| US Taxable Municipal Bond | 7.5% | 7.5% | - |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# VOLATILITY FORECASTS

## FIXED INCOME

| Volatility | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Non-US Government Bond | 9.8% | 9.5% | +0.3% |
| Non-US Government Bond (USD Hedge) | 4.1% | 4.1% | - |
| Non-US Inflation-Linked Bond (USD Hedge) | 6.7% | 6.7% | - |
| US Short-Term TIPS (1-3 Year) | 3.3% | 3.3% | - |
| US Short-Term Treasury Bond (1-3 Year) | 2.3% | 2.3% | - |
| US Short-Term Corporate Bond (1-3 Year) | 2.8% | 2.8% | - |
| US Intermediate-Term TIPS (3-10 Year) | 5.8% | 6.0% | -0.2% |
| US Intermediate-Term Treasury Bond (3-10 Year) | 5.4% | 5.9% | -0.5% |
| US Intermediate-Term Corporate Bond (3-10 Year) | 7.4% | 7.1% | +0.3% |
| US Long-Term TIPS (10-30 Year) | 12.6% | 12.4% | +0.2% |
| US Long-Term Treasury Bond (10-30 Year) | 12.3% | 11.8% | +0.5% |
| US Long-Term Corporate Bond (10-30 Year) | 12.4% | 11.9% | +0.5% |
| 20+ Year US Treasury STRIPS | 21.0% | 20.7% | +0.3% |
| 10 Year US Treasury Bond | 7.6% | 7.5% | +0.1% |
| 10 Year Non-US Government Bond (USD Hedge) | 4.9% | 5.0% | -0.1% |
| US Aggregate Bond* | 5.8% | 5.8% | - |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# VOLATILITY FORECASTS

## FIXED INCOME

| Volatility | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| US High Yield Corporate Bond | 11.3% | 11.2% | +0.1% |
| US Corporate Bond - BB | 9.7% | 9.7% | - |
| US Corporate Bond - B | 11.7% | 11.6% | +0.1% |
| US Corporate Bond - CCC/Below | 20.4% | 20.3% | +0.1% |
| US Short-Term High Yield Corporate Bond (1-3 Year) | 8.2% | 8.2% | - |
| US Leveraged Loan | 6.1% | 9.1% | -3.0% |
| Emerging Market Investment Grade External Debt | 8.7% | 8.7% | - |
| Emerging Market High Yield External Debt | 17.5% | 17.5% | - |
| Emerging Market Local Currency Debt | 12.6% | 12.7% | -0.1% |
| US High Yield Securitized Bond | 13.0% | 11.2% | +1.8% |
| US High Yield Collateralized Loan Obligation | 15.9% | 10.4% | +5.5% |
| US High Yield Municipal Bond | 12.0% | 12.0% | - |
| Hedge Fund - Credit | 9.7% | 9.9% | -0.2% |
| Private Debt - Credit Opportunities | 14.3% | 14.5% | -0.2% |
| Private Debt - Distressed | 13.9% | 14.4% | -0.5% |
| Private Debt - Direct Lending | 11.0% | 11.0% | - |
| Private Debt* | 11.8% | 11.8% | - |

*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# VOLATILITY FORECASTS

## REAL ASSETS

| Volatility | | | |
|---|---|---|---|
| **Asset Class** | **06/30/2025** | **06/30/2024** | **Delta** |
| Commodity Futures | 18.5% | 18.5% | - |
| Midstream Energy | 27.7% | 28.2% | -0.5% |
| REIT | 22.4% | 21.8% | +0.6% |
| Global Infrastructure Equity | 19.3% | 19.4% | -0.1% |
| Global Natural Resources Equity | 22.9% | 23.3% | -0.4% |
| Gold | 16.6% | 16.4% | +0.2% |
| Real Estate - Core | 14.7% | 15.0% | -0.3% |
| Real Estate – Value-Add | 23.0% | 23.4% | -0.4% |
| Real Estate - Opportunistic | 27.3% | 25.8% | +1.5% |
| Private Debt - Real Estate | 11.9% | 11.9% | - |
| Private Real Assets - Natural Resources | 32.5% | 32.3% | +0.2% |
| Private Real Assets - Infrastructure | 10.6% | 12.4% | -1.8% |

NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual returns. Return forecasts and methodology are reviewed on an ongoing basis and are subject to change over time. Source: NEPC

# 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.

This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.





# LIQUIDITY SUB-PORTFOLIO REVIEW

## STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

OCTOBER 23, 2025

Daniel Hennessy, CFA, CAIA

PROPRIETARY & CONFIDENTIAL

# STANCERA'S INVESTMENT OBJECTIVES

- **The investment objectives of the Investment Program are:**

- **To provide liquidity to meet retiree benefit payments in a timely manner;**
  - Liquidity sub-portfolio
- **To produce long-term growth to meet future retiree benefit payments and, if applicable, to close a funding gap over time;**
  - Growth sub-portfolio
- **To protect the assets against the adverse impacts of rising inflation and investment market volatility.**
  - Diversifying sub-portfolio

# ASSET CLASS OBJECTIVES

| Asset Class | Portfolio Role | Current Target |
|---|---|---|
| **Liquidity** | | |
| Cash and Cashflow-Matched Bonds | • Covers shortfall between contributions and benefits/fees<br>• Ensures short-term needs so the rest of the portfolio can be managed for the long-term | 8% |
| **Growth** | | |
| Public Equity and Credit | • Capital appreciation<br>• Capture global growth<br>• Income generation | 40% |
| Private Equity and Credit | • Higher return expectations than public equity and credit | 13% |
| Real Assets (Real Estate and Infrastructure) | • Inflation hedge<br>• Income generation | 20% |
| **Risk-Diversifying** | | |
| Treasuries and TIPS | • Downside protection<br>• Adds diversification | 10% |
| Risk Parity | • Adds diversification | 4% |
| Liquid Absolute Return Strategies | • Skill-based active management<br>• Adds diversification | 5% |

# ROLE OF THE LIQUIDITY SUB-PORTFOLIO

**StanCERA's benefit payments exceed the contributions it receives from employers and plan members. Covering this shortfall is the reason that the StanCERA pension plan exists.**

**In order to achieve its long-term investment return assumption of 6.75%, StanCERA invests in a diversified mix of growth, risk-diversifying, and liquidity strategies.**

**The Liquidity Sub-Portfolio consists of a cash account plus a high-quality fixed income strategy that seeks to provide income and principal repayments that match the expected monthly shortfall, typically for at least the next 48 months and usually longer. Currently the program seeks to cover the shortfall for the next 6 years.**

**It helps prevent forced sales of growth assets during poor market conditions, providing a stable financial buffer during periods of market volatility.**

# HIGHER STARTING BOND YIELDS MAKE IT EASIER TO COVER SHORTFALLS

## EFFECTIVE YIELD OF THE ICE BOFA US CORPORATE INDEX

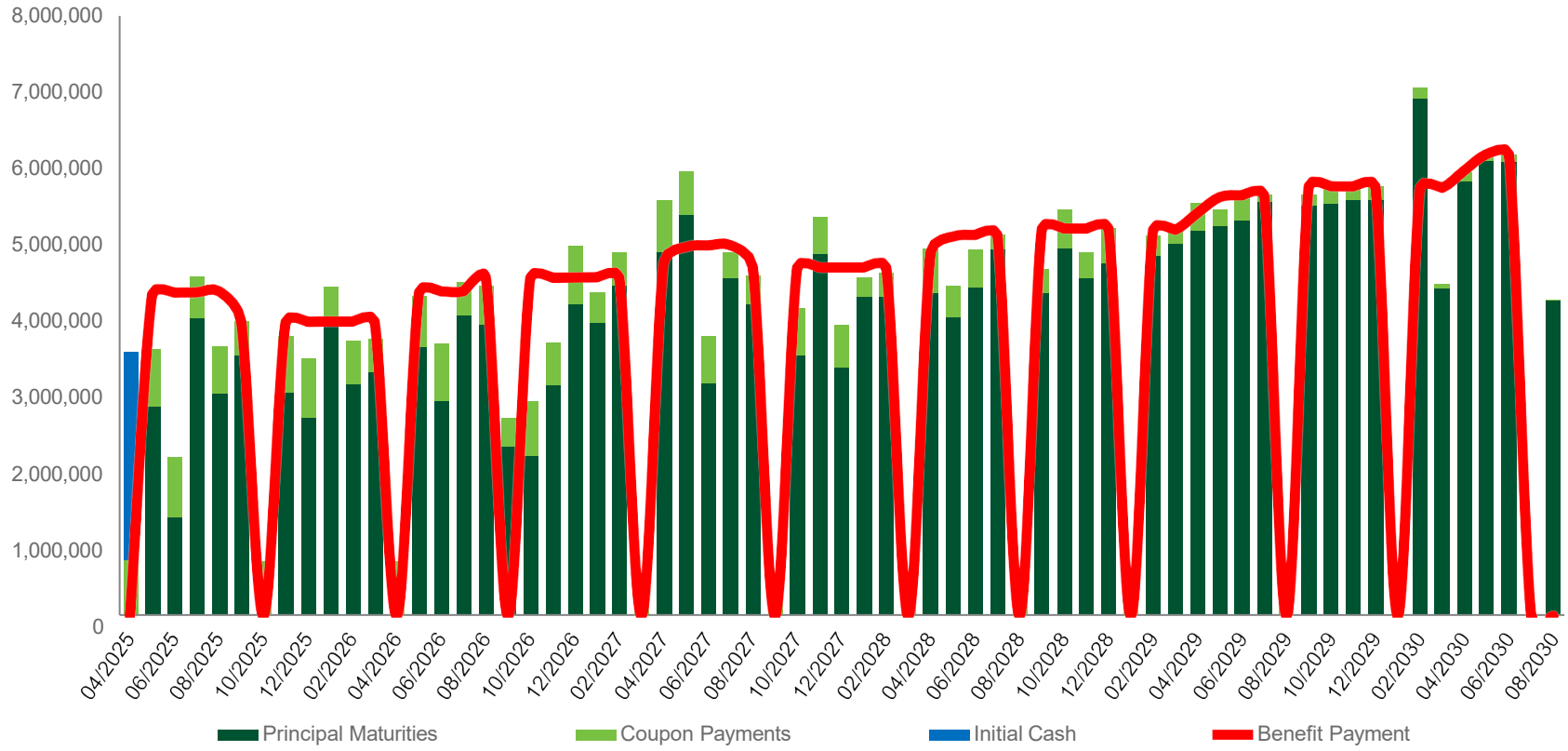



Source:ICE Data Indices via FRED

# INSIGHT INVESTMENT LIQUIDITY STRATEGY

## EXPECTED CASHFLOWS AS OF MARCH 31, 2025

Investment source by cashflow period




Source: Insight Investment as of March 31, 2025

# INSIGHT INVESTMENT LIQUIDITY STRATEGY

## PORTFOLIO ATTRIBUTES AS OF MARCH 31, 2025

| Key characteristics | Portfolio |
|---|---|
| Yield to worst (%) | 4.47 |
| Yield to maturity (%) | 4.49 |
| OAS (bp) | 48 |
| Effective duration (years) | 2.69 |
| Spread duration (years) | 2.79 |
| Number of issuers | 100 |
| Average rating | A+ |
| Average coupon (%) | 3.44 |

| Rating (%) | Portfolio |
|---|---|
| AAA | 16.38 |
| AA | 12.80 |
| A | 51.62 |
| BBB | 17.99 |
| BB | 0.00 |
| Cash & other | 1.22 |
| **Total** | **100.00** |

| Asset allocation exposure (%) | Portfolio |
|---|---|
| ABS | 6.07 |
| Corporate | 82.13 |
| US Treasury/Agency | 10.58 |
| Cash | 1.22 |
| **Total** | **100.00** |

| Subsector exposure (%) | Portfolio |
|---|---|
| ABS Other | 0.83 |
| Car loan | 2.32 |
| Consumer cyclical | 7.40 |
| Consumer non-cyclical | 9.83 |
| Credit card | 2.92 |
| Energy | 7.44 |
| Financials | 20.84 |
| Foreign agencies | 0.67 |
| Industrials | 13.68 |
| Technology, media, telecom | 11.60 |
| Utilities | 10.68 |
| US Treasury/Agency | 10.58 |
| Cash | 1.22 |
| **Total** | **100.00** |

Source: Insight Investment as of March 31, 2025

# NEPC 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.

Some of the information presented herein has been obtained from external sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this content, we cannot guarantee the accuracy of all source information contained within.

The opinions presented herein represent the good faith views of NEPC as of the publication date and are subject to change at any time.

This presentation contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.

StanCERA Stanislaus County Employees' Retirement Association

**September 23, 2025**
Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

I. SUBJECT: Liquidity Sub-Portfolio Annual Funding Plan

II. ITEM NUMBER: 8.d

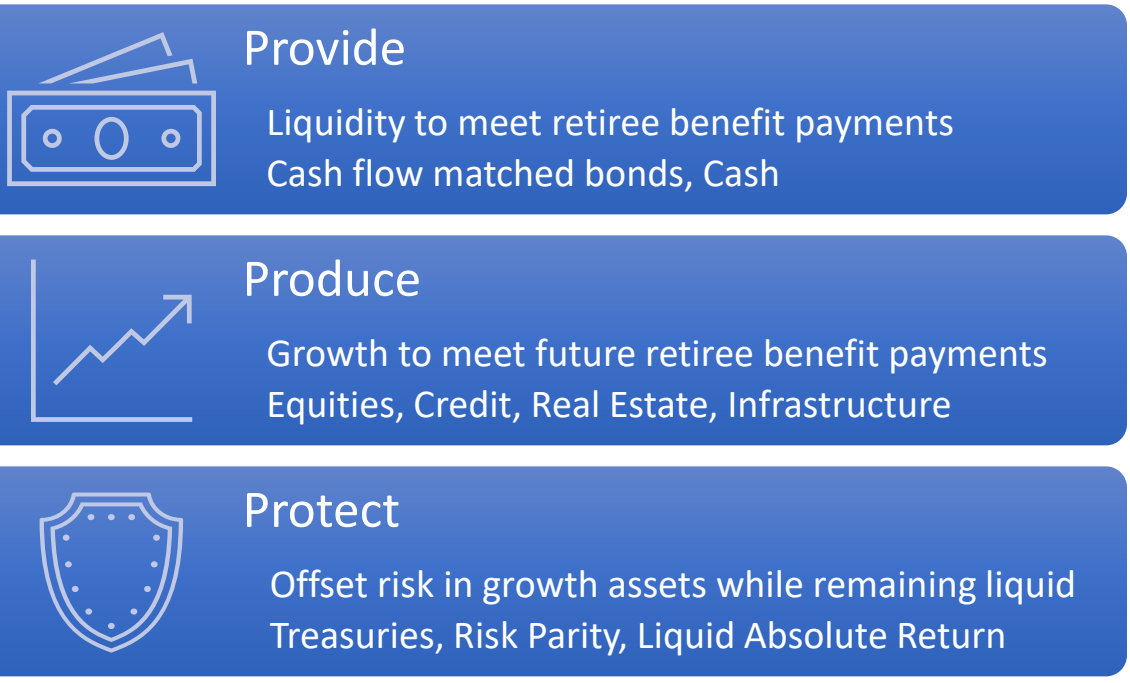
III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: N/A

V. ANALYSIS:

Background

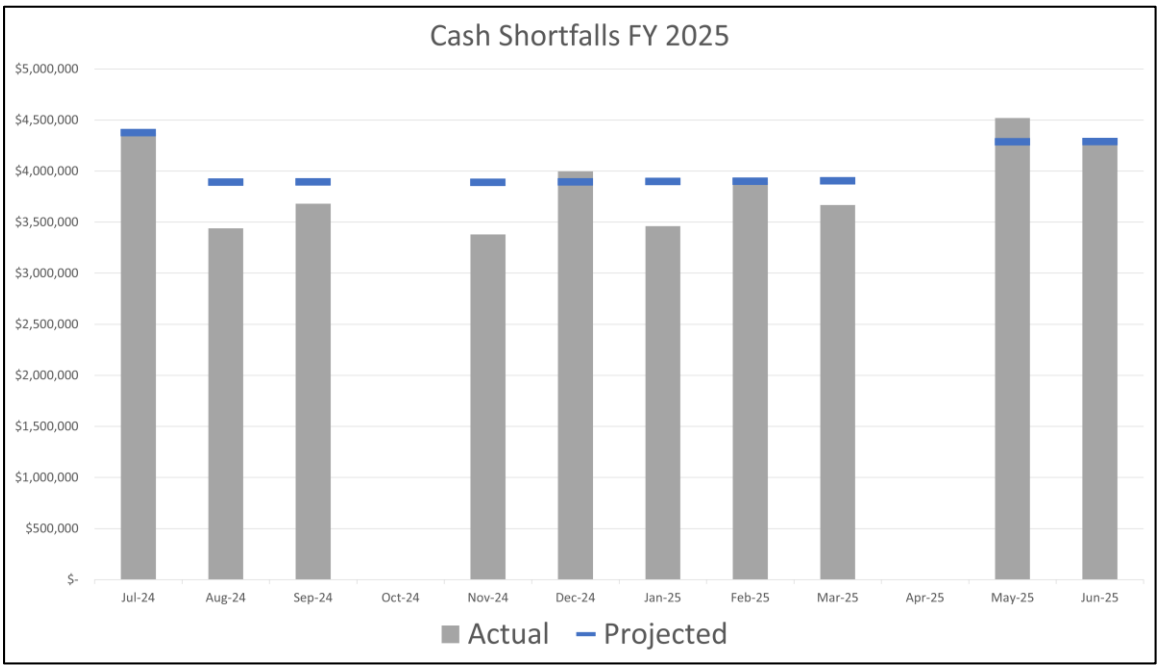
StanCERA follows a functionally focused investment policy. This strategy divides the portfolio into three functional sub-portfolios: liquidity, growth, and diversifying. Each sub-portfolio addresses a separate investment objective. The liquidity sub-portfolio provides liquidity to meet current retiree benefit payments in a timely manner, the growth sub-portfolio seeks to provide long-term growth to meet future retiree payments and the diversifying sub-portfolio is intended to offset some of the risks in the growth sub-portfolio. While the three sub-portfolios are aligned with the investment objectives individually, collectively they provide appropriate risk and return characteristics to meet StanCERA's overall investment goals. This strategy can be described as the three P's of portfolio management.



The liquidity sub-portfolio acts as a drawdown vehicle during the year and needs to be replenished annually. In accordance with the investment policy, an annual funding plan is produced by staff on how best to replenish the liquidity sub-portfolio. In conjunction with the annual funding plan, the policy also requires the investment consultant, NEPC, to deliver a capital markets review to the Board and if necessary, recommend changes to the asset allocation. NEPC, is not recommending any adjustments to the asset allocation at this time.

Cash Shortfall Forecast

StanCERA's monthly cash needs can be calculated using the following formula: Retiree Benefit Payments + Administrative Expenses – Plan Sponsor Contributions = Cash Shortfall. Staff creates forecast estimates of each input using historical trends, data and assumptions from actuarial reports, budget estimates and known employment changes from plan sponsors to generate a cash shortfall forecast. The process is conducted annually using the latest available data. The chart below provides a comparison between the actual and forecasted shortfalls from FY 2025. Note that in October and April the county had three pay periods resulting in no shortfall. Overall, the forecast closely tracked the actual shortfalls and the plan did not need to sell assets to pay benefits.




Liquidity Sub-Portfolio Sizing

The liquidity sub-portfolio is composed of the cash flow matched bond portfolio as well as a 1% strategic target to cash. The cash flow matched bond portfolio, managed by Insight Investment, is measured in dollars rather than a percentage of the total fund. The size of the cash flow matched portfolio will vary based on the number of years of cash shortfalls that need to be funded and the current interest rates. The market value of the cash flow matched bond portfolio as of 8/30/2025 was $216,857,171 and will cover the cash shortfalls through June 2030. To maintain six years of cash shortfalls, approximately $17 Million will need be added to the cash-flow matched bond portfolio as part of the annual

funding plan. As a percentage of the total plan, the allocation to the liquidity sub-portfolio is estimated to change from 6.8% of the total fund to about 7.3% of the total fund. That percentage will trend down over time as the bond portfolio makes monthly distributions to meet the cash needs of the plan.

Rebalance Plan

In alignment with StanCERA's Investment Policy, the annual funding plan is designed to keep the portfolio aligned with the long-term policy targets to maintain the intended risk/return profile. With this in mind, we are proposing to trim from asset classes that are overweight relative to target to replenish the liquidity sub portfolio. As of September, StanCERA is overweight international and domestic equities with international equities showing the largest deviation from target. The proposed rebalance plan will trim international equities and redeploy the proceeds into the cash flow matched bond fund. The rebalance will reduce the equity overweight, bring the total portfolio closer to the long-term targets, and reduce the overall portfolio risk by paring back exposure to equities.

The proposed rebalance plan is detailed below:

| From | | | To | | |
|---|---|---|---|---|---|
| Manager | Asset Class | Amount | Manager | Asset Class | Amount |
| LSV International Value | Public Equity | -$13,000,000 | Insight Investment | Short-term Bonds | $17,000,000 |
| Fidelity International Growth | Public Equity | -$4,000,000 | | | |

Summary

StanCERA's investment policy requires staff to provide an annual funding plan to the Board every year to replenish the liquidity sub-portfolio. The investment consultant will also provide a capital markets review to the Board and recommend asset allocation changes if needed. The cash flow matched bond portfolio within the liquidity sub-portfolio is measured in dollars rather than a target percentage of the total fund. Approximately, $17 million will be added to the liquidity sub-portfolio from international equity as that asset class currently exceeds its long-term policy target.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: None

StanCERA Stanislaus County Employees' Retirement Association

**September 23, 2025**

Retirement Board Agenda Item

TO: Retirement Board

FROM: Carmen Gusman, Retirement Fiscal Manager
Tom Stadelmaier, Executive Director
Donna Wood, Member and Employer Services Specialist

I. SUBJECT: Board Update – RESCO Insurance Deductions

II. ITEM NUMBER: 9.a

III. ITEM TYPE: Informational only

IV. STAFF RECOMMENDATION: None

V. EXECUTIVE SUMMARY: Staff would like to provide an update on the transition of RESCO's insurance broker from Pacific Group Agencies (PGA) to Rico, Pfitzer, Pires and Associates (RPP), effective October 1, 2025.

Over the past several weeks, StanCERA staff have been working to support this transition. This has required significant staff involvement across multiple areas, including fiscal, member services, and management. Staff time has gone into process changes, coordination with RESCO, and preparing to reconcile deductions with the new broker. We are also continuing to respond to member questions and assist with issues that arise. As we have experienced in the past, this "middleman" role often leads to additional work for staff and, at times, frustration for members who may be better served by working directly with RESCO, or with the broker, or insurance carrier.

**As a reminder, deductions for broker-managed insurance are outside StanCERA's core mission, and the current process creates ongoing administrative, compliance, and customer service challenges. Staff continues to see risks in maintaining this service, particularly as broker changes require additional effort, retraining, and process adjustments.**

Staff has spent well over 400 hours just in the last two months related to the broker transition. In tracking work items in the last month, staff identified over 2,500 distinct activities that required staff time to review. Staff anticipates work related to this transition at a much higher than normal level for the remainder of the year as well until we reach a more normal steady state. Experience from previous years indicates that there will typically be a greater volume of work related to broker deductions annually during open enrollment especially when there are significant changes such as this year. Analysis of work effort includes the following activities directly related to broker deductions: calls, voicemails, walk-in traffic, e-mails, document scans, meetings, monthly import file processing, reconciliation and fiscal services activity. Averaged over a year, this requires over 0.5 of a full-time equivalent (FTE) on staff in order to support premium collections for the broker. The cost of an FTE is approximately

two times salary. This analysis supports the proposed fee of $5 per transaction at the current volumes of deductions collected on behalf of the broker.

At the August meeting, the Board granted a 90-day extension to continue supporting deductions while RESCO finalized its transition. This means a decision on whether to continue this service will need to be made at the **October meeting**. Staff's recommendation remains the same:

- **Option A:** Discontinue support of these deductions altogether, OR
- **Option B:** Continue supporting deductions but charge the broker a $5 per transaction fee to offset StanCERA's costs.

Please feel free to reach out to staff if you have any questions ahead of the October meeting.

VI. RISK: Continuing to support the deductions brings some risk that is mitigated by the fee. Also, there is a risk of member dissatisfaction from being involved in the process or from making changes to the process, such as converting members and beneficiaries to direct billing or third-party billing.

VII. STRATEGIC PLAN: Making this change supports several strategic objectives including improved efficiency and improved member service.

VIII. ADMINISTRATIVE BUDGET IMPACT: TBD based on the decision. Implementing the recommended approach will result in long-term cost savings for StanCERA, which benefits all members and beneficiaries of the plan.