



AGENDA

Meeting of the Board of Trustees

Thursday, September 18, 2025 – 9:00 a.m.

TMRS Office
2717 Perseverance Drive, Suite 300
Austin, Texas

Zoom Link for Public:

<https://tmrs.zoom.us/j/87310999019?pwd=PAP0M0B5SD1Y0NWaPsiSqiDJndC1pf.1>

The Board may discuss any item on the Agenda at any time during the meeting.

Call to Order

Invocation

Pledge of Allegiance

Investment

1. [Board Education: Investment Overview and Strategy.](#) *Debbie Muñoz, Yup Kim*
2. [Investment Reports.](#) *Yup Kim*
 - a. Chief Investment Officer's Report, including Trust Fund Report for Second Quarter 2025
 - b. Receive 2025 Completed Investments Report
 - c. [Receive Second Quarter 2025 Investment Compliance Report](#)
3. [General Investment Consultant Quarterly Report.](#) *Sam Austin, NEPC*
4. [Receive Annual Review and Consider and Act on Amendments to Asset Allocation Ranges.](#) *Yup Kim and Sam Austin, NEPC*

Executive Session

5. **Executive Session.** *David Landis*
 - a. In accordance with Section 551.074, Texas Government Code, the Board of Trustees will meet in executive session to deliberate personnel matters, including

the appointment, employment, evaluation, compensation, performance, reassignment, duties, discipline, selection or dismissal of one or more public officers or employees, including without limitation, the Executive Director, the Internal Auditor and Chief Legal Officer, and thereafter may consider appropriate action in open session.

- b. In accordance with Section 551.071, Texas Government Code, the Board of Trustees will meet in executive session to seek and receive the advice of its attorney about pending or contemplated litigation, a settlement offer, or a matter in which the duty of the attorney to TMRS under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with the Open Meeting law; and
- c. In accordance with Section 855.007, Texas Government Code, the Board of Trustees may meet in executive session to (i) receive information from or question the employees, consultants, or legal counsel of the System or a third party relating to an investment or a potential investment; (ii) meet with the System's internal or external auditors to discuss any one or more of the matters set forth in Section 855.007(h); and /or (iii) consider and discuss evaluations or duties of Trustees or Board consultants, and self-evaluations of the Board as a whole.

Future Board Agenda Items

- 6. **Call for Future Agenda Items.** *David Landis*

Adjournment

In accordance with Texas Government Code Section 855.007, the Board may conduct the open and/or closed portions of the meeting by telephone conference call and/or by videoconference. The location of the meeting at which at least one Trustee of the Board will be physically present is the Texas Municipal Retirement System office, 2717 Perseverance Drive, Suite 300, Austin, TX, which will be open and audible to the public during the open portions of the meeting.



September 9, 2025

To: Board of Trustees

From: Yup S. Kim, Chief Investment Officer Y/S

Re: Agenda Item 1: Board Education: Investment Overview and Strategy

Yup Kim will present an Investment Overview and Strategy presentation to the Board.

ATTACHMENT:

- 1 – Investment Overview and Strategy Power Point Presentation

BOARD OF TRUSTEES INVESTMENT EDUCATION

September 18, 2025

1 Strategy

TMRS Three-Pillar Strategy

1

Benchmark-Aware
Public Markets

2

Private Markets +
Co-Investments

3

World-class Team
Attracts World-class
Managers

TMRS Strategy Executive Summary

1

Benchmark-aligned global public markets portfolio with selective active mandates that generate long-term outperformance.

2

The greatest opportunity for outperformance is in private markets. As such, strengthening and upgrading our private markets relationships is a key priority. In addition, **increasing co-investments**, which are investments TMRS makes alongside investment managers on a reduced or no fee basis, across the private markets portfolio will be critical to long-term success.

3

We want to attract the **nation's most gifted allocator talent** to TMRS and build on our culture and strategy to attract and partner with the world's best investment managers.

1

Benchmark-aligned global public markets portfolio with selective active mandates that generate long-term outperformance.

Benchmark Alignment

Public markets portfolios should be aligned with the Board approved benchmarks. **The portfolio should have a balanced approach to geography, sector, and market capitalization** that doesn't lead to outsized exposures.

Low cost approach

Low-cost passive investing outperforms most active management in public markets because it avoids high fees and consistently captures market returns. Most active managers fail to beat their benchmarks over time.

Active vs. Passive

Active management is pursued in areas of the benchmark with the **highest probability of producing excess returns** versus passive market equivalents.

2

TMRS is focused on the private markets where the compensation for **good selection delivers outsized impact.**

**Greatest
Outperformance**

The **greatest opportunity for outperformance** is in private markets. As such, strengthening and upgrading our private markets relationships is a key priority.

**Co-investments
are critical**

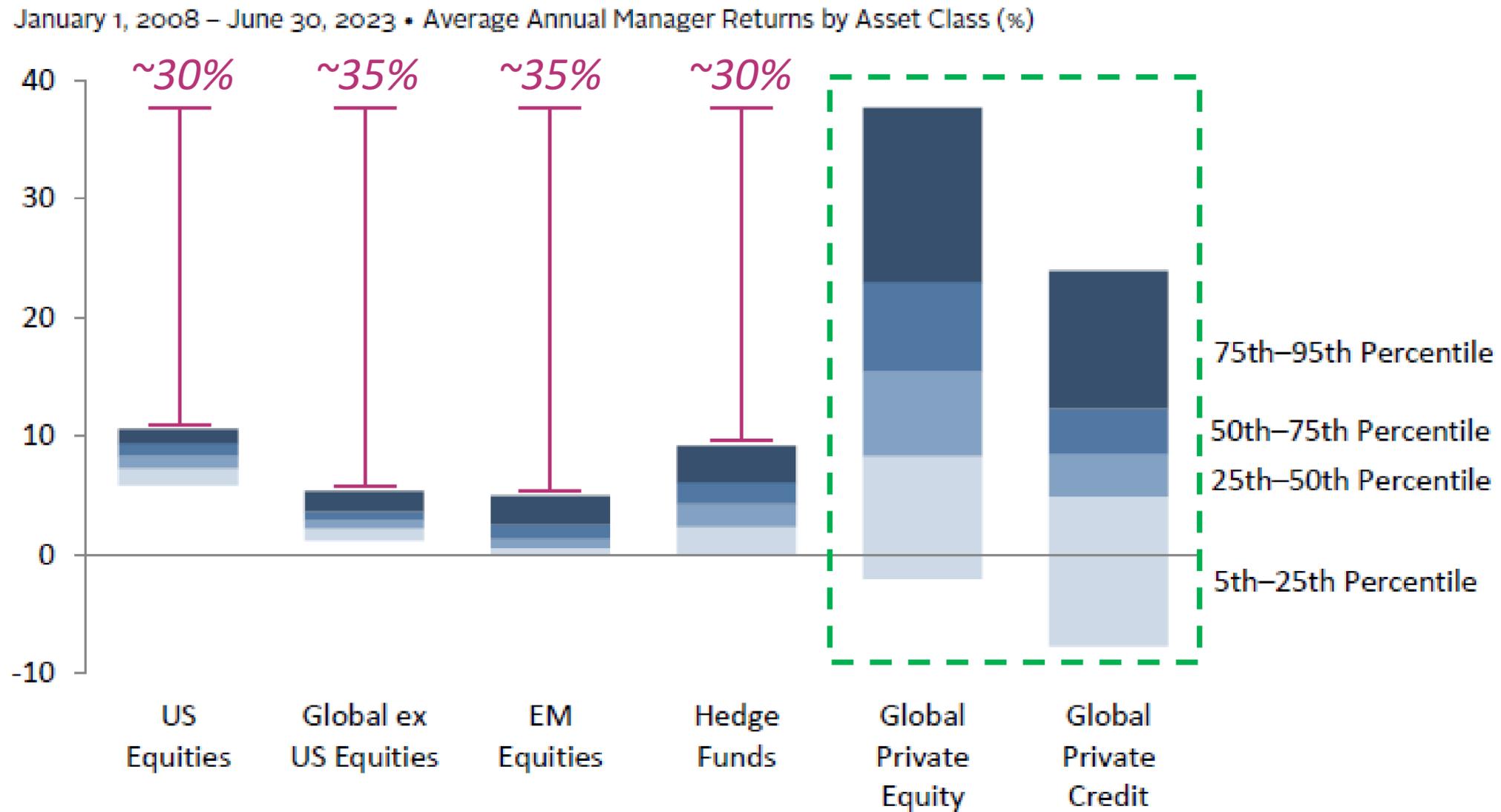
Increasing co-investments, which are investments TMRS makes alongside investment managers on a reduced or no fee basis, across the private markets portfolio will be critical to long-term success.

**Historical
evidence**

The world's most successful asset owners employ an approach of high private markets and high co-investment share. If executed well, **there is a potential \$25B** in additional gains possible in the next decade.

2

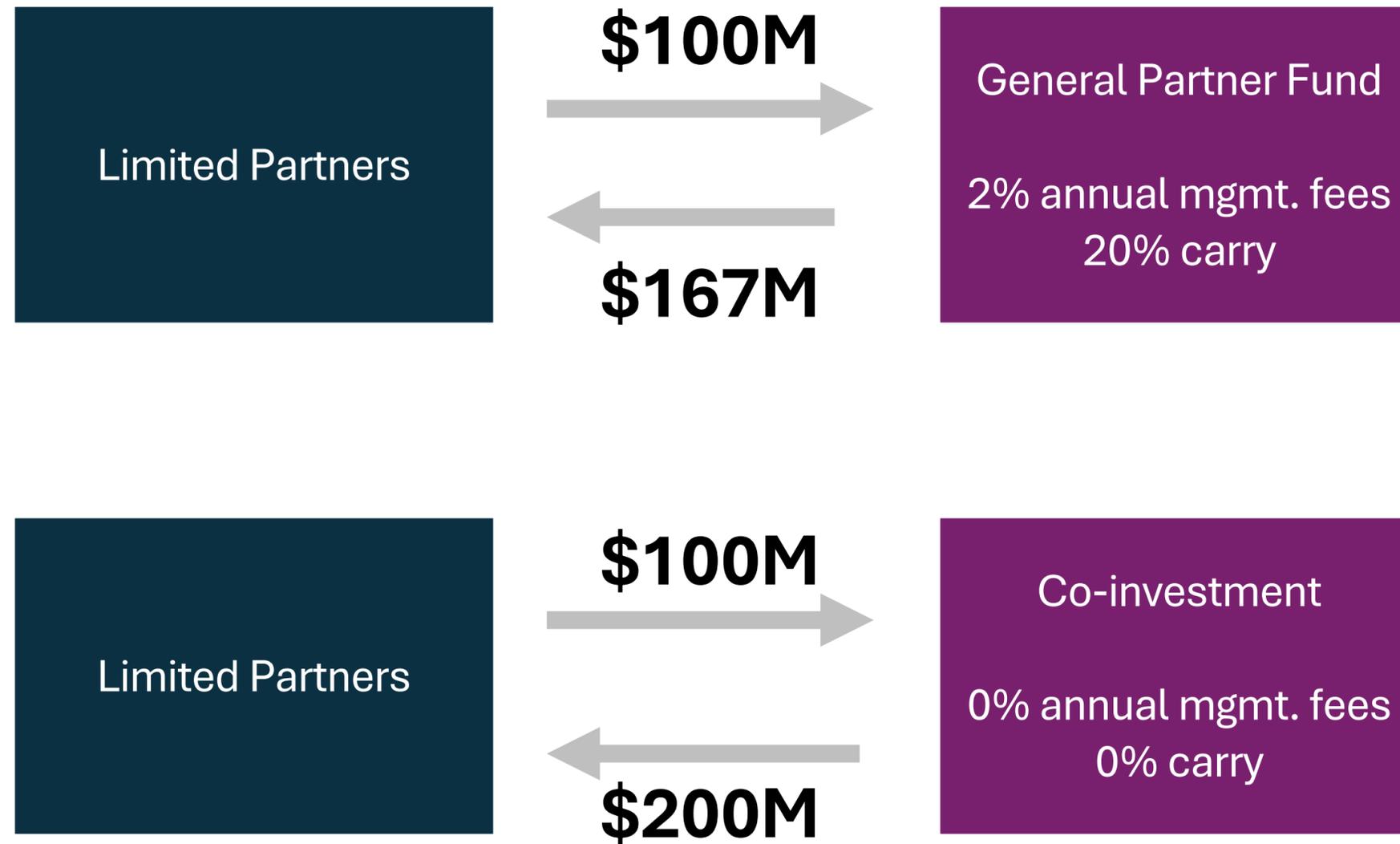
TMRS is focused on the private markets where the compensation for **good selection delivers outsized impact.**



(1) Source: Cambridge Associates LLC. Note: Returns data and percentiles for US Equities, Global ex US Equities, and EM Equities are time-weighted, while returns data and percentiles for Hedge Funds, Global Private Equity, and Global Private Credit are dollar-weighted. All financial investments involve risk. Depending on the type of investment, losses can be limited. Past performance is not indicative of future returns. | (2) Alpha is a measure of calculating excess returns compared to a benchmark (e.g., MSCI ACWI IMI). | (3) Based on public markets data as of May 2025.

2

Co-investment is critical to long-term success. When you double a \$100M investment, in a fee free co-investment you receive \$100M in profit, in a fund commitment, you receive only \$67M.



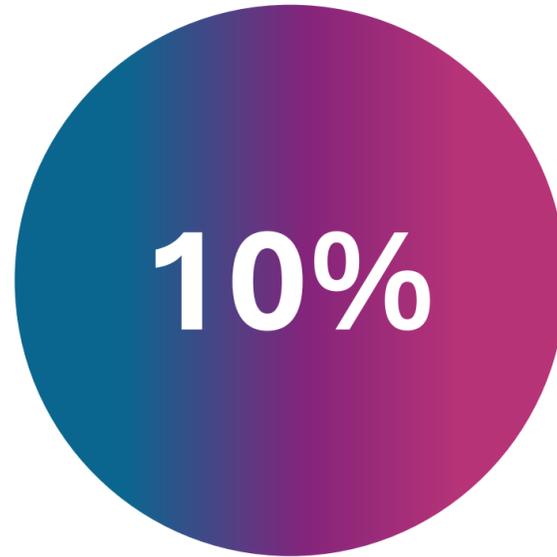
2

Co-investment is critical to long-term success. TMRS returns reflect sizable positive outperformance for co-investments.

+6%



5-year TMRS
Private market
Co-investment
returns



5-year TMRS
Private market
Fund returns

+12%



2024+ TMRS
Private market
Co-investment
returns



2024+ TMRS
Private market
Fund returns

2

Clear evidence that best asset owners with the strongest historical performance have high shares of private markets and a high share of fee free co-investments.

A WHY

Top quartile asset owners have a high share of private markets in addition to a high share of reduce or fee-free co-investments. **If executed well, our potential value-add is \$6B - 25B in the next decade.**

B WHAT

TMRS will seek a sizable multi-billion dollar **no-fee or reduced fee private market co-investment portfolio** by 2034.

C HOW

To be successful in launching and executing our co-investment strategy, we will need the ability to recruit and retain **senior individuals with deep direct investment experience** and structure the **right investment platform.**

2

The best performing asset owners have **high shares** of private markets and fee free co-investments.

Top performing Canadian Pension Plans and US Sovereign Wealth Funds have high private markets exposure and high co-investment share

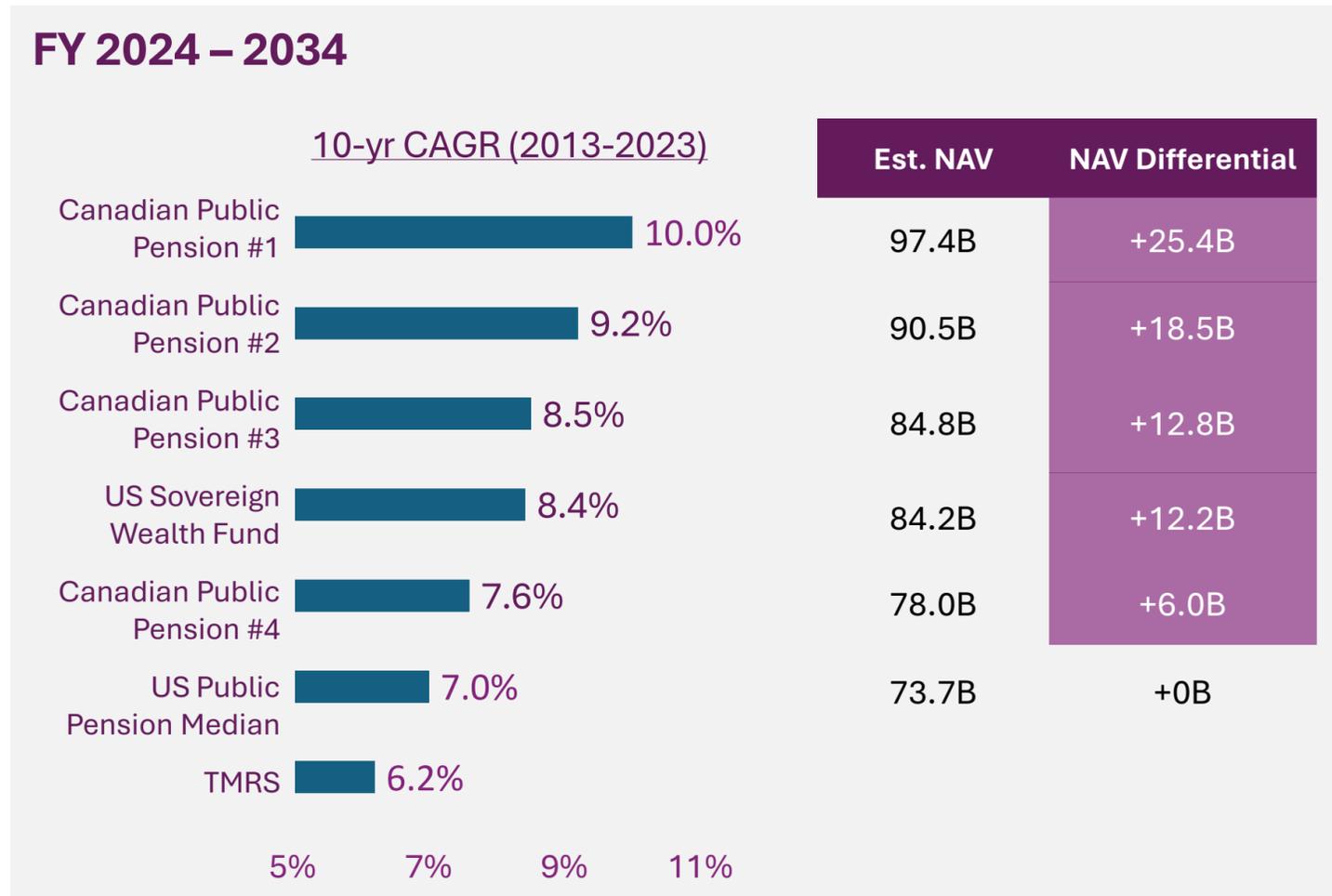
Plan	10-yr CAGR (FY13-23)	Quartile Rank	% Private Markets (est.)	Co-Invest Share (est.)	Private Market Staff (est.)
Canada Pension Plan Investment Board	10.0%	1st	60%	50%+	600
Public Sector Pension Investment Board	9.2%	1st	55%+	50-75%	150
British Columbia Inv. Mgmt Corporation	8.5%	1st	40%+	80%+	160
Alaska Permanent Fund	8.4%	1st	45%	35%	20
Ontario Teachers' Pension Plan	7.6%	1st	50%+	70%+	200
US Public Pension Median	7.0%	Median	30%	<15%	Varies
TMRS	6.2%	4th	48%	6%	13

(1) Source: Cambridge Associates LLC. Note: Returns data and percentiles for US Equities, Global ex US Equities, and EM Equities are time-weighted, while returns data and percentiles for Hedge Funds, Global Private Equity, and Global Private Credit are dollar-weighted. All financial investments involve risk. Depending on the type of investment, losses can be limited. Past performance is not indicative of future returns. | (2) Alpha is a measure of calculating excess returns compared to a benchmark (e.g., MSCI ACWI IMI). | (3) Based on public markets data as of May 2025.

2

The best performing asset owners have **high shares** of private markets and fee free co-investments.

Looking forward: TMRS has the opportunity to add an additional up to \$25 billion over the next 10 years with a well-executed co-investment strategy



Up to \$25B of potential value-add

(1) Source: Cambridge Associates LLC. Note: Returns data and percentiles for US Equities, Global ex US Equities, and EM Equities are time-weighted, while returns data and percentiles for Hedge Funds, Global Private Equity, and Global Private Credit are dollar-weighted. All financial investments involve risk. Depending on the type of investment, losses can be limited. Past performance is not indicative of future returns. | (2) Alpha is a measure of calculating excess returns compared to a benchmark (e.g., MSCI ACWI IMI). | (3) Based on public markets data as of May 2025.

3

A+ TMRS investors attract A+ external managers.



Ngoc Can
Portfolio Director, Co-Investments
Texas Municipal Retirement System

These two awards are extraordinary individual accomplishments for Ngoc and a testament to her talent, vision, and leadership.

Private Equity International
The Future 40

Alpha Generation: Private Equity Investing

TMRS



Welcome to TMRS, Annika Kim!
CREDIT DIRECTOR

APOLLO CARLYLE Goldman Sachs MIT

Annika Kim is an outstanding credit investor, and we are thrilled to welcome her to TMRS as Director of Credit. Annika joins us with exceptional experience from Goldman Sachs, Carlyle, and Apollo, and her expertise will be vital as we build a best-in-class global credit platform. A graduate of MIT, Annika's remarkable track record and leadership will help us partner with premier institutions and drive innovation in our credit strategy.

TMRS



CONGRATULATIONS ISIDORA STANKOVIC
CIO NEXT GEN 2025

Isidora is an exceptional human being, combining extraordinary intellect with remarkable emotional intelligence. A Phi Beta Kappa graduate of Yale University and fluent in three languages, Isidora elevates TMRS private equity program with a global perspective, shaped by her experience at Goldman Sachs, BC Partners, and Searchlight Capital Partners.

TMRS



Monica Huffer
Director
Real Assets

Infrastructure Investor

Outstanding Woman in Texas Award
2024 Rising Stars (Youngest of 20)

TMRS



CONGRATULATIONS Tom!
Next Elite List, Markets Group

Tom Masthay is a pivotal investment leader at TMRS, serving as Deputy CIO and a key strategic partner to CIO Yup Kim. Renowned for his servant leadership, Tom drives the team's growth and capability—scaling private markets, strengthening the \$43 billion trust fund, and advancing TMRS's co-investment program. With both BBA and MBA degrees from the University of Kentucky and the CFA, CAIA, and FRM designations, Tom's disciplined, long-term approach and strong industry presence make him a standout in institutional investing.

TMRS



CONGRATULATIONS Amol!
PEI's Future 40 List, Private Equity International

Amol Deshpande, Managing Director, Direct Investments

Amol Deshpande is a versatile and visionary investor guiding the buildout of TMRS's direct and co-investment portfolio. With experience spanning senior leadership at Redesign Health, public markets roles at Sores Fund Management and Luminus, and private equity at JLL Partners, Amol brings a holistic, cross-sector perspective to portfolio construction. Since joining TMRS, he has driven innovative infrastructure, formalized processes, and serves on the investment committee. He exemplifies strategic leadership and multifaceted expertise in institutional investing.

TMRS

Welcome to TMRS, Eugene!
Portfolio Manager, Direct Investments



HAVELI BAIN & COMPANY TEXAS

We at TMRS are thrilled to welcome Eugene Han to our direct investments team. Eugene is a first-generation college graduate whose inspirational journey and world-class experiences reflect the values of accountability, excellence, integrity, innovation, and collaboration that guide our mission.

TMRS



Yup S. Kim
Texas Municipal Retirement System

The Elite 100 is an esteemed list celebrating Investment Officers from Public Pension Endowments, Foundations, and Corporate Funds. Each honoree is a commendable leader, recognized for their exceptional talent and innovative strategies. These leaders demonstrated remarkable resilience and leadership, whether by safeguarding their funds during market volatility, achieving critical breakthroughs through innovative approaches, or successfully diversifying their investment portfolios. Their navigated mission-driven mandates and investment challenges with wisdom and poise, maintaining a steady course amidst external pressures. Our list also highlights those who have organizations through political and social movements, and whose leadership and vision have shown extraordinary potential. The list acknowledges their leadership, vision, and contributions to the investment industry. We moment to celebrate their achievements, recognize the profound impact they have on their respective fields.

2024 elite CIOs

TMRS

CONGRATULATIONS Darren!
2024 CIO Next Gen, Chief Investment Officer Magazine



Chief Investment Officer

Darren Schlissel, Senior Director and Head of Credit

Darren leverages his industry experience, multidisciplinary network and intellectual curiosity to drive progress on numerous public and private markets initiatives across a rapidly evolving fixed-income landscape.

Darren is a rare talent in the allocator space—his experience spans across investment banks, private investment firms and running global investments as a treasury leader at publicly traded company. I have no doubt that Darren will become an incredible chief investment officer one day.

TMRS



Frank Atkins
Senior Director, Public Equities

Frank is an exceptional investment leader at TMRS, shaping the global public equity and hedge fund portfolios. With an MBA from Yale, CFA and CAIA designations, and experience in investment banking, equity research, and asset management, Frank brings sharp analytical and strategic expertise. His innovative leadership has restructured TMRS's \$15.8 billion equity portfolio, driven hedge fund outperformance, and strengthened manager relationships and risk controls. Frank's cross-sector experience and disciplined vision make him a standout in institutional investing.

TMRS

CONGRATULATIONS Hester!
Influential Women in Investing Awards, Pensions & Investments



Hester Cai
Director, Credit

Hester is an outstanding investment professional, combining deep analytical expertise with principled leadership. With credentials including a CFA, CAIA, FRM, and an MBA from Chicago Booth, Hester brings both intellectual rigor and industry influence through active fund governance and frequent conference speaking. A passionate advocate for DEI and mentorship, she is shaping a more inclusive future in institutional investing.

TMRS

Welcome to TMRS, John Ritter!
Managing Director and Head of Real Assets



John Ritter is one of the most respected real asset investors in the institutional investor community and we are so excited to welcome him to TMRS. John has three degrees from UT Austin (B.A., JD MBA) and is committed to our core values of accountability, excellence, integrity, innovation, and collaboration that guide our mission.

TMRS

WELCOME YURI LEE
TMRS HEAD OF VC



Yuri Lee is an exceptional venture capitalist and we are tremendously excited to welcome her to TMRS. Yuri joins us from IVP where she served as a partner and will be critical in building a world-class global venture and growth portfolio, winning the hearts and minds of the boldest founders and investors from around the globe.

TMRS

CONGRATULATIONS JOEL!
2024 Next Gen Leaders, Pension & Investments Magazine



next gen leaders
Pensions & Investments

Congratulations to Joel Palmer, Portfolio Manager, Real Assets for being selected as a 2024 P&I Next Gen Leader!

Joel leverages his career and experience at some of the most innovative tech companies to contribute to TMRS' private markets portfolio in an impactful and truly differentiated way. Joel is an incredibly reliable colleague and a culture carrier for TMRS. We are so lucky to benefit from his work ethic, positive demeanor and can-do attitude.

TMRS

Office of the CIO



Yup Kim

Tom Mashay

Annika Kim

Chief Investment Officer

Deputy CIO

Director

Real Assets



John Ritter

Monica Huffer

Joel Palmer

Managing Director

Director

Portfolio Manager

Credit



Darren Schissel

Hester Cai

Senior Director

Director



Public Equities



Tim Sweeney

Frank Atkins

Managing Director

Senior Director

Private Equity



Amol
Deshpande

Ngoc Can

Eugene
Han

Isidora
Stankovic

Yuri
Lee

Managing Director

Senior Director

Portfolio Manager

Director

Director



Morgan Stanley



Morgan Stanley

Northwestern
University



Yale

2 Process

Process Executive Summary

1

The Board implements controls and sets priorities through the **Investment Policy Statement**. Among the Board's IPS stated beliefs is: "The most effective use of the Board's expertise and time is to set overall investment objectives and clearly articulate investment direction through the IPS, while continually monitoring its compliance."

2

TMRS' control framework is built on **standardized documentation, checks-and-balances, and transparent reporting**. The structure is designed to ensure staff maintains strict process adherence and enables TMRS to be a partner-of-choice for world-class investment managers.

3

TMRS' receives independent best-in-class advice from its investment consultants NEPC and Albourne. **NEPC and Albourne report to the Board** and are available for direct interactions at the Board's request. TMRS investment and legal consultants are leveraged for insights into market best-practices.

Investment Process Governance

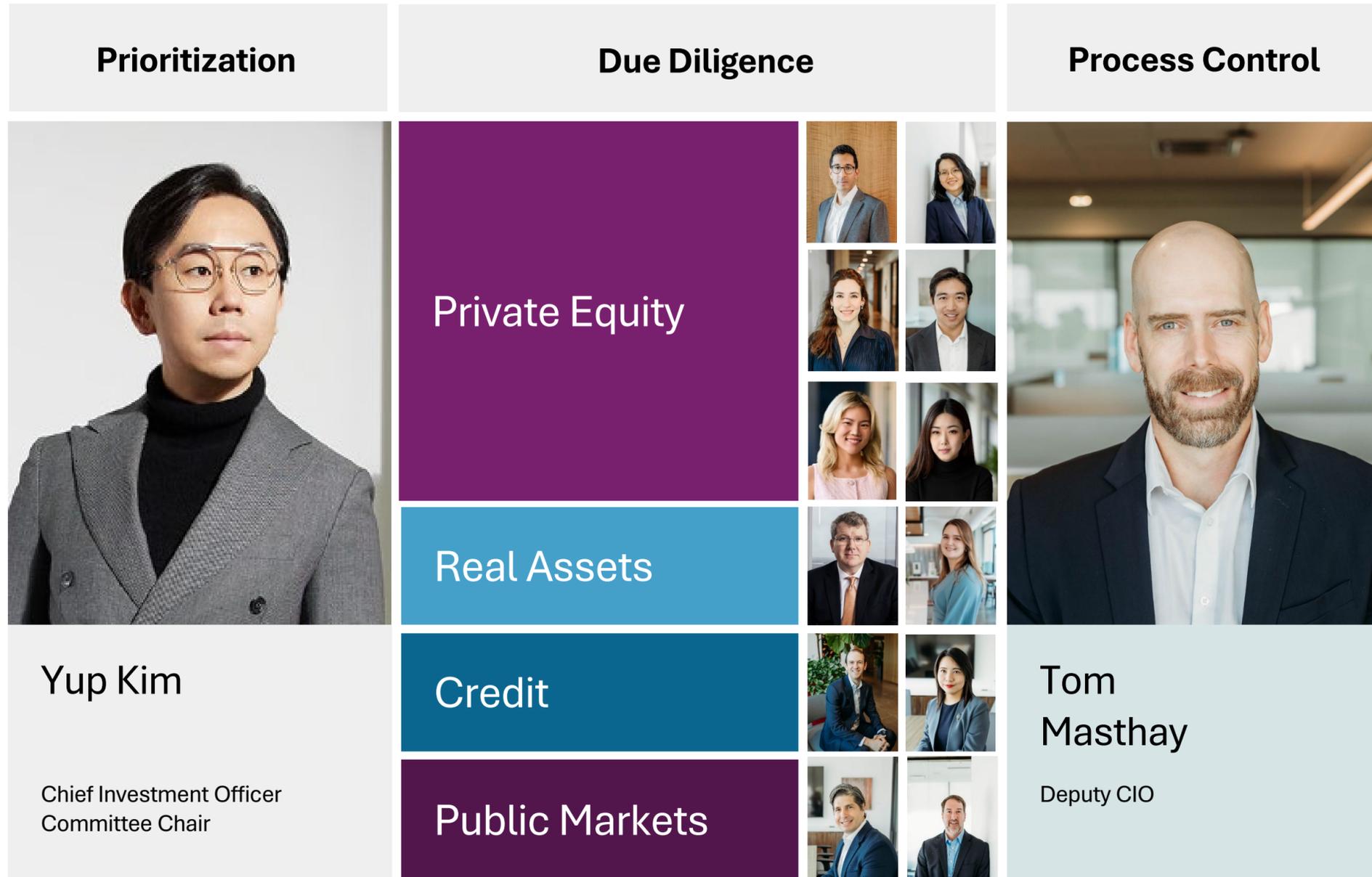
DOCUMENT	WHO OWNS	PURPOSE
Investment Policy Statement	Board of Trustees	Governance
Investment Guidelines	General Consultant	Portfolio Implementation
SIC Charter	Executive Director	Decision Framework
Investment Procedures	CIO	Implementation Details
Compliance Testing	CCO	Compliance

Key Takeaways

TMRS' investment governance framework is extensively documented with independent checks and balances and clear lines of accountability throughout.

The structure in place enables TMRS to be a partner-of-choice for world-class investment managers.

Investment Process



STAFF INVESTMENT COMMITTEE

The IPS establishes the SIC to review and approve decisions falling under IPS delegated authority.

INVESTMENT PROCESS

The investment process seeks to cast a wide funnel and then filter out only the best deals for TMRS to pursue.

TRANSPARENT & STANDARDIZED PROCESS

Every investment follows a multi-step, transparent process with standardized documentation.

Advisory Resources

Investment Advisory



Sam Austin
General Consultant



Spencer Edge
Private Mkts. Consultant



Legal Advisory



Robert D. Klausner
Fiduciary Counsel



Phil Svahn
External Counsel



Additional External Counsel Firms:
Jackson Walker, Nossaman

Advisors: TMRS relies on key service providers for independent advice and insights into best market practices across the investment and legal landscapes. TMRS' investment consultants (NEPC, Albourne) report to the Board and are available for direct interactions upon Trustee request.

Reporting Framework



Board Reporting

General Consultant Reports
Quarterly

Delegated Decision Reports
Quarterly

Investment Risk Reports
Quarterly

Investment Compliance Reports
Quarterly

Annual Asset Class & Manager Reviews
Annually

Proxy Voting
Annually

Material Deviations from the IPS
As required



Internal Reporting

Cash Reporting
Daily

CIO Dashboard
Daily

Weekly Investment Materials & Minutes
Weekly

Staff Investment Committee Reports
Every Meeting (approximately monthly)

Performance Reporting
Monthly

Asset Class Dashboards
Quarterly

Pacing Models
Annually



Key Takeaways



Board Reporting. The IPS establishes formal reporting requirements which required performance, portfolio, and risk metrics are regularly reported upon.



Internal Reporting. Reporting has been developed to guide cash management, team prioritization, and portfolio management decision making.



Transparency. Detailed records of all investment activities are kept and reported upon.

3 Execution

Execution Executive Summary

1

Asset allocation is at the core of portfolio implementation. A simplified, five asset class allocation framework was adopted in 2024 to enable TMRS to capitalize on its competitive advantages. The updated asset allocation will take some time to implement but progress is rapidly being made.

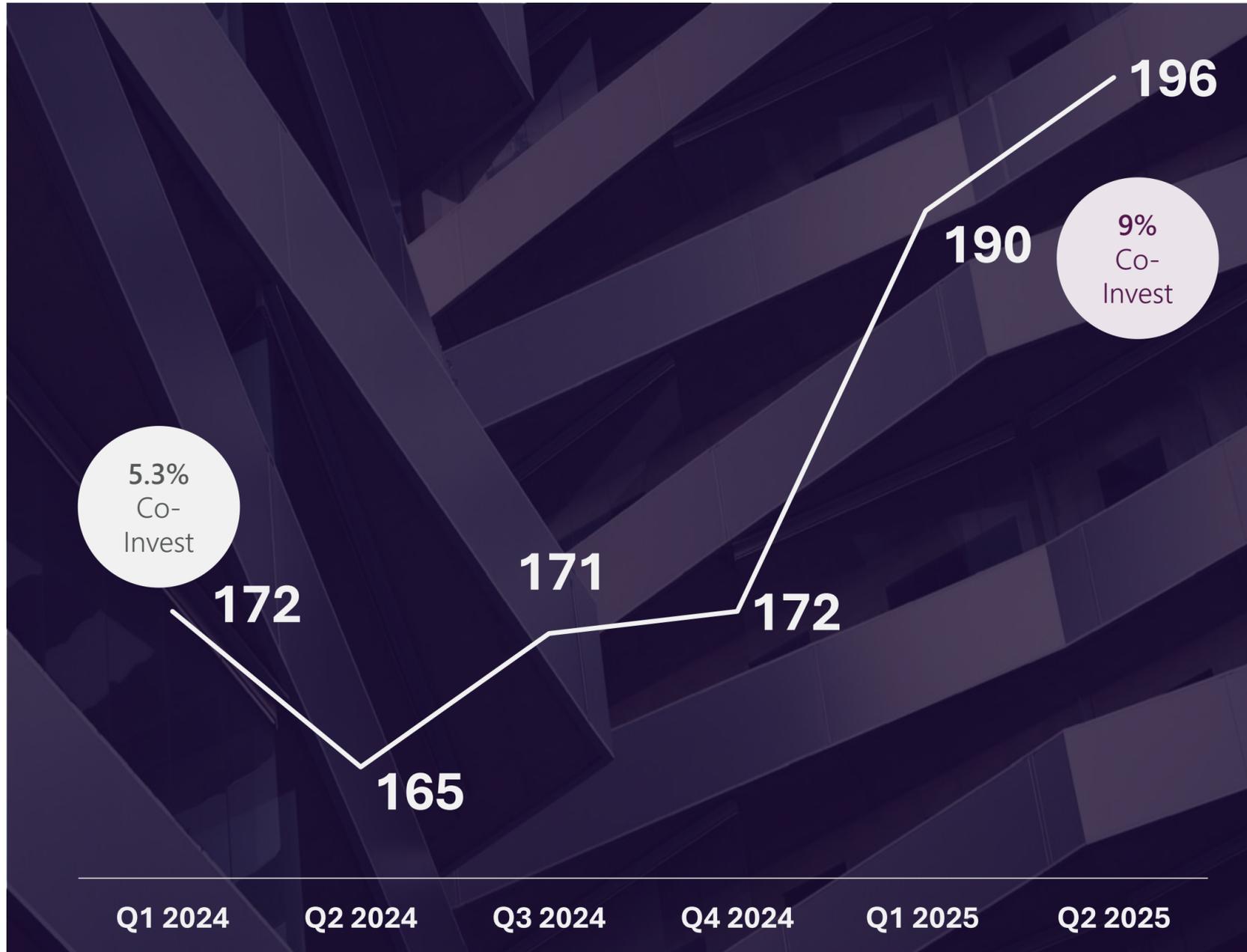
2

Staff's most active portfolio implementation initiative is scaling a co-investment program. Staff spent 2024 building the infrastructure underpinning a fee-reducing, return-enhancing program, ultimately selecting GCM Grosvenor as its partner. The GCM/TMRS partnership known as Trinity River Holdings was selected as one of three finalists for Institutional Investor Allocator's Idea of the Year.

3

All portfolio management efforts are metric-driven. The key metrics are presented to the Board quarterly in the CIO Key Performance Indicator Dashboard. All metrics are currently meeting stated goals or trending positively toward doing so.

Performance From Past 6 Quarters



Then

JANUARY 2024

172bps

5Y Excess Returns

5.3%

Co-Investment Share

Since Then

JUNE 2025

196bps

5Y Excess Returns

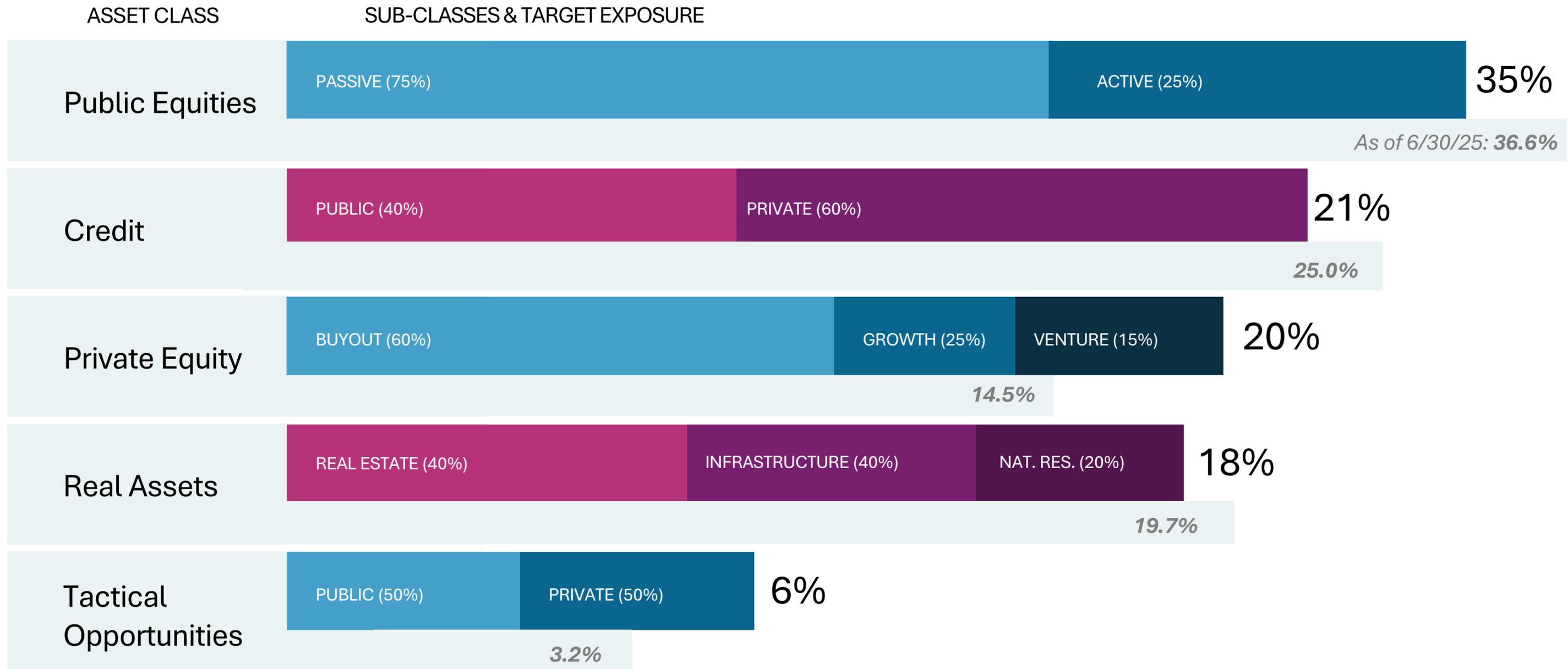
9%

Co-Investment Share

Asset Allocation

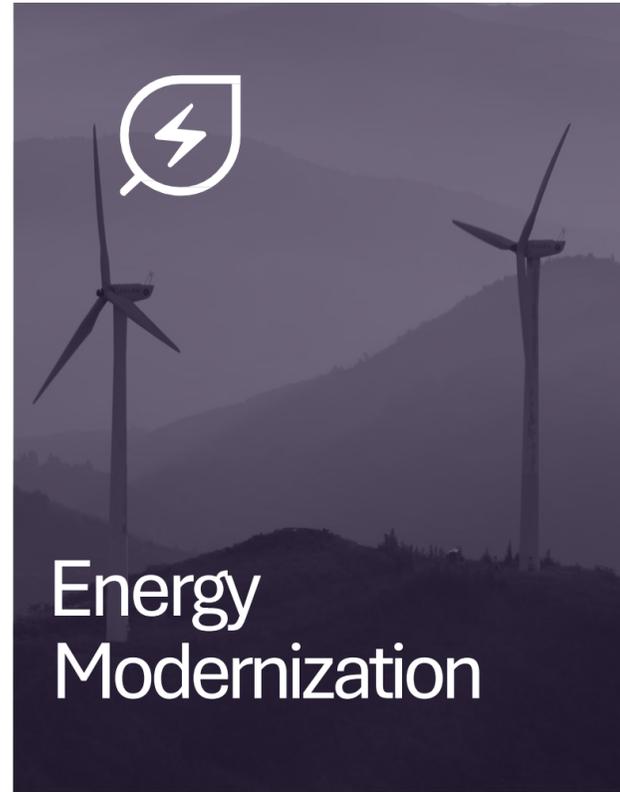


Managing the portfolio toward the target allocation is the core portfolio management goal. The adoption of a new allocation in 2024 will take some time to implement but progress is rapidly being made.



Thematic Investment Approach

The investment approach is focused around five key megatrends which drive the global economy.



TMRS private investment program is aligned with structural trends that are poised to shape the global economy over the next decade

Financial Empowerment Research Theme

SELECT DIRECT/CO-INVEST DEALS

BUYOUT OF ACCOUNTING SERVICES FIRM

BUYOUT OF U.K. INSURANCE BROKERAGE

STRUCTURED EQUITY INVESTMENT IN NATIONAL INSURANCE BROKER

GROWTH EQUITY INVESTMENT IN GLOBAL PAYMENTS BUSINESS

RESEARCH TEAM



Ngoc Can

Private Equity



Darren Schlissel

Credit



Eugene Han

Private Equity



Annika Kim

Special Situations



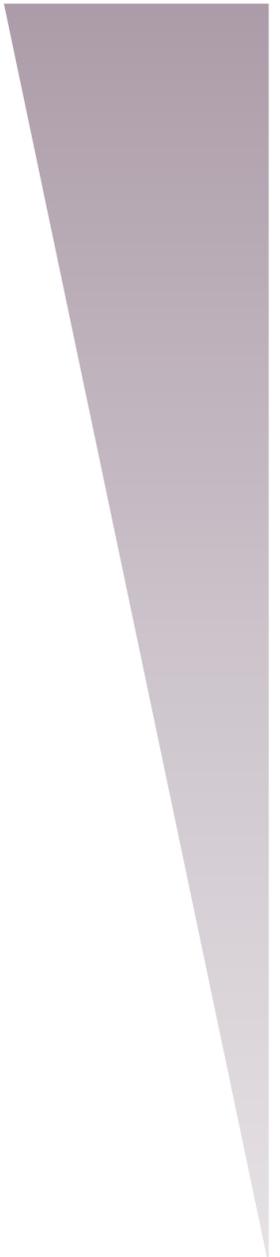
Frank Atkins

Public Equities

Financial Empowerment Thematic Focus

TMRS

Focus Area
Greater Focus



Lesser Focus

	Insurance	Financial Technology	Financial Services	Asset & Wealth Management/ Capital Markets
	Distribution (admitted and non-admitted brokers)	Payments (cross-border, B2B, B2B2X)	Tax/assurance/ advisory services	Fund administration & custody
	Managing general agent/ Managing general underwriter	Financial services infrastructure	Office of CFO	Alternative asset management
	Claim management	InsurTech	RegTech (compliance, risk mgmt)	Capital markets technology
	Fronting carrier	WealthTech	Wealth (RIAs)	Traditional asset management
	Insurance carrier	Banking/lending	Niche service providers (debt resolution, etc.)	

Trinity River Holdings

INSTITUTIONAL INVESTOR

Idea of the Year

HarbourVest and the University of Texas/Texas A&M Investment Management Company

For UTIMCO's HarbourVest Longhorn Program, a custom and highly integrated co-invest SMA "where both parties benefit from each other's sourcing capabilities and investment expertise." The partnership has deployed more than \$1 billion of co-invest capital since inception in 2020. One of our judges hailed the team's innovation and "super high-quality people."

Texas Municipal Retirement System and GCM Grosvenor

Their co-investment partnership - known as Trinity River Holdings - established "a novel investment vehicle that dramatically increased the commerciality with which TMRS faces the market for co-investments." The partnership features a single point of decision-making, a lone investment committee that approved about \$600m across 10 investments and three asset classes in the first four months the vehicle was up and running. A judge said, "They're really focused on generating results with the idea."

Susan Ridlen, CIO, Eli Lilly & Co.

For educating D.C. lawmakers about arcane pension premium regulations, particularly around allowing plan sponsors to access their own surplus assets. "Susan has stepped up as a pro bono voice in Washington for the corporate defined-benefit model and community as going concerns, at a time when many of the core CIO cohort are retiring or winding down," a nominator said. A judge added that she is "really good and courageously taking on these important issues."

TMRS' EDGE

How Investments Are Made

GCM Grosvenor was selected as TMRS' partner due to its unmatched expertise and scale with managing custom accounts

TRINITY RIVER HOLDINGS



Annual co-investment limit



Venture capital sleeve



YTD completed co-investments



2024+ TMRS Private market Co-investment returns



Expected fee savings from YTD completed co-investments

- ✓ **Scale co-investment:** Partnering with world class partner to execute scale co-investments per strategy
- ✓ **Improves returns:** Co-investments executed since 2024 are demonstrating strong results
- ✓ **Provides deal execution flexibility:** Gives our managers the confidence to close investments efficiently

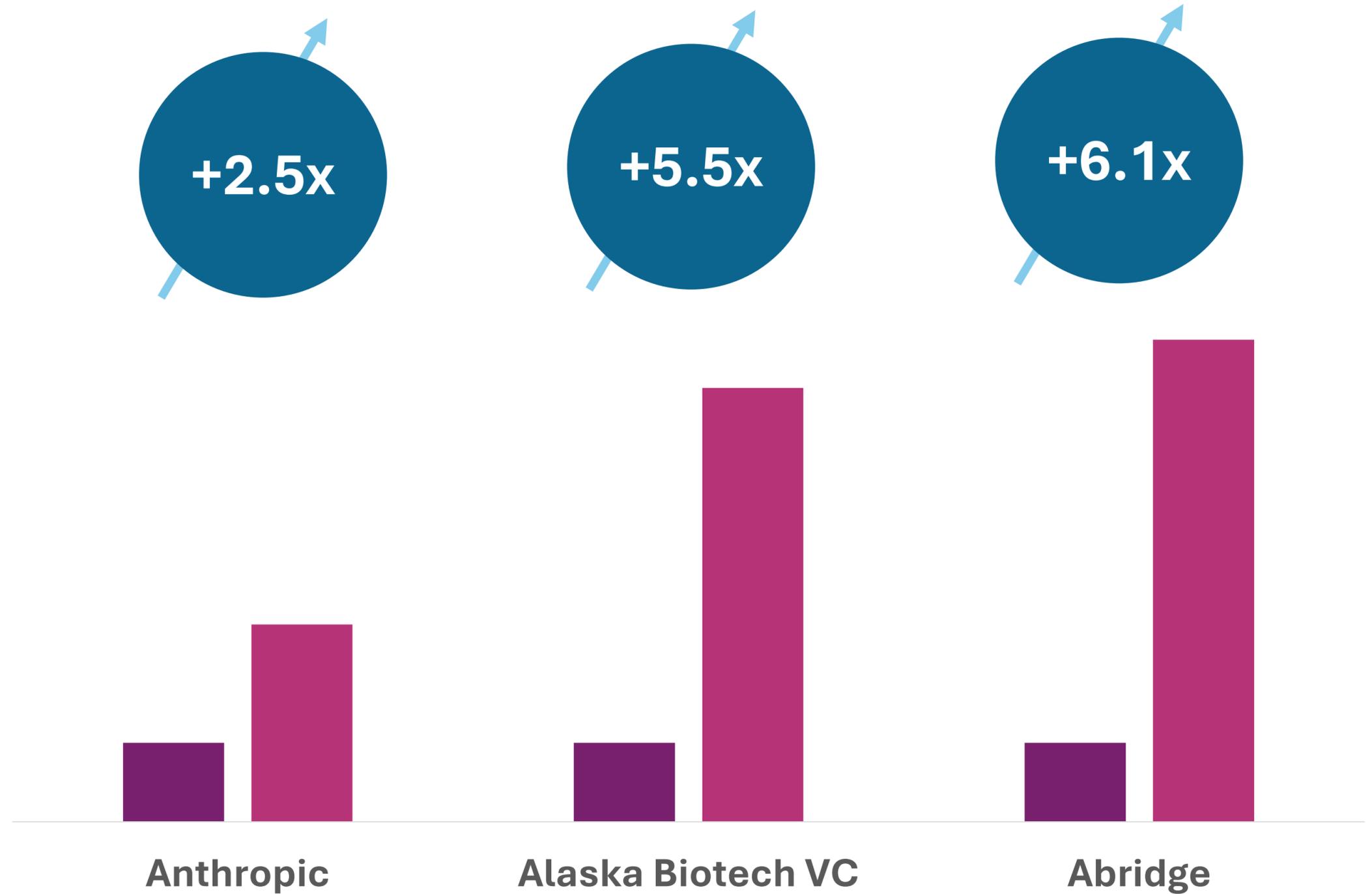
Why Venture Capital

Key Takeaways

Venture is not new to TMRS. TMRS has been investing in venture capital since 2016. Historically the approach has been to invest with fund-of-funds and later-stage managers.

Venture Capital offers access to high-growth sectors, including AI, healthtech, fintech, and defense tech, not yet available in public markets

Updated Approach. New staffing and the assistance of Trinity River Holdings enables TMRS to invest in access-constrained, highly sought after fund managers and companies.



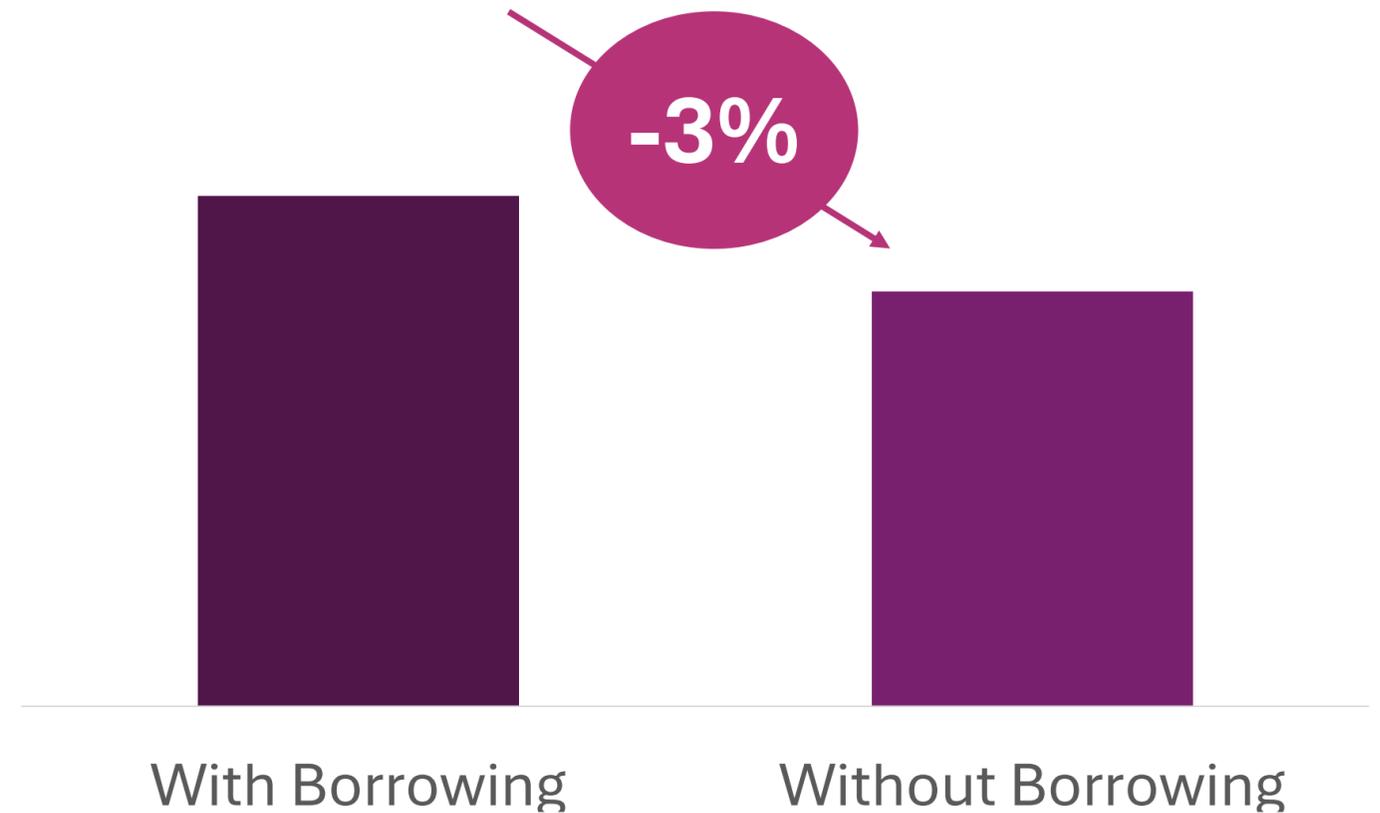
Borrowing

Institutional Limited Partners Association and the Wall Street Journal estimate 85-95% of all private equity funds use borrowing



Data Source: ILPA and Wall Street Journal, March 2024

GCM Grosvenor estimates that the Trinity River internal rate of return would be 3% per annum lower without the use of a borrowing facility.



- **Vehicle level borrowing is not new to TMRS:** Multiple TMRS vehicles have borrowing facilities
- **Improves operational efficiency:** Reduces the frequency of capital calls, making cash management easier
- **Improves returns:** Can improve reported IRR by 2–3% annually
- **Provides deal execution flexibility** – Gives our managers liquidity to close investments quickly

CIO Key Performance Indicator Dashboard (June 30, 2025)

	Key Performance Indicator (KPI) Description	Grade	Progress	
Portfolio Pacing and Construction	Fully commit private market target allocation	On-track	61% of pacing target complete	
	Trust fund allocation in compliance	On-track	In compliance	
Reduce Cost	Increase co-investment share of private markets for improved returns and cost savings	Transitioning	9% of total net asset value	
Sustainable Performance	Net returns exceed benchmark	On-track	1 Year	5 Year
	Trust fund net returns exceeds the actuarial rate assumption of 6.75%	On-track	+144bps	+196bps
	Trust fund returns above peer median	Transitioning	+404bps	+235bps
	Trust fund returns above peer median	Transitioning	2nd	3rd
	Trust fund risk lower than peer median	On-track	2nd	1st

All portfolio management efforts are motivated by achieving the set of metrics presented at every Board meeting. All metrics are green or trending positively.

TMIRS





September 9, 2025

To: Board of Trustees
From: Yup Kim, Chief Investment Officer Y/K
Re: Agenda Item 2: Chief Investment Officer Report

Chief Investment Officer Key Performance Indicator Dashboard. The dashboard highlights important investment metrics.

Sustainable investment performance: For the one-, two-, three-, and four-year periods, TMRS' investment performance was above median. Net returns for the one- and five-year periods were 10.79% and 9.10%, respectively, exceeding the Trust Fund benchmark for the same periods by 144 basis points and 196 basis points.

Trust Fund net returns exceeded the actuarial rate assumption of 6.75% for the one- and five-year period by 404 basis points and 235 basis points, respectively. Trust Fund risk was lower than the peer median for the one- and five-year periods.

Investment activity and portfolio construction: The targeted private market commitment level for 2025 is \$4.2 billion. As of Q2 2025, \$2.5 billion of new private market investments were approved across 11 funds, 14 co-investments, and 6 vehicles dedicated to co-investments. Additionally, three investments in public security vehicles totaling \$3.3B were approved. All Trust Fund asset class allocations are within Board-approved ranges.

Reduce costs: Co-investments are investments made with investment managers that have the benefit of having reduced to no management or carried interest fees. Because of these benefits, it is a priority to continue growing co-investment share of total investment. As of Q2 2025, co-investments represent 9% of total private market net asset value, up from 5% at the beginning of 2024. As a percentage of private market investments approved in 2025 year-to-date, co-investments represented 58% of activity.

Staff Recruitment:

Yuri Lee joined the team in July as Director of Venture Capital. She was most recently a partner at Institutional Venture Partners (IVP), with prior experience in Technology Investment Banking at Morgan Stanley. Yuri holds a Bachelor of Arts in Economics from Princeton University and was named to Forbes' 30 Under 30 list for her achievements in venture capital

Annika Kim joined the team in July as Director of Special Situations and Office of the CIO. She was most recently an investor at Apollo Global Management, The Carlyle Group and

began her career at Goldman Sachs. She received a Master of Finance from the Massachusetts Institute of Technology (MIT) – Sloan School of Management.

Secondary sale: Staff is evaluating the potential sale of certain private markets interests in the secondary market. Such a transaction could improve portfolio balance, capitalize on a favorable pricing environment and optimize performance by reducing tail-end or underperforming exposures. At this stage, the effort is exploratory.

Chief Investment Officer's Report

Yup Kim, Chief Investment Officer
Board of Trustees Meeting
September 18, 2025

CIO Key Performance Indicator Dashboard (June 30, 2025)

Portfolio Pacing and Construction

Reduce Cost

Sustainable Performance

Key Performance Indicator (KPI) Description	Grade	Progress	
Fully commit private market target allocation	On-track	61% of pacing target complete	
Trust fund allocation in compliance	On-track	In compliance	
Increase co-investment share of private markets for improved returns and cost savings	Transitioning	9% of total net asset value	
Net returns exceed benchmark	On-track	1 Year	5 Year
Trust fund net returns exceeds the actuarial rate assumption of 6.75%	On-track	+144bps	+196bps
Trust fund net returns exceeds the actuarial rate assumption of 6.75%	On-track	+404bps	+235bps
Trust fund returns above peer median	Transitioning	2nd	3rd
Trust fund risk lower than peer median	On-track	2nd	1st

Trust Fund Report Table of Contents

1

Fully Commit
Private Market
Target Allocation

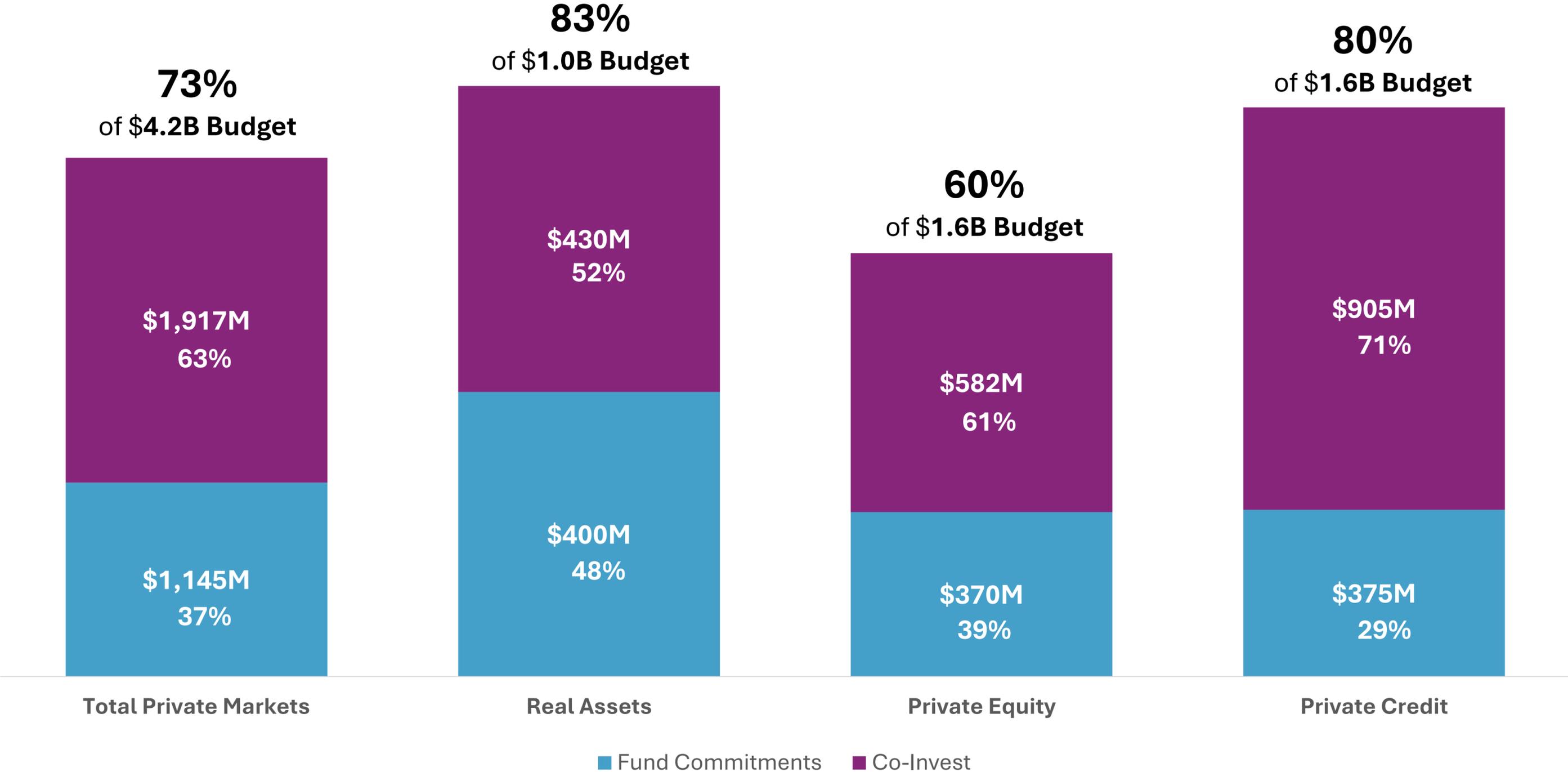
2

Reduce Cost

3

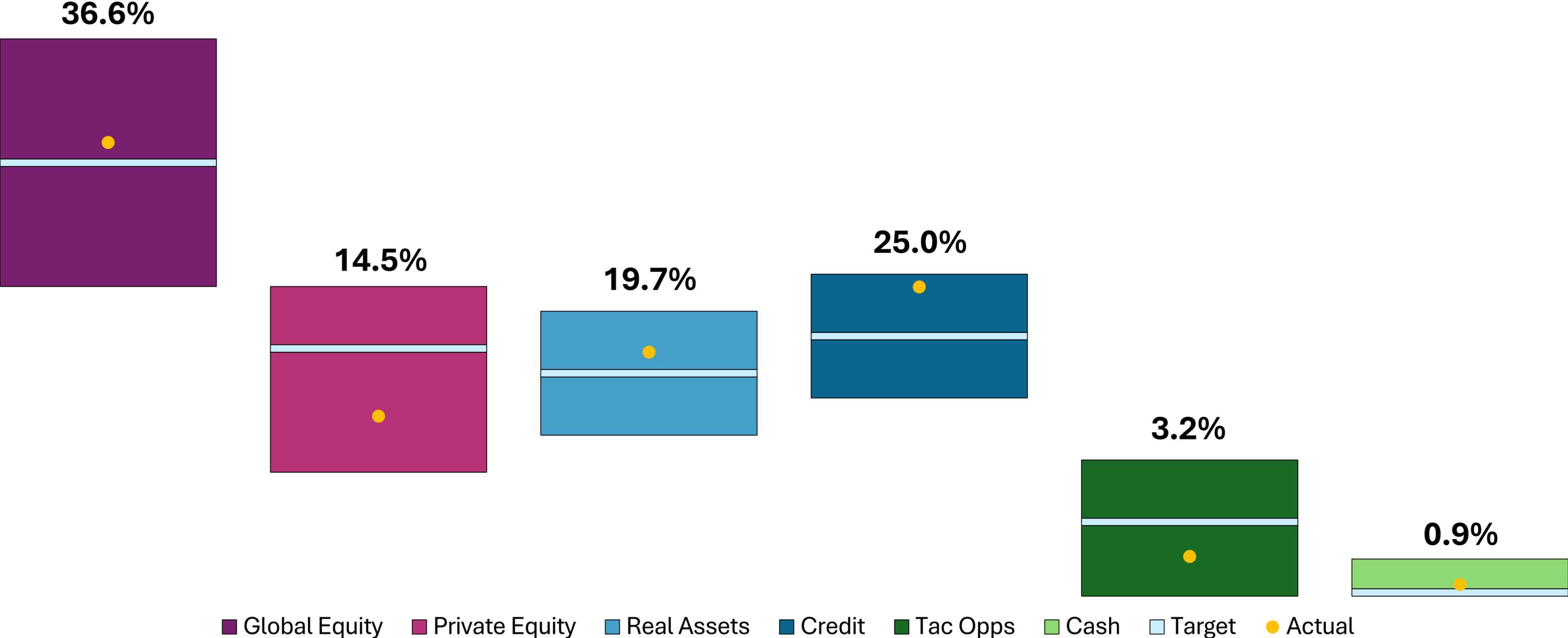
Sustainable
Performance

Private Markets Allocation By Asset Class (YTD as of 9/5/2025)



We Are Fully Compliant With Trust Fund Allocation Benchmarks

Actual % as of June 30, 2025

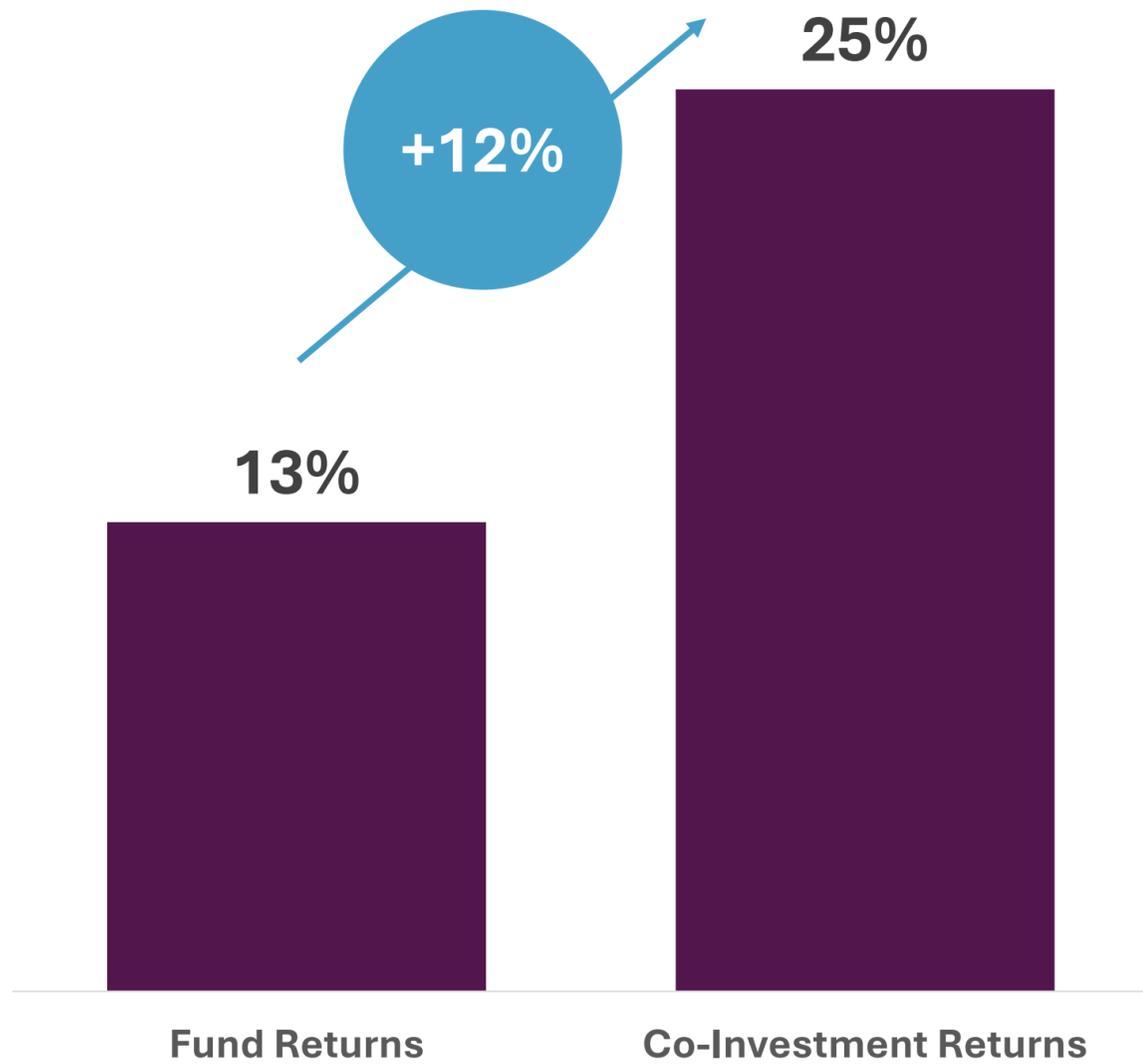


Increase Co-Investment Share of Private Markets for Improved Returns & Cost Savings



Increase Co-Investment Share of Private Markets for Improved Returns & Cost Savings

2024+ Vintage 1 Year IRRs (As of Q1 2025)



3 Year Returns (As of Q1 2025)

	Funds	Co-Invests	Outperformance
Real Assets	3%	18%	+15%
Private Credit	8%	12%	+4%
Private Equity	6%	14%	+8%
Total (3-year)	5%	16%	+11%

Trust Fund Net Returns Exceed Benchmarks and Actuarial Rate Assumptions

Net Performance as of June 30, 2025

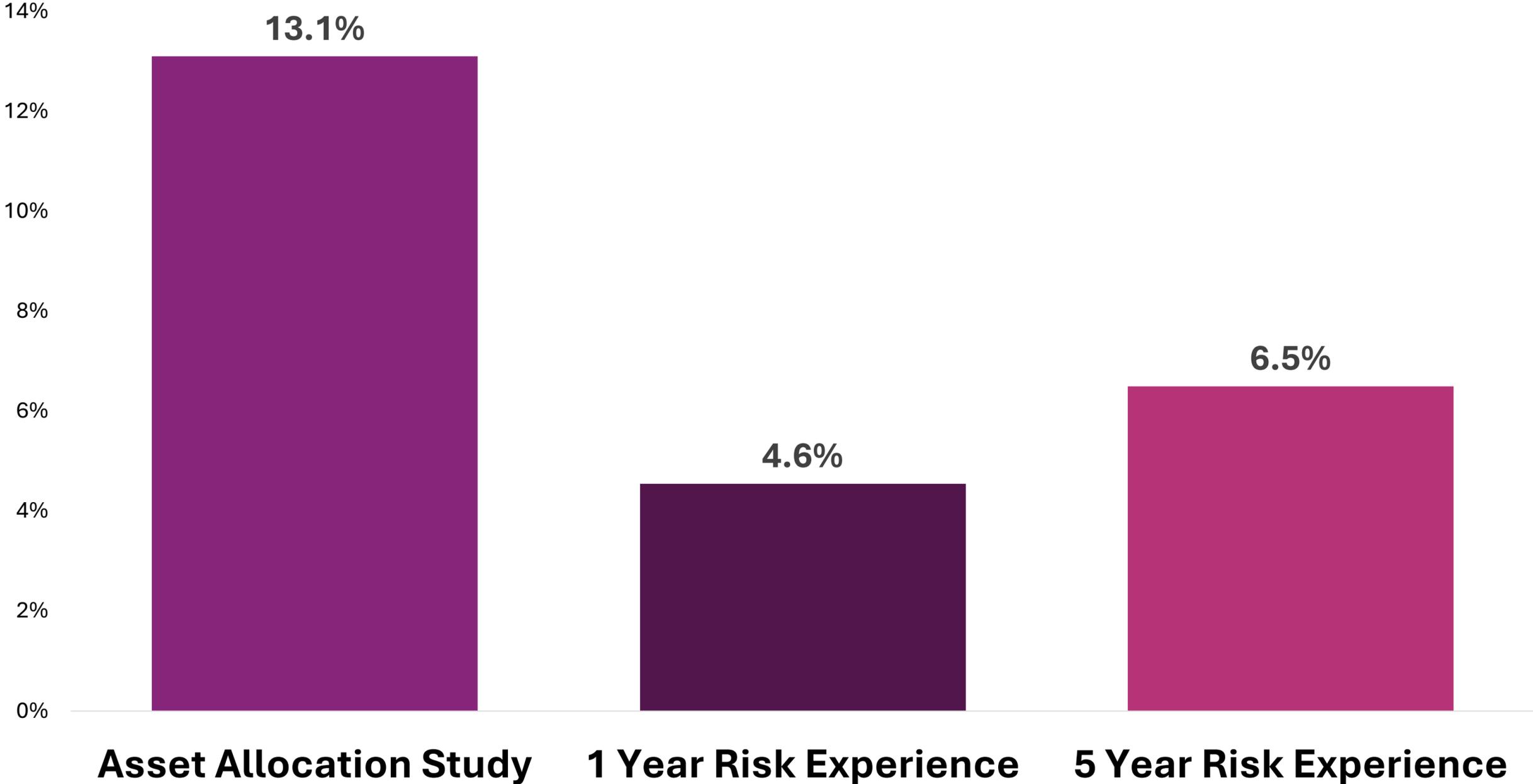
Trust Fund Benchmark

Actuarial Rate Assumption



Trust Fund Actual Allocation Risk

As of June 30, 2025



Historical Stress Test

STAYING THE COURSE
 In periods of volatility, staying the course is critically important

THE REWARD
 Market recessions are often followed by strong investment return years

STAYING THE COURSE

Potential Near-Term Volatility Ahead

Volatility Scenarios	GFC	COVID	RUSSIA/UKRAINE WAR + INFLATION
	2008	2020	2022
Beginning Assets (\$B)	\$46	\$46	\$46
Portfolio Decline	-25%	-13%	-8%
Recovery Year 1	17%	46%	11%
Recovery Year 2	15%	-	10%
Post-Recovery Assets (Est., \$B)	\$46.4	\$58	\$51.6

Liquidity & Market Volatility

1 Fortress of available liquidity TMRS' has **\$24B in available liquidity**, which comfortably covers member benefits and capital calls by over three times.

2 Passes liquidity stress tests Staff **models the liquidity position** of the Trust during market dislocations including GFC, COVID, and RUSSIA/UKRAINE to **ensure liabilities are paid**

Trust Balance	Current	2008	2020	2022
Trust Balance	\$46B <i>Flat</i>	\$35B <i>-25%</i>	\$40B <i>-13%</i>	\$42B <i>-8%</i>
Total Liquidity	\$24.1B	\$16.6B	\$19.6B	\$20.2B
Uncalled Private Capital	\$7B	\$7B	\$7B	\$7B
Member Benefits (0.80% Annualized)	0.4	0.4	0.4	0.4
Total Liability	\$7.4B	\$7.4B	\$7.4B	\$7.4B
Liquidity Coverage Ratio	3.25X	2.24X	2.65X	2.73X

TMIRS



2025 Completed Investments Report

As of 6/30/2025

<u>Completed Date</u>	<u>Manager or Fund Name</u>	<u>New/Existing Manager</u>	<u>Amount Committed</u>	<u>Asset Class</u>
January 10, 2025	Pioneer Zilker PV1 SCSp	Existing	\$102,495,037	Real Assets
January 16, 2025	Northern Trust Investments, Inc.	Existing	\$3,500,000,000	Global Equity
January 24, 2025	Dimensional Fund Advisors	New	\$250,000,000	Global Equity
January 24, 2025	BCIS El Dorado Investors, L.P.	Existing	\$2,115,370	Private Equity
January 31, 2025	Pearl Energy Investment IV, L.P.	Existing	\$100,000,000	Real Assets
March 25, 2025	BlackChamber Real Estate Opportunity Fund II, LP	Existing	\$100,000,000	Real Assets
April 14, 2025	Public Pension Capital, LLC	Existing	\$50,000,000	Private Equity
April 24, 2025	Hunter Point Capital GPFS – Preferred (Onshore), L.P.	New	\$75,000,000	Credit
April 28, 2025	HPC GPFS Co-Invest (Zilker), L.P.	New	\$150,000,000	Credit
April 30, 2025	KLCP Domestic Fund IV LP	New	\$150,000,000	Credit
April 30, 2025	KLCP Co-Inv Domestic Fund IV LP	New	\$75,000,000	Credit
April 30, 2025	Kennedy Lewis Senior Loan Fund LP	New	\$125,000,000	Credit
May 7, 2025	OHA CLO Co-invest SMA	Existing	\$50,000,000	Credit
May 9, 2025	Excelsior Renewable Energy Feeder Fund II-B LP	Existing	\$50,000,000	Real Assets
June 5, 2025	ERA Infra Fund II LP	Existing	\$100,000,000	Real Assets
June 11, 2025	Biospring Partners Fund II	New	\$50,000,000	Private Equity
June 20, 2025	NorthPoint Industrial Fund VII, LP	New	\$100,000,000	Real Assets
June 30, 2025	TPG AG Credit Solutions Fund III, L.P.	Existing	\$150,000,000	Credit
		Total	\$5,179,610,407	



September 11, 2025

To: Board of Trustees

From: Nick O'Keefe, Chief Compliance Officer 

Re: Agenda Item No. 2(c): Second Quarter 2025 Investment Compliance Report

Investment Policy Statement (IPS) Compliance. TMRS was in compliance with all testable IPS parameters.

Investment Manager Compliance. State Street and TMRS testing confirmed that TMRS' investment managers were in compliance with relevant Investment Guidelines.



September 9, 2025

To: Board of Trustees

From: Yup S. Kim, Chief Investment Officer YK

Re: Agenda Item 3: General Investment Consultant Quarterly Report

Sam Austin will discuss NEPC's Q2 2025 Quarterly Performance Report.

ATTACHMENT:

1 - NEPC Q2 2025 Executive Summary



2Q 2025 QUARTERLY PERFORMANCE REPORT EXECUTIVE SUMMARY

SEPTEMBER 18, 2025

Samuel Austin, Partner



TOTAL FUND PERFORMANCE SUMMARY – NET RETURNS AS OF JUNE 30, 2025

COMPARED TO TRUST FUND BENCHMARK

	Market Value (\$)	1 Yr (%)	5 Yrs (%)
Total Fund, Net of Fees	45,410,160,436	10.79	9.10
Trust Fund Benchmark		9.35	7.13
Over/Under		1.44	1.96

- **For the one-year period ended June 30, 2025, the Trust Fund returned 10.79%, exceeding the Trust Fund Benchmark by 1.44%.**
 - Global Equity, Private Equity, Credit, Tactical Opportunities, Real Assets, and Cash exceeded their respective benchmarks.
- **For the five-year period ended June 30, 2025, the Trust Fund returned 9.10%, exceeding the Trust Fund Benchmark by 1.96%.**
 - Private Equity, Credit, Tactical Opportunities, Real Assets, and Cash exceeded their respective benchmarks, while Global Equity trailed.



TOTAL FUND PERFORMANCE SUMMARY – NET RETURNS AS OF JUNE 30, 2025

COMPARED TO OTHER PUBLIC PENSION PLANS GREATER THAN \$10
BILLION IN ASSETS

	1 Yr (%)	Quartile Rank	3 Yr (%)	Quartile Rank	5 Yrs (%)	Quartile Rank
Total Fund, Net of Fees	10.79	2nd	9.80	1st	9.10	3rd
Trust Fund Benchmark	9.35	3 rd	7.23	4 th	7.13	4 th
<i>InvMetrics Public DB > \$10 Billion Median</i>	<i>9.88</i>		<i>8.72</i>		<i>9.22</i>	

- **For the one-year period ended June 30, 2025, the Trust Fund returned 10.79% and ranked in the second quartile among other Public Defined Benefit Plans greater than \$10 billion in assets.**
- **For the three-year period ended June 30, 2025, the Trust Fund returned 9.80% and ranked in the first quartile among other Public Defined Benefit Plans greater than \$10 billion in assets.**
- **For the five-year period ended June 30, 2025, the Trust Fund returned 9.10% and ranked in the third quartile among other Public Defined Benefit Plans greater than \$10 billion in assets.**

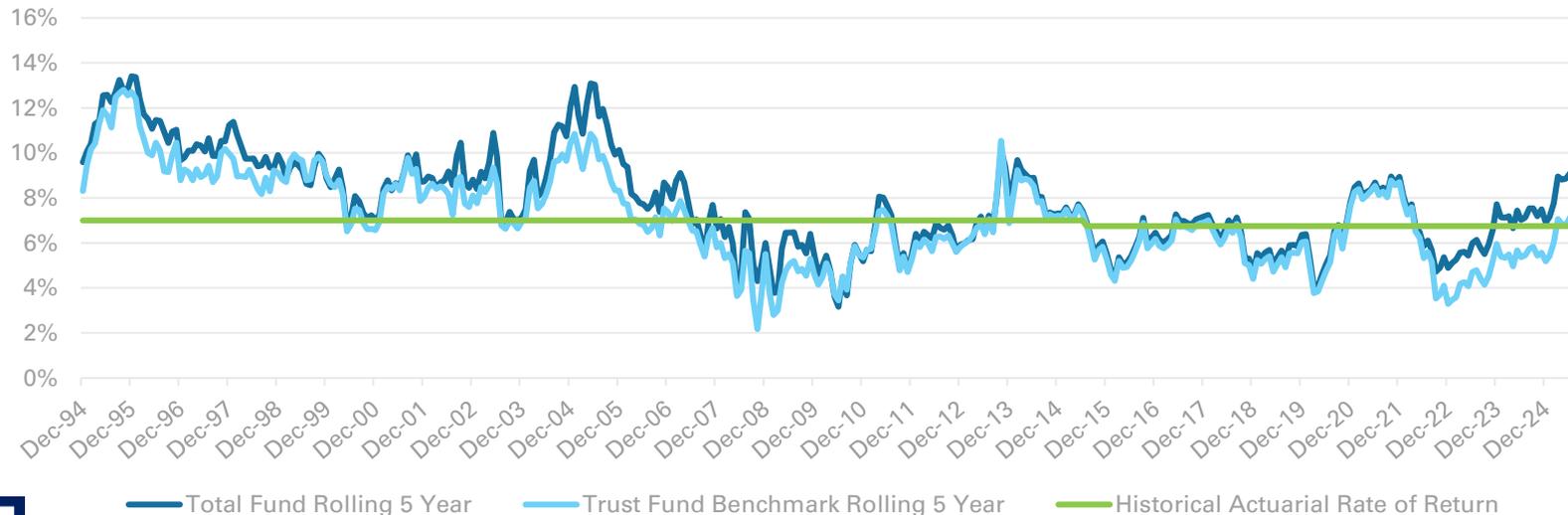


TOTAL FUND PERFORMANCE AS OF JUNE 30, 2025

VERSUS TRUST FUND BENCHMARK AND ASSUMED RATE OF RETURN

- The Trust Fund performance expectation is to exceed the Trust Fund Benchmark over rolling five-year periods.
- In the five-year period ended June 30, 2025, the Trust Fund's net return of 9.10% outperformed the Trust Fund Benchmark by 1.96%. It also exceeded the Board's Assumed Long-Term Rate of Return of 6.75%.

Rolling 5-Year Total Fund Performance vs. Trust Fund Benchmark vs. Historical Actuarial Rate of Return



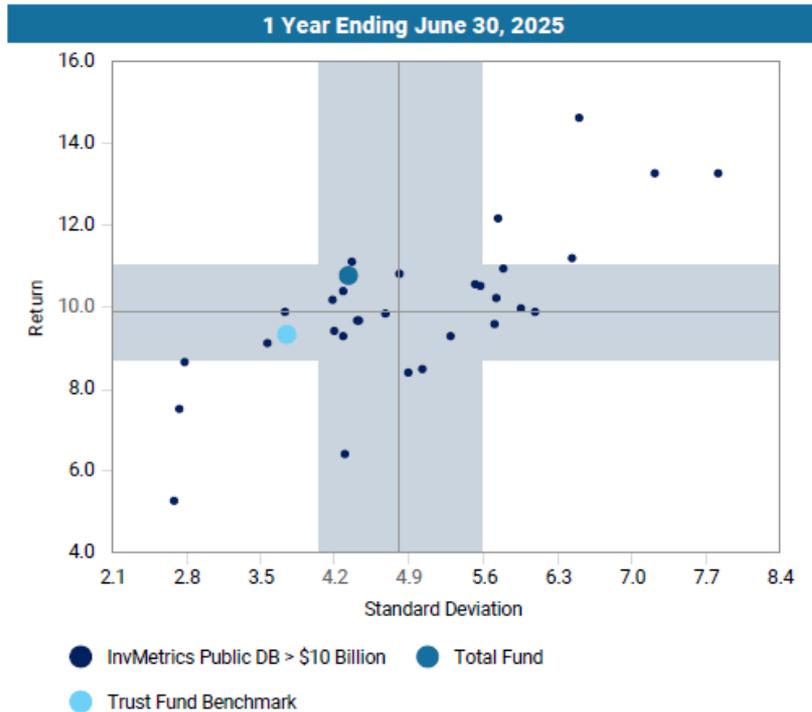
ASSET ALLOCATION COMPLIANCE AS OF JUNE 30, 2025

ACTUAL ASSET ALLOCATION VS. INVESTMENT POLICY ALLOCATION

	Current (\$)	Current (%)	Policy (%)	Differences* (%)	Policy Range (%)	Within Range
■ Global Equity	16,635,018,120	36.6	35.0	1.6	25.0 - 45.0	Yes
■ Private Equity	6,600,120,432	14.5	20.0	-5.5	10.0 - 25.0	Yes
■ Credit	11,339,918,802	25.0	21.0	4.0	16.0 - 26.0	Yes
■ Tactical Opportunities	1,457,298,670	3.2	6.0	-2.8	0.0 - 11.0	Yes
■ Real Assets	8,947,644,268	19.7	18.0	1.7	13.0 - 23.0	Yes
■ Cash Composite	429,596,893	0.9	0.0	0.9		
Total Fund	45,410,160,436	100.0	100.0	0.0		

- **Actual asset class allocations are in compliance with Investment Policy ranges as of June 30, 2025.**

TOTAL FUND RISK VS. NET RETURN: ONE YEAR AS OF JUNE 30, 2025

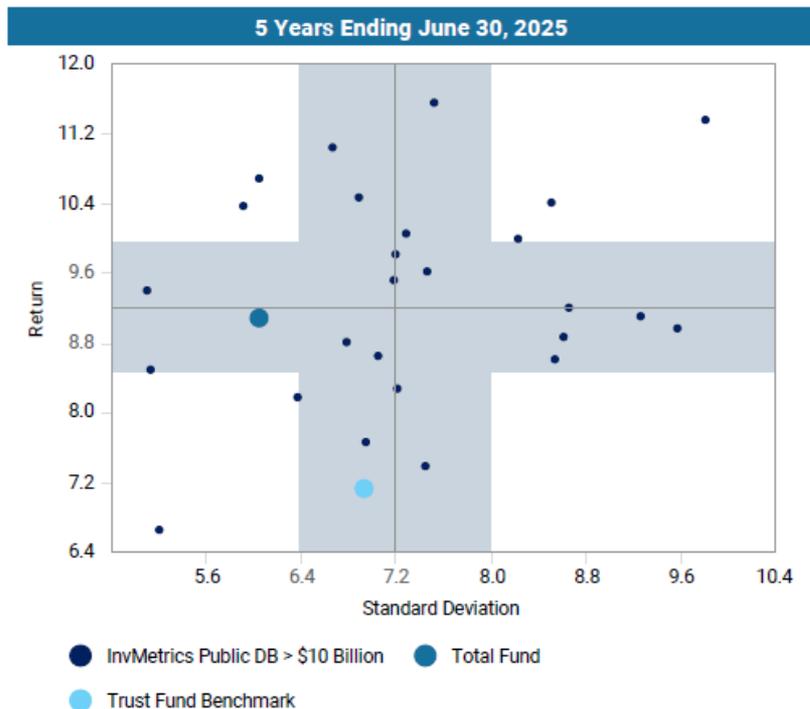


The Trust Fund generated a second quartile net investment return with one of the lower risk levels, as measured by standard deviation, among other Public Defined Benefit Plans with more than \$10 billion in assets for the 1-year period ended June 30, 2025.

1 Year Ending June 30, 2025						
	Risk	Quartile Rank	Return	Quartile Rank	Sharpe Ratio	Quartile Rank
Total Fund	4.32	2nd	10.79	2nd	1.35	1st
Trust Fund Benchmark	3.74	1 st	9.35	3 rd	1.20	2 nd
<i>InvMetrics Public DB > \$10 Billion Median</i>	<i>4.82</i>		<i>9.88</i>		<i>1.06</i>	

- The Standard Deviation interquartile range is defined as the lowest Standard Deviation measuring in the first quartile.
- InvMetrics Public DB > \$10B Median includes 31 observations.

TOTAL FUND RISK VS. NET RETURN: FIVE YEARS AS OF JUNE 30, 2025



The Trust Fund underperformed in its peer universe due to having one of the lowest risk levels as measured by standard deviation in the 5-year period, among other Public Defined Benefit Plans with more than \$10 billion in assets.

5 Year Ending June 30, 2025						
	Risk	Quartile Rank	Return	Quartile Rank	Sharpe Ratio	Quartile Rank
Total Fund	6.04	1st	9.10	3rd	1.02	2nd
Trust Fund Benchmark	6.93	2 nd	7.13	4 th	0.64	4 th
<i>InvMetrics Public DB > \$10 Billion Median</i>	<i>7.19</i>		<i>9.22</i>		<i>0.88</i>	

- The Standard Deviation interquartile range is defined as the lowest Standard Deviation measuring in the first quartile.
- InvMetrics Public DB > \$10B Median includes 27 observations.



PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund (Peer Comparison*)	45,410,160,436	100.0	5.42 (57)	5.91 (64)	10.79 (27)	9.80 (21)	9.10 (58)	7.29 (73)	7.06 (71)	8.29	Jan-89
<i>Trust Fund Benchmark</i>			<u>4.97</u>	<u>4.99</u>	<u>9.35</u>	<u>7.23</u>	<u>7.13</u>	<u>5.90</u>	<u>5.94</u>	<u>7.57</u>	
Over/Under			0.45	0.92	1.44	2.57	1.96	1.40	1.12	0.72	
Global Equity	16,635,018,120	36.6	12.04	10.12	16.35	17.08	13.15	9.85	9.66	7.18	Jan-08
<i>Total Equity Index</i>			<u>11.88</u>	<u>9.57</u>	<u>15.62</u>	<u>16.71</u>	<u>13.34</u>	<u>10.28</u>	<u>9.92</u>	<u>7.29</u>	
Over/Under			0.16	0.55	0.72	0.37	-0.19	-0.44	-0.26	-0.10	
Private Equity	6,600,120,432	14.5	2.35	4.55	9.94	5.57	18.75	16.15		14.55	Dec-15
<i>Private Equity Index</i>			<u>1.79</u>	<u>2.62</u>	<u>5.95</u>	<u>1.43</u>	<u>15.55</u>	<u>11.19</u>		<u>12.73</u>	
Over/Under			0.56	1.93	3.99	4.14	3.21	4.96		1.81	
Credit	11,339,918,802	25.0	1.34	3.40	7.93	6.61	4.92	4.92	4.41	7.14	Jan-89
<i>Credit Custom Blend</i>			<u>1.20</u>	<u>3.11</u>	<u>7.45</u>	<u>3.46</u>	<u>2.13</u>	<u>2.74</u>	<u>2.71</u>	<u>6.21</u>	
Over/Under			0.15	0.29	0.47	3.15	2.79	2.18	1.70	0.92	
Tactical Opportunities	1,457,298,670	3.2	1.35	3.05	8.91	8.77	7.49	5.90	5.62	5.39	Jul-14
<i>Tactical Opportunities Custom Blend</i>			<u>-0.16</u>	<u>1.56</u>	<u>4.04</u>	<u>4.00</u>	<u>6.65</u>	<u>4.81</u>	<u>3.80</u>	<u>3.91</u>	
Over/Under			1.51	1.49	4.86	4.78	0.84	1.08	1.81	1.48	
Real Assets	8,947,644,268	19.7	2.65	3.51	6.13	3.97	8.21	7.51	8.78	9.13	Nov-11
<i>Real Assets Custom Blend</i>			<u>1.55</u>	<u>1.80</u>	<u>3.30</u>	<u>-1.19</u>	<u>4.27</u>	<u>4.48</u>	<u>6.08</u>	<u>7.91</u>	
Over/Under			1.11	1.72	2.83	5.16	3.94	3.03	2.69	1.22	
Cash Composite	429,596,893	0.9	1.08	2.17	4.87	4.94	3.02	2.67	2.13	1.35	Jun-08
<i>FTSE 1 Month US T-Bill index</i>			<u>1.08</u>	<u>2.17</u>	<u>4.80</u>	<u>4.69</u>	<u>2.83</u>	<u>2.54</u>	<u>1.95</u>	<u>1.20</u>	
Over/Under			0.00	0.00	0.07	0.26	0.19	0.13	0.18	0.15	

* Peer comparison is expressed as a percentile. The lower the number, the better (e.g., "1" is the top percentile).

COMPOSITE BENCHMARK DEFINITIONS AS OF JUNE 30, 2025

The Trust Fund Benchmark represents the Actual Allocation Benchmark through 12/31/2023; the Strategic Target Allocation weights through 12/31/2024; actual asset class weights as of 1/1/2025.

Strategic Target Allocation 1/1/2024-12/31/2024

- 35.0% Total Equity Benchmark
- 6.0% Core Fixed Income Benchmark
- 6.0% Non-Core Fixed Income Benchmark
- 5.0% Hedge Funds Benchmark
- 13.0% Private Equity Benchmark
- 12.0% Real Estate Benchmark
- 6.0% Infrastructure Benchmark
- 4.0% Other Private Markets Benchmark
- 13.0% Private Debt Benchmark

The Actual Allocation Benchmark was calculated monthly using the beginning of the month asset class weights applied to each corresponding benchmark return.

Asset Class Composite Benchmarks:

The Total Equity Benchmark is calculated monthly and consists of 50% Russell 3000 Index and 50% MSCI EAFE Index (USD) (Net) through 07/31/2010; a blend of the Russell 3000 Index, MSCI ACW Ex US IM Index (USD) (Net) and MSCI EAFE Index (USD) (Net) at beginning of month investment weights through 11/30/2012; and a blend of the Russell 3000 Index and MSCI ACW Ex US IM Index (USD) (Net) at beginning of the month weights through 12/31/2018; and MSCI ACW IM Index (USD) (Net) through 12/31/2024; and MSCI ACWI IMI ex-China ex-Hong Kong (Net) thereafter.

The Private Equity Benchmark is set equal to the Composite return through 6/30/2021; the MSCI ACW IM Index (USD) (Net), one quarter lag through 12/31/2023; the Cambridge US PE and Venture Capital, one quarter lag through 12/31/2024; and the Cambridge Global PE and Venture Capital, one quarter lag thereafter.

The Tactical Opportunities Benchmark is calculated monthly and consists of the HFRI FOF: Dvf'd Index (1 Mo Lag) through 6/30/2021, and HFRI Asset Weighted Composite Index (1 Mo Lag) thereafter.

The Credit Benchmark consists of 40% ICE BofA 1-3YR A-BBB US Corporate Index and 60% CS Leverage Loans Index +100bps.

The Real Assets Benchmark consists of 50% Cambridge Infrastructure and 50% NCREIF NFI-ODCE (Net).



September 9, 2025

To: Board of Trustees

From: Yup S. Kim, Chief Investment Officer Y/K

Re: Agenda Item 4: Receive Annual Review and Consider and Act on Amendments to Asset Allocation Ranges

The Investment Policy Statement requires the Asset Allocation to be reviewed annually. NEPC will be presenting the annual Asset Allocation review. In conjunction with the annual Asset Allocation review, a recommendation to make a modest change to widen asset class ranges is being proposed. The reason for the recommendation is that widening the allowable ranges will enable better navigation of variable capital market conditions and more effective transition toward the target Asset Allocation adopted in 2024. Background for the recommendation is that adoption of the new Asset Allocation had the following effects:

- *Asset Classes Reduced.* Previously there were nine (9) asset classes. Now there are five (5).
- *Target Credit Allocation Decreased.* Under the prior allocation three (3) credit asset classes were reduced to one (1) and the total credit target was reduced from 25% to 21%.
- *Asset Allocation Range Flexibility Reduced.* Using credit as an example, each of the three (3) prior credit asset classes had an allowable range of +/-5% from the target allocation, meaning total flexibility was +/-15% at the time. Credit flexibility today is only +/-5%.
- *Private Market Target Increased.* Private market investments are not yet at target. Because of this public market investments are above target allocations, and in the case of credit which had its target and range flexibility reduced, is near the top end of the allowable range.

Staff, with NEPC's support, is recommending that effective October 1, 2025, the Board adopt updated and consistent asset allocation ranges for private equity, credit and real assets as follows:

Asset Class	Target %	Current Range	Proposed Range
Private Equity	20%	10% - 25%	12% - 28%
Credit	21%	16% - 26%	13% - 29%
Real Assets	18%	13% - 23%	10% - 26%

ATTACHMENTS:

- 1 – NEPC Asset Allocation Review
- 2 – NEPC Asset Class Assumptions Supplement



ASSET ALLOCATION REVIEW

TEXAS MUNICIPAL RETIREMENT
SYSTEM

SEPTEMBER 18, 2025

Sam Austin, Partner



CONTENTS

- NEPC Assumptions
- TMRS Asset Allocation Review



NEPC ASSUMPTIONS



PROPRIETARY & CONFIDENTIAL

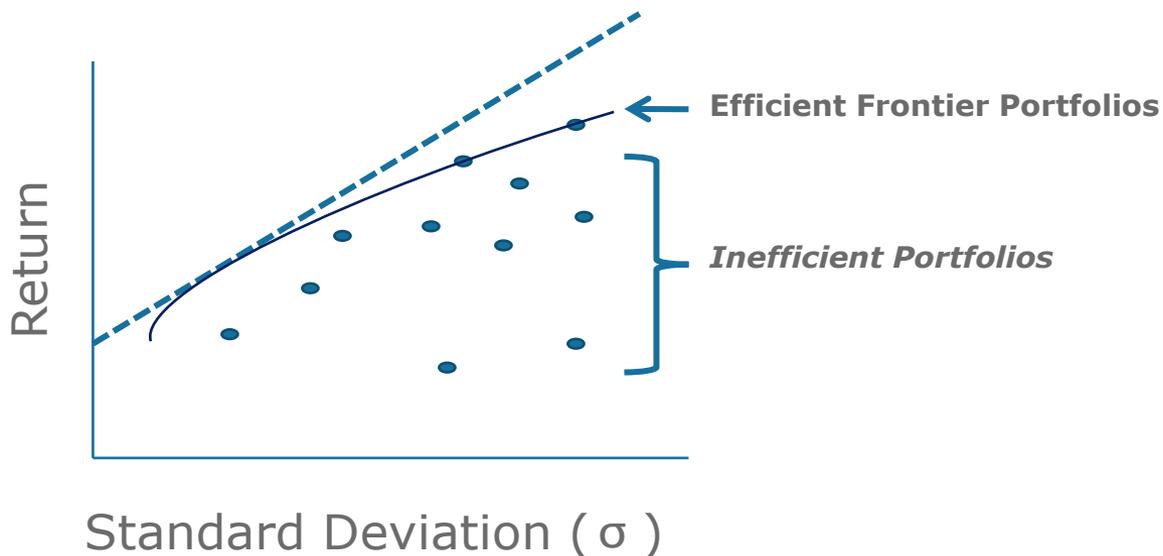
ASSET ALLOCATION PRINCIPLES

- **TMRS' IPS states the "Asset Allocation will be reviewed at least annually for reasonableness, taking into consideration current capital markets and economic conditions and the Board's views regarding long-term investment goals and objectives."**
- **Expected Return on Assets is based on assumptions – actual experience will likely depart from those assumptions**
- **NEPC return assumptions are meant to reflect a nominal return expectation, net of fees, over a 10-year and 30-year investment horizon**
- **Risk is multi-dimensional and should be considered from different perspectives – risk is not just volatility (e.g. volatility, potential for drawdowns, illiquidity, exposure to economic factors, etc)**
- **NEPC's asset class models are designed to be forward-looking and not to replicate the past, which requires both model scrutiny and iteration**
- **Long-term nature of pension obligations positions well-funded pension plans to take advantage of long-term investment opportunities**

CLASSICAL ASSET ALLOCATION MODEL

MEAN-VARIANCE OPTIMIZATION (“MVO”)

- **Mean-Variance Optimization: Asset allocation model based on Nobel-Prize winning theory**
- **Mathematical solution to determine the “best” mix of assets that will create an efficient frontier**
 - Highest return for expected risk (volatility), or
 - Lowest expected risk (volatility) for expected return
 - Stated another way, it builds portfolios with the highest expected risk-adjusted returns – Efficient Frontier:



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**



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%	-

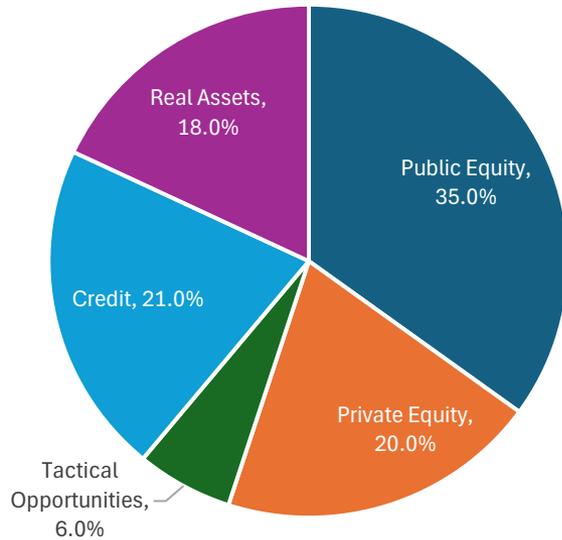
*Calculated as a blend of other asset classes. NEPC's capital market assumptions reflect proprietary forecasts for expected returns, volatility, and correlations. Return expectations may differ from an investor's realized returns after accounting for fees, taxes, or other aspects that can influence actual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

TMRS ASSET ALLOCATION REVIEW



TMRS RETURN AND RISK EXPECTATIONS

USING JUNE 30 CAPITAL MARKET ASSUMPTIONS



	10 Year		30 Year	
	2025	2024	2025	2024
Expected Return	7.1%	7.0%	8.4%	8.3%
Expected Volatility	15.8%	16.0%	15.8%	16.0%
Sharpe Ratio	0.20	0.18	0.31	0.30

Probabilities using 6/30/25 Assumptions	
Probability of 1-Year Return Under 0.00%	32.8%
Probability of 10-Year Return Under 0.00%	7.9%
Probability of 10-Year Return Under 6.75%	47.4%
Probability of 30-Year Return Under 6.75%	28.7%



Return and risk expectations are based on NEPC capital market assumptions as of 6/30/25 and 6/30/24.

RETURN & RISK ASSESSMENT

Goals & Objectives. The asset allocation adopted in 2024 continues to be expected to meet return objectives at a reasonable risk.

Asset Class	Expected 10-Yr Return	Expected 30-Yr Return	Expected Volatility
Public Equity	5.7%	7.4%	18.2%
Private Equity	8.6%	9.9%	25.8%
Tactical Opportunities	5.7%	7.4%	18.2%
Credit	7.4%	8.1%	9.2%
Real Assts	6.6%	7.6%	14.0%
Total Portfolio	7.1%	8.4%	15.8%

Current Market Conditions. While long-term expectations should be the primary concern in setting an asset allocation, current capital market and economic conditions support staying the course.

ASSET CLASS RANGES

Asset class targets set the strategic risk and return appetite for the plan.
Asset class ranges dictate flexibility in implementing the asset allocation.

Recommendation. NEPC supports staff's recommendation to modify asset allocation ranges as follows:

Asset Class	Target %	Current Range	Proposed Range
Credit	21%	16% - 26%	13% - 29%
Private Equity	20%	10% - 25%	12% - 28%
Real Assets	18%	13% - 23%	10% - 26%

Recommendation Rationale. Widening ranges will enable better navigation of variable capital market conditions and more effective transition of the portfolio toward the target Asset Allocation. If adopted, TMRS' ranges would be consistent with those of other NEPC clients.

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.

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