# INVESTMENT ADVISORY COUNCIL

## OF THE MINNESOTA STATE BOARD OF INVESTMENT

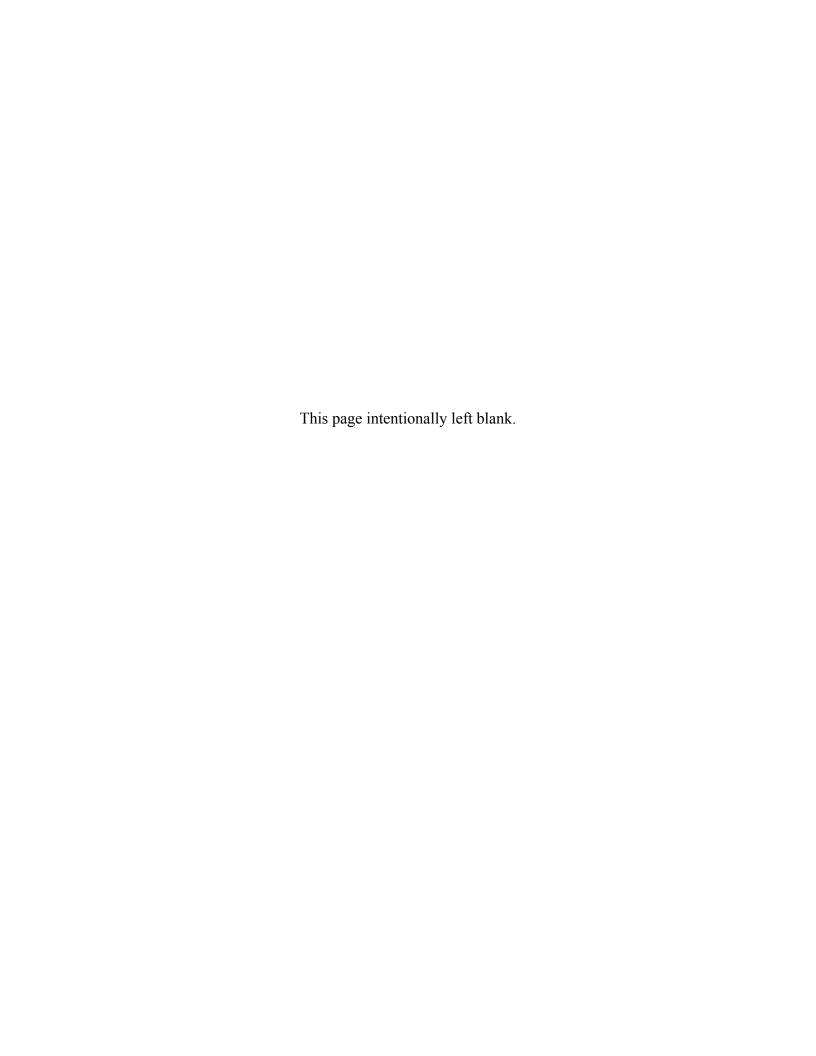
INVESTMENT ADVISORY COUNCIL

MEETING

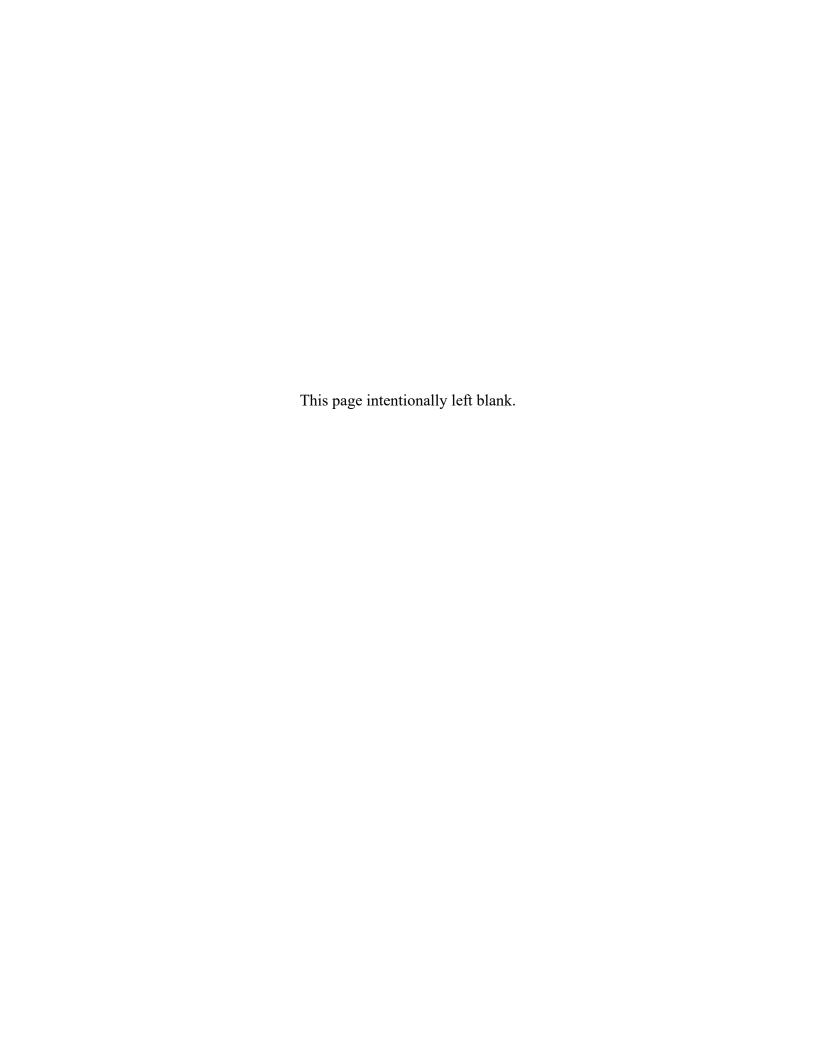
May 13, 2025



The Minnesota Legislature has established a seventeen member Investment Advisory Council (IAC) to advise the Board and its staff on investment-related matters. All proposed investment policies are reviewed by the IAC before they are presented to the State Board of Investment (SBI) for action.



INVESTMENT ADVISORY COUNCIL	
MEETING	
AGENDA	
May 13, 2025	

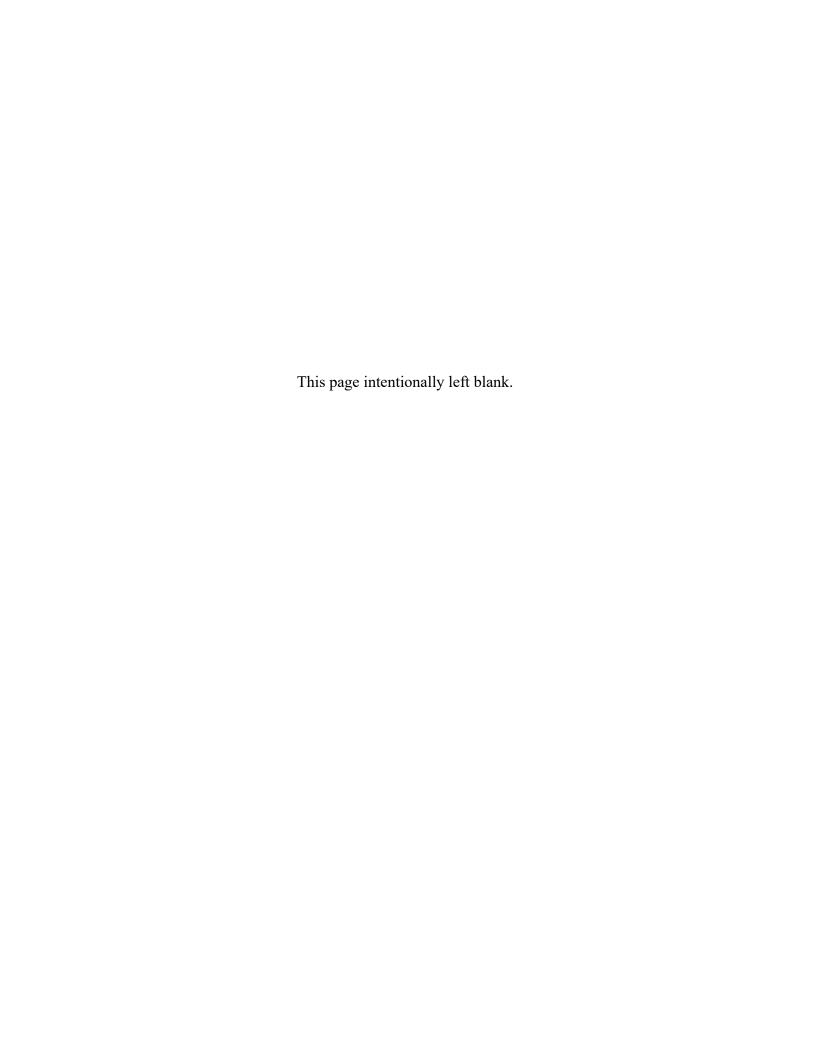


#### AGENDA INVESTMENT ADVISORY COUNCIL MEETING

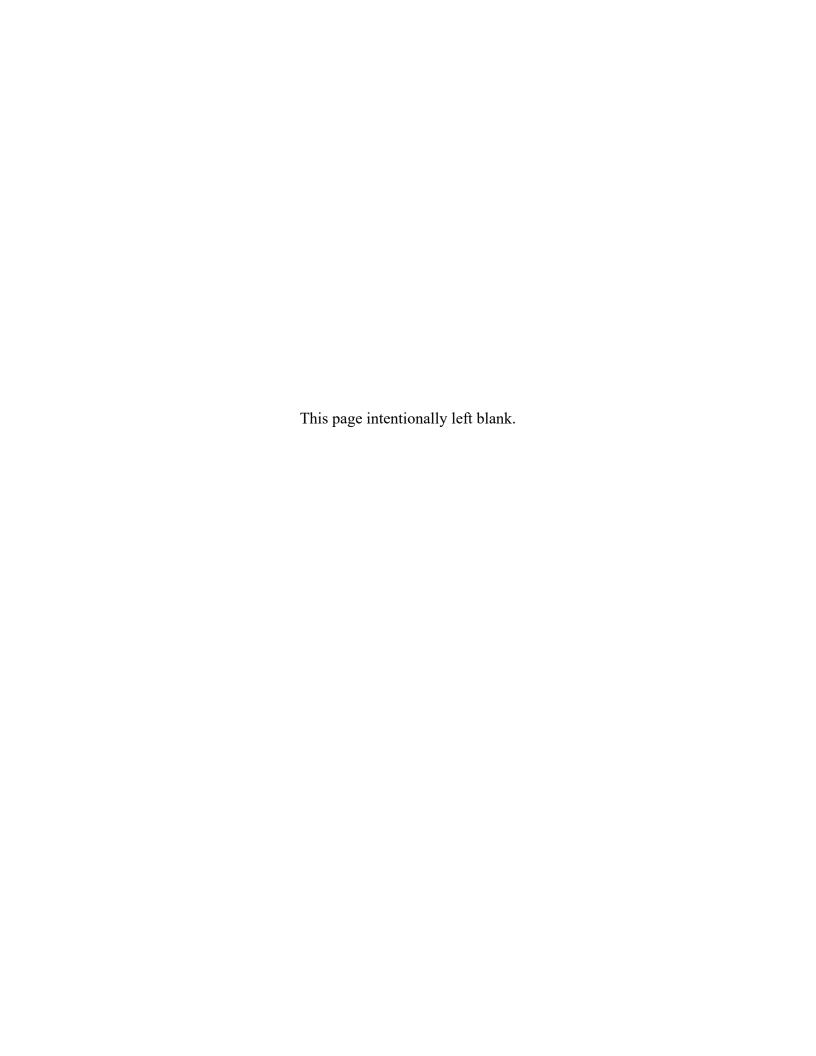
Tuesday, May 13, 2025 12:00 p.m. Retirement Systems Building Room 106 – Main Floor 60 Empire Drive, St. Paul, MN

**TAB** 1. Call to Order 2. Election of Chair and Vice Chair **Motion Needed** 3. Approval of Minutes of February 25, 2025 **Motion Needed** 4. Report from the Executive Director (J. Schurtz) A. Quarterly Performance Summary A В **B.** Administrative Report 5. Guest Speaker Ronald Temple, Chief Market Strategist Lazard Asset Allocation Study Update (J. Schurtz/E. Sonderegger) 7. Private Markets Investment Program Report (J. Stacy/C. Boll) C Motion Needed 8. 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



Approval of February 25, 2025 IAC Meeting Minutes



#### Minutes Investment Advisory Council Meeting February 25, 2025

The Investment Advisory Council (IAC) met at 12:00 p.m. on Tuesday, February 25, 2025, in Room 106 of Retirement Systems Building, 60 Empire Drive, St. Paul, MN 55103.

MEMBERS PRESENT: Doug Anderson, Jennifer Hassemer (for Erin Campbell), Peggy

Ingison, Amy Jensen, Erin Leonard, Gary Martin, Dan McConnell, Ify Onyiah, Nancy Orr, Dennis Santos, Tim Maurer, and Jen

Wilson.

**MEMBERS ABSENT:** Denise Anderson, Kim Faust, Carol Peterfeso, Sunil Swami, and

Shawn Wischmeier.

**SBI STAFF:** Jill Schurtz, Andy Christensen, Erol Sonderegger, Andrew Krech,

Cassie Boll, Jonathan Stacy, Mercy Ndungu, Jeff Weber, and Samir

Zahar.

**OTHER ATTENDEES:** Katie Comstock and John Sullivan, Aon Investments; Allan Emkin,

Sarah Bernstein, Nahom Kebede and Steve Voss, Meketa Investment Group; Jake Smith, Governor's Office; Dana Mitchell, Attorney General's Office; Ramona Advani, State Auditor's Office;

and Justin Erickson, Secretary of State's Office.

#### Call to Order

Gary Martin, Chair of the Investment Advisory Council, called the meeting to order.

#### **Comments and Announcements**

Executive Director/CIO Jill Schurtz clarified that the election of the Chair and Vice Chair of the Investment Advisory Council would occur at the next meeting and asked for permission to amend the agenda to reflect that comment and to change the order of the agenda to allow the private markets manager recommendations to proceed before the market overview. A motion was made, and the agenda was amended.

#### **Approval of IAC Minutes**

The minutes of the November 19, 2024, 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:

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

<u>Performance:</u> 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.

<u>Asset Allocation and TUCS Ranking</u>: 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 45<sup>th</sup> percentile for the quarter and the 10<sup>th</sup> percentile for the year.

#### **Executive Director's Administrative Report**

Ms. 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) had been completed, and the SBI received 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 items highlighted in the report for review were the annual budget, and the status of Russia, Belarus or Iran restrictions. Finally, Ms. Schurtz gave an update on the Minnesota Secure Choice Program.

#### **Organizational Updates**

Deputy Executive Director Andy Christensen reviewed recent organizational updates, which included plans to add three positions: an IT specialist, an investment officer in private markets, and an investment officer in financial services. Mr. Christensen stated that the SBI is preparing for the summer internship program. With respect to the office remodeling project, Mr. Christensen stated that it is now substantially complete.

Deputy Chief Investment Officer Erol Sonderegger summarized the portfolio transitions and rebalancing activity of the portfolio over the quarter and the first few months of the year. Mr. Sonderegger gave an update on the asset allocation study.

Managing Director, Private Markets and Active Equities, Andrew Krech gave an update on the Permanent School Fund, the status of the new emerging markets equity manager, and the summer internship program.

Ms. Schurtz welcomed Mr. Allan Emkin, Senior Partner at Meketa Investment Group, to introduce a new team member, Steve Voss.

#### **Private Markets Investment Program Report**

Ms. Schurtz referred members to Tab C of the meeting materials for the Private Markets Investment Program Report. Co-Director, Private Markets, Cassie Boll, Jon Stacy, and members of the Private Markets team presented three private market recommendations: Blackstone Capital Partners Asia III L.P.; Sixth Street Opportunities Partners VI, L.P.; and Trident X US Fund L.P.

A motion was made that the IAC endorse staff's recommendation to invest in the three private markets investment funds. The motion passed.

#### **Market Overview Presentation**

Ms. Schurtz introduced Erik Knutzen of Neuberger Berman, Co-Chief Investment Officer of Multi-Asset Strategies to share his perspective on the market and investment environment.

#### Informational Reports Included in the Quarterly Meeting Materials

Public Markets Investment Program Report

Participant Directed Investment Program and Non-Retirement Investment Program Report Aon Market Environmental Report

Meketa Capital Markets Outlook & Risk Metrics Report

SBI Comprehensive Performance Report

#### **Adjournment of Meeting**

The motion to adjourn the meeting was approved. The meeting adjourned at 1:35 p.m.

Respectfully submitted,

Jill E. Schurtz

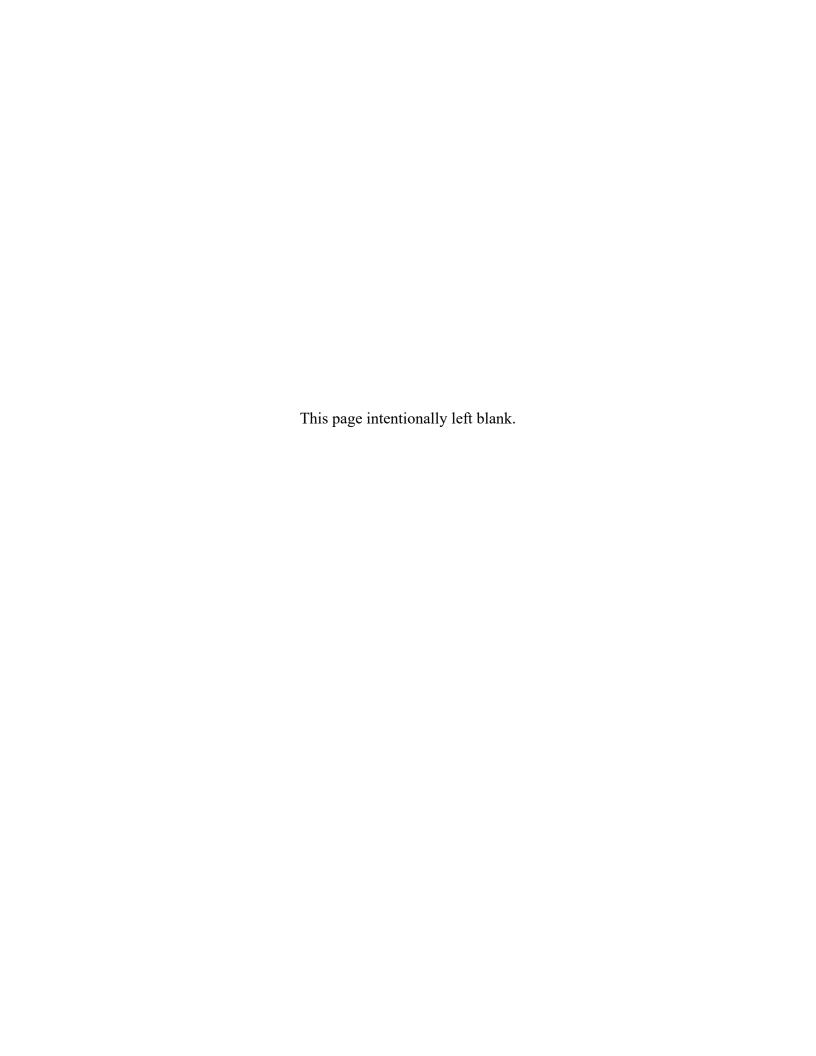
Executive Director and Chief Investment Officer

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### TAB A

# Quarterly Performance Summary

March 31, 2025





# Performance Summary March 31, 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**

Combined Funds	<u>\$ Millions</u> \$96,008	
Other Retirement Funds	\$1,549	
PERA Defined Contribution Plan	\$101	
St. Paul Teachers' Retirement Fund	\$395	
Statewide Volunteer Firefighter Plan	\$391	
Unclassified Retirement Plan	\$408	Olate Oach
Volunteer Fire Relief Associations	\$253	State Cash Accounts 19%
Tax-Advantaged Savings Plans	\$12,781	
Health Care Savings Plan	\$2,200	Non- Retirement
Hennepin County Supplemental Retirement Plan	\$175	Investment —
Minnesota Deferred Compensation Plan	\$10,406	Program 4%
State-Sponsored Savings Plans Minnesota College Savings Plan Minnesota Achieving a Better Life Experience Plan	<b>\$2,147</b> \$2,090 \$57	State- Sponsored Savings Plans 1%  Combined Funds 65%  Tax- Advantaged
Non-Retirement Investment Program	\$6,549	Savings Plans 9%
Other Postemployment Benefits (OPEB)	\$1,000	Other
Qualifying Governmental Entities	\$18	Retirement
Trust Funds	\$5,531	Funds 1%
State Cash Invested Treasurer's Cash Other State Cash Accounts	<b>\$28,174</b> \$27,364 \$809	
TOTAL SBI AUM	\$147,208	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**

#### **Comparison to Objective**

Match or Exceed Composite Index (10 yr.)		<u>10 Year</u>
	Combined Funds	8.3%
Outperform a composite market index weighted in a manner that reflects the	Combined Funds - Composite Index	8.1
long-term asset allocation of the Combined Funds over the latest 10 year period.	Excess	0.2

		<u> 20 Year</u>
Provide Real Return (20 yr.)	<b>Combined Funds</b>	8.1%
	CPI-U	2.6
Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.	Excess	5.6

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	\$96,601
Net Contributions	-660
Investment Return	66
Ending Market Value	96,008

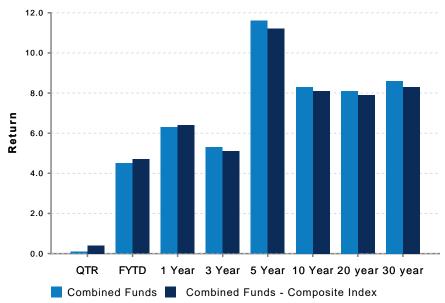
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

#### **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.

	<b>QTR</b>	<b>FYTD</b>	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>	<u>30 Yr</u>	
Combined Funds	0.1%	4.5%	6.3%	5.3%	11.6%	8.3%	8.1%	8.6%	
Combined Funds- Composite Index	0.4%	4.7%	6.4%	5.1%	11.2%	8.1%	7.9%	8.3%	
Excess	-0.3%	-0.2%	-0.1%	0.2%	0.5%	0.2%	0.2%	0.3%	









#### **Combined Funds Summary**

#### **Asset Mix**

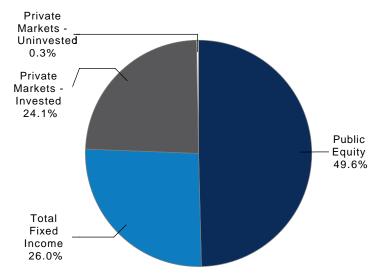
The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in cash.

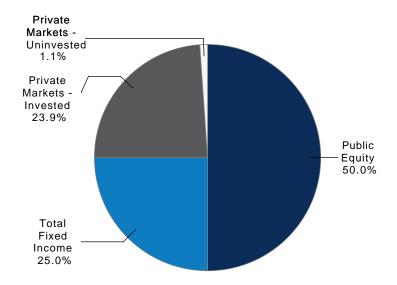
	(Millions)	Actual Mix	Policy Target
Public Equity	\$47,578	49.6%	50.0%
Total Fixed Income	24,964	26.0	25.0
Private Markets - Total	23,466	24.4	25.0
Private Markets - Invested	23,164	24.1	
Private Markets - Uninvested	302	0.3	
TOTAL	96,008	100.0	

#### **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.

	<b>Policy Weight</b>	Market Index
Public Equity	50.0%	Public Equity Benchmark
Total Fixed Income	25.0%	Total Fixed Income Benchmark
Private Markets - Invested	23.9%	Private Markets
Private Markets - Uninvested	1.1%	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).

	Market Value	Actual Weight	Policy Weight	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	30 Year
Public Equity	\$47.6	49.6%	50.0%	-2.1%	4.0%	6.6%	7.3%	16.3%	9.8%	8.8%	9.2%
Public Equity Benchmark				-1.5	4.4	7.0	7.1	15.9	9.7	8.7	8.9
Excess				-0.6	-0.4	-0.4	0.2	0.4	0.1	0.1	0.3
Domestic Equity	31.0	32.3	33.5	-4.9	3.6	6.9	8.2	18.4	11.7	10.0	10.1
Domestic Equity Benchmark				-4.7	3.9	7.2	8.2	18.3	11.8	10.1	10.1
Excess				-0.1	-0.2	-0.3	0.0	0.2	-0.1	-0.1	-0.1
International Equity	15.5	16.1	16.5	4.1	4.8	6.3	5.9	12.2	5.7	5.8	6.1
International Equity Benchmark				5.2	5.1	6.1	4.5	10.9	5.0	5.2	5.2
Excess				-1.1	-0.3	0.2	1.4	1.3	0.7	0.6	0.8
Global Equity	1.0	1.1	0.0	-1.7	0.9	-0.9	3.1				
MSCI AC World Index (net)				-1.3	4.2	7.2	6.9				
Excess				-0.4	-3.2	-8.0	-3.8				

#### 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.

	Market Value	Actual Weight	Policy Weight	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	30 Year
Total Fixed Income	\$25.0	26.0%	25.0%	2.8%	4.6%	4.9%	0.5%	-0.5%	2.1%	3.7%	4.9%
Total Fixed Income Benchmark				3.0	4.3	4.3	-0.2	-1.4	1.6	3.3	4.5
Excess				-0.1	0.3	0.6	0.6	0.9	0.5	0.4	0.4
Core/Core Plus	\$5.4	5.7%	5.0	2.8	5.0	5.2	1.0	0.7	2.0	3.6	4.9
Core Bonds Benchmark				2.8	4.8	4.9	0.5	-0.4	1.5	3.2	4.5
Excess				-0.0	0.2	0.4	0.4	1.1	0.6	0.5	0.4
Return Seeking Fixed Income	\$4.7	4.9%	5.0	2.0	5.7	6.4	3.2				
Bloomberg U.S. Aggregate				2.8	4.8	4.9	0.5				
Excess				-0.8	0.9	1.5	2.7				
Treasury Protection	\$9.8	10.2%	10.0	4.2	4.2	3.5	-3.1	-4.4			
Bloomberg Treasury 5+ Year				4.1	4.1	3.2	-3.2	-4.5			
Excess				0.1	0.1	0.3	0.0	-0.1			
Laddered Bond + Cash	\$5.0	5.2%	5.0	1.1	3.9	5.2	4.4	2.6	1.9	1.9	3.0
ICE BofA US 3-Month Treasury	Bill			1.0	3.6	5.0	4.2	2.6	1.9	1.7	2.5
Excess				0.1	0.3	0.2	0.1	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									
	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	<u> 25 Year</u>	30 Year
Private Markets - Invested	1.6%	5.4%	7.0%	6.3%	12.6%	11.8%	12.7%	12.3%	13.5%
Private Markets -Uninvested(1)	1.0%	3.2%	5.0%	-1.1%					
Private Equity	1.9%	6.8%	8.8%	6.4%	15.0%	15.3%	14.7%	13.2%	15.5%
Private Credit	3.7%	6.9%	6.6%	10.9%	11.3%	11.6%	12.4%	12.0%	
Resources	1.0%	0.6%	2.4%	7.3%	6.3%	2.1%	11.0%	12.7%	12.9%
Real Estate	-2.0%	-1.3%	-2.3%	0.4%	7.0%	9.0%	8.0%	8.6%	9.2%

#### **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**

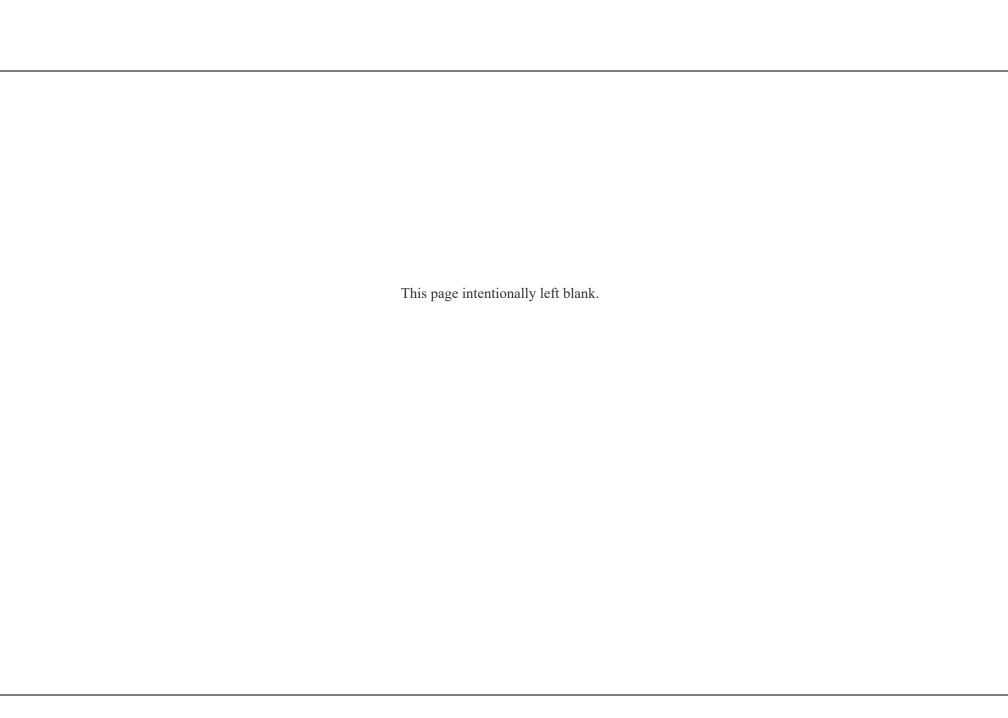
	(	03/31/2025	03/31/2025		
		\$ millions)	Weights	Category Range	
Growth - Appreciation					
Public Equity	\$	47,599.0	49.6%		
Private Equity	\$	16,884.9	17.6%		
Non-Core Real Assets	\$	3,799.8	4.0%		
	\$	68,283.9	71.1%	50%	75%
Growth - Income-oriented					
Core Fixed Income	\$	5,424.7	5.7%		
Private Credit	\$	1,998.3	2.1%		
Return-Seeking Fixed Income	\$	4,744.0	4.9%		
-	\$	12,167.1	12.7%	15%	30%
Real Assets					
Core Real Estate			0.0%		
Real Assets	\$	431.4	0.4%		
	\$	431.4	0.4%	0%	10%
Inflation Protection					
TIPS			0.0%		
Commodities			0.0%		
			0.0%	0%	10%
<b>Protection</b>					
U.S. Treasuries	\$	9,797.6	10.2%		
	\$	9,797.6	10.2%	5%	20%
<u>Liquidity</u>					
Cash	\$	5,327.4	5.5%		
	\$	5,327.4	5.5%	0%	5%
<b>Opportunity</b>					
Opportunity			0.0%		
			0.0%	0%	10%
Total	\$	96,007.6	100%		
Illiquid Asset Exposure	\$	23,114.6	24.1%	0%	32%



#### **Volatility Equivalent Benchmark Comparison**

	As of March 31, 2025								
	1-year	3-year	5-year	10-year	15-year	20-year	30-year		
SBI Combined Funds Return	6.3%	5.3%	11.6%	8.3%	9.2%	8.1%	8.6%		
Volatility Equivalent Benchmark Return			6.9%	5.6%	6.2%	6.0%	6.6%		
Value Added			4.8%	2.7%	3.0%	2.2%	2.0%		
Standard Deviation: Benchmark = Combined Funds			9.8%	9.1%	8.9%	9.4%	9.6%		
Benchmark Stock Weight			47%	54%	55%	56%	60%		
Benchmark Bond Weight			51%	46%	44%	44%	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.





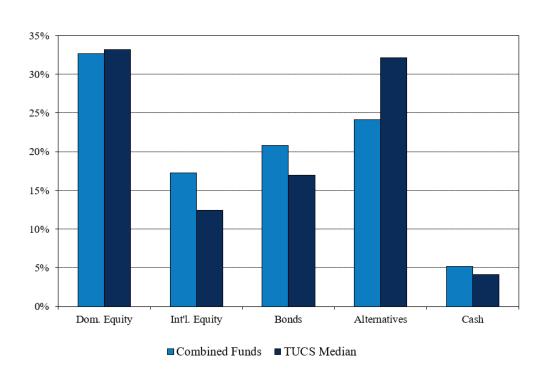
#### **Combined Funds Summary**

#### **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:

	(Millions)	<b>Actual Mix</b>
Public Equity	\$47,578	49.6%
Total Fixed Income	\$24,964	26.0%
Private Markets - Total	\$23,466	24.4%
Private Markets - Invested	\$23,164	24.1%
Private Markets - Uninvested	\$302	0.3%
TOTAL	\$96,008	100.0%



Combined Funds	<b>Domestic Equity</b>	<b>International Equity</b>	<b>Bonds</b>	<b>Alternatives</b>	<b>Cash</b>
Median in TUCS	32.7%	17.2%	20.8%	24.1%	5.2%
Wiedlan in 1005	33.2%	12.4%	17.0%	32.1%	4.1%





#### **Combined Funds Summary**

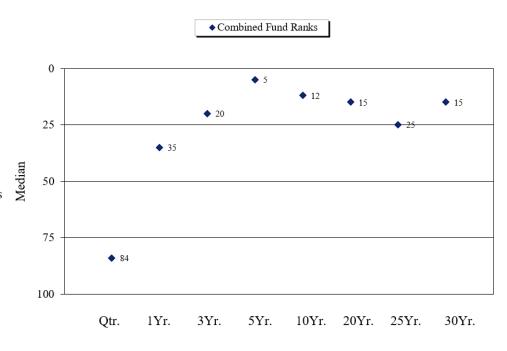
#### **Performance Compared to Other Pension Funds**

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 03/31/2025**

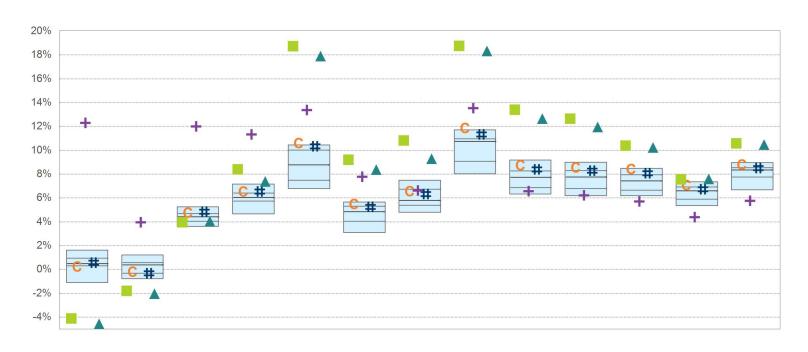
	Otr	1 Yr	3 Yrs	5 Yrs	10 Yrs	20 Yrs	25 Yrs	30 Yrs
Combined Funds	84th	35th	20th	5th	12th	15th	25th	15th
Percentile Rank in	TUCS							





#### Minnesota State Board of Investments Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$20 Billion Cumulative Periods Ending : March 31, 2025

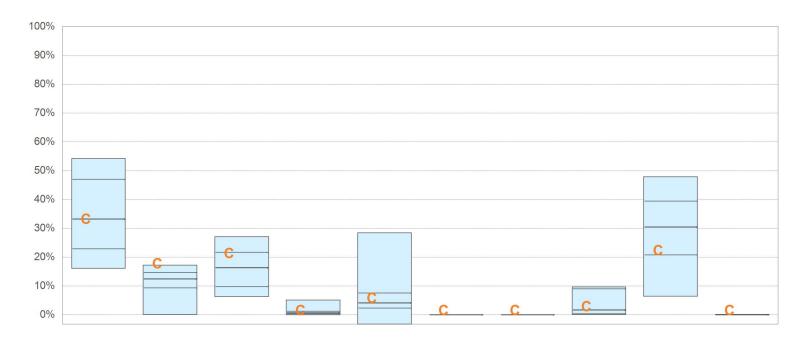


Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	1.61	1.22	5.25	7.17	10.45	5.67	7.49	11.71	9.19	9.00	8.48	7.35	8.98
25th	0.96	0.58	4.69	6.41	10.02	5.30	6.74	10.97	8.27	8.30	7.94	6.93	8.53
50th	0.50	0.37	4.41	6.02	8.78	4.84	5.79	10.74	7.72	7.76	7.43	6.60	8.36
75th	0.29	-0.32	4.03	5.73	7.49	4.04	5.38	9.07	6.88	6.78	6.64	5.91	7.76
95th	-1.10	-0.77	3.62	4.65	6.80	3.09	4.80	8.03	6.32	6.19	6.20	5.37	6.68
No. Of Obs	22	21	21	21	21	21	21	21	19	19	16	16	15
C Combined Funds	0.08 (84)	-0.35 (81)	4.60 (40)	6.38 (35)	10.45 (5)	5.34 (20)	6.40 (40)	11.71 (5)	8.60 (18)	8.41 (12)	8.26 (15	) 6.93 (25)	8.65 (15)
# SBI Combined Funds Ind	0.40 (55)	-0.47 (81)	4.70 (20)	6.39 (30)	10.17 (10)	5.09 (30)	6.18 (45)	11.18 (20)	8.25 (25)	8.13 (25)	7.91 (25	) 6.57 (50)	8.35 (50)
S&P 500	-4.27 (99)	-1.97 (100)	3.80 (81)	8.25 (1)	18.57 (1)	9.06 (1)	10.67 (1)	18.59 (1)	13.25 (1)	12.50 (1)	10.23 (1)	7.41 (1)	10.42 (1)
Russell 3000  MSCI Wld Ex US (Net)	-4.72 (99) 12.13 (1)	-2.21 (100) 3.80 (1)	3.88 (81) 11.85 (1)	7.22 (1) 11.18 (1)	17.74 (1) 13.22 (1)	8.22 (1) 7.63 (1)	9.13 (1) 6.46 (30)	18.18 (1) 13.38 (1)	12.48 (1) 6.41 (93)	11.80 (1) 6.07 (99)	10.08 (1) 5.55 (99	7.44 (1) 4.23 (100)	10.32 (1) 5.61 (100)



### Minnesota State Board of Investments Asset Allocation of Master Trusts - Public : Plans > \$20 Billion

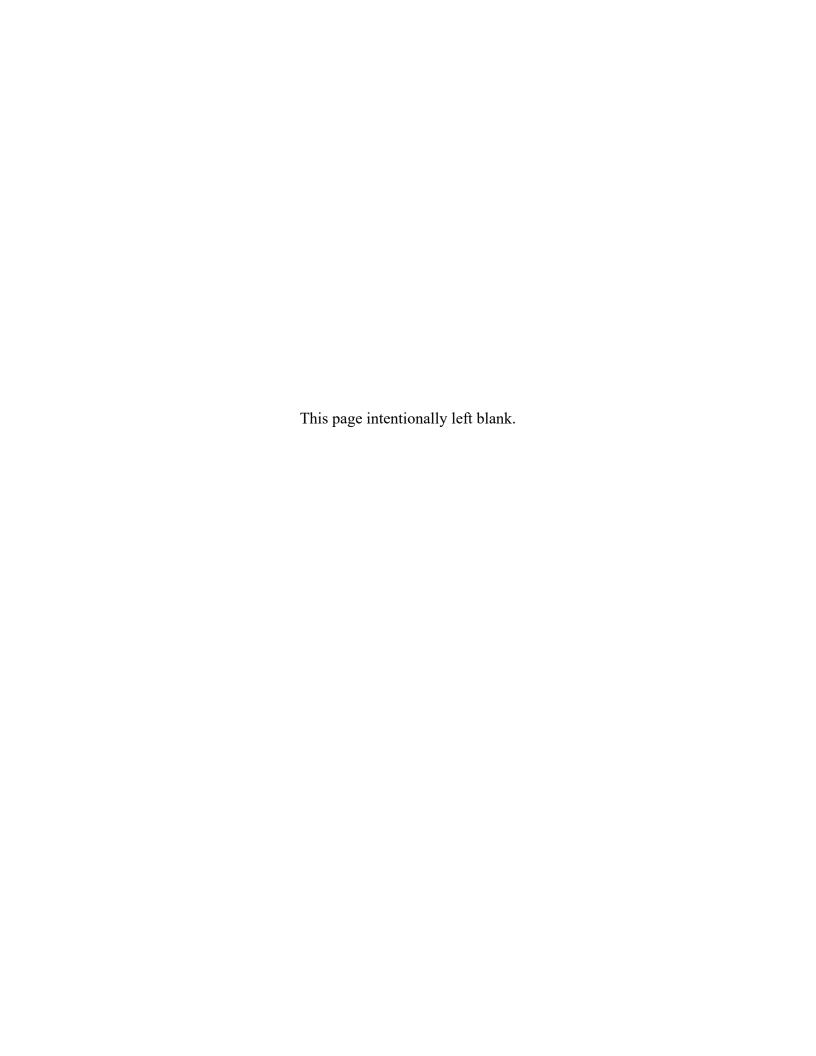
Quarter Ending March 31, 2025



Percentile Rankings		Non-US		Non-US			GIC	Real	Alternative	
· ·	US Equity	Equity	US Fixed	Fixed	Cash	Convertible	GAC	Estate	Investments	Other
5th	54.16	17.22	27.06	5.13	28.47	0.02	0.00	9.61	47.87	0.05
25th	46.94	14.62	21.70	1.25	7.49	0.00	0.00	8.97	39.48	0.05
50th	33.17	12.42	16.36	0.62	4.12	0.00	0.00	1.65	30.46	0.00
75th	22.88	9.34	9.70	0.35	2.26	0.00	0.00	0.30	20.72	0.00
95th	16.14	0.10	6.28	0.00	-3.25	0.00	0.00	0.04	6.47	0.00
Combined Funds	32.66 (56)	17.22 (5)	20.80 (31)	0.00 (100)	5.21 (45)	0.00 (100)	0.00 (100)	2.33 (43)	21.79 (68)	0.00 (100)

## TAB B

# Executive Director's Administrative Report



DATE: May 6, 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 March 31, 2025, is included as **Attachment A**.

#### 2. Legislative Update

A summary of relevant legislation pending before the MN Legislature is included in **Attachment B**.

#### 3. 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 first calendar quarter of 2025, no Russian holdings were sold. As of March 31, 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 March 20, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

#### 4. 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 first quarter, the SBI Combined Funds portfolio held no companies with operations in Iran.

On March 20, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

#### 5. 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 March 31, 2025, the MSBI portfolio held no thermal coal-connected assets.

On March 20, 2025, staff sent a letter to each applicable external manager containing the most recent restricted list.

#### 6. Litigation Update

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

### STATE BOARD OF INVESTMENT FISCAL YEAR 2025 ADMINISTRATIVE BUDGET REPORT FISCAL YEAR TO DATE THROUGH MARCH 31, 2025

	FISCAL YEAR	FISCAL YEAR
	2025	2025
ITEM	BUDGET	3/31/2025
PERSONNEL SERVICES		
FULL TIME EMPLOYEES	\$ 12,500,000	\$ 7,210,513
PART TIME EMPLOYEES	50,000	24,532
MISCELLANEOUS PAYROLL	200,000	49,503
SUBTOTAL	\$ 12,750,000	\$ 7,284,549
STATE OPERATIONS		
RENTS & LEASES	\$ 435,000	
REPAIRS/ALTERATIONS/MAINTENANCE	2,066,000	
PRINTING & BINDING	2,500	473
PROFESSIONAL/TECHNICAL SERVICES/IT PROF	510,000	183,574
COMPUTER SYSTEMS SERVICES	557,011	85,732
COMMUNICATIONS	25,000	4,291
TRAVEL, IN-STATE	3,000	516
TRAVEL, OUT-STATE	236,500	106,586
SUPPLIES	58,000	31,433
EQUIPMENT	372,452	50,524
EMPLOYEE DEVELOPMENT	383,400	91,583
OTHER OPERATING COSTS	210,000	98,820
INDIRECT COSTS	427,537	300,549
SUBTOTAL	\$ 5,286,400	
TOTAL ADMINISTRATIVE BUDGET	\$ 18,036,400	\$ 10,216,457

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#### ATTACHMENT B

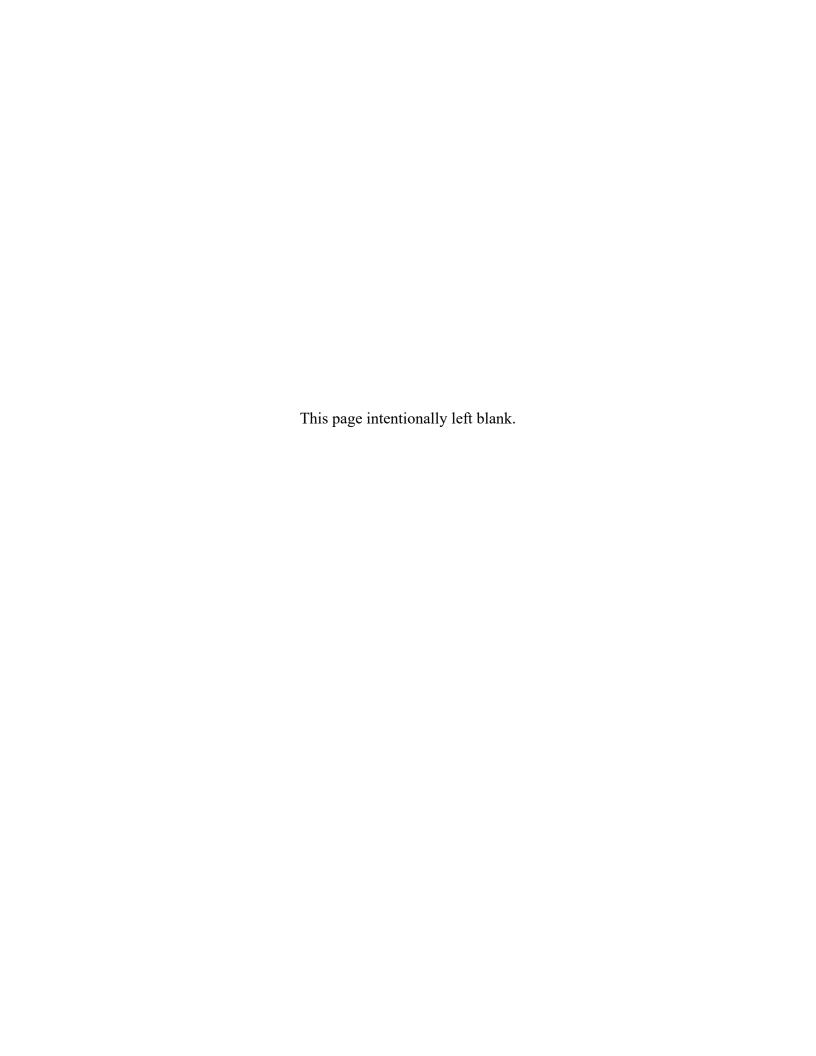
#### BILLS OF INTEREST TO THE MINNESOTA STATE BOARD OF INVESTMENT

Bill No.	Author	Name of Bill	Current Status	Notes
HF2783	Klevorn, et al	State Government Finance Bill	04/22: HF2783 was re-referred to The Committee on Ways and Means	The bill contains the SBI's current direct appropriation from the General Fund. The House version amends the SBI's annual reporting requirements to align with the completion of the SBI's
SF3045	Xiong		04/25: SF3045 passed the Senate	fiscal year audit, providing that the annual report must be filed after completion of the audit but no later than March 31.
HF1837 SF3045	Klevorn	State Government Policy Bill	04/10: HF1837 passed the State Government Finance and Policy Committee and awaits final passage 04/25: SF3045 passed the Senate	The bill creates a list of unenforceable terms in state contracts. Terms considered unenforceable include are terms requiring the state to indemnify a party, any term implementing choice of law other than Minnesota, any term granting a party the unilateral authority to amend the contract, and terms inconsistent with the Minnesota Government Data Practices Act, among other terms. The bill exempts the SBI's investments from the choice of law and unilateral amendment prohibitions.
		Pension Bill		The SBI is monitoring various pieces of legislation that may be included in the 2025 Pension Bill. The Legislative Commission on Pensions and Retirement is currently assembling the bill.
HF2447	Skraba, et al	Orderly Development of State's Gas Resources	03/17: HF2447 was referred to the Environment and Natural Resources Finance and Policy Committee	The bill provides authority for the SBI to invest money received by the Department of Natural Resources as financial assurance for mining activities associated with Minnesota's gas resources.
SF2530	Hauschild		03/17: SF2530 was referred to the Taxes Committee	
HF2439	Heintzeman, et al	Environment and Natural Resources Policy and Finance Bill	04/21: HF2439 was passed and re- referred to the Committee on Ways and Means	The bill manages appropriations from the Closed Landfill Fund for which the SBI manages investments. The House version of the bill maintains ongoing appropriations to the fund until 2029. The Senate version eliminates ongoing appropriations and authorizes
SF2077	Hawj		04/22: SF2077 was passed and re- referred to the Finance Committee	appropriations for the next biennium.
HF2946	Perryman, et al	Minnesota Bitcoin Act	04/01: HF2946 was referred to the State Government Finance and Policy Committee	The bill would authorize the SBI to invest in cryptocurrency.
SF2661	Miller, et al		03/17: SF2661 was referred to the State and Local Government Committee	
HF2908	Kotyza-Witthuhn, et al	Statewide Children's Savings Account Program	03/27: HF2908 was referred to Higher Education Finance and Policy	The bill directs the Commissioner of Education to create a MinneKIDS account for each child born in Minnesota. The program will deposit \$50 (or \$100 based on household income)

SF3120	Putnam, et al		04/01: SF3120 was referred to the	which may be invested in investment options provided by the SBI.
			Higher Education Committee	The account assets must be used to pay qualified education
				expenses. If the account assets are not used to pay such expenses,
				or the account is closed for another reason, the assets are forfeited
				to a Children's Higher Education Investment Account in the ITC.
HF2806	Hudson	The Stop Environmental	03/26: HF2806 was referred to the	The bill would require the SBI to liquidate direct combined
		Social Governance (ESG)	State and Local Government Finance	pension fund holdings in any company determined to boycott
		and Social Credit Score	and Policy Committee	mining, energy production, production agriculture, or commercial
		Discrimination Act		lumber production. The SBI would also be prohibited from
SF851	Lucero, et al		02/06/2023: SF1225 was referred to	purchasing any new investments in such companies and must
			the State and Local Government and	complete liquidation by July 1, 2030.
			Veterans Committee	
HF726	Lee, F, et al	PFAS Gross Revenue Tax	02/13: HF726 was referred to the	The bill imposes a gross receipts tax on products containing PFAS
		and Cleanup Account	Environment and Natural Resources	that are sold in Minnesota. The revenue from the tax would be
			Finance and Policy Committee	deposited in a cleanup account. The SBI would invest the assets of
				the account.
SF2129	Seeberger, et al		03/03: SF2129 was referred to the	
			Taxes Committee	
SF3431	McEwen	State Government	04/24: SF3431 was referred to the	The bill clarifies the procedure for approving changes to certain
		Compensation Plans and	State and Local Government	salary plans, including the SBI's investment staff salary plan. The
		Salaries Legislative	Committee	bill requires that the plans receive approval from the appropriate
		Review Reinstatement		commission or sub-commission under the Legislative
				Coordinating Commission. After commission approval, the plan
				must be approved by the legislature.

## TAB C

# Private Markets Investment Program Report



DATE: May 6, 2025

TO: Members, Investment Advisory Council

FROM: 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 Inc.	Blackstone Supplemental Account – M, L.P.	up to \$175 million
Real Assets	Energy Capital Partners	ECP VI, L.P.	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

SBI action is required on item B.

#### A. Status of SBI Current Private Markets Commitments

### Minnesota State Board of Investment Combined Funds March 31, 2025

Combined Funds Market Value

\$96,007,656,110

	% of Combined			
	Funds	Current Level	Target Level <sup>1</sup>	Difference
Market Value (MV)	24.1%	\$23,163,929,089	\$24,001,914,028	\$837,984,939
Policy Target	25%			
Statutory Limit	35%			
MV +Unfunded	36.2%	\$34,735,298,908	\$48,003,828,055	\$13,268,529,147
Policy Limit	50.0%			

	% of Combined		Unfunded	
Asset Class	Funds	Market Value	Commitment	Total
Private Equity	17.6%	\$16,884,972,804	\$8,406,461,101	\$25,291,433,905
Private Credit	2.1%	\$1,998,321,079	\$1,162,840,534	\$3,161,161,613
Real Assets	2.1%	\$1,992,170,225	\$635,667,950	\$2,627,838,175
Real Estate	2.3%	\$2,239,156,278	\$1,366,400,235	\$3,605,556,513
Other <sup>2</sup>		\$49,308,702		\$49,308,702
Total		\$23,163,929,089	\$11,571,369,819	\$34,735,298,908

#### Cash Flows March 31, 2025

Calendar Year	Capital Calls	Distributions	Net Invested
2025	\$577,708,446	(\$851,671,067)	(\$273,962,621)
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)

<sup>&</sup>lt;sup>1</sup> There is no target level for MV + Unfunded. This amount represents the maximum allowed by policy

<sup>&</sup>lt;sup>2</sup> 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 9.

#### **RECOMMENDATION:**

Staff is recommending a commitment of <u>up to \$150 million</u> to Advent International GPE XI SCSP and requests the IAC's endorsement of this recommendation for the Board's approval. 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, Blackstone Inc. ("Blackstone"), in Blackstone Supplemental Account - M, L.P. ("Fund").

In the fourth quarter of 2020, SBI approved a \$125 million commitment to the Fund, which is a co-investment vehicle that would co-invest in certain investments made by other Blackstone investment funds in which the SBI is an existing limited partner or by other Blackstone investment funds that SBI may approve commitments to in the future. As such, the SBI will have already performed due diligence on the relevant strategy, investment team and investment process prior to the Fund participating in any investment. Currently, SBI anticipates co-investments to include investments from Blackstone's Growth, Capital Partners Asia, Energy Transition Partners, and Capital Partners strategies, but co-investments may encompass additional fund strategies in the future. To date, SBI has committed \$113.625 million to co-investments through the Partnership. To facilitate SBI's participation in potential co-investment opportunities going forward, staff recommends an additional commitment of \$175 million to the Fund, bringing SBI's total commitment amount for the Fund to \$300 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 13.** 

#### **RECOMMENDATION:**

Staff is recommending a commitment of <u>up to \$175 million</u> to Blackstone Supplemental Account - M, L.P. and requests the IAC's endorsement of this recommendation for the Board's approval. 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 Blackstone 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 Blackstone or a reduction or termination of the commitment.

#### 3) Investment with an existing real assets manager, Energy Capital Partners ("ECP"), in ECP VI, L.P. ("Fund").

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 C beginning on page 17.

#### **RECOMMENDATION:**

Staff is recommending a commitment of <u>up to \$250 million</u> to ECP VI, L.P. and requests the IAC's endorsement of this recommendation for the Board's approval. 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.

#### 4) 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 executing an investment strategy focused on adding value, the Fund expects to benefit from TA Realty's four decades of experience in acquiring, managing, and selling real estate across the U.S.

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 D** beginning on page 21.

#### **RECOMMENDATION:**

Staff is recommending a commitment of <u>up to \$200 million</u> to TA Realty Value-Add Fund XIV, L.P. and requests the IAC's endorsement of this recommendation for the Board's approval. 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.

#### 5) 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 E beginning on page 25.** 

#### **RECOMMENDATION:**

Staff is recommending a commitment of <u>up to \$150 million</u> to TPG Partners X, L.P. and requests the IAC's endorsement of this recommendation for the Board's approval. 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.

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#### ATTACHMENT A

#### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

Name of Fund:	Advent International GPE XI, L.P.
Type of Fund:	Private Equity
Target Fund Size:	\$26 billion
Fund Manager:	Advent International, L.P.
Manager Contact:	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 15 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 September 30, 2024, Advent's Global Private Equity Program ("GPE") has invested \$63.9 billion across 310 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 261 investment professionals with a mix of operating, strategic consulting and financial backgrounds. Its 40 Investment Partners have an average of 18 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 45 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 December 31, 2024 for Advent and the SBI's investments with previous funds, where applicable, is shown below:

	Vintage	Total	SBI	Net	Net	Net
Fund	Year	Commitments	Investment	IRR*	MOIC*	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	16.2%	2.1x	1.2x
GPE IX	2019	\$17.5 billion	\$115 million	14.5%	1.6x	0.3x
GPE X	2022	\$25 billion	\$150 million	13.2%	1.2x	

<sup>\*</sup> 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

Name of Fund:	Blackstone Supplemental Account
Type of Fund:	Private Equity
Target Fund Size:	\$175 million
Fund Manager:	Blackstone Management Partners L.L.C.
	Blackstone Growth Advisors L.L.C.
Administrative Contact:	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 December 31, 2024, Blackstone had 254 Senior Managing Directors, and approximately 4,900 employees across 27 offices globally, and the Firm's total assets under management was approximately \$1,127 billion.

#### III. Investment Strategy

In the fourth quarter of 2020, the Minnesota State Board of Investment ("SBI") approved a \$125 million commitment to establish the Blackstone Supplemental Account ("The Partnership"), a vehicle designed to co-invest in certain investments made by Blackstone funds in which the SBI is also a Limited Partner. The Partnership invests in a way consistent with philosophies around portfolio construction and discretion agreed upon by both Blackstone and the SBI. To date, SBI has committed \$113.625 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 \$175 million to the Partnership, bringing SBI's total commitment amount to up to \$300 million.

It is expected that co-investment opportunities that the Partnership may invest in will arise from corporate private equity 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 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 December 31, 2024 for Blackstone 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*
Blackstone Capital Partners IV	2002	\$6.5 Billion	\$70 million	36.1%	2.4x	2.4x
Blackstone Capital Partners V	2006	\$20.4 Billion	\$140 million	8.2%	1.6x	1.6x
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%	1.6x	0.8x
Blackstone Capital Partners IX	2024	\$20.5 Billion	\$150 million	NA	NA	NA

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Growth Equity	2020	\$4.6 Billion	\$250 million	-2.4%	0.9x	0.1x
Blackstone Growth Equity II	2022	\$4.2 Billion	\$150 million	N/A	N/A	N/A

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Capital Partners Asia	2017	\$2.3 Billion	-	25.1%	2.0x	0.9x
Blackstone Capital Partners Asia II	2021	\$6.4 Billion	\$270 million	50.6%	1.8x	0.0x

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Blackstone Energy Partners I	2011	\$2.4 Billion		11.4%	1.6x	1.4x
Blackstone Energy Partners II	2015	\$4.6 Billion		9.4%	1.5x	0.8x
Blackstone Energy Partners III	2020	\$4.2 Billion		28.1%	1.7x	0.5x
Blackstone Energy Transition Partners IV	2024	\$5.6 Billion	\$200 million	NA	NA	NA

Fund	Vintage	Total	SBI	Net	Net	Net
	Year	Commitments	Investment	IRR*	MOIC*	DPI*
Blackstone Supplemental Account	2021	\$125 Million	\$125 Million	-0.2%	1.00	N/A

<sup>\*</sup> 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 account will be negotiated between Blackstone and the Minnesota State Board of Investment but it is expected that terms will be similar to that of the underlying Blackstone funds.

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#### ATTACHMENT C

#### REAL ASSETS MANAGER SUMMARY PROFILE

#### I. Background Data

Name of Fund:	ECP VI, L.P.
Type of Fund:	Energy Infrastructure
Target Fund Size:	\$5 billion
Fund Manager:	Energy Capital Partners Management, LP
Manager Contact:	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 \$31 billion of committed capital across five 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 Murray Karp, and eight other partners. Since 2005, ECP has grown to a team of 39 investment professionals, 53 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.

#### 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.

ECP expects to pursue a combination of acquiring existing assets, contracts, and businesses and developing and constructing new ones. 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. 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. 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 operating partner team and a disciplined approach to de-risking investments. With a track record of overseeing over 83 GW of power generation facilities and driving more than 62% EBITDA growth across portfolio companies, ECP's strategy emphasizes operational excellence, commercial 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 over 26 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.

#### IV. Investment Performance

Previous fund performance as of December 31, 2024, is shown below:

	Vintage	Total	SBI	Net	Net	Net
Fund	Year	Commitments	Investment	IRR*	MOIC*	DPI*
ECP I	2006	\$2.3 billion	N/A	-3%	0.6x	0.6x
ECP II	2009	\$4.3 billion	\$100 million	9%	1.4x	1.4x
ECP III	2013	\$5.1 billion	\$200 million	13%	1.7x	1.3x
ECP IV	2018	\$3.3 billion	\$150 million	16%	1.6x	0.4x
ECP V	2022	\$4.6 billion	\$150 million	12%	1.1x	0.0x

<sup>\*</sup> 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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#### ATTACHMENT D

#### REAL ESTATE MANAGER SUMMARY PROFILE

#### I. Background Data

Name of Fund:	TA Realty Value-Add Fund XIV, L.P.			
Type of Fund:	Real Estate Limited Partnership			
Target Fund Size:	\$2 billion			
Fund Manager:	TA Realty LLC			
Manager Contact:	Tom Landry			
	TA Realty LLC			
	One Federal Street, 17 <sup>th</sup> 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 December 31, 2024, the Firm had approximately \$18.5 billion of gross assets under management, including unfunded capital commitments.

TA Realty's team is comprised of over 130 employees, including 26 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 December 31, 2024, TA Realty is shown below:

	Vintage	Total	SBI	Net	Net	Net
Fund	Year	Commitments	Investment	IRR*	MOIC*	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	10.8%	1.4x	0.6x
Realty Associates Fund XIII	2022	\$1,767 million	\$150 million	16.8%	1.1x	0.1x

<sup>\*</sup> 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 E

#### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

Name of Fund:	TPG Partners X, L.P.
Type of Fund:	Private Equity
Target Fund Size:	\$17 Billion
Fund Manager:	TPG Capital
Manager Contact:	Joe Buss
	888 7 <sup>th</sup> 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 \$74 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 \$246 billion in AUM (as of 12/31/24). 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 135 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 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, over 40% 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 December 31, 2024 for TPG and the SBI's investments with previous funds, where applicable, is shown below:

	Vintage	Total	SBI	Net	Net	Net
Fund	Year	Commitments	Investment	IRR*	MOIC*	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	19.8%	2.0x	1.7x
TPG VIII	2019	\$11.5 billion	\$150 million	19.2%	1.5x	0.4x
TPG Healthcare	2019	\$2.7 billion		15.0%	1.4x	0.3x
TPG IX	2022	\$12.0 billion	\$100 million	20.7%	1.1x	0.0x
TPG Healthcare II	2022	\$3.6 billion		24.0%	1.2x	0.0x

<sup>\*</sup> 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

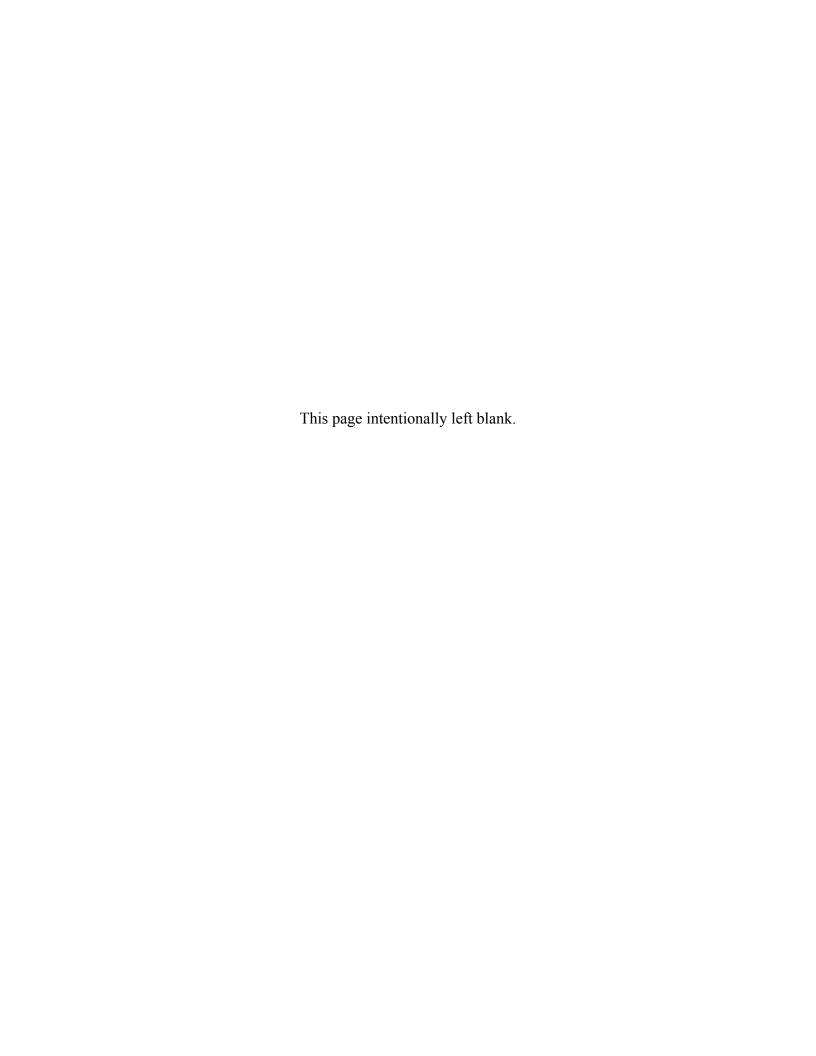
The commitment period for the Fund is six years from the effective date. The fund term is ten years, which may be extended for up to two additional one-year periods with the consent of the advisory committee.

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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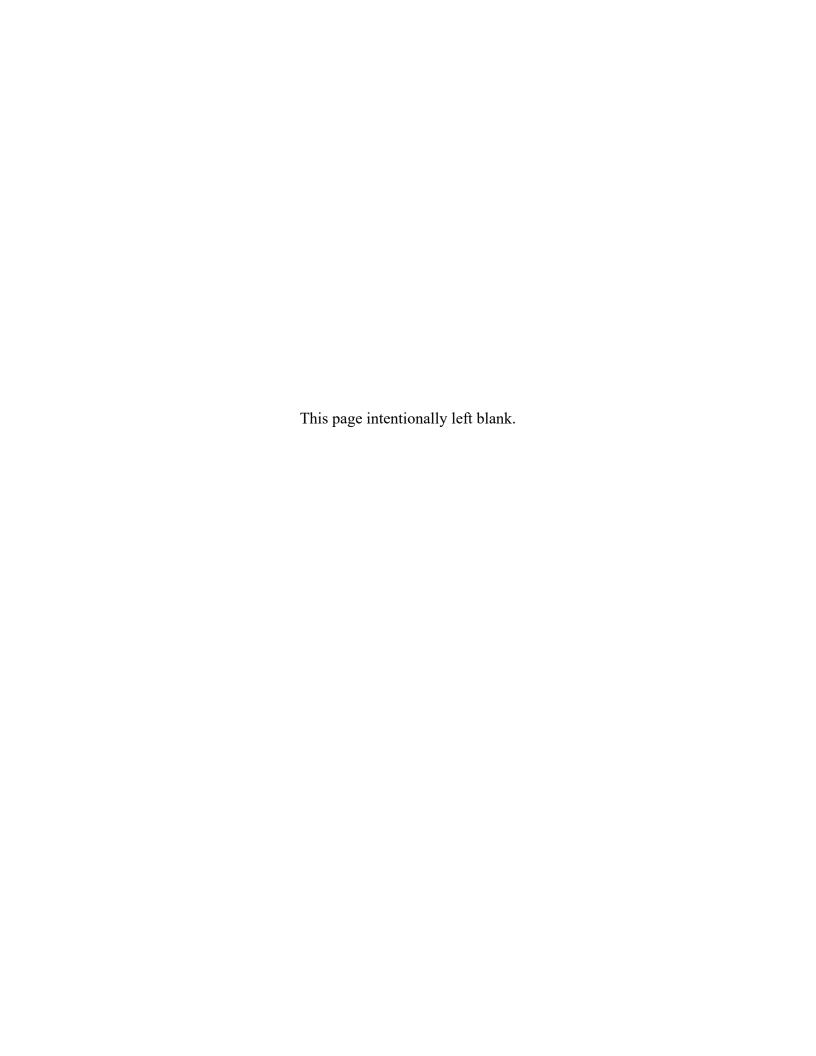
## REPORTS

- 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



## REPORT

## Public Markets Investment Program



DATE: May 6, 2025

TO: Members, Investment Advisory Council

FROM: 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 March 31, 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 First Quarter 2025 (CY)

#### **Market Summary**

Global equity markets slipped during in the first calendar quarter of 2025, with the MSCI All Country World (ACWI) Index of global stocks falling -1.3% in U.S. dollar terms. Equity markets experienced dramatic performance dispersion across geographic regions during the quarter. In the U.S., the broad Russell 3000 Index fell nearly -5% during the quarter, while share prices rose across most international markets. European shares, as measured by the MSCI Europe Index, vaulted nearly +10.5% over the quarter as economic prospects for the region brightened, albeit from a low starting point.

U.S. stocks were weighed down during the quarter by escalating trade tensions, softening economic data and a major shift in investor sentiment away from U.S. mega-cap technology shares. News that Chinese AI company DeepSeek had developed a high-performing and purportedly highly cost-efficient large language model raised the prospect of disruptive competition in a space long dominated by the U.S. tech giants. U.S. technology shares fell nearly -13% for the quarter.

During the quarter, the U.S. dollar fell sharply as investors downshifted expectations for U.S. economic growth relative to the rest of the world. Gold rallied over +18% during the quarter, boosted by investor demand for safe haven assets, U.S. dollar weakness, and the potential for higher inflation.

In the U.S., the Fed kept its overnight policy rate unchanged during the quarter. At the March FOMC meeting, the Fed acknowledged greater uncertainty regarding the economic outlook, particularly with respect to tariffs and trade, and recent weakness in both business and consumer sentiment. The summary of FOMC participants' economic forecasts published after the March meeting showed FOMC members expected an unwelcome mix of lower growth, higher unemployment and higher inflation over the next several years, relative to the December forecast.

Focusing on growing economic uncertainty, investors drove U.S. interest rates lower during the quarter. Against the backdrop of lower interest rates, the U.S. Aggregate Bond Index returned +2.8% during the first quarter. Outside the U.S., yields rose across most international bond markets, particularly in Europe and Japan. Despite this headwind, 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 +2.6%.

#### Overall Combined Funds Portfolio Performance – Quarter and Last 12 Months

The overall Combined Funds portfolio returned +0.1% during the calendar first quarter, underperforming the composite benchmark's return of +0.4%. During the quarter, the portfolio's modest overweight to U.S. equities and an underweight to international stocks hurt relative performance. The portfolio's currency hedging program also detracted from performance during the quarter as the U.S. dollar fell sharply, reversing last quarter's gains. Within fixed income, the portfolio's allocation to return-seeking fixed income was a drag for the quarter as the lower credit quality and lower duration fixed income sectors which make up that segment underperformed the

broader market. Returns within the private markets portfolio during the quarter were positive relative to the broader market. The private markets invested portfolio gained +1.6% during the quarter, led by the Private Credit allocation which returned +3.7% for the quarter.

For the **one-year period ended March 31, 2025**, the portfolio posted a return of +6.3%, slightly underperforming the composite benchmark's return of +6.4%. The portfolio benefited from a positive contribution from active management within the core/core plus fixed income, return-seeking fixed income and small cap equity segments. However, this impact was more than offset by active manager underperformance across the U.S. large cap equity, global equity and emerging markets equity segments. On balance, mark-to-market gains from the portfolio's currency hedging program helped performance. From an asset allocation perspective, within equities, an underweight to emerging markets stocks hurt relative performance, while a modest overweight allocation to U.S. small cap stocks also detracted. Within fixed income, the portfolio's allocation to return-seeking managers was a positive contributor to performance over the one-year period. The invested private markets portfolio returned +7.0% for the 12 months ended March 31, 2025, led by the Private Equity allocation which returned +8.8% for the one-year period.

#### Review of Public Markets Manager Performance First Quarter 2025 (CY)

#### **Domestic Equity**

Domestic equities, as measured by the Russell 3000 Index, returned -4.7% during the quarter. Although seven of 11 sectors finished the quarter in positive territory, the index was dragged down by weakness in the consumer discretionary (-13.4%) and information technology sectors (-13.0%), which together account for about 40% of the index. The energy sector led the market with a return of +8.0%.

The collection of mega-cap technology stocks known collectively as the "Magnificent Seven" or "Mag 7" continued to dominate U.S. stock market performance. As a group, the Mag 7 fell -14.7% for the quarter, while excluding these stocks the rest of the market was down just -0.8%. Among the Mag 7, performance was varied. Electric vehicle manufacturer Tesla slumped -35.8% as the CEO's polarizing foray into public policy shook investor confidence and dampened consumer demand. In contrast, social media giant Meta (-1.5%) managed to escape the quarter comparatively unscathed as the company is perceived as a likely early winner in AI consumer applications.

The Combined Funds domestic equity portfolio lagged the benchmark (-4.9% Portfolio vs. -4.7% Benchmark) during the quarter. Manager underperformance within the large cap value and large cap semi-passive space drove portfolio underperformance for the quarter. In addition, a modest tilt to growth vs. value within the domestic equity portfolio's style mix was a drag during the quarter as value outperformed growth. On the positive side, the portfolio's modest underweight position in the Mag 7 helped relative performance.

In a reversal from last quarter, large cap growth stocks tumbled while large cap value floated above the worst of the market turmoil (+2.1% Russell 1000 Value vs. -10.0% Russell 1000 Growth). Value benefited from strong performance from the real estate (+13.3%) and energy sectors (+10.6%). In contrast, growth stocks fell sharply, led by a de-rating of AI-focused mega-cap technology names in the wake of Chinese AI company DeepSeek's launch of a reportedly highly cost-effective and competitive AI model to challenge Silicon Valley's hegemony in the sector.

Small cap stocks once again underperformed large cap stocks during the quarter (Russell 2000 Index -9.4% vs. Russell 1000 Index -4.5%). Within small caps, growth stocks underperformed value stocks, though not to the same degree as observed in the large cap universe (Russell 2000 Growth Index -11.1% vs. Russell 2000 Value Index -7.7%).

Across small cap sectors, only utilities posted a strong return (+6.0%) while consumer staples were flat and all other sectors ended the quarter in the red. Technology (-18.2%), consumer discretionary (-15.1%), communication services (-12.5%), energy (-12.2%), and industrials (-11.2%) all posted double digit losses.

The portfolio's large cap growth managers modestly outperformed their benchmark, the Russell 1000 Growth Index during the quarter (-9.4% Managers vs. -10.0% Benchmark). Strong stock selection in communication services was the biggest contributor to outperformance. Quality growth manager Winslow outperformed during the quarter (-8.8%), driven by strong stock selection in the communication services sector, while an overweight to industrial names also

contributed positively to performance. All-cap growth manager Zevenbergen underperformed its benchmark (-14.6% Manager vs. -10.0% Benchmark). Performance was weighed down by weak stock selection in consumer staples, communication services, and healthcare, while stock picking in the technology sector added value.

As a group, the portfolio's large cap value managers underperformed the Russell 1000 Value Index during the quarter (-1.2% Managers vs. +2.1% Benchmark). Overall, underperformance was driven by weak stock selection in consumer discretionary and financials. Barrow Hanley underperformed (-2.2%) due to poor selection in consumer discretionary, financial, and healthcare names. Quantitative deep value manager LSV also underperformed due to weak stock selection across industrials and financials.

The portfolio's two semi-passive large cap managers both trailed their benchmark during the quarter (-5.0% Managers vs. -4.5% Benchmark). Stock selection within the technology sector drove much of the performance drag. Quantitative manager Blackrock underperformed (-5.2%) for the quarter, primarily due to its sentiment-related signals, which seek to assess the likely behaviors of other equity market participants.

Small cap growth managers ended the quarter slightly ahead of the benchmark (-11.0% Managers vs. -11.1% Russell 2000 Growth Index). Rice Hall James strongly outperformed the index (-2.4%), driven by positive stock selection in technology, consumer discretionary, and healthcare. In contrast, fundamental manager Hood River underperformed (-15.5%), primarily due to weak stock selection within the industrials and energy sectors. Wellington (-12.8%) and Arrowmark (-13.0%) both lagged this quarter due to weak stock selection within the healthcare sector.

The portfolio's small cap value managers also outperformed for the quarter (-7.4% Managers vs. -7.7% Russell 2000 Value Index), driven by strong picks in healthcare, especially biotech, and industrials. Fundamental manager Goldman Sachs outperformed (-5.4%), as did Hotchkis & Wiley (-6.7%), with both managers benefiting from solid stock picking within industrials. Peregrine underperformed for the quarter (-9.2%), driven primarily by decisions within the consumer discretionary sector, including poor stock selection and an overweight allocation.

The portfolio's passive domestic equity portfolios performed in-line with their respective benchmarks, posting a combined return of -4.5% during the quarter.

#### **Developed International Equity and Currency Overlay**

International developed markets equities, as measured by the MSCI World ex USA Index (net), returned +6.2% in U.S. dollar terms during the quarter, significantly outperforming U.S. markets. Although local market index performance was positive for the quarter (+2.7%), a weakening U.S. dollar contributed substantially to the relative outperformance of foreign stocks when translated into U.S. dollar terms.

Measured in U.S. dollar terms, 18 of the Index's 22 developed markets posted positive performance for the quarter. Europe fared best among major markets during the quarter as peace talks in Ukraine gained momentum and national governments laid out expansionary fiscal policy changes in response to signals from the United States that its longstanding role as security guarantor in Europe may be coming to an end. Germany (+15.7%) garnered investor attention after

the German government reformed its strict debt limits and announced plans for increased public spending on defense and infrastructure. Other markets such as Italy, Spain, and Switzerland also marked double-digit advances in U.S. dollar terms.

The portfolio's active developed markets managers slightly underperformed the MSCI World ex USA Index (net), returning +6.1% versus the benchmark's +6.2% return. Stock selection within industrials was the largest detractor for the quarter, while an overweight to financials and positive stock selection within the sector boosted performance. Stock selection in Europe detracted for the quarter, particularly within Germany. An underweight to German stocks overall was also a drag. Conversely, the portfolio saw positive performance attribution from countries outside Europe, including good stock selection within Australia and Canada.

Quality growth manager J.P. Morgan outperformed (+7.5%) as strong stock selection within Australia boosted performance for the quarter. From a sector perspective, the portfolio benefitted from allocations to financial and consumer discretionary names. Fundamental growth managers Fidelity (+4.2%) and Columbia Threadneedle (+3.1%) underperformed as stock selection in industrials proved detrimental to both managers during the quarter.

The passive developed markets portfolio returned +6.4%, slightly outperforming the MSCI World ex USA Index (net), which returned +6.2%.

The U.S. dollar depreciated versus most developed markets currencies during the quarter, leading to losses in the portfolio's currency overlay program. For the quarter, the program detracted -1.6% 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 as trade tensions and tariff uncertainty led to concerns over potential deterioration of US economic conditions and the sustainability of the U.S. fiscal imbalance. Program losses were concentrated in the euro, Japanese yen, and the British pound. Over the quarter, the overall hedge ratio declined from 61% at the beginning of the quarter to end the quarter at 21%.

#### **Emerging Markets Equity**

Emerging markets equities, as measured by the MSCI Emerging Markets Index (net), rose +2.9% in U.S. dollar terms during the quarter. In contrast to its weak performance versus developed-market currencies, the U.S. dollar was stable relative to emerging markets currencies during the quarter. Expressed in local currency terms, the MSCI Emerging Markets Index (net) rose +2.6%.

Of the 26 markets which make up the EM Index, 18 posted positive returns for the quarter. EM markets in Europe experienced significant market appreciation during the quarter. The announcement of a dramatic increase in German defense and infrastructure spending and the prospect of an end to hostilities in Ukraine saw a dramatic uplift in investor sentiment across the region. South American markets also saw broad gains, while performance across Asia was mixed.

China's equity market, which represents roughly 29% of the Index, rose +15.0% in U.S. dollar terms during the quarter. Chinese technology names led that market higher, riding a wave of enthusiasm after Chinese startup DeepSeek upended global equity markets in January by unveiling a highly competitive AI model, reportedly developed at a fraction of the cost of larger rivals like

ChatGPT and Claude. This significant achievement, coupled with depressed equity valuations relative to other global markets, proved attractive to many foreign investors despite lingering concerns over the health of the domestic economy and accelerating trade tensions with the U.S. China A-shares were notably flat for the quarter as Chinese investors piled into H-shares alongside foreign investors. Taiwan's tech-heavy market dropped -12.6% as investors reassessed the economic impact of U.S. tariff policy and the potential for a deepening trade war between the world's two economic superpowers. Indian stocks slipped lower in opening quarter of 2025, marking the second consecutive quarter of market declines after a period of very strong performance in 2024. The Indian market, which makes up around 18% of the EM Index, saw investors, particularly those outside India, continue to pull back due to the market's high equity valuations. Despite a tough start to the year, new economic data pointing to cooling inflation and GDP growth helped fuel a sharp rally to end the quarter.

The portfolio's active emerging markets managers outperformed the MSCI Emerging Markets Index (net), returning +3.0% vs. the benchmark's +2.9% return. The portfolio benefitted from strong stock selection within India and Korea, while selection in China detracted from relative performance. Deep value manager Pzena outperformed (+6.3% Manager vs. +2.9% Benchmark) as strong selection in India and an underweight to Taiwan were key to the portfolio's strong performance. Quality growth manager Morgan Stanley underperformed for the quarter (+0.4%), hurt by poor stock selection in Taiwan and Brazil.

Additionally, following a search process and Board approval in December, SBI staff successfully onboarded Fidelity's EM fundamental growth strategy during the quarter. After completion of contract negotiations and operational steps, the strategy was funded in late March with proceeds from the wind-down of a futures overlay strategy managed by NISA Investment Advisors. The Fidelity team traded nearly all the portfolio over the last week of March, and official performance reporting for the strategy commenced on April 1, 2025.

Earnest Partners' China A-share strategy outperformed the MSCI China A Index during the quarter (+2.2% Manager vs. +0.1% Benchmark). Stock selection within healthcare and technology were additive to performance.

The passive emerging markets portfolio slightly outperformed the MSCI Emerging Markets Index (net) for the quarter (+3.1% Manager vs. +2.9% Benchmark).

#### Global Equity and ACWI ex USA Equity

The MSCI All Country World Index (ACWI) (net) returned -1.3% during the quarter. Performance across broad sectors was generally positive, however weakness in technology names, which represent the largest percentage of the index by weight, dragged down the overall index. Only 13 of 47 countries generated negative performance for the quarter. However, the U.S. market, which represents 66% of the index, fell nearly -5% during the period, which was enough to offset broad gains elsewhere.

European markets such as France (+10.5%), Germany (+15.7%), and the U.K. (+9.7%) all saw substantial gains in U.S. dollar terms for the quarter. Returns across the Asia-Pacific region were varied, as China (+15.0%) and Korea (+4.9%) posted strong quarters, while India (-3.4%) and

Taiwan (-12.6%) saw declines. From a sector perspective, the technology (-11.6%), and consumer discretionary (-7.6%) sectors lagged while financials (+6.0%) and healthcare (+4.9%) rallied.

As a group, the portfolio's global equity managers trailed the MSCI All Country World Index (ACWI) (net) for the quarter (-1.7% Managers vs. -1.3% Benchmark). Collectively, the global managers continue to be substantially underweight to the U.S. market, which helped relative performance for the quarter. However, negative stock selection within the U.S. offset some of the benefit of that positioning. Stock selection in Japan also contributed positively to performance during the quarter.

Value manager Ariel significantly outperformed (+5.9% Manager vs. -1.3% Benchmark) as an underweight to the U.S technology names and strong stock selection in the consumer discretionary sector boosted performance. The strategy's currency hedging program was also additive to performance during the quarter. Quality growth manager Martin Currie underperformed (-6.9%) driven primarily by weak stock selection within U.S. consumer discretionary names. Stock selection across Europe also detracted. Growth-oriented manager Baille Gifford (-5.9%) underperformed its benchmark as poor stock selection within the U.S., particularly within communication services and consumer staples, significantly impacted portfolio performance.

#### 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 +2.8% during the calendar first quarter. U.S. Treasuries rallied and yields fell as the market reacted to signs of weakening U.S. economic growth and growing uncertainty around U.S. trade policy. Despite signals that the U.S. Fed would remain patient rather than cut rates too soon, market pricing of Fed Funds futures shifted during the quarter to signal that investors now expect the Fed to lower its policy rate with three 25-basis point (bp) cuts over the rest of 2025 (up from expectations of just one cut for 2025 as of the end of December). The yield on the benchmark two-year U.S. Treasury note fell by -36bps to end at 3.89%, while the yield on the 10-year U.S. Treasury note fell by a similar amount (-35bps) over the quarter to end at 4.21%.

Against the backdrop of growing geopolitical and economic uncertainty, and falling Treasury yields, credit spreads widened across both the investment grade and high yield corporate bond sectors. Investment grade corporate bond spreads, as measured by the Bloomberg Corporate Index, widened +13bps to end the quarter at +93bps over similar maturity U.S. Treasuries, while the Bloomberg Corporate High Yield Index saw spreads widen +33bps to end the quarter at +347bps. The widening of spreads weighed on returns, although both indexes still managed post gains for the quarter.

U.S. agency mortgage-backed securities (MBS) rallied +3.1% for the quarter, aided by falling interest rates and a pickup in mortgage refinancing activity. The asset-backed securities (ABS) sector lagged, posting a return of just +1.5%. ABS spreads widened in sympathy with growing concerns over the health of consumer balance sheets in the face of slowing economic growth and potentially higher inflation driven by tariffs.

The Bloomberg U.S. High Yield Index rose +1.0% during the quarter, underperforming equivalent duration U.S. Treasuries by nearly +3.0%. Within the sector, higher quality (BB-rated and B-rated)

bonds outperformed lower quality (CCC-rated) bonds. High yield bank loans returned just +0.6% for the quarter. The S&P UBS Leveraged Loan Index discount margin (measuring loan spreads to the short-term SOFR benchmark) widened by +23 bps during the quarter.

Emerging market debt (EMD) posted positive results for the quarter, with the J.P. Morgan EMBI Global Diversified Index of dollar-denominated EM sovereign debt gaining +2.2%. While modest spread widening in hard currency sovereign and EM corporate debt detracted from performance, this was more than offset by a boost from the overall decline in interest rates. The J.P. Morgan index of local currency sovereign debt (JPM GBI-EM) gained +2.7% in dollar terms over the quarter.

The portfolio's core/core plus bond managers returned +2.8% during the quarter, matching the performance of the Bloomberg U.S. Aggregate Bond Index. Overall, the managers' longer-than-benchmark duration positioning contributed positively to performance as interest rates fell. Security selection favoring shorter duration investment grade credit helped relative performance as this sub-sector of the market avoided material spread widening. Core plus manager Neuberger Berman's emphasis on longer duration investment grade credit detracted from performance as spreads in that sector widened more than the broader corporate market.

The portfolio's return-seeking bond managers returned +2.0% during the quarter, underperforming the portfolio's policy benchmark (the Bloomberg U.S. Aggregate Bond Index) return of +2.8%. Overall, the return-seeking managers have less exposure to U.S. government debt than the policy benchmark, both in terms of market value and interest rate duration, and therefore can be expected to lag in periods of falling interest rates. Relative to a weighted composite of the managers' individual benchmarks, as a group, the return-seeking managers outperformed their composite benchmark (+2.0% Managers vs. +1.8% Benchmark).

#### **Treasury Protection Portfolio**

The Treasury Protection Portfolio returned +4.2% during the quarter, outperforming the Bloomberg U.S. Treasury 5+ Year Index return of +4.1%. Overall, the managers' above-benchmark duration positioning contributed to outperformance during the period as interest rates fell. In addition, managers' tactical duration trading strategies around the 10-year U.S. Treasury auctions, as well as positive security selection in U.S. government STRIPS, added to performance.

#### 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%. Yields on very short maturities (inside of six months) were broadly unchanged in the quarter. Both the laddered bond portfolio and the cash portfolio returned +1.1%, slightly ahead of their respective benchmarks.

#### Public Markets Managers' Organizational Updates First Quarter 2025

#### **Columbia Threadneedle (International Equity)**

Melda Mergen, Global Head of Equities, will resign from Columbia Threadneedle effective 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.

#### **Dodge & Cox (Fixed Income)**

Christopher Kelly joined the Global Research Team in January 2025 as a Global Industry Analyst, covering insurance companies. Kent Yamane joined the Fixed Income Structured Products desk as a Trader and Analyst. He previously worked as a Vice President on the Mortgage and Securitized team at BlackRock.

#### **Goldman Sachs (Domestic Equity)**

Steve Barry, Chief Investment Officer (CIO) of Fundamental Equity, will retire at the end of 2025. As of January 1, 2026, 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.

#### **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 and will continue to monitor developments over the coming months.

#### **Morgan Stanley (Emerging Markets Equity)**

Portfolio Manager Leon Sun departed the firm in March. Mr. Sun was PM on Morgan Stanley's EM Equity platform's dedicated China-A Share and China Equity strategies. His duties will be 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 the SBI's Global Emerging Markets mandate managed by the firm.

#### **Neuberger Berman (Fixed Income)**

Bill Arnold, the firm's CFO since 2010, transitioned to a limited financial oversight role. Anne Brennan subsequently became the firm's CFO effective March 2025. Ms. Brennan has worked closely with Mr. Arnold since joining the firm in 2019 and she continues to lead the firm's risk team as Chief Risk Officer.

#### **Oaktree (Fixed Income)**

Aidan Chavez was promoted to Vice President of the U.S. High Yield Bond Strategy. In his prior role at Oaktree, he covered the chemicals and technology sectors as part of the U.S. Research team. He previously held roles at Capital Group and State Street Global Markets.

#### Payden & Rygel (Fixed Income)

Miles McQueen, Senior Associate and Portfolio Analyst on the Absolute Return team, left the firm in January to pursue other opportunities. Taylor Losi rejoined the firm in February as Vice President and general Portfolio Analyst on the Absolute Return team.

#### **PGIM (Fixed Income)**

Daleep Singh will be rejoining PGIM Fixed Income as Vice Chair, Chief Economist and Head of Global Macroeconomic Research in April 2025. Mr. Singh served as the U.S. Deputy National Security Advisor for International Economics during the Biden Administration from January 2024 to January 2025 and February 2021 to June 2022. He was previously PGIM Fixed Income's Chief Global Economist and Head of Global Macroeconomic Research from June 2022 through February 2024.

#### **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.

#### Q1 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.

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Acadian Asset Management Developed Markets Equity

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 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

JP Morgan Developed Markets Equity

JP Morgan Semi-Passive Equity

KKR Fixed Income

Martin Currie Inc. Emerging Markets Equity

Martin Currie Inc. Global Equity

Morgan Stanley Investment Management Inc. Emerging Markets Equity

Peregrine Domestic Equity

Pzena Emerging Markets Equity

Record Currency LLC

Rice Hall James

Domestic Equity

TCW Fixed Income

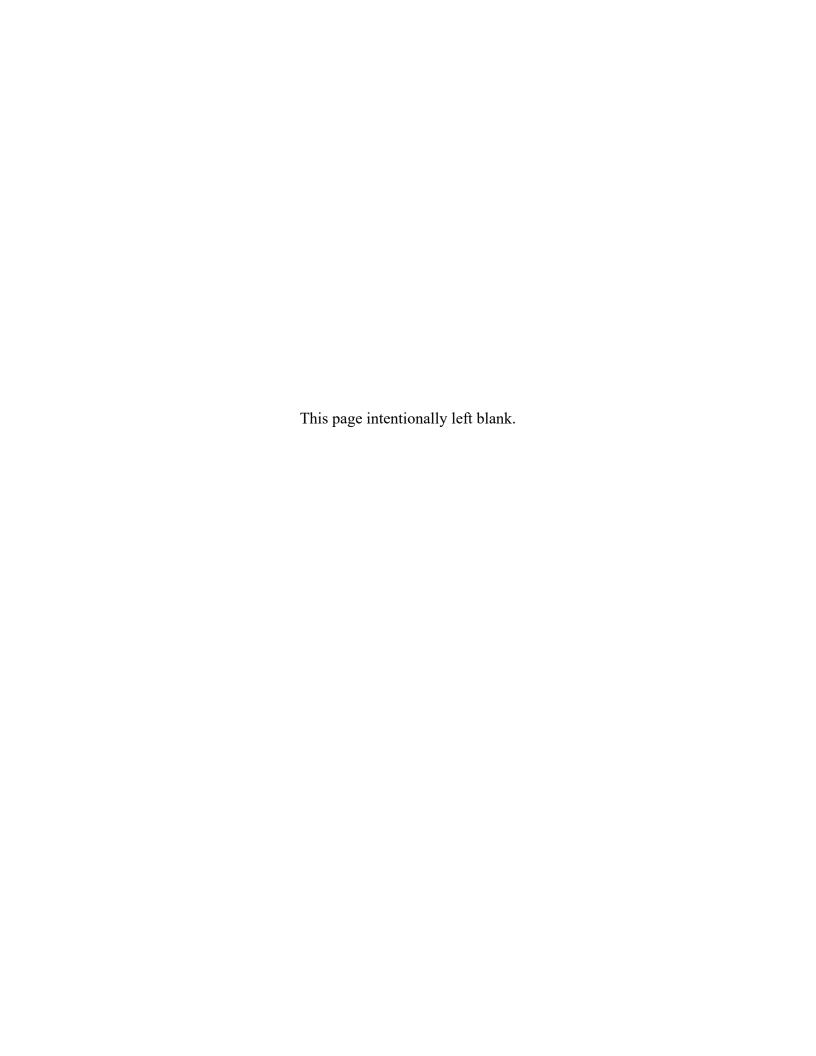
Wellington Domestic Equity
Winslow Domestic Equity

Zevenbergen Domestic Equity

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## REPORT

Participant Directed
Investment Program
and
Non-Retirement
Investment Program



DATE: May 6, 2025

TO: Members, Investment Advisory Council

FROM: SBI Staff

#### SUBJECT: Participant-Directed Investment Program and Non-Retirement Program

This section of the report provides commentary on the Participant-Directed Investment Program (PDIP) investment options and Non-Retirement Program managers for the quarter ending March 31, 2025. It includes organizational updates relevant to the strategies used and a list of due diligence meetings staff conducted during the first quarter of calendar year 2025.

#### The report includes the following sections:

		Page
•	Participant-Directed Investment Program Fund Commentaries	3
•	Non-Retirement 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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#### Participant-Directed Investment Program Fund Commentaries First 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 -4.8% 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 -4.3% 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 +0.1% for the quarter, outperforming the S&P U.S. Dividend Growers Index return of -0.5%. For the quarter, the Fund's underweight position in the technology sector and an overweight in the materials sector helped relative performance, as did positive stock selection in the financial and industrial sectors.

#### 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 -1.6% 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 -5.9% for the quarter, outperforming the Russell 2000 Index's return of -9.5%. The Fund's stock selection in the industrial, energy and consumer discretionary sectors added value during the quarter. While remaining relatively sector-neutral overall, the Fund's underweight positioning in the consumer discretionary and technology sectors also added to relative returns.

#### **International Equities**

#### **Fidelity Diversified International Trust**

This investment option actively selects the stocks of international companies, primarily located in developed markets. The manager focuses on companies with significant long-term earnings potential, durable business models, and attractive growth prospects. The portfolio returned +5.2% for the quarter, underperforming the MSCI EAFE Index, which returned +6.9%. The portfolio's relative underperformance was largely due to stock selection within the technology sector,

See Page 1 for important notes regarding the performance and market data included in this report.

including out-of-benchmark stocks Marvell Technology and Taiwan Semiconductor Manufacturing Corporation (TSMC).

#### **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 +4.3%, underperforming the benchmark's return of +4.5%.

#### **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 +3.0% for the quarter, outperforming the Bloomberg U.S. Aggregate Index, which gained +2.8%. Performance for the quarter was positively impacted by the portfolio's slightly longer duration than the benchmark, and positive security selection in the investment grade corporate sector.

#### 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's performance matched the benchmark with a +2.8% return.

#### **Stable Value Fund**

Galliard Capital Management manages the Stable Value Fund in a separately managed account. The Fund'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 Fund returned +0.8% for the quarter compared to a +1.1% return for its benchmark, the 3-Year Constant Maturity Treasury Yield +45 basis points. The Fund's underlying fixed income strategies continued to outperform their respective benchmarks. Since 2023, many stable value funds have experienced net outflows, which also coincided with a rising interest rate environment. Both factors have been a headwind to stable value crediting rates when viewed in comparison to prevailing market interest rates. Over time, this condition should abate as the manager reinvests maturities in higher-yielding securities.

#### **Money Market Fund**

State Street Global Advisors manages the cash option in a commingled pool called the Short-Term Investment Strategy. The Fund returned +1.1% for the quarter, outperforming the +1.0 return of its benchmark, the ICE BofA 3-Month U.S. T-Bill Index.

#### **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

See Page 1 for important notes regarding the performance and market data included in this report.



#### Non-Retirement Program Fund Commentaries First 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 returned -4.3% for the quarter, matching the performance of the benchmark.

#### **Non-Retirement Bond Fund**

Prudential Global Investment Management (PGIM) actively manages the Non-Retirement Bond Fund in a separately managed portfolio. The Fund returned +2.7% for the quarter, slightly underperforming its benchmark, the Bloomberg U.S. Aggregate Bond Index, which returned +2.8%. For the quarter, underperformance was the result of the portfolio's below-benchmark duration positioning and overweight allocations to the CMBS and municipal bond sectors.

#### **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 Intermediate U.S. Government 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's performance matched the benchmark for the quarter, returning +2.5%. During the quarter, the portfolio benefitted from a modest above-benchmark duration position, which added value as interest rates fell. Overall, RBC maintained conservative positioning in out-of-benchmark sectors such as agency MBS and municipal bonds, reflecting tight spreads within these sectors and growing uncertainty over the path of the U.S. economy and investor risk appetite.

#### **Non-Retirement Money Market Fund**

State Street Global Advisors manages the Non-Retirement Money Market Fund against the ICE BofA 3-Month U.S. T-Bill Index. For the quarter, the Fund returned +1.1%, outperforming the benchmark, which gained +1.0%.

# Organizational Updates Participant-Directed Investment Program Funds and Non-Retirement Program Managers First Quarter 2025 (CY)

#### **Dodge & Cox (PDIP Core Bond)**

Christopher Kelly joined the Global Research Team in January 2025 as a Global Industry Analyst, covering insurance companies. Kent Yamane joined the Fixed Income Structured Products desk as a Trader and Analyst. He previously worked as a Vice President on the Mortgage and Securitized team at BlackRock.

#### **Galliard (PDIP 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 overseeing Investments, Engineering & Technology, Finance, Global Operations, Human Resources, and Galliard Capital Management.

#### **PGIM (Non-Retirement Program Fixed Income)**

Daleep Singh will be rejoining PGIM Fixed Income as Vice Chair, Chief Economist and Head of Global Macroeconomic Research in April 2025. Mr. Singh served as the U.S. Deputy National Security Advisor for International Economics during the Biden Administration from January 2024 to January 2025 and February 2021 to June 2022. He was previously PGIM Fixed Income's Chief Global Economist and Head of Global Macroeconomic Research from June 2022 through February 2024.

#### Minnesota College Savings Plan

In February 2024, the Board approved a recommendation that the SBI's Executive Director, with assistance from legal counsel, work with the Minnesota Office of Higher Education (OHE) to negotiate and execute a five-year contract with TIAA CREF Tuition Financing, Inc. (TFI) as Plan Manager for the Minnesota College Savings Plan. Since that time, SBI staff have worked with TFI to conduct additional due diligence on their asset allocation recommendation for 2025, and research an alternative capital preservation option to replace the Funding Agreement where possible. This work was completed in early 2025, and the Plan Manager Agreement between TFI, OHE, and the SBI was executed on March 1, 2025.

Investment changes to the Minnesota College Savings Plan, effective May 16, 2025, are the following:

• Enrollment Glidepath exposure to the Funding Agreement will change. The Nuveen Money Market Fund will replace the Funding Agreement as the capital preservation option for future allocations within the Enrollment Year portfolios. No new account owner contributions or rebalancing activities will be directed to the Funding Agreement.

- The Conservative Option's exposure to the Funding Agreement will change. The Nuveen Money Market Fund will replace the Funding Agreement as the capital preservation option for future allocations within the Conservative Allocation portfolio. No new account owner contributions or rebalancing activities will be directed to the Funding Agreement.
- The Equity and Interest Accumulation Option will be eliminated and its assets mapped to the Moderate Allocation Option.

### Manager Meetings First Quarter 2025 (CY)

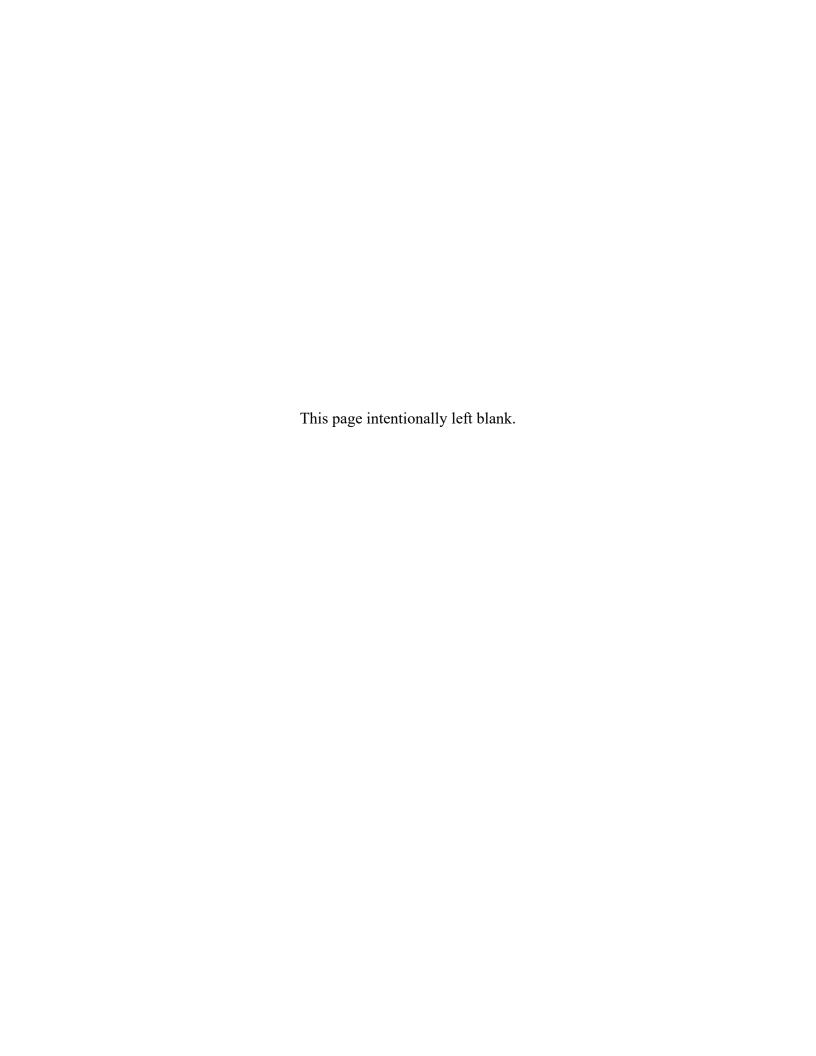
During the quarter, SBI staff conducted the following manager due diligence meetings:

Investment Manager	<b>Management Style and Asset Class</b>	Investment Program
Ascensus	Multi-Asset Class Platform	MN ABLE Plan
Dodge & Cox	Active, Fixed Income	PDIP
State Street	Passive, Target Retirement Fund Active, Money Market Active, Money Market	PDIP PDIP Non-Retirement
TIAA	Multi-Asset Class Platform	MN 529 Plan
Vanguard	Passive, Domestic All Cap Equity Passive, Domestic All Cap Equity Passive, Domestic Large Cap Equity Passive, Domestic Mid Cap Equity Passive, International Equity Passive, International Equity Passive, Fixed Income Passive, Fixed Income Passive, Balanced Fund Active, Domestic Large Cap Equity (Wellington) Active, Money Market	PDIP MN ABLE Plan PDIP PDIP PDIP MN ABLE Plan PDIP MN ABLE Plan PDIP PDIP PDIP PDIP MN ABLE Plan

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## REPORT

## AON Market Environment Report



## **AON**

## Market Environment

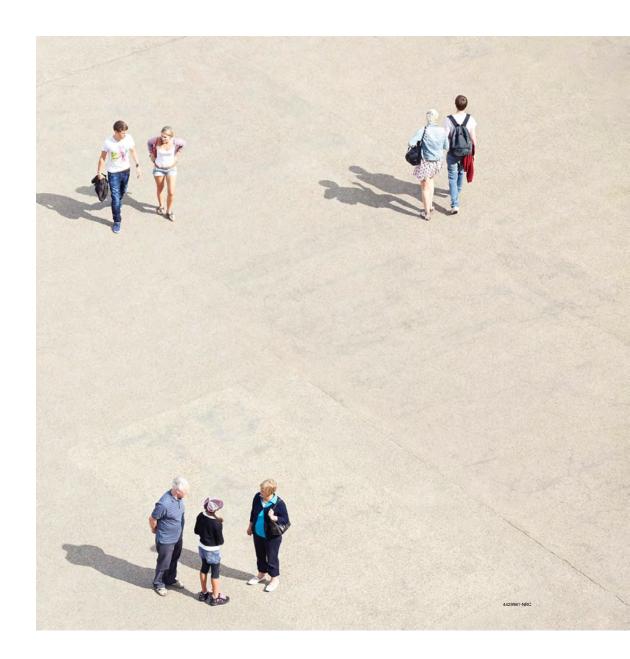
First Quarter 2025.

Market Data as of 3/31/2025 unless stated otherwise.

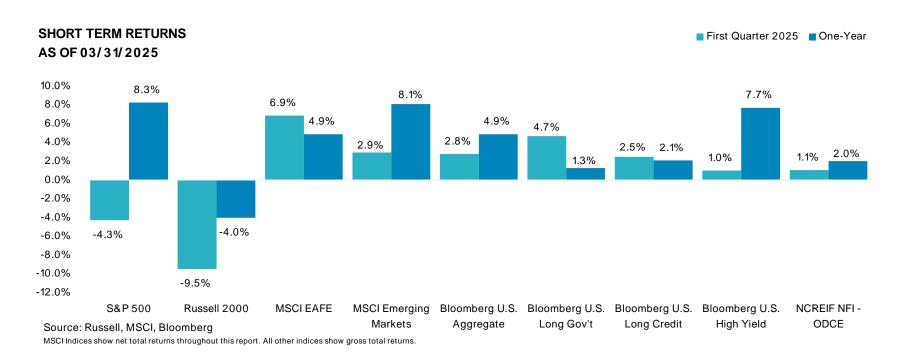
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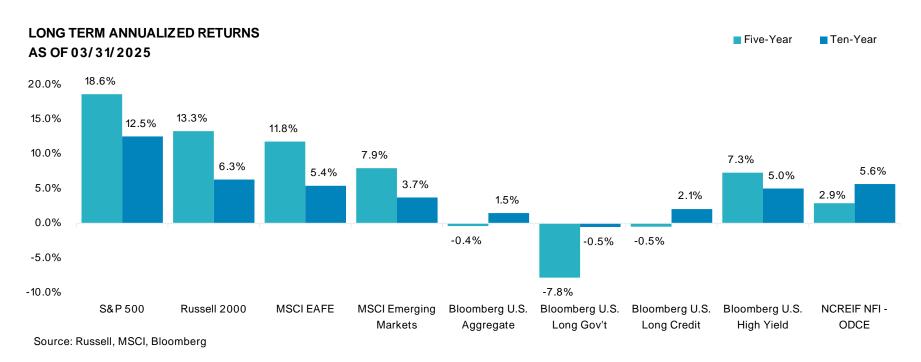


## **Market Highlights**



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## **Market Highlights**



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## **Market Highlights**

	Returns of the	Major Capital M	arkets			
	Period Ending 03/31/2025					
	First Quarter	1-Year	3-Year <sup>1</sup>	5-Year <sup>1</sup>	10-Year <sup>1</sup>	
Equity						
MSCI All Country World IMI	-1.61%	6.30%	6.31%	15.02%	8.55%	
MSCI All Country World	-1.32%	7.15%	6.91%	15.18%	8.84%	
Dow Jones U.S. Total Stock Market	-4.87%	7.09%	8.11%	18.08%	11.72%	
Russell 3000	-4.72%	7.22%	8.22%	18.18%	11.80%	
S&P 500	-4.27%	8.25%	9.06%	18.59%	12.50%	
Russell 2000	-9.48%	-4.01%	0.52%	13.27%	6.30%	
MSCI All Country World ex-U.S. IMI	4.59%	5.50%	3.99%	11.02%	5.02%	
MSCI All Country World ex-U.S.	5.23%	6.09%	4.48%	10.92%	4.98%	
MSCI EAFE	6.86%	4.88%	6.05%	11.77%	5.40%	
MSCI EAFE (Local Currency)	2.89%	4.13%	8.71%	13.26%	6.34%	
MSCI Emerging Markets	2.93%	8.09%	1.44%	7.94%	3.71%	
Equity Factors						
MSCI World Minimum Volatility (USD)	8.05%	13.89%	6.74%	10.63%	8.33%	
MSCI World High Dividend Yield	6.83%	9.99%	7.01%	13.11%	7.96%	
MSCI World Quality	-2.69%	3.54%	9.46%	16.99%	12.62%	
MSCI World Momentum	-0.78%	7.76%	8.39%	15.73%	11.98%	
MSCI World Enhanced Value	6.95%	5.83%	7.73%	14.50%	6.57%	
MSCI World Equal Weighted	2.79%	5.87%	4.79%	13.33%	6.97%	
MSCI World Index Growth	-7.71%	5.57%	7.86%	16.83%	11.78%	
MSCI USA Minimum Volatility (USD)	5.86%	14.02%	8.35%	13.59%	10.72%	
MSCI USA High Dividend Yield	4.53%	7.93%	6.80%	13.58%	9.76%	
MSCI USA Quality	-2.91%	6.65%	11.67%	18.56%	14.36%	
MSCI USA Momentum	-1.88%	7.93%	8.23%	15.09%	12.71%	
MSCI USA Enhanced Value	1.71%	1.25%	3.74%	14.36%	7.70%	
MSCI USA Equal Weighted	-1.32%	4.64%	5.16%	16.85%	9.49%	
MSCI USA Growth	-10.94%	8.41%	9.93%	20.37%	15.03%	

R	eturns of the Majo	r Capital Market	S		
	Period Ending 03/3				3/31/202
	First Quarter	1-Year	3-Year <sup>1</sup>	5-Year <sup>1</sup>	10-Year
Fixed Income					
Bloomberg Global Aggregate	2.64%	3.05%	-1.63%	-1.38%	0.61%
Bloomberg U.S. Aggregate	2.78%	4.88%	0.52%	-0.40%	1.46%
Bloomberg U.S. Long Gov't	4.67%	1.28%	-7.17%	-7.83%	-0.54%
Bloomberg U.S. Long Credit	2.47%	2.09%	-2.19%	-0.50%	2.05%
Bloomberg U.S. Long Gov't/Credit	3.57%	1.72%	-4.51%	-3.74%	1.01%
Bloomberg U.S. TIPS	4.17%	6.17%	0.06%	2.36%	2.51%
Bloomberg U.S. High Yield	1.00%	7.69%	4.98%	7.29%	5.01%
Bloomberg Global Treasury ex U.S.	2.41%	0.52%	-4.64%	-3.70%	-0.68%
JP Morgan EMBI Global (Emerging Markets)	2.35%	6.72%	3.24%	3.37%	3.11%
Commodities					
Bloomberg Commodity Index	8.88%	12.28%	-0.77%	14.51%	2.77%
Goldman Sachs Commodity Index	4.89%	3.83%	1.25%	20.74%	2.60%
Hedge Funds					
HFRI Fund-Weighted Composite <sup>2</sup>	-0.38%	4.68%	4.59%	9.55%	4.99%
HFRI Fund of Funds <sup>2</sup>	-0.21%	4.56%	4.01%	7.15%	3.51%
Real Estate					
NAREIT U.S. Equity REITS	0.91%	9.94%	-0.61%	11.34%	5.33%
NCREIF NFI - ODCE	1.05%	2.02%	-4.28%	2.89%	5.64%
FTSE Global Core Infrastructure Index	5.64%	13.95%	2.34%	9.62%	7.04%
Private Equity					
Burgiss Private iQ Global Private Equity <sup>3</sup>		5.14%	4.60%	13.68%	12.67%

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.

Source: Russell, MSCI, Bloomberg

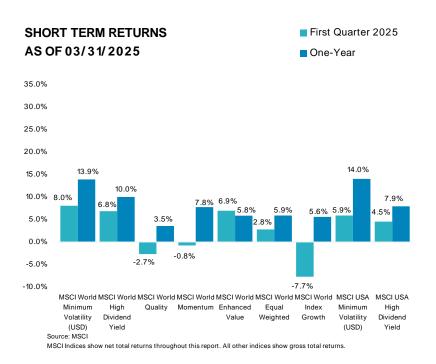
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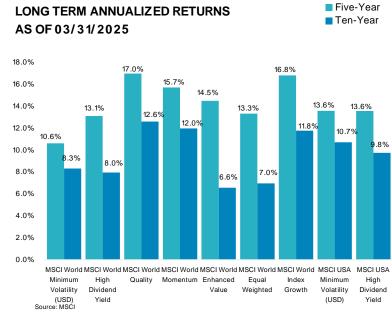
<sup>&</sup>lt;sup>1</sup> Periods are annualized.

<sup>&</sup>lt;sup>2</sup> Latest 5 months of HFR data are estimated by HFR and may change in the future.

<sup>&</sup>lt;sup>3</sup> Burgiss Private iQ Global Private Equity data is as at June 30, 2024

### **Factor Indices**

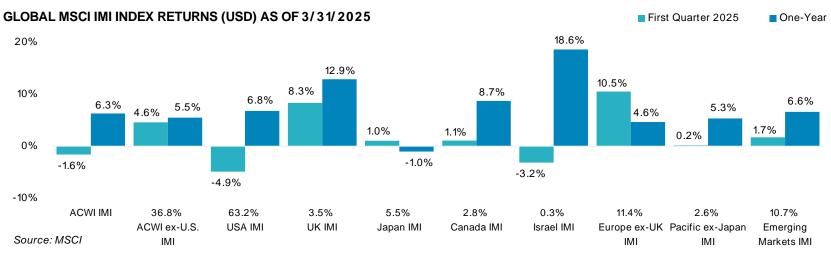




 ${\sf MSCI}\ {\sf Indices}\ {\sf show}\ {\sf net}\ {\sf total}\ {\sf returns}\ {\sf throughout}\ {\sf this}\ {\sf report}.\ {\sf All}\ {\sf other}\ {\sf indices}\ {\sf show}\ {\sf gross}\ {\sf total}\ {\sf returns}.$ 

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## **Global Equity Markets**

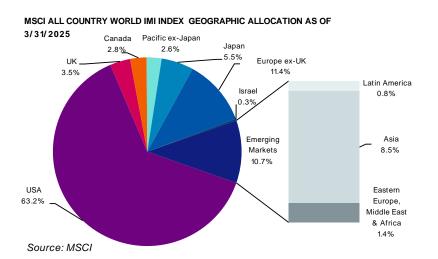


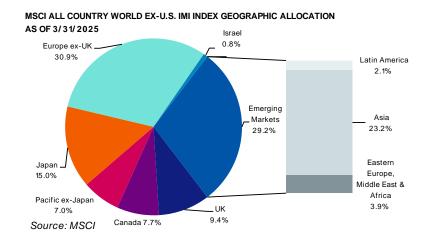
- In Q1 2025, global equity markets fell amidst rising volatility, with Trump tariffs adding to the market turmoil. The S&P 500 index fell by 4.3% over the quarter, delivering its worst quarterly performance since Q3 2022. The MSCI AC World index fell 1.2% over Q1 2025, underperforming the MSCI AC World ex-U.S. index, which rose 5.4%.
- The CBOE Volatility Index (VIX) rose to 22.3 in Q1, rising above its 20-year average of 19.2.
- USA IMI was the worst performer with a return of -4.9% over the quarter. Consumer Discretionary (-13.2%) and Information Technology (-12.9%) were the worst-performing sectors.
- Across international markets, all regions posted positive returns (except U.S. and Israel). The Europe-ex UK IMI equities outperformed with a return of 10.5%, followed by UK IMI (8.3%). Financials (22.6%) and Utilities (17.8%) were the best performing sectors in Europe.

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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.

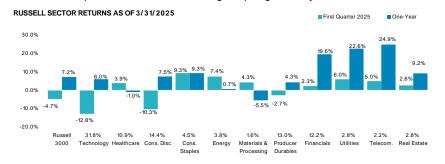


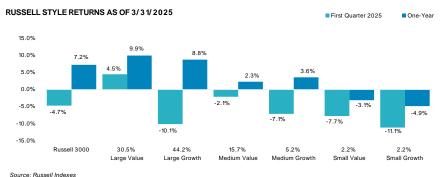


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### **U.S. Equity Markets**

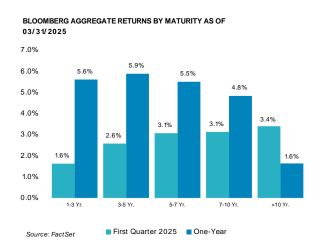
- The S&P 500 index fell by 4.3% over the quarter, delivering its worst quarterly performance since Q3 2022. The Dow Jones Industrials fell 0.9% while the tech-heavy NASDAQ Composite index fell 10.3%.
- Q1 2025 saw a flurry of tariff announcements by U.S. President Donald Trump. The U.S. economy grew at an annualized rate of 2.4% in the fourth quarter of 2024, slightly higher than the economists' expected 2.3% but lower than the previous quarter's annualized growth rate of 3.1%. The growth in consumer and government spending was tempered by a decline in private investment.
- The FOMC projects GDP growth of 1.7% for 2025, down from the previous estimate of 2.1%, while PCE inflation is forecasted to rise to 2.7% this year, up from the previous estimate of 2.5%.
- The Russell 3000 Index fell 4.7% during the first quarter and rose by 7.2% on a 1-year basis. Consumer Staples (9.3%) and Energy (7.4%) were the best performers, while Technology (-12.8%) and Consumer Discretionary (-10.3%) were the worst performers.
- On a style basis, value outperformed growth across market capitalizations over the quarter. Large-cap stocks outperformed Medium and Small-cap stocks in value style, while Small-cap stocks underperformed Medium and Large-cap in growth style.

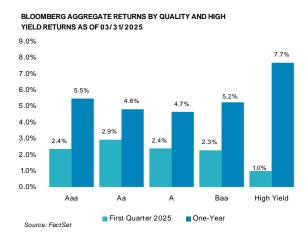


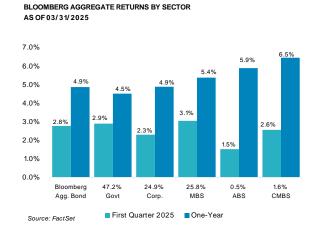


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### **U.S. Fixed Income Markets**



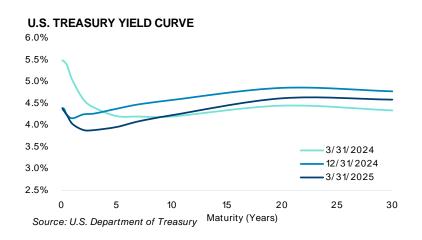




- The U.S. Fed maintained interest rates over the quarter between a range of 4.25%—4.50%. The latest Fed "dot plot," showed a majority of FOMC members still projecting a reduction of half a percentage point in interest rates for 2025 with the rate expected to decline to 3% beyond 2027. Additionally, the Fed announced plans to slow the pace of quantitative tightening by lowering the monthly cap on maturing U.S. Treasuries rolling off its balance sheet, from \$25 billion to \$5 billion starting April 1, 2025.
- The Bloomberg U.S. Aggregate Bond Index rose by 2.8% over the quarter and is up by 4.9% on a 1-year basis.
- · Across durations, all maturities finished the quarter in positive territory with longer maturities rising more.
- Within investment-grade bonds, higher-quality issues generally outperformed lower-quality issues, with Aa-rated bonds returning 2.9% during the quarter. High-yield bonds rose by 1.0%. On a 1-year basis, high-yield bonds have outperformed indicating an increased risk appetite.

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### **U.S. Fixed Income Markets**

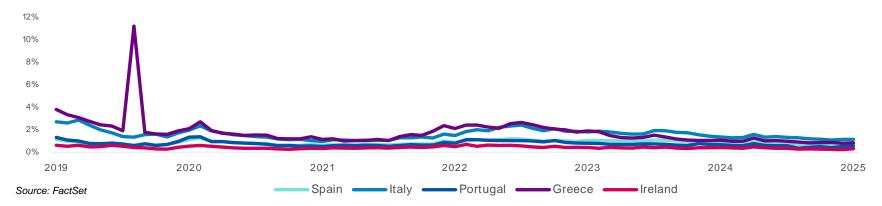




- U.S. Treasury yields fell across maturities as the yield curve shifted downwards over the quarter. The 10-year Treasury yield fell by 35bps to 4.23%, and the 30-year Treasury yield fell by 19bps to 4.59% over the quarter.
- U.S. headline consumer price index (CPI) fell to 2.4% year-on-year in March, lower than the economists' expectations of 2.6% and below February's reading of 2.8%. U.S. core inflation, which excludes energy and food prices, fell to 2.8% year-on-year in March, lower than the economists' expectations of 3.0% and February's reading of 3.1%.
- The 10-year TIPS yield fell by 39bps over the quarter to 1.85%.

### **European Fixed Income Markets**

#### EUROZONE PERIPHERAL BOND SPREADS (10-YEAR SPREADS OVER GERMAN BUNDS)



- European government bond spreads over 10-year German bunds remained range-bound across the Euro Area, with spreads showing slight contraction for Spain, Italy and Greece, and slight widening for Portugal and Ireland. Over Q1 2025, the European Central Bank reduced its policy interest rate twice by 0.25% each to 2.50%, marking six interest rate cuts since June 2024. The bank also revised its economic growth projections further downwards from those made in December, now forecasting growth rates of 0.9% for 2025, 1.2% for 2026 and 1.3% for 2027. Additionally, headline inflation is expected to accelerate to 2.3% in 2025, 1.9% in 2026, and 2.0% in 2027.
- Greek and Italian government bond yields rose by 33bps and 32bps to 3.53% and 3.84%, respectively over the quarter while Portugal government bond yields rose by 41bps to 3.25%. Irish and Spain government bond yields rose by 38bps and 30bps to 3.01% and 3.34%, respectively over the quarter.
- German bund yields rose by 34bps to 2.70% over the quarter.
- Eurozone headline inflation slowed down as the CPI increased 2.2% year-on-year in March, lower than the 2.3% increase recorded in February and in line with the economists' expectations. Core inflation rose 2.4% year-on-year in March, lower than the previous month's 2.6% and below economists' expectations of 2.5%.

## **Credit Spreads**

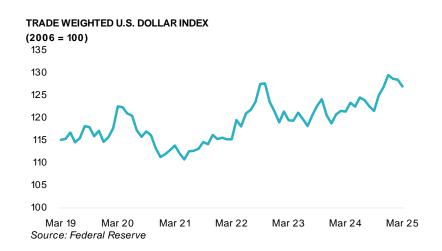
Spread (bps)	3/31/2025	12/31/2024	3/31/2024	Quarterly Change (bps)	One-Year
U.S. Aggregate	35	34	39	1	-4
Long Gov't	-1	0	0	0	-1
Long Credit	117	100	109	17	8
Long Gov't/Credit	57	50	57	7	0
MBS	36	43	49	-6	-13
CMBS	88	80	96	7	-8
ABS	60	44	55	16	5
Corporate	94	80	90	14	4
High Yield	347	287	299	60	48
Global Emerging Markets Source: FactSet, Bloomberg	232	219	260	13	-28

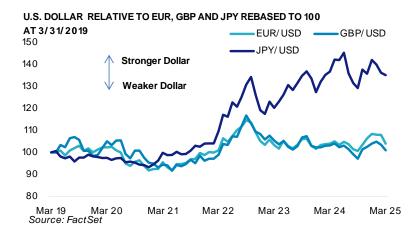
Source: FactSet, Bloomberg

- Credit markets rose amid falling risk tolerance sentiment, with spreads generally widening.
- High Yield and Global Emerging Markets spreads widened by 60bps and 13bps, respectively. Meanwhile, ABS spreads widened by 16bps.

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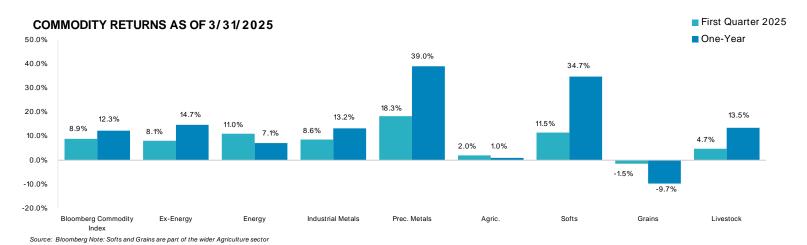
### **Currency**





- The U.S. Dollar depreciated against all major currencies over the quarter. On a trade-weighted basis, the U.S. dollar depreciated by 2.0%.
- Sterling appreciated by 3.0% against the U.S. dollar. In its February meeting, the Bank of England reduced its policy rate by 0.25% to 4.5%. The central bank now projects a GDP growth of 0.25% for Q1 2025, higher than the 0.1% reported earlier, with inflation expected to rise to 3.75% by Q3 2025.
- The U.S. dollar depreciated by 4.1% against the euro and by 4.8% against the yen.

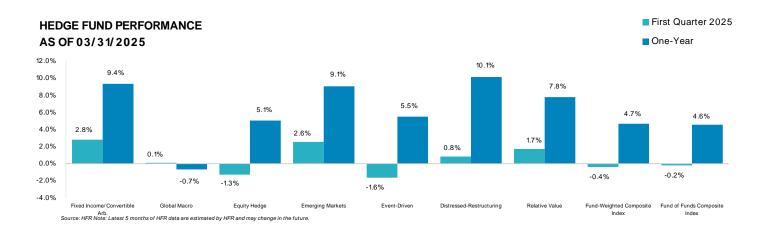
### **Commodities**



- Commodity prices rose over the quarter (except Grains sub-sector) with the Bloomberg Commodity Index returning 8.9%.
- The grains sub-sector was the worst performer over the quarter at -1.5%.
- The Prec. Metals sector rose the most over the quarter at 18.3%.
- Following the OPEC+ members' decision to continue with the 2.2 million barrels per day (bpd) increase in oil production post April 2025, seven OPEC+ countries agreed to cut oil production by 189,000 bpd to 435,000 bpd until June 2026, as compensation for increased oil production above the agreed levels. Meanwhile, the price of WTI crude oil fell by 0.3% to U.S.\$ 71.5/B.

Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses. Please see appendix for index definitions and other general disclosures

### **Hedge Funds Market Overview**

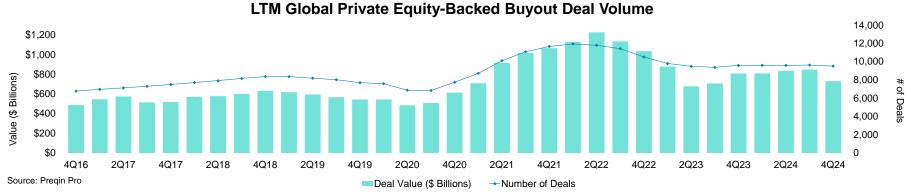


- Hedge fund performance remained mixed over the quarter.
- The HFRI Fund-Weighted Composite produced a return of -0.4% and the HFRI Fund of Funds Composite Index produced a return of -0.2% over the quarter.
- Over the quarter, Fixed Income/Convertible Arb. was the best performer with a return of 2.8%.
- Event-Driven was the worst performer with a return of -1.6% over the quarter.
- On a 1-year basis, Distressed-Restructuring has outperformed all other strategies while Global Macro has performed the worst.

Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses. Please see appendix for index definitions and other general disclosures

### **Private Equity Overview**

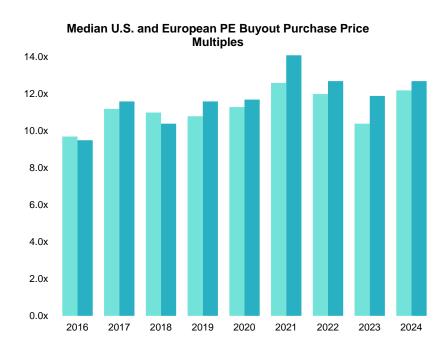
### Fourth Quarter 2024



- Fundraising: In Q4 2024, \$178.9 billion of capital was raised by 688 funds, which was a decrease of 16.4% on a capital basis and a decrease of 3.8% by number of funds closed over the prior quarter. Capital raised and the number of funds closed in 2024 represented a decrease of 23.7% and 24.2%, respectively, compared to the prior year.
- Buyout: Global private equity-backed buyout deals totaled \$170.8 billion in Q4 2024, which was a decrease on a capital basis of 13.7% compared to Q3 2024 and a decrease of 18.9% compared to the five-year quarterly average.¹ On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.7x at the end of Q4 2024, an increase compared to the 11.9x seen at the end of 2023 and up slightly from the five-year average (12.4x). In Europe, on a TTM basis, median private equity EV/EBITDA multiples reached 12.2x at the end of Q4 2024, above the 10.4x multiple seen at the end of 2023 and above the five-year average of 11.4x.² Globally, buyout exit value totaled \$112.2 billion across 569 deals during the quarter, up, on a capital basis, from \$105.1 billion in exit value from 634 deals during the prior quarter. Exit value across buyout transactions totaled \$415.2 billion in 2024, decreasing from 2023's total exit value of \$456.7 billion.¹
- Venture: During the quarter, 2,859 U.S. venture-backed transactions totaling \$74.6 billion were completed, which was an increase of 70.2% on a capital basis and a decrease of 15.0% by deal count over the prior quarter, which saw 3,365 deals completed totaling \$43.8 billion. This was also an increase of 35.7% on a capital basis compared to the five-year quarterly average of \$55.0 billion. Total U.S. venture-backed exit value increased during the quarter, totaling approximately \$37.0 billion across an estimated 356 completed transactions. This compares to \$26.3 billion of value across 256 exits in Q4 2023. However, Q4 2024 exit value was meaningfully below the five-year quarterly average of \$79.8 billion from 356 transactions.

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.)**



■ Median Europe EV/EBITDA

Median U.S. EV/EBITDA

Source: Pitchbook, LCD

Sources: 1 Preqin 2 Pitchbook/LCD 3 PitchBook/NVCA Venture Monitor 4 Fitch Ratings 5 Jefferies

- Mezzanine: 5 funds closed on \$0.6 billion during the quarter, a decrease from the prior quarter's total of \$3.5 billion raised by 8 funds. This represented a significant decrease compared to the five-year quarterly average of \$6.6 billion. Capital raised in 2024 represented only 19.7% of 2023's total of \$39.8 billion.1
- Distressed Debt/Special Situations: The TTM U.S. high-yield default rate was 2.58% as of December 2024, which was up from September 2024's TTM rate of 1.94%.4 During the quarter, \$10.3 billion was raised by 12 funds, down from the \$16.5 billion raised by 11 funds during Q3 2024. Capital raised in 2024 represented 75.4% of 2023's total of \$50.8 billion.1
- Secondaries: 19 funds raised \$7.9 billion during Q4 2024, down substantially from the \$30.1 billion raised by 26 funds in Q3 2024. This was also a decrease compared to the fiveyear quarterly average of \$15.8 billion. The average discount rate for LP buyout and venture capital portfolios finished 2H 2024 at 6.0% and 25.0%, respectively, with buyout discounts being flat and venture discounts decreasing 5.0% compared to 1H 2024.5
- Infrastructure: \$18.9 billion of capital was raised by 17 funds in Q4 2024 compared to \$18.1 billion of capital raised by 20 funds in Q3 2024. The 10 largest funds in market are currently seeking a combined \$176.0 billion in capital. Infrastructure managers completed 416 deals for an aggregate deal value of \$74.1 billion in Q4 2024, a decrease compared to 540 deals totaling \$105.5 billion completed in Q3 2024.1
- Natural Resources: During Q4 2024, 6 funds closed on \$10.5 billion, a large increase compared to 10 funds closing on \$2.8 billion during the prior quarter. However, capital raised in 2024 represented a decrease of 46.4% compared to the prior year. 74 energy and utilities buyout deals were completed in Q4 2024 totaling \$7.1 billion, a decrease, on a capital basis, compared to 70 completed deals totaling \$10.7 billion in Q3 2024.1

# **Appendix** Index Definitions

Index	Definition
MSCI AC World Index	The MSCI ACWI Index, MSCI's flagship global equity index, is designed to represent performance of the full opportunity set of large- and mid-cap stocks across 23 developed and 24 emerging markets. As of May 2022, it covers more than 2,933 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market.
MSCI All Country World Investable Market Index	A capitalization-weighted index of stocks representing approximately 49 developed and emerging countries, including the U.S. and Canadian markets and covering all investable large-, mid- and small-cap securities.
MSCI World Index	A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, representing 24 developed market country indices.
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 783 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 1,441 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets Investable Market Index	A capitalization-weighted index of stocks representing approximately 26 emerging countries, and covering all investable large-, mid- and small-cap securities.
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.
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.Straded 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.

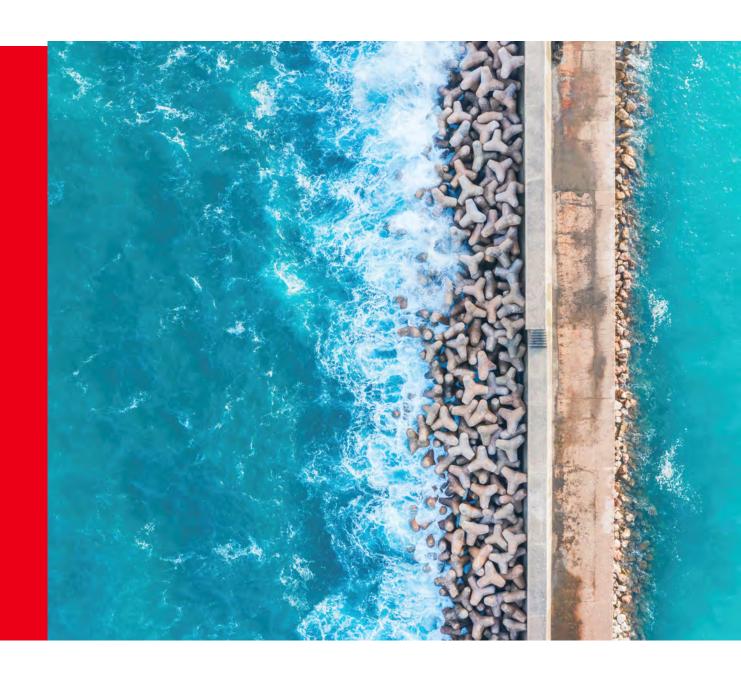
# Appendix Index Definitions

Index	Definition			
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.			
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.			
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+.			
Bloomberg Commodity Index	The Bloomberg Commodity Index is a broadly diversified commodity price index distributed by Bloomberg Index Services Limited.			
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.			

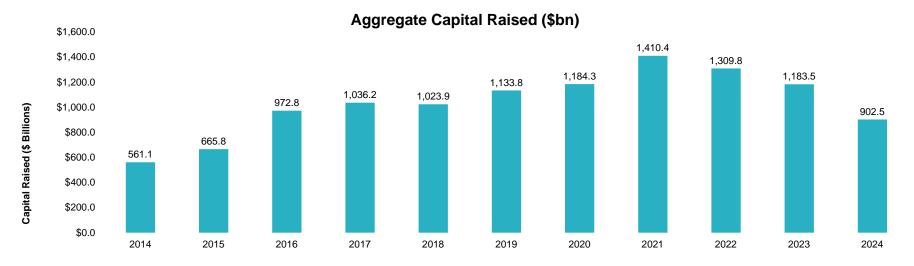
# AON

# Q4 2024 Global Private Equity Market Overview

April 2025



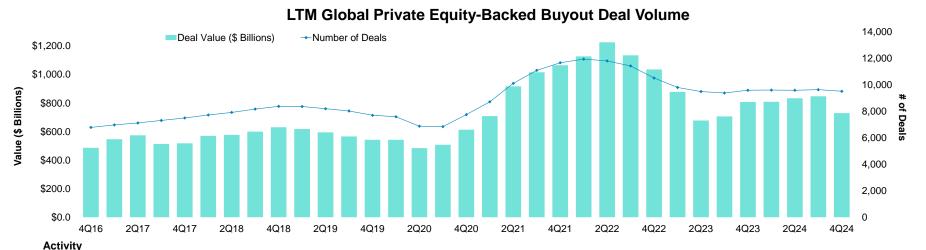
### **Private Equity Overview**



#### **Fundraising**

- In Q4 2024, \$178.9 billion was raised by 688 funds, which was a decrease of 16.4% on a capital basis and a decrease of 3.8% by number of funds over the prior quarter. Capital raised in 2024 represented only 76.3% of 2023's total. The number of funds closed also decreased by 24.2% compared to the prior year.
  - Q4 2024 fundraising was 42.7% lower, on a capital basis, and 45.9% lower, by number of funds, compared to the five-year quarterly average. Similarly, on an annual basis, 2024's fundraising was 27.5% lower, on a capital basis, and 46.4% lower, by number of funds, compared to the five-year average.
  - The majority of capital was raised by funds located in North America, comprising 64.6% of the quarter's total. This was down slightly from 68.5% during the prior quarter. Capital raised by European managers accounted for 25.3% of capital raised during the quarter, an increase from 25.1% in Q3 2024. The remainder was attributable to managers located in Asia and other parts of the world.
- Dry powder stood at \$3.2 trillion at the end of the quarter, equal to the prior quarter, but an increase of 20.8% compared to the five-year average.

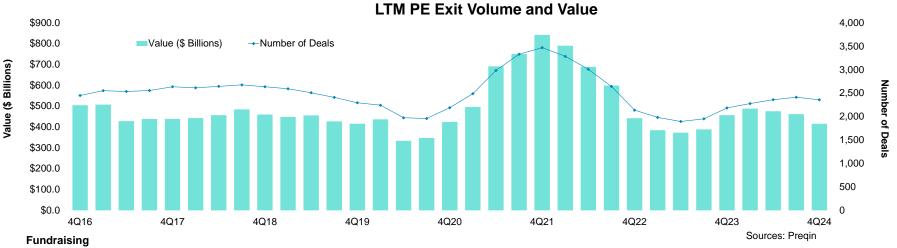
### **Private Equity Overview (cont.)**



# • Global private equity-backed buyout deals totaled \$170.8 billion in Q4 2024, which was a decrease on a capital basis of 13.7% compared to Q3 2024. On a number of deals basis, however, the quarter's total increased 4.4% over the prior quarter. On an LTM basis, deal value in 2024 decreased by 9.7% over the period year, while number of deals completed decreased by 0.8%. Please note, a previously included PIPE investment in Aramco by Public Investment Fund (estimated at \$163.3 billion) has been removed from 2024's total deal value.1

- Deal value in Q4 2024 was a decrease of 18.9% compared to the five-year quarterly average.
- Add-on deals comprised the largest number of completed deals by type, accounting for 43.0% of the guarter's total.
- On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.7x at the end of Q4 2024, well below the 15.0x seen at the end of Q3 2024 but above the 11.9x seen at the end of Q4 2023.3
  - The median purchase price multiple for U.S. PE buyout transactions in 2024 was higher than the five-year and ten-year averages of 12.4x EBITDA and 11.7x EBITDA, respectively.
- In Europe, on a TTM basis, median private equity EV/EBITDA multiples reached 12.2x at the end of Q4 2024, slightly above the 12.1x multiple seen at the end of Q4 2023. This was up compared to the five-year average of 11.4x and above the ten-year average of 10.9x EBITDA.<sup>3</sup>
- 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 47.7% of completed transactions, a slight increase compared to the prior year's 45.7%.<sup>3</sup>

### **Buyouts / Corporate Finance**



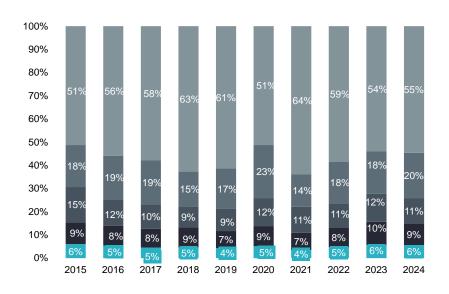
- \$87.3 billion was closed on by 224 buyout and growth funds in Q4 2024, a decrease compared to \$96.8 billion raised by 169 funds in Q3 2024. This represented a decrease of 56.1% compared to capital raised in Q4 2023. On an annual basis, capital raised in 2024 was a decrease of 20.6% and 9.6% compared to 2023 and the five-year average.<sup>1</sup>
  - Activity in Q4 2024 was lower, on a capital and number of funds raised basis, compared to the five-year quarterly average of \$143.1 billon raised by 279 funds.
  - Summit Partners Growth Equity Fund XII was the largest fund raised during the quarter, closing on \$9.5 billion of commitments.
- Buyout and growth equity dry powder was estimated at \$1.3 trillion at the end of Q3 2024, down 6.0% compared to the year-end 2023.1
  - An estimated 60.0% of buyout dry powder was targeted for North America, while European dry powder comprised 24.3% and Asia/Rest of World accounted for the remainder.

### Activity

• Globally, buyout exit value totaled \$112.2 billion across 569 deals during the quarter, up from \$105.1 billion in value from 634 deals during the prior quarter. Exit value across buyout transactions totaled \$415.2 billion in 2024, decreasing from 2023's total exit value of \$456.7 billion.<sup>1</sup>

### **Buyouts / Corporate Finance**

### **Buyout Deal Value by Deal Size**



■ Less than \$100mn ■ \$100-249mn

■ \$250-499mn

■ \$500-999mn

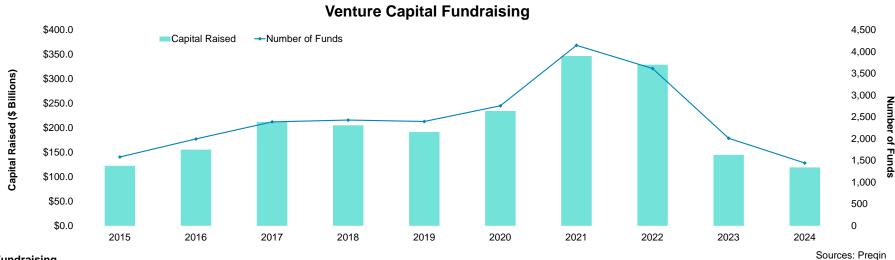
■ \$1-4.99bn

Sources: Preqin

#### Activity

- Global private equity-backed buyout deals totaled \$170.8 billion in Q4 2024, which was a decrease on a capital basis of 13.7% compared to Q3 2024 and a decrease of 18.9% compared to the five-year quarterly average. Please note, a previously included PIPE investment in Aramco by Public Investment Fund (estimated at \$163.3 billion) has been removed from 2024's total deal value.<sup>1</sup>
  - By geography, deals in North America accounted for the largest percentage of total deal value at an estimated 48.6% in Q4 2024, followed by Europe (25.1%), while consumer discretionary deals accounted for the largest percentage by industry at 21.0% of total deal value, followed by industrials (17.7%).
- Of deals less than \$5.0 billion in size, deals valued between \$1.0 billion \$4.9 billion accounted for an estimated 54.7% of deal value in 2024 compared to 54.1% in 2023. Deals valued between \$500.0 million to \$999.9 million accounted for the second largest weighting, representing 19.5% of total deal value.<sup>1</sup>
- On a TTM basis, median U.S. private equity EV/EBITDA multiples reached 12.7x at the end of Q4 2024, an increase compared to the 11.9x seen at the end of 2023.<sup>3</sup>
  - This was also above the five-year average and ten-year average of 12.4x EBITDA and 11.3x EBITDA, respectively.
  - However, 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 12.2x at the end of Q4 2024, above the 10.4x multiple seen at the end of 2023. This was above the five-year and ten-year average multiple of 11.4x and 10.9x, respectively.<sup>3</sup>
- The equity contribution for U.S. broadly syndicated loan-funded buyout transactions stood at 52.3% in 2024 as transactions were less reliant on debt financing to complete the deals. This remained above the five- and ten-year average levels of 50.2% and 46.6%, respectively.<sup>3</sup> Opportunity <sup>4</sup>
- Mid-market managers with value-creation expertise across business cycles.
- Managers focused on value-oriented strategies and/or corporate carve-outs.

### **Venture Capital**

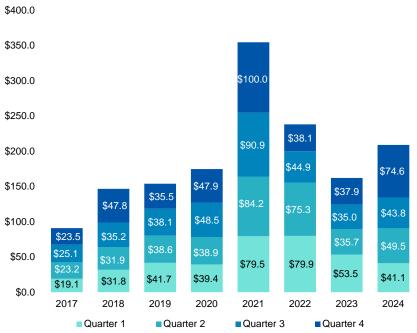


#### **Fundraising**

- \$26.8 billion of capital was raised by 340 funds in Q4 2024, lower, by both total capital raised and number of funds closed, from the prior quarter's total of \$29.0 billion raised by 382 funds. This was also lower than the \$41.8 billion of capital raised by 639 funds during Q4 2023. Compared to 2023, capital raised in 2024 decreased 17.6%, while the number of funds closed decreased by 28.2%.1
  - Q4 2024 fundraising was 55.6% lower, on a capital basis, compared to the five-year quarterly average of \$60.4 billion. On an annual basis, 2024's fundraising decreased 52.1% compared to the five-year average.
  - General Catalyst Group XII was the largest fund raised during the quarter with total commitments of \$8.0 billion.
- At the end of Q4 2024, there were an estimated 7,456 funds in market targeting \$503.5 billion.<sup>1</sup>
  - 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 \$573.5 billion at the end of Q3 2024, down from year-end 2023's total of \$625.7 billion.¹

### **Venture Capital**





Source: Pitchbook / NVCA

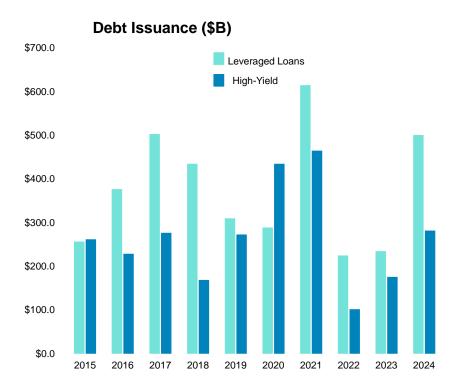
### Activity

- During the quarter, 2,859 U.S. venture-backed transactions totaling \$74.6 billion were completed, which was an increase of 70.2% on a capital basis and a decrease of 15.0% by deal count over the prior quarter, which saw 3,365 deals completed totaling \$43.8 billion. This was an increase of 35.7% on a capital basis compared to the five-year quarterly average of \$55.0 billion.<sup>7</sup>
  - In Q4 2024, there were 63 U.S.-based deals involving unicorn companies, representing roughly \$44.5 billion in deal value, driven by substantial investment in the AI space. This was up materially compared to the prior quarter, which saw 77 unicorn-related deals close at a deal value of \$12.5 billion. This quarter's unicorn deal value was also above the five-year quarterly average of \$18.7 billion.<sup>7</sup>
- Most median pre-money valuations increased relative to the valuations seen at the end of the prior quarter, with the exception of Seed and Series D+. Compared to the prior quarter, Series A valuations increased from a median pre-money valuation of \$39.7 million to \$47.0 million, Series B increased from \$129.9 million to \$166.1 million, and Series C increased from \$275.0 million to \$360.0 million. Seed valuations slightly decreased from \$17.3 million to \$17.1 million, while Series D+ decreased from \$991.4 million to \$651.9 million.8
- Total U.S. venture-backed exit value increased during the quarter, totaling approximately \$37.0 billion across an estimated 356 completed transactions. This compares to \$26.3 billion of value across 256 exits in Q4 2023. Q4 2024 exit value was meaningfully below the five-year quarterly average of \$79.8 billion from 356 transactions.<sup>7</sup>
  - The number of U.S. venture-backed initial public offerings was equal to the prior quarter, with 14 IPOs completed in Q4 2024 at a value of \$12.9 billion. 192 exits occurred by acquisition, marking a decrease over the prior quarter's 201 acquisitions, and accounted for \$19.2 billion in exit value.<sup>7</sup>

### Opportunity 4

- Early stage continues to be attractive, although we continue to monitor valuations
- Technology sector, with emerging AI, digital health, and potential for new energy & climaterelated innovation

### **Leveraged Loans & Mezzanine**



Sources: UBS

#### <u>Leveraged Loans</u> Fundraising

- New U.S. CLO issuance totaled \$53.8 billion in Q4 2024, higher than the \$35.8 billion issued in Q3 2024. Total CLO issuance surpassed \$195.0 billion in 2024, an increase compared to \$120.7 billion in 2023.<sup>2</sup>
- High-yield debt issuance totaled \$282.0 billion in 2024, up 60.0% over the prior year. While this is below the high levels of issuance seen in 2020 and 2021, it more closely aligns with the issuance level seen in the pre-Covid years.²

#### Activity

- U.S. institutional leveraged loan primary volume totaled \$501.0 billion through in 2024, compared to \$235.0 billion in 2023 (+113.0%). This was also materially higher than the five-year average of \$335.0 billion.²
  - Loan issuance for M&A activity is expected to remain strong through 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 €207.0 billion in 2024, exceeding the former peak set in 2017.³

#### 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 47.7% of completed transactions in 2024, a slight increase compared to the prior year's total of 45.7%. This compares to the five- and ten-year averages of 49.8% and 53.4%, respectively.<sup>3</sup>
- According to UBS, primary market activity is expected to be comprised of both M&A financings and opportunistic transactions with an increase in private markets M&A.<sup>2</sup>
- 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 \$0.6 billion during the quarter, a decrease from the prior quarter's total of \$3.5 billion raised by 8 funds. This represented a significant decrease compared to the fiveyear quarterly average of \$6.6 billion. Capital raised in 2024 represented only 19.7% of 2023's total of \$39.8 billion.¹
- Estimated dry powder was \$52.4 billion at the end of Q3 2024, down from \$58.2 billion at the end of the Q4 2023.1
- An estimated 116 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.<sup>1</sup>

### Opportunity 4

Funds with the capacity to scale for large sponsored deals

### **Distressed Private Markets**

# Distressed Debt, Turnaround, & Special Situations Fundraising

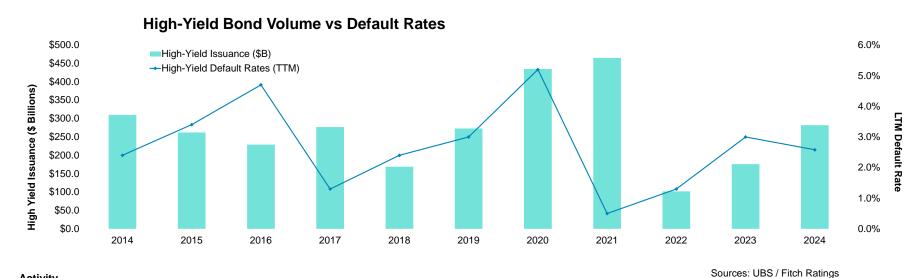


Source: Pregin

#### **Fundraising**

- During the quarter, \$10.3 billion was raised by 12 funds, down, on a capital basis, from the \$16.5 billion raised by 11 funds during Q3 2024. Similarly, on an annual basis, capital raised in 2024 decreased by 24.7% compared to 2023.1
  - Capital raised in Q4 2024 decreased by 59.4% compared to Q4 2023's total of \$25.3 billion.
  - Q4 2024's fundraising was 39.2% lower than the five-year quarterly average of \$16.9 billion.
  - The average closed fund size was \$1.0 billion in Q4 2024, a significant decrease compared to the \$2.3 billion average in Q3 2024. However, Q4 2024's average closed fund size increased 17.5% compared to the five-year quarterly average of \$872.3 million.
  - Bain Capital Global Special Situations II was the largest fund closed during the quarter with \$5.7 billion in commitments.
- Dry powder was estimated at \$131.0 billion at the end of Q3 2024, which was down 22.4% from year-end 2023. This was down from the five-year average level of \$150.8 billion.<sup>1</sup>
- Roughly 248 funds were in the market at the end of Q4 2024 seeking \$108.8 billion in capital commitments.<sup>1</sup>
  - Special situations managers were targeting the most capital, seeking approximately 55.9% 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**



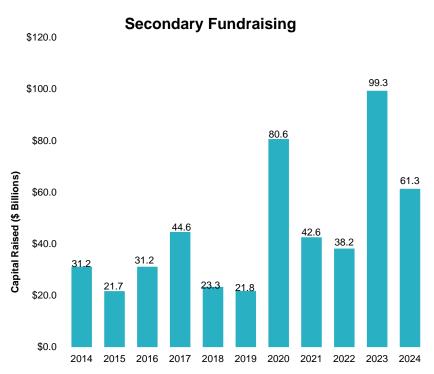
### Activity

- The TTM U.S. high-yield default rate was 2.58% as of December 2024, which was up slightly from September 2024's TTM rate of 1.94%. Fitch expects the high-yield default rate to trend slightly higher in 2025, with forecasted default rates in 2025 of 2.5% to 3.0%.6
- Continued market dislocations caused by macroeconomic factors may supply additional distressed opportunities in the next several months, notably if the default rate moves higher.

### Opportunity 4

- Funds capable of performing operational turnarounds
- Funds with the flexibility to invest globally

### **Secondaries**



Source: Pregin

### **Fundraising**

- 9 funds raised \$7.9 billion during Q4 2024, down substantially from the \$30.1 billion raised by 26 funds in Q3 2024. This was also a decrease compared to the five-year quarterly average of \$15.8 billion.<sup>1</sup>
  - AKKR Strategic Capital was the largest fund closed during the quarter with total commitments of \$2.2 billion.
- At the end of Q4 2024, there were an estimated 178 secondary funds in market targeting roughly \$114.9 billion. The majority of secondary funds are targeting North American investments.<sup>1</sup>
  - ASF IX was the largest fund being raised, seeking \$25.0 billion in commitments. There
    are currently three funds in market seeking \$10.0 billion or more in capital
    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 Limited Partners.<sup>16</sup>
- 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.<sup>14</sup>
- 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.<sup>16</sup>

### **Secondaries**

### **Secondary Pricing for Limited Partner Portfolios**



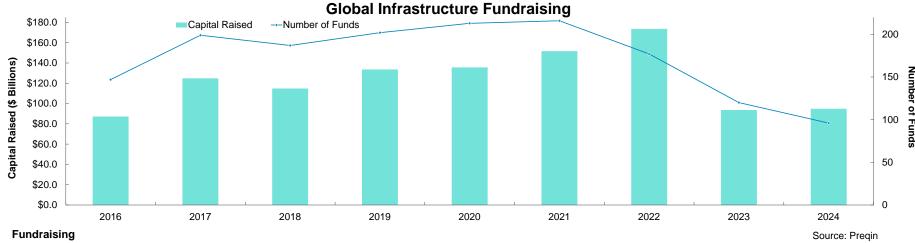
### Activity

- Limited partner portfolio pricing has improved 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 2H 2024 at 6.0% and 25.0%, respectively. Jefferies expects pricing to remain relatively consistent in 2025 as demand remains stable, notably from retail entrants into the market. This, coupled with secondary dry powder available to invest, is expected to drive strong transaction volume in 2025.<sup>17</sup>
- 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. PJT estimates that 28% of LP-led transactions included the use of deferrals, an increase compared to 24% in 2023.<sup>16</sup>
- GP-led volume is expected to increase in 2025 compared to the prior year, according to Jefferies, with projections of more than \$75.0 billion in transaction volume. 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.<sup>17</sup>
- 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.

#### Opportunity 4

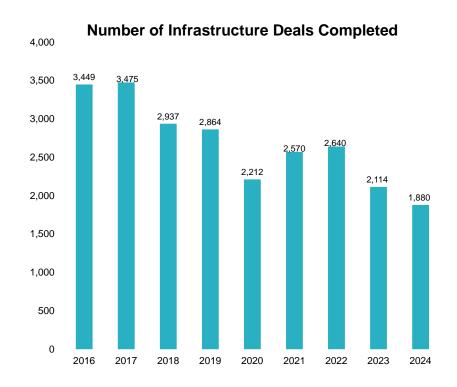
- Funds that are able to execute complex transactions
- Niche strategies

### Infrastructure



- •\$18.9 billion of capital was raised by 17 funds in Q4 2024 compared to \$18.1 billion of capital raised by 20 funds in Q3 2024. This was a decrease of 44.5% compared to the five-year quarterly average of \$34.1 billion. In 2024, \$94.9 billion of capital was raised, representing a slight increase of 1.4% compared to 2023's total, however this was still a decrease of 31.0% compared to the five-year average.<sup>1</sup>
  - Antin Infrastructure Partners V was the largest fund closed during the quarter with aggregate commitments of \$10.7 billion.
- As of the end of Q4 2024, there were an estimated 696 unlisted infrastructure funds in the market seeking roughly \$552.7 billion.1
  - The largest funds in market, Global Infrastructure Partners V and ALTÉRRA Acceleration, each had target fund sizes of \$25.0 billion.
  - The 10 largest funds in market are currently seeking a combined \$176.0 billion in capital.
- Concerns surrounding the relative availability and pricing of assets remain. Although fundraising has slowed it 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: Pregin

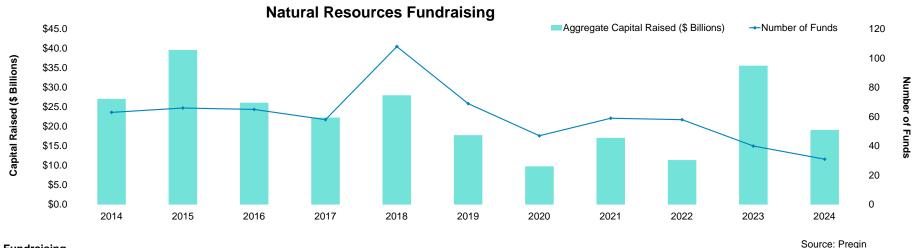
#### Activity

- Infrastructure managers completed 416 deals for an aggregate deal value of \$74.1 billion in Q4 2024, a decrease compared to 540 deals totaling \$105.5 billion completed in Q3 2024.1
  - By region, Europe produced the largest value of completed deals, with 40.2% of deal value being completed in the region, followed by North America at 29.7%. APAC amassed 22.9% of value during Q4 2024.
  - On an annual basis, deals completed in North America account for the highest proportion of deal value, comprising 36.4% of the 2024's total, followed by Europe with 32.8% and APAC with 20.0%.

#### Opportunity 4

- 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**



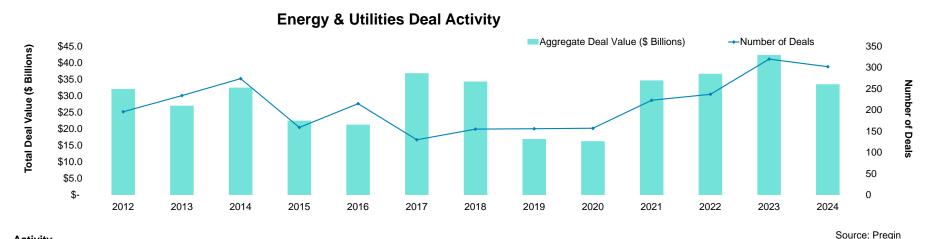
#### **Fundraising**

- During Q4 2024, 6 funds closed on \$10.5 billion compared to 10 funds closing on \$2.8 billion during the prior quarter. This was higher than the five-year quarterly average of \$4.4 billion. However, capital raised in 2024 amounted to \$19.1 billion, a decrease of 46.4% compared to 2023's total of \$35.6 billion.<sup>1</sup>
- Dry powder stood at roughly \$52.1 billion at the end of Q3 2024, which was significantly higher than Q4 2023's level of \$38.3 billion. This was also higher than the five-year average of \$38.7 billion.1

### Activity

- Crude oil prices decreased quarter-over-quarter and year-over-year, while natural gas prices increased.
  - WTI crude oil prices decreased 0.2% during the quarter to \$70.12 per bbl. This was a decrease of 2.5% compared to Q4 2023.10
  - Brent crude oil prices ended the quarter at \$73.86/bbl, down 0.2% compared to the prior quarter. This was also a decrease of 4.9% from Q4 2023.10
  - Natural gas prices (Henry Hub) finished Q4 2024 at \$3.01 per MMBtu, which was up 32.0% compared to the prior quarter and up 19.4% from Q4 2023.10

### **Natural Resources**



### Activity

- 74 energy and utilities buyout deals were completed in Q4 2024 totaling \$7.1 billion, a decrease, on a capital basis, compared to 70 completed deals totaling \$10.7 billion in Q3 2024. Energy and utilities buyout deals totaled \$33.5 billion across 302 investments in 2024, a decrease compared to \$42.4 billion across 320 investments in 2023. Please note, a large PIPE investment in Aramco by Public Investment Fund, accounting for \$163.1 billion in value, has been removed from the analysis.¹
- A total of 599 crude oil and natural gas rotary rigs were in operation in the U.S. at the end of the quarter. This was up by 2.2% from the prior quarter but down 12.8% over Q4 2023.13
  - Crude oil rigs represented 82.0% of the total rigs in operation. 305 of the 491 active oil rigs were in the Permian basin.
  - At the end of Q4 2024, 33.3% and 24.8% of natural gas rigs were operating in the Haynesville and Marcellus basins, respectively.
- The price of iron ore (Tianjin Port) ended the quarter at \$102.21 per dry metric ton, up from \$92.8 at the end of Q3 2024.<sup>10</sup>

#### Opportunity<sup>4</sup>

- Acquire and exploit existing oil and gas strategies over early-stage exploration in core U.S. and Canadian basins
- Select midstream opportunities

### **Notes**

- Preqin
   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 Report9. 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

# Q4 2024 Real Estate Market Overview

April 2025

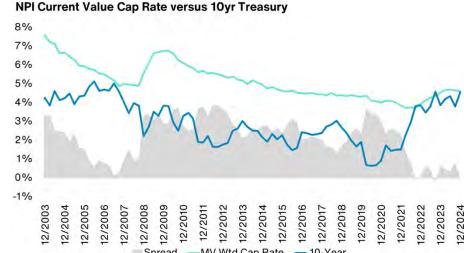


# United States Real Estate Market Update

4Q 2024

### General

- The economy remained resilient in the third 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 third quarter, GDP increased at an annualized rate of 2.3%, slightly lower than the third quarter. Growth was led by increases in consumer spending and government spending that were partly offset by a decrease in investment. 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.

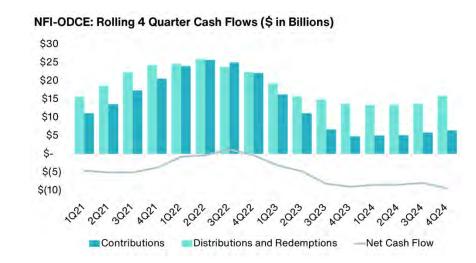


# United States Real Estate Market Update

4Q 2024

### **Commercial Real Estate**

- 10yr Treasury bond yields have increased from prior quarter, ending the
  quarter at 4.6%. 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.



## **United States Property Detail**

4Q 2024

#### Industrial

Strong NOI growth continues to support capital values despite cap rates moving out. Oversupplied markets continue to revise rental rate assumptions, impacting valuations.

#### 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





### **Global Economic Conditions**

### Growth outlook remains positive

#### **Economic Growth Outlook**

GDP growth remains positive

Real GDP Forecasts (YoY %)	2023	2024	2025	2026
Major Regions				
North America	2.8	2.6	1.7	1.8
European Union	0.5	1.0	1.3	1.6
Asia Pacific	4.5	4.5	4.0	3.9
Selected Markets				
United States	2.9	2.8	1.8	1.9
United Kingdom	0.4	1.1	1.0	1.4
Germany	-0.3	-0.2	0.2	1.2
China	5.4	5.0	4.5	4.2
Japan	1.5	0.1	1.1	0.9
Australia	2.1	1.1	2.0	2.4

### **Forward Curves**

Curves indicating decline in rates

### **Forward Curves**



Source: Bloomberg (April 2025), Chatham Financial (February 2025).

### **Consumer Price Index**

Inflation is projected to stabilize

#### **CPI Quarterly** 4.0 3.0 2.0 1.0 0.0 4Q24 1Q25 2Q25 4Q25 1Q24 2Q24 3Q24 3Q25 1Q26 -Asia Pacific (YoY%) —North America (YoY%) —European Union (YoY%)

- -EU Forecast

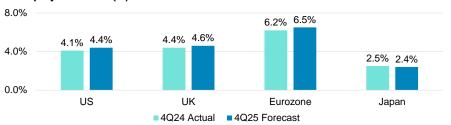
- - AP Forecast

### Unemployment

Unemployment rates remains low

### **Unemployment Rate (%)**

- -NA Forecast



### **U.S. Real Estate Market Conditions**

### Real Estate spreads and supply declining

### **Private Real Estate Spreads**

Private Real Estate valuations have narrowed the spread towards 10yr Treasury

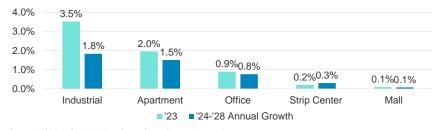
NPI Current Value Cap Rate versus 10yr Treasury



### **Supply Growth**

Supply is forecasted to moderate across major property types

**Annual Completions as % of Existing Stock** 

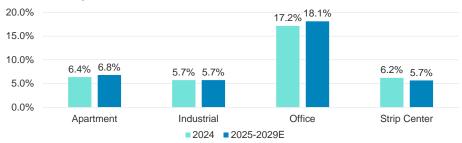


Source: NCREIF, St. Louis Fed, Green Street (December 2024).

### **Real Estate Vacancy**

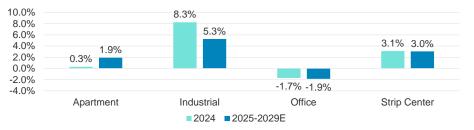
Vacancy remains elevated in Office

#### **Sector Vacancy Forecasts**



#### **NOI Growth**

Remains strong in Industrial, while Apartment is forecasted to increase with supply decline Sector NOI Growth Forecasts

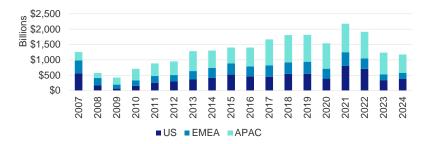


### **Global Real Estate Market Conditions**

### Valuations nearing bottom

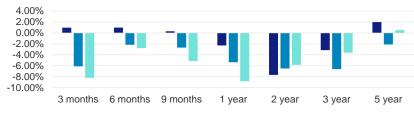
#### **Global Commercial Real Estate Transactions**

Transaction volume muted in 2024 as interest rates remain elevated Global Commercial Real Estate Transaction Volume



#### **Real Estate Performance**

Valuations nearing bottom as mid-2024 performance flat to slightly positive Regional Net Returns Annualized (as of 9/30/24)



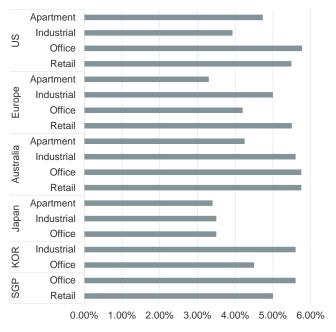
■US ■Europe ■Asia Pacific

Source: MSCI Real Assets (February 2025). NCREIF, INREV Global Real Estate Fund Index (GREFI), Townsend Group (December 2024).

#### **Real Estate Valuations**

Global Valuations (December 2024)

Regional/Sector Going-In Yields



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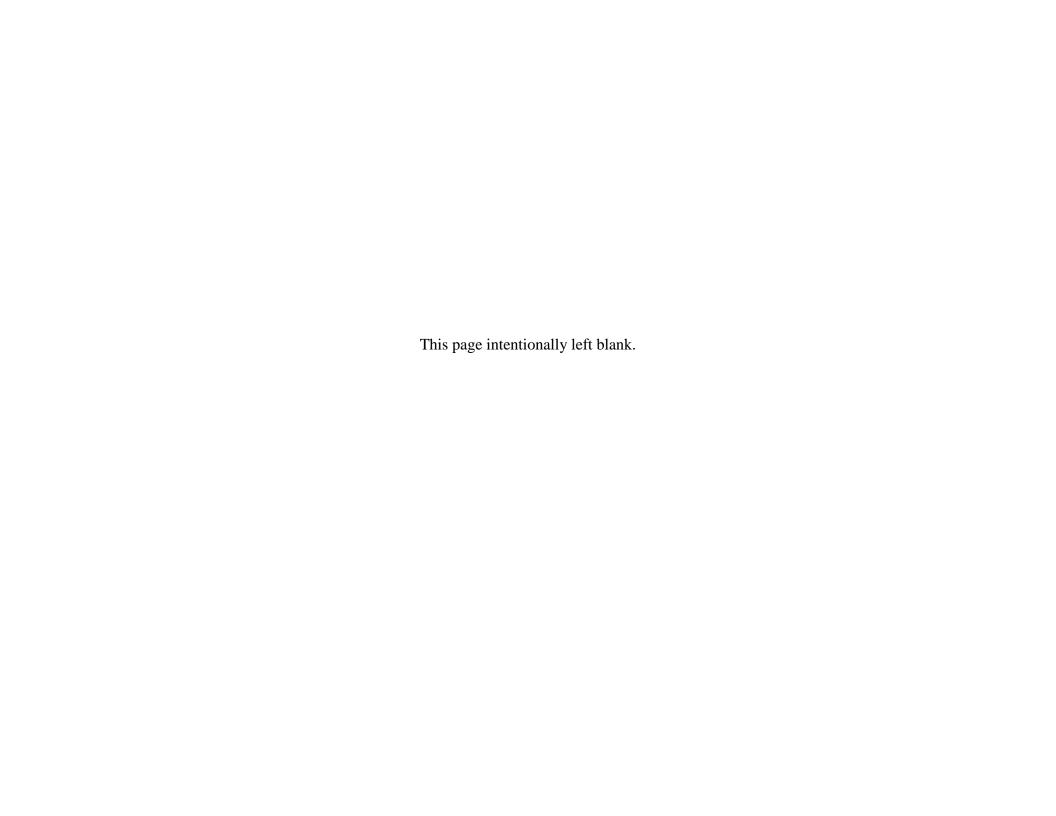
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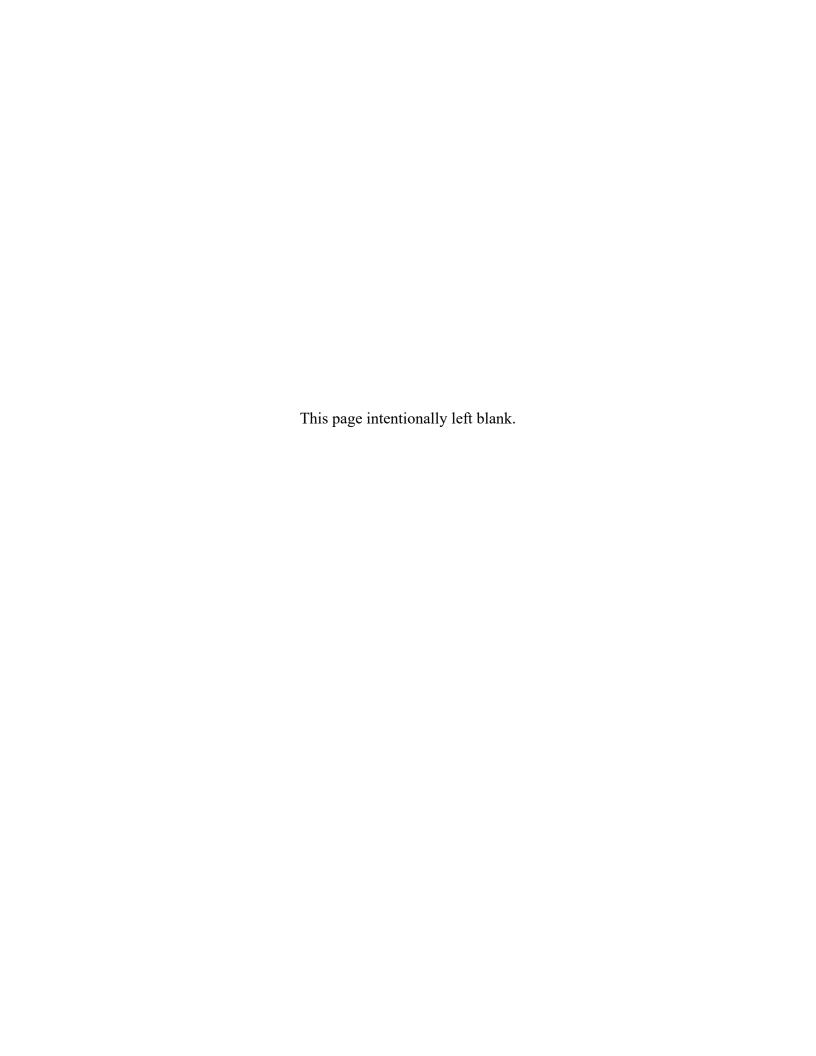
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# REPORT

Meketa Capital Markets
Outlook & Risk Metrics





# **Capital Markets Outlook & Risk Metrics**

As of March 31, 2025



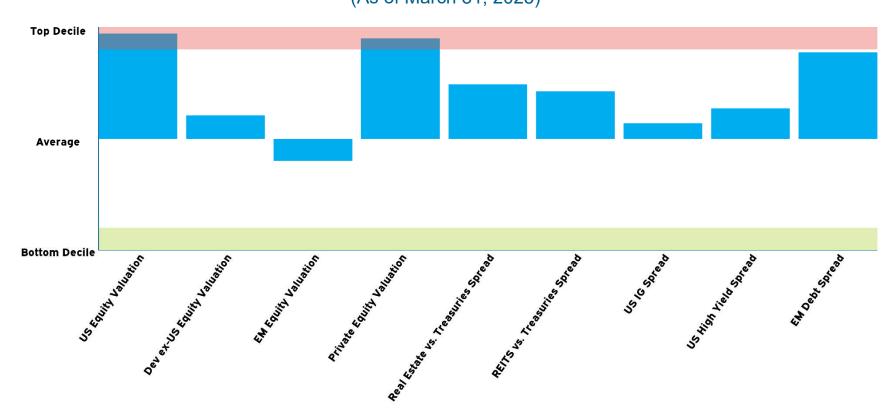
#### **Capital Markets Outlook**

- → Uncertainty has taken over as the prevailing theme in capital markets, including ambiguity on trade policy, foreign policy, monetary policy and fiscal policy.
- → In March, US equity markets declined as the prospect of tariff-induced trade wars and mercantilist policies gave investors cause to re-assess their previous assumptions.
- → The result has been a reversal in market leaders, with value outperforming growth stocks both in the US and elsewhere, as well as US equities lagging foreign markets.
- → EAFE and EM were little changed in March in USD terms (-0.4% and +0.6%, respectively). While Chinese stocks were slightly positive for the month (+2.0%), they had a very strong quarter (+15%) largely thanks to coordinated policy support from the CCP and investor enthusiasm for DeepSeek.
- → Confronting a landscape of low unemployment, weak sentiment indicators, and a lack of clarity on how the President intends to implement his economic policy, the Federal Reserve held short-term rates steady.
- → Bond markets were mixed in March. The Bloomberg Aggregate was flat, TIPS were slightly positive (+0.6%), and high yield bonds declined (-1.0%).
- → Natural resources, infrastructure, and commodities rallied despite the cloud of looming US tariffs. Gold and gold miners had a very strong month.
- → Public real estate generally declined in March, weighed down by uncertainty on future rate cuts.

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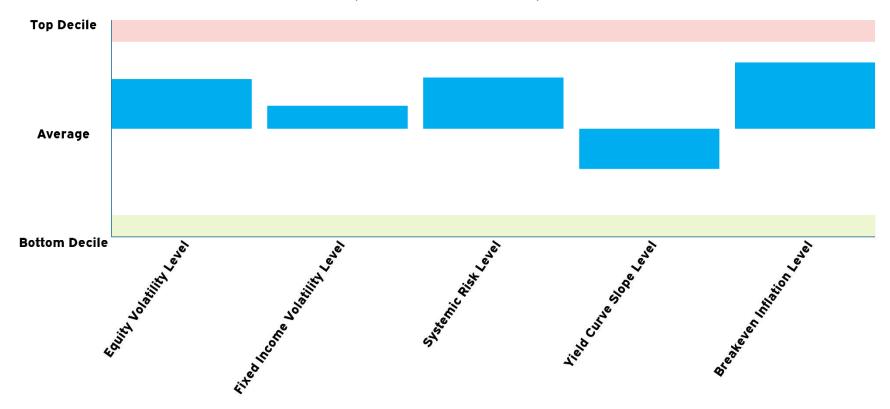
→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

<sup>&</sup>lt;sup>1</sup> With the exception of Private Equity Valuation, that is YTD as of December 31, 2024.



#### Risk Overview/Dashboard (2)

(As of March 31, 2025)

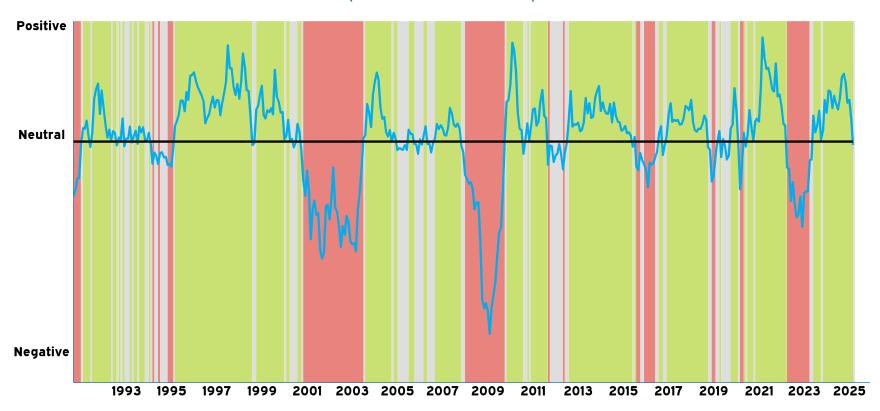


→ Dashboard (2) shows how the current level of each indicator compares to its respective history.



#### **Market Sentiment Indicator (All History)**

(As of March 31, 2025)





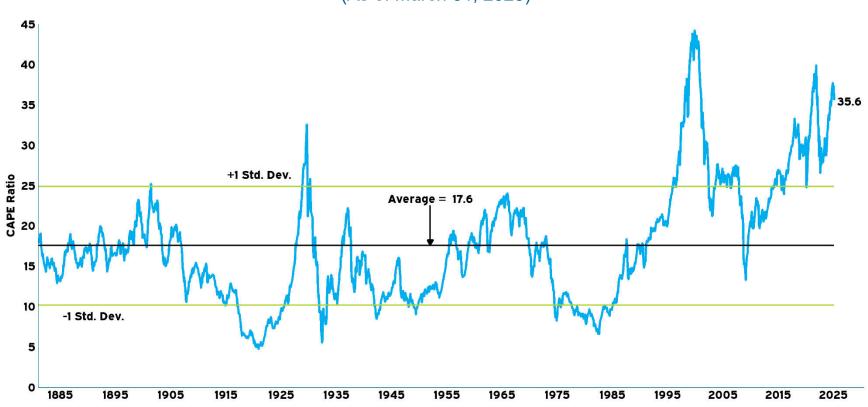
#### **Market Sentiment Indicator (Last Three Years)**

(As of March 31, 2025)









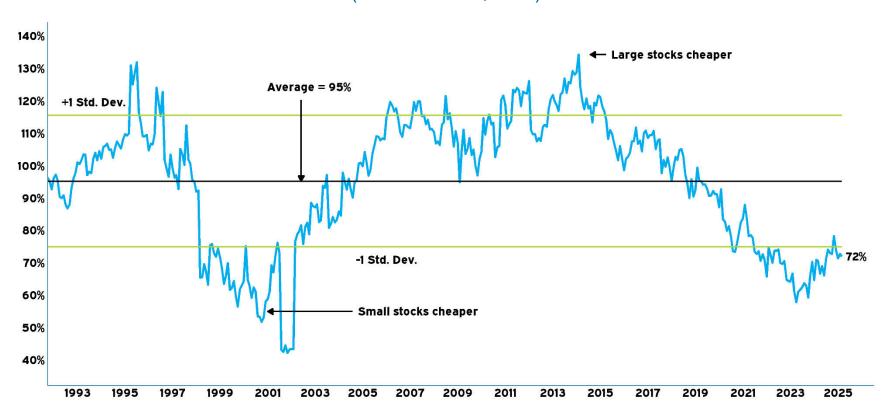
→ This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> 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/E<sup>1</sup>

(As of March 31, 2025)



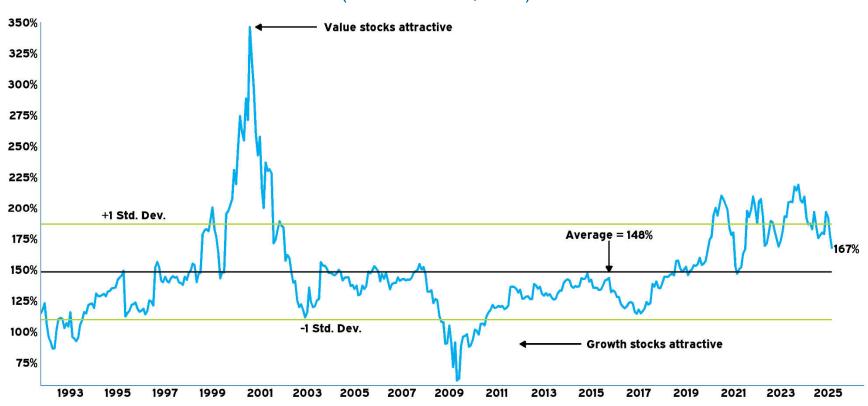
→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

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<sup>&</sup>lt;sup>1</sup> 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.







→ 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.

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<sup>1</sup> 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/E<sup>1</sup> (As of March 31, 2025)



→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

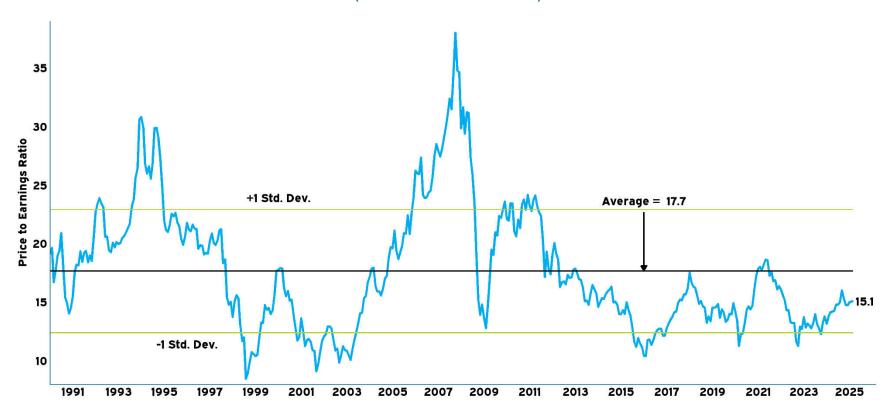
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<sup>1</sup> Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E - Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.



### **Emerging Market Equity Cyclically Adjusted P/E**<sup>1</sup>

(As of March 31, 2025)



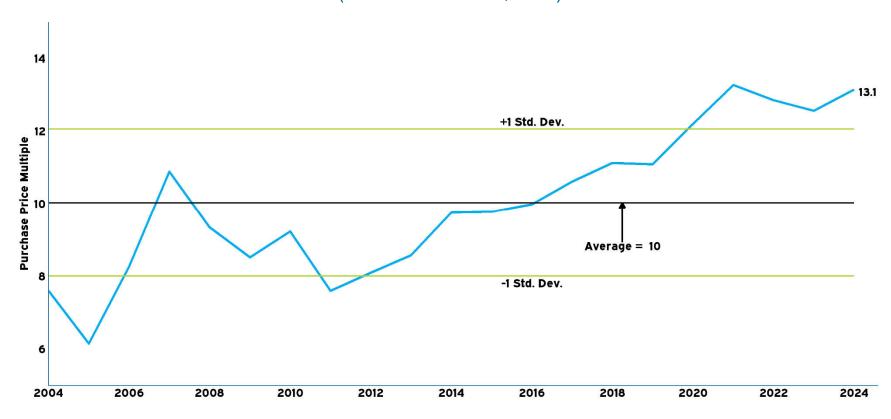
→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

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<sup>1</sup> 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.





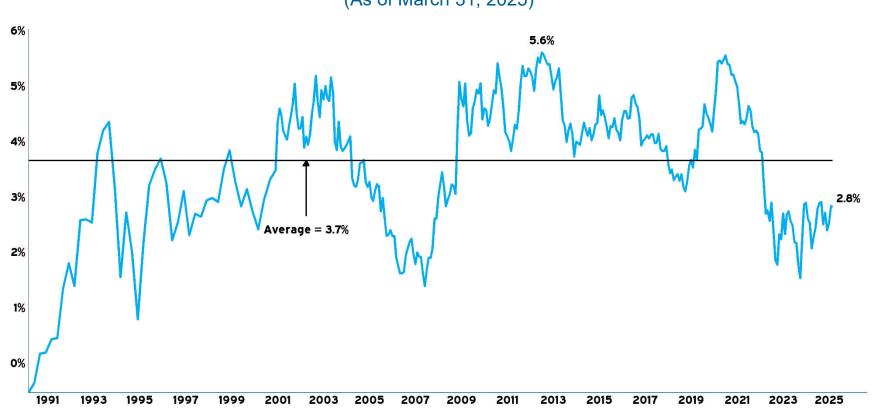


→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> Private Equity Multiples – Source: Preqin Median EBITDA Multiples Paid in All LBOs. Data pulled as of 1/8/2025.







→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

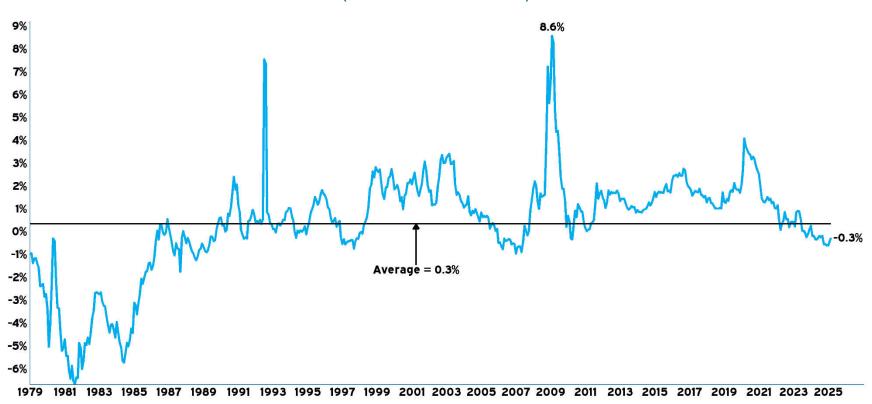
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<sup>&</sup>lt;sup>1</sup> Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, FRED, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.





(As of March 31, 2025)

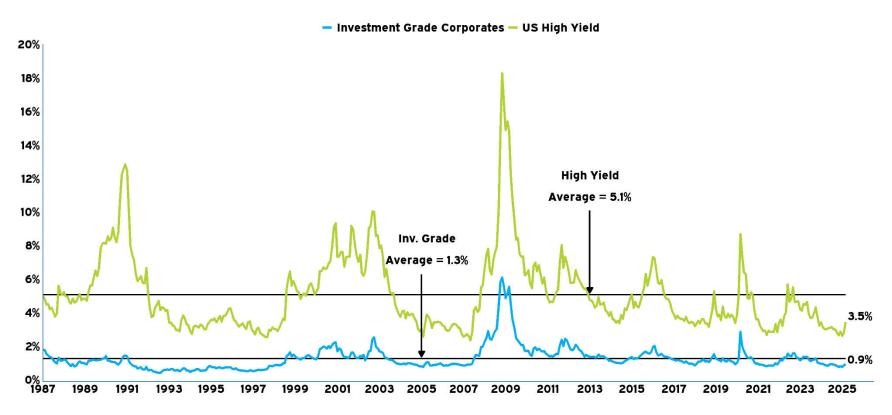


→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

<sup>1</sup> REITs Dividend Yield Spread vs. Ten-Year Treasury - Source: NAREIT, Bloomberg, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.







→ This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

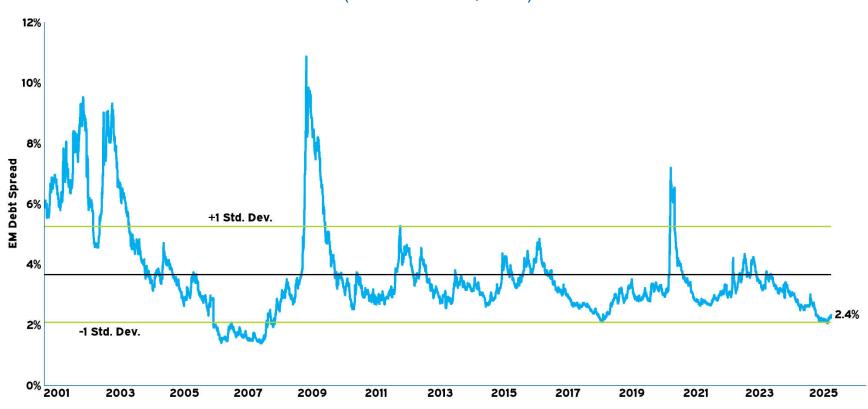
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<sup>&</sup>lt;sup>1</sup> Credit Spreads – Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.



### **Emerging Market Debt Spreads**<sup>1</sup>

(As of March 31, 2025)

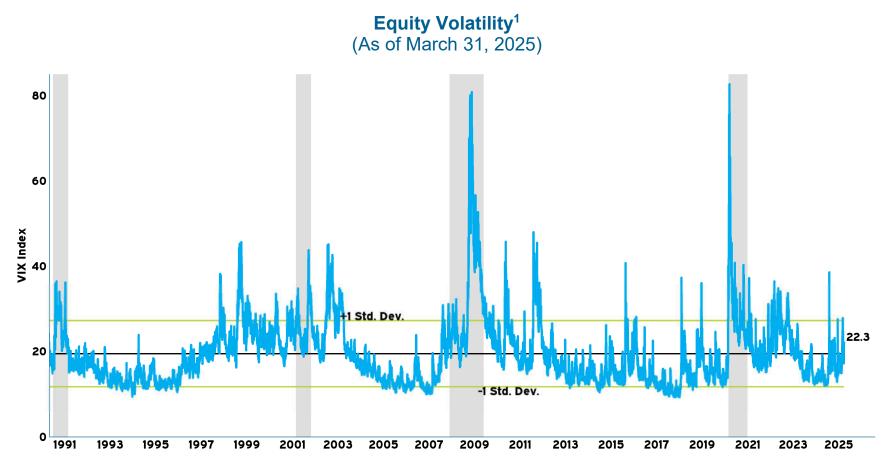


→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

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<sup>&</sup>lt;sup>1</sup> EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.





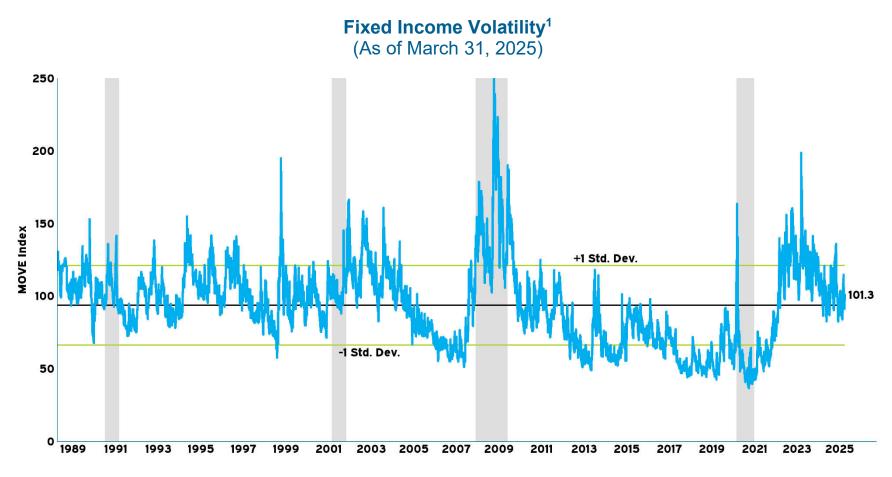
→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

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<sup>1</sup> Equity Volatility - Source: FRED, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

<sup>&</sup>lt;sup>2</sup> 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.





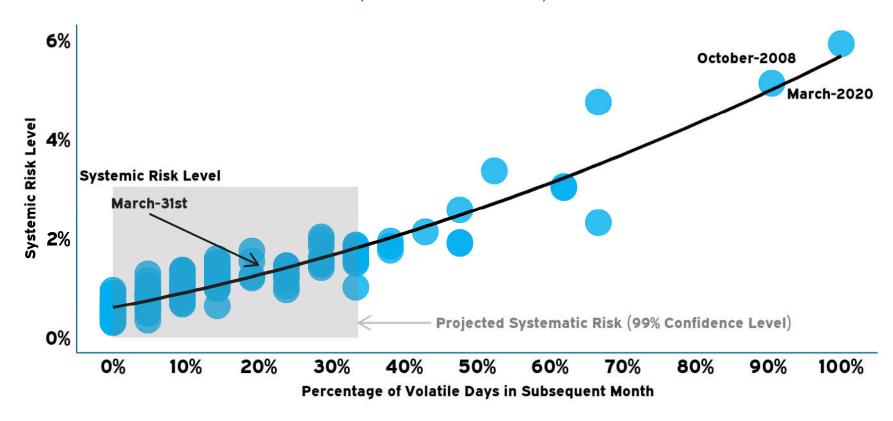
→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

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<sup>1</sup> 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.



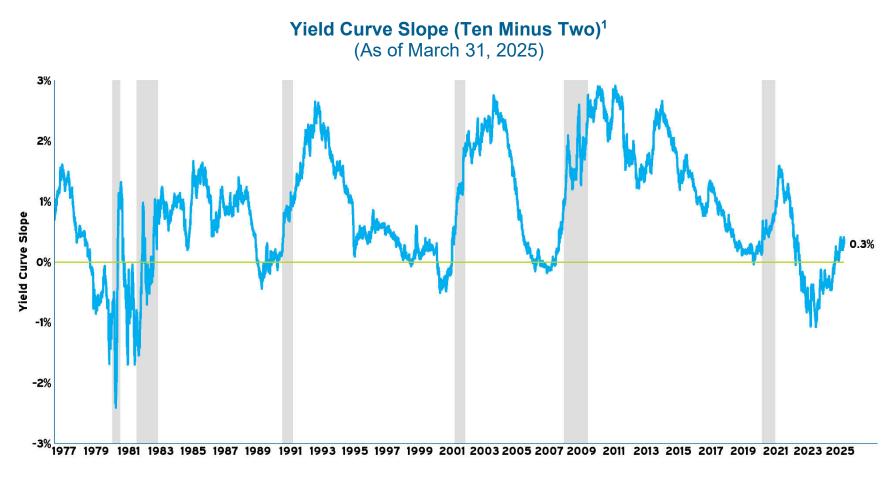
# Systemic Risk and Volatile Market Days<sup>1</sup> (As of March 31, 2025)



→ Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

<sup>1</sup> Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.





→ 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.

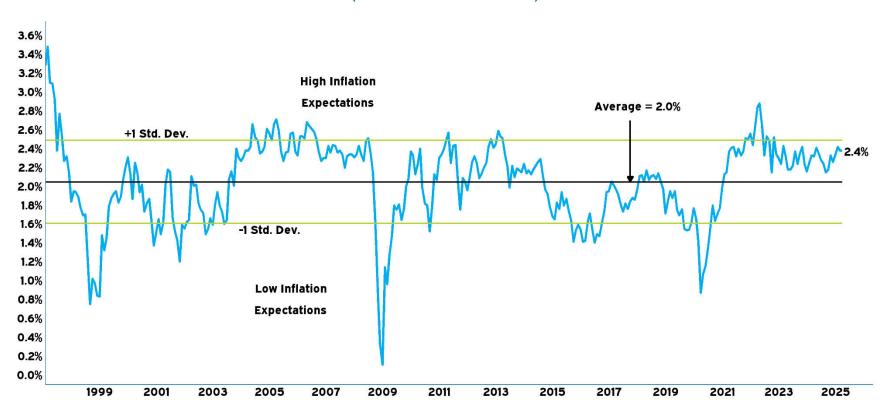
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<sup>1</sup> Yield Curve Slope (Ten Minus Two) - Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.



#### Ten-Year Breakeven Inflation<sup>1</sup>

(As of March 31, 2025)



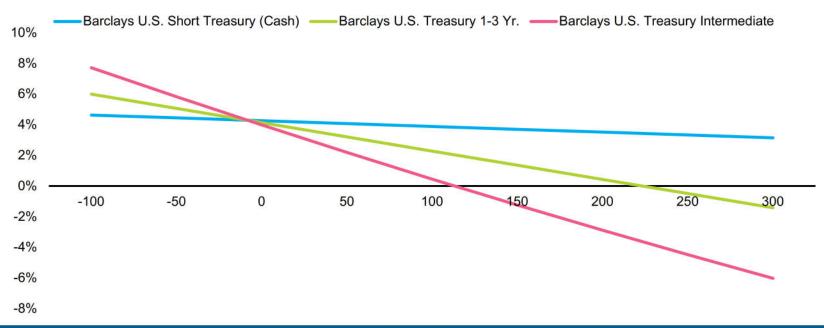
→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

<sup>&</sup>lt;sup>1</sup> 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)<sup>1</sup>

(As March 31, 2025)



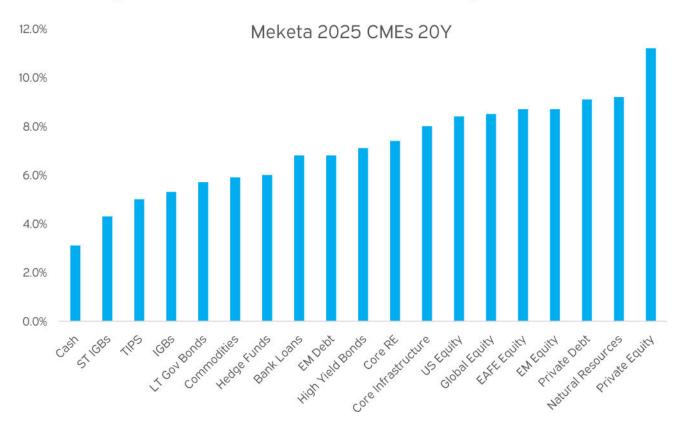
	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100 (%)	-50 (%)	0 (%)	50 (%)	100 (%)	150 (%)	200 (%)	250 (%)	300 (%)	Duration	YTW (%)
Barclays US Short Treasury (Cash)	4.6%	4.4%	4.3%	4.1%	3.9%	3.7%	3.5%	3.3%	3.1%	0.37	4.25%
Barclays US Treasury 1-3 Yr.	6.0%	5.1%	4.1%	3.2%	2.3%	1.3%	0.4%	-0.5%	-1.4%	1.86	4.13%
Barclays US Treasury Intermediate	7.7%	5.8%	4.0%	2.2%	0.4%	-1.2%	-2.9%	-4.5%	-6.0%	3.63	3.98%
Barclays US Treasury Long	21.0%	12.4%	4.6%	-2.4%	-8.8%	-14.4%	-19.2%	-23.3%	-26.7%	14.88	4.62%

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<sup>&</sup>lt;sup>1</sup> 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.







→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

<sup>&</sup>lt;sup>1</sup> Source: Meketa Investment Group's 2025 Asset Study.



#### **Appendix**

#### Data Sources and Explanations<sup>1</sup>

- → 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.

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<sup>&</sup>lt;sup>1</sup> All Data as of March 31, 2025, unless otherwise noted.



#### **Appendix**

#### Data Sources and Explanations<sup>1</sup>

- → REITs Dividend Yield Spread vs. Ten-Year Treasury Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.
- → 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 Treasury Yield.
- → EM Debt Spreads Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.
- → 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.

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<sup>&</sup>lt;sup>1</sup> All Data as of March 31, 2025, unless otherwise noted.



#### **Appendix**

#### **Data Sources and Explanations**<sup>1</sup>

- → 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).

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<sup>&</sup>lt;sup>1</sup> All Data as of March 31, 2025, unless otherwise noted.



# **Meketa Market Sentiment Indicator**

Explanation, Construction and Q&A

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#### **Capital Markets Outlook & Risk Metrics**



Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to <u>complement</u> 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?

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# 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).

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#### 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 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.



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#### 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).

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<sup>&</sup>lt;sup>1</sup> 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.stem.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf

#### **Capital Markets Outlook & Risk Metrics**



#### 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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#### **Capital Markets Outlook & Risk Metrics**

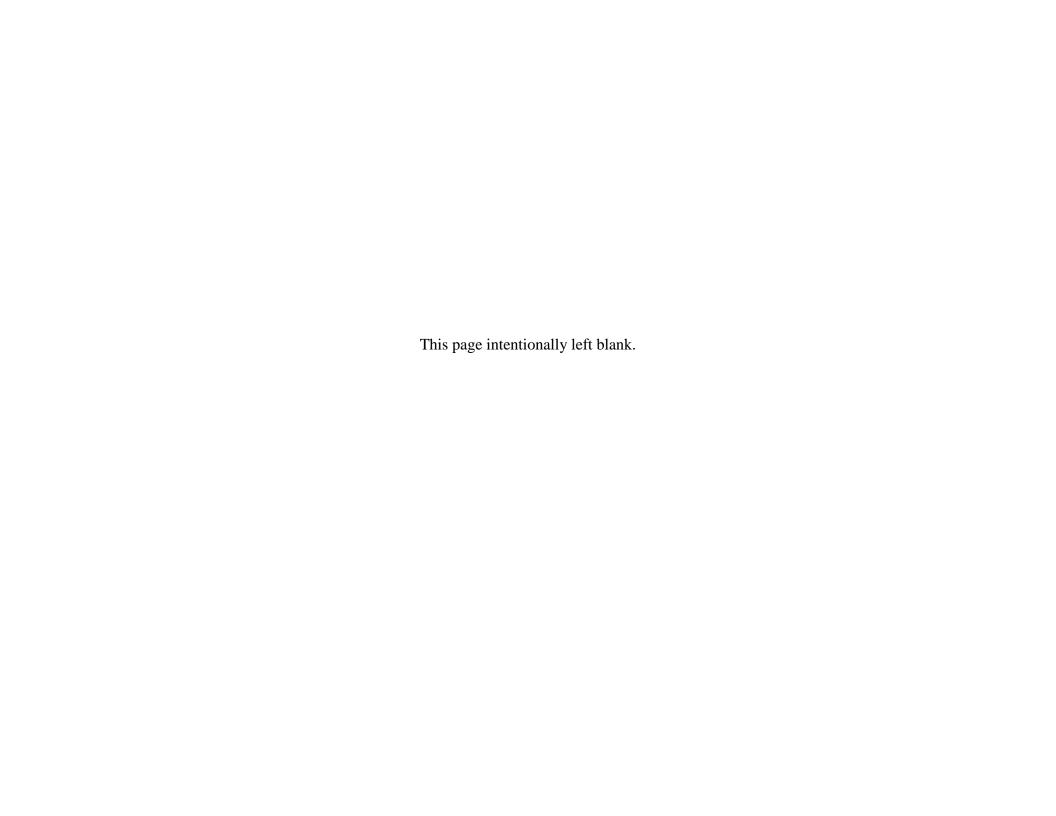


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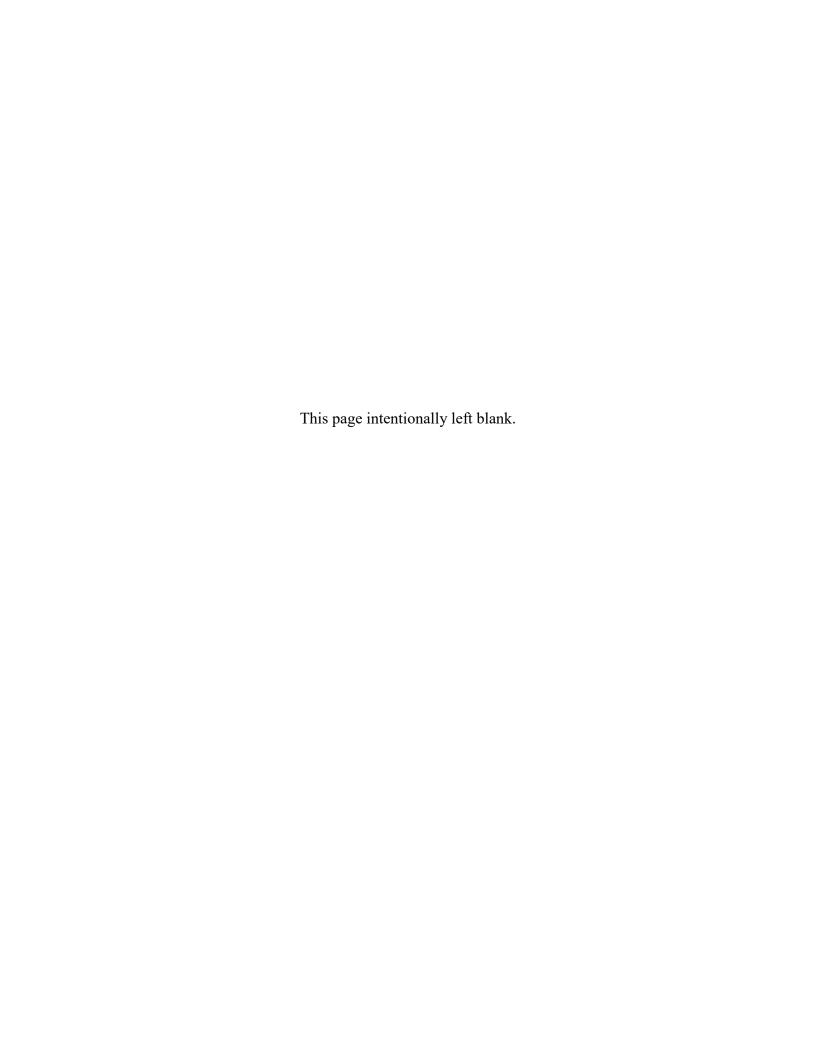
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# REPORT

## SBI Comprehensive Performance Report

March 31, 2025





## Comprehensive Performance Report

March 31, 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**

Combined Funds	<u>\$ Millions</u> \$96,008	
Other Retirement Funds	\$1,549	
PERA Defined Contribution Plan	\$101	
St. Paul Teachers' Retirement Fund	\$395	
Statewide Volunteer Firefighter Plan	\$391	
Unclassified Retirement Plan	\$408	Olate Oach
Volunteer Fire Relief Associations	\$253	State Cash Accounts 19%
Tax-Advantaged Savings Plans	\$12,781	
Health Care Savings Plan	\$2,200	Non- Retirement
Hennepin County Supplemental Retirement Plan	\$175	Investment —
Minnesota Deferred Compensation Plan	\$10,406	Program 4%
State-Sponsored Savings Plans Minnesota College Savings Plan Minnesota Achieving a Better Life Experience Plan	<b>\$2,147</b> \$2,090 \$57	State- Sponsored Savings Plans 1%  Combined Funds 65%  Tax- Advantaged
Non-Retirement Investment Program	\$6,549	Savings Plans 9%
Other Postemployment Benefits (OPEB)	\$1,000	Other
Qualifying Governmental Entities	\$18	Retirement
Trust Funds	\$5,531	Funds 1%
State Cash Invested Treasurer's Cash Other State Cash Accounts	<b>\$28,174</b> \$27,364 \$809	
TOTAL SBI AUM	\$147,208	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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## **Combined Funds**

March 31, 2025





#### **Combined Funds Summary**

#### **Combined Funds Change in Market Value (\$Millions)**

	One Quarter
COMBINED FUNDS	
Beginning Market Value	\$96,601
Net Contributions	-660
Investment Return	66
Ending Market Value	96,008

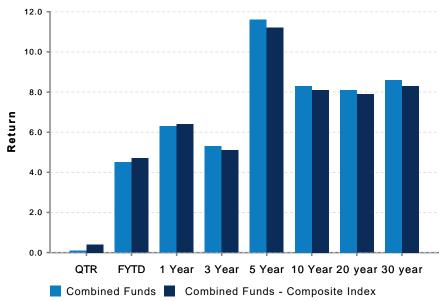
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

#### **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.

	<b>QTR</b>	<b>FYTD</b>	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>	<u>30 Yr</u>	
Combined Funds	0.1%	4.5%	6.3%	5.3%	11.6%	8.3%	8.1%	8.6%	
Combined Funds- Composite Index	0.4%	4.7%	6.4%	5.1%	11.2%	8.1%	7.9%	8.3%	
Excess	-0.3%	-0.2%	-0.1%	0.2%	0.5%	0.2%	0.2%	0.3%	









#### **Combined Funds Summary**

#### **Asset Mix**

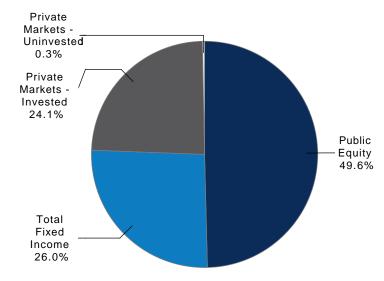
The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in cash.

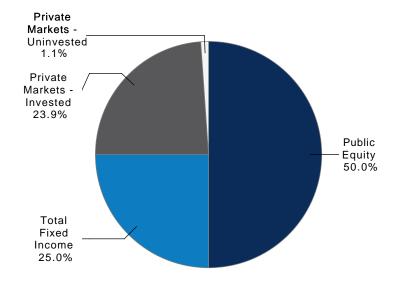
	(Millions)	Actual Mix	<b>Policy Target</b>
Public Equity	\$47,578	49.6	50.0
Total Fixed Income	24,964	26.0	25.0
Private Markets - Total	23,466	24.4	25.0
Private Markets - Invested	23,164	24.1	
Private Markets - Uninvested	302	0.3	
TOTAL	96,008	100.0	



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.

	Policy Weight	Market Index
Public Equity	50.0	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	23.9	Private Markets
Private Markets - Uninvested	1.1	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).

	Market Value	Actual Weight	Policy Weight	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	30 Year
Public Equity	\$47.6	49.6%	50.0%	-2.1%	4.0%	6.6%	7.3%	16.3%	9.8%	8.8%	9.2%
Public Equity Benchmark				-1.5	4.4	7.0	7.1	15.9	9.7	8.7	8.9
Excess				-0.6	-0.4	-0.4	0.2	0.4	0.1	0.1	0.3
Domestic Equity	31.0	32.3	33.5	-4.9	3.6	6.9	8.2	18.4	11.7	10.0	10.1
Domestic Equity Benchmark				-4.7	3.9	7.2	8.2	18.3	11.8	10.1	10.1
Excess				-0.1	-0.2	-0.3	0.0	0.2	-0.1	-0.1	-0.1
International Equity	15.5	16.1	16.5	4.1	4.8	6.3	5.9	12.2	5.7	5.8	6.1
International Equity Benchmark				5.2	5.1	6.1	4.5	10.9	5.0	5.2	5.2
Excess				-1.1	-0.3	0.2	1.4	1.3	0.7	0.6	0.8
Global Equity	1.0	1.1	0.0	-1.7	0.9	-0.9	3.1				
MSCI AC World Index (net)				-1.3	4.2	7.2	6.9				
Excess				-0.4	-3.2	-8.0	-3.8				

#### 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.

	Market Value	<b>Actual Weight</b>	<b>Policy Weight</b>	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	30 Year
Total Fixed Income	\$25.0	26.0%	25.0%	2.8%	4.6%	4.9%	0.5%	-0.5%	2.1%	3.7%	4.9%
Total Fixed Income Benchmark				3.0	4.3	4.3	-0.2	-1.4	1.6	3.3	4.5
Excess				-0.1	0.3	0.6	0.6	0.9	0.5	0.4	0.4
Core/Core Plus	\$5.4	5.7%	5.0	2.8	5.0	5.2	1.0	0.7	2.0	3.6	4.9
Core Bonds Benchmark				2.8	4.8	4.9	0.5	-0.4	1.5	3.2	4.5
Excess				-0.0	0.2	0.4	0.4	1.1	0.6	0.5	0.4
Return Seeking Fixed Income	\$4.7	4.9%	5.0	2.0	5.7	6.4	3.2				
Bloomberg U.S. Aggregate				2.8	4.8	4.9	0.5				
Excess				-0.8	0.9	1.5	2.7				
Treasury Protection	\$9.8	10.2%	10.0	4.2	4.2	3.5	-3.1	-4.4			
Bloomberg Treasury 5+ Year				4.1	4.1	3.2	-3.2	-4.5			
Excess				0.1	0.1	0.3	0.0	-0.1			
Laddered Bond + Cash	\$5.0	5.2%	5.0	1.1	3.9	5.2	4.4	2.6	1.9	1.9	3.0
ICE BofA US 3-Month Treasury	Bill			1.0	3.6	5.0	4.2	2.6	1.9	1.7	2.5
Excess				0.1	0.3	0.2	0.1	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									
<del></del>	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	<b>25 Year</b>	30 Year
Private Markets - Invested	1.6%	5.4%	7.0%	6.3%	12.6%	11.8%	12.7%	12.3%	13.5%
Private Markets -Uninvested(1)	1.0%	3.2%	5.0%	-1.1%					
Private Equity	1.9%	6.8%	8.8%	6.4%	15.0%	15.3%	14.7%	13.2%	15.5%
Private Credit	3.7%	6.9%	6.6%	10.9%	11.3%	11.6%	12.4%	12.0%	
Resources	1.0%	0.6%	2.4%	7.3%	6.3%	2.1%	11.0%	12.7%	12.9%
Real Estate	-2.0%	-1.3%	-2.3%	0.4%	7.0%	9.0%	8.0%	8.6%	9.2%

#### **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

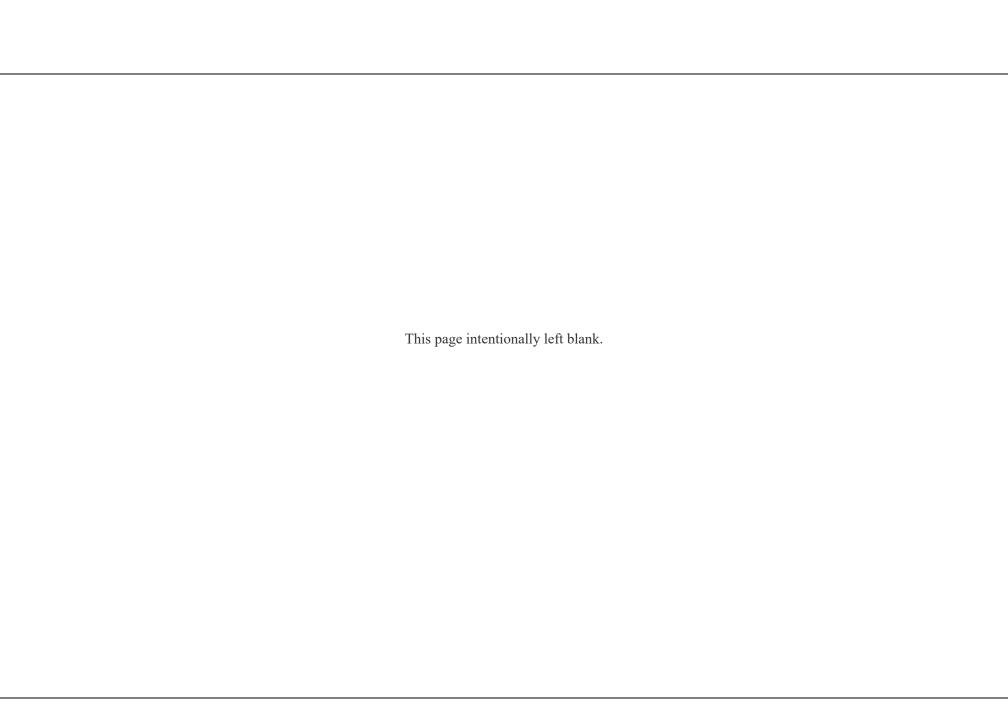
The assets of the Combined Funds are allocated to public equity, fixed income, private markets, and cash. Each asset class may be further differentiated by geography, management style, and/or strategy. Managers are hired to manage the assets accordingly. This diversification is intended to reduce wide 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.







## Domestic Equity March 31, 2025





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Domestic Equity										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$2,919,450,281	9.2%	-7.7%	1.2%	0.2%	3.9%	16.4%	9.2%	8.3%	06/1996
Active Domestic Equity Benchmark			-6.8	2.0	1.5	3.9	15.4	9.1	8.8	06/1996
Excess			-0.9	-0.8	-1.3	-0.0	1.0	0.2	-0.5	
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	4,136,389,844	13.1	-4.9	2.8	7.2	9.3	19.2	12.4	9.5	06/1996
Semi Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.7	18.5	12.2	9.3	06/1996
Excess			-0.5	-1.3	-0.6	0.7	0.7	0.2	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	24,629,447,504	77.7	-4.5	4.1	7.7	8.6	18.5	12.1	9.5	06/1996
Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.6	18.5	12.1	9.6	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)	31,685,287,629	100.0	-4.9	3.6	6.9	8.2	18.4	11.7	10.8	01/1984
Domestic Equity Benchmark			-4.7	3.9	7.2	8.2	18.3	11.8	10.9	01/1984
Excess			-0.1	-0.2	-0.3	0.0	0.2	-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.





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



<sup>(1)</sup> The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager's benchmarks.

<sup>(2)</sup> The current Semi-Passive Domestic Equity Benchmark is the Russell 1000 index.

<sup>(3)</sup> The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

<sup>(4)</sup> The Transition Domestic Equity Aggregate will periodically contain residual Domestic Equity securities from transitions.

<sup>(5)</sup> The current Domestic Equity Benchmark is the Russell 3000.



	<b>Ending Market Value</b>	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
<b>Active Large Cap Growth</b>										
SANDS	\$220,141,688	0.7%	-10.1%	-2.8%	-2.5%	3.3%	11.3%	11.1%	10.8%	01/2005
Russell 1000 Growth			-10.0	-0.5	7.8	10.1	20.1	15.1	11.8	01/2005
Excess			-0.1	-2.3	-10.3	-6.8	-8.8	-4.0	-1.0	
WINSLOW	247,970,337	0.8	-8.8	-1.6	5.9	11.0	18.5	14.5	12.1	01/2005
Russell 1000 Growth			-10.0	-0.5	7.8	10.1	20.1	15.1	11.8	01/2005
Excess			1.2	-1.1	-1.8	0.9	-1.6	-0.6	0.3	
RUSSELL 1000 GROWTH AGGREGATE (1)	468,112,025	1.5	-9.4	-2.2	1.7	7.0	17.3	15.0	11.5	11/2003
Russell 1000 Growth			-10.0	-0.5	7.8	10.1	20.1	15.1	11.7	11/2003
Excess			0.6	-1.6	-6.0	-3.1	-2.8	-0.1	-0.2	
LAUGSS			0.0	-1.0	-0.0	<b>-</b> J. I	-2.0	<del>-</del> U. I	-0.2	

(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.





2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
24.7%	52.0%	-49.3%	5.2%	71.0%
33.4	42.7	-29.1	27.6	38.5
-8.7	9.3	-20.2	-22.4	32.5
31.8	43.7	-31.0	24.8	37.6
33.4	42.7	-29.1	27.6	38.5
-1.6	1.0	-1.8	-2.8	-0.9
28.2	47.7	-41.3	12.8	81.3
33.4	42.7	-29.1	27.6	38.5
-5.1	5.1	-12.1	-14.8	42.8
	24.7% 33.4 -8.7  31.8 33.4 -1.6  28.2 33.4	24.7%     52.0%       33.4     42.7       -8.7     9.3       31.8     43.7       33.4     42.7       -1.6     1.0       28.2     47.7       33.4     42.7	24.7%       52.0%       -49.3%         33.4       42.7       -29.1         -8.7       9.3       -20.2         31.8       43.7       -31.0         33.4       42.7       -29.1         -1.6       1.0       -1.8         28.2       47.7       -41.3         33.4       42.7       -29.1	24.7%       52.0%       -49.3%       5.2%         33.4       42.7       -29.1       27.6         -8.7       9.3       -20.2       -22.4         31.8       43.7       -31.0       24.8         33.4       42.7       -29.1       27.6         -1.6       1.0       -1.8       -2.8         28.2       47.7       -41.3       12.8         33.4       42.7       -29.1       27.6

(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.





	<b>Ending Market Value</b>	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Semi-Passive Large Cap										
BLACKROCK	\$2,062,038,308	6.5%	-5.2%	2.8%	7.4%	9.1%	18.8%	12.6%	10.7%	01/1995
Semi Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.7	18.5	12.2	10.3	01/1995
Excess			-0.7	-1.3	-0.4	0.5	0.3	0.4	0.4	
J.P. MORGAN	2,074,351,536	6.5	-4.7	2.8	7.0	9.5	19.6	12.7	10.7	01/1995
Semi Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.7	18.5	12.2	10.3	01/1995
Excess			-0.2	-1.3	-0.8	0.9	1.1	0.5	0.4	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	4,136,389,844	13.1	-4.9	2.8	7.2	9.3	19.2	12.4	9.5	06/1996
Semi Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.7	18.5	12.2	9.3	06/1996
Excess			-0.5	-1.3	-0.6	0.7	0.7	0.2	0.1	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Value										
BARROW HANLEY	\$411,648,911	1.3%	-2.2%	6.6%	4.9%	8.6%	19.9%	9.9%	9.0%	04/2004
Russell 1000 Value			2.1	9.6	7.2	6.6	16.1	8.8	8.2	04/2004
Excess			-4.3	-3.0	-2.3	1.9	3.7	1.1	0.8	
LSV	354,708,305	1.1	-0.0	6.9	3.4	6.5	17.8	8.7	9.0	04/2004
Russell 1000 Value			2.1	9.6	7.2	6.6	16.1	8.8	8.2	04/2004
Excess			-2.2	-2.7	-3.8	-0.1	1.6	-0.1	0.7	
RUSSELL 1000 VALUE AGGREGATE	766,357,216	2.4	-1.2	6.7	4.2	7.6	18.8	9.5	9.1	10/2003
Russell 1000 Value			2.1	9.6	7.2	6.6	16.1	8.8	8.9	10/2003
Excess			-3.3	-2.8	-3.0	0.9	2.6	0.7	0.2	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Growth										
ARROWMARK	\$173,032,629	0.5%	-13.0%	-6.3%	-9.9%	-1.6%	10.7%		7.8%	11/2016
Russell 2000 Growth			-11.1	-2.0	-4.9	0.8	10.8		8.2	11/2016
Excess			-1.9	-4.3	-5.1	-2.4	-0.1		-0.4	
HOOD RIVER	182,250,210	0.6	-15.5	-3.0	-0.2	4.3	21.2		14.3	11/2016
Russell 2000 Growth			-11.1	-2.0	-4.9	0.8	10.8		8.2	11/2016
Excess			-4.4	-1.0	4.6	3.5	10.4		6.0	
RICE HALL JAMES	199,257,367	0.6	-2.4	9.8	7.8	3.7	14.8		9.9	11/2016
Russell 2000 Growth			-11.1	-2.0	-4.9	0.8	10.8		8.2	11/2016
Excess			8.7	11.8	12.7	2.9	4.0		1.7	
WELLINGTON	177,993,840	0.6	-12.8	-7.2	-8.6	-1.0	9.5		7.8	11/2016
Russell 2000 Growth			-11.1	-2.0	-4.9	0.8	10.8		8.2	11/2016
Excess			-1.7	-5.2	-3.7	-1.8	-1.3		-0.4	
RUSSELL 2000 GROWTH AGGREGATE	732,534,046	2.3	-11.0	-1.7	-2.7	1.4	14.1	6.7%	7.4	11/2003
Russell 2000 Growth			-11.1	-2.0	-4.9	8.0	10.8	6.1	8.0	11/2003
Excess			0.2	0.3	2.1	0.6	3.3	0.6	-0.6	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Value										
GOLDMAN SACHS	\$185,211,562	0.6%	-5.4%	2.8%	-0.8%	0.5%	14.7%	5.8%	8.2%	01/2004
Russell 2000 Value			-7.7	0.5	-3.1	0.0	15.3	6.1	7.2	01/2004
Excess			2.3	2.2	2.4	0.5	-0.6	-0.3	1.0	
HOTCHKIS AND WILEY	187,260,765	0.6	-6.7	-1.8	-7.1	3.4	23.0	6.9	8.4	01/2004
Russell 2000 Value			-7.7	0.5	-3.1	0.0	15.3	6.1	7.2	01/2004
Excess			1.0	-2.3	-3.9	3.3	7.7	0.8	1.2	
MARTINGALE	174,242,002	0.5	-8.0	-0.2	-3.4	4.6	19.6	7.2	7.8	01/2004
Russell 2000 Value			-7.7	0.5	-3.1	0.0	15.3	6.1	7.2	01/2004
Excess			-0.3	-0.8	-0.3	4.5	4.3	1.1	0.6	
PEREGRINE	191,863,065	0.6	-9.2	2.6	0.5	0.4	17.3	6.1	9.0	07/2000
Russell 2000 Value			-7.7	0.5	-3.1	0.0	15.3	6.1	8.5	07/2000
Excess			-1.4	2.1	3.6	0.3	2.0	0.1	0.5	
RUSSELL 2000 VALUE AGGREGATE	738,577,394	2.3	-7.4	0.9	-2.7	1.7	17.9	6.3	8.4	10/2003
Russell 2000 Value			-7.7	0.5	-3.1	0.0	15.3	6.1	7.9	10/2003
Excess			0.4	0.3	0.4	1.7	2.6	0.2	0.5	





8.5%				
8.5%				
	11.9%	-14.4%	27.0%	2.4%
8.1	14.6	-14.5	28.3	4.6
0.5	-2.8	0.1	-1.3	-2.3
5.4	18.8	3.1	36.5	-0.2
8.1	14.6	-14.5	28.3	4.6
-2.6	4.2	17.6	8.2	-4.8
9.0	20.7	-8.0	41.3	-4.6
8.1	14.6	-14.5	28.3	4.6
1.0	6.1	6.4	13.0	-9.2
14.5	9.2	-12.5	28.6	7.3
8.1	14.6	-14.5	28.3	4.6
6.5	-5.4	2.0	0.3	2.7
9.4	14.2	-9.4	31.8	1.5
8.1	14.6	-14.5	28.3	4.6
1.3	-0.5	5.1	3.5	-3.1
	8.1 0.5 5.4 8.1 -2.6 9.0 8.1 1.0 14.5 8.1 6.5	8.1       14.6         0.5       -2.8         5.4       18.8         8.1       14.6         -2.6       4.2         9.0       20.7         8.1       14.6         1.0       6.1         14.5       9.2         8.1       14.6         6.5       -5.4         9.4       14.2         8.1       14.6         14.6       14.6	8.1       14.6       -14.5         0.5       -2.8       0.1         5.4       18.8       3.1         8.1       14.6       -14.5         -2.6       4.2       17.6         9.0       20.7       -8.0         8.1       14.6       -14.5         1.0       6.1       6.4         14.5       9.2       -12.5         8.1       14.6       -14.5         6.5       -5.4       2.0         9.4       14.2       -9.4         8.1       14.6       -14.5         14.5       -9.4       -14.5	8.1     14.6     -14.5     28.3       0.5     -2.8     0.1     -1.3       5.4     18.8     3.1     36.5       8.1     14.6     -14.5     28.3       -2.6     4.2     17.6     8.2       9.0     20.7     -8.0     41.3       8.1     14.6     -14.5     28.3       1.0     6.1     6.4     13.0       14.5     9.2     -12.5     28.6       8.1     14.6     -14.5     28.3       6.5     -5.4     2.0     0.3       9.4     14.2     -9.4     31.8       8.1     14.6     -14.5     28.3

Note: All aggregates include the performance of terminated managers.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active All Cap										
ZEVENBERGEN (1)	\$213,869,599	0.7%	-14.6%	0.5%	2.7%	1.9%	12.0%	13.2%	11.2%	04/1994
Zevenbergen Custom Benchmark			-10.0	-0.6	7.2	9.6	20.6	15.4		04/1994
Excess			-4.6	1.0	-4.5	-7.8	-8.6	-2.2		
ACTIVE RUSSELL 3000 GROWTH (2)	213,869,599	0.7	-14.6	0.5	2.7	1.9			-6.0	01/2021
Russell 3000 Growth TR			-10.0	-0.6	7.2	9.6			10.1	01/2021
Excess			-4.6	1.0	-4.5	-7.8			-16.2	



<sup>(1)</sup> 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.

<sup>(2)</sup> Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	
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)	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		

Note: All aggregates include the performance of terminated managers.



<sup>(1)</sup> 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.

<sup>(2)</sup> Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.



	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$23,586,482,695	74.4%	-4.5%	4.1%	7.8%	8.7%	18.4%		13.9%	11/2016
RUSSELL 1000 (DAILY)			-4.5	4.1	7.8	8.7	18.5		14.0	11/2016
Excess			-0.0	-0.0	-0.0	0.0	-0.0		-0.0	
BLACKROCK RUSSELL 2000	67,620,910	0.2	-9.4	-0.6	-3.9	0.4	13.6		6.4	11/2018
RUSSELL 2000 (DAILY)			-9.5	-0.8	-4.0	0.5	13.3		6.0	11/2018
Excess			0.1	0.1	0.1	-0.1	0.4		0.4	
BLACKROCK RUSSELL 3000 (1)	975,343,899	3.1	-4.7	3.9	7.2	8.3	18.4	11.9%	10.0	07/1995
Passive Manager Benchmark			-4.7	3.9	7.2	8.2	18.2	11.8	9.9	07/1995
Excess			0.0	0.0	0.0	0.1	0.2	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	24,629,447,504	77.7	-4.5	4.1	7.7	8.6	18.5	12.1	9.5	06/1996
Passive Domestic Equity Benchmark			-4.5	4.1	7.8	8.6	18.5	12.1	9.6	06/1996
Excess			-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.1	



<sup>(1)</sup> The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.

<sup>(2)</sup> The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.



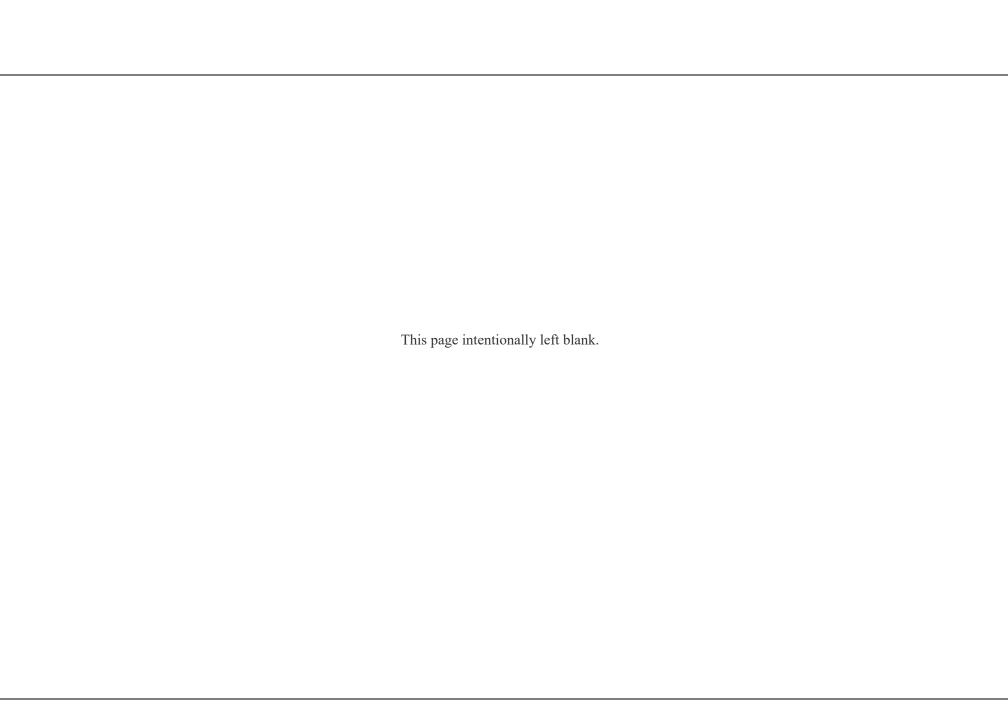
	2024 Calendar Return		2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	
Total Passive Domestic Equity						
BLACKROCK RUSSELL 1000	24.5%	26.6%	-19.2%	26.5%	20.9%	
RUSSELL 1000 (DAILY)	24.5	26.5	-19.1	26.5	21.0	
Excess	-0.0	0.0	-0.0	0.1	-0.0	
BLACKROCK RUSSELL 2000	11.6	16.7	-19.9	16.0	20.8	
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	

Note: All aggregates include the performance of terminated managers.



<sup>(1)</sup> The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.

<sup>(2)</sup> The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.





## International Equity March 31, 2025





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total International Equity										
DEVELOPED MARKETS (1)	\$11,231,141,310	71.6%	4.4%	5.8%	6.3%	7.6%	13.9%	6.5%	5.8%	01/1997
BENCHMARK DM			6.2%	5.9%	5.3%	5.7%	12.2%	5.5%	2.9%	01/1997
Excess			-1.8%	-0.1%	0.9%	1.9%	1.7%	1.0%	2.9%	
EMERGING MARKETS (2)	\$3,910,576,591	24.9%	3.0%	1.0%	6.1%	1.3%	8.1%	3.6%	5.3%	11/1996
BENCHMARK EM			2.9%	2.9%	8.1%	1.4%	7.9%	3.7%	5.5%	11/1996
Excess			0.1%	-2.0%	-2.0%	-0.2%	0.1%	-0.1%	-0.3%	
ACWI EX-US AGGREGATE	\$445,946,460	2.8%	5.7%	7.3%	7.3%	6.1%			6.6%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			5.2%	5.1%	6.1%	4.5%			3.6%	01/2021
Excess			0.5%	2.2%	1.2%	1.6%			3.0%	
CHINA ONLY AGGREGATE	\$105,836,669	0.7%	2.2%	22.3%	15.9%	-3.0%			-7.4%	01/2021
MSCI China A			0.1%	13.3%	11.0%	-5.7%			-6.9%	01/2021
Excess			2.1%	8.9%	5.0%	2.7%			-0.5%	
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	\$6,001,465	0.0%								06/2017
TOTAL INTERNATIONAL EQUITY (4)	\$15,696,013,674	100.0%	4.1%	4.8%	6.3%	5.9%	12.2%	5.7%	6.5%	10/1992
International Equity Benchmark			5.2%	5.1%	6.1%	4.5%	10.9%	5.0%	5.9%	10/1992
Excess			-1.1%	-0.3%	0.2%	1.4%	1.3%	0.7%	0.6%	

<sup>(1)</sup> The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).



<sup>(2)</sup> The current benchmark for Emerging Markets, Benchmark EM, is the Standard (large + mid) MSCI Emerging Markets Free (net).

<sup>(3)</sup> 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.

<sup>(4)</sup> 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.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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.





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	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Developed Markets										
ACADIAN	\$626,175,172	4.0%	5.4%	9.7%	10.6%	6.7%	13.9%	8.5%	6.9%	07/2005
BENCHMARK DM			6.2	5.9	5.3	5.7	12.2	5.5	5.4	07/2005
Excess			-0.8	3.7	5.3	1.0	1.7	3.0	1.6	
COLUMBIA	530,958,403	3.4	3.1	0.8	1.9	6.9	13.2	7.3	4.3	03/2000
BENCHMARK DM			6.2	5.9	5.3	5.7	12.2	5.5	4.1	03/2000
Excess			-3.1	-5.1	-3.4	1.2	1.1	1.8	0.1	
FIDELITY	522,566,457	3.3	4.2	3.4	3.9	4.5	12.2	6.2	6.6	07/2005
BENCHMARK DM			6.2	5.9	5.3	5.7	12.2	5.5	5.4	07/2005
Excess			-2.0	-2.5	-1.4	-1.2	0.0	0.7	1.2	
JP MORGAN	391,811,331	2.5	7.5	4.6	3.7	4.6	11.3	5.8	5.5	07/2005
BENCHMARK DM			6.2	5.9	5.3	5.7	12.2	5.5	5.4	07/2005
Excess			1.3	-1.3	-1.6	-1.1	-0.8	0.3	0.1	
MARATHON	458,608,448	2.9	5.3	6.4	5.5	6.7	13.6	6.4	7.9	11/1993
BENCHMARK DM			6.2	5.9	5.3	5.7	12.2	5.5	5.3	11/1993
Excess			-0.9	0.5	0.2	1.0	1.4	0.9	2.6	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
Active Developed Marke	ets				
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





	Ending Market Value	Portfolio Weight	1 Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
<b>Total Developed Markets</b>										
Active Developed Markets Aggregate (1)	\$2,530,119,811	16.1%	5.0%	5.1%	5.4%	6.0%	12.9%	6.3%	5.8%	06/1996
BENCHMARK DM			6.2%	5.9%	5.3%	5.7%	12.2%	5.5%	2.8%	06/1996
Excess			-1.2%	-0.8%	0.0%	0.3%	0.7%	0.8%	3.0%	
SSgA DEVELOPED MARKETS PASSIVE	\$8,640,184,840	55.0%	6.4%	6.1%	5.8%	6.1%	12.6%	5.9%		
BENCHMARK DM			6.2%	5.9%	5.3%	5.7%	12.2%	5.5%		
Excess			0.2%	0.1%	0.5%	0.4%	0.5%	0.4%		
RECORD CURRENCY (2)	\$57,353,717	0.4%	-1.64%	-0.06%	0.56%	1.53%				10/2020
DEVELOPED MARKETS TOTAL (3)	\$11,231,141,310		4.4%	5.8%	6.3%	7.6%	13.9%	6.5%	5.8%	01/1997
BENCHMARK DM			6.2%	5.9%	5.3%	5.7%	12.2%	5.5%	2.9%	01/1997
Excess			-1.8%	-0.1%	0.9%	1.9%	1.7%	1.0%	2.9%	



<sup>(1)</sup> Includes the historical returns of terminated managers previously classified as "Semi-Passive Developed Markets."

<sup>(2)</sup> Return for Record Currency is the difference between the DM Equity with Currency Management and without.

<sup>(3)</sup> 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 value includes residual cash from terminated managers.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	5.0%	18.5%	-13.8%	13.0%	8.2%
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	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%





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	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Emerging Markets										
FIDELITY(1)	\$289,190,641								0.0%	04/2025
BENCHMARK EM									-0.2	04/2025
Excess									0.2	
MARTIN CURRIE	546,171,489	3.5%	2.5%	1.1%	5.2%	-1.8%	5.6%		4.5	04/2017
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9		4.3	04/2017
Excess			-0.4	-1.8	-2.9	-3.2	-2.3		0.2	
MACQUARIE	520,511,815	3.3	3.0	-5.6	2.0	2.0	8.8		5.2	04/2017
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9		4.3	04/2017
Excess			0.1	-8.5	-6.1	0.5	0.8		1.0	
MORGAN STANLEY	611,372,475	3.9	0.4	-1.7	4.7	1.1	8.2	3.5%	7.8	01/2001
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9	3.7	7.6	01/2001
Excess			-2.6	-4.7	-3.4	-0.4	0.2	-0.2	0.1	
PZENA	655,869,978	4.2	6.3	6.4	9.0	7.1	16.4		7.0	04/2017
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9		4.3	04/2017
Excess			3.4	3.4	0.9	5.7	8.5		2.7	



<sup>(1)</sup> Fidelity funded 03/25/2025, performance reporting starts on 04/01/2025.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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



<sup>(1)</sup> Fidelity funded 03/25/2025, performance reporting starts on 04/01/2025.



	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
<b>Total Emerging Markets</b>										
ACTIVE EMERGING MARKETS AGGREGATE (1)	\$2,623,116,398	16.7%	3.0%	0.1%	5.1%	1.3%	8.3%	3.4%	3.7%	01/2012
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9	3.7	3.9	01/2012
Excess			0.1	-2.8	-3.0	-0.1	0.4	-0.3	-0.2	
SSGA EMERGING MARKETS PASSIVE	1,287,454,313	8.2	3.1	2.8	8.4	1.1	7.5	3.6	3.8	01/2012
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9	3.7	3.9	01/2012
Excess			0.2	-0.1	0.3	-0.3	-0.4	-0.1	-0.1	
EMERGING MARKETS TOTAL (1)	3,910,576,591	24.9	3.0	1.0	6.1	1.3	8.1	3.6	5.3	11/1996
BENCHMARK EM			2.9	2.9	8.1	1.4	7.9	3.7	5.5	11/1996
Excess			0.1	-2.0	-2.0	-0.2	0.1	-0.1	-0.3	



<sup>(1)</sup> All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	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



<sup>(1)</sup> All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	\$445,946,460	2.8%	5.7%	7.3%	7.3%	6.1%			6.6%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			5.2%	5.1%	6.1%	4.5%			3.6%	01/2021
Excess			0.5%	2.2%	1.2%	1.6%			3.0%	
TOTAL ACWI EX-US AGGREGATE	\$445,946,460	2.8%	5.7%	7.3%	7.3%	6.1%			6.6%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			5.2%	5.1%	6.1%	4.5%			3.6%	01/2021
Excess			0.5%	2.2%	1.2%	1.6%			3.0%	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	





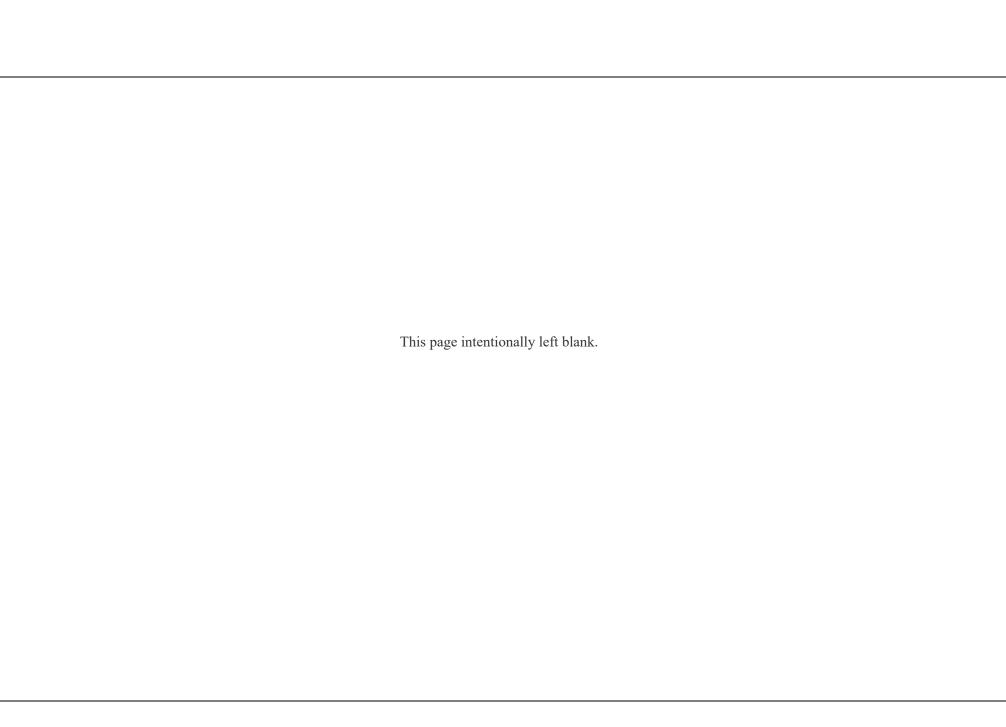
	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
China Only Managers										
EARNEST PARTNERS CHINA	\$105,836,669	0.7%	2.2%	22.3%	15.9%	-3.0%			-7.4%	01/2021
MSCI China A			0.1	13.3	11.0	-5.7			-6.9	01/2021
Excess			2.1	8.9	5.0	2.7			-0.5	
CHINA ONLY AGGREGATE	105,836,669	0.7	2.2	22.3	15.9	-3.0			-7.4	01/2021
MSCI China A			0.1	13.3	11.0	-5.7			-6.9	01/2021
Excess			2.1	8.9	5.0	2.7			-0.5	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	







Global Equity March 31, 2025





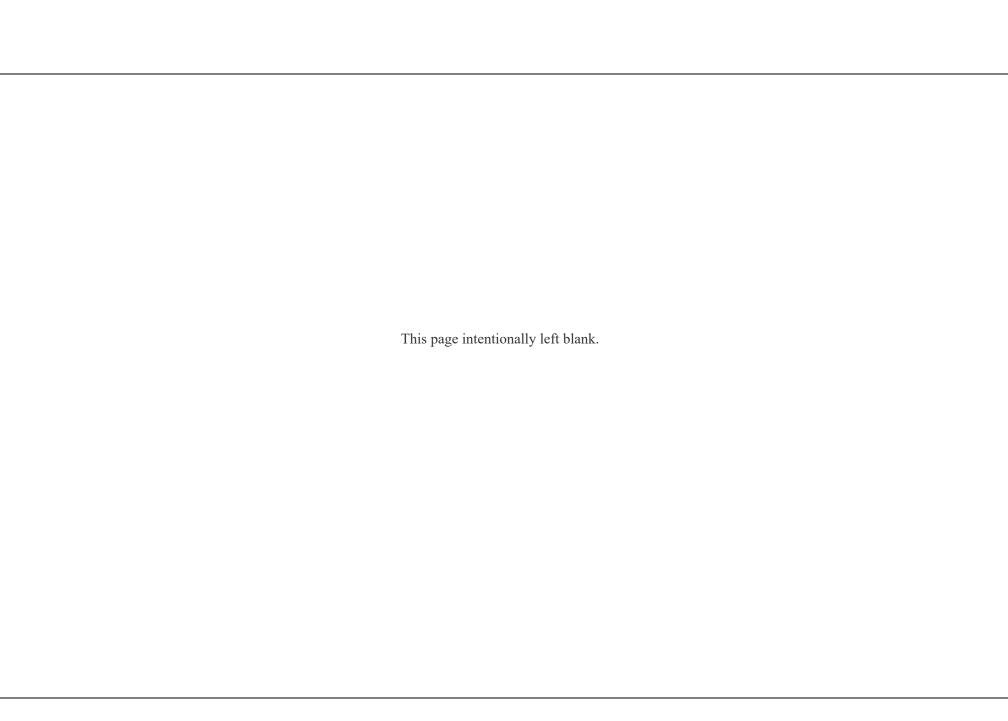
	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Global Equity Managers										
ARIEL INVESTMENTS	\$427,720,011	41.7%	5.9%	9.6%	6.6%	6.7%			7.8%	01/2021
MSCI AC WORLD NET USD DAILY			-1.3	4.2	7.2	6.9			7.7	01/2021
Excess			7.3	5.4	-0.5	-0.2			0.1	
BAILLIE GIFFORD	267,568,837	26.1	-5.9	4.2	8.0	3.7			-2.5	01/2021
MSCI AC WORLD NET USD DAILY			-1.3	4.2	7.2	6.9			7.7	01/2021
Excess			-4.6	0.0	8.0	-3.2			-10.3	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	330,054,585	32.2	-6.9	-10.0	-13.9	-1.2			-2.0	01/2021
MSCI AC WORLD NET USD DAILY			-1.3	4.2	7.2	6.9			7.7	01/2021
Excess			-5.5	-14.2	-21.1	-8.1			-9.7	
GLOBAL EQUITY	1,025,343,433	100.0	-1.7	0.9	-0.9	3.1			1.4	01/2021
MSCI AC WORLD NET USD DAILY			-1.3	4.2	7.2	6.9			7.7	01/2021
Excess			-0.4	-3.2	-8.0	-3.8			-6.3	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	







## Core/Core Plus Bonds March 31, 2025





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Bonds										
CORE (1)	\$2,567,967,564	45.0%	2.9%	5.1%	5.5%	1.5%			-0.1%	11/2020
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5			-1.1	11/2020
Excess			0.1	0.3	0.6	1.0			1.0	
CORE PLUS (1)	3,132,650,426	55.0	2.7	4.9	5.1	0.5			-1.0	11/2020
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5			-1.1	11/2020
Excess			-0.1	0.1	0.2	0.0			0.1	
TRANSITION AGGREGATE CORE BONDS (2)	21,697	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	5,700,639,687	100.0	2.8	5.0	5.2	1.0	0.7%	2.0%	6.6	07/1984
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5	-0.4	1.5	6.3	07/1984
Excess			-0.0	0.2	0.4	0.4	1.1	0.6	0.4	



<sup>(1)</sup> 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.

<sup>(2)</sup> The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

<sup>(3)</sup> 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.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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

-1.1

0.5

0.6

1.5

Note: All aggregates include the performance of terminated managers.



**Excess** 

<sup>(1)</sup> 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.

<sup>(2)</sup> The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

<sup>(3)</sup> 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.



	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Core										
DODGE & COX	\$1,284,324,892	22.5%	3.0%	5.3%	5.8%	2.2%	1.9%	2.6%	5.1%	02/2000
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5	-0.4	1.5	4.0	02/2000
Excess			0.2	0.5	0.9	1.7	2.3	1.2	1.1	
BLACKROCK	1,283,642,672	22.5	2.8	4.9	5.2	0.8	0.1	1.7	4.4	04/1996
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5	-0.4	1.5	4.3	04/1996
Excess			-0.0	0.1	0.3	0.3	0.5	0.3	0.1	
CORE	2,567,967,564	45.0	2.9	5.1	5.5	1.5			-0.1	11/2020
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5			-1.1	11/2020
Excess			0.1	0.3	0.6	1.0			1.0	



<sup>(1)</sup> 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.



	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	1.7	6.4	-13.4	-1.3	8.3
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	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	





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Core Plus Bonds										
GOLDMAN SACHS	\$1,577,927,333	27.7%	2.8%	5.0%	5.4%	0.7%	0.3%	1.8%	4.7%	07/1993
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5	-0.4	1.5	4.4	07/1993
Excess			0.0	0.2	0.5	0.2	0.7	0.4	0.3	
NEUBERGER	1,554,702,261	27.3	2.6	5.0	5.4	0.9	0.6	2.0	5.6	07/1988
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5	-0.4	1.5	5.3	07/1988
Excess			-0.2	0.2	0.5	0.4	1.0	0.5	0.3	
CORE PLUS	3,132,650,426	55.0	2.7	4.9	5.1	0.5			-1.0	11/2020
Bloomberg U.S. Aggregate			2.8	4.8	4.9	0.5			-1.1	11/2020
Excess			-0.1	0.1	0.2	0.0			0.1	

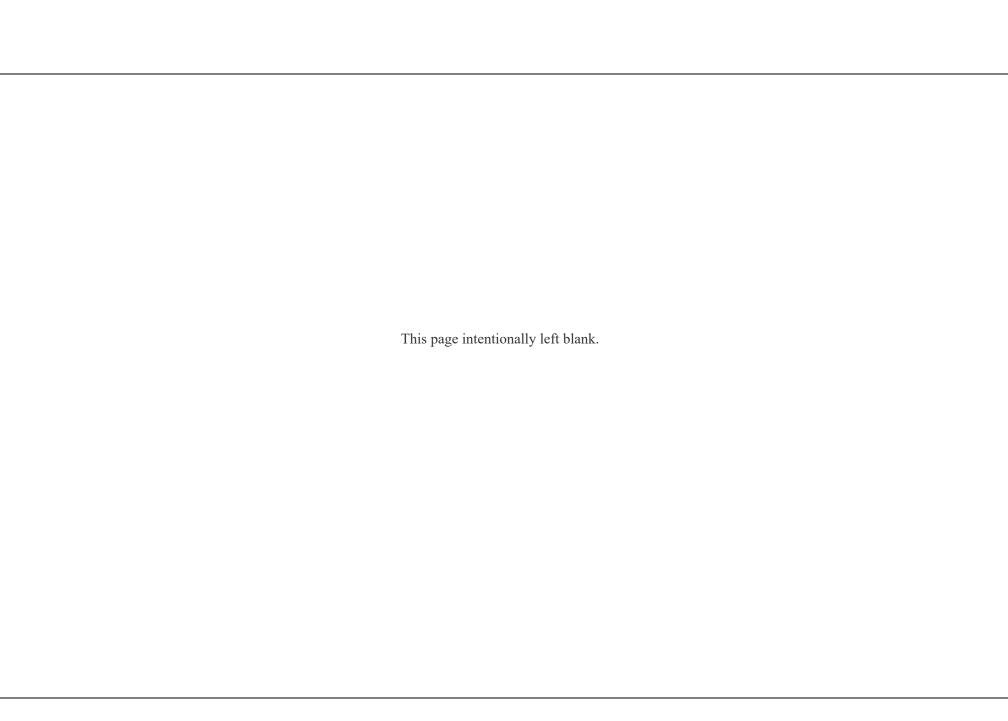


<sup>(1)</sup> Prior to 12/1/2020 the Core managers were categorized as Active or Semi-Passive. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.



2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
1.9%	6.3%	-13.9%	-1.5%	9.0%
1.3	5.5	-13.0	-1.5	7.5
0.7	0.8	-0.9	0.0	1.5
2.7	6.7	-13.8	-0.6	9.9
1.3	5.5	-13.0	-1.5	7.5
1.5	1.2	-0.8	1.0	2.4
1.7	6.8	-15.2	-1.1	
1.3	5.5	-13.0	-1.5	
0.5	1.3	-2.2	0.4	
	1.9% 1.3 0.7  2.7 1.3 1.5	1.9%       6.3%         1.3       5.5         0.7       0.8         2.7       6.7         1.3       5.5         1.5       1.2         1.7       6.8         1.3       5.5	1.9%       6.3%       -13.9%         1.3       5.5       -13.0         0.7       0.8       -0.9         2.7       6.7       -13.8         1.3       5.5       -13.0         1.5       1.2       -0.8         1.7       6.8       -15.2         1.3       5.5       -13.0	1.9%       6.3%       -13.9%       -1.5%         1.3       5.5       -13.0       -1.5         0.7       0.8       -0.9       0.0         2.7       6.7       -13.8       -0.6         1.3       5.5       -13.0       -1.5         1.5       1.2       -0.8       1.0         1.7       6.8       -15.2       -1.1         1.3       5.5       -13.0       -1.5







## Return Seeking Bonds March 31, 2025





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	\$990,220,893	20.9%	2.6%	5.2%	5.3%	1.2%			-0.2%	12/2020
Credit Plus Benchmark			2.3	5.3	5.6	1.9			-0.2	12/2020
Excess			0.4	-0.2	-0.3	-0.7			0.1	
PIMCO CREDIT PLUS	1,023,934,613	21.6	2.4	5.5	5.9	2.0			0.3	12/2020
Credit Plus Benchmark			2.3	5.3	5.6	1.9			-0.2	12/2020
Excess			0.1	0.2	0.3	0.1			0.5	
CREDIT PLUS	2,014,155,506	42.5	2.5	5.3	5.6	1.6			0.0	12/2020
Credit Plus Benchmark			2.3	5.3	5.6	1.9			-0.2	12/2020
Excess			0.2	-0.0	0.0	-0.3			0.3	
BLACKROCK OPPORTUNISTIC	507,361,127	10.7	1.8	4.8	5.5	3.7			2.1	12/2020
ICE BofA US 3-Month Treasury Bill			1.0	3.6	5.0	4.2			2.9	12/2020
Excess			0.8	1.2	0.6	-0.5			-0.9	
ASHMORE EMERGING MARKETS	343,536,125	7.2	2.9	6.0	5.9	1.5			-3.4	01/2021
JPM JEMB Sovereign-only 50-50			3.3	6.1	5.4	3.1			-1.2	01/2021
Excess			-0.3	-0.2	0.4	-1.6			-2.3	
TCW SECURITIZED CREDIT	511,413,184	10.8	2.6	7.0	8.2	4.5			3.6	07/2021
ICE BofA US 3-Month Treasury Bill			1.0	3.6	5.0	4.2			3.4	07/2021
Excess			1.6	3.4	3.2	0.2			0.2	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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		





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds Managers										
PAYDEN RYGEL	\$318,956,800	6.7%	1.2%	5.9%	7.1%	4.9%			2.9%	01/2021
Multi-Asset Credit Benchmark			1.3	5.6	6.8	5.0			2.9	01/2021
Excess			-0.1	0.3	0.2	-0.1			-0.0	
PGIM	368,202,692	7.8	1.2	5.6	6.6	4.8			2.6	01/2021
Multi-Asset Credit Benchmark			1.3	5.6	6.8	5.0			2.9	01/2021
Excess			-0.1	-0.0	-0.2	-0.2			-0.3	
MULTI-ASSET CREDIT	687,159,492	14.5	1.2	5.7	6.8	4.8			2.8	01/2021
Multi-Asset Credit Benchmark			1.3	5.6	6.8	5.0			2.9	01/2021
Excess			-0.1	0.1	-0.0	-0.2			-0.2	
KKR	342,701,420	7.2	0.7	5.8	7.2	5.0			3.6	01/2021
ICE BofA US Cash Pay HY Constrained			1.0	6.4	7.5	4.8			3.5	01/2021
Excess			-0.3	-0.7	-0.3	0.2			0.1	
OAKTREE	337,751,371	7.1	0.7	6.0	7.5	4.9			3.6	01/2021
ICE BofA US Cash Pay HY Constrained			1.0	6.4	7.5	4.8			3.5	01/2021
Excess			-0.3	-0.4	-0.1	0.1			0.1	
HIGH YIELD	680,452,791	14.3	0.7	5.9	7.3	5.0			3.6	01/2021
ICE BofA US Cash Pay HY Constrained			1.0	6.4	7.5	4.8			3.5	01/2021
Excess			-0.3	-0.5	-0.2	0.1			0.1	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	





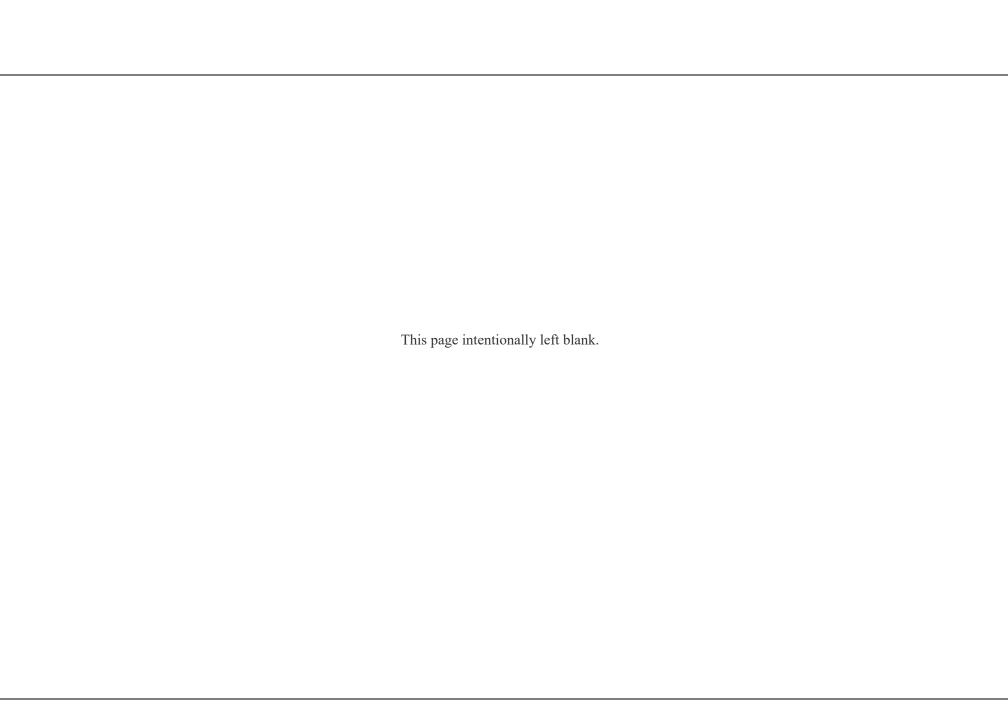
	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds										
CREDIT PLUS	\$2,014,155,506	42.5%	2.5%	5.3%	5.6%	1.6%			0.0%	12/2020
Credit Plus Benchmark			2.3	5.3	5.6	1.9			-0.2	12/2020
Excess			0.2	-0.0	0.0	-0.3			0.3	
OPPORTUNISTIC FI	507,361,127	10.7	1.8	4.8	5.5	3.7			2.1	12/2020
ICE BofA US 3-Month Treasury Bill			1.0	3.6	5.0	4.2			2.9	12/2020
Excess			8.0	1.2	0.6	-0.5			-0.9	
EMERGING MARKET DEBT	343,536,125	7.2	2.9	6.0	5.9	1.5			-3.4	01/2021
JPM JEMB Sovereign-only 50-50			3.3	6.1	5.4	3.1			-1.2	01/2021
Excess			-0.3	-0.2	0.4	-1.6			-2.3	
SECURITIZED CREDIT	511,413,184	10.8	2.6	7.0	8.2	4.5			3.5	06/2021
ICE BofA US 3-Month Treasury Bill			1.0	3.6	5.0	4.2			3.3	06/2021
Excess			1.6	3.4	3.2	0.2			0.2	
MULTI-ASSET CREDIT	687,159,492	14.5	1.2	5.7	6.8	4.8			2.8	01/2021
Multi-Asset Credit Benchmark			1.3	5.6	6.8	5.0			2.9	01/2021
Excess			-0.1	0.1	-0.0	-0.2			-0.2	
HIGH YIELD	680,452,791	14.3	0.7	5.9	7.3	5.0			3.6	01/2021
ICE BofA US Cash Pay HY Constrained			1.0	6.4	7.5	4.8			3.5	01/2021
Excess			-0.3	-0.5	-0.2	0.1			0.1	
RETURN SEEKING BONDS	4,744,085,649	100.0	2.0	5.7	6.4	3.2			1.4	12/2020
Return Seeking Fixed Income Benchmark			1.8	5.2	6.0	3.4			1.5	12/2020
Excess			0.3	0.4	0.4	-0.2			-0.1	





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	
EMERGING MARKET DEBT	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	
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		
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	
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	
RETURN SEEKING BONDS	5.1	9.8	-11.3	0.9	
Return Seeking Fixed Income Benchmark	5.0	9.3	-9.8	0.8	
Excess	0.1	0.5	-1.6	0.1	







**Treasuries** March 31, 2025





Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
\$3,167,968,115	32.3%	4.1%	4.0%	3.3%	-3.2%	-4.6%		0.3%	02/2018
		4.1	4.1	3.2	-3.2	-4.5		0.3	02/2018
		0.0	-0.1	0.1	-0.1	-0.1		-0.1	
3,134,189,741	32.0	4.2	4.2	3.5	-3.0	-4.4		0.4	02/2018
		4.1	4.1	3.2	-3.2	-4.5		0.3	02/2018
		0.1	0.1	0.3	0.1	0.1		0.1	
3,495,482,019	35.7	4.2	4.3	3.6	-3.2	-4.3		0.4	02/2018
		4.1	4.1	3.2	-3.2	-4.5		0.3	02/2018
		0.1	0.3	0.4	-0.0	0.2		0.1	
9,797,639,875	100.0	4.2	4.2	3.5	-3.1	-4.4		0.4	02/2018
		4.1	4.1	3.2	-3.2	-4.5		0.3	02/2018
		0.1	0.1	0.3	0.0	0.1		0.0	
	3,134,189,741 3,495,482,019	\$3,167,968,115 32.3%  3,134,189,741 32.0  3,495,482,019 35.7	\$3,167,968,115 32.3% 4.1% 4.1 0.0  3,134,189,741 32.0 4.2 4.1 0.1  3,495,482,019 35.7 4.2 4.1 0.1  9,797,639,875 100.0 4.2 4.1	\$3,167,968,115 32.3% 4.1% 4.1 0.0 -0.1  3,134,189,741 32.0 4.2 4.1 4.1 0.1 0.1  3,495,482,019 35.7 4.2 4.1 4.1 0.1 0.3  9,797,639,875 100.0 4.2 4.2 4.1 4.1 4.1	\$3,167,968,115  32.3%  4.1%  4.1  4.1  3.2  0.0  -0.1  0.1  3,134,189,741  32.0  4.2  4.1  4.1  3.2  0.1  0.1  0.3  3,495,482,019  35.7  4.2  4.1  4.1  3.2  0.1  0.3  4.1  4.1  3.2  0.1  0.3  3.6  4.1  4.1  3.2  0.1  0.3  4.1  4.1  3.2  0.1  3.3  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2  4.1  4.1  3.2	\$3,167,968,115  32.3%  4.1%  4.1  3.2  -3.2  0.0  -0.1  3,134,189,741  32.0  4.2  4.1  4.1  3.2  -3.2  0.1  0.1  3,495,482,019  35.7  4.2  4.1  4.1  3.2  -3.2  0.1  3.6  -3.2  4.1  4.1  3.2  -3.2  0.1  9,797,639,875  100.0  4.2  4.2  4.3  3.6  -3.2  4.1  4.1  3.2  -3.2  0.1  0.3  0.4  -0.0	\$3,167,968,115  32.3%  4.1%  4.0%  3.3%  -3.2%  -4.6%  4.1  4.1  3.2  -3.2  -4.5  0.0  -0.1  0.1  -0.1  3,134,189,741  32.0  4.2  4.1  4.1  3.2  -3.2  -4.5  0.1  0.1  0.1  0.3  0.1  0.1  3,495,482,019  35.7  4.2  4.3  3.6  -3.2  -4.3  4.1  4.1  3.2  -3.2  -4.5  0.1  0.1  0.3  0.4  -0.0  0.2  9,797,639,875  100.0  4.2  4.2  3.5  -3.1  -4.4  4.1  3.2  -3.2  -4.5	\$3,167,968,115  32.3%  4.1%  4.0%  3.3%  -3.2%  -4.6%  4.1  3.1  3.134,189,741  32.0  4.2  4.1  4.1  3.2  -3.2  -4.5  0.1  0.1  3.495,482,019  35.7  4.2  4.1  4.1  3.2  -3.2  -4.5  0.1  0.1  3.495,482,019  35.7  4.2  4.3  3.6  -3.2  -4.5  0.1  0.1  0.3  0.4  -4.0  0.2   9,797,639,875  100.0  4.2  4.2  3.5  -3.1  -4.4  4.1  3.2  -3.2  -4.5	\$3,167,968,115  32.3%  4.1%  4.0%  3.3%  -3.2%  -4.6%  0.3%  4.1  4.1  3.2  -3.2  -4.5  0.3  0.0  -0.1  3,134,189,741  32.0  4.2  4.2  3.5  -3.0  -4.4  0.4  4.1  4.1  3.2  -3.2  -4.5  0.3  0.1  0.1  0.1  3,495,482,019  35.7  4.2  4.3  3.6  -3.2  -4.5  0.3  0.1  0.1  3.495,482,019  35.7  4.2  4.3  3.6  -3.2  -4.5  0.3  0.1  0.1  9,797,639,875  100.0  4.2  4.2  3.5  -3.1  -4.4  0.4  -0.0  0.2  0.1

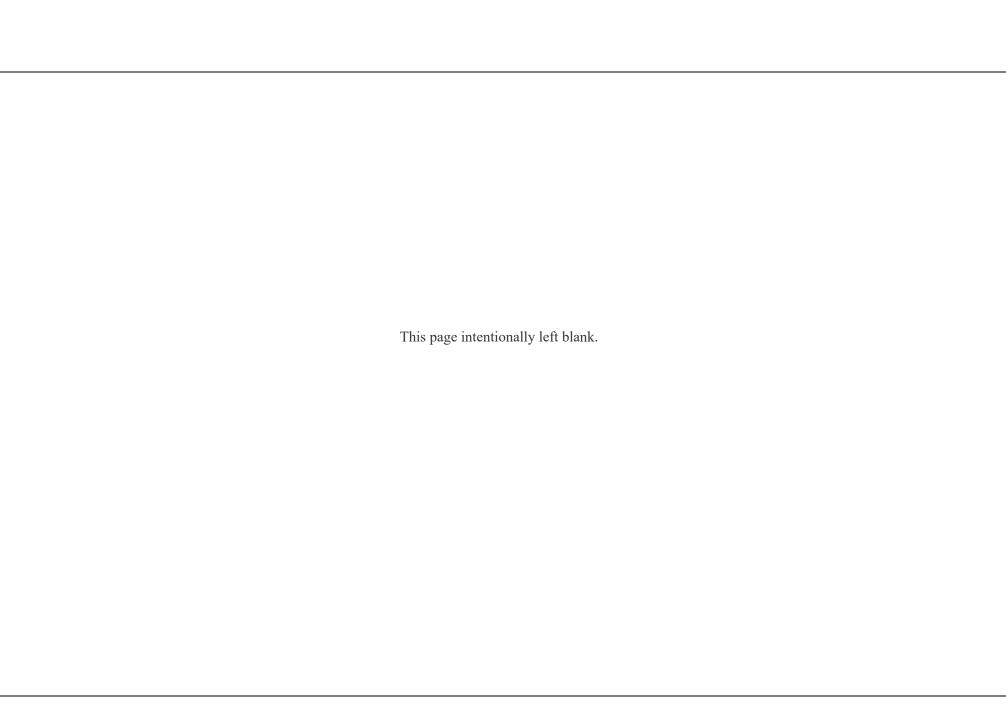




	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
Treasuries Managers					
BLACKROCK	-3.0%	4.1%	-20.6%	-4.0%	12.5%
Bloomberg Treasury 5+ Year	-3.0	3.7	-20.3	-3.8	12.8
Excess	-0.0	0.5	-0.3	-0.2	-0.3
GOLDMAN SACHS	-2.8	4.4	-20.6	-3.9	12.7
Bloomberg 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.







# Laddered Bonds + Cash March 31, 2025





	Ending Market Value	Portfolio Weight	Last Qtr	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Laddered Bond and Cash Managers									
Neuberger Berman Ladder Bond	\$1,595,364,002	31.9%	1.1%	5.2%	4.3%			2.8%	11/2020
ICE BofA US 3-Month Treasury Bill			1.0	5.0	4.2			2.9	11/2020
Excess			0.1	0.3	0.1			-0.0	
Goldman Sachs Ladder Bond	1,597,015,215	32.0	1.1	5.2	4.3			2.9	11/2020
ICE BofA US 3-Month Treasury Bill			1.0	5.0	4.2			2.9	11/2020
Excess			0.1	0.2	0.1			-0.0	
Treasury Ladder Aggregate	3,192,379,217	63.9	1.1	5.2	4.3			2.9	11/2020
ICE BofA US 3-Month Treasury Bill	., . ,,		1.0	5.0	4.2			2.9	11/2020
Excess			0.1	0.2	0.1			-0.0	
Combined Funds STIF	1,749,006,251	35.0	1.1	5.2	4.5	2.8%	2.0%	1.9	01/2004
iMoneyNet Money Fund Average- All Taxable			1.0	4.7	4.0	2.4	1.6	1.5	01/2004
Excess			0.1	0.5	0.5	0.3	0.3	0.4	
TEACHERS RETIREMENT CD	56,009,181	1.1	1.1	5.2	4.4	2.8	2.1	1.6	02/2012
REPO ICE BofA US 3-Month Treasury Bill			1.0	5.0	4.2	2.6	1.9	1.4	02/2012
Excess			0.1	0.2	0.2	0.2	0.2	0.2	
Laddered Bond + Cash	4,997,605,043	100.0	1.1	5.2	4.4	2.6	1.9	4.2	12/1977
ICE BofA US 3-Month Treasury Bill			1.0	5.0	4.2	2.6	1.9	4.4	12/1977
Excess			0.1	0.2	0.1	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.

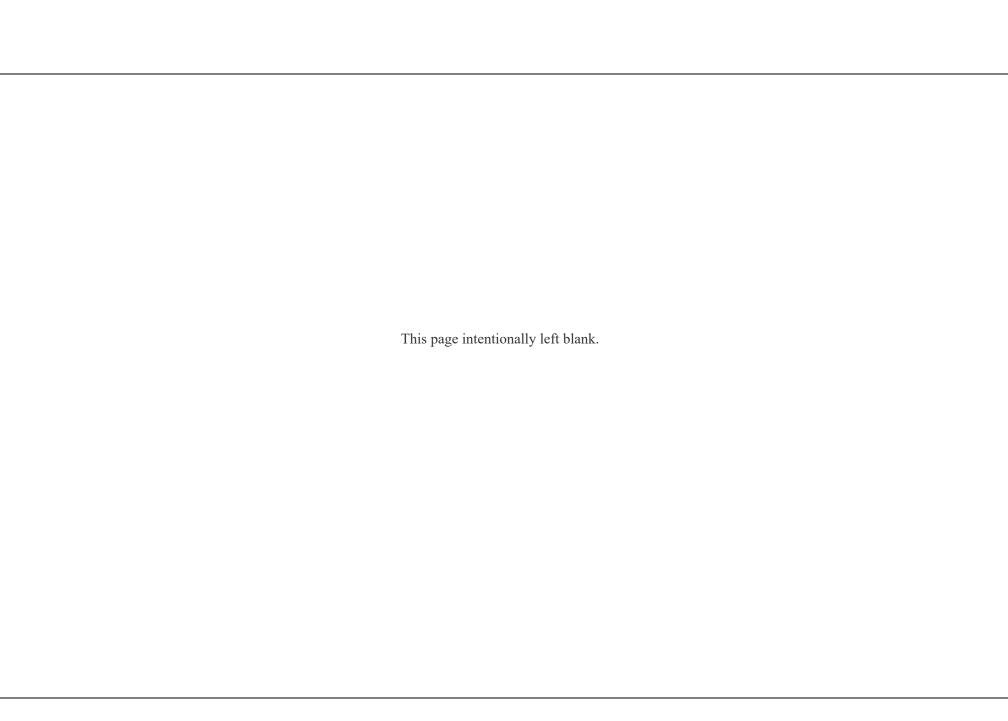




	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
Laddered Bond and Cash Managers					
Neuberger Berman Ladder Bond	5.4%	5.2%	0.8%	0.0%	
ICE BofA US 3-Month Treasury Bill	5.3	5.0	1.5	0.0	
Excess	0.2	0.2	-0.6	-0.0	
Goldman Sachs Ladder Bond	5.4	5.2	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	
CE 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%
MoneyNet 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	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
CE 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.







# Private Markets March 31, 2025





#### **Combined Funds Asset Class Performance Summary**

Private Markets									
	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year	<u> 25 Year</u>	30 Year
Private Markets - Invested	1.6%	5.4%	7.0%	6.3%	12.6%	11.8%	12.7%	12.3%	13.5%
Private Markets -Uninvested(1)	1.0%	3.2%	5.0%	-1.1%					
Private Equity	1.9%	6.8%	8.8%	6.4%	15.0%	15.3%	14.7%	13.2%	15.5%
Private Credit	3.7%	6.9%	6.6%	10.9%	11.3%	11.6%	12.4%	12.0%	
Resources	1.0%	0.6%	2.4%	7.3%	6.3%	2.1%	11.0%	12.7%	12.9%
Real Estate	-2.0%	-1.3%	-2.3%	0.4%	7.0%	9.0%	8.0%	8.6%	9.2%

#### **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





Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	27,402,341,001	21,511,251,727	17,811,407,778	8,406,461,101	16,884,972,804	1.61	13.7	
Adams Street Partners, LLC	465,355,000	337,438,684	178,891,106	128,725,675	298,389,350	1.41	11.9	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	84,117,479	22,885,308	20,675,541	1.36	6.0	2012
Adams Street Global Secondary Fund 6	100,000,000	80,400,008	81,050,365	19,599,992	47,774,000	1.60	17.2	2017
Adams Street Global Secondary Fund 7	265,355,000	179,923,984	13,723,262	86,240,375	229,939,809	1.35	25.4	2021
Advent International Group	505,000,000	426,949,702	408,823,181	81,134,252	324,534,790	1.72	14.8	
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	3,783,868	2.02	16.3	2008
Advent International GPE VII, L.P.	90,000,000	86,490,641	146,622,935	3,600,000	9,193,970	1.80	13.1	2012
Advent International GPE VIII-B	100,000,000	100,000,000	126,852,104	0	81,907,748	2.09	16.0	2016
Advent International GPE IX	115,000,000	109,824,875	31,947,948	5,175,125	139,274,374	1.56	13.7	2019
Advent International GPE X	150,000,000	77,640,873	0	72,359,127	90,374,830	1.16	10.9	2022
Apax Partners	600,000,000	571,966,618	591,872,340	127,716,977	294,287,378	1.55	13.6	
APAX VIII - USD	200,000,000	240,451,261	364,650,169	7,966,190	13,729,114	1.57	12.7	2013
Apax IX USD L.P.	150,000,000	159,676,990	201,672,267	16,039,251	99,782,597	1.89	17.6	2016
Apax X USD L.P.	150,000,000	148,953,682	25,549,904	26,596,222	157,205,860	1.23	8.1	2019
Apax XI	100,000,000	22,884,685	0	77,115,315	23,569,807	1.03	6.9	2022
Arsenal Capital Partners	175,000,000	130,146,597	15,210,407	55,834,595	127,425,954	1.10	3.1	
Arsenal Capital Partners V, L.P.	75,000,000	74,597,189	13,880,609	10,073,268	83,542,130	1.31	6.8	2019
Arsenal Capital Partners VI LP	100,000,000	55,549,408	1,329,798	45,761,327	43,883,823	0.81	-13.2	2021
Asia Alternatives	649,000,000	267,667,889	34,427,225	401,395,926	264,647,907	1.12	4.5	
Asia Alternatives Capital Partners V	99,000,000	110,881,180	31,545,239	7,849,695	110,504,836	1.28	7.0	2017
MN Asia Investors	550,000,000	156,786,709	2,881,986	393,546,231	154,143,071	1.00	0.1	2020
Banc Fund	187,460,477	187,466,811	124,225,750	0	146,526,640	1.44	6.1	
Banc Fund IX, L.P.	107,205,932	107,205,932	113,810,553	0	51,607,904	1.54	6.2	2014
Banc Fund X, L.P.	80,254,545	80,260,879	10,415,197	0	94,918,736	1.31	5.7	2018
BlackRock	950,000,000	954,617,522	491,202,825	0	1,486,773,902	2.07	23.8	
BlackRock Long Term Capital, SCSP	950,000,000	954,617,522	491,202,825	0	1,486,773,902	2.07	23.8	2019
Blackstone Group L.P.	1,735,000,000	1,053,738,807	823,417,462	817,855,831	709,942,924	1.46	14.1	
Blackstone Capital Partners Asia II	270,000,000	104,425,763	25,951,723	173,916,121	147,588,106	1.66	41.6	2021
Blackstone Capital Partners IV, L.P.	70,000,000	84,481,419	201,562,974	1,765,384	57,973	2.39	37.0	2002
Blackstone Capital Partners V L.P.	140,000,000	152,478,007	246,892,515	7,027,560	177,966	1.62	8.0	2006
Blackstone Capital Partners VI, L.P.	100,000,000	107,015,142	171,525,224	10,975,597	24,066,793	1.83	12.2	2008
Blackstone Capital Partners VII	130,000,000	142,770,788	122,265,220	7,599,396	111,517,855	1.64	12.0	2015
Blackstone Capital Partners VIII LP	150,000,000	133,312,161	25,612,458	44,020,074	136,872,237	1.22	8.7	2019
Blackstone Capital Partners IX	150,000,000	0	0	150,000,000	0			2022
Blackstone Energy Transition Partners IV L.P.	200,000,000	20,406,509	852,491	179,593,491	21,245,793	1.08	10.3	2024
Blackstone Growth	250,000,000	230,783,602	27,653,558	44,668,081	191,808,733	0.95	-1.8	2020
Blackstone Growth Equity II	150,000,000	0	0	150,000,000	0			2022
Blackstone Supplemental Account - M	125,000,000	78,065,415	1,101,300	48,290,127	76,607,469	1.00	-0.2	2021



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Blackstone Strategic Partners	790,500,000	647,932,832	774,828,433	196,106,961	219,874,046	1.54	13.8	
Strategic Partners IV VC, L.P.	40,500,000	42,347,763	64,041,553	1,062,451	2,317	1.51	9.0	2008
Strategic Partners IV-B	100,000,000	99,561,993	155,345,398	3,136,364	0	1.56	12.1	2008
Strategic Partners V, LP	100,000,000	87,507,539	141,266,488	1,683,957	0	1.61	18.2	2011
Strategic Partners VI, L.P.	150,000,000	105,063,497	142,543,973	21,854,072	16,064,287	1.51	13.5	2014
Strategic Partners VII, L.P.	150,000,000	125,871,994	159,217,427	42,126,784	48,061,211	1.65	15.9	2016
Strategic Partners VIII	150,000,000	130,525,637	104,301,365	75,308,704	95,912,119	1.53	21.6	2018
Strategic Partners IX	100,000,000	57,054,408	8,112,229	50,934,629	59,834,113	1.19	13.4	2022
Blue Owl Capital	775,000,000	560,477,562	499,893,295	561,020,996	498,940,681	1.78	26.7	
Blue Owl GP Stakes III	175,000,000	224,729,201	257,907,848	107,819,992	172,212,492	1.91	24.4	2015
Blue Owl GP Stakes IV	250,000,000	218,004,897	195,614,159	177,261,200	228,324,354	1.94	34.8	2018
Blue Owl GP Stakes V	200,000,000	117,743,464	46,371,288	125,939,804	98,403,835	1.23	14.6	2020
Blue Owl GP Stakes VI	150,000,000	0	0	150,000,000	0			2024
Bridgepoint	375,633,799	207,714,064	57,522,769	167,821,178	258,591,852	1.52	14.8	
Bridgepoint Development Capital V, L.P.	108,020,057	0	0	108,020,057	0	-	-	2024
Bridgepoint Europe VI L.P.	162,030,086	161,699,396	55,225,810	6,701,253	213,657,880	1.66	15.1	2018
Bridgepoint Europe VII	105,583,656	46,014,667	2,296,960	53,099,868	44,933,973	1.03	4.1	2022
Brookfield Asset Management Inc.	500,000,000	470,629,908	335,721,323	94,498,624	544,533,109	1.87	27.9	
Brookfield Capital Partners Fund IV	100,000,000	116,823,344	232,768,420	4,839,916	42,444,749	2.36	41.4	2015
Brookfield Capital Partners V L.P.	250,000,000	270,283,167	99,149,891	19,654,494	400,231,670	1.85	19.2	2018
Brookfield Capital Partners Fund VI	150,000,000	83,523,398	3,803,012	70,004,213	101,856,691	1.27	17.6	2022
Canyon Partners	125,000,000	146,475,843	90,844,239	0	107,252,161	1.35	11.4	LULL
Canyon Distressed Opportunity Fund III	125,000,000	146,475,843	90,844,239	0	107,252,161	1.35	11.4	2020
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	118,626	3.93	10.6	2020
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	118,626	3.93	10.6	1985
Carlyle Group	400,000,000	393,673,548	150,090,948	89,288,525	330,612,058	1.22	7.0	1000
Carlyle Strategic Partners IV, L.P.	100,000,000	144,440,762	91,037,024	13,471,683	73,599,751	1.14	5.4	2016
Carlyle Partners VII, L.P.	150,000,000	161,047,360	51,226,042	6,263,341	163,471,383	1.33	7.6	2017
Carlyle Partners VIII	150,000,000	88,185,426	7,827,882	69,553,501	93,540,924	1.15	8.9	2021
CarVal Investors	600,000,000	532,109,760	533,095,086	37,500,000	201,543,733	1.38	8.1	2021
CVI Credit Value Fund A II	150,000,000	142,500,000	201,979,290	7,500,000	2,081,733	1.43	8.3	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	186,223,886	7,500,000	10,743,460	1.38	8.4	2015
CVI Credit Value Fund IV	150,000,000	104,609,760	94,145,751	15,000,000	70,059,373	1.57	7.7	2017
CVI Credit Value Fund V	150,000,000	142,500,000	50,746,160	7,500,000	118,659,167	1.19	7.5	2020
Clearlake Capital	100,000,000	66,620,260	268,947	33,538,053	74,784,046	1.13	5.5	2020
Clearlake Capital Partners VII	100,000,000	66,620,260	268,947	33,538,053	74,784,046	1.13	5.5	2022
Court Square	589,419,132	518,763,065	751,939,097	131,594,683	252,277,136	1.94	15.0	2022
Court Square Capital Partners II, L.P.	164,419,132	170,270,247	298,783,330	5,656,060	161,847	1.76	12.3	2006
Court Square Capital Partners III, L.P.	175,000,000	191,254,639	376,743,475	4,990,272	100,430,707	2.49	20.8	2012
Court Square Capital Partners IV, L.P.	150,000,000	157,238,179	76,412,292	20,948,351	151,684,582	1.45	14.8	2012
Court Square Capital Partners V, L.P.	100,000,000	137,230,179	0	100,000,000	0	1.40	14.0	2016
CVC Capital Partners	459,085,243	466,602,620	702,772,996	102,420,870	214,661,232	1.97	16.2	2024
CVC Capital Partners  CVC Capital Partners VI	243,045,129	295,794,217	406,714,859	9,972,544	195,574,008	2.04	15.7	2013
CVC Capital Partners VI	108,020,057	16,924,305	499,910	90,905,542	15,996,552	2.04 0.97	-8.1	2013
	108,020,057	153,884,098	295,558,227	1,542,785	3,090,673		-8.1 16.7	2023
CVC European Equity Partners V, L.P.	100,020,037	133,004,090	290,000,227	1,042,700	3,080,073	1.94	10.7	2008



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Dawson Partners	400,000,000	370,680,705	234,749,337	122,808,774	203,613,589	1.18	11.5	
Dawson Portfolio Finance 3	100,000,000	106,610,469	98,643,926	11,085,318	38,724,491	1.29	12.4	2019
Dawson Portfolio Finance 4	100,000,000	107,400,530	69,225,564	17,096,650	59,377,854	1.20	10.4	2020
Dawson Portfolio Finance 5	100,000,000	84,723,900	38,534,890	40,092,672	55,691,355	1.11	9.1	2021
Dawson Portfolio Finance 6	100,000,000	71,945,807	28,344,957	54,534,134	49,819,889	1.09	20.8	2024
Goldman, Sachs & Co.	449,800,000	396,934,361	375,902,743	154,324,414	201,999,141	1.46	9.9	
GS Capital Partners VI, L.P.	100,000,000	110,606,276	144,104,252	2,551,356	885,778	1.31	7.1	2007
GS Vintage VII	100,000,000	90,815,206	93,034,122	61,736,567	57,206,382	1.65	13.9	2016
GS China-US Cooperation Fund	99,800,000	44,121,012	523,330	56,087,600	56,542,796	1.29	7.0	2018
West Street Capital Partners VII, L.P.	150,000,000	151,391,867	138,241,039	33,948,891	87,364,186	1.49	13.1	2016
Goldner Hawn Johnson & Morrison	150,510,266	91,103,147	106,698,463	60,039,085	71,502,729	1.96	21.0	
GHJM TrailHead Fund	20,000,000	17,572,130	55,980,283	2,894,486	196,603	3.20	19.6	2012
Goldner Hawn Fund VII, L.P.	57,755,138	48,953,119	50,716,280	8,967,369	41,306,516	1.88	25.7	2018
Goldner Hawn VIII	72,755,128	24,577,898	1,900	48,177,230	29,999,610	1.22	20.8	2023
Green Equity Investors	325,000,000	351,338,087	320,554,721	23,768,669	337,119,438	1.87	13.1	
Green Equity Investors VI, L.P.	200,000,000	232,647,779	303,570,000	4,125,348	181,773,009	2.09	13.3	2012
Green Equity Investors VIII	125,000,000	118,690,308	16,984,721	19,643,321	155,346,429	1.45	11.8	2020
GTCR	110,000,000	108,893,534	266,749,865	10,416,556	74,789,503	3.14	30.9	
GTCR XI	110,000,000	108,893,534	266,749,865	10,416,556	74,789,503	3.14	30.9	2013
HarbourVest	17,945,559	17,601,972	23,882,757	617,451	2,908,997	1.52	11.0	
Dover Street VII Cayman Fund L.P.	2,198,112	2,074,270	1,856,658	132,416	3,259	0.90	-4.6	2014
Harbourvest Intl PE Partners VI-Cayman	4,049,838	4,040,737	6,523,052	189,035	1,106,544	1.89	13.8	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,395,883	6,153,757	156,000	31,548	1.41	12.9	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,091,082	9,349,290	140,000	1,767,646	1.57	10.6	2014
Hellman & Friedman	575,000,000	455,172,809	219,128,850	159,555,667	500,692,064	1.58	17.0	
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,914,704	161,459,211	2,183,886	4,473,543	3.32	24.8	2009
Hellman & Friedman Investors IX, L.P.	175,000,000	185,821,394	24,793,615	6,731,812	263,532,634	1.55	12.0	2018
Hellman & Friedman Capital Partners X	250,000,000	219,436,711	32,876,024	50,639,969	232,685,887	1.21	8.1	2021
Hellman & Friedman Capital Partners XI	100,000,000	0	0	100,000,000	0			2023
IK Investment Partners	669,724,354	512,990,092	602,598,035	214,640,260	243,813,908	1.65	14.1	
IK Fund VII	162,030,086	179,393,652	322,286,061	8,192,535	10,005,218	1.85	14.0	2013
IK Fund VIII	162,030,086	179,587,595	279,566,119	8,292,676	56,861,966	1.87	17.5	2016
IK Fund IX	145,827,077	148,769,898	745,854	3,787,283	172,871,503	1.17	5.4	2019
IK Fund X	97,218,051	5,238,948	0	91,748,712	4,075,221			2022
IK Small Cap Fund IV	102,619,054	0	0	102,619,054	0			2024
Kohlberg, Kravis, Roberts & Co.	1,997,000,000	1,246,994,696	729,909,951	841,373,764	1,154,275,383	1.51	15.8	_
KKR Americas Fund XII L.P.	150,000,000	151,739,116	136,465,436	14,677,864	185,411,660	2.12	19.7	2016
KKR Ascendant Strategy	150,000,000	51,602,764	0	102,676,796	46,032,842	0.89	-31.0	2023
KKR Asian Fund III	100,000,000	98,528,089	84,176,670	14,024,484	107,859,880	1.95	19.3	2017
KKR Asian Fund IV	150,000,000	93,579,631	15,061,196	73,254,390	107,691,668	1.31	12.5	2020
KKR Core Investments Partnership	97,000,000	105,603,847	16,321,657	24,319	133,874,866	1.42	12.3	2021
KKR Core Investments Fund II	100,000,000	25,984,801	0	74,522,617	29,175,374	1.12	12.4	2022
KKR Europe V	100,000,000	97,865,431	44,427,796	9,985,433	88,246,578	1.36	9.7	2018
KKR European Fund VI (USD) SCSp	100,000,000	43,153,001	0	60,100,971	30,449,862	0.71	-27.7	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	146,286,157	2,709,375	5,765,259	166,981,833	1.16	7.6	2021
KKR North America Fund XIII	300,000,000	227,484,289	5,656,079	86,341,631	258,550,820	1.16	8.9	2021
KKR North America Fund XIV	400,000,000	0	0	400,000,000	0	0	0.0	2024
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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Lexington Partners	1,645,000,000	1,275,201,995	936,959,544	460,566,602	1,006,701,640	1.52	12.5	
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	145,958,371	1,634,703	562,055	1.49	7.9	2005
Lexington Capital Partners VII, L.P.	200,000,000	173,297,773	282,485,904	30,670,593	4,382,644	1.66	14.2	2009
Lexington Capital Partners VIII, L.P.	150,000,000	139,855,720	163,532,056	29,194,504	67,475,516	1.65	14.3	2014
Lexington Capital Partners IX, L.P.	150,000,000	134,081,724	54,393,987	31,503,130	147,343,131	1.50	16.1	2018
Lexington Capital Partners X	100,000,000	52,573,186	4,372,176	51,318,922	58,942,609	1.20	18.9	2021
Lexington Co-Investment Partners IV	200,000,000	221,549,734	202,548,430	2,485,865	200,545,518	1.82	15.1	2017
Lexington Co-Investment Partners V	300,000,000	309,561,041	36,533,021	13,207,982	373,591,262	1.32	13.1	2020
Lexington Co-Investment Partners V Overage	45,000,000	39,510,900	3,675,467	6,948,798	47,697,986	1.30	10.8	2021
Lexington Co-Investment Partners VI	300,000,000	22,500,000	0	277,500,000	21,655,485			2023
Lexington Middle Market Investors IV	100,000,000	83,897,895	43,460,132	16,102,105	84,505,432	1.53	14.5	2016
Madison Dearborn Capital Partners LLC	200,000,000	205,181,783	105,035,209	34,941,607	181,963,461	1.40	9.7	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	101,995,576	70,459,756	15,842,064	88,757,166	1.56	9.5	2015
Madison Dearborn Capital Partners VIII-A, L.P	100,000,000	103,186,207	34,575,453	19,099,543	93,206,295	1.24	10.2	2019
Marathon	400,000,000	245,183,481	124,979,491	179,304,231	188,120,030	1.28	11.1	20.0
Marathon Distressed Credit Fund	200,000,000	161,906,171	105,510,387	44,000,000	115,546,516	1.37	10.9	2020
Marathon Distressed Credit Fund II	200,000,000	83,277,310	19,469,104	135,304,231	72,573,514	1.11	13.4	2023
Merced Capital	178,737,500	184,266,287	204,316,065	0	30,685,022	1.28	4.5	2020
Merced Partners IV	125,000,000	124,968,390	133,261,827	0	6,806,012	1.12	2.3	2013
Merced Partners V	53,737,500	59,297,897	71,054,238	0	23,879,011	1.60	8.2	2017
MHR Institutional Partners	75,000,000	84,110,009	27,817,451	10,648,019	92,508,712	1.43	7.5	2017
MHR Institutional Partners IV LP	75,000,000	84,110,009	27,817,451	10,648,019	92,508,712	1.43	7.5	2014
Nordic Capital	678,089,959	604,286,465	412,822,514	263,860,830	508,850,059	1.53	13.3	2014
Nordic Evolution Fund II	102,619,054	004,200,400	0	102,619,054	0	1.55	13.3	2024
Nordic Capital Fund VIII	162,030,086	229,362,004	296,912,142	11,406,914	55,750,178	1.54	11.8	2013
Nordic Capital IX Beta, L.P.	162,030,086	186,930,398	87,130,766	69,171,037	232,884,958	1.71	15.3	2017
Nordic Capital IX Beta, E.F.  Nordic Capital Fund X	145,827,077	128,391,608	27,153,665	41,763,236	157,800,893	1.71	15.5	2020
Nordic Capital Fund X	105,583,656	59,602,455	1,625,941	38,900,589	62,414,031	1.44	11.4	2022
'	250,000,000	250,988,236	296,457,609	8,532,102	150,472,328			2022
Oak Hill Capital Management, Inc.	150,000,000	154,428,704	277,234,047	4,466,045	28,740,943	1.78	26.2	2016
Oak Hill Capital Partners IV Onshore LP	100,000,000	96,559,532	19,223,562	4,066,057	121,731,385	1.98	31.9	
Oak Hill Capital Partners V		, ,		186,514,589		1.46	12.6	2018
Oaktree Capital Management, LLC	400,000,000	265,986,150	112,137,543	, ,	246,604,239	1.35	8.8	2211
Oaktree Special Situations Fund, L.P.	100,000,000	103,446,384	40,279,144	7,741,294	59,829,228	0.97	-0.6	2014
Oaktree Special Situations Fund II, L.P.	100,000,000	99,232,382	71,858,399	42,579,241	102,797,835	1.76	28.9	2018
Oaktree Special Situations Fund III	200,000,000	63,307,384	0	136,194,054	83,977,175	1.33	26.1	2022
Paine & Partners, LLC	325,000,000	269,699,227	106,433,594	85,892,610	261,043,859	1.36	10.0	
Paine Schwartz Food Chain Fund IV	75,000,000	72,216,451	35,991,937	11,642,170	61,592,487	1.35	6.0	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	139,056,463	63,276,531	25,370,434	143,217,271	1.48	15.6	2018
Paine Schwartz Food Chain VI	100,000,000	58,426,313	7,165,126	48,880,006	56,234,101	1.09	6.3	2023
Permal PE	5,337,098	4,406,696	4,794,251	1,090,000	249,549	1.14	4.4	
Glouston Private Equity Opportunities IV	5,337,098	4,406,696	4,794,251	1,090,000	249,549	1.14	4.4	2014
Permira	599,511,317	533,189,809	557,931,486	149,827,418	455,558,242	1.90	17.1	
Permira V, L.P.	162,030,086	185,595,965	406,052,888	4,538,624	95,822,269	2.70	20.3	2013
Permira VI, L.P.	129,624,069	131,033,790	131,147,300	26,226,834	129,474,340	1.99	15.0	2016
Permira VII L.P.1	145,827,077	151,441,665	19,250,241	20,643,555	163,338,943	1.21	5.5	2019
Permira VIII	162,030,086	65,118,388	1,481,057	98,418,405	66,922,690	1.05	3.5	2022
Public Pension Capital Management	285,000,000	245,019,039	237,197,602	73,775,146	230,641,702	1.91	23.0	
Public Pension Capital, LLC	285,000,000	245,019,039	237,197,602	73,775,146	230,641,702	1.91	23.0	2014



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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Silver Lake Partners	335,000,000	352,246,089	505,116,374	29,793,122	275,668,713	2.22	18.3	
Silver Lake Partners III, L.P.	100,000,000	94,852,653	217,265,662	9,528,468	20,378,468	2.51	18.7	2007
Silver Lake Partners IV	100,000,000	118,370,608	203,092,069	2,881,307	117,092,172	2.70	20.9	2012
Silver Lake Partners V, L.P.	135,000,000	139,022,828	84,758,644	17,383,347	138,198,073	1.60	11.9	2017
Siris Capital Group	67,875,000	0	0	67,875,000	0			
Siris V	67,875,000	0	0	67,875,000	0			2022
Split Rock	110,000,000	107,055,906	130,490,654	2,944,094	22,730,197	1.43	4.8	
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	3,215,525	1.29	3.1	2005
Split Rock Partners II, LP	60,000,000	59,165,000	71,696,462	835,000	19,514,672	1.54	6.9	2008
Stellex Capital Management	200,000,000	32,568,508	135,142	167,431,492	32,568,508			
Stellex Capital Partners III	200,000,000	32,568,508	135,142	167,431,492	32,568,508			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	496,738,091	473,593,365	492,687,352	419,124,976	1.80	23.0	
Summit Partners Growth Equity Fund VIII	100,000,000	116,727,192	262,116,353	13,270,529	14,266,586	2.37	25.5	2011
Summit Partners Growth Equity Fund IX	100,000,000	136,137,047	170,796,337	32,610,000	119,469,782	2.13	25.3	2015
Summit Partners Growth Equity Fund X-A	150,000,000	143,046,635	39,662,106	46,615,471	176,423,815	1.51	14.0	2019
Summit Partners Growth Equity Fund XI	250,000,000	100,827,217	1,018,569	150,191,352	108,964,794	1.09	5.8	2021
Summit Partners Growth Equity XII	250,000,000	0	0	250,000,000	0	1.05	5.0	2024
TA Associates	80,000,000	9,600,000	0	70,400,000	8,668,886			2024
TA XV	80,000,000	9,600,000	0	70,400,000	8,668,886			2023
Thoma Bravo LLC	625,000,000	510,509,218	315,225,651	224,901,075	541,732,831	1.68	16.4	2023
Thoma Bravo Fund XII. L.P.	75,000,000	81,836,011	100,660,858	18,452,144	79,991,172	2.21	15.6	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	186,271,950	177,331,720	11,571,287	186,277,849	1.95	23.2	2018
Thoma Bravo Fund XIV	150,000,000	162,370,589	37,213,517	24,842,891	167,497,852	1.26	7.7	2020
Thoma Bravo Fund XV LP	100,000,000	80,030,668	19,556	20,034,753	107,965,958	1.35	15.0	2021
Thoma Bravo Fund XVI	150,000,000	00,030,000	19,550	150,000,000	0	1.33	15.0	2021
Thomas H. Lee Partners	550,000,000	364,929,462	302,419,901	215,632,138	262,364,616	1.55	19.9	2024
	100,000,000	100,056,435	137,891,993	10,105,722	37,198,175			2045
Thomas H. Lee Equity Fund VII, LP.				18,440,941		1.75	18.5	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	151,958,502	164,527,908		103,484,894	1.76	27.4	2018
Thomas H. Lee Equity Fund IX	150,000,000	112,914,525 0	0	37,085,475	121,681,547 0	1.08	4.6	2021
Thomas H. Lee Equity Fund X	150,000,000 800,000,000	607,008,606	282,472,019	150,000,000 266,813,630	598,484,484	4.45	40.0	2024
TPG Capital		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		1.45	16.8	22.15
TPG Partners VII, L.P.	100,000,000	101,545,923	176,616,689	10,824,993 17,617,666	27,363,245	2.01	19.1	2015
TPG Partners VIII	150,000,000	150,895,989	52,496,133		178,214,913	1.53	16.7	2018
TPG Growth V	150,000,000	148,151,912	26,211,388	22,249,178	183,068,540	1.41	14.8	2021
TPG Partners IX, L.P.	100,000,000	56,144,668	3,371,101	47,186,622	59,127,851	1.11	12.7	2022
TPG Growth VI, L.P.	150,000,000	44,852,499	2,899,544	107,680,264	45,670,045	1.08	23.6	2023
TPG Tech Adjacencies II, L.P.	150,000,000	105,417,615	20,877,164	61,254,907	105,039,890	1.19	11.1	2021
Vance Street Capital Partners	85,000,000	25,632,913	0	59,367,087	25,632,913			
Vance Street Capital IV, L.P.	85,000,000	25,632,913	0	59,367,087	25,632,913			2024
Varde Fund	538,647,435	526,615,999	586,281,072	24,725,817	168,829,318	1.43	7.3	
Varde Fund X, LP	150,000,000	150,000,000	253,835,692	0	4,955,844	1.73	9.9	2010
Varde Fund XI, LP	200,000,000	200,000,000	235,827,198	0	25,501,058	1.31	4.2	2013
Varde Fund XIII, L.P.	150,000,000	144,000,000	92,385,340	6,000,000	105,037,420	1.37	9.0	2018
Varde Fund XIV	38,647,435	32,615,999	4,232,842	18,725,817	33,334,996	1.15	8.5	2022
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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Vestar Capital Partners	250,000,000	267,783,666	292,845,700	29,270,774	141,675,251	1.62	18.6	
Vestar Capital Partners VI, LP	100,000,000	109,951,730	204,511,431	357,259	37,358,830	2.20	23.7	2011
Vestar Capital Partners VII, L.P.	150,000,000	157,831,936	88,334,269	28,913,515	104,316,420	1.22	7.3	2017
Vista Equity Partners	200,000,000	160,425,694	13,386,714	54,096,700	233,723,580	1.54	11.1	
Vista Equity Partners Perennial	200,000,000	160,425,694	13,386,714	54,096,700	233,723,580	1.54	11.1	2020
Warburg Pincus	1,316,000,000	1,165,403,407	1,143,659,096	159,305,000	800,700,703	1.67	11.2	
Warburg Pincus China, L.P.	45,000,000	46,935,000	20,662,200	0	37,298,012	1.23	4.3	2016
Warburg Pincus China-Southeast Asia II	50,000,000	32,500,000	5,702,500	17,500,000	28,260,872	1.05	1.8	2019
Warburg Pincus Financial Sector	90,000,000	90,450,380	94,075,883	3,555,000	85,647,549	1.99	17.1	2017
Warburg Pincus Global Growth, L.P.	250,000,000	238,871,236	98,482,893	14,500,000	296,407,443	1.65	13.8	2018
Warburg Pincus Global Growth 14, L.P.	300,000,000	175,304,339	9,627,000	123,750,000	209,313,083	1.25	16.3	2022
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	172,072,950	0	125,326	1.72	9.6	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	267,384,491	0	3,046,836	1.80	9.5	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	302,859,821	0	46,665,155	1.74	11.5	2012
Warburg Pincus Private Equity XII, LP	131,000,000	131,000,000	172,791,358	0	93,936,426	2.04	15.5	2015
Wayzata Investment Partners	150,000,000	68,415,000	70,644,565	0	2,615,106	1.07	1.3	
Wayzata Opportunities Fund III	150,000,000	68,415,000	70,644,565	0	2,615,106	1.07	1.3	2012
Wellspring Capital Partners	125,000,000	153,842,297	118,800,648	10,722,723	107,944,853	1.47	13.0	
Wellspring Capital Partners VI, L.P.	125,000,000	153,842,297	118,800,648	10,722,723	107,944,853	1.47	13.0	2016
Welsh, Carson, Anderson & Stowe	650,000,000	559,576,301	603,580,417	105,196,399	381,023,099	1.76	16.8	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	166,120,752	0	204,198	1.66	11.5	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	150,000,000	298,980,537	0	70,736,565	2.46	24.3	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	246,650,576	138,479,128	18,122,124	250,750,677	1.58	19.1	2018
Welsh, Carson, Anderson & Stowe XIV	150,000,000	62,925,725	0	87,074,275	59,331,659	0.94	-4.2	2022
Wind Point Partners	200,000,000	159,511,218	58,235,965	62,752,968	180,129,549	1.49	16.9	
Wind Point Partners IX	100,000,000	104,022,502	50,025,636	18,241,684	112,958,865	1.57	16.2	2019
Wind Point Partners X	100,000,000	55,488,716	8,210,329	44,511,284	67,170,684	1.36	19.5	2022
Windjammer Capital Investors	441,708,861	273,168,679	303,219,902	193,594,790	181,524,097	1.77	11.9	
Windjammer Capital Fund VI	175,000,000	19,985,467	0	155,014,533	16,538,274	0.83	-22.6	2023
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	86,029,064	10,139,363	151,229	1.56	9.0	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	95,042,290	170,802,066	20,866,352	67,072,479	2.50	16.7	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000	102,925,238	46,388,772	7,574,542	97,762,116	1.40	13.2	2017



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Yea
Parisson Cornellia	4,238,344,419	3,682,980,710	2,947,793,013	1,162,840,534	1,998,321,079		40.4	
Private Credit	350,000,000	274,338,997	255,675,251	112,132,068	87,873,185	<b>1.34</b> 1.25	10.1	
Audax Group	100,000,000	107,449,863	, ,		, ,		10.1	0040
Audax Mezzanine Fund III, L.P.	· · ·	97,428,051	136,564,504 94,931,857	0 19,049,743	5,750,528 24,536,566	1.32	9.8	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000	, ,	, ,	, ,	, ,	1.23	9.8	2015
Audax Mezzanine Fund V	150,000,000	69,461,083	24,178,890	93,082,325	57,586,091	1.18	13.6	2020
Avenue Capital Partners	200,000,000	200,977,328	320,007,323	0	58,106,093	1.88	10.8	
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	142,077,076	0	37,621,445	1.78	8.4	2014
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	177,930,247	0	20,484,648	1.98	14.5	2017
BlackRock	97,500,000	94,528,478	55,290,175	2,971,522	81,212,932	1.44	8.9	
BlackRock Middle Market Senior Fund	97,500,000	94,528,478	55,290,175	2,971,522	81,212,932	1.44	8.9	2018
Brookfield Asset Management Inc.	200,000,000	131,988,063	69,999,698	120,568,348	74,409,211	1.09	7.4	
Brookfield Real Estate Finance Fund VI	200,000,000	131,988,063	69,999,698	120,568,348	74,409,211	1.09	7.4	2021
Castlelake L.P.	100,000,000	9,542,162	1,660,626	91,857,342	8,409,639	1.06	14.1	
Castlelake Aviation V Stable Yield	100,000,000	9,542,162	1,660,626	91,857,342	8,409,639	1.06	14.1	2023
Energy Capital Partners	28,087,500	41,606,002	27,744,116	7,140,496	19,517,050	1.14	6.7	
Energy Capital Credit Solutions II-A	28,087,500	41,606,002	27,744,116	7,140,496	19,517,050	1.14	6.7	2018
HPS Investment Partners	200,000,000	174,583,892	72,892,791	58,548,305	155,061,019	1.31	11.8	
HPS Mezzanine Partners 2019, L.P.	100,000,000	107,141,249	64,081,950	17,327,206	84,064,245	1.38	11.4	2019
HPS Strategic Investment Partners V	100,000,000	67,442,644	8,810,841	41,221,100	70,996,774	1.18	13.5	2022
Kohlberg, Kravis, Roberts & Co.	274,000,000	384,039,388	394,698,943	80,601,499	69,767,851	1.21	9.5	
KKR Lending Partners II L.P.	75,000,000	87,059,946	86,472,700	8,802,924	3,814,964	1.04	1.7	2015
KKR Lending Partners III L.P.	199,000,000	296,979,442	308,226,243	71,798,575	65,952,887	1.26	13.0	2017
LBC Credit Partners	200,000,000	208,526,852	211,560,170	53,897,865	55,616,832	1.28	11.3	
LBC Credit Partners IV, L.P.	100,000,000	120,031,006	140,990,113	10,000,000	4,680,862	1.21	8.9	2016
LBC Credit Partners V, L.P.	100,000,000	88,495,846	70,570,057	43,897,865	50,935,970	1.37	15.8	2019
Marathon	200,000,000	168,022,008	61,585,159	38,000,000	175,158,432	1.41	12.0	
Marathon Secured Private Strategies Fund II	100,000,000	96,022,008	61,402,461	10,000,000	97,129,800	1.65	12.8	2019
Marathon Secured Private Strategies Fund III	100,000,000	72,000,000	182,698	28,000,000	78,028,632	1.09	6.9	2022
Merit Capital Partners	275,000,000	226,767,037	223,683,722	48,166,164	137,605,969	1.59	12.3	
Merit Mezzanine Fund V, LP	75,000,000	72,306,122	114,535,938	2,693,878	13,080,494	1.76	10.5	2009
Merit Mezzanine Fund VI	100,000,000	92,629,096	107,511,421	7,304,104	56,797,561	1.77	16.5	2016
Merit Mezzanine Fund VII	100,000,000	61,831,818	1,636,364	38,168,182	67,727,915	1.12	8.2	2020
Oaktree Capital Management, LLC	650,000,000	538,469,859	219,632,796	125,100,000	486,901,562	1.31	9.3	2020
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,060	47,933,991	8,500,000	23,866,704	1.54	9.1	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	75.005.568	32,937,853	25,000,000	92,132,758	1.67	11.8	2015
Oaktree Opportunities Fund XI	300,000,000	255,023,332	99,763,768	45,000,000	231,304,779	1.30	9.9	2020
Oaktree Opportunities Fund XI Oaktree Real Estate Debt III	200,000,000	161,940,899	38,997,184	46,600,000	139,597,321	1.30	9.9 5.0	2020
Permira	49,186,919	7,989,899	196,043	41,211,423	8,779,036	1.10	12.5	2020
		7,989,899	196,043	41,211,423				2024
Permira Strategic Opportunities I	49,186,919	, ,			8,779,036	1.12	12.5	2024
PIMCO BRAVO	5,000,000	4,501,479	5,714,432	0	300,741	1.34	6.0	2011
PIMCO Bravo Fund OnShore Feeder II	5,000,000	4,501,479	5,714,432	0	300,741	1.34	6.0	2014

#### Minnesota State Board of Investment Quarter Ending March 31, 2025 Private Markets Investments



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Prudential Global Investment Mgmt	600,000,000	588,462,929	622,522,236	75,995,851	194,977,242	1.39	10.1	
Prudential Capital Partners II, L.P.	100,000,000	97,930,132	145,671,152	10,940,748	420,893	1.49	9.0	2005
Prudential Capital Partners III, L.P.	100,000,000	102,887,805	175,321,440	13,562,553	1,848,602	1.72	14.1	2009
Prudential Capital Partners IV	100,000,000	115,262,492	155,808,504	1,917,595	6,377,718	1.41	9.2	2012
Prudential Capital Partners V, L.P.	150,000,000	162,989,758	126,861,436	4,002,777	69,076,870	1.20	5.7	2016
PGIM Capital Partners VI, L.P.	150,000,000	109,392,743	18,859,705	45,572,178	117,253,159	1.24	14.7	2020
Summit Partners	95,000,000	100,222,879	138,347,246	11,318,717	997,082	1.39	9.0	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	62,804,226	2,250,000	671,699	1.44	8.6	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000	56,134,385	75,543,020	9,068,717	325,383	1.35	9.7	2008
TCW	189,570,000	174,519,135	170,125,778	62,214,056	52,596,392	1.28	7.8	
TCW Direct Lending LLC	89,570,000	83,599,652	91,467,430	14,899,409	14,151,132	1.26	7.2	2014
TCW Direct Lending VII	100,000,000	90,919,484	78,658,349	47,314,647	38,445,259	1.29	8.5	2018
Torchlight Investors	150,000,000	60,000,000	19,102,039	109,102,039	43,208,982	1.04	4.5	
Torchlight Debt Fund VIII	150,000,000	60,000,000	19,102,039	109,102,039	43,208,982	1.04	4.5	2023
TSSP	375,000,000	293,894,324	77,354,468	124,014,838	287,821,829	1.24	9.6	
Sixth Street Opportunities Partners V	75,000,000	58,101,142	2,488,807	18,453,239	63,228,782	1.13	7.7	2021
Sixth Street TAO Partners (B), L.P.	50,000,000	61,302,495	27,101,311	19,202,419	52,739,495	1.30	8.6	2018
Sixth Street TAO Partners (D), L.P.	100,000,000	81,056,951	21,065,892	29,004,483	86,879,356	1.33	11.7	2018
Sixth Street TAO Partners (B) Vintage 2023	100,000,000	52,954,615	3,979,084	51,020,230	51,559,480	1.05	8.0	2023
TSSP Opportunities Partners IV (A), L.P.	50,000,000	40,479,121	22,719,374	6,334,467	33,414,716	1.39	9.4	2018



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Assets	4,347,571,518	4,090,093,042	3,243,645,035	635,667,950	1,992,170,225	1.28	5.4	
BlackRock	198,500,000	203,529,374	111,890,436	14,561,386	93,465,490	1.01	0.3	
BlackRock Global Renewable Power Fund II	98,500,000	114,176,526	107,019,005	107,929	8,876,508	1.02	0.5	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000	89,352,848	4,871,430	14,453,457	84,588,981	1.00	0.1	2019
EIG Global Energy Partners	450,000,000	473,254,572	413,019,108	75,356,663	84,826,495	1.05	1.2	
EIG Energy Fund XIV	100,000,000	113,459,470	100,765,868	2,761,129	0	0.89	-3.9	2007
EIG Energy Fund XV	150,000,000	161,570,371	166,004,205	22,871,323	1,320,393	1.04	0.9	2010
EIG Energy Fund XVI	200,000,000	198,224,731	146,249,034	49,724,211	83,506,102	1.16	3.1	2013
Encap Energy	300,000,000	323,440,801	394,687,831	7,759,695	112,996,239	1.57	9.0	
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,407,978	72,717,900	0	39,472,929	1.08	1.3	2010
Encap Energy Fund IX	100,000,000	113,725,245	151,009,676	3,890,055	23,716,245	1.54	10.9	2012
EnCap Energy Capital Fund X, L.P.	100,000,000	106,307,577	170,960,256	3,869,640	49,807,065	2.08	16.3	2015
Energy & Minerals Group	680,000,000	722,840,617	456,055,044	20,805,410	522,199,983	1.35	5.7	
NGP Midstream & Resources, L.P.	100,000,000	103,590,296	179,705,647	17,857	2,138,757	1.76	13.1	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	109,759,364	114,000,542	170,365	98,441,191	1.94	10.7	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	211,455,381	43,996,870	39,583	99,739,292	0.68	-4.7	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	176,327,967	112,821,632	3,871,881	148,714,845	1.48	7.8	2015
The Energy & Minerals Group Fund V	112,500,000	102,918,428	3,658,916	12,613,927	146,459,029	1.46	8.5	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	18,789,181	1,871,437	4,091,797	26,706,868	1.52	9.6	2019
Energy Capital Partners	500,000,000	497,185,117	400,236,691	125,919,513	357,040,478	1.52	13.1	
Energy Capital Partners III, L.P.	200,000,000	241,725,322	317,925,011	30,959,867	79,965,127	1.65	12.5	2013
Energy Capital Partners IV-A, LP	150,000,000	167,674,230	77,303,674	27,504,614	183,049,803	1.55	15.0	2017
Energy Capital Partners V	150,000,000	87,785,565	5,008,006	67,455,032	94,025,548	1.13	9.8	2023
Enervest Management Partners	100,000,000	100,297,562	118,813,107	4,627,000	41,968,844	1.60	9.5	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	100,297,562	118,813,107	4,627,000	41,968,844	1.60	9.5	2015
EQT	100,000,000	32,492,148	966,788	68,636,224	26,236,332			
EQT Infrastructure VI	100,000,000	32,492,148	966,788	68,636,224	26,236,332			2024
First Reserve	350,000,000	404,833,179	221,739,307	11,058,656	86,297,660	0.76	-5.6	
First Reserve Fund XII, L.P.	150,000,000	165,617,044	85,669,271	0	84,369	0.52	-18.0	2008
First Reserve Fund XIII, L.P.	200,000,000	239,216,135	136,070,036	11,058,656	86,213,291	0.93	-1.8	2013
Kohlberg, Kravis, Roberts & Co.	449,850,000	233,866,905	85,733,077	236,437,325	228,131,996	1.34	11.0	
KKR Global Infrastructure Investors III	149,850,000	145,614,300	80,284,680	19,296,536	129,374,769	1.44	11.3	2018
KKR Global Infrastructure Investors IV	100,000,000	88,252,605	5,448,397	17,140,789	98,757,227	1.18	9.7	2021
KKR Global Infrastructure Investors V	200,000,000	0	0	200,000,000	0			2024
Merit Energy Partners	519,721,518	443,664,748	271,354,812	35,579,631	273,992,864	1.23	3.2	
Merit Energy Partners F-II, L.P.	100,000,000	59,522,861	37,062,814	0	0	0.62	-7.0	2006
Merit Energy Partners H	100,000,000	100,000,000	34,435,573	0	31,719,171	0.66	-5.1	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	148,639,060	0	108,883,438	1.52	7.0	2014
Merit Energy Partners K, L.P.	150,000,000	114,420,369	51,217,365	35,579,631	133,390,256	1.61	20.4	2019
NGP	599,500,000	620,335,015	731,283,835	21,406,447	142,960,845	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	12,131,508	0.99	-0.2	2011
NGP Natural Resources XI, L.P.	150,000,000	158,268,887	206,026,335	4,736,941	44,319,739	1.58	9.8	2014
NGP Natural Resources XII, L.P.	149,500,000	138,286,752	139,538,747	15,817,811	86,509,599	1.63	14.8	2017
Sheridan	100,000,000	34,353,005	37,865,000	13,520,000	22,053,000	1.74	11.5	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	37,865,000	13,520,000	22,053,000	1.74	11.5	2014



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Estate	4,598,147,868	3,625,818,180	2,253,144,835	1,366,400,235	2,239,156,278	1.24	7.1	
Angelo, Gordon & Co.	750,000,000	531,037,190	354,998,190	269,280,000	321,110,260	1.27	7.5	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	47,125,000	6,196,250	14,440,998	1.29	8.3	2016
AG Asia Realty Fund IV, L.P.	100,000,000	88,596,321	77,000,000	27,047,500	41,429,026	1.34	10.8	2018
AG Asia Realty Fund V	100,000,000	34,143,361	0	64,500,000	36,022,560	1.06	7.1	2023
AG Europe Realty Fund II, L.P.	75,000,000	68,348,876	44,235,759	12,768,750	48,521,170	1.36	6.6	2018
AG Europe Realty Fund III	75,000,000	56,328,427	3,750,000	19,312,500	67,225,783	1.26	8.2	2020
AG Europe Realty Fund IV	100,000,000	7,464,615	0	92,000,000	7,464,616			2024
AG Realty Fund IX	100,000,000	92,141,126	93,250,000	11,650,000	22,329,758	1.25	5.0	2014
AG Realty Fund X, L.P.	150,000,000	136,427,203	89,637,431	35,805,000	83,676,349	1.27	9.1	2018
Blackstone	1,224,500,000	1,058,235,101	951,062,999	357,080,291	603,321,695	1.47	11.5	
Blackstone Real Estate Partners Asia II	74,500,000	73,686,003	21,898,494	12,473,510	62,547,843	1.15	3.7	2017
Blackstone Real Estate Partners Asia III	100,000,000	45,177,030	86,242	58,728,734	39,716,286	0.88	-12.6	2021
Blackstone Real Estate Partners Europe Fund VII	100,000,000	18,324,454	0	83,563,046	18,377,270	1.00	0.5	2023
Blackstone Real Estate Partners V	100,000,000	104,217,981	209,143,624	417,405	122,654	2.01	10.8	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,582,860	220,281,063	736,180	52,201	2.01	13.1	2007
Blackstone Real Estate Partners VII, LP	100,000,000	116,505,734	185,682,256	6,744,367	12,060,082	1.70	14.2	2011
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000	182,863,984	190,866,084	14,777,603	90,409,536	1.54	12.2	2015
Blackstone Real Estate Partners IX, L.P.	300,000,000	329,454,234	117,633,332	46,496,375	304,913,230	1.28	9.3	2018
Blackstone Real Estate Partners X	200,000,000	78,422,821	5,471,905	133,143,071	75,122,593	1.03	3.9	2022
Blackstone Strategic Partners	50,000,000	51,524,432	51,080,326	891,250	0	0.99	-0.1	
Strategic Partners IV RE, L.P.	50,000,000	51,524,432	51,080,326	891,250	0	0.99	-0.1	2008
Brookfield Asset Management Inc.	400,000,000	229,616,920	24,228,334	194,544,874	231,410,110	1.11	6.5	
Brookfield Strategic Real Estate Partners IV	300,000,000	229,616,920	24,228,334	94,544,874	231,410,110	1.11	6.5	2021
Brookfield Strategic Real Estate Partners V	100,000,000	0	0	100,000,000	0			2023
Carlyle Group	450,000,000	285,350,613	141,163,269	252,317,713	208,077,057	1.22	14.5	
Carlyle Realty Partners VIII, L.P.	150,000,000	133,054,830	132,749,708	96,199,935	59,748,256	1.45	19.7	2017
Carlyle Realty Partners IX	300,000,000	152,295,783	8,413,561	156,117,778	148,328,801	1.03	2.5	2021
Kohlberg, Kravis, Roberts & Co.	125,000,000	127,277,126	19,011,074	19,809,282	110,579,640	1.02	0.9	
KKR Real Estate Partners Americas III	125,000,000	127,277,126	19,011,074	19,809,282	110,579,640	1.02	0.9	2021
Landmark Partners	249,500,000	146,174,494	73,076,578	125,307,037	101,967,348	1.20	8.6	
Landmark Real Estate Partners VIII, L.P.	149,500,000	121,814,526	73,076,578	49,667,006	79,109,489	1.25	9.3	2016
Landmark Real Estate Partners IX	100,000,000	24,359,968	0	75,640,032	22,857,860	0.94	-12.3	2021
Lubert Adler	174,147,868	162,338,042	100,552,018	17,694,886	105,831,990	1.27	10.4	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	90,575,207	7,414,787	14,174,606	1.55	14.7	2017
Lubert-Adler Recovery and Enhancement Capital Fund	100,000,000	94,752,829	9,976,811	10,280,099	91,657,384	1.07	3.3	2021
Oaktree Capital Management, LLC	200,000,000	180,487,140	50,918,378	54,000,000	133,205,394	1.02	1.2	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	180,487,140	50,918,378	54,000,000	133,205,394	1.02	1.2	2020
Rockpoint	200,000,000	201,003,553	77,534,453	22,421,356	125,845,775	1.01	0.3	
Rockpoint Real Estate Fund V, L.P.	100,000,000	104,228,855	58,755,434	14,217,829	33,468,994	0.88	-3.1	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	96,774,698	18,779,019	8,203,527	92,376,781	1.15	5.0	2019
Rockwood	200,000,000	189,748,216	61,784,022	14,432,487	98,637,743	0.85	-5.2	
Rockwood Capital RE Partners X, L.P.	100,000,000	99,845,593	57,507,174	1,838,936	31,404,418	0.89	-3.1	2015
Rockwood Capital RE Partners XI	100,000,000	89,902,623	4,276,848	12,593,551	67,233,325	0.80	-7.8	2019
Silverpeak Real Estate Partners	225,000,000	144,150,353	109,436,602	7,496,058	3,011,707	0.78	-3.9	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000	73,069,012	92,033,940	7,496,058	423,363	1.27	4.2	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000	71,081,341	17,402,663	0	2,588,344	0.28	-11.9	2008

#### Minnesota State Board of Investment Quarter Ending March 31, 2025 Private Markets Investments



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
TA Associates Realty	350,000,000	318,875,000	238,298,590	31,125,000	196,157,560	1.36	10.8	
Realty Associates Fund XI	100,000,000	100,000,000	160,175,911	0	111,513	1.60	10.8	2015
Realty Associates Fund XII	100,000,000	100,000,000	64,912,124	0	78,828,219	1.44	10.4	2018
Realty Associates Fund XIII	150,000,000	118,875,000	13,210,555	31,125,000	117,217,828	1.10	12.6	2023
Total	40,586,404,806	32,910,143,660	26,255,990,661	11,571,369,819	23,114,620,387	1.50	11.53	
	Difference**				49,308,702			
Private Markets Total with Difference					23,163,929,089			

Private Markets Portfolio Status	Managers	Funds
Private Equity	60	197
Private Credit	19	41
Real Assets	12	33
Real Estate	13	37
Total	104	308

#### Notes

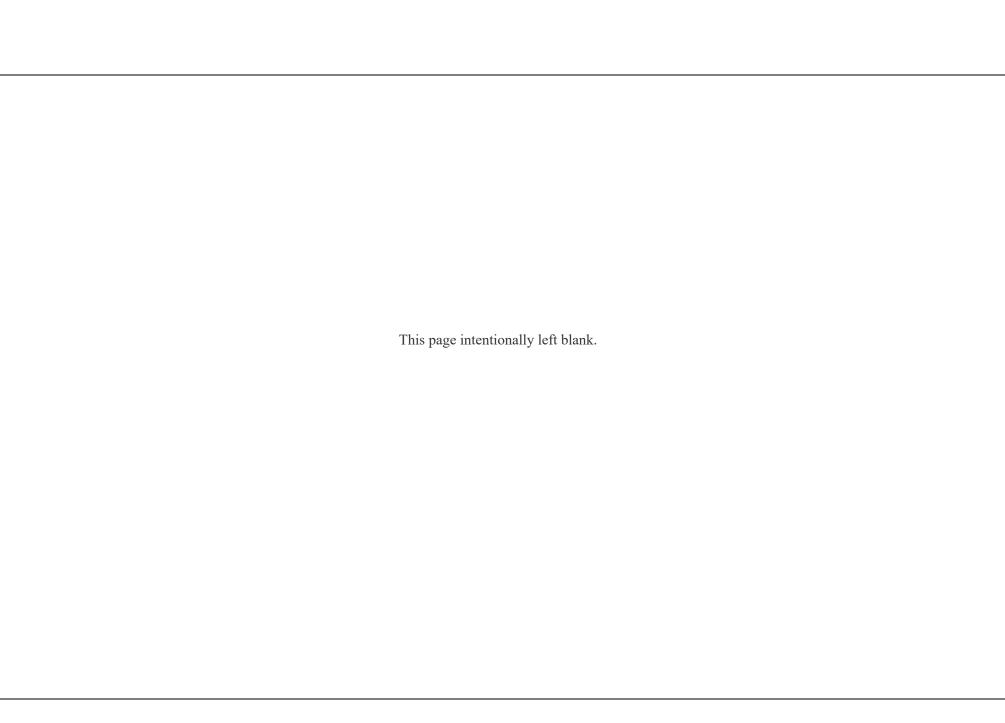
None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results and may slightly differ from final fiscal year-end report.

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.

<sup>\*</sup>Partnership interests transferred to the MSBI during 1Q2015. All data presented as of the transfer date.

<sup>\*\*</sup>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.



#### **Quarterly Report**



# Other Retirement Funds and Tax-Advantaged Savings Plans March 31, 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.





	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
Active Large-Cap Domestic Equity							
U.S. EQUITY ACTIVELY MANAGED FUND	\$95,496,011	-5.4%	5.7%	8.2%	18.6%	12.0%	07/1986
Russell 3000		-4.7%	7.2%	8.2%	18.2%	11.8%	07/1986
Excess		-0.7%	-1.5%	-0.1%	0.4%	0.2%	
VANGUARD DIVIDEND GROWTH FUND	\$1,005,084,000	0.1%	2.9%	4.6%	13.7%		10/2016
VANGUARD DIVIDEND GROWTH INDEX		-0.5%	8.2%	8.3%	15.7%		10/2016
Excess		0.5%	-5.2%	-3.7%	-2.0%		
Passive Large-Cap Domestic Equity							
U.S. EQUITY INDEX FUND	\$389,045,923	-4.7%	7.2%	8.3%	18.4%	11.9%	07/1986
Russell 3000		-4.7%	7.2%	8.2%	18.2%	11.8%	07/1986
Excess		0.0%	0.0%	0.1%	0.2%	0.1%	
VANGUARD TOTAL STOCK MARKET INDEX FUND	\$1,038,043,963	-4.8%	7.1%	8.1%	18.1%		07/2019
CRSP US Total Market Index		-4.8%	7.1%	8.1%	18.1%		07/2019
Excess		-0.0%	-0.0%	0.0%	0.0%		
VANGUARD INSTITUTIONAL INDEX FUND	\$2,184,167,200	-4.3%	8.2%	9.0%	18.6%	12.5%	07/1999
S&P 500		-4.3%	8.3%	9.1%	18.6%	12.5%	07/1999
Excess		-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	
Passive Mid-Cap Domestic Equity							
VANGUARD MID-CAP INDEX FUND	\$817,979,035	-1.6%	5.2%	4.5%	16.2%	8.9%	01/2004
CRSP US Mid Cap Index		-1.6%	5.2%	4.5%	16.2%	8.9%	01/2004
Excess		-0.0%	-0.0%	0.0%	-0.0%	-0.0%	
Active Small-Cap Domestic Equity							
T. ROWE PRICE SMALL-CAP FUND	\$852,151,383	-5.9%	-0.4%	2.2%	13.4%	8.7%	04/2000
Russell 2000		-9.5%	-4.0%	0.5%	13.3%	6.3%	04/2000
Excess		3.6%	3.6%	1.7%	0.1%	2.4%	





	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
Active International Equity							
BROAD INTERNATIONAL EQUITY FUND	\$155,285,616	4.1%	6.3%	5.9%	12.2%	5.7%	09/1994
International Equity Benchmark		5.2%	6.1%	4.5%	10.9%	5.0%	09/1994
Excess		-1.1%	0.2%	1.4%	1.3%	0.7%	
FIDELITY DIVERSIFIED INTERNATIONAL TRUST	\$358,752,259	5.2%	3.7%	4.8%	11.2%	6.2%	07/1999
MSCI EAFE FREE (NET)		6.9%	5.1%	6.3%	12.0%	5.6%	07/1999
Excess		-1.7%	-1.4%	-1.5%	-0.8%	0.5%	
Passive International Equity							
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	\$438,215,344	5.5%	6.4%	4.7%	11.5%	5.2%	07/2011
FTSE Global All Cap ex US Index Net		4.5%	5.6%	4.0%	11.1%	5.0%	07/2011
Excess		1.0%	0.8%	0.6%	0.4%	0.2%	
Active Fixed Income							
BOND FUND	\$114,878,551	2.8%	5.2%	1.0%	0.7%	2.0%	07/1986
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%	07/1986
Excess		-0.0%	0.4%	0.4%	1.1%	0.6%	
DODGE & COX CORE BOND ACCOUNT	\$308,954,436	3.0%	5.7%	2.2%	2.0%	2.6%	07/1999
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%	07/1999
Excess		0.2%	0.9%	1.7%	2.4%	1.2%	
Passive Fixed Income							
VANGUARD TOTAL BOND MARKET INDEX FUND	\$355,840,030	2.8%	4.9%	0.5%	-0.4%	1.4%	12/2003
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%	12/2003
Excess		-0.0%	0.0%	0.0%	-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 09/30/2007 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 070/1/1999 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).





	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
Capital Preservation							
MONEY MARKET ACCOUNT	\$963,823,900	1.1%	5.2%	4.6%	2.8%	2.1%	07/1986
ICE BofA US 3-Month Treasury Bill		1.0%	5.0%	4.2%	2.6%	1.9%	07/1986
Excess		0.1%	0.3%	0.4%	0.3%	0.2%	
STABLE VALUE ACCOUNT	\$1,499,119,773	0.8%	3.4%	2.9%	2.6%	2.4%	11/1994
Fixed Interest Blended Benchmark		1.1%	4.7%	4.5%	3.1%	2.6%	11/1994
Excess		-0.3%	-1.3%	-1.6%	-0.5%	-0.1%	
Asset Allocation							
BALANCED FUND	\$115,847,420	-1.7%	6.5%	5.6%	11.4%	8.1%	01/1980
SIF BALANCED FUND BENCHMARK		-1.8%	6.4%	5.5%	10.8%	7.9%	01/1980
Excess		0.1%	0.1%	0.1%	0.5%	0.3%	
VANGUARD BALANCED INDEX FUND	\$1,511,672,383	-1.8%	6.4%	5.2%	10.6%	7.8%	12/2003
Vanguard Balanced Fund Benchmark		-1.8%	6.3%	5.3%	10.6%	7.8%	12/2003
Excess		-0.0%	0.1%	-0.0%	-0.1%	-0.0%	
VOLUNTEER FIREFIGHTER ACCOUNT	\$253,065,668	0.3%	6.3%	4.5%	8.6%	6.2%	01/2010
SIF Volunteer Firefighter Account BM		0.4%	6.0%	4.2%	7.9%	5.8%	01/2010
Excess		-0.2%	0.2%	0.3%	0.7%	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.





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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%





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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	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	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).





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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.





	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
MN TARGET DATE RETIREMENT INCOME FUND	\$412,772,894	1.8%	6.5%	3.2%	6.4%	4.4%	07/2011
INCOME FUND BENCHMARK		1.7%	6.4%	3.1%	6.4%	4.4%	07/2011
Excess		0.1%	0.1%	0.1%	0.0%	0.0%	
2030 MN TARGET DATE RETIREMENT FUND	\$272,688,148	1.5%	6.7%	3.6%	9.1%	6.3%	07/2011
2030 FUND BENCHMARK		1.4%	6.5%	3.5%	9.0%	6.3%	07/2011
Excess		0.1%	0.2%	0.1%	0.1%	0.0%	
2035 MN TARGET DATE RETIREMENT FUND	\$248,538,292	0.8%	6.3%	4.2%	10.1%	6.8%	07/2011
2035 FUND BENCHMARK		0.6%	6.1%	4.1%	9.9%	6.8%	07/2011
Excess		0.2%	0.2%	0.1%	0.1%	0.0%	
2040 MN TARGET DATE RETIREMENT FUND	\$209,660,325	0.5%	6.0%	4.4%	10.8%	7.2%	07/2011
2040 FUND BENCHMARK		0.2%	5.7%	4.2%	10.7%	7.2%	07/2011
Excess		0.3%	0.2%	0.2%	0.1%	0.0%	
2045 MN TARGET DATE RETIREMENT FUND	\$204,951,196	0.3%	5.9%	4.6%	11.7%	7.5%	07/2011
2045 FUND BENCHMARK		-0.0%	5.7%	4.5%	11.5%	7.5%	07/2011
Excess		0.3%	0.2%	0.2%	0.1%	0.0%	





	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
2050 MN TARGET DATE RETIREMENT FUND	\$183,756,832	0.0%	5.9%	4.8%	12.4%	7.8%	07/2011
2050 FUND BENCHMARK		-0.3%	5.6%	4.6%	12.3%	7.8%	07/2011
Excess		0.3%	0.3%	0.2%	0.1%	0.0%	
2055 MN TARGET DATE RETIREMENT FUND	\$129,833,592	-0.2%	5.8%	5.1%	12.9%	7.9%	07/2011
2055 FUND BENCHMARK		-0.5%	5.6%	4.8%	12.7%	7.9%	07/2011
Excess		0.3%	0.3%	0.2%	0.2%	0.0%	
2060 MN TARGET DATE RETIREMENT FUND	\$94,395,055	-0.3%	5.8%	5.1%	12.9%	8.0%	07/2011
2060 FUND BENCHMARK		-0.6%	5.5%	4.9%	12.8%	7.9%	07/2011
Excess		0.4%	0.3%	0.2%	0.2%	0.0%	
2065 MN TARGET DATE RETIREMENT FUND	\$26,981,717	-0.3%	5.8%	5.1%	13.7%		04/2020
2065 FUND BENCHMARK		-0.6%	5.5%	4.9%	12.8%		04/2020
Excess		0.4%	0.3%	0.2%	1.0%		

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





	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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%

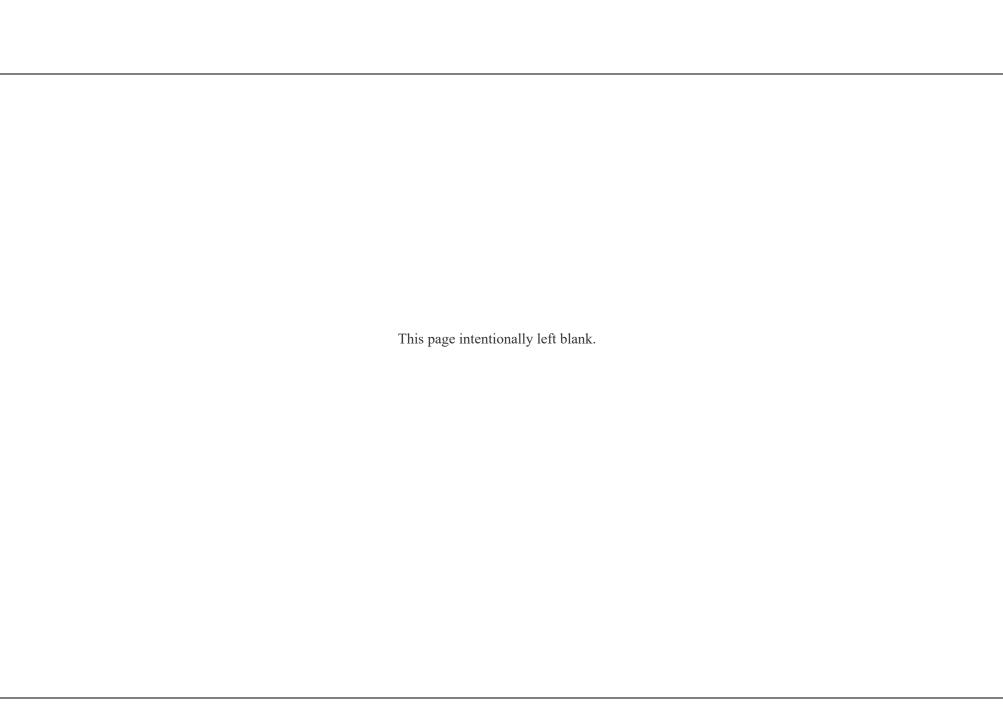




	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
2050 MN TARCET DATE RETIREMENT FUND	42.00/	40.70/	40.00/	4.4.40/	40.5%
2050 MN TARGET DATE RETIREMENT FUND	12.0%	18.7%	-18.8%	14.1%	19.5%
2050 FUND BENCHMARK	12.1%	18.6%	-18.8%	14.1%	19.5%
Excess	-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







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, VIIIX, 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	
Г. 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.





International	l Equi	ity

#### **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.





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.
<b>Capital Preservation</b>	
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.





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.



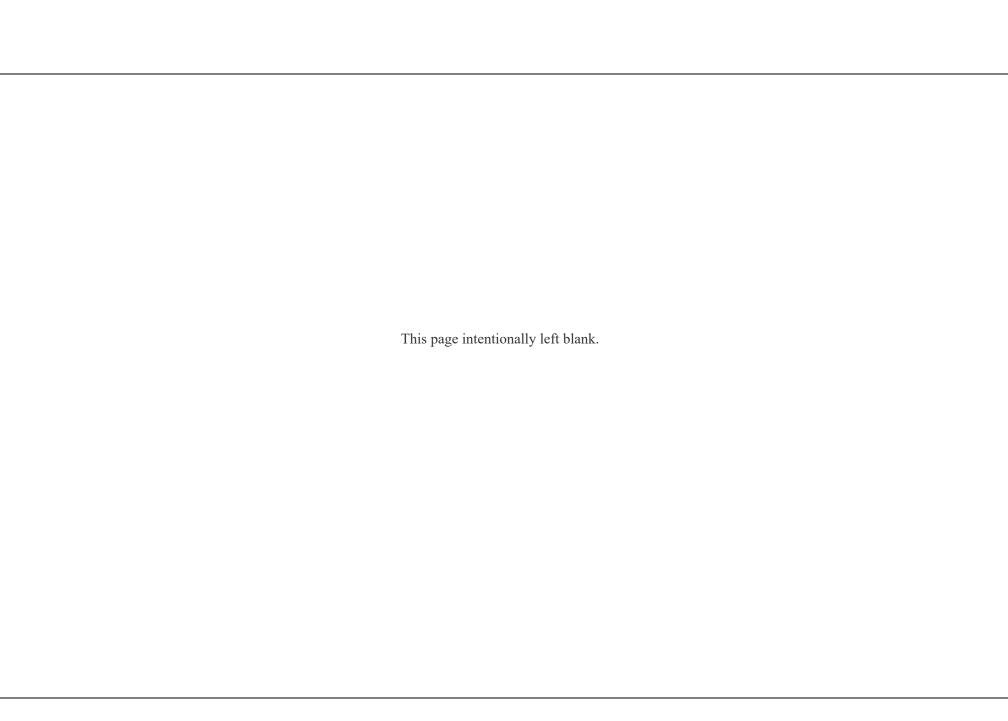


# **Eligible Investment Options Available by Plan**

						Eligik	ole Inves	tment C	ptions	Available	e By P	an							
	U.S. Equity			Interna	tional (Int	t'l) Equity	Fixed Income			Capital Preservation		Asset Allocation							
Investment Plan	U.S. Equity Actively Managed Fund <sup>1</sup>	Vanguard Dividend Growth Fund <sup>2</sup>	U.S. Equity Index Fund <sup>1</sup>	Vanguard Total Stock Market Inst Index Fund <sup>2</sup>	Vanguard Index Inst Plus Fund <sup>2</sup>	Vanguard Mid-Cap Index Fund <sup>2</sup>	T. Rowe Price Small Cap Fund <sup>2</sup>	Broad Int'l Equity Fund <sup>1</sup>	Fidelity Int'l Equity CIT <sup>2</sup>	Vanguard Total Int'l Stock Index Fund <sup>2</sup>	Bond Fund <sup>1</sup>	Dodge & Cox Core Bond Account <sup>2</sup>	Vanguard Total Bond Market Index Fund <sup>2</sup>	Money Market Account <sup>2</sup>	Stable Value Account <sup>2</sup>	Balanced Fund <sup>1</sup>	Vanguard Balanced Index Fund <sup>2</sup>	Volunteer Firefighter Account <sup>1</sup>	Target Retirement Fund <sup>2</sup>
Other Public Retiremen	t Funds																		
Individual Public Retirement Funds <sup>3</sup>	х		x					х			x			х		x			
PERA Defined Contribution Plan	х		x					х			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	х		x					х			X			х		x			
Tax-Advantaged Saving	s Plans																		
Health Care Savings Plan		x		x		x	x			x		x	х	x	x		x		
Hennepin County Supplemental Retirement Plan		x		x		х	х			x		x	х	х			x		
Minnesota Deferred Compensation Plan		x		x	x	x	x		x	x		x	x	x	x		x		x
Footnotes:				-			-					-					1		-
<sup>1</sup> Asset Class Investment Pool	managed by	the SBI.																	
<sup>2</sup> Single Manager Investment O	ption																		
<sup>3</sup> Represents assets of any pub	lic retiremen	t plan or fur	nd authori	zed by statu	te to invest in	n the Asset C	lass Investm	ent Pools i	managed b	y the SBI.									

nvestment options are available to all plans depending on the regulations, rules, statutes, and operational limitations specific to each plan. Investment vehicle type will vary.





# **Quarterly Report**



# State-Sponsored Savings Plans March 31, 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.





#### Minnesota College Savings Plan Descriptions of Investment Options

The Minnesota College Savings Plan is a tax-advantaged educational savings plan designed to help families save for future college costs. The SBI is responsible for the investments and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan. The SBI and OHE contract jointly with TIAA to provide administrative, marketing, communication, recordkeeping, and investment management services. A description of the various investment options are below. Performance, as reported by TIAA, follow the descriptions of investment options section.

Underlying investment runus	Unde	rlying	Investmen	t Funds
-----------------------------	------	--------	-----------	---------

Nuveen Equity Index Fund	A passive domestic all-cap stock fund that tracks the Russell 3000 Index.
Nuveen Large-Cap Responsible Equity Fund	A domestic stock fund attempts to achieve the return of the U.S. equity markets 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 S&P 500 Index Fund	A passive domestic stock fund that tracks the S&P 500 Index.
Nuveen International Equity Index Fund	A passive international fund that tracks the MSCI EAFE Index.
Vanguard Emerging Markets Stock Index Fund	A passive emerging markets fund that tracks the Vanguard Spliced Emerging Markets Index.
DFA Real Estate Fund	An actively managed fund investing in large- to micro-cap Real Estate Investment Trust, REIT.
Vanguard Total Bond Market Index Fund	A passive broad market bond fund that tracks the Bloomberg U.S. 0-5 Year TIPs Index
Vanguard Short-term Infltn Protected Idx Fund	A passive inflation protection bond fund that tracks the Bloomberg U.S. Aggregate Bond Index.
Vanguard High Yield Corporate Fund	An actively managed fund that invests in a diversified portfolio of medium- and lower-quality corporate bonds.
Nuveen Money Market Fund	An active fund that invests in high-quality, short-term money market instruments of both domestic and foreign issuers.
TIAA-CREF Life Funding Agreement	A passive investment option invested in a Funding Agreement issued by TIAA-CREF Life.





# Minnesota College Savings Plan Descriptions of Investment Options

Enrollment-Based Managed Allocations	The Enrollment Year Investment Option is a set of single fund options representing the date your future student needs their college savings. The asset allocation adjusts automatically to a more conservative investment objective and level of risk as the enrollment year approaches. In October of 2019, the managed allocations changed from Age-Based to Enrollment-based. Legacy returns are also provided for reference.
Risk Based Allocations	The Risk Based Allocation Option offers three separate allocation investment options: Aggressive, Moderate, and Conservative, each of which has a fixed risk level that does not change as the beneficiary ages.
<b>Asset Class Based Allocations:</b>	
U.S. Large Cap Equity Index	A passive domestic stock portfolio that tracks the S&P 500.
U.S. Large Cap Responsible Option	A domestic stock fund attempts to achieve the return of the U.S. equity markets as represented by its benchmark, the S&P 500 Index, while investing in companies whose activities are consistent with the Fund's ESG criteria.
International Equity Index	A fund that passively invests in a mix of developed and emerging market equities. The fund is expected to track a weighted benchmark of 80% MSCI ACWI World ex USA and 20% MSCI Emerging Markets Free Index.
U.S. and International Equity Index	A fund that invests in a mix of equities, both U.S. and international, across all market capitalization ranges and real estate related securities. The fund is expected to track a weighted benchmark of 60% Domestic Equities, 24% International Equities, 6% Emerging Market Equities, and 10% Real Estate Securities Fund.





# Minnesota College Savings Plan Descriptions of Investment Options

<b>Asset Class Based Allocation Cont'd:</b>	
Equity and Interest Accumulation	A fund that passively invests half of the portfolio in U.S. equities across all market capitalization ranges and the other half in the same Funding Agreement issued by TIAA-CREF Life as described above. The fund is expected to track a weighted benchmark of 50% Russell 3000 and 50% 3-month T-Bill.
100% Fixed Income	A fund that passively invests in fixed income holdings that tracks the Bloomberg Barclays U.S. Aggregate and two active funds that invest in inflation –linked bonds and high yield securities. The fund is expected to track a weighted benchmark of 70% BBG Barclays U.S. Aggregate, 20% Inflation-linked Bond, and 10% High Yield.
Money Market	An active fund that invests in high-quality, short-term money market instruments of both domestic and foreign issuers that tracks the iMoney Net Average All Taxable benchmark.
Principal Plus Interest Option	A passive fund where contributions are invested in a Funding Agreement issued by TIAA-CREF Life. The funding agreement provides for a return of principal plus a guaranteed rate of interest which is made by the insurance company to the policyholder, not the account owners. The account is expected to outperform the return of the 3-month T-Bill.





# Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Investment Options

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 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 seventeen 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. Below is a list of the underlying funds and a brief explanation of the managed investment options. Performance, as reported by Ascensus, is on the following page.

#### **Underlying Investment Funds:**

Vanguard Total Stock Market Index Fund	A passive domestic stock fund that tracks the CRSP US Total Market Index.
Vanguard Developed Markets Index Fund	A passive international stock fund that tracks the Vanguard Spliced Developed ex U.S. Index.
Vanguard Emerging Markets Index Fund	A passive emerging markets fund that tracks the Vanguard Spliced Emerging Markets Index.
Schwab U.S. REIT ETF	A passive Real Estate Investment Trust, REIT, fund that tracks the Dow Jones U.S. Select REIT Index TM.
Vanguard Total Bond Market Index Fund	A passive broad market bond fund that tracks the Bloomberg U.S. 0-5 Year TIPs Index.
Vanguard Short-term Bond Index Fund	A passive short-term bond fund that tracks the Bloomberg U.S. 1–5 Year Government/Credit Bond Index.
Vanguard Short-term Infltn Protected Idx Fund	A passive inflation protection bond fund that tracks the Bloomberg U.S. Aggregate Bond Index.
American Funds High Income Fund	An actively managed fund that invests in a diversified portfolio of medium- and lower-quality corporate bonds.
iShares Core International Bond ETF	A passive international bond fund that tracks the Bloomberg Global Aggregate ex USD 10% Issuer Capped (Hedged) Index.
Vanguard Cash Reserves Fed Money Mrkt Fund	An active fund that invests in high-quality, short-term U.S. government-backed securities.





# Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Investment Options

<b>Investment Options:</b>	
Aggressive Option	The investment option is to provide long-term capital appreciation with very low-income potential. 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-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	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	The investment option seeks to provide substantial capital preservation, limited current income and very low capital appreciation. Approximately 10% in equities, 30% in investment-grade fixed income, and 60% to cash.





# Minnesota Achieving a Better Life (ABLE) Plan Descriptions of Investment Options

<b>Investment Options Cont'd:</b>	
Money Market	The investment option seeks income consistent with the preservation of principal and invests all of its assets in the Vanguard Cash Reserves Federal Money Market Fund.
Checking Account	The Checking Option invests 100% of its assets in FDIC-insured checking accounts held at Fifth Third Bank for each Account Owner invested in the Checking Option.





# **Descriptions of Investment Options and Accounts**

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.

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.
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 Intermediate U.S. Government 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.





# **Descriptions of Investment Options and Accounts**

Met Council OPEB 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.
Duluth 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.







# MINNESOTA COLLEGE SAVINGS PLAN Performance Statistics for the Period Ending: March 31, 2025

Total = \$2,089 Million

					Ann	Annualized		
Fund Name	<b>Ending Market</b>	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
2040/2041 Enrollment Option	\$36,836,044	0.08%	7.14%				13.05%	5/12/2023
2040-2041 Custom Benchmark		-0.29%	7.05%				13.49%	
2038/2039 Enrollment Option	\$60,150,313	0.17%	7.01%	5.52%			4.33%	6/11/2021
2038-2039 Custom Benchmark		-0.17%	7.01%	5.47%			4.42%	
2036/2037 Enrollment Option	\$119,776,351	0.33%	7.01%	5.27%	12.10%		8.30%	10/28/2019
2036-2037 Custom Benchmark		-0.03%	6.95%	5.24%	12.27%		8.26%	
2034/2035 Enrollment Option	\$95,037,713	0.53%	7.00%	5.05%	11.60%		7.92%	10/28/2019
2034-2035 Custom Benchmark		0.19%	6.86%	5.02%	11.76%		7.88%	
2032/2033 Enrollment Option	\$98,323,510	0.75%	6.73%	4.54%	10.83%		7.42%	10/28/2019
2032-2033 Custom Benchmark		0.49%	6.71%	4.57%	11.02%		7.41%	
2030/2031 Enrollment Option	\$109,568,576	1.00%	6.30%	3.88%	9.80%		6.63%	10/28/2019
2030-2031 Custom Benchmark		0.78%	6.51%	4.05%	10.03%		6.68%	
2028/2029 Enrollment Option	\$130,402,342	1.20%	5.87%	3.37%	8.47%		5.72%	10/28/2019
2028-2029 Custom Benchmark		1.13%	6.20%	3.69%	8.76%		5.81%	
2026/2027 Enrollment Option	\$157,211,756	1.18%	4.97%	2.70%	6.93%		4.78%	10/28/2019
2026-2027 Custom Benchmark		1.25%	5.71%	3.31%	7.37%		5.03%	
2024/2025 Enrollment Option	\$166,107,567	1.14%	4.38%	2.22%	5.68%		4.02%	10/28/2019
2024-2025 Custom Benchmark		1.28%	5.58%	3.30%	6.29%		4.44%	
In School Option	\$217,071,357	1.19%	4.30%	2.72%	3.69%		3.22%	10/28/2019
In School Custom Benchmark		1.28%	5.55%	3.81%	4.13%		3.45%	





# MINNESOTA COLLEGE SAVINGS PLAN Performance Statistics for the Period Ending: March 31, 2025

					Annı	ıalized		
Fund Name	<b>Ending Market</b>	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
U.S. and International Equity Option	\$286,522,806	-0.65%	7.46%	6.60%	15.38%	9.27%	7.80%	10/ 1/2001
BB: U.S. and International Equity Option		-1.05%	7.36%	6.55%	15.53%	9.25%	8.43%	
Moderate Allocation Option	\$111,791,215	0.74%	6.79%	4.62%	9.63%	6.50%	5.87%	8/ 2/2007
BB: Moderate Allocation Option		0.44%	6.72%	4.70%	9.83%	6.58%	6.32%	
100% Fixed-Income Option	\$20,681,800	2.71%	5.50%	1.42%	1.05%	1.89%	2.95%	8/16/2007
BB: 100% Fixed-Income Option		2.64%	5.58%	1.56%	1.30%	2.15%	3.44%	
International Equity Index Option	\$12,245,729	6.82%	6.94%	5.99%	11.61%	5.28%	5.35%	6/18/2013
BB: International Equity Index Option		6.08%	5.62%	5.22%	11.11%	5.15%	5.32%	
Money Market Option	\$38,448,983	1.00%	4.83%	4.17%	2.50%	1.71%	1.12%	11/ 1/2007
BB: Money Market Option		0.99%	4.66%	4.00%	2.39%	1.59%	1.05%	
Principal Plus Interest Option	\$83,832,109	0.76%	2.97%	2.27%	1.96%	1.80%	2.37%	10/10/2001
Citigroup 3-Month U.S. Treasury Bill		1.10%	5.17%	4.42%	2.69%	1.90%	1.63%	
Aggressive Allocation Option	\$123,596,258	0.04%	7.18%	5.68%	12.46%	7.90%	7.94%	8/12/2014
BB: Aggressive Allocation Option		-0.30%	7.05%	5.65%	12.68%	7.94%	7.93%	
Conservative Allocation Option	\$21,105,343	1.18%	5.54%	3.32%	5.55%	4.21%	4.17%	8/18/2014
BB: Conservative Allocation Option		1.17%	6.10%	3.98%	5.98%	4.39%	4.38%	
Equity and Interest Accumulation Option	\$11,315,209	-1.96%	5.20%	5.39%	9.94%	6.81%	6.76%	8/18/2014
BB: Equity and Interest Accumulation Optio	n	-1.79%	6.40%	6.71%	10.59%	7.08%	7.05%	
U.S. Large Cap Equity Option	\$184,302,412	-4.29%	8.11%	8.91%	18.41%	12.31%	12.36%	8/12/2014
BB: U.S. Large Cap Equity Option		-4.27%	8.25%	9.06%	18.59%	12.50%	12.49%	
Large Cap Responsible Equity Option	\$4,228,895	-3.21%	3.93%	7.18%			6.44%	6/11/2021
BB: Social Choice Equity Option	ş ., <u>—</u> =,,	-4.27%	8.25%	8.56%			7.96%	3,,
Matching Grant	\$936,942	0.76%	2.97%	2.27%	1.96%	1.80%	2.37%	3/22/2002
Citigroup 3-Month U.S. Treasury Bill		1.10%	5.17%	4.42%	2.69%	1.90%	1.63%	



#### Performance as of March 31, 2025

**Total Market Value:** \$57,255,533 Annualized YTD 3 Year 5 Year 10 Year Inception Inception Date **Fund Name** Market Value % of Plan 3 Months 1 Year 13.36 **Aggressive Option** \$4,895,308 8.55% (0.45)(0.45)6.97 5.01 8.68 12/15/16 **ABLE Aggressive Custom Benchmark** (0.68)(0.68)7.03 5.10 13.69 9.03 Variance 0.23 0.23 (0.06)(0.09)(0.33)(0.35)**Moderately Aggressive Option** \$5,210,669 9.10% 0.05 0.05 6.76 4.53 11.35 7.68 12/15/16 8.02 **ABLE Moderately Aggressive Custom Benchmark** (0.15)(0.15)6.87 4.69 11.72 Variance 0.20 0.20 (0.11)(0.16)(0.37)(0.34)12/15/16 **Growth Option** \$7,251,682 12.67% 0.53 0.53 6.38 4.03 9.33 6.62 **ABLE Growth Custom Benchmark** 0.39 0.39 6.65 4.24 9.73 6.97 0.14 0.14 Variance (0.27)(0.21)(0.40)(0.35)**Moderate Option** \$6,895,286 1.03 1.03 6.17 3.51 7.36 5.55 12/15/16 12.04% **ABLE Moderate Custom Benchmark** 0.92 0.92 6.49 3.76 7.74 5.88 Variance 0.11 0.11 (0.32)(0.25)(0.38)(0.33)1.13 5.68 3.52 4.42 **Moderately Conservative Option** \$5,848,200 10.21% 1.13 5.71 12/15/16 **ABLE Moderately Conservative Custom Benchmark** 1.05 1.05 6.11 3.88 6.02 4.74 Variance 0.08 0.08 (0.43)(0.36)(0.31)(0.32)**Conservative Option** \$9,881,113 17.26% 1.21 1.21 4.92 3.31 3.29 2.80 12/15/16 **ABLE Conservative Custom Benchmark** 1.21 1.21 5.54 3.92 3.66 3.12 Variance 0.00 0.00 (0.62)(0.61)(0.37)(0.32)

0.84%

29.33%

1.00

1.04

(0.04)

1.00

1.04

(0.04)

1.20

1.25

(0.05)

12/13/24

03/30/17

\$479,918

\$16,793,357



ABLE Money Market Benchmark

**Money Market Option** 

Variance

**Checking Account Option** 



# Non-Retirement Investment Program March 31, 2025



# **Quarterly Report**



# **Non-Retirement Funds**

The SBI manages funds for trusts and programs created by the Minnesota State Constitution and Legislature.

- The Minnesota Workers Compensation Assigned Risk Plan provides worker compensation insurance for companies unable to obtain coverage through private carriers.
- The Permanent School Fund is a trust established for the benefit of Minnesota public schools.
- The Environmental Trust Fund is a trust established for the protection and enhancement of Minnesota's environment. It is funded with a portion of the proceeds from the state's lottery.
- The Closed Landfill Investment Fund is a trust created by the Legislature to invest money to pay for the long-term costs of maintaining the integrity of landfills in Minnesota once they are closed.
- Other Post-Employment Benefits Accounts (OPEB) are the assets set aside by local units of government for the payment of retiree benefits trusteed by the Public Employees Retirement Association.
- Miscellaneous Trust Accounts are other small funds managed by the SBI for a variety of purposes.

All equity, fixed income, and cash assets for these accounts are managed externally by investment management firms retained by the SBI.





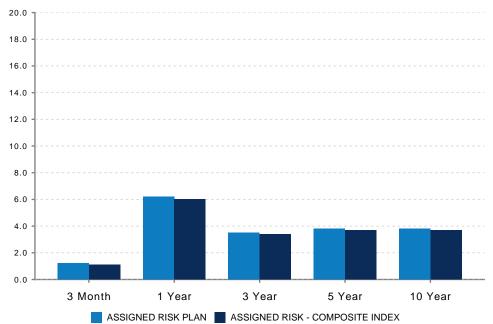
#### **Assigned Risk Plan Quarter-End Review**

#### **Assigned Risk Plan**

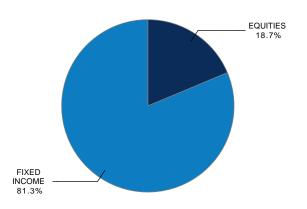
The Assigned Risk plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of ongoing claims and operating expenses.

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The equity segment is passively managed to track the performance of the S&P 500.

The fixed income benchmark is the Bloomberg U.S. Government Intermediate Index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 80% fixed income and 20% equities. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
ASSIGNED RISK PLAN	\$278,270,131	1.2%	6.2%	3.5%	3.8%	3.8%
EQUITIES	\$51,906,742	-4.3%	8.2%	9.1%	18.6%	12.1%
FIXED INCOME	\$226,363,389	2.5%	5.3%	1.8%	0.1%	1.4%
ASSIGNED RISK - COMPOSITE INDEX		1.1%	6.0%	3.4%	3.7%	3.7%
Excess		0.0%	0.1%	0.1%	0.2%	0.1%
S&P 500		-4.3%	8.3%	9.1%	18.6%	12.5%
Bloomberg U.S. Government: Intermediate		2.5%	5.3%	1.8%	-0.0%	1.4%



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.





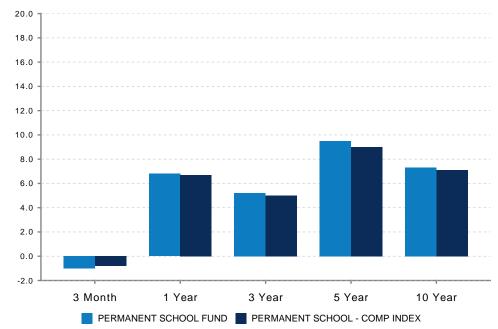
#### **Permanent School Fund Quarter-End Review**

#### **Permanent School Fund**

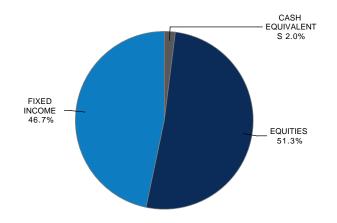
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

The Permanent School Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds provide portfolio diversification and a more stable stream of current income.

The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 50% equity, and 48% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	\$2,192,556,338	-1.0%	6.8%	5.2%	9.5%	7.3%
CASH EQUIVALENTS	\$44,511,852	1.1%	5.2%	4.5%	2.7%	2.0%
EQUITIES	\$1,124,009,596	-4.3%	8.2%	9.1%	18.6%	12.5%
FIXED INCOME	\$1,024,034,890	2.7%	5.4%	0.9%	0.5%	1.8%
PERMANENT SCHOOL - COMP INDEX		-0.8%	6.7%	5.0%	9.0%	7.1%
Excess		-0.2%	0.1%	0.1%	0.5%	0.2%
S&P 500		-4.3%	8.3%	9.1%	18.6%	12.5%
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%



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 7/1/97 the Fund allocation was 100% fixed income.





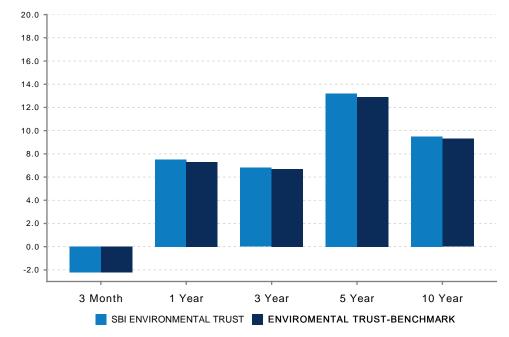
#### **Environmental Trust Quarter-End Review**

#### **Environmental Trust Fund**

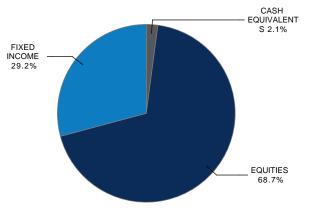
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 70% equities, and 28% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
ENVIRONMENTAL TRUST	\$1,928,559,139	-2.2%	7.5%	6.8%	13.2%	9.5%
CASH EQUIVALENTS	\$39,870,923	1.1%	5.2%	4.5%	2.7%	2.0%
EQUITIES	\$1,325,890,046	-4.3%	8.2%	9.1%	18.6%	12.5%
FIXED INCOME	\$562,798,171	2.7%	5.4%	0.9%	0.5%	1.8%
ENVIROMENTAL TRUST -BENCHMA	RK	-2.2%	7.3%	6.7%	12.9%	9.3%
Excess		-0.0%	0.1%	0.1%	0.3%	0.1%
S&P 500		-4.3%	8.3%	9.1%	18.6%	12.5%
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%



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.



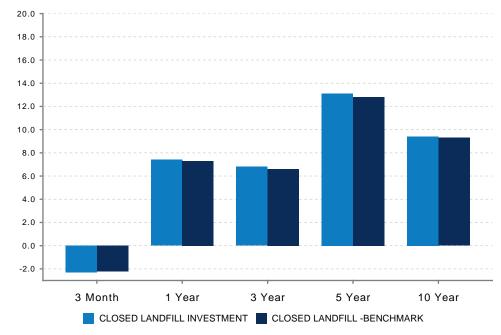


#### Closed Landfill Investment Fund Quarter-End Review

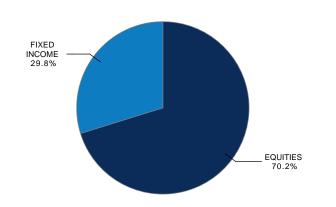
#### **Closed Landfill Investment Fund**

The investment objective of the Closed Landfill Investment Fund is to increase the market value of the Fund and to reduce volatility to meet future expenditures. By statute, the assets of the Fund were unavailable for expenditure until after the fiscal year 2020 to pay for long-term costs of maintaining the integrity of landfills in Minnesota once they are closed. In FY 2011, \$48 million was transferred out of the general fund leaving a balance of \$1 million in the account. Legislation was enacted in 2013 to replenish the principal and earnings back into the fund and in FY 2014 a repayment was made in the amount of \$64.2 million. In 2015, legislation was passed which repealed any further repayments.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 70% equities and 30% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	\$155,123,468	-2.3%	7.4%	6.8%	13.1%	9.4%
EQUITIES	\$108,823,221	-4.3%	8.2%	9.1%	18.6%	12.5%
FIXED INCOME	\$46,300,247	2.7%	5.4%	0.9%	0.5%	1.8%
CLOSED LANDFILL -BENCHMARK		-2.2%	7.3%	6.6%	12.8%	9.3%
Excess		-0.1%	0.0%	0.2%	0.3%	0.1%
S&P 500		-4.3%	8.3%	9.1%	18.6%	12.5%
Bloomberg U.S. Aggregate		2.8%	4.9%	0.5%	-0.4%	1.5%



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. 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.





# **Performance of Investment Options**

	Ending Market Value	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Non-Retirement Funds									
NON-RETIREMENT EQUITY FUND - MELLON	\$3,489,527,053	-4.3%	3.8%	8.2%	9.1%	18.6%	12.5%	10.4%	07/1993
S&P 500 (DAILY)		-4.3%	3.8%	8.3%	9.1%	18.6%	12.5%	10.4%	07/1993
Excess		-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	-0.0%	0.0%	
NON-RETIREMENT BOND FUND - PGIM	\$1,875,817,515	2.7%	5.1%	5.4%	0.9%	0.5%	1.8%	5.0%	07/1994
Bloomberg U.S. Aggregate		2.8%	4.8%	4.9%	0.5%	-0.4%	1.5%	4.6%	07/1994
Excess		-0.1%	0.3%	0.5%	0.4%	0.9%	0.4%	0.5%	
NON-RETIREMENT MONEY MARKET FUND	\$708,634,623	1.1%	3.8%	5.2%	4.5%	2.7%		2.5%	12/2017
ICE BofA US 3-Month Treasury Bill		1.0%	3.6%	5.0%	4.2%	2.6%		2.4%	12/2017
Excess		0.1%	0.2%	0.2%	0.3%	0.2%		0.1%	
Non-Retirement Separate Accounts									
MET COUNCIL OPEB LADDERED BOND FUND	\$126,434,103	2.0%	4.7%	5.5%	2.4%	0.8%			02/2009
DULUTH OPEB LADDERED BOND FUND	\$111,376,711	3.9%	4.1%					5.1%	07/2024
ASSIGNED RISK PLAN FIXED INCOME PORTFOLIO - RBC	\$226,363,339	2.5%	4.7%	5.3%	1.8%	0.1%	1.4%	4.2%	07/1991
ARP Fixed Income Portfolio Benchmark		2.5%	4.7%	5.3%	1.8%	-0.0%	1.4%	4.3%	07/1991
Excess		0.0%	-0.1%	-0.1%	0.0%	0.1%	0.1%	-0.1%	

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**

	2024 Calendar Return	2023 Calendar Return	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return
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					
MET COUNCIL OPEB LADDERED BOND FUND	3.6%	4.1%	-5.6%	-0.4%	3.0%
DULUTH OPEB LADDERED BOND FUND					
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%

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.





# State Cash March 31, 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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
Treasurer's Cash	27,364,117,819	1.1	5.3	4.4	2.5	1.9
iMoneyNet Money Fund Average-All Taxable		1.0	4.7	4.0	2.4	1.6

#### **Other State Cash Accounts**

Due to differing investment objectives, strategies, and time horizons, some State agencies' accounts are invested seperately. 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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	<u>5 Year</u>	10 Year
Debt Service	132,475,792	0.7	2.4	2.8	1.9	1.9
Housing Finance	677,018,680	1.1	5.1	3.9	2.4	1.9

1. Housing Finance performance will be shown with first full quarter of performance.





#### **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.



# SBI MINNESOTA STATE BOARD OF INVESTMENT

#### 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 (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.





#### **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.





#### 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 070/1/1999 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 Voyageur 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.





#### 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.

