
MINNESOTA STATE BOARD OF INVESTMENT

**STATE BOARD OF INVESTMENT
MEETING
October 21, 2025**



**Governor Tim Walz
State Auditor Julie Blaha
Secretary of State Steve Simon
Attorney General Keith Ellison**

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**STATE BOARD OF INVESTMENT
MEETING**

AGENDA

October 21, 2025

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Board Members:
Governor Tim Walz, Chair
State Auditor Julie Blaha
Secretary of State Steve Simon
Attorney General Keith Ellison

Executive Director & Chief Investment Officer:
Jill E. Schurtz

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AGENDA

STATE BOARD OF INVESTMENT MEETING

**Tuesday, October 21, 2025
10:00 a.m.**

Public Broadcast Link: <https://www.youtube.com/live/crc5LukkBZ4>

TAB

1. Call to Order

2. Approval of Minutes of March 21, 2025 Motion Needed

3. Report from the Executive Director

A. Quarterly Performance Summary A

B. Administrative Report B

4. SBI Administrative Committee Report C Motion Needed

- a. Executive Director's Proposed Annual Objectives FY26
- b. Budget Plan for FY26 and FY27
- c. Continuing Fiduciary Education Plan
- d. Executive Director's Evaluation and Salary Process

5. Private Markets Investment Program Report D Motion Needed

6. Asset Allocation Study E Motion Needed

7. Investment Policy Statement F Motion Needed

8. Personal Securities Trading Policy G Motion Needed

9. Revised Public Engagement Policy H Motion Needed

10. Other Items

REPORTS

- ❖ Public Markets Investment Program Report
- ❖ Participant Directed Investment Program and Non-Retirement Investment Program Report
- ❖ Aon Market Environment Report
- ❖ Meketa Capital Markets Outlook & Risk Metrics Report
- ❖ SBI Comprehensive Performance Report

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Approval of
March 21, 2025
SBI Meeting Minutes

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Minutes State Board of Investment Meeting March 21, 2025

The State Board of Investment (SBI) met at 9:13 a.m. Friday, March 21, 2025 in the Retirement Systems Building, 60 Empire Drive, Room 106, St. Paul, Minnesota. Prior to the quarterly meeting, each Board member reviewed and discussed the material with the Executive Director and investment consultants retained by the SBI.

Members Present:

Governor Tim Walz
State Auditor Julie Blaha
Secretary of State Steve Simon
Attorney General Keith Ellison

Call to Order

Governor Tim Walz called the meeting to order.

Approval of Minutes

The minutes of the December 10, 2024, SBI meeting were approved.

Performance Summary

Ms. Schurtz referred members to the Quarterly Performance Summary in Tab A of the meeting materials and outlined the following items from the report, as of December 31, 2024:

AUM: The SBI was responsible for \$149.7 billion in assets, of which the Combined Funds represented \$96.6 billion.

Performance: The Combined Funds returned -0.4% for the quarter and 11.3% for the 12-month period ending December 31, 2024. The Combined Funds exceeded its long-term objectives by outperforming its Composite Index for the ten-year period and providing a real rate of return above inflation over a 20-year period.

Asset Allocation and TUCS Ranking: The Combined Funds asset mix was in-line with asset allocation targets. When compared to other public pension plans with assets greater than \$20 billion in the Trust Universe Comparison Service (TUCS), the Combined Funds return ranked in the 45th percentile for the quarter and the 10th percentile for the year.

Executive Director's Administrative Report

Executive Director/CIO Jill Schurtz referred members to Tab B of the meeting materials for the Executive Director's Administrative Report. Ms. Schurtz reported that the annual audit conducted by the Office of the Legislative Auditor (OLA) issued an unqualified opinion with no written findings or recommendations. Ms. Schurtz stated that the SBI Annual Report had been completed and was available on the website. Other important items highlighted in the report for review was the annual budget, and the status of any action with respect to Russia, Belarus and Iran restrictions.

Ms. Schurtz referred members to Tab C and Tab D for two recommendations reauthorizing the SBI Administrative Committee and Proxy Committee.

On the motion of Secretary of State Simon, the following recommendations were approved:

Adopt Resolution to Reauthorize the SBI Administrative Committee. The Executive Director recommends that the Board adopt a resolution which reauthorizes the SBI Administrative Committee to review and make recommendations regarding the SBI's fiscal year budget, the Executive Director's yearly goals and objectives, the Executive Director's performance evaluation process, and any other administrative items necessary for the administration of the SBI that are referred by the SBI Administrative Committee or Executive Director.

Adopt Resolution to Reauthorize the Proxy Voting Committee. The Executive Director recommends that the Board adopt a resolution reauthorizing the SBI Proxy Committee and delegating proxy voting responsibilities according to established guidelines.

Legislative Priorities

Ms. Schurtz referred members to Tab E of the meeting materials and gave a brief update on legislative priorities that SBI will be working towards during the current legislative session.

Private Markets Investment Program Report

Mr. Martin referred members to Tab F of the meeting materials and reviewed three private markets recommendations: Blackstone Capital Partners Asia III L.P.; Sixth Street Opportunities Partners VI, LP; and Trident X US Fund, L.P.

On the motion of State Auditor Julie Blaha, the recommendations listed below were approved.

The following terms apply to these recommendations: It is understood that 1) such a commitment will not exceed 20% of the Fund and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment or its Executive Director have any liability for reliance by the Fund upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on the Fund or a reduction or termination of the commitment.

Blackstone Capital Partners Asia III L.P.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$300 million to Blackstone Capital Partners Asia III L.P.

Sixth Street Opportunities Partners VI, L.P.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$150 million to Sixth Street Opportunities Partners VI, L.P.

Trident X US Fund, L.P.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million to Trident X US Fund, L.P.

Public Testimony

Individuals listed below were recognized to speak before the SBI.

- Steven Smith
- Joe Klug, Krista Romanish, and Mariah Mantz
- Alison Thorson and Sebastiana Cervantes
- Mary Jean Mulherin, Ray Himmelman, Katie Nicholson, and Daniel Kalani Matus
- Naveen Borojerdi, Tony Aarts, Iiya Garelik, Tracy Waterman, and Jon VanOeveren
- Julie Elhard, Abir Ismail, Cedar Larson, and Charley Underwood

Informational Reports included in Quarterly Meeting Material

Public Markets Investment Report

Participant Directed Investment Program and Non-Retirement Investment Program Report

Aon Market Environmental Report

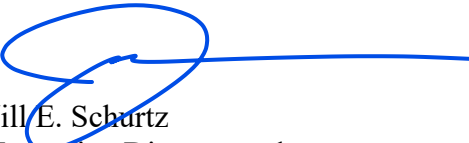
Meketa Capital Markets Outlook & Risk Report

SBI Comprehensive Performance Report

Adjournment of Meeting

A motion was made to adjourn the meeting. The motion passed and the meeting adjourned at 10:03 a.m.

Respectfully submitted,



Jill E. Schurtz
Executive Director and
Chief Investment Officer

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TAB A

Quarterly Performance Summary

June 30, 2025

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Quarterly Report

Performance Summary

June 30, 2025



Description of SBI Investment Programs

The Minnesota State Board of Investment (SBI) is responsible for the investment management of various retirement funds, trust funds, and cash accounts.

Combined Funds

The Combined Funds represent the assets for both the active and retired public employees in the statewide retirement systems, the biggest of which are the Public Employees Retirement Association (PERA), the Teachers Retirement Association (TRA), and the Minnesota State Retirement System (MSRS). The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

Other Retirement Funds

In addition to the assets of the Statewide Retirement Systems, the SBI provides broad asset-class investment options to both defined benefit and defined contribution retirement plans that either make investment decisions at the plan level and participant-directed plans. Other public retirement funds include the Public Employees Retirement Association (PERA) Defined Contribution Plan, St. Paul Teachers' Retirement Fund Association, Statewide Volunteer Firefighter Plan, Unclassified Retirement Plan, and Volunteer Fire Relief Associations.

Tax-Advantaged Savings Plans

The SBI aims to help participants meet their savings and investment goals by offering a range of investment options across asset classes managed by institutional investment managers that charge competitive fees. The investment options offered within each plan will vary based on several factors, including statutory requirements, operational limitations, and other rules and regulations established for each participating plan. Tax-advantaged savings plans include the Health Care Savings Plan, Hennepin County Supplemental Retirement Plan, and Minnesota Deferred Compensation Plan.

State-Sponsored Savings Plans

The SBI is responsible for oversight of the investment options in the State-Sponsored Savings Plans, including the Minnesota College Savings Plan and the Minnesota ABLE Plan. SBI does not directly administer plans; it partners with the respective plan-administrating agencies when selecting investment options.

Non-Retirement Investment Program

The SBI is responsible for the assets of several state trust funds, public sector sponsored entities, Other Postemployment Benefits (OPEB) trusts, and Qualifying Governmental Entities. These trust funds and accounts have different accounting requirements and spending targets derived from constitutional and statutory provisions. Statute will also identify whether the SBI or the sponsoring entity is responsible for determining the asset allocation targets for the respective fund or account.

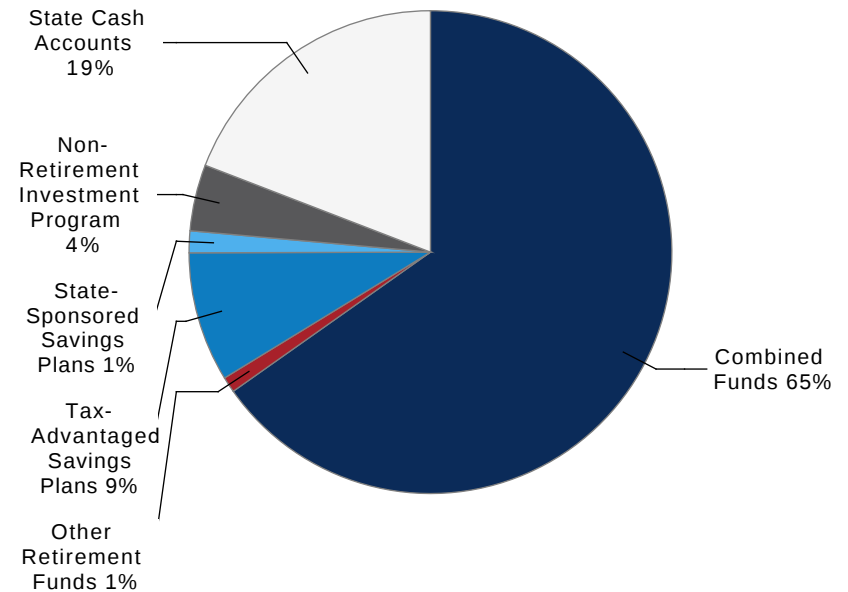
State Cash

The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and non-dedicated cash in the State Treasury. Because of special legal restrictions, a small number of cash accounts cannot be commingled.



Funds Under Management

	<u>\$ Millions</u>
Combined Funds	\$101,221
Other Retirement Funds	\$1,568
PERA Defined Contribution Plan	\$106
St. Paul Teachers' Retirement Fund	\$335
Statewide Volunteer Firefighter Plan	\$415
Unclassified Retirement Plan	\$442
Volunteer Fire Relief Associations	\$270
Tax-Advantaged Savings Plans	\$13,599
Health Care Savings Plan	\$2,343
Hennepin County Supplemental Retirement Plan	\$184
Minnesota Deferred Compensation Plan	\$11,072
State-Sponsored Savings Plans	\$2,303
Minnesota College Savings Plan	\$2,241
Minnesota Achieving a Better Life Experience Plan	\$62
Non-Retirement Investment Program	\$6,921
Other Postemployment Benefits (OPEB)	\$1,071
Qualifying Governmental Entities	\$21
Trust Funds	\$5,828
State Cash	\$30,248
Invested Treasurer's Cash	\$29,610
Other State Cash Accounts	\$637
TOTAL SBI AUM	\$155,859



Note: Differentials within column amounts may occur due to rounding. Totals are unaudited and may differ from the final fiscal year-end report.



Quarterly Report

<u>Comparison to Objective</u>		
Match or Exceed Composite Index (10 yr.) Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Combined Funds over the latest 10 year period.		<u>10 Year</u>
	Combined Funds	8.9%
	<i>Combined Funds - Composite Index</i>	8.7
	Excess	0.2
Provide Real Return (20 yr.) Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.		<u>20 Year</u>
	Combined Funds	8.3%
	<i>CPI-U</i>	2.6
	Excess	5.8

Note:
Throughout this report performance is calculated net of investment management fees, differentials within column amounts may occur due to rounding, and returns for all periods greater than one year are annualized.



Combined Funds Summary

Combined Funds Change in Market Value (\$Millions)

	One Quarter
COMBINED FUNDS	
Beginning Market Value	\$96,008
Net Contributions	-619
Investment Return	5,833
Ending Market Value	101,221

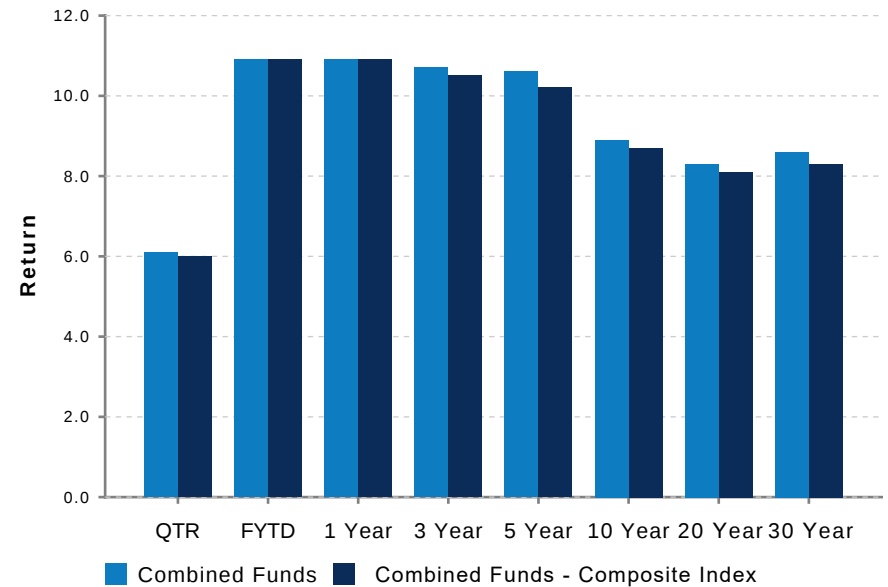
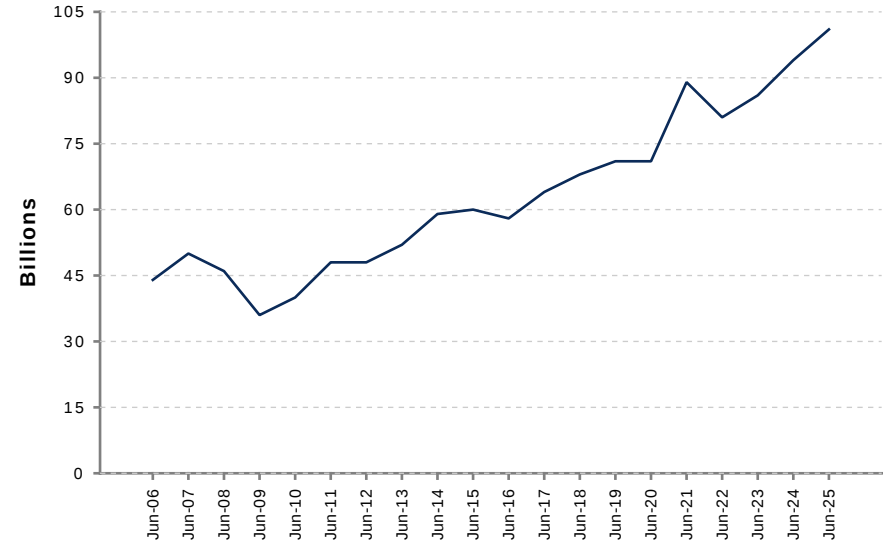
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

Performance (Net of Fees)

The Combined Funds' performance is evaluated relative to a composite of public market index and private market investment returns. The Composite performance is calculated by multiplying the beginning of month Composite weights and the monthly returns of the asset class benchmarks.

	QTR	FYTD	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr	30 Yr
Combined Funds	6.1%	10.9%	10.9%	10.7%	10.6%	8.9%	8.3%	8.6%
Combined Funds-Composite Index	6.0%	10.9%	10.9%	10.5%	10.2%	8.7%	8.1%	8.3%
Excess	0.2%	0.0%	0.0%	0.3%	0.4%	0.2%	0.2%	0.3%

Asset Growth

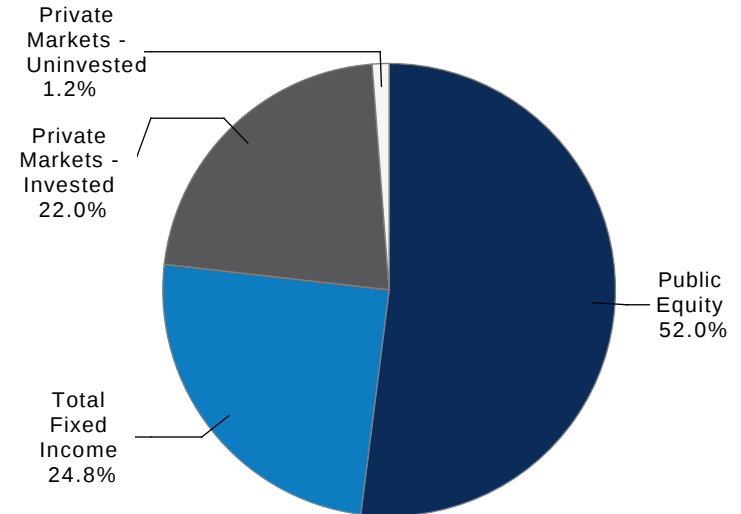


Combined Funds Summary

Asset Mix

The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in cash.

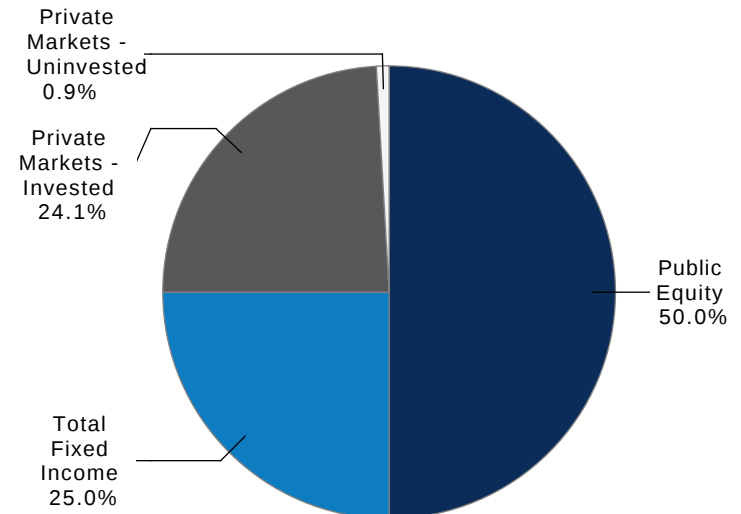
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$52,596	52.0	50.0
Total Fixed Income	25,111	24.8	25.0
Private Markets - Total	23,514	23.2	25.0
Private Markets - Invested	22,306	22.0	
Private Markets - Uninvested	1,208	1.2	
TOTAL	101,221	100.0	



Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target. The Combined Funds Composite weighting shown below is as of the first day of the quarter.

	<u>Policy Weight</u>	<u>Market Index</u>
Public Equity	50.0	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	24.1	Private Markets
Private Markets - Uninvested	0.9	ICE BofA US 3-Month Treasury Bill





Combined Funds Asset Class Performance Summary

Public Equity

The Combined Funds Public Equity includes Domestic Equity, International Equity and Global Equity.

The Public Equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex US (net).

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Public Equity	\$52.6	52.0%	50.0%	11.2%	15.6%	15.6%	17.6%	14.4%	10.9%	9.3%	9.2
Public Equity Benchmark				11.4	16.3	16.3	17.5	14.1	10.8	9.2	9.0
Excess				-0.1	-0.6	-0.6	0.1	0.2	0.1	0.1	0.2
Domestic Equity	34.6	34.2	33.5	11.1	15.2	15.2	19.2	16.1	12.8	10.4	10.1
Domestic Equity Benchmark				11.0	15.3	15.3	19.1	16.0	12.9	10.5	10.2
Excess				0.1	-0.1	-0.1	0.1	0.1	-0.1	-0.1	-0.1
International Equity	16.8	16.6	16.5	11.3	16.6	16.6	14.5	11.1	6.7	6.4	6.3
International Equity Benchmark				12.0	17.7	17.7	14.0	10.1	6.1	5.8	5.6
Excess				-0.8	-1.2	-1.2	0.5	1.0	0.6	0.5	0.7
Global Equity	1.1	1.1	0.0	13.2	14.2	14.2	14.4				
MSCI AC WORLD INDEX NET				11.5	16.2	16.2	17.3				
Excess				1.6	-1.9	-1.9	-2.9				

Note:

Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a Total Public Equity return. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.



Combined Funds Asset Class Performance Summary

Total Fixed Income

The Combined Funds Fixed Income program includes Core/Core Plus, Return Seeking Fixed Income, Treasuries and Laddered Bond + Cash.

The Total Fixed Income benchmark is 40% Bloomberg U.S. Aggregate Index/ 40% Bloomberg Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill.

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Total Fixed Income	\$25.1	24.8%	25.0%	1.1%	5.8%	5.8%	2.8%	-0.8%	2.4%	3.6%	4.8%
Total Fixed Income Benchmark				0.8	5.1	5.1	1.7	-1.5	1.9	3.1	4.4
Excess				0.4	0.7	0.7	1.1	0.7	0.6	0.5	0.4
Core/Core Plus	\$5.7	5.6%	5.0	1.5	6.5	6.5	3.4	-0.1	2.3	3.6	4.7
Core Bonds Benchmark				1.2	6.1	6.1	2.5	-0.7	1.8	3.1	4.3
Excess				0.2	0.4	0.4	0.9	0.7	0.6	0.5	0.4
Return Seeking Fixed Income	\$4.9	4.9%	5.0	2.8	8.6	8.6	6.9				
Bloomberg U.S. Aggregate				1.2	6.1	6.1	2.5				
Excess				1.6	2.5	2.5	4.4				
Treasury Protection	\$9.6	9.5%	10.0	0.2	4.4	4.4	-0.6	-4.4			
Bloomberg Treasury 5+ Year				0.2	4.2	4.2	-0.7	-4.6			
Excess				0.0	0.2	0.2	0.1	0.1			
Laddered Bond + Cash	\$4.9	4.8%	5.0	1.1	5.0	5.0	4.7	2.8	2.0	1.9	3.0
ICE BofA US 3-Month Treasury Bill				1.0	4.7	4.7	4.6	2.8	2.0	1.7	2.5
Excess				0.0	0.3	0.3	0.2	0.0	0.1	0.2	0.5

Note:

Since 12/1/2020 the Total Fixed Income includes allocations to Core/Core Plus Bonds, Return Seeking Bonds, Treasuries and Laddered Bond + Cash. From 7/1/2020 to 11/30/2020 Total Fixed Income was Core Bonds, Treasuries and Cash. From 2/1/2018-6/30/20 Total Fixed Income was Core Bonds and Treasuries. Prior to 2/1/2018, Total Fixed Income was Core Bonds. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.



Combined Funds Asset Class Performance Summary

Private Markets

	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>25 Year</u>	<u>30 Year</u>
Private Markets - Invested	0.6%	6.1%	6.1%	5.2%	14.9%	11.5%	12.5%	11.9%	13.4%
Private Markets -Uninvested(1)	0.9%	4.1%	4.1%	5.2%					
Private Equity	1.4%	8.3%	8.3%	6.5%	17.1%	14.8%	14.6%	12.7%	15.6%
Private Credit	-1.9%	4.8%	4.8%	7.9%	12.5%	11.5%	12.2%	11.6%	
Resources	-2.6%	-1.9%	-1.9%	1.7%	10.5%	2.0%	10.3%	12.2%	12.2%
Real Estate	-0.3%	-1.6%	-1.6%	-3.9%	7.8%	8.0%	7.7%	8.4%	9.1%

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) The Uninvested Private Markets is currently cash. Prior to 11/02/2022, the Uninvested portion of the Private Markets allocation was invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash.

Source: State Street Bank



SBI Combined Funds Strategic Allocation Category Framework

	<u>06/30/2025</u> <u>(\$ millions)</u>	<u>06/30/2025</u> <u>Weights</u>	<u>Category Range</u>	
<u>Growth - Appreciation</u>				
Public Equity	\$ 52,605.8	52.0%		
Private Equity	\$ 16,141.7	15.9%		
Non-Core Real Assets	\$ 3,757.9	3.7%		
	\$ 72,505.5	71.6%	50%	75%
<u>Growth - Income-oriented</u>				
Core Fixed Income	\$ 5,709.6	5.6%		
Private Credit	\$ 1,911.3	1.9%		
Return-Seeking Fixed Income	\$ 4,927.6	4.9%		
	\$ 12,548.6	12.4%	15%	30%
<u>Real Assets</u>				
Core Real Estate		0.0%		
Real Assets	\$ 412.2	0.4%		
	\$ 412.2	0.4%	0%	10%
<u>Inflation Protection</u>				
TIPS		0.0%		
Commodities		0.0%		
		0.0%	0%	10%
<u>Protection</u>				
U.S. Treasuries	\$ 9,566.8	9.5%		
	\$ 9,566.8	9.5%	5%	20%
<u>Liquidity</u>				
Cash	\$ 6,188.1	6.1%		
	\$ 6,188.1	6.1%	0%	5%
<u>Opportunity</u>				
Opportunity		0.0%		
		0.0%	0%	10%
Total	\$ 101,221.3	100%		
Illiquid Asset Exposure	\$ 22,223.2	22.0%	0%	32%



Volatility Equivalent Benchmark Comparison

	As of June 30, 2025							
	<i>1-year</i>	<i>3-year</i>	<i>5-year</i>	<i>10-year</i>	<i>15-year</i>	<i>20-year</i>	<i>25-year</i>	<i>30-year</i>
SBI Combined Funds Return	10.9%	10.7%	10.6%	8.9%	10.0%	8.3%	7.1%	8.6%
Volatility Equivalent Benchmark Return			5.9%	6.3%	7.0%	6.2%	5.5%	6.7%
Value Added			4.7%	2.6%	3.0%	2.1%	1.6%	1.9%
Standard Deviation: Benchmark = Combined Funds			9.5%	9.2%	8.7%	9.4%	9.5%	9.6%
Benchmark Stock Weight			46%	54%	55%	56%	58%	60%
Benchmark Bond Weight			51%	46%	44%	44%	42%	40%

The Volatility Equivalent Benchmark stock and bond weights are adjusted to equal the standard deviation of the SBI Combined Funds portfolio. Then a return is calculated.

The bond return used is the Bloomberg U.S. Aggregate. The stock return used is the MSCI AC World Net Return Index. Prior to 12/31/98 it was the MSCI ACWI Total Return Index and pre-11/1/1993 it was the Wilshire 5000 adjusted for various SBI divestment mandates.



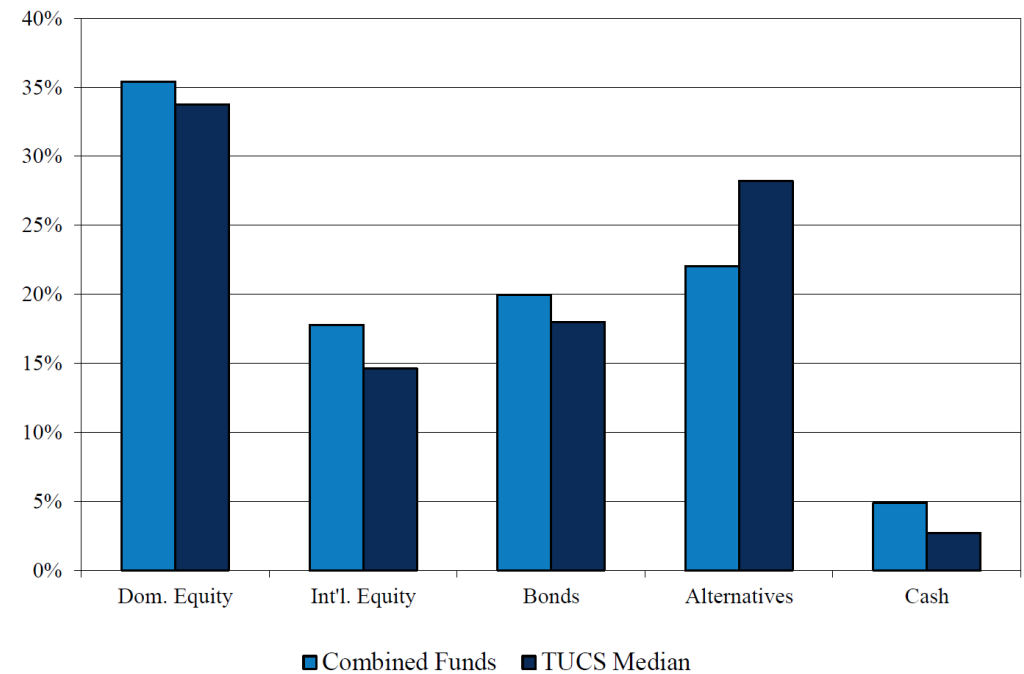
Combined Funds Summary

Asset Mix Compared to Other Pension Funds

The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over **\$20 billion** are included in the comparisons shown in this section.

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bonds and other assets of the public funds in TUCS over **\$20 billion** are shown below:

	<u>(Millions)</u>	<u>Actual Mix</u>
Public Equity	\$52,596	52.0%
Total Fixed Income	\$25,111	24.8%
Private Markets - Total	\$23,514	23.2%
Private Markets - Invested	\$22,306	22.0%
Private Markets - Uninvested	\$1,208	1.2%
TOTAL	\$101,221	100.0%



	<u>Domestic Equity</u>	<u>International Equity</u>	<u>Bonds</u>	<u>Alternatives</u>	<u>Cash</u>
Combined Funds	35.4%	17.8%	20.0%	22.0%	4.9%
Median in TUCS	33.8%	14.6%	18.0%	28.2%	2.7%

Universe allocation may not total to 100% due to different exposure methods.



Combined Funds Summary

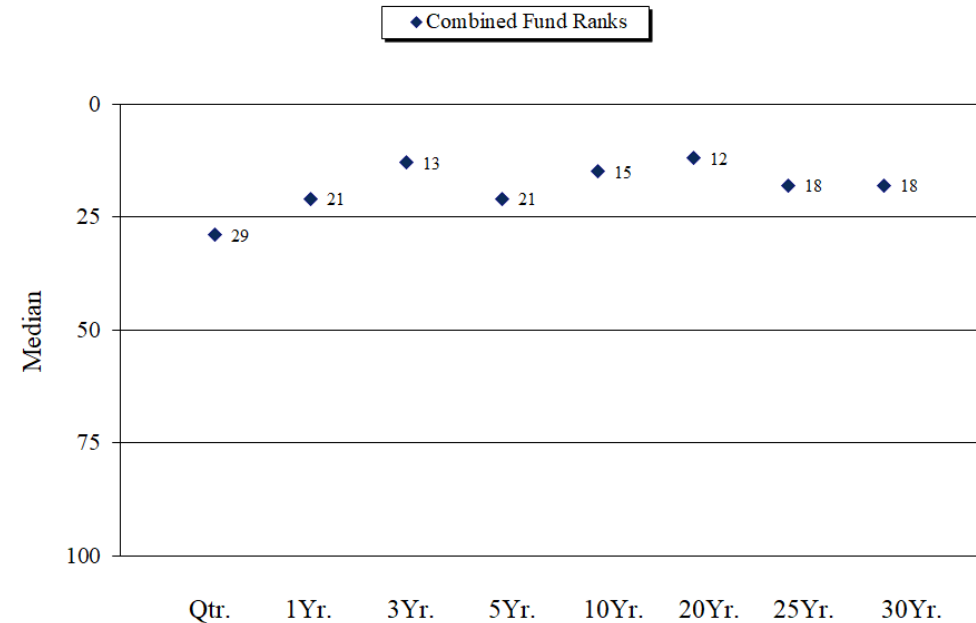
Performance Compared to Other Pension Funds

While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- Differing Allocations. Asset allocation will have a dominant effect on return. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison. This further distorts comparisons among funds.
- Differing Goals/Liabilities. Each pension fund structures its portfolio to meet its own liabilities and risk tolerance. This will result in different asset mix choices. Since asset mix will largely determine investment results, a universe ranking is not relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public pension funds in Trust Universe Comparison Service (TUCS) are shown below.

The SBI's returns are ranked against public plans with over **\$20 billion** in assets. All funds in TUCS report their returns gross of fees.



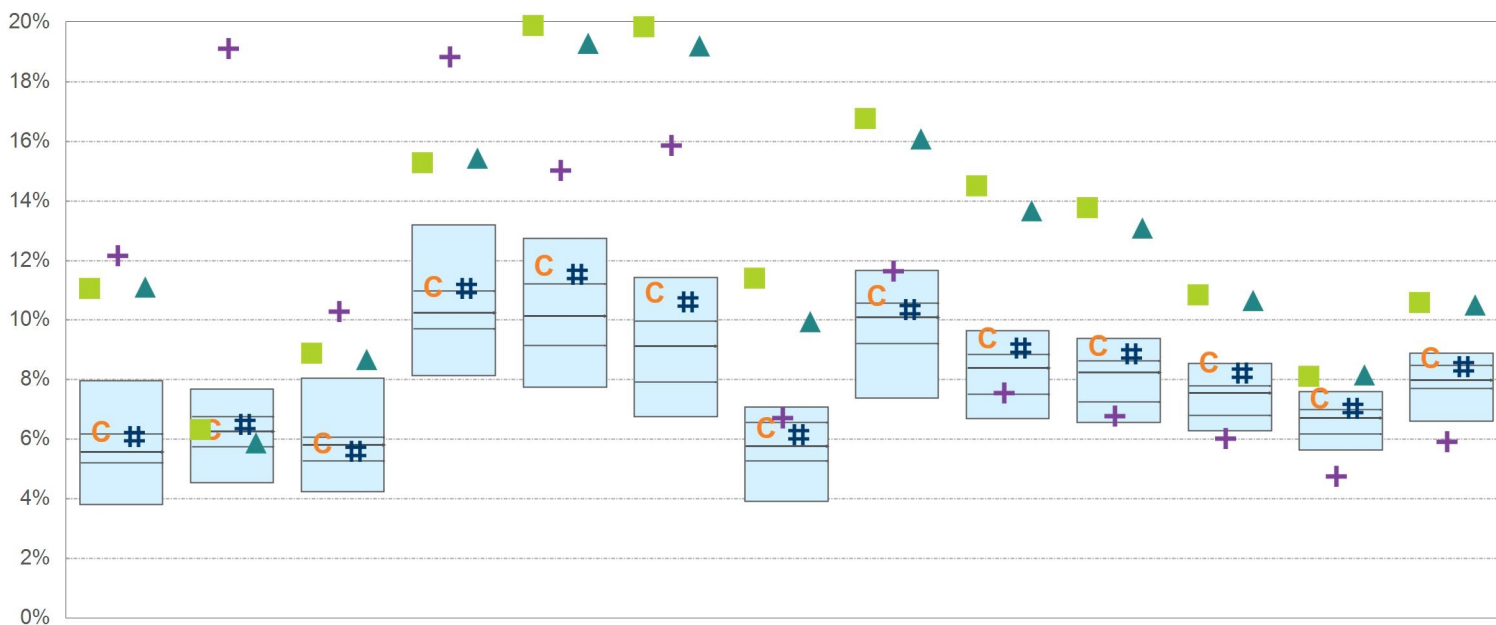
Periods Ended 06/30/2025

	Qtr	1 Yr	3 Yrs	5 Yrs	10 Yrs	20 Yrs	25 Yrs	30 Yrs
Combined Funds	29th	21st	13th	21st	15th	12th	18th	18th
Percentile Rank in TUCS								

Minnesota State Board of Investments Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$20 Billion

Cumulative Periods Ending : June 30, 2025



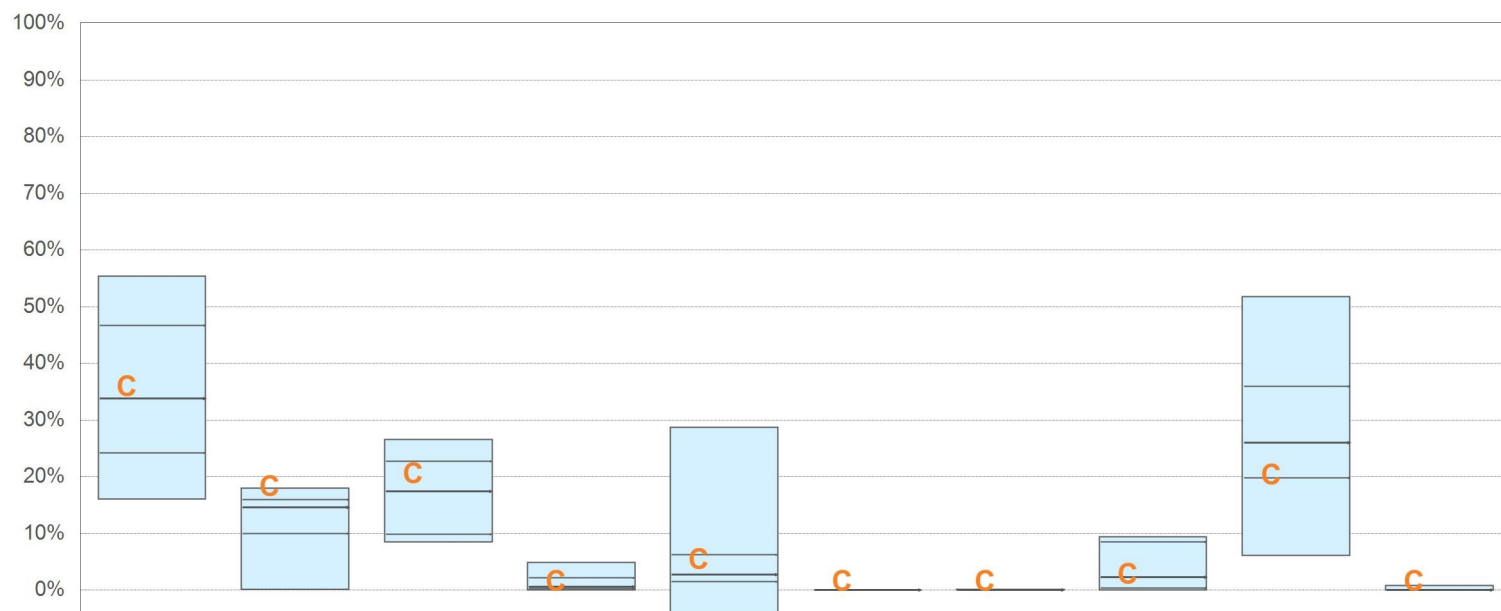
Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	7.97	7.68	8.05	13.19	12.74	11.44	7.09	11.67	9.65	9.38	8.55	7.60	8.90
25th	6.18	6.76	6.07	10.98	11.22	9.97	6.57	10.56	8.85	8.63	7.79	6.99	8.49
50th	5.58	6.27	5.81	10.25	10.13	9.13	5.77	10.10	8.39	8.24	7.55	6.71	7.98
75th	5.22	5.75	5.27	9.72	9.16	7.92	5.28	9.21	7.52	7.25	6.80	6.18	7.71
95th	3.82	4.55	4.24	8.13	7.74	6.75	3.92	7.39	6.69	6.56	6.28	5.64	6.60

No. Of Obs	25	25	25	25	25	25	25	25	23	23	20	20	18
C Combined Funds	6.13 (29)	6.21 (54)	5.75 (54)	11.01 (21)	11.71 (9)	10.81 (13)	6.26 (37)	10.69 (21)	9.28 (20)	9.02 (15)	8.46 (12)	7.25 (18)	8.62 (18)
# SBI Combined Funds Ind	5.96 (37)	6.38 (41)	5.46 (62)	10.93 (25)	11.40 (9)	10.48 (17)	6.02 (37)	10.23 (37)	8.94 (20)	8.74 (20)	8.10 (12)	6.90 (25)	8.32 (31)
■ S&P 500	10.94 (1)	6.20 (54)	8.76 (1)	15.16 (1)	19.77 (1)	19.71 (1)	11.28 (1)	16.64 (1)	14.39 (1)	13.65 (1)	10.73 (1)	7.98 (1)	10.47 (1)
▲ Russell 3000	10.99 (1)	5.75 (75)	8.54 (1)	15.30 (1)	19.15 (1)	19.08 (1)	9.81 (1)	15.96 (1)	13.55 (1)	12.96 (1)	10.53 (1)	8.04 (1)	10.37 (1)
+ MSCI Wld Ex US (Net)	12.04 (1)	18.99 (1)	10.16 (1)	18.70 (1)	14.90 (1)	15.73 (1)	6.58 (21)	11.51 (5)	7.43 (79)	6.65 (94)	5.90 (99)	4.63 (100)	5.79 (100)

Minnesota State Board of Investments

Asset Allocation of Master Trusts - Public : Plans > \$20 Billion

Quarter Ending June 30, 2025



Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	55.33	18.00	26.57	4.89	28.67	0.02	0.12	9.37	51.77	0.81
25th	46.72	15.99	22.72	2.10	6.25	0.00	0.00	8.51	35.93	0.05
50th	33.75	14.62	17.41	0.57	2.69	0.00	0.00	2.24	25.96	0.00
75th	24.19	9.92	9.78	0.19	1.42	0.00	0.00	0.30	19.79	0.00
95th	16.05	0.10	8.50	0.00	-4.97	0.00	0.00	0.04	6.05	0.00
C Combined Funds	35.38 (45)	17.78 (12)	19.96 (35)	0.00 (100)	4.85 (35)	0.00 (100)	0.00 (100)	2.24 (50)	19.79 (75)	0.00 (100)



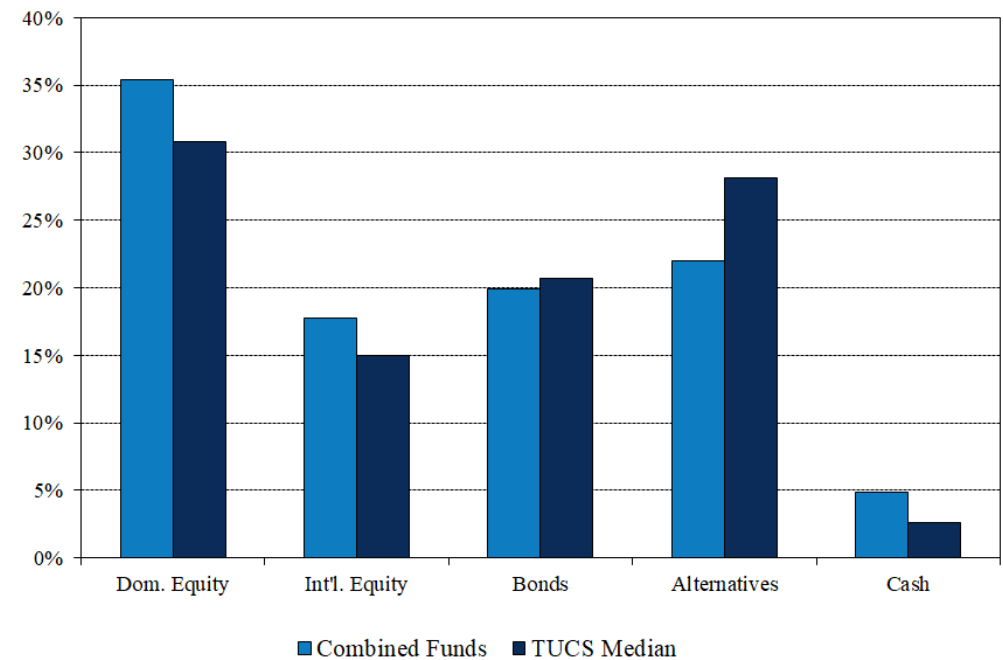
Combined Funds Summary

Asset Mix Compared to Other Pension Funds

The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over **\$50 billion** are included in the comparisons shown in this section.

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bonds and other assets of the public funds in TUCS over **\$50 billion** are shown below:

	<u>(Millions)</u>	<u>Actual Mix</u>
Public Equity	\$52,596	52.0%
Total Fixed Income	\$25,111	24.8%
Private Markets - Total	\$23,514	23.2%
Private Markets - Invested	\$22,306	22.0%
Private Markets - Uninvested	\$1,208	1.2%
TOTAL	\$101,221	100.0%



	<u>Domestic Equity</u>	<u>International Equity</u>	<u>Bonds</u>	<u>Alternatives</u>	<u>Cash</u>
Combined Funds	35.4%	17.8%	20.0%	22.0%	4.9%
Median in TUCS	30.9%	15.0%	20.7%	28.3%	2.6%

Universe allocation may not total to 100% due to different exposure methods.



Combined Funds Summary

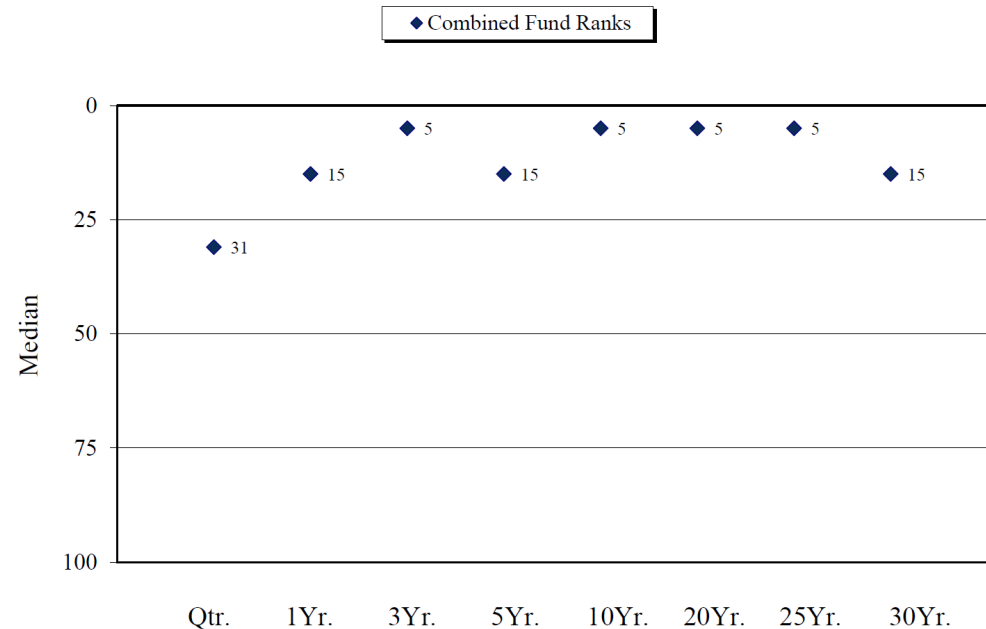
Performance Compared to Other Pension Funds

While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- Differing Allocations. Asset allocation will have a dominant effect on return. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison. This further distorts comparisons among funds.
- Differing Goals/Liabilities. Each pension fund structures its portfolio to meet its own liabilities and risk tolerance. This will result in different asset mix choices. Since asset mix will largely determine investment results, a universe ranking is not relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public pension funds in Trust Universe Comparison Service (TUCS) are shown below.

The SBI's returns are ranked against public plans with over **\$50 billion** in assets. All funds in TUCS report their returns gross of fees.



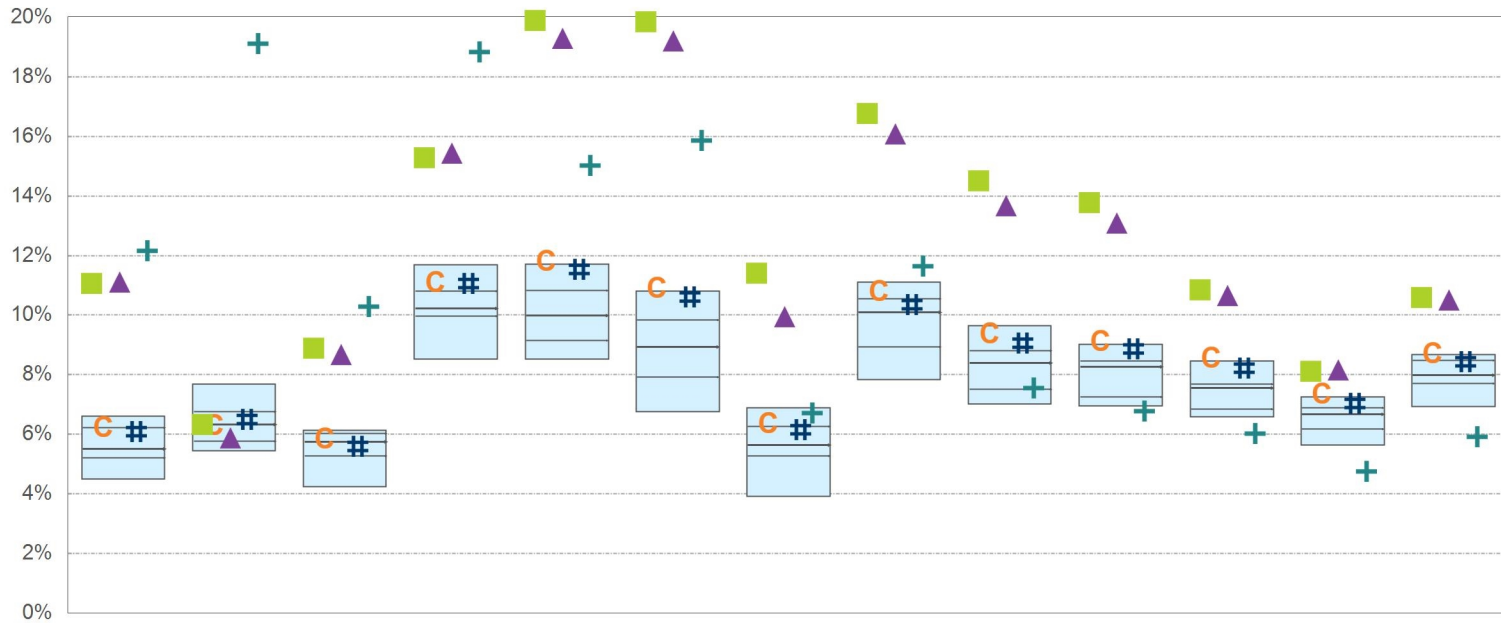
Periods Ended 06/30/2025

	Qtr	1 Yr	3 Yrs	5 Yrs	10 Yrs	20 Yrs	25 Yrs	30 Yrs
Combined Funds	31st	15th	5th	15th	5th	5th	5th	15th
Percentile Rank in TUCS								

Minnesota State Board of Investments Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$50 Billion

Cumulative Periods Ending : June 30, 2025



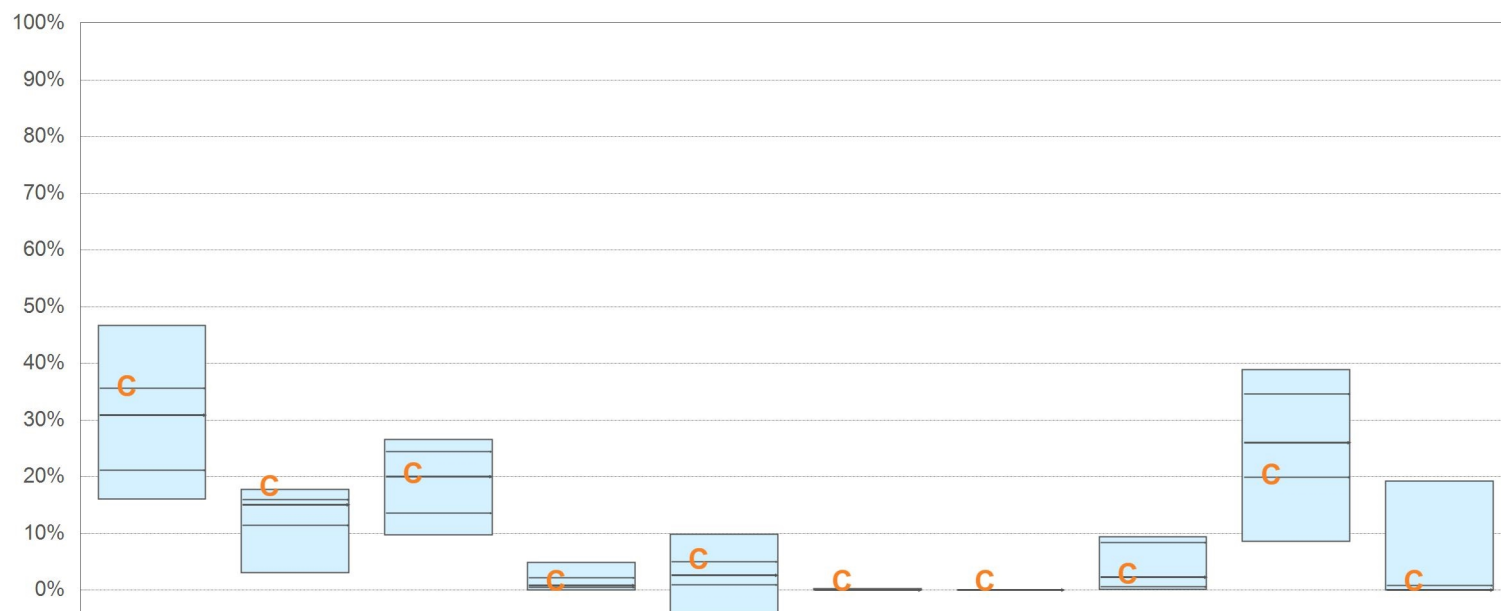
Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	6.60	7.68	6.14	11.70	11.71	10.81	6.88	11.11	9.64	9.02	8.46	7.25	8.67
25th	6.22	6.76	6.03	10.80	10.82	9.84	6.26	10.54	8.81	8.46	7.69	6.89	8.49
50th	5.52	6.34	5.75	10.22	9.98	8.94	5.63	10.10	8.39	8.26	7.55	6.68	7.98
75th	5.22	5.76	5.27	9.97	9.16	7.92	5.28	8.94	7.52	7.25	6.84	6.18	7.71
95th	4.49	5.44	4.24	8.53	8.53	6.75	3.92	7.83	7.01	6.95	6.59	5.64	6.93

No. Of Obs	16	16	16	16	16	16	16	16	15	15	14	14	13
C Combined Funds	6.13 (31)	6.21 (62)	5.75 (50)	11.01 (15)	11.71 (5)	10.81 (5)	6.26 (25)	10.69 (15)	9.28 (15)	9.02 (5)	8.46 (5)	7.25 (5)	8.62 (15)
# SBI Combined Funds Ind	5.96 (37)	6.38 (43)	5.46 (62)	10.93 (15)	11.40 (5)	10.48 (15)	6.02 (25)	10.23 (31)	8.94 (15)	8.74 (15)	8.10 (5)	6.90 (15)	8.32 (33)
■ S&P 500	10.94 (1)	6.20 (62)	8.76 (1)	15.16 (1)	19.77 (1)	19.71 (1)	11.28 (1)	16.64 (1)	14.39 (1)	13.65 (1)	10.73 (1)	7.98 (1)	10.47 (1)
+ MSCI Wld Ex US (Net)	12.04 (1)	18.99 (1)	10.16 (1)	18.70 (1)	14.90 (1)	15.73 (1)	6.58 (5)	11.51 (1)	7.43 (75)	6.65 (99)	5.90 (99)	4.63 (100)	5.79 (100)
▲ Russell 3000	10.99 (1)	5.75 (83)	8.54 (1)	15.30 (1)	19.15 (1)	19.08 (1)	9.81 (1)	15.96 (1)	13.55 (1)	12.96 (1)	10.53 (1)	8.04 (1)	10.37 (1)

Minnesota State Board of Investments

Asset Allocation of Master Trusts - Public : Plans > \$50 Billion

Quarter Ending June 30, 2025



Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	46.72	17.78	26.57	4.89	9.84	0.18	-	9.37	38.90	19.16
25th	35.61	15.99	24.41	2.10	4.97	0.00	-	8.32	34.54	0.81
50th	30.85	15.03	19.96	0.76	2.64	0.00	-	2.24	25.96	0.05
75th	21.08	11.41	13.58	0.42	0.96	0.00	-	0.56	19.87	0.00
95th	16.05	3.05	9.72	0.00	-4.97	0.00	-	0.16	8.62	0.00
C Combined Funds	35.38 (33)	17.78 (5)	19.96 (50)	0.00 (100)	4.85 (31)	0.00 (100)	0.00 (1)	2.24 (50)	19.79 (83)	0.00 (100)

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TAB B

Executive Director's Administrative Report

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: **Jill E. Schurtz**
Executive Director and Chief Investment Officer

1. Report on SBI's Administrative Budget

A report on the SBI's administrative budget for the fiscal year to date through June 30, 2025, is included as **Attachment A**.

2. Russia/Belarus Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.245 that requires SBI actions concerning companies with operations in Russia and Belarus.

During the 2022 legislative session, the Minnesota Legislature passed a bill requiring the SBI to liquidate its holdings in companies with their principal place of business in Russia or Belarus. The bill was signed into law and became effective on April 2, 2022. The statute prohibits any new investment in target companies and requires the SBI to identify and liquidate, to the extent practicable, 50% of its direct holdings in target companies within nine months of the effective date; and 100% of its holdings within 15 months of the effective date. SBI utilizes information from data service providers, including MSCI, Factset, and Bloomberg, to develop a list of target companies with their principal place of business in Russia or Belarus. Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the restricted list.

In the second calendar quarter of 2025, no Russian holdings were sold. As of June 30, 2025, eight Russian holdings and currencies remained on the divestment list. The liquidation manager indicated that, except for sporadic trading in foreign-listed depository receipts, the market for equity trading remained effectively closed to foreign investors during the quarter due to sanctions imposed by the United States and its allies as well as retaliatory actions taken by the Russian government to restrict foreign capital flows. Due to these sanctions and actions, it was not possible to liquidate 100% of the holdings within 15 months of the effective date. Going forward, the liquidation manager will sell as opportunities allow.

On June 23, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

3. Iran Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.244, which requires certain SBI actions concerning companies with operations in Iran.

SBI receives information on companies with Iran operations from Institutional Shareholder Services, Inc. (ISS). Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the restricted list and undertakes the required communication.

Under the statute, if after 90 days following the SBI's communication, a company continues to have scrutinized business operations, the SBI must divest all publicly traded securities of the company according to the following schedule:

- at least 50% shall be sold within nine months after the company appeared on the scrutinized list; and
- 100% within fifteen months after the company appeared on the scrutinized list.

At the end of the second quarter, the SBI Combined Funds portfolio held no companies with operations in Iran.

On June 23, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

4. Thermal Coal Update

The Minnesota State Board of Investment approved a resolution at its May 2020 meeting requiring the removal of any publicly traded company deriving more than 25% of its revenue from thermal coal production (exploration/mining). The SBI has contracted with Moody's ESG and Institutional Shareholder Services, Inc. (ISS) to identify companies that meet the criteria set forth in the resolution.

The resolution required removal of companies initially identified in a prudent and expeditious manner by December 31, 2020. Beginning with the Board's regularly scheduled third quarter 2020 meeting and continuing each quarter thereafter, staff reports to the Board on updates and the status of any action authorized by this resolution.

For the quarter ending June 30, 2025, the MSBI portfolio held no thermal coal-connected assets.

On June 23, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

5. Litigation Update

SBI legal counsel will give a verbal update on the status of any litigation at the meeting.

ATTACHMENT A

**STATE BOARD OF INVESTMENT
FISCAL YEAR 2025 ADMINISTRATIVE BUDGET REPORT
FISCAL YEAR TO DATE THROUGH JUNE 30, 2025**

ITEM	FISCAL YEAR 2025 BUDGET	FISCAL YEAR 2025 6/30/2025
PERSONNEL SERVICES		
FULL TIME EMPLOYEES	\$ 12,500,000	\$ 10,325,550
PART TIME EMPLOYEES	50,000	41,053
MISCELLANEOUS PAYROLL	200,000	60,912
SUBTOTAL	\$ 12,750,000	\$ 10,427,515
STATE OPERATIONS		
RENTS & LEASES	\$ 693,102	\$ 372,348
REPAIRS/ALTERATIONS/MAINTENANCE	2,211,869	1,997,493
PRINTING & BINDING	2,500	2,175
PROFESSIONAL/TECHNICAL SERVICES/IT PROF	383,940	255,345
COMPUTER SYSTEMS SERVICES	385,296	285,085
COMMUNICATIONS	25,000	6,681
TRAVEL, IN-STATE	3,000	1,126
TRAVEL, OUT-STATE	181,500	165,626
SUPPLIES	58,000	52,368
EQUIPMENT	464,401	408,902
EMPLOYEE DEVELOPMENT	208,400	104,310
OTHER OPERATING COSTS	241,855	173,817
INDIRECT COSTS	427,537	401,237
SUBTOTAL	\$ 5,286,400	\$ 4,226,513
TOTAL ADMINISTRATIVE BUDGET	\$ 18,036,400	\$ 14,654,028

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TAB C

SBI Administrative Committee Report

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, SBI Administrative Committee

The Administrative Committee considered the following Action items for its May 7, 2025 meeting and makes the following recommendations for approval by the Board.

1. Review of the SBI's Proposed Objectives for FY26.

The Committee reviewed the Executive Director's proposed Annual Objectives for FY26 (see **Attachment A**). The annual objectives cover broad areas of the Executive Director's responsibilities and a number of initiatives the SBI will undertake during the next fiscal year.

RECOMMENDATION:

The SBI Administrative Committee recommends that the Board approve the FY26 Executive Director's Annual Objectives. Further, the Committee recommends that the Annual Objectives serve as the basis for the Executive Director's performance evaluation for FY26.

2. Review of Budget Plan for FY26 and FY27.

The Committee reviewed the proposed SBI's Administrative Budget (see **Attachment B**). The Board sets the Administrative Budget annually. The budget is comprised of several portions:

Personnel Services
Operating Expenses
Investment Support Services
Subscription Services

The budget is funded by a combination of:

- direct charge-backs to entities that invest with the SBI;
- an appropriation by the legislature from the general fund;
- directed appropriations budget from the investment asset pool;
- the directed commissions budget received from the SBI's use of active investment management and securities lending.

RECOMMENDATION:

The SBI Administrative Committee recommends that the Board approve the SBI's FY26 and FY27 Administrative Budget Plan, as presented to the Committee and subject to appropriations by the legislature, and that the Executive Director have the flexibility to reallocate funds between budget categories if the Executive Director deems necessary.

3. Review of Continuing Fiduciary Education Plan.

The Committee reviewed the proposed Continuing Fiduciary Education Plan. *Minnesota Statutes*, Chapter 356A requires each public pension plan to establish a continuing education plan for its fiduciaries. Please note that the travel allocation policy for Board members and their designees is included in the plan (see **Attachment C**).

RECOMMENDATION:

The SBI Administrative Committee recommends that the Board adopt the attached Continuing Fiduciary Education Plan.

4. Review of Executive Director's Evaluation and Salary Process.

The Committee discussed the process that will be used by the Board to evaluate the Executive Director for FY26. The Committee recommends the following process for Executive Director Schurtz's performance and salary for FY26.

The SBI Administrative Committee recommends that the Board approve the following evaluation and salary process for the SBI Executive Director:

- **The Evaluation will be primarily based on the results of the SBI Annual Objectives for the fiscal year ending the previous June 30.**
- **The ED/CIO will complete a self-evaluation based on the SBI Annual Objectives, which will be distributed in a timely manner to the Board Members/Designees.**
- **The SBI Annual Objectives will also serve as the evaluation form for use by each Board Member/Designee.**
- **Evaluations by each Board member should be completed by October 1.**
- **Board Members/Designees will forward completed evaluations to the Executive Director. Board Members/Designees are encouraged to meet individually with the Executive Director to review their individual evaluations.**
- **The Governor's Board designee will provide a letter to the Executive Director confirming the status of the Evaluation results by November 1.**

- Upon satisfactory performance evaluations from a majority of responding Board Members/Designees, the Executive Director's annual salary will be adjusted to include:
 - Any Cost-of- Living Adjustment (COLA)/Across the Board (ATB)/General Salary Increases and/or any Performance-Based Salary Increases contained in the FY26-27 Managerial Plan, to the extent that the resulting salary is within the Executive Director's salary range.

Adjustments shall be effective on the relevant dates set forth in the FY26-27 Managerial Plan. Generally, it is understood that COLA adjustments will be effective the preceding July and Performance-Based Salary increases on January 1. Retroactive pay, if any, will be determined under the Managerial Plan.

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ATTACHMENT A

Draft SBI Annual Objectives

FY 2026

Executive Director and Chief Investment Officer



		Executive Director/CIO Comments	Reviewer Comments	Rating
Leadership				
	1. Demonstrate the highest level of integrity, character, and ethical behavior. 2. Actively demonstrate stewardship of the team, mission, and assets. 3. Build a culture of shared vision, engaged collegiality, and common purpose. 4. Ensure that we have an inclusive culture built upon diversity of thought and teams. 5. Clearly communicate goals and expectations. 6. Attract, retain, and invest in talented professionals who understand and embrace the SBI's mission.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Investment Program Management				
Private Markets Managers	1. Ensure that the SBI has access to high-quality private market investment opportunities. 2. Prepare and present private markets recommendations to the IAC and Board. 3. Monitor existing private market manager performance. 4. Continually review the private market landscape for attractive managers, structures, fee arrangements, and industry trends that may be additive to the SBI program. 5. Working with the SBI's consultants, review and update the private market commitments pacing model to determine the appropriate target ranges for annual commitments.			
Public Markets Managers	1. Ensure that the SBI has access to high-quality public market managers. 2. As necessary, prepare and present public market manager recommendations to the IAC and Board. 3. Continually monitor and evaluate existing public market managers. 4. Continually review the public market landscape for attractive managers, structures, fee arrangements, and industry trends that could be additive to the SBI program.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Internal Management of State Cash and Related Accounts	1. Provide internal investment management services for cash accounts, excess debt service reserve accounts, and other non-retirement portfolios on behalf of the Department of Management and Budget (MMB) and other State agencies. 2. Ensure that 'short-term cash' portfolios are managed within their applicable investment guidelines.			
Participant Directed Investment Program (PDIP)	1. Provide a low-cost, prudent roster of investment options to support participants in their long-term financial goals. 2. Monitor and evaluate investment managers and funds for appropriate quality and cost. 3. Work closely with the various plan sponsors and program managers to review and implement required programs, execute agreements, and understand participant demographics and needs.			
Non-Retirement Accounts	1. Provide appropriate investment options. 2. Monitor and evaluate investment managers for appropriate quality and cost. 3. Work closely with the various cities, counties, state agencies, and other public sector entities with authority to invest with the SBI.			
Rebalancing and Transition Management	Ensure that portfolio rebalancing and transitions are handled in a manner that controls for risk and cost.			
Liquidity Management	Ensure that the relevant portfolios maintain sufficient liquidity to satisfy required stakeholder payments and underlying investment program needs.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Return Objectives	Achieve portfolio return objectives over the relevant investment time periods.			
SBI Investment Beliefs	Ensure that the SBI Investment Beliefs are reflected in the SBI's culture, approach, and investment decisions.			
		Executive Director/CIO Comments	Reviewer Comments	Rating
Compliance and Audit				
Comply with Applicable State Statutes and Board Resolutions Regarding Unauthorized Holdings and Scrutinized Companies	Comply with relevant Statutes regarding Unauthorized Holdings, Scrutinized Companies, Target Lists and Reporting related to the following: Iran, Russia and Belarus, Northern Ireland, Thermal Coal, and Tobacco.			
Investment Manager Contracts	1. Monitor contract status data to ensure managers maintain required certifications and other documentation. 2. Ensure timely renewal of manager contracts, including renegotiation of contract terms and provisions as required.			
Annual Audit	1. Facilitate the annual financial audit by the Office of the Legislative Auditor (OLA). 2. Respond promptly to OLA information requests. 3. Respond promptly to OLA recommendations for corrective action. 4. Strive for the highest form of opinion, without written comments.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Proxy Comm / Corp Actions				
Provide Staff Support to Proxy Committee	1. Provide the Proxy Committee with necessary information to determine course of action regarding corporate governance, executive compensation, and other relevant proxy issues. 2. Maintain and update proxy voting guidelines and precedent. 3. Vote shares in accordance with Committee guidance or precedent.			
Provide Staff Support for Corporate Actions and Miscellaneous Legal Issues	Coordinate, monitor, and document procedures and actions taken on a variety of corporate actions such as class actions, bankruptcies, and miscellaneous legal issues.			
		Executive Director/CIO Comments	Reviewer Comments	Rating
Administrative				
MN Legislature	1. Represent the SBI at the MN Legislature. 2. Appear before the LCPR and other Committees, as necessary. 3. Meet with individual legislators as needed. 4. Keep the Board informed of any relevant legislation that could impact the SBI. 5. Prepare and seek Board approval, as necessary, for legislation needed to advance the interests of the SBI.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Annual Budget	Prepare an Annual Management and Budget Plan.			
Business Continuity Plan	Conduct an annual review of the Business Continuity Plan. Update as needed.			
		Executive Director/CIO Comments	Reviewer Comments	Rating
Communication and Reporting				
	1. Prepare the Annual Supplemental Investment Fund (SIF) Investment Options Prospectus.			
	2. Prepare the Volunteer Firefighter Account Annual Information Booklet.			
	3. Prepare the Annual Non-Retirement Prospectus for Trusts and Other Participating Entities; Other Postemployment Benefits (OPEB); and Qualifying Governmental Entities			
	4. Prepare the Fiscal Year 2025 Annual Report			
	5. Respond to Minnesota Government Data Practices Act Requests			
	6. Review and update the SBI's website as appropriate to provide and promote transparency for Plan Members.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
IAC and Board				
	1. Serve as a resource to the IAC and Board, as needed. 2. Ensure that the IAC and Board are informed, in a timely manner, of material information relevant to the SBI.			
		Executive Director/CIO Comments	Reviewer Comments	Rating
Major Projects (may have multi-year time horizons)				
Critical Redundancies	Review the SBI organization to ensure that critical functions have: 1) built-in redundancies; 2) sufficient coverage plans; and 3) adequate cross-training. Remedy where necessary.			
Org Structure	Review the current SBI structure and implement changes as required.			
Hiring Plan	Review the SBI organization to determine gaps that must be filled. Develop and implement a hiring plan to remedy.			
Talent & Culture	1. Ensure that the SBI (IAC and Staff) is served by skilled professionals with an inclusive culture built upon diversity of thought and teams. 2. Support the internal SBI Talent & Culture Working Group.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Data Project	Work with the internal data task force to review critical systems and data survey findings and establish an appropriate workplan to address key issues. This project is intended to form the foundation for a future risk system project.			
Risk Management	1. Undertake work necessary to identify, select, and implement a third-party risk management system. 2. Integrate internally developed risk management tools into the portfolio management and rebalancing decision-making process.			
OMS	Undertake work necessary to identify, select, and implement an Order Management System (OMS) for the Short-Term Cash function.			
Plan Accounting System	Upgrade the Plan Accounting System used by SBI Financial Services.			
Fire Relief Funds	Develop programs to provide Fire Relief Plans with periodic live (in person or remote) portfolio updates.			
Review Existing Fee structures	Review existing investment manager fee structures to determine if appropriate economic arrangements are in place.			
Summer Internship Program	Continue to develop robust Summer Internship program designed to give college students exposure to the field of investment management and an important opportunity to enhance their professional credentials.			
Analyst Program	Work to develop a comprehensive professional development program for junior analysts joining the SBI.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Climate Roadmap	Execute on the SBI Climate Roadmap commitments: - Continue to support Proxy Committee efforts. - Working with the external engagement consultant, identify and act on appropriate direct engagement opportunities. - Identify, conduct due diligence, and, if appropriate, invest up to \$100-200m annually in Energy Transition opportunities that are consistent with the same rigorous standards applied to all SBI investment decisions. - Publish a comprehensive annual stewardship report. - Work to identify appropriate data frameworks. - Periodically update the Board regarding the status of the SBI's Roadmap progress. - Evaluate and evolve.			
Asset Allocation Study	Working with SBI's consultants, prepare and present the SBI's asset allocation study. The SBI intends for this work to include or provide the launching point for, among other things: - Recommendations regarding the Combined Funds' portfolio target allocations. - Description of the role of each asset class in the portfolio. - Enhanced reporting. - Investment Policy Statement. - Updated private markets pricing model. - Benchmark recommendations.			
MN Secure Choice	Serve on the board of directors and provide investment support for launch of the MN Secure Choice program.			
Office Renovation and Relocation	Complete required office renovation and staff relocation work.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

		Executive Director/CIO Comments	Reviewer Comments	Rating
Governance	Review governance frameworks to enhance delegation of investment authority.			
Billing Process	Modernize SBI billing process to align with investment services and resources provided.			
Research Platform	Identify and onboard a common research platform for public equity and fixed income asset classes.			

RATINGS: Need Improvement (NI); Successful (S); Highly Successful (HS)

ATTACHMENT B

Administrative Budget Fiscal Year 2026 & 2027 Budget Plan Overview

The FY 2026 and 2027 budget process is based on budget procedures instituted by Minnesota Management and Budget. The SBI receives a legacy General Fund appropriation (currently \$139,000). The remaining budget revenues are generated from invoicing the actual cost of services to plans that have funds under SBI management. In FY 2025, the SBI invoiced over 400 plans quarterly.

The FY 2026 budget includes 54.75 Full Time Equivalent (FTE) positions. This compares with 57.75 budgeted for in FY 2025. As of March 31, 2025, the SBI has 47.5 full-time staff, with the potential addition of 1.25 by fiscal year-end (the 0.25 represents a shared HR resource with MSRS). Projected salaries reflect a 3% merit increase and a 3% performance increase for both FY 2026 and FY 2027. Proposed aggregate SBI Salary Plan salaries require approval from the Board. Individual SBI Salary Plan salaries are determined by the Executive Director & CIO, in accordance with SBI Salary Plan policy. Non-SBI Salary Plan staff salary increases are determined by legislatively negotiated contracts per applicable bargaining unit.

For FY 2026 and 2027, budgeted SBI operating expenses have decreased compared to FY 2025. The reduction is principally due to the completion of the majority of the SBI office remodel. We have budgeted \$600,000 for an order management system in FY26 and \$800,000 for FY 2027 on the computer system services line.

**Administrative Budget
Fiscal Year 2026 & 2027 Budget Plan**

	FY 2025 Budget	FY 2025 Projected	FY 2026 Request	FY 2027 Request
Personnel Services	\$12,750,000	\$10,474,500	\$12,929,000	\$13,625,000
Operating Expense	5,286,400	3,997,900	3,437,000	3,441,000
Total	\$18,036,400	\$14,472,400	\$16,366,000	\$17,066,000

Personnel Services: Personnel Services are estimated to account for 79% of the requested Fiscal Year 2026 budget and 80% of the requested Fiscal Year 2027 budget.

Personnel Services include salaries, retirement, insurance, FICA and severance.

Operating Expenses: Operating Expenses are estimated to account for 21% of the requested Fiscal Year 2026 budget and 20% of the requested Fiscal Year 2027 budget.

Operating Expenses include rents, leases, printing, data processing, communications, computer systems, travel, employee development, miscellaneous fees, office equipment, furnishings, and supplies.

**Investment Support Services Budget
Fiscal Year 2026 & 2027 Budget Plan Overview**

The SBI currently has four Investment Support Services contracts that are funded from the Investment Support Services budget. We have budgeted for a risk system beginning in Fiscal Year 2026.

	FY 2025 Budget	FY 2025 Projected	FY 2026 Request	FY 2027 Request
Investment Support	\$3,600,000	\$2,540,000	\$3,630,000	\$4,800,000
Computer System Services	400,000	363,000	400,000	403,000
Total	\$4,000,000	\$2,903,000	\$4,030,000	\$5,203,000

Investment Support: The Investment Support Services budget covers the following contracts for Fiscal Year 2025: Aon Investments USA Inc., Meketa Investment Group, LLC, Albourne America LLC., and Broadridge Financial Solutions, Inc. Albourne and Broadridge are up for a contract renewal in Fiscal Year 2026, and AON and Meketa are up for a contract renewal in Fiscal Year 2027.

**Investment Subscription Services Budget
Fiscal Year 2026 & 2027 Budget Plan Overview**

For FY 2025 the budgeting of the investment subscription services was changed from a calendar year to fiscal year basis to better align with our budget structure. The SBI funds the Subscription Services budget using funds generated by directed commissions and securities lending. The SBI monitors and reconciles active management and associated trading costs to ensure the SBI is receiving a portion of directed commissions, as appropriate, subject to best execution by its investment managers.

	FY 2025 Budget	FY 2025 Projected	FY 2026 Budget	FY 2027 Budget
Investment Subscription Services	\$2,683,300	\$2,853,700	\$2,166,000	\$2,231,000

**STATE BOARD OF INVESTMENT
ADMINISTRATIVE BUDGET PLAN
FISCAL YEARS 2026 AND 2027**

DESCRIPTION	FY2025 APPROVED	FY2025 PROJECTED	FY2026 PROPOSED	FY2027 PROPOSED
PERSONNEL SERVICES				
FULL TIME EMPLOYEES	12,500,000	10,375,000	12,669,000	13,365,000
PART TIME EMPLOYEES	50,000	50,000	60,000	60,000
OTHER BENEFITS	200,000	49,500	200,000	200,000
SUBTOTAL	12,750,000	10,474,500	12,929,000	13,625,000
STATE OPERATIONS				
RENTS & LEASES	435,000	412,900	494,000	494,000
REPAIRS/ALTERATIONS/MAINTENANCE	2,066,000	1,968,000	150,000	50,000
PRINTING & BINDING	1,500	2,500	2,000	2,000
PROFESSIONAL/TECHNICAL SERVICES	510,000	308,000	437,000	375,000
COMPUTER SYSTEMS SERVICES	877,000	277,000	912,000	1,128,000
COMMUNICATIONS	25,000	8,000	10,000	10,000
TRAVEL, IN-STATE	3,000	1,000	3,000	3,000
TRAVEL, OUT-STATE	236,500	183,000	225,000	225,000
EMPLOYEE DEVELOPMENT	392,400	183,600	364,000	364,000
SUPPLIES	100,000	43,100	50,000	50,000
EQUIPMENT	100,000	61,300	100,000	50,000
OTHER OPERATING COSTS	210,000	147,100	165,000	165,000
INDIRECT COSTS	330,000	402,400	525,000	525,000
SUBTOTAL	\$ 5,286,400	\$ 3,997,900	\$ 3,437,000	\$ 3,441,000
TOTAL MSBI OPERATING FUND	\$ 18,036,400	\$ 14,472,400	\$ 16,366,000	\$ 17,066,000
PERCENT INCREASE (DECREASE) OVER PRIOR YEAR BUDGET			-9.3%	4.3%

**STATE BOARD OF INVESTMENT
INVESTMENT SUPPORT SERVICES BUDGET PLAN
FISCAL YEARS 2026 AND 2027**

DESCRIPTION	FY2025 BUDGET	FY2025 PROJECTED	FY2026 PROPOSED	FY2027 PROPOSED
STATE OPERATIONS				
PROFESSIONAL/TECHNICAL SERVICES	3,600,000	2,540,000	3,630,000	4,800,000
COMPUTER SYSTEMS SERVICES	400,000	363,000	400,000	403,000
TOTAL	\$ 4,000,000	\$ 2,903,000	\$ 4,030,000	\$ 5,203,000
PERCENT INCREASE (DECREASE) OVER PRIOR YEAR BUDGET			0.8%	29.1%

**STATE BOARD OF INVESTMENT
INVESTMENT SUBSCRIPTION SERVICES BUDGET
FISCAL YEARS 2025* AND 2026**

DESCRIPTION	FY2025 BUDGET	FY2025 PROJECTED	FY2026 PROPOSED	FY2027 PROPOSED
INVESTMENT SUBSCRIPTION SERVICES				
INVESTMENT SUBSCRIPTION SERVICES	2,683,300	\$ 2,853,700	2,166,000	2,231,000
PERCENT INCREASE (DECREASE) OVER PRIOR YEAR BUDGET			-19.3%	3.0%

* For FY 2025, we switched from calendar year budgeting to fiscal year budgeting. The FY 2025 budget includes the calendar year 2024 budget plus the invoices we received from January 1 and June 30, 2025. Historically, we budgeted by calendar year to align with directed commissions revenue receipt timing. However, as directed commissions revenues received have decreased significantly over time, we have moved to a fiscal year budgeting basis for our subscription services in accordance with the rest of our budgeting process.

ATTACHMENT C

CONTINUING FIDUCIARY EDUCATION PLAN

REQUIRED BY MS 356A.13

The State Board of Investment (SBI) undertakes the following activities related to fiduciary education. Taken as a group, these activities constitute the plan for continuing fiduciary education required by Minnesota Statutes 356A.13. In addition, pursuant to statutory requirements of qualification, the SBI Executive Director and many members of the Board's Investment Advisory Council (IAC) can be reasonably considered to be experts with respect to their duties as fiduciaries.

1. Briefing for New Board/IAC Members

Shortly after election to the Board or appointment to the IAC, each new member is briefed on SBI operations and policies. As part of the briefing, SBI's legal counsel will review the member's fiduciary obligations and responsibilities as specified in *Minnesota Statutes*, Chapters 11A and 356A.

2. Development and Review of Investment Policies

The SBI adopts comprehensive investment policies for each fund under its control. The policies cover investment objectives, asset allocation, management structure, and performance evaluation. Policy papers or reports on these topics are developed and written by SBI staff in conjunction with the IAC and consultants. Relevant research and analyses from the academic and professional investment fields are used to formulate these policy guidelines.

After the Board formally adopts them, these written policies guide the management of all assets under the SBI's control. The SBI intends to review its stated investment policies periodically. This review may occur within the framework of the SBI's regular quarterly meetings or may take place at special meetings or seminars specifically designated for this purpose.

3. Input from Board's Consultants

The SBI retains outside investment consultants to advise the Board members on a wide variety of investment management issues. As part of their contracts with the SBI, the consultants offer to meet with the Board members or their designees to discuss investment-related issues. These individual consultations occur throughout the year. In addition, the consultants are available at each meeting of the Board and IAC. These meetings are supplemented by quarterly reports on investment performance prepared by the consultants.

4. Roundtable Discussions

Roundtable discussions will be held periodically for Board members, Investment Advisory Council members, and other interested parties. The Roundtable Discussions will be presented primarily by SBI consultants, investment managers, and /or SBI Staff. The discussions will focus on investment or other relevant educational information which is pertinent to the management and / or oversight of the SBI Investment Programs.

5. Travel Allocation

The SBI allocates \$10,000 annually to each Board member (or their designee) for costs associated with attendance at investment-related seminars and conferences. This allocation is used at the discretion of each Board member.

2024 Minnesota Statutes

356A.13 CONTINUING FIDUCIARY EDUCATION

Subdivision 1. **Obligation of fiduciaries.** A fiduciary of a covered pension plan shall make reasonable effort to obtain knowledge and skills sufficient to enable the fiduciary to perform fiduciary activities adequately. At a minimum, a fiduciary of a covered pension plan shall comply with the program established in accordance with subdivision 2.

Subd. 2. **Continuing fiduciary education program.** The governing boards of covered pension plans shall each develop and periodically revise a program for the continuing education of any of their board members and any of their chief administrative officers who are not reasonably considered to be experts with respect to their activities as fiduciaries. The program must be designed to provide those persons with knowledge and skills sufficient to enable them to perform their fiduciary activities adequately.

TAB D

Private Markets Investment Program Report

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: Private Markets Commitments for Consideration

Staff has reviewed the following action agenda item:

- A. Status of SBI Current Private Markets Commitments
- B. Consideration of New Investment Commitments

Existing Managers:

Private Equity	Advent International	Advent International GPE XI SCSP	up to \$150 million
Private Equity	Blackstone	Blackstone Supplemental Account – M, L.P.	up to \$300 million
Private Equity	Blackstone	Strategic Partners X	up to \$250 million
Private Equity	Bridgepoint Advisers Limited	Bridgepoint Europe VIII	up to \$200 million
Real Assets	Energy Capital Partners	ECP VI, L.P.	up to \$250 million
Private Credit	Merit Capital Partners	Merit Capital Fund VIII, L.P.	up to \$125 million
Private Equity	Nordic Capital	Nordic Capital XII	up to \$150 million
Private Equity	Permira	Permira IX	up to \$250 million
Real Estate	TA Realty LLC	TA Realty Value-Add Fund XIV, L.P.	up to \$200 million
Private Equity	TPG Capital	TPG Partners X, L.P.	up to \$150 million
Private Equity	Wind Point Partners	Wind Point Partners XI	up to \$200 million

SBI action is required on item B.

A. Status of SBI Current Private Markets Commitments

Combined Funds June 30, 2025

Combined Funds Market Value \$101,221,386,065

	% of Combined Funds	Current Level	Target Level ¹	Difference
Market Value (MV)	22.0%	\$22,305,668,201	\$25,305,346,516	\$2,999,678,315
<i>Policy Target</i>	25%			
<i>Statutory Limit</i>	35%			
MV +Unfunded	33.5%	\$33,864,574,407	\$50,610,693,032	\$16,746,118,625
<i>Policy Limit</i>	50.0%			

Asset Class	% of Combined Funds	Market Value	Unfunded Commitment	Total
Private Equity	15.9%	\$16,141,709,172	\$8,347,754,056	\$24,489,463,228
Private Credit	1.9%	\$1,911,326,772	\$1,307,949,515	\$3,219,276,287
Real Assets	1.9%	\$1,901,043,527	\$602,670,341	\$2,503,713,868
Real Estate	2.2%	\$2,269,213,895	\$1,300,532,295	\$3,569,746,190
Other ²		\$82,374,834		\$82,374,834
Total		\$22,305,668,201	\$11,558,906,206	\$33,864,574,407

Cash Flows June 30, 2025

Calendar Year	Capital Calls	Distributions	Net Invested
2025	\$1,209,367,646	(\$2,508,964,131)	(\$1,299,596,485)
2024	\$2,768,967,097	(\$3,849,135,502)	(\$1,080,168,405)
2023	\$2,744,167,005	(\$2,162,823,326)	\$581,343,680
2022	\$3,945,092,895	(\$3,140,446,870)	\$804,646,025
2021	\$4,556,450,698	(\$3,672,823,834)	\$883,626,864
2020	\$2,786,134,001	(\$2,318,825,278)	\$467,308,723
2019	\$2,543,614,503	(\$2,080,037,860)	\$463,576,642
2018	\$1,992,000,341	(\$2,049,733,815)	(\$57,733,474)
2017	\$2,021,595,780	(\$2,383,863,711)	(\$362,267,931)

¹ There is no target level for MV + Unfunded. This amount represents the maximum allowed by policy

² Represents in-kind stock distributions from the liquidating portfolio managed by T.Rowe Price and cash accruals.

B. Consideration of New Investment Commitments

ACTION ITEMS:

1) Investment with an existing private equity manager, Advent International (“Advent”), in Advent International GPE XI SCSP (“Fund”).

Advent International is raising Advent International GPE XI to continue Advent’s long-established strategy of sector-focused, operationally intensive investing mainly through control-oriented buyouts and recapitalizations on a global basis, with a focus primarily in Europe, North America, and, to a lesser extent, in Asia Pacific. The Fund intends to focus on identifying attractive subsectors that have compelling business models, that are undergoing substantial change, or that have particularly strong growth opportunities within the following five core sectors: business and financial services, consumer, healthcare, industrial, and technology. The Fund will invest where it can create value and expects to target both complex, transformational opportunities and high-growth, acceleration opportunities. In both cases, Advent will focus on operational improvements and earnings growth, rather than financial engineering. Advent’s deep and experienced team, including both internal and external capabilities, enables the firm to bring significant resources to portfolio companies, helping them to drive more transformational initiatives and experience faster earnings growth.

In addition to reviewing the attractiveness of the Advent International GPE XI SCSP investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Advent International GPE XI SCSP is included as **Attachment A beginning on page 15**.

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$150 million to Advent International GPE XI SCSP. It is understood that 1) such a commitment will not exceed 20% of Advent International GPE XI SCSP and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Advent International upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and

negotiations may result in the imposition of additional terms and conditions on Advent International or a reduction or termination of the commitment.

2) Investment with an existing private equity manager, The Blackstone Group (“Blackstone”), in Blackstone Supplemental Account - M, L.P. (“Fund”).

In 2020, the Minnesota State Board of Investment (“SBI”) approved the establishment of the Blackstone Supplemental Account (“Partnership”), a vehicle designed to co-invest in certain investments made by Blackstone funds in which the SBI is also a Limited Partner, and which will invest in a manner consistent with philosophies around portfolio construction and discretion agreed upon by both Blackstone and the SBI. The initial commitment to the Partnership was \$125 million. To date, SBI has funded \$113.6 million to co-investments through the Partnership. Accordingly, to facilitate SBI’s participation in potential co-investment opportunities through the Partnership going forward, staff recommends an additional commitment of up to \$300 million to the Partnership, bringing SBI’s total commitment amount to up to \$425 million.

In addition to reviewing the attractiveness of the Blackstone Supplemental Account - M, L.P. investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the underlying strategies’ potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Blackstone Supplemental Account - M, L.P. is included as **Attachment B beginning on page 19.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$300 million to Blackstone Supplemental Account - M, L.P. The approval of this recommendation will bring the total commitment to this partnership since inception to \$425 million. It is understood that an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by The Blackstone Group upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on The Blackstone Group or a reduction or termination of the commitment.

3) Investment with an existing private equity manager, The Blackstone Group (“Blackstone”), in Strategic Partners Fund X (“Fund” or “SP X”).

Blackstone is forming Strategic Partners Fund X to seek capital appreciation primarily through the purchase of secondary interests in mature, high-quality buyout funds from investors seeking liquidity prior to the termination of these funds, with secondary interests in mezzanine, venture capital, distressed securities, fund of funds and other asset classes also considered. SP X may also, to a lesser extent, make investments in concentrated general partner led secondaries, primary investments in underlying vehicles and direct equity, equity-like and debt investments. While SP X will have a global investment mandate, it is anticipated that most of its commitments will be made to funds and assets located in the U.S. and Western Europe. Blackstone’s team is able to underwrite transactions that range in size and complexity, and it believes that the team’s in-depth secondary market expertise and relationships with both limited partners and fund managers will enable it to source, evaluate and close attractive secondary investments for SP X.

In addition to reviewing the attractiveness of the Strategic Partners Fund X investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Strategic Partners Fund X is included as **Attachment C beginning on page 23.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$250 million to Strategic Partners Fund X. It is understood that 1) such a commitment will not exceed 20% of Strategic Partners Fund X and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by The Blackstone Group upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on The Blackstone Group or a reduction or termination of the commitment.

4) Investment with an existing private equity manager, Bridgepoint Advisers Limited, in Bridgepoint Europe VIII (“Fund” or “BE VIII”).

Bridgepoint Advisers is raising Bridgepoint Europe VIII to continue its strategy of investing in middle-market buyouts of growth-oriented European businesses through control-oriented investments. The Fund will target companies with enterprise values typically between €300 million and €1 billion, without prescriptive country allocations, allowing flexibility to deploy capital across Europe and capture relative value opportunities. BE VIII will focus on four sectors: business and financial services, healthcare, advanced industrials, and technology. Within these sectors, Bridgepoint seeks established companies with sustainable demand, high-quality earnings, and strong recurring revenues, as well as businesses with potential for consolidation in fragmented markets. The Fund will pursue opportunities that combine operational improvements with growth initiatives, aiming to generate premium returns irrespective of macroeconomic conditions.

In addition to reviewing the attractiveness of the Bridgepoint Europe VIII investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Bridgepoint Europe VIII is included as **Attachment D beginning on page 27.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$200 million to Bridgepoint Europe VIII. It is understood that 1) such a commitment will not exceed 20% of Bridgepoint Europe VIII and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Bridgepoint Advisers Limited upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Bridgepoint Advisers Limited or a reduction or termination of the commitment.

5) Investment with an existing real assets manager, Energy Capital Partners (“ECP”), in ECP VI, L.P. (“Fund” or “ECP VI”).

Energy Capital Partners is forming ECP VI, to continue the firm’s strategy of making value-added, mainly control investments in the energy transition sector primarily in North America. The Fund’s targeted investments are expected to include electricity infrastructure, which includes power generation, battery and energy storage, power solutions for data centers, cloud infrastructure, and sustainability infrastructure, which includes carbon capture, low-carbon and renewable fuels, recycling and waste management, waste-to-energy, and energy efficiency assets. ECP expects to pursue a combination of acquiring existing operating assets and developing and constructing new assets, with an intent to remain opportunistic in its selection between late-stage development and operating investment with a focus on capturing attractive, risk-adjusted returns through a disciplined investment approach. ECP employs an integrated value creation model that leverages a hands-on ownership approach, targeted growth initiatives, commercial structuring, and long-term contract optimization, enabling ECP to transform operating and development-stage assets into scalable, high-performing platforms.

In addition to reviewing the attractiveness of the ECP VI, L.P. investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on ECP VI, L.P. is included as **Attachment E beginning on page 31.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$250 million to ECP VI, L.P. It is understood that 1) such a commitment will not exceed 20% of ECP VI, L.P. and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Energy Capital Partners upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Energy Capital Partners or a reduction or termination of the commitment.

6) Investment with an existing private credit manager, Merit Capital Partners (“Merit”), in Merit Capital Fund VIII, L.P. (“Fund”).

Merit Capital is establishing Merit Capital Fund VIII to make direct, privately negotiated junior capital investments (subordinated debt and equity) in lower middle-market companies in the United States and Canada. The Fund expects to invest in a combination of junior capital securities, aiming to provide a consistent current yield from its mezzanine debt, along with meaningful equity upside through the investment of preferred and common equity. Merit pursues recapitalization and fundless sponsor deals by targeting profitable, lower-middle-market companies in defensible industries, sourcing transactions primarily through non-traditional channels, and maintaining control over deal structures with conservative leverage and significant equity ownership. Merit Capital Fund VIII is expected to emphasize subordinated debt investments complemented by preferred and common equity to provide strong current yields with meaningful upside. This approach is supported by active portfolio management and close partnerships with management teams to drive value creation and optimize exits.

In addition to reviewing the attractiveness of the Merit Capital Fund VIII, L.P. investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Merit Capital Fund VIII, L.P. is included as **Attachment F beginning on page 35.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$125 million to Merit Capital Fund VIII, L.P. It is understood that 1) such a commitment will not exceed 20% of Merit Capital Fund VIII, L.P. and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Merit Capital Partners upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Merit Capital Partners or a reduction or termination of the commitment.

7) Investment with an existing private equity manager, Nordic Capital, in Nordic Capital XII (“Fund”).

Nordic Capital is raising Nordic Capital XII to continue its strategy of investing in control-oriented, upper-middle-market growth buyouts, primarily in Northern Europe, with an additional focus on healthcare growth buyouts across Europe and North America. The Fund will target companies with enterprise values between €300 million and €2 billion across four sectors: healthcare, technology & payments, services and industrial tech, and financial services. Within these sectors, Nordic Capital seeks resilient businesses supported by long-term secular growth, pursuing both transformational and growth acceleration opportunities. Nordic Capital Fund XII will focus on operational improvements and revenue growth, supported by the Firm’s Ownership Excellence Framework, its advisor network, and an integrated ESG approach.

In addition to reviewing the attractiveness of the Nordic Capital XII investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager’s approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund’s potential investor base. The staff’s diligence process will continue as additional data and documentation become available.

More information on Nordic Capital XII is included as **Attachment G beginning on page 39**.

RECOMMENDATION:

The Investment Advisory Council endorses Staff’s recommendation that the SBI authorize the Executive Director, with assistance from SBI’s legal counsel, to negotiate and execute a commitment of up to \$150 million to Nordic Capital XII. It is understood that 1) such a commitment will not exceed 20% of Nordic Capital XII and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Nordic Capital upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Nordic Capital or a reduction or termination of the commitment.

8) Investment with an existing private equity manager, Permira, in Permira IX (“Fund” or “P9”).

Permira is raising Permira IX to continue its long-established strategy of sector-focused investing in large-scale, transformational growth opportunities through control-oriented

buyouts primarily across Europe and North America, with flexibility to pursue attractive opportunities globally. The Fund will focus on four core sectors: consumer, healthcare, services, and technology. Within these sectors, Permira seeks market-leading companies with resilient business models supported by strong secular growth, often in enterprise technology, digital platforms, iconic consumer brands, and scale growers in healthcare and services. P9 expects to pursue both complex transformational opportunities and high-growth acceleration opportunities, with an emphasis on operational improvements and revenue growth. Permira's experienced team and dedicated value creation resources provide sector-specific expertise to drive ambitious transformation plans and sustainable growth.

In addition to reviewing the attractiveness of the Permira IX investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager's approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund's potential investor base. The staff's diligence process will continue as additional data and documentation become available.

More information on Permira IX is included as **Attachment H beginning on page 43.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$250 million to Permira IX. It is understood that 1) such a commitment will not exceed 20% of Permira IX and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Permira upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Permira or a reduction or termination of the commitment.

9) Investment with an existing real estate manager, TA Realty LLC ("TA Realty"), in TA Realty Value-Add Fund XIV, L.P. ("Fund").

TA Realty is forming TA Realty Value-Add Fund XIV, to invest in a diversified portfolio of United States real estate assets anticipated to be mainly across industrial and multifamily properties, with smaller expected allocations to data center, retail, and office properties. TA Realty's assessment of potential investments is based on an integrated research approach that combines "top-down" examination of trends affecting the broad real estate and capital markets with "bottom-up" understanding of the nuances of individual markets/submarkets, product types, and properties. Top-down research examines general real estate trends and long-term prospects of specific markets and asset types, while bottom-up research is driven

by TA Realty's experience investing in and managing assets in these markets, as well as granular asset-level data sourced from TA Realty's current or previously owned investments. Once an asset is acquired, value-add strategies and techniques range from rent stabilization for properties with active vacancies or facing rollover risk, asset repositioning, development, and portfolio aggregation.

In addition to reviewing the attractiveness of the TA Realty Value-Add Fund XIV, L.P. investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager's approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund's potential investor base. The staff's diligence process will continue as additional data and documentation become available.

More information on TA Realty Value-Add Fund XIV, L.P. is included as **Attachment I beginning on page 47.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$200 million to TA Realty Value-Add Fund XIV, L.P. It is understood that 1) such a commitment will not exceed 20% of TA Realty Value-Add Fund XIV, L.P. and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by TA Realty LLC upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on TA Realty LLC or a reduction or termination of the commitment.

10) Investment with an existing private equity manager, TPG Capital ("TPG"), in TPG Partners X, L.P. ("Fund").

TPG Capital is forming TPG Partners X to seek attractive returns by primarily making significant investments in portfolio companies, building scale, and improving operations in North American and European-focused middle and large-market businesses. TPG has developed sector expertise and is focused on thematically investing in its priority sectors, which include healthcare, software & enterprise technology, internet, digital media & communications, business services, and consumer. TPG was among the first private equity firms to establish an in-house operations group in 1996: today, over 40% of the TPG team are Portfolio Growth and Operations Specialists. Operations Team professionals identify and underwrite operational improvement opportunities, build and partner with strong management teams, and execute tailored value creation plans through functional line-level

engagement. TPG intends to invest in many levers to drive organic growth, including R&D spending, go-to-market enablement, product innovation, pricing optimization, workforce enhancement, and geographic expansion. The Fund will leverage TPG's expertise, capabilities, and network to pursue attractive, differentiated investments in all market cycles.

In addition to reviewing the attractiveness of the TPG Partners X, L.P. investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager's approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund's potential investor base. The staff's diligence process will continue as additional data and documentation become available.

More information on TPG Partners X, L.P. is included as **Attachment J beginning on page 51.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$150 million to TPG Partners X, L.P. It is understood that 1) such a commitment will not exceed 20% of TPG Partners X, L.P. and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by TPG Capital upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on TPG Capital or a reduction or termination of the commitment.

11) Investment with an existing private equity manager, Wind Point Advisors LLC, in Wind Point Partners XI ("Fund" or "WPP XI").

Wind Point Partners is raising Wind Point Partners XI to continue its long-established strategy of investing in North American middle-market companies through control-oriented buyouts. The Fund will target businesses with enterprise values between \$100 million and \$1 billion in the business services, consumer products, and industrial products sectors. WPP XI will focus on established companies that require leadership enhancement and operational or strategic support to accelerate growth. The Fund seeks to generate value by pairing portfolio companies with top-caliber CEOs from Wind Point's extensive executive network and by implementing tailored value creation plans centered on operational improvements, profitability enhancements, and organic growth initiatives. Growth will also be pursued through targeted add-on acquisitions, supported by Wind Point's sector specialization and active ownership approach.

In addition to reviewing the attractiveness of the Wind Point Partners XI investment opportunity, staff conducted appropriate due diligence, including but not limited to reference checks, database searches, the manager's approach to talent and culture, risk framework, stewardship, and governance, and, to the extent available, a review of the Fund's potential investor base. The staff's diligence process will continue as additional data and documentation become available.

More information on Wind Point Partners XI is included as **Attachment K beginning on page 55.**

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the SBI authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute a commitment of up to \$200 million to Wind Point Partners XI. It is understood that 1) such a commitment will not exceed 20% of Wind Point Partners XI and 2) an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing may be required and is approved. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and none of the State of Minnesota, the Investment Advisory Council, the State Board of Investment, or its Executive Director have any liability for reliance by Wind Point Advisors LLC upon this approval. Until the Executive Director, on behalf of the SBI, executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Wind Point Advisors LLC or a reduction or termination of the commitment.

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ATTACHMENT A

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Advent International GPE XI, L.P.
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$26 billion
<i>Fund Manager:</i>	Advent International, L.P.
<i>Manager Contact:</i>	Dan Tortora Prudential Tower 800 Boylston Street Boston, MA 02199

II. Organization and Staff

Advent International, L.P. (“Advent” or “Firm”) is one of the world’s largest and most experienced global private equity firms, operating from 16 offices in 13 countries and employing 302 investment professionals. Established in 1984, Advent’s objective has been to build a highly collaborative, international firm capable of sourcing, evaluating, and executing private equity investments on a global basis. Advent is overseen by 13 Managing Partners, whose activities are coordinated by an Executive Committee of four Managing Partners that advises on strategy, corporate policy, and resource deployment.

To date, the Firm has raised more than \$95 billion for its buyout funds from over 500 institutional investors worldwide. Through June 30, 2025, Advent’s Global Private Equity Program (“GPE”) has invested \$67.5 billion across 316 companies. In addition to the GPE program, Advent makes control-oriented investments in Latin America through its Latin American Private Equity Program (“LAPEF”) funds, currently in its seventh vintage, and Advent is currently investing the second vintage of its technology-focused program. Lastly, since 2014, Advent has made public equity and non-controlling private investments via its Advent Global Opportunities program, formerly known as Sunley House Capital Management.

The GPE team comprises 264 investment professionals with a mix of operating, strategic consulting and financial backgrounds. Its 38 Investment Partners have an average of 19 years of experience in private equity and have worked with Advent for an average of 13 years. The Advent Portfolio Support Group is an in-house team of 47 professionals with operating and consulting experience who bring their expertise to support the transformational initiatives that comprise the specific value creation plans at Advent’s portfolio companies. Advent has also developed a global network of external Operating Partners, senior industry executives who work with the Firm on an independent consulting basis in specific subsectors.

III. Investment Strategy

Consistent with its predecessor funds, GPE XI will continue Advent's long-established strategy of sector-focused, operationally intensive investing mainly through control-oriented buyouts and recapitalizations primarily in Europe and North America, while continuing to build upon its experience in Asia Pacific. GPE XI will make approximately 35-40 investments over the course of its investment period, with the flexibility to pursue the most interesting opportunities across the deal size spectrum. GPE XI's strategy will continue to be based around five key components:

Sector specialization – GPE XI will primarily focus on companies in five core sectors in which Advent has substantial experience: (1) Business & Financial Services; (2) Consumer; (3) Healthcare; (4) Industrial; and (5) Technology. Within these sectors, the GPE Team will focus on identifying attractive sub-sectors that have compelling business models, that are undergoing substantial change, or that have particularly strong growth opportunities. Within those identified sub-sectors, Advent will seek to leverage its experience to identify investments in areas where it has had previous success globally and develop new opportunities based on a clear understanding of industry trends and competitive landscapes.

Global presence and dynamic allocation of capital – GPE XI intends to invest primarily in companies across the private equity markets of Europe and North America, and increasingly in Asia, where Advent has established local presence and developed experience. Advent dynamically allocates capital as a result of a comprehensive “top-down” and “bottom-up” approach which results in finding and selecting the most compelling opportunities across sectors and geographies. Portfolio composition therefore varies from fund to fund depending on both secular and cyclical factors which impact the Firm's view of risk and return.

Firm wide collaboration – Advent believes the Firm's culture of collaboration will lead to attractive cross-sector and cross-geography deals. As sectors continue to intersect, especially with the increasing permeation of technology, and companies look for partners with differentiated insights, Advent's coverage across key markets and sectors positions the Team well as a partner of choice.

Control-oriented investments in well-positioned companies – GPE XI will typically seek to invest in companies where Advent can add significant value, usually through a controlling stake or a structure allowing it to influence the business in a meaningful way. Advent's experience has shown that it can implement value creation plans more effectively and improve downside protection if it has control and is an active owner.

Investing behind value creation – The Fund will invest where it has the opportunity to create value and seek opportunities for true break-out potential for the companies in which it invests. The Fund will invest in both complex, transformational opportunities on one hand, and high-growth, acceleration opportunities on the other. In both cases, Advent will focus on operational improvements and earnings growth, rather than financial engineering. Advent believes it has the ability to bring significant resources to portfolio companies, enabling them to drive more transformational initiatives and experience faster earnings

growth. These initiatives include both M&A and cost optimization initiatives, as well as revenue growth, which is often driven by implementing sophisticated pricing initiatives, changes to product and geography mix, and enhancements to products and services. Advent believes that this investment framework will position the Fund to execute compelling investment opportunities and value creation plans in various market conditions.

IV. Investment Performance

Previous fund USD performance as of June 30, 2025 for Advent and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
ESSF	1989	\$231 million	--	16.9%	2.2x	2.2x
GPE II	1993	\$314 million	--	22.0%	2.0x	2.0x
GPE III	1997	\$1.0 billion	--	10.6%	1.7x	1.7x
GPE IV	2001	\$1.5 billion	--	43.9%	3.0x	3.0x
GPE V	2005	\$3.3 billion	--	48.1%	2.4x	2.4x
GPE VI	2008	\$10.4 billion	\$50 million	16.1%	2.1x	2.0x
GPE VII	2012	\$10.8 billion	\$90 million	13.1%	1.8x	1.7x
GPE VIII	2016	\$13.0 billion	\$100 million	15.7%	2.1x	1.4x
GPE IX	2019	\$17.5 billion	\$115 million	14.7%	1.7x	0.3x
GPE X	2022	\$25 billion	\$150 million	18.7%	1.3x	--

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, Multiple of Invested Capital (MOIC), and Net DPI were provided by Advent.

V. Investment Period and Term

The investment period of the Fund is expected to be six years. The term of the Fund is expected to be ten years, subject to two one-year extensions subject to Advisory Committee consent.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and any supplemental thereto.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Blackstone Supplemental Account
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$300 million
<i>Fund Manager:</i>	Blackstone Management Partners L.L.C. Blackstone Growth Advisors L.L.C.
<i>Manager Contact:</i>	Kelly Stephens 345 Park Avenue New York, NY 10154

II. Organization and Staff

Blackstone Inc. (together with its affiliates “Blackstone” or the “Firm”) was founded in 1985 by Stephen A. Schwarzman and Peter G. Peterson and is headquartered in New York, NY. Blackstone’s alternative asset management businesses include investment vehicles focused on private equity, real estate, hedge fund solutions, credit, secondary funds, opportunistic, growth, infrastructure, insurance solutions and life sciences. As of June 30, 2025, Blackstone had approximately 260 Senior Managing Directors, and roughly 5,000 employees across 27 offices globally, and the Firm’s total assets under management was approximately \$1,211 trillion.

III. Investment Strategy

In 2020, the Minnesota State Board of Investment (“SBI”) approved the establishment of the Blackstone Supplemental Account (“Partnership”), a vehicle designed to co-invest in certain investments made by Blackstone funds in which the SBI is also a Limited Partner, and which will invest in a manner consistent with philosophies around portfolio construction and discretion agreed upon by both Blackstone and the SBI. The initial commitment to the Partnership was \$125 million. To date, SBI has funded \$113.6 million to co-investments through the Partnership. Accordingly, to facilitate SBI’s participation in potential co-investment opportunities through the Partnership going forward, staff recommends an additional commitment of up to \$300 million to the Partnership, bringing SBI’s total commitment amount to up to \$425 million.

It is expected that co-investment opportunities that the Partnership may invest in will arise from corporate private equity, growth equity, and secondary transactions in Blackstone strategies in which the SBI is an existing Limited Partner and strategies the SBI may approve in the future. Accordingly, the SBI will have already performed due diligence on the relevant strategy, investment team and investment process prior to the Partnership participating in any investment. These strategies include, but are not limited to, Blackstone’s Growth, Capital Partners Asia, Energy Transition Partners, Strategic Partners and Capital Partners

strategies. There can be no guarantee that any capital committed to a co-investment partnership will ultimately be invested.

IV. Investment Performance

Previous fund performance as of June 30, 2025 for Blackstone and the SBI's investments with previous funds, where applicable is shown below. Strategic Partners Performance as of March 31, 2025.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Capital Partners IV	2002	\$6.5 Billion	\$70 million	36.1%	2.5x	2.5x
Blackstone Capital Partners V	2006	\$20.4 Billion	\$140 million	8.2%	1.7x	1.7x
Blackstone Capital Partners VI	2011	\$15.1 Billion	\$100 million	12.3%	1.8x	1.6x
Blackstone Capital Partners VII	2016	\$18.0 Billion	\$130 million	12.8%	1.7x	0.9x
Blackstone Capital Partners VIII	2019	\$24.5 Billion	\$150 million	10.3%	1.3x	0.2x
Blackstone Capital Partners IX	2024	\$21.1 Billion	\$150 million	N/A	1.0x	N/A

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Growth Equity	2020	\$4.6 Billion	\$250 million	1.1)%	1.0x	0.1x
Blackstone Growth Equity II	2025	\$4.2 Billion	\$150 million	N/A	N/A	N/A

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Capital Partners Asia	2017	\$2.3 Billion	--	23.9%	2.0x	1.0x
Blackstone Capital Partners Asia II	2021	\$6.4 Billion	\$270 million	40.8%	1.8x	0.3x
Blackstone Capital Partners Asia III	TBD	N/A	\$300 million	N/A	N/A	N/A

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Energy Partners I	2011	\$2.4 Billion		11.6%	1.7x	1.5x
Blackstone Energy Partners II	2015	\$4.6 Billion	--	8.3%	1.5x	0.8x
Blackstone Energy Partners III	2020	\$4.2 Billion	--	25.0%	1.7x	0.5x
Blackstone Energy Transition Partners IV	2024	\$5.6 Billion	\$200 million	N/A	1.3x	N/A

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
SP I	2001	\$832 million	\$100 million	17%	1.6x	1.6x
SP II	2003	\$ 1,625 million	\$100 million	35%	1.8x	1.8x
SP III	2005	\$ 1,900 million	\$100 million	6%	1.4x	1.4x
SP IV	2008	\$ 2,073 million	\$100 million	13%	1.6x	1.6x
SP V	2011	\$ 2,429 million	\$100 million	18%	1.6x	1.6x
SP VI	2014	\$ 4,363 million	\$150 million	14%	1.5x	1.3x
SP VII	2016	\$ 7,490 million	\$150 million	16%	1.7x	1.3x
SP VIII	2019	\$11,414 million	\$150 million	22%	1.6x	0.8x
SP IX	2021	\$22,706 million	\$100 million	21%	1.3x	0.1x

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Supplemental Account	2021	\$125 Million	\$125 Million	(5.2)%	0.9x	N/A

* Investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by Blackstone.

V. *Investment Period and Term*

The terms of the Partnership will be negotiated between Blackstone and the Minnesota State Board of Investment, but it is expected that non-economic terms will be similar to those of the underlying Blackstone funds.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Strategic Partners X L.P.
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$22.5 billion
<i>Fund Manager:</i>	Blackstone Strategic Partners
<i>Manager Contact:</i>	William Rosener Blackstone Strategic Partners Blackstone Inc. 345 Park Avenue New York, NY 10154

II. Organization and Staff

Blackstone Inc. (“Blackstone” or the “Firm”), through its secondary platform, Blackstone Strategic Partners, is forming Strategic Partners X (“SP X” or “the Fund”) to continue its strategy of investing in the private equity secondary market. With over 25 years of experience, Blackstone Strategic Partners is recognized as an innovative and market-leading secondary private equity investor, with broad transaction capabilities on a global scale through its network of strong relationships, as well as a leading reputation for executing transactions on a fair, timely and confidential basis.

Blackstone Strategic Partners was established in 2000 as Donaldson, Lufkin and Jenrette’s (“DLJ”) dedicated secondary private equity manager prior to the acquisition of DLJ by Credit Suisse. In 2013, Blackstone acquired the Strategic Partners business from Credit Suisse. Blackstone Strategic Partners utilizes Blackstone’s global capabilities, relationships, and expertise to provide significant competitive advantages in sourcing and executing secondary transactions and ultimately strengthen Blackstone Strategic Partners’ investment offering. Blackstone Strategic Partners believes that leveraging the Blackstone platform, while still preserving its investment philosophy and focus, translates into enhanced investment returns for its limited partners. Since its founding in 2000, Blackstone Strategic Partners has raised over \$96 billion across its platform. Strategic Partners X will be the fifth secondary private equity fund sponsored by Blackstone and the tenth managed and led by the Strategic Partners team.

Blackstone Strategic Partners has 154 professionals located in New York, London, San Francisco, Paris, Los Angeles, Singapore and Nashville. The team is led by Verdun Perry, who has been with Blackstone Strategic Partners since its inception in 2000. In addition to the dedicated investment professionals, Blackstone Strategic Partners is supported by the full resources and infrastructure of Blackstone’s central corporate functions.

III. Investment Strategy

Like its predecessor funds, SP X will seek significant capital appreciation primarily through the purchase of secondary interests in mature buyout funds from investors seeking liquidity prior to the termination of these funds, with secondary interests in mezzanine, venture capital, distressed securities, fund of funds and other asset classes also considered. The Fund may also, to a lesser extent, make investments in concentrated general partner-led secondaries, primary investments in underlying vehicles and direct equity, equity-like and debt investments. SP X will invest opportunistically in transactions that can range from a single fund interest with original commitments of less than \$1 million to a large, complex portfolio of funds valued at billions of dollars with several hundred underlying fund interests. While the Fund will have a global investment mandate, it is anticipated that most of its commitments will be made to funds and assets located in North America and Western Europe.

Blackstone Strategic Partners is able to underwrite transactions of all sizes and complexities, from single assets to multi-asset portfolios across buyout, venture/growth capital, fund of funds, real estate and infrastructure funds. Blackstone Strategic Partners' consistent and cohesive team intends to leverage its extensive database and investment experience to re-price complex transactions, which can often contain 50-100 or more underlying funds with speed and accuracy.

SP X expects to seek opportunities in both non-competitive and competitive transactions. Blackstone Strategic Partners believes that the team's in-depth secondary market expertise and relationships with both limited partners and fund managers will enable it to source, evaluate and close attractive secondary investments for the Fund. 60% of the prior fund's completed deals are from repeat sellers.

Blackstone is one of the world's largest alternatives managers across private equity, real estate, credit, secondary funds, tactical opportunities, infrastructure, insurance solutions, hedge fund solutions and close-ended mutual funds. Blackstone Strategic Partners believes that it benefits significantly from the position that Blackstone occupies as a leading global alternative asset manager. Blackstone's scale and institutional reputation and franchise should allow Blackstone Strategic Partners to gain access to incremental and proprietary opportunities.

IV. Investment Performance

Previous fund performance as of March 31, 2025 for Blackstone Strategic Partners and the SBI's investments with previous funds and SBI's specific performance is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
SP I	2001	\$832 million	\$100 million	17%	1.6x	1.6x
SP II	2003	\$ 1,625 million	\$100 million	35%	1.8x	1.8x
SP III	2005	\$ 1,900 million	\$100 million	6%	1.4x	1.4x
SP IV	2008	\$ 2,073 million	\$100 million	13%	1.6x	1.6x
SP V	2011	\$ 2,429 million	\$100 million	18%	1.6x	1.6x
SP VI	2014	\$ 4,363 million	\$150 million	14%	1.5x	1.3x
SP VII	2016	\$ 7,490 million	\$150 million	16%	1.7x	1.3x
SP VIII	2019	\$11,414 million	\$150 million	22%	1.6x	0.8x
SP IX	2021	\$22,706 million	\$100 million	21%	1.3x	0.1x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, Net MOIC, and DPI provided by the manager.

V. Investment Period and Term

The fund will have a four year investment period from the final closing subject to a one year extension with the consent of the Advisory Committee. The term of the fund will be ten years after the final closing, subject to two, one-year extensions at the discretion of the General Partner and two additional one-year extensions with the consent of the Advisory Committee or a majority in interest of Combined Limited Partners.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and any supplemental thereto.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Bridgepoint Europe VIII
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	€7.5 billion
<i>Fund Manager:</i>	Bridgepoint Advisers Limited
<i>Manager Contact:</i>	Martin Dunn 5 Marble Arch Place London W1H 7EJ United Kingdom

II. Organization and Staff

Bridgepoint Advisers Limited (“Bridgepoint” or “Firm”) is forming Bridgepoint Europe VIII (“BE VIII” or “Fund”) to continue Bridgepoint’s history of investing in middle-market, growth-oriented European businesses. Bridgepoint has invested across Europe since the early 1990s and has delivered strong and consistent investment performance over an extended period.

From its establishment in 1984 to 2000, Bridgepoint operated as a subsidiary of the European banking group, NatWest. During the 1990s, it gradually increased the proportion of external funds under management and in 1998 it raised Bridgepoint Europe I (“BE I”), its first external fund, with commitments of £1bn. In June 2000, the Bridgepoint Partners and employees completed the acquisition of the management company of the business from NatWest and the secondary sale of NatWest’s interests in the underlying portfolio. The business was owned by Bridgepoint Partners and employees until 2018 when a minority stake was sold to Blue Owl Capital (fka Dyal Capital Partners). Blue Owl’s investment facilitated the expansion of the platform with the acquisition of EQT Credit in October 2020. In July 2021, Bridgepoint listed on the London Stock Exchange. Proceeds from the listing have been used to continue investing in the Firm’s platform to strengthen and enhance it to drive investment returns. In August 2024, Bridgepoint completed the acquisition of Energy Capital Partners, a specialist global infrastructure investor focused on the energy transition and power generation sector. In addition to the flagship Bridgepoint Europe funds, Bridgepoint also manages two additional private equity fund series: Bridgepoint Development Capital (focused on lower middle market companies with enterprise values between €100 million and €300 million) and Bridgepoint Growth (Bridgepoint’s small cap buyout strategy, targeting companies with enterprise values of less than €100 million).

Currently, the Bridgepoint private equity team has approximately 140 investment professionals, 90 of whom are focused solely on the Bridgepoint Europe (“BE”) fund series. The Bridgepoint Europe investment team is led by an experienced team of 28 Partners. The

investment professionals are complemented by the Portfolio Support Group, a group of approximately 40 professionals that provides an operations-focused resource for adding value across the portfolio.

III. *Investment Strategy*

Bridgepoint Europe VIII intends to create a portfolio of middle market companies headquartered or with significant operations in Europe. The Fund will focus on established businesses with enterprise values typically between €300m and €1bn. As with Bridgepoint's existing funds, there will be no prescriptive country allocations, thereby providing the Fund with flexibility in deploying capital within Europe to exploit regional volatility and capture 'best value' and relative return opportunities.

BE VIII will target two specific high-growth sub-sectors within each of the four core sectors: Services, Healthcare, Advanced Industrials, and Technology. The sub-sectors identified within each sector have been selected based on structural growth and where Bridgepoint believes that Bridgepoint Europe has built a competitive edge over time, leveraging its playbook to originate and create value. BE VIII aims to deploy approximately 80% of its capital across these niches, with the remaining 20% allocated opportunistically elsewhere.

Within these sub-sectors, Bridgepoint focuses on companies with sustainable end market growth and high quality of earnings. Bridgepoint looks for assets in growth niches that have the potential to deliver premium returns irrespective of macroeconomic conditions. Bridgepoint targets market leaders with leading intellectual property and service provision, companies accessing growing global markets, and businesses with high levels of recurring revenues. In addition, BE VIII will target market leading businesses operating in fragmented markets to use as platforms for consolidation at accretive valuations. Generating 'internal growth' through operational improvement will also be an important driver of value creation for the Fund.

Bridgepoint has dedicated sector teams who are responsible for identifying the most attractive sub-segments, mapping the market and identifying the most interesting targets, and executing transactions hand-in-hand with the local teams. These sector teams are led by investment team Partners and operate on a pan-European basis, with investment professionals working closely together across offices and across Bridgepoint's different private equity strategies. This targeted origination strategy provides Bridgepoint with full visibility into a broad pool of potential targets, allowing the firm to cultivate relationships well ahead of any formal sale process, which often leads to bilateral transactions or positions Bridgepoint well in auction processes.

As mentioned above, Bridgepoint applies a sector and geographic matrix to the deployment of its investment resources. Transaction teams typically combine local team members with colleagues with relevant sector and functional expertise from other offices. This provides a compelling mix of skills and experience to execute transactions and drive subsequent value creation initiatives.

Bridgepoint Europe draws on a substantial operational toolkit to build better, bigger, more efficient, and more sustainable growth businesses. While each investment is unique, certain

key elements common to a typical Bridgepoint investment case are incorporated into value creation plans for each asset. These include organic revenue development initiatives, add-on acquisitions, operational improvements, and other relevant selective strategies. Selective strategies may include international expansion, business repositioning, enhancing management teams, digital impact strategies, and ESG upgrade plans.

Bridgepoint considers its ability to exit investments in both favorable and more challenging market conditions to be a great strength and among its key attributes. All investments are considered regularly as possible realizations, both in the context of asset-specific and fund-as-a-whole dynamics. The Fund will carefully balance its priorities of returning material capital to investors regularly and maximizing overall returns, basing the selection of potential exit candidates on their performance to date and an assessment of their capacity to maintain growth in capital appreciation.

IV. Investment Performance

Previous fund performance as of June 30, 2025 for Bridgepoint and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*(2)
Bridgepoint Europe I	1998	£1.0 billion	--	10.0%	1.6x	1.6x
Bridgepoint Europe II	2001	€2.0 billion	--	23.5%	1.7x	1.7x
Bridgepoint Europe III	2005	€2.5 billion	--	3.6%	1.4x	1.3x
Bridgepoint Europe IV	2008	€4.8 billion	--	12.1%	1.8x	1.7x
Bridgepoint Europe V	2015	€4.0 billion	--	16.5%	2.0x	1.5x
Bridgepoint Europe VI	2019	€5.8 billion	€150 million	17.5%	1.8x	0.5x
Bridgepoint Europe VII	2022	€7.0 billion	€100 million	18.0%	1.1x	n/m

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Performance data was provided by Bridgepoint.

V. Investment Period and Term

The investment period is up to five years (Bridgepoint targets four years) and the term is ten years from the final close, with one additional one-year period at the discretion of the Manager (after consultation with the LPAC) and up to two further one-year periods by the Manager with the approval of a majority in interest of the Limited Partners.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the “PPM”). It is qualified in its entirety by the more detailed information provided in the PPM.

ATTACHMENT E

REAL ASSETS MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	ECP VI, L.P.
<i>Type of Fund:</i>	Energy Infrastructure
<i>Target Fund Size:</i>	\$5 billion
<i>Fund Manager:</i>	Energy Capital Partners Management, LP
<i>Manager Contact:</i>	Emily Zovko 40 Beechwood Road Summit, New Jersey 07901

II. Organization and Staff

Energy Capital Partners (“ECP” or “Firm”) is forming Energy Capital Partners VI, LP (“Fund VI” or “Fund”) to continue the Firm’s investment strategy of making value-added, primarily control investments in the energy transition sector through electrification, reliability, decarbonization and sustainability infrastructure platforms, assets and projects, primarily in North America.

ECP was established in 2005 and is led by a team of experienced investment professionals, many of whom have collaborated on investments for over 20 years. ECP’s senior professionals collectively average approximately 20 years of experience in the energy industry, possess deep industry relationships, and have a successful track record of investing in energy infrastructure assets. The Firm has raised over \$35 billion of committed capital across six private equity funds, two credit funds, two continuation funds, and several bespoke co-investments and other investment vehicles. The Firm is led by Executive Chairman and Founder Douglas Kimmelman, Vice Chairman and Group Managing Partner Peter Labbat, President and Managing Partner Tyler Reeder, Managing Partner and COO Murray Karp, and eleven other partners. Since 2005, ECP has grown to a team of 45 investment professionals, 56 additional professionals across compliance, accounting, investor relations, administrative functions, and six senior advisors. ECP is headquartered in Summit, New Jersey, with offices in San Diego, Houston, New York, and Seoul, South Korea.

In August 2024, ECP merged with Bridgepoint Partners, a subsidiary of the publicly traded parent company Bridgepoint Group plc, listed on the London Stock Exchange. In January 2023, Sumitomo Mitsui Trust Bank acquired a minority stake, and in April 2017, Dyal (now Blue Owl GP Stakes) acquired a minority interest. ECP maintains independent operations, and the ECP team remains responsible for all investment and personnel decisions.

ECP believes that the best decisions are made by including a variety of viewpoints. Beyond being an equal opportunity employer, ECP is committed to hiring and mentoring diverse talent and fostering a culture of inclusion internally and across its portfolio of companies. ECP’s ESG

committee works closely with investment professionals and portfolio companies to support their Diversity, Equity, and Inclusion Policy and enact objectives for their ESG strategy. ECP continually evaluates measures to develop its strategy further and increase diversity at both the Firm and portfolio levels.

III. *Investment Strategy*

The Fund's targeted investments are expected to include electricity and sustainability infrastructure opportunities. In electricity infrastructure, this includes power generation focusing on natural gas as a transition fuel, renewables such as wind, solar, geothermal, hydro, battery and energy storage, as well as power solutions for data centers and cloud infrastructure. In sustainability infrastructure, areas of focus include carbon capture, low-carbon and renewable fuels, environmental clean-up, recycling and waste management, beneficial re-use, waste-to-energy, water and wastewater systems, waste disposal and processing, energy efficiency, downstream infrastructure supporting power generation, and waste-to-fuels sectors. Fund VI is expected to make 10 to 15 investments, with average equity commitments ranging from \$250 million to \$750 million, in line with Funds III, IV, and V.

ECP anticipates targeting higher returns through directly negotiated acquisitions, leveraging Fund VI's \$5 billion target size and the Firm's deep industry relationships to access opportunities that may be unavailable to others. ECP routinely sources transactions outside of competitive situations by leveraging the extensive network of relationships its team members have cultivated over the years. The firm believes its investment professionals are widely regarded as sector thought leaders and knowledgeable strategic partners. This reputation is recognized by many utilities, independent power producers, unregulated merchant energy companies, and project developers. As a result, ECP is often positioned as a first call for strategic needs and capital solutions.

While the vast majority of ECP's investments focus on acquiring existing assets that are already operational, ECP does also invest in the development and construction of new assets. The Firm intends to remain opportunistic in its selection between late-stage development and operating investments, focusing on capturing attractive, risk-adjusted returns through a disciplined investment approach. ECP has a proven track record of successfully executing development and construction projects while managing associated risks such as having appropriate offtake contracts and hedges in place. The Firm believes that development opportunities face less competitive pressure due to the broad and specialized skill sets required and the incremental risks inherent in development and construction. Further, ECP only takes on development and construction of commercially proven assets and does not take technology risk or pursue anything that could be classified as "venture" stage. As such, ECP views the primary risks of development and construction as being tied more to the long-term nature of projects and the potential illiquidity of selling an incomplete asset during favorable M&A cycles, rather than to execution risk itself.

ECP creates value through a proven, hands-on ownership model anchored by a dedicated in-house, experienced operating team and a disciplined approach to de-risking investments. With a track record of overseeing ~87 GW of power generation facilities and driving more than 65% EBITDA growth across ongoing sector focus portfolio companies, ECP's strategy emphasizes

operational excellence, conservative leverage, commercial risk management and optimization, and targeted growth initiatives. The Firm leverages its Value-Add and Risk Committees to bring structure and rigor to portfolio engagement, standardizing best practices across talent and technology evaluations, 100-day planning, and risk mitigation. ECP seeks board control in most of its investments, enabling close collaboration with management to drive organic growth. Through commercial structuring, hedging strategies, and long-term contract optimization, ECP enhances cash flow stability and unlocks upside potential. Additionally, ECP's growth initiatives span tuck-in acquisitions, re-powering, and new developments, having delivered nearly 30 GW of energy infrastructure, including renewables and storage, across major U.S. power markets. This integrated value creation model allows ECP to transform operating and development-stage assets into scalable, high-performing platforms.

ECP believes its Environmental, Social, and Governance (ESG) policies add value across its portfolio companies. The investment teams, in collaboration with the ESG Committee, develop action plans to assess, formalize, and enhance ESG practices within these companies. The ESG Committee establishes key performance indicators that must be reported at least annually and implements a structured oversight, reporting, and communication process for material ESG matters. The company's board and deal team members monitor these ESG initiatives and drive the necessary actions to align with the ESG Committee's criteria.

IV. Investment Performance

Previous fund performance as of June 30, 2025, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
ECP I	2006	\$2.3 billion	N/A	-3%	0.6x	0.6x
ECP II	2010	\$4.3 billion	\$100 million	9%	1.4x	1.4x
ECP III	2014	\$5.1 billion	\$200 million	13%	1.8x	1.4x
ECP IV	2018	\$3.3 billion	\$150 million	16%	1.6x	0.4x
ECP V	2022	\$4.4 billion	\$150 million	15%	1.3x	0.0x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, Multiple of Invested Capital (MOIC), and Net DPI were provided by ECP.

V. Investment Period and Term

The commitment period will last six years, and the fund's term will be 11 years, subject to a one-year extension at the General Partner's discretion and two additional two-year extensions with the approval of either the LP Advisory Committee or a majority of the Limited Partners by capital commitments.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

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PRIVATE CREDIT MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Merit Capital Fund VIII, L.P.
<i>Type of Fund:</i>	Private Credit
<i>Target Fund Size:</i>	\$600 million
<i>Fund Manager:</i>	Merit Capital Partners VIII, L.L.C.
<i>Manager Contact:</i>	Daniel Pansing Managing Director 191 North Wacker Drive, Suite 1100 Chicago, IL 60606

II. Organization and Staff

Merit Capital (“Merit” or the “Firm”) is establishing Merit Capital Fund VIII (“Fund VIII”) for the purpose of making direct, privately-negotiated junior capital (subordinated debt and equity) investments in lower middle-market companies in the United States and Canada.

The Firm was founded in 1993 as William Blair Mezzanine Capital Partners. In 2005, several members of William Blair Mezzanine Capital Partners established Merit Mezzanine as an independent entity, while retaining responsibility for managing the first three William Blair Mezzanine funds. Merit Capital Partners is wholly owned by its current leadership team and certain retired former leadership.

Merit Capital operates out of a single office in Chicago, Illinois and is led by five senior managers: John J. Darguzas, Evan R. Gallinson, Daniel E. Pansing, Joseph A. Polaneczky, and Benjamin W. Yarbrough. These investment professionals have an average of over 20 years of private investment experience, most of which has been earned working together on prior Merit funds. The firm’s 11-person investment team functions as generalists, each involved in deal sourcing, execution, and portfolio monitoring.

III. Investment Strategy

Consistent with seven prior funds, Merit is expected to invest a combination of junior capital securities in an effort to provide consistent current yield from its mezzanine debt along with meaningful equity upside through the investment of preferred and common equity. Merit anticipates that approximately 65% of the committed capital in Fund VIII will be invested in the form of fixed rate subordinated debt, and approximately 35% in preferred stock and common stock. The resulting portfolio is expected to generate attractive current yields (8% to 10% on average for each portfolio company) combined with upside available through meaningful equity ownership positions. Fund VIII is expected to invest in approximately 18

separate companies, with an average total investment of approximately \$30 million per company.

The Firm focuses on transactions falling into two broad categories. The first involves investments completed in partnership with the existing owners and executives of companies. These recapitalization-oriented deals typically involve a meaningful financial reinvestment and management commitment by the existing management team in partnership with Merit. In many of these cases, Merit is the first institutional investor in the company. The second broad category involves independent/fundless sponsor transactions. These transactions are often originated by small investor groups that pursue leveraged buyout transactions without committed capital from a traditional organized buyout fund. The groups often find deals “off the beaten path” and/or in situations where they can add value through particular industry knowledge or expertise.

As Merit pursues these recapitalization and independent/fundless sponsor transactions, it will follow an investment strategy guided by four principles:

Disciplined Investing: The team that will invest Fund VIII is responsible for the investment of prior funds across multiple market cycles. The Fund intends to focus on the relatively inefficient North American lower middle-market, which Merit defines as companies with sales of \$20 to \$200 million, and enterprise values of \$25 to \$200 million. The Firm will target established, profitable businesses in industries with significant barriers to entry such as manufacturing and specialty distribution. The Fund does not intend to invest in certain industries such as real estate development or oil and gas exploration, nor in companies with perceived excessive business risk, such as high-technology companies, turnarounds or start-ups.

Established Origination Capabilities: The Firm has concentrated origination efforts on non-traditional channels where there is less competition, including: (i) direct origination of transactions with management (through relationships with company executives on their boards, attorneys, senior lenders, accountants and wealth managers, among others); (ii) independent/fundless sponsor transactions; and (iii) boutique M&A advisors (small business intermediaries who typically do not have the same level of resources to bear on a given transaction that one sees from traditional investment banks, thus offering opportunities to meaningfully fewer capital providers). The vast majority of Merit Capital’s 108 platform investments to date have been sourced through these non-traditional channels.

Transaction Control: Merit intends to be the lead investor in substantially all Fund VIII investments. This is consistent with the Firm’s approach in prior funds. Serving as lead investor provides control of the transaction, which gives Merit enhanced flexibility to develop the capital structure, set transaction terms, and obtain favorable pricing which includes significant equity or other upside in each investment opportunity. Traditional mezzanine investors who invest alongside equity funds generally have less control of their transaction structures and pricing, and meaningfully less upside opportunity. Control of the transaction also allows Merit to establish a conservative capital structure. In prior funds, Merit has used modest amounts of senior debt (less than 2.0x EBITDA on average, compared to an industry average of between 3.5x to 4x). In addition, Merit generally provides approximately 2.5x EBITDA of subordinated debt, resulting in a total leverage level (~4.5x EBITDA) that is meaningfully lower than

industry averages. Finally, transaction control allows Merit to obtain high levels of equity ownership. In Funds I-III, average equity ownership was approximately 30%, while Funds IV – VII have averaged over 60% equity ownership.

Active Portfolio Management: Merit believes that active and thorough portfolio management is essential to its strategy, especially given the high level of equity ownership in most transactions. The Firm believes that it must develop a close relationship with company management and be respected as an integral part of the strategic decision-making process. At least one principal of Merit is or was a member of the Board of Directors in substantially all portfolio companies in prior funds. While not directly involved in day-to-day operations, Merit expects to assist management in a number of key areas, such as recruitment and retention of management; refinancing of senior debt; evaluation of potential mergers, acquisitions and divestitures; and the approval of operating and capital budgets. Because Merit is generally not investing alongside an equity fund, the Firm is able to be integrally involved in the investment exit process, including decisions on timing and means of exit, as well as selecting and engaging investment bankers and negotiating with prospective purchases. Merit believes this proactive approach to the exit process should enhance realized returns.

IV. Investment Performance

Previous fund performance as of June 30, 2025 are shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
William Blair Mezzanine Capital Fund	1993	\$115 million	-	14.0%	1.8x	1.8x
William Blair Mezzanine Capital Fund II	1997	\$190 million	-	11.9%	1.7x	1.7x
William Blair Mezzanine Capital Fund III	2000	\$311 million	\$60 million	15.4%	2.0x	2.0x
Merit Mezzanine Fund IV	2005	\$455 million	\$75 million	11.5%	2.0x	2.0x
Merit Mezzanine Fund V	2010	\$613 million	\$75 million	10.5%	1.8x	1.6x
Merit Mezzanine Fund VI	2016	\$536 million	\$100 million	15.8%	1.8x	1.2x
Merit Mezzanine Fund VII	2021	\$550 million	\$100 million	7.9%	1.2x	0.1x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, Net MOIC, and Net DPI provided by the manager.

V. Investment Period and Term

The investment period will last 5 years. The Fund will have a term of 10 years, subject to not more than three one-year extensions with the approval of the Advisory Committee or a majority of Limited Partner interests.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Nordic Capital Fund XII
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	€10 billion
<i>Fund Manager:</i>	Nordic Capital (Nordic Capital DPM XII, L.P., acting by its general partner, Nordic Capital DPM XII Limited)
<i>Manager Contact:</i>	Daniel Kanak Head of Investor Relations Nordic Capital Advisors 32 Duke Street, St James's, London, SW1Y 6DF, UK

II. Organization and Staff

Nordic Capital (“Nordic Capital” or “Firm”) is establishing Nordic Capital XII (“Fund XII” or the “Fund”) to make growth buyouts across healthcare, technology & payments, services and industrial tech, and financial services, primarily in Northern Europe, as well as healthcare and technology & payments in North America.

Nordic Capital is one of the oldest Nordic region private equity investors and is supported by a strong local presence and long-standing industry relationships in Northern Europe. Nordic Capital Fund I was established in 1989. Across its eleven flagship private equity funds and Nordic Capital Evolution Fund I, Nordic Capital has invested over €30 billion in 155 portfolio companies as of June 30, 2025. The Firm has ten offices including eight investment advisory offices in Stockholm, Copenhagen, Oslo, Helsinki, Frankfurt, London, New York, and Seoul. In September 2019, Nordic Capital sold a passive, minority stake of the Firm to a U.S.-based family office. The partners of Nordic Capital retain a significant majority stake in the business and full discretion over the management of the firm.

Nordic Capital Fund XII will leverage over 250 professionals employed by the Firm, which includes 94 investment professionals and dedicated professionals supporting Ownership Excellence, Capital Markets, ESG, Investor Relations, Legal, Controlling & Valuation, and Fund Operations. The investment team at Nordic Capital is split into sector teams where each senior investment professional typically leads a subsector or segment. The investment advisory organization of Nordic Capital is led by Managing Partner Kristoffer Melinder, who has been with Nordic Capital since 1998. Kristoffer became co-Managing Partner in 2010 and sole Managing Partner in 2016. During his leadership, Nordic Capital has made significant refinements to its operating model including sharpening its sector-based focus and developing dedicated operational capabilities, which the Firm refers to as Ownership Excellence resources.

III. Investment Strategy

Fund XII intends to focus primarily on control or co-control buyouts of attractive upper middle-market businesses in Northern Europe and healthcare and technology & payments investments in North America. The Fund intends to make equity investments of between €250 million and €1 billion in businesses with an enterprise value of €300 million to €2 billion.

Nordic Capital focuses primarily on growth buy-outs and seeks to accelerate earnings growth and drive business transformation. The Firm will target what it believes are robust, difficult to replicate businesses operating within non-cyclical and resilient sectors, benefitting from long term secular drivers and strong downside protections. In particular, the Firm will seek to pursue investments in selected subsectors where specific structural growth trends, transformational dynamics or disruptive market developments have been identified.

The Firm seeks to implement its strategy through a sector-based approach which is core to its investment philosophy and informs the way companies are targeted, deals are sourced, and value is created. The Firm's sector teams are responsible for developing extensive knowledge about the trends and growth drivers in their sectors, tracking investment companies over the long term, and working across the Firm's local advisory offices to unlock targets. Nordic Capital believes this approach provides key competitive advantages, supporting conviction-based sourcing, conversion, and value creation.

Over time the Firm has refined its specialist investment model to focus on sectors it believes are characterized by:

- (i) Strong secular growth, with assets well-positioned to benefit from macro and market trends;
- (ii) Limited cyclicity, strong downside protections and controllable risks;
- (iii) Nordic Capital's accumulated knowledge and experience, extensive industry network and established track record from prior investments; and
- (iv) Specialists with stronger historical performance than generalists.

Each sector team conducts extensive sector mapping and analyzes specific subsectors for attractive segments and companies to identify priority assets for investments. Once identified, Nordic Capital will often track businesses for many years as a prospect in its Shadow Portfolio, during which time it will seek to develop strong conviction around the equity story for an asset. Notably within Funds X and XI, 81% of companies acquired were tracked by Nordic Capital in its Shadow Portfolio prior to investment.

Nordic Capital predominantly employs a control or co-control approach and has extensive experience supporting the rapid expansion of portfolio companies. Its typical key objective is to accelerate the growth profile of its investments to seek to deliver attractive assets at exit. This is often achieved through a mix of organic growth, industry consolidation and/or strategic positioning implemented through the Firm's structured playbooks. Nordic Capital's sector teams and well-developed ownership excellence framework and resources are leveraged in the planning and execution of these concrete improvement agendas.

IV. Investment Performance

Previous fund performance as of June 30, 2025 for Nordic Capital Flagship Funds and the SBI's investments with such funds, where applicable, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Fund I	1990	€55 million	-	69.3%	4.0x	4.0x
Fund II	1993	€110 million	-	85.1%	4.6x	4.6x
Fund III	1998	€350 million	-	30.5%	3.3x	3.3x
Fund IV	2000	€760 million	-	24.1%	2.2x	2.2x
Fund V	2003	€1.5 billion	-	20.0%	2.7x	2.7x
Fund VI	2006	€1.9 billion	-	8.6%	1.7x	1.7x
Fund VII	2008	€4.3 billion	-	8.2%	1.6x	1.6x
Fund VIII	2013	€3.6 billion	€150 million	13.7%	1.7x	1.4x
Fund IX	2019	€4.3 billion	€150 million	15.8%	1.8x	0.6x
Fund X	2021	€6.1 billion	€135 million	14.7%	1.4x	0.3x
Fund XI	2023	€9.0 billion	€90 million	18.2% ¹	1.1x	-

* Past performance is not necessarily indicative, or a guarantee of future results. Returns information provided by Nordic Capital.

V. Investment Period and Term

The investment period of the Fund is expected to be six years. The term of the Fund is expected to be ten years, subject to two one-year extensions with Advisory Committee consent, and an additional one-year period subject to investor majority consent.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE
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I. Background Data

<i>Name of Fund:</i>	Permira IX
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	€17 billion
<i>Fund Manager:</i>	Permira
<i>Manager Contact:</i>	Molly Wilson 320 Park Avenue, 23 Floor New York, NY 10022

II. Organization and Staff

Permira Advisers, L.P. (“Permira” or the “Firm”) is a global investment firm with private equity and credit businesses, operating from 17 offices across 15 countries and comprising approximately 440 professionals worldwide. The private equity business, established in 1985 with its first country-specific funds in Europe, raised its first pan-European fund in 1997 and opened its first U.S. office in 2002. It operates as a matrix organization, combining local, sector, and functional expertise across four core sectors: consumer, healthcare, services, and technology. The private equity business is led by 27 investment partners, including two Co-Chief Executive Officers and an Executive Chairman.

To date, the Firm has raised more than €64 billion of committed capital for its private equity funds, investing over €50 billion across 156 companies through June 30, 2025, in both buyout and growth opportunities. In addition to its private equity funds, Permira has raised over €17 billion of committed capital across its credit platform, encompassing both private and liquid credit. In April 2020, Goldman Sachs’s Petershill acquired a single-digit minority stake in the Firm. In September 2024, Dipan Patel and Brian Ruder assumed the roles of Co-Chief Executive Officers, with Kurt Björklund transitioning to Executive Chairman. Permira is controlled by its Partners, with economic interests broadly distributed.

The Permira private equity team comprises 180 investment professionals within a broader group of 350 professionals across 15 offices on three continents. Its 27 Investment Partners¹ are highly experienced, supported by a stable partnership, and the investment team is long tenured, with an average of 17 years for the Partners and seven years for the Managing Directors.

¹ Shown for investment partners only. Excludes COO/CFO, CHRO and Head of Capital Formation.

III. Investment Strategy

Permira IX (the “Fund” or “P9”) seeks to invest in upper mid-market and large-scale, transformational growth opportunities. It will target market-leading, often market-creating companies with resilient business models that benefit from strong, underlying secular growth trends. Permira’s long-established, sector-thematic approach will identify businesses that are operating on the right side of disruption, typically leveraging Permira’s core expertise in enterprise technology and digital businesses, as well as a continued focus on iconic consumer brands, and extending capabilities into scale growers in the healthcare and services sectors. The Fund will then seek to help those companies achieve their maximum efficient growth rate – typically an acceleration of revenue – through ambitious, sector-specific business transformation plans, utilizing well-honed value creation capabilities.

The Fund will take a broad approach across sectors and geographies to ensure that capital is deployed into the most attractive, risk-adjusted opportunities at any point, with no pressure to invest in geographies or sectors that are at a less attractive stage in the cycle, and no pre-allocation of capital. The P9 portfolio is currently expected to comprise 20 to 25 investments in businesses with an expected enterprise value of between €500 million and €5 billion+. Permira’s four sector teams – consumer, healthcare, services, and technology – develop long-term perspectives on resilient growth themes, which are then developed into investable opportunities. Investment teams work to identify what they consider to be particularly rich verticals of investment opportunity within their themes and establish a dedicated origination effort and resources around them. This enables the development of strong pattern recognition of what a best-in-class business model looks like in each theme, focusing on market positioning, growth enablers, unit economics, and prior analogous investments.

An ambition to amplify and accelerate growth through business transformation is at the core of Permira’s investment philosophy. Over the last decade, the firm has made significant investments in its dedicated Value Creation group to support the investment teams in delivering growth initiatives throughout the portfolio. The team, led by Riccardo Basile (Head of Value Creation), comprises 25 total professionals, which includes 17 senior professionals, supplemented by three horizontal initiatives: sustainability, talent, and cybersecurity. The Value Creation team has five sector-specialized resources within sector teams, with individual specialization and global coverage, and is fully integrated with the investment team. The investment in the Portfolio Group has yielded an increasingly systematized and effective set of value creation toolkits, driving repeatability, more intensive engagement with portfolio companies, more sophisticated performance tracking, and more effective knowledge sharing. Examples of value creation toolkits include sector-specialized approaches such as pricing, channel management, strategy, marketing, brand development, and AI/data analytics integration. They also encompass horizontal capabilities such as supply chain optimization, procurement, process improvement, manufacturing optimization, M&A, post-merger integration, carve-out support, IT, talent management, and sustainability.

P9 is expected to follow a robust and well-established investment process, refined through multiple cycles, and coordinated by a strong Investment Committee (“IC”) process. A high level of integration and collaboration exists among the sectors, local offices, and functional

groups, characterizing the process. Notably, the investment team driving the origination of a deal maintains responsibility through to exit, with support throughout the investment lifecycle from dedicated internal specialists and expert external networks. Exit planning commences pre-acquisition during the due diligence phase and continues throughout the life of the investment during discussions. Teams begin detailed work on an exit once the investment they support is considered to have materially completed its value creation plan or has attracted meaningful interest from a potential buyer. The IC remains the formal forum for exit discussions first in the form of a Preliminary Exit Recommendation and thereafter in a Final Exit Recommendation, before making an exit recommendation to the Portfolio Manager.

IV. Investment Performance

Previous fund performance as of June 30, 2025, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR²	Net MOIC²	Net DPI²
Permira I	1997	€890 million	--	84%	2.5x	2.5x
Permira II	2000	€3.3 billion	--	17%	1.7x	1.7x
Permira III	2003	€5.0 billion	--	23%	1.7x	1.7x
Permira IV ¹	2006	€9.4 billion	--	11%	2.0x	1.7x
Permira V	2014	€5.0 billion	€150 million	22%	3.0x	2.5x
Permira VI	2016	€7.3 billion	€120 million	15%	2.0x	1.0x
Permira VII	2019	€10.6 billion	€135 million	8%	1.3x	0.1x
Permira VIII	2022	€15.7 billion	€150 million	11%	1.1x	0.0x

* Past performance is not necessarily indicative, or a guarantee of future results. Returns information provided by Permira.

V. Investment Period and Term

The fund will have a six-year investment period and a ten-year term, with the potential to extend for up to three additional one-year periods with the consent of investors representing at least a majority of the total commitments.

This document is a summary of more detailed information provided in the Fund's Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and the Fund's Agreement of Limited Partnership.

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ATTACHMENT I

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	TA Realty Value-Add Fund XIV, L.P.
<i>Type of Fund:</i>	Real Estate Limited Partnership
<i>Target Fund Size:</i>	\$2 billion
<i>Fund Manager:</i>	TA Realty LLC
<i>Manager Contact:</i>	Tom Landry TA Realty LLC One Federal Street, 17 th Floor Boston, MA 02110

II. Organization and Staff

TA Realty LLC ("TA Realty" or the "Firm") has formed TA Realty Value-Add Fund XIV ("Fund XIV" or the "Fund") to continue its strategy of making real estate investments in the U.S. diversified by property type, geography, industry exposure, and tenancy. The Firm's four decades of experience in acquiring, managing, and selling real estate across the U.S. provides the Firm with a unique perspective and ability to identify opportunities and execute an investment strategy focused on adding value.

TA Realty was founded in 1982. The Firm is headquartered in Boston, Massachusetts and has additional offices in Newport Beach, California; San Francisco, California; Dallas, Texas; and Ashburn, Virginia. As of June 30, 2025, the Firm had approximately \$19.0 billion of gross assets under management, including unfunded capital commitments.

TA Realty's team is comprised of over 130 employees, including 27 Partners who have an average of 19 years with the Firm. TA Realty is 70% owned by Mitsubishi Estate Co., Ltd (MEC), a global property owner, developer and investment manager. MEC's interests are held by its subsidiary MEC Global Partners America Inc. 24 of TA Realty's Partners own the remaining 30% of equity, which is held on a long-term basis and will be subject to repurchase upon termination of employment with the expectation that the repurchased equity will be transferred, sold, or otherwise "recycled" to other current or future Partners. TA Realty Partners are responsible for TA Realty's day-to-day operations and all investment decisions within TA Realty sponsored products. Portfolio management for Fund XIV will be led by James (Jim) Raisides and Nhat Nguyen, Partners that bring over 50 years of combined real estate experience and have worked together for approximately 18 years.

III. Investment Strategy

Fund XIV will be formed to invest in a well-diversified portfolio of United States real estate assets anticipated to be mainly across industrial and multifamily properties, with smaller anticipated allocations to data center, retail, and office properties. The Fund's value-add strategy is focused on pursuing the steady growth of income and appreciation produced by real estate investments while minimizing downside risk. The Fund seeks real estate investments with characteristics that allow it to dynamically add value over time, maximizing both income and property value while also moderating overall portfolio risk to construct a strong risk-adjusted and income-oriented portfolio diversified by property type, geography, and tenant base within the United States.

TA Realty's assessment of potential investments is based on an integrated research approach. The Firm combines "top-down" examination of trends affecting the broad real estate and capital markets with a "bottom-up" understanding of the nuances of individual markets/submarkets, product types, and properties. The "top-down" research starts with an analysis of general real estate trends and the long-term prospects of specific markets and product types within those markets/submarkets, supplemented by information gathered from broad external sources. "Bottom-up" research is driven by TA Realty's experience investing in and managing assets in these markets, as well as granular asset-level data sourced from TA Realty's current or previously owned investments. While the Firm does not set specific targets for property type allocations, its recent funds have been more heavily weighted towards industrial and multifamily properties. Similarly, the Firm does not establish geographic targets in constructing its funds, but recent funds have seen concentrations of roughly 50-75% in the western and southern United States.

TA Realty believes that active asset management is critical to driving asset-level value. Throughout the Firm's history, TA Realty has focused on hands-on asset management and execution of the business plan for the asset created at acquisition. Value-add strategies and techniques range from rent stabilization for properties with active vacancies or facing rollover risk, mark-to-market (increasing property income through new or renewal leasing at significant market rent premium to in-place rents), repositioning, development, and portfolio aggregation.

TA Realty abides by a prudent approach to leverage where leverage is applied at the portfolio level, allowing the Fund to maintain flexibility and not encumbering individual properties. The Firm's experience over multiple economic cycles has informed its view that leverage can be either advantageous or detrimental, so it targets a loan-to-value ratio of 45%. The debt program is intended to allow the Firm to maintain maximum flexibility with respect to operating the Fund, reducing fees, and mitigating risks associated with debt on a real estate portfolio.

TA Realty believes that sales discipline throughout market cycles is critical to driving total return. The Firm has a dedicated dispositions team that works closely with portfolio managers and property asset managers to monitor property conditions and market trends to determine an optimal disposition time for each asset. Additionally, these cross-disciplinary professionals work together to identify strategies that can increase value at the time of sale. These strategies can include property-level decision-making that positions the investment for favorable

reception by the investment market (e.g., contractual rental increases) and increasing exit pricing by exploiting a wide range of exit strategies, including portfolio sales, one-off transactions, tenant/user sales, and accommodating 1031 exchanges.

IV. Investment Performance

Previous fund performance as of June 30, 2025, TA Realty is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Advent Realty L.P.	1987	\$164 million	--	2.3%	1.2x	1.2x
Advent Realty II L.P.	1990	\$333 million	--	12.0%	2.1x	2.1x
Realty Associates Fund III	1994	\$488 million	\$40 million	11.4%	2.1x	2.1x
Realty Associates Fund IV	1996	\$450 million	\$50 million	13.4%	2.2x	2.2x
Realty Associates Fund V	1999	\$563 million	\$50 million	10.3%	1.8x	1.8x
Realty Associates Fund VI	2002	\$739 million	\$50 million	8.6%	1.5x	1.5x
Realty Associates Fund VII	2004	\$917 million	\$75 million	0.3%	1.0x	1.0x
Realty Associates Fund VIII	2006	\$1,742 million	\$100 million	-0.1%	1.0x	1.0x
Realty Associates Fund IX	2008	\$1,493 million	\$100 million	10.4%	1.6x	1.6x
Realty Associates Fund X	2012	\$1,562 million	\$100 million	12.6%	1.6x	1.6x
Realty Associates Fund XI	2015	\$879 million	\$100 million	10.6%	1.6x	1.6x
Realty Associates Fund XII	2018	\$1,178 million	\$100 million	9.2%	1.4x	0.7x
Realty Associates Fund XIII	2022	\$1,768 million	\$150 million	9.8%	1.1x	0.1x

* Previous fund investments are not indicative of future results. Net IRR, Net MOIC, and Net DPI were provided by TA Realty.

V. Investment Period and Term

The Fund will have a two-year investment period from the date of the final closing. The term of the Fund will last for seven years from the expiration of the investment period, subject to one one-year extension at the discretion of the General Partner and two additional one-year extensions subject to Advisory Committee consent.

This document is a summary of more detailed information provided in the Fund's Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and the Limited Partnership Fund Agreement.

ATTACHMENT J

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	TPG Partners X, L.P.
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$17 Billion
<i>Fund Manager:</i>	TPG Capital
<i>Manager Contact:</i>	Joe Buss 888 7 th Avenue New York, NY 10106

II. Organization and Staff

TPG Capital is forming TPG Partners X (“Fund X” or “Fund”) to seek attractive returns by primarily making significant investments in operating companies through acquisitions and financings, including by investing in scale, growth-oriented transformations. TPG Capital is TPG's North American and European-focused middle and large-market private equity business. With \$76 billion in AUM, the Capital platform was the first business formed within TPG.

Formed in 1993 by David Bonderman and James Coulter, TPG (“Firm”) is a global alternative investment firm with approximately \$261 billion in AUM (as of 6/30/25). TPG is led by CEO Jon Winkelried, who became sole CEO in 2021 after serving as Co-CEO alongside Jim Coulter. In January 2022, TPG completed an IPO on the NASDAQ stock exchange. In November 2023, TPG completed the acquisition of Angelo Gordon, a global investment manager focused on credit and real estate investing.

The TPG Capital team is led by President of TPG and Co-Head of Healthcare, Todd Sisitsky, and Co-Managing Partners Nehal Raj, Jeff Rhodes, and John Schilling. The team consists of 149 professionals, including investment and operational professionals. The investment and operations partners are organized by sector. The operating team comprises deep sector experts with operating and consulting experience. The majority of the team is based in San Francisco, with additional professionals in the New York and London offices.

III. Investment Strategy

TPG intends to apply its investment strategy and process to construct a portfolio of growth-centric businesses in secularly growing markets. TPG categorizes investment opportunities as: (1) “Transformational” deals with potential for transformative growth or improvement, (2) “Blue Chip” deals in market leaders with fundamentally strong business models in sectors it has deep experience and strong conviction, and (3) “Off-the-Beaten-Path”

transactions with attractive risk/reward characteristics. Fund X will seek to invest in 15 to 20 North American and European companies. TPG anticipates 85% of the investments will be in North America with the remaining 15% to be within Europe.

TPG Capital's investment process begins with a thematic orientation. TPG has developed sector expertise and is focused on thematically investing in its priority sectors, which include healthcare, software & enterprise technology ("SET"), internet, digital media & communications ("IDMC"), business services, and consumer. TPG's theme development is a multi-year process. Sector groups spend years studying and refining themes in areas focusing on conducting primary research and company evaluations, leveraging and expanding their executive network, and developing relationships with companies in a strategic ecosystem.

TPG has built vast ecosystems through its deep industry knowledge to support its sourcing, investing, and operating activity. The combination of TPG's expertise, capabilities, and network enables it to pursue attractive, differentiated investments in all market cycles. TPG Capital has a long history of strategic partnerships with a range of corporate partners. In its history, TPG has completed over 100 deals with corporate partners, including more than 20 carve-outs. These investments have been some of TPG's strongest and most differentiated investments.

TPG is focused on creating value by building better and healthier businesses through top-line performance. Operational enablement is a key pillar of TPG's investing strategy. TPG was among the first private equity firms to establish in-house operations group in 1996. Today, ~45% of the TPG Capital team are Portfolio Growth and Ops Specialists. TPG Capital Ops Team professionals are fully integrated into the deal teams and incentivized through portfolio company performance. TPG Capital Ops Team professionals identify and underwrite operational improvement opportunities, build and partner with strong management teams, and execute tailored value creation plans through functional line-level engagement. TPG will invest in many levers to drive organic growth, including R&D spending, go-to-market enablement, product innovation, pricing optimization, workforce enhancement, and geographic expansion. Where it makes sense, it will seek ways to supplement organic growth with an active focus on inorganic growth through M&A that is strategically accretive to its business.

TPG has a defined investment process that it deploys from identification to execution. The investment strategy is both thematic and process oriented. Through this process, TPG has around-the-horn readouts, industry memos, multiple company reviews, and numerous investment committee reviews of an individual company before making an investment. After making an investment, TPG will have a regular cadence of portfolio review committees, track and review core KPIs and financial performance, and engage its dedicated Ops Team where helpful.

IV. Investment Performance

Previous fund performance as of June 30, 2025 for TPG and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Air Partners	1993	\$64 million	N/A	73.0%	8.9x	8.9x
TPG I	1994	\$696 million	N/A	35.8%	3.5x	3.5x
TPG II	1997	\$2.5 billion	N/A	9.9%	1.7x	1.7x
TPG III	1999	\$3.7 billion	N/A	26.1%	2.6x	2.6x
TPG IV	2003	\$6.2 billion	N/A	15.1%	1.9x	1.9x
TPG V	2006	\$15.6 billion	N/A	4.8%	1.4x	1.4x
TPG VI	2008	\$18.9 billion	N/A	9.6%	1.5x	1.5x
TPG VII	2015	\$10.5 billion	\$100 million	19.6%	2.0x	1.8x
TPG VIII	2019	\$11.5 billion	\$150 million	17.2%	1.6x	0.4x
TPG Healthcare	2019	\$2.7 billion	--	11.4%	1.3x	0.3x
TPG IX	2022	\$12.0 billion	\$100 million	21.8%	1.2x	0.0x
TPG Healthcare II	2022	\$3.6 billion	--	27.1%	1.3x	0.0x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR, net MOIC, and net DPI provided by TPG.

V. Investment Period and Term

The commitment period for the Fund is six years from the effective date. The fund term is ten years, which may be extended for up to two additional one-year periods with the consent of the advisory committee.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

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PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Wind Point Partners XI
<i>Type of Fund:</i>	Private Equity – Buyout
<i>Target Fund Size:</i>	\$2.5 billion
<i>Fund Manager:</i>	Wind Point Advisors LLC
<i>Manager Contact:</i>	Ron Liberman 676 N. Michigan Avenue Suite 3700 Chicago, IL 60611

II. Organization and Staff

Wind Point Partners (“Wind Point” or the “Firm”) is forming Wind Point Partners XI (the “Fund” or “WPP XI”) to continue the Firm’s successful history of making private equity investments in North American middle-market companies. Wind Point focuses on companies in the business services, consumer products and industrial products sectors, typically with \$100 million - \$1 billion of total enterprise value at the time of acquisition. Since its inception in 1984, Wind Point has invested over \$7 billion in more than 125 portfolio companies, generating strong performance across multiple economic cycles.

The Firm is led by Managing Directors Nathan Brown, Paul Peterson, Alex Washington, Konrad Salaber, and Joe Lawler who have an average tenure at Wind Point of 22 years. The five managing directors began taking over leadership of the firm in 2009. They are joined by 22 additional investment professionals and 24 operations professionals, all working from a single office in Chicago.

Ownership of Wind Point is split between managing partners, Nathan Brown, Paul Peterson, Alex Washington and Konrad Salaber and Goldman Sachs Petershill Partners (“Petershill”). Petershill acquired a minority, non-voting equity stake in the Wind Point management company in December of 2021. Petershill is not involved in the governance or management of Wind Point nor does their ownership interest involve any participation on Wind Point’s investment committee or any Limited Partner Advisory Committees.

III. Investment Strategy

Wind Point intends to continue its strategy of identifying well-positioned middle-market businesses it believes need leadership enhancement or additional investment, operational, or strategic support. The Firm seeks to generate value by pursuing businesses with strong fundamental attributes and momentum, and then invest behind the platform and team to

dramatically enhance leadership, upgrade systems and operations, improve profitability and accelerate growth organically and via M&A.

Since 2007, all platforms have been represented by Wind Point's "Core Sectors" which consists of business services, consumer products and industrial products. To execute its value creation, Wind Point seeks to bring together three key elements in each transaction:

- 1) A top-caliber CEO: The core of Wind Point's investment strategy is focused on identifying and partnering with a top-caliber CEO. Wind Point senior investment professionals and Wind Point's Chief Talent Officer ("CTO") dedicate significant time to developing an extensive network of potential CEO candidates. Once an investment opportunity is identified, the diligence process typically involves a potential CEO candidate and one or more members of Wind Point's Executive Advisor Partner ("EAP") network. EAP members are senior executives with deep ties to Wind Point who are typically retired but looking to play an active advisory role in Wind Point's process. Wind Point believes the enthusiasm, experience base, and knowledge represented by its EAPs contribute significant benefits in CEO identification and recruiting, deal sourcing, and enhancing Wind Point's competitive edge. The Wind Point EAP group includes more than 40 former CEOs, of whom nearly half are former CEOs for a Wind Point portfolio company. EAPs will serve as Chair or Lead Director on all Wind Point deals.
- 2) A well-positioned middle-market company: The Wind Point team has extensive experience sourcing unique opportunities in the middle market by leveraging its reputation as an attractive partner to companies that Wind Point believes need upgraded executive talent or a full leadership transition. These opportunities may include family or entrepreneur-held businesses with no succession plan, corporate divestitures without an experienced leader, or simply businesses with weak leadership. Additional characteristics of opportunities Wind Point pursues are businesses with solid fundamentals, multiple organic growth opportunities, and attractive add-on acquisition opportunities. Considerable time is spent developing relationships with business owners, executives, investment bankers, and others to source investment opportunities potentially well-suited for Wind Point's approach. Deal team members spend time building relationships with businesses nearing a leadership transition, proactively networking with corporate development staff and key executives at larger organizations, attending trade shows and conferences, and regularly meeting with investment bankers to update them on current CEO candidates and industry niches of interest.
- 3) A value creation plan ("VCP"): The goal of Wind Point's VCP is to build a fundamentally better business by improving the company's team, growth rate, operations, effectiveness, and strategic position. During the diligence process, Wind Point works side-by-side with the current CEO or CEO candidate and executive partners to develop and quantify specific initiatives to drive sales, improve operations, and pursue add-on acquisitions that they compile into a tactical VCP to execute during its ownership period. Participating throughout the diligence process allows the CEO to begin implementing the value creation plan immediately following the close of the transaction. The VCP provides an ownership "game plan", which Wind Point uses as a collaborative and dynamic tool for measuring progress throughout the investment.

Wind Point remains very active throughout the ownership period, with the key areas of focus being pursuing add-on acquisitions, top-grading the management team, creating a value-add board of directors, and evolving the VCP if needed.

Wind Point establishes a VCP for each portfolio company that is intended to optimize the positioning of the business for exit. Historically, the Firm's exits have been to a combination of financial sponsors (~70%) and strategic acquirers (~30%). Wind Point seeks to drive a fundamental transformation of its companies through consistent application of an investment strategy that's been refined over nearly three decades and involves driving real changes in the leadership, strategy and operations of portfolio companies. Wind Point portfolio companies, at exit, are typically larger, growing faster, more profitable, and have incorporated leadership team enhancements that increase the portfolio company's appeal to potential buyers.

IV. Investment Performance

Previous fund performance as of June 30, 2025 is shown below. Historical Wind Point performance is provided here:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
WPP II	1987	\$90 million	-	19%	3.2x	3.2x
WPP III	1997	\$215 million	-	23%	2.3x	2.3x
WPP IV	1999	\$405 million	-	10%	1.8x	1.8x
WPP V	2002	\$476 million	-	5%	1.1x	1.1x
WPP VI	2006	\$715 million	-	4%	1.2x	1.2x
WPP VII	2009	\$915 million	-	18%	1.9x	1.9x
WPP VIII	2016	\$985 million	-	23%	1.9x	1.6x
WPP IX	2019	\$1.5 billion	\$100 million	16%	1.6x	0.5x
WPP X	2022	\$2.3 billion	\$100 million	24%	1.3x	0.1x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Performance data was provided by Wind Point. Excludes Wind Point I because it primarily made venture investments and the majority of the fund was not comprised of third-party institutional capital.

V. Investment Period and Term

The fund will have a six-year investment period and a ten-year term, with the potential of one additional one-year extension at the discretion of the General Partner, one additional one-year extension with the consent of the Advisory Board and an additional one-year extension with the consent of a majority of the aggregate commitments of the Limited Partners.

This document is a summary of more detailed information provided in the Fund's Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and the Fund's Agreement of Limited Partnership.

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TAB E

Memo Regarding Asset Allocation Study

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DATE: October 17, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: **2025 Combined Funds Asset Allocation Study**

EXECUTIVE SUMMARY

SBI Staff worked with Aon during calendar years 2024 and 2025 to conduct an asset allocation study for the Combined Funds. A summary of the study is presented in **Appendix A**. SBI Staff and representatives from Aon will present the asset allocation study at the October 20, 2025 Investment Advisory Council (IAC) meeting. A copy of the presentation is provided in **Appendix B**.

Based on the asset allocation study, SBI Staff recommends that the SBI adopt the proposed asset allocation and ranges shown below and requests the IAC's endorsement of this recommendation for the Board's approval. The proposed asset allocation policy changes are also incorporated into the proposed Investment Policy Statement included in **Tab E**.

	<u>Current</u>	<u>Proposed</u>	
	Asset Allocation	Asset Allocation	Ranges
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	---	---
U.S. Treasury (Broad Maturity)	---	8%	5-15%
U.S. Treasury – Long	---	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity		18%	15-25%
Private Credit		3%	0-6%
Private Real Assets		2%	0-4%
Private Real Estate		2%	0-4%
Opportunistic Allocation			0-10%

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to Domestic Equity (S&P 500) when activated, or Cash (U.S. 3-Month Treasury Bill Index).

³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

Importantly, a key finding of the asset allocation study is that many aspects of the Combined Funds current asset allocation policy continue to be appropriate to achieve the Funds long-term investment objectives.

Accordingly, the proposal recommends modest changes to the Combined Funds asset allocation. These modifications are designed to improve implementation while maintaining similar risk and return expectations relative to the current asset allocation policy. The primary changes proposed are:

- **Reduce Duration of the Treasury Protection Portfolio** – shifting the composition of the Treasury Protection Portfolio to emphasize shorter maturity securities is intended to normalize the portfolio’s duration exposure and reduce the potential impact of higher-than-expected inflation, or a rise in the Treasury term premium due to debt sustainability concerns.
- **Optimize Portfolio Liquidity** – a modest shift in the portfolio’s cash allocation in favor of an incremental increase to Fixed Income results in a modest increase in portfolio expected return and risk while maintaining a robust liquidity cushion.
- **Establish Target Weights and Ranges to Private Markets Sub-Asset Classes** – adopting target allocations and ranges for the four Private Markets sub-asset classes in which the Combined Funds primarily invests establishes a framework to support diversification within Private Markets and allows for clearer comparison of investment opportunities within each sub-asset class.
- **Update the Asset Mix for the Uninvested Private Markets Allocation to 80% Public Equity and 20% Core/Core Plus Fixed Income** – the revised allocation better reflects the underlying mix of factors within the Private Markets target allocation.

Taken together, the proposed changes to the Combined Funds asset allocation are expected to have a modest impact on portfolio return and risk expectations, diversification, and liquidity.

In addition to the Combined Funds asset allocation changes outlined above, SBI Staff is recommending updates to Asset Class Target Benchmarks and the Combined Funds Policy Benchmark to reflect the proposed changes to the Combined Funds asset mix.

The proposed asset mix yields a nominal expected return which supports the participating plans’ actuarial assumed rate of return of 7.0%. Importantly, the asset class return expectations used in this analysis generally reflect asset class beta only and do not include the potential for incremental positive return, or alpha, from active management that the SBI has historically achieved across the Combined Funds portfolio overall.

RECOMMENDATION:

As the result of the 2025 Asset Allocation Study, Staff requests the IAC's endorsement of the following recommendation as it relates to updating the Combined Funds asset allocation policy:

1. Adopt the Proposed Policy Asset Allocation and Ranges for the Combined Funds shown below.

Combined Funds		
	Asset Allocation	Ranges
Public Equity	50%	45-55%
Domestic Equity	33.5%	28-39%
International Equity	16.5% ¹	14-19%
Fixed Income + Cash	25%	22.5-27.5%
Core/Core Plus Fixed Income	6%	4-8%
Return Seeking Fixed Income	6%	4-8%
Treasury Protection	10%	5-15%
U.S. Treasury (Broad Maturity)	8%	5-15%
U.S. Treasury – Long	2%	0-5%
Cash Equivalents	3%	0-5%
Private Markets	25%²	20-32%^{3, 4}
Private Equity	18%	15-25%
Private Credit	3%	0-6%
Private Real Assets	2%	0-4%
Private Real Estate	2%	0-4%
Opportunistic Allocation		0-10%

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

³ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁴ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

2. The Uninvested Private Markets Allocation will be benchmarked to a composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Bond Index. The Executive Director will be authorized to allocate the Uninvested Private Markets funds among (i) dedicated account(s) and/or (ii) portfolios within the Public Equity and Fixed Income + Cash allocations.
3. The Asset Class Target for Fixed Income and Cash will be a composite index comprising 24% Bloomberg U.S. Aggregate Bond Index, 24% Blended Return Seeking Benchmark, 40% Blended Treasury Protection Benchmark, and 12% ICE BofA U.S. 3-Month Treasury Bill Index.
4. The Return-Seeking Fixed Income ("RSFI") portion of the Fixed Income + Cash allocation will be benchmarked to a composite index comprising 25% ICE BofA U.S.

Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, and 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset Backed Securities Index. The objective of the RSFI program shall be to match or exceed the return of this composite benchmark, net of fees and expenses. Further, the Executive Director is authorized to invest in, and benchmark RSFI managers against, any combination of the indices comprising the composite benchmark, or another benchmark deemed appropriate in the Executive Director's reasonable judgment.

- 5. The Treasury Protection portion of the Fixed Income + Cash allocation will be benchmarked to a composite index comprising 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index. The objective of the Treasury Protection program shall be to match or exceed the return of this composite benchmark, net of fees and expenses.**
- 6. The Asset Class Target for Private Markets will be a composite index comprising the sub-asset class benchmarks for Private Equity, Private Credit, Private Real Assets, and Private Real Estate weighted by their market values within the Combined Funds, measured at the beginning of the month.**
- 7. The Private Equity portion of the Private Markets allocation will be benchmarked to the MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter.**
- 8. The Private Credit portion of the Private Markets allocation will be benchmarked to the MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter.**
- 9. The Private Real Assets portion of the Private Markets allocation will be benchmarked to a composite index comprising 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter.**
- 10. The Private Real Estate portion of the Private Markets allocation will be benchmarked to a composite index comprising 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter.**

APPENDIX A

ASSET ALLOCATION STUDY SUMMARY

SBI Staff worked with Aon to conduct an asset allocation study for the Combined Funds. The last formal asset allocation study was completed in 2016. In 2020, the Board adopted changes to the Combined Funds asset allocation as outlined in the May 2020 Resolution Concerning Management of Combined Funds Asset Allocation and Liquidity. The current study was conducted in three phases. Phase I was designed to confirm the methodology and assumptions used for the study, and to gather and review key data inputs to be used in the study. Phase II focused on the analysis of various asset mixes to highlight the potential trade-offs between varying asset allocations and support the conclusions. Phase III focused on evaluating the modeling results through a qualitative overlay of key market considerations and the SBI's guiding investment principles to generate the final recommendations.

PHASE I – METHODOLOGY, ASSUMPTIONS, AND DATA COLLECTION

The first phase of the study began by determining the scope of the asset allocation study and establishing the key objectives for this study. Aon and SBI Staff reviewed the four major underlying plans – MSRS General, PERA General, TRA, and PERA Police & Fire – to validate that a single asset mix policy continued to be appropriate for all plans. While a full asset-liability analysis was out of scope for this study, Aon compared the plans in terms of actuarial discount rates, funded ratios, expected cashflow profiles, and liability growth rates. Aon's analysis found that a single asset mix policy remained appropriate.

Plan Cashflow Assumptions:

Historical net benefit payment information, combined with updated future benefit payment information provided by the individual pension plans reflecting 2025 legislatively approved funding and benefits changes, formed the basis of the Combined Funds projected benefits payments for the study.

Key Objectives:

The key objective of the study was to identify an appropriate long-term asset allocation policy that enables the Combined Funds to meet its long-term objectives. The study also sought to assess the portfolio's liquidity profile and calibrate the appropriate level of cash to support both investment flexibility and benefit payments. Additional objectives included seeking to enhance portfolio diversification without diminishing expected returns, maintaining or improving the portfolio's overall risk-reward balance, downside protection, and resilience to key macroeconomic shocks such as unexpected inflation or periods of weak economic growth.

Peer Comparisons and Analysis:

Aon and SBI Staff conducted a review of the asset allocation policies, historical performance and investment return assumptions of a peer universe of large public plans as available in the Public Plans Data database and the Trust Universe Comparison Service (TUCS). SBI Staff analyzed peer information for benchmarking purposes. The peer analysis confirmed that the Combined Funds ranks among the strongest performing Funds over time among its large plan peers, driven in part

by a higher-than-median allocation to Public Equities. In addition, the Combined Funds above-peer allocation to Private Equity, and a below-peer allocation to Real Estate and Hedge Funds, also contributed positively to historical performance relative to peers.

Role of Asset Classes:

As part of Phase I of the study, SBI Staff evaluated the intended role of each asset class within the Combined Funds current allocation policy, as well as several additional asset classes to be considered for possible future inclusion. Staff worked closely with consultants, investment managers and other industry experts to formulate a deeper understanding of the key economic drivers of risk and return for each asset class under consideration.

Capital Markets Assumptions:

SBI Staff used Aon's December 2024 10-year Capital Markets Assumptions along with similar projections gathered from a range of industry sources to develop the final expected return, risk and correlation assumptions for the asset classes. Aon's capital markets assumptions covered inflation and most asset classes considered within the study. To arrive at the final inputs used in the study, SBI Staff applied its judgment to make modest refinements, where appropriate.

Asset Class	<i>Expected Return (Nominal)%</i>	<i>Expected Volatility %</i>
U.S. Equity	6.80%	17.25%
International Equity*	6.95%	18.00%
Core Bonds (U.S. Aggregate)	4.60%	4.70%
Return Seeking Fixed Income	5.80%	9.10%
U.S. Treasury - 5+ Year	4.30%	9.00%
U.S. Treasury	4.10%	4.80%
U.S. Treasury – Long	4.60%	13.50%
Private Equity	9.30%	20.50%
Private Credit	7.40%	13.20%
Private Real Assets	7.65%	17.70%
Private Real Estate	7.20%	20.00%
Cash Equivalents	3.40%	1.50%
Inflation	2.50%	1.50%

** SBI CMAs for International equities proxied the impact of a dynamic currency hedging strategy by using a customized MSCI ACWI ex USA Index 50% hedged to USD return series reflecting hedging of developed markets currencies only. Emerging markets currencies are unhedged.*

PHASE II - ASSET MIX MODELING AND CONCLUSIONS

The objective of Phase II was to conduct a series of robust modeling across a range of potential asset mixes to highlight the potential trade-offs between various asset classes and portfolio mixes to select the most appropriate asset mix for the Combined Funds.

Both Aon and SBI Staff conducted a series of mean-variance optimizations using expected returns and expected risk (standard deviation) of a broad range of asset classes, as well as the expected

correlations between the asset classes to assess the relative attractiveness of potential asset mixes and determine the composition of a series of potential asset mixes located on the efficient frontier.

In addition, Aon performed a liquidity analysis stress test using a multi-year deterministic modeling approach. The analysis incorporated the profile of the liabilities as well as expected future contributions. The model subjected the portfolio to three economic scenarios ranging from a benign “Base Case” to a severe recession “Dark Skies” scenario to evaluate how the portfolio’s liquidity profile could evolve with a given asset allocation mix.

SBI Staff also performed stress testing analysis using a sampling of historical return episodes to assess the potential performance of various asset allocation mixes. Using a 20+ year monthly return history, Staff analyzed individual asset classes and various asset allocation mixes along quantitative dimensions including upside-downside capture, equity beta, maximum drawdown and Sharpe ratio. Finally, Staff developed a “CPI beta” measure of each asset class’s sensitivity to changes in realized inflation based on a regression model using historical returns. The CPI beta measure was used to evaluate the potential inflation sensitivity of various asset allocation mixes.

PHASE III – EVALUATION AND REVIEW

Phase III focused on evaluating the modeling results through a qualitative overlay of key current market considerations and the SBI’s guiding investment principles to generate the final recommendations.

Based on a series of discussions with industry experts, consultants and internal Staff analysis, Staff focused on several current market considerations which influenced the study’s final asset allocation recommendations:

Outlook for equity risk premium – Staff noted that market estimates of the equity risk premium have trended lower in recent years, driven in part by P/E multiple expansion, particularly among U.S. large cap technology stocks. Staff noted that the final CMAs used in the study were appropriately conservative relative to historical experience.

Outlook for private equity return premium – Staff noted that the return premium for Private Equity relative to public equities has declined in the most recent decade relative to the prior decade. Nonetheless, Staff believes there are compelling reasons that the return premium for Private Equity should persist, even if at potentially lower levels due to the growth of the asset class and increased competition for deal flow.

Outlook for U.S. vs. non-U.S. equities – Staff noted the relative dominance of U.S. equity market performance relative to international equities (developed and emerging market) over the last decade. While U.S. valuations may appear rich, Staff observed that the U.S. companies’ earnings growth, particularly in the technology sector, remains strong.

Fixed income yields are more attractive – Staff noted that the recent increase in yields experienced since the Fed began normalizing interest rates in 2022 has significantly improved the attractiveness of the asset class relative to equities.

Potential Risks to U.S. Treasuries from the Fiscal Outlook – Staff noted that rising Treasury issuance and growing concerns about long-term debt sustainability may lead to persistently higher yield volatility and increased tail-risk scenarios, potentially reducing the effectiveness of long-duration Treasuries as a hedge during economic downturns.

OBSERVATIONS AND CONCLUSIONS

- **Current Policy Mix:** The study found that many aspects of the Combined Funds current asset allocation policy continue to be appropriate to achieve the portfolio's long-term investment objectives. Accordingly, the proposal recommends modest changes to the Combined Funds asset allocation that are designed to improve implementation while maintaining similar risk and return expectations relative to the current asset allocation policy.
- **Liquidity:** The study found that both the current and proposed asset allocation can support expected net participant cashflows across a range of economic and market scenarios. In addition, liquidity stress testing confirms that the portfolio can support the current allocation to illiquid assets.
- **Expected Returns:** The modeled asset mixes, including the current policy, proposed policy, and three portfolios along the constrained efficient frontier, show relatively modest differences in expected returns but a wider dispersion in expected volatility.
- **Interest Rate Duration:** While the mean variance optimization tends to favor longer duration U.S. Treasuries, the results are highly dependent on the stock-bond correlation assumption. The study finds that shifting the composition of the Treasury Protection Portfolio to emphasize shorter maturity securities can reduce the portfolio's susceptibility to tail risks related to unexpected inflation or U.S. debt sustainability without sacrificing return.
- **Private Markets Ranges:** Adopting target allocations and ranges to the four Private Markets sub-asset classes in which the Combined Funds primarily invests establishes a framework to support diversification within Private Markets and allows for clearer comparison of investment opportunities within each sub-asset class.
- **Fixed Income:** The study supported increasing the allocation to fixed income asset classes, including Return-Seeking Fixed Income, Core/Core Plus Fixed Income and Private Credit. At the same time, the results of the mean-variance optimization favored maintaining the current allocation to U.S. Treasuries and while reducing the allocation to cash.
- **Uninvested Private Markets Allocation:** Allocating the Uninvested Private Markets Allocation to a combination of 80% Public Equity and 20% Fixed Income instead of 100% Public Equity better reflects the underlying mix of factors within the Private Markets target allocation.

PROPOSAL

Combined Funds Asset Allocation Policy

Based on the asset allocation study, Staff recommends that the Combined Funds Policy Asset Allocation change to the Proposed Asset Allocation and Ranges shown below.

	<u>Current</u>	<u>Proposed</u>	
	Asset Allocation	Asset Allocation	Ranges
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	---	---
U.S. Treasury (Broad Maturity)	---	8%	5-15%
U.S. Treasury – Long	---	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity		18%	15-25%
Private Credit		3%	0-6%
Private Real Assets		2%	0-4%
Private Real Estate		2%	0-4%
Opportunistic Allocation			0-10%

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to Domestic Equity (S&P 500) when activated, or Cash (U.S. 3-Month Treasury Bill Index).

³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

Expected Return

The proposed asset mix yields a nominal expected return which supports the participating plans' actuarial assumed rate of return of 7.0%.

Expected Risk (Unsmoothed)

The expected risk of the proposed asset mix is 13.48%, modestly higher than the 13.41% expected risk of the current asset mix (13.41%). It is important to note that this risk measure is estimated based on unsmoothed private markets returns, which produces a higher risk measure than observed portfolio volatility.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Implementation Considerations

1. The proposal recommends benchmarking the Uninvested Private Markets Allocation to a composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Bond Index, and that the Executive Director be authorized to allocate the Uninvested Private Markets funds among (i) dedicated account(s) and/or (ii) portfolios within the Public Equity and Fixed Income + Cash allocations.
2. The proposal recommends benchmarking the Return-Seeking Fixed Income (“RSFI”) portion of the Fixed Income + Cash allocation to a composite index comprising 25% ICE BofA U.S. Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, and 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset Backed Securities Index. The objective of the RSFI program shall be to match or exceed the return of this composite benchmark, net of fees and expenses. Further, the proposal recommends that the Executive Director be authorized to invest in, and benchmark RSFI managers against, any combination of the indices comprising the composite benchmark, or another benchmark deemed appropriate in the Executive Director’s reasonable judgment.
3. The proposal recommends that Treasury Protection portion of the Fixed Income + Cash allocation be benchmarked to a composite index comprising 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index, and that the objective of the Treasury Protection program shall be to match or exceed the return of the composite benchmark, net of fees and expenses.
4. The proposal recommends setting the Asset Class Target for Private Markets as a composite index comprising the sub-asset class benchmarks for Private Equity, Private Credit, Private Real Assets and Private Real Estate weighted by their market values within in the Combined Funds, measured at the beginning of the month.
5. The proposal recommends that the Private Equity portion of the Private Markets allocation be benchmarked to the MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter.
6. The proposal recommends that the Private Credit portion of the Private Markets allocation be benchmarked to the MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter.
7. The proposal recommends that the Private Real Assets portion of the Private Markets allocation be benchmarked to a composite index comprising 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter.
8. The proposal recommends that the Private Real Estate portion of the Private Markets allocation be benchmarked to a composite index comprising 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter.

TAB E

Asset Allocation Study Executive Summary

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SBI Combined Funds

Asset Allocation Study
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Combined Funds Asset Allocation Study



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Appendix

Today's Goals

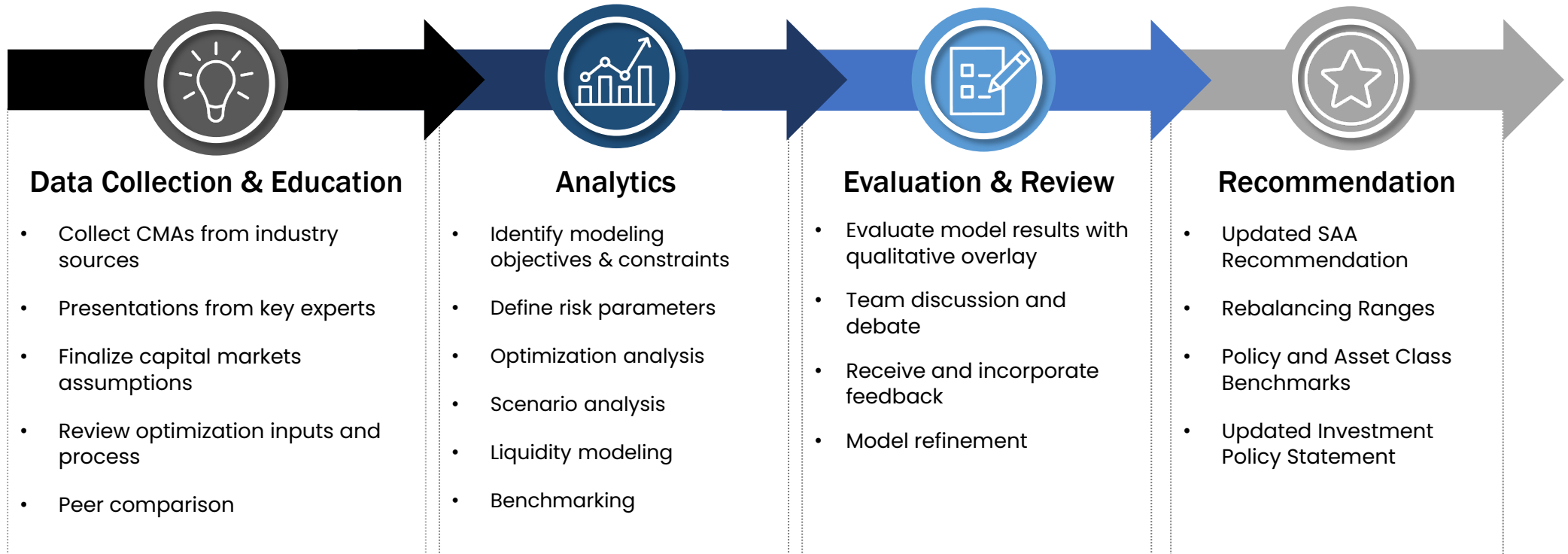
- I. Approve Strategic Asset Allocation (SAA)
- II. Approve Investment Policy Statement

Key Objectives For This Study

Identify appropriate asset allocation policy to achieve the SBI's long-term objectives and formalize into Investment Policy Statement.

- I. Evaluate changes in market environment and expected returns since the last asset allocation study
- II. Ensure the portfolio's asset allocation policy can achieve the plan's actuarial assumed rate of return
- III. Assess and calibrate portfolio liquidity (cash allocation)
- IV. Improve portfolio diversification without sacrificing expected return
 - i. Maintain/improve portfolio risk-to-reward profile
 - ii. Maintain/improve downside protection
 - iii. Maintain/improve portfolio resiliency to key risks (unexpected inflation, growth shock)

Asset Allocation Study Steps



Key Observations on SBI's Current Asset Allocation:

Current asset allocation continues to be appropriate to achieve the SBI's long-term investment objectives

- Return-oriented portfolio built on a foundation of equity exposure driving returns
- Diversification mitigates equity risk exposure and protects in stressed markets
- Dedicated protection assets offer safety net
- Appropriate exposure to illiquidity premium across equity and debt asset classes
- Ample liquidity for benefit payments and private markets commitments in normal and stressed markets
- Strong historical investment results driven by both public and private equity exposure and commitment to long-term strategic asset allocation

Modest updates to sub-asset class targets resulting from this study seek to improve execution while maintaining similar risk and return expectations and liquidity profile

Executive Summary

Asset Allocation Recommendations



Asset Class	Current SAA	Proposed SAA	Range
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	—	—
U.S. Treasury (Broad Maturity)	—	8%	5-15%
U.S. Treasury – Long	—	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity	17.5%*	18%	15-25%
Private Credit	2.5%*	3%	0-6%
Private Real Assets	2.5%*	2%	0-4%
Private Real Estate	2.5%*	2%	0-4%
Opportunistic Allocation			0-10%
Portfolio Metrics			
Expected Return	7.08%	7.10%	
Expected Volatility	13.41%	13.48%	
Sharpe Ratio	0.27	0.27	

- Reduce Duration of the Treasury Protection Portfolio**
 - Improves balance between liquidity and growth hedge goals
 - Lowers volatility and tail risk exposure to rising interest rates
- Optimize Portfolio Liquidity By Reducing Cash Allocation**
 - Incremental allocations to Core Fixed Income and Return Seeking Fixed Income reflects improved risk-return outlook
 - Proposed Cash allocation still provides a robust cushion
 - Results in a modest increase in portfolio expected return and risk
- Adopt Target Weights to Private Markets Sub-Asset Classes**
 - Modest increases to Private Equity and Private Credit
- Update Asset Mix for Uninvested Private Markets Allocation to 80% Equity + 20% Fixed Income**
 - Revised allocation better reflects underlying asset class risk exposures

Proposed SAA changes expected to have a modest impact on portfolio risk and return while enhancing execution

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets allocated to Passive Domestic Equity (S&P 500). ³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Executive Summary

Proposed Policy and Asset Class Benchmarks



Bold Blue reflects new or updated benchmark compared to current policy.

Asset Class	Proposed SSA	Policy Benchmark Weight	Benchmark
Public Equity	50%	50%	Public Equity Benchmark: 67% Russell 3000 Index and 33% MSCI ACWI ex USA Net Return Index (USD)
U.S. Equity	33.5%	33.5%	Russell 3000 Index
International Equity	16.5% ¹	16.5%	MSCI ACWI ex USA Net Return Index (USD)
Fixed Income & Cash	25%	25%	Total Fixed Income Benchmark: 24% Bloomberg U.S. Aggregate Bond Index, 24% Return-Seeking Fixed Income Benchmark, 40% Treasury Protection Benchmark, 12% ICE BofA U.S. 3-Mth Treasury Bill Index
Core/Core Plus Fixed Income	6%	6%	Bloomberg U.S. Aggregate Bond Index
Return-Seeking Fixed Income	6%	6%	Return-Seeking Fixed Income Benchmark: 25% ICE BofA U.S. Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset-Backed Securities Index
Treasury Protection	10%	10%	Treasury Protection Benchmark: 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index
U.S. Treasury (Broad Maturity)	8%	8%	Bloomberg U.S. Treasury Index
U.S. Treasury -Long	2%	2%	Bloomberg U.S. Long Treasury Index
Cash	3%	3%	ICE BofA U.S. 3-Month Treasury Bill Index
Private Markets	25%^{2, 3}	Actual Wgt.	Total Private Markets Benchmark: Composite of Sub-Asset Class Benchmarks Weighted by Actual Portfolio Weights at Beginning of Each Period
Private Equity	18%	Actual Weight, Beginning of Period	MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter
Private Credit	3%		MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter
Private Real Assets	2%		Private Real Assets Benchmark: 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter
Private Real Estate	2%		Private Real Estate Benchmark: 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter
Opportunistic			Relevant blended benchmark, as applicable

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

³ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

Next Steps

- I. SAA Implementation Update
- II. Private Markets Pacing Model
- III. Private Markets Reporting Update
- IV. Currency Hedging Program Review



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TAB E

Asset Allocation Study Presentation

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SBI Combined Funds

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Today's Goals

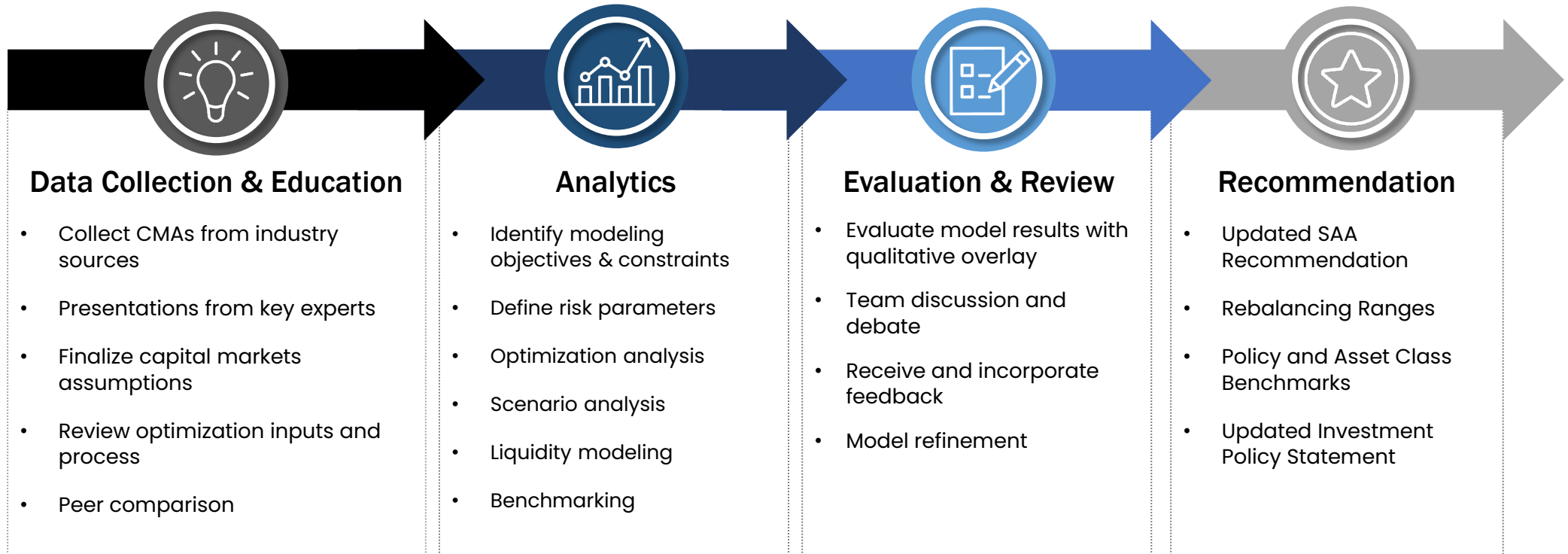
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Key Objectives For This Study

Identify appropriate asset allocation policy to achieve the SBI's long-term objectives and formalize into Investment Policy Statement.

- I. Evaluate changes in market environment and expected returns since the last asset allocation study
- II. Ensure the portfolio's asset allocation policy can achieve the plan's actuarial assumed rate of return
- III. Assess and calibrate portfolio liquidity (cash allocation)
- IV. Improve portfolio diversification without sacrificing expected return
 - i. Maintain/improve portfolio risk-to-reward profile
 - ii. Maintain/improve downside protection
 - iii. Maintain/improve portfolio resiliency to key risks (unexpected inflation, growth shock)

Asset Allocation Study Steps



Key Observations on SBI's Current Asset Allocation:

Current asset allocation continues to be appropriate to achieve the SBI's long-term investment objectives

- Return-oriented portfolio built on a foundation of equity exposure driving returns
- Diversification mitigates equity risk exposure and protects in stressed markets
- Dedicated protection assets offer safety net
- Appropriate exposure to illiquidity premium across equity and debt asset classes
- Ample liquidity for benefit payments and private markets commitments in normal and stressed markets
- Strong historical investment results driven by both public and private equity exposure and commitment to long-term strategic asset allocation

Modest updates to sub-asset class targets resulting from this study seek to improve execution while maintaining similar risk and return expectations and liquidity profile

Executive Summary

Asset Allocation Recommendations



Asset Class	Current SAA	Proposed SAA	Range
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	—	—
U.S. Treasury (Broad Maturity)	—	8%	5-15%
U.S. Treasury – Long	—	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity	17.5%*	18%	15-25%
Private Credit	2.5%*	3%	0-6%
Private Real Assets	2.5%*	2%	0-4%
Private Real Estate	2.5%*	2%	0-4%
Opportunistic Allocation			0-10%
Portfolio Metrics			
Expected Return	7.08%	7.10%	
Expected Volatility	13.41%	13.48%	
Sharpe Ratio	0.27	0.27	

- Reduce Duration of the Treasury Protection Portfolio**
 - Improves balance between liquidity and growth hedge goals
 - Lowers volatility and tail risk exposure to rising interest rates
- Optimize Portfolio Liquidity By Reducing Cash Allocation**
 - Incremental allocations to Core Fixed Income and Return Seeking Fixed Income reflects improved risk-return outlook
 - Proposed Cash allocation still provides a robust cushion
 - Results in a modest increase in portfolio expected return and risk
- Adopt Target Weights to Private Markets Sub-Asset Classes**
 - Modest increases to Private Equity and Private Credit
- Update Asset Mix for Uninvested Private Markets Allocation to 80% Equity + 20% Fixed Income**
 - Revised allocation better reflects underlying asset class risk exposures

Proposed SAA changes expected to have a modest impact on portfolio risk and return while enhancing execution

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets allocated to Passive Domestic Equity (S&P 500). ³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Executive Summary

Proposed Policy and Asset Class Benchmarks



Bold Blue reflects new or updated benchmark compared to current policy.

Asset Class	Proposed SSA	Policy Benchmark Weight	Benchmark
Public Equity	50%	50%	Public Equity Benchmark: 67% Russell 3000 Index and 33% MSCI ACWI ex USA Net Return Index (USD)
U.S. Equity	33.5%	33.5%	Russell 3000 Index
International Equity	16.5% ¹	16.5%	MSCI ACWI ex USA Net Return Index (USD)
Fixed Income & Cash	25%	25%	Total Fixed Income Benchmark: 24% Bloomberg U.S. Aggregate Bond Index, 24% Return-Seeking Fixed Income Benchmark, 40% Treasury Protection Benchmark, 12% ICE BofA U.S. 3-Mth Treasury Bill Index
Core/Core Plus Fixed Income	6%	6%	Bloomberg U.S. Aggregate Bond Index
Return-Seeking Fixed Income	6%	6%	Return-Seeking Fixed Income Benchmark: 25% ICE BofA U.S. Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset-Backed Securities Index
Treasury Protection	10%	10%	Treasury Protection Benchmark: 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index
U.S. Treasury (Broad Maturity)	8%	8%	Bloomberg U.S. Treasury Index
U.S. Treasury -Long	2%	2%	Bloomberg U.S. Long Treasury Index
Cash	3%	3%	ICE BofA U.S. 3-Month Treasury Bill Index
Private Markets	25%^{2, 3}	Actual Wgt.	Total Private Markets Benchmark: Composite of Sub-Asset Class Benchmarks Weighted by Actual Portfolio Weights at Beginning of Each Period
Private Equity	18%	Actual Weight, Beginning of Period	MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter
Private Credit	3%		MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter
Private Real Assets	2%		Private Real Assets Benchmark: 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter
Private Real Estate	2%		Private Real Estate Benchmark: 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter
Opportunistic			Relevant blended benchmark, as applicable

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

³ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

Next Steps

- I. SAA Implementation Update
- II. Private Markets Pacing Model
- III. Private Markets Reporting Update
- IV. Currency Hedging Program Review



Combined Funds Asset Allocation Study



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Our Mission is our North Star



The primary mission of the SBI is to provide investment returns to support the retirement security of over 850,000 Minnesota public employees and their families.

We are entrusted with this mission on behalf of PERA, MSRS, and TRA, whose plan members contribute a meaningful portion of their salaries in return for their retirement security.

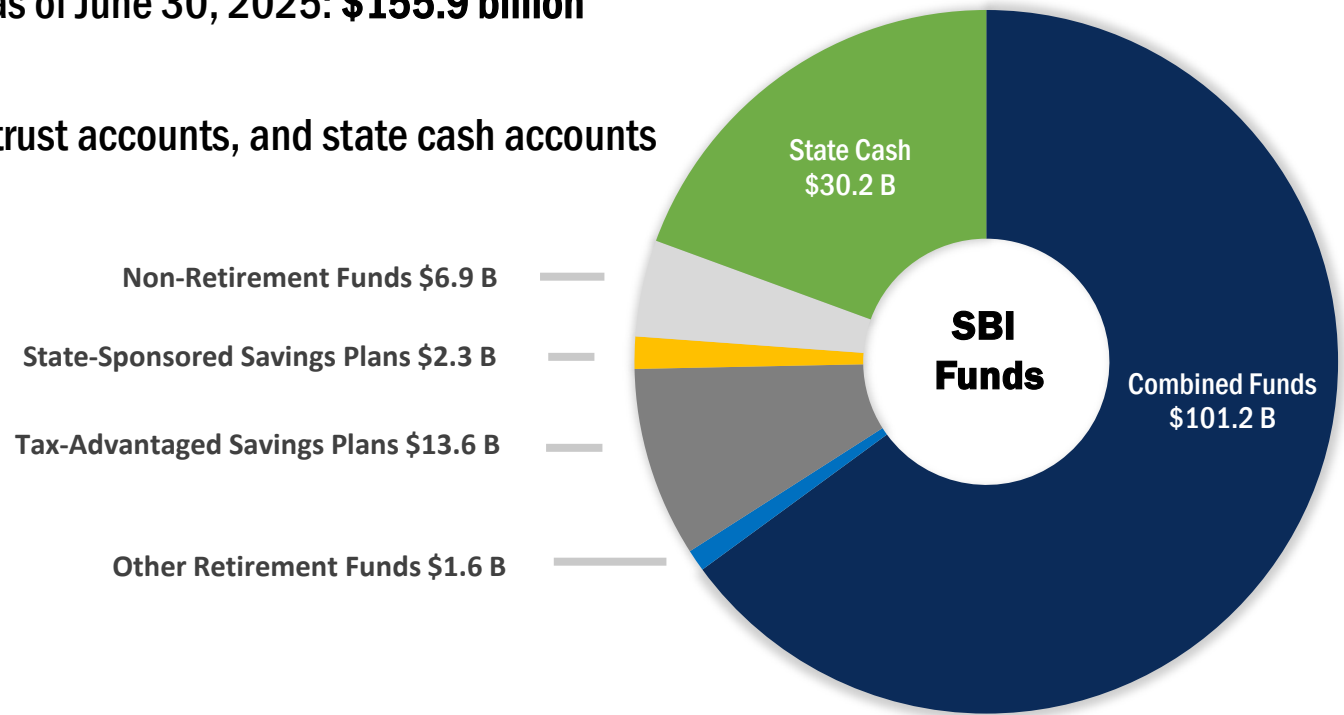
We are fiduciaries and stewards of capital. Plan benefits and policy decisions are the sole responsibility of PERA, MSRS, and TRA, which are separate and independent organizations.

SBI Funds Under Management

Total Assets as of June 30, 2025 (in \$ Billions)



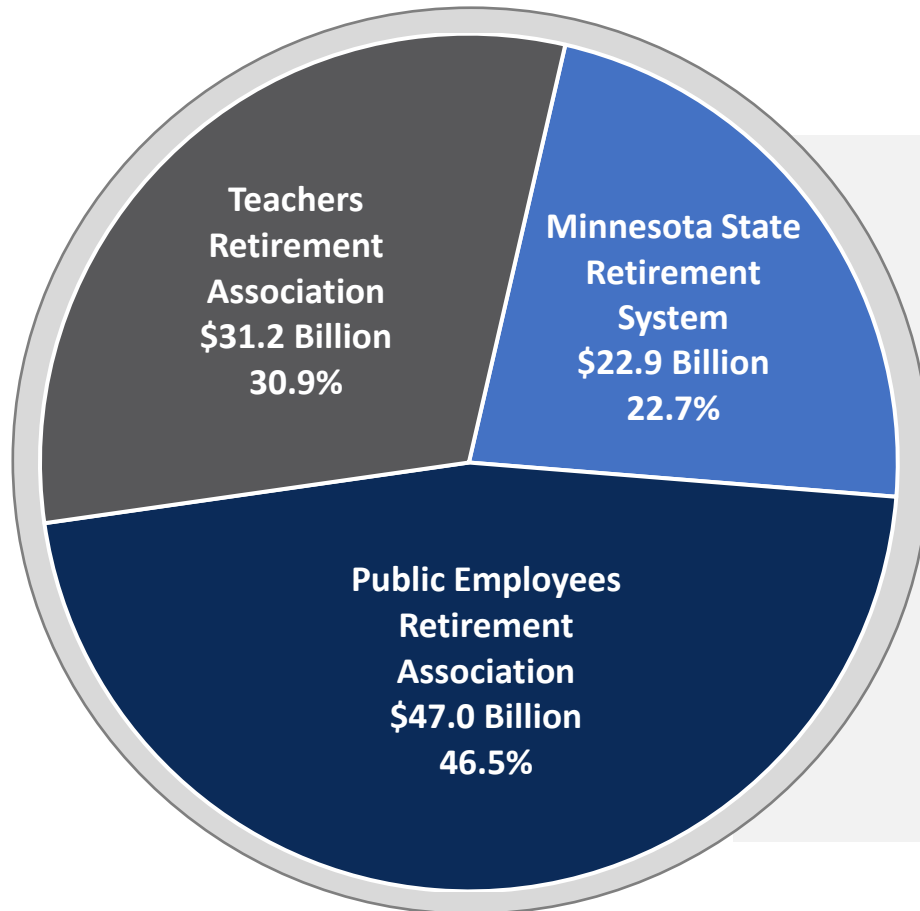
- Total assets under management as of June 30, 2025: **\$155.9 billion**
- Assets include retirement plans, trust accounts, and state cash accounts



- Non-Retirement Funds include State Trust Funds, Other Post Employment Benefits Accounts (OPEB), and Qualifying Governmental Entities.
- State-Sponsored Savings Plans include Minnesota College Savings Plan, and the Minnesota Achieving a Better Life Experience (ABLE) Plan.
- Tax-Advantaged Savings Plans Include Health Care Savings Plan, Hennepin County Supplemental Retirement Plan, and State Deferred Compensation Plan.
- Other Retirement Funds include the PERA Defined Contribution Plan, St. Paul Teachers' Retirement Fund, Statewide Volunteer Firefighter Plan, Unclassified Employees Retirement Plan, and Volunteer Fire Relief Associations.

Combined Funds

Participating Retirement Systems



- Represents pooled investments of the three statewide pension systems
- Long-term investment horizon
- Common 7.0% actuarial assumed rate of return¹
- Pooling of assets leverages scale and reduces investment costs
- Assets are 100% externally managed by professional asset managers selected and overseen by SBI

Market value data as of June 30, 2025.

¹ The Minnesota legislature is responsible for setting the actuarial assumed rate of return for each plan overseen by the Retirement Systems. The current assumption, which was most recently adjusted by the legislature in 2023, is 7.0%.

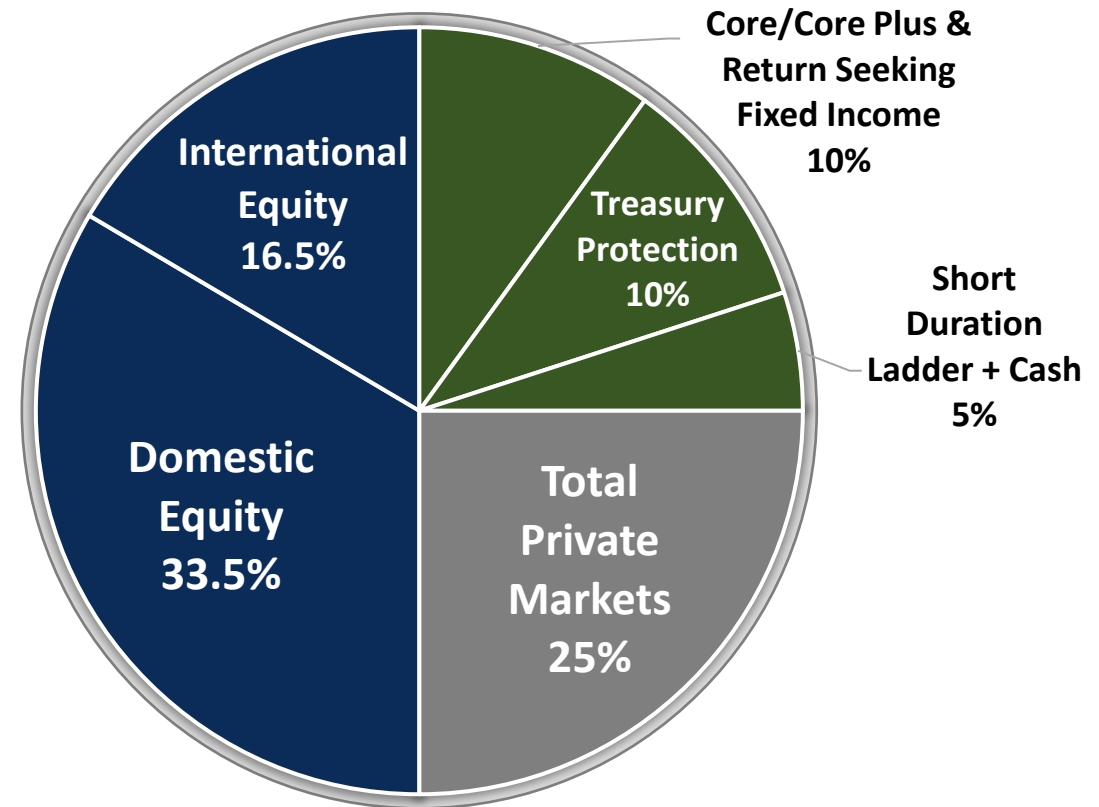
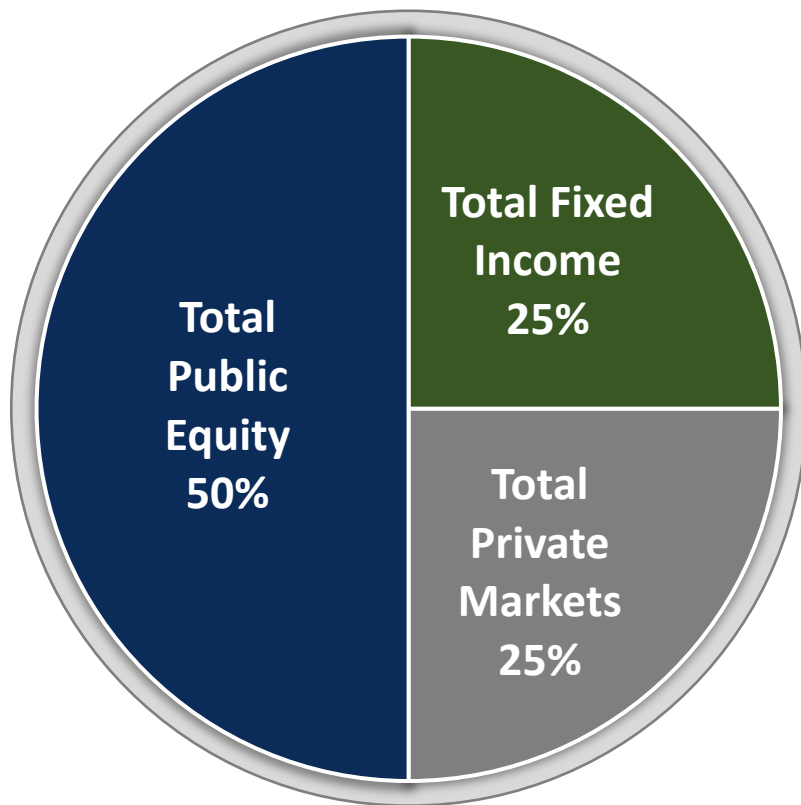
Sources of Return

- **Asset allocation** is the most important determinant of long-term returns.
- **Patient, long-term investing** – including a disciplined process of rebalancing to a portfolio's strategic asset allocation – produces superior results.
- **The equity risk premium is significantly positive** over a long-term investment horizon and is a primary driver of investment returns over time.
- **Less efficient asset classes offer investment opportunities** that skilled active managers harness to generate excess returns.
- **Private markets have an illiquidity premium** that the SBI can capture.

Risk Mitigation

- **Diversifying the sources of risk and return** can improve the portfolio's investment experience.
- **Simplicity** in investment program design supports effective risk management. Complexity should only be introduced when it provides a demonstrable benefit to expected outcomes.
- **Effective liquidity management** is a key risk management function and helps maximize investment outcomes across market cycles.

SBI Combined Funds Asset Allocation as of June 30, 2025



SBI Combined Funds

SAA Policy Evolution Since 2008



Asset Class	2008 AA Study	2016 AA Study	2017 Strategic Framework	2020 Resolution	2025 Proposed SAA
	Target %	Target %	Target %	Target %	Target %
Public Equity	60%	58%	53%	50%	50%
Domestic Equity	45%	39%	35.5%	33.5%	33.5%
International Equity	15%	19%	17.5%	16.5% ¹	16.5% ¹
Fixed Income & Cash	20%	22%	22%	25%	25%
Core/Core Plus Fixed Income	18%	20%	10%	10% †	6%
Return-Seeking Fixed Income	--	--	--		6%
Treasury Protection	--	--	10%	10%	10%
U.S. Treasury 5+ Year	--	--	10%	10%	--
U.S. Treasury (Broad Maturity)	--	--	--	--	8%
U.S. Treasury - Long	--	--	--	--	2%
Cash & Ladder Portfolio	2%	2%	2%	5%	3%
Private Markets	20%²	20%³	25%³	25%³	25%⁴
Private Equity	--	--	--	--	18%
Private Credit	--	--	--	--	3%
Real Assets	--	--	--	--	2%
Real Estate	--	--	--	--	2%

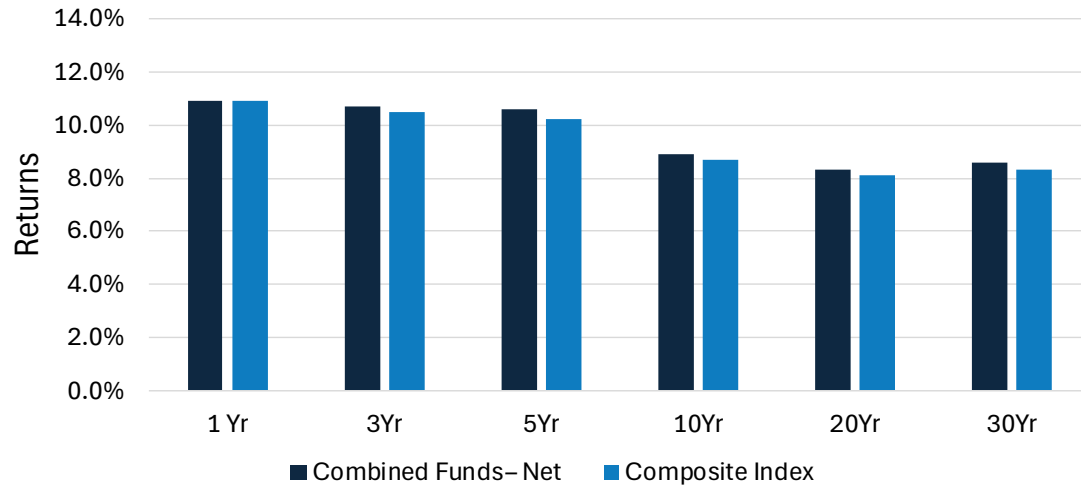
Guided by the SBI's enduring investment beliefs, the Combined Funds' policy asset allocation has evolved thoughtfully over time, maintaining a steady alignment with the Funds' long-term investment objectives.

† Resolution added Core Plus and Return-Seeking as allocation within Fixed Income ¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure. ² Uninvested Private Markets allocated to Fixed Income ³ Uninvested Private Markets allocated to Public Equity ⁴ Uninvested Private Markets benchmarked to a composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Bond Index.

SBI Combined Funds Performance as of June 30, 2025



Annualized Performance



10-Year Return Meets or Exceeds Policy Benchmark

Combined Funds – Net	Composite Index
8.9%	8.7%

20-Year Return Meets or Exceeds Inflation by 3-5% Annualized

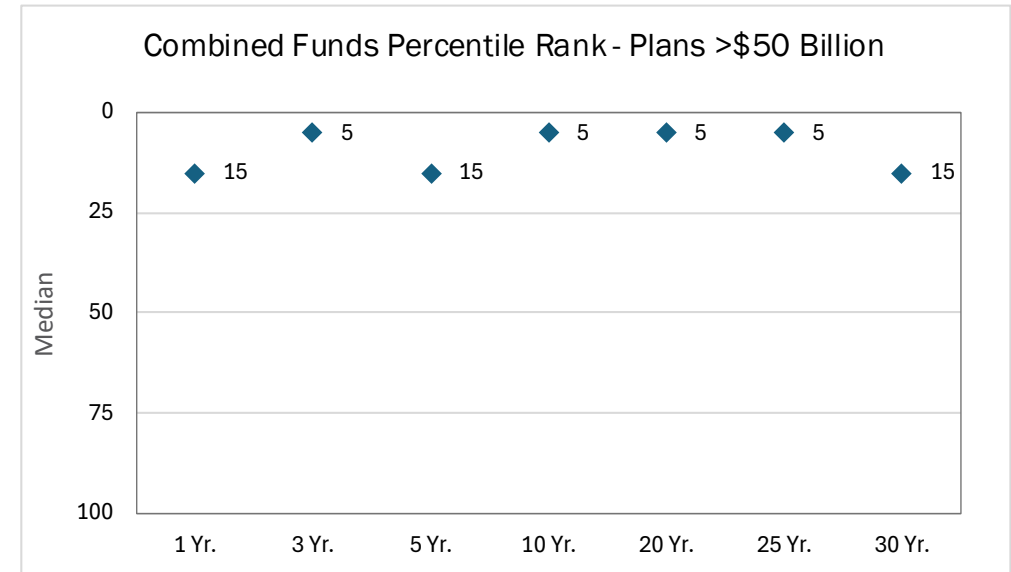
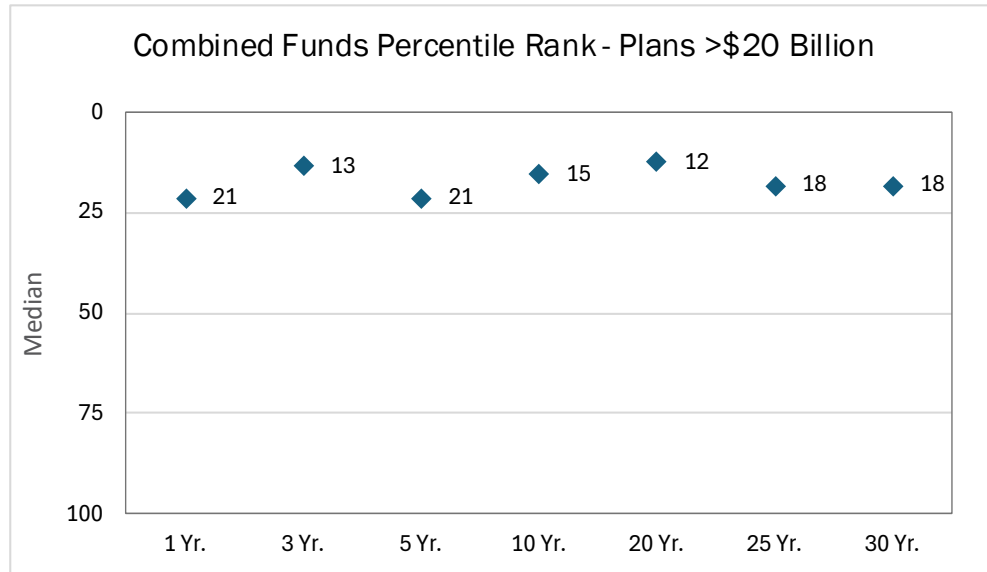
Combined Funds – Net	CPI-U
8.3%	2.6%

	1 Yr	3Yr	5Yr	10Yr	20Yr	30Yr
Combined Funds – Net	10.9%	10.7%	10.6%	8.9%	8.3%	8.6%
Composite Index	10.9%	10.5%	10.2%	8.7%	8.1%	8.3%
Difference	+0.0%	+0.2%	+0.4%	+0.2%	+0.2%	+0.3%

The Combined Funds Has Consistently Met or Exceeded Its Long-Term Return Objectives Over Time.

Peer Comparison

TUCS Performance Rank as of June 30, 2025



The Combined Funds' Performance Consistently Ranks in the Top Quartile Among Large Plan Peers over time.

Source : Wilshire Trust Universe Comparison Service (TUCS)

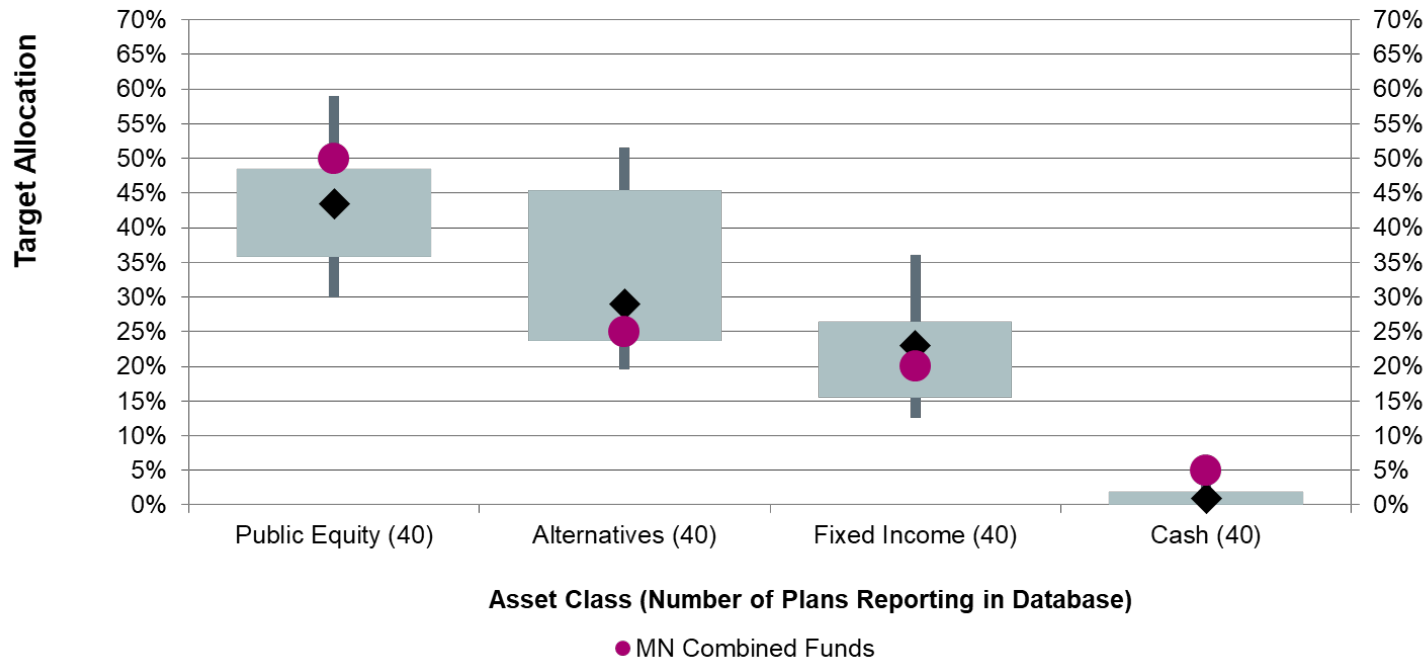
Note: Performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

Peer Comparison

Asset allocation peer analysis (greater than \$25B in Plan assets)



Distribution of U.S. Public Pension Target Asset Allocations (FYE 2024)



Key Takeaways:

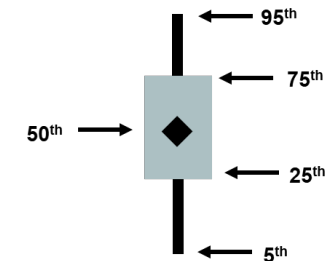
- SBI's public equity exposure is higher than the public peer median allocation
- SBI's alternatives exposure is below the peer median
- Within alternatives,* SBI's real estate allocation is below the peer median while the allocation to private equity/debt is above median
- SBI holds a higher level of cash than peer plans

Source: Public Plans Data (publicplansdata.org) as of FYE 2024. Data accessed from website in July 2025.

Notes: Number of plans meeting criteria are shown in parentheses; Alternatives consists of the following asset classes noted in the database: private equity, real estate, hedge funds, commodities, miscellaneous alternatives, and other

* See Appendix for detailed breakdown of Alternatives allocation

Legend: Distribution of Outcomes



Combined Funds Asset Allocation Study



1 Executive Summary

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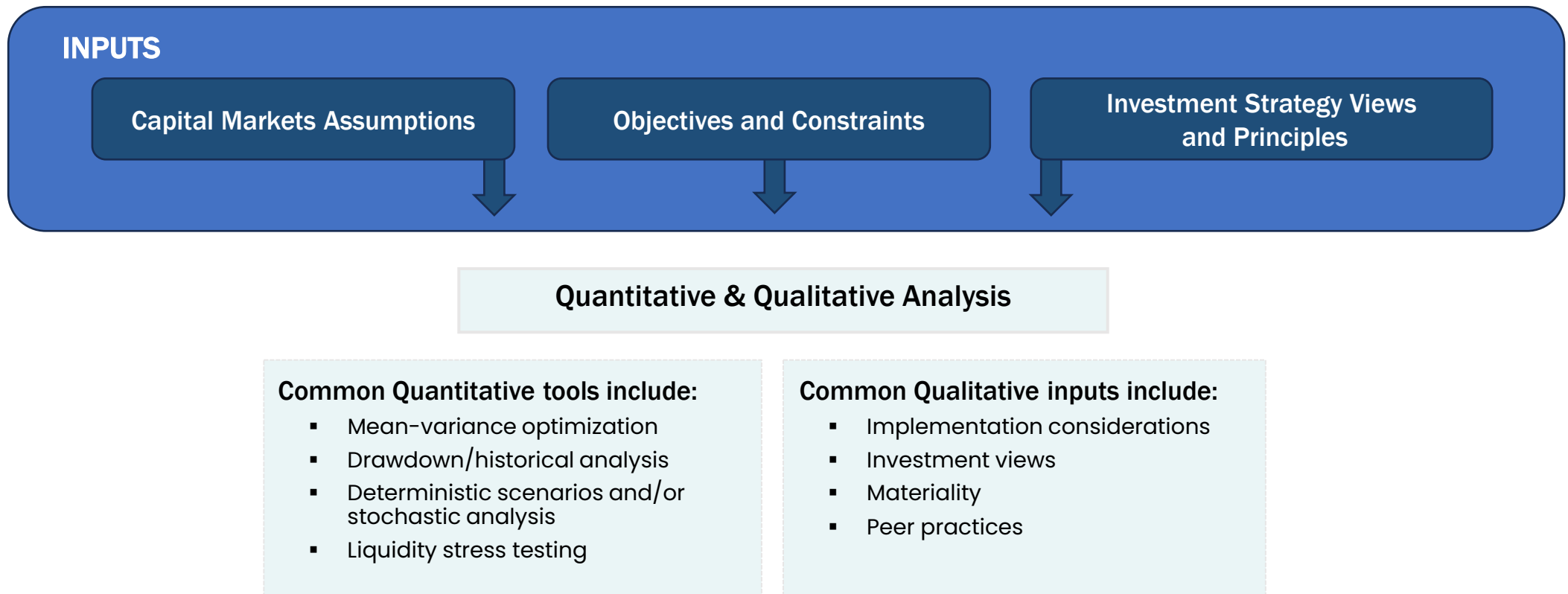
3 Inputs

4 Results

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6 Appendix

After defining inputs, both quantitative and qualitative tools are used to evaluate current and alternative asset allocations relative to investment objectives.



SBI's Approach to Setting CMAs

Anchor Analysis:

Use Aon's 10-yr capital market assumptions as a foundational reference and starting point.

Comprehensive Data Collection:

Gather capital market assumptions from a diverse set of consultants and providers.

Identify Key Differences:

Compare assumptions, highlight differences and pinpoint outliers.

Evaluate Alignment:

Assess which sources best reflect our views on asset classes across return, risk and correlation.

Refine:

Implement changes only where they are essential to enhancing the process and adding meaningful value.

CMA Sources:

- Aon • Meketa • Albourne • UBS • Bank of New York Mellon
- State Street • Goldman Sachs • JPMorgan • Blackrock • Horizon
- PIMCO • Franklin Templeton • Callan • Wilshire • SBI Staff Views

Capital Market Assumptions

SBI Final CMA Inputs – Refinements



	Expected Return			Expected Volatility		
	SBI Final CMA	Aon 6/30/25	Horizon 12/31/24	SBI Final CMA	Aon 6/30/25	Horizon 12/31/24
U.S. Large Cap Equity	6.75%	6.70%	6.46%	17.00%	18.00%	16.52%
U.S. Small Cap Equity	7.20%	6.90%	7.07%	22.00%	24.00%	20.57%
Int'l Developed Equity*	6.85%	6.30%	7.08%	17.50%	18.50%	18.06%
Emerging Mkts Equity	7.20%	6.70%	7.70%	23.00%	21.00%	23.61%
Equity Risk Premium	2.65%	2.40%	2.78%			
Inflation	2.50%	2.40%	2.42%	1.50%	1.70%	1.86%
Cash	3.40%	3.70%	3.68%	1.50%	1.20%	1.10%
US Treasury	4.10%	4.30%	4.38%	4.80%	4.30%	6.10%
US Aggregate	4.60%	4.90%	4.93%	4.70%	5.00%	5.90%
High Yield	5.80%	5.80%	6.13%	10.00%	10.50%	9.94%
Emerging Markets Debt	6.00%	6.50%	6.17%	11.00%	11.00%	10.76%
Private Equity	9.30%	9.60%	9.09%	20.50%	17.90%	22.57%
Private Credit	7.40%	7.30%	8.32%	13.20%	9.70%	12.00%
Real Assets	7.65%	9.20%	7.26%	17.70%	16.00%	16.02%
Real Estate	7.20%	7.60%	6.06%	20.00%	24.90%	16.61%

* SBI CMAs for International Developed equities proxied the impact of a dynamic currency hedging strategy by using a customized MSCI World ex USA Index 50% hedged to USD return series where applicable.

Horizon Actuarial Services, LLC, conducts an annual capital markets survey of investment firms. For the 2024 survey, 41 investment advisors participated. See the appendix for more information.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Notable Refinements to SBI CMAs vs AON/Horizon

- Modestly higher expected return for **U.S. Small Cap** based on starting valuation, long-term return premium.
- **Cash** return modeled based on inflation plus an expected real return on cash of +0.9%.
- **U.S. Treasury** return lowered to reflect recent sharp decline in high quality bond yields.
- **U.S. Aggregate Bond** return lowered to reflect recent sharp decline in high quality bond yields.
- **EM Debt** expected return lowered to reflect more conservative estimates for sovereign defaults and recoveries.
- **Real Assets**
 - Return lowered to maintain consistency with other private asset classes (return per unit of risk).
 - Volatility modeled with 25% exposure to natural resources, which raises expected volatility vs. other real assets like core infrastructure.



SBI Final CMA Higher than Aon 10-yr CMA



SBI Final CMA Lower than Aon 10-yr CMA

SBI Asset Allocation Study

Key Objectives and Constraints That Guide the Modeling



Return

- Earn an average annual net rate of return greater than the Combined Funds Composite Benchmark over a 10-year period
- Earn a net rate of return exceeding inflation by 3-5% on an annualized basis over a 20-year period
- Meet or exceed the Retirement Systems' actuarial assumed rate of return target over appropriate periods of time.¹

Risk

- Diversify across asset classes and active managers to avoid excess concentration
- Target realized volatility consistent with a moderately aggressive asset allocation (9-11% realized, 13-15% unsmoothed)
- Limit risk of severe drawdown
- Target an efficient balance between return and risk (Sharpe ratio)

Constraints - Key statutory limits

Maximum 35% Private Markets

Maximum 85% Equities + Private Markets + Non-U.S. Fixed Income + Bank Loans

All investments must be authorized under 11A.24

Liquidity

- Ensure timely payment of benefits under all market conditions
- Ensure adequate liquidity for private markets capital commitments
- Maintain sufficient liquidity to avoid selling risk assets in a drawdown

¹ The Minnesota legislature is responsible for setting the actuarial assumed rate of return for each plan overseen by the Retirement Systems. The current assumption, which was most recently adjusted by the legislature in 2023, is 7.0%.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

SAA Study Final Inputs

Risk/Return Expectations and Constraints



	Current SAA	Capital Market Assumptions		Modeling Constraints	
		Expected Return	Expected Volatility	Min	Max
Public Equity	50.0%			35%	60%
U.S. Equity	33.5%	6.80%	17.25%	25%	60%
International Equity ¹	16.5%	6.95%	18.00%	5%	30%
Fixed Income & Cash	25.0%			15%	n/a
U.S. Aggregate	5.0%	4.60%	4.70%	0%	15%
Return Seeking Fixed Income	5.0%	5.80%	9.10%	0%	15%
U.S. Treasury - 5+ Year	10.0%	4.30%	9.00%	n/a	n/a
U.S. Treasury	---	4.10%	4.80%	0%	100%
U.S. Treasury – Long	---	4.60%	13.50%	0%	10%
Cash Equivalents	5.0%	3.40%	1.50%	3%	5%
Private Markets	25.0%			n/a	25%
Private Equity	17.5%*	9.30%	20.50%	15%	19%
Private Credit	2.5%*	7.40%	13.20%	2%	6%
Private Real Assets	2.5%*	7.65%	17.70%	2%	5%
Private Real Estate	2.5%*	7.20%	20.00%	2%	5%
Portfolio Metrics					
Expected Return	7.08%				
Expected Volatility	13.41%				
Sharpe Ratio	0.27				

Realistic constraints necessitated by statutory limits, prudent diversification and emphasis on sufficient liquidity through a market cycle:

- Min 3% Cash Allocation
- Min 15% Investment Grade Fixed Income + Cash
- Max 25% Private Markets
- Min 35% Public Equity
- Max 60% Public Equity
- Min 2% Allocations to Private Credit, Real Assets and Real Estate

¹ SBI CMAs for International equities proxied the impact of a dynamic currency hedging strategy by using a customized MSCI ACWI ex USA Index 50% hedged to USD return series reflecting hedging of developed markets currencies only. Emerging markets currencies are unhedged.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

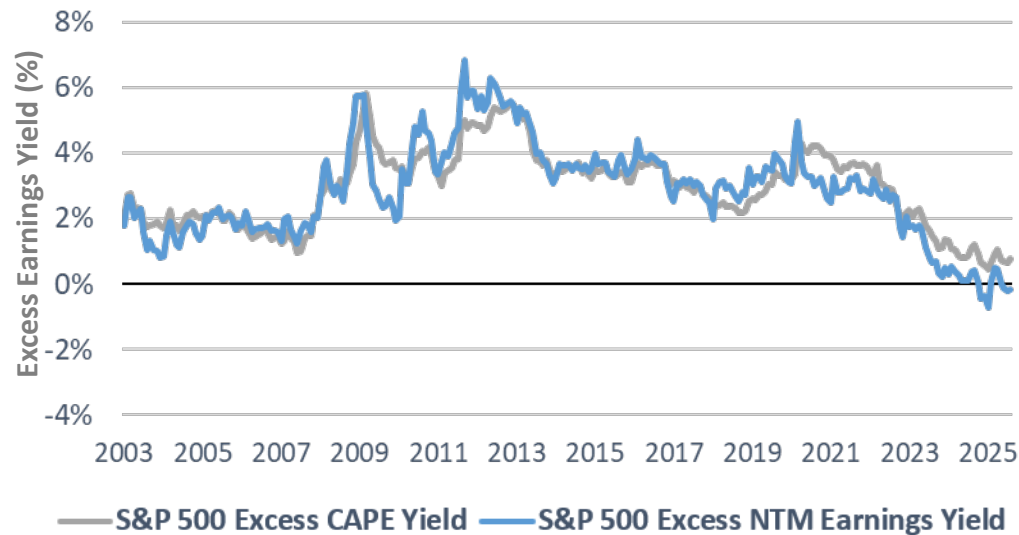
- 1. Equity Risk Premium: Elevated Valuations May Imply Lower Future Return Potential**
- 2. Private Equity Return Premium: Compressed But Remains Attractive**
- 3. U.S. Equities vs. Rest of World: Will Superior Earnings Growth Sustain U.S. Equity Valuations?**
- 4. Fixed Income Yields Are Now More Attractive**
- 5. U.S. Fiscal Trajectory Amplifies Inflation and Debt Sustainability Tail Risk for U.S. Treasuries**

1. Equity Risk Premium – Elevated Valuations May Imply Lower Future Return Potential

- The high level of current equity valuations suggests go-forward return expectations should be tempered.
- However, improvements in productivity have the potential to generate returns beyond valuation-implied return premium.

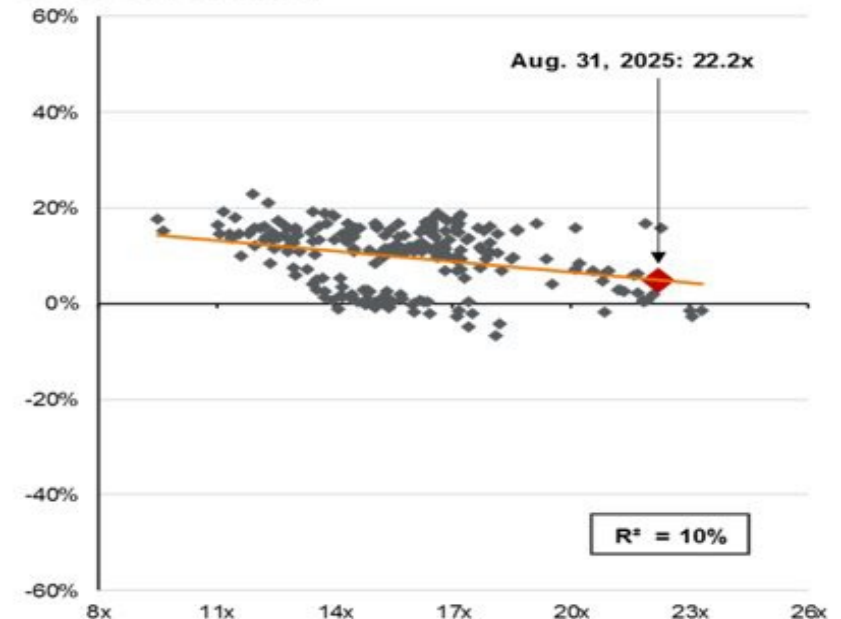
Valuation-Implied Equity Risk Premium for S&P 500

January 2003 – August 2025



Data through August 31, 2025. Source: Bloomberg, S&P Dow Jones Indices, SBI Staff calculations. Excess CAPE Yield is the earnings yield, calculated as the inverse of the Case-Shiller Cyclically Adjusted Price-to-Earnings Ratio (price divided by the 10-year average of CPI-deflated earnings), minus the 10-year real (inflation-adjusted) Treasury yield. Excess NTM Earnings Yield refers to the earnings yield, calculated as the inverse of the price-to-next 12 months earnings, minus the nominal 10-year Treasury yield.

Forward P/E and subsequent 5-yr. annualized returns S&P 500 Total Return Index



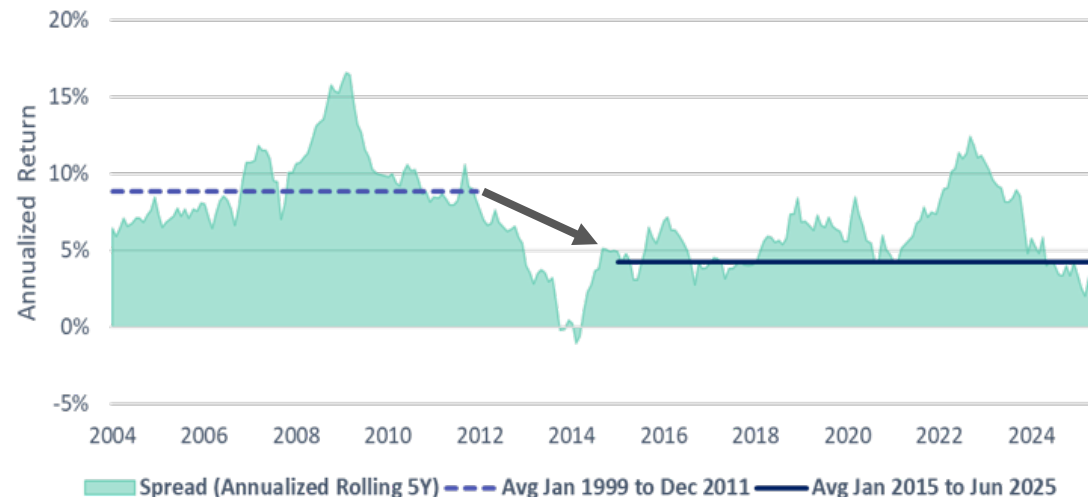
Source: JPMorgan Guide to the Markets, August 2025

2. Private Equity Return Premium – Compressed But Still Attractive

- The Private Equity average return premium over public markets has moderated over time as the industry has grown and private capital has become more abundant. Despite this moderation an attractive return premium persists.
- As the number of publicly listed companies decreases and public equity markets become more concentrated, private equity markets provide the potential for diversification.
- We continue to believe that leading private markets managers can generate meaningful alpha versus public markets.

Private Equity Rolling 5-year Excess Return to Public Equities

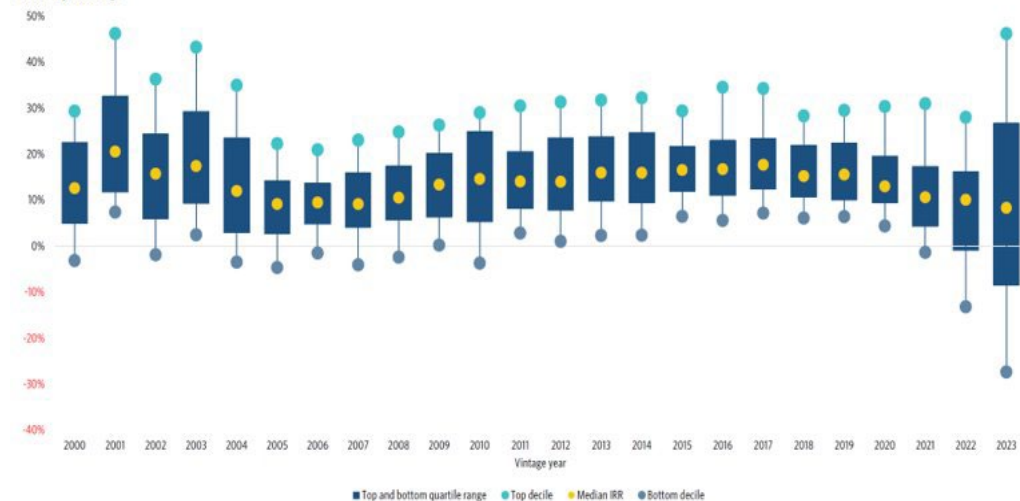
January 1999 – June 2025



Source: Bloomberg, MSCI, SBI Staff calculations. Private equity returns reflect MSCI Global Buyout Closed-End Fund Index (USD). Public equity returns reflect MSCI ACWI Index (USD).

Private equity

IRRs by vintage



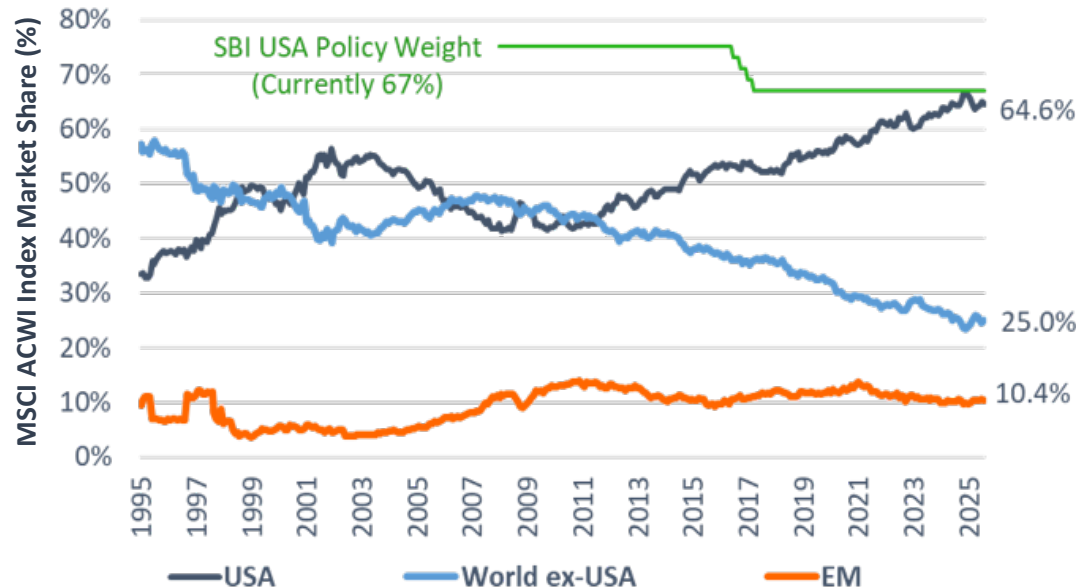
Source: Pitchbook Global Benchmarks Q1 2025 with preliminary Q2 2025 data.

3. U.S. Equities vs. Rest of World – Will Superior Earnings Growth Sustain U.S. Equity Valuations?

- U.S. stocks have dominated international stocks over the last 15 years, leading to a surge in the U.S. market capitalization as a percent of the overall MSCI ACWI Index.
- Earnings growth has supported U.S. equity valuations so far, but caution is warranted.

MSCI ACWI Index Market Capitalization By Region

January 1995 – August 2025



Source: Bloomberg, MSCI, SBI Staff calculations

Hardening divergence

U.S. equity performance vs. the rest of the world, 2010-2024



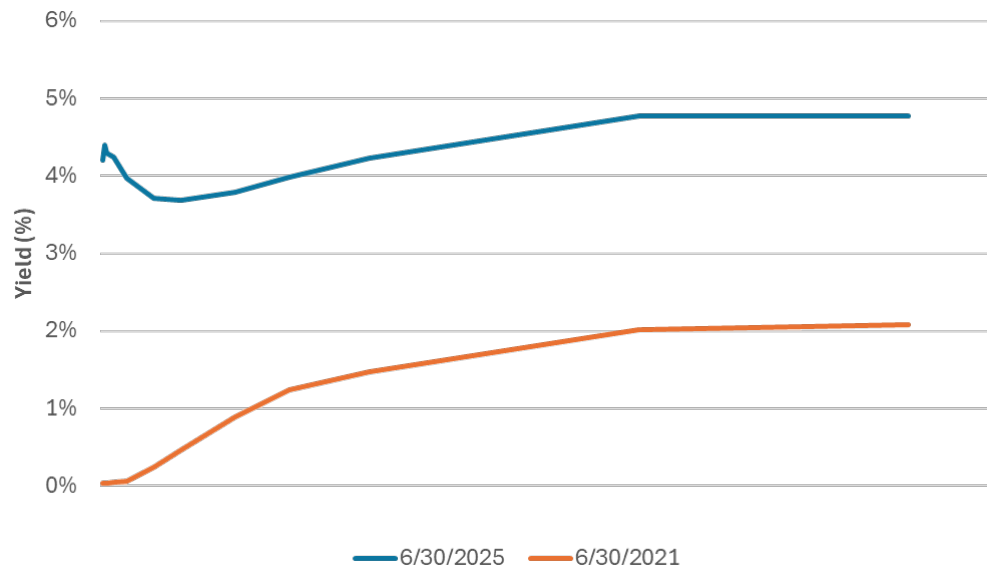
Source: Blackrock

4. Fixed Income Yields Are Now More Attractive

- The significant rise in interest rates observed since the Federal Reserve began normalizing its policy rate in 2022 has made fixed income assets more attractive compared to recent history.
- At the same time, rising equity valuations have compressed forward-looking return expectations for stocks, further bolstering the attractiveness of fixed income from an asset allocation perspective.

U.S. Treasury Yield Curve Changes

6/30/21 to 6/30/25



Source: Bloomberg

Core Bond Yields vs. MSCI ACWI Earnings Yield



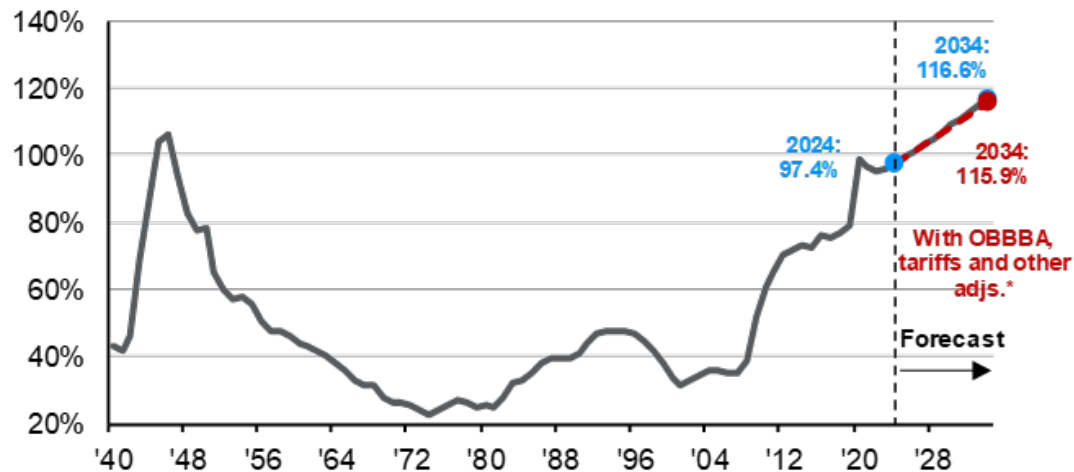
Data through September 30, 2025. Earnings yield is calculated as $1 / [\text{price-to-earnings ratio}]$ for the MSCI ACWI, using trailing 12-month earnings. Source: Bloomberg, MSCI, SBI Staff calculations.

5. U.S. Fiscal Trajectory Amplifies Inflation and Debt Sustainability Tail Risks to U.S. Treasuries

- The U.S. Fiscal Outlook remains somewhat challenged, with CBO baseline estimates projecting Federal Net Debt rising to 116% of GDP by 2034.
- Reduced investor demand for longer-term U.S. Treasuries—combined with rising supply—could lead to a material increase in the term premium, reflecting the incremental yield investors require to hold longer maturity bonds.

Federal net debt (accumulated deficits)

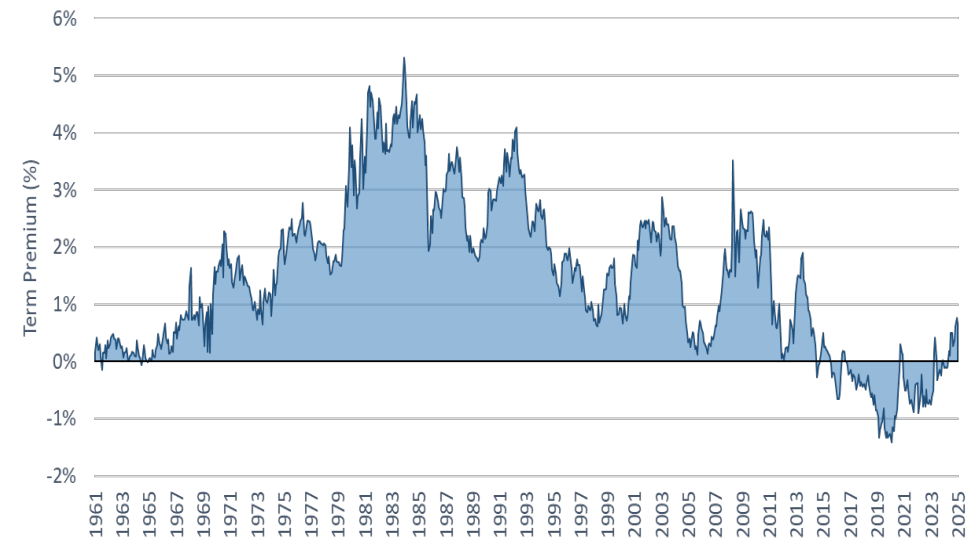
% of GDP, 1940 - 2034, CBO Baseline Forecast, end of fiscal year



Source: J.P. Morgan Asset Management Guide to the Markets, September 2025.

* See source report footnote for more information.

Estimated Term Premium Required for Holding a 10-Year U.S. Treasury Bond (1961-2025)



Data through August 30, 2025. Reflects Adrian, Crump, and Moench (ACM) 10-Year Term Premium Model. Source: Bloomberg, Federal Reserve Bank of New York, SBI Staff calculations

Combined Funds Asset Allocation Study



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Mean Variance Optimization – Applied real-world constraints to study an optimized efficient frontier

- Current SAA portfolio is largely efficient
- Within return-seeking assets, the model favors private equity, private credit, return-seeking fixed income and international equity
- Within diversifying assets, model favors core fixed income and longer duration U.S. Treasuries, although results are sensitive to stock-bond correlation assumptions
- Statutory limits and liquidity considerations prevent greater allocation to private markets

Historical Stress Testing – Evaluated “what-if” portfolio performance using historical return periods

- Proposed SAA portfolio performed within expectations during historical stress periods
- Proposed SAA improved average upside capture and inflation responsiveness, and improved performance in periods of rising interest rates
- Treasury Protection Portfolio: lowering interest rate duration improves stress-case outcomes without sacrificing expected return, and increases the expected stress-case liquidity of the portfolio

Liquidity Analysis – Stressed portfolio liquidity in normal and stressed markets

- Proposed SAA portfolio has sufficient liquidity in normal and stressed markets

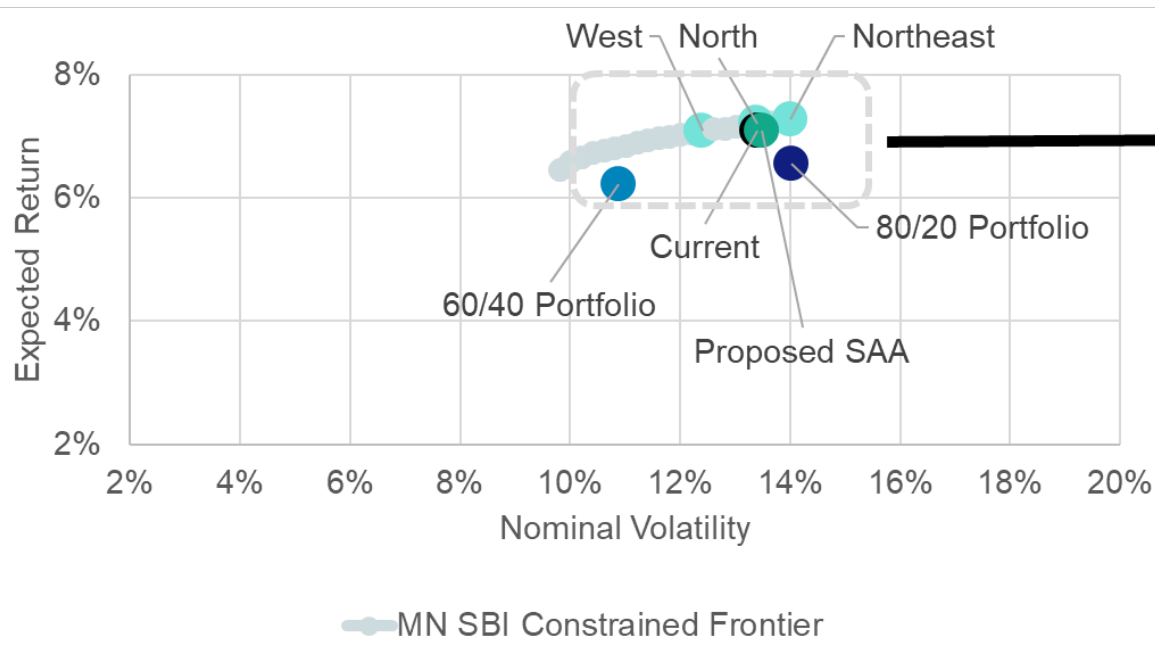
Mean-Variance Optimization Analysis

Constrained Efficient Frontier Results

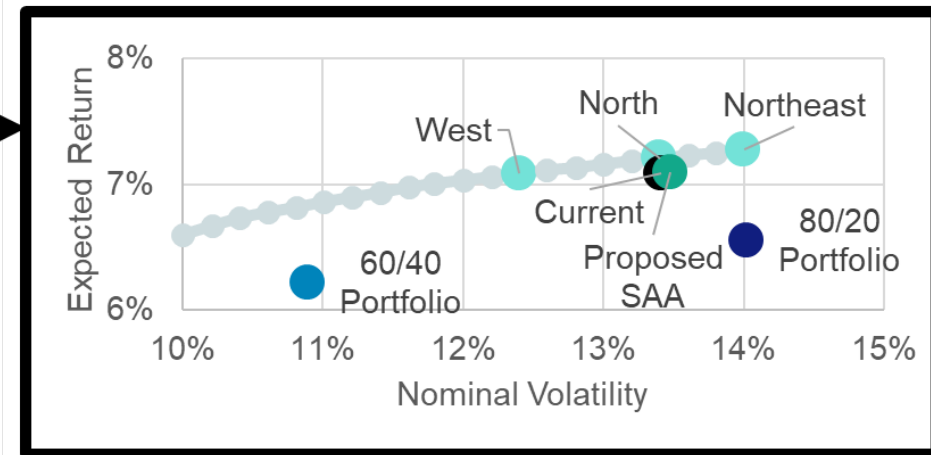


- The optimization generates a cluster of efficient portfolios consistent with the Combined Funds objectives
- Both Current and Proposed Allocations are efficient and plot close to the Constrained Efficient Frontier

SBI Constrained Efficient Frontier



SBI Constrained Efficient Frontier – Zoomed In



	Expected Return	Nominal Volatility	Sharpe Ratio
Current Policy	7.08%	13.41%	0.27
Mean-Variance Optimization ("MVO") (West)	7.09%	12.40%	0.30
MVO (North)	7.21%	13.40%	0.28
MVO (Northeast)	7.28%	14.00%	0.28
60/40 Portfolio	6.22%	10.89%	0.26
80/20 Portfolio	6.56%	14.02%	0.23
Proposed SAA	7.10%	13.48%	0.27

60/40 Portfolio reflects 60% Russell 3000 Index and 40% Bloomberg U.S. Aggregate Bond Index.
80/20 Portfolio reflects 80% Russell 3000 Index and 20% Bloomberg U.S. Aggregate Bond Index.

Mean-Variance Optimization Analysis

Constrained Efficient Frontier Results



SBI Constrained Efficient Frontier – Asset Mix Details

	Expected Return	Nominal Volatility	Public Equity			Fixed Income					Private Markets					Liquidity
			Total Public Equity	U.S. Equity	Int'l Equity (50% hedged dev only)	Total Fixed Income	U.S. Treasury	U.S. Treasury Long*	U.S. - Aggregate	Return Seeking Fixed Income	Total Private Markets	Private Equity	Private Credit	Private Real Assets	Private Real Estate	Cash
Current SAA	7.08%	13.41%	50.0%	33.5%	16.5%	20.0%	0.0%	10.0%	5.0%	5.0%	25.0%	17.5%	2.5%	2.5%	2.5%	5.0%
Proposed SAA	7.10%	13.48%	50.0%	33.5%	16.5%	22.0%	0.0%	10.0%	6.0%	6.0%	25.0%	18.0%	3.0%	2.0%	2.0%	3.0%
Optimized Frontier Portfolios																
#1	6.45%	9.80%	35.0%	25.0%	10.0%	40.8%	40.8%	0.0%	0.0%	0.0%	21.0%	15.0%	2.0%	2.0%	2.0%	3.2%
#2	6.60%	10.00%	35.0%	25.0%	10.0%	40.1%	30.1%	10.0%	0.0%	0.0%	21.9%	15.0%	2.9%	2.0%	2.0%	3.0%
#3	6.67%	10.21%	35.0%	25.0%	10.0%	37.8%	27.8%	10.0%	0.0%	0.0%	24.2%	15.0%	5.2%	2.0%	2.0%	3.0%
#4	6.73%	10.40%	35.0%	25.0%	10.0%	37.0%	17.8%	10.0%	9.2%	0.0%	25.0%	15.0%	6.0%	2.0%	2.0%	3.0%
#5	6.78%	10.61%	35.0%	25.0%	10.0%	37.0%	12.0%	10.0%	15.0%	0.0%	25.0%	16.3%	4.7%	2.0%	2.0%	3.0%
#6	6.82%	10.81%	35.0%	25.0%	10.0%	37.0%	12.0%	10.0%	15.0%	0.0%	25.0%	18.3%	2.7%	2.0%	2.0%	3.0%
#7	6.86%	11.00%	35.0%	25.0%	10.0%	37.0%	10.1%	10.0%	15.0%	1.9%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#8	6.90%	11.21%	35.0%	25.0%	10.0%	37.0%	7.0%	10.0%	15.0%	5.0%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#9	6.94%	11.41%	35.0%	25.0%	10.0%	37.0%	4.0%	10.0%	15.0%	8.0%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#10	6.97%	11.61%	35.0%	25.0%	10.0%	37.0%	1.1%	10.0%	15.0%	10.9%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#11	7.00%	11.79%	35.9%	25.0%	10.9%	36.1%	0.0%	10.0%	14.5%	11.6%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#12	7.03%	12.00%	37.5%	25.0%	12.5%	34.5%	0.0%	10.0%	13.5%	11.0%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#13	7.06%	12.20%	39.1%	25.0%	14.1%	32.9%	0.0%	10.0%	12.6%	10.4%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
West	7.09%	12.40%	40.6%	25.0%	15.6%	31.4%	0.0%	10.0%	11.6%	9.8%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#15	7.11%	12.60%	42.1%	25.0%	17.1%	29.9%	0.0%	10.0%	10.7%	9.2%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#16	7.14%	12.80%	43.7%	25.0%	18.7%	28.3%	0.0%	10.0%	9.8%	8.6%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#17	7.16%	13.00%	45.2%	25.0%	20.2%	26.8%	0.0%	10.0%	8.8%	8.0%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#18	7.19%	13.20%	46.7%	25.0%	21.7%	25.3%	0.0%	10.0%	7.9%	7.4%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
North	7.21%	13.40%	48.2%	25.0%	23.2%	23.8%	0.0%	10.0%	7.0%	6.8%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#20	7.23%	13.60%	49.7%	25.0%	24.7%	22.3%	0.0%	10.0%	6.1%	6.2%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
#21	7.25%	13.80%	51.2%	25.0%	26.2%	20.8%	0.0%	10.0%	5.2%	5.7%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%
Northeast	7.28%	14.00%	52.7%	25.0%	27.7%	19.3%	0.0%	10.0%	4.2%	5.1%	25.0%	19.0%	2.0%	2.0%	2.0%	3.0%

- The optimized results favor increased allocations to Core Bonds and Return-Seeking Fixed Income.
- The model favors International Equities over U.S. Equities based on lower expected volatility and potential correlation benefit.
- The model expressed a clear preference for longer maturity U.S. Treasuries, but this result is highly sensitive to the stock-bond correlation assumption.
- Within Private Markets, the model clearly favors Private Equity, particularly as portfolio risk increases.
- Cash is not favored in the model relative to other assets.

Stress Testing

Historical Risk-Return 21.5 Years Ended June 30, 2025



Jan 1, 2004 to Jun 30, 2025	Annualized Return	Standard Deviation Port	Downside Deviation	Max Drawdown Port	Sharpe Ratio Port	CPI Return Beta	Equity Beta (ACWI)	Upside Market Capture (ACWI)	Downside Market Capture (ACWI)
Current SAA	8.60%	11.5%	13.1%	-40.2%	0.60	0.38	0.74	76.2%	72.6%
Equal Risk Optimal (North)	8.48%	11.4%	13.0%	-39.9%	0.59	0.27	0.74	74.9%	71.7%
Equal Return Optimal (West)	8.30%	10.6%	12.1%	-36.4%	0.62	0.16	0.68	69.2%	65.5%
High Risk Optimal (Northeast)	8.58%	11.9%	13.6%	-41.9%	0.57	0.34	0.77	78.3%	75.3%
60/40 Equity/Fixed	7.71%	9.7%	11.1%	-32.7%	0.62	0.10	0.60	62.3%	59.5%
80/20 Equity /Fixed	9.07%	12.4%	14.6%	-42.6%	0.59	0.48	0.78	81.5%	76.7%
Proposed SAA	8.63%	11.6%	13.2%	-40.4%	0.60	0.44	0.75	76.5%	72.9%
Russell 3000	10.34%	15.2%	17.5%	-51.2%	0.57	0.85	0.96	101.9%	92.8%
MSCI AC World ex USA 50% Hedged USD	6.81%	15.0%	16.7%	-54.9%	0.34	1.05	0.94	89.9%	96.6%
Return-Seeking Fixed Income	5.85%	7.2%	9.3%	-25.4%	0.58	0.59	0.37	34.4%	27.6%
US Aggregate	3.19%	4.2%	4.2%	-17.2%	0.36	-1.01	0.07	11.0%	0.6%
US Treasury	2.75%	4.6%	4.1%	-18.3%	0.23	-1.33	-0.02	4.8%	-9.8%
US Treasury 5+	3.39%	8.1%	7.4%	-32.0%	0.21	-2.30	-0.03	5.3%	-13.5%
US Treasury 10+	3.63%	12.0%	11.0%	-45.4%	0.16	-3.23	-0.05	4.0%	-18.4%
Private Equity - Unsmoothed	13.33%	17.1%	17.7%	-48.3%	0.68	0.63	1.06	120.0%	97.1%
Private Credit - Unsmoothed	7.45%	9.8%	12.0%	-38.2%	0.58	0.90	0.55	52.0%	46.2%
Real Estate - Unsmoothed	3.27%	25.4%	27.3%	-71.8%	0.06	0.61	1.33	108.5%	128.3%
Real Asset - Unsmoothed	9.67%	11.7%	12.1%	-32.7%	0.68	1.01	0.63	69.6%	58.6%
Cash	1.70%	0.6%	0.0%	-	-	0.03	0.00	3.6%	-4.7%

- Both the modeled Current and Proposed Allocations display efficient historical risk-return characteristics
- The Proposed Allocation exhibits slightly higher upside and downside market capture
- The Proposed Allocation exhibits a higher CPI Return Beta, suggesting the potential for greater responsiveness to inflation.

See Appendix for model methodology and a description of source data used.

Stress Testing

Selected Historical Return Episodes



Scenarios	2006-07 Bull Market	Great Financial Crisis	Taper Tantrum 2013	Q4 2018 Market Selloff	COVID-19 Pandemic Drawdown	2022 Inflation and Rate Hikes
Current SAA	29.1%	-37.4%	-0.8%	-8.1%	-15.9%	-12.5%
Equal Risk Optimal (North)	30.2%	-36.8%	-1.8%	-7.6%	-15.4%	-13.3%
Equal Return Optimal (West)	28.0%	-33.3%	-1.8%	-6.8%	-14.2%	-13.1%
High Risk Optimal (Northeast)	31.6%	-38.8%	-1.7%	-8.1%	-16.1%	-13.3%
60/40 Equity/Fixed	18.5%	-31.1%	0.7%	-8.0%	-12.3%	-16.5%
80/20 Equity /Fixed	21.3%	-41.5%	2.1%	-11.2%	-16.6%	-17.8%
Proposed SAA	28.9%	-37.6%	-0.5%	-8.2%	-16.2%	-12.3%
Russell 3000	24.2%	-50.5%	3.6%	-14.3%	-20.8%	-19.2%
MSCI AC World ex USA 50% Hedged USD	39.1%	-51.0%	-3.1%	-11.0%	-20.4%	-12.9%
Return-Seeking Fixed Income	12.2%	-20.0%	-3.9%	-3.0%	-13.3%	-9.6%
US Aggregate	10.1%	9.8%	-3.7%	1.6%	1.2%	-13.0%
US Treasury	10.4%	18.5%	-3.4%	2.6%	5.6%	-12.5%
US Treasury 5+	12.1%	22.8%	-7.8%	3.7%	9.1%	-20.3%
US Treasury 10+	12.7%	23.2%	-11.6%	4.2%	13.2%	-29.3%
Private Equity - Unsmoothed	55.7%	-43.7%	0.6%	-7.7%	-22.0%	-5.7%
Private Credit - Unsmoothed	20.1%	-33.5%	1.9%	-4.4%	-16.3%	3.9%
Real Assets - Unsmoothed	38.7%	-22.6%	-2.4%	-6.1%	-21.2%	12.2%
Real Estate - Unsmoothed	52.5%	-70.3%	-17.0%	-4.6%	-34.3%	-10.2%
Cash	6.9%	4.9%	0.0%	0.6%	0.4%	1.5%

See Appendix for model methodology and a description of source data used.

- The modeled Current and Proposed Allocations both capture appropriate equity market upside (*2006-07 Bull Market*)
- The Proposed Allocation experiences slightly greater downside in equity selloffs (*GFC, Pandemic Drawdown*) relative to the Current Allocation, but exhibits greater downside protection in risk-off periods where stock-bond correlation is elevated (*2013 Taper Tantrum, 2022 Inflation and Rate Hikes*)

Historical Return Episodes Overview

2006-07 Bull Market: Late-cycle surge on easy credit, housing boom, and liquidity before cracks appeared.

Global Financial Crisis 2007-09: Late-cycle surge on easy credit, housing boom, and liquidity before cracks appeared.

Taper Tantrum 2013: Yields spiked after Fed Chair Bernanke hinted at slowing Fed bond purchases; EM assets sold off, volatility jumped.

Q4 2018 Market Selloff: Fed hikes + balance-sheet runoff and growth fears; S&P ~20% into the "Christmas Eve" low.

COVID-19 Pandemic Drawdown (Feb-Mar 2020): Sudden global shutdown; fastest bear market, followed by massive policy backstop.

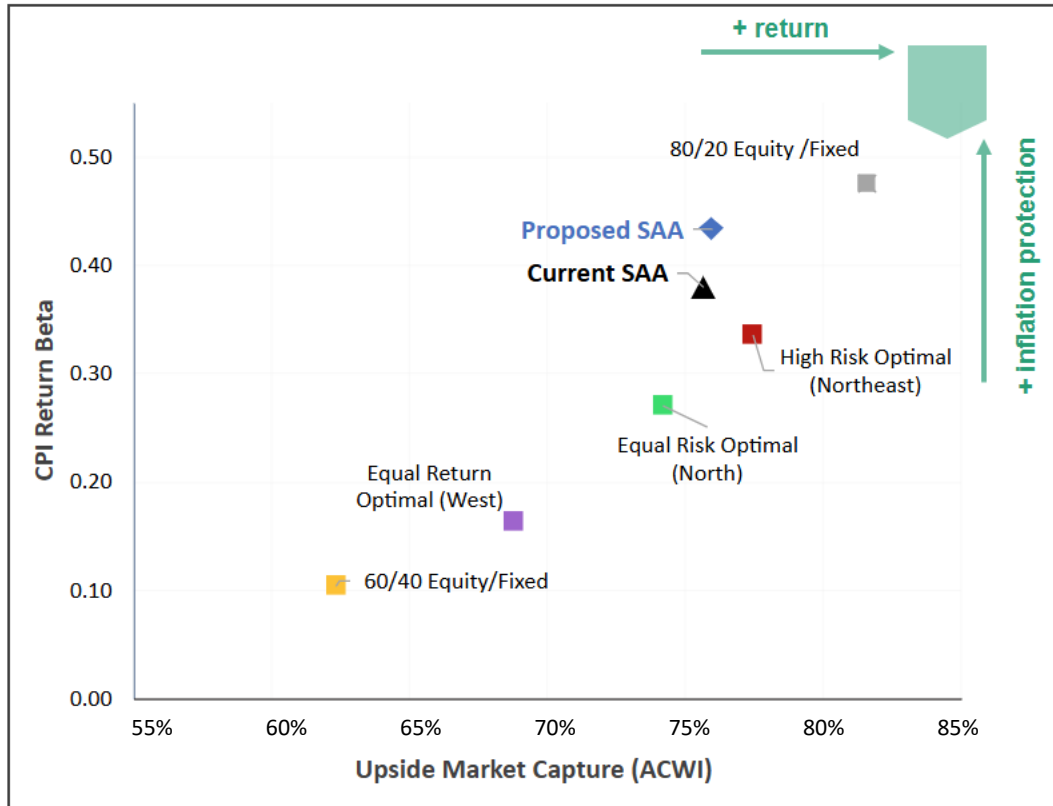
2022 Inflation & Rate Hikes: Multi-decade-high inflation met by the Fed's aggressive tightening; bonds and equities repriced lower, then partially recovered.

Stress Testing

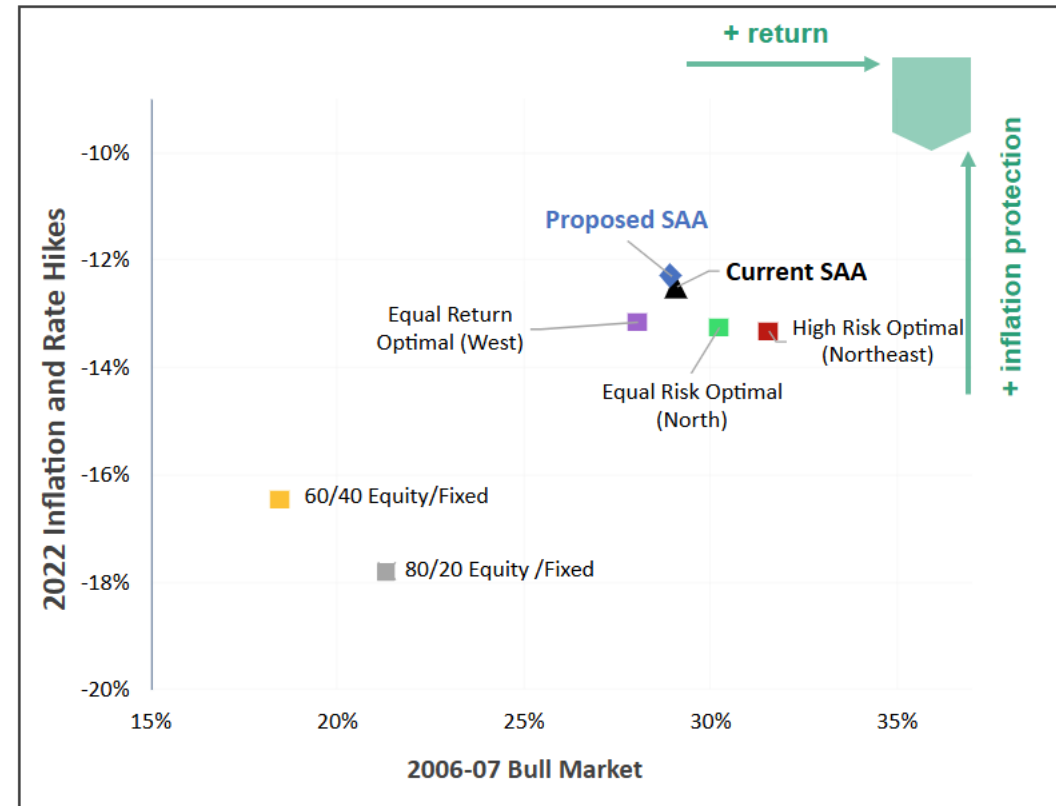
Historical Return Analysis – Risk-Return Plots



CPI Return Beta vs. Upside Market Capture
21.5 years ended 6/30/25



Modeled Historical Return Episode Trade-offs
2022 Inflation and Rate Hikes vs. 2006-07 Bull Market



See Appendix for model methodology and a description of source data used.

- Both the modeled Current and Proposed Allocations exhibit strong CPI Return Beta and upside market capture.

- Both the modeled Current and Proposed Allocations evidenced better downside protection during the 2022 Inflation and Rate Hikes episode than the highlighted efficient frontier portfolios.

60/40 Portfolio reflects 60% Russell 3000 Index and 40% Bloomberg U.S. Aggregate Index. 80/20 Portfolio reflects 80% Russell 3000 Index and 20% Bloomberg U.S. Aggregate Index.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Stress Testing

Interest Rate Duration in the Treasury Protection Portfolio



The proposed update to the Treasury Protection Portfolio asset mix reduces interest rate exposure, or duration, by shifting the balance of the allocation from longer-maturity bonds to shorter-maturity bonds.

Portfolio Risk Statistics Comparison as of 6/30/25

Portfolio Comparison: Treasury Protection Allocation	Mkt Value %	% Market Value by Maturity Bucket (years)					Duration	Key Rate Duration (years)					
		0-2	2-5	5-10	10-20	20-30		6 Mth	2 Yr	5 Yr	10 Yr	20 Yr	30 Yr
Current SAA	100%	0%	0%	53%	22%	26%	9.9	0.0	0.2	2.1	2.8	3.2	1.6
Proposed SAA	100%	15%	30%	19%	17%	20%	7.4	0.1	0.7	1.4	1.6	2.5	1.2
Change (Proposed - Current)		+15%	+30%	-34%	-5%	-6%	-2.5	+0.1	+0.5	-0.7	-1.2	-0.7	-0.4

Source: Factset, SBI Staff calculations

Expected Return/Risk and Historical Stress Testing Comparison

Portfolio Comparison: Treasury Protection Allocation	Expected Return	Expected Risk	Maximum Drawdown	CPI Return Beta	Scenario: 2022 Inflation & Rate Hikes
Current SAA	4.3%	9.0%	-32.0%	-2.3%	-20.3%
Proposed SAA	4.2%	6.5%	-24.4%	-1.7%	-16.0%
Change (Proposed - Current)	-0.1%	-2.5%	+7.6%	+0.6%	+4.3%

See Appendix for model methodology and a description of source data used.

- The Proposed Treasury Protection Portfolio asset mix has a similar expected return to the Current asset mix but exhibits significantly lower expected risk.
- Consistent with its materially lower duration profile, the Proposed asset mix outperforms the Current asset mix in terms of Max. Drawdown and performance during the 2022 Inflation & Rate Hikes episode.

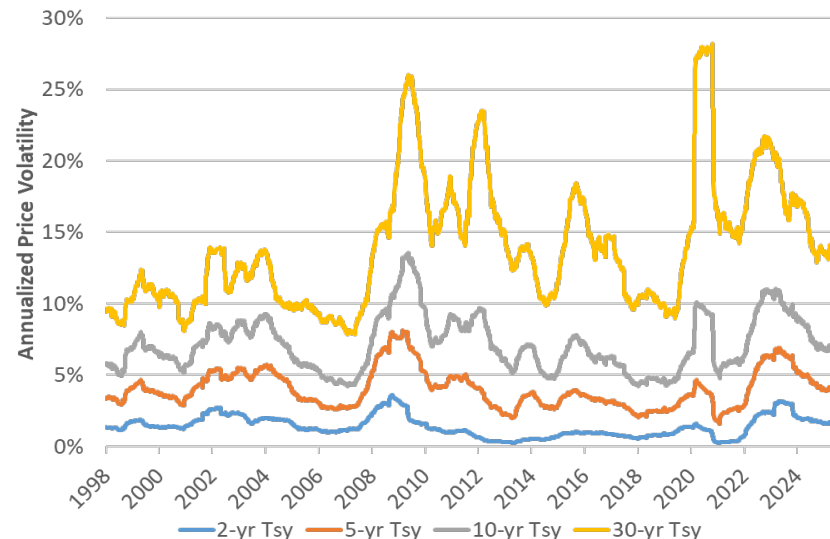
Stress Testing

Interest Rate Duration in the Treasury Protection Portfolio



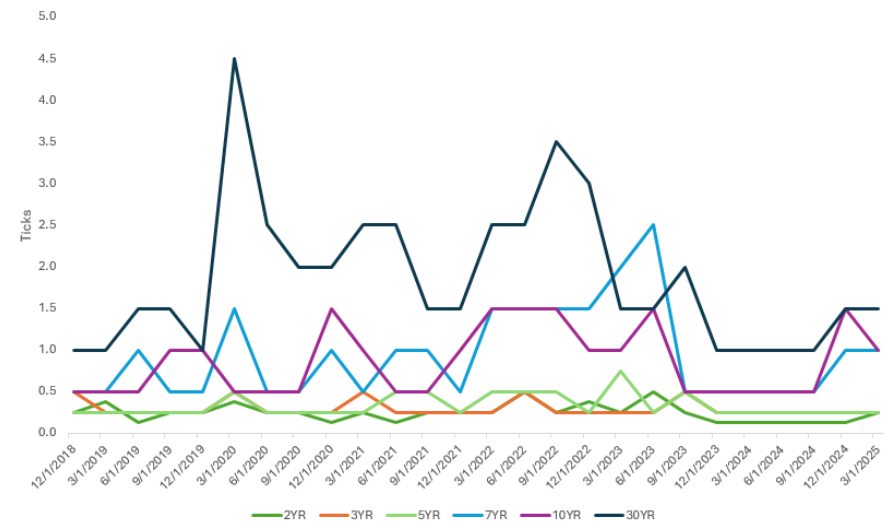
A more balanced duration profile and greater emphasis on shorter-maturity bonds within the Treasury Protection Portfolio is expected to improve the liquidity characteristics of this portfolio by reducing average bid-ask spreads (trading costs) and reducing the potential impact of increased volatility in the long-end of the Treasury market.

U.S. Treasury Bellwether Indexes Rolling 6-Mth Price Volatility
May 1997 to June 2025



Source: Factset, SBI Staff calculations

U.S. Treasury Bid-Ask Spreads
December 2018 to March 2025



Source: Goldman Sachs, Bloomberg as of 3/31/25

Liquidity Analysis conducted for both the current and proposed asset allocation policy

- Intended as a stress-testing model, incorporating the profile of the liabilities as well as expected future contributions
- Investments are categorized by liquidity into buckets
- Uses different scenarios for economic environments and other relevant inputs
- Demonstrates how the portfolio's liquidity profile could evolve with a given investment strategy

Economic Scenarios

Base Case

- Markets perform consistent with Aon's Capital Markets Assumptions (~50th percentile)

Recession

- Pessimistic outlook for markets
- Return-seeking assets decline in the first two years with a modest rebound in later years

Dark Skies

- Very pessimistic outlook for markets
- Return-seeking assets decline significantly
- The value of public equities declines approximately 50% over three years, without an immediate rebound

Sufficient Liquidity in Base Case, Recession, and Dark Skies Scenario

	Current SAA		Proposed SAA	
	Max Illiquid Allocation	Ratio of Max Illiquids to Base Case	Max Illiquid Allocation	Ratio of Max Illiquids to Base Case
Base Case	25%	1.00	25%	1.00
Recession	30%	1.20	30%	1.20
Dark Skies	41%	1.64	42%	1.64

Key Takeaways

- SBI has sufficient liquidity in the modeled Base Case, Recession, and Dark Skies economic scenarios
- The modeled scenarios show no interruption of paying benefits to participants
- In a Dark Skies economic scenario, assets are projected to decline, increasing the proportion of illiquid assets
- Potential portfolio remedies if the Dark Skies scenario occurs include:
 - Accepting this risk as self-correcting over time
 - Cutting back future illiquid assets commitments more than assumed in the analysis
 - Selling illiquid assets on the secondary market

Note: This analysis is highly sensitive to the assumed contributions. If SBI receives less contributions than assumed, especially in a Dark Skies environment, then illiquid and quasi-liquid investments would drift further from target and the potential for liquidity issues increases

Combined Funds Asset Allocation Study



1

Executive Summary

2

Background – SBI Combined Funds

3

Inputs

4

Results

5

Recommendations

6

Appendix

➤ **Affirm Our Current Allocation to Broad Asset Classes:**

- 50% Public Equity
- 25% Private Markets
- 25% Fixed Income and Cash

➤ **Maintain Current Target Allocation Split Between U.S. and Non-U.S. Equities (67% U.S., 33% International)**

➤ **Key Changes:**

- I. Reduce Interest Rate Duration of the Treasury Protection Portfolio to Improve Balance Between Liquidity and Ability to Protect in Downturns
- II. Reduce Cash Allocation to Fund Increases to Core Bonds and Return-Seeking Fixed Income Allocations
- III. Adopt Target Allocation Ranges for Sub-Asset Classes within Private Markets Allocation to Formalize Diversification Objective
- IV. Update Asset Mix for Uninvested Private Markets Allocation to Better Reflect Balance of Risk Factors within Private Markets Target Allocation

Asset Class	Current SAA	1. Treasury Duration	2. Cash/Liquidity	3. Private Markets	Proposed SAA
Public Equity	50%				50%
Domestic Equity	33.5%				33.5%
International Equity	16.5% ¹				16.5% ¹
Fixed Income & Cash	25%				25%
Core/Core Plus Fixed Income	5%		+1%		6%
Return-Seeking Fixed Income	5%		+1%		6%
Treasury Protection	10%				10%
U.S. Treasury - 5+ Year	10%	-10%			–
U.S. Treasury (Broad Maturity)	–	+8%			8%
U.S. Treasury - Long	–	+2%			2%
Cash	5%		-2%		3%
Private Markets	25%²				25%³
Private Equity	17.5%*			18%	18%
Private Credit	2.5%*			3%	3%
Private Real Assets	2.5%*			2%	2%
Private Real Estate	2.5%*			2%	2%
Opportunistic	0-10%				0-10%
Expected Return (Geo %)	7.08%	-0.02%	+0.03%	+0.01%	7.10%
Risk (Std Dev %, unsmoothed)	13.41%	-0.01%	+0.09%	-0.01%	13.48%
Expected Sharpe Ratio	0.34	–	–	–	0.34
Max Drawdown (since 1/1/03)	-39.9%	-0.1%	-0.1%	+0.1%	-40.0%
Portfolio Duration (yrs)	1.53	-0.25	+0.04	–	1.31
Liquidity (mths)	15	+4	-6	–	13

1. Reduce Duration of the Treasury Protection Portfolio

- Improves balance between liquidity and growth hedge goals
- Lowers volatility and tail risk exposure to rising interest rates

2. Optimize Portfolio Liquidity By Reducing Cash Allocation

- Incremental allocations to Core/Core Plus and Return-Seeking Fixed Income reflects improved risk-return outlook
- Resulting Cash allocation still provides a robust cushion
- Results in modest increase in expected portfolio return and risk

3. Adopt Target Weights to Private Markets Sub-Asset Classes

- Modest increases to Private Equity and Private Credit

4. Update Asset Mix for Uninvested Private Markets Allocation to 80% Equity + 20% Fixed Income

- Revised allocation better reflects underlying asset class risk exposures

Proposed SAA changes expected to have a modest impact on portfolio risk and return while enhancing execution



Denotes noteworthy change in total portfolio risk/return metrics

¹ Including currency hedging with a hedge ratio of up to 100% of the International Equity portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to Domestic Equity (S&P 500) when activated, or Cash (U.S. 3-Month Treasury Bill Index).

³ Uninvested Private Markets benchmarked to a composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Asset Allocation Recommendations

Proposed Policy and Asset Class Benchmarks



Bold Blue
reflects new
or updated
benchmark
compared to
current policy.

Asset Class	Proposed SSA	Policy Benchmark Weight	Benchmark
Public Equity	50%	50%	Public Equity Benchmark: 67% Russell 3000 Index and 33% MSCI ACWI ex USA Net Return Index (USD)
U.S. Equity	33.5%	33.5%	Russell 3000 Index
International Equity	16.5% ¹	16.5%	MSCI ACWI ex USA Net Return Index (USD)
Fixed Income & Cash	25%	25%	Total Fixed Income Benchmark: 24% Bloomberg U.S. Aggregate Bond Index, 24% Return-Seeking Fixed Income Benchmark, 40% Treasury Protection Benchmark, 12% ICE BofA U.S. 3-Mth Treasury Bill Index
Core/Core Plus Fixed Income	6%	6%	Bloomberg U.S. Aggregate Bond Index
Return-Seeking Fixed Income	6%	6%	Return-Seeking Fixed Income Benchmark: 25% ICE BofA U.S. Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset-Backed Securities Index
Treasury Protection	10%	10%	Treasury Protection Benchmark: 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index
U.S. Treasury (Broad Maturity)	8%	8%	Bloomberg U.S. Treasury Index
U.S. Treasury - Long	2%	2%	Bloomberg U.S. Long Treasury Index
Cash	3%	3%	ICE BofA U.S. 3-Month Treasury Bill Index
Private Markets	25%^{2, 3}	Actual Wgt.	Total Private Markets Benchmark: Composite of Sub-Asset Class Benchmarks Weighted by Actual Portfolio Weights at Beginning of Each Period
Private Equity	18%	Actual Weight, Beginning of Period	MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter
Private Credit	3%		MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter
Private Real Assets	2%		Private Real Assets Benchmark: 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter
Private Real Estate	2%		Private Real Estate Benchmark: 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter
Opportunistic			Relevant blended benchmark, as applicable

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

³ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

Asset Allocation Recommendations



Asset Class	Current SAA	Proposed SAA	Range
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	--	--
U.S. Treasury (Broad Maturity)	--	8%	5-15%
U.S. Treasury – Long	--	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity	17.5%*	18%	15-25%
Private Credit	2.5%*	3%	0-6%
Private Real Assets	2.5%*	2%	0-4%
Private Real Estate	2.5%*	2%	0-4%
Opportunistic Allocation			0-10%
Portfolio Metrics			
Expected Return	7.08%	7.10%	
Expected Volatility	13.41%	13.48%	
Sharpe Ratio	0.27	0.27	

- Reduce Duration of the Treasury Protection Portfolio**
 - Improves balance between liquidity and growth hedge goals
 - Lowers volatility and tail risk exposure to rising interest rates
- Optimize Portfolio Liquidity By Reducing Cash Allocation**
 - Incremental allocations to Core Fixed Income and Return Seeking Fixed Income reflects improved risk-return outlook
 - Proposed Cash allocation still provides a robust cushion
 - Results in a modest increase in portfolio expected return and risk
- Adopt Target Weights to Private Markets Sub-Asset Classes**
 - Modest increases to Private Equity and Private Credit
- Update Asset Mix for Uninvested Private Markets Allocation to 80% Equity + 20% Fixed Income**
 - Revised allocation better reflects underlying asset class risk exposures

Proposed SAA changes expected to have a modest impact on portfolio risk and return while enhancing execution

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets allocated to Passive Domestic Equity (S&P 500). ³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

Combined Funds Asset Allocation Study



1 Executive Summary

2 Background – SBI Combined Funds

3 Inputs

4 Results

5 Recommendations

6 Appendix

Appendix

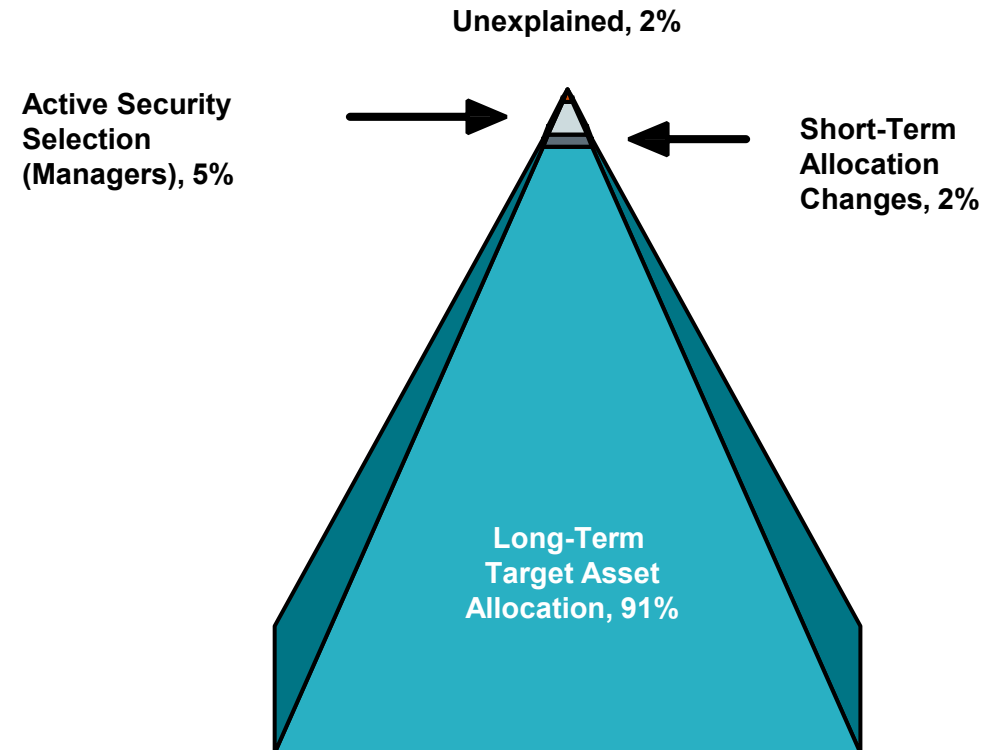
The Importance of Setting a Strategic Asset Allocation



Setting long-term asset allocation is the most important decision.

Policy Drives Results

- Long-term asset allocation (i.e., which asset classes to use and in what percent) explains more than 90% of the difference in returns between institutional funds
- Selecting investments that are appropriately diversified and aligned to achieve the long-term goals of the program is paramount



The chart outlines research done by Brinson, Singer and Beebower in their 1991 research paper "Determinants of Portfolio Performance II: An Update" outlines that 91% of the difference in returns among investors is driven by differences in the long-term target asset allocation.

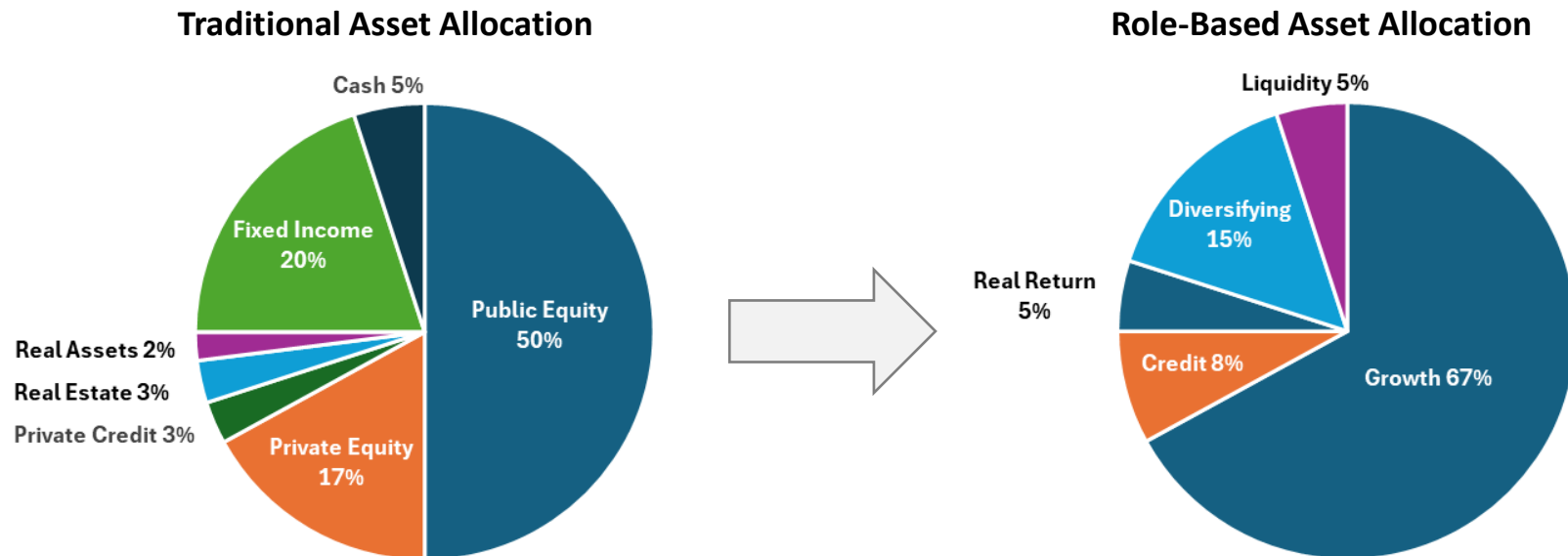
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Appendix

Roles-Based Portfolio Risk Framework



Supplementing the traditional asset class-based allocation model with a roles-based risk framework can help identify portfolio's true diversification to a range of economic outcomes.



- The traditional asset allocation model defines allocations to asset classes based on their fundamental characteristics and historical return/risk profiles.
- A roles-based framework seeks to group assets based on the key economic drivers of risk and return for each asset and the intended role in the portfolio.

Appendix

Roles-Based Portfolio Risk Framework



Understanding the role that assets play in a portfolio can improve diversification and portfolio balance.

Asset Class	Diversification Benefit			
	Return	Normal	Tail	Inflation
U.S. Equity	Very High	High	Moderate	Low
Non-U.S. Equity	Very High	High	Moderate	Low
EM Equity	Very High	High	Moderate	Low
Private Equity	Very High	High	Moderate	Low
Private Credit	Very High	High	Moderate	Low
Liquid Credit	Very High	High	Moderate	Low
Real Estate	Very High	High	Moderate	Low
Real Assets	Very High	High	Moderate	Low
Commodities	Very High	High	Moderate	Low
TIPS	Very High	High	Moderate	Low
Core Bond	Very High	High	Moderate	Low
U.S. Govt	Very High	High	Moderate	Low
Long Treasury	Very High	High	Moderate	Low
Low Vol Hdg Fds	Very High	High	Moderate	Low
Cash	Very High	High	Moderate	Low

Return – does the asset’s expected return help or hurt achieve the required rate of return?

Diversification Benefit

Normal – does the asset help to diversify the economic drivers of the portfolio’s return?

Tail – is this asset likely to protect during an extreme risk-off event (growth shock)

Inflation – is the asset expected to benefit from higher-than-expected inflation?

Liquidity – in a stress event, is the asset expected to be a source of liquidity?

Appendix

Combined Funds Strategic Allocation Category Framework Categories



The objective of the Strategic Allocation Category Framework is to provide additional insights into the portfolio's overall risk exposures, including expected volatility under different economic conditions.

Allocation Categories

Growth-Appreciation

Represents the primary reason for investing, which is to achieve attractive rates of return. Growth is the primary return-seeking strategic allocation category with the objective of generating long-term capital appreciation by participating in global economic growth driven primarily by exposure to the equity risk premium.

Growth-Income

This category includes assets that can provide stable levels of current income and moderate capital appreciation potential at lower levels of risk than Growth-Appreciation assets. Such assets may better protect the value of invested principal and/or provide additional diversification relative to the primary drivers of return as compared with assets in the Growth category.

Real Assets

Provides diversification through investments in “hard” assets that have inflation-sensitive characteristics or the ability to provide a hedge against inflation.

Inflation Protection

Provides diversification through investments in financial or real assets (e.g., inflation-linked securities, commodities) that have a direct link to inflation. These assets provide a potential hedge against inflation.

Protection

Provides stability and protection during crises and can act as a hedge against deflation.

Liquidity

Provides liquidity to meet regular obligations, primarily benefit payments and capital calls. Consists of cash and cash equivalents.

Opportunistic

Allows for investments in compelling opportunities or new strategies that do not clearly fit in the other asset categories, providing enhanced flexibility to access attractive investment opportunities.

Combined Funds Strategic Allocation Category Framework as of June 30, 2025



Reflecting the Combined Funds' long-term investment horizon, the current asset mix features a meaningful exposure to Growth assets, balanced by diversification across income-oriented investments, U.S. Treasuries, and cash.

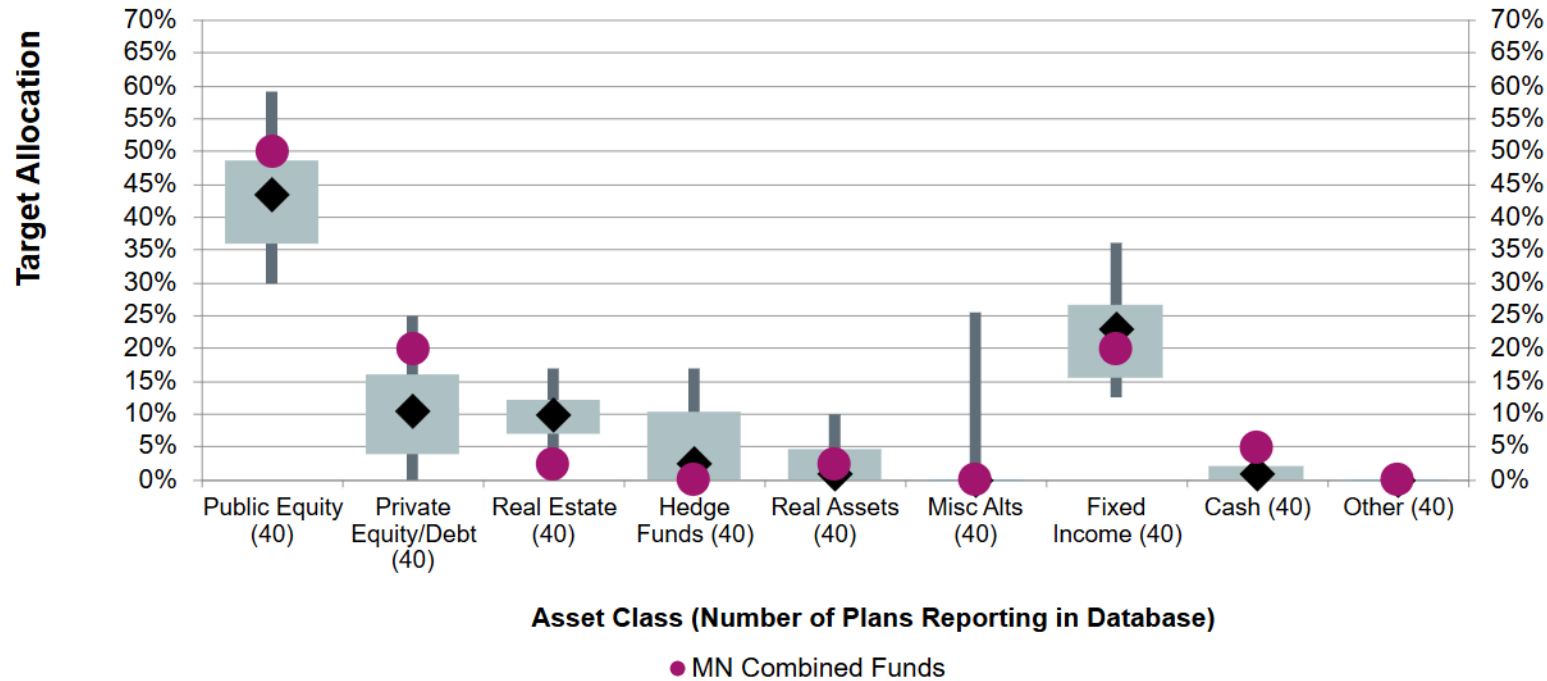
Strategic Allocation Category Framework as of 6/30/2025								
	6/30/2025 (\$ millions)	6/30/2025 Weights	Category Range			6/30/2025 (\$ millions)	6/30/2025 Weights	Category Range
Growth - Appreciation					Inflation Protection			
Public Equity	\$ 52,605.8	51.8%			TIPS	\$ -	0%	
Private Equity	\$ 16,141.7	15.9%			Commodities	\$ -	0%	
Non-Core Real Assets	\$ 3,758.0	3.7%				\$ -	0%	0% 10%
\$ 72,505.5	71.5%	50%	75%		Protection			
Growth - Income-oriented					U.S. Treasuries	\$ 9,566.8	9.4%	
Core/Core Plus Fixed Income	\$ 5,709.6	5.6%				\$ 9,566.8	9.4%	5% 20%
Private Credit	\$ 1,911.3	1.9%			Liquidity			
Return-Seeking Fixed Income	\$ 4,927.7	4.9%			Cash	\$ 6,188.1	6.1%	
\$ 12,548.7	12.4%	15%	30%			\$ 6,188.1	6.1%	0% 5%
Real Assets					Opportunistic			
Core Real Estate	\$ -	0%			Opportunistic	\$ -	0%	0% 10%
Real Assets	\$ 412.3	0.4%						
\$ 412.3	0.4%	0%	10%					
Total	\$ 101,221.4	100%						
Illiquid Asset Exposure	\$ 23,114.6	22.8%	0%	32%				

Appendix

Asset Allocation Peer¹ Comparison



Distribution of U.S. Public Pension Target Asset Allocations (FYE 2024)



Source: Public Plans Data (publicplansdata.org) as of FYE 2024. Data accessed from website in July 2025.

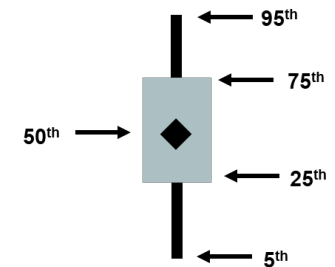
Note: Number of plans meeting criteria are shown in parentheses

¹ Peers defined as public funds with plan assets greater than \$25 billion published within publicplansdata.org as of July 2025

Key Takeaways:

- SBI's equity exposure, both public and private is higher than the public peer median allocation
- SBI's real estate exposure is below the peer median
- SBI's hedge fund exposure (0%) is below the peer median
- SBI holds a higher level of cash than peer plans

Legend: Distribution of Outcomes

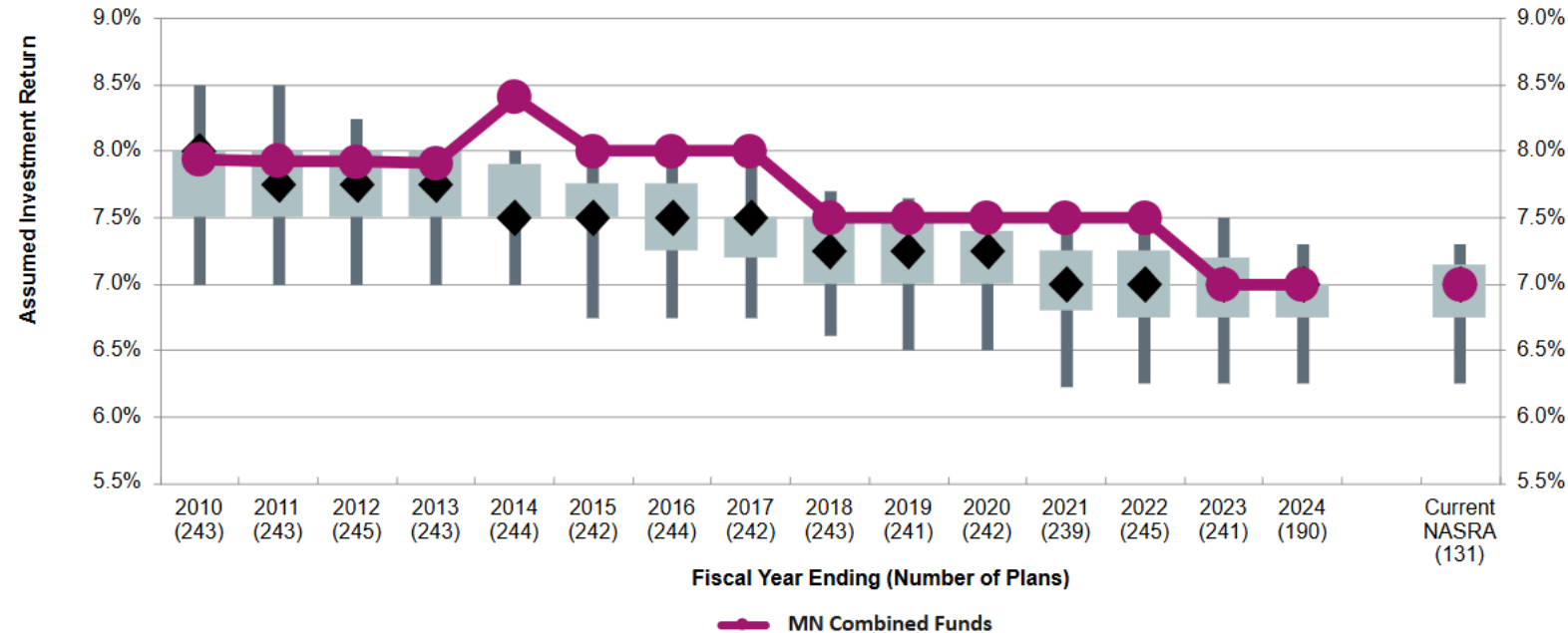


Appendix

Actuarial Investment Return Assumption vs. Peers¹



Distribution of U.S. Public Pension Investment Return Assumptions



Key Takeaways:

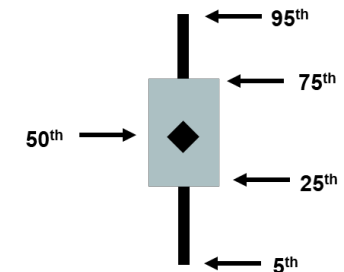
- Current actuarial assumptions across plans tracked by NASRA as of August 2025, have a median actuarial assumed rate of return of 7.0%.
- The Combined Funds plans' current actuarial assumed rate of return of 7.0% is at the median relative to public peers.

A plan's actuarial investment return assumption is set by numerous factors including investment return assumptions, actuarial experience study recommendations, financial outcomes through asset-liability analysis, how the assumed rate of return is used, consideration to an acceptable return assumptions range to promote contribution stability, industry trends (e.g., Horizon survey), and peer data (e.g., NASRA assumptions)

Sources: Public Plans Data (publicplansdata.org) as of FYE 2024. Data was accessed from website in July 2025. NASRA downloadable investment return assumptions as of August 2025.

¹ Peers defined as public funds published within publicplansdata.org as of July 2025; Number of plans per year are shown in parentheses
NASRA stands for stands for the National Association of State Retirement Administrators.

Legend: Distribution of Outcomes



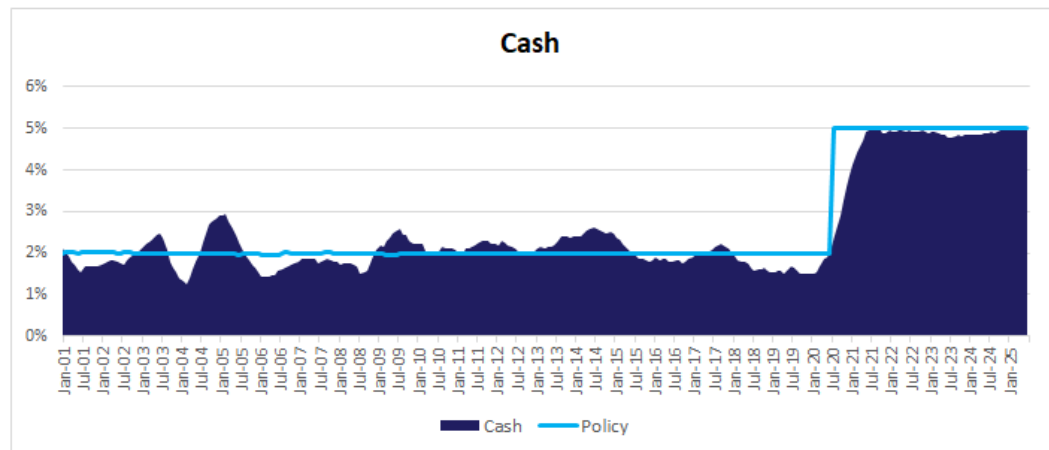
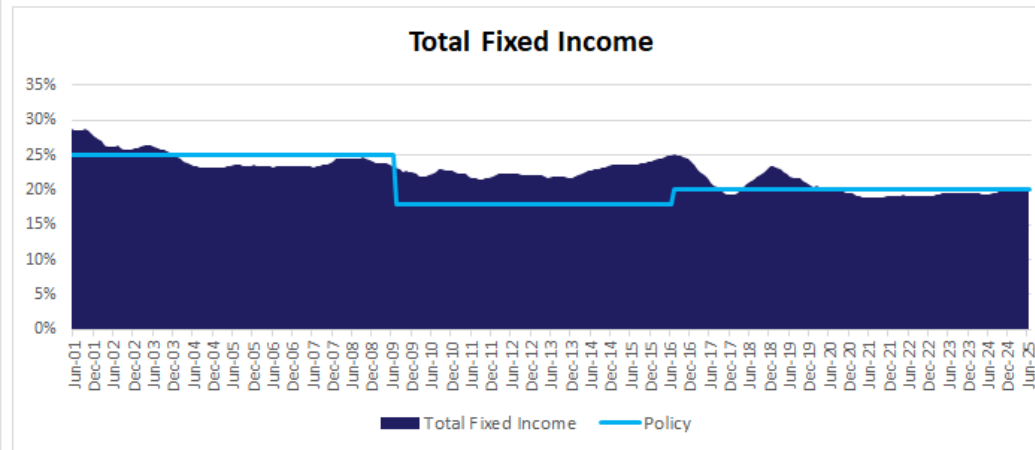
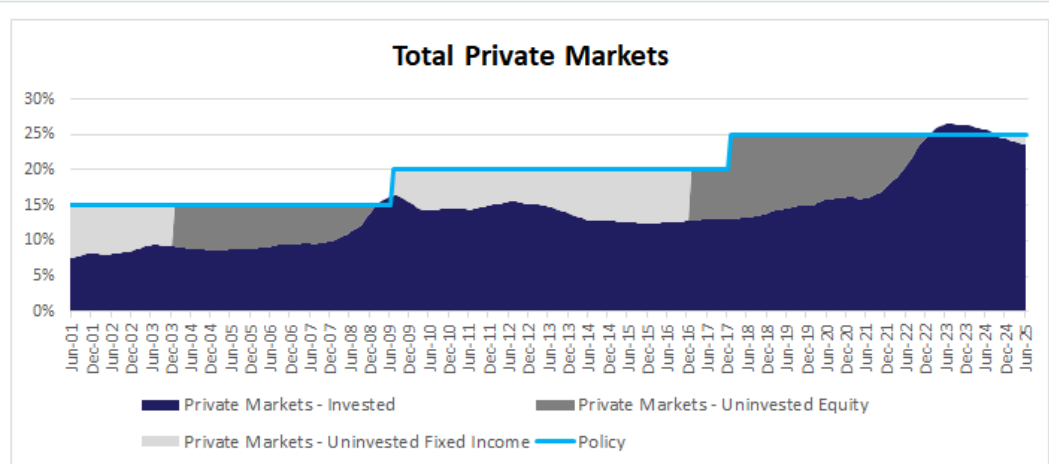
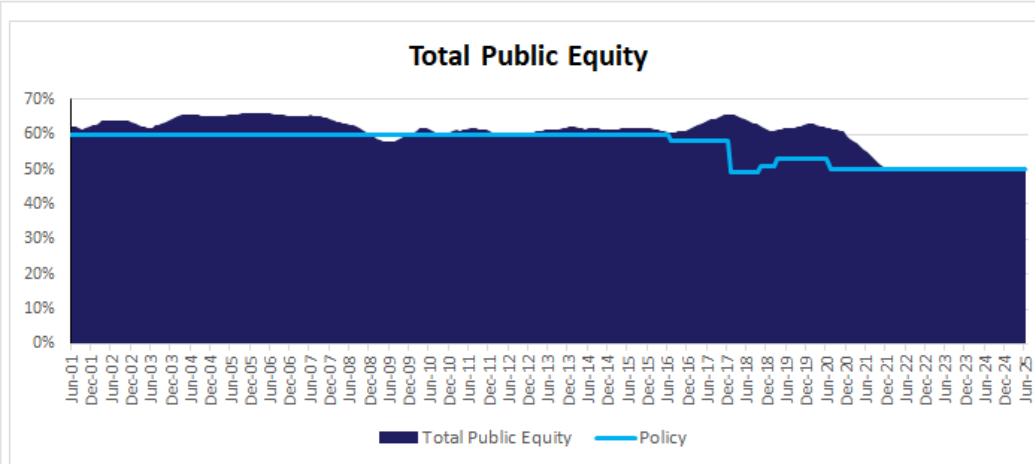
Appendix

Combined Funds Asset Class Allocations over Time



Combined Funds Historical Asset Class Weightings and Policy Targets

June 30, 2001 to June 30, 2025



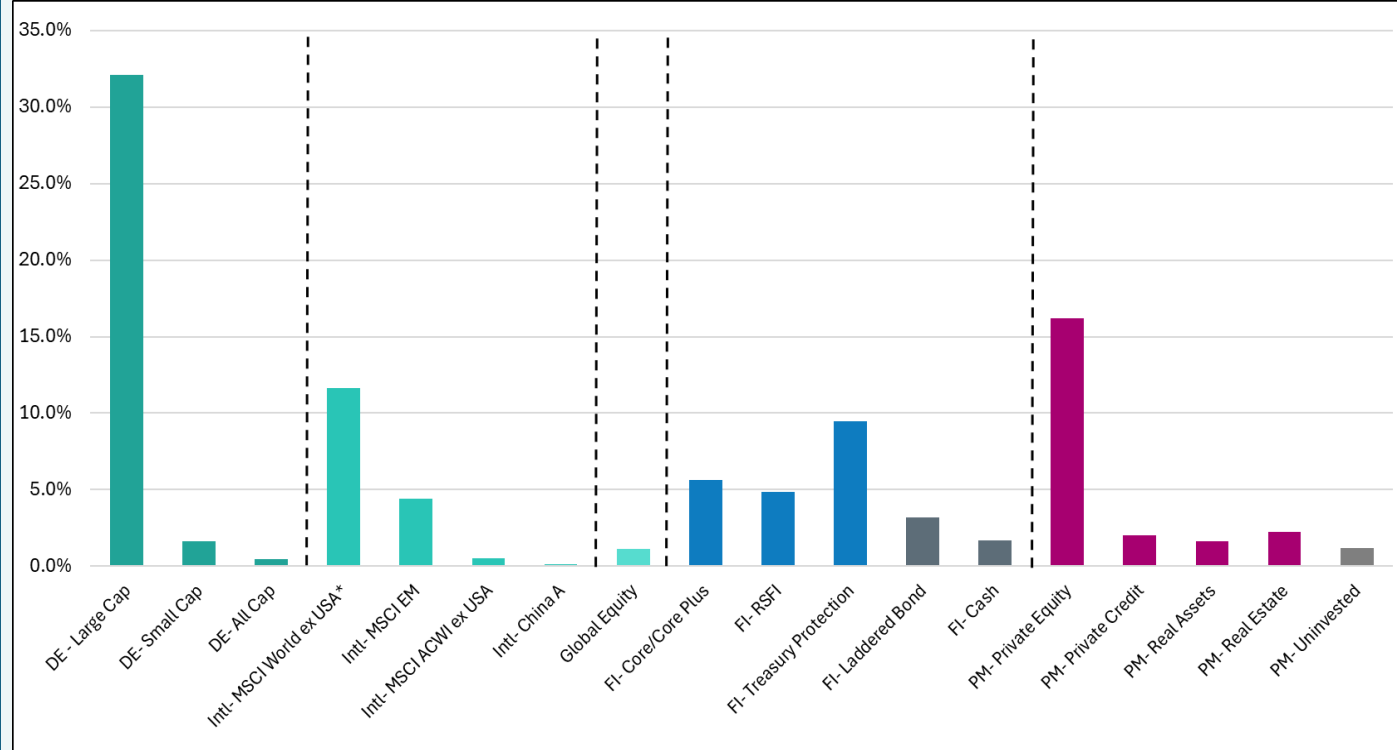
Appendix

Combined Funds Allocation Detail as of June 30, 2025



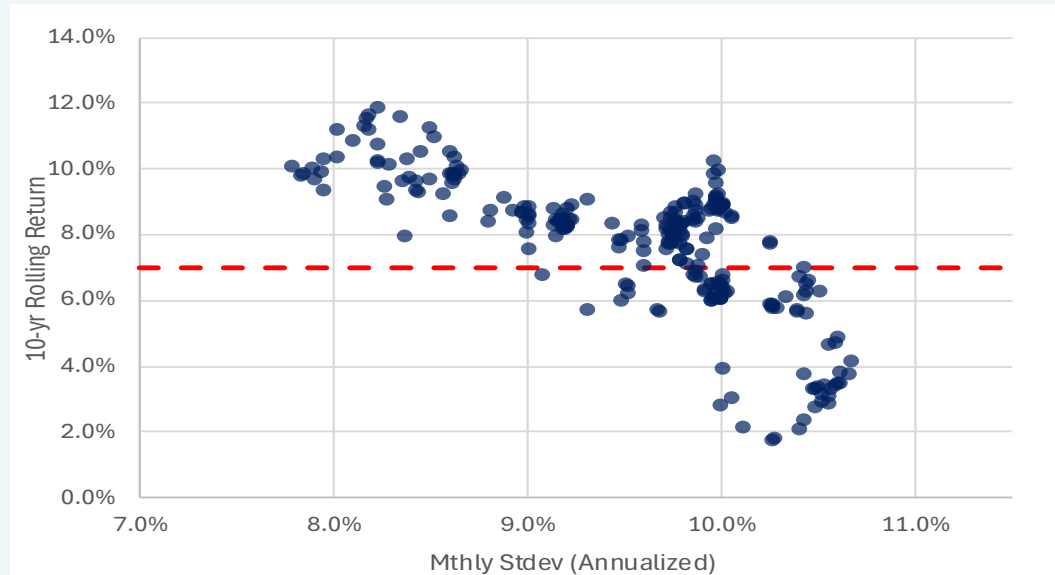
Current Portfolio & Policy Mapping as of 6/30/25		
Asset Class	Policy	Portfolio
Domestic Equity	33.50%	34.18%
Large Cap - Russell 1000		32.11%
Small Cap - Russell 2000		1.60%
All Cap - Russell 3000		0.47%
International Equity	16.50%	16.64%
Intl Developed - MSCI World ex USA*		11.65%
Emerging Markets - MSCI EM		4.40%
Int'l DM+EM - MSCI ACWI ex USA		0.49%
China Only - MSCI China A		0.10%
Global Equity	0.00%	1.14%
Global Equity - MSCI ACWI		1.14%
Core/Core Plus/Return-Seeking (RSFI)	10.00%	10.51%
Core/Core Plus - BB Aggregate		5.64%
RSFI - BB Aggregate		4.87%
Treasury Protection	10.00%	9.45%
Treasury Protection - BB Tsy 5+ Yrs		9.45%
Laddered Bond + Cash	5.00%	4.85%
Laddered Bond - ICE BofA 3 Mo T-Bill		3.19%
Cash - ICE BofA 3 Mo T-Bill		1.66%
Private Markets	25.00%	23.23%
Private Equity		16.18%
Private Credit		2.01%
Private Real Assets		1.61%
Private Real Estate		2.24%
Uninvested Private Markets Account		1.19%

Portfolio Asset Class and Sub-Asset Class Allocations as of June 30, 2025

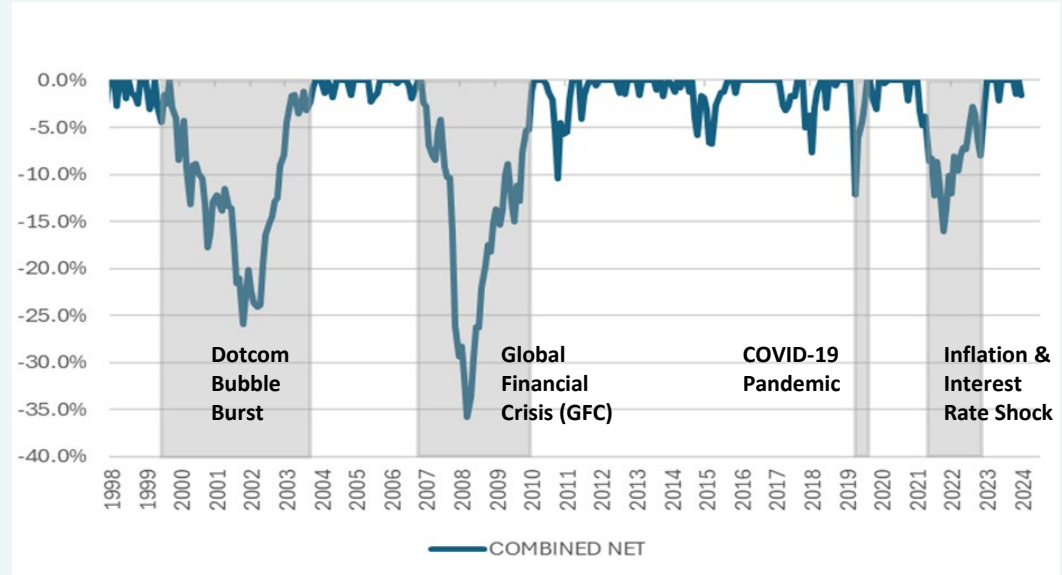


* Includes dynamic currency hedging strategy with hedge ratio range of 0-100% of the Developed International Equity portfolio's hedgeable currency exposure.

10-Year Rolling Return-Risk Distribution (Dec 2004 – June 2025)



Historical Drawdown Since 12/1/1998



- The Combined Funds Portfolio's realized risk profile varies over time.

- The portfolio has experienced seven major drawdowns (greater than -5%) since the end of 1998, with an average drawdown of -12.2%.

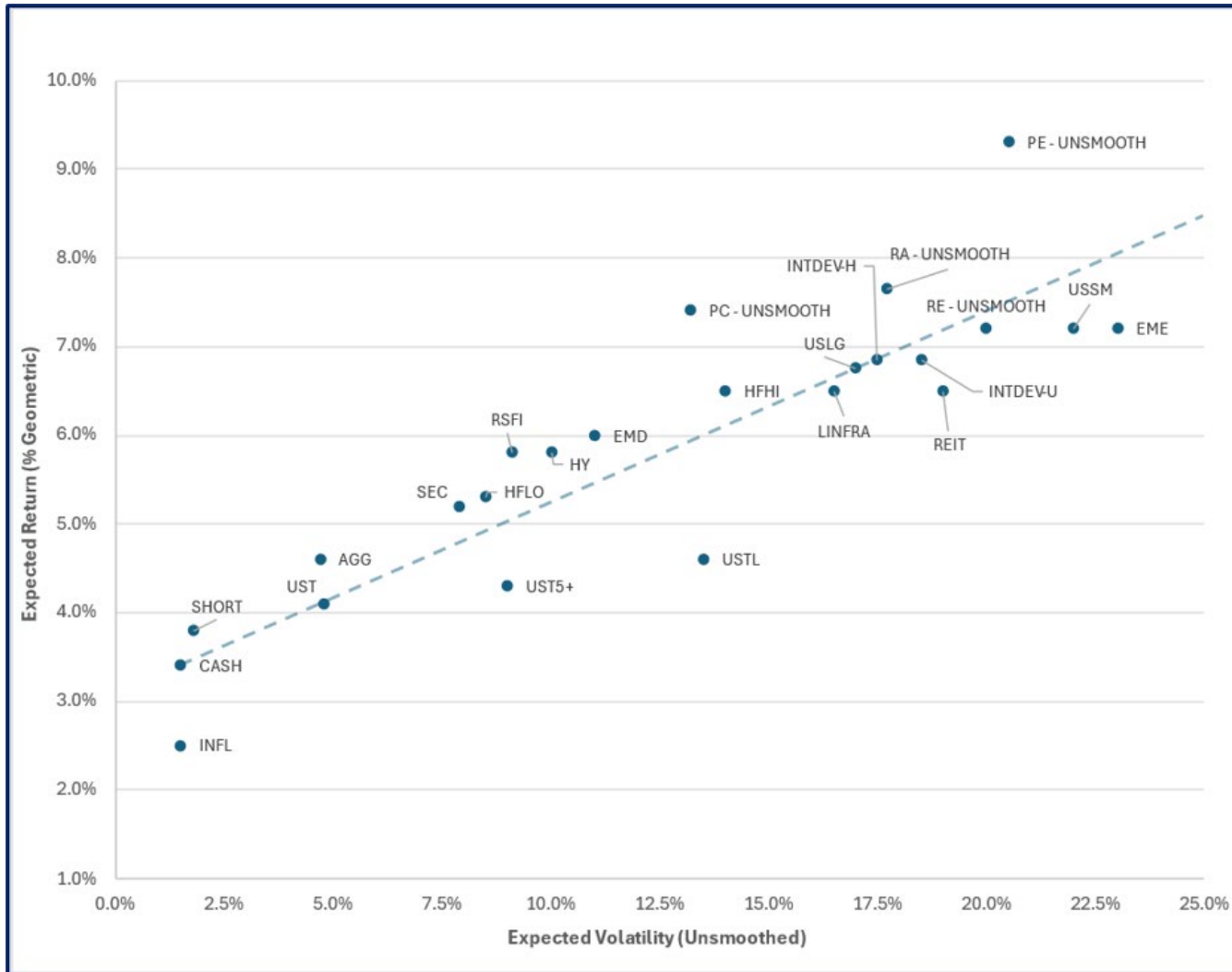
Note: Performance is presented net of investment management fees and the effect of any profit-sharing arrangements.

SBI CMA Inputs – Expected Return/Risk

		Asset Class	Abbrev	Primary Role/Risk Factor	Exp. Return (Geometric)	Exp Vol - Unsmoothed	Exp Vol - Smoothed
	Public Equity	U.S. Equity	USEQ	Growth	6.80%	17.25%	
		U.S. Large Cap	USLG	Growth	6.75%	17.00%	
		U.S. Small Cap	USSM	Growth	7.20%	22.00%	
		Int'l Equity (unhedged)	INTEQ-U	Growth	6.95%	19.00%	
		Int'l Developed (unhedged)	INTDEV-U	Growth	6.85%	18.50%	
		Emerging Mkts	EME	Growth	7.20%	23.00%	
		Int'l Equity (50% hedged dev only)	INTEQ-H	Growth	6.95%	18.00%	
		Int'l Developed (50% hedged)	INTDEV-H	Growth	6.85%	17.50%	
	Fixed Income	U.S. Treasury	UST	Diversifying/Risk-Mitigating	4.10%	4.80%	
		U.S. Treasury - 5+ Year	UST5+	Diversifying/Risk-Mitigating	4.30%	9.00%	
		U.S. Treasury - Long	USTL	Diversifying/Risk-Mitigating	4.60%	13.50%	
		U.S. Aggregate	AGG	Diversifying/Risk-Mitigating	4.60%	4.70%	
		Return Seeking Fixed Income	RSFI	Credit	5.80%	9.10%	
		U.S. Sec. Credit	SEC	Credit	5.20%	7.90%	
		U.S. High Yield	HY	Credit	5.80%	10.00%	
		Emerging Markets	EMD	Credit	6.00%	11.00%	
	Private Markets	Private Equity	PE	Growth	9.30%	20.50%	11.40%
		Private Credit	PC	Credit	7.40%	13.20%	8.90%
		Private Real Assets	RA	Sensitive	7.65%	17.70%	9.70%
		Private Real Estate	RE	Sensitive	7.20%	20.00%	11.80%
	Liquid Alternatives	Global REITs	REIT	Growth	6.50%	19.00%	
		Global Listed Infrastructure	LINFRA	Sensitive	6.50%	16.50%	
		Liquid Hedge Funds - Low Beta	HFLO	Diversifying/Risk-Mitigating	5.30%	8.50%	
		Liquid Hedge Funds - High Beta	HFHI	Growth	6.50%	14.00%	
	Liquidity	Cash Equivalents	CASH	Liquidity	3.40%	1.50%	
		Short Duration	SHORT	Liquidity	3.80%	1.80%	

- As part of the Asset Allocation study, SBI Staff evaluated a range of asset classes, including each asset class within the Combined Funds current allocation policy, as well as several additional asset classes to be considered for possible inclusion.
- SBI Staff evaluated the intended role of each asset class and developed capital markets assumptions to be used within a mean-variance optimization (MVO) model.
- Following a series of preliminary optimization runs and iterative analysis, Staff applied its judgement to remove assets from consideration in the Final MVO model.
- This list of all asset classes considered in this Study is presented here for the reader's information.

SBI CMA Inputs – Graph of Expected Return/Risk



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- This risk-return plot of all asset classes considered in this Study is presented here for the reader's information.

Capital Markets Assumptions: Correlations Between Select Asset Classes



Correlations used reflected conservative estimates based on 20+ years of historical returns data.
Correlation data for Private markets asset classes was estimated using unsmoothed returns.

SBI CMA Inputs – Correlations Between Asset Classes

Asset Class	Code	USEQ	INTEQ-H	UST	AGG	RSFI	PE	PC	RA	RE	REIT	LINFRA	HFLO	HFHI	CASH	INFL
U.S. Equity	USEQ		0.89	-0.10	0.20	0.72	0.93	0.70	0.77	0.77	0.81	0.78	0.06	0.89	-0.08	0.00
Int'l Equity (50% hedged dev only)	INTEQ-H	0.89		-0.11	0.21	0.76	0.93	0.74	0.83	0.77	0.82	0.82	0.12	0.92	-0.03	0.00
U.S. Treasury	UST	-0.10	-0.11		0.90	0.07	-0.06	-0.13	-0.09	0.09	0.08	0.11	-0.01	-0.17	0.15	-0.27
U.S. Aggregate	AGG	0.20	0.21	0.90		0.44	0.24	0.23	0.20	0.36	0.38	0.39	-0.07	0.16	0.09	-0.23
Return Seeking Fixed Income	RSFI	0.72	0.76	0.07	0.44		0.72	0.87	0.72	0.74	0.77	0.75	-0.07	0.75	-0.08	0.05
Private Equity	PE	0.93	0.93	-0.06	0.24	0.72		0.74	0.85	0.84	0.81	0.81	0.11	0.88	-0.04	-0.02
Private Credit	PC	0.70	0.74	-0.13	0.23	0.87	0.74		0.70	0.74	0.73	0.67	-0.13	0.71	-0.12	0.10
Private Real Assets	RA	0.77	0.83	-0.09	0.20	0.72	0.85	0.70		0.74	0.73	0.85	0.15	0.80	-0.04	0.07
Private Real Estate	RE	0.77	0.77	0.09	0.36	0.74	0.84	0.74	0.74		0.92	0.75	0.07	0.70	-0.02	0.00
Global REITs	REIT	0.81	0.82	0.08	0.38	0.77	0.81	0.73	0.73	0.92		0.82	0.10	0.76	-0.05	0.02
Global Listed Infrastructure	LINFRA	0.78	0.82	0.11	0.39	0.75	0.81	0.67	0.85	0.75	0.82		0.12	0.74	-0.05	0.05
Liquid Hedge Funds - Low Beta	HFLO	0.06	0.12	-0.01	-0.07	-0.07	0.11	-0.13	0.15	0.07	0.10	0.12		0.16	0.04	-0.05
Liquid Hedge Funds - High Beta	HFHI	0.89	0.92	-0.17	0.16	0.75	0.88	0.71	0.80	0.70	0.76	0.74	0.16		-0.07	0.05
Cash Equivalents	CASH	-0.08	-0.03	0.15	0.09	-0.08	-0.04	-0.12	-0.04	-0.02	-0.05	-0.05	0.04	-0.07		0.01
U.S. Inflation (CPURNSA)	INFL	0.00	0.00	-0.27	-0.23	0.05	-0.02	0.10	0.07	0.00	0.02	0.05	-0.05	0.05	0.01	

As part of the Asset Allocation study, SBI Staff evaluated a range of asset classes, including each asset class within the Combined Funds current allocation policy and several additional asset classes to be considered for possible inclusion. SBI Staff evaluated the intended role of each asset class and developed capital markets assumptions to be used within a mean-variance optimization (MVO) model. Following a series of preliminary optimization runs and iterative analysis, Staff applied its judgement to remove assets from consideration in the Final MVO model. This correlation matrix of all asset classes considered in this Study is presented here for the reader's information.

Private markets returns appear smooth when compared to public markets. In developing its CMAs, the SBI used a process of “unsmoothing” returns for Capital Markets Assumptions to strengthen its asset allocation process.

Why are private markets returns “smooth”?



Private market returns are typically reported using quarterly valuations or infrequent transactions, creating relatively low volatility in observed returns compared to public markets. This “smoothing” makes risk measures such as volatility and correlations appear lower and more stable than if private markets were marked-to-market daily in the same way as publicly traded assets.

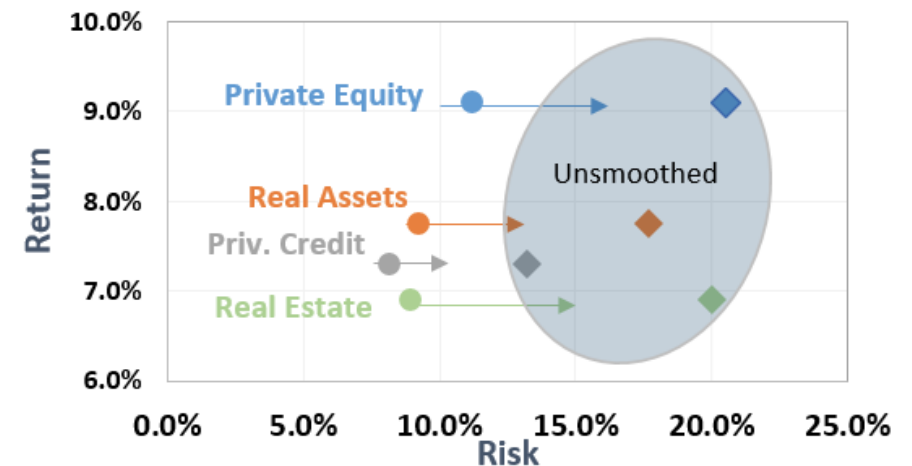
How do we adjust for this?



Elroy Dimson (1979) showed that when returns are autocorrelated due to reporting lags, you can estimate a mark-to-market return series by regressing the smoothed series against the current and lagged returns of a public benchmark. Summing coefficients across lags gives an “unsmoothed” beta, which can be used to generate an unsmoothed return series for Capital Markets Assumptions (“CMAs”).

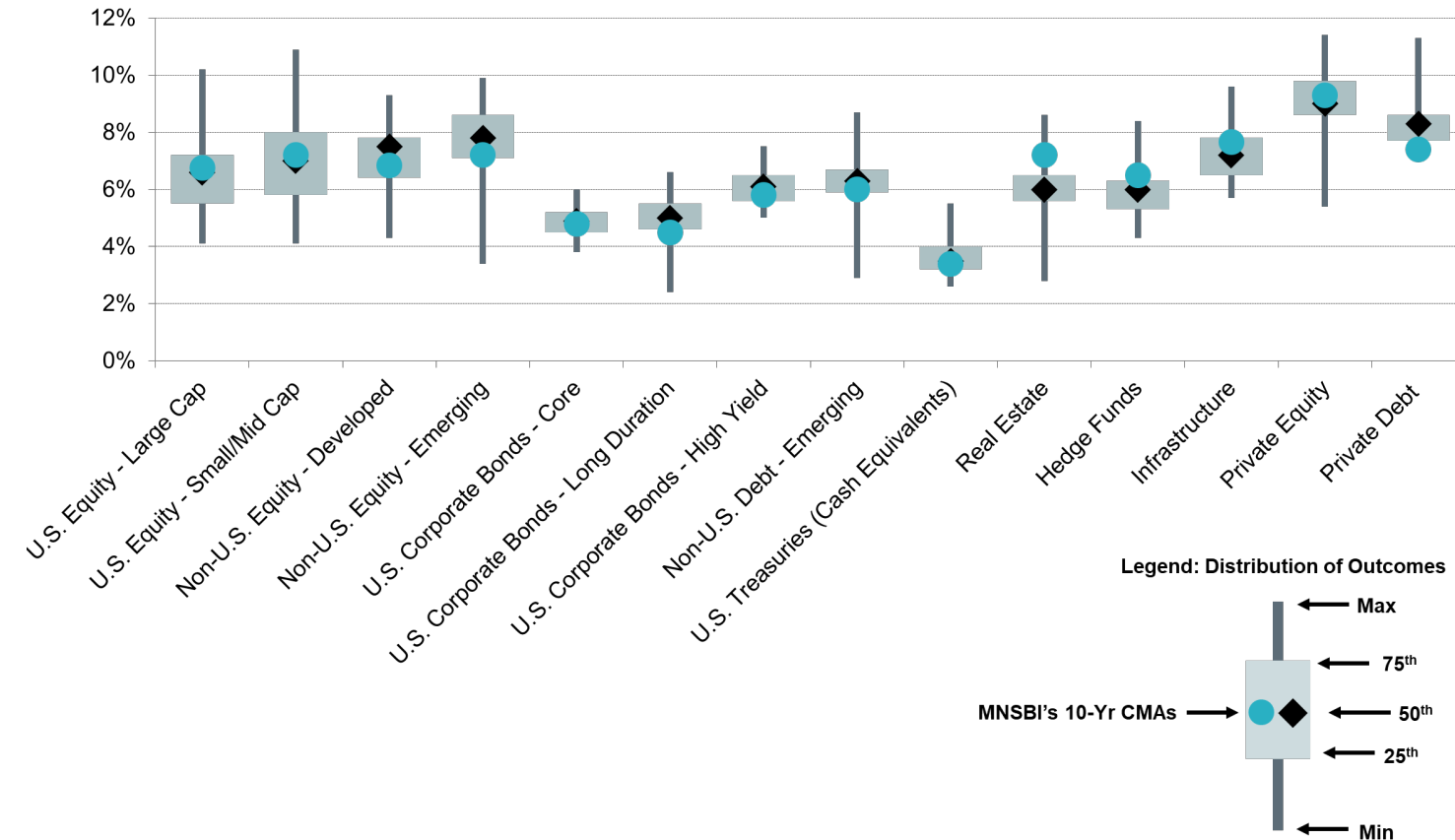
Results: Unsmoothed CMAs

Unsmoothing results in volatility and correlation estimates that more closely align with those observed in public markets. As a result, unsmoothed private markets CMAs provide a more consistent basis for comparison between public and private assets.





Expected Geometric Returns of 41 Investment Advisors (10-Year Forecast)



What is the Horizon Survey?

- Since 2010, Horizon Actuarial Services, LLC has conducted a capital market assumption survey of investment firms to aid in determining reasonable assumptions for a pension plan's expected return on assets
 - The survey is a helpful double-check with others in the industry
- For the 2025 survey, 41 investment advisors participated.
- A description of the methodology used by Horizon Actuarial Services, LLC in conducting their survey is outlined in the 2025 version of the report found online at the link below:
 - <https://www.horizonactuarial.com/survey-of-capital-market-assumptions>

Source: Horizon Actuarial Solutions, LLC survey of 2025 capital market assumptions from 41 independent investment advisors
MNSBI's expected returns are annualized over 10-years as of December 2024

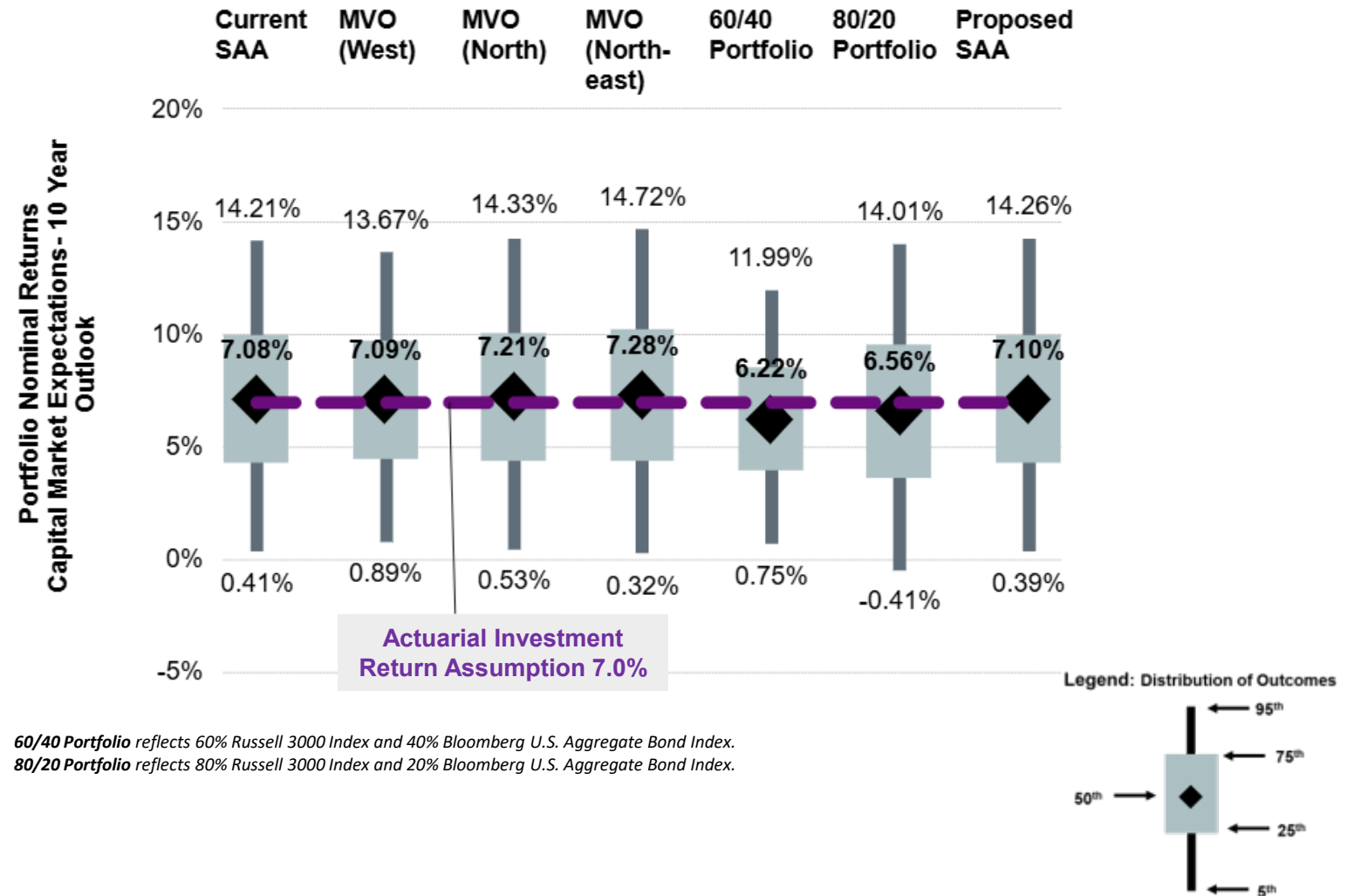
Appendix

Mean-Variance Optimization Analysis



10-Year Expected Return Ranges – Highlighted Portfolios

- Expected returns are similar across Current, Proposed and sample efficient portfolios.
- Both the 60/40 and 80/20 portfolios exhibit lower than desired expected return



60/40 Portfolio reflects 60% Russell 3000 Index and 40% Bloomberg U.S. Aggregate Bond Index.

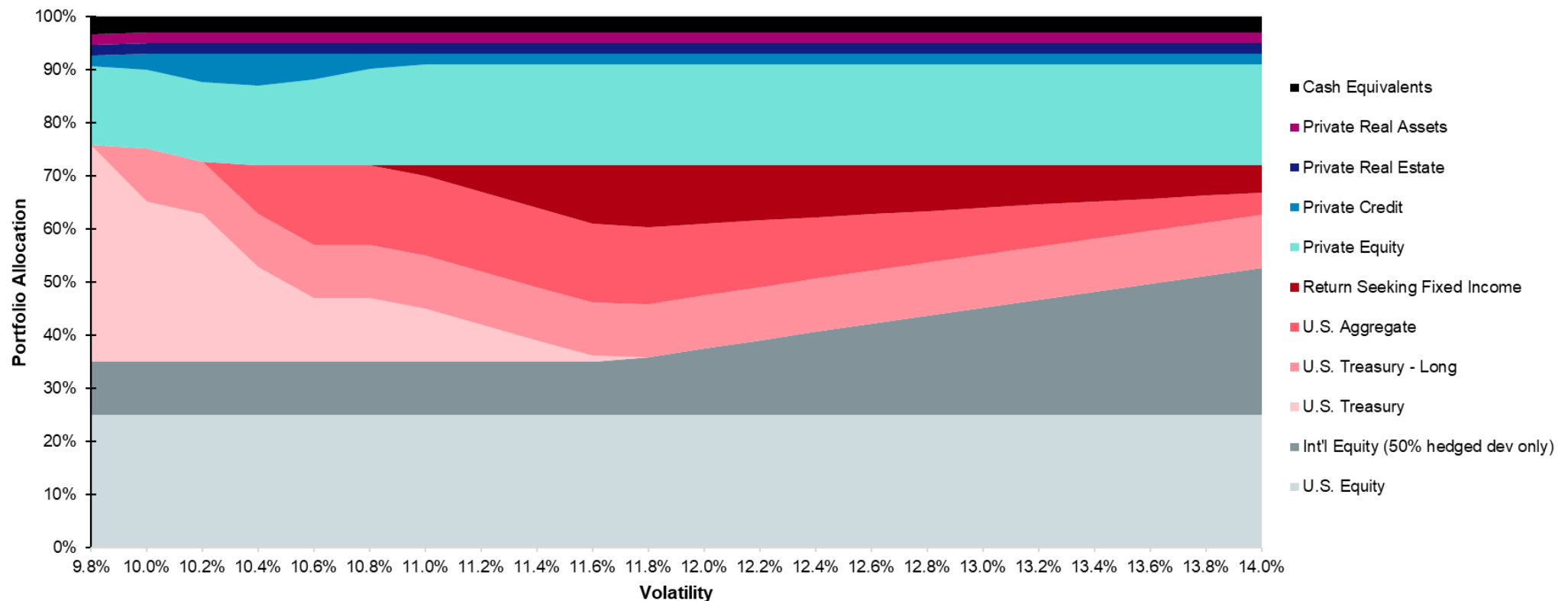
80/20 Portfolio reflects 80% Russell 3000 Index and 20% Bloomberg U.S. Aggregate Bond Index.

Appendix

Mean-Variance Optimization Analysis



Results of Constrained Mean-Variance Optimization: Efficient Portfolio Asset Mixes at Varying Volatility Levels



Appendix

Liquidity Analysis Overview



MNSBI's liquidity analysis was performed under the modeled Current SAA and Proposed SAA

Intended as a stress-testing model, incorporating the profile of the liabilities as well as expected future contributions

Uses different scenarios for economic environments and other relevant events

Shows how the portfolio's liquidity profile could evolve with a given investment strategy

We categorized investments by liquidity into five buckets

Liquid (Risk-Reducing Assets): Less than 3 months needed for return of capital (e.g., publicly traded securities)

Liquid (Return-Seeking Assets): Less than 3 months needed for return of capital (e.g., publicly traded securities)

Quasi-Liquid: Assume a 1-year lock-up in most economic environments, 2 years in a Recession scenario, and 3 years in a Dark Skies scenario (e.g., hedge funds, open-end real assets)

Illiquid: Potential lock-up of 5–10 years, depending on economic environment (e.g., private credit)

Illiquid: Potential lock-up of 10+ years (e.g., typical private equity)

This is intended to be a conservative approximation of the actual liquidity properties of the assets

Actuarial Assumptions and Methods:

Starting monthly net outflow of \$235 million, increasing 3% annually thereafter, comprised of:

- Estimated Contributions starting at \$225 million per month, increasing 3% annually thereafter
- Estimated Benefits Payments: starting at \$460 million per month, increasing 3% annually thereafter

Estimated starting market value of assets of the Combined Funds of \$101,221 million as of June 30, 2025

Appendix

Liquidity Analysis Overview



Asset allocation, liquidity category, and economic scenarios

Liquidity Category	Asset Class	Current SAA	Proposed SAA	Aon CMA Mapping
Liquid (Risk-Reducing Assets)	Treasuries	10.0%	---	70% Long Duration Gov't / 30% Interm. Duration Gov't
	Treasuries	---	10.0%	20% Long Duration Gov't / 80% Interm. Duration Gov't
	Core Fixed Income	5.0%	6.0%	Core Fixed Income
	Cash	5.0%	3.0%	Cash
	Subtotal	20.0%	19.0%	
Liquid (Return-Seeking Assets)	U.S. Equity	33.5%	33.5%	U.S. Equity
	International Equity	16.5%	16.5%	70% Int'l Developed / 30% Emerging Market
	Multi-Asset Credit	5.0%	6.0%	1/3 HYB, Bank Loans, and Emerging Market Debt
	Subtotal	55.0%	56.0%	
Quasi-Liquid Assets	N/A	0.0%	0.0%	
	Subtotal	0.0%	0.0%	
Illiquid 5-10 Years	Private Debt	2.5%	3.0%	Private Debt
	Subtotal	2.5%	3.0%	
Illiquid 10+ Years	Private Equity	17.5%	18.0%	Private Equity
	Real Assets	2.5%	2.0%	50% Closed-End Infra / 50% Non-Core Real Estate
	Real Estate	2.5%	2.0%	Non-Core Real Estate
	Subtotal	22.5%	22.0%	
Totals	Asset Allocation	100.0%	100.0%	
	Quasi + Illiquid Assets	25.0%	25.0%	

Base Case Scenario

- Markets perform consistent with Aon's Capital Market Assumptions (~50th percentile)

Recession Scenario

- Pessimistic outlook for the markets
- Return-seeking assets decline in the first two years with a modest rebound in later years

Dark Skies Scenario

- Very pessimistic outlook for markets
- Return-seeking assets decline significantly
- The value of public equities declines approximately 50% over three years, without an immediate rebound

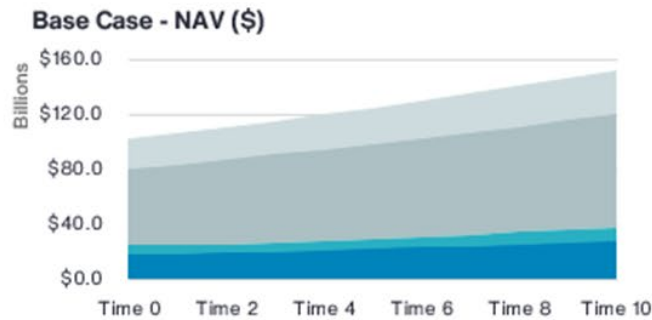
Appendix

Liquidity Analysis Results

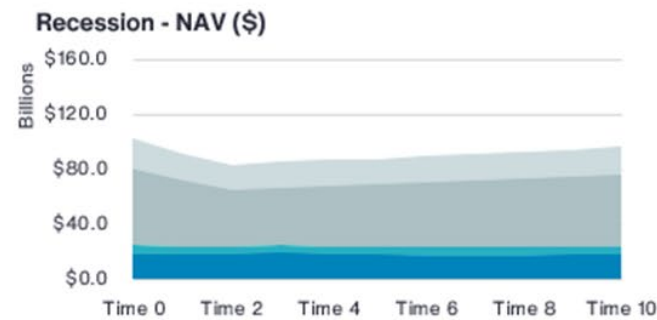


Current SAA (25% total illiquid assets)

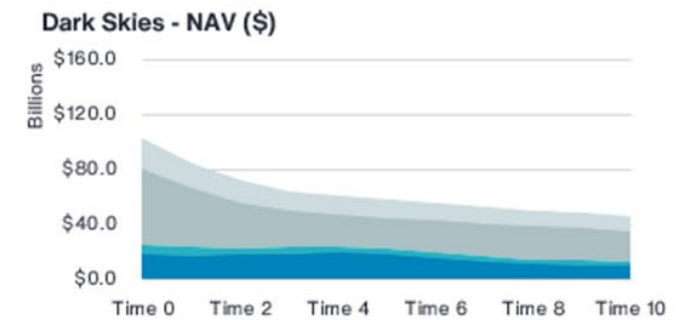
Base Case



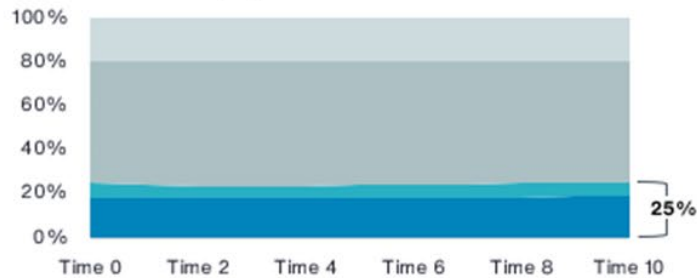
Recession



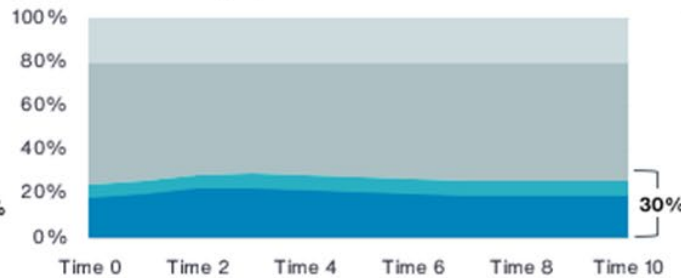
Dark Skies



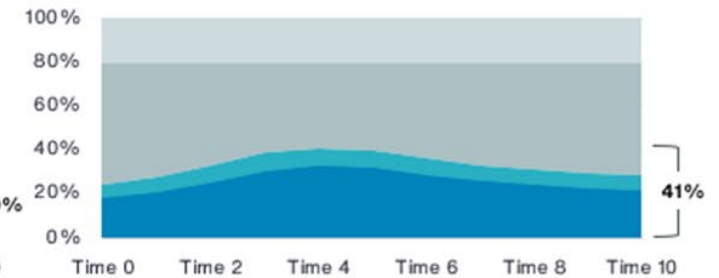
Base Case - NAV (%)



Recession - NAV (%)



Dark Skies - NAV (%)



■ Illiquid 10+ ■ Illiquid 5-10Y ■ Liquid Return-Seeking ■ Liquid Risk-Reducing

Note: Time 0 represents a starting point of June 30, 2025

Appendix

Liquidity Analysis Results



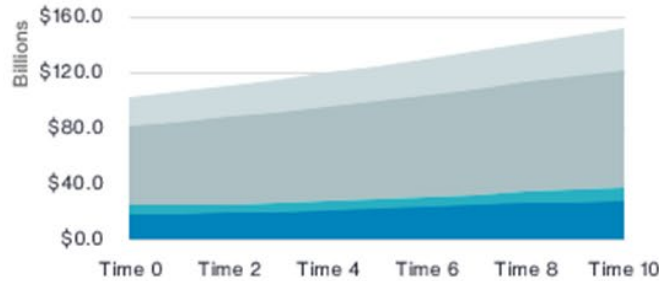
Proposed SAA (25% total illiquid assets)

Base Case

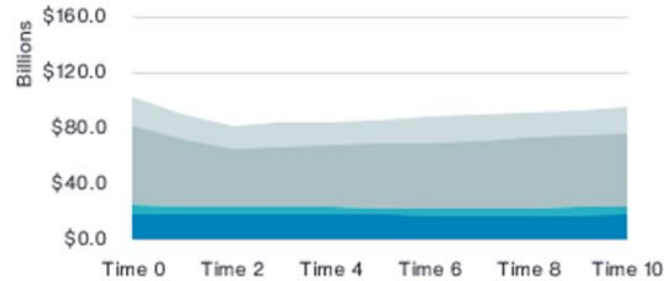
Recession

Dark Skies

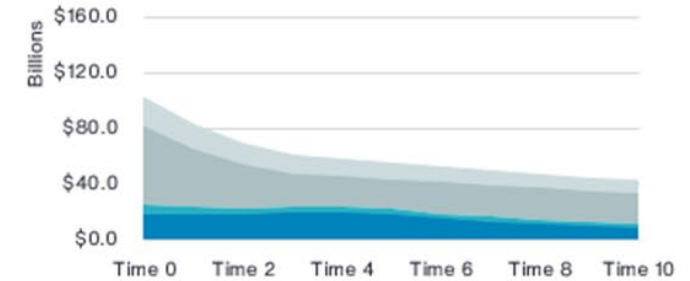
Base Case - NAV (\$)



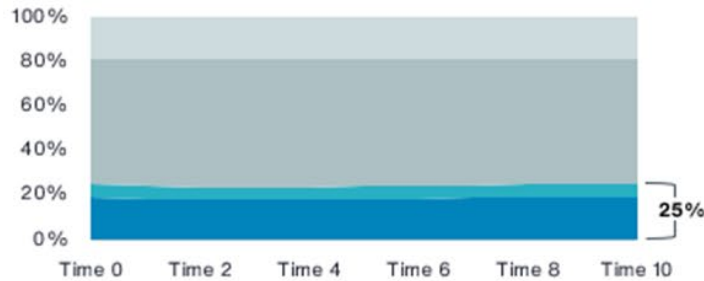
Recession - NAV (\$)



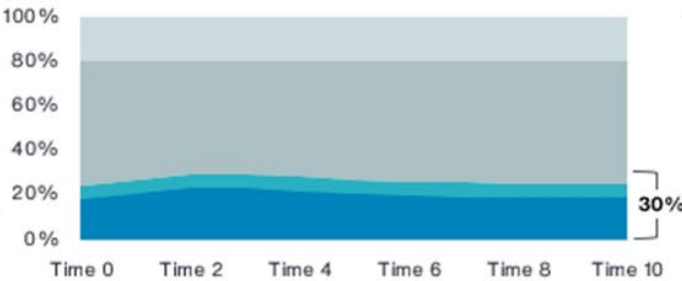
Dark Skies - NAV (\$)



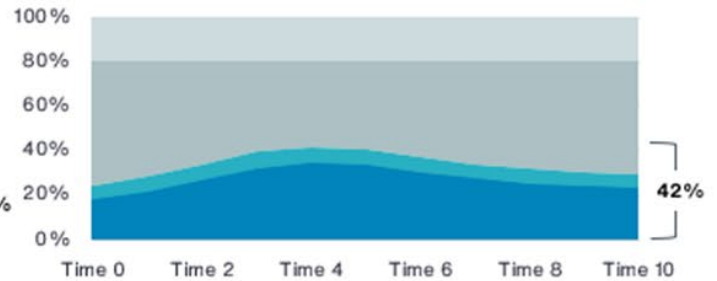
Base Case - NAV (%)



Recession - NAV (%)



Dark Skies - NAV (%)



■ Illiquid 10+ ■ Illiquid 5-10Y ■ Liquid Return-Seeking ■ Liquid Risk-Reducing

Note: Time 0 represents a starting point of June 30, 2025

Appendix

Liquidity Analysis: Summary of Results



Sufficient Liquidity in Base Case, Recession, and Dark Skies Scenario

	Current SAA		Proposed SAA	
	Max Illiquid Allocation	Ratio of Max Illiquids to Base Case	Max Illiquid Allocation	Ratio of Max Illiquids to Base Case
Base Case	25%	1.00	25%	1.00
Recession	30%	1.20	30%	1.20
Dark Skies	41%	1.64	42%	1.64

Key Takeaways

- SBI has sufficient liquidity in the modeled Base Case, Recession, and Dark Skies economic scenarios
- The modeled scenarios show no interruption of paying benefits to participants
- In a Dark Skies economic scenario, assets are projected to decline, increasing the proportion of illiquid assets
- Potential portfolio remedies if the Dark Skies scenario occurs include:
 - Accepting this risk as self-correcting over time
 - Cutting back future illiquid assets commitments more than assumed in the analysis
 - Selling illiquid assets on the secondary market

Note: This analysis is highly sensitive to the assumed contributions. If SBI receives less contributions than assumed, especially in a Dark Skies environment, then illiquid and quasi-liquid investments would drift further from target and the potential for liquidity issues increases

Historical Return Scenarios

Historical return scenarios capture the cumulative returns of the representative historical period. The returns are measured by including the full return of the first day of the period through the end of the last day of the period:

- **2006-07 Bull Market:** 7/1/2006 – 10/31/2007
- **Global Financial Crisis 2007-09:** 6/1/2007 – 2/28/2009
- **Taper Tantrum 2013:** 5/1/2013 – 8/31/2013
- **Q4 2018 Market Selloff:** 10/1/2018 – 12/31/2018
- **COVID-19 Pandemic Drawdown:** 2/1/2020 – 3/31/2020
- **2022 Inflation & Rate Hikes:** 1/1/2022 – 12/31/2022

Historical Risk and Return Statistics

Historical risk and return using index monthly returns and represented on an annualized basis:

- **Standard Deviation:** Measures an investment's total risk by quantifying the volatility of its returns.
- **Downside Deviation:** Measures an investment's downside risk by quantifying the volatility of negative returns (losses).
- **Maximum Drawdown:** The largest cumulative decline (peak to trough) an investment has experienced over a specified period.
- **Sharpe Ratio:** Measures an investment's risk-adjusted return, calculated by dividing the excess return (investment return minus the risk-free rate) by the investment's standard deviation of excess returns. The risk-free rate is represented by the ICE BofA 3-Month U.S. Treasury Bill Index.
- **Beta to CPI:** Sensitivity of an investment's returns to movements in inflation, as represented by the U.S. Consumer Price Index for Urban Consumers (Seasonally Adjusted).
- **Beta to the MSCI ACWI:** Sensitivity of an investment's returns to movements global equity markets, as represented by the MSCI All Country World Index (ACWI).
- **Upside Market Capture (ACWI):** Measures how well an investment performs relative to global equity markets during periods when global equity markets are *rising*. It is calculated as the annualized return of the fund in all periods in which the benchmark return is positive divided by the return of the MSCI ACWI during those periods.
- **Downside Market Capture (ACWI):** Measures how well an investment performs relative to global equity markets during periods when global equity markets are *falling*. It is calculated as the annualized return of the fund in all periods in which the benchmark return is *negative* divided by the return of the MSCI ACWI during those periods.

Asset Allocation Recommendations

Asset Class	Current SAA	Proposed SAA	Range
Public Equity	50%	50%	45-55%
Domestic Equity	33.5%	33.5%	28-39%
International Equity	16.5% ¹	16.5% ¹	14-19%
Fixed Income + Cash	25%	25%	22.5-27.5%
Core/Core Plus Fixed Income	5%	6%	4-8%
Return Seeking Fixed Income	5%	6%	4-8%
Treasury Protection	10%	10%	5-15%
U.S. Treasury – 5+ Year	10%	--	--
U.S. Treasury (Broad Maturity)	--	8%	5-15%
U.S. Treasury – Long	--	2%	0-5%
Cash Equivalents	5%	3%	0-5%
Private Markets	25%²	25%³	20-32%^{4, 5}
Private Equity	17.5%*	18%	15-25%
Private Credit	2.5%*	3%	0-6%
Private Real Assets	2.5%*	2%	0-4%
Private Real Estate	2.5%*	2%	0-4%
Opportunistic Allocation			0-10%
Portfolio Metrics			
Expected Return	7.08%	7.10%	
Expected Volatility	13.41%	13.48%	
Sharpe Ratio	0.27	0.27	

- Reduce Duration of the Treasury Protection Portfolio**
 - Improves balance between liquidity and growth hedge goals
 - Lowers volatility and tail risk exposure to rising interest rates
- Optimize Portfolio Liquidity By Reducing Cash Allocation**
 - Incremental allocations to Core Fixed Income and Return Seeking Fixed Income reflects improved risk-return outlook
 - Proposed Cash allocation still provides a robust cushion
 - Results in a modest increase in portfolio expected return and risk
- Adopt Target Weights to Private Markets Sub-Asset Classes**
 - Modest increases to Private Equity and Private Credit
- Update Asset Mix for Uninvested Private Markets Allocation to 80% Equity + 20% Fixed Income**
 - Revised allocation better reflects underlying asset class risk exposures

Proposed SAA changes expected to have a modest impact on portfolio risk and return while enhancing execution

¹ Currency hedging is authorized up to a hedge ratio of 100% of the International Equity Portfolio's hedgeable currency exposure.

² Uninvested Private Markets allocated to Passive Domestic Equity (S&P 500). ³ Uninvested Private Markets Allocation benchmarked to composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Index.

⁴ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁵ Note: the Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

* Reflects staff's internal asset class targets. Previous SAAs did not specify targets for Private Markets sub-asset classes.

Note: The expected return and volatility figures presented in this study are estimates based on forward-looking assumptions about asset class performance and are subject to uncertainty. Actual results may differ. These figures do not represent guarantees of future performance and are not a substitute for an actuarially determined assumed rate of return.

TAB F

Investment Policy Statement

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and
Jill E. Schurtz, Executive Director and Chief Investment Officer

SUBJECT: Investment Policy Statement

The Executive Director is recommending that the Board adopt an Investment Policy Statement to serve as the SBI's principal investment policy. The IPS incorporates the Asset Allocation Study, defines roles and responsibilities with respect to the SBI's investment portfolio, and delegates certain responsibilities to the Executive Director.

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the Board adopt the Investment Policy Statement attached as Exhibit A, and that the Executive Director implement the policy within a reasonable period of time following adoption.

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EXHIBIT A

Minnesota State Board of Investment - Investment Policy Statement

Table of Contents

- I. Introduction
- II. Purpose
- III. Roles and Responsibilities
 - SBI Board
 - SBI Executive Director
 - Board Delegation to Executive Director
 - Reporting on Implementation of Delegated Authority
 - Investment Advisory Council
 - External Investment Managers
 - Investment Consultants
 - Custodians
- IV. Asset Allocation and Objectives
 - Combined Funds Asset Allocation
 - Other Public Plan Investment Services
 - Non-Retirement Investment Program
 - Internally Traded Accounts
 - Rebalancing
 - Risk Management
 - Additional Investment Considerations
- V. Effective Date

I. Introduction

Established pursuant to Article XI, Section 8 of the Minnesota Constitution, the Minnesota State Board of Investment (SBI) serves the State of Minnesota by investing the assets of state and local employee benefit plans, other public retirement savings plans, tax-advantaged savings plans, and non-retirement assets. All investments undertaken by the SBI are governed by the Prudent Person Rule and other standards codified in Minnesota Statutes, Chapter 11A and Chapter 356A, as applicable.

The Board is responsible for establishing policies governing the SBI's activities and overseeing the Executive Director's implementation of such policies. The Board delegates appropriate investment responsibility through the appointment of the Executive Director and has appropriate resources to support its responsibilities with the assistance of investment consultants, various committees, and the Executive Director.

This Investment Policy Statement ("IPS") incorporates the relevant laws, board policies, resolutions, and standards that guide the management of the SBI's investments. In addition to the statutory fiduciary rule framework described above, in 2017, the SBI adopted a set of Investment Beliefs that provide additional context for SBI actions. The Executive Director is responsible for administering the policies referenced herein and investing the assets under management pursuant to law and the investment policies adopted by the Board. This document is intended to be binding upon all persons with authority over SBI assets, including external investment managers/advisors, custodians, consultants, and SBI staff.

This IPS is designed to provide clear parameters for managing the SBI's various investment portfolios while maintaining sufficient flexibility in the management and oversight processes, considering the dynamic nature of the investment environment. Further, this IPS is designed to ensure prudence and care in the execution of the investment programs under the SBI's management.

II. Purpose

The purpose of this document is to:

- Delineate the roles and responsibilities of the parties involved with the oversight and management of the SBI's investment programs.
- Set forth the investment policies, asset allocation, performance objectives, and guidelines the Board determines to be appropriate, prudent, and to comply with relevant laws.
- Establish criteria to evaluate investment performance compared to appropriate and pre-determined objectives and benchmarks.

- Serve as a framework and review document to guide ongoing oversight of the SBI's investments for compliance with the laws of the State of Minnesota and applicable federal laws.

III. Roles and Responsibilities

The SBI was established under Article XI, Section 8 of the Minnesota Constitution and is governed by MN Statutes Chapter 11A and Chapter 356A, and other federal and state laws.

SBI Board

The primary responsibility of the Board is to monitor and evaluate the SBI's investment programs as a fiduciary with the goal of making sound investment decisions. The Board establishes the governing policies for the SBI's activities and oversees the Executive Director's implementation of such policies. Members of the Board must adhere to the fiduciary standards in Minn. Stat. Ch. 356A for funds subject to that chapter and the prudent person standard established Minn. Stat. §11A.09. The Board's responsibilities include:

- Setting the policies, objectives, and guidelines for investment of SBI assets in a prudent fashion and evaluating compliance with investment policy and applicable laws;
- Appointing the SBI's Executive Director, defining relevant responsibilities, and evaluating the Executive Director's administration and management of the SBI's investment programs;
- Reviewing any material issues impacting the SBI's investments, or the viability of the SBI's investment programs;
- Evaluating the performance of the various funds and accounts under SBI management;
- Reviewing and approving policy documents and decisions, including: the Investment Policy Statement, Strategic Asset Allocation and associated benchmarks, and Investment Advisory Council composition;
- Review Private Markets commitment pacing;
- Selecting Generalist Investment Consultant(s) to the Board; and
- Selecting the SBI's Master Custodian and custodians for other investment funds and accounts, such as the Internally Traded Accounts.

SBI Executive Director

The Executive Director of the SBI is responsible for administering the day-to-day activities of the SBI and undertaking activities consistent with Board policies and legal requirements, in accordance with applicable law. The Executive Director must adhere to the fiduciary standards in Minn. Stat. Ch. 356A for funds subject to that chapter and the prudent person standard established in Minn. Stat. §11A.09. The Executive Director's responsibilities include:

- Implementing the Board's investment and administrative policies, including directives and delegations authorized by the Board;
- Employing and supervising appropriate investment and administrative staff;
- Undertaking the day-to-day investment management and oversight of the funds under SBI's management in compliance with relevant laws, including Minn. Stat. §11A.24. Such investment management includes but is not limited to (i) selecting investment managers and funds for investment, subject to the criteria addressed in Board Delegation to the Executive Director; and (ii) implementing and monitoring the SBI's investment management of Internally Traded Accounts.
- Selecting external resources to aid in the management of SBI assets, including third parties for consulting, investment analysis, risk management, and other services;
- Negotiating and approving relevant guidelines and contracts for each investment or investment manager retained by the SBI;
- Executing portfolio rebalancing in accordance with policy;
- Advising the Board on relevant investment matters;
- Reporting quarterly and annual investment results and other pertinent information to the Board, Retirement Systems, and other relevant stakeholders;
- Reviewing the Private Markets commitment pacing model with the Board at least every two (2) years;
- Reviewing this IPS and delegation of authority with the Board at least every three (3) years;
- Conducting a Strategic Asset Allocation study at least every five (5) years and recommending results for Board review; and
- Presenting a strategic investment workplan annually for Board review.

Board Delegation to Executive Director

The Executive Director shall implement the Board's investment policy in accordance with this Investment Policy Statement, applicable laws, and any other directives of the Board. In addition to the day-to-day administrative responsibilities and activities of the SBI and other authorities granted by law, the Board hereby delegates to the Executive Director the necessary authority to take the following actions in the discharge of the Executive Director's duties:

- I. Hire and terminate investment managers, at the Executive Director's discretion, to manage publicly traded assets in any of the funds or accounts under management by the SBI. The form of any such investments shall be in accordance with applicable law.
- II. Make commitments with respect to assets in the Combined Funds to commingled funds, separate accounts, secondary transactions, and dedicated co-investment vehicles that invest in privately owned assets, in an amount up to \$750 million per respective vehicle, plus an additional amount of up to one percent of such commitment amount for any required costs at closing. Such commitments must be made in accordance with applicable law.
- III. Make direct co-investments alongside commingled funds investing in privately owned assets in which the SBI has made a commitment. The aggregate amount of direct co-investments made alongside a given fund must not exceed the lesser of: (i) 100% of the SBI's primary commitment amount to such fund, or (ii) \$500 million. Such co-investments must be made in accordance with applicable law.
- IV. Implement appropriate investment programs for Internally Traded Accounts. The form of any such investments shall be in accordance with applicable law.
- V. Investments made under paragraphs II and III above are not intended to exceed the Private Markets commitment pacing model amount in a calendar year.
- VI. For the avoidance of doubt, the authority contained in paragraphs II and III above includes all related fund decisions, including but not limited to fund extensions, secondary sales, and continuation vehicles.
- VII. The Executive Director may execute contracts with service providers to support the administration of the assets under the SBI's management, provided that the Board reserves the sole right to appoint one or more custodians and investment consultants to advise the Board.
- VIII. In effectuating these delegated authorities, the Executive Director may execute any necessary contracts and legal documents. Such contracts must conform with all applicable laws.

Reporting on Implementation of Delegated Authority

On a quarterly basis, the Executive Director shall, in addition to any other reporting obligations established by the Board, report to the Board:

- A list of any investment managers hired or terminated during the period; and
- A list of any commitments made with respect to assets in the Combined Funds to funds that invest in privately-owned assets.

Investment Advisory Council

The Investment Advisory Council (IAC) is established pursuant to Minn. Stat. §11A.08 to advise the Board and Executive Director on certain investment matters. The Council is made up of 17 members: the Executive Directors of the Teachers Retirement Association, Public Employees Retirement Association, and Minnesota State Retirement System (collectively, “the Retirement Systems”); the Commissioner of Minnesota Management and Budget; ten members experienced in general investment matters (appointed by the Board); two active members of the Retirement Systems (appointed by the Governor); and one retired member of the Retirement Systems (appointed by the Governor). Council members must adhere to the fiduciary standards in Minn. Stat. Ch. 356A for funds subject to that chapter and the prudent person standard established Minn. Stat. §11A.09.

External Investment Managers

External investment managers selected by the Executive Director will invest SBI assets in accordance with the strategy for which they were hired, as governed by the respective investment management agreement(s), and with adherence to SBI policies and investment guidelines. The Executive Director will monitor and review all investment managers, portfolios, and fees paid.

Investment Consultants

Investment consultants hired by the Board or Executive Director shall be fiduciaries and discharge their duties with respect to the SBI investment programs solely in the interest of those programs and their underlying investment objectives with the care, skill, prudence, and diligence under the circumstances then prevailing. Qualified consultants include those professionals with the background, expertise, and demonstrated success as institutional investment consultants, and with research/database access to assist in providing investment program advice.

Custodians

Custodians hold, either directly or through agents or sub-custodians, all assets as designated by the Board. Custodians also act as the book of record for the SBI’s assets. The Board must select at least one custodian to perform these tasks and other tasks as designated by the Board.

IV. Asset Allocation and Investment Objectives

This section sets forth the Board's policies on asset allocation and investment selection for the various funds and accounts for which the SBI invests. Strategic asset allocations may vary across the various funds or accounts in accordance with their specific objectives and constraints. Investment decisions will be implemented for the sole benefit of the respective fund or account, for the exclusive purpose of achieving the specific fund or account's investment objectives, and in accordance with the relevant policies and guidelines.

Combined Funds Asset Allocation Policy

Minnesota Statutes provide that the SBI is responsible for investing the assets of the Retirement Systems. The SBI invests the Retirement Systems' pension contributions from employees and employers through a pooled vehicle called the Combined Funds. Each plan's ownership interest in the Combined Funds is represented by a participation interest in one or more pooled vehicles. Because the assets of the Combined Funds are intended to accumulate for an extended period of time, the SBI is able to take advantage of the long-term investment return opportunities offered by a diversified investment approach that includes a meaningful allocation to public equities and private markets. This long-term investment approach is expected to generate sufficient asset growth over time to ensure that sufficient funds are available to make all required distributions to the Retirement Systems' plan participants and beneficiaries.

The Combined Funds' long-term investment performance objectives are:

- Earn an average annual net rate of return greater than the Combined Funds Composite Benchmark over a 10-year period;
- Earn a net rate of return exceeding inflation by 3-5% on an annualized basis over a 20-year period; and
- Meet or exceed the Retirement Systems' actuarial assumed rate of return target over appropriate periods of time.¹

The SBI believes that asset allocation is the most significant contributor to a portfolio's investment performance. Accordingly, setting the Combined Funds' asset allocation is one of the most important fiduciary decisions. The Combined Funds asset allocation, Composite Benchmark, and underlying asset class policy benchmarks are reviewed and recommended by the Executive Director to the Board for approval at least every five (5) years, or more frequently if warranted.

¹ The Minnesota legislature is responsible for setting the actuarial assumed rate of return for each plan overseen by the Retirement Systems. The current assumption, which was most recently adjusted by the legislature in 2023, is 7.0%.

The recommended targets and rebalancing ranges listed below reflect the results of the Strategic Asset Allocation study recommended to the Board for approval at the October 21, 2025, SBI meeting. It is important to note that, in practice, exact adherence to target allocations is not possible as actual asset weights fluctuate with market movements. Under normal conditions, asset class allocations will be managed within the established ranges, except that asset classes will not be considered “outside of range” during established transition periods, e.g., due to changes in asset allocation policy. Actual allocations relative to targets shall be reported to the Board on a quarterly basis, including, if applicable, the reason(s) for any meaningful deviations from established Range(s) and corrective steps to be taken.

Combined Funds Asset Allocation: Targets and Rebalancing Ranges

<u>Asset Class</u>	<u>Target</u>	<u>Range</u>
Public Equity	50%	45 - 55%
Domestic Equity	33.5%	28 - 39%
International Equity	16.5%	14 - 19%
Fixed Income and Cash	25%	22.5 – 27.5%
Core/Core Plus Fixed Income	6%	4 - 8%
Return-Seeking Fixed Income	6%	4 - 8%
Treasury Protection	10%	5 - 15%
<i>U.S. Treasury (Broad Maturity)</i>	<i>8%</i>	<i>5 - 15%</i>
<i>U.S. Treasury - Long</i>	<i>2%</i>	<i>0 - 5%</i>
Cash Equivalents	3%	0 - 5%
Private Markets	25%²	20 - 32%^{3, 4}
Private Equity	18%	15 - 25%
Private Credit	3%	0 - 6%
Private Real Assets	2%	0 - 4%
Private Real Estate	2%	0 - 4%
Opportunistic		0 – 10%
Total	100%	

² The uninvested portion of the Private Markets Allocation will be benchmarked to a composite index comprising 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Bond Index.

³ The broader range applied to Private Markets reflects consideration of statutory limitations, constraints of capital pacing, valuation timing, and illiquidity, which make it impractical to maintain precise targets through routine rebalancing.

⁴ Note: The Board maintains a policy limiting the market value of private markets assets + the unfunded portion of private markets commitments to 50% of the Combined Funds Portfolio.

Combined Funds Composite Benchmark

The Combined Funds Composite Benchmark performance is calculated by multiplying the beginning of period Composite weights and the monthly or quarterly returns of the asset class benchmarks, as appropriate. Benchmarks available only on a quarterly basis are converted to a monthly frequency by decompounding the reported quarterly total return into equal monthly estimates.

Combined Funds Asset Class Policy Benchmarks

Policy benchmarks set the standard against which the performance of the Combined Funds' Asset Classes is measured. Differences in portfolio management strategies, portfolio composition, and other factors will result in differences between the benchmark and the Combined Funds' actual results. Policy benchmarks and any subsequent changes may be recommended by the Executive Director and are subject to approval by the Board. The Combined Funds Asset Class Policy Benchmarks are presented in the table below.

<u>Asset Class</u>	<u>Policy Benchmark</u>
Public Equity	Public Equity Benchmark: 67% Russell 3000 Index and 33% MSCI ACWI ex USA Net Return Index (USD)
Domestic Equity	Russell 3000 Index
International Equity	MSCI ACWI ex USA Net Return Index (USD)
Fixed Income and Cash	Total Fixed Income Benchmark: 24% Bloomberg U.S. Aggregate Bond Index, 24% Return-Seeking Fixed Income Benchmark, 40% Treasury Protection Benchmark, 12% ICE BofA U.S. 3-Month Treasury Bill Index
Core/Core Plus Fixed Income	Bloomberg U.S. Aggregate Bond Index
Return-Seeking Fixed Income	Return-Seeking Fixed Income Benchmark: 25% ICE BofA U.S. Cash Pay High Yield Constrained Index, 25% S&P UBS Leveraged Loan Index, 25% JPM EMBI Global Diversified Index, 25% ICE BofA AA-BBB U.S. Fixed and Floating Rate Asset-Backed Securities Index
Treasury Protection	Treasury Protection Benchmark: 80% Bloomberg U.S. Treasury Index and 20% Bloomberg U.S. Long Treasury Index
U.S. Treasury (Broad Maturity)	Bloomberg U.S. Treasury Index
U.S. Treasury - Long	Bloomberg U.S. Long Treasury Index

Combined Funds Asset Class Policy Benchmarks (continued)

<u>Asset Class</u>	<u>Policy Benchmark</u>
Private Markets	Total Private Markets Benchmark: Composite of Sub-Asset Class Benchmarks Weighted by Actual Portfolio Weights at Beginning of Each Period
Private Equity	MSCI Global Buyout Closed-End Fund Index (USD), lagged 1 quarter
Private Credit	MSCI Global Private Credit Closed-End Fund Index (USD), lagged 1 quarter
Private Real Assets	Private Real Assets Benchmark: 75% MSCI Global Private Infrastructure Closed-End Fund Index (USD), lagged 1 quarter and 25% MSCI Global Private Natural Resources Closed-End Fund Index (USD), lagged 1 quarter
Private Real Estate	Private Real Estate Benchmark: 50% Custom MSCI Global Private Opportunistic Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter and 50% Custom MSCI Global Private Value-Added Real Estate Closed-End Fund Benchmark (USD), lagged 1 quarter
Cash Equivalents	ICE BofA U.S. 3-Month Treasury Bill Index
Uninvested Private Markets	Uninvested Private Markets Benchmark: 80% Public Equity Benchmark and 20% Bloomberg U.S. Aggregate Bond Index
Opportunistic	Relevant blended benchmark, as applicable

Other Public Plan Investment Services

The SBI provides a range of investment services to public retirement and savings programs other than the statewide pension systems, including tax-advantaged savings plans, defined contribution plans, and state-sponsored savings programs. In some cases, participants of these programs may choose investments from a range of options provided by the SBI, either through the SBI's Supplemental Investment Fund platform or other third-party platform. The SBI reviews the performance and suitability of chosen investment options on a periodic basis.

Non-Retirement Investment Program

The SBI provides investment services for various public non-retirement programs. For these programs, the SBI is regularly tasked with determining a prudent investment allocation based on the individual plan's purpose, risk tolerance, and liquidity needs. The SBI provides a range of investment options for non-retirement programs, either through the SBI's Supplemental Investment Fund platform or other third-party platform. The SBI reviews the performance and suitability of the chosen investment options on a periodic basis.

Internally Traded Accounts

The SBI manages investments through an internal trading desk for the State of Minnesota Invested Treasurer's Cash pool, other state cash accounts, and other public investment

programs utilizing certain debt instruments (collectively “Internally Traded Accounts”).⁵ The SBI manages these assets with goals including preserving capital, meeting the state’s liquidity needs without the forced sale of securities at a loss, and earning an appropriate return consistent with safeguarding invested principal. Specific goals and objectives may vary across accounts. Investment decisions made with respect to each account are implemented for the sole benefit of that account. The SBI reviews the performance and suitability of the investment strategies used to manage these assets on a periodic basis.

Rebalancing

The Executive Director is responsible for periodic and orderly rebalancing of the portfolios so that asset classes remain within established asset allocation rebalancing ranges and for implementing an orderly rebalancing plan should one or more asset classes fall outside the established range.

Risk Management

Risk management is a foundational element of SBI’s asset management framework. Manager and fund selection are evaluated in the context of risk-adjusted return potential. Primary risk objectives focus on maintaining portfolio volatility within a reasonable range as defined through the Strategic Asset Allocation process, and on managing tracking error relative to appropriate benchmarks within acceptable limits. The Executive Director is responsible for implementing the systems, tools, and processes necessary to monitor and manage these risks.

Additional Investment Considerations

In effectuating and administering the asset allocation of the foregoing funds and accounts, the Executive Director may employ prudent strategies to mitigate risk and increase returns, including but not limited to currency hedging, derivative transactions, and securities lending. Such activities must be undertaken in accordance with applicable law and other policies established by the Board.

V. Effective Date

This policy shall be effective as of the date approved by Board resolution and may be amended by Board resolution. This policy shall remain in effect until superseded by Board resolution.

⁵ Internally Traded Accounts include accounts for programs referenced in Minn. Stat. §§11A.15 (state bond fund); 11A.20 (invested treasurer’s cash and other state cash); 43A.316-43A.318 (SEGIP insurance); 446A.04 (PFA bonds); 462A.05 (HFA bonds); 471.6175 (OPEBs); and the SBI’s certificate of deposit program within the Combined Investment Funds referenced in Minn. Stat. §11A.14, and other similar programs that may be established under law.

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TAB G

Personal Securities Trading Policy

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and
Jill E. Schurtz, Executive Director and Chief Investment Officer

SUBJECT: Personal Securities Trading Policy

The SBI maintains a personal securities trading policy for all SBI staff members. The goal of the policy is to prevent conflicts of interest and potential violations of Minnesota and federal laws. The policy outlines rules for purchases and sales of securities and other assets, and the approval process staff must follow when trading certain assets. In addition, the policy requires staff to report quarterly on certain securities they own.

The current policy is outdated and does not provide clear guidance considering the evolution of trading markets. As a result, the Executive Director recommends that the Board adopt the attached personal trading and reporting policy to replace the existing policy.

The proposed policy, which is attached as **Exhibit A**, sets forth the rules that staff and their immediate family members must follow when trading in personal accounts. Among other things, it provides a procedure for pre-clearance of covered assets, reporting requirements, and managing the risk of material non-public information.

RECOMMENDATION:

The Investment Advisory Council endorses Staff's recommendation that the Board adopt the Personal Securities Trading Policy attached as Exhibit A, and that the Executive Director implement the policy within a reasonable period of time following adoption.

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EXHIBIT A

Minnesota State Board of Investment Staff Personal Trading and Investments Policy

1. POLICY STATEMENT

Minn. Stat. §11A.04(5) requires the Minnesota State Board of Investment (“SBI”) to “[p]rescribe policies concerning personal investments of all employees of the [SBI] to prevent conflicts of interest.” SBI Employees shall not use their official position to secure personal benefits or privileges for the SBI Employee or the SBI Employee’s Immediate Family that are different from those available to the general public. This policy addresses the use of Material Non-Public Information obtained by SBI Employees, required pre-clearance procedures for the trading of certain securities, and reporting requirements for personal investments held by SBI Employees and their Immediate Family. This policy should be read in conjunction with federal securities laws and other state laws and regulations applicable to SBI and its employees, including but not limited to, Minn. Stat. §43A.38, and it shall not be construed to supersede other applicable laws or regulations.

2. SCOPE

This policy applies to all SBI Employees and their Immediate Family. All SBI Employees are required to review this policy and comply with the terms set forth herein. SBI Employees are strongly encouraged to contact their manager or Investment Compliance with any questions about the policy.

3. DEFINITIONS

- A. “SBI Employee” includes all persons currently employed by SBI, whether on a part-time or a full-time basis.
- B. “Immediate Family” means the employee’s spouse, minor children, and other dependents if living primarily in the household of an SBI Employee.
- C. “Covered Persons” means all SBI Employees and their Immediate Family.
- D. “Authorized Trading Personnel” means an SBI Employee who is responsible for the direct trading of securities in one or more accounts managed by the SBI. Investment Compliance shall maintain a list of all Authorized Trading Personnel.
- E. “Non-Exempt Assets” means any and every type of investment security, including stocks, corporate debt obligations, direct purchase plans, limited partnerships that are considered investment contracts under federal law, joint ventures, private placements, co-investments, leveraged buyouts, purchase agreements, private lending, and other debt instruments, options, futures, forwards, swaps and other derivative instruments related to securities, unless listed in as an Exempt Asset under this Policy.

F. “Exempt Assets” means the following investments:

- i. Bank deposits (savings and checking accounts)
- ii. Bank certificates of deposit
- iii. Money market funds
- iv. Direct personal loans that are not part of an investment scheme or pooled lending structure
- v. Mutual funds, closed-end funds, collective investment trusts and other unit investment trusts registered under the Investment Company Act of 1940, and any other similar pooled investment structures
- vi. Exchange-Traded Funds (ETFs) which are commodity-based or include 10 or more securities
- vii. U.S. Government securities (e.g. T-Bills, Treasury notes and bonds, TIPS, savings bonds)
- viii. Currencies and currency exchange transactions, including cryptocurrencies and stable coins
- ix. U.S. state and local municipal debt securities
- x. Real property
- xi. Tangible and intangible assets (e.g. precious metals, collectibles, personal property, patents, NFTs)
- xii. Physical commodities
- xiii. Insurance products (e.g. index, variable or fixed annuities, life insurance products)
- xiv. Derivatives based on an Exempt Asset
- xv. Securities purchased through an approved automatic investment plan in which the timing of purchases and withdrawals is scheduled, predetermined at regular intervals, and/or has standing instructions, such as Dividend Reinvestment Plans (DRIPs) and Employee Stock Ownership Plans (ESOPs)
- xvi. Assets purchased through an approved Managed Account
- xvii. An interest in a defined benefit pension plan
- xviii. Tax advantaged accounts (e.g. 529 plans, 401k plans, 403b plans, deferred compensation plans, and SEP plans)

With respect to paragraphs xiii and xviii above, to the extent a Covered Person is making a discretionary trade in a Non-Exempt Asset, the employee must follow the Reporting Requirements of Section 4 and Pre-Clearance Procedures of Section 5. Unless otherwise stated, Exempt Assets are not subject to either the Reporting Requirements of Section 4 or the Pre-Clearance Procedures of Section 5.

- G. “Investment Compliance” means the Executive Director and any contractor, SBI Employee or Employees designated by the Executive Director to maintain or oversee the compliance program under this policy.
- H. “Managed Account” means an account with the ability to trade securities which may be Non-Exempt Assets, when (a) the account is managed by a third party who is not a Covered Person; (b) no Covered Person has the power to affect or control investment decisions; (c) no prior communication occurs between the Covered Person and the person(s) with investment discretion regarding specific trade activity in the account; and (d) assets on the Restricted List are prohibited from being traded in the account. SBI Employees must certify that each of these requirements are met, and must have the Managed Account pre-approved by Investment Compliance before any Non-Exempt Assets may be traded in the Managed Account.
- I. “Restricted List” means a list of assets which may not be traded by Covered Persons.

4. REPORTING REQUIREMENTS

A. PERIODIC REPORTING

SBI Employees must report all Non-Exempt Assets held by Covered Persons to Investment Compliance on at least a quarterly basis. Reporting must include discretionary activity during the period, which should be indicated with a “+” for purchases and “-” for sales, or +/- if both sales and purchases were made. SBI Employees are responsible for reporting in a method and format as determined by Investment Compliance and shall provide such documentation as required by Investment Compliance. All Authorized Trading Personnel must also report holdings and activities by Covered Persons for all state and local municipal debt obligations, and any other security categories designated by Investment Compliance.

B. ANNUAL ATTESTATION

Annually by January 31st, each SBI Employee shall review and sign the Personal Trading Compliance Statement attesting that they have read and will abide by the requirements of this policy.

C. NEW EMPLOYEES

Within 30 calendar days of the date of hire, new or rehired SBI employees (“New-Employees”) must:

- i. Disclose all Non-Exempt Assets in which Covered Persons direct, control, or have a financial interest; and
- ii. Sign a Personal Trading Compliance Statement attesting that they have read and will abide by the requirements of this policy.

New Employees will not be required to disgorge any Non-Exempt Assets or assets on the Restricted List upon joining the SBI. New employees will be prohibited from making additional purchases of any securities on the Restricted List, however they may be allowed to sell assets on the Restricted List which they or their Immediate Family owned before joining the SBI subject to the pre-clearance requirements of this policy.

5. PRE-CLEARANCE REQUIREMENTS

A. PRE-CLEARANCE OF CERTAIN TRANSACTIONS

Covered Persons are required to pre-clear any transaction regarding a Non-Exempt Asset. Covered Persons shall request pre-clearance in a form designated by Investment Compliance. Investment Compliance shall have full discretion to make the final pre-clearance determination. Approval or denial of the transaction request will generally be provided on the same business day. Unless rescinded, pre-clearance approvals are valid for a period of ten (10) business days from the date of approval. In the case of non-publicly traded assets, Investment Compliance may allow for additional time for transacting. All Authorized Trading Personnel and their Immediate Family are additionally subject to the pre-clearance requirement for all state and local municipal debt obligations, and any other security category designated by Investment Compliance.

B. PRE-CLEARANCE FOR INITIAL PUBLIC OFFERINGS OR NEW BOND OFFERINGS

If a Covered Person wishes to participate in an Initial Public Offering (IPO) or a new bond offering which is a Non-Exempt Asset, the Covered Person must submit a pre-clearance request and provide a written statement to Investment Compliance providing full details of the proposed transaction, including an attestation that the investment opportunity did not arise by virtue of the Covered Person's activities on behalf of the SBI, and the trade is not made on the basis of material non-public information.

6. OTHER REQUIREMENTS

A. RESTRICTED LIST

The Restricted List is established and maintained by Investment Compliance. The Restricted List shall include i) any security representing ownership in, or an obligation of, a publicly traded investment manager doing business with the SBI; and ii) any security which Investment Compliance determines must be included on the Restricted List due to Material Non-Public Information standards or any other reason. If a Covered Person already owns a security prior to it being added to the Restricted List they will not be required to disgorge their holdings, but they may not purchase additional interests. Covered Persons may sell their existing holdings subject to the pre-clearance requirements of this policy.

B. MATERIAL NON-PUBLIC INFORMATION

Material Non-Public Information is information i) whose disclosure would affect the market price of a company's securities or that a reasonable investor is likely to consider significant in making an investment decision; and ii) that has not been generally disclosed or disseminated to the marketplace. Covered Persons who believe they have received Material Non-public Information shall immediately report such instance to Investment Compliance.

Covered Persons are prohibited from trading on the basis of Material Non-Public Information. Covered Persons are further prohibited from directly or indirectly conveying Material Non-Public Information to any other person who could trade on such information.

C. FRONT RUNNING

Front Running may occur when a Covered Person trades a security with the knowledge that the SBI or its investment managers will or is likely to engage in a nonpublic action to buy or sell that security. Covered Persons are prohibited from engaging in front running.

7. INVESTMENT COMPLIANCE'S AUTHORITY UNDER THIS POLICY

Investment Compliance shall have discretion to approve or deny any proposed acquisition or sale of a Non-Exempt Asset or Other Investment by a Covered Person or their Immediate Family. Investment Compliance reserves the right to deny a purchase or sale if it believes the transaction may violate federal law, state law, Board policy, or poses a reputation risk to the SBI.

Investment Compliance may require Covered Persons to suspend trading or require pre-clearance of any assets at any time, in Investment Compliance's sole discretion.

8. PENALTIES

Covered Persons must immediately report any known violation of this policy to Investment Compliance. Covered Persons are required to adhere to this policy, and failure to comply could result in sanctions, including written reprimand, demotion of job duties, and termination of employment.

Notwithstanding any other provision of this policy, if, upon review of a Covered Persons' quarterly report or annual certification, Investment Compliance identifies a trade, holding, or a pattern of activity that, in Investment Compliance's determination, creates an actual or apparent conflict of interest, Investment Compliance may take any necessary remedial action. Remedial action may include requiring the Covered Person to divest from holdings giving rise to the actual or apparent conflict of interest or take such action as Investment Compliance deems necessary to resolve the actual or apparent conflict of interest. A Covered Person's failure to conform to such direction from Investment Compliance would constitute a violation of this policy and may lead to the imposition of sanctions, up to and including termination of employment.

9. CLASSIFICATION OF DATA

Data related to a specific Covered Person that is created pursuant to this policy, including but not limited to data related to pre-clearance requests pursuant to the Pre-clearance Procedure in Section 5 and reports on Covered Securities required by Section 4, are defined as personnel data under Minn. Stat. §13.43, and are considered private data on individuals, pursuant to Minn. Stat. §13.43, subd. 4. Such data may not be released to a third party without the prior consent of Executive Director or the Executive Director's designee. Covered Persons may request that data be redacted from any report or pre-clearance to the extent appropriate.

10. APPROVAL AND IMPLEMENTATION

This policy shall be effective on the first day of the calendar quarter following formal approval by the Board. The Executive Director may implement this policy over a reasonable period. This policy shall remain in place until amended or superseded by Board action. Prior to such time, Covered Persons are subject to the policy existing immediately prior to such approval.

TAB H

Revised Public Engagement Policy

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DATE: October 14, 2025

TO: Members, State Board of Investment

SUBJECT: State Board of Investment Public Engagement Policy

The Board maintains a public engagement policy to facilitate public comment on issues relevant to the SBI's activities. The proposed revisions to the policy provide an opportunity for stakeholders and members of the public to engage with the Board within reasonable parameters so the Board may hear from a variety of individuals on various topics.

RESOLUTION:

The Board adopts the revisions to the State Board of Investment Public Engagement Policy as reflected in the attached Exhibit A.

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EXHIBIT A

SBI SPEAKER POLICY

Background

Public engagement with the Minnesota State Board of Investment (SBI), its staff, and the Investment Advisory Committee is an important part of the SBI's governance of the State of Minnesota's retirement, state trust, and other investments. This policy is designed to provide a fair opportunity for people to present helpful comments to SBI. This policy balances the desire for transparency and public input with the need for organized and efficient SBI meetings. This policy will remain in effect until amended or superseded by SBI action. The Chair retains the authority and discretion to deviate from this policy.

Requesting to Make Comments

1. If you would like to speak on a particular topic you may do so by submitting a Request to Make Public Comment Form (Request Form), **no later than 5pm Central time five business days before the date of the meeting**. The Board will try to publish the Board meeting agenda ten business days before the date of the meeting.

If an agenda item is added after the initial publication of the agenda, you may submit a Request Form to the Chair after the deadline to speak about the new agenda item.

2. The Request to Make Public Comment Form is available on the SBI website. The Request Form contains information to assist SBI and staff in understanding the nature of the comment and amount of time that may be required to hear the comment. The form includes, among other things:
 - a. Your name
 - b. Your contact information;
 - c. A description or summary of the comment wish to make;
 - d. A description of how your comments relate to investment management of state retirement, trust, or other funds; and
 - e. A description of any previous presentations to the SBI you have made, including the date of any such presentations.
3. When you submit your Request Form, you may also provide any written materials you would like SBI to consider. If you do not provide written materials at the time of the request, the SBI staff may not be able to include the materials in the materials sent to the Board members and the Board members may not be able to review the materials before the meeting.
4. SBI staff will let you know whether your Request Form and materials were received by the deadline.

5. SBI staff will provide all Request Forms to the Chair of the Board for consideration. Submitting a Request Form does not guarantee the Chair will approve your request. The Chair may decline your request for any reason, including because you have provided the same or similar comment at a previous Board meeting.
6. SBI staff will inform you whether your request has been approved before the Board meeting and will provide the Board members with a list of approved speakers and their materials.

Comment Rules

At the meeting:

1. All comments are limited to two minutes per speaker. The Chair has discretion to extend or restrict the time for each speaker.
2. The Chair has the discretion to approve up to fifteen (15) speakers per meeting. The Chair will prioritize (a) hearing a variety of topics; (b) hearing speakers who have not previously had the opportunity to address the SBI; and (3) hearing from speakers who are beneficiaries of an entity whose assets are managed by the SBI.
3. All comments should be relevant to the agenda before the SBI and should be presented in a polite manner. Speakers should present their comments to the Chair and should not engage in personal attacks. The Board reserves the right to dismiss any speaker who engages in unproductive or hostile conduct.

Submitting Written Comment

If you would like to submit a written statement to the Board you may do so by sending comments to publiccomment.sbi@state.mn.us.

REPORTS

- ❖ Public Markets Investment Program Report
- ❖ Participant Directed Investment Program and Non-Retirement Investment Program Report
- ❖ Aon Market Environment Report
- ❖ Meketa Capital Markets Outlook & Risk Metrics Report
- ❖ SBI Comprehensive Performance Report

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REPORT

Public Markets Investment Program Report

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: SBI Public Markets Program Report

This report provides a brief review of financial markets and the performance of the Combined Funds portfolio for the quarter and 12-month periods ended June 30, 2025. Included in this section are a market commentary and performance summary for the overall Combined Funds portfolio, performance summaries for the portfolio's public markets managers, and a report of any organizational updates for the public markets managers in the SBI portfolio.

The report includes the following sections:

	Page
• Market Review and Combined Funds Performance	3
• Public Markets Managers' Performance	5
• Organizational Updates and Summary of Manager Meeting Activity	11

Important Notes:

All performance figures and market data presented in this report are unaudited and preliminary. Performance is presented net of investment management fees and the effect of any profit-sharing arrangements. Sources for market data: Bloomberg, Factset, MSCI, FTSE Russell, JPMorgan, and ICE BofA.

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Review of SBI Combined Funds Performance Second Quarter 2025 (CY)

Market Summary

Global equity markets posted strong gains in the second calendar quarter of 2025, with the MSCI All Country World (ACWI) Index of global stocks rising +11.7% in U.S. dollar terms. Despite sharp early losses after the Trump administration's sweeping "Liberation Day" tariff announcements on April 2nd shocked global markets, a partial rollback of the tariffs later in the month calmed investors, and better-than-expected economic data and strong corporate earnings drove a strong rebound over the rest of the quarter.

U.S. stocks were led during the quarter by strong gains within the technology and consumer discretionary sectors. Strong earnings results and robust forward guidance during the quarter from key tech bellwethers including NVIDIA, Microsoft, Oracle, and Meta boosted investor confidence that the AI and Cloud computing themes remain on-track to deliver strong growth.

For the second quarter in a row, international stocks outperformed domestic shares. In addition to being perceived as less immediately at-risk from any slowdown in U.S. growth caused by the tariff shock, international stocks also received a boost from a sharp decline in the value of the U.S. dollar during the quarter. While the U.S. dollar slid, gold rose over +5% during the quarter, extending its calendar year-to-date gain to over +25%.

The Fed kept its overnight policy rate unchanged during the quarter, targeting a range of 4.25%-4.50%. Fed officials signaled concern over the potential inflationary effects of tariffs and cited significant policy uncertainty as a key reason for their cautious stance. The Fed's Summary of Economic Projections released after the June FOMC meeting indicated a slightly weaker growth outlook, along with higher expected inflation and a modest uptick in the projected unemployment rate.

In the U.S., interest rates were little changed during the quarter. Short-term rates fell modestly on growing expectations that the Fed would cut interest rates in response to slowing growth. However, longer-term yields rose as inflation remained elevated and concerns over the growing fiscal imbalance weakened investor demand for long-term U.S. Treasuries. The U.S. Aggregate Bond Index returned +1.2% during the second quarter.

Outside the U.S., changes in yields were generally modest across most major bond markets, except for Japan, where expectations of continued monetary policy tightening kept upward pressure on interest rates. The sharp decline in the U.S. dollar boosted international bond market returns when expressed in U.S. dollar terms. For the quarter, the Bloomberg Global Aggregate Bond Index returned +4.5%.

Overall Combined Funds Portfolio Performance – Quarter and Last 12 Months

The overall Combined Funds portfolio returned +6.1% during the calendar second quarter, outperforming the composite benchmark's return of +6.0%. During the quarter, the portfolio's modest overweight to equities and underweight to fixed income and private markets helped relative performance, while the portfolio's currency hedging program detracted from performance as the U.S. dollar fell sharply. Active management drove positive performance across the U.S. equity, emerging markets equity, and fixed income segments of the portfolio. Within fixed income, the portfolio's allocation to return-seeking fixed income helped performance as credit-sensitive bond sectors outperformed the broader market. Returns within the private markets portfolio during the quarter lagged the broader market. The private markets invested portfolio gained just +0.6% during the second quarter, led by the Private Equity allocation which returned +1.4%.

For the **one-year period ended June 30, 2025**, the Combined Funds portfolio posted a return of +10.9%, matching the composite benchmark's return. The portfolio benefited from a positive contribution from active management within the core/core plus fixed income, return-seeking fixed income and U.S. large cap growth equity segments. However, this impact was offset by active manager underperformance across the developed international equity, emerging markets equity and U.S. semi-passive equity segments. Mark-to-market gains from the portfolio's currency hedging program detracted from performance as the dollar fell. From an asset allocation perspective, the portfolio's overweight to equities and underweight to fixed income and private markets helped performance over the period. Within equities, an underweight to emerging markets stocks was a positive contributor to performance, while a modest overweight allocation to U.S. small cap stocks detracted. Within fixed income, the portfolio's allocation to return-seeking managers was a positive contributor to performance over the one-year period, and an underweight to the long-duration Treasury protection portfolio held during the period also helped relative performance. The invested private markets portfolio returned +6.1% for the 12 months ended June 30, 2025, led by the Private Equity allocation which returned +8.3% for the one-year period.

Review of Public Markets Manager Performance Second Quarter 2025 (CY)

Domestic Equity

Domestic equities, as measured by the Russell 3000 Index, returned an impressive +11.0% during the quarter, more than recovering the prior quarter's losses and ending the calendar year-to-date period in positive territory. Early in the quarter the Trump administration's sweeping "Liberation Day" tariff announcements shocked markets and sparked recession fears. In the panic, U.S. stocks tumbled, with the Russell 3000 Index plunging about -12% before stabilizing. A partial rollback of tariffs later in the month combined with solid economic data releases and a strong Q1 corporate earnings season for U.S. technology names drove a rebound in investor sentiment that sent U.S. stocks up nearly +25% by the end of the quarter from their Liberation Day lows.

Growth-oriented sectors like information technology (+23.5%) and communication services (+19.0%) led the market higher during the quarter, and eight of eleven sectors posted gains. Energy stocks fell -7.4% over the quarter, driven by a sharp drop in oil prices, and the healthcare sector also underperformed (-5.7%). Within healthcare, managed care stocks struggled with higher costs and regulatory uncertainty, while pharmaceutical stocks were impacted by the Trump administration's call for sweeping drug price cuts for U.S. consumers.

The all-important Magnificent 7 group of stocks returned +20.6% for the quarter. Six of the seven ended the quarter with double-digit gains, with semiconductor chip maker NVIDIA vaulting +45.8% on strong earnings results and forecasted robust demand growth. Only Apple ended in negative territory (-7.6%) as investors questioned whether the dominant mobile device-maker is falling behind in its integration of AI tools into its user ecosystem.

The Combined Funds domestic equity portfolio returned +11.1% for the quarter, outperforming the Russell 3000 Index, which gained +11.0%. Active managers added value for the quarter across large cap growth and value, all cap growth, and semi-passive strategies, while the portfolio's small cap managers lagged.

Across large cap stocks, growth surged ahead of value (+17.8% Russell 1000 Growth vs. +3.8% Russell 1000 Value) during the quarter, with growth stocks benefiting most from the rebound in investor confidence and the strong earnings performance within technology.

Small cap stocks underperformed large cap stocks during the quarter (Russell 2000 Index +8.5% vs. Russell 1000 Index +11.1%). Within small cap stocks, growth outperformed value (Russell 2000 Growth Index +12.0% vs. Russell 2000 Value Index +5.0%). Within small cap, technology names led the market (+21.3%), lifted by a strong rally in datacenter related names, while the real estate (-2.1%) and energy (-1.3%) sectors lagged.

The Combined Funds' large cap growth managers significantly outperformed their benchmark, the Russell 1000 Growth Index, during the quarter (+23.7% Managers vs. +17.8% Benchmark). Stock selection was particularly strong within the technology, communication services, and industrials sectors. Quality growth manager Winslow outperformed during the quarter (+20.1%), driven by strong stock selection in the industrials and communication services sectors. Large-cap growth

manager Sands (+27.8%) significantly outperformed due to strong issue selection in the information technology and communication services sectors. All-cap growth manager Zevenbergen rallied +31.9%, benefitting from strong issue selection across a range of sectors, including industrials, consumer staples, technology, healthcare and financials.

The portfolio's large cap value managers outperformed the Russell 1000 Value Index during the quarter (+4.7% Managers vs. +3.8% Benchmark). Barrow Hanley outperformed (+4.3%), driven by an overweight position in the consumer discretionary sector and good stock selection within the sector. Quantitative deep value manager LSV also outperformed (+5.1%) on strong stock picking in financials, while weak selection in industrials and consumer staples partially offset those gains.

The portfolio's semi-passive large cap managers modestly exceeded their benchmark during the quarter (+11.3% Managers vs. +11.1% Benchmark). Stock selection in industrials and information technology contributed positively. Quantitative manager Blackrock's outperformance (+11.6%) was driven by an overweight to consumer discretionary names resulting from the team's sentiment indicators, which analyze mobile app usage and social media trends to identify investment opportunities.

The portfolio's small cap growth managers lagged the benchmark during the quarter (+10.3% Managers vs. +12.0% Russell 2000 Growth Index). Rice Hall James underperformed the index (+8.8%), driven by poor stock selection in the industrial and technology sectors. Wellington (+9.2%) and Arrowmark (+6.1%) both lagged this quarter due to weak stock selection within the technology sector. In contrast, fundamental manager Hood River outperformed (+17.0%) primarily due to strong stock selection within the industrials and technology sectors.

The portfolio's small cap value managers also underperformed over the quarter (+4.6% Managers vs. +5.0% Russell 2000 Value Index). Hotchkis & Wiley underperformed (+3.2%) due to poor stock selection in the communication services and energy sectors. Peregrine also underperformed (+3.2%), driven primarily by decisions within the technology and financial sectors. In contrast, quantitative manager Martingale outperformed (+7.7%) due to strong selection within financials.

The portfolio's passive domestic equity portfolios performed in-line with their respective benchmarks, posting a combined return of +11.1% during the quarter.

Developed International Equity and Currency Overlay

International developed markets equities, as measured by the MSCI World ex USA Index (net), returned +12.0% in U.S. dollar terms during the quarter. Performance in local currency terms was positive across most foreign markets during the quarter, and a sharp decline in the value of the U.S. dollar further boosted returns on foreign shares from the perspective of U.S. dollar-based investors.

Measured in U.S. dollar terms, all 22 of the Index's constituent markets posted positive performance for the quarter. European markets continued their positive momentum from the prior quarter despite the initial shock from U.S. tariff policy announcements that drove global markets sharply lower at the start of the quarter.

Both the European Central Bank and Bank of England cut rates during the quarter as inflation in Europe moderated, which helped boost interest rate sensitive sectors such as real estate, financials, industrials and utilities. Within Europe, the Netherlands (+18.3%), Spain (+16.9%), Ireland (+16.7%), and Germany (+16.3%) led the region higher. The U.K. (+8.7%) and France (+9.3%), the two largest European index constituents, posted solid returns, but lagged the broader market.

Elsewhere in developed markets, Japan, the index's largest constituent, finished the quarter with a gain of +11.4% in U.S. dollar terms. Japanese stocks rebounded sharply on the news of a partial rollback of U.S. tariffs, continued earnings momentum, and accommodative monetary policy. Canadian stocks also posted strong performance during the quarter (+14.2%), supported by rate cuts from the Bank of Canada, which helped boost shares in the financial sector.

The portfolio's active developed markets managers slightly outperformed the MSCI World ex USA Index (net), returning +12.3% versus the benchmark's +12.0% return. Good stock selection in the three largest index markets, France, Japan and the U.K., drove positive relative performance during the quarter, while poor selection in Germany was the primary performance detractor.

Quantitative manager Acadian outperformed (+13.2% Manager vs. +12.0% Benchmark) as its growth signals were additive to portfolio performance during the quarter. Fundamental core manager Marathon also outperformed (+13.1%) due to strong stock selection in the U.K. and Switzerland. Conversely, quality growth manager J.P. Morgan underperformed (+10.4%) as poor issue selection in Japan and within the communication services sector hurt performance. Fundamental growth manager Columbia Threadneedle (+10.6%) was impacted by poor stock selection in Germany.

The passive developed markets portfolio gained +12.3% during the quarter, slightly outperforming the MSCI World ex USA Index (net), which returned +12.0%.

The U.S. dollar depreciated by over -7% versus a trade-weighted basket of foreign currencies during the quarter. In the first half of 2025, the dollar dropped nearly 11%, its weakest mid-year performance in more than five decades. For the quarter, the portfolio's currency hedging program detracted -1.5% from the performance of the developed international equity portfolio, offsetting some of the underlying appreciation of the portfolio's foreign shares due to currency movements. The dollar fell sharply during the quarter, pressured by tariffs that directly threatened global trade and dollar demand, alongside growing concerns about their broader impact on U.S. economic growth and interest rates. Program losses were concentrated in the Japanese yen, euro, and the Swiss franc. The program is designed to adjust hedge ratios in response to evolving markets, and the portfolio's hedge ratio declined from 21% at the beginning of the quarter to 5% by the end of the quarter.

Emerging Markets Equity

Emerging markets equities, as measured by the MSCI Emerging Markets Index (net), rose +12.0% in U.S. dollar terms during the quarter. As with developed international markets during the quarter, a decline in the U.S. dollar versus EM currencies provided a boost to returns for U.S. dollar-based investors. Expressed in local currency terms, the MSCI Emerging Markets Index (net) rose +7.9%.

Of the 24 markets which make up the EM Index, only Saudi Arabia posted a decline for the quarter (-5.0%), where market performance was dragged down by energy, financial and utility names. Performance for the quarter was broadly distributed around the globe, and numerous markets posted strong double-digit returns. Korea (+32.7%) and Taiwan (+26.1%) were among the strongest performing markets. Both countries benefitted from a resurgence in investor sentiment around the AI theme during the quarter. In addition, Korea's market was boosted by the results of its presidential election, which not only marked the end of an extended period of political turmoil in the country but ushered in a new regime which investors viewed as focused on increasing economic growth and corporate governance reforms. Elsewhere, India (+9.2%) lagged the broader market as investors remained wary of high valuations and slowing earnings momentum in that market.

China's equity market, which represents roughly 29% of the Index, rose just +2.0% in U.S. dollar terms during the quarter. Despite the rollback of the most severe tariff threats issued by both governments, the prospect for continued trade tensions between the U.S. and China weighed heavily on sentiment for Chinese shares. Equities were further pressured by persistent structural challenges stemming from China's elevated government debt and prolonged weakness in its real estate market.

The portfolio's active emerging markets managers outperformed the MSCI Emerging Markets Index (net), returning +12.8% vs. the benchmark's +12.0% return. The portfolio benefited from strong security selection in Korea and India, along with an overweight position in Korea. However, stock selection in China was a drag on performance for the quarter.

Growth manager Macquarie significantly outperformed (+21.4% Manager vs. +12.0% Benchmark) as its meaningful overweight to semiconductor names benefited performance. Quality growth manager Morgan Stanley also outperformed (+13.0% Manager vs. +12.0% Benchmark), helped by strong selection in India and Taiwan. Fundamental deep value manager Pzena underperformed (+9.1%), hurt by a significant underweight to Taiwan and poor selection in China. Quality growth manager Martin Currie (+10.6%) likewise suffered from poor selection in China, while fundamental growth manager Fidelity (+9.9%) lagged due to poor selection in Taiwan and Korea.

Earnest Partners' China A-share strategy underperformed the MSCI China A Index during the quarter (-0.7% Manager vs. +3.3% Benchmark). Weak stock selection within the industrials and technology sectors were the primary detractors from performance.

The passive emerging markets portfolio slightly underperformed the MSCI Emerging Markets Index (net) for the quarter (+11.8% Manager vs. +12.0% Benchmark).

Global Equity and ACWI ex USA Equity

The MSCI All Country World Index (ACWI) (net) returned +11.5% during the quarter. Performance across sectors was broadly positive, with technology names leading the way and bouncing back from a weak first quarter. Communication services and industrials names also posted strong gains, while the energy and healthcare sectors were the only two sectors in negative territory for the quarter.

The U.S. market, which comprises 64% of the index, rose +11.3%. In Europe, Germany led among major markets (+16.3%), buoyed by another robust quarter from its industrials sector, while France (+9.3%) and the U.K. (+8.7%) lagged the broader market. In Asian markets, markets such as Korea (+32.7%) and Taiwan (+26.1%) posted strong gains, while China (+2.0%) and India (+9.2%) lagged.

As a group, the portfolio's global equity managers outpaced the MSCI All Country World Index (ACWI) (net) for the quarter (+13.2% Managers vs. +11.5% Benchmark). Growth managers Baillie Gifford and Martin Currie (+21.7% and +12.9%, respectively) benefited from strong selection in the U.S., while value manager Ariel underperformed (+8.0%) as poor selection within the U.S. and China detracted, as did the manager's currency hedging decisions.

Core/Core Plus and Return Seeking Bonds

The U.S. investment grade fixed income market, as measured by the Bloomberg U.S. Aggregate Bond Index, posted a return of +1.2% during the quarter. U.S. Treasury yields initially fell sharply early in the quarter as investors sought the safety of government debt in response to the Liberation Day surprise tariff announcement. However, yields retraced much of that decline over the rest of the quarter, as a partial rollback of tariffs and continued strong economic growth fueled a risk-on rally in stocks and credit.

Yields on longer-term U.S. Treasuries rose over the quarter as investors became more focused on the U.S. fiscal imbalance and expectations for increased supply of Treasuries to fund the budget deficit. A series of weak U.S. Treasury auctions and a sharp selloff in Japanese government bonds also put upward pressure on long-term U.S. Treasury yields. The net effect over the quarter was a steepening of the yield curve, as short rates declined while long rates rose.

While the Fed kept interest rate-cut expectations in check during the quarter, citing caution and uncertainty regarding the impact of tariffs on economic growth and inflation, President Trump signaled his displeasure with Fed Chair Powell's reluctance to lower interest rates, and announced his intention to replace Powell when his term as Chair expires in May 2026. Investors are closely following developments to assess the likelihood that Powell's replacement will favor more aggressive rate cuts.

Despite growing geopolitical and economic uncertainty caused by tariffs, corporate fundamentals remained healthy, and credit spreads ultimately narrowed across both investment grade and high yield corporate bond sectors during the quarter. Investment grade corporate bond spreads tightened 11 basis points (bps) during the quarter to end at +83bps over similar maturity U.S. Treasuries. The Bloomberg U.S. Corporate Index of investment grade corporate bonds gained +1.8% during the quarter.

The Bloomberg U.S. MBS Index of agency mortgage securities gained +1.1% during the quarter. Mortgages benefitted from a safe haven bid early in the quarter. Index-eligible ABS and CMBS also gained during the quarter, helped by robust investor demand and strong fundamentals. The ICE BofA AA/BBB ABS Index, a proxy for mid-tier quality securitized credit, gained +1.5% during the quarter.

The Bloomberg U.S. High Yield Corporate Bond Index (HY Index) rose +3.6% during the quarter, outperforming equivalent duration U.S. Treasuries by over +2.0%. Credit spreads on high yield corporates tightened by 57 bps during the quarter, and the HY Index ended June with a yield of 7.05%, reflecting an option-adjusted spread of +290 basis points over comparable U.S. Treasuries. During the quarter, lower-quality (CCC-rated) bonds outperformed higher-quality (BB/B-rated) issues as investors increased their appetite for credit risk alongside the rally in U.S. equities. Floating rate bank loans returned +2.3% for the quarter, lagging the return of fixed rate high yield bonds.

The J.P. Morgan EMBI Global Diversified Index of U.S. dollar-denominated emerging market sovereign debt gained +3.3% during the quarter, while local currency sovereign bonds gained over +7.6% in U.S. dollar terms, aided by a sharp decline in the U.S. dollar. Despite the potential for tariff headwinds, EM debt is currently benefiting from attractive real yields, flexibility for added policy easing from central banks due to low or declining inflation, and strong investor demand based on expectations for continued U.S. dollar weakness.

The portfolio's core/core plus bond managers returned +1.5% during the quarter, outperforming the Bloomberg U.S. Aggregate Bond Index, which returned +1.2%. Managers' performance benefitted from good security selection within investment grade credit, while out-of-benchmark allocations high yield credit also contributed positively to relative performance. Duration positioning and short-term trading strategies around U.S. Treasury auctions also delivered gains during the quarter.

The portfolio's return-seeking bond managers returned +2.8% during the quarter, outperforming the portfolio's policy benchmark (the Bloomberg U.S. Aggregate Bond Index) return of +1.2%. Relative to the weighted composite of the managers' individual benchmarks, as a group, the return-seeking managers also outperformed their composite benchmark (+2.8% Managers vs. +2.5% Benchmark). The managers' overweight exposure to the lower quality segments of the high yield credit sector benefited performance. Manager allocations to and issue selection within emerging market debt and non-agency MBS also helped drive relative performance for the quarter.

Treasury Protection Portfolio

The Treasury Protection Portfolio returned +0.2% during the quarter, outperforming the Bloomberg U.S. Treasury 5+ Year Index, which gained +0.1%. Overall, the managers' overweight positioning in the 5-year segment of the yield curve benefited from a rally in intermediate maturity bonds. Managers' tactical trading strategies and an allocation to Treasury Inflation-Protected Securities (TIPS) also contributed to outperformance.

Laddered Bonds + Cash Portfolio

The Laddered Bond and Cash Portfolio returned +1.1% during the quarter, outperforming its benchmark, the ICE BofA U.S. 3-Month Treasury Bill Index, which gained +1.0%. The yields on very short maturities (less than six months) were mostly unchanged over the quarter. Both the laddered bond portfolio and the cash portfolio returned +1.1% for the quarter. Overall, the portfolio benefited from positions in high quality spread assets such as commercial paper, short-term corporate bonds and asset-backed securities.

Public Markets Managers' Organizational Updates Second Quarter 2025

Columbia Threadneedle (International Equity)

Melda Mergen, Global Head of Equities, departed the firm in April 2025. Ms. Mergen's duties will be split between Nicolas Janvier, Head of U.S. Equity Research, who will assume the role of Head of North American Equities, and Philip Dicken, Head of International Equities, who will retain his current role.

Goldman Sachs (Domestic Equity)

Steve Barry, Chief Investment Officer (CIO) of Fundamental Equity, will retire at the end of 2025. At that time, Alexis Deladerrière and Basak Yavuz will become co-CIOs of Fundamental Equity. Mr. Deladerrière and Ms. Yavuz currently serve as co-deputy CIOs of Fundamental Equity. Both are partners of the firm.

Martin Currie (Emerging Markets Equity & Global Equity)

Martin Currie announced that parent company Franklin Templeton will be retiring the Martin Currie brand, effective September 2025, and realigning its investment teams under two existing Franklin Templeton subsidiaries. The Emerging Markets investment team will transition to ClearBridge Investments and will report to Clearbridge CIO Scott Glasser. The Global investment team will transition to Franklin Equity Group (FEG) and will report to FEG Executive VP and CIO Jonathan Curtis. SBI Staff have met with both investment teams to assess the impact of the realignment on each strategy.

Martingale (Domestic Equity)

Paul Koehler, Ph.D., CFA joined Martingale as SVP, Investments in May 2025. Mr. Koehler is responsible for conducting research and managing client portfolios, building on nearly 15 years of quantitative research and data science experience. Prior to joining Martingale, Mr. Kohler was a Partner and Portfolio Manager at AJO Vista.

John Jacques joined Martingale as Senior Quantitative Engineer in May 2025. Mr. Jacques brings 17 years of industry experience in financial systems, data automation, and investment technology to Martingale. Mr. Jacques previously served as a quantitative developer at AJO Vista and High Vista Strategies and joined Martingale following the retirement of software architect Massimo Grasso.

Morgan Stanley (Emerging Markets Equity)

Portfolio Manager Leon Sun departed the firm in March 2025. Mr. Sun was a portfolio manager for Morgan Stanley's EM Equity platform's dedicated China-A Share and China Equity strategies. His duties were assumed by Amay Hattangadi, who worked closely with Mr. Sun on the platform's China strategies. Mr. Hattangadi also serves as Co-lead PM for SBI's Global Emerging Markets mandate.

Payden & Rygel (Fixed Income)

The firm announced the addition of five new members to the investment team and the departure of three investment professionals from the firm. None of the departures directly impacts the SBI's portfolio.

Zevenbergen (Domestic Equity)

Dani Blanchard was promoted to Associate Portfolio Manager during the quarter. Ms. Blanchard has been with Zevenbergen since 2014 and worked as an Equity Research Analyst on the strategy prior to her promotion.

Q2 2025 Manager Meetings

During the quarter, Staff met with the managers below. Note that while staff met with some managers multiple times during the quarter, each manager/strategy is listed only once.

Investment Manager	Asset Class
Ariel	Global Equity
Arrowmark	Domestic Equity
Ashmore Investment Management Limited	Fixed Income
Baillie Gifford	Global Equity
Barrow Hanley	Domestic Equity
BlackRock Financial Management, Inc.	Fixed Income
Columbia Threadneedle Investments	Domestic Equity
Dodge and Cox	Fixed Income
Earnest Partners	Global ex U.S. Equity
Earnest Partners	China Only Equity
Fidelity	Developed Markets Equity
Goldman Sachs	Domestic Equity
Hood River	Domestic Equity
Hotchkis & Wiley	Domestic Equity
JP Morgan	Developed Markets Equity
KKR	Fixed Income
LSV	Domestic Equity
Martin Currie Inc.	Global Equity
Morgan Stanley Investment Management Inc.	Emerging Markets Equity
Neuberger Berman Investment Advisors	Fixed Income
Oaktree Capital Management	Fixed Income
Pacific Investment Management Company	Fixed Income
Peregrine	Domestic Equity
Pzena	Emerging Markets Equity
Record Currency LLC	Currency Overlay
Rice Hall James	Domestic Equity
Wellington	Domestic Equity
Winslow	Domestic Equity
Zevenbergen	Domestic Equity

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REPORT

Participant Directed
Investment Program
and
Non-Retirement
Investment Program
Report

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DATE: October 14, 2025

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

**SUBJECT: Other Retirement Funds, Tax-Advantaged Savings Plans, and
Non-Retirement Investment Program**

This section of the report provides commentary on the investment options and managers for the Other Retirement Funds, Tax-Advantaged Savings Plans, and Non-Retirement Investment Program for the quarter ending June 30, 2025. It includes organizational updates relevant to the strategies used and a list of due diligence meetings staff conducted during the second quarter of calendar year 2025.

The report includes the following sections:

	Page
• Other Retirement Funds and Tax-Advantaged Savings Plans Fund Commentaries	3
• Non-Retirement Investment Program Fund Commentaries	6
• Organizational Updates and Summary of Manager Meeting Activity	7

Important Notes:

All performance figures and market data presented in this report are unaudited and preliminary. The performance presented is net of investment management fees. Reported performance for international funds reflects the impact of fair value pricing, which is the process of adjusting the prices of foreign securities to account for market activity that occurs between the time that a security is valued at the close of business in its local market and the close of business in the U.S. (when the fund is valued). Sources for market data: Bloomberg, Factset, Morningstar, MSCI, FTSE Russell, CRSP, ICE BofA, and Investment Managers.

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Other Retirement Funds and Tax-Advantaged Savings Plans Fund Commentaries **Second Quarter 2025 (CY)**

Domestic Equities

Vanguard Total Stock Market Index Fund

The Fund employs an index sampling approach designed to track the performance of the CRSP U.S. Total Market Index, which represents approximately 100% of the investable U.S. stock market and includes large-, mid-, small-, and micro-cap stocks. The Fund's performance matched the benchmark for the quarter with a +11.0% return.

Vanguard Institutional Index Fund

The Fund employs a full replication indexing approach designed to track the performance of the S&P 500 Index. The Fund's performance matched the benchmark for the quarter with a +10.9% return. *Note: This option is only available to the Minnesota Deferred Compensation Plan (MNDCP).*

Vanguard Dividend Growth Fund

The Fund is actively managed by the subadvisor, Wellington Management. The Fund's strategy is to assemble a concentrated portfolio of large- and mid-cap stocks, emphasizing high-quality companies with a history of paying stable or increasing dividends. The Fund returned +3.5% for the quarter, underperforming the S&P U.S. Dividend Growers Index return of +6.0%. The Fund's stock selection and an underweight position in the information technology sector, which generated strong returns for the quarter, accounted for a majority of the underperformance. The Fund's overweight position in the healthcare sector and weak stock selection with the sector also hurt returns for the quarter.

Vanguard Mid-Cap Index Fund

The Fund employs a full replication indexing approach designed to track the performance of the CRSP U.S. Mid-Cap Index, a broadly diversified pool of mid-cap U.S. stocks. The Fund's performance matched the benchmark for the quarter with a +8.7% return.

T. Rowe Price Institutional Small-Cap Stock Fund

The Fund's investment process emphasizes fundamental research and active, bottom-up stock selection. The Fund seeks to provide long-term capital growth by investing primarily in stocks of small companies in both growth- and value-oriented market segments. The Fund returned +6.6% for the quarter, underperforming the Russell 2000 Index's return of +8.5%. The Fund outperformed amid April's bout of market volatility but trailed in the subsequent rally due to its underweight exposure to lower-quality, high-beta stocks. Specifically, the Fund's stock selection and an underweight position in the information technology sector accounted for a majority of the underperformance.

See Page 1 for important notes regarding the performance and market data included in this report.

International Equities

Fidelity Diversified International Trust

This investment option actively selects the stocks of international companies, primarily within developed markets. The manager focuses on companies with significant long-term earnings potential, durable business models, and attractive growth prospects. The portfolio returned +13.4% for the quarter, outperforming the MSCI EAFE Index, which gained +11.8%. The Fund's relative outperformance was largely attributable to strong stock selection within the industrials sector. Several portfolio holdings in the sector gained on announcement of plans for substantial increases in government spending on defense and infrastructure, particularly among European nations.

Vanguard Total International Stock Index Fund

The Fund employs a full replication indexing approach designed to track the FTSE Global All Cap ex U.S. Index, a market-cap weighted index designed to measure the performance of international developed and emerging market companies. For the quarter, the Fund returned +12.1%, underperforming the benchmark's return of +12.3%

Fixed Income and Capital Preservation Options

Dodge & Cox Core Bond Account (Previously Dodge & Cox Income Fund)

This investment option is a diversified portfolio composed primarily of investment-grade debt securities, with a higher allocation to corporate and securitized debt than the benchmark. The portfolio returned +1.4% for the quarter, outperforming the Bloomberg U.S. Aggregate Index return of +1.2%. The portfolio's overweight to the corporate sector and underweight to U.S. Treasuries contributed to positive relative returns for the quarter. Security selection in the corporate sector, primarily in financials, also added to relative outperformance.

Vanguard Total Bond Market Index Fund

The Fund employs an index sampling approach designed to track the performance of the Bloomberg U.S. Aggregate Float Adjusted Bond Index. For the quarter, the Fund returned +1.3%, outperforming the benchmark's return of +1.2%.

Stable Value Account

Galliard Capital Management manages the Stable Value Account in a separately managed account. The Account's assets are invested in short- and intermediate-duration fixed-income securities combined with investment contracts from financial institutions. The investment contracts have features designed to smooth the impact of changes in interest rates on the value of participant accounts and provide a stable net asset value. The Account returned +0.9% for the quarter compared to a +1.1% return for its benchmark, the 3-Year Constant Maturity Treasury Yield +45 basis points. The Account's underlying fixed income strategies continued to outperform their respective benchmarks. The short-term competitiveness of stable value crediting rates remains under scrutiny, though the gap with money market yields has narrowed.

Money Market Account

State Street Global Advisors manages the cash option in a commingled pool called the Short-Term Investment Strategy. The Account returned +1.1% for the quarter, outperforming the +1.0 return of its benchmark, the ICE BofA 3-Month U.S. T-Bill Index.

See Page 1 for important notes regarding the performance and market data included in this report.

Balanced Option

Vanguard Balanced Index Fund

The Fund seeks capital appreciation, current income, and long-term income growth by employing an index sampling approach designed to track the investment performance of a composite benchmark consisting of 60% CRSP U.S. Total Stock Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index. The Fund returned +7.4% for the quarter, outperforming the benchmark return of +7.1%.

Non-Retirement Investment Program Fund Commentaries Second Quarter 2025 (CY)

Non-Retirement Equity Fund

Mellon Investments Corporation passively manages the Non-Retirement Equity Fund in a separately managed portfolio. The Fund employs a full replication indexing approach designed to track the performance of its benchmark, the S&P 500 Index. The Fund's performance for the quarter matched the benchmark, which returned +10.9%.

Non-Retirement Bond Fund

Prudential Global Investment Management (PGIM) actively manages the Non-Retirement Bond Fund in a separately managed portfolio. The Fund's performance for the quarter matched its benchmark, the Bloomberg U.S. Aggregate Bond Index, which returned +1.2%. During the quarter, the portfolio maintained its substantial underweight to U.S. Treasuries and overweight positions to spread sectors, including asset-backed and commercial asset-based securities.

Assigned Risk Plan Fixed Income Portfolio

RBC Global Asset Management actively manages the fixed income portfolio for the Assigned Risk Plan relative to the Bloomberg U.S. Government Intermediate Index. RBC emphasizes active security selection and sector allocation decisions in its investment process to attempt to add value relative to the benchmark. The portfolio returned +1.4% during the quarter, slightly underperforming the benchmark, which returned +1.5%. The portfolio maintained its conservative positioning during the quarter, having previously reduced its holdings of agency mortgage securities in favor of U.S. Treasuries.

Non-Retirement Money Market Fund

State Street Global Advisors manages the Non-Retirement Money Market Fund against the iMoneyNet Money Fund Average. For the quarter, the Fund returned +1.1%, outperforming the benchmark, which gained +1.0%.

**Organizational Updates
Other Retirement Funds, Tax-Advantaged Savings Plans,
and Non-Retirement Investment Program
Second Quarter 2025 (CY)**

Galliard (Other Retirement Funds and Tax-Advantaged Savings Plans – Stable Value)

Galliard's parent company Allspring Global Investments announced effective July 1, 2025, Allspring CEO Joe Sullivan will transition to exclusively focus on his role of executive chair of the Board of Directors. Kate Burke will become CEO and will remain on the Board. Ms. Burke joined the firm in September 2023 to oversee Investments, Engineering & Technology, Finance, Global Operations, Human Resources.

**Manager Meetings
Second Quarter 2025 (CY)**

During the quarter, Staff met with the managers below. Note that while staff met with some managers multiple times during the quarter, each manager/strategy is listed only once.

Investment Manager	Management Style and Asset Class	Investment Program¹
Ascensus	Multi-Asset Class Platform	MN ABLE Plan
Dodge & Cox	Active, Fixed Income	PDIP
Galliard	Active, Stable Value	PDIP
T. Rowe Price	Active, Domestic Small Cap Equity	PDIP
Fidelity	Active, International Equity	PDIP
Mellon	Passive, Domestic Large Cap Equity	Non-Retirement
PGIM	Active, Fixed Income	Non-Retirement
RBC	Active, Fixed Income	Non-Retirement
State Street	Passive, Target Retirement Fund	PDIP
	Active, Money Market	PDIP
	Active, Money Market	Non-Retirement
TIAA	Multi-Asset Class Platform	MN 529 Plan
Vanguard	Passive, Domestic Equity, Total	PDIP
	Passive, Domestic Equity, Extended Market	MN ABLE Plan
	Passive, Domestic Equity, Large Cap	PDIP and ABLE Plan
	Passive, Domestic Equity, Mid Cap	PDIP
	Passive, International Equity, Total	PDIP
	Passive, International Equity, Emerging Markets	MN ABLE Plan
	Passive, Fixed Income, Total	PDIP and MN ABLE Plan
	Passive, Fixed Income, Short-Term Bond and Short-Term Inflation Protected Securities	MN ABLE Plan
	Passive, Balanced Fund	PDIP
	Active, Domestic Large Cap Equity (Wellington)	PDIP
	Active, Money Market	MN ABLE Plan
Wellington	Active, Domestic Large Cap Equity	PDIP

¹PDIP (Participant Directed Investment Program) includes Other Retirement Funds and Tax-Advantaged Savings Plans.

REPORT

AON Market Environment Report

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Market Environment

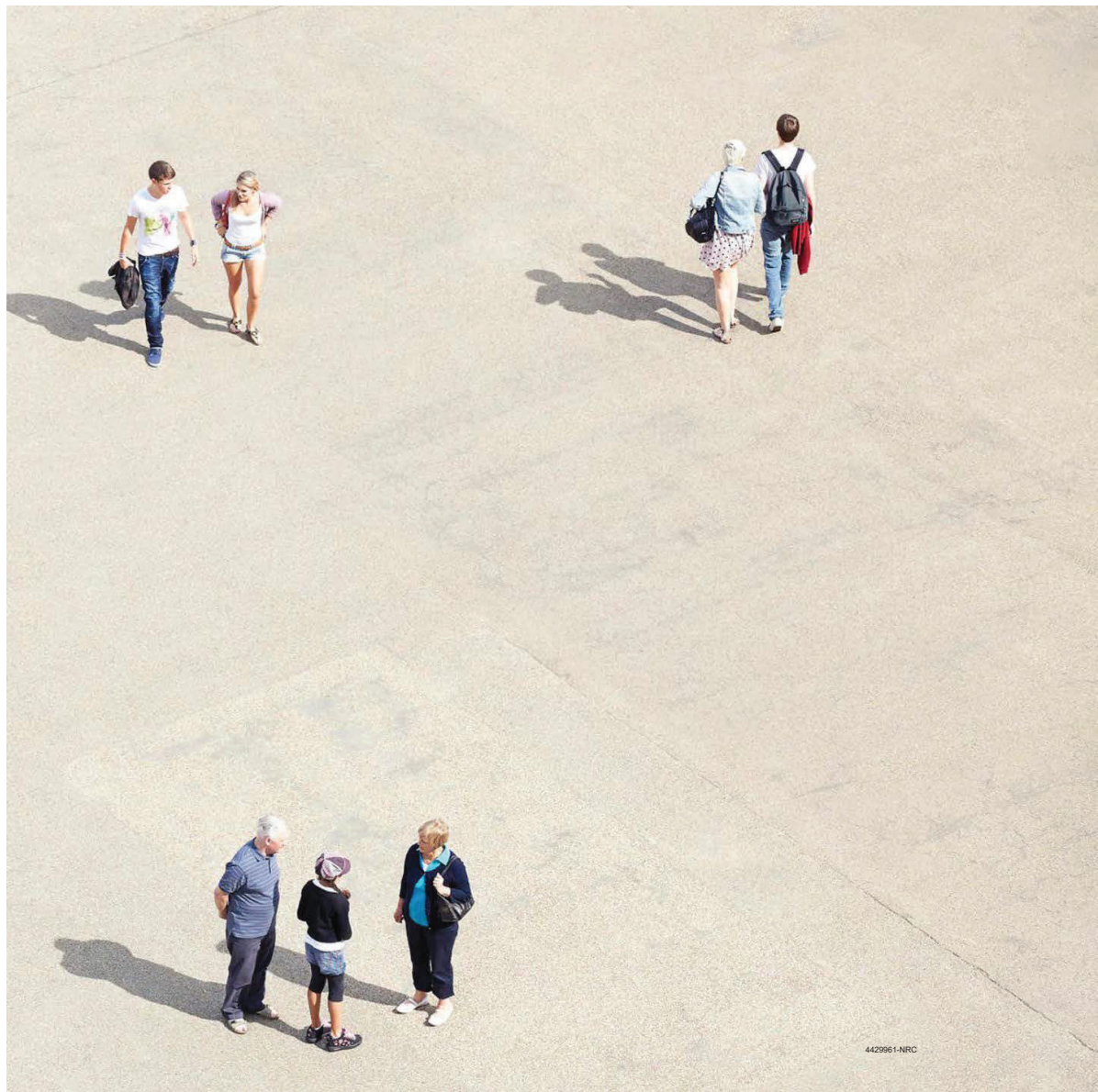
Second Quarter 2025.

Market Data as of 6/30/2025 unless stated otherwise.

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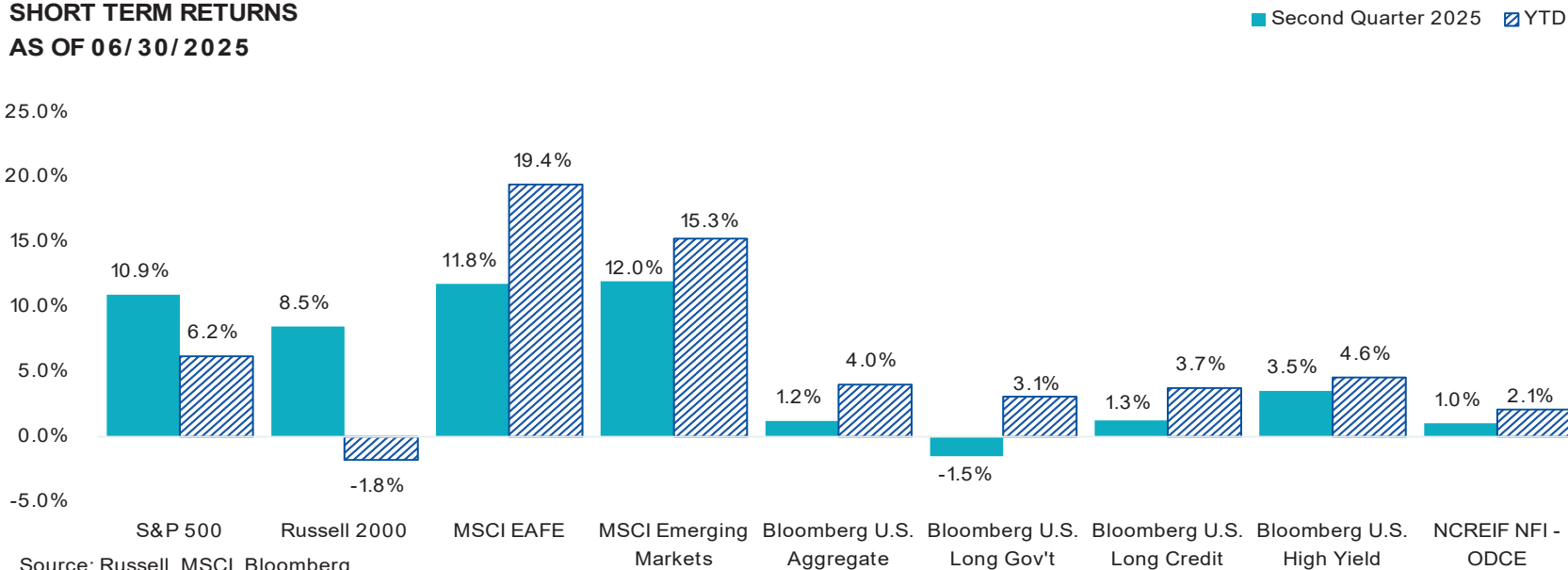
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Market Highlights

SHORT TERM RETURNS AS OF 06/30/2025



Source: Russell, MSCI, Bloomberg

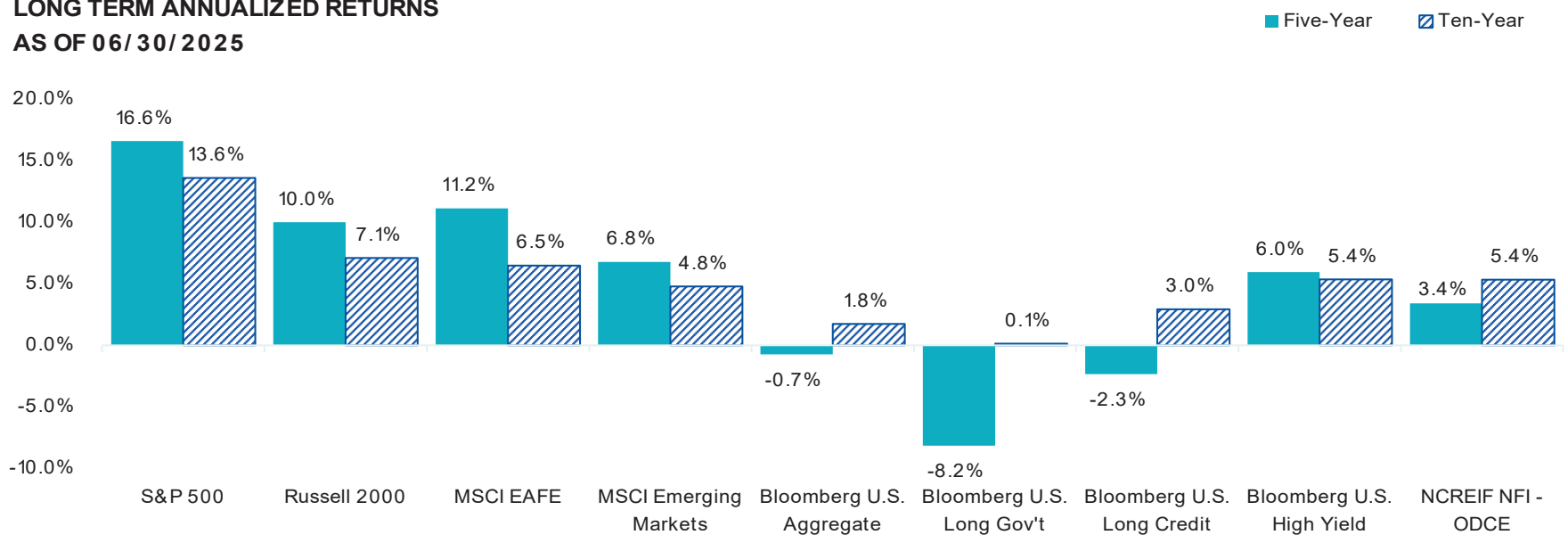
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MSCI net return: deducts assumed foreign tax withholding rate from dividends before investing.

Market Highlights

LONG TERM ANNUALIZED RETURNS AS OF 06/30/2025



Source: Russell, MSCI, Bloomberg

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Market Highlights

Returns of the Major Capital Markets						
Period Ending 06/30/2025						
	Second Quarter	YTD	1-Year	3-Year ¹	5-Year ¹	10-Year ¹
Equity						
MSCI All Country World IMI	11.62%	9.82%	15.89%	16.80%	13.39%	9.69%
MSCI All Country World	11.53%	10.05%	16.17%	17.35%	13.65%	9.99%
Dow Jones U.S. Total Stock Market	11.09%	5.68%	15.23%	19.07%	15.87%	12.88%
Russell 3000	10.99%	5.75%	15.30%	19.08%	15.96%	12.96%
S&P 500	10.94%	6.20%	15.16%	19.71%	16.64%	13.65%
Russell 2000	8.50%	-1.79%	7.68%	10.00%	10.04%	7.12%
MSCI All Country World ex-U.S. IMI	12.71%	17.88%	17.83%	13.92%	10.20%	6.18%
MSCI All Country World ex-U.S.	12.03%	17.90%	17.72%	13.99%	10.13%	6.12%
MSCI EAFE	11.78%	19.45%	17.73%	15.97%	11.16%	6.51%
MSCI EAFE (Local Currency)	4.80%	7.83%	8.04%	13.47%	11.64%	7.04%
MSCI Emerging Markets	11.99%	15.27%	15.29%	9.70%	6.81%	4.81%
Equity Factors						
MSCI World Minimum Volatility (USD)	2.55%	10.80%	17.63%	11.30%	9.07%	8.76%
MSCI World High Dividend Yield	2.89%	9.92%	14.55%	11.27%	11.34%	8.33%
MSCI World Quality	9.32%	6.38%	7.01%	19.88%	14.88%	13.62%
MSCI World Momentum	14.88%	13.98%	17.81%	21.28%	14.33%	13.47%
MSCI World Enhanced Value	9.67%	17.29%	19.10%	15.91%	14.17%	7.37%
MSCI World Equal Weighted	10.61%	13.70%	19.50%	14.68%	11.74%	8.03%
MSCI World Index Growth	17.74%	8.66%	16.80%	23.28%	15.32%	13.55%
MSCI USA Minimum Volatility (USD)	0.63%	6.52%	13.84%	12.11%	11.01%	10.99%
MSCI USA High Dividend Yield	0.35%	4.89%	10.22%	9.73%	11.00%	9.89%
MSCI USA Quality	8.29%	5.14%	9.59%	21.62%	16.20%	15.31%
MSCI USA Momentum	15.02%	12.86%	18.80%	21.16%	13.45%	14.06%
MSCI USA Enhanced Value	6.97%	8.80%	12.81%	11.08%	12.59%	8.50%
MSCI USA Equal Weighted	6.28%	4.88%	14.27%	13.95%	13.49%	10.27%
MSCI USA Growth	19.26%	6.21%	18.21%	27.16%	18.35%	17.03%

Returns of the Major Capital Markets						
Period Ending 06/30/2025						
	Second Quarter	YTD	1-Year	3-Year ¹	5-Year ¹	10-Year ¹
Fixed Income						
Bloomberg Global Aggregate	4.52%	7.27%	8.91%	2.75%	-1.16%	1.17%
Bloomberg U.S. Aggregate	1.21%	4.02%	6.08%	2.55%	-0.73%	1.76%
Bloomberg U.S. Long Gov't	-1.51%	3.08%	1.58%	-3.66%	-8.16%	0.15%
Bloomberg U.S. Long Credit	1.25%	3.75%	5.13%	2.72%	-2.32%	2.95%
Bloomberg U.S. Long Gov't/ Credit	-0.18%	3.38%	3.32%	-0.31%	-4.93%	1.79%
Bloomberg U.S. TIPS	0.48%	4.67%	5.84%	2.34%	1.61%	2.67%
Bloomberg U.S. High Yield	3.53%	4.57%	10.29%	9.93%	5.97%	5.38%
Bloomberg Global Treasury ex U.S.	6.99%	9.57%	10.95%	1.56%	-2.85%	0.14%
JP Morgan EMBI Global (Emerging Markets)	3.06%	5.48%	9.51%	8.23%	1.81%	3.45%
Commodities						
Bloomberg Commodity Index	-3.08%	5.53%	5.77%	0.13%	12.68%	1.99%
Goldman Sachs Commodity Index	-2.81%	1.94%	0.25%	-0.37%	17.69%	1.45%
Hedge Funds						
HFRI Fund-Weighted Composite ²	4.35%	3.91%	8.47%	7.79%	8.56%	5.40%
HFRI Fund of Funds ²	3.42%	3.03%	7.25%	6.54%	6.21%	3.82%
Real Estate						
NAREIT U.S. Equity REITS	-1.16%	-0.25%	8.60%	5.35%	8.63%	6.32%
NCREIF NFI - ODCI	1.03%	2.10%	3.54%	-5.43%	3.42%	5.35%
FTSE Global Core Infrastructure Index	3.11%	8.92%	17.65%	6.55%	8.43%	7.72%
Private Equity						
Burgiss Private iQ Global Private Equity ³			6.00%	1.89%	13.10%	12.71%

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.

¹ Periods are annualized.

² Latest 5 months of HFR data are estimated by HFR and may change in the future.

³ Burgiss Private iQ Global Private Equity data is as at December 31, 2024

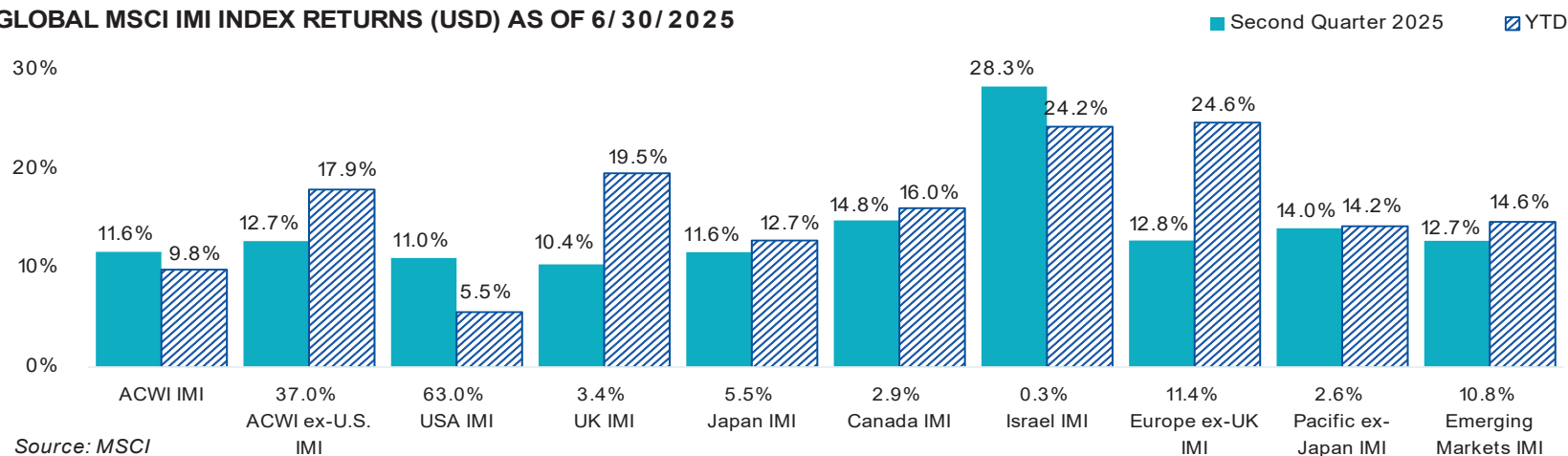
Source: Russell, MSCI, Bloomberg

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MSCI net return: deducts assumed foreign tax withholding rate from dividends before investing.

Global Equity Markets

GLOBAL MSCI IMI INDEX RETURNS (USD) AS OF 6/30/2025



- Global equity markets rose over Q2 2025, despite facing significant correction during the early weeks of the quarter. The S&P 500 index rose by 10.9% over the quarter. The MSCI AC World index rose by 11.7% over the quarter, marginally underperforming the MSCI AC World ex-U.S. index, which rose 12.3%.
- The reciprocal tariff announcement made by the U.S. President increased market volatility, leading to the CBOE Volatility Index (VIX) touching 52.3 in early April, before closing the quarter at 16.7, which is below its 20-year average of 19.3.
- Despite rising by 11.0% over the quarter, USA IMI was the second-worst performer. Information Technology (23.4%) and Communication Services (18.5%) were the best-performing sectors.
- Across international markets, all regions posted positive returns. Israeli equities outperformed with a return of 28.3%, followed by Canada IMI (14.8%).

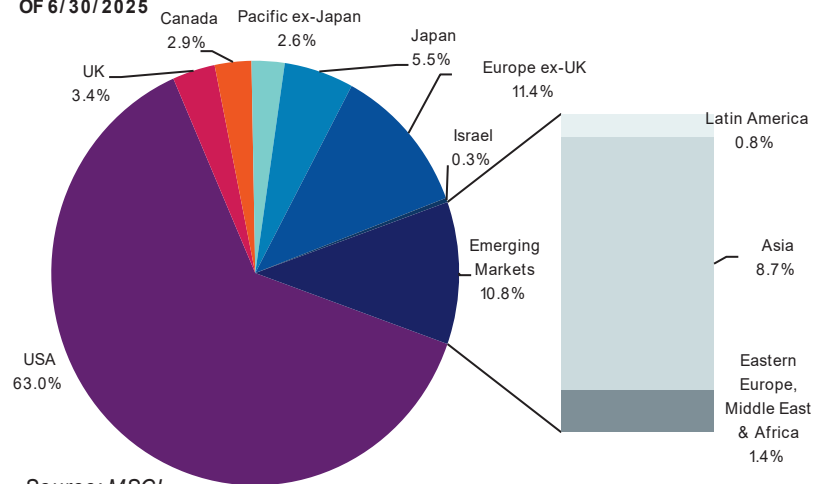
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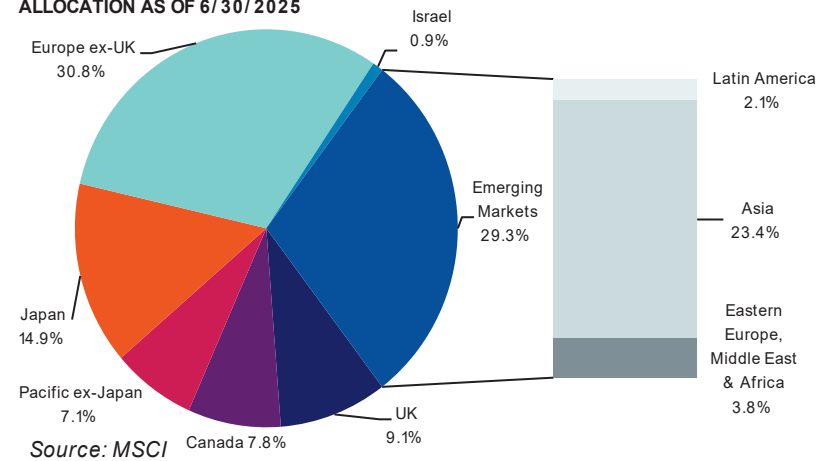
Global Equity Markets

Below is the country/region breakdown of the global and international equity markets as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index, respectively.

MSCI ALL COUNTRY WORLD IMI INDEX GEOGRAPHIC ALLOCATION AS OF 6/30/2025



MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX GEOGRAPHIC ALLOCATION AS OF 6/30/2025

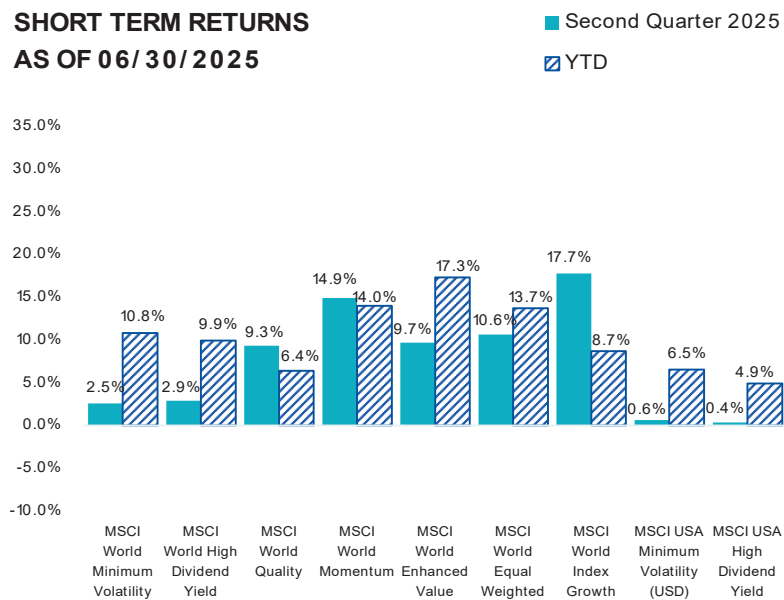


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Factor Indices

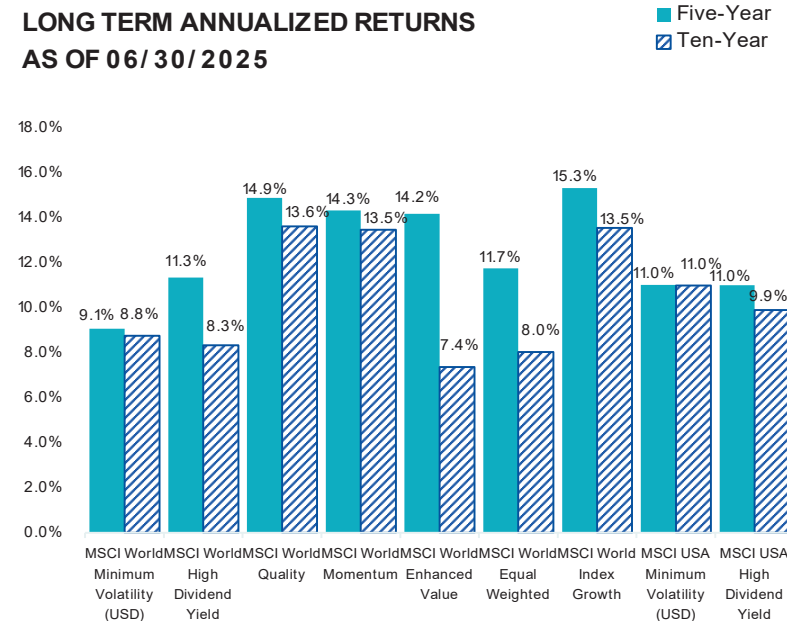
SHORT TERM RETURNS AS OF 06/30/2025



Source: MSCI

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.

LONG TERM ANNUALIZED RETURNS AS OF 06/30/2025



Source: MSCI

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.

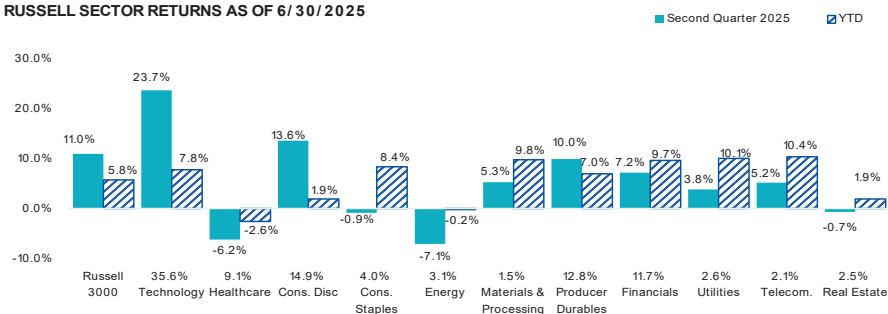
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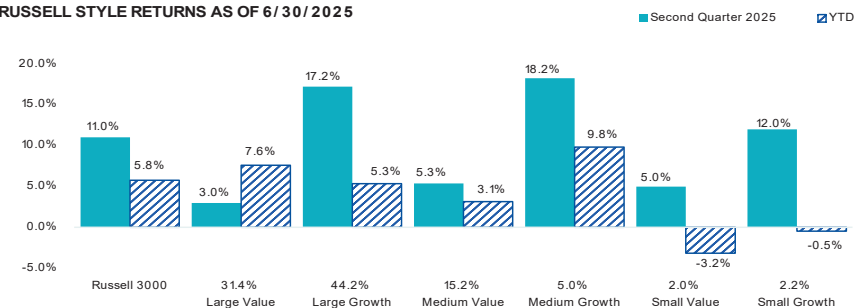
U.S. Equity Markets

- Amidst the uncertainty surrounding the U.S. tariff policies, the S&P 500 entered correction territory (-11.2%) from March 31 to April 8, before making a recovery and ending the quarter up by 10.9%. The tech heavy NASDAQ Composite Index rose by 18.0%.
- Q2 remained dominated by trade and tariff policy changes by U.S. President Donald Trump, resulting in trade tensions between the U.S. and its trading partners. The U.S. economy contracted at an annualised rate of 0.5% in Q1 2025, much lower than the initial 0.4% growth economists had expected and the previous quarter's 2.4%. This marks the first quarterly decline since Q1 2022, primarily driven by an increase in imports and a decrease in government spending.
- The FOMC has projected a GDP growth of 1.4% for 2025, down from the March projection of 1.7%, while PCE inflation is forecasted to rise to 3.0% this year, up from the March projection of 2.7%.
- The Russell 3000 Index rose 11.0% during the second quarter and rose by 5.8% on a YTD basis. Technology (23.7%) and Consumer Discretionary (13.6%) were the best performers, while Energy (-7.1%) and Healthcare (-6.2%) were the worst performers.
- On a style basis, growth outperformed value across market capitalizations over the quarter. Medium-cap stocks outperformed Large and Small-cap stocks in growth style as well as value style.

RUSSELL SECTOR RETURNS AS OF 6/30/2025



RUSSELL STYLE RETURNS AS OF 6/30/2025

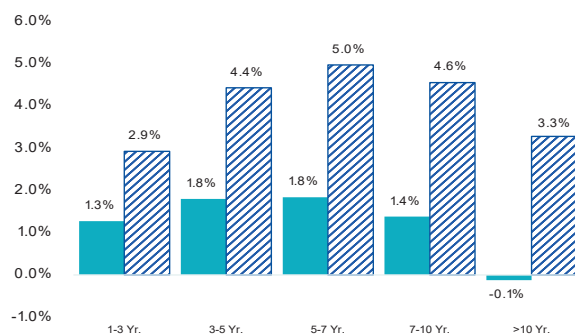


Source: Russell Indexes

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U.S. Fixed Income Markets

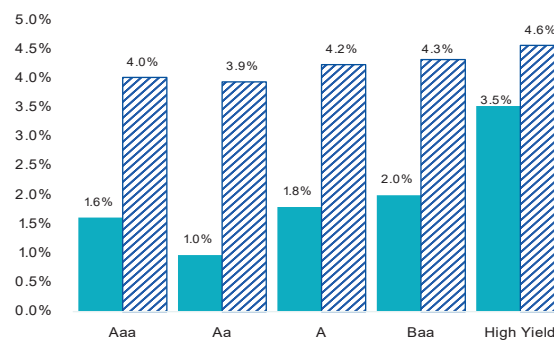
BLOOMBERG AGGREGATE RETURNS BY MATURITY AS OF 06/30/2025



Source: FactSet

■ Second Quarter 2025 ■ YTD

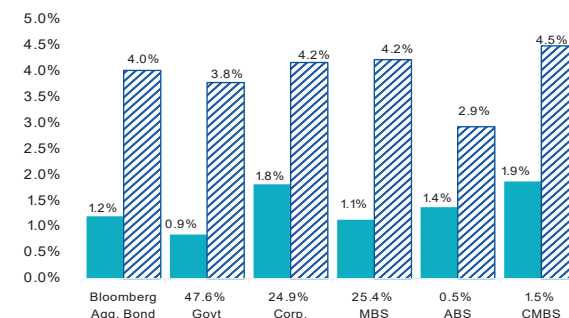
BLOOMBERG AGGREGATE RETURNS BY QUALITY AND HIGH YIELD RETURNS AS OF 06/30/2025



Source: FactSet

■ Second Quarter 2025 ■ YTD

BLOOMBERG AGGREGATE RETURNS BY SECTOR AS OF 06/30/2025



Source: FactSet

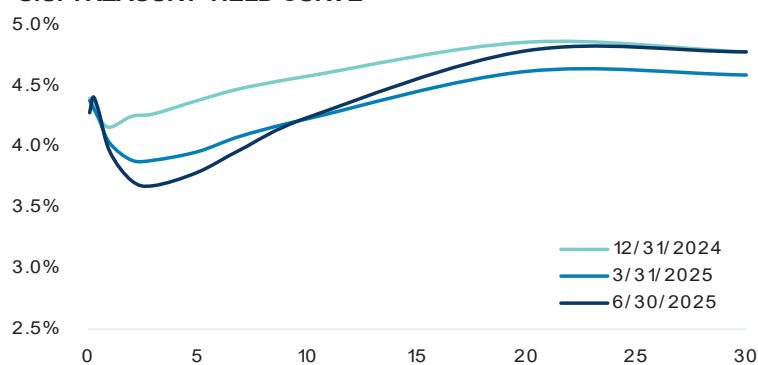
■ Second Quarter 2025 ■ YTD

- The U.S. Fed maintained interest rates over the quarter between a range of 4.25% – 4.50%. The latest Fed "dot plot," shows eight FOMC members projecting an interest rate reduction of 0.50% in 2025, with seven members projecting no further rate cuts this year. Two members each project a 0.25% and 0.75% rate cut, respectively.
- The Bloomberg U.S. Aggregate Bond Index rose by 1.2% over the quarter and is up by 4.0% on a YTD basis.
- Across durations, almost all maturities finished the quarter in positive territory with medium-term maturities rising more.
- Within investment-grade bonds, lower-quality issues generally outperformed higher-quality issues, with Baa-rated bonds returning 2.0% during the quarter. High-yield bonds rose by 3.5%. On a 1-year basis, high-yield bonds have outperformed indicating an increased risk appetite.

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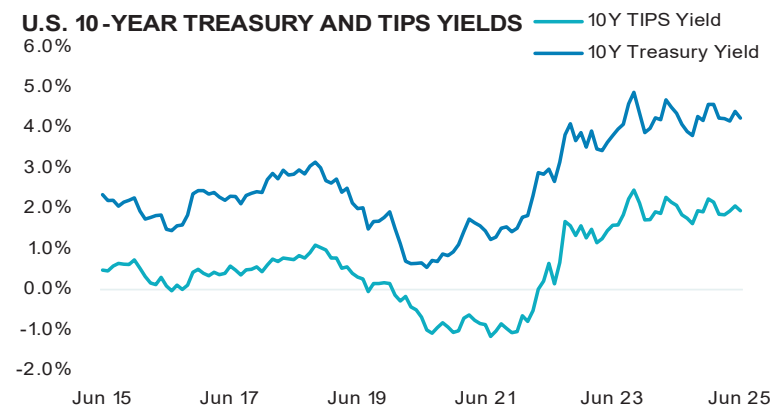
U.S. Fixed Income Markets

U.S. TREASURY YIELD CURVE



Source: U.S. Department of Treasury Maturity (Years)

U.S. 10-YEAR TREASURY AND TIPS YIELDS

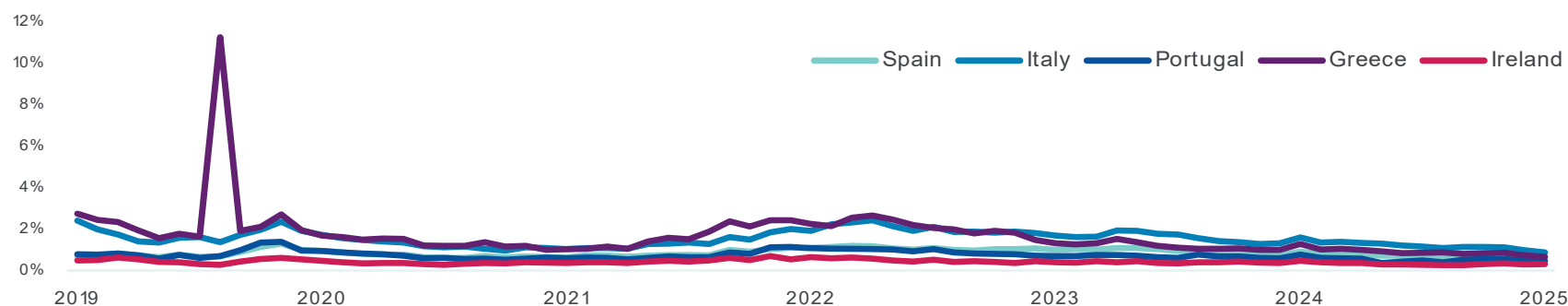


Source: U.S. Department of Treasury

- U.S. Treasury yields displayed deviating behaviour across maturities, with the yield curve mostly shifting downwards in the short to medium term maturities and rising across the long-term maturities. The 10-year Treasury yield rose by 1bp to 4.24%, and the 30-year Treasury yield rose by 19bps to 4.78% over the quarter.
- U.S. headline consumer price index (CPI) rose to 2.7% year-on-year in June, higher than the 2.4% year-on-year recorded in March and in line with the economists' expectations. U.S. core inflation, which excludes energy and food prices, rose to 2.9% year-on-year in June, higher than March's 2.8% but lower than the economists' expectations of 3.0%.
- The 10-year TIPS yield rose by 10bps over the quarter to 1.95%.

European Fixed Income Markets

EUROZONE PERIPHERAL BOND SPREADS (10-YEAR SPREADS OVER GERMAN BUNDS)



Source: FactSet

- European government bond spreads over 10-year German bunds fell across the Euro Area, with the spreads showing maximum contraction for Italy, followed by Greece and Portugal. Over Q2 2025, the European Central Bank (ECB) reduced its policy interest rate twice by 0.25% each to 2.0%. The ECB expects the headline inflation at 2% in 2025, 1.6% in 2026 and 2% in 2027. GDP growth is expected to be 0.9% in 2025, 1.1% in 2026 and 1.3% in 2027.
- Greek and Italian government bond yields fell by 27bps and 37bps to 3.26% and 3.47%, respectively over the quarter while Portugal government bond yields fell by 21bps to 3.04%. Irish and Spain government bond yields fell by 11bps and 17bps to 2.90% and 3.17%, respectively over the quarter.
- German bund yields fell by 10bps to 2.60% over the quarter.
- Eurozone headline inflation slowed down as the CPI increased 2.0% year-on-year in June, lower than the 2.2% increase recorded in March and in line with the economists' expectations. Core inflation rose 2.3% year-on-year in June, lower than the March's 2.4% and in line with the economists' expectations.

Credit Spreads

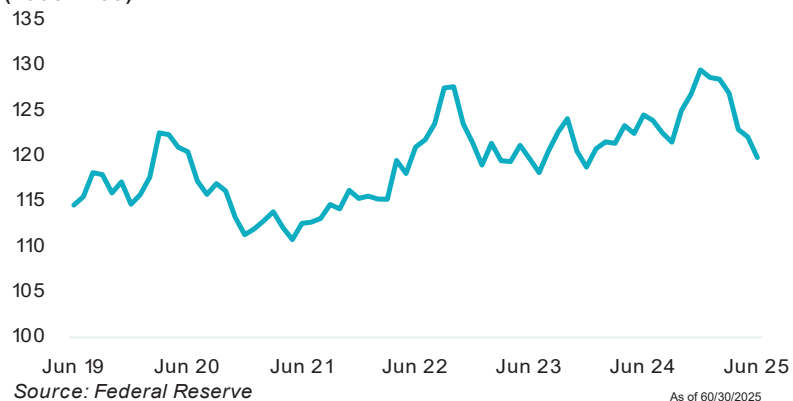
Spread (bps)	6/30/2025	3/31/2025	12/31/2024	Quarterly Change (bps)	YTD
U.S. Aggregate	32	35	34	-3	-1
Long Gov't	0	-1	0	1	1
Long Credit	102	117	100	-15	2
Long Gov't/Credit	49	57	50	-7	-1
MBS	37	36	43	1	-6
CMBS	84	88	80	-3	4
ABS	57	60	44	-3	13
Corporate	83	94	80	-11	3
High Yield	290	347	287	-57	3
Global Emerging Markets	216	232	219	-16	-3

Source: FactSet, Bloomberg

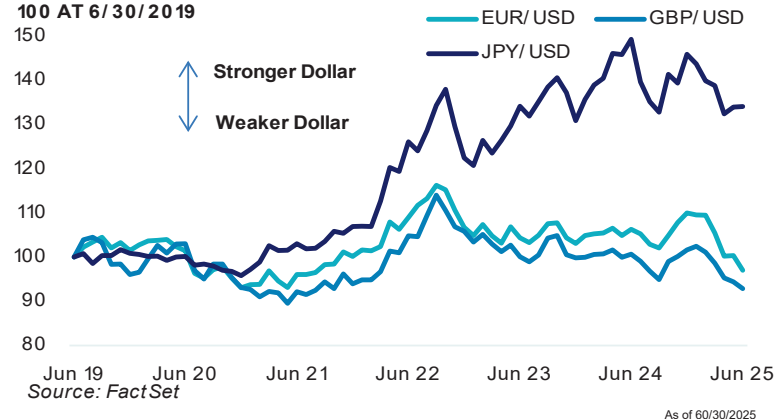
- Credit markets rose amid rising risk tolerance sentiment, with spreads generally narrowing.
- High Yield and Global Emerging Markets spreads narrowed by 57bps and 16bps, respectively. ABS spreads narrowed by 3bps.

Currency

**TRADE WEIGHTED U.S. DOLLAR INDEX
(2006 = 100)**

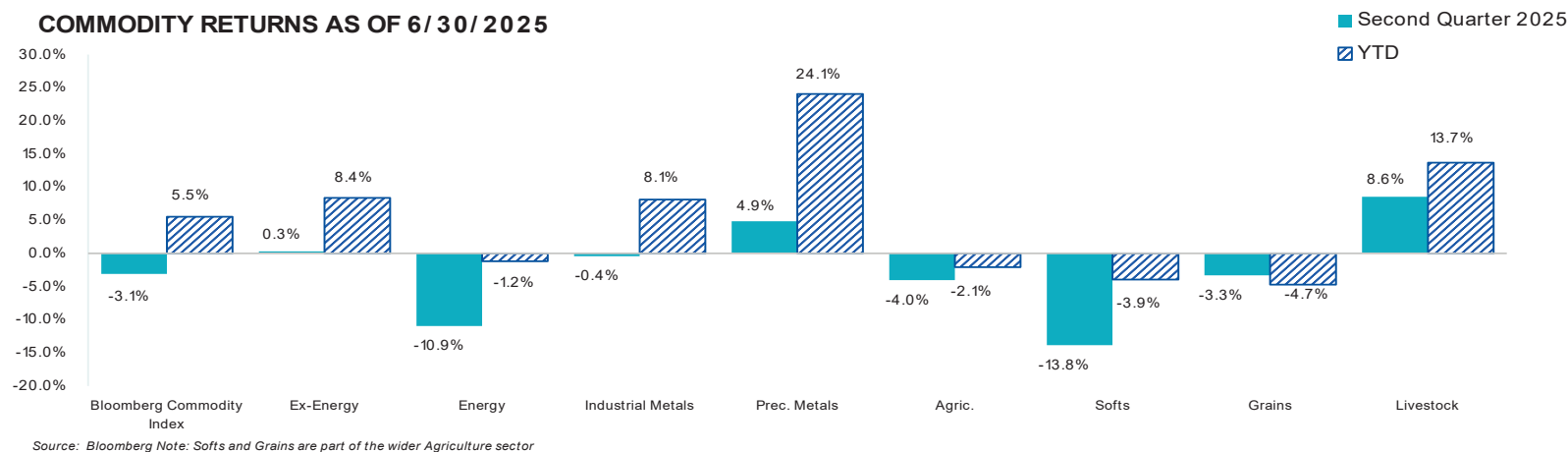


**U.S. DOLLAR RELATIVE TO EUR, GBP AND JPY REBASED TO
100 AT 6/30/2019**



- The U.S. Dollar depreciated against all major currencies over the quarter. On a trade-weighted basis, the U.S. dollar depreciated by 5.6%.
- Sterling appreciated by 5.8% against the U.S. dollar. In its May meeting, the Bank of England (BoE) reduced interest rates by 0.25% to 4.25%. The BoE forecasts that inflation will peak at 3.5% in Q3 2025 (down from 3.7%), before returning to the target rate of 2% by Q1 2027.
- The U.S. dollar depreciated by 8.0% against the euro and by 3.4% against the yen.

Commodities

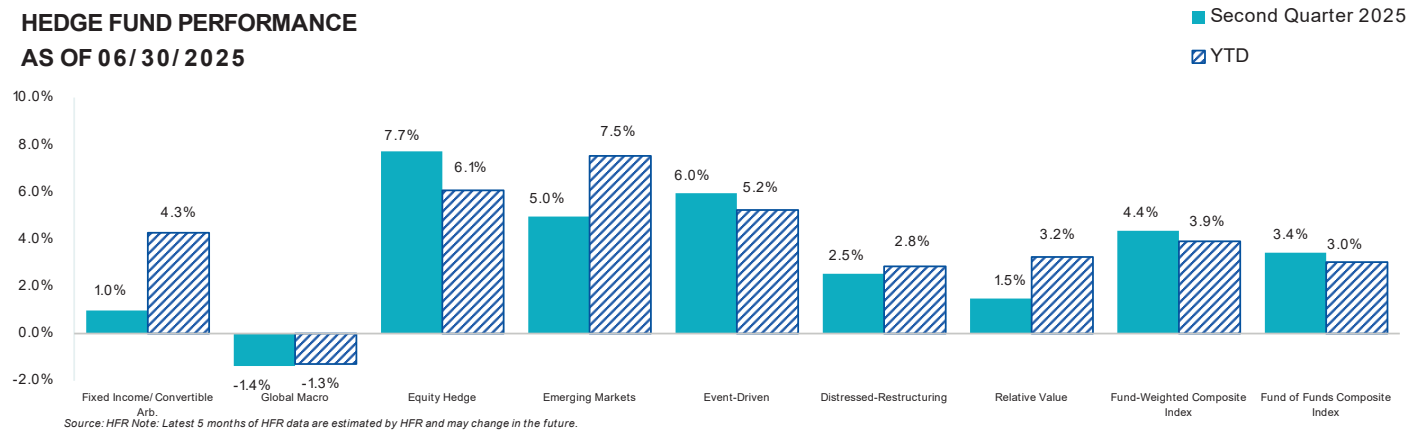


- Commodity prices fell over the quarter (except for Prec. Metals and Livestock sub-sector) with the Bloomberg Commodity Index returning -3.1%.
- The softs sub-sector was the worst performer over the quarter at -13.8%.
- The Livestock sector rose the most over the quarter at 8.6%.
- Brent crude oil prices mostly moderated over the quarter, with OPEC+ countries raising oil production output by 960,000 barrels per day (bpd) over Q2 2025 and announcing further increase of 411,000 bpd starting July 2025. Brent crude oil prices ranged from U.S. \$60/BBL to U.S. \$79/BBL, before ending the quarter at U.S. \$68/BBL.

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Hedge Funds Market Overview

HEDGE FUND PERFORMANCE AS OF 06/30/2025



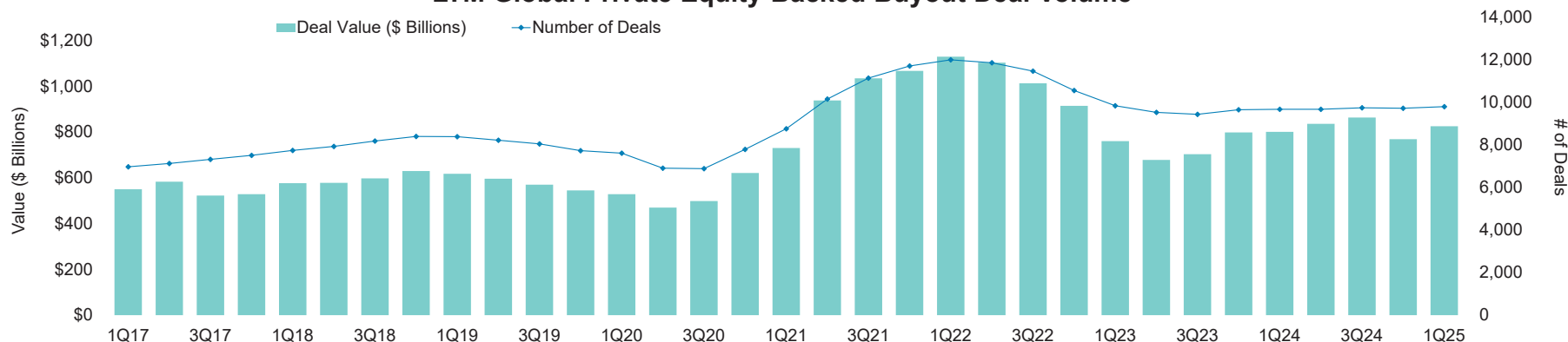
- Hedge fund performance was mostly positive over the quarter.
- The HFRI Fund-Weighted Composite produced a return of 4.4% and the HFRI Fund of Funds Composite Index produced a return of 3.4% over the quarter.
- Over the quarter, Equity Hedge was the best performer with a return of 7.7%.
- Global Macro was the worst performer with a return of -1.4% over the quarter.
- On a YTD basis, Emerging Markets has outperformed all other strategies while Global Macro has performed the worst.

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Private Equity Overview

First Quarter 2025

LTM Global Private Equity-Backed Buyout Deal Volume



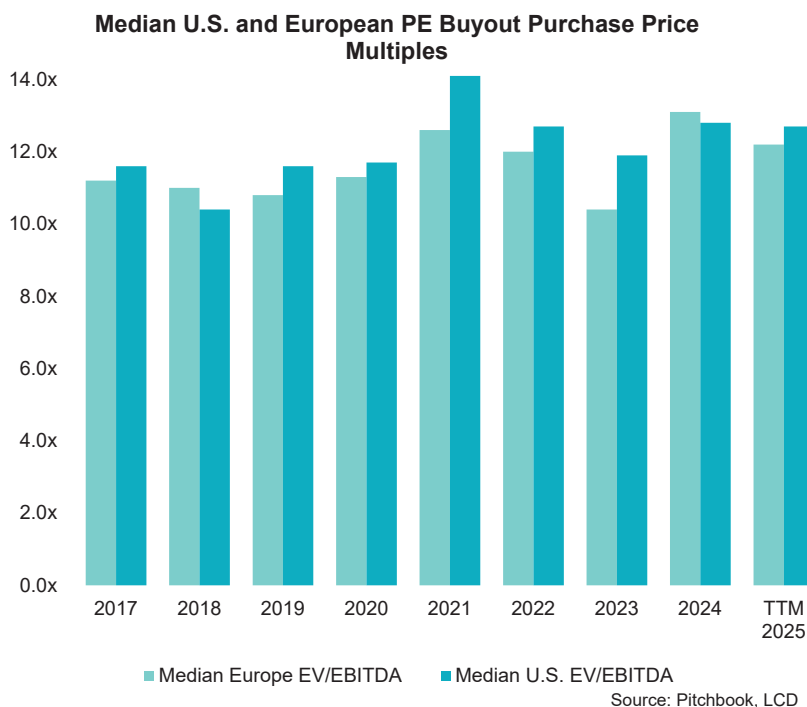
Source: Preqin Pro

- **Fundraising:** In Q1 2025, \$247.5 billion of capital was raised by 717 funds, which was an increase of 30.0% on a capital basis but a decrease of 13.7% by number of funds closed over the prior quarter. Capital raised and the number of funds closed in Q1 2025 represented a decrease of 18.9% and 44.9%, respectively, compared to the five-year quarterly average.¹
- **Buyout:** Global private equity-backed buyout deals totaled \$210.8 billion in Q1 2025, which was an increase on a capital basis of 11.1% compared to Q4 2024 and an increase of 1.2% compared to the five-year quarterly average.¹ On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.2x at the end of Q1 2025, a decrease compared to the 13.1x seen at the end of 2024 and down slightly from the five-year average (12.5x). In Europe, on a TTM basis, median private equity EV/EBITDA multiples reached 12.7x at the end of Q1 2025, roughly in line with the 12.8x multiple seen at the end of 2024.² Globally, buyout exit value totaled \$85.6 billion across 530 deals during the quarter, down, on a value and deal count basis, from \$129.8 billion in exit value from 597 deals during the prior quarter. Exit value in Q1 2025 was also materially below the five-year quarterly average of \$129.1 billion in value.¹
- **Venture:** During the quarter, an estimated 3,990 U.S. venture-backed transactions totaling \$91.5 billion were completed, which was an increase of 18.5% on a capital basis and 10.9% by deal count over the prior quarter, which saw 3,599 deals completed totaling \$77.2 billion. This was also an increase of 34.6% on a capital basis compared to the five-year quarterly average of \$57.4 billion. Total U.S. venture-backed exit value increased during the quarter, totaling approximately \$56.2 billion across an estimated 385 completed transactions compared to \$41.3 billion of value across 359 exits in Q4 2024. However, Q1 2025 exit value remained below the five-year quarterly average of \$81.4 billion from 360 transactions.³

Sources: 1 Preqin 2 Pitchbook/LCD 3 PitchBook/NVCA Venture Monitor 4 Fitch Ratings 5 Jefferies

Notes: FY=Fiscal year ended 12/31; YTD=Year to date; LTM=Last 12 months (aka trailing 12 months); PPM=Purchase Price Multiples: Total Purchase Price ÷ EBITDA.

Private Equity Overview (cont.)



Sources: 1 Preqin 2 Pitchbook/LCD 3 PitchBook/NVCA Venture Monitor 4 Fitch Ratings 5 Jefferies

- **Mezzanine:** 5 funds closed on \$4.0 billion during the quarter, an increase from the prior quarter's total of \$0.6 billion raised by 5 funds. Capital raised in Q1 2025 was also an increase of 89.6% compared to Q1 2024. However, this represented a decrease compared to the five-year quarterly average of \$6.4 billion.¹
- **Distressed Debt/Special Situations:** The TTM U.S. high-yield default rate was 1.95% as of March 2025, which was down from December 2024's TTM rate of 2.58%.⁴ During the quarter, \$23.8 billion was raised by 16 funds, up from the \$14.3 billion raised by 15 funds during Q4 2024. Capital raised in Q1 2025 represented 56.0% of 2024's total of \$42.5 billion.¹
- **Secondaries:** 10 funds raised \$34.1 billion during Q1 2025, up significantly from the \$7.9 billion raised by 22 funds in Q4 2024. This was also an increase compared to the five-year quarterly average of \$16.0 billion.¹ The average discount rate for LP buyout and venture capital portfolios finished Q1 2025 at 6.0% and 23.0%, respectively, with buyout discounts being flat and venture discounts decreasing 2.0% compared to Q4 2024.⁵
- **Infrastructure:** \$60.1 billion of capital was raised by 26 funds in Q1 2025 compared to \$20.1 billion of capital raised by 31 funds in Q4 2024. The 10 largest funds in market are currently seeking a combined \$156.9 billion in capital. Infrastructure managers completed 435 deals for an aggregate deal value of \$151.0 billion in Q1 2025, an increase, on a capital basis, compared to 482 deals totaling \$81.4 billion completed in Q4 2024.¹
- **Natural Resources:** During Q1 2025, 10 funds closed on \$3.6 billion, a decrease compared to 12 funds closing on \$10.8 billion during the prior quarter. This was also a decrease of 22.3% compared to the five-year quarterly average. 65 energy and utilities buyout deals were completed in Q1 2025 totaling \$0.5 billion, a decrease, on a value and number of deals basis, compared to 87 completed deals totaling \$7.7 billion in Q4 2024.¹

Appendix

Index Definitions

Index	Definition
MSCI AC World Index	The MSCI ACWI captures large and mid cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries. With 2,528 constituents, the index covers approximately 85% of the global investable equity opportunity set.
MSCI All Country World Investable Market Index	The MSCI ACWI Investable Market Index (IMI) captures large, mid and small cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries. With 8,274 constituents, the index is comprehensive, covering approximately 99% of the global equity investment opportunity set.
MSCI World Index	The MSCI World Index captures large and mid-cap representation across 23 Developed Markets (DM) countries. With 1,325 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI EAFE	The MSCI EAFE Index is an equity index which captures large and mid cap representation across 21 Developed Markets countries around the world, excluding the U.S. and Canada. With 695 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets	The MSCI Emerging Markets Index captures large and mid cap representation across 24 Emerging Markets (EM) countries. With 1,203 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets Investable Market Index	The MSCI Emerging Markets Investable Market Index (IMI) includes large, mid and small cap companies and targets coverage of approximately 99% of the free float-adjusted market capitalization in each country.
MSCI Factor indexes	These are rules-based indexes that capture the returns of systematic factors that have historically earned a persistent premium over long periods of time—such as Value, Low Size, Low Volatility, High Yield, Quality and Momentum and Growth.
MSCI USA Value/Growth	The MSCI USA Value/Growth Index captures U.S. large and mid cap securities exhibiting overall value/growth style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.
MSCI ACWI ex USA IMI	The MSCI ACWI ex USA Investable Market Index (IMI) captures large, mid and small cap representation across 22 of 23 Developed Markets (DM) countries (excluding the United States) and 24 Emerging Markets (EM) countries. With 6,060 constituents, the index covers approximately 99% of the global equity opportunity set outside the US.
MSCI USA IMI	The MSCI USA Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the U.S. market. With 2,214 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in the US
MSCI UK IMI	The MSCI United Kingdom Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the UK market. With 279 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in the UK.
MSCI Japan IMI	The MSCI Japan Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the Japan market. With 979 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in Japan.
MSCI Canada IMI	The MSCI Canada Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the Canada market. With 265 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in Canada.

Appendix

Index Definitions

Index	Definition
MSCI Israel IMI	The MSCI Israel Investable Market Index (IMI) is designed to measure the performance of the large, mid and small cap segments of the Israeli market. With 100 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in Israel.
MSCI Europe ex UK IMI Index	The MSCI Europe ex UK IMI Index is an equity index which captures large, mid and small cap representation across 14 of 15 Developed Market (DM) countries in Europe* excluding the UK. With 955 constituents, the index is comprehensive, covering approximately 99% of the free float-adjusted market capitalization in each country.
MSCI Pacific ex Japan IMI	The MSCI Pacific ex Japan Investable Market Index (IMI) captures large, mid and small cap representation across 4 of 5 Developed Markets (DM) countries in the Pacific region (excluding Japan). With 383 constituents, the index covers approximately 99% of the free float-adjusted market capitalization in each country.
Dow Jones U.S. Total Stock Market Index	A capitalization-weighted index of stocks representing all U.S. equity eligible securities.
S&P 500	The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities and serves as the foundation for a wide range of investment products. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.
S&P GSCI	A world-production weighted index that is based on the average quantity of production of each commodity in the index.
Russell 3000 Index	The Russell 3000 Index is a market-capitalization-weighted equity index that seeks to track 3000 of the largest U.S.-traded stocks.
Russell 2000 Index	The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.
Bank of America Merrill Lynch U.S. Corporate Index	An unmanaged index considered representative of fixed-income obligations issued by U.S. corporates.
Bank of America Merrill Lynch U.S. High Yield Index	An unmanaged index considered representative of sub-investment grade fixed-income obligations issued by U.S. corporates.
Bloomberg U.S. Government Index	An unmanaged index considered representative of fixed-income obligations issued by the U.S. government.
Bloomberg Long Credit Index	An unmanaged index considered representative of long duration fixed-income obligations issued by U.S. corporates.
Bloomberg Global Aggregate Index	The Bloomberg Global Aggregate Index is a flagship measure of global investment grade debt from twenty-eight local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Appendix

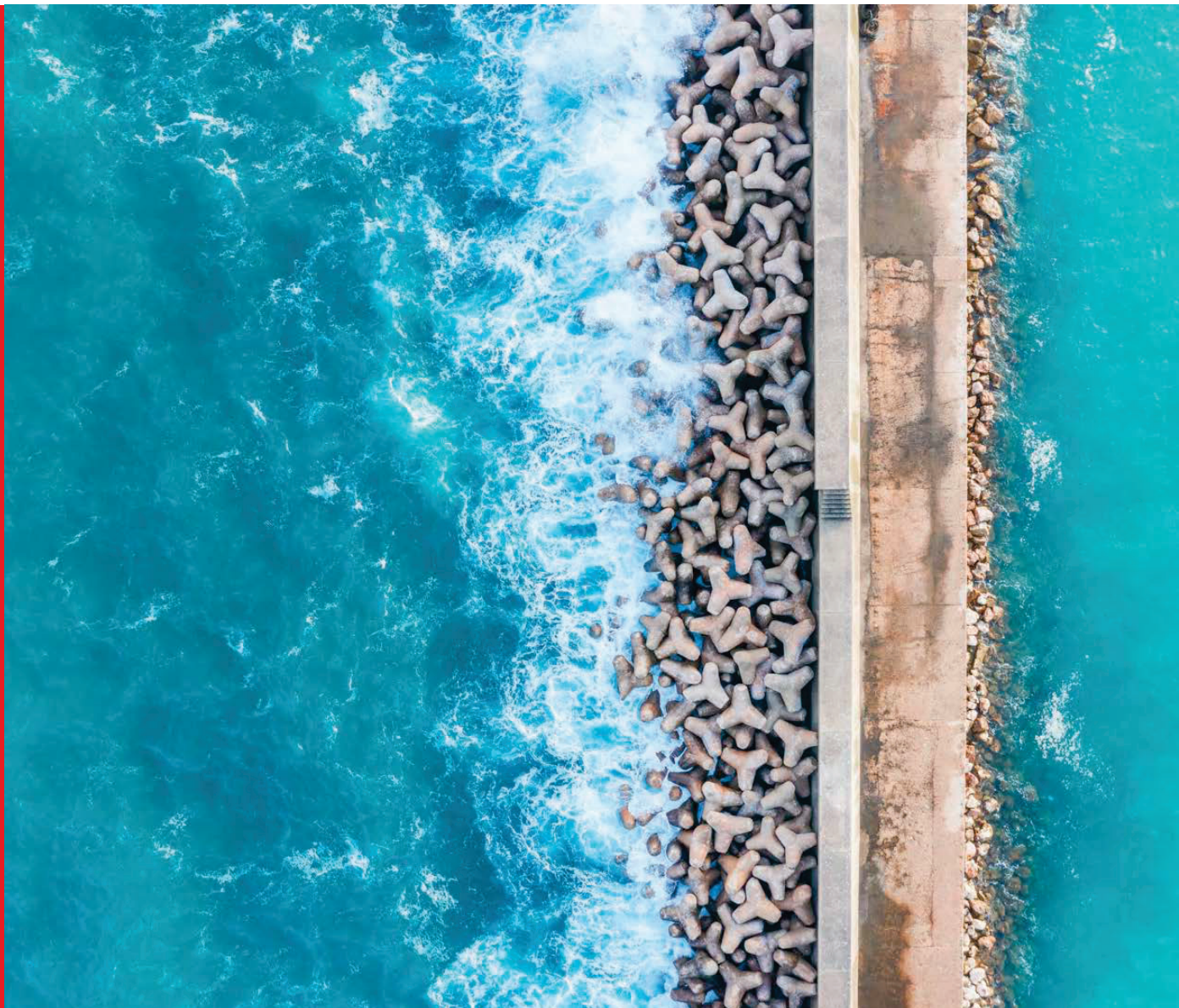
Index Definitions

Index	Definition
Bloomberg U.S. Government: Long	The Bloomberg U.S. Government: Long Index tracks U.S. dollar denominated, fixed-rate, nominal U.S. Treasuries and U.S. agency debentures (securities issued by U.S. government owned or government sponsored entities, and debt explicitly guaranteed by the U.S. government) with maturities equal or greater than 10 years
Bloomberg U.S. Corporate High Yield Index	The Bloomberg U.S. Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on the indices' EM country definition, are excluded. The U.S. Corporate High Yield Index is a component of the U.S. Universal and Global High Yield Indices.
Bloomberg Global Treasury ex-U.S.	The Bloomberg Global Treasury Index tracks fixed-rate, local currency government debt of investment grade countries, outside the United States.. The index represents the treasury sector of the Global Aggregate Index.
Bloomberg U.S. Aggregate Index	The Bloomberg U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, U.S. dollar denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, fixed rate agency MBS, ABS and CMBS (agency and non-agency).
Bloomberg U.S. TIPS Index	The Index measures the performance of the U.S. treasury inflation linked bond market.
Bloomberg Commodity Index	The Bloomberg Commodity Index is a broadly diversified commodity price index distributed by Bloomberg Index Services Limited.
J.P. Morgan EMBI Global Diversified Index	The J.P. Morgan EMBI Global Diversified Index (EMBIGD) tracks liquid, U.S. Dollar emerging market fixed and floating-rate debt instruments issued by sovereign and quasi-sovereign entities.
JP Morgan EMBI Global	The J.P.Morgan Emerging Markets Bond Index Global ("EMBI Global") tracks total returns for traded external debt instruments in the emerging markets and is an expanded version of the JPMorgan EMBI+.
HFRI Fund Weighted Composite	The HFRI Fund Weighted Composite Index is a global, equal-weighted index of single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in U.S. Dollar and have a minimum of \$50 Million under management or \$10 Million under management and a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.
HFRI Fund of Funds	HFR FOF Indices are comprised of funds that are constituents of the HFRI 500 Index and are designed to synthetically (S) represent the performance of Low, Mid or High volatility fund of funds.
FTSE NARIET	The FTSE Nareit U.S. Real Estate Index Series tracks the performance of the U.S. REIT industry at both an industry-wide level and on a sector-by-sector basis.
NCREIF NFI-ODCE	The NFI-ODCE, like the NCREIF Property Index (NPI) and other stock and bond indices, is a capitalization-weighted index based on each fund's net invested capital, which is defined as beginning market value net assets (BMV), adjusted for weighted cash flows (WCF) during the period.
FTSE Global Core Infrastructure	The FTSE Infrastructure Index Series is a comprehensive set of nine cap-weighted indices, diversified across six FTSE-defined infrastructure sub-sectors, to reflect the performance of infrastructure and infrastructure-related listed securities worldwide.

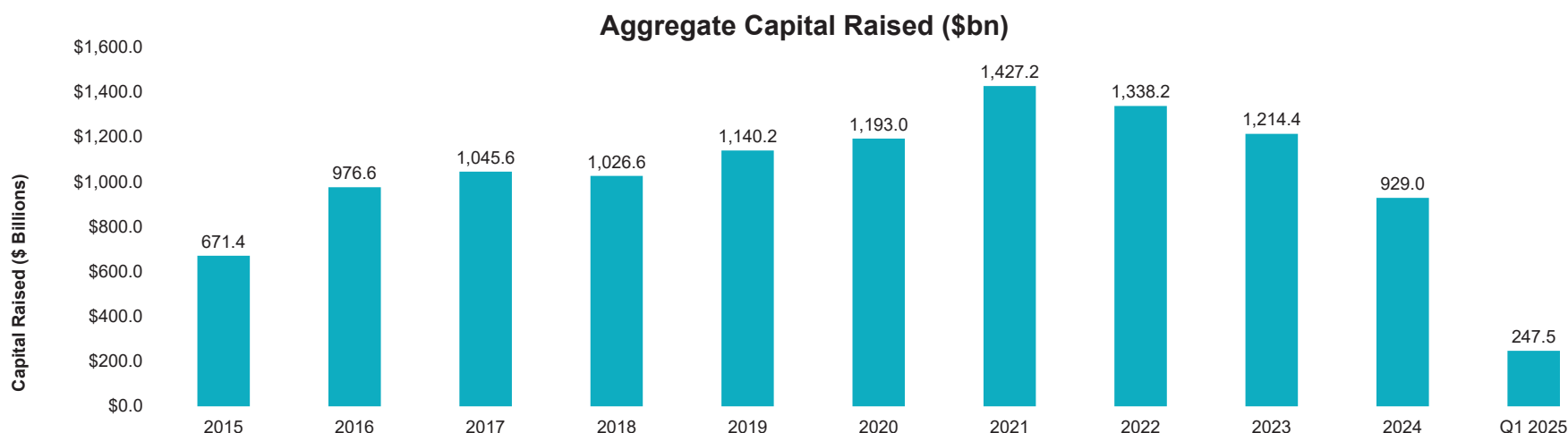
AON

Q1 2025 Global Private Equity Market Overview

July 2025



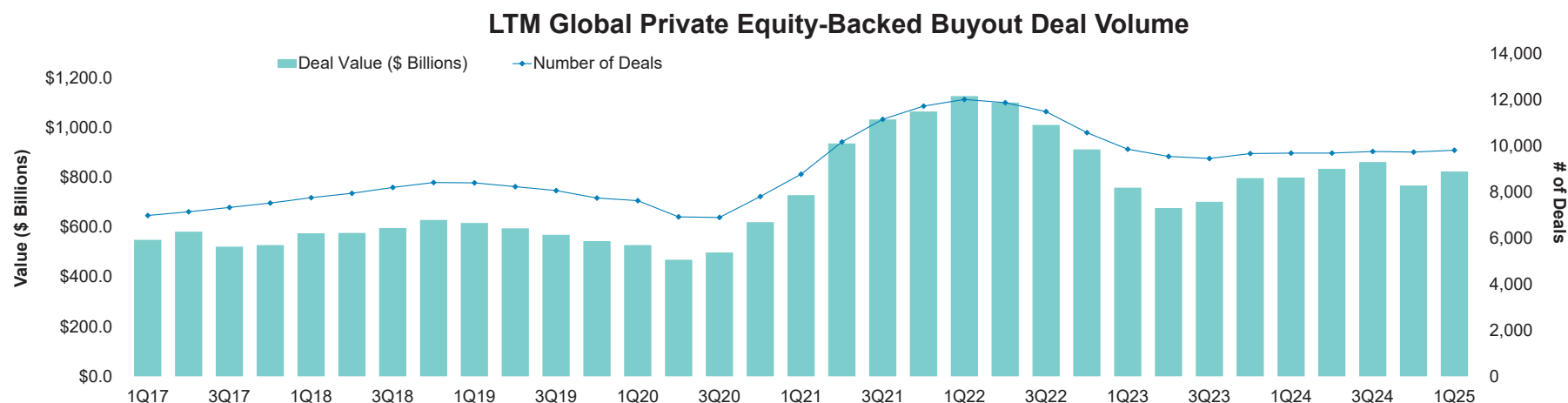
Private Equity Overview



Fundraising

- In Q1 2025, \$247.5 billion of capital was raised by 717 funds, which was an increase of 30.0% on a capital basis but a decrease of 13.7% by number of funds closed over the prior quarter. The number of funds closed increased by 0.4%, while capital raised decreased by 5.9% when compared to Q1 2024.¹
 - Capital raised and the number of funds closed in Q1 2025 represented a decrease of 18.9% and 44.9%, respectively, compared to five-year quarterly average.
 - The majority of capital was raised by funds located in North America, comprising 54.6% of the quarter's total. This was down from 65.9% during the prior quarter. Capital raised by European managers accounted for 47.4% of capital raised during the quarter, a large increase from 26.9% in Q4 2024. The remainder was attributable to managers located in Asia and other parts of the world.
- Dry powder stood at \$3.4 trillion at the end of the Q3 2024, a decrease compared to year-end 2023's total of \$3.7 trillion, but an increase of 4.5% compared to the five-year average.¹

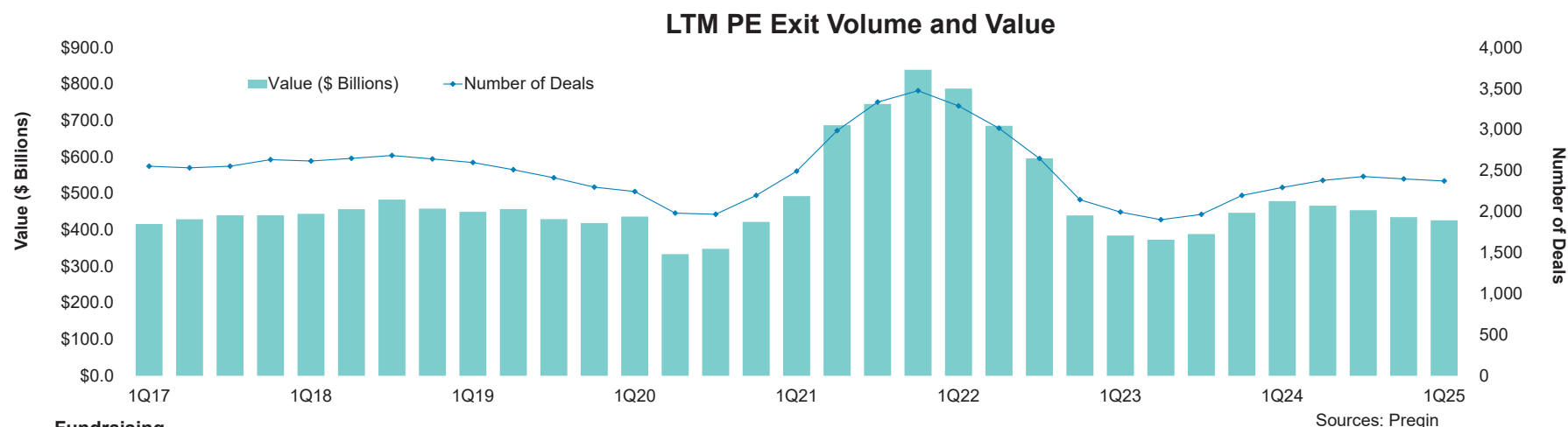
Private Equity Overview (cont.)



Activity

- Global private equity-backed buyout deals totaled \$210.8 billion in Q1 2025, which was an increase of 11.1%, on a value basis, compared to Q4 2024. On a number of deals basis, however, the quarter's total decreased by 5.9% over the prior quarter as the average deal size increased. Q1 2025's global buyout deal value and count was 36.7% and 3.2% higher, respectively, than Q1 2024's totals.¹
 - Deal value in Q1 2025 experienced a slight increase of 1.2% compared to the five-year quarterly average.
 - Add-on deals comprised the largest number of completed deals by type, accounting for 49.9% of the quarter's total.
- On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.2x at the end of Q1 2025, a decrease compared to the 13.1x seen at the end of 2024.³
 - The median purchase price multiple for U.S. PE buyout transactions in Q1 2025 was lower than the five-year average of 12.5x EBITDA, but higher than the ten-year average of 11.5x EBITDA.
- In Europe, on a TTM basis, median private equity EV/EBITDA multiples reached 12.7x at the end of Q1 2025, roughly in line with the 12.8x multiple seen at the end of 2024. This was up compared to the five-year average of 11.6x and the ten-year average of 11.0x.³
- GPs were able to obtain debt financing, however equity comprised a higher proportion of completed transactions. For U.S. broadly syndicated loan-funded transactions, debt comprised 45.7% of completed transactions, a slight decrease compared to the prior quarter's 47.7%.³

Buyouts / Corporate Finance



Fundraising

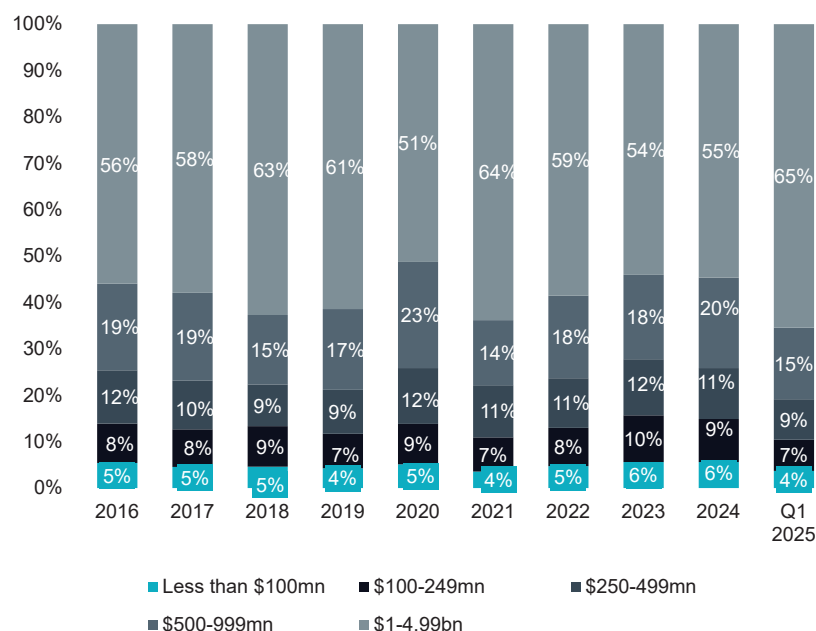
- \$105.1 billion was closed on by 261 buyout and growth funds in Q1 2025, an increase compared to \$94.6 billion raised by 259 funds in Q4 2024. However, this represented a decrease of 36.1% compared to capital raised in Q1 2024.¹
 - Activity in Q1 2025 was lower, on a capital and number of funds raised basis, compared to the five-year quarterly average of \$138.1 billion raised by 283 funds.
 - Insight Partners Fund XIII Growth Buyout Fund was the largest fund raised during the quarter, closing on \$12.5 billion of commitments.
- Buyout and growth equity dry powder was estimated at \$1.4 trillion at the end of Q3 2024, down 6.3% compared to the year-end 2023.¹
 - An estimated 60.3% of buyout dry powder was targeted for North America, while European dry powder comprised 25.2% and Asia/Rest of World accounted for the remainder.

Activity

- Globally, buyout exit value totaled \$85.6 billion across 530 deals during the quarter, down, on a value and deal count basis, from \$129.8 billion in exit value from 597 deals during the prior quarter. Exit value in Q1 2025 was also materially below the five-year quarterly average of \$129.1 billion in deal value.¹

Buyouts / Corporate Finance

Buyout Deal Value by Deal Size



Sources: Preqin

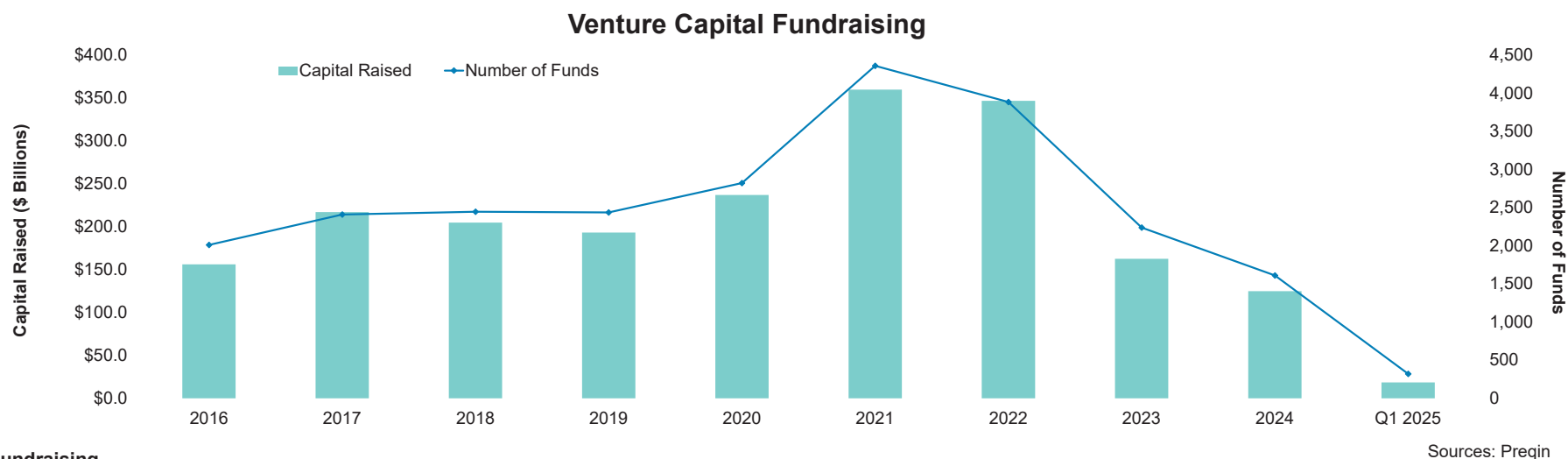
Activity

- Global private equity-backed buyout deals totaled \$210.8 billion in Q1 2025, which was an increase on a capital basis of 11.1% compared to Q4 2024 and an increase of 1.2% compared to the five-year quarterly average.¹
 - By geography, deals in North America accounted for the largest percentage of deal value at an estimated 65.9% in Q1 2025, followed by Asia/Australasia (18.8%). By industry, consumer discretionary deals accounted for the largest percentage of deal value at 22.8%, followed by industrials at 19.2%.
- Of deals less than \$5.0 billion in size, deals valued between \$1.0 billion - \$4.9 billion accounted for an estimated 65.3% in Q1 2025 compared to 54.7% of deal value in 2024. Deals valued between \$500.0 million to \$999.9 million accounted for the second largest weighting, representing 15.4% of total deal value during the quarter.¹
- On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.2x at the end of Q1 2025, a decrease compared to the 13.1x seen at the end of 2024.³
 - This was also below the five-year average of 12.5x EBITDA, but above the ten-year average of 11.5x EBITDA.
 - This remained below the peak multiple seen in 2021, where the median EBITDA multiple reached 14.1x.
- In Europe, on a TTM basis, median private equity EV/EBITDA multiples reached 12.7x at the end of Q1 2025, roughly in line with the 12.8x multiple seen at the end of 2024. This was up compared to the five-year average of 11.6x and above the ten-year average of 11.0x EBITDA.³
- The equity contribution for U.S. broadly syndicated loan-funded buyout transactions stood at 54.3% in Q1 2025 as transactions were less reliant on debt financing to complete the deals. This remained above the five- and ten-year average levels of 50.9% and 47.9%, respectively.³

Opportunity⁴

- Mid-market managers with value-creation expertise across business cycles.
- Managers focused on value-oriented strategies and/or corporate carve-outs.

Venture Capital

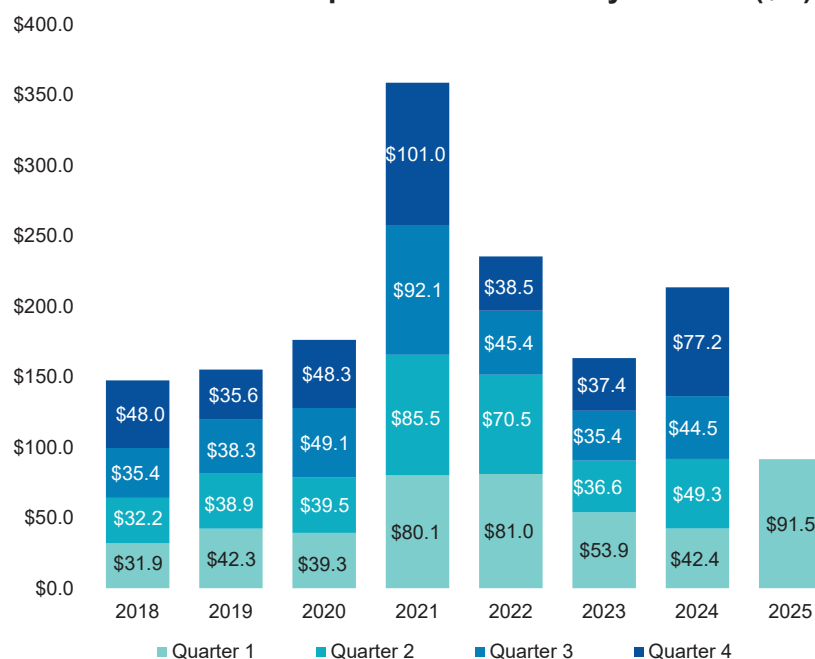


Fundraising

- \$18.5 billion of capital was raised by 321 funds in Q1 2025, lower, by both capital raised and number of funds closed, from the prior quarter's total of \$29.9 billion raised by 419 funds. This was also lower than the \$33.2 billion of capital raised by 395 funds during Q1 2024.¹
 - Q1 2025 fundraising was 69.9% lower, on a capital basis, compared to the five-year quarterly average of \$61.6 billion. The number of funds closed in Q1 2025 was also materially lower than the five-year quarterly average of 746 funds.
 - US Innovative Technology Fund was the largest fund raised during the quarter with total commitments of \$2.3 billion.
- At the end of Q1 2025, there were an estimated 7,354 funds in market targeting \$444.2 billion.¹
 - A fund being raised by Zhongwan Capital was the largest fund in market, targeting an estimated \$14.9 billion.
 - The majority of funds in market are seeking commitments of \$200.0 million or less.
- Dry powder was estimated at \$658.7 billion at the end of Q3 2024, down from year-end 2023's total of \$712.1 billion.¹

Venture Capital

U.S. Venture Capital Investments by Quarter (\$B)



Source: Pitchbook / NVCA

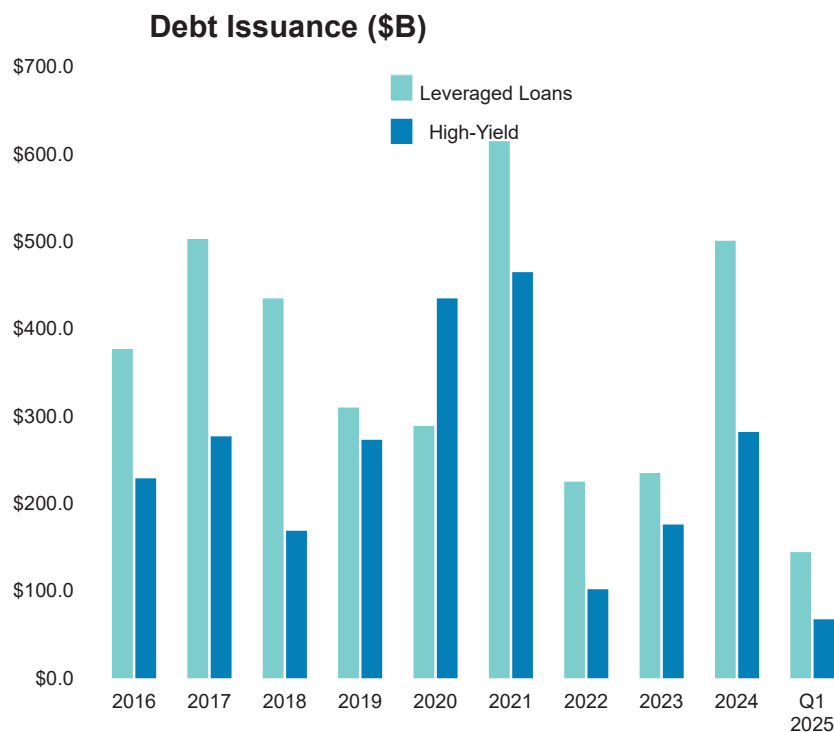
Activity

- During the quarter, an estimated 3,990 U.S. venture-backed transactions totaling \$91.5 billion were completed, which was an increase of 18.5% on a capital basis and 10.9% by deal count over the prior quarter, which saw 3,599 deals completed totaling \$77.2 billion. This was also an increase of 34.6% on a capital basis compared to the five-year quarterly average of \$57.4 billion.⁷
 - In Q1 2025, there were 78 U.S.-based deals involving unicorn companies, representing roughly \$57.5 billion in deal value, driven by substantial investment in the AI space. This was up compared to the prior quarter, which saw 64 unicorn-related deals close at a deal value of \$43.9 billion. The quarter's unicorn deal value was also above the five-year quarterly average of \$20.4 billion.⁷
- All median pre-money valuations decreased relative to the valuations seen at the end of the prior quarter, with the exception of Series A. Compared to the prior quarter, Seed valuations decreased from a median pre-money valuation of \$17.1 million to \$17.0 million, Series B decreased from \$162.1 million to \$132.2 million, Series C decreased from \$360.0 million to \$164.0 million, and Series D and later decreased from \$651.9 million to \$543.7 million. Series A valuations increased from \$47.0 million to \$52.5 million.⁸
- Total U.S. venture-backed exit value increased during the quarter, totaling approximately \$56.2 billion across an estimated 385 completed transactions compared to \$41.3 billion of value across 359 exits in Q4 2024. However, Q1 2025 exit value remained below the five-year quarterly average of \$81.4 billion from 360 transactions.⁷
 - The number of U.S. venture-backed initial public offerings was down slightly compared to the prior quarter, with 12 IPOs completed in Q1 2025 at a value of \$25.9 billion. 205 exits occurred by acquisition, marking a decrease over the prior quarter's 226 acquisitions, and accounted for \$22.7 billion in exit value.⁷

Opportunity⁴

- Early stage continues to be attractive, although we continue to monitor valuations
- Technology sector, with emerging AI, digital health, and potential for new energy & climate-related innovation

Leveraged Loans & Mezzanine



Leveraged Loans Fundraising

- New U.S. CLO issuance totaled \$43.4 billion in Q1 2025, which was a decrease compared to the \$53.8 billion issued in Q4 2024. CLO issuances through Q1 2025 represented 22.3% of 2024's total.
- High-yield debt issuance totaled \$67.5 billion in Q1 2025, down 20.9% compared to Q1 2024. While this is below the high levels of issuance seen in 2020 and 2021, on an annualized basis, it more closely aligns with the issuance level seen in the pre-Covid years.²

Activity

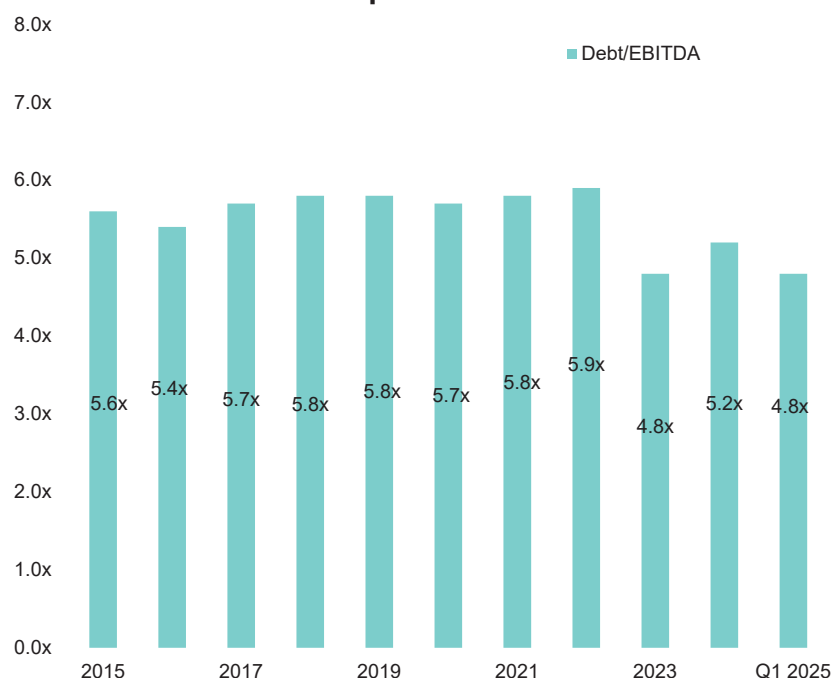
- U.S. institutional leveraged loan primary volume totaled \$144.5 billion through Q1 2025, a slight increase compared to \$143.5 billion during the same period in 2024 (+0.7%).²
 - Loan issuance for M&A activity is expected to remain strong in 2025 in addition to continued activity related to repricing and managing loan maturities, however macro-economic factors may impact these projections.
- European institutional loan issuance, including repricing and extensions, totaled €99.8 billion in Q1 2025, which marked a quarterly record for the European market.³

Opportunity ⁴

- Funds with the ability to source deals directly and the capacity to scale for large transactions (both sponsored and non-sponsored)
- Funds with an extensive track record, experience through prior credit cycles, and staff with workout experience

Leveraged Loans & Mezzanine

Debt/EBITDA multiples on U.S. BSL-funded LBOs



Sources: Pitchbook / LCD

Activity

- For U.S. broadly syndicated loan-funded transactions, debt comprised 45.7% of completed transactions in Q1 2025, a slight decrease compared to the prior year's total of 47.7%. This compares to the five- and ten-year averages of 49.1% and 52.1%, respectively.³
- According to UBS, primary market activity continues to be weighted towards new money offerings, while transactions with opportunistic uses of proceeds have declined compared to the start of the year.²
- While UBS expects activity to remain robust in 2025, key events to consider that may impact continued activity include the progression of rate cuts by the Federal Reserve, regulatory and policy changes implemented by the Trump administration, and continued geopolitical events in the Middle East and Asia.

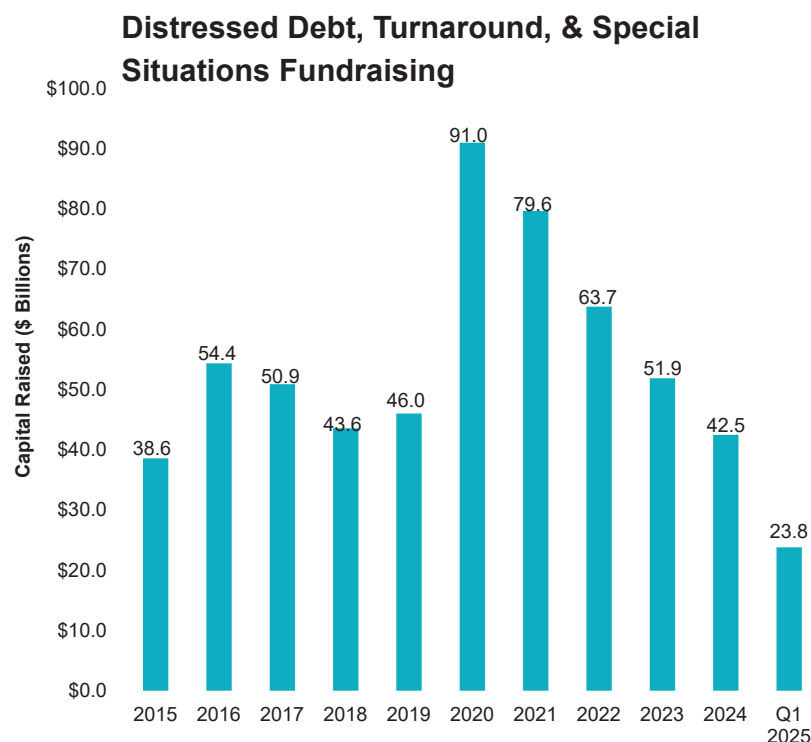
Mezzanine Fundraising

- 5 funds closed on \$4.0 billion during the quarter, an increase from the prior quarter's total of \$0.6 billion raised by 5 funds. Capital raised in Q1 2025 was also an increase of 89.6% compared to Q1 2024. However, this represented a decrease compared to the five-year quarterly average of \$6.4 billion.¹
- Estimated dry powder was \$49.2 billion at the end of Q3 2024, down from \$63.8 billion at the end of 2023.¹
- An estimated 122 funds were in market targeting \$32.8 billion of commitments. Blackstone Capital Opportunities Fund V was the largest fund in market targeting commitments of \$10.0 billion.¹

Opportunity⁴

- Funds with the capacity to scale for large sponsored deals

Distressed Private Markets

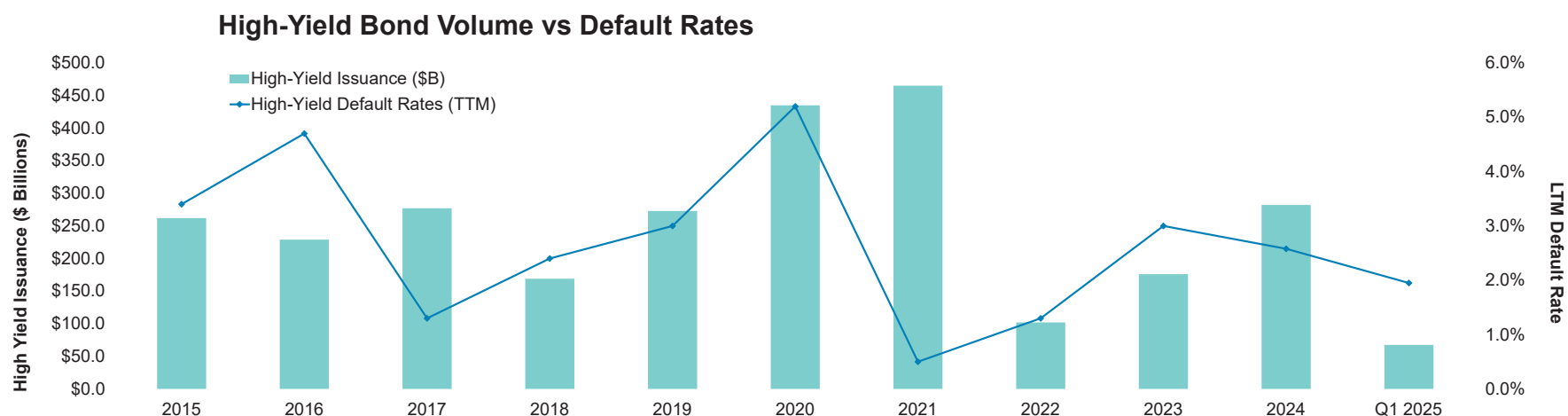


Source: Preqin

Fundraising

- During the quarter, \$23.8 billion was raised by 16 funds, up from the \$14.3 billion raised by 15 funds during Q4 2024. Capital raised in Q1 2025 represented 56.0% of 2024's total of \$42.5 billion.¹
 - Capital raised in Q1 2025 increased by 240.8% compared to Q1 2024's total of \$7.0 billion.
 - Q1 2025's fundraising was 44.8% higher than the five-year quarterly average of \$16.4 billion.
 - The average closed fund size was \$1.6 billion in Q1 2025, an increase compared to the \$1.1 billion average in Q4 2024. This was also an increase of 89.6% compared to the five-year quarterly average of \$836.6 million.
- Dry powder was estimated at \$149.1 billion at the end of Q3 2024, which was down 5.3% from year-end 2023. This was down from the five-year average level of \$165.8 billion.¹
- Roughly 295 funds were in the market at the end of Q1 2025 seeking \$130.0 billion in capital commitments.¹
 - Special situations managers were targeting the most capital, seeking approximately 55.2% of commitments, followed by distressed debt managers seeking 43.6% of commitments.
 - Clearlake Capital Partners VIII was the largest fund in market with a target fund size of \$15.0 billion.

Distressed Private Markets



Sources: UBS / Fitch Ratings

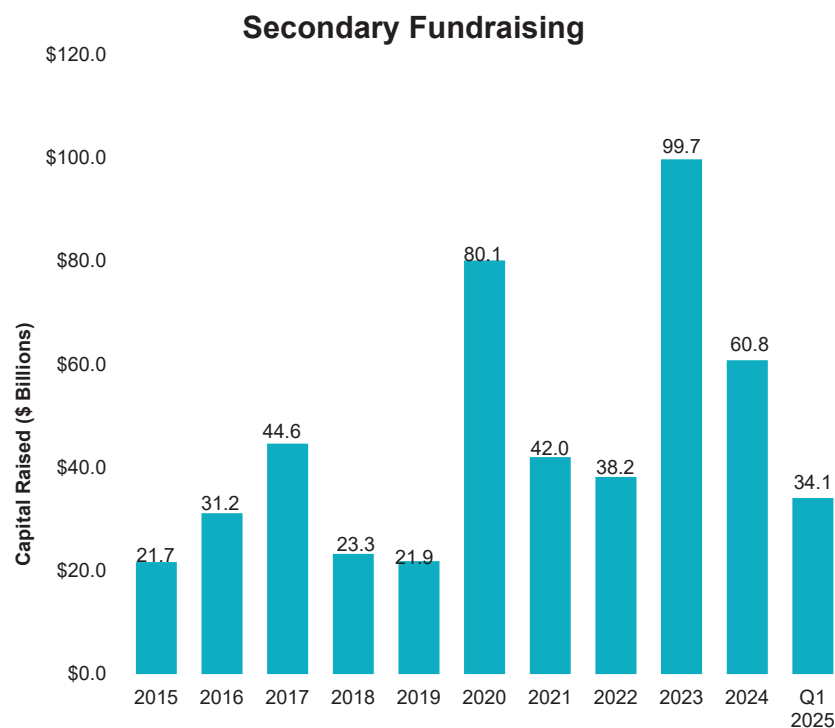
Activity

- The TTM U.S. high-yield default rate was 1.95% as of March 2025, which was down from December 2024's TTM rate of 2.58%. Fitch expects the high-yield default rate to trend higher in 2025, with forecasted default rates in 2025 of 4.0% to 4.5% (up from 2.5% to 3.0%).⁶
- Continued market dislocations caused by macroeconomic factors as well as higher-for-longer interest rates may supply additional distressed opportunities in the next several months, notably if the default rate moves higher.

Opportunity⁴

- Funds capable of performing operational turnarounds
- Funds with the flexibility to invest globally

Secondaries



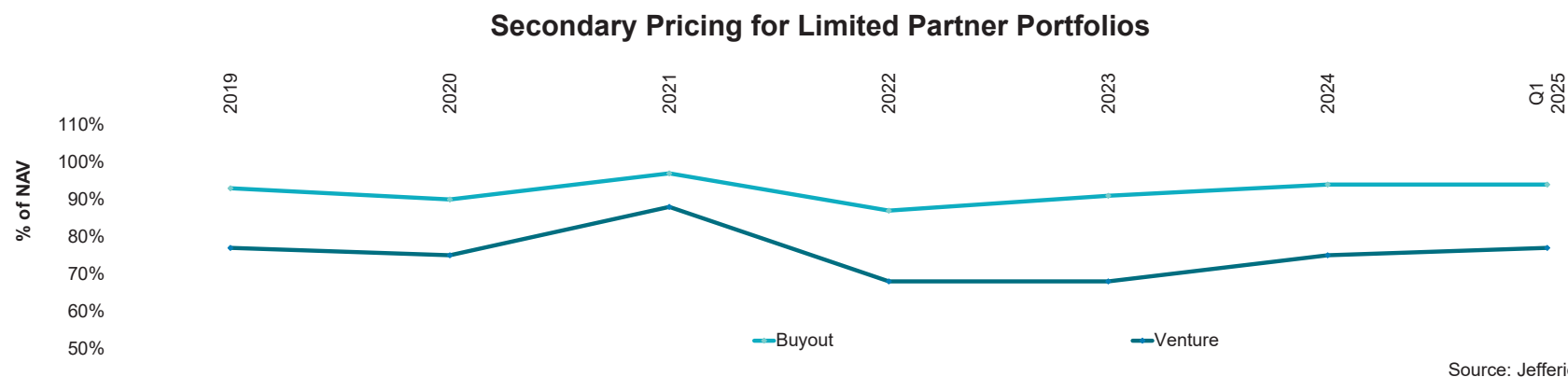
Fundraising

- 10 funds raised \$34.1 billion during Q1 2025, up significantly from the \$7.9 billion raised by 22 funds in Q4 2024. This was also an increase compared to the five-year quarterly average of \$16.0 billion.¹
 - ASF IX was the largest fund closed during the quarter with total commitments of \$30.0 billion.
- At the end of Q1 2025, there were an estimated 209 secondary funds in market targeting roughly \$82.7 billion. The majority of secondary funds are targeting North American investments.¹
 - Coller International Partners IX was the largest fund being raised, seeking \$10.0 billion in commitments.

Activity

- Limited Partner transactions continue to have participation from a broad base of buyers and sellers with selling activity spread across LP seller types. Notably, there has been an influx of retail capital stemming from '40 Act Funds.¹⁶
- Given the continued liquidity needs of Limited Partners, and the effects of slower distributions and longer hold periods, Jefferies expects continued adoption of secondaries transactions by a growing number of Limited Partners.¹⁶
- Dry powder levels remains robust, as many of the the largest secondary players have raised capital over the last 24 months. Notably, these firms are able to write larger checks to purchase sizable LP portfolios.¹⁴
- Jefferies noted continued demand for secondary transactions involving new vintage year exposure with well-regarded, high conviction managers. Demand for transactions involving middle-market buyouts in North America and Western Europe continue to be a highly sought after space.¹⁶

Secondaries



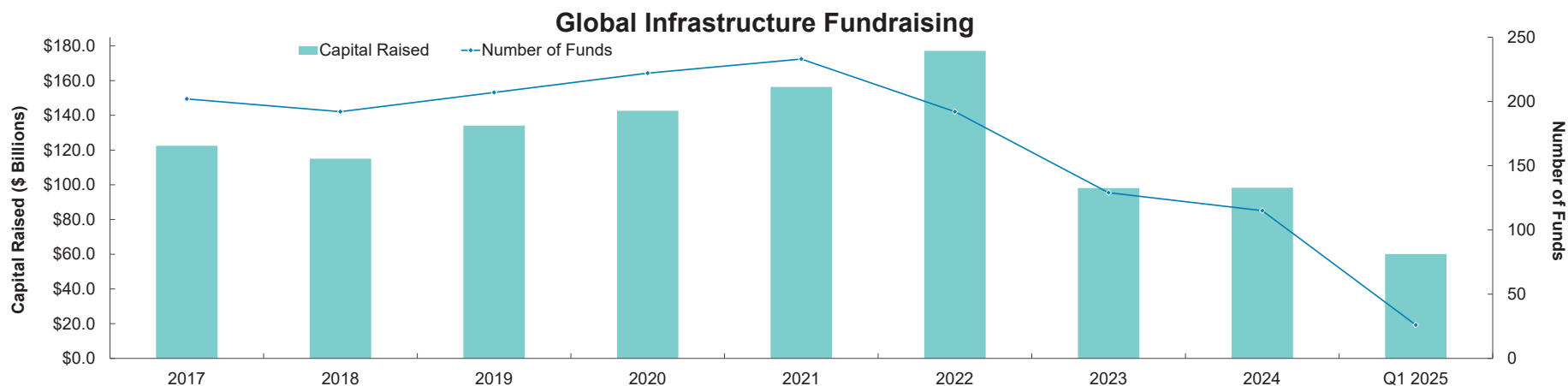
Activity

- Limited partner portfolio pricing continued to improve relative to the lows seen in H2 2022 given public market price momentum and more aggressive buyer activity. The average discount rate for LP buyout and venture capital portfolios finished Q1 2025 at 6.0% and 23.0%, respectively, with buyout discounts being flat and venture discounts decreasing 200 bps compared to Q4 2024. Jefferies expects pricing to remain relatively consistent in 2025 as demand remains stable, notably from retail entrants into the market and recent fundraising activity by large secondary managers. This, coupled with secondary dry powder available to invest, is expected to drive strong transaction volume in 2025, albeit buyers remain cautious as they evaluate potential tariff impacts on portfolio companies.¹⁷
- Payment deferrals and structured equity solutions, notably mosaic structures, continue to be prevalent in the LP portfolio market and are used to improve pricing and deal returns in an increasingly competitive environment.¹⁶
- GP-led volume is expected to remain robust in 2025 compared to the prior year, according to Jefferies. While transaction value is expected to increase, GP-led transactions, as a share of the secondaries market, are expected to remain relatively flat compared to the prior year. Numerous factors support a healthy GP-led market including Limited Partner's desire for liquidity, an increase in funds and capital targeting GP-led transactions, and a growing universe of potential syndicate investors.¹⁷
- According to a recent survey conducted by PJT, a higher percentage of GPs indicated use of the secondaries market in the next 24 months to not only provide liquidity to Limited Partners, but also to increase follow-on investments in high performing companies. Roughly 63% of respondents indicated the use of secondaries as likely or highly likely over the next 24 months.¹⁴

Opportunity⁴

- Funds that are able to execute complex transactions
- Niche strategies

Infrastructure

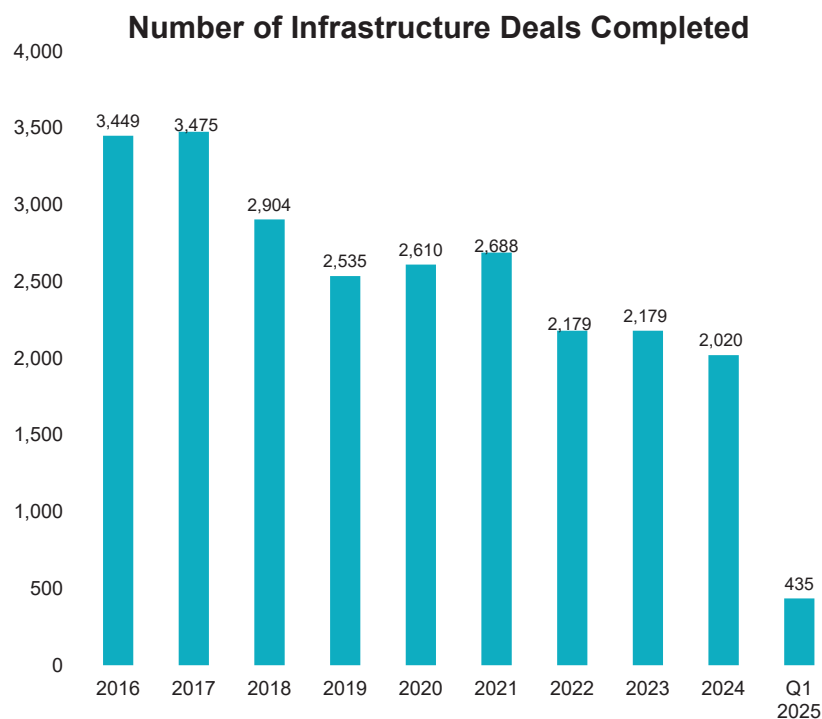


Source: Preqin

Fundraising

- \$60.1 billion of capital was raised by 26 funds in Q1 2025 compared to \$20.1 billion of capital raised by 31 funds in Q4 2024 and \$38.5 billion of capital raised by 35 funds in Q1 2024. This was an increase of 78.7% compared to the five-year quarterly average of \$33.6 billion. Funds with a primary geographic focus on Europe raised the majority of capital during the quarter at 64.9%, followed by North America at 31.3%.¹
 - EQT Infrastructure Fund VI was the largest fund closed during the quarter with aggregate commitments of \$23.3 billion.
- As of the end of Q1 2025, there were an estimated 684 unlisted infrastructure funds in the market seeking roughly \$513.3 billion.¹
 - The largest funds in market, Global Infrastructure Partners V and ALTÉRRRA Acceleration, each had a target fund size of \$25.0 billion.
 - The 10 largest funds in market are currently seeking a combined \$156.9 billion in capital.
- Concerns surrounding the relative availability and pricing of assets remain. Fundraising remains competitive given the number of funds and aggregate target level of funds in market. Investor appetite for the asset class persists despite the strong levels of dry powder and increased investment activity from strategic and corporate buyers as well as institutional investors.

Infrastructure



Source: Preqin

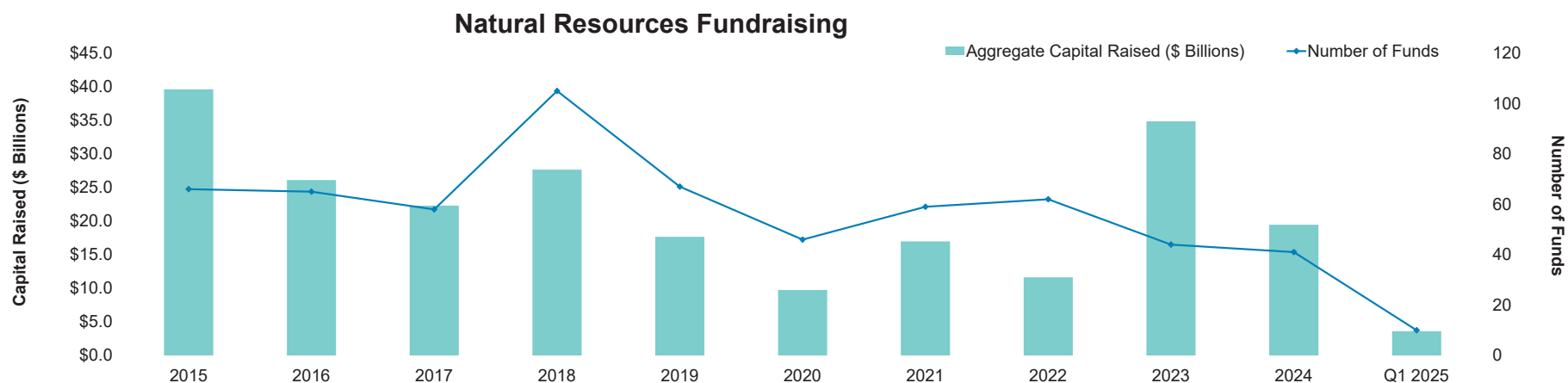
Activity

- Infrastructure managers completed 435 deals for an aggregate deal value of \$151.0 billion in Q1 2025, an increase, on a capital basis, compared to 482 deals totaling \$81.4 billion completed in Q4 2024.¹
 - By region, North America produced the largest value of completed deals, with 59.1% of deal value being completed in the region, followed by APAC at 26.2%. Europe amassed only 9.8% of value during Q1 2025, the lowest percentage since Q2 2019.
- Infrastructure dry powder totaled \$373.9 billion at the end of Q3 2024, a decrease compared to year-end 2023's total of \$398.6 billion.

Opportunity⁴

- Mid-market core+ and value-add infrastructure as well as a platform investing approach continue to offer the best relative value.
- Assess funds with pre-specified assets with caution due to possible lag in and uncertainty around valuation impact.
- Blind-pool funds may be better positioned to take advantage of the market dislocation in certain sub-sectors, however careful review of such strategies is required.
- Build-to-core greenfield strategies particularly in the social / PPP infrastructure space offer a premium for investors willing to take on construction / development risk.

Natural Resources



Source: Preqin

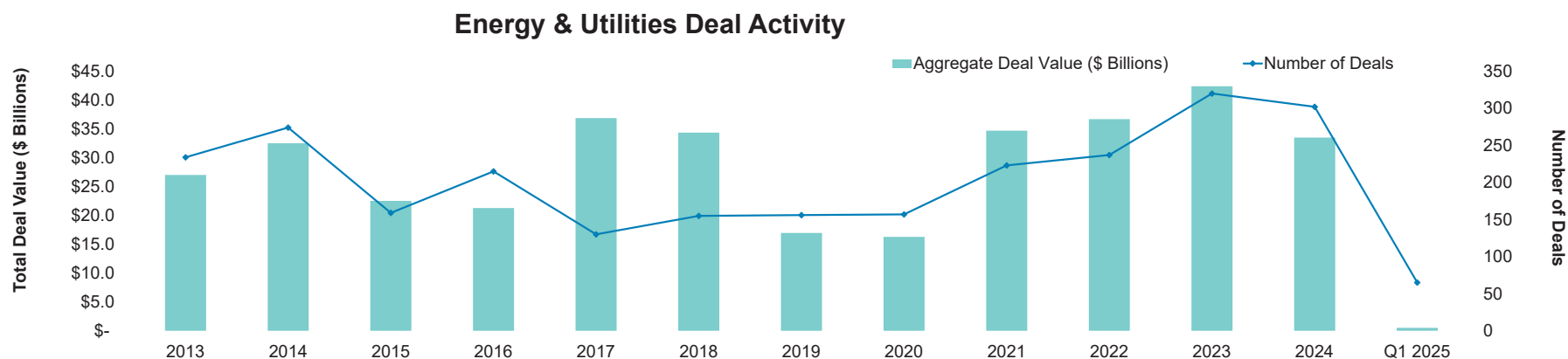
Fundraising

- During Q1 2025, 10 funds closed on \$3.6 billion, a decrease compared to 12 funds closing on \$10.8 billion during the prior quarter. This was also a decrease, on a capital raised and number of funds closed basis, of 22.3% and 20.6%, respectively, compared to the five-year quarterly average.¹
- Dry powder stood at roughly \$66.4 billion at the end of Q3 2024, which was almost equal to year-end 2023's level of \$67.4 billion. This was higher than the five-year average of \$58.1 billion.¹

Activity

- Crude oil prices decreased quarter-over-quarter and year-over-year, while natural gas prices increased.
 - WTI crude oil prices decreased 2.7% during the quarter to \$68.24 per bbl. This was a decrease of 16.0% compared to Q1 2024.¹⁰
 - Brent crude oil prices ended the quarter at \$72.73/bbl, down 1.53% compared to the prior quarter. This was also a decrease of 14.8% from Q1 2025.¹⁰
 - Natural gas prices (Henry Hub) finished Q1 2025 at \$4.12 per MMBtu, which was up 36.9% compared to the prior quarter and up 176.5% from Q1 2024.¹⁰

Natural Resources



Source: Preqin

Activity

- 65 energy and utilities buyout deals were completed in Q1 2025 totaling \$0.5 billion, a decrease, on a value and number of deals basis, compared to 87 completed deals totaling \$7.7 billion in Q4 2024.¹
- A total of 588 crude oil and natural gas rotary rigs were in operation in the U.S. at the end of the quarter. This was down by 0.3% from the prior quarter and down 5.7% over Q1 2024.¹³
 - Crude oil rigs represented 82.0% of the total rigs in operation. 299 of the 482 active oil rigs were in the Permian basin.
 - At the end of Q1 2025, 30.0% and 23.0% of natural gas rigs were operating in the Haynesville and Marcellus basins, respectively.
- The price of iron ore (Tianjin Port) ended the quarter at \$103.65 per dry metric ton, down from \$105.34 at the end of Q4 2024.¹⁰

Opportunity⁴

- Acquire and exploit existing oil and gas strategies over early-stage exploration in core U.S. and Canadian basins
- Select midstream opportunities

Notes

1. Preqin
2. UBS
3. Pitchbook / LCD
4. Aon Investments USA Inc.
5. Moody's
6. Fitch Ratings
7. PitchBook/National Venture Capital Association Venture Monitor
8. Cooley Venture Financing Report
9. U.S. Energy Information Administration
10. Bloomberg
11. Setter Capital Volume Report: Secondary Market
12. KPMG and CB Insights
13. Baker Hughes
14. Evercore
15. Campbell Lutyens
16. PJT Partners
17. Jefferies

Notes:

FY: Fiscal year ended 12/31

YTD: Year to date

YE: Year end

LTM: Last twelve months (aka trailing twelve months or TTM)

PPM: Purchase Price Multiples: Total Purchase Price / EBITDA

/bbl: Price per barrel

MMBtu: Price per million British thermal units

AON

Q1 2025 Real Estate Market Overview

July 2025



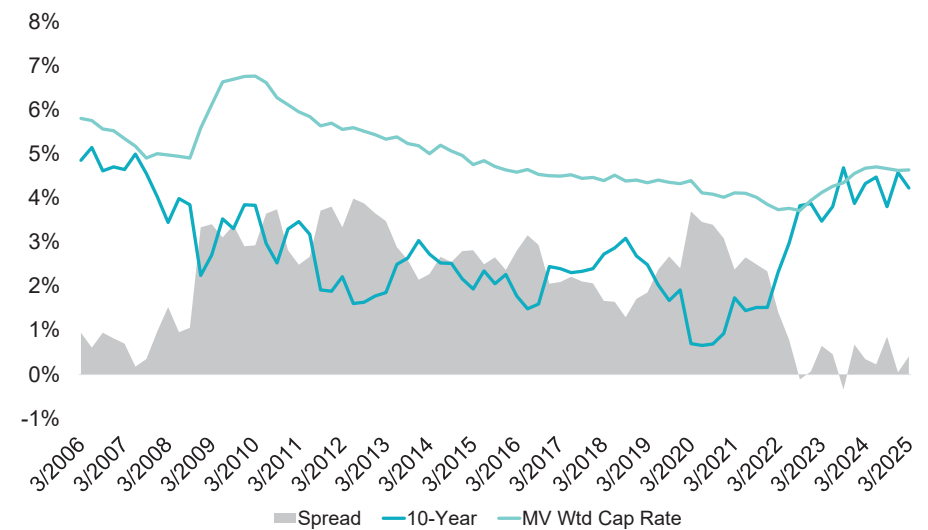
United States Real Estate Market Update

1Q 2025

General

- The economy remained resilient in the first quarter while inflation continued to moderate from its June 2022 high; however, remains above the Fed's 2% target largely due to high services and shelter inflation. The Fed has slowed its pace to cut interest rates, citing uncertainty related to tariff sentiment, keeping interest rates within the 4.50%-4.25% target.
- During the first quarter, GDP decreased at an annual rate of 0.5%. The decline was led by net imports and defense spending, partially offset by increases in investment and consumer spending. Investors will continue to monitor economic growth, coupled with headline inflation and tariff sentiment, as an indication of a soft landing out of the current cycle.

NPI Current Value Cap Rate versus 10yr Treasury



Sources: Bureau of Economic Analysis, U.S. Census Bureau, St. Louis Fed, NCREIF, Prequin.

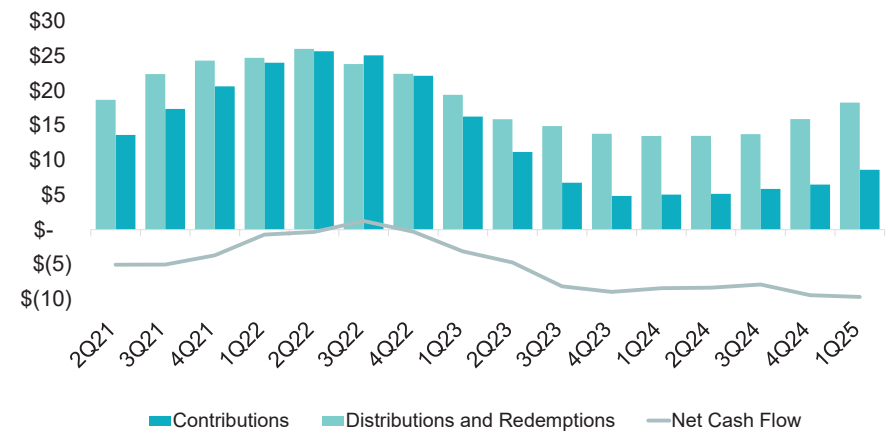
United States Real Estate Market Update

1Q 2025

Commercial Real Estate

- 10yr Treasury bond yields declined from the prior quarter, ending the quarter at 4.2%. Recent hawkish sentiment from the Fed could indicate a potentially protracted plateau, and subsequent recovery, from a multi-year high. Additionally, the spread between the 10yr Treasury and current value cap rates remain relatively tight, indicating minimal risk premium for commercial real estate investors.
- Capital flows in and out of US stabilized commercial real estate remain negative. Contributions are showing signs of growth; however, distributions and redemptions growth currently outpaces contribution growth. Current investor redemption queues remain elevated at around \$30 billion (or 14% of the index), manager payouts remain the range of 5-10% of a given funds' redemption queue.

NFI-ODCE: Rolling 4 Quarter Cash Flows (\$ in Billions)



Sources: Bureau of Economic Analysis, U.S. Census Bureau, St. Louis Fed, NCREIF, Prequin.

United States Property Detail

1Q 2025

Industrial

Strong NOI growth continues to support capital values. Oversupplied markets continue to revise rental rate assumptions, impacting valuations; however, medium-term sentiment remains healthy.

Residential

Expanded NPI now includes manufactured housing, single-family rental, and student housing along with apartments. Outsized deliveries continue to forecast weak rental growth for multifamily properties; however, positive appreciation from the new property subtypes helped support overall returns.

Office

Expanded NPI now includes life sciences and medical office along with traditional office. Medical Office is the only subtype printing positive appreciation.

Retail

Malls entered this cycle at depressed values, offering investors a value proposition which supported property valuations. NOI growth has also been strong at select properties. Necessity based retail (i.e., grocery and pharmacy anchored) also performed well.

Other Property Types

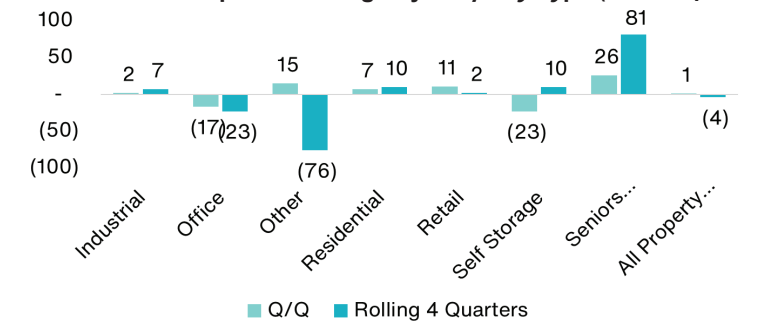
Seniors Housing: as seniors delay assisted living, independent living outperforms due to relative demand.

Self-Storage: tends to do well in down cycles when tenants require more storage space.

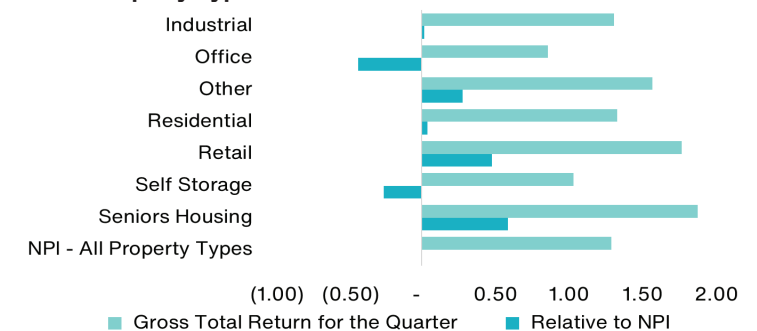
Other: roughly 1.5% of NPI and is made up of data centers, land, parking, and other.

Source: NCREIF

Current Value Cap Rate Change by Property Type (in basis points)



NPI – Property Type Returns



Global Outlook: Major Economies Face Near-Term Growth

Experts disagree on growth outlook; revise views frequently in response to fluid U.S. policies

United States

- U.S. administration's shifting tariff policies have created uncertainty, leading businesses to adopt a wait-and-see approach before making major investments.
- Further, policy shifts on taxes, regulation, DOGE, and immigration in the U.S. and other newly elected administrations in Canada, the UK, Germany, and Australia are adding to caution on the part of businesses.
- Unemployment is expected to rise from 4.0% to 4.7% affecting consumer spending. Recent layoffs or hiring cautions have been announced at Microsoft, Meta, Dell, PwC, Panasonic, Burberry, etc.

EU & UK

- Increasing economic and geopolitical uncertainty – largely precipitated by U.S. policies – have increased headwinds. However, rising household incomes, higher infrastructure and defense spending, and easing financing conditions are expected to support growth.
- U.S. trade policy may be disinflationary for region if goods originally destined for U.S. are 'dumped' elsewhere.
- UK's moderate recovery is expected to continue due to resilient consumer spending, services sector strength and a potential recovery in trade ties with the EU.

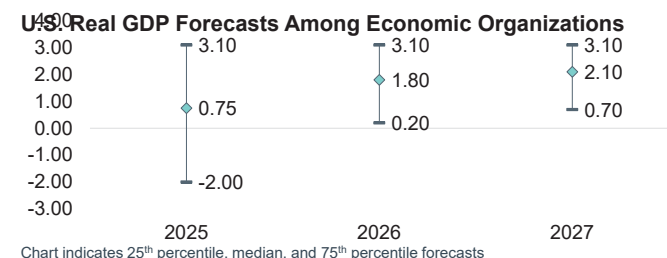
Asia

- On a relative basis, the Australian growth outlook continues to be better than other Western economies due to immigration led population growth, and a healthy labor market supporting consumer spending.
- Japanese growth outlook remains low as exports face pressure from U.S. tariffs and slowing demand from China.
- Chinese economy growth rate is gradually declining weighed down by U.S. tariff pressures and a still struggling property market; however, a positive trade agreement with the U.S. could improve overall economic outlook.

Global Economic Growth Forecasts Suppressed by Tariffs

Real GDP Forecasts (YoY%)				
Major Regions	2024	2025	2026	2027
North America	2.6	1.3	1.4	2.0
European Union	1.0	1.1	1.5	1.7
Asia Pacific	4.5	3.8	3.7	3.8
Selected Markets	2024	2025	2026	2027
United States	2.8	1.4	1.5	2.0
United Kingdom	1.1	0.9	1.2	1.5
Germany	-0.2	0.0	1.1	1.6
China	5.0	4.2	4.0	4.0
Japan	0.1	1.0	0.8	0.8
Australia	1.1	1.9	2.3	2.5

Considerable Dispersion in U.S. Growth Forecasts



Source: The Townsend Group, Bloomberg (May 2025), Wall Street Journal (April 2025).

Townsend's views are as of the date of this publication and may be changed or modified at any time and without notice. Past performance is not indicative of future results. Actual results and developments may differ materially from those expressed or implied herein.

For Now, Interest Rates, Inflation Expected to Hold at Current Levels

Central bankers, particularly in U.S. and Asia, have ability to lower rates to address growth issues

United States

- Inflation is expected to inch slightly higher due to the tariff impact and expected to linger due to various onshoring initiatives; however, these projections have turned out to be very unreliable in the past.
- As such, while the dot plot points towards two rate cuts, the Chair emphasized the Fed is in a “good place to wait and see.”
- Expected higher rates in the near-term will continue to weigh on asset valuations, but many sectors in real estate are poised well to capture inflation. Additionally, recent inflationary-linked cost increases have increased replacement values, potentially benefitting existing assets.

EU & UK

- The ECB has been reducing rates and is likely to continue the gradual lowering path as inflation trends down. Interest rates are lower than U.S. and UK, leading to a positive spread between yields and rates, supporting asset values.
- BoE also lowered rates in May but is now cautious as the services sector inflation rate continues to be elevated.

Asia

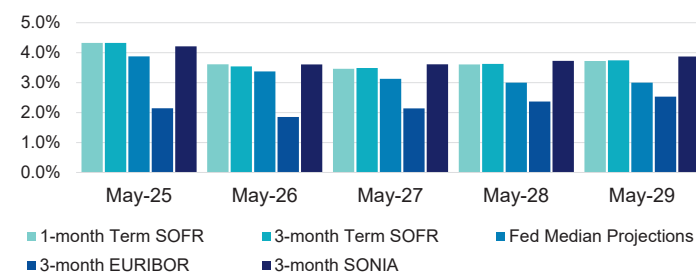
- In Australia, the RBA continues to be cautious in lowering rates, but inflation has been coming under control. Forecast is for rates to come down by 50 bps, which will be supportive of property values.
- In Japan where the interest rates are already low, outlook is for BoJ to increase rates; inflation is higher than historical levels, shifting consumer investment behavior to seek more risky stocks.
- In China, PBoC may reduce rates to support growth but might be limited in doing so to protect the value of its currency.

Source: The Townsend Group, Barclays Private Bank (April 2025), Chatham Financial (May 2025), Bloomberg (May 2025).

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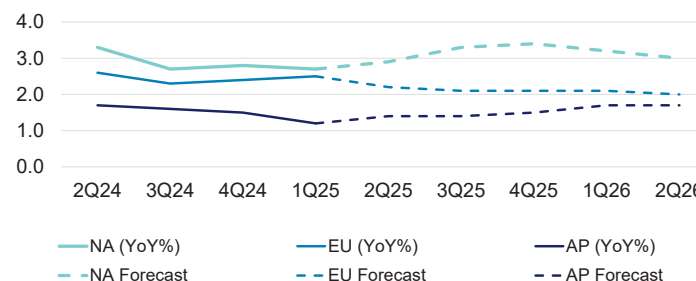
Interest rates forecast to hold steady

Forward Curves



Inflation trends vary by region

CPI Quarterly



Investment Markets Are Stressed Offering Compelling Entry Valuations

Transaction volume decline and market repricing

Global Commercial Real Estate Transaction Volume Signals Stress

- Commercial real estate transaction volume has declined since 2022 as interest rates started to rise in the post-pandemic world.
- Many transactions were initiated over the record investment period from 2013 to 2020. Investors in those assets now seeking exits at a time when other investors are wary of putting additional capital to work. This is leading to significantly better entry valuations for those with medium-term mindset.
- Additionally, many investors are still looking to reduce real estate exposure, and the exit queues of open-end funds continue to be elevated.
- LPs seeking to rebalance portfolios are eager for exit opportunities.
- GPs under pressure to offer an exit and are motivated to offer better terms to new set of investors.

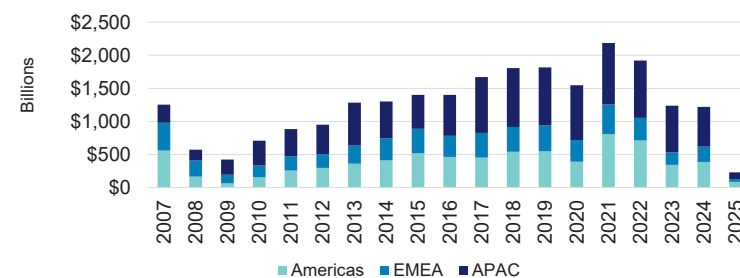
Lag Between Appraisal Values And Expected Transaction Values

- Rising interest rates since 2022 have driven material cap rate expansion. NCREIF cap rates increased from 3.70% in 3Q22 to 4.65% in 1Q25.
- U.S. Transaction Cap Rates suggest assets are still trading at a premium to current valuations. The weighted average transaction cap rate was 5.66% in 1Q25. Transaction cap rates are useful guidepost, but not necessarily a precise representation of broader asset values.
- Public REIT valuations remain discounted to private real estate valuations in U.S. and Europe.
- Closed-end funds with legacy portfolios might also be subject to a disconnect in appraised valuations versus market valuations.
- Detachment of appraisal market from transaction market is driving demand for secondaries and GP staking.

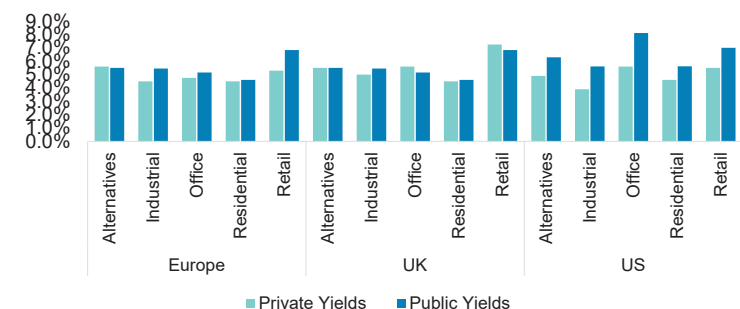
Source: The Townsend Group, MSCI Real Assets (May 2025), NCREIF (First Quarter 2025), Green Street (May 2025).

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Transaction volume held steady in 2024 but remains low Global Commercial Real Estate Transaction Volume



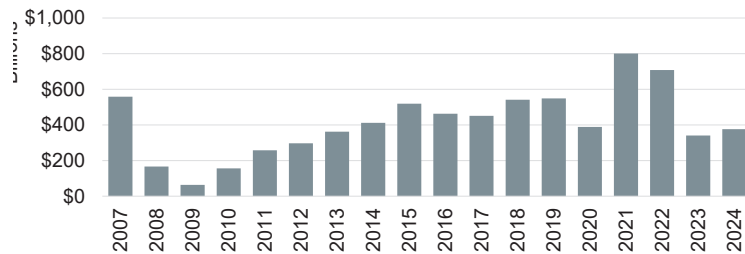
U.S. exhibits largest disconnect between private and public Cap Rates Spring 2025



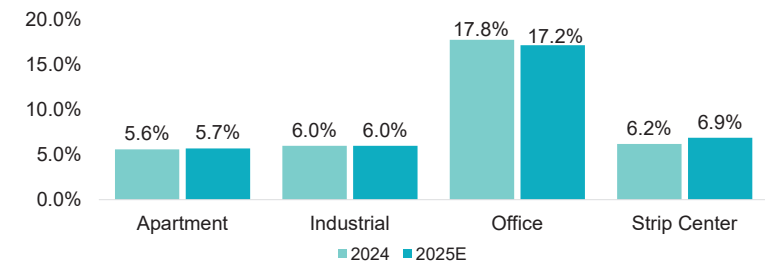
U.S. Outlook: Real Estate Market Conditions

Capital markets remain soft, but most property sectors poised for growth

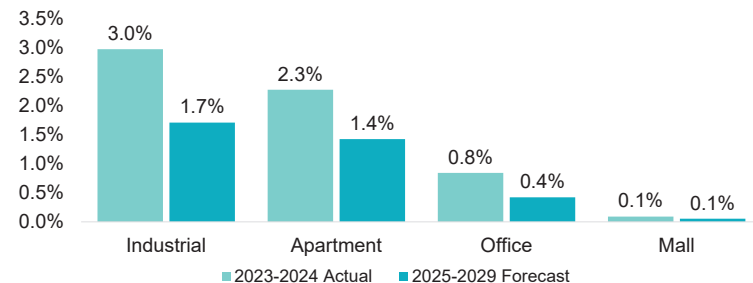
Transaction volumes have declined over 50% from peak
U.S. Commercial Real Estate Transaction Volume



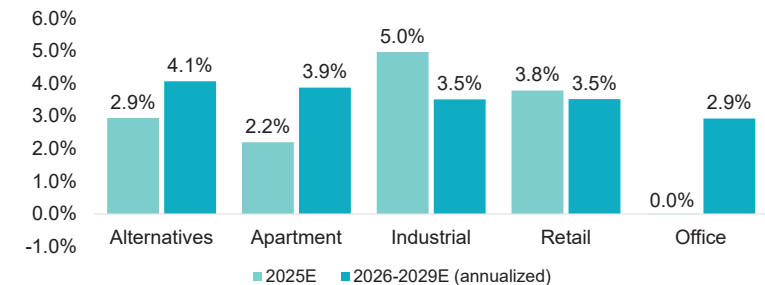
Vacancy rates remain low (except office)
U.S. Vacancy Rates by Sector



Supply growth is contracting meaningfully across sectors
Annual Completions as % of Existing Stock



Growth forecasts remain above long-term inflation
NOI Growth



Source: The Townsend Group, NCREIF, MSCI Real Assets (May 2025), Green Street (March 2025). Alternatives NOI Growth is the average of Cold Storage, Health Care, Single Family Rental, Data Center, Manufactured Housing, and Self Storage. Townsend's views are as of the date of this publication and may be changed or modified at any time and without notice. Past performance is not indicative of future results. Actual results and developments may differ materially from those expressed or implied herein.

Due to Uncertainty, Supply is Shrinking, Pent-up Demand is Building

Long-term real estate operating fundamentals are strengthening

Tapering Supply Driving Fundamentals For Existing Asset Owners

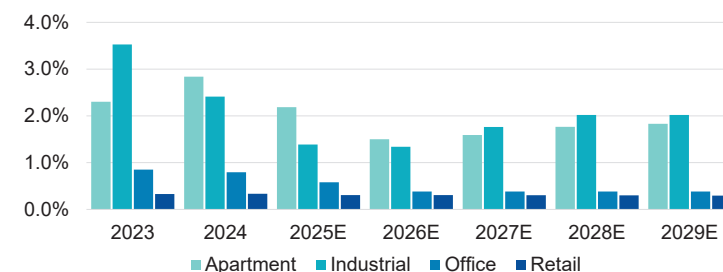
- In Apartment and Industrial sectors, elevated supply is forecasted to moderate as development costs have risen, construction labor shortages are expected, and capital has become more scarce.
- Apartment supply remains elevated in the Sunbelt markets, including Austin, Phoenix, and Denver, but is expected to be absorbed due to rising demand over the medium-term.
- Industrial supply is concentrated in Southwest markets, including Las Vegas, Riverside/Inland Empire, Phoenix, and Dallas/Fort Worth, but other markets witnessing a healthier demand/supply balance.
- Supply levels for Office and Retail continue to remain low.

Short-Term Demand Erosion Offset By Medium-Term Pent-Up Demand

- Oversupply and tariff implications have hindered short-term fundamentals in Apartments, but medium-term outlook remains healthy.
- Industrial sector has seen declining rent growth concentrated in Inland Empire/Western markets. Existing portfolios still hold in-place rents below market, and growth is expected to pick-up in 2026 and beyond as supply declines.
- Retail demand remains healthy. Class A regional malls are generating sales per square foot at pre-pandemic levels. Neighborhood and Community Centers have been among the best performing subsectors, driven by consumer preference for retail adjacent to suburban locations.
- Office fundamentals are beginning to improve in select submarkets including markets in the Southeast (Charlotte, Palm Beach, and Miami) and Northeast (New York, Boston).

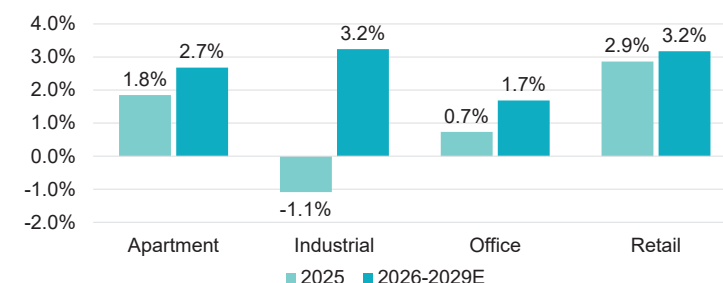
Supply growth to taper off across main property types

Supply Growth



Growth slowing in near-term, but steady over medium-term

M-RevPAF Growth



Source: The Townsend Group, Green Street (April 2025). Market Revenue per Available Foot (M-RevPAF) is a Green Street metric combining changes in rents with changes in occupancies. Townsend's views are as of the date of this publication and may be changed or modified at any time and without notice. Past performance is not indicative of future results. Actual results and developments may differ materially from those expressed or implied herein.

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REPORT

Meketa Capital Markets Outlook & Risk Metrics

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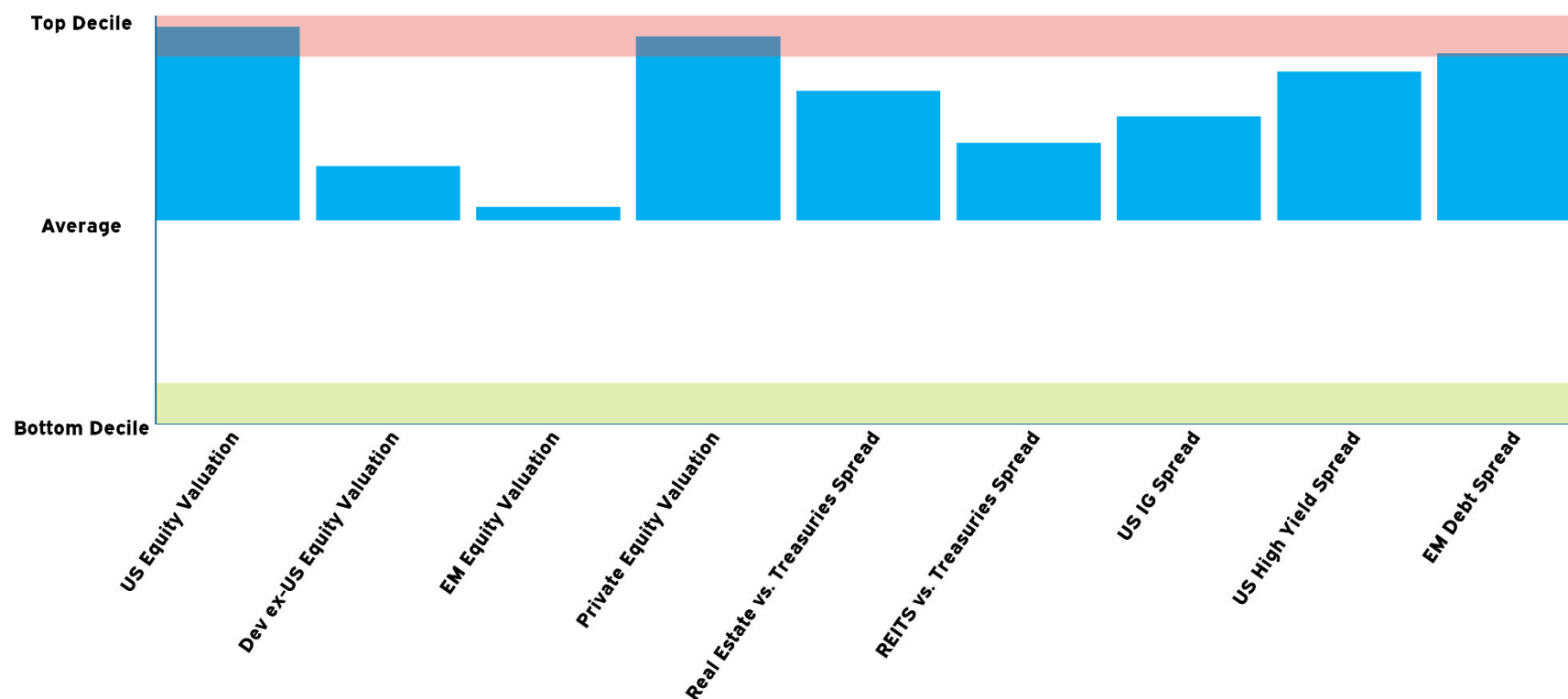
Capital Markets Outlook & Risk Metrics

As of June 30, 2025

Capital Markets Outlook

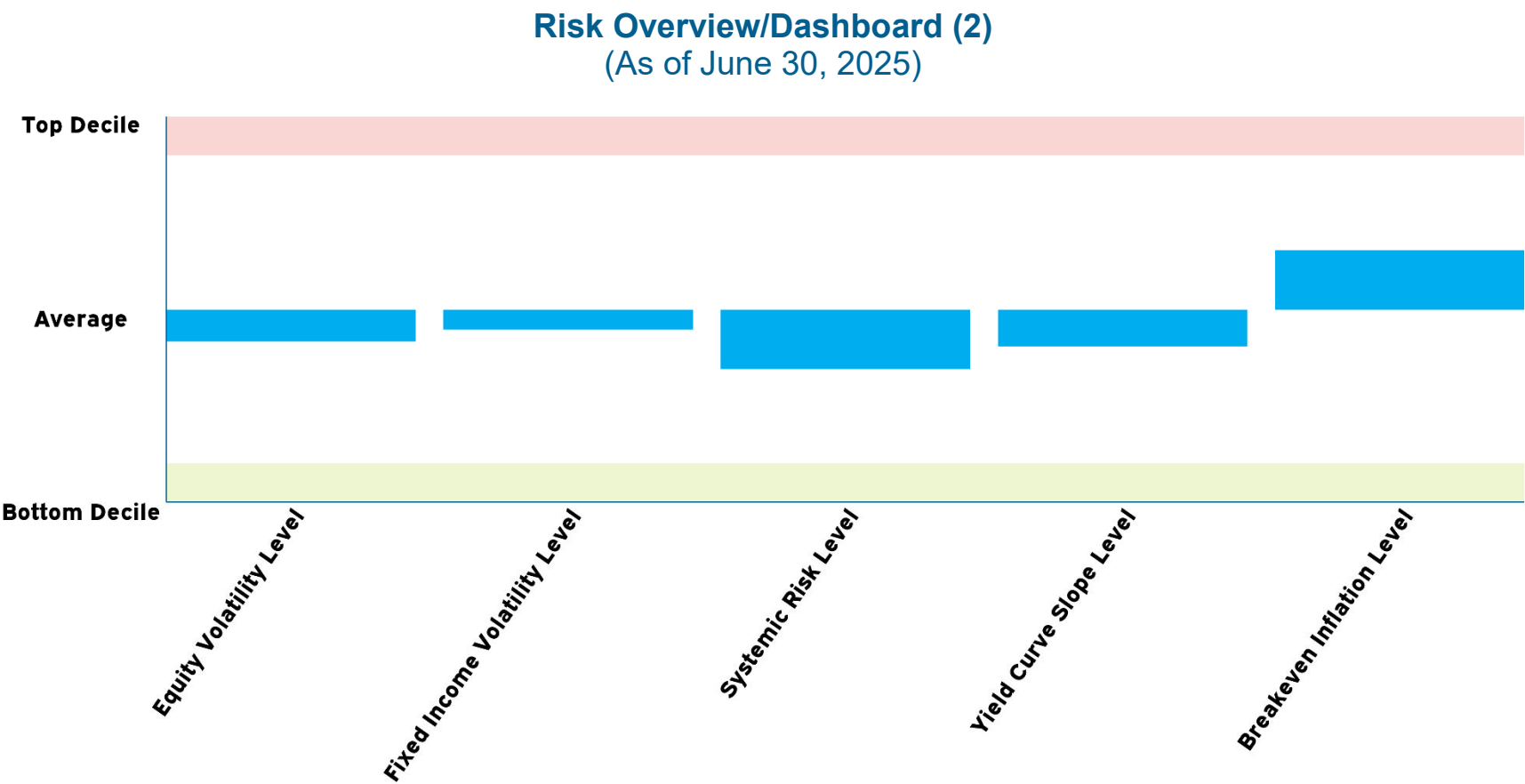
- In June, the Fed held rates steady, seeking to balance some weaker economic indicators continued with concerns of new inflation pressures from prospective tariffs.
- US stocks rallied in June, with the Russell 3000 returning 5.1% in the month and 11.0% in the second quarter. Large cap growth stocks beat small cap and value stocks on a relative basis.
- Non-US developed stocks continued their strong start to the year with the MSCI EAFE up 2.2% in June and 11.8% in the second quarter, with a weakening US dollar supporting returns.
- Emerging market stocks returned 6.0% in June and 15.3% on a year-to-date basis helped by a weaker dollar and delay on the Liberation Day tariffs.
- Chinese stocks returned 3.7% in June and are up 17.3% year-to-date. Beijing's policy support for share prices and the real estate sector have buoyed investor sentiment, especially in the offshore market.
- Major bond markets rallied, with the Bloomberg Aggregate gaining 1.5% in June, high yield up 1.8%, and long government bonds gaining 2.5%.
- Real assets had mixed returns in June, with public natural resource, utilities, and infrastructure stocks delivering positive returns while public real estate sold off. Commodities rose just 2.4%.

Risk Overview/Dashboard (1) (As of June 30, 2025)¹



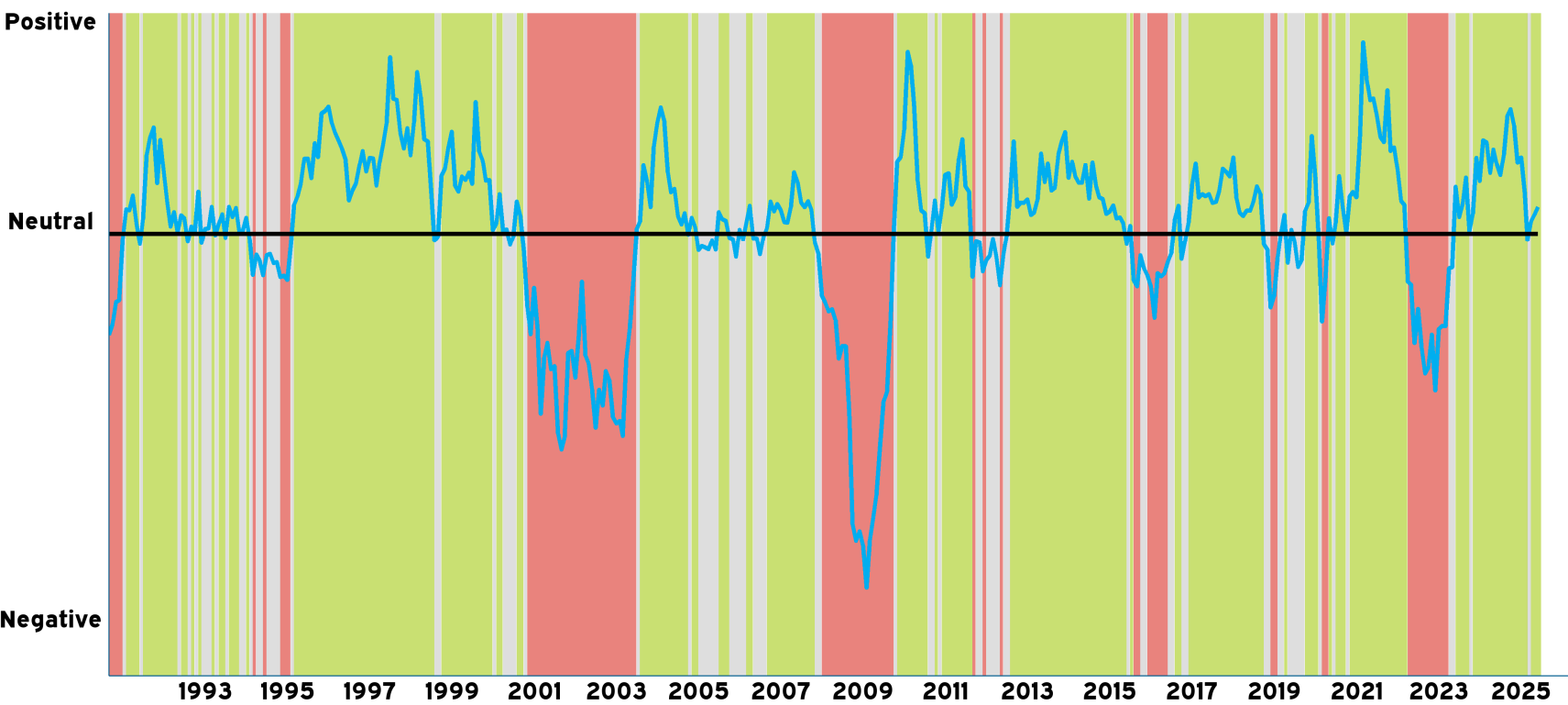
→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

¹ With the exception of Private Equity Valuation, that is YTD as of December 31, 2024.

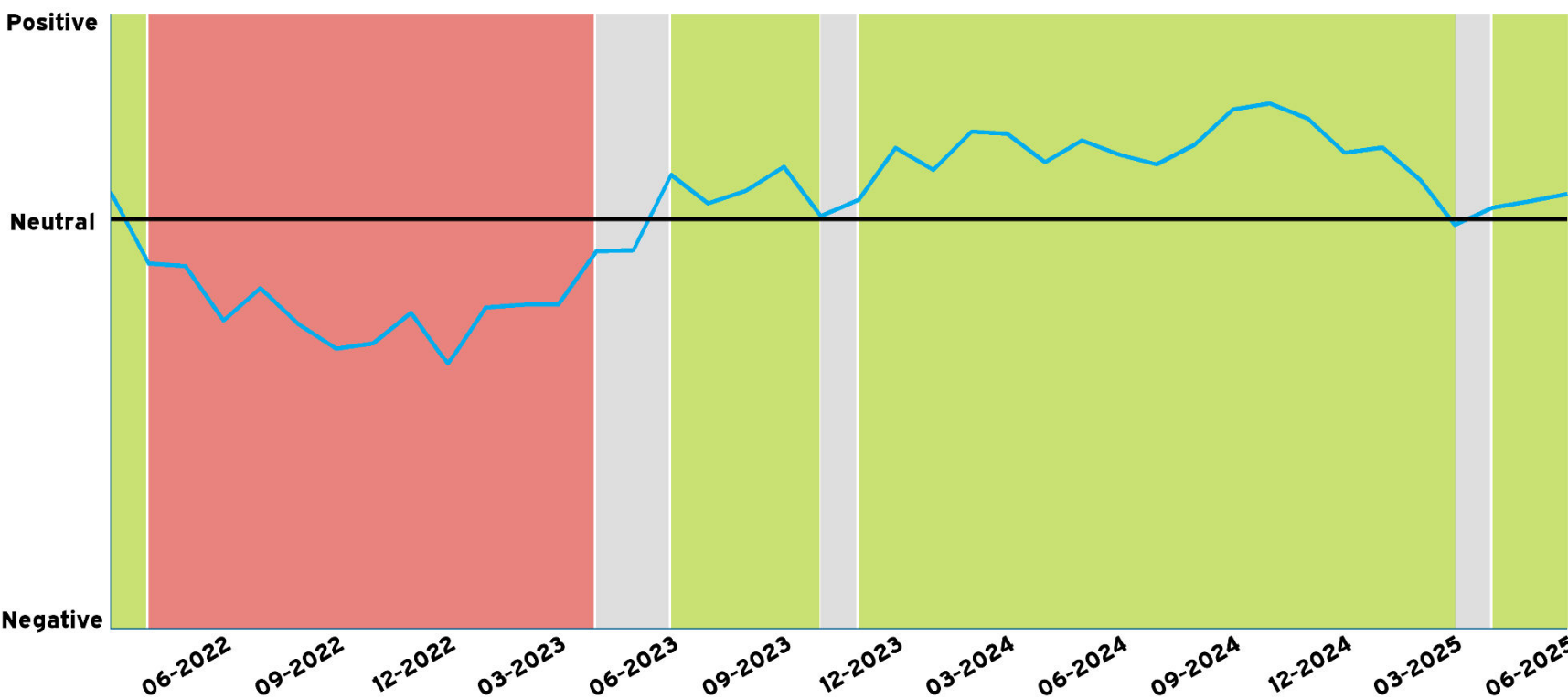


→ Dashboard (2) shows how the current level of each indicator compares to its respective history.

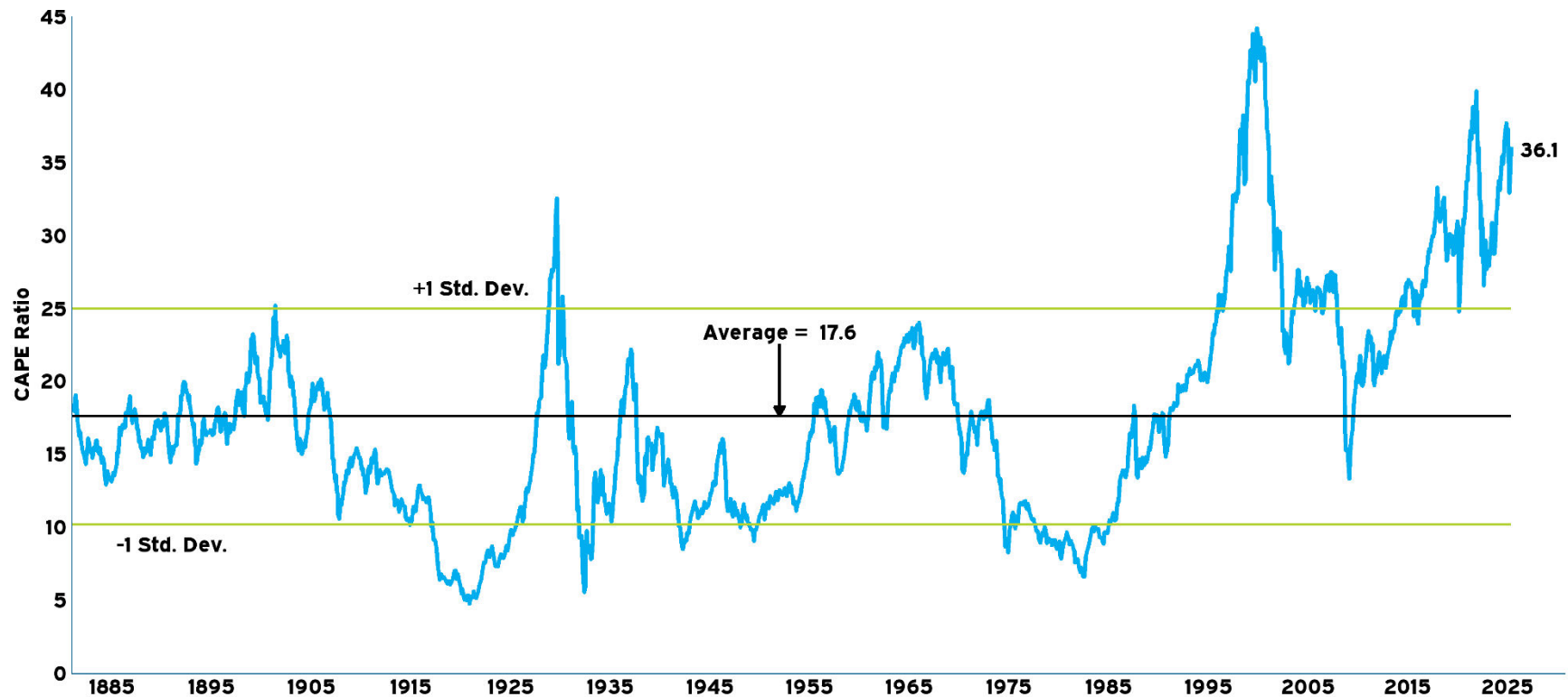
Market Sentiment Indicator (All History)
(As of June 30, 2025)



Market Sentiment Indicator (Last Three Years)
(As of June 30, 2025)



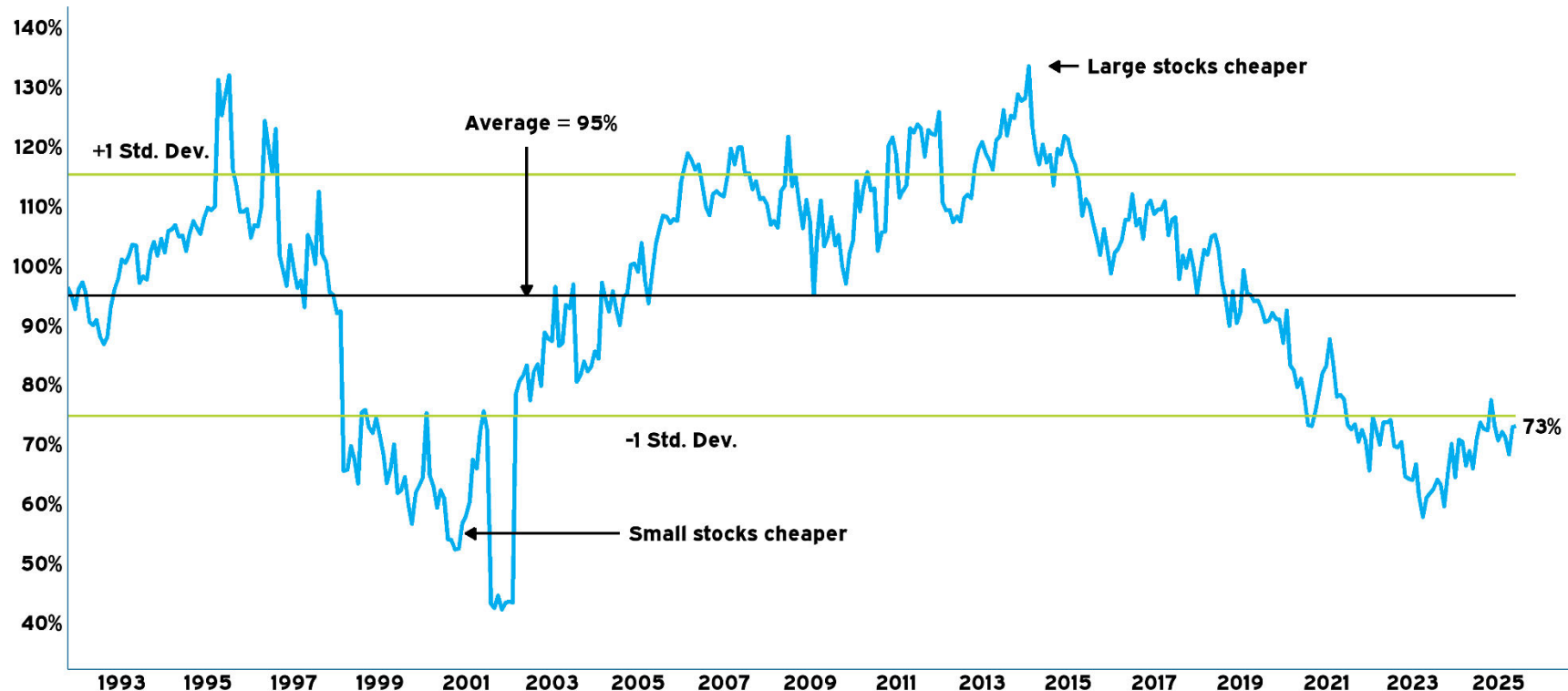
US Equity Cyclically Adjusted P/E¹ (As of June 30, 2025)



→ This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E¹ (As of June 30, 2025)



→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments and Bloomberg. Prior months unavailable on Bloomberg are backfilled with last reported earnings. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E¹ (As of June 30, 2025)



→ This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

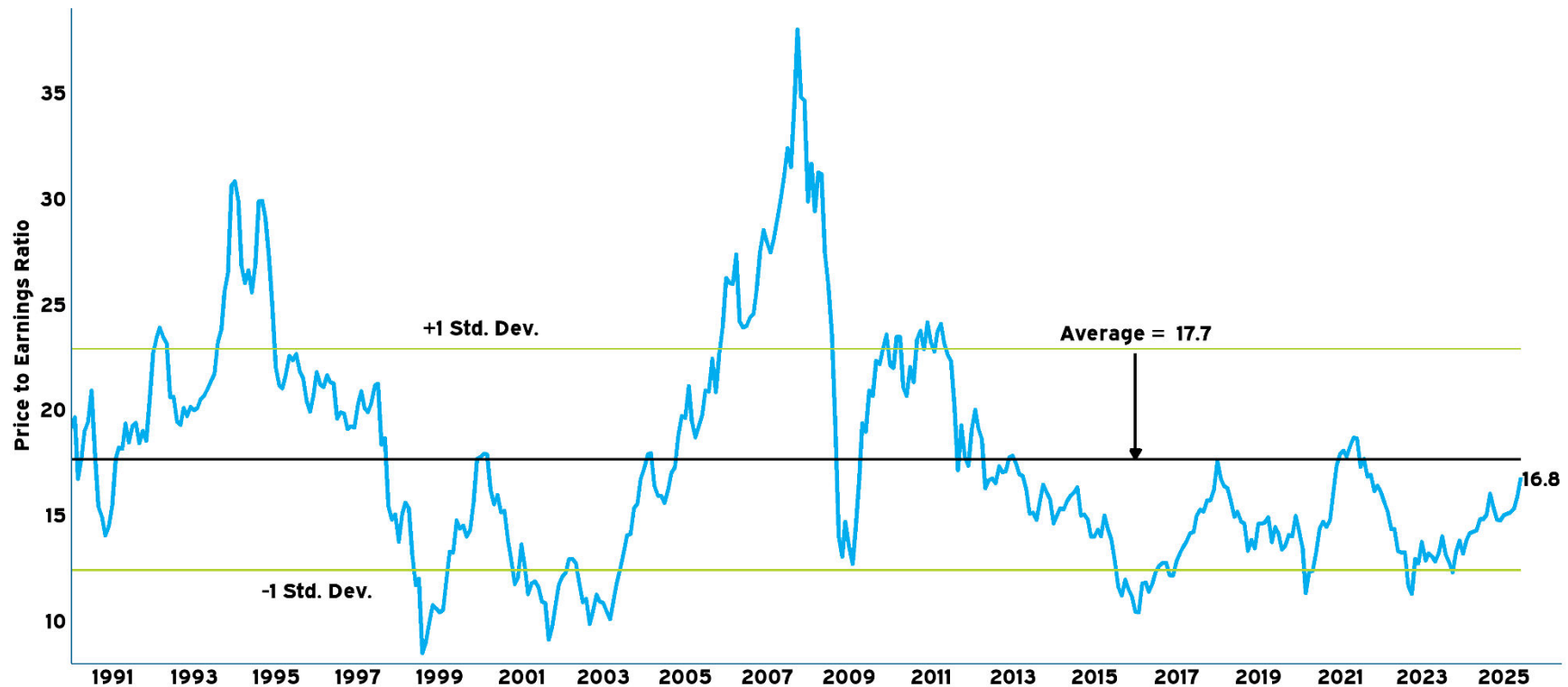
Developed International Equity Cyclically Adjusted P/E¹ (As of June 30, 2025)



→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

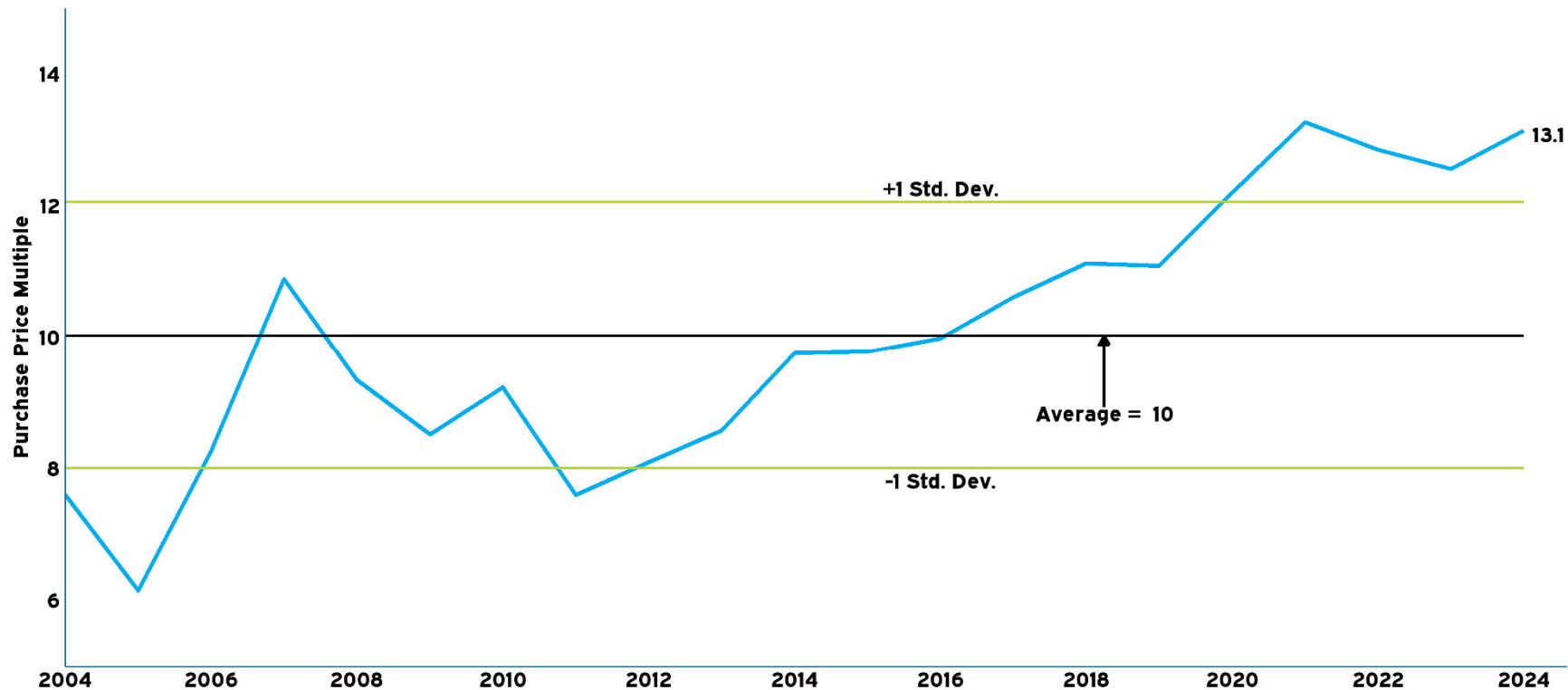
Emerging Market Equity Cyclically Adjusted P/E¹ (As of June 30, 2025)



→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

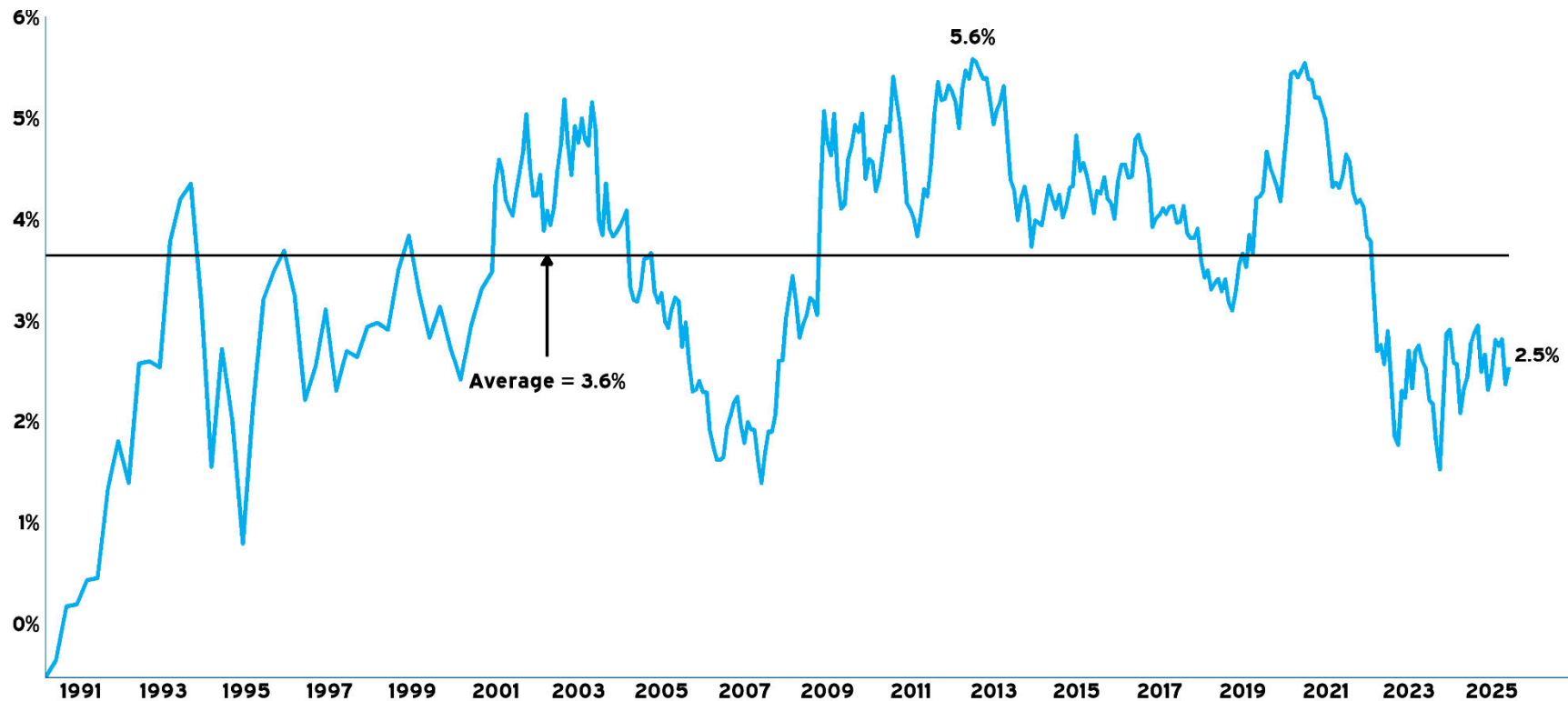
Private Equity Multiples¹ (As of December 31, 2024)



→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: Preqin Median EBITDA Multiples Paid in All LBOs. Data pulled as of 1/8/2025.

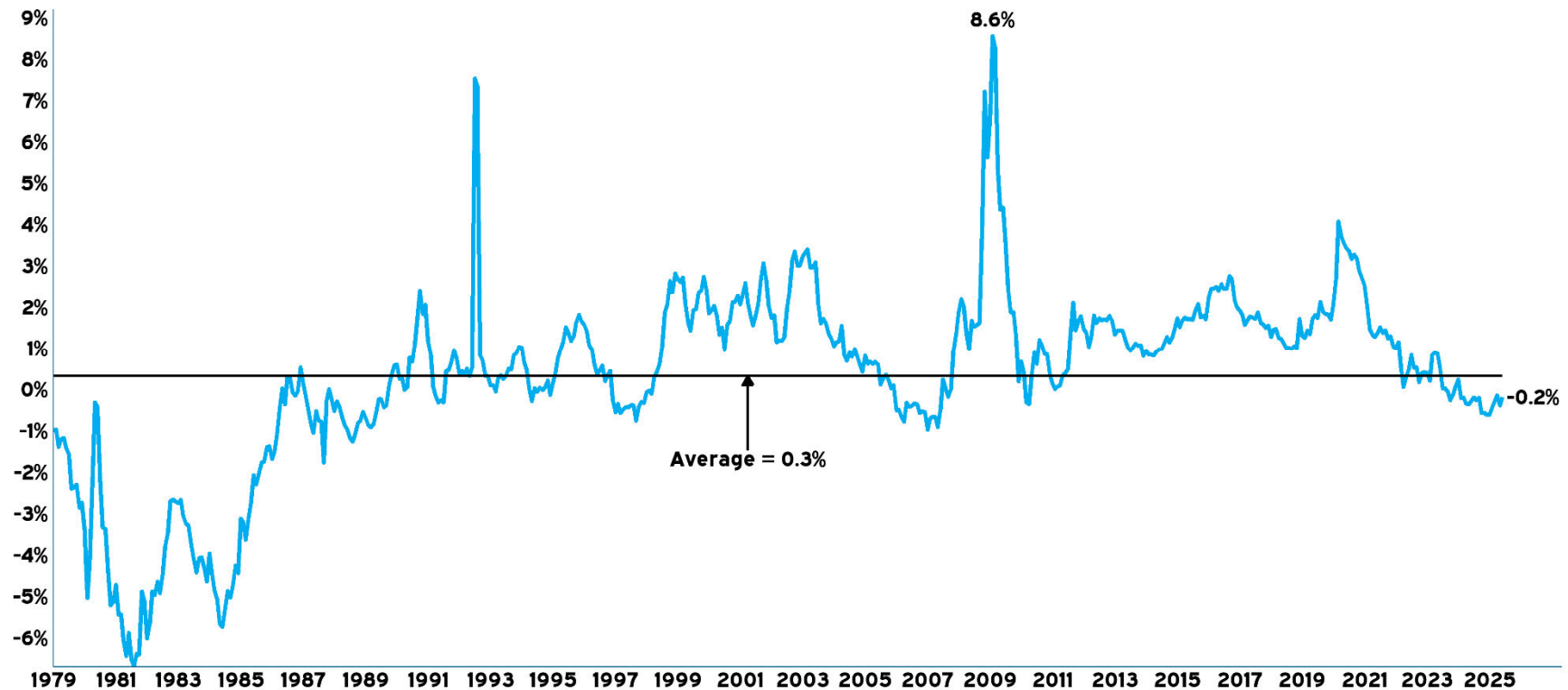
Core Real Estate Spread vs. Ten-Year Treasury¹ (As of June 30, 2025)



→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, FRED, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

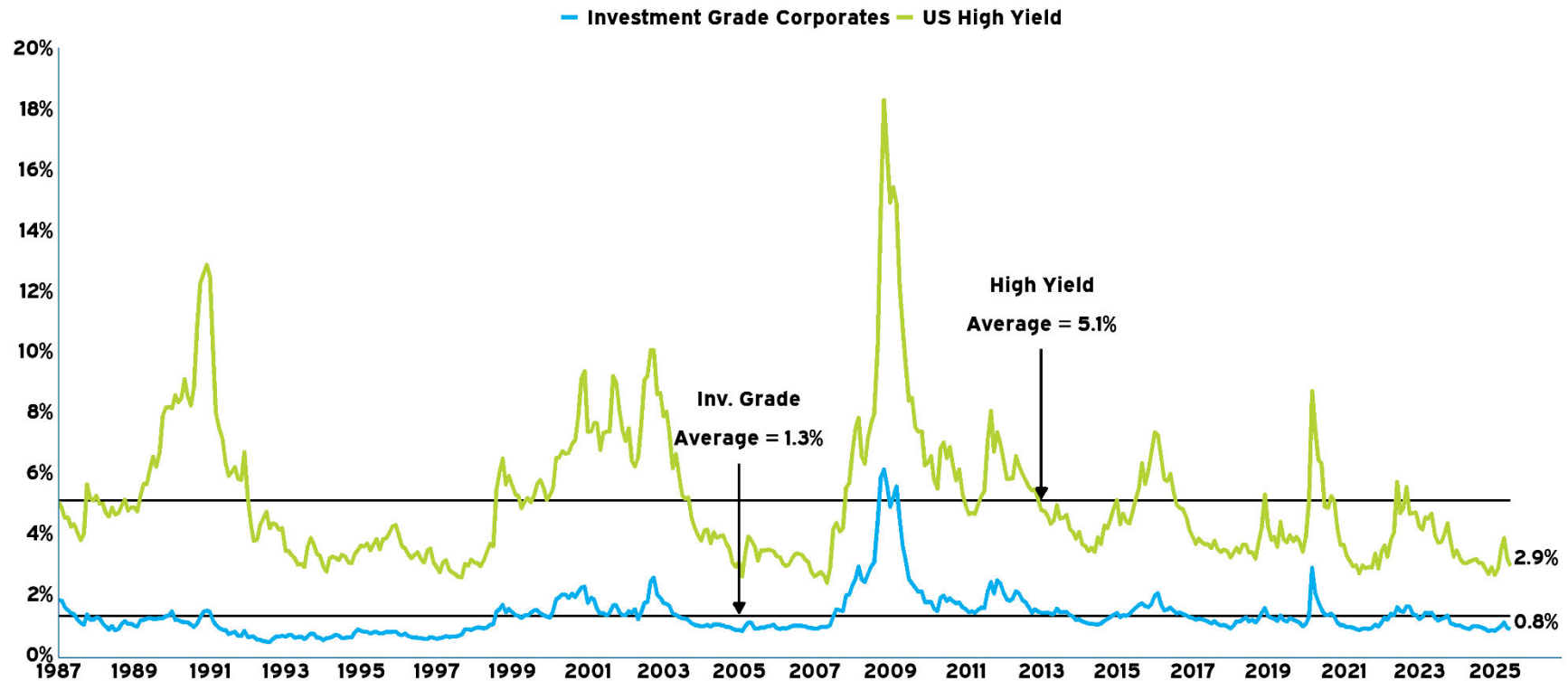
REITs Dividend Yield Spread vs. Ten-Year Treasury¹ (As of June 30, 2025)



→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, Bloomberg, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

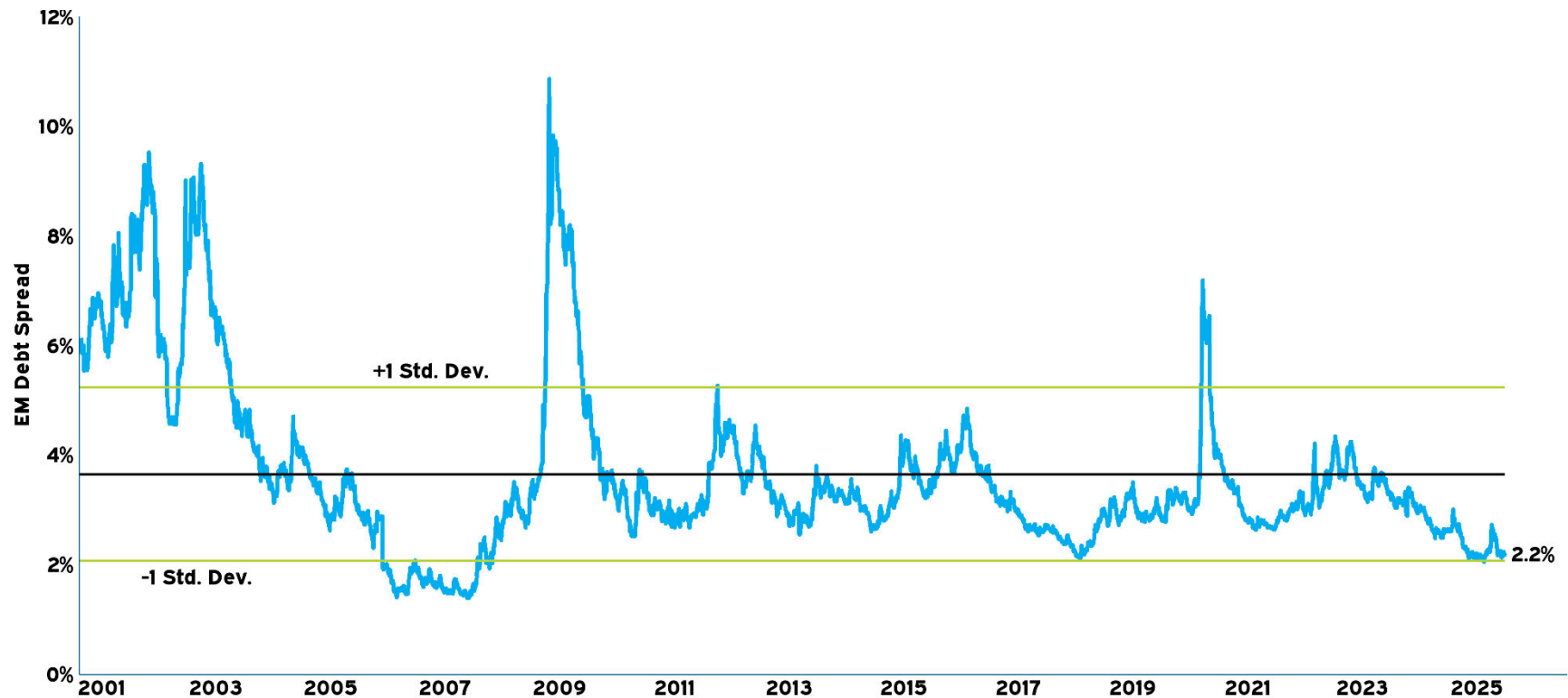
Credit Spreads¹ (As of June 30, 2025)



→ This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ Credit Spreads – Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.

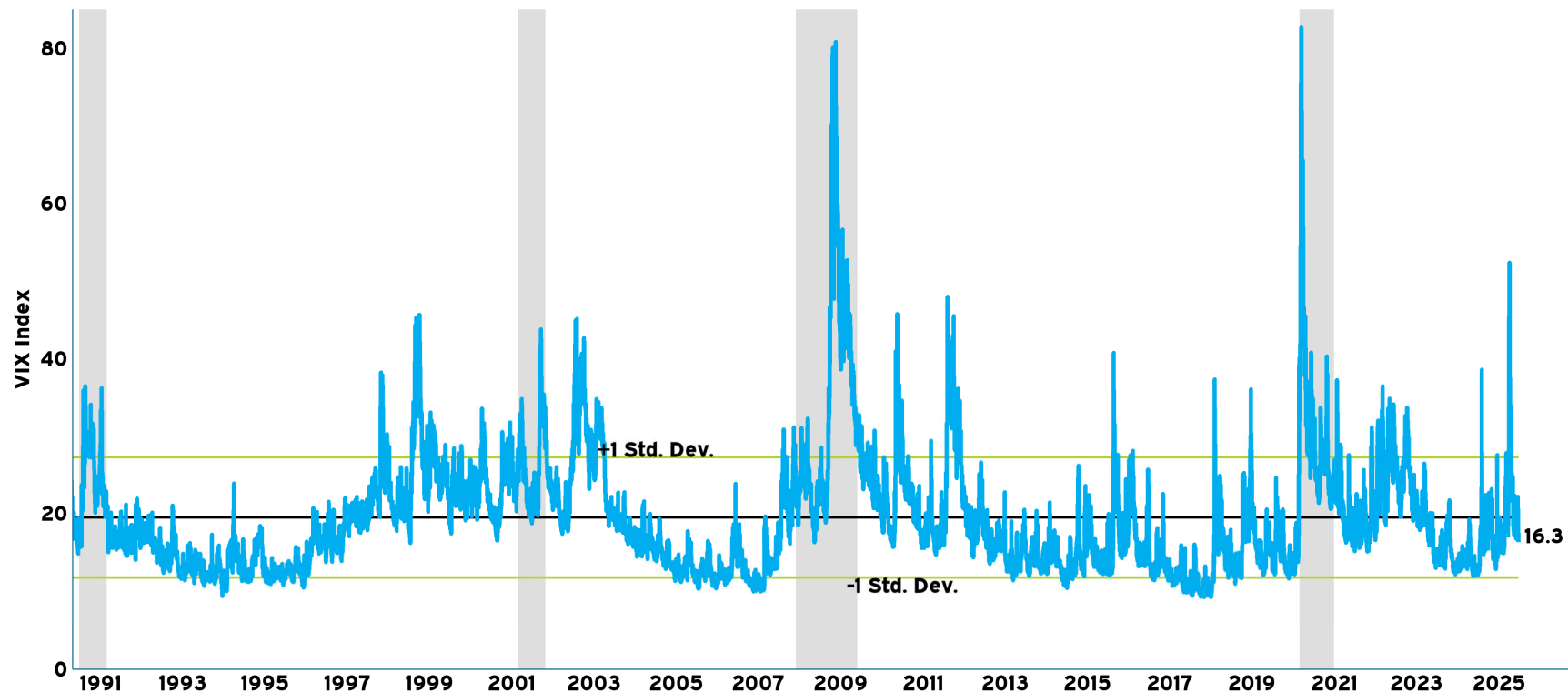
Emerging Market Debt Spreads¹ (As of June 30, 2025)



→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.

Equity Volatility¹ (As of June 30, 2025)

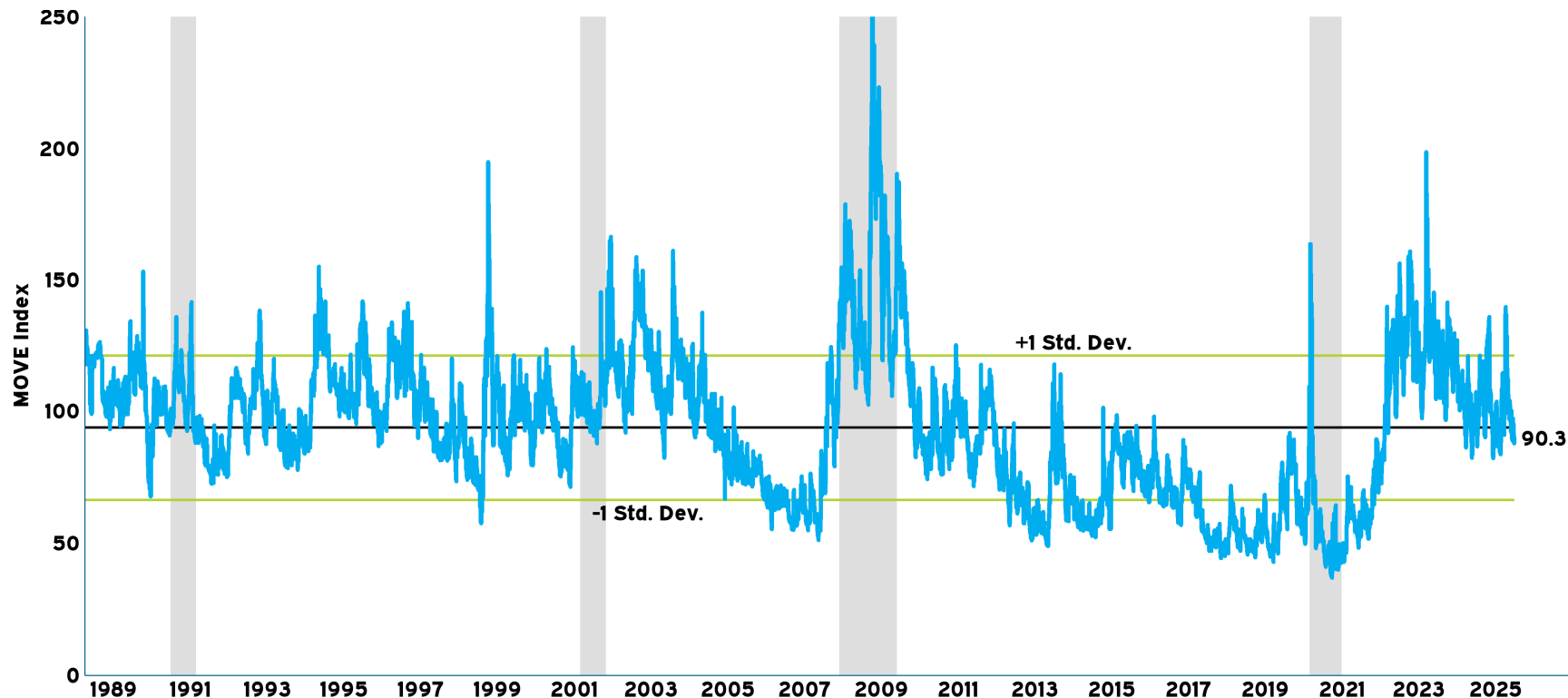


→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility – Source: FRED, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

² Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

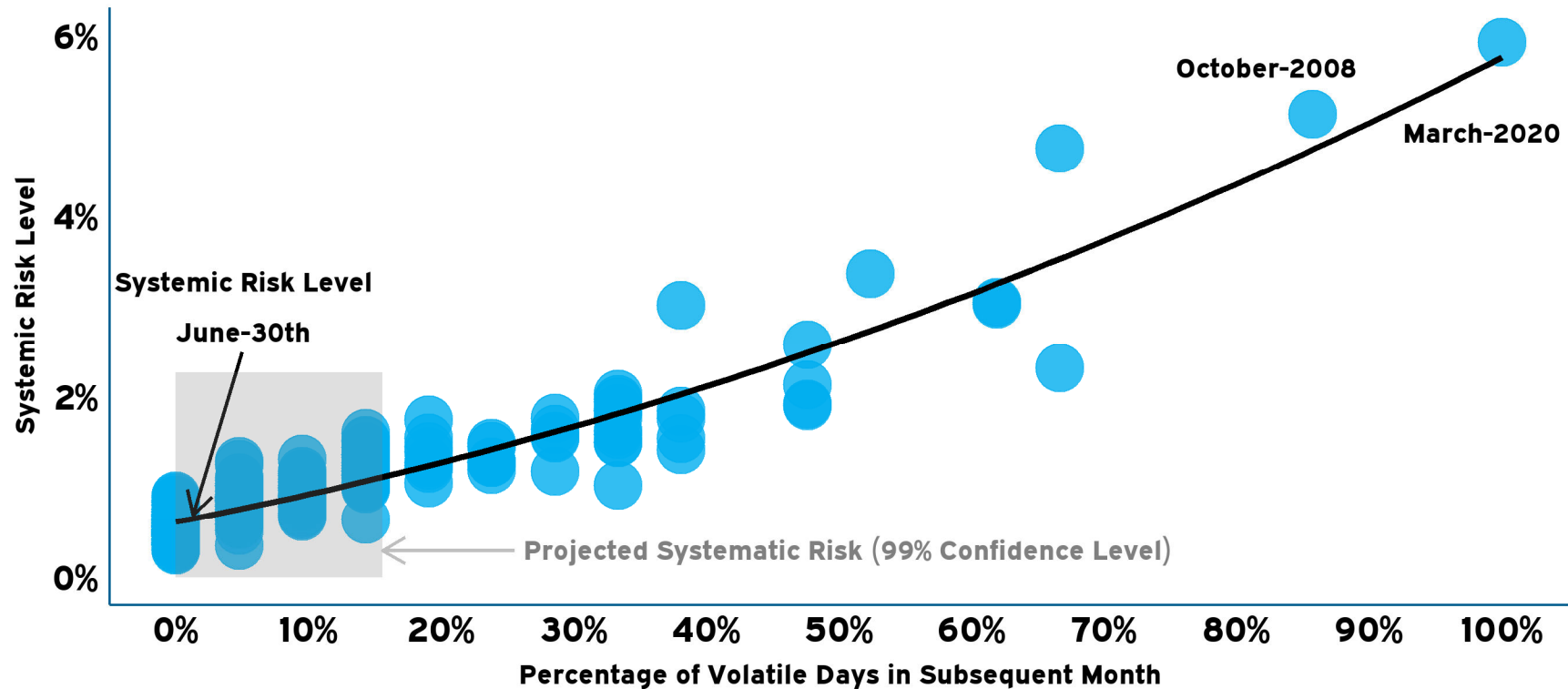
Fixed Income Volatility¹ (As of June 30, 2025)



→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

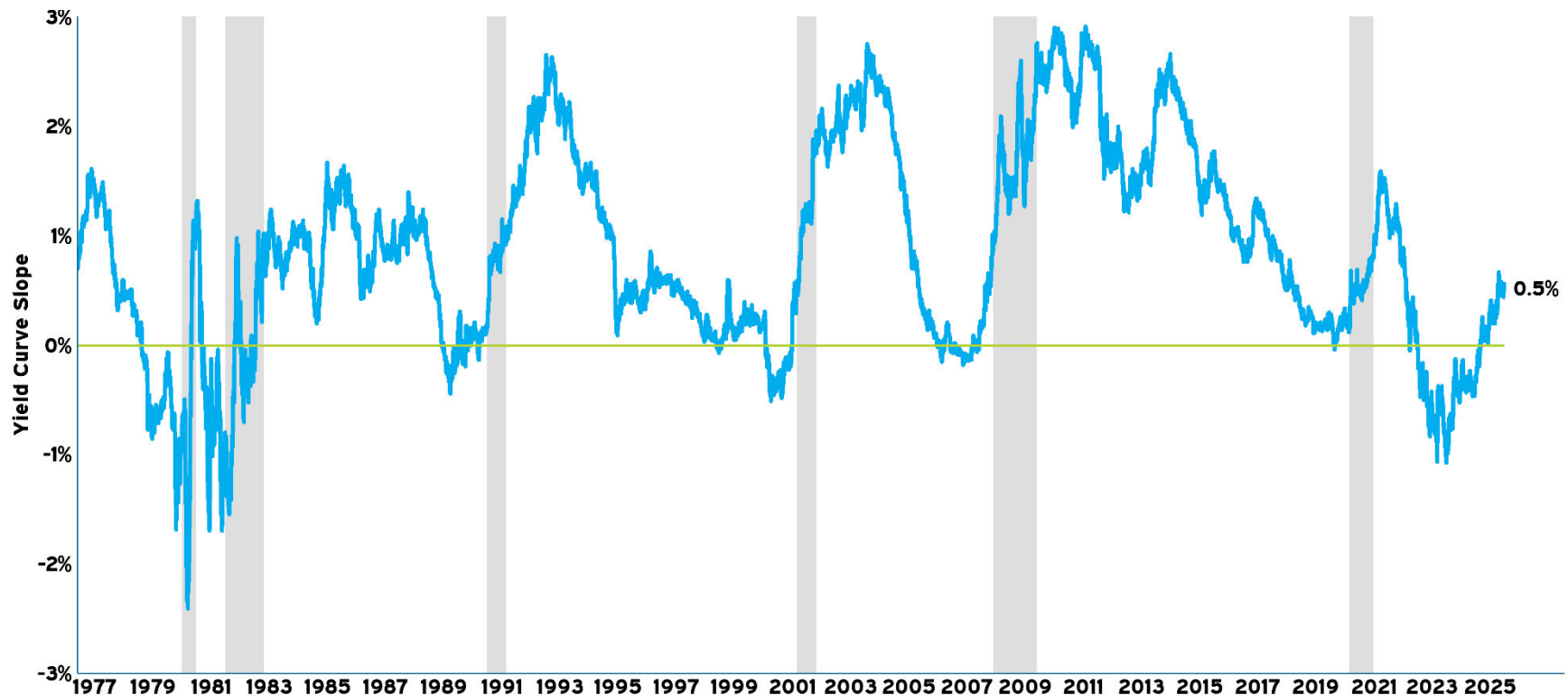
Systemic Risk and Volatile Market Days¹ (As of June 30, 2025)



→ Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

¹ Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

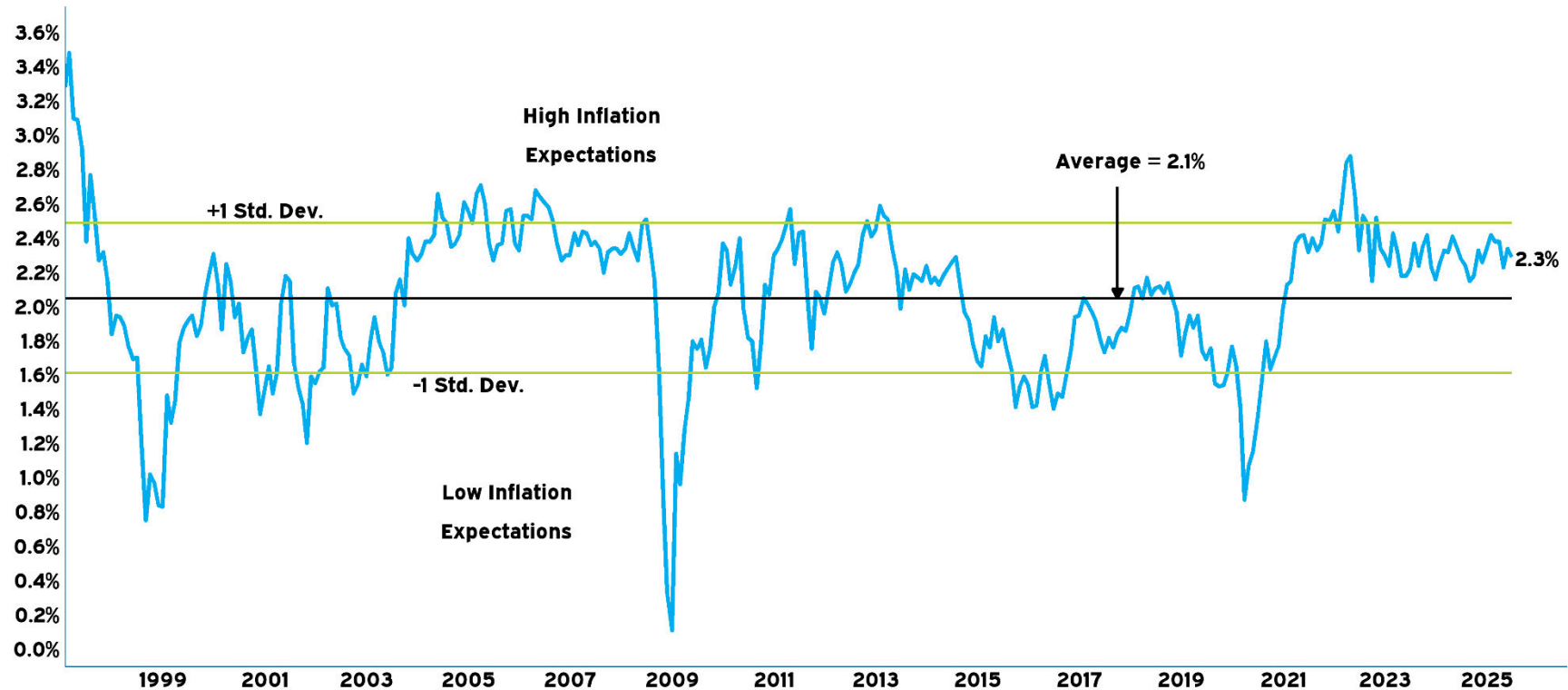
Yield Curve Slope (Ten Minus Two)¹
(As of June 30, 2025)



→ This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

¹ Yield Curve Slope (Ten Minus Two) – Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

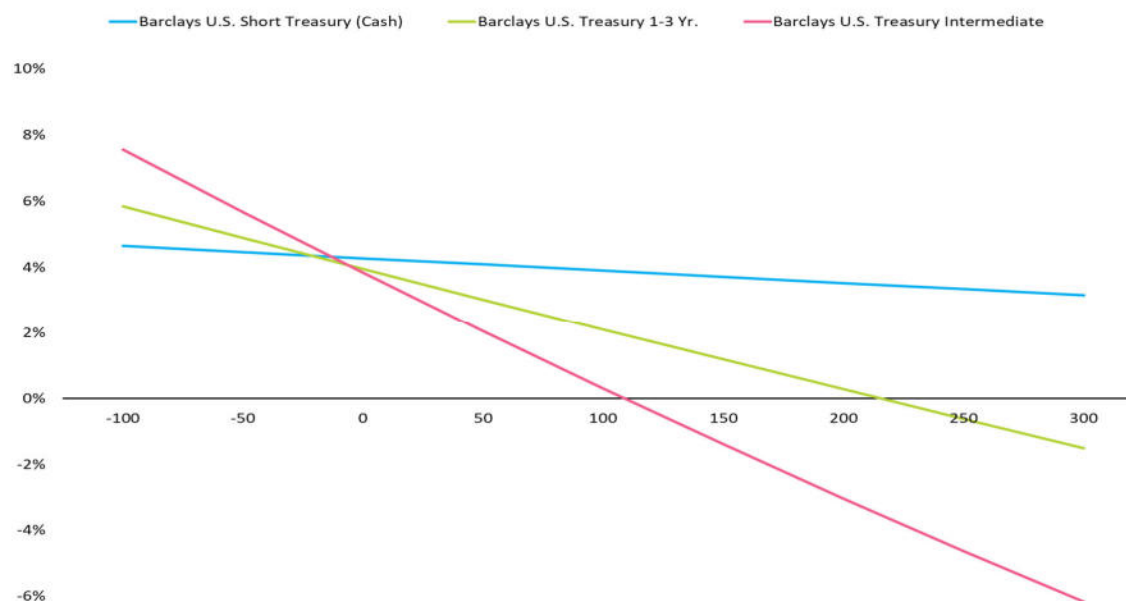
Ten-Year Breakeven Inflation¹ (As of June 30, 2025)



→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

¹ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

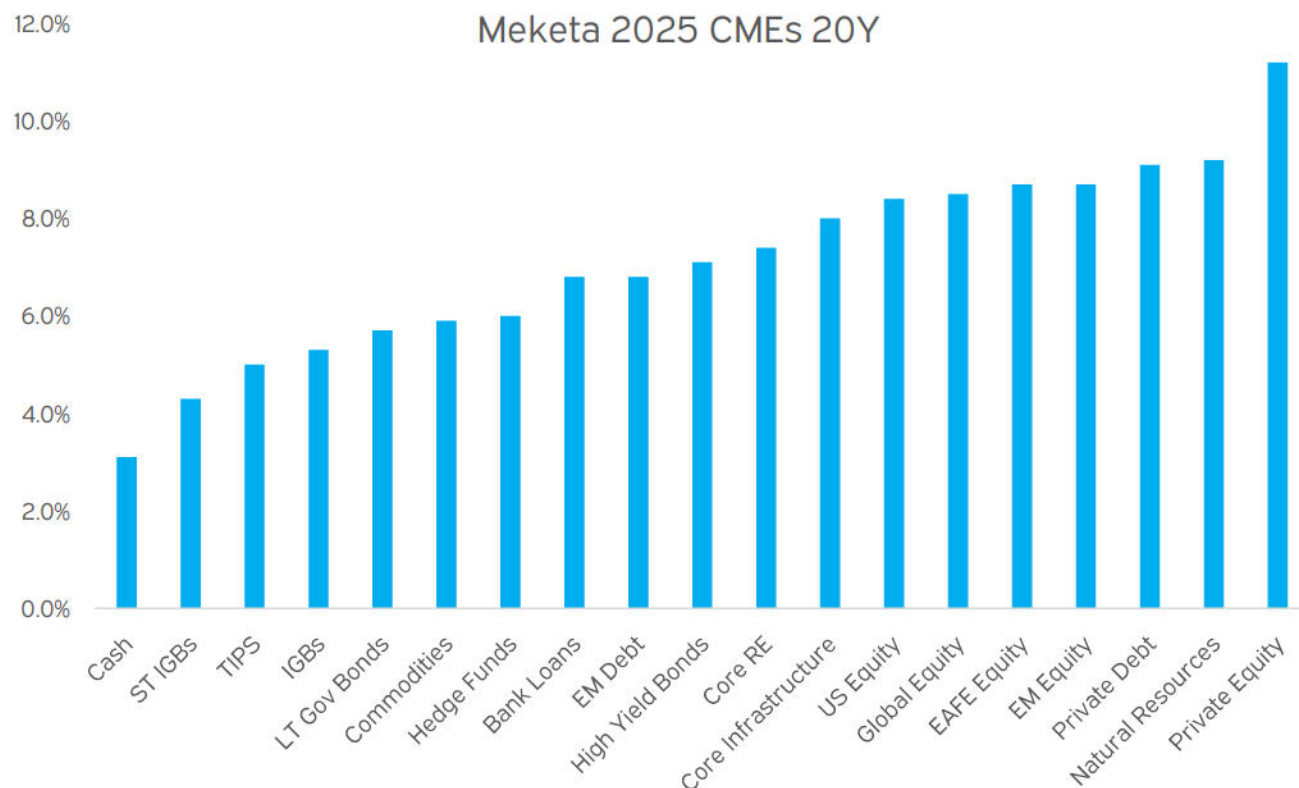
Total Return Given Changes in Interest Rates (bps)¹ (As June 30, 2025)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100 (%)	-50 (%)	0 (%)	50 (%)	100 (%)	150 (%)	200 (%)	250 (%)	300 (%)	Duration	YTW (%)
Barclays US Short Treasury (Cash)	4.7%	4.5%	4.3%	4.1%	3.9%	3.7%	3.5%	3.3%	3.2%	0.38	4.27%
Barclays US Treasury 1-3 Yr.	5.8%	4.9%	4.0%	3.0%	2.1%	1.2%	0.3%	-0.6%	-1.5%	1.87	3.95%
Barclays US Treasury Intermediate	7.6%	5.7%	3.8%	2.0%	0.3%	-1.4%	-3.0%	-4.6%	-6.2%	3.63	3.83%
Barclays US Treasury Long	21.0%	12.5%	4.8%	-2.2%	-8.5%	-14.0%	-18.8%	-22.9%	-26.3%	14.74	4.80%

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns¹



→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

¹ Source: Meketa Investment Group's 2025 Asset Study.

Appendix

Data Sources and Explanations¹

- US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

¹ All Data as of May 31, 2025, unless otherwise noted.

Appendix

Data Sources and Explanations¹

- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.
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- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
- Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

¹ All Data as May 31, 2025, unless otherwise noted.

Appendix

Data Sources and Explanations¹

- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

¹ All Data as of May 31, 2025, unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

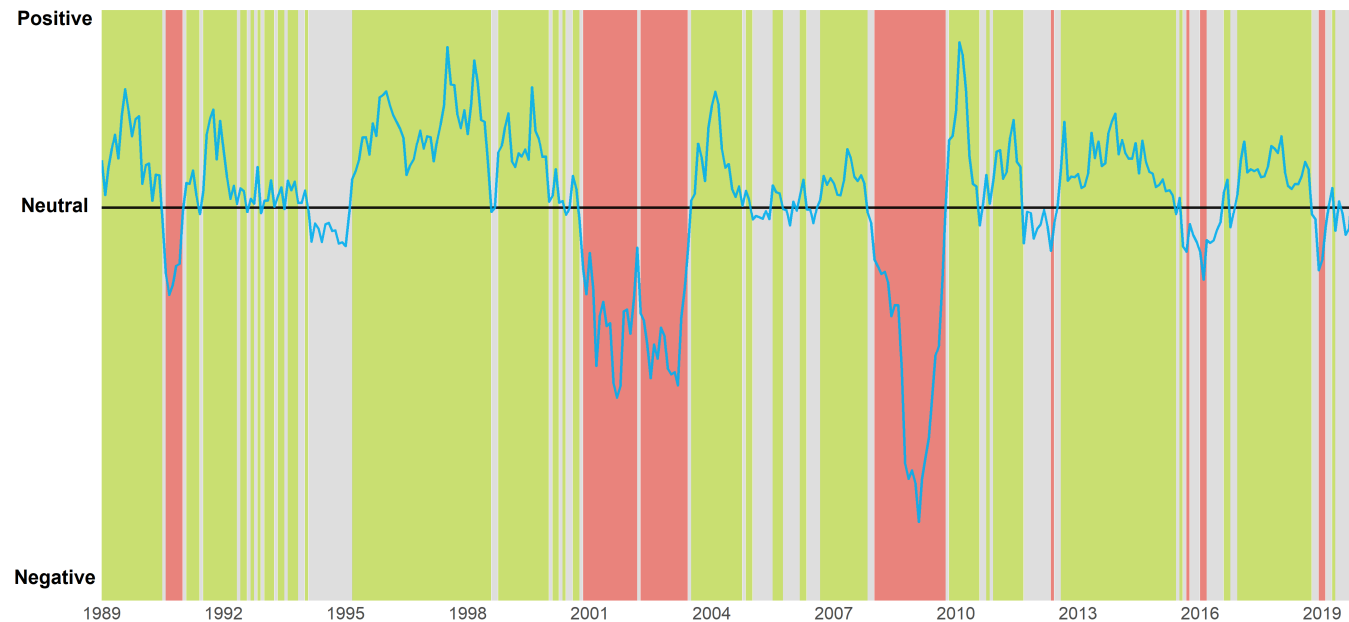
- Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market correction takes place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation-based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication of the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
 - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
 - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
 - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure¹. The color reading on the graph is determined as follows:
 - If both stock return momentum and bond spread momentum are positive = GREEN (positive).
 - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
 - If both stock return momentum and bond spread momentum are negative = RED (negative).

¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

- There is strong evidence that time series momentum is significant and persistent. Across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

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REPORT

SBI Comprehensive Performance Report

June 30, 2025

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Quarterly Report

Comprehensive Performance Report

June 30, 2025



Description of SBI Investment Programs

The Minnesota State Board of Investment (SBI) is responsible for the investment management of various retirement funds, trust funds, and cash accounts.

Combined Funds

The Combined Funds represent the assets for both the active and retired public employees in the statewide retirement systems, the biggest of which are the Public Employees Retirement Association (PERA), the Teachers Retirement Association (TRA), and the Minnesota State Retirement System (MSRS). The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

Other Retirement Funds

In addition to the assets of the Statewide Retirement Systems, the SBI provides broad asset-class investment options to both defined benefit and defined contribution retirement plans that either make investment decisions at the plan level and participant-directed plans. Other public retirement funds include the Public Employees Retirement Association (PERA) Defined Contribution Plan, St. Paul Teachers' Retirement Fund Association, Statewide Volunteer Firefighter Plan, Unclassified Retirement Plan, and Volunteer Fire Relief Associations.

Tax-Advantaged Savings Plans

The SBI aims to help participants meet their savings and investment goals by offering a range of investment options across asset classes managed by institutional investment managers that charge competitive fees. The investment options offered within each plan will vary based on several factors, including statutory requirements, operational limitations, and other rules and regulations established for each participating plan. Tax-advantaged savings plans include the Health Care Savings Plan, Hennepin County Supplemental Retirement Plan, and Minnesota Deferred Compensation Plan.

State-Sponsored Savings Plans

The SBI is responsible for oversight of the investment options in the State-Sponsored Savings Plans, including the Minnesota College Savings Plan and the Minnesota ABLE Plan. SBI does not directly administer plans; it partners with the respective plan-administrating agencies when selecting investment options.

Non-Retirement Investment Program

The SBI is responsible for the assets of several state trust funds, public sector sponsored entities, Other Postemployment Benefits (OPEB) trusts, and Qualifying Governmental Entities. These trust funds and accounts have different accounting requirements and spending targets derived from constitutional and statutory provisions. Statute will also identify whether the SBI or the sponsoring entity is responsible for determining the asset allocation targets for the respective fund or account.

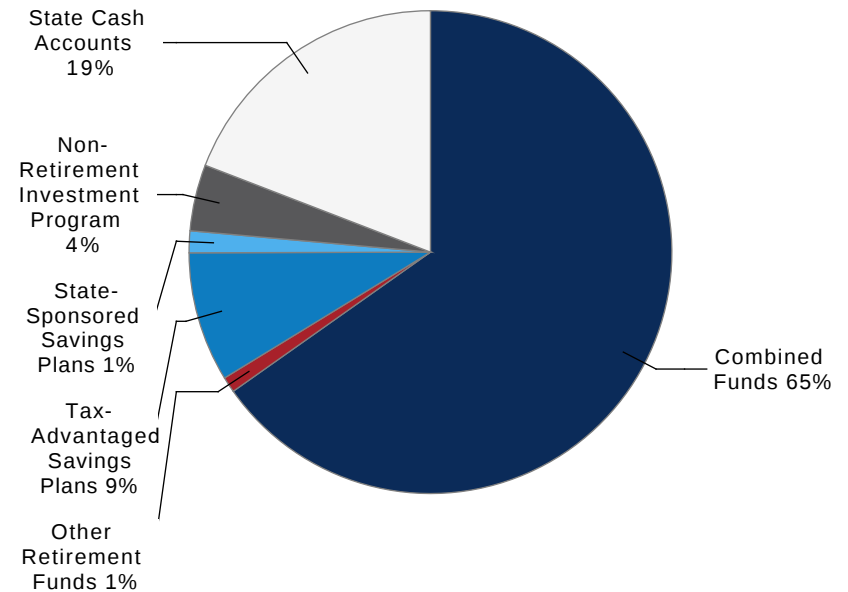
State Cash

The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and non-dedicated cash in the State Treasury. Because of special legal restrictions, a small number of cash accounts cannot be commingled.



Funds Under Management

	<u>\$ Millions</u>
Combined Funds	\$101,221
Other Retirement Funds	\$1,568
PERA Defined Contribution Plan	\$106
St. Paul Teachers' Retirement Fund	\$335
Statewide Volunteer Firefighter Plan	\$415
Unclassified Retirement Plan	\$442
Volunteer Fire Relief Associations	\$270
Tax-Advantaged Savings Plans	\$13,599
Health Care Savings Plan	\$2,343
Hennepin County Supplemental Retirement Plan	\$184
Minnesota Deferred Compensation Plan	\$11,072
State-Sponsored Savings Plans	\$2,303
Minnesota College Savings Plan	\$2,241
Minnesota Achieving a Better Life Experience Plan	\$62
Non-Retirement Investment Program	\$6,921
Other Postemployment Benefits (OPEB)	\$1,071
Qualifying Governmental Entities	\$21
Trust Funds	\$5,828
State Cash	\$30,248
Invested Treasurer's Cash	\$29,610
Other State Cash Accounts	\$637
TOTAL SBI AUM	\$155,859



Note: Differentials within column amounts may occur due to rounding. Totals are unaudited and may differ from the final fiscal year-end report.



Quarterly Report

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Performance Reporting Legends

Combined Funds

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Aggregate Level Data

Sub-Asset Class Level Data

Asset Class Level Data

Other Retirement Funds and Tax-Advantaged Savings Plans

Asset Class Investment Pools

Single Manager Investment Option

Non-Retirement Investment Program

Non-Retirement Funds

Non-Retirement Separate Accounts

Note:

Throughout this report, performance is calculated net of investment management fees, gross of administrative fees, unless noted. Aggregates include terminated managers and returns for all periods greater than one year are annualized. Inception Date and Since Inception Returns refer to the date of retention by the SBI. FYTD refers to the return generated by an account since July 1 of the most recent year. For historical benchmark details, please refer to the addendum of this report. Some aggregate inception-to-date returns are based on portfolio management decisions to re-group manager accounts in different or newly created aggregates.



Quarterly Report

Combined Funds

June 30, 2025



Combined Funds Summary

Combined Funds Change in Market Value (\$Millions)

	One Quarter
COMBINED FUNDS	
Beginning Market Value	\$96,008
Net Contributions	-619
Investment Return	5,833
Ending Market Value	101,221

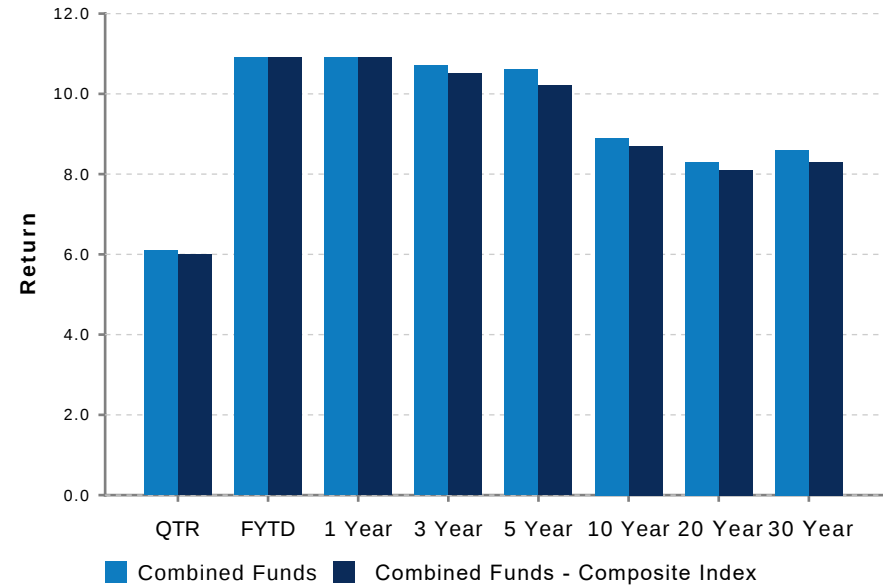
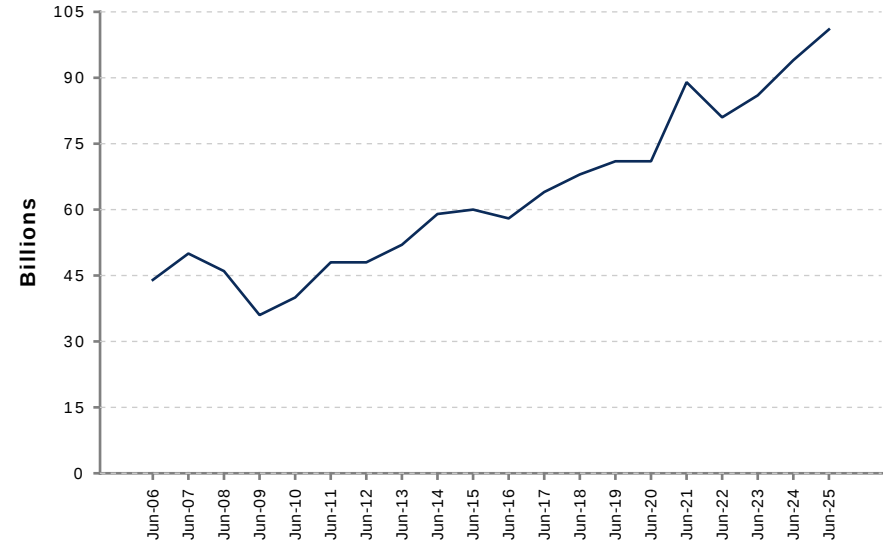
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

Performance (Net of Fees)

The Combined Funds' performance is evaluated relative to a composite of public market index and private market investment returns. The Composite performance is calculated by multiplying the beginning of month Composite weights and the monthly returns of the asset class benchmarks.

	QTR	FYTD	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr	30 Yr
Combined Funds	6.1%	10.9%	10.9%	10.7%	10.6%	8.9%	8.3%	8.6%
Combined Funds-Composite Index	6.0%	10.9%	10.9%	10.5%	10.2%	8.7%	8.1%	8.3%
Excess	0.2%	0.0%	0.0%	0.3%	0.4%	0.2%	0.2%	0.3%

Asset Growth

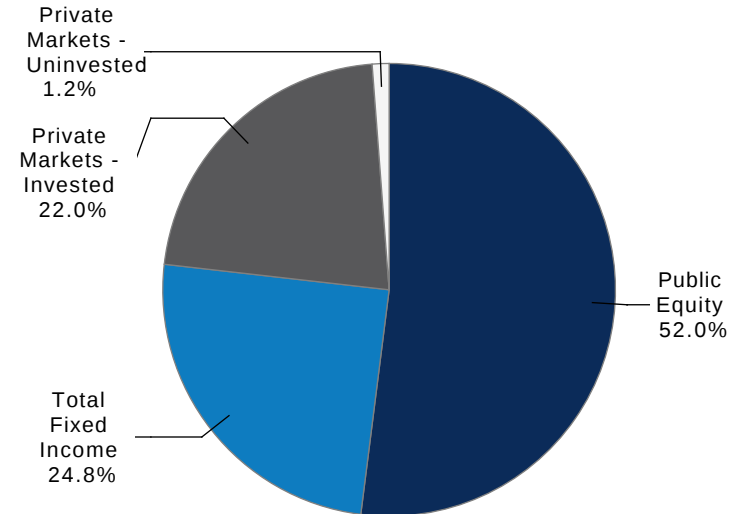


Combined Funds Summary

Asset Mix

The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in cash.

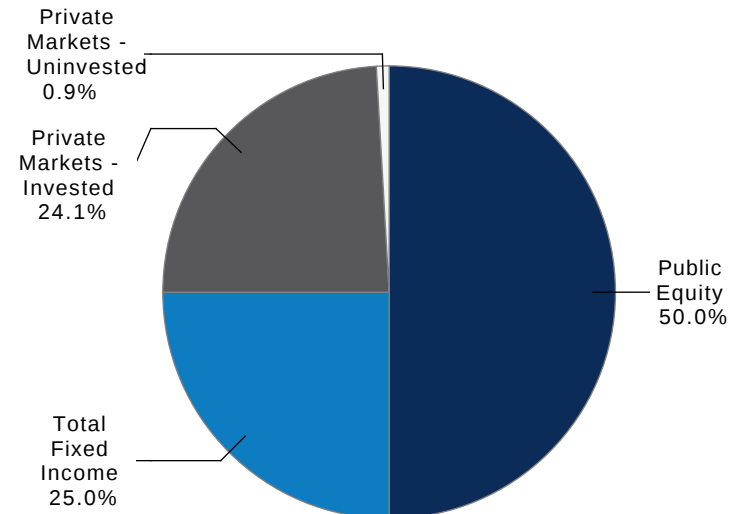
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$52,596	52.0	50.0
Total Fixed Income	25,111	24.8	25.0
Private Markets - Total	23,514	23.2	25.0
Private Markets - Invested	22,306	22.0	
Private Markets - Uninvested	1,208	1.2	
TOTAL	101,221	100.0	



Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target. The Combined Funds Composite weighting shown below is as of the first day of the quarter.

	<u>Policy Weight</u>	<u>Market Index</u>
Public Equity	50.0	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	24.1	Private Markets
Private Markets - Uninvested	0.9	ICE BofA US 3-Month Treasury Bill





Combined Funds Asset Class Performance Summary

Public Equity

The Combined Funds Public Equity includes Domestic Equity, International Equity and Global Equity.

The Public Equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex US (net).

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Public Equity	\$52.6	52.0%	50.0%	11.2%	15.6%	15.6%	17.6%	14.4%	10.9%	9.3%	9.2
Public Equity Benchmark				11.4	16.3	16.3	17.5	14.1	10.8	9.2	9.0
Excess				-0.1	-0.6	-0.6	0.1	0.2	0.1	0.1	0.2
Domestic Equity	34.6	34.2	33.5	11.1	15.2	15.2	19.2	16.1	12.8	10.4	10.1
Domestic Equity Benchmark				11.0	15.3	15.3	19.1	16.0	12.9	10.5	10.2
Excess				0.1	-0.1	-0.1	0.1	0.1	-0.1	-0.1	-0.1
International Equity	16.8	16.6	16.5	11.3	16.6	16.6	14.5	11.1	6.7	6.4	6.3
International Equity Benchmark				12.0	17.7	17.7	14.0	10.1	6.1	5.8	5.6
Excess				-0.8	-1.2	-1.2	0.5	1.0	0.6	0.5	0.7
Global Equity	1.1	1.1	0.0	13.2	14.2	14.2	14.4				
MSCI AC WORLD INDEX NET				11.5	16.2	16.2	17.3				
Excess				1.6	-1.9	-1.9	-2.9				

Note:

Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a Total Public Equity return. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.



Combined Funds Asset Class Performance Summary

Total Fixed Income

The Combined Funds Fixed Income program includes Core/Core Plus, Return Seeking Fixed Income, Treasuries and Laddered Bond + Cash.

The Total Fixed Income benchmark is 40% Bloomberg U.S. Aggregate Index/ 40% Bloomberg Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill.

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Total Fixed Income	\$25.1	24.8%	25.0%	1.1%	5.8%	5.8%	2.8%	-0.8%	2.4%	3.6%	4.8%
Total Fixed Income Benchmark				0.8	5.1	5.1	1.7	-1.5	1.9	3.1	4.4
Excess				0.4	0.7	0.7	1.1	0.7	0.6	0.5	0.4
Core/Core Plus	\$5.7	5.6%	5.0	1.5	6.5	6.5	3.4	-0.1	2.3	3.6	4.7
Core Bonds Benchmark				1.2	6.1	6.1	2.5	-0.7	1.8	3.1	4.3
Excess				0.2	0.4	0.4	0.9	0.7	0.6	0.5	0.4
Return Seeking Fixed Income	\$4.9	4.9%	5.0	2.8	8.6	8.6	6.9				
Bloomberg U.S. Aggregate				1.2	6.1	6.1	2.5				
Excess				1.6	2.5	2.5	4.4				
Treasury Protection	\$9.6	9.5%	10.0	0.2	4.4	4.4	-0.6	-4.4			
Bloomberg Treasury 5+ Year				0.2	4.2	4.2	-0.7	-4.6			
Excess				0.0	0.2	0.2	0.1	0.1			
Laddered Bond + Cash	\$4.9	4.8%	5.0	1.1	5.0	5.0	4.7	2.8	2.0	1.9	3.0
ICE BofA US 3-Month Treasury Bill				1.0	4.7	4.7	4.6	2.8	2.0	1.7	2.5
Excess				0.0	0.3	0.3	0.2	0.0	0.1	0.2	0.5

Note:

Since 12/1/2020 the Total Fixed Income includes allocations to Core/Core Plus Bonds, Return Seeking Bonds, Treasuries and Laddered Bond + Cash. From 7/1/2020 to 11/30/2020 Total Fixed Income was Core Bonds, Treasuries and Cash. From 2/1/2018-6/30/20 Total Fixed Income was Core Bonds and Treasuries. Prior to 2/1/2018, Total Fixed Income was Core Bonds. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.



Combined Funds Asset Class Performance Summary

Private Markets

	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>25 Year</u>	<u>30 Year</u>
Private Markets - Invested	0.6%	6.1%	6.1%	5.2%	14.9%	11.5%	12.5%	11.9%	13.4%
Private Markets -Uninvested(1)	0.9%	4.1%	4.1%	5.2%					
Private Equity	1.4%	8.3%	8.3%	6.5%	17.1%	14.8%	14.6%	12.7%	15.6%
Private Credit	-1.9%	4.8%	4.8%	7.9%	12.5%	11.5%	12.2%	11.6%	
Resources	-2.6%	-1.9%	-1.9%	1.7%	10.5%	2.0%	10.3%	12.2%	12.2%
Real Estate	-0.3%	-1.6%	-1.6%	-3.9%	7.8%	8.0%	7.7%	8.4%	9.1%

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) The Uninvested Private Markets is currently cash. Prior to 11/02/2022, the Uninvested portion of the Private Markets allocation was invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash.

Source: State Street Bank



Quarterly Report

Asset Class & Manager Performance

March 31, 2025

The assets of the Combined Funds are allocated to public equity, fixed income, private markets, and cash. Each asset class may be further differentiated by geography, management style, and/or strategy. Managers are hired to manage the assets accordingly. This diversification is intended to reduce wide fluctuations in investment returns on a year-to-year basis and enhances the Funds' ability to meet or exceed the actuarial return target over the long-term.

The Combined Funds consist of the assets of active employees and retired members of the statewide retirement plans. The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. This sharing is accomplished by grouping managers by asset class, geography, and management style, into several Investment Pools. The individual funds participate in the Investment Pools by purchasing units which function much like the shares of a mutual fund.

While the vast majority of the units of these pools are owned by the Combined Funds, the Supplemental Investment Fund also owns units of these pools. The Supplemental Investment Funds are mutual fund-like investment vehicles which are used by investors in the Participant Directed Investment Program. Please refer to the Participant Directed Investment Program report for more information.

The performance information presented on the following pages for Public Equity and Fixed Income includes both the Combined Funds and Supplemental Investment Fund. The Private Markets is Combined Funds only. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

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Domestic Equity

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Domestic Equity										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$3,206,974,391	9.1%	11.1%	12.4%	12.4%	15.2%	13.1%	10.3%	8.6%	06/1996
Active Domestic Equity Benchmark			9.4	11.6	11.6	13.9	12.7	10.0	9.0	06/1996
Excess			1.6	0.8	0.8	1.4	0.3	0.3	-0.5	
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	4,773,849,657	13.6	11.3	14.4	14.4	20.2	17.0	13.6	9.8	06/1996
Semi Passive Domestic Equity Benchmark			11.1	15.7	15.7	19.6	16.3	13.4	9.6	06/1996
Excess			0.2	-1.2	-1.2	0.6	0.7	0.3	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	27,216,885,110	77.3	11.1	15.6	15.6	19.6	16.3	13.2	9.8	06/1996
Passive Domestic Equity Benchmark			11.1	15.6	15.6	19.5	16.3	13.2	9.9	06/1996
Excess			-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.1	
TRANSITION AGGREGATE DOMESTIC EQUITY (4)										
TOTAL DOMESTIC EQUITY (5)	35,197,709,159	100.0	11.1	15.2	15.2	19.2	16.1	12.8	11.0	01/1984
Domestic Equity Benchmark			11.0	15.3	15.3	19.1	16.0	12.9	11.1	01/1984
Excess			0.1	-0.1	-0.1	0.1	0.1	-0.1	-0.2	

(1) The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager's benchmarks.

(2) The current Semi-Passive Domestic Equity Benchmark is the Russell 1000 index.

(3) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

(4) The Transition Domestic Equity Aggregate will periodically contain residual Domestic Equity securities from transitions.

(5) The current Domestic Equity Benchmark is the Russell 3000.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Total Domestic Equity					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	18.2%	20.9%	-21.3%	18.5%	27.3%
Active Domestic Equity Benchmark	17.0	19.4	-19.4	20.3	19.8
Excess	1.2	1.5	-1.9	-1.7	7.5
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	25.4	27.5	-18.7	28.8	21.0
Semi Passive Domestic Equity Benchmark	24.5	26.5	-19.1	26.5	21.0
Excess	0.9	1.0	0.4	2.3	0.0
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	24.4	26.5	-19.2	26.5	20.8
Passive Domestic Equity Benchmark	24.4	26.5	-19.1	26.4	20.8
Excess	-0.0	0.0	-0.0	0.1	0.0
TRANSITION AGGREGATE DOMESTIC EQUITY (4)					
TOTAL DOMESTIC EQUITY (5)	23.9	26.0	-19.4	25.8	21.7
Domestic Equity Benchmark	23.8	26.0	-19.2	25.7	20.8
Excess	0.1	0.1	-0.2	0.1	0.9

(1) The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager's benchmarks.

(2) The current Semi-Passive Domestic Equity Benchmark is the Russell 1000 index.

(3) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

(4) The Transition Domestic Equity Aggregate will periodically contain residual Domestic Equity securities from transitions.

(5) The current Domestic Equity Benchmark is the Russell 3000.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Large Cap Growth										
SANDS	\$270,150,041	0.8%	27.7%	24.2%	24.2%	28.8%	9.6%	13.8%	12.0%	01/2005
Russell 1000 Growth			17.8	17.2	17.2	25.8	18.1	17.0	12.6	01/2005
Excess			9.9	6.9	6.9	3.0	-8.5	-3.2	-0.6	
WINSLOW	297,802,230	0.8	20.1	18.2	18.2	28.2	17.0	16.5	12.9	01/2005
Russell 1000 Growth			17.8	17.2	17.2	25.8	18.1	17.0	12.6	01/2005
Excess			2.3	1.0	1.0	2.4	-1.1	-0.5	0.4	
RUSSELL 1000 GROWTH AGGREGATE (1)	567,952,270	1.6	23.7	21.0	21.0	28.5	14.2	17.3	12.4	11/2003
Russell 1000 Growth			17.8	17.2	17.2	25.8	18.1	17.0	12.4	11/2003
Excess			5.8	3.8	3.8	2.7	-3.9	0.3	0.0	

(1) Prior to 1/1/2021 the Russell 1000 Growth Aggregate included returns from Zevenbergen, which moved to the Russell 3000 Growth benchmark and is now reported separately.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Large Cap Growth					
SANDS	24.7%	52.0%	-49.3%	5.2%	71.0%
Russell 1000 Growth	33.4	42.7	-29.1	27.6	38.5
Excess	-8.7	9.3	-20.2	-22.4	32.5
WINSLOW	31.8	43.7	-31.0	24.8	37.6
Russell 1000 Growth	33.4	42.7	-29.1	27.6	38.5
Excess	-1.6	1.0	-1.8	-2.8	-0.9
RUSSELL 1000 GROWTH AGGREGATE (1)	28.2	47.7	-41.3	12.8	81.3
Russell 1000 Growth	33.4	42.7	-29.1	27.6	38.5
Excess	-5.1	5.1	-12.1	-14.8	42.8

(1) Prior to 1/1/2021 the Russell 1000 Growth Aggregate included returns from Zevenbergen, which moved to the Russell 3000 Growth benchmark and is now reported separately.

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Semi-Passive Large Cap										
BLACKROCK	\$2,387,159,690	6.8%	11.6%	14.8%	14.8%	20.1%	16.6%	13.9%	11.0%	01/1995
Semi Passive Domestic Equity Benchmark			11.1	15.7	15.7	19.6	16.3	13.4	10.6	01/1995
Excess			0.5	-0.9	-0.9	0.5	0.3	0.5	0.4	
J.P. MORGAN	2,386,689,968	6.8	10.9	14.1	14.1	20.3	17.3	13.9	11.0	01/1995
Semi Passive Domestic Equity Benchmark			11.1	15.7	15.7	19.6	16.3	13.4	10.6	01/1995
Excess			-0.2	-1.6	-1.6	0.7	1.0	0.5	0.4	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	4,773,849,657	13.6	11.3	14.4	14.4	20.2	17.0	13.6	9.8	06/1996
Semi Passive Domestic Equity Benchmark			11.1	15.7	15.7	19.6	16.3	13.4	9.6	06/1996
Excess			0.2	-1.2	-1.2	0.6	0.7	0.3	0.1	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Semi-Passive Large Cap					
BLACKROCK	26.1%	26.9%	-19.2%	28.3%	20.7%
Semi Passive Domestic Equity Benchmark	24.5	26.5	-19.1	26.5	21.0
Excess	1.6	0.4	-0.1	1.8	-0.3
J.P. MORGAN					
J.P. MORGAN	24.8	28.1	-18.1	29.3	21.2
Semi Passive Domestic Equity Benchmark	24.5	26.5	-19.1	26.5	21.0
Excess	0.3	1.6	1.0	2.8	0.3
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE					
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	25.4	27.5	-18.7	28.8	21.0
Semi Passive Domestic Equity Benchmark	24.5	26.5	-19.1	26.5	21.0
Excess	0.9	1.0	0.4	2.3	0.0

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Large Cap Value										
BARROW HANLEY	\$456,504,534	1.3%	4.3%	11.2%	11.2%	14.0%	16.7%	10.3%	9.1%	04/2004
Russell 1000 Value			3.8	13.7	13.7	12.8	13.9	9.2	8.3	04/2004
Excess			0.5	-2.5	-2.5	1.2	2.8	1.1	0.8	
LSV	362,311,453	1.0	5.1	12.3	12.3	12.6	15.3	9.1	9.1	04/2004
Russell 1000 Value			3.8	13.7	13.7	12.8	13.9	9.2	8.3	04/2004
Excess			1.3	-1.4	-1.4	-0.2	1.4	-0.1	0.8	
RUSSELL 1000 VALUE AGGREGATE	818,815,988	2.3	4.7	11.7	11.7	13.3	15.9	9.9	9.2	10/2003
Russell 1000 Value			3.8	13.7	13.7	12.8	13.9	9.2	8.9	10/2003
Excess			0.9	-2.0	-2.0	0.6	2.0	0.7	0.3	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Large Cap Value					
BARROW HANLEY	18.2%	12.0%	1.1%	27.7%	2.4%
Russell 1000 Value	14.4	11.5	-7.5	25.2	2.8
Excess	3.8	0.5	8.6	2.5	-0.4
LSV					
LSV	15.2	10.5	-6.3	29.7	-1.3
Russell 1000 Value	14.4	11.5	-7.5	25.2	2.8
Excess	0.9	-0.9	1.3	4.5	-4.1
RUSSELL 1000 VALUE AGGREGATE					
RUSSELL 1000 VALUE AGGREGATE	16.8	11.3	-2.6	28.8	1.6
Russell 1000 Value	14.4	11.5	-7.5	25.2	2.8
Excess	2.4	-0.2	4.9	3.7	-1.2

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Growth										
ARROWMARK	\$183,541,323	0.5%	6.1%	-0.6%	-0.6%	8.1%	6.2%		8.3%	11/2016
Russell 2000 Growth			12.0	9.7	9.7	12.4	7.4		9.4	11/2016
Excess			-5.9	-10.3	-10.3	-4.3	-1.2		-1.1	
HOOD RIVER	213,190,373	0.6	17.0	13.5	13.5	19.2	17.0		15.9	11/2016
Russell 2000 Growth			12.0	9.7	9.7	12.4	7.4		9.4	11/2016
Excess			5.0	3.8	3.8	6.8	9.6		6.5	
RICE HALL JAMES	211,413,834	0.6	8.8	19.5	19.5	11.7	9.5		10.7	11/2016
Russell 2000 Growth			12.0	9.7	9.7	12.4	7.4		9.4	11/2016
Excess			-3.2	9.7	9.7	-0.7	2.1		1.3	
WELLINGTON	189,078,871	0.5	9.2	1.3	1.3	9.6	5.8		8.7	11/2016
Russell 2000 Growth			12.0	9.7	9.7	12.4	7.4		9.4	11/2016
Excess			-2.8	-8.4	-8.4	-2.8	-1.6		-0.8	
RUSSELL 2000 GROWTH AGGREGATE	797,224,402	2.3	10.3	8.4	8.4	12.3	9.8	7.5%	7.8	11/2003
Russell 2000 Growth			12.0	9.7	9.7	12.4	7.4	7.1	8.5	11/2003
Excess			-1.7	-1.3	-1.3	-0.1	2.3	0.4	-0.6	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Small Cap Growth					
ARROWMARK	9.0%	19.9%	-23.3%	6.1%	21.9%
Russell 2000 Growth	15.2	18.7	-26.4	2.8	34.6
Excess	-6.1	1.3	3.1	3.2	-12.8
HOOD RIVER	35.1	21.9	-27.7	24.2	61.7
Russell 2000 Growth	15.2	18.7	-26.4	2.8	34.6
Excess	20.0	3.3	-1.4	21.4	27.0
RICE HALL JAMES	16.6	14.3	-24.4	15.6	23.8
Russell 2000 Growth	15.2	18.7	-26.4	2.8	34.6
Excess	1.4	-4.3	2.0	12.8	-10.8
WELLINGTON	12.9	18.5	-28.5	4.3	33.1
Russell 2000 Growth	15.2	18.7	-26.4	2.8	34.6
Excess	-2.3	-0.1	-2.1	1.4	-1.5
RUSSELL 2000 GROWTH AGGREGATE	18.3	18.7	-26.3	12.4	35.4
Russell 2000 Growth	15.2	18.7	-26.4	2.8	34.6
Excess	3.2	0.1	0.0	9.5	0.8

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Value										
GOLDMAN SACHS	\$188,643,399	0.5%	4.7%	7.6%	7.6%	7.7%	12.1%	6.3%	8.3%	01/2004
Russell 2000 Value			5.0	5.5	5.5	7.5	12.5	6.7	7.4	01/2004
Excess			-0.3	2.1	2.1	0.3	-0.4	-0.4	1.0	
HOTCHKIS AND WILEY	193,284,632	0.5	3.2	1.4	1.4	10.9	18.9	7.3	8.5	01/2004
Russell 2000 Value			5.0	5.5	5.5	7.5	12.5	6.7	7.4	01/2004
Excess			-1.7	-4.1	-4.1	3.5	6.4	0.5	1.1	
MARTINGALE	182,291,654	0.5	7.7	7.4	7.4	11.8	16.8	8.2	8.1	01/2004
Russell 2000 Value			5.0	5.5	5.5	7.5	12.5	6.7	7.4	01/2004
Excess			2.7	1.9	1.9	4.3	4.4	1.5	0.7	
PEREGRINE	187,487,150	0.5	3.2	5.9	5.9	6.6	13.1	6.4	9.1	07/2000
Russell 2000 Value			5.0	5.5	5.5	7.5	12.5	6.7	8.6	07/2000
Excess			-1.8	0.4	0.4	-0.8	0.7	-0.4	0.5	
RUSSELL 2000 VALUE AGGREGATE	751,706,835	2.1	4.6	5.5	5.5	8.8	14.6	6.8	8.5	10/2003
Russell 2000 Value			5.0	5.5	5.5	7.5	12.5	6.7	8.0	10/2003
Excess			-0.3	-0.0	-0.0	1.3	2.1	0.0	0.5	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Small Cap Value					
GOLDMAN SACHS	8.5%	11.9%	-14.4%	27.0%	2.4%
Russell 2000 Value	8.1	14.6	-14.5	28.3	4.6
Excess	0.5	-2.8	0.1	-1.3	-2.3
HOTCHKIS AND WILEY	5.4	18.8	3.1	36.5	-0.2
Russell 2000 Value	8.1	14.6	-14.5	28.3	4.6
Excess	-2.6	4.2	17.6	8.2	-4.8
MARTINGALE	9.0	20.7	-8.0	41.3	-4.6
Russell 2000 Value	8.1	14.6	-14.5	28.3	4.6
Excess	1.0	6.1	6.4	13.0	-9.2
PEREGRINE	14.5	9.2	-12.5	28.6	7.3
Russell 2000 Value	8.1	14.6	-14.5	28.3	4.6
Excess	6.5	-5.4	2.0	0.3	2.7
RUSSELL 2000 VALUE AGGREGATE	9.4	14.2	-9.4	31.8	1.5
Russell 2000 Value	8.1	14.6	-14.5	28.3	4.6
Excess	1.3	-0.5	5.1	3.5	-3.1

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active All Cap										
ZEVENBERGEN (1)	\$271,274,896	0.8%	31.9%	32.6%	32.6%	33.5%	8.6%	15.6%	12.1%	04/1994
Zevenbergen Custom Benchmark			17.6	16.9	16.9	25.1	18.6	17.2		04/1994
Excess			14.4	15.7	15.7	8.5	-10.0	-1.6		
ACTIVE RUSSELL 3000 GROWTH (2)	271,274,896	0.8	31.9	32.6	32.6	33.5			0.3	01/2021
Russell 3000 Growth TR			17.6	16.9	16.9	25.1			13.5	01/2021
Excess			14.4	15.7	15.7	8.5			-13.3	

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.

(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active All Cap					
ZEVENBERGEN (1)	35.0%	66.6%	-55.7%	-9.7%	126.2%
Zevenbergen Custom Benchmark	32.5	41.2	-29.0	32.3	38.5
Excess	2.5	25.4	-26.8	-42.0	87.7
ACTIVE RUSSELL 3000 GROWTH (2)					
ACTIVE RUSSELL 3000 GROWTH (2)	35.0	66.6	-55.7	-9.7	
Russell 3000 Growth TR	32.5	41.2	-29.0	25.8	
Excess	2.5	25.4	-26.8	-35.6	

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.

(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$26,168,423,700	74.3%	11.1%	15.7%	15.7%	19.6%	16.3%		14.9%	11/2016
RUSSELL 1000 (DAILY)			11.1	15.7	15.7	19.6	16.3		14.9	11/2016
Excess			-0.0	-0.0	-0.0	0.0	-0.0		-0.0	
BLACKROCK RUSSELL 2000	73,373,972	0.2	8.5	7.8	7.8	9.9	10.4		7.5	11/2018
RUSSELL 2000 (DAILY)			8.5	7.7	7.7	10.0	10.0		7.1	11/2018
Excess			0.0	0.1	0.1	-0.1	0.3		0.4	
BLACKROCK RUSSELL 3000 (1)	975,087,438	2.8	11.0	15.3	15.3	19.1	16.1	13.1%	10.3	07/1995
Passive Manager Benchmark			11.0	15.3	15.3	19.1	16.0	13.0	10.2	07/1995
Excess			-0.0	0.0	0.0	0.1	0.2	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	27,216,885,110	77.3	11.1	15.6	15.6	19.6	16.3	13.2	9.8	06/1996
Passive Domestic Equity Benchmark			11.1	15.6	15.6	19.5	16.3	13.2	9.9	06/1996
Excess			-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.1	

(1) The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.

(2) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	24.5%	26.6%	-19.2%	26.5%	20.9%
RUSSELL 1000 (DAILY)	24.5	26.5	-19.1	26.5	21.0
Excess	-0.0	0.0	-0.0	0.1	-0.0
BLACKROCK RUSSELL 2000	11.6	16.7	-19.9	16.0	20.8
RUSSELL 2000 (DAILY)	11.5	16.9	-20.4	14.8	20.0
Excess	0.1	-0.3	0.6	1.2	0.8
BLACKROCK RUSSELL 3000 (1)	23.8	26.0	-19.2	26.2	21.2
Passive Manager Benchmark	23.8	26.0	-19.2	25.7	20.9
Excess	0.0	0.1	0.0	0.5	0.3
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	24.4	26.5	-19.2	26.5	20.8
Passive Domestic Equity Benchmark	24.4	26.5	-19.1	26.4	20.8
Excess	-0.0	0.0	-0.0	0.1	0.0

(1) The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.

(2) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

Note: All aggregates include the performance of terminated managers.

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International Equity

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total International Equity										
DEVELOPED MARKETS (1)	\$11,936,270,334	70.0%	10.8%	17.2%	17.2%	16.2%	12.8%	7.5%	6.1%	01/1997
BENCHMARK DM			12.0%	18.7%	18.7%	15.7%	11.5%	6.7%	3.3%	01/1997
Excess			-1.2%	-1.5%	-1.5%	0.5%	1.3%	0.8%	2.8%	
EMERGING MARKETS (2)	\$4,510,256,027	26.4%	12.5%	13.5%	13.5%	10.1%	6.9%	4.7%	5.6%	11/1996
BENCHMARK EM			12.0%	15.3%	15.3%	9.7%	6.8%	4.8%	5.9%	11/1996
Excess			0.5%	-1.8%	-1.8%	0.4%	0.1%	-0.1%	-0.3%	
ACWI EX-US AGGREGATE	\$503,249,034	3.0%	12.8%	21.1%	21.1%	15.9%			9.1%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			12.0%	17.7%	17.7%	14.0%			6.1%	01/2021
Excess			0.8%	3.4%	3.4%	1.9%			3.1%	
CHINA ONLY AGGREGATE	\$105,149,504	0.6%	-0.6%	21.5%	21.5%	-4.3%			-7.1%	01/2021
MSCI China A			3.3%	17.0%	17.0%	-5.2%			-5.8%	01/2021
Excess			-3.9%	4.5%	4.5%	1.0%			-1.3%	
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	\$5,297,786	0.0%								06/2017
TOTAL INTERNATIONAL EQUITY (4)	\$17,056,394,504	100.0%	11.3%	16.5%	16.5%	14.5%	11.1%	6.7%	6.8%	10/1992
International Equity Benchmark			12.0%	17.7%	17.7%	14.0%	10.1%	6.1%	6.2%	10/1992
Excess			-0.8%	-1.2%	-1.2%	0.5%	1.0%	0.6%	0.5%	

(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

(2) The current benchmark for Emerging Markets, Benchmark EM, is the Standard (large + mid) MSCI Emerging Markets Free (net).

(3) The Transition Aggregate International Equity primarily consists of a portfolio equitized by NISA through an overlay strategy designed to track the MSCI Emerging Markets Index, along with securities from prior terminated managers.

(4) The current International Equity Benchmark is the MSCI ACWI ex USA (net) does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Total International Equity					
DEVELOPED MARKETS (1)	8.4%	17.8%	-10.7%	13.5%	8.9%
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	3.7	-0.1	3.6	0.9	1.3
EMERGING MARKETS (2)	6.2	10.2	-21.1	-1.5	17.9
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-1.3	0.4	-1.0	1.1	-0.4
ACWI EX-US AGGREGATE	6.8	17.9	-12.6	12.8	
MSCI AC WORLD ex US (NET) - DAILY	5.5	15.6	-16.0	7.8	
Excess	1.3	2.3	3.4	4.9	
CHINA ONLY AGGREGATE	6.9	-10.0	-24.5	-2.9	
MSCI China A	11.7	-13.5	-25.9	3.2	
Excess	-4.8	3.5	1.4	-6.1	
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)					
TOTAL INTERNATIONAL EQUITY (4)	7.8	15.6	-13.7	8.9	11.4
International Equity Benchmark	5.5	15.6	-16.0	7.8	10.5
Excess	2.2	-0.1	2.3	1.1	0.8

(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

(2) The current benchmark for Emerging Markets, Benchmark EM, is the Standard (large + mid) MSCI Emerging Markets Free (net).

(3) The Transition Aggregate International Equity contains International Equity securities that are being transitioned to a different manager.

(4) The current International Equity Benchmark is the MSCI ACWI ex USA (net). Does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Developed Markets										
ACADIAN	\$708,920,139	4.2%	13.2%	24.2%	24.2%	17.2%	13.0%	9.7%	7.5%	07/2005
BENCHMARK DM			12.0	18.7	18.7	15.7	11.5	6.7	5.9	07/2005
Excess			1.2	5.5	5.5	1.5	1.5	3.0	1.6	
COLUMBIA	587,498,506	3.4	10.6	11.5	11.5	16.5	12.2	8.0	4.6	03/2000
BENCHMARK DM			12.0	18.7	18.7	15.7	11.5	6.7	4.5	03/2000
Excess			-1.4	-7.2	-7.2	0.8	0.7	1.4	0.1	
FIDELITY	581,668,044	3.4	11.3	15.1	15.1	14.3	10.7	7.3	7.1	07/2005
BENCHMARK DM			12.0	18.7	18.7	15.7	11.5	6.7	5.9	07/2005
Excess			-0.7	-3.6	-3.6	-1.4	-0.8	0.6	1.2	
JP MORGAN	432,524,561	2.5	10.4	15.5	15.5	14.3	9.9	6.7	6.0	07/2005
BENCHMARK DM			12.0	18.7	18.7	15.7	11.5	6.7	5.9	07/2005
Excess			-1.7	-3.2	-3.2	-1.4	-1.6	-0.0	0.0	
MARATHON	518,576,774	3.0	13.1	20.3	20.3	16.9	13.3	7.4	8.3	11/1993
BENCHMARK DM			12.0	18.7	18.7	15.7	11.5	6.7	5.7	11/1993
Excess			1.0	1.6	1.6	1.2	1.8	0.7	2.6	



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Developed Markets					
ACADIAN	13.1%	12.4%	-12.5%	13.6%	11.7%
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	8.4	-5.5	1.8	0.9	4.2
COLUMBIA	5.6	21.1	-15.0	14.2	15.0
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	0.9	3.2	-0.7	1.6	7.4
FIDELITY	4.7	18.0	-17.4	13.0	15.4
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	-0.0	0.1	-3.2	0.4	7.8
JP MORGAN	1.7	17.1	-19.0	13.3	14.2
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	-3.0	-0.9	-4.7	0.7	6.6
MARATHON	6.6	18.2	-12.1	12.8	7.6
BENCHMARK DM	4.7	17.9	-14.3	12.6	7.6
Excess	1.9	0.3	2.2	0.2	0.1



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>1 Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Developed Markets										
Active Developed Markets Aggregate (1)	\$2,829,188,025	16.6%	11.8%	17.5%	17.5%	16.0%	11.8%	7.2%	6.2%	06/1996
BENCHMARK DM			12.0%	18.7%	18.7%	15.7%	11.5%	6.7%	3.2%	06/1996
Excess			-0.2%	-1.2%	-1.2%	0.2%	0.2%	0.6%	3.0%	
SSgA DEVELOPED MARKETS PASSIVE	\$9,175,339,114	53.8%	12.3%	19.2%	19.2%	16.2%	12.0%	7.1%		
BENCHMARK DM			12.0%	18.7%	18.7%	15.7%	11.5%	6.7%		
Excess			0.3%	0.5%	0.5%	0.5%	0.5%	0.5%		
RECORD CURRENCY (2)	-\$72,084,927	-0.4%	1.4%	1.5%	1.5%	-0.1%				10/2020
DEVELOPED MARKETS TOTAL (3)	\$11,936,270,334		10.8%	17.2%	17.2%	16.2%	12.8%	7.5%	6.1%	01/1997
BENCHMARK DM			12.0%	18.7%	18.7%	15.7%	11.5%	6.7%	3.3%	01/1997
Excess			-1.2%	-1.5%	-1.5%	0.5%	1.3%	0.8%	2.8%	

(1) Includes the historical returns of terminated managers previously classified as "Semi-Passive Developed Markets."

(2) Return for Record Currency is the difference between the DM Equity with Currency Management and without.

(3) The current International Equity Benchmark is the MSCI ACWI ex USA (net). Does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio. Market values inculde residuals from terminated managers

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Total Developed Markets					
Active Developed Markets Aggregate	6.8%	17.6%	-15.2%	12.5%	12.2%
BENCHMARK DM	4.7%	17.9%	-14.3%	12.6%	7.6%
Excess	2.1%	-0.4%	-0.9%	-0.1%	4.6%
SSgA DEVELOPED MARKETS PASSIVE					
BENCHMARK DM	4.7%	17.9%	-14.3%	12.6%	7.6%
Excess	0.3%	0.5%	0.5%	0.4%	0.6%
DEVELOPED MARKETS TOTAL					
BENCHMARK DM	4.7%	17.9%	-14.3%	12.6%	7.6%
Excess	3.7%	-0.1%	3.6%	0.9%	1.3%

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Emerging Markets										
FIDELITY	\$362,242,983		9.9%						9.9%	04/2025
BENCHMARK EM			12.0						12.0	04/2025
Excess			-2.1						-2.1	
MARTIN CURRIE	604,085,364	3.5%	10.6	11.8%	11.8%	6.9%	4.2%		5.6	04/2017
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8		5.6	04/2017
Excess			-1.4	-3.4	-3.4	-2.8	-2.6		0.1	
MACQUARIE	632,094,932	3.7	21.4	14.6	14.6	13.7	8.1		7.6	04/2017
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8		5.6	04/2017
Excess			9.4	-0.7	-0.7	4.0	1.3		2.0	
MORGAN STANLEY	735,750,406	4.3	13.0	11.1	11.1	11.9	7.0	4.6%	8.2	01/2001
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8	4.8	8.0	01/2001
Excess			1.1	-4.2	-4.2	2.2	0.2	-0.2	0.2	
PZENA	737,359,963	4.3	9.1	16.0	16.0	14.9	14.8		7.9	04/2017
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8		5.6	04/2017
Excess			-2.9	0.7	0.7	5.2	8.0		2.3	



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Emerging Markets					
FIDELITY (1)					
BENCHMARK EM					
Excess					
MARTIN CURRIE	3.8%	5.8%	-25.7%	-3.5%	26.5%
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-3.7	-4.1	-5.6	-1.0	8.2
MACQUARIE	7.2	16.0	-26.5	-2.2	24.2
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-0.3	6.1	-6.4	0.3	5.9
MORGAN STANLEY	8.0	10.8	-23.8	3.5	15.7
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	0.5	1.0	-3.7	6.0	-2.6
PZENA	5.8	19.7	-7.4	9.3	7.7
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-1.7	9.9	12.7	11.8	-10.6

(1) Fidelity funded 03/25/2025, performance reporting starts on 04/01/2025.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE (1)	\$3,071,533,647	18.0%	12.8%	12.9%	12.9%	10.5%	7.1%	4.6%	4.6%	01/2012
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8	4.8	4.7	01/2012
Excess			0.8	-2.4	-2.4	0.8	0.3	-0.2	-0.1	
SSGA EMERGING MARKETS PASSIVE	1,438,722,321	8.4	11.7	14.9	14.9	9.2	6.3	4.6	4.6	01/2012
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8	4.8	4.7	01/2012
Excess			-0.2	-0.4	-0.4	-0.5	-0.5	-0.2	-0.1	
EMERGING MARKETS TOTAL (1)	4,510,256,027	26.4	12.5	13.5	13.5	10.1	6.9	4.7	5.6	11/1996
BENCHMARK EM			12.0	15.3	15.3	9.7	6.8	4.8	5.9	11/1996
Excess			0.5	-1.8	-1.8	0.4	0.1	-0.1	-0.3	

(1) All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE (1)	5.9%	10.6%	-21.4%	-0.9%	17.6%
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-1.6	0.8	-1.3	1.6	-0.7
SSGA EMERGING MARKETS PASSIVE					
SSGA EMERGING MARKETS PASSIVE	6.7	9.4	-20.4	-2.9	18.3
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-0.8	-0.4	-0.3	-0.3	0.0
EMERGING MARKETS TOTAL (1)					
EMERGING MARKETS TOTAL (1)	6.2	10.2	-21.1	-1.5	17.9
BENCHMARK EM	7.5	9.8	-20.1	-2.5	18.3
Excess	-1.3	0.4	-1.0	1.1	-0.4

(1) All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	\$503,249,034	3.0%	12.8%	21.1%	21.1%	15.9%			9.1%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			12.0%	17.7%	17.7%	14.0%			6.1%	01/2021
Excess			0.8%	3.4%	3.4%	1.9%			3.1%	
TOTAL ACWI EX-US AGGREGATE	\$503,249,034	3.0%	12.8%	21.1%	21.1%	15.9%			9.1%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			12.0%	17.7%	17.7%	14.0%			6.1%	01/2021
Excess			0.8%	3.4%	3.4%	1.9%			3.1%	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active ACWI ex-US					
EARNEST PARTNERS ACWI EX US	6.8%	17.9%	-12.6%	12.8%	
MSCI AC WORLD ex US (NET) - DAILY	5.5	15.6	-16.0	7.8	
Excess	1.3	2.3	3.4	4.9	
TOTAL ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY	5.5	15.6	-16.0	7.8	
Excess	1.3	2.3	3.4	4.9	

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
China Only Managers										
EARNEST PARTNERS CHINA	\$105,149,504	0.6%	-0.6%	21.5%	21.5%	-4.3%			-7.1%	01/2021
MSCI China A			3.3	17.0	17.0	-5.2			-5.8	01/2021
Excess			-3.9	4.5	4.5	1.0			-1.3	
CHINA ONLY AGGREGATE	105,149,504	0.6	-0.6	21.5	21.5	-4.3			-7.1	01/2021
MSCI China A			3.3	17.0	17.0	-5.2			-5.8	01/2021
Excess			-3.9	4.5	4.5	1.0			-1.3	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
China Only Managers					
EARNEST PARTNERS CHINA	6.9%	-10.0%	-24.5%	-2.9%	
MSCI China A	11.7	-13.5	-25.9	3.2	
Excess	-4.8	3.5	1.4	-6.1	
CHINA ONLY AGGREGATE					
CHINA ONLY AGGREGATE	6.9	-10.0	-24.5	-2.9	
MSCI China A	11.7	-13.5	-25.9	3.2	
Excess	-4.8	3.5	1.4	-6.1	

Note: All aggregates include the performance of terminated managers.

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Global Equity

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Global Equity Managers										
ARIEL INVESTMENTS	\$461,876,696	40.2%	8.0%	18.3%	18.3%	11.7%			9.2%	01/2021
MSCI AC WORLD NET USD DAILY			11.5	16.2	16.2	17.3			9.9	01/2021
Excess			-3.5	2.1	2.1	-5.6			-0.7	
BAILLIE GIFFORD	325,712,721	28.3	21.7	26.8	26.8	24.3			2.0	01/2021
MSCI AC WORLD NET USD DAILY			11.5	16.2	16.2	17.3			9.9	01/2021
Excess			10.2	10.7	10.7	6.9			-8.0	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	362,235,713	31.5	12.9	1.6	1.6	11.2			0.8	01/2021
MSCI AC WORLD NET USD DAILY			11.5	16.2	16.2	17.3			9.9	01/2021
Excess			1.4	-14.5	-14.5	-6.2			-9.1	
GLOBAL EQUITY	1,149,825,130	100.0	13.2	14.2	14.2	14.4			4.2	01/2021
MSCI AC WORLD NET USD DAILY			11.5	16.2	16.2	17.3			9.9	01/2021
Excess			1.6	-1.9	-1.9	-2.9			-5.8	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Global Equity Managers					
ARIEL INVESTMENTS	7.6%	14.1%	-5.6%	12.1%	
MSCI AC WORLD NET USD DAILY	17.5	22.2	-18.4	18.5	
Excess	-9.9	-8.1	12.8	-6.5	
BAILLIE GIFFORD	26.1	38.0	-46.9	3.1	
MSCI AC WORLD NET USD DAILY	17.5	22.2	-18.4	18.5	
Excess	8.6	15.8	-28.5	-15.5	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	5.3	23.8	-32.9	12.8	
MSCI AC WORLD NET USD DAILY	17.5	22.2	-18.4	18.5	
Excess	-12.2	1.6	-14.5	-5.8	
GLOBAL EQUITY	11.1	22.6	-27.7	9.6	
MSCI AC WORLD NET USD DAILY	17.5	22.2	-18.4	18.5	
Excess	-6.4	0.4	-9.4	-8.9	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.

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Core/Core Plus Bonds

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Bonds										
CORE (1)	\$2,785,071,403	46.5%	1.4%	6.6%	6.6%	3.8%			0.2%	11/2020
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5			-0.8	11/2020
Excess			0.2	0.5	0.5	1.2			1.0	
CORE PLUS (1)	3,203,927,047	53.5	1.5	6.5	6.5	3.2			-0.6	11/2020
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5			-0.8	11/2020
Excess			0.3	0.4	0.4	0.6			0.2	
TRANSITION AGGREGATE CORE BONDS (2)	21,954	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	5,989,020,405	100.0	1.5	6.5	6.5	3.4	-0.1%	2.3%	6.6	07/1984
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5	-0.7	1.8	6.2	07/1984
Excess			0.2	0.4	0.4	0.9	0.7	0.6	0.4	

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

(2) The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

(3) The current Core Bonds Benchmark is the Bloomberg U.S. Aggregate calculated daily. For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Bonds					
CORE (1)	2.1%	7.3%	-12.3%	-1.0%	
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	
Excess	0.8	1.7	0.7	0.5	
CORE PLUS (1)	1.7	6.8	-15.2	-1.1	
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	
Excess	0.5	1.3	-2.2	0.4	
TRANSITION AGGREGATE CORE BONDS (2)					
TOTAL CORE/CORE PLUS BONDS (3)	1.9	7.0	-14.1	-1.1	9.7%
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	7.5
Excess	0.6	1.5	-1.1	0.5	2.2

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

(2) The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

(3) The current Core Bonds Benchmark is the Bloomberg U.S. Aggregate calculated daily. For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Core										
DODGE & COX	\$1,352,774,659	22.6%	1.5%	6.8%	6.8%	4.4%	1.1%	2.9%	5.1%	02/2000
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5	-0.7	1.8	4.0	02/2000
Excess			0.2	0.7	0.7	1.9	1.8	1.2	1.1	
BLACKROCK	1,432,296,745	23.9	1.3	6.3	6.3	3.1	-0.4	2.0	4.4	04/1996
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5	-0.7	1.8	4.3	04/1996
Excess			0.1	0.2	0.2	0.5	0.3	0.3	0.1	
CORE	2,785,071,403	46.5	1.4	6.6	6.6	3.8			0.2	11/2020
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5			-0.8	11/2020
Excess			0.2	0.5	0.5	1.2			1.0	

(1) Prior to 12/1/2020 the Core managers were categorized as Active or Semi-Passive. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Core					
DODGE & COX	2.4%	8.0%	-11.3%	-0.7%	9.4%
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	7.5
Excess	1.1	2.5	1.7	0.8	1.8
BLACKROCK					
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	7.5
Excess	0.5	0.9	-0.4	0.2	0.8
CORE					
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	
Excess	0.8	1.7	0.7	0.5	

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Core Plus Bonds										
GOLDMAN SACHS	\$1,674,255,977	28.0%	1.3%	6.4%	6.4%	3.1%	-0.4%	2.1%	4.7%	07/1993
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5	-0.7	1.8	4.4	07/1993
Excess			0.1	0.3	0.3	0.5	0.3	0.4	0.3	
NEUBERGER	1,529,674,458	25.5	1.7	6.8	6.8	3.7	0.2	2.3	5.6	07/1988
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5	-0.7	1.8	5.3	07/1988
Excess			0.5	0.7	0.7	1.1	0.9	0.6	0.3	
CORE PLUS	3,203,927,047	53.5	1.5	6.5	6.5	3.2			-0.6	11/2020
Bloomberg U.S. Aggregate			1.2	6.1	6.1	2.5			-0.8	11/2020
Excess			0.3	0.4	0.4	0.6			0.2	

(1) Prior to 12/1/2020 the Core managers were categorized as Active or Semi-Passive. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Core Plus Bonds					
GOLDMAN SACHS	1.9%	6.3%	-13.9%	-1.5%	9.0%
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	7.5
Excess	0.7	0.8	-0.9	0.0	1.5
NEUBERGER					
NEUBERGER	2.7	6.7	-13.8	-0.6	9.9
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	7.5
Excess	1.5	1.2	-0.8	1.0	2.4
CORE PLUS					
CORE PLUS	1.7	6.8	-15.2	-1.1	
Bloomberg U.S. Aggregate	1.3	5.5	-13.0	-1.5	
Excess	0.5	1.3	-2.2	0.4	

Note: All aggregates include the performance of terminated managers.

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Return Seeking Bonds

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	\$1,015,831,003	20.6%	2.6%	7.9%	7.9%	5.1%			0.4%	12/2020
Credit Plus Benchmark			2.1	7.6	7.6	5.2			0.2	12/2020
Excess			0.5	0.3	0.3	-0.1			0.2	
PIMCO CREDIT PLUS	1,047,040,135	21.2	2.3	7.9	7.9	5.4			0.7	12/2020
Credit Plus Benchmark			2.1	7.6	7.6	5.2			0.2	12/2020
Excess			0.2	0.3	0.3	0.3			0.5	
CREDIT PLUS	2,062,871,138	41.9	2.4	7.9	7.9	5.3			0.6	12/2020
Credit Plus Benchmark			2.1	7.6	7.6	5.2			0.2	12/2020
Excess			0.3	0.3	0.3	0.1			0.3	
BLACKROCK OPPORTUNISTIC	517,219,621	10.5	1.9	6.8	6.8	5.7			2.4	12/2020
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.7	4.6			3.0	12/2020
Excess			0.9	2.2	2.2	1.1			-0.6	
ASHMORE EMERGING MARKETS	362,592,614	7.4	5.5	11.8	11.8	7.7			-2.1	01/2021
JPM JEMB Sovereign-only 50-50			5.5	11.9	11.9	8.7			0.1	01/2021
Excess			0.1	-0.1	-0.1	-0.9			-2.1	
TCW SECURITIZED CREDIT	519,414,594	10.5	1.6	8.7	8.7	5.8			3.8	07/2021
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.7	4.6			3.4	07/2021
Excess			0.5	4.0	4.0	1.3			0.3	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Return Seeking Bonds Managers					
COLUMBIA CREDIT PLUS	2.4%	9.0%	-15.3%	1.1%	
Credit Plus Benchmark	3.2	8.6	-13.7	0.0	
Excess	-0.8	0.5	-1.6	1.1	
PIMCO CREDIT PLUS	3.7	8.4	-13.6	0.8	
Credit Plus Benchmark	3.2	8.6	-13.7	0.0	
Excess	0.5	-0.1	0.1	0.7	
CREDIT PLUS	3.1	8.7	-14.5	0.9	
Credit Plus Benchmark	3.2	8.6	-13.7	0.0	
Excess	-0.2	0.2	-0.7	0.9	
BLACKROCK OPPORTUNISTIC	4.4	7.7	-5.4	0.3	
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	-0.9	2.7	-6.8	0.2	
ASHMORE EMERGING MARKETS	1.4	10.9	-17.2	-10.1	
JPM JEMB Sovereign-only 50-50	2.0	11.9	-14.8	-5.3	
Excess	-0.6	-1.0	-2.4	-4.8	
TCW SECURITIZED CREDIT	7.9	7.1	-4.6		
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5		
Excess	2.7	2.1	-6.1		

Note: All aggregates include the performance of terminated managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds Managers										
PAYDEN RYGEL	\$379,887,062	7.7%	3.1%	9.2%	9.2%	9.3%			3.4%	01/2021
Multi-Asset Credit Benchmark			3.0	8.9	8.9	9.2			3.5	01/2021
Excess			0.1	0.4	0.4	0.1			-0.0	
PGIM	380,121,602	7.7	3.2	9.0	9.0	9.5			3.2	01/2021
Multi-Asset Credit Benchmark			3.0	8.9	8.9	9.2			3.5	01/2021
Excess			0.2	0.2	0.2	0.3			-0.2	
MULTI-ASSET CREDIT	760,008,664	15.4	3.2	9.1	9.1	9.4			3.3	01/2021
Multi-Asset Credit Benchmark			3.0	8.9	8.9	9.2			3.5	01/2021
Excess			0.1	0.3	0.3	0.2			-0.1	
KKR	356,229,424	7.2	3.9	9.9	9.9	10.3			4.3	01/2021
ICE BofA US Cash Pay HY Constrained			3.6	10.2	10.2	9.8			4.1	01/2021
Excess			0.4	-0.3	-0.3	0.5			0.2	
OAKTREE	349,348,134	7.1	3.4	9.6	9.6	9.7			4.1	01/2021
ICE BofA US Cash Pay HY Constrained			3.6	10.2	10.2	9.8			4.1	01/2021
Excess			-0.1	-0.6	-0.6	-0.1			0.0	
HIGH YIELD	705,577,558	14.3	3.7	9.8	9.8	10.0			4.2	01/2021
ICE BofA US Cash Pay HY Constrained			3.6	10.2	10.2	9.8			4.1	01/2021
Excess			0.1	-0.4	-0.4	0.2			0.1	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Return Seeking Bonds Managers					
PAYDEN RYGEL	7.7%	11.7%	-9.6%	2.6%	
Multi-Asset Credit Benchmark	7.5	12.3	-10.0	2.7	
Excess	0.2	-0.6	0.4	-0.1	
PGIM	7.6	12.3	-11.5	3.2	
Multi-Asset Credit Benchmark	7.5	12.3	-10.0	2.7	
Excess	0.1	-0.0	-1.5	0.5	
MULTI-ASSET CREDIT	7.7	12.0	-10.6	2.9	
Multi-Asset Credit Benchmark	7.5	12.3	-10.0	2.7	
Excess	0.2	-0.3	-0.6	0.2	
KKR	8.8	13.9	-11.0	4.7	
ICE BofA US Cash Pay HY Constrained	8.0	13.4	-11.1	5.3	
Excess	0.8	0.5	0.1	-0.6	
OAKTREE	8.4	12.4	-9.5	4.5	
ICE BofA US Cash Pay HY Constrained	8.0	13.4	-11.1	5.3	
Excess	0.3	-1.0	1.6	-0.8	
HIGH YIELD	8.6	13.2	-10.3	4.6	
ICE BofA US Cash Pay HY Constrained	8.0	13.4	-11.1	5.3	
Excess	0.6	-0.2	0.8	-0.7	

Note: All aggregates include the performance of terminated managers.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds										
CREDIT PLUS	\$2,062,871,138	41.9%	2.4%	7.9%	7.9%	5.3%			0.6%	12/2020
Credit Plus Benchmark			2.1	7.6	7.6	5.2			0.2	12/2020
Excess			0.3	0.3	0.3	0.1			0.3	
OPPORTUNISTIC FI	517,219,621	10.5	1.9	6.8	6.8	5.7			2.4	12/2020
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.7	4.6			3.0	12/2020
Excess			0.9	2.2	2.2	1.1			-0.6	
EMERGING MARKET DEBT	362,592,614	7.4	5.5	11.8	11.8	7.7			-2.1	01/2021
JPM JEMB Sovereign-only 50-50			5.5	11.9	11.9	8.7			0.1	01/2021
Excess			0.1	-0.1	-0.1	-0.9			-2.1	
SECURITIZED CREDIT	519,414,594	10.5	1.6	8.7	8.7	5.8			3.7	06/2021
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.7	4.6			3.4	06/2021
Excess			0.5	4.0	4.0	1.3			0.3	
MULTI-ASSET CREDIT	760,008,664	15.4	3.2	9.1	9.1	9.4			3.3	01/2021
Multi-Asset Credit Benchmark			3.0	8.9	8.9	9.2			3.5	01/2021
Excess			0.1	0.3	0.3	0.2			-0.1	
HIGH YIELD	705,577,558	14.3	3.7	9.8	9.8	10.0			4.2	01/2021
ICE BofA US Cash Pay HY Constrained			3.6	10.2	10.2	9.8			4.1	01/2021
Excess			0.1	-0.4	-0.4	0.2			0.1	
RETURN SEEKING BONDS	4,927,691,614	100.0	2.8	8.6	8.6	6.9			1.9	12/2020
Return Seeking Fixed Income Benchmark			2.5	7.8	7.8	6.6			2.0	12/2020
Excess			0.3	0.8	0.8	0.3			-0.0	



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Return Seeking Bonds					
CREDIT PLUS	3.1%	8.7%	-14.5%	0.9%	
Credit Plus Benchmark	3.2	8.6	-13.7	0.0	
Excess	-0.2	0.2	-0.7	0.9	
OPPORTUNISTIC FI					
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	-0.9	2.7	-6.8	0.2	
EMERGING MARKET DEBT					
JPM JEMB Sovereign-only 50-50	2.0	11.9	-14.8	-5.3	
Excess	-0.6	-1.0	-2.4	-4.8	
SECURITIZED CREDIT					
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5		
Excess	2.7	2.1	-6.1		
MULTI-ASSET CREDIT					
Multi-Asset Credit Benchmark	7.5	12.3	-10.0	2.7	
Excess	0.2	-0.3	-0.6	0.2	
HIGH YIELD					
ICE BofA US Cash Pay HY Constrained	8.0	13.4	-11.1	5.3	
Excess	0.6	-0.2	0.8	-0.7	
RETURN SEEKING BONDS					
Return Seeking Fixed Income Benchmark	5.0	9.3	-9.8	0.8	
Excess	0.1	0.5	-1.6	0.1	

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Treasuries

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Treasuries Managers										
BLACKROCK	\$3,070,539,808	32.1%	0.2%	4.2%	4.2%	-0.7%	-4.6%		0.3%	02/2018
Bloomberg Treasury 5+ Year			0.2	4.2	4.2	-0.7	-4.6		0.4	02/2018
Excess			0.0	-0.1	-0.1	-0.0	-0.0		-0.1	
GOLDMAN SACHS	2,989,703,308	31.3	0.2	4.4	4.4	-0.5	-4.4		0.4	02/2018
Bloomberg Treasury 5+ Year			0.2	4.2	4.2	-0.7	-4.6		0.4	02/2018
Excess			0.0	0.2	0.2	0.2	0.2		0.1	
NEUBERGER	3,506,568,698	36.7	0.3	4.6	4.6	-0.6	-4.3		0.4	02/2018
Bloomberg Treasury 5+ Year			0.2	4.2	4.2	-0.7	-4.6		0.4	02/2018
Excess			0.1	0.4	0.4	0.0	0.3		0.1	
TOTAL TREASURIES	9,566,811,814	100.0	0.2	4.4	4.4	-0.6	-4.4		0.4	02/2018
Bloomberg Treasury 5+ Year			0.2	4.2	4.2	-0.7	-4.6		0.4	02/2018
Excess			0.0	0.2	0.2	0.1	0.1		0.0	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Treasuries Managers					
BLACKROCK	-3.0%	4.1%	-20.6%	-4.0%	12.5%
Bloomberg Treasury 5+ Year	-3.0	3.7	-20.3	-3.8	12.8
Excess	-0.0	0.5	-0.3	-0.2	-0.3
GOLDMAN SACHS	-2.8	4.4	-20.6	-3.9	12.7
Bloomberg Treasury 5+ Year	-3.0	3.7	-20.3	-3.8	12.8
Excess	0.2	0.7	-0.3	-0.1	-0.1
NEUBERGER	-2.7	4.1	-20.5	-3.4	12.8
Bloomberg Treasury 5+ Year	-3.0	3.7	-20.3	-3.8	12.8
Excess	0.2	0.4	-0.2	0.4	-0.1
TOTAL TREASURIES	-2.8	4.2	-20.6	-3.7	12.7
Bloomberg Treasury 5+ Year	-3.0	3.7	-20.3	-3.8	12.8
Excess	0.1	0.5	-0.3	0.0	-0.2

Note: All aggregates include the performance of terminated managers.

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Laddered Bonds + Cash

June 30, 2025



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Laddered Bond and Cash Managers									
Neuberger Berman Ladder Bond	\$1,612,317,514	32.9%	1.1%	5.0%	4.7%			2.9%	11/2020
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.6			3.0	11/2020
Excess			0.0	0.3	0.1			-0.0	
Goldman Sachs Ladder Bond	1,614,160,052	32.9	1.1	5.0	4.7			2.9	11/2020
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.6			3.0	11/2020
Excess			0.0	0.3	0.1			-0.0	
Treasury Ladder Aggregate	3,226,477,566	65.8	1.1	5.0	4.7			2.9	11/2020
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.6			3.0	11/2020
Excess			0.0	0.3	0.1			-0.0	
Combined Funds STIF	1,623,491,555	33.1	1.1	4.9	4.8	3.0%	2.1%	1.9	01/2004
iMoneyNet Money Fund Average-All Taxable			1.0	4.4	4.3	2.6	1.7	1.5	01/2004
Excess			0.1	0.5	0.5	0.3	0.4	0.4	
TEACHERS RETIREMENT CD REPO	56,855,227	1.2	1.1	4.9	4.8	2.9	2.2	1.7	02/2012
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.6	2.8	2.0	1.5	02/2012
Excess			0.1	0.2	0.2	0.1	0.2	0.2	
Laddered Bond + Cash	4,907,028,637	100.0	1.1	5.0	4.7	2.8	2.0	4.2	12/1977
ICE BofA US 3-Month Treasury Bill			1.0	4.7	4.6	2.8	2.0	4.4	12/1977
Excess			0.0	0.3	0.2	0.0	0.1	-0.2	

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.



	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Laddered Bond and Cash Managers					
Neuberger Berman Ladder Bond	5.4%	5.2%	0.8%	0.0%	
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	0.2	0.2	-0.6	-0.0	
Goldman Sachs Ladder Bond	5.4	5.2	0.9	0.1	
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	0.2	0.2	-0.5	0.0	
Treasury Ladder Aggregate	5.4	5.2	0.9	0.0	
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	0.2	0.2	-0.6	-0.0	
Combined Funds STIF	5.4	5.3	1.7	0.1	0.5%
iMoneyNet Money Fund Average-All Taxable	4.9	4.8	1.4	0.0	0.3
Excess	0.5	0.5	0.4	0.1	0.2
TEACHERS RETIREMENT CD REPO	5.5	5.2	1.5	0.1	1.0
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	0.7
Excess	0.2	0.2	0.1	0.0	0.4
Laddered Bond + Cash	5.4	5.2	1.1	0.0	0.6
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	0.7
Excess	0.2	0.2	-0.4	-0.0	-0.1

Note: All aggregates include the performance of terminated managers.

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Private Markets

June 30, 2025



Combined Funds Asset Class Performance Summary

Private Markets

	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>25 Year</u>	<u>30 Year</u>
Private Markets - Invested	0.6%	6.1%	6.1%	5.2%	14.9%	11.5%	12.5%	11.9%	13.4%
Private Markets -Uninvested(1)	0.9%	4.1%	4.1%	5.2%					
Private Equity	1.4%	8.3%	8.3%	6.5%	17.1%	14.8%	14.6%	12.7%	15.6%
Private Credit	-1.9%	4.8%	4.8%	7.9%	12.5%	11.5%	12.2%	11.6%	
Resources	-2.6%	-1.9%	-1.9%	1.7%	10.5%	2.0%	10.3%	12.2%	12.2%
Real Estate	-0.3%	-1.6%	-1.6%	-3.9%	7.8%	8.0%	7.7%	8.4%	9.1%

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) The Uninvested Private Markets is currently cash. Prior to 11/02/2022, the Uninvested portion of the Private Markets allocation was invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash.

Source: State Street Bank

Minnesota State Board of Investment
Quarter Ending June 30, 2025
Private Markets Investments



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	27,533,970,302	21,769,925,377	18,890,571,540	8,347,754,056	16,141,709,172	1.61	13.5	
Adams Street Partners, LLC	465,355,000	337,438,684	181,452,515	128,725,675	301,636,877	1.43	11.8	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	86,678,888	22,885,308	17,530,878	1.35	5.9	2012
Adams Street Global Secondary Fund 6	100,000,000	80,400,008	81,050,365	19,599,992	46,536,190	1.59	16.5	2017
Adams Street Global Secondary Fund 7	265,355,000	179,923,984	13,723,262	86,240,375	237,569,809	1.40	23.7	2021
Advent International Group	505,000,000	426,949,702	425,246,728	81,134,252	312,157,374	1.73	14.7	
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	3,621,950	2.02	16.3	2008
Advent International GPE VII, L.P.	90,000,000	86,490,641	149,322,935	3,600,000	6,664,398	1.80	13.1	2012
Advent International GPE VIII-B	100,000,000	100,000,000	140,575,651	0	68,184,207	2.09	15.7	2016
Advent International GPE IX	115,000,000	109,824,875	31,947,948	5,175,125	140,488,190	1.57	13.1	2019
Advent International GPE X	150,000,000	77,640,873	0	72,359,127	93,198,629	1.20	11.2	2022
Apax Partners	600,000,000	572,315,467	604,929,111	127,328,151	287,566,579	1.56	13.5	
APAX VIII - USD	200,000,000	240,451,261	364,650,169	7,966,190	12,911,131	1.57	12.7	2013
Apax IX USD L.P.	150,000,000	159,251,896	214,343,922	16,039,251	91,903,589	1.92	17.7	2016
Apax X USD L.P.	150,000,000	149,727,625	25,935,020	26,207,396	159,001,286	1.24	7.8	2019
Apax XI	100,000,000	22,884,685	0	77,115,315	23,750,573	1.04	5.5	2022
Arsenal Capital Partners	175,000,000	130,579,557	25,964,417	55,834,093	113,235,329	1.07	2.0	
Arsenal Capital Partners V, L.P.	75,000,000	75,030,149	24,634,619	10,072,766	71,156,739	1.28	5.9	2019
Arsenal Capital Partners VI LP	100,000,000	55,549,408	1,329,798	45,761,327	42,078,590	0.78	-13.5	2021
Asia Alternatives	399,000,000	268,044,493	35,243,138	151,056,686	264,452,093	1.12	4.2	
Asia Alternatives Capital Partners V	99,000,000	111,257,784	32,361,152	7,473,091	103,267,608	1.22	5.3	2017
MN Asia Investors	300,000,000	156,786,709	2,881,986	143,583,595	161,184,486	1.05	2.4	2020
Banc Fund	187,460,477	187,466,811	144,125,851	0	122,464,688	1.42	5.7	
Banc Fund IX, L.P.	107,205,932	107,205,932	133,710,654	0	31,707,792	1.54	6.2	2014
Banc Fund X, L.P.	80,254,545	80,260,879	10,415,197	0	90,756,896	1.26	4.6	2018
BlackRock	950,000,000	954,617,522	1,176,261,707	0	823,591,458	2.09	23.3	
BlackRock Long Term Capital, SCSP	950,000,000	954,617,522	1,176,261,707	0	823,591,458	2.09	23.3	2019
Blackstone Group L.P.	2,035,000,000	1,095,518,010	842,557,592	1,085,374,453	731,345,696	1.44	13.8	
Blackstone Capital Partners Asia II	270,000,000	104,425,763	29,466,971	177,431,369	134,561,163	1.57	31.6	2021
Blackstone Capital Partners Asia III	300,000,000	0	0	300,000,000	0			2025
Blackstone Capital Partners IV, L.P.	70,000,000	84,481,419	201,562,974	1,765,384	57,841	2.39	37.0	2002
Blackstone Capital Partners V L.P.	140,000,000	152,478,007	246,892,515	7,027,560	303,739	1.62	8.0	2006
Blackstone Capital Partners VI, L.P.	100,000,000	107,015,142	173,057,041	10,975,597	22,708,066	1.83	12.2	2008
Blackstone Capital Partners VII	130,000,000	143,219,220	130,486,433	7,599,396	103,223,354	1.63	11.7	2015
Blackstone Capital Partners VIII LP	150,000,000	141,087,260	28,362,271	37,157,011	143,839,213	1.22	8.5	2019
Blackstone Capital Partners IX	150,000,000	8,213,517	0	141,786,483	7,527,959	0.92	-8.3	2022
Blackstone Energy Transition Partners IV L.P.	200,000,000	33,665,036	852,491	167,187,455	39,309,658	1.19	32.0	2024
Blackstone Growth	250,000,000	240,738,164	30,131,868	37,295,928	204,327,941	0.97	-0.9	2020
Blackstone Growth Equity II	150,000,000	0	0	150,000,000	0			2022
Blackstone Supplemental Account - M	125,000,000	80,194,483	1,745,029	47,148,270	75,486,762	0.96	-1.3	2021



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Blackstone Strategic Partners	550,000,000	424,486,911	422,629,327	184,252,813	218,055,174	1.51	15.5	
Strategic Partners VI, L.P.	150,000,000	105,178,489	143,288,302	21,739,080	15,134,515	1.51	13.4	2014
Strategic Partners VII, L.P.	150,000,000	125,912,229	161,977,431	42,086,549	45,144,896	1.64	15.7	2016
Strategic Partners VIII	150,000,000	131,275,637	109,251,365	74,558,704	91,971,118	1.53	20.7	2018
Strategic Partners IX	100,000,000	62,120,556	8,112,229	45,868,480	65,804,645	1.19	12.5	2022
Blue Owl Capital	775,000,000	572,644,140	522,231,536	555,024,854	521,628,024	1.82	26.7	
Blue Owl GP Stakes III	175,000,000	226,898,754	267,561,527	107,699,261	184,085,058	1.99	24.9	2015
Blue Owl GP Stakes IV	250,000,000	220,380,818	206,553,029	177,261,200	236,153,811	2.01	34.7	2018
Blue Owl GP Stakes V	200,000,000	117,864,568	48,116,981	127,564,394	97,139,070	1.23	13.3	2020
Blue Owl GP Stakes VI	150,000,000	7,500,000	0	142,500,000	4,250,085			2024
Bridgepoint	408,199,681	210,090,862	92,618,855	179,911,821	263,903,164	1.70	17.5	
Bridgepoint Development Capital V, L.P.	117,384,945	0	0	117,384,945	0			2024
Bridgepoint Europe VI L.P.	176,077,418	161,699,396	90,321,895	7,282,223	208,820,047	1.85	17.4	2018
Bridgepoint Europe VII	114,737,318	48,391,466	2,296,960	55,244,653	55,083,117	1.19	21.8	2022
Brookfield Asset Management Inc.	500,000,000	478,800,223	342,875,723	87,613,231	506,026,010	1.77	25.3	
Brookfield Capital Partners Fund IV	100,000,000	116,823,344	232,768,420	4,839,916	42,580,091	2.36	41.2	2015
Brookfield Capital Partners V L.P.	250,000,000	271,046,390	106,304,291	20,176,192	352,800,953	1.69	15.6	2018
Brookfield Capital Partners Fund VI	150,000,000	90,930,489	3,803,012	62,597,122	110,644,967	1.26	15.8	2022
Canyon Partners	125,000,000	146,475,843	101,727,366	0	96,364,439	1.35	10.9	
Canyon Distressed Opportunity Fund III	125,000,000	146,475,843	101,727,366	0	96,364,439	1.35	10.9	2020
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	118,489	3.93	10.6	
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	118,489	3.93	10.6	1985
Carlyle Group	400,000,000	403,493,995	164,033,922	88,788,809	329,396,748	1.22	6.9	
Carlyle Strategic Partners IV, L.P.	100,000,000	144,440,762	91,037,024	13,471,683	70,642,725	1.12	4.5	2016
Carlyle Partners VII, L.P.	150,000,000	161,047,965	55,849,073	6,263,341	163,354,722	1.36	7.7	2017
Carlyle Partners VIII	150,000,000	98,005,268	17,147,825	69,053,785	95,399,301	1.15	8.5	2021
CarVal Investors	600,000,000	532,109,760	546,614,473	37,500,000	191,818,469	1.39	8.1	
CVI Credit Value Fund A II	150,000,000	142,500,000	202,619,684	7,500,000	1,406,754	1.43	8.3	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	186,223,886	7,500,000	10,871,711	1.38	8.3	2015
CVI Credit Value Fund IV	150,000,000	104,609,760	101,740,823	15,000,000	63,825,341	1.58	7.8	2017
CVI Credit Value Fund V	150,000,000	142,500,000	56,030,081	7,500,000	115,714,663	1.21	7.5	2020
Clearlake Capital	100,000,000	71,735,191	268,947	28,423,122	77,574,018	1.09	3.6	
Clearlake Capital Partners VII	100,000,000	71,735,191	268,947	28,423,122	77,574,018	1.09	3.6	2022
Court Square	589,419,132	523,356,628	798,324,231	127,163,008	215,887,654	1.94	15.0	
Court Square Capital Partners II, L.P.	164,419,132	170,270,247	298,783,330	5,656,060	150,594	1.76	12.3	2006
Court Square Capital Partners III, L.P.	175,000,000	191,495,275	380,599,995	4,749,636	86,934,871	2.44	20.4	2012
Court Square Capital Partners IV, L.P.	150,000,000	161,591,106	118,940,906	16,757,312	128,802,190	1.53	16.4	2018
Court Square Capital Partners V, L.P.	100,000,000	0	0	100,000,000	0			2024
CVC Capital Partners	498,886,017	466,602,620	703,741,995	111,579,610	219,231,306	1.98	16.2	
CVC Capital Partners VI	264,116,127	295,794,217	406,714,859	10,837,122	199,167,423	2.05	15.6	2013
CVC Capital Partners IX	117,384,945	16,924,305	1,468,909	99,065,951	16,705,261	1.07	14.0	2023
CVC European Equity Partners V, L.P.	117,384,945	153,884,098	295,558,227	1,676,537	3,358,621	1.94	16.7	2008

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Dawson Partners	400,000,000	381,654,494	255,098,592	129,005,212	197,931,668	1.19	11.3	
Dawson Portfolio Finance 3	100,000,000	106,796,003	99,407,045	10,899,784	39,259,240	1.30	12.4	2019
Dawson Portfolio Finance 4	100,000,000	110,766,258	71,407,395	13,730,922	61,021,100	1.20	10.0	2020
Dawson Portfolio Finance 5	100,000,000	88,896,270	39,486,808	36,322,603	60,228,082	1.12	9.2	2021
Dawson Portfolio Finance 6	100,000,000	75,195,963	44,797,344	68,051,903	37,423,246	1.09	17.8	2024
Goldman, Sachs & Co.	449,800,000	397,101,231	389,298,575	156,446,888	186,200,457	1.45	9.6	
GS Capital Partners VI, L.P.	100,000,000	110,606,276	144,104,252	2,551,356	874,723	1.31	7.1	2007
GS China-US Cooperation Fund	99,800,000	44,121,012	523,330	56,087,600	56,404,847	1.29	6.5	2018
GS Vintage VII	100,000,000	90,982,076	94,207,820	61,815,210	54,956,498	1.64	13.4	2016
West Street Capital Partners VII, L.P.	150,000,000	151,391,867	150,463,173	35,992,722	73,964,389	1.48	12.6	2016
Goldner Hawn Johnson & Morrison	150,510,266	91,524,814	106,938,463	59,617,419	79,901,623	2.04	21.4	
GHJM TrailHead Fund	20,000,000	17,572,130	56,220,283	2,894,486	0	3.20	19.6	2012
Goldner Hawn Fund VII, L.P.	57,755,138	49,124,873	50,716,280	8,795,616	46,395,499	1.98	26.6	2018
Goldner Hawn VIII	72,755,128	24,827,811	1,900	47,927,317	33,506,124	1.35	25.9	2023
Green Equity Investors	325,000,000	426,682,825	457,074,912	23,768,669	214,055,148	1.57	11.3	
Green Equity Investors VI, L.P.	200,000,000	307,992,517	431,519,800	4,125,348	64,080,225	1.61	11.3	2012
Green Equity Investors VIII	125,000,000	118,690,308	25,555,112	19,643,321	149,974,924	1.48	11.6	2020
GTCR	110,000,000	108,893,534	266,749,865	10,416,556	62,822,104	3.03	30.4	
GTCR XI	110,000,000	108,893,534	266,749,865	10,416,556	62,822,104	3.03	30.4	2013
HarbourVest*	18,296,663	17,604,422	24,233,524	633,840	3,334,061	1.57	11.4	
Dover Street VII Cayman Fund L.P.	2,198,112	2,074,270	1,856,658	132,416	3,315	0.90	-4.5	2014
Harbourvest Intl PE Partners VI-Cayman	4,400,942	4,040,737	6,572,439	205,424	1,211,614	1.93	14.0	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,395,883	6,153,757	156,000	31,797	1.41	12.9	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,093,532	9,650,670	140,000	2,087,335	1.65	11.4	2014
Hellman & Friedman	575,000,000	473,573,985	221,128,901	142,114,020	521,925,768	1.57	16.5	
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,914,704	161,459,211	2,183,886	4,025,085	3.32	24.8	2009
Hellman & Friedman Investors IX, L.P.	175,000,000	186,484,569	25,456,790	6,068,637	276,988,160	1.62	12.5	2018
Hellman & Friedman Capital Partners X	250,000,000	237,174,712	34,212,900	33,861,497	240,912,523	1.16	6.2	2021
Hellman & Friedman Capital Partners XI	100,000,000	0	0	100,000,000	0			2023
IK Investment Partners	727,786,660	518,543,412	604,526,059	227,514,922	269,283,339	1.69	14.3	
IK Fund VII	176,077,418	179,393,652	324,212,358	8,902,794	8,430,512	1.85	14.0	2013
IK Fund VIII	176,077,418	179,587,595	279,566,119	9,011,616	59,424,983	1.89	17.5	2016
IK Fund IX	158,469,676	148,769,898	745,854	4,115,624	190,826,129	1.29	8.2	2019
IK Fund X	105,646,451	10,792,267	1,728	93,969,190	10,601,715	0.98	-2.3	2022
IK Small Cap Fund IV	111,515,698	0	0	111,515,698	0			2024
Kohlberg, Kravis, Roberts & Co.	1,997,000,000	1,313,388,222	738,381,460	781,485,543	1,249,840,472	1.51	15.8	
KKR Americas Fund XII L.P.	150,000,000	151,968,256	139,152,990	14,768,855	182,051,871	2.11	19.0	2016
KKR Ascendant Strategy	150,000,000	52,093,159	0	102,655,151	47,661,728	0.91	-14.9	2023
KKR Asian Fund III	100,000,000	98,658,502	84,176,670	14,012,605	106,850,903	1.94	18.6	2017
KKR Asian Fund IV	150,000,000	101,558,865	19,587,235	66,654,425	123,470,831	1.41	15.5	2020
KKR Core Investments Partnership	97,000,000	107,520,663	16,321,657	24,319	134,621,260	1.40	11.1	2021
KKR Core Investments Fund II	100,000,000	25,984,801	761,191	74,522,617	30,267,946	1.19	15.3	2022
KKR Europe V	100,000,000	98,085,764	44,519,120	9,975,062	90,982,953	1.38	9.8	2018
KKR European Fund VI (USD) SCSp	100,000,000	59,487,549	0	43,766,423	52,065,319	0.88	-12.1	2022
KKR Millennium Fund	200,000,000	205,167,570	425,091,742	0	0	2.07	16.4	2002
KKR MN Partnership L.P.	150,000,000	149,629,925	3,114,776	3,800,353	175,432,530	1.19	8.2	2021
KKR North America Fund XIII	300,000,000	263,233,168	5,656,079	51,305,733	306,435,130	1.19	10.1	2021
KKR North America Fund XIV	400,000,000	0	0	400,000,000	0			2024

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Lexington Partners	1,645,000,000	1,277,385,659	968,498,195	460,987,429	1,010,513,270	1.55	12.6	
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	145,958,371	1,634,703	548,533	1.49	7.9	2005
Lexington Capital Partners VII, L.P.	200,000,000	173,297,773	282,748,237	30,670,593	4,002,989	1.65	14.2	2009
Lexington Capital Partners VIII, L.P.	150,000,000	140,262,793	166,017,855	28,787,431	65,433,438	1.65	14.1	2014
Lexington Capital Partners IX, L.P.	150,000,000	134,081,724	56,850,607	31,503,130	146,602,730	1.52	15.4	2018
Lexington Capital Partners X	100,000,000	52,573,186	5,630,770	52,577,516	58,821,456	1.23	16.9	2021
Lexington Co-Investment Partners IV	200,000,000	221,741,090	213,108,653	2,778,492	195,055,612	1.84	15.0	2017
Lexington Co-Investment Partners V	300,000,000	311,146,276	46,313,666	12,389,168	385,739,345	1.39	14.0	2020
Lexington Co-Investment Partners V Overage	45,000,000	39,510,900	6,465,891	7,044,291	48,025,948	1.38	12.2	2021
Lexington Co-Investment Partners VI	300,000,000	22,500,000	0	277,500,000	22,481,775	1.00	-0.3	2023
Lexington Middle Market Investors IV	100,000,000	83,897,895	45,404,145	16,102,105	83,801,444	1.54	14.1	2016
Madison Dearborn Capital Partners LLC	200,000,000	211,722,246	115,502,174	28,932,491	187,015,746	1.43	10.1	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	102,097,143	80,926,721	15,842,064	82,213,398	1.60	9.7	2015
Madison Dearborn Capital Partners VIII-A, L.P	100,000,000	109,625,103	34,575,453	13,090,427	104,802,348	1.27	11.1	2019
Marathon	400,000,000	261,487,712	131,830,739	163,000,000	196,958,469	1.26	10.4	
Marathon Distressed Credit Fund	200,000,000	161,906,171	112,361,635	44,000,000	109,305,210	1.37	10.5	2020
Marathon Distressed Credit Fund II	200,000,000	99,581,541	19,469,104	119,000,000	87,653,259	1.08	8.9	2023
Merced Capital	178,737,500	184,266,287	207,440,275	0	27,947,889	1.28	4.5	
Merced Partners IV	125,000,000	124,968,390	136,386,037	0	3,609,379	1.12	2.3	2013
Merced Partners V	53,737,500	59,297,897	71,054,238	0	24,338,510	1.61	8.2	2017
MHR Institutional Partners	75,000,000	84,110,009	27,817,451	10,648,019	92,994,529	1.44	7.4	
MHR Institutional Partners IV LP	75,000,000	84,110,009	27,817,451	10,648,019	92,994,529	1.44	7.4	2014
Nordic Capital	736,877,527	615,942,814	437,529,569	304,319,441	544,791,949	1.59	14.0	
Nordic Evolution Fund II	111,515,698	0	0	111,515,698	0			2024
Nordic Capital Fund VIII	176,077,418	229,362,004	296,912,142	12,395,845	64,335,710	1.58	12.2	2013
Nordic Capital IX Beta, L.P.	176,077,418	189,889,846	111,837,821	98,021,503	230,985,845	1.81	16.2	2017
Nordic Capital Fund X	158,469,676	128,391,608	27,153,665	49,022,282	169,391,611	1.53	16.8	2020
Nordic Capital Fund XI	114,737,318	68,299,356	1,625,941	33,364,113	80,078,783	1.20	24.3	2022
Oak Hill Capital Management, Inc.	250,000,000	251,413,914	296,457,609	8,106,424	156,598,835	1.80	26.0	
Oak Hill Capital Partners IV Onshore LP	150,000,000	154,428,704	277,234,047	4,466,045	31,455,461	2.00	31.9	2016
Oak Hill Capital Partners V	100,000,000	96,985,210	19,223,562	3,640,379	125,143,374	1.49	12.5	2018
Oaktree Capital Management, LLC	400,000,000	273,901,509	140,137,543	206,514,589	224,380,286	1.33	8.3	
Oaktree Special Situations Fund, L.P.	100,000,000	103,390,275	40,279,144	7,741,294	52,969,224	0.90	-1.8	2014
Oaktree Special Situations Fund II, L.P.	100,000,000	99,203,850	71,858,399	42,579,241	102,945,522	1.76	27.3	2018
Oaktree Special Situations Fund III	200,000,000	71,307,384	28,000,000	156,194,054	68,465,540	1.35	26.0	2022
Paine & Partners, LLC	325,000,000	278,790,691	106,433,594	76,801,146	275,131,562	1.37	9.9	
Paine Schwartz Food Chain Fund IV	75,000,000	72,348,562	35,991,937	11,510,059	62,729,836	1.36	6.0	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	146,170,397	63,276,531	18,256,500	152,639,856	1.48	15.1	2018
Paine Schwartz Food Chain VI	100,000,000	60,271,732	7,165,126	47,034,587	59,761,870	1.11	7.1	2023
Permal PE*	5,337,098	4,426,520	4,848,251	1,090,000	113,711	1.12	3.8	
Glouster Private Equity Opportunities IV	5,337,098	4,426,520	4,848,251	1,090,000	113,711	1.12	3.8	2014
Permira	651,486,446	549,171,087	602,918,393	148,586,636	467,150,869	1.95	17.4	
Permira V, L.P.	176,077,418	185,617,109	437,454,557	3,171,435	66,344,313	2.71	20.3	2013
Permira VI, L.P.	140,861,934	131,033,790	137,737,556	28,500,591	128,167,040	2.03	15.1	2016
Permira VII L.P.1	158,469,676	151,852,504	25,370,638	25,593,560	178,240,566	1.34	8.1	2019
Permira VIII	176,077,418	80,667,684	2,355,643	91,321,051	94,398,950	1.20	13.7	2022
Public Pension Capital Management	375,000,000	246,026,701	243,886,349	163,775,146	235,319,457	1.95	22.9	
Public Pension Capital, LLC	375,000,000	246,026,701	243,886,349	163,775,146	235,319,457	1.95	22.9	2014

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Silver Lake Partners	335,000,000	352,597,854	514,545,236	29,968,159	251,200,643	2.17	17.9	
Silver Lake Partners III, L.P.	100,000,000	94,870,929	217,811,140	9,528,468	17,499,201	2.48	18.6	2007
Silver Lake Partners IV	100,000,000	118,476,239	210,999,947	2,881,307	101,105,137	2.63	20.3	2012
Silver Lake Partners V, L.P.	135,000,000	139,250,686	85,734,149	17,558,384	132,596,305	1.57	11.0	2017
Siris Capital Group	50,000,000	0	0	50,000,000	0			
Siris V	50,000,000	0	0	50,000,000	0			2022
Split Rock	110,000,000	107,890,906	130,490,654	2,109,094	25,192,755	1.44	4.9	
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	4,861,788	1.33	3.3	2005
Split Rock Partners II, LP	60,000,000	60,000,000	71,696,462	0	20,330,967	1.53	6.8	2008
Stellrex Capital Management	200,000,000	32,568,508	135,142	167,431,492	27,531,300	0.85	-16.1	
Stellrex Capital Partners III	200,000,000	32,568,508	135,142	167,431,492	27,531,300	0.85	-16.1	2024
Stone Point Capital	100,000,000	0	0	100,000,000	0			
Trident Capital X US Fund	100,000,000	0	0	100,000,000	0			2025
Summit Partners	850,000,000	519,833,276	488,433,480	478,037,075	412,720,266	1.73	22.2	
Summit Partners Growth Equity Fund VIII	100,000,000	117,223,049	262,116,353	12,774,672	14,789,664	2.36	25.5	2011
Summit Partners Growth Equity Fund IX	100,000,000	136,228,128	177,282,625	32,610,000	101,152,124	2.04	23.8	2015
Summit Partners Growth Equity Fund X-A	150,000,000	147,021,636	48,015,933	50,994,297	169,316,921	1.48	12.7	2019
Summit Partners Growth Equity Fund XI	250,000,000	119,360,463	1,018,569	131,658,106	127,461,557	1.08	4.9	2021
Summit Partners Growth Equity XII	250,000,000	0	0	250,000,000	0			2024
TA Associates	80,000,000	9,600,000	0	70,400,000	8,528,237	0.89	-26.6	
TA XV	80,000,000	9,600,000	0	70,400,000	8,528,237	0.89	-26.6	2023
Thoma Bravo LLC	625,000,000	516,683,181	381,042,385	231,063,792	481,143,318	1.67	15.8	
Thoma Bravo Fund XII, L.P.	75,000,000	81,836,011	137,496,540	18,452,144	42,092,197	2.19	15.3	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	186,271,950	188,076,556	11,571,287	173,965,291	1.94	22.3	2018
Thoma Bravo Fund XIV	150,000,000	162,370,589	52,098,573	33,828,411	151,392,194	1.25	7.0	2020
Thoma Bravo Fund XV LP	100,000,000	86,204,631	3,370,716	17,211,950	113,693,635	1.36	14.6	2021
Thoma Bravo Fund XVI	150,000,000	0	0	150,000,000	0			2024
Thomas H. Lee Partners	550,000,000	364,929,462	302,419,901	215,632,138	263,542,993	1.55	19.4	
Thomas H. Lee Equity Fund VII, LP.	100,000,000	100,056,435	137,891,993	10,105,722	37,538,480	1.75	18.3	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	151,958,502	164,527,908	18,440,941	101,871,591	1.75	26.4	2018
Thomas H. Lee Equity Fund IX	150,000,000	112,914,525	0	37,085,475	124,132,922	1.10	5.1	2021
Thomas H. Lee Equity Fund X	150,000,000	0	0	150,000,000	0			2024
TPG Capital	800,000,000	641,131,250	305,067,096	235,723,545	618,782,780	1.44	16.2	
TPG Growth V	150,000,000	148,820,360	27,285,891	22,543,315	185,505,554	1.43	14.1	2021
TPG Growth VI, L.P.	150,000,000	60,997,507	5,415,321	94,299,425	63,560,260	1.13	29.6	2023
TPG Partners VII, L.P.	100,000,000	101,330,001	185,375,846	8,242,892	19,225,694	2.02	19.1	2015
TPG Partners VIII	150,000,000	151,654,176	52,865,088	16,859,479	175,311,656	1.50	15.1	2018
TPG Partners IX, L.P.	100,000,000	64,447,096	4,153,177	39,666,270	70,443,974	1.16	15.7	2022
TPG Tech Adjacencies II, L.P.	150,000,000	113,882,110	29,971,773	54,112,164	104,735,642	1.18	10.0	2021
Vance Street Capital Partners	85,000,000	25,632,913	0	59,367,087	25,948,864	1.01	1.5	
Vance Street Capital IV, L.P.	85,000,000	25,632,913	0	59,367,087	25,948,864	1.01	1.5	2024
Varde Fund	547,108,974	526,615,999	599,151,862	24,725,817	160,752,008	1.44	7.3	
Varde Fund X, LP	150,000,000	150,000,000	254,062,551	0	5,408,318	1.73	9.9	2010
Varde Fund XI, LP	200,000,000	200,000,000	237,571,921	0	25,910,242	1.32	4.3	2013
Varde Fund XIII, L.P.	150,000,000	144,000,000	103,284,548	6,000,000	95,306,789	1.38	8.9	2018
Varde Fund XIV	47,108,974	32,615,999	4,232,842	18,725,817	34,126,659	1.18	8.7	2022

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Vestar Capital Partners	250,000,000	267,783,666	292,845,700	30,695,286	138,009,886	1.61	18.1	
Vestar Capital Partners VI, LP	100,000,000	109,951,730	204,511,431	357,259	34,532,968	2.17	23.5	2011
Vestar Capital Partners VII, L.P.	150,000,000	157,831,936	88,334,269	30,338,027	103,476,918	1.22	6.8	2017
Vista Equity Partners	200,000,000	201,228,725	13,450,428	13,357,383	274,176,554	1.43	10.5	
Vista Equity Partners Perennial	200,000,000	201,228,725	13,450,428	13,357,383	274,176,554	1.43	10.5	2020
Warburg Pincus	1,316,000,000	1,192,768,095	1,173,245,086	131,805,000	812,316,328	1.66	11.1	
Warburg Pincus China, L.P.	45,000,000	46,935,000	20,662,200	0	36,563,795	1.22	3.9	2016
Warburg Pincus China-Southeast Asia II	50,000,000	36,000,000	5,702,500	14,000,000	31,950,739	1.05	1.8	2019
Warburg Pincus Financial Sector	90,000,000	90,439,542	95,848,883	3,555,000	84,543,027	1.99	16.8	2017
Warburg Pincus Global Growth, L.P.	250,000,000	238,821,534	107,082,893	14,500,000	298,299,775	1.70	13.8	2018
Warburg Pincus Global Growth 14, L.P.	300,000,000	199,229,567	13,737,000	99,750,000	235,218,327	1.25	15.7	2022
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	172,072,950	0	116,350	1.72	9.6	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	267,384,491	0	3,051,649	1.80	9.5	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	302,859,821	0	43,319,768	1.73	11.4	2012
Warburg Pincus Private Equity XII, LP	131,000,000	131,000,000	187,894,348	0	79,252,897	2.04	15.4	2015
Wayzata Investment Partners	150,000,000	68,415,000	72,163,281	0	1,010,031	1.07	1.3	
Wayzata Opportunities Fund III	150,000,000	68,415,000	72,163,281	0	1,010,031	1.07	1.3	2012
Wellspring Capital Partners	125,000,000	153,842,297	118,800,648	10,722,723	107,762,934	1.47	12.5	
Wellspring Capital Partners VI, L.P.	125,000,000	153,842,297	118,800,648	10,722,723	107,762,934	1.47	12.5	2016
Welsh, Carson, Anderson & Stowe	650,000,000	561,372,103	620,148,273	113,996,206	368,438,056	1.76	16.6	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	166,120,752	0	190,322	1.66	11.5	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	150,000,000	298,980,537	0	68,755,593	2.45	24.1	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	246,650,576	155,046,984	28,717,733	234,639,034	1.58	18.1	2018
Welsh, Carson, Anderson & Stowe XIV	150,000,000	64,721,527	0	85,278,473	64,853,106	1.00	0.1	2022
Wind Point Partners	200,000,000	172,527,238	58,638,455	56,647,217	193,043,966	1.46	15.7	
Wind Point Partners IX	100,000,000	105,641,554	50,428,126	16,800,707	113,119,739	1.55	15.1	2019
Wind Point Partners X	100,000,000	66,885,684	8,210,329	39,846,510	79,924,226	1.32	18.1	2022
Windjammer Capital Investors	441,708,861	274,166,396	303,219,902	192,597,073	170,943,451	1.73	11.6	
Windjammer Capital Fund VI	175,000,000	20,669,061	0	154,330,939	15,582,240	0.75	-25.5	2023
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	86,029,064	10,139,363	69,413	1.56	9.0	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	95,107,015	170,802,066	20,801,627	52,586,748	2.35	15.8	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000	103,174,636	46,388,772	7,325,144	102,705,050	1.45	13.5	2017

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Private Credit	4,409,045,546	3,713,753,927	3,048,990,894	1,307,949,515	1,911,326,772	1.34	9.8	
Audax Group	350,000,000	280,173,049	257,111,005	105,753,540	94,777,316	1.26	10.1	
Audax Mezzanine Fund III, L.P.	100,000,000	107,449,863	136,564,504	0	4,492,100	1.31	9.6	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000	96,811,286	95,042,007	19,049,743	25,679,906	1.25	10.2	2015
Audax Mezzanine Fund V	150,000,000	75,911,900	25,504,494	86,703,797	64,605,310	1.19	13.7	2020
Avenue Capital Partners	200,000,000	200,977,328	320,007,323	0	39,155,105	1.79	10.0	
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	142,077,076	0	13,383,973	1.54	6.5	2014
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	177,930,247	0	25,771,132	2.04	14.9	2017
BlackRock	97,500,000	94,528,478	55,290,175	2,971,522	78,028,304	1.41	8.0	
BlackRock Middle Market Senior Fund	97,500,000	94,528,478	55,290,175	2,971,522	78,028,304	1.41	8.0	2018
Brookfield Asset Management Inc.	200,000,000	134,577,827	74,143,174	120,490,166	73,469,493	1.10	7.1	
Brookfield Real Estate Finance Fund VI	200,000,000	134,577,827	74,143,174	120,490,166	73,469,493	1.10	7.1	2021
Castlelake L.P.	100,000,000	16,561,695	1,895,194	84,837,809	16,169,840	1.09	24.5	
Castlelake Aviation V Stable Yield	100,000,000	16,561,695	1,895,194	84,837,809	16,169,840	1.09	24.5	2023
Energy Capital Partners	28,087,500	41,792,804	28,343,613	6,997,207	19,620,193	1.15	6.9	
Energy Capital Credit Solutions II-A	28,087,500	41,792,804	28,343,613	6,997,207	19,620,193	1.15	6.9	2018
HPS Investment Partners	200,000,000	175,710,000	81,087,752	60,334,361	146,970,181	1.30	10.9	
HPS Mezzanine Partners 2019, L.P.	100,000,000	107,512,582	69,672,651	17,263,776	76,380,847	1.36	10.4	2019
HPS Strategic Investment Partners V	100,000,000	68,197,418	11,415,101	43,070,585	70,589,335	1.20	12.8	2022
Kohlberg, Kravis, Roberts & Co.	274,000,000	384,322,910	412,511,391	80,601,499	52,737,822	1.21	9.5	
KKR Lending Partner II L.P.	75,000,000	87,059,946	88,739,268	8,802,924	1,644,333	1.04	1.8	2015
KKR Lending Partners III L.P.	199,000,000	297,262,964	323,772,123	71,798,575	51,093,489	1.26	12.8	2017
LBC Credit Partners	200,000,000	208,448,030	213,498,971	53,897,865	50,235,025	1.27	10.7	
LBC Credit Partners IV, L.P.	100,000,000	120,031,006	140,990,113	10,000,000	3,647,644	1.21	8.7	2016
LBC Credit Partners V, L.P.	100,000,000	88,417,024	72,508,858	43,897,865	46,587,381	1.35	14.3	2019
Marathon	200,000,000	168,022,008	70,321,485	38,000,000	160,888,608	1.38	10.6	
Marathon Secured Private Strategies Fund II	100,000,000	96,022,008	70,138,788	10,000,000	81,408,960	1.58	11.3	2019
Marathon Secured Private Strategies Fund III	100,000,000	72,000,000	182,698	28,000,000	79,479,648	1.11	7.0	2022
Merit Capital Partners	275,000,000	227,233,454	230,627,035	47,699,746	134,261,960	1.61	12.3	
Merit Mezzanine Fund V, LP	75,000,000	72,306,122	114,535,938	2,693,878	13,873,306	1.78	10.6	2009
Merit Mezzanine Fund VI	100,000,000	93,095,514	114,454,733	6,837,687	52,188,839	1.79	16.5	2016
Merit Mezzanine Fund VII	100,000,000	61,831,818	1,636,364	38,168,182	68,199,815	1.13	7.4	2020
Oaktree Capital Management, LLC	650,000,000	538,469,859	257,333,474	125,100,000	451,435,630	1.32	9.0	
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,060	48,971,491	8,500,000	22,570,849	1.54	8.9	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	75,005,568	37,161,508	25,000,000	88,806,487	1.68	11.5	2015
Oaktree Opportunities Fund XI	300,000,000	255,023,332	130,579,999	45,000,000	202,847,650	1.31	9.6	2020
Oaktree Real Estate Debt III	200,000,000	161,940,899	40,620,476	46,600,000	137,210,643	1.10	4.4	2020
Permira	69,888,046	7,989,899	196,043	61,221,108	9,915,342	1.27	27.1	
Permira Strategic Opportunities I	69,888,046	7,989,899	196,043	61,221,108	9,915,342	1.27	27.1	2024
PIMCO BRAVO*	5,000,000	4,501,479	5,714,432	0	288,198	1.33	6.0	
PIMCO Bravo Fund OnShore Feeder II	5,000,000	4,501,479	5,714,432	0	288,198	1.33	6.0	2014

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Prudential Global Investment Mgmt	600,000,000	595,163,343	627,354,665	69,780,199	195,018,854	1.38	10.0	
Prudential Capital Partners II, L.P.	100,000,000	97,930,132	145,671,152	10,940,748	353,975	1.49	9.0	2005
Prudential Capital Partners III, L.P.	100,000,000	102,887,805	175,321,440	13,562,553	1,962,240	1.72	14.1	2009
Prudential Capital Partners IV	100,000,000	115,262,492	157,859,590	1,917,595	3,627,950	1.40	9.1	2012
Prudential Capital Partners V, L.P.	150,000,000	163,515,876	127,243,501	3,768,735	65,494,658	1.18	5.0	2016
PGIM Capital Partners VI, L.P.	150,000,000	115,567,039	21,258,981	39,590,568	123,580,031	1.25	14.0	2020
Summit Partners	95,000,000	100,222,879	138,347,246	3,818,718	1,157,294	1.39	9.0	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	62,804,226	2,250,000	766,784	1.44	8.6	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000	56,134,385	75,543,020	1,568,718	390,510	1.35	9.7	2008
TCW	189,570,000	174,519,135	170,125,778	62,214,056	50,478,074	1.26	7.5	
TCW Direct Lending LLC	89,570,000	83,599,652	91,467,430	14,899,409	13,139,840	1.25	6.9	2014
TCW Direct Lending VII	100,000,000	90,919,484	78,658,349	47,314,647	37,338,234	1.28	8.1	2018
Torchlight Investors	150,000,000	60,000,000	20,571,427	110,571,427	41,994,742	1.04	4.2	
Torchlight Debt Fund VIII	150,000,000	60,000,000	20,571,427	110,571,427	41,994,742	1.04	4.2	2023
TSSP	525,000,000	300,539,750	84,510,711	273,660,292	294,724,792	1.26	9.7	
TSSP Opportunities Partners IV (A), L.P.	50,000,000	40,479,121	22,936,356	6,357,267	34,191,686	1.41	9.5	2018
Sixth Street Opportunities Partners V	75,000,000	60,794,566	9,428,006	22,699,014	61,388,568	1.16	8.8	2021
Sixth Street Opportunities Partners VI	150,000,000	0	0	150,000,000	0			2025
Sixth Street TAO Partners (B), L.P.	50,000,000	61,467,862	27,101,373	19,033,164	53,723,561	1.31	8.5	2018
Sixth Street TAO Partners (D), L.P.	100,000,000	81,163,513	21,065,892	28,236,258	88,912,299	1.36	11.5	2018
Sixth Street TAO Partners (B) Vintage 2023	100,000,000	56,634,688	3,979,084	47,334,589	56,508,678	1.07	8.6	2023



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Assets	4,247,571,518	4,069,207,417	3,285,897,519	602,670,341	1,901,043,527	1.27	5.4	
BlackRock	198,500,000	203,529,374	111,890,436	14,561,386	76,360,732	0.92	-2.9	
BlackRock Global Renewable Power Fund II	98,500,000	114,176,526	107,019,005	107,929	8,544,155	1.01	0.4	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000	89,352,848	4,871,430	14,453,457	67,816,577	0.81	-8.7	2019
EIG Global Energy Partners	450,000,000	475,143,925	417,997,815	75,356,663	80,778,653	1.05	1.1	
EIG Energy Fund XIV	100,000,000	113,459,470	100,765,868	2,761,129	167,514	0.89	-3.8	2007
EIG Energy Fund XV	150,000,000	161,570,371	166,351,585	22,871,323	2,877,241	1.05	1.1	2010
EIG Energy Fund XVI	200,000,000	200,114,084	150,880,362	49,724,211	77,733,898	1.14	2.8	2013
Encap Energy	300,000,000	323,490,959	399,832,539	3,869,640	110,776,113	1.58	9.0	
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,407,978	75,163,692	0	36,824,062	1.08	1.3	2010
Encap Energy Fund IX	100,000,000	113,775,404	151,733,006	0	23,670,020	1.54	10.9	2012
EnCap Energy Capital Fund X, L.P.	100,000,000	106,307,577	172,935,841	3,869,640	50,282,030	2.10	16.3	2015
Energy & Minerals Group	680,000,000	728,444,221	471,266,465	17,799,439	492,218,398	1.32	5.2	
NGP Midstream & Resources, L.P.	100,000,000	103,590,296	179,775,264	17,857	1,499,879	1.75	13.1	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	109,759,364	123,028,763	170,365	78,809,448	1.84	10.0	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	211,720,955	45,103,585	39,583	88,858,603	0.63	-5.5	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	181,665,997	117,828,500	865,910	147,852,854	1.46	7.5	2015
The Energy & Minerals Group Fund V	112,500,000	102,918,428	3,658,916	12,613,927	149,088,550	1.48	8.5	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	18,789,181	1,871,437	4,091,797	26,109,064	1.49	8.7	2019
Energy Capital Partners	500,000,000	500,130,490	421,774,016	125,919,513	329,738,364	1.50	12.5	
Energy Capital Partners III, L.P.	200,000,000	244,670,695	339,462,336	30,959,867	54,109,975	1.61	12.1	2013
Energy Capital Partners IV-A, LP	150,000,000	167,674,230	77,303,674	27,504,614	182,699,226	1.55	14.3	2017
Energy Capital Partners V	150,000,000	87,785,565	5,008,006	67,455,032	92,929,163	1.12	7.4	2023
Enervest Management Partners	100,000,000	100,427,460	118,813,107	4,497,102	39,897,716	1.58	9.2	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	100,427,460	118,813,107	4,497,102	39,897,716	1.58	9.2	2015
EQT	100,000,000	36,698,962	5,216,347	65,343,135	28,366,214	0.92	-10.3	
EQT Infrastructure VI	100,000,000	36,698,962	5,216,347	65,343,135	28,366,214	0.92	-10.3	2024
First Reserve	350,000,000	404,914,265	222,758,863	11,058,656	82,954,146	0.76	-5.7	
First Reserve Fund XII, L.P.	150,000,000	165,617,044	85,669,271	0	81,503	0.52	-18.0	2008
First Reserve Fund XIII, L.P.	200,000,000	239,297,221	137,089,592	11,058,656	82,872,643	0.92	-2.1	2013
Kohlberg, Kravis, Roberts & Co.	449,850,000	235,773,454	96,696,286	235,163,996	222,454,702	1.35	10.7	
KKR Global Infrastructure Investors III	149,850,000	145,871,612	90,718,907	19,424,537	120,923,092	1.45	11.1	2018
KKR Global Infrastructure Investors IV	100,000,000	89,901,842	5,977,379	15,739,459	101,531,609	1.20	9.4	2021
KKR Global Infrastructure Investors V	200,000,000	0	0	200,000,000	0			2024
Merit Energy Partners	419,721,518	401,472,471	242,693,892	18,249,047	273,450,603	1.29	4.5	
Merit Energy Partners H	100,000,000	100,000,000	35,586,226	0	31,040,126	0.67	-4.9	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	152,039,060	0	102,132,853	1.50	6.7	2014
Merit Energy Partners K, L.P.	150,000,000	131,750,953	55,068,606	18,249,047	140,277,625	1.48	17.8	2019
NGP	599,500,000	624,828,831	738,292,754	17,331,764	141,493,887	1.41	9.0	
Natural Gas Partners IX, LP	150,000,000	174,025,590	249,449,497	605,481	0	1.43	12.0	2007
NGP Natural Resources X, L.P.	150,000,000	149,753,786	136,269,256	246,214	11,867,530	0.99	-0.3	2011
NGP Natural Resources XI, L.P.	150,000,000	158,268,887	211,783,964	4,736,941	39,247,257	1.59	9.7	2014
NGP Natural Resources XII, L.P.	149,500,000	142,780,568	140,790,037	11,743,128	90,379,100	1.62	14.5	2017
Sheridan	100,000,000	34,353,005	38,665,000	13,520,000	22,554,000	1.78	11.7	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	38,665,000	13,520,000	22,554,000	1.78	11.7	2014

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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Estate	4,548,147,868	3,648,451,551	2,239,952,419	1,300,532,295	2,269,213,895	1.24	7.1	
Angelo, Gordon & Co.	750,000,000	534,504,987	364,487,097	265,780,000	311,658,283	1.26	7.2	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	47,125,000	6,196,250	13,028,810	1.26	7.6	2016
AG Asia Realty Fund IV, L.P.	100,000,000	88,596,321	82,500,000	27,047,500	35,577,693	1.33	10.4	2018
AG Asia Realty Fund V	100,000,000	37,643,361	0	61,000,000	39,991,926	1.06	6.6	2023
AG Europe Realty Fund II, L.P.	75,000,000	68,316,673	45,724,666	12,768,750	46,059,881	1.34	6.3	2018
AG Europe Realty Fund III	75,000,000	56,328,427	3,750,000	19,312,500	66,233,487	1.24	7.1	2020
AG Europe Realty Fund IV	100,000,000	7,464,615	0	92,000,000	6,783,080	0.91	-9.1	2024
AG Realty Fund IX	100,000,000	92,141,126	95,750,000	11,650,000	20,591,444	1.26	5.1	2014
AG Realty Fund X, L.P.	150,000,000	136,427,203	89,637,431	35,805,000	83,391,961	1.27	8.7	2018
Blackstone	1,224,500,000	1,074,071,704	957,780,741	346,685,779	613,835,573	1.46	11.3	
Blackstone Real Estate Partners Asia II	74,500,000	74,394,362	23,469,802	12,051,171	62,468,606	1.16	3.8	2017
Blackstone Real Estate Partners Asia III	100,000,000	46,546,853	779,968	58,427,638	42,069,361	0.92	-6.7	2021
Blackstone Real Estate Partners Europe Fund VII	100,000,000	26,171,398	572,365	76,593,183	26,488,418	1.03	5.7	2023
Blackstone Real Estate Partners V	100,000,000	104,231,092	209,183,155	417,405	81,922	2.01	10.8	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,582,860	220,304,818	736,180	26,372	2.01	13.1	2007
Blackstone Real Estate Partners VII, LP	100,000,000	116,505,734	185,866,090	6,744,367	11,935,438	1.70	14.2	2011
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000	183,131,595	191,767,410	14,777,603	89,213,077	1.53	12.0	2015
Blackstone Real Estate Partners IX, L.P.	300,000,000	331,057,791	118,968,214	45,668,067	301,412,068	1.27	8.5	2018
Blackstone Real Estate Partners X	200,000,000	82,450,021	6,868,920	131,270,165	80,140,313	1.06	6.1	2022
Brookfield Asset Management Inc.	400,000,000	239,853,783	24,787,574	184,867,692	244,046,130	1.12	6.3	
Brookfield Strategic Real Estate Partners IV	300,000,000	239,853,783	24,787,574	84,867,692	244,046,130	1.12	6.3	2021
Brookfield Strategic Real Estate Partners V	100,000,000	0	0	100,000,000				2023
Carlyle Group	450,000,000	306,208,924	145,038,899	233,271,809	230,516,813	1.23	14.2	
Carlyle Realty Partners VIII, L.P.	150,000,000	134,106,882	135,864,983	96,199,935	58,868,262	1.45	19.4	2017
Carlyle Realty Partners IX	300,000,000	172,102,042	9,173,916	137,071,874	171,648,551	1.05	4.0	2021
Kohlberg, Kravis, Roberts & Co.	125,000,000	128,388,222	19,470,090	19,549,218	112,820,666	1.03	1.4	
KKR Real Estate Partners Americas III	125,000,000	128,388,222	19,470,090	19,549,218	112,820,666	1.03	1.4	2021
Landmark Partners	249,500,000	146,174,494	73,076,578	125,307,037	103,101,012	1.21	8.4	
Landmark Real Estate Partners VIII, L.P.	149,500,000	121,814,526	73,076,578	49,667,006	78,137,135	1.24	8.6	2016
Landmark Real Estate Partners IX	100,000,000	24,359,968	0	75,640,032	24,963,876	1.02	3.4	2021
Lubert Adler	174,147,868	162,338,042	100,552,018	17,694,886	103,601,801	1.26	9.6	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	90,575,207	7,414,787	14,340,746	1.55	14.6	2017
Lubert-Adler Recovery and Enhancement Capital Fund	100,000,000	94,752,829	9,976,811	10,280,099	89,261,055	1.05	2.0	2021
Oaktree Capital Management, LLC	200,000,000	180,487,140	51,080,691	54,000,000	129,764,247	1.00	0.1	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	180,487,140	51,080,691	54,000,000	129,764,247	1.00	0.1	2020
Rockpoint	200,000,000	201,054,234	80,692,531	22,918,781	124,797,882	1.02	0.6	
Rockpoint Real Estate Fund V, L.P.	100,000,000	104,279,536	58,755,434	14,217,829	34,124,996	0.89	-2.9	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	96,774,698	21,937,097	8,700,952	90,672,887	1.16	5.1	2019
Rockwood	200,000,000	191,344,668	61,784,022	12,836,035	90,012,299	0.79	-7.0	
Rockwood Capital RE Partners X, L.P.	100,000,000	99,845,593	57,507,174	1,838,936	28,100,760	0.86	-4.1	2015
Rockwood Capital RE Partners XI	100,000,000	91,499,075	4,276,848	10,997,099	61,911,539	0.72	-10.4	2019

Minnesota State Board of Investment
Quarter Ending June 30, 2025
Private Markets Investments



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Silverpeak Real Estate Partners	225,000,000	144,150,353	109,436,602	7,496,058	2,717,887	0.78	-4.0	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000	73,069,012	92,033,940	7,496,058	380,744	1.26	4.2	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000	71,081,341	17,402,663	0	2,337,142	0.28	-12.1	2008
TA Associates Realty	350,000,000	339,875,000	251,765,575	10,125,000	202,341,302	1.34	10.4	
Realty Associates Fund XI	100,000,000	100,000,000	160,175,911	0	115,964	1.60	10.8	2015
Realty Associates Fund XII	100,000,000	100,000,000	71,187,012	0	70,397,784	1.42	9.7	2018
Realty Associates Fund XIII	150,000,000	139,875,000	20,402,652	10,125,000	131,827,554	1.09	10.2	2023
Total	40,738,735,235	33,201,338,272	27,465,412,372	11,558,906,206	22,223,293,367	1.50	11.48	
<i>Difference**</i>					82,374,834			
Private Markets Total with Difference					22,305,668,201			

<i>Private Markets Portfolio Status</i>	Managers	Funds
Private Equity	60	195
Private Credit	19	42
Real Assets	12	32
Real Estate	12	36
Total	103	305

Notes

None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results and may slightly differ from final fiscal year-end report. Ultimately, the actual performance and value of any investment is not known until final liquidation. Because there is no industry-standardized method for valuation or reporting comparisons of performance and valuation data among different investments is difficult.

Data presented in this report is made public pursuant to Minn. Stat. Chs. 13 and 13D, and Minn. Stat. § 11A.24, subd. 6(c). Additional information on private markets investments may be classified as non-public and not subject to disclosure.

*Partnership interests transferred to the MSBI during 1Q2015. All data presented as of the transfer date.

**Difference is from an in-kind stock distribution liquidating account, cash transactions posted to next day and distributions received in foreign currency during the month.

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Quarterly Report

Other Retirement Funds and Tax-Advantaged Savings Plans

June 30, 2025

Important Notes:

All performance figures and market data presented are unaudited and preliminary. Performance history includes terminated managers and reflects the deduction of investment management expenses. Performance greater than one year is annualized. Past performance does not guarantee future results.



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
Active Large-Cap Domestic Equity							
U.S. EQUITY ACTIVELY MANAGED FUND	\$100,273,032	12.0%	15.0%	19.8%	15.8%	13.2%	07/1986
Russell 3000		11.0%	15.3%	19.1%	16.0%	13.0%	07/1986
Excess		1.0%	-0.3%	0.8%	-0.1%	0.3%	
VANGUARD DIVIDEND GROWTH FUND	\$1,021,639,577	3.5%	8.3%	9.3%	11.7%		10/2016
VANGUARD DIVIDEND GROWTH INDEX		6.0%	14.2%	14.8%	14.0%		10/2016
Excess		-2.5%	-5.9%	-5.6%	-2.3%		
Passive Large-Cap Domestic Equity							
U.S. EQUITY INDEX FUND	\$321,762,947	11.0%	15.3%	19.1%	16.1%	13.1%	07/1986
Russell 3000		11.0%	15.3%	19.1%	16.0%	13.0%	07/1986
Excess		-0.0%	0.0%	0.1%	0.2%	0.1%	
VANGUARD TOTAL STOCK MARKET INDEX FUND	\$1,161,096,131	11.0%	15.1%	19.0%	15.9%		07/2019
CRSP US Total Market Index		11.0%	15.1%	19.0%	15.9%		07/2019
Excess		0.0%	-0.0%	0.0%	0.0%		
VANGUARD INSTITUTIONAL INDEX FUND	\$2,392,603,119	10.9%	15.1%	19.7%	16.6%	13.6%	07/1999
S&P 500		10.9%	15.2%	19.7%	16.6%	13.6%	07/1999
Excess		-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	
Passive Mid-Cap Domestic Equity							
VANGUARD MID-CAP INDEX FUND	\$884,512,077	8.7%	17.5%	14.3%	13.0%	10.0%	01/2004
CRSP US Mid Cap Index		8.7%	17.6%	14.3%	13.0%	10.0%	01/2004
Excess		-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	
Active Small-Cap Domestic Equity							
T. ROWE PRICE SMALL-CAP FUND	\$890,128,040	6.6%	11.3%	10.3%	9.8%	9.5%	04/2000
Russell 2000		8.5%	7.7%	10.0%	10.0%	7.1%	04/2000
Excess		-1.9%	3.6%	0.3%	-0.2%	2.3%	



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
Active International Equity							
BROAD INTERNATIONAL EQUITY FUND	\$172,401,468	11.3%	16.6%	14.5%	11.1%	6.7%	09/1994
International Equity Benchmark		12.0%	17.7%	14.0%	10.1%	6.1%	09/1994
Excess		-0.8%	-1.2%	0.5%	1.0%	0.6%	
FIDELITY DIVERSIFIED INTERNATIONAL TRUST							
FIDELITY DIVERSIFIED INTERNATIONAL TRUST	\$402,263,215	11.8%	15.7%	15.7%	9.3%	7.0%	07/1999
MSCI EAFE FREE (NET)		11.8%	17.7%	16.0%	11.2%	6.5%	07/1999
Excess		0.0%	-2.0%	-0.2%	-1.8%	0.5%	
Passive International Equity							
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	\$498,067,889	12.1%	18.3%	13.9%	10.3%	6.3%	07/2011
FTSE Global All Cap ex US Index Net		12.3%	17.7%	13.8%	10.2%	6.2%	07/2011
Excess		-0.2%	0.7%	0.1%	0.1%	0.2%	
Active Fixed Income							
BOND FUND	\$121,483,085	1.5%	6.5%	3.4%	-0.1%	2.3%	07/1986
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%	07/1986
Excess		0.2%	0.4%	0.9%	0.7%	0.6%	
DODGE & COX CORE BOND ACCOUNT							
DODGE & COX CORE BOND ACCOUNT	\$310,653,046	1.4%	6.7%	4.3%	1.1%	2.9%	07/1999
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%	07/1999
Excess		0.2%	0.6%	1.8%	1.8%	1.2%	
Passive Fixed Income							
VANGUARD TOTAL BOND MARKET INDEX FUND	\$360,907,132	1.3%	6.1%	2.6%	-0.7%	1.8%	12/2003
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%	12/2003
Excess		0.1%	-0.0%	0.1%	-0.0%	0.0%	

International Equity Benchmark: Since 12/01/2020 equals the MSCI ACWI ex-US(Net). From 01/01/2018 to 01/01/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 06/01/2008 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/01/2007 through 05/31/2008 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/01/2003 to 09/30/2007 the target was MSCI ACWI ex U.S. (net). From 01/01/2001 to 09/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 07/01/1999 to 12/31/2000 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 07/01/1999 to 09/30/2003, the weighting of each index fluctuated with market capitalization. From 10/1/2001 to 05/31/2002 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/1996 to 06/30/1999 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 05/01/1996, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/1996 fixed weights. Prior to 05/01/1996 it was 100% the EAFE Free (net).



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
Capital Preservation							
MONEY MARKET ACCOUNT	\$1,003,778,935	1.1%	5.0%	5.0%	3.0%	2.2%	07/1986
ICE BofA US 3-Month Treasury Bill		1.0%	4.7%	4.6%	2.8%	2.0%	07/1986
Excess		0.1%	0.3%	0.4%	0.3%	0.2%	
STABLE VALUE ACCOUNT	\$1,486,939,525	0.9%	3.4%	3.0%	2.6%	2.5%	11/1994
Fixed Interest Blended Benchmark		1.1%	4.5%	4.6%	3.3%	2.6%	11/1994
Excess		-0.2%	-1.0%	-1.6%	-0.6%	-0.2%	
Asset Allocation							
BALANCED FUND	\$123,491,573	7.6%	12.3%	13.0%	9.9%	9.0%	01/1980
SIF BALANCED FUND BENCHMARK		7.0%	11.7%	12.5%	9.4%	8.7%	01/1980
Excess		0.5%	0.6%	0.5%	0.4%	0.3%	
VANGUARD BALANCED INDEX FUND	\$1,594,375,397	7.4%	12.0%	12.5%	9.2%	8.6%	12/2003
Vanguard Balanced Fund Benchmark		7.1%	11.6%	12.4%	9.2%	8.6%	12/2003
Excess		0.3%	0.3%	0.1%	0.0%	0.0%	
VOLUNTEER FIREFIGHTER ACCOUNT	\$270,231,999	6.6%	11.6%	10.7%	7.4%	7.0%	01/2010
SIF Volunteer Firefighter Account BM		6.2%	11.1%	10.2%	6.9%	6.5%	01/2010
Excess		0.4%	0.5%	0.5%	0.5%	0.4%	

Fixed Interest Blended Benchmark: Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

SIF Balanced Fund Benchmark: Weighted 60% Russell 3000, 35% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.

SIF Volunteer Firefighter Account Benchmark: Weighted 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active Large-Cap Domestic Equity					
U.S. EQUITY ACTIVELY MANAGED FUND	24.3%	26.8%	-20.7%	23.4%	27.6%
Russell 3000	23.8%	26.0%	-19.2%	25.7%	20.9%
Excess	0.5%	0.9%	-1.5%	-2.2%	6.7%
VANGUARD DIVIDEND GROWTH FUND	9.0%	8.1%	-4.9%	24.8%	12.0%
VANGUARD DIVIDEND GROWTH INDEX	17.1%	14.5%	-9.7%	23.7%	15.6%
Excess	-8.0%	-6.4%	4.8%	1.1%	-3.6%
Passive Large-Cap Domestic Equity					
U.S. EQUITY INDEX FUND	23.8%	26.0%	-19.2%	26.2%	21.2%
Russell 3000	23.8%	26.0%	-19.2%	25.7%	20.9%
Excess	0.0%	0.1%	0.0%	0.5%	0.3%
VANGUARD TOTAL STOCK MARKET INDEX FUND	23.8%	26.0%	-19.5%	25.7%	21.2%
CRSP US Total Market Index	23.8%	26.0%	-19.5%	25.7%	21.0%
Excess	-0.0%	0.1%	-0.0%	0.0%	0.2%
VANGUARD INSTITUTIONAL INDEX FUND	25.0%	26.3%	-18.1%	28.7%	18.4%
S&P 500	25.0%	26.3%	-18.1%	28.7%	18.4%
Excess	-0.0%	-0.0%	-0.0%	-0.0%	0.0%
Passive Mid-Cap Domestic Equity					
VANGUARD MID-CAP INDEX FUND	15.2%	16.0%	-18.7%	24.5%	18.3%
CRSP US Mid Cap Index	15.3%	16.0%	-18.7%	24.5%	18.2%
Excess	-0.0%	0.0%	-0.0%	0.0%	0.0%
Active Small-Cap Domestic Equity					
T. ROWE PRICE SMALL-CAP FUND	11.7%	17.6%	-23.3%	16.8%	25.0%
Russell 2000	11.5%	16.9%	-20.4%	14.8%	20.0%
Excess	0.2%	0.6%	-2.9%	2.0%	5.0%



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Active International Equity					
BROAD INTERNATIONAL EQUITY FUND	7.8%	15.6%	-13.7%	9.0%	11.3%
International Equity Benchmark	5.5%	15.6%	-16.0%	7.8%	10.5%
Excess	2.2%	-0.1%	2.3%	1.2%	0.8%
FIDELITY DIVERSIFIED INTERNATIONAL TRUST					
FIDELITY DIVERSIFIED INTERNATIONAL TRUST	6.8%	17.7%	-23.4%	13.1%	19.8%
MSCI EAFE FREE (NET)	3.8%	18.2%	-14.5%	11.3%	7.8%
Excess	3.0%	-0.5%	-8.9%	1.8%	12.0%
Passive International Equity					
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	5.2%	15.5%	-16.0%	8.7%	11.3%
FTSE Global All Cap ex US Index Net	5.4%	15.6%	-16.2%	8.7%	11.1%
Excess	-0.2%	-0.0%	0.3%	-0.0%	0.2%
Active Fixed Income					
BOND FUND	1.9%	7.0%	-14.1%	-1.1%	9.7%
Bloomberg U.S. Aggregate	1.3%	5.5%	-13.0%	-1.5%	7.5%
Excess	0.6%	1.5%	-1.1%	0.5%	2.2%
DODGE & COX CORE BOND ACCOUNT					
DODGE & COX CORE BOND ACCOUNT	2.3%	7.7%	-10.9%	-0.9%	9.5%
Bloomberg U.S. Aggregate	1.3%	5.5%	-13.0%	-1.5%	7.5%
Excess	1.1%	2.2%	2.1%	0.6%	1.9%
Passive Fixed Income					
VANGUARD TOTAL BOND MARKET INDEX FUND	1.3%	5.7%	-13.1%	-1.7%	7.7%
Bloomberg U.S. Aggregate	1.3%	5.5%	-13.0%	-1.5%	7.5%
Excess	0.0%	0.2%	-0.1%	-0.1%	0.2%

International Equity Benchmark: Since 12/01/2020 equals the MSCI ACWI ex-US(Net). From 01/01/2018 to 01/01/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 06/01/2008 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/01/2007 through 05/31/2008 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/01/2003 to 09/30/2007 the target was MSCI ACWI ex U.S. (net). From 01/01/2001 to 09/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 07/01/1999 to 12/31/2000 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 07/01/1999 to 09/30/2003, the weighting of each index fluctuated with market capitalization. From 10/1/2001 to 05/31/2002 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/1996 to 06/30/1999 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 05/01/1996, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/1996 fixed weights. Prior to 05/01/1996 it was 100% the EAFE Free (net).



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Capital Preservation					
MONEY MARKET ACCOUNT	5.5%	5.4%	1.9%	0.1%	0.7%
ICE BofA US 3-Month Treasury Bill	5.3%	5.0%	1.5%	0.0%	0.7%
Excess	0.3%	0.4%	0.4%	0.1%	0.0%
STABLE VALUE ACCOUNT	3.3%	2.9%	2.1%	1.9%	2.5%
Fixed Interest Blended Benchmark	4.7%	4.8%	3.5%	0.9%	0.9%
Excess	-1.4%	-1.9%	-1.4%	1.0%	1.6%
Asset Allocation					
BALANCED FUND	14.8%	18.1%	-16.5%	15.1%	17.3%
SIF BALANCED FUND BENCHMARK	14.6%	17.5%	-15.8%	14.3%	15.9%
Excess	0.2%	0.6%	-0.7%	0.9%	1.4%
VANGUARD BALANCED INDEX FUND	14.6%	17.6%	-16.9%	14.2%	16.4%
Vanguard Balanced Fund Benchmark	14.4%	17.5%	-16.7%	14.2%	16.4%
Excess	0.2%	0.0%	-0.2%	-0.0%	-0.1%
VOLUNTEER FIREFIGHTER ACCOUNT	10.4%	14.7%	-15.2%	9.7%	14.7%
SIF Volunteer Firefighter Account BM	9.7%	14.0%	-14.7%	9.0%	13.1%
Excess	0.7%	0.7%	-0.5%	0.7%	1.6%

Fixed Interest Blended Benchmark: Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

SIF Balanced Fund Benchmark: Weighted 60% Russell 3000, 35% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.

SIF Volunteer Firefighter Account Benchmark: Weighted 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
MN TARGET DATE RETIREMENT INCOME FUND	\$421,827,405	4.1%	9.7%	7.3%	5.6%	4.9%	07/2011
INCOME FUND BENCHMARK		4.2%	9.7%	7.3%	5.6%	4.9%	07/2011
Excess		-0.1%	0.0%	0.0%	-0.0%	0.0%	
2030 MN TARGET DATE RETIREMENT FUND	\$292,335,915	5.4%	11.1%	9.5%	7.4%	6.9%	07/2011
2030 FUND BENCHMARK		5.4%	11.0%	9.5%	7.4%	6.9%	07/2011
Excess		-0.1%	0.1%	0.0%	0.0%	0.0%	
2035 MN TARGET DATE RETIREMENT FUND	\$270,969,659	7.1%	12.4%	11.4%	8.4%	7.6%	07/2011
2035 FUND BENCHMARK		7.3%	12.4%	11.4%	8.4%	7.6%	07/2011
Excess		-0.1%	0.0%	0.0%	0.0%	0.0%	
2040 MN TARGET DATE RETIREMENT FUND	\$234,252,649	8.2%	13.3%	12.4%	9.2%	8.1%	07/2011
2040 FUND BENCHMARK		8.4%	13.2%	12.4%	9.2%	8.1%	07/2011
Excess		-0.2%	0.0%	0.0%	-0.0%	0.0%	
2045 MN TARGET DATE RETIREMENT FUND	\$226,131,405	8.9%	14.0%	13.2%	9.9%	8.5%	07/2011
2045 FUND BENCHMARK		9.1%	13.9%	13.2%	9.9%	8.5%	07/2011
Excess		-0.2%	0.0%	0.0%	0.0%	0.0%	



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
2050 MN TARGET DATE RETIREMENT FUND	\$207,961,150	9.6%	14.6%	13.9%	10.6%	8.8%	07/2011
2050 FUND BENCHMARK		9.8%	14.5%	13.8%	10.6%	8.8%	07/2011
Excess		-0.2%	0.1%	0.0%	0.0%	0.0%	
2055 MN TARGET DATE RETIREMENT FUND	\$147,994,690	10.1%	15.1%	14.5%	11.1%	9.0%	07/2011
2055 FUND BENCHMARK		10.3%	15.0%	14.5%	11.1%	9.0%	07/2011
Excess		-0.2%	0.1%	0.0%	0.0%	0.0%	
2060 MN TARGET DATE RETIREMENT FUND	\$107,025,312	10.3%	15.4%	14.7%	11.2%	9.1%	07/2011
2060 FUND BENCHMARK		10.6%	15.3%	14.6%	11.1%	9.0%	07/2011
Excess		-0.2%	0.1%	0.0%	0.0%	0.0%	
2065 MN TARGET DATE RETIREMENT FUND	\$33,202,492	10.3%	15.4%	14.7%	11.2%		04/2020
2065 FUND BENCHMARK		10.6%	15.3%	14.6%	11.1%		04/2020
Excess		-0.2%	0.1%	0.0%	0.0%		

Note: Each SSgA Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
MN TARGET DATE RETIREMENT INCOME FUND	6.9%	9.7%	-11.0%	8.0%	9.7%
INCOME FUND BENCHMARK	6.9%	9.7%	-11.0%	8.1%	9.6%
Excess	0.0%	0.0%	-0.0%	-0.0%	0.1%
2030 MN TARGET DATE RETIREMENT FUND	8.6%	12.9%	-14.9%	11.0%	15.1%
2030 FUND BENCHMARK	8.6%	12.9%	-14.8%	11.0%	15.0%
Excess	0.0%	0.1%	-0.0%	0.0%	0.1%
2035 MN TARGET DATE RETIREMENT FUND	10.0%	15.8%	-17.0%	11.5%	17.5%
2035 FUND BENCHMARK	10.0%	15.7%	-17.0%	11.5%	17.5%
Excess	-0.0%	0.1%	-0.0%	0.0%	0.1%
2040 MN TARGET DATE RETIREMENT FUND	10.7%	17.0%	-17.9%	12.4%	18.4%
2040 FUND BENCHMARK	10.7%	16.9%	-17.9%	12.4%	18.4%
Excess	-0.0%	0.1%	-0.0%	-0.0%	0.1%
2045 MN TARGET DATE RETIREMENT FUND	11.4%	17.9%	-18.4%	13.3%	19.0%
2045 FUND BENCHMARK	11.5%	17.8%	-18.4%	13.3%	18.9%
Excess	-0.1%	0.1%	0.0%	0.0%	0.0%



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
2050 MN TARGET DATE RETIREMENT FUND	12.0%	18.7%	-18.8%	14.1%	19.5%
2050 FUND BENCHMARK	12.1%	18.6%	-18.8%	14.1%	19.5%
Excess	-0.1%	0.1%	0.0%	0.0%	0.0%
2055 MN TARGET DATE RETIREMENT FUND	12.6%	19.5%	-19.1%	14.6%	19.9%
2055 FUND BENCHMARK	12.7%	19.4%	-19.1%	14.6%	19.9%
Excess	-0.1%	0.1%	0.0%	0.0%	-0.1%
2060 MN TARGET DATE RETIREMENT FUND	12.8%	19.5%	-19.1%	14.6%	19.9%
2060 FUND BENCHMARK	12.8%	19.4%	-19.1%	14.6%	19.9%
Excess	-0.1%	0.1%	0.0%	0.0%	-0.1%
2065 MN TARGET DATE RETIREMENT FUND	12.8%	19.5%	-19.1%	14.6%	
2065 FUND BENCHMARK	12.8%	19.4%	-19.1%	14.6%	
Excess	-0.1%	0.1%	0.0%	0.0%	

Note: Each SSgA Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation

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Descriptions of Investment Options

Large-Cap Domestic Equity

U.S. Equity Actively Managed Fund

The fund invests alongside the Combined Funds by investing in the same asset class pools as the Domestic Equity Program. The actively managed strategies include investment managers benchmarked to various Russell styles, including large-cap growth and value, small-cap growth and value, and all-cap growth. The fund also invests in semi-passive investment managers benchmarked to a large-cap core style.

Vehicle: Supplemental Investment Fund (SIF) investment pool managed by the SBI.

Vanguard Dividend Growth Fund

An actively managed fund of dividend paying large cap stocks, which is expected to outperform the S&P U.S. Dividend Growers Index, over time. The fund focuses on high-quality companies that have a history of paying a stable dividend, or increasing the dividend, over time.

Vehicle: Investor share class Mutual Fund, VDIGX, managed by Wellington Capital.

U.S. Equity Index Fund

The fund invests in a passively managed Russell 3000 Index, which is a capitalization-weighted stock market index of the entire U.S. stock market.

Vehicle: Supplemental Investment Fund (SIF) investment pool managed by the SBI.

Vanguard Total Stock Market Index Fund

A passive domestic stock fund that tracks the CRSP US Total Market Index, which is a market-capitalization index comprised of the entire U.S. stock market.

Vehicle: Institutional share class Mutual Fund, VSMPX, managed by Vanguard.

Vanguard Institutional Index Fund

The fund invests in a passively managed S&P 500 strategy, which is a stock market index tracking the stock performance of 500 of the largest companies listed on stock exchanges in the U.S. stock market.

Vehicle: Institutional share class Mutual Fund, VIXX, managed by Vanguard.

Mid-Cap Domestic Equity

Vanguard Mid-Cap Index Fund

A passive domestic stock fund that tracks the CRSP U.S. Mid-Cap Index, which measures the investment return of U.S. mid-market capitalization stocks.

Vehicle: Institutional share class Mutual Fund, VMCPX, managed by Vanguard.

Small-Cap Domestic Equity

T. Rowe Price Small Cap Stock Fund

An actively managed fund that primarily invests in companies with small-market capitalization and is expected to outperform the Russell 2000 Index. The diversified portfolio will invest opportunistically across both growth and value stocks, while maintaining close sector allocations to the benchmark.

Vehicle: Institutional share class Mutual Fund, TRSSX, managed by T. Rowe Price.



Descriptions of Investment Options

International Equity

Broad International Equity Fund

The Fund invests alongside the Combined Funds by investing in the same asset class pools as the Combined Funds' International Equity Program. Active managers use a variety of investment styles and approaches as they seek to outperform the market. The Program's passive manager seeks to approximate the returns of the international markets in developed and emerging markets at a low cost. The Program's currency overlay program manager seeks to actively manage the portfolio's currency risk and provide a hedge against a decline in the value of the Fund's equity investments caused by currency fluctuations.

Vehicle: Supplemental Investment Fund (SIF) investment pool managed by the SBI.

Fidelity Diversified International Trust

An actively managed fund that invests in foreign market stocks and seeks to outperform the MSCI EAFE Index. The portfolio's universe includes non-U.S. common stocks with market capitalization consistent with the MSCI EAFE Index, though the portfolio's investable universe extends beyond the EAFE Index to include emerging market, Canadian, US, and other international stocks seeking to identify companies with superior growth prospects trading at attractive valuations.

Vehicle: Commingled Investment Trust (CIT) managed by Fidelity.

Vanguard Total International Stock Index Fund

A passive domestic stock fund that tracks the FTSE Global All Cap ex U.S. Index, which measures the investment return of stocks issued by companies located in developed and emerging countries, excluding the U.S.

Vehicle: Institutional share class Mutual Fund, VTPSX, managed by Vanguard.

Fixed Income

Bond Fund

The Fund invests alongside the Combined Funds Core/Core Plus Bond segment. Investment managers in the core bond strategy invest in high-quality fixed income securities across all investment-grade sectors of the market. Managers in the core plus bond strategy invest in high-quality fixed income securities and are also allowed expanded flexibility to invest in high-yield corporate bonds, international securities, and bonds issued by emerging market sovereign and corporate issuers.

Vehicle: Supplemental Investment Fund (SIF) investment pool managed by the SBI.



Descriptions of Investment Options

Fixed Income Cont'd:

Dodge & Cox Core Bond Account

An actively managed account that invests primarily in investment-grade securities in the U.S. bond market, which is expected to outperform the Bloomberg U.S. Aggregate Index over time. The strategy opportunistically pursues areas the benchmark may not cover, such as below investment-grade debt, debt of non-U.S. issuers, and other structured products.

Vehicle: Supplemental Investment Fund separately managed account invested by Dodge & Cox.

Vanguard Total Bond Market Index Fund

A passive bond fund that tracks the Bloomberg U.S. Aggregate Bond Index, which measures the investment grade, US dollar denominated, fixed-rate taxable bond market.

Vehicle: Institutional share class Mutual Fund, VBMPX, managed by Vanguard.

Capital Preservation

Money Market Account

The Account seeks to provide safety of principal, a high level of liquidity and a competitive yield. The Account's return is based on the interest income produced by the Account's investments. The Account performance is measured against the ICE BofA 3-Month Treasury Bill Index.

Vehicle: Commingled pool of assets managed by State Street Global Advisors, SSGA.

Stable Value Account

The Account seeks to preserve principal, maintain adequate liquidity to meet withdrawals, and generate a level of income consistent with a short- to intermediate-duration, high-quality fixed-income portfolio.

Vehicle: Supplemental Investment Fund (SIF) separately managed account invested by Galliard Global Asset Management.



Descriptions of Investment Options

Asset Allocation Funds

Balanced Fund

The Fund's long-term asset allocation is 60% in domestic equities, 35% in fixed income, and 5% in cash. The domestic equity allocation invests in the U.S. Equity Index Fund, the fixed income allocation invests in the Bond Fund, and the cash allocation invests in the Money Market Account.

Vehicle: Supplemental Investment Fund (SIF) investment pools managed by the SBI.

Vanguard Balanced Index Fund

A passive allocation fund that invests in a mix of domestic stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP U.S. Total Market Index and 40% Bloomberg U.S. Aggregate Bond Index.

Vehicle: Institutional share class Mutual Fund, VBAIX, managed by Vanguard.

Volunteer Firefighter Account

The Account's long-term asset allocation is 35% in domestic equities, 15% international equities, 55% in fixed income, and 5% in cash. The domestic equity allocation invests in the U.S. Equity Index Fund, the international equity allocation invests in the Broad International Equity Fund, the fixed income allocation invests in the Bond Fund and the Cash segment invests in the Money Market Account.

Vehicle: Supplemental Investment Fund investment pool managed by the SBI.

Minnesota Target Retirement Funds

The Minnesota Target Retirement Fund portfolios offer a diversified mix of stock and fixed income investments based on a targeted retirement date. Each target date fund gradually becomes more conservative, a lower equity allocation and higher fixed income allocation, as the fund nears the retirement date.

Vehicle: Commingled Investment Trust (CIT) managed by State Street Global Advisors, SSGA.



Eligible Investment Options Available by Plan

Eligible Investment Options Available By Plan																			
Investment Plan	U.S. Equity							International (Int'l) Equity			Fixed Income			Capital Preservation		Asset Allocation			
	U.S. Equity Actively Managed Fund ¹	Vanguard Dividend Growth Fund ²	U.S. Equity Index Fund ¹	Vanguard Total Stock Market Inst Index Fund ²	Vanguard Index Inst Plus Fund ²	Vanguard Mid-Cap Index Fund ²	T. Rowe Price Small Cap Fund ²	Broad Int'l Equity Fund ¹	Fidelity Int'l Equity CIT ²	Vanguard Total Int'l Stock Index Fund ²	Bond Fund ¹	Dodge & Cox Core Bond Account ²	Vanguard Total Bond Market Index Fund ²	Money Market Account ²	Stable Value Account ²	Balanced Fund ¹	Vanguard Balanced Index Fund ²	Volunteer Firefighter Account ¹	Target Retirement Fund ²
Other Public Retirement Funds																			
Individual Public Retirement Funds ³	X		X					X			X			X		X			
PERA Defined Contribution Plan	X		X					X			X			X	X	X			
Statewide Volunteer Firefighter Retirement Plan																		X	
Unclassified Retirement Plan		X		X		X	X			X		X	X	X	X		X		X
Volunteer Fire Relief Associations	X		X					X			X			X		X			
Tax-Advantaged Savings Plans																			
Health Care Savings Plan		X		X		X	X			X		X	X	X	X		X		
Hennepin County Supplemental Retirement Plan		X		X		X	X			X		X	X	X			X		
Minnesota Deferred Compensation Plan		X		X	X	X	X		X	X		X	X	X	X		X		X
Footnotes:																			
¹ Asset Class Investment Pool managed by the SBI.																			
² Single Manager Investment Option																			
³ Represents assets of any public retirement plan or fund authorized by statute to invest in the Asset Class Investment Pools managed by the SBI.																			
Investment options are available to all plans depending on the regulations, rules, statutes, and operational limitations specific to each plan. Investment vehicle type will vary.																			

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Quarterly Report

State-Sponsored Savings Plans

June 30, 2025

Important Notes:

All performance figures and market data presented are unaudited and preliminary. Performance history includes terminated managers and reflects the deduction of investment management fees, program management expenses, and state administrative fees. Performance greater than one year is annualized. Past performance does not guarantee future results.



State-Sponsored Savings Plan

Minnesota College Savings Plan

The Minnesota College Savings Plan is a tax-advantaged educational savings plan designed to help families save for future higher education expenses. The SBI oversees the investment options, and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan. The SBI and OHE have contracted jointly with TIAA-CREF Tuition Financing, Inc. (TFI) to provide administrative, marketing, communication, recordkeeping, and investment management services. Performance information is as reported by TFI. Descriptions of the available investment options and underlying investment funds follow the performance information.

MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: June 30, 2025

Total = \$2,241 Million

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
2042/2043 Enrollment Option	\$1,011,236						3.30%	5/16/2025
2042/2043 Custom Benchmark							3.30%	
2040/2041 Enrollment Option	\$45,986,369	8.10%	13.78%				15.57%	5/12/2023
2040-2041 Custom Benchmark		8.01%	13.57%				15.94%	
2038/2039 Enrollment Option	\$68,213,535	7.74%	13.34%	13.28%			5.99%	6/11/2021
2038-2039 Custom Benchmark		7.68%	13.24%	13.51%			6.06%	
2036/2037 Enrollment Option	\$132,480,777	7.46%	13.11%	12.82%	10.39%		9.29%	10/28/2019
2036-2037 Custom Benchmark		7.35%	12.90%	13.02%	10.62%		9.24%	
2034/2035 Enrollment Option	\$104,704,375	6.87%	12.53%	12.19%	9.85%		8.82%	10/28/2019
2034-2035 Custom Benchmark		6.78%	12.33%	12.38%	10.08%		8.78%	
2032/2033 Enrollment Option	\$106,587,665	5.97%	11.48%	11.12%	9.02%		8.18%	10/28/2019
2032-2033 Custom Benchmark		5.87%	11.39%	11.34%	9.29%		8.15%	
2030/2031 Enrollment Option	\$118,269,908	5.08%	10.30%	9.70%	7.94%		7.26%	10/28/2019
2030-2031 Custom Benchmark		5.03%	10.44%	10.06%	8.29%		7.31%	
2028/2029 Enrollment Option	\$138,062,937	4.07%	8.98%	8.25%	6.70%		6.21%	10/28/2019
2028-2029 Custom Benchmark		4.09%	9.33%	8.76%	7.10%		6.30%	
2026/2027 Enrollment Option	\$164,318,224	2.95%	7.10%	6.58%	5.30%		5.10%	10/28/2019
2026-2027 Custom Benchmark		3.05%	7.88%	7.43%	5.87%		5.36%	
In School Option	\$386,598,589	2.36%	5.92%	4.75%	3.30%		3.50%	10/28/2019
In School Custom Benchmark		2.59%	7.03%	6.05%	3.87%		3.76%	

MINNESOTA COLLEGE SAVINGS PLAN
Performance Statistics for the Period Ending: June 30, 2025

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
U.S. and International Equity Option BB: U.S. and International Equity Option	\$309,580,396	9.85% 9.83%	15.59% 15.40%	16.23% 16.48%	13.43% 13.72%	10.38% 10.36%	8.14% 8.76%	10/ 1/2001
Moderate Allocation Option BB: Moderate Allocation Option	\$129,409,753	6.39% 6.42%	11.95% 11.90%	11.02% 11.32%	8.34% 8.60%	7.28% 7.35%	6.15% 6.60%	8/ 2/2007
100% Fixed-Income Option BB: 100% Fixed-Income Option	\$21,235,747	1.44% 1.40%	6.48% 6.58%	3.46% 3.62%	0.68% 0.85%	2.19% 2.43%	2.99% 3.48%	8/16/2007
International Equity Index Option BB: International Equity Index Option	\$14,256,256	11.20% 11.84%	17.90% 17.32%	14.72% 14.80%	10.52% 10.39%	6.30% 6.26%	6.17% 6.19%	6/18/2013
Money Market Option BB: Money Market Option	\$45,271,658	0.99% 1.00%	4.51% 4.41%	4.47% 4.31%	2.70% 2.59%	1.81% 1.69%	1.16% 1.09%	11/ 1/2007
Principal Plus Interest Option Citigroup 3-Month U.S. Treasury Bill	\$84,068,652	0.75% 1.09%	3.01% 4.88%	2.42% 4.75%	2.01% 2.88%	1.85% 2.01%	2.37% 1.66%	10/10/2001
Aggressive Allocation Option BB: Aggressive Allocation Option	\$135,870,799	8.16% 8.12%	13.87% 13.65%	13.65% 13.90%	10.89% 11.17%	8.84% 8.88%	8.53% 8.52%	8/12/2014
Conservative Allocation Option BB: Conservative Allocation Option	\$21,913,776	3.89% 3.87%	8.46% 8.88%	7.04% 7.84%	4.88% 5.31%	4.69% 4.87%	4.44% 4.64%	8/18/2014
U.S. Large Cap Equity Option BB: U.S. Large Cap Equity Option	\$206,933,272	10.91% 10.94%	15.01% 15.16%	19.53% 19.71%	16.46% 16.64%	13.45% 13.65%	13.13% 13.26%	8/12/2014
Large Cap Responsible Equity Option BB: Social Choice Equity Option	\$5,016,721	12.30% 10.94%	15.02% 15.16%	18.08% 19.44%			9.11% 10.24%	6/11/2021
Matching Grant Citigroup 3-Month U.S. Treasury Bill	\$930,934	0.75% 1.09%	3.01% 4.88%	2.42% 4.75%	2.01% 2.88%	1.85% 2.01%	2.37% 1.66%	3/22/2002



Minnesota College Savings Plan Descriptions of Investment Options

Enrollment Year Investment Options:

The Enrollment-Based Managed Allocation options are a set of single fund options representing the year the beneficiary will enter higher education. The asset allocation adjusts automatically to a more conservative investment objective and level of risk as the enrollment year approaches.

Risk-Based Investment Options:

The Risk-Based Allocation options provide a fixed level of risk and do not change as the beneficiary ages. There are three separate Risk-Based Allocation options: Aggressive, Moderate, and Conservative.

Static Investment Options:

U.S. Large Cap Equity Option

Seeks to provide a favorable long-term total return mainly from capital appreciation. All assets of this options are invested in an underlying S&P 500 Index fund.

Large Cap Responsible Equity Option

Seeks to provide a favorable long-term total return mainly from capital appreciation. The underlying fund's evaluation process favors companies with leadership in ESG performance relative to their peers.

International Equity Index Option

Seeks to provide a favorable long-term total return, mainly from capital appreciation. Approximately 80% of the underlying fund is allocated to equity securities of issuers located in developed markets and 20% is allocated to equity securities of issuers located in emerging markets.

U.S. and International Equity Option

Seeks to provide a favorable long-term total return, mainly from capital appreciation, by allocating primarily to a blend of equity and real estate-related securities. Approximately 60% of the underlying fund is allocated to U.S. equities, 24% to international developed markets equities, 6% to emerging markets equities, and 10% to real estate-related securities.



Minnesota College Savings Plan Descriptions of Investment Options

Static Investment Options Cont'd:

100% Fixed Income Option

Seeks to provide preservation of capital along with a moderate rate of return through a diversified mix of fixed income investments. Approximately 70% of the underlying fund is allocated to public, investment-grade, taxable fixed income securities denominated in U.S. dollars, 20% to inflation-linked bonds, and 10% to high-yield bonds.

Money Market Option

Seeks to provide current income consistent with preserving capital. The underlying fund mainly invests in cash, U.S. government securities, and repurchase agreements that are collateralized fully by cash or U.S. government securities.

Principal Plus Interest Option

Seeks to preserve capital and provide a stable return. The assets in this investment option are allocated to a funding agreement issued by TIAA-CREF Life. The funding agreement provides for safety of principal and a minimum guaranteed rate of return declared in advance for a period of up to 12 months.



Minnesota College Savings Plan Descriptions of Underlying Investment Funds

Underlying Investment Funds:

Nuveen Equity Index Fund (TIEIX)	A passive domestic all-cap stock fund that tracks the Russell 3000 Index.
Nuveen S&P 500 Index Fund (TISPX)	A passive domestic stock fund that tracks the S&P 500 Index.
Nuveen Large Cap Responsible Equity Fund (TISCX)	An active domestic stock fund that attempts to achieve the return of the U.S. equity market as represented by its benchmark, the S&P 500 Index, while investing in companies whose activities are consistent with the Fund's ESG criteria.
Nuveen International Equity Index Fund (TCIEX)	A passive international fund that tracks the MSCI EAFE Index.
Vanguard Emerging Markets Stock Index Fund (VEMIX)	A passive emerging markets fund that tracks the Vanguard Spliced Emerging Markets Index.
DFA Real Estate Securities Fund (DFREX)	An active fund investing in a diversified portfolio of domestic Real Estate Investment Trusts (REITs).
Vanguard Total Bond Market Index Fund (VBMPX)	A passive domestic bond fund that provides broad exposure to investment-grade bonds and tracks the Bloomberg U.S. Aggregate Float Adjusted Index.
Vanguard Short-Term Inflation Protected Securities Index Fund (VTSPX)	A passive inflation-protected bond fund that tracks the Bloomberg U.S. 0-5 Year TIPS Index.
Vanguard High-Yield Corporate Fund (VWEAX)	An active fund that invests in a diversified portfolio of higher-risk corporate bonds with medium- and lower-range credit quality ratings.
Nuveen Money Market Fund (TCIXX)	An active fund that invests in high-quality, short-term money market instruments such as cash, U.S. government securities, and repurchase agreements that are collateralized fully by cash or U.S. government securities.
TIAA-CREF Life Funding Agreement	A passive investment option issued by TIAA-CREF Life that provides a minimum guaranteed rate of return.



State-Sponsored Savings Plans

Minnesota Achieving a Better Life Experience (ABLE) Plan

The Minnesota Achieving a Better Life Experience (ABLE) Plan is a tax-advantaged savings plan designed to help families save for qualified disability expenses without losing eligibility for certain assistance programs. The SBI is responsible for the investments and the Minnesota Department of Human Services (DHS) is responsible for the overall administration of the Plan. Minnesota is part of the National ABLE Alliance, which is a consortium of nineteen states and territories in order to gain efficiencies of scale as part of the contract with Ascensus. Ascensus provides administrative, recordkeeping, and investment management services. Performance information is as reported by Ascensus. Descriptions of the available investment options and underlying investment funds follow the performance information.

MINNESOTABLE^{plan}

A member of The National ABLE Alliance

Performance as of
June 30, 2025

Total Market Value:		\$62,301,154								
Fund Name	Market Value	% of Plan	3 Months	YTD	1 Year	Annualized			Inception	Inception Date
						3 Year	5 Year	10 Year		
Aggressive Option	\$5,497,237	8.82%	9.38	8.89	16.20	14.18	11.46		9.56	12/15/16
ABLE Aggressive Custom Benchmark			9.54	8.79	16.35	14.56	11.75		9.92	
Variance			(0.16)	0.10	(0.15)	(0.38)	(0.29)		(0.36)	
Moderately Aggressive Option	\$5,852,970	9.39%	8.01	8.07	14.59	12.34	9.75		8.42	12/15/16
ABLE Moderately Aggressive Custom Benchmark			8.10	7.94	14.73	12.70	10.06		8.77	
Variance			(0.09)	0.13	(0.14)	(0.36)	(0.31)		(0.35)	
Growth Option	\$7,932,368	12.73%	6.76	7.33	12.87	10.50	8.07		7.23	12/15/16
ABLE Growth Custom Benchmark			6.76	7.17	13.03	10.87	8.37		7.58	
Variance			0.00	0.16	(0.16)	(0.37)	(0.30)		(0.35)	
Moderate Option	\$7,583,092	12.17%	5.37	6.46	11.12	8.64	6.35		6.03	12/15/16
ABLE Moderate Custom Benchmark			5.33	6.30	11.34	9.01	6.65		6.35	
Variance			0.04	0.16	(0.22)	(0.37)	(0.30)		(0.32)	
Moderately Conservative Option	\$6,246,875	10.03%	3.84	5.01	8.94	7.05	5.02		4.75	12/15/16
ABLE Moderately Conservative Custom Benchmark			3.88	4.96	9.24	7.53	5.32		5.07	
Variance			(0.04)	0.05	(0.30)	(0.48)	(0.30)		(0.32)	
Conservative Option	\$10,606,020	17.02%	2.07	3.30	6.03	4.85	3.13		2.96	12/15/16
ABLE Conservative Custom Benchmark			2.03	3.26	6.50	5.50	3.49		3.27	
Variance			0.04	0.04	(0.47)	(0.65)	(0.36)		(0.31)	
Money Market Option	\$884,896	1.42%	0.99	2.00					2.20	12/13/24
ABLE Money Market Benchmark			1.07	2.13					2.33	
Variance			(0.08)	(0.13)					(0.13)	
Checking Account Option	\$17,697,696	28.41%								03/30/17



Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Investment Options

Investment Options: Aggressive Option	The investment option seeks to provide long-term capital appreciation. Approximately 90% of the assets are allocated to equities and 10% to investment-grade fixed income.
Moderately Aggressive Option	The investment option seeks to provide long-term capital appreciation with low current income potential. Approximately 75% of the assets are allocated to equities and 25% to investment-grade fixed income.
Growth Option	The investment option seeks to provide capital appreciation and low current income. Approximately 60% of the assets are allocated to equities and 40% to investment-grade fixed income.
Moderate Option	The investment option seeks to provide capital appreciation and secondarily provide moderate current income. Approximately 45% of the assets are allocated to equities and 55% to investment-grade fixed income.
Moderately Conservative Option	The investment option seeks to provide moderate current income and low capital appreciation. Approximately 30% of the assets are allocated to equities, 45% to investment-grade fixed income, and 25% to cash.
Conservative Option	The investment option seeks to provide substantial capital preservation, limited current income and very low capital appreciation. Approximately 10% of the assets are allocated to equities, 30% to investment-grade fixed income, and 60% to cash.



Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Investment Options

Investment Options Cont'd:

Money Market Option

The investment option seeks to provide income consistent with the preservation of principal and invests all of its assets in the Vanguard Cash Reserves Federal Money Market Fund.

Checking Account Option

The Checking Account Option invests 100% of its assets in FDIC-insured checking accounts held at Fifth Third Bank.



Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Underlying Investment Funds

Underlying Investment Funds:

Vanguard Total Stock Market Index Fund (VSMPX)	A passive domestic stock fund that tracks the CRSP U.S. Total Market Index.
Vanguard Developed Markets Index Fund (VTMNX)	A passive international stock fund that tracks the Vanguard Spliced Developed ex U.S. Index.
Vanguard Emerging Markets Stock Index Fund (VEMIX)	A passive emerging markets fund that tracks the Vanguard Spliced Emerging Markets Index.
Schwab U.S. REIT ETF (SCHH)	A passive Real Estate Investment Trust (REIT) fund that tracks the Dow Jones Equity All REIT Capped Index.
Vanguard Total Bond Market Index Fund (VBMPX)	A passive domestic bond fund that provides broad exposure to investment-grade bonds and tracks the Bloomberg U.S. Aggregate Float Adjusted Index.
Vanguard Short-Term Bond Index Fund (VBIPX)	A passive short-term bond fund that tracks the Bloomberg U.S. 1–5 Year Government/Credit Float Adjusted Index.
Vanguard Short-Term Inflation-Protected Securities Index Fund (VTSPX)	A passive inflation-protected bond fund that tracks the Bloomberg U.S. 0-5 Year TIPS Index.
American Funds High-Income Fund (HIGFX)	An active fund that invests in a diversified portfolio of higher yielding corporate bonds with lower credit quality ratings.
iShares Core International Aggregate Bond ETF (IAGG)	A passive international investment-grade bond fund that tracks the Bloomberg Global Aggregate ex USD 10% Issuer Capped (Hedged) Index.
Vanguard Cash Reserves Federal Money Market Fund (VMRXX)	An active fund that invests in high-quality, short-term money market instruments such as cash, U.S. government securities, and repurchase agreements that are collateralized solely by cash or U.S. government securities.



Quarterly Report

Non-Retirement Investment Program

June 30, 2025



Non-Retirement Investment Program

Non-Retirement Investment Program

The SBI established the Non-Retirement Funds to provide eligible Minnesota public sector entities with the opportunity to invest in broad asset class options to aid them in achieving their investment objectives. Eligible Minnesota public sector entities include designated trust funds, Other Postemployment Benefit (OPEB) trusts, Qualifying Governmental Entities, and other programs created by the Minnesota Constitution and Legislature.



Performance of Investment Options

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Non-Retirement Funds									
NON-RETIREMENT EQUITY FUND - MELLON	\$3,837,730,633	10.9%	15.1%	15.1%	19.7%	16.6%	13.6%	10.7%	07/1993
S&P 500 (DAILY)		10.9%	15.2%	15.2%	19.7%	16.6%	13.6%	10.6%	07/1993
Excess		-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	0.0%	
NON-RETIREMENT BOND FUND - PGIM	\$1,915,997,839	1.2%	6.4%	6.4%	3.1%	-0.3%	2.1%	5.0%	07/1994
Bloomberg U.S. Aggregate		1.2%	6.1%	6.1%	2.5%	-0.7%	1.8%	4.6%	07/1994
Excess		0.0%	0.3%	0.3%	0.6%	0.5%	0.3%	0.5%	
NON-RETIREMENT MONEY MARKET FUND	\$688,475,337	1.1%	5.0%	5.0%	4.8%	3.0%		2.6%	12/2017
ICE BofA US 3-Month Treasury Bill		1.0%	4.7%	4.7%	4.6%	2.8%		2.5%	12/2017
Excess		0.1%	0.3%	0.3%	0.3%	0.2%		0.1%	
Non-Retirement Separate Accounts									
ASSIGNED RISK PLAN FIXED INCOME PORTFOLIO - RBC	\$228,283,892	1.4%	6.2%	6.2%	2.8%	0.2%	1.6%	4.3%	07/1991
ARP Fixed Income Portfolio Benchmark		1.5%	6.3%	6.3%	2.8%	0.2%	1.5%	4.3%	07/1991
Excess		-0.0%	-0.1%	-0.1%	-0.0%	0.1%	0.1%	-0.1%	
DULUTH OPEB LADDERED BOND FUND	\$111,441,566	0.1%	4.2%	4.2%				4.8%	07/2024
MET COUNCIL OPEB LADDERED BOND FUND	\$127,823,923	1.3%	6.1%	6.1%	3.2%	1.0%			02/2009

Note: The current benchmark for the Assigned Risk Plan Fixed Income Portfolio, ARP Fixed Income Portfolio Benchmark, is the Bloomberg U.S. Government Intermediate Index. Prior to 12/1/17, the Non-Retirement Equity Fund and Non-Retirement Fixed Income Funds were managed internally by SBI staff.



Performance of Investment Options

	<u>2024 Calendar Return</u>	<u>2023 Calendar Return</u>	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>
Non-Retirement Funds					
NON-RETIREMENT EQUITY FUND - MELLON	25.0%	26.3%	-18.1%	28.7%	18.4%
S&P 500 (DAILY)	25.0%	26.3%	-18.1%	28.7%	18.4%
Excess	-0.0%	-0.0%	-0.0%	-0.0%	0.0%
NON-RETIREMENT BOND FUND - PGIM	2.1%	6.3%	-13.6%	-1.5%	8.2%
Bloomberg U.S. Aggregate	1.3%	5.5%	-13.0%	-1.5%	7.5%
Excess	0.8%	0.8%	-0.6%	0.0%	0.7%
NON-RETIREMENT MONEY MARKET FUND	5.5%	5.3%	1.7%	0.1%	0.6%
ICE BofA US 3-Month Treasury Bill	5.3%	5.0%	1.5%	0.0%	0.7%
Excess	0.2%	0.3%	0.2%	0.0%	-0.1%
Non-Retirement Separate Accounts					
ASSIGNED RISK PLAN FIXED INCOME PORTFOLIO - RBC	2.3%	4.5%	-7.6%	-1.6%	6.0%
ARP Fixed Income Portfolio Benchmark	2.4%	4.3%	-7.7%	-1.7%	5.7%
Excess	-0.1%	0.1%	0.1%	0.1%	0.3%
DULUTH OPEB LADDERED BOND FUND					
MET COUNCIL OPEB LADDERED BOND FUND	3.6%	4.1%	-5.6%	-0.4%	3.0%

Note:

The current benchmark for the Assigned Risk Plan Fixed Income Portfolio, ARP Fixed Income Portfolio Benchmark, is the Bloomberg U.S. Government Intermediate Index. Prior to 12/1/17, the Non-Retirement Equity Fund and Non-Retirement Fixed Income Funds were managed internally by SBI staff.



Descriptions of Investment Options

Funds:

Non-Retirement Equity Fund

The Non-Retirement Equity Fund is passively managed to provide investors with exposure to large-cap domestic equities. It is available to state and other trust funds, OPEB accounts, and Qualifying Governmental Entities. Mellon Investments Corporation passively manages this Fund in a separate account that seeks to track the performance of the S&P 500 Index.

Non-Retirement Bond Fund

The Non-Retirement Bond Fund is actively managed to provide investors with exposure to investment grade fixed income securities. It is available to state and other trust funds and OPEB accounts. This Fund is actively managed by Prudential Global Investment Management (PGIM) and seeks to outperform the Bloomberg U.S. Aggregate Bond Index.

Non-Retirement Money Market Fund

The Non-Retirement Money Market Fund invests in high-quality short-term cash investments with the objective of providing current income and protecting invested principal. Entities that may invest in the Fund include state and other trust funds and OPEB accounts. State Street Global Advisors manages this Fund. The SBI measures the Non-Retirement Money Market Fund against the iMoneyNet All Taxable Money Fund Average.



Descriptions of Investment Options

Separate Accounts:

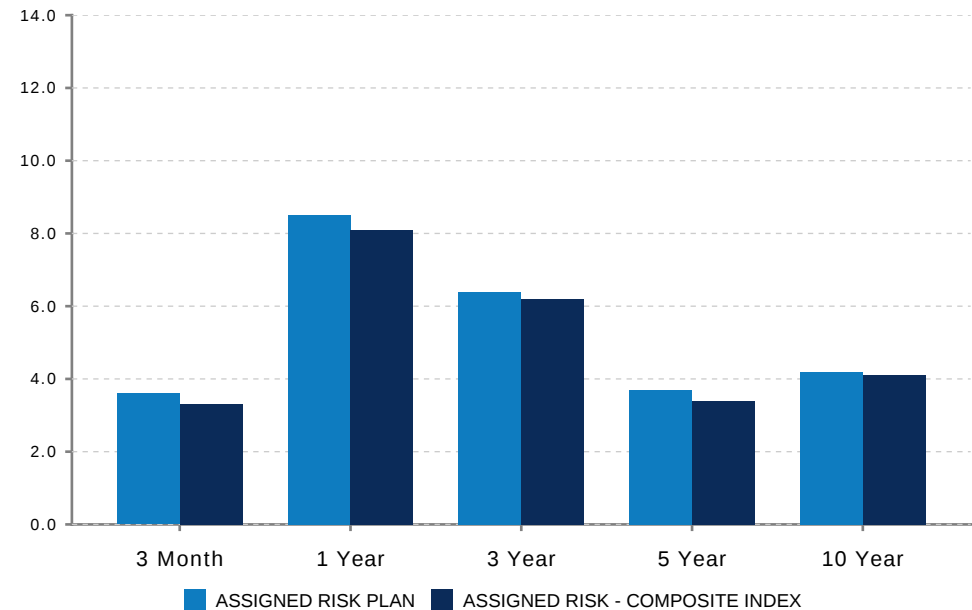
Assigned Risk Plan - Fixed Income Portfolio	The Assigned Risk Plan fixed income portfolio is actively managed by RBC Global Asset Management to provide income and preserve invested principal to support the payment of worker compensation claims. Because of the uncertainty of the timing and size of premiums and liability cash flows, the assets are invested conservatively in a portfolio of high-quality fixed-income securities. The Assigned Risk Plan fixed income portfolio is benchmarked to the Bloomberg U.S. Government Intermediate Index, which consists of high-quality, U.S. dollar-denominated, fixed income securities issued by the U.S. Government and its agencies with maturities up to 10 years.
Duluth OPEB Laddered Bond	The City of Duluth first invested with the SBI in July 2007. The City of Duluth is responsible for determining the asset allocation for this account. As of June 30, 2024, the portfolio was invested entirely in a laddered bond portfolio. Before transitioning to this strategy in June 2024, the portfolio was allocated between the Non-Retirement Equity Fund and the Non-Retirement Bond Fund.
Met Council OPEB Laddered Bond	The Metropolitan Council is the regional policy-making body, planning agency, and provider of essential services for the Twin Cities metropolitan region. The Met Council OPEB Bond account contains assets set aside to fund future OPEB liabilities. OPEB account assets are allocated at the Met Council’s direction.

Assigned Risk Quarter-End Review

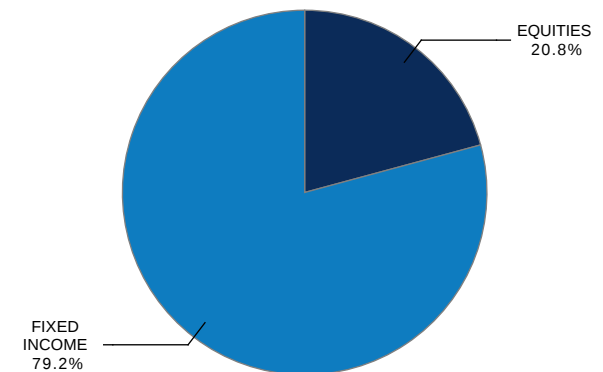
Assigned Risk Plan

The Assigned Risk Plan has two investment objectives: to minimize any mismatch between assets and liabilities, and to provide sufficient liquidity to pay ongoing claims and operating expenses.

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The equity segment is passively managed and seeks to track the performance of the S&P 500 Index. The fixed income segment is actively managed and seeks to outperform the Bloomberg U.S. Government Intermediate Index. The Assigned Risk Plan's benchmark is a combination of the equity and fixed income benchmarks, weighted according to the asset allocation targets of 20% equities and 80% fixed income. The actual asset mix will fluctuate and is shown in the pie graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
ASSIGNED RISK PLAN	\$288,410,785	3.6%	8.5%	6.4%	3.7%	4.2%
EQUITIES	\$60,126,802	10.9%	15.1%	19.7%	16.6%	13.2%
FIXED INCOME	\$228,283,983	1.4%	6.2%	2.8%	0.2%	1.6%
ASSIGNED RISK - COMPOSITE INDEX		3.3%	8.1%	6.2%	3.4%	4.1%
Excess		0.3%	0.4%	0.2%	0.2%	0.2%
S&P 500		10.9%	15.2%	19.7%	16.6%	13.6%
Bloomberg U.S. Government: Intermediate		1.5%	6.3%	2.8%	0.2%	1.5%



Note: Since 12/1/2017 the Assigned Risk equity segment has been managed by Mellon. From 1/17/2017-11/30/2017 it was managed internally by SBI staff. Prior to 1/17/2017 the equity segment was managed by SSgA (formerly GE Investment Mgmt.). RBC manages the fixed income segment of the Fund.

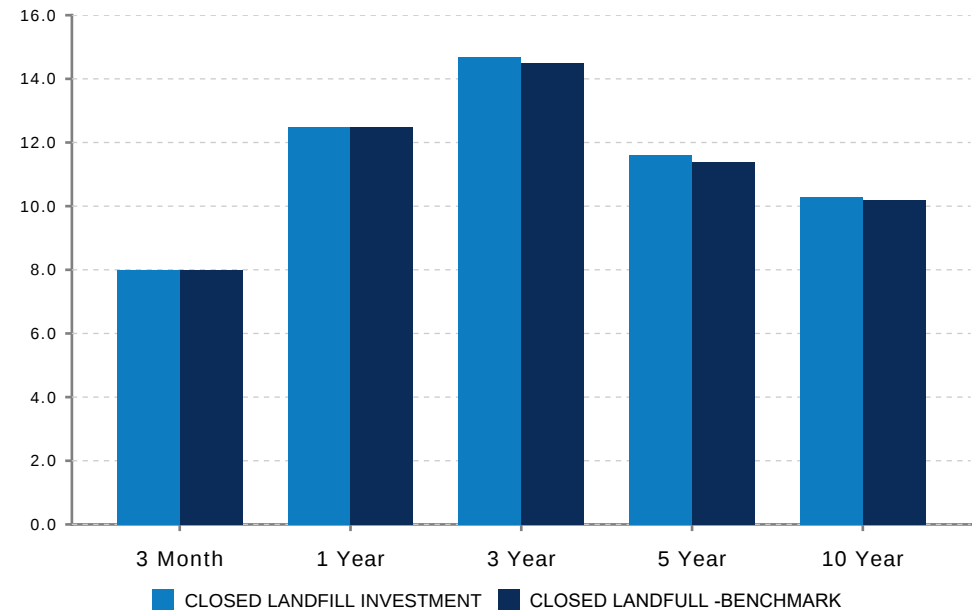


Closed Landfill Investment Fund Quarter-End Review

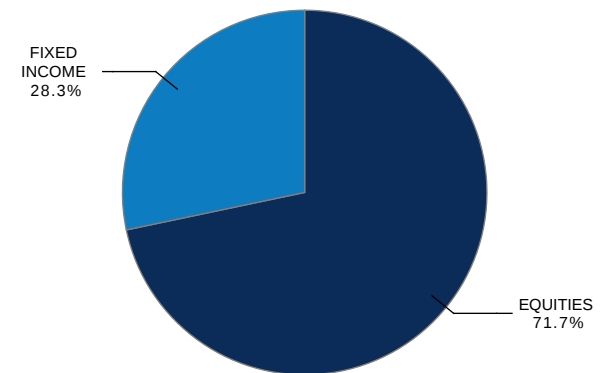
Closed Landfill Investment Fund

The investment objective of the Closed Landfill Investment Fund is to grow the value of the Fund to meet future expenditure needs while maintaining an appropriate level of market risk.

The Closed Landfill Investment Fund is invested in a portfolio of common stocks and bonds. The equity segment is passively managed and seeks to track the performance of the S&P 500 Index. The fixed income segment is actively managed and seeks to outperform the Bloomberg U.S. Aggregate Bond Index. The Closed Landfill Investment Fund's benchmark is a combination of the equity and fixed income benchmarks, weighted according to the asset allocation targets of 70% equities and 30% fixed income. The actual asset mix will fluctuate and is shown in the pie graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	\$165,503,695	8.0%	12.5%	14.7%	11.6%	10.3%
EQUITIES	\$118,626,521	10.9%	15.1%	19.7%	16.6%	13.6%
FIXED INCOME	\$46,877,175	1.2%	6.4%	3.1%	-0.3%	2.1%
CLOSED LANDFILL -BENCHMARK		8.0%	12.5%	14.5%	11.4%	10.2%
Excess		0.0%	0.0%	0.2%	0.3%	0.1%
S&P 500		10.9%	15.2%	19.7%	16.6%	13.6%
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by PGIM. Prior to 12/1/2017 both segments were managed internally by SBI staff. Prior to 9/10/14 the Fund's target allocation and benchmark was 100% domestic equity.

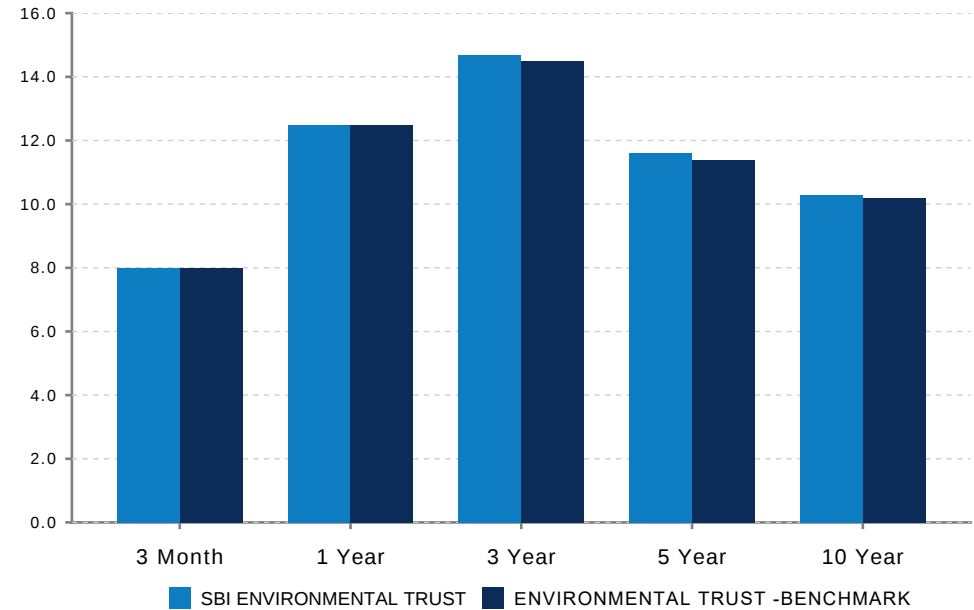


Environmental Trust Fund Quarter-End Review

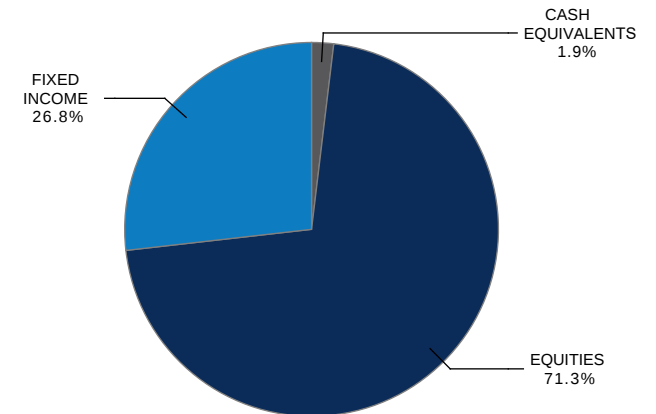
Environmental Trust Fund

The investment objective of the Environmental Trust Fund is to generate long-term capital growth to support a growing level of funding while maintaining adequate portfolio liquidity.

The Environmental Trust Fund is invested in a portfolio of common stocks, bonds, and cash. The equity segment is passively managed and seeks to track the performance of the S&P 500 Index. The fixed income segment is actively managed and seeks to outperform the Bloomberg U.S. Aggregate Bond Index. The cash segment is actively managed and seeks to outperform the iMoneyNet Money Fund Average. The Environmental Trust Fund's benchmark is a combination of the equity, fixed income, and cash benchmarks, weighted according to the asset allocation targets of 70% equities, 28% fixed income, and 2% cash. The actual asset mix will fluctuate and is shown in the pie graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
ENVIRONMENTAL TRUST	\$2,070,707,644	8.0%	12.5%	14.7%	11.6%	10.3%
CASH EQUIVALENTS	\$39,043,356	1.1%	4.9%	4.8%	2.9%	2.1%
EQUITIES	\$1,477,300,591	10.9%	15.1%	19.7%	16.6%	13.6%
FIXED INCOME	\$554,363,696	1.2%	6.4%	3.1%	-0.3%	2.1%
ENVIRONMENTAL TRUST -BENCHMARK		8.0%	12.5%	14.5%	11.4%	10.2%
Excess		-0.0%	0.1%	0.1%	0.2%	0.1%
S&P 500		10.9%	15.2%	19.7%	16.6%	13.6%
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%
iMoneyNet Money Fund Average		1.0%	4.4%	4.3%	2.6%	1.7%



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by PGIM. Prior to 12/1/2017 both segments were managed internally by SBI staff. From 7/1/94 to 7/1/99, the Fund's target allocation and benchmark was 50% fixed income and 50% stock. Prior to 7/1/94 the Fund was invested entirely in short-term instruments as part of the Invested Treasurer's Cash pool.

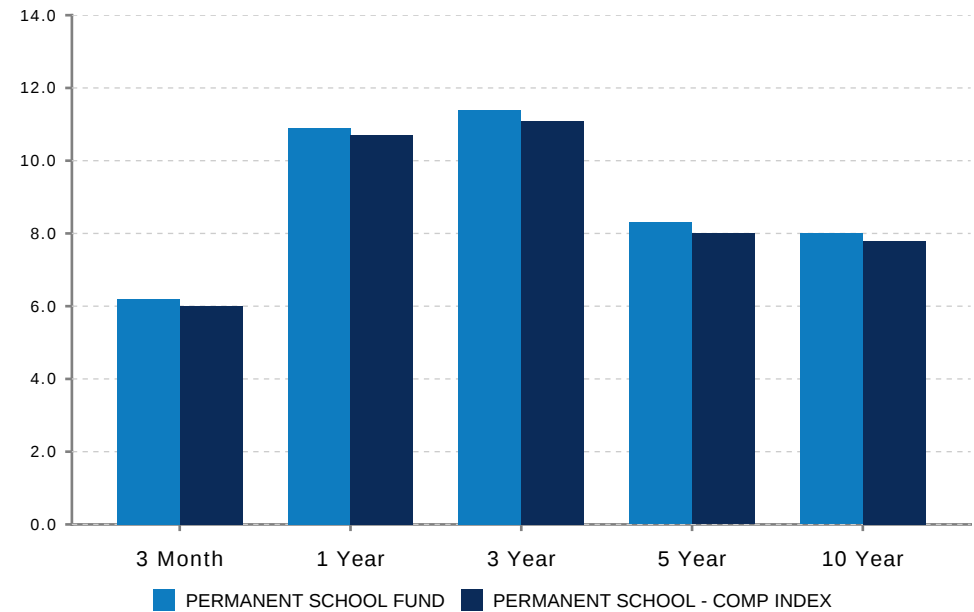


Permanent School Fund Quarter-End Review

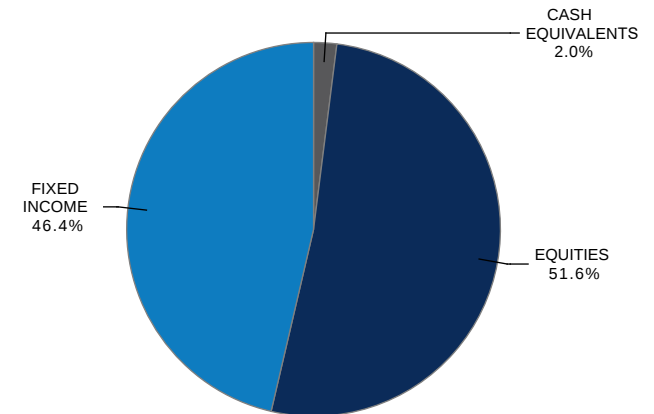
Permanent School Fund

The investment objectives of the Permanent School Fund are to produce annual distributions in support of Minnesota schools while maintaining the Fund as a perpetual financial resource. The Permanent School Fund's investment objectives are dictated by the legal provisions under which its investments must be managed.

The Permanent School Fund is invested in a portfolio of common stocks, bonds, and cash. The equity segment is passively managed and seeks to track the performance of the S&P 500 Index. The fixed income segment is actively managed and seeks to outperform the Bloomberg U.S. Aggregate Bond Index. The cash segment is actively managed and seeks to outperform the iMoneyNet Money Fund Average. The Permanent School Fund's benchmark is a combination of the equity, fixed income, and cash benchmarks, weighted according to the asset allocation targets of 50% equities, 48% fixed income, and 2% cash. The actual asset mix will fluctuate and is shown in the pie graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	\$2,316,674,901	6.2%	10.9%	11.4%	8.3%	8.0%
CASH EQUIVALENTS	\$45,453,501	1.1%	4.9%	4.8%	2.9%	2.1%
EQUITIES	\$1,197,357,226	10.9%	15.1%	19.7%	16.6%	13.6%
FIXED INCOME	\$1,073,864,174	1.2%	6.4%	3.1%	-0.3%	2.1%
PERMANENT SCHOOL - COMP INDEX		6.0%	10.7%	11.1%	8.0%	7.8%
Excess		0.2%	0.2%	0.3%	0.4%	0.2%
S&P 500		10.9%	15.2%	19.7%	16.6%	13.6%
Bloomberg U.S. Aggregate		1.2%	6.1%	2.5%	-0.7%	1.8%
iMoneyNet Money Fund Average		1.0%	4.4%	4.3%	2.6%	1.7%



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by PGIM. Prior to 12/1/2017 both segments were managed internally by SBI staff.



Quarterly Report

State Cash

June 30, 2025



State Cash Accounts

Invested Treasurer's Cash

The Invested Treasurer's Cash Pool (ITC) represents the balances in more than 400 separate accounts that flow through the Minnesota State Treasury. These accounts vary greatly in size. The ITC contains the cash balances of certain State agencies and non-dedicated cash in the State Treasury.

The investment objectives of the ITC, in order of priority, are as follows:

- Safety of Principal. To preserve capital.
- Liquidity. To meet cash needs without the forced sale of securities at a loss.
- Competitive Rate of Return. To provide a level of current income consistent with the goal of preserving capital.

The SBI seeks to provide safety of principal by investing all cash accounts in high quality, liquid, short term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Treasurer's Cash	29,610,483,474	1.1	5.0	4.8	2.7	2.0
iMoneyNet Money Fund Average-All Taxable		1.0	4.4	4.3	2.6	1.7

Other State Cash Accounts

Due to differing investment objectives, strategies, and time horizons, some State agencies' accounts are invested separately. These agencies direct the investments or provide the SBI with investment guidelines and the SBI executes on their behalf. Consequently, returns are shown for informational purposes only and there are no benchmarks for these accounts.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Debt Service	133,174,425	1.6	4.7	3.9	1.8	2.1
Housing Finance	504,287,746	1.0	5.0			



Addendum

Combined Funds Benchmark Definitions

Active Domestic Equity Benchmark:

A weighted composite each of the individual active domestic equity managers' benchmarks. Effective 3/1/2017 the calculation uses the average weight of the manager relative to the total group of active managers during the month. Prior to 3/1/2017 the beginning of the month weight relative to the total group was used.

Benchmark DM:

Since 6/1/08 the developed markets managers' benchmark, "Benchmark DM," is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net). Prior to that date, it was the MSCI EAFE Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI EAFE Free (net).

Benchmark EM:

Since 6/1/08 the emerging markets managers' benchmark, "Benchmark EM," is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was the MSCI Emerging Markets Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI Emerging Markets Free (net). Prior to 1/1/01, it was the MSCI Emerging Markets Free (gross).

Combined Funds Composite Index:

The Composite Index performance is calculated by multiplying the beginning of month Composite weights by the monthly returns of the asset class benchmarks. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. From 1/1/2018-2/28/2019 the Transitional Policy Target was used to reflect the addition of Treasuries to the Fixed Income portfolio. From 7/1/2016-12/31/2016 the composite weights were set to match actual allocation as the portfolio was brought into line with the new Strategic Asset Allocation Policy Target. 7/1/2016 to 12/1/2020 the uninvested portion of Private Markets allocated to Public Equity. Prior to 7/1/2016 the uninvested portion of the Private Markets was invested in Fixed Income and the Composite Index was adjusted accordingly. When the Strategic Asset Allocation Policy Target changes, so does the Composite Index.

Core Bonds Benchmark:

The Core Bonds Benchmark is the Bloomberg U.S. Aggregate. Prior to 2016 this index was called the Barclays Agg. Prior to 9/18/2008 this index was called the Lehman Brothers Aggregate Bond Index. From 7/1/84-6/30/94 the asset class benchmark was the Salomon Brothers Broad Investment Grade Index. The SBI name for this benchmark changed from Fixed Income to Core Bonds on March 31, 2020.

Credit Plus Benchmark:

40% Bloomberg US Corporate Bond Index, 30% Bloomberg US Mortgage Backed Index, 20% BofA ML US High Yield BB-B Cash Pay Constrained Index, and 10% JPM EMBI Global Diversified Index.



Addendum

Domestic Equity Benchmark:

Since 12/1/2020 the benchmark is the Russell 3000. From 1/1/2019-11/30/2020 the benchmark was 90% Russell 1000 and 10% Russell 2000. From 10/1/2003 to 12/31/2018 it was the Russell 3000. From 7/1/1999 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/1999, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Fixed Interest Blended Benchmark: Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

International Equity Benchmark:

Since 12/1/2020 equals the MSCI ACWI ex-US(Net). From 1/1/2018 to 1/1/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 6/1/08 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 7/1/99 to 12/31/00 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 7/1/99 to 9/30/03, the weighting of each index fluctuated with market capitalization. From 10/1/01 to 5/31/02 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 5/1/96, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/96 fixed weights. Prior to 5/1/96 it was 100% the EAFE Free (net).

Multi-Asset Credit Benchmark:

33.33% ICE BofA High Yield, 33.33% S&P LSTA Leveraged Loan, and 33.33% JPM EMBI Global Diversified Index.

Passive Domestic Equity Benchmark:

A weighted average of the Russell 1000, Russell 2000 and Russell 3000 effective 11/1/2018. From 10/1/2016 to 11/1/2018 it was a weighted average of the Russell 1000 and Russell 3000. From 10/1/2003 to 10/1/2016 it was equal to the Russell 3000. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Passive Manager Benchmark:

Russell 3000 effective 10/1/2003. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.



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Public Equity Benchmark:

Since 12/1/2020 it is 67% Russell 3000 and 33% MSCI ACWI ex-US(net). From 1/1/2019 to 12/1/2020 it was 60.3% Russell 1000, 6.7% Russell 2000, 24.75% MSCI World Ex US (net), and 8.25% MSCI EM (net). From 7/1/2017 thru 12/31/2018 it was 67% Russell 3000 and 33% MSCI ACWI ex USA. Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a total Public Equity return. From 6/30/16-6/30/17 the Public Equity benchmark adjusted by 2% each quarter from 75% Russell 3000 and 25% MSCI ACWI ex USA until it reached 67% and 33%.

Return Seeking BM:

A weighted composite of each individual return seeking fixed income managers' benchmarks. The calculation uses the average weight of the manager relative to the total group of active managers during the month.

Semi-Passive Domestic Equity Benchmark: Russell 1000 index effective 1/1/2004. Prior to 1/1/2004 it was the Completeness Fund benchmark.

Total Fixed Income Benchmark:

Since 7/1/2020 the Total Fixed Income benchmark is 40% Bloomberg U.S. Aggregate Index/ 40% Bloomberg Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill. From 4/1/2019-6/30/2020 it was 50% Bloomberg Aggregate and 50% Bloomberg Treasury 5+ Years Index. From 2/1/2018-3/31/19 the weighting of this benchmark reflected the relative weights of the Core Bonds and Treasuries allocations in the Combined Funds Composite.

Zevenbergen Benchmark: Russell 3000 Growth index effective 1/1/2021. Prior to 1/1/2021 it was the Russell 1000 Growth Index.



Addendum

Other Retirement Funds, Tax-Advantaged Savings Plans, and Non-Retirement Investment Program Benchmark Definitions

Environmental Trust Benchmark:

Weighted 70% S&P 500, 28% Bloomberg U.S. Aggregate, 2% 3-month T-Bills.

Fixed Interest Blended Benchmark:

Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

International Equity Benchmark:

Since 12/01/2020 equals the MSCI ACWI ex-US(Net). From 01/01/2018 to 01/01/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 06/01/2008 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/01/2007 through 05/31/2008 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/01/2003 to 09/30/2007 the target was MSCI ACWI ex U.S. (net). From 01/01/2001 to 09/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 07/01/1999 to 12/31/2000 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 07/01/1999 to 09/30/2003, the weighting of each index fluctuated with market capitalization. From 10/1/2001 to 05/31/2002 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/1996 to 06/30/1999 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 05/01/1996, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/1996 fixed weights. Prior to 05/01/1996 it was 100% the EAFE Free (net).

Permanent School - Comp Index:

Weighted 50% S&P 500, 48% Bloomberg U.S. Aggregate, 2% 3-month T-Bills.

ARP Fixed Income Portfolio Custom Benchmark:

Bloomberg U.S. Government Intermediate Index. Prior to 7/1/11 the Voyager Custom Index was 10% 90-day T-Bill, 25% Merrill 1-3 Government, 15% Merrill 3-5 Government, 25% Merrill 5-10 Government, 25% Merrill Mortgage Master.

SIF Balanced Fund Benchmark:

Weighted 60% Russell 3000, 35% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.

SIF Volunteer Firefighter Account Benchmark:

Weighted 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Bloomberg U.S. Aggregate, 5% 3-month T-Bills.



Addendum

Vanguard Balanced Fund Benchmark:

Weighted 60% CRSP US Total Market Index 40% Bloomberg U.S. Aggregate Float Adjusted Index, prior to 01/01/2023 the benchmark was 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate.

Vanguard Dividend Growth Fund Benchmark:

CRSP U.S. Total Market Index, prior to 09/20/2021 the benchmark was NASDAQ US Dividend Achievers Select index.

Vanguard Mid-Cap Index Fund Benchmark:

CRSP US Mid Cap Index, prior to 02/01/2013 the benchmark was MSCI US Mid-Cap 450 Index.

Vanguard Total International Stock Index Fund Benchmark:

FTSE Global All Cap ex US Index, prior to 06/01/2013 the benchmark was MSCI ACWI ex USA IMI.

