SBI OF INVESTMENT

Quarterly Report

Comprehensive Performance Report

September 30, 2023





The Minnesota State Board of Investment 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.

Fire Plans + Other Retirement Plans

Fire Plans and Other Retirement Plans include assets from volunteer fire relief plans and other public retirement plans with authority to invest with the SBI, if they so choose. Fire Plans that are not eligible to be consolidated with Public Employees Retirement Association (PERA) or elect not to be administered by PERA may invest their assets with the SBI using the same asset pools as the Combined Funds. The Statewide Volunteer Firefighter Retirement Plan is administered by PERA and has its own investment vehicle called the Volunteer Firefighter Account.

Participant Directed Investment Program

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. Investment goals among the PDIP's many participants are varied. In order to meet the variety of goals, participants may allocate their investments among one or more accounts that are appropriate for their needs within statutory requirements and rules established by the participating organizations.

Non-Retirement Funds

The Non-Retirement Funds are funds established by the State of Minnesota and other government entities for various purposes which include the benefit of public schools, the environment, other post-employment benefits, workers compensation insurance, and other purposes.

State Cash

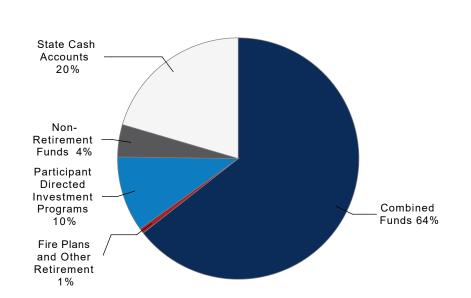
The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It contains the cash balances of special or dedicated accounts necessary for the operation 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> \$83,036
Fire Plans + Other Retirement Plans	868
Participant Directed Investment Program	13,041
State Deferred Compensation Plan	8,885
Health Care Savings Plan	1,787
Unclassified Employees Retirement Plan	346
Hennepin County Supplemental Retirement Plan	157
PERA Defined Contribution Plan	85
Minnesota College Savings Plan	1,743
Minnesota Achieving a Better Life Experience Plan	37
Non-Retirement Funds	5,582
Assigned Risk Plan	259
Permanent School Fund	1,835
Environmental Trust Fund	1,562
Closed Landfill Investment Fund	124
Miscellaneous Trust Funds	965
Other Postemployment Benefits Accounts	838
State Cash	26,357
Invested Treasurer's Cash	25,407
Other State Cash Accounts	949
TOTAL SBI AUM	128,882



Note: Differentials within column amounts may occur due to rounding



Quarterly Report



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Assigned Risk Plan		Note:				
Permanent School Fund		Throughout this report performance is calculated net of investment management				
Environmental Trust Fund		fees, gross of administrative fees. Aggregates include terminated managers, and returns for all periods greater than one year are annualized. Inception Date and				
Closed Landfill Investment Fund		Since Inception Returns refer to the date of retention by the SBI. FYTD refers to				
Non-Retirement Managers		the return generated by an account since July 1 of the most recent year. For historical benchmark details, please refer to the addendum of this report. Some				
State Cash Accounts	119	aggregate inception to date return are based portfolio management decisions to re group manager accounts in different or newly created aggregates.				
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Quarterly Report

Combined Funds

September 30, 2023



SBBI De INNESOTA STATE BOARD OF INVESTMENT

Combined Funds Summary

<u>Combined Funds Change in Market Value (\$Millions)</u> One Quarter

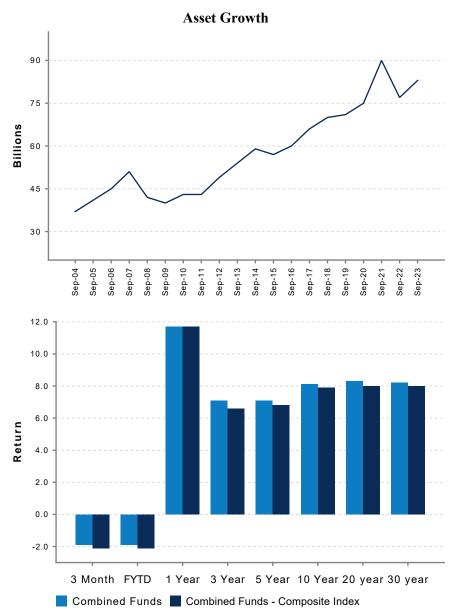
Combined Funds	
Beginning Market Value	\$85,653
Net Contributions	-991
Investment Return	-1,626
Ending Market Value	83,036

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

Performance (Net of Fees)

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

	Qtr	FYTD	<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	-1.9%	-1.9%	11.7%	7.1%	7.1%	8.1%	8.3%	8.2%
Combined Funds - Composite Index	-2.1%	-2.1%	11.7%	6.6%	6.8%	7.9%	8.0%	8.0%
Excess	0.2%	0.2%	-0.0%	0.4%	0.3%	0.2%	0.3%	0.2%



Minnesota State Board of Investment Quarter Ending September 30, 2023 Combined Funds

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 Public Equity.

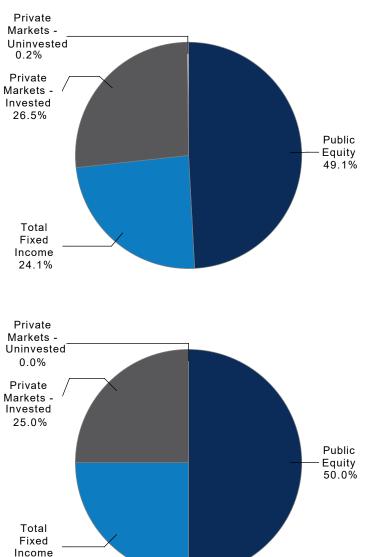
(Millions)	Actual Mix	Policy Target
\$40,767	49.1%	50.0%
20,027	24.1	25.0
22,242	26.8	25.0
22,043	26.5	
199	0.2	
83,036	100.0	
	\$40,767 20,027 22,242 22,043 199	\$40,767 49.1% 20,027 24.1 22,242 26.8 22,043 26.5 199 0.2

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.

	Policy Weight
Public Equity	50.0%
Total Fixed Income	25.0
Private Markets - Invested	25.0
Private Markets - Uninvested	0.0

<u>Market Index</u> Public Equity Benchmark Total Fixed Income Benchmark Private Markets



25.0%





<u>Public Equity</u>

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	FYTD	1 Year	<u>3 Year</u>	5 Year	<u>10 Year</u>	20 Year	<u>30 Year</u>
Public Equity	\$40.8	49.1%	50.0%	-3.3%	-3.3%	20.0%	8.0%	7.2%	9.1%	8.7%	8.6%
Public Equity Benchmark				-3.4	-3.4	20.6	7.7	7.0			
Excess				0.2	0.2	-0.6	0.3	0.3			
Domestic Equity	26.8	32.3	33.5	-3.2	-3.2	20.6	9.6	9.1	11.2	9.6	9.4
Domestic Equity Benchmark				-3.3	-3.3	20.5	9.5	9.1	11.3	9.7	9.5
Excess				0.0	0.0	0.1	0.0	-0.0	-0.1	-0.1	-0.1
International Equity	13.0	15.7	16.5	-3.0	-3.0	19.2	5.4	3.8	4.2	6.5	5.7
International Equity Benchmark				-3.8	-3.8	20.4	3.7	2.6	3.3	6.0	4.9
Excess				0.8	0.8	-1.2	1.6	1.2	0.8	0.5	0.8
Global Equity	0.9	1.1	0.0	-7.6	-7.6	18.8					
MSCI AC World Index (net)				-3.4	-3.4	20.8					
Excess				-4.2	-4.2	-2.0					

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	FYTD	1 Year	<u>3 Year</u>	5 Year	10 Year	<u>20 Year</u>	<u>30 Year</u>
Total Fixed Income	\$20.0	24.1%	25.0%	-3.6%	-3.6%	0.8%	-5.4%	1.1%	1.8%	3.4%	4.6%
Total Fixed Income Benchmark				-3.9%	-3.9%	-0.6%	-6.0%	0.6%	1.4%	3.0%	4.3%
Excess				0.4%	0.4%	1.4%	0.6%	0.4%	0.5%	0.4%	0.4%
Core/Core Plus	\$4.3	5.2%	5.0	-3.3%	-3.3%	1.7%	-4.8%	0.6%	1.6%	3.3%	4.6%
Core Bonds Benchmark				-3.2%	-3.2%	0.6%	-5.2%	0.1%	1.1%	2.8%	4.2%
Excess				-0.0%	-0.0%	1.1%	0.4%	0.5%	0.5%	0.5%	0.4%
Return Seeking Fixed Income	\$4.1	5.0%	5.0	-1.3%	-1.3%	6.5%					
Bloomberg U.S. Aggregate				-3.2%	-3.2%	0.6%					
Excess				1.9%	1.9%	5.8%					
Treasury Protection	\$7.7	9.3%	10.0	-7.2%	-7.2%	-4.6%	-10.5%	-1.2%			
Bloomberg Treasury 5+ Year				-7.2%	-7.2%	-4.5%	-10.6%	-1.2%			
Excess				-0.0%	-0.0%	-0.1%	0.1%	-0.0%			
Laddered Bond + Cash	\$3.9	4.7%	5.0	1.4%	1.4%	4.7%	1.6%	1.7%	1.2%	1.6%	3.1%
ICE BofA US 3-Month Treasury I	Bill			1.3%	1.3%	4.5%	1.7%	1.7%	1.1%	1.4%	2.4%
Excess				0.0%	0.0%	0.3%	-0.1%	-0.1%	0.1%	0.2%	0.7%

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	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	25 Year	30 Year
Private Markets - Invested	2.2%	2.2%	6.6%	19.0%	13.0%	12.7%	14.1%	12.5%	13.5%
Private Markets -Uninvested(1)	1.5%	1.5%	12.3%						
Private Equity	3.0%	3.0%	9.1%	21.0%	16.6%	16.3%	16.4%	13.7%	15.8%
Private Credit	2.8%	2.8%	10.9%	15.7%	11.4%	13.1%	13.0%	12.3%	
Resources	-1.5%	-1.5%	-1.9%	15.7%	3.0%	2.2%	12.9%	12.0%	12.6%
Real Estate	-1.3%	-1.3%	-5.9%	15.2%	11.5%	12.3%	9.6%	9.5%	9.6%

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 September 30, 2023

The assets of the Combined Funds are allocated to public equity, fixed income, private markets, and cash. Each asset class may be further differentiated by geography, management style, and/or strategy. Managers are hired to manage the assets accordingly. This diversification is intended to reduce wide fluctuations in investment returns on a year-to-year basis and enhances the Funds' ability to meet or exceed the actuarial return target over the long-term.

The Combined Funds consist of the assets of active employees and retired members of the statewide retirement plans. The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. This sharing is accomplished by grouping managers by asset class, geography, and management style, into several Investment Pools. The individual funds participate in the Investment Pools by purchasing units which function much like the shares of a mutual fund.

While the vast majority of the units of these pools are owned by the Combined Funds, the Supplemental Investment Fund also owns units of these pools. The Supplemental Investment Funds are mutual fund-like investment vehicles which are used by investors in the Participant Directed Investment Program. Please refer to the Participant Directed Investment Program report for more information.

The performance information presented on the following pages for Public Equity and Fixed Income includes both the Combined Funds and Supplemental Investment Fund. The Private Markets is Combined Funds only. All assets in the Combined Funds are managed externally by investment management firms retained by contract.



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Domestic Equity September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Total Domestic Equity										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$2,622,943,215	9.6%	-4.2%	-4.2%	14.7%	7.5%	5.6%	9.2%	7.9%	06/1996
Active Domestic Equity Benchmark			-4.2	-4.2	13.3	8.0	5.5	9.2	8.4	06/1996
Excess			-0.0	-0.0	1.4	-0.5	0.1	0.0	-0.6	
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	3,116,538,406	11.4	-2.8	-2.8	22.1	10.3	10.1	12.0	8.8	06/1996
Semi Passive Domestic Equity Benchmark			-3.1	-3.1	21.2	9.5	9.6	11.6	8.7	06/1996
Excess			0.3	0.3	0.9	0.8	0.5	0.3	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	21,640,072,430	79.0	-3.2	-3.2	21.1	9.6	9.5	11.5	8.9	06/1996
Passive Domestic Equity Benchmark			-3.2	-3.2	21.1	9.6	9.5	11.5	9.0	06/1996
Excess			0.0	0.0	0.0	0.0	0.0	-0.0	-0.1	
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	438									
TOTAL DOMESTIC EQUITY (5)	27,379,554,488	100.0	-3.2	-3.2	20.6	9.6	9.1	11.2	10.4	01/1984
Domestic Equity Benchmark			-3.3	-3.3	20.5	9.5	9.1	11.3	10.6	01/1984
Excess			0.0	0.0	0.1	0.0	-0.0	-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.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Total Domestic Equity					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	-21.3%	18.5%	27.3%	27.6%	-6.5%
Active Domestic Equity Benchmark	-19.4	20.3	19.8	28.2	-8.0
Excess	-1.9	-1.7	7.5	-0.6	1.4
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	-18.7	28.8	21.0	30.9	-4.9
Semi Passive Domestic Equity Benchmark	-19.1	26.5	21.0	31.4	-4.8
Excess	0.4	2.3	0.0	-0.5	-0.1
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	-19.2	26.5	20.8	31.3	-5.0
Passive Domestic Equity Benchmark	-19.1	26.4	20.8	31.3	-5.0
Excess	-0.0	0.1	0.0	0.0	-0.0
TOTAL DOMESTIC EQUITY (5)	-19.4	25.8	21.7	30.7	-5.3
Domestic Equity Benchmark	-19.2	25.7	20.8	30.8	-5.2
Excess	-0.2	0.1	0.9	-0.1	-0.0

(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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	3 Year	<u>5 Year</u>	10 Year	Since Inception	Inception Date
Active Large Cap Growth										
SANDS	\$172,864,725	0.6%	-7.9%	-7.9%	25.8%	-8.0%	4.4%	9.6%	9.8%	01/2005
Russell 1000 Growth			-3.1	-3.1	27.7	8.0	12.4	14.5	10.9	01/2005
Excess			-4.7	-4.7	-1.9	-15.9	-8.0	-4.9	-1.1	
WINSLOW	181,045,478	0.7	-3.2	-3.2	31.1	4.8	10.3	13.3	11.0	01/2005
Russell 1000 Growth			-3.1	-3.1	27.7	8.0	12.4	14.5	10.9	01/2005
Excess			-0.1	-0.1	3.3	-3.2	-2.1	-1.2	0.1	
RUSSELL 1000 GROWTH AGGREGATE (1)	353,910,204	1.3	-5.5	-5.5	28.4	-1.3	10.2	13.7	10.5	11/2003
Russell 1000 Growth			-3.1	-3.1	27.7	8.0	12.4	14.5	10.8	11/2003
Excess			-2.4	-2.4	0.7	-9.3	-2.2	-0.8	-0.3	

(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.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Large Cap Growth					
SANDS	-49.3%	5.2%	71.0%	33.5%	7.0%
Russell 1000 Growth	-29.1	27.6	38.5	36.4	-1.5
Excess	-20.2	-22.4	32.5	-2.8	8.6
WINSLOW	-31.0	24.8	37.6	34.2	4.2
Russell 1000 Growth	-29.1	27.6	38.5	36.4	-1.5
Excess	-1.8	-2.8	-0.9	-2.2	5.7
RUSSELL 1000 GROWTH AGGREGATE (1)	-41.3	12.8	81.3	37.3	4.7
Russell 1000 Growth	-29.1	27.6	38.5	36.4	-1.5
Excess	-12.1	-14.8	42.8	0.9	6.2

(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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Semi-Passive Large Cap										
BLACKROCK	\$1,547,433,682	5.7%	-3.0%	-3.0%	21.5%	9.6%	9.5%	12.1%	10.1%	01/1995
Semi Passive Domestic Equity Benchmark			-3.1	-3.1	21.2	9.5	9.6	11.6	9.8	01/1995
Excess			0.2	0.2	0.3	0.1	-0.1	0.5	0.4	
J.P. MORGAN	1,569,104,723	5.7	-2.6	-2.6	22.6	11.0	10.6	12.4	10.2	01/1995
Semi Passive Domestic Equity Benchmark			-3.1	-3.1	21.2	9.5	9.6	11.6	9.8	01/1995
Excess			0.5	0.5	1.4	1.5	1.0	0.7	0.4	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	3,116,538,406	11.4	-2.8	-2.8	22.1	10.3	10.1	12.0	8.8	06/1996
Semi Passive Domestic Equity Benchmark			-3.1	-3.1	21.2	9.5	9.6	11.6	8.7	06/1996
Excess			0.3	0.3	0.9	0.8	0.5	0.3	0.1	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Semi-Passive Large Cap					
BLACKROCK	-19.2%	28.3%	20.7%	30.4%	-4.1%
Semi Passive Domestic Equity Benchmark	-19.1	26.5	21.0	31.4	-4.8
Excess	-0.1	1.8	-0.3	-1.0	0.7
J.P. MORGAN	-18.1	29.3	21.2	31.3	-5.4
Semi Passive Domestic Equity Benchmark	-19.1	26.5	21.0	31.4	-4.8
Excess	1.0	2.8	0.3	-0.1	-0.6
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	-18.7	28.8	21.0	30.9	-4.9
Semi Passive Domestic Equity Benchmark	-19.1	26.5	21.0	31.4	-4.8
Excess	0.4	2.3	0.0	-0.5	-0.1





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Value										
BARROW HANLEY	\$342,489,992	1.3%	-0.9%	-0.9%	18.0%	15.8%	8.5%	9.8%	8.4%	04/2004
Russell 1000 Value			-3.2	-3.2	14.4	11.1	6.2	8.4	7.5	04/2004
Excess			2.3	2.3	3.5	4.8	2.3	1.4	0.9	
LSV	302,152,723	1.1	-2.0	-2.0	16.2	14.0	5.8	8.9	8.4	04/2004
Russell 1000 Value			-3.2	-3.2	14.4	11.1	6.2	8.4	7.5	04/2004
Excess			1.2	1.2	1.7	2.9	-0.5	0.5	0.9	
RUSSELL 1000 VALUE AGGREGATE	644,642,716	2.4	-1.4	-1.4	17.1	14.8	7.5	9.5	8.5	10/2003
Russell 1000 Value			-3.2	-3.2	14.4	11.1	6.2	8.4	8.2	10/2003
Excess			1.7	1.7	2.6	3.7	1.2	1.0	0.3	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Large Cap Value					
BARROW HANLEY	1.1%	27.7%	2.4%	26.9%	-5.9%
Russell 1000 Value	-7.5	25.2	2.8	26.5	-8.3
Excess	8.6	2.5	-0.4	0.4	2.4
LSV	-6.3	29.7	-1.3	26.9	-11.8
Russell 1000 Value	-7.5	25.2	2.8	26.5	-8.3
Excess	1.3	4.5	-4.1	0.4	-3.6
RUSSELL 1000 VALUE AGGREGATE	-2.6	28.8	1.6	27.4	-8.7
Russell 1000 Value	-7.5	25.2	2.8	26.5	-8.3
Excess	4.9	3.7	-1.2	0.9	-0.4





	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	\$166,111,866	0.6%	-9.5%	-9.5%	11.9%	3.5%	0.3%		8.1%	11/2016
Russell 2000 Growth			-7.3	-7.3	9.6	1.1	1.6		7.9	11/2016
Excess			-2.2	-2.2	2.3	2.4	-1.3		0.2	
HOOD RIVER	172,001,711	0.6	-8.7	-8.7	4.8	7.3	7.5		13.0	11/2016
Russell 2000 Growth			-7.3	-7.3	9.6	1.1	1.6		7.9	11/2016
Excess			-1.4	-1.4	-4.7	6.2	6.0		5.1	
RICE HALL JAMES	157,851,033	0.6	-8.3	-8.3	3.9	2.1	0.0		8.1	11/2016
Russell 2000 Growth			-7.3	-7.3	9.6	1.1	1.6		7.9	11/2016
Excess			-1.0	-1.0	-5.7	1.0	-1.5		0.3	
WELLINGTON	201,135,164	0.7	-6.2	-6.2	10.9	1.4	2.1		8.1	11/2016
Russell 2000 Growth			-7.3	-7.3	9.6	1.1	1.6		7.9	11/2016
Excess			1.1	1.1	1.3	0.3	0.6		0.2	
RUSSELL 2000 GROWTH AGGREGATE	697,099,774	2.5	-8.1	-8.1	7.7	3.6	2.6	6.1%	7.0	11/2003
Russell 2000 Growth			-7.3	-7.3	9.6	1.1	1.6	6.7	7.9	11/2003
Excess			-0.8	-0.8	-1.9	2.5	1.1	-0.6	-0.8	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Small Cap Growth					
ARROWMARK	-23.3%	6.1%	21.9%	20.1%	0.9%
Russell 2000 Growth	-26.4	2.8	34.6	28.5	-9.3
Excess	3.1	3.2	-12.8	-8.4	10.3
HOOD RIVER	-27.7	24.2	61.7	24.3	-7.0
Russell 2000 Growth	-26.4	2.8	34.6	28.5	-9.3
Excess	-1.4	21.4	27.0	-4.2	2.3
RICE HALL JAMES	-24.4	15.6	23.8	18.0	-6.9
Russell 2000 Growth	-26.4	2.8	34.6	28.5	-9.3
Excess	2.0	12.8	-10.8	-10.5	2.4
WELLINGTON	-28.5	4.3	33.1	35.6	-11.6
Russell 2000 Growth	-26.4	2.8	34.6	28.5	-9.3
Excess	-2.1	1.4	-1.5	7.1	-2.3
RUSSELL 2000 GROWTH AGGREGATE	-26.3	12.4	35.4	24.6	-6.2
Russell 2000 Growth	-26.4	2.8	34.6	28.5	-9.3
Excess	0.0	9.5	0.8	-3.9	3.2





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Value										
GOLDMAN SACHS	\$180,356,850	0.7%	-3.0%	-3.0%	8.2%	12.0%	2.1%	6.2%	8.0%	01/2004
Russell 2000 Value			-3.0	-3.0	7.8	13.3	2.6	6.2	7.0	01/2004
Excess			-0.1	-0.1	0.3	-1.3	-0.4	0.1	1.0	
HOTCHKIS AND WILEY	184,265,651	0.7	0.3	0.3	21.9	27.5	7.4	8.8	8.6	01/2004
Russell 2000 Value			-3.0	-3.0	7.8	13.3	2.6	6.2	7.0	01/2004
Excess			3.3	3.3	14.1	14.2	4.8	2.6	1.6	
MARTINGALE	151,758,329	0.6	-0.7	-0.7	17.3	20.5	5.1	8.2	7.6	01/2004
Russell 2000 Value			-3.0	-3.0	7.8	13.3	2.6	6.2	7.0	01/2004
Excess			2.3	2.3	9.5	7.2	2.5	2.0	0.6	
PEREGRINE	209,487,174	0.8	-3.8	-3.8	6.6	14.3	2.7	6.1	8.9	07/2000
Russell 2000 Value			-3.0	-3.0	7.8	13.3	2.6	6.2	8.4	07/2000
Excess			-0.8	-0.8	-1.2	1.0	0.1	-0.1	0.5	
RUSSELL 2000 VALUE AGGREGATE	725,868,004	2.7	-2.0	-2.0	12.3	17.3	3.8	7.0	8.3	10/2003
Russell 2000 Value			-3.0	-3.0	7.8	13.3	2.6	6.2	7.7	10/2003
Excess			1.0	1.0	4.5	4.0	1.2	0.8	0.6	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Small Cap Value					
GOLDMAN SACHS	-14.4%	27.0%	2.4%	23.2%	-13.3%
Russell 2000 Value	-14.5	28.3	4.6	22.4	-12.9
Excess	0.1	-1.3	-2.3	0.8	-0.5
HOTCHKIS AND WILEY	3.1	36.5	-0.2	19.7	-14.4
Russell 2000 Value	-14.5	28.3	4.6	22.4	-12.9
Excess	17.6	8.2	-4.8	-2.7	-1.5
MARTINGALE	-8.0	41.3	-4.6	21.1	-15.0
Russell 2000 Value	-14.5	28.3	4.6	22.4	-12.9
Excess	6.4	13.0	-9.2	-1.3	-2.1
PEREGRINE	-12.5	28.6	7.3	21.1	-16.1
Russell 2000 Value	-14.5	28.3	4.6	22.4	-12.9
Excess	2.0	0.3	2.7	-1.3	-3.3
RUSSELL 2000 VALUE AGGREGATE	-9.4	31.8	1.5	21.3	-14.7
Russell 2000 Value	-14.5	28.3	4.6	22.4	-12.9
Excess	5.1	3.5	-3.1	-1.1	-1.8





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Active All Cap										
ZEVENBERGEN (1)	\$201,422,518	0.7%	-5.5%	-5.5%	25.4%	-10.8%	7.3%	11.3%	10.7%	04/1994
Zevenbergen Custom Benchmark			-3.3	-3.3	26.6	9.0	13.1	14.8		04/1994
Excess			-2.2	-2.2	-1.3	-19.8	-5.8	-3.5		
ACTIVE RUSSELL 3000 GROWTH (2)	201,422,518	0.7	-5.5	-5.5	25.4				-18.2	01/2021
Russell 3000 Growth TR			-3.3	-3.3	26.6				3.7	01/2021
Excess			-2.2	-2.2	-1.3				-21.9	

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.
(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active All Cap					
ZEVENBERGEN (1)	-55.7%	-9.7%	126.2%	43.0%	2.3%
Zevenbergen Custom Benchmark	-29.0	32.3	38.5	36.4	-1.5
Excess	-26.8	-42.0	87.7	6.7	3.8
ACTIVE RUSSELL 3000 GROWTH (2)	-55.7	-9.7			
Russell 3000 Growth TR	-29.0	25.8			
Excess	-26.8	-35.6			

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.
(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$20,835,603,144	76.1%	-3.1%	-3.1%	21.2%	9.5%	9.6%		12.5%	11/2016
RUSSELL 1000 (DAILY)			-3.1	-3.1	21.2	9.5	9.6		12.5	11/2016
Excess			0.0	0.0	0.0	-0.0	-0.0		-0.0	
BLACKROCK RUSSELL 2000	67,334,310	0.2	-5.3	-5.3	8.4	7.7			5.3	11/2018
RUSSELL 2000 (DAILY)			-5.1	-5.1	8.9	7.2			4.9	11/2018
Excess			-0.1	-0.1	-0.6	0.5			0.5	
BLACKROCK RUSSELL 3000 (1)	737,134,976	2.7	-3.2	-3.2	20.5	9.6	9.3	11.4%	9.5	07/1995
Passive Manager Benchmark			-3.3	-3.3	20.5	9.4	9.1	11.3	9.4	07/1995
Excess			0.0	0.0	0.0	0.2	0.2	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	21,640,072,430	79.0	-3.2	-3.2	21.1	9.6	9.5	11.5	8.9	06/1996
Passive Domestic Equity Benchmark			-3.2	-3.2	21.1	9.6	9.5	11.5	9.0	06/1996
Excess			0.0	0.0	0.0	0.0	0.0	-0.0	-0.1	

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

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





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	-19.2%	26.5%	20.9%	31.4%	-4.8%
RUSSELL 1000 (DAILY)	-19.1	26.5	21.0	31.4	-4.8
Excess	-0.0	0.1	-0.0	0.0	-0.0
BLACKROCK RUSSELL 2000	-19.9	16.0	20.8	25.2	
RUSSELL 2000 (DAILY)	-20.4	14.8	20.0	25.5	
Excess	0.6	1.2	0.8	-0.3	
BLACKROCK RUSSELL 3000 (1)	-19.2	26.2	21.2	31.1	-5.2
Passive Manager Benchmark	-19.2	25.7	20.9	31.0	-5.2
Excess	0.0	0.5	0.3	0.0	-0.0
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	-19.2	26.5	20.8	31.3	-5.0
Passive Domestic Equity Benchmark	-19.1	26.4	20.8	31.3	-5.0
Excess	-0.0	0.1	0.0	0.0	-0.0

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

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



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International Equity September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Total International Equity										
DEVELOPED MARKETS (1)	\$9,431,041,672		-2.8%	-2.8%	21.7%	8.2%	5.0%	5.0%	5.0%	01/1997
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	4.3	01/1997
Excess			1.3	1.3	-2.3	2.1	1.6	1.1	0.7	
EMERGING MARKETS (2)	3,247,578,657	24.6%	-3.4	-3.4	12.4	-1.4%	0.9%	1.9%	4.9	11/1996
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6	2.1	5.2	11/1996
Excess			-0.5	-0.5	0.7	0.3	0.4	-0.1	-0.2	
ACWI EX-US AGGREGATE	378,276,288	2.9	-3.6	-3.6	23.0				2.2	01/2021
MSCI AC WORLD ex US (NET) - DAILY			-3.8	-3.8	20.4				-1.7	01/2021
Excess			0.2	0.2	2.6				3.9	
CHINA ONLY AGGREGATE	142,078,843	1.1	-0.8	-0.8	2.6				-13.2	01/2021
MSCI China A			-3.5	-3.5	-5.9				-12.6	01/2021
Excess			2.7	2.7	8.5				-0.6	
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	1,123,998	0.0								
TOTAL INTERNATIONAL EQUITY (4)	13,200,099,458	100.0	-3.0	-3.0	19.2	5.4	3.8	4.1	6.1	10/1992
International Equity Benchmark			-3.8	-3.8	20.4	3.7	2.6	3.3	5.5	10/1992
Excess			0.8	0.8	-1.2	1.6	1.2	0.8	0.6	

(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.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Total International Equity					
DEVELOPED MARKETS (1)	-10.7%	13.5%	8.9%	23.3%	-14.2%
BENCHMARK DM	-14.3%	12.6%	7.6%	22.5%	-14.1%
Excess	3.6%	0.9%	1.3%	0.8%	-0.1%
EMERGING MARKETS (2)	-21.1	-1.5	17.9%	20.3%	-15.4%
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6
Excess	-1.0	1.1	-0.4	1.9	-0.8
ACWI EX-US AGGREGATE	-12.6	12.8			
MSCI AC WORLD ex US (NET) - DAILY	-16.0	7.8			
Excess	3.4	4.9			
CHINA ONLY AGGREGATE	-24.5	-2.9			
MSCI China A	-25.9	3.2			
Excess	1.4	-6.1			
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)					
TOTAL INTERNATIONAL EQUITY (4)	-13.7	8.9	11.4	22.4	-14.5
International Equity Benchmark	-16.0	7.8	10.5	21.5	-14.2

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

2.3

(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.

0.8

0.9

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

1.1



-0.3

Excess



	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Active Developed Markets										
ACADIAN	\$511,072,475	3.9%	-2.1%	-2.1%	19.1%	5.3%	3.1%	6.6%	6.0%	07/2005
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	4.7	07/2005
Excess			2.0	2.0	-4.9	-0.8	-0.3	2.8	1.4	
COLUMBIA	437,892,952	3.3	-4.8	-4.8	28.1	6.9	6.0	5.9	3.7	03/2000
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	3.5	03/2000
Excess			-0.7	-0.7	4.1	0.8	2.6	2.1	0.2	
FIDELITY	435,230,607	3.3	-4.5	-4.5	24.6	4.9	4.7	4.9	6.1	07/2005
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	4.7	07/2005
Excess			-0.3	-0.3	0.6	-1.2	1.2	1.1	1.5	
JP MORGAN	321,226,446	2.4	-6.1	-6.1	21.1	3.7	4.0	4.0	4.8	07/2005
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	4.7	07/2005
Excess			-2.0	-2.0	-2.9	-2.4	0.6	0.2	0.2	
MARATHON	373,882,625	2.8	-2.8	-2.8	26.4	7.9	4.3	5.1	7.6	11/1993
BENCHMARK DM			-4.1	-4.1	24.0	6.1	3.4	3.8	4.9	11/1993
Excess			1.3	1.3	2.4	1.8	0.8	1.3	2.7	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Developed Markets					
ACADIAN	-12.5%	13.6%	11.7%	19.1%	-13.5%
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	1.8	0.9	4.2	-3.4	0.6
COLUMBIA	-15.0	14.2	15.0	28.9	-14.9
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	-0.7	1.6	7.4	6.4	-0.8
FIDELITY	-17.4	13.0	15.4	27.1	-14.6
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	-3.2	0.4	7.8	4.6	-0.5
JP MORGAN	-19.0	13.3	14.2	28.5	-17.3
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	-4.7	0.7	6.6	6.0	-3.3
MARATHON	-12.1	12.8	7.6	23.5	-13.4
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	2.2	0.2	0.1	1.0	0.7





	Ending Market Value	Portfolio Weight	1 Qtr	Fiscal YTD	<u>1 Year</u>	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Developed Markets										
Active Developed Markets Aggregate (1)	\$2,083,783,021	15.8%	-3.7%	-3.7%	24.2%	5.4%	4.0%	4.8%	5.3%	06/1996
BENCHMARK DM			-4.1%	-4.1%	24.0%	6.1%	3.4%	3.8%	2.2%	06/1996
Excess			0.4%	0.4%	0.2%	-0.6%	0.6%	0.9%	3.1%	
SSgA DEVELOPED MARKETS PASSIVE	\$7,263,128,597	55.0%	-4.1%	-4.1%	24.5%	6.6%	3.9%	4.3%		
BENCHMARK DM			-4.1%	-4.1%	24.0%	6.1%	3.4%	3.8%		
Excess			0.0%	0.0%	0.5%	0.5%	0.4%	0.4%		
RECORD CURRENCY (2)	\$84,130,054	0.6%	1.1%	1.1%	-2.7%					10/2020
DEVELOPED MARKETS TOTAL (4)	\$9,431,041,672		-2.8%	-2.8%	21.7%	8.2%	5.0%	5.0%	5.0%	01/1997
BENCHMARK DM			-4.1%	-4.1%	24.0%	6.1	3.4	3.8	4.3	01/1997
Excess			1.3%	1.3%	-2.3%	2.1	1.6	1.1	0.7	

(1) Includes the historical returns of AQR and terminated managers previously classified as "Semi-Passive Developed Markets."

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





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Total Developed Markets					
Active Developed Markets Aggregate (1)	-15.2%	12.5%	12.2%	24.4%	-15.1%
BENCHMARK DM	-14.3%	12.6%	7.6%	22.5%	-14.1%
Excess	-0.9%	-0.1%	4.6%	1.9%	-1.0%
SSgA DEVELOPED MARKETS PASSIVE	-13.8%	13.0%	8.2%	23.0%	-13.9%
BENCHMARK DM	-14.3%	12.6%	7.6%	22.5%	-14.1%
Excess	0.5%	0.4%	0.6%	0.5%	0.2%

DEVELOPED MARKETS TOTAL	-10.7%	13.5%	8.9%	23.3%	-14.2%
BENCHMARK DM	-14.3%	12.6%	7.6%	22.5%	-14.1%
Excess	3.6%	0.9%	1.3%	0.8%	-0.1%

(1) Includes the historical returns of AQR and terminated managers previously classified as "Semi-Passive Developed Markets"





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Emerging Markets										
MARTIN CURRIE	\$349,628,823	2.6%	-7.5%	-7.5%	8.9%	-5.1%	0.6%		3.4%	04/2017
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6		2.4	04/2017
Excess			-4.6	-4.6	-2.8	-3.3	0.1		0.9	
MACQUARIE	338,315,277	2.6	-4.8	-4.8	12.0	-4.6	0.9		3.0	04/2017
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6		2.4	04/2017
Excess			-1.9	-1.9	0.3	-2.9	0.3		0.6	
MORGAN STANLEY	436,233,854	3.3	-3.9	-3.9	12.4	-1.8	1.0	2.1%	7.5	01/2001
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6	2.1	7.3	01/2001
Excess			-1.0	-1.0	0.7	-0.1	0.4	-0.0	0.2	
NEUBERGER BERMAN	311,974,558	2.4	-4.3	-4.3	8.9	-5.0	-1.3		0.7	04/2017
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6		2.4	04/2017
Excess			-1.3	-1.3	-2.8	-3.3	-1.8		-1.8	
PZENA	532,151,863	4.0	1.1	1.1	26.1	13.6	5.2		5.7	04/2017
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6		2.4	04/2017
Excess			4.1	4.1	14.4	15.3	4.7		3.3	
ROCK CREEK	296,092,713	2.2	-2.7	-2.7	8.0	-3.0	1.0		1.7	04/2017
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6		2.4	04/2017
Excess			0.2	0.2	-3.7	-1.2	0.5		-0.7	



Minnesota State Board of Investment Quarter Ending September 30, 2023 International Equity Managers



	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return 2020 Calendar Return		2018 Calendar Return	
Active Emerging Markets						
MARTIN CURRIE	-25.7%	-3.5%	26.5%	27.3%	-16.6%	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	-5.6	-1.0	8.2	8.8	-2.0	
MACQUARIE	-26.5	-2.2	24.2	23.2	-13.3	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	-6.4	0.3	5.9	4.7	1.3	
MORGAN STANLEY	-23.8	3.5	15.7	20.4	-16.7	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	-3.7	6.0	-2.6	1.9	-2.2	
NEUBERGER BERMAN	-22.1	-5.6	14.2	19.7	-17.1	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	-2.0	-3.1	-4.1	1.3	-2.6	
PZENA	-7.4	9.3	7.7	13.4	-10.8	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	12.7	11.8	-10.6	-5.1	3.8	
ROCK CREEK	-19.4	-5.2	22.0	22.3	-17.6	
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6	
Excess	0.7	-2.7	3.7	3.9	-3.1	





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE	\$2,264,397,089	17.2%	-3.6%	-3.6%	12.8%	-1.2%	1.2%	1.8%	2.7%	01/2012
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6	2.1	2.8	01/2012
Excess			-0.6	-0.6	1.1	0.6	0.6	-0.3	-0.1	
SSGA EMERGING MARKETS PASSIVE	983,181,567	7.4	-3.0	-3.0	11.4	-2.1	0.3	2.0	2.8	01/2012
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6	2.1	2.8	01/2012
Excess			-0.1	-0.1	-0.3	-0.4	-0.2	-0.1	-0.0	
EMERGING MARKETS TOTAL	3,247,578,657	24.6	-3.4	-3.4	12.4	-1.4	0.9	1.9	4.9	11/1996
BENCHMARK EM			-2.9	-2.9	11.7	-1.7	0.6	2.1	5.2	11/1996
Excess			-0.5	-0.5	0.7	0.3	0.4	-0.1	-0.2	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE	-21.4%	-0.9%	17.6%	21.4%	-15.6%
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6
Excess	-1.3	1.6	-0.7	3.0	-1.0
SSGA EMERGING MARKETS PASSIVE	-20.4	-2.9	18.3	18.1	-14.7
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6
Excess	-0.3	-0.3	0.0	-0.3	-0.1
EMERGING MARKETS TOTAL	-21.1	-1.5	17.9	20.3	-15.4
BENCHMARK EM	-20.1	-2.5	18.3	18.4	-14.6
Excess	-1.0	1.1	-0.4	1.9	-0.8





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	\$378,276,288	2.9%	-3.6%	-3.6%	23.0%				2.2%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			-3.8%	-3.8%	20.4%				-1.7%	01/2021
Excess			0.2%	0.2%	2.6%				3.9%	
TOTAL ACWI EX-US AGGREGATE	\$378,276,288	2.9%	-3.6%	-3.6%	23.0%				2.2%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			-3.8%	-3.8%	20.4%				-1.7%	01/2021
Excess			0.2%	0.2%	2.6%				3.9%	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active ACWI ex-US					
EARNEST PARTNERS ACWI EX US	-12.6%	12.8%			
MSCI AC WORLD ex US (NET) - DAILY	-16.0	7.8			
Excess	3.4	4.9			
TOTAL ACWI EX-US AGGREGATE	-12.6	12.8			
MSCI AC WORLD ex US (NET) - DAILY	-16.0	7.8			
Excess	3.4	4.9			





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
China Only Managers										
EARNEST PARTNERS CHINA	\$142,078,843	1.1%	-0.8%	-0.8%	2.6%				-13.2%	01/2021
MSCI China A			-3.5	-3.5	-5.9				-12.6	01/2021
Excess			2.7	2.7	8.5				-0.6	
CHINA ONLY AGGREGATE	142,078,843	1.1	-0.8	-0.8	2.6				-13.2	01/2021
MSCI China A			-3.5	-3.5	-5.9				-12.6	01/2021
Excess			2.7	2.7	8.5				-0.6	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
China Only Managers					
EARNEST PARTNERS CHINA	-24.5%	-2.9%			
MSCI China A	-25.9	3.2			
Excess	1.4	-6.1			
CHINA ONLY AGGREGATE	-24.5	-2.9			
MSCI China A	-25.9	3.2			
Excess	1.4	-6.1			





Global Equity September 30, 2023





	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	\$383,977,768	42.0%	-3.7%	-3.7%	15.4%				4.0%	01/2021
MSCI AC WORLD NET USD DAILY			-3.4	-3.4	20.8				2.3	01/2021
Excess			-0.3	-0.3	-5.4				1.7	
BAILLIE GIFFORD	205,044,469	22.5	-8.2	-8.2	20.3				-14.6	01/2021
MSCI AC WORLD NET USD DAILY			-3.4	-3.4	20.8				2.3	01/2021
Excess			-4.8	-4.8	-0.5				-16.9	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	324,295,441	35.5	-11.6	-11.6	22.0				-6.8	01/2021
MSCI AC WORLD NET USD DAILY			-3.4	-3.4	20.8				2.3	01/2021
Excess			-8.2	-8.2	1.2				-9.1	
GLOBAL EQUITY	913,317,677	100.0	-7.6	-7.6	18.8				-5.1	01/2021
MSCI AC WORLD NET USD DAILY			-3.4	-3.4	20.8				2.3	01/2021
Excess			-4.2	-4.2	-2.0				-7.4	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Global Equity Managers					
ARIEL INVESTMENTS	-5.6%	12.1%			
MSCI AC WORLD NET USD DAILY	-18.4	18.5			
Excess	12.8	-6.5			
BAILLIE GIFFORD	-46.9	3.1			
MSCI AC WORLD NET USD DAILY	-18.4	18.5			
Excess	-28.5	-15.5			
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	-32.9	12.8			
MSCI AC WORLD NET USD DAILY	-18.4	18.5			
Excess	-14.5	-5.8			
GLOBAL EQUITY	-27.7	9.6			
MSCI AC WORLD NET USD DAILY	-18.4	18.5			
Excess	-9.4	-8.9			





Core/Core Plus Bonds September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Bonds										
CORE (1)	\$1,863,862,789	41.4%	-2.8%	-2.8%	2.3%				-4.1%	11/2020
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6				-5.2	11/2020
Excess			0.4	0.4	1.6				1.1	
CORE PLUS (1)	2,642,802,974	58.6	-3.6	-3.6	1.4				-5.4	11/2020
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6				-5.2	11/2020
Excess			-0.4	-0.4	0.7				-0.1	
TRANSITION AGGREGATE CORE BONDS (2)	19,844	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	4,506,685,607	100.0	-3.3	-3.3	1.7	-4.8%	0.6%	1.6%	6.6	07/1984
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	6.2	07/1984
Excess			-0.0	-0.0	1.1	0.4	0.5	0.5	0.3	

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

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

(3) The current Core Bonds Benchmark is the Bloomberg U.S. Aggregate calculated daily. For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Bonds					
CORE (1)	-12.3%	-1.0%			
Bloomberg U.S. Aggregate	-13.0	-1.5			
Excess	0.7	0.5			
CORE PLUS (1)	-15.2	-1.1			
Bloomberg U.S. Aggregate	-13.0	-1.5			
Excess	-2.2	0.4			
TRANSITION AGGREGATE CORE BONDS (2)					
TOTAL CORE/CORE PLUS BONDS (3)	-14.1	-1.1	9.7%	9.7%	-0.0%
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	-1.1	0.5	2.2	1.0	-0.1

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

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

(3) The current Core Bonds Benchmark is the Bloomberg U.S. Aggregate calculated daily. For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Active Core										
DODGE & COX	\$999,903,313	22.2%	-2.5%	-2.5%	3.1%	-3.2%	1.3%	2.2%	4.9%	02/2000
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	3.8	02/2000
Excess			0.7	0.7	2.4	2.0	1.2	1.1	1.1	
BLACKROCK	863,959,476	19.2	-3.2	-3.2	1.3	-5.0	0.4	1.3	4.2	04/1996
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	4.1	04/1996
Excess			0.0	0.0	0.7	0.2	0.3	0.2	0.1	
CORE	1,863,862,789	41.4	-2.8	-2.8	2.3				-4.1	11/2020
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6				-5.2	11/2020
Excess			0.4	0.4	1.6				1.1	

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





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Active Core					
DODGE & COX	-11.3%	-0.7%	9.4%	9.6%	-0.0%
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	1.7	0.8	1.8	0.9	-0.1
BLACKROCK	-13.4	-1.3	8.3	9.3	-0.1
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	-0.4	0.2	0.8	0.6	-0.2
CORE	-12.3	-1.0			
Bloomberg U.S. Aggregate	-13.0	-1.5			
Excess	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	\$865,434,216	19.2%	-3.4%	-3.4%	1.3%	-5.1%	0.4%	1.4%	4.6%	07/1993
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	4.2	07/1993
Excess			-0.2	-0.2	0.7	0.1	0.3	0.3	0.3	
NEUBERGER	848,644,829	18.8	-3.2	-3.2	1.3	-4.5	0.7	1.5	5.5	07/1988
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	5.2	07/1988
Excess			0.0	0.0	0.6	0.7	0.6	0.4	0.3	
WESTERN	928,723,929	20.6	-4.1	-4.1	1.5	-6.1	0.1	1.7	7.2	07/1984
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6	-5.2	0.1	1.1	6.2	07/1984
Excess			-0.8	-0.8	0.9	-0.9	-0.0	0.6	1.0	
CORE PLUS	2,642,802,974	58.6	-3.6	-3.6	1.4				-5.4	11/2020
Bloomberg U.S. Aggregate			-3.2	-3.2	0.6				-5.2	11/2020
Excess			-0.4	-0.4	0.7				-0.1	

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



Minnesota State Board of Investment Quarter Ending September 30, 2023 Core/Core Plus Bonds Managers



	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Core Plus Bonds					
GOLDMAN SACHS	-13.9%	-1.5%	9.0%	9.6%	-0.0%
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	-0.9	0.0	1.5	0.9	-0.0
NEUBERGER	-13.8	-0.6	9.9	9.0	-0.1
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	-0.8	1.0	2.4	0.3	-0.1
WESTERN	-17.6	-1.3	10.9	11.1	-0.2
Bloomberg U.S. Aggregate	-13.0	-1.5	7.5	8.7	0.0
Excess	-4.6	0.3	3.4	2.4	-0.3
CORE PLUS	-15.2	-1.1			
Bloomberg U.S. Aggregate	-13.0	-1.5			
Excess	-2.2	0.4			





Return Seeking Bonds September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	\$841,855,437	20.5%	-3.4%	-3.4%	3.8%				-4.8%	12/2020
Credit Plus Benchmark			-2.6	-2.6	4.3				-4.9	12/2020
Excess			-0.7	-0.7	-0.5				0.1	
PIMCO CREDIT PLUS	802,541,461	19.5	-2.7	-2.7	4.1				-4.3	12/2020
Credit Plus Benchmark			-2.6	-2.6	4.3				-4.9	12/2020
Excess			-0.0	-0.0	-0.3				0.6	
CREDIT PLUS	1,644,396,898	40.0	-3.0	-3.0	3.9				-4.6	12/2020
Credit Plus Benchmark			-2.6	-2.6	4.3				-4.9	12/2020
Excess			-0.4	-0.4	-0.4				0.3	
BLACKROCK OPPORTUNISTIC	540,717,972	13.1	0.3	0.3	5.4				-0.7	12/2020
ICE BofA US 3-Month Treasury Bill			1.3	1.3	4.5				1.8	12/2020
Excess			-1.0	-1.0	0.9				-2.5	
ASHMORE EMERGING MARKET	280,405,107	6.8	-3.8	-3.8	9.6				-9.9	01/2021
JPM JEMB Sovereign-only 50-50			-2.7	-2.7	11.6				-6.5	01/2021
Excess			-1.0	-1.0	-1.9				-3.4	
TCW SECURITIZED CREDIT	401,112,897	9.7	0.5	0.5	3.3				-0.0	07/2021
ICE BofA US 3-Month Treasury Bill			1.3	1.3	4.5				2.2	07/2021
Excess			-0.8	-0.8	-1.2				-2.3	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Return Seeking Bonds Managers					
COLUMBIA CREDIT PLUS	-15.3%	1.1%			
Credit Plus Benchmark	-13.7	0.0			
Excess	-1.6	1.1			
PIMCO CREDIT PLUS	-13.6	0.8			
Credit Plus Benchmark	-13.7	0.0			
Excess	0.1	0.7			
CREDIT PLUS	-14.5	0.9			
Credit Plus Benchmark	-13.7	0.0			
Excess	-0.7	0.9			
BLACKROCK OPPORTUNISTIC	-5.4	0.3			
ICE BofA US 3-Month Treasury Bill	1.5	0.0			
Excess	-6.8	0.2			
ASHMORE EMERGING MARKET	-17.2	-10.1			
JPM JEMB Sovereign-only 50-50	-14.8	-5.3			
Excess	-2.4	-4.8			
TCW SECURITIZED CREDIT	-4.6				
ICE BofA US 3-Month Treasury Bill	1.5				
Excess	-6.1				





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds Managers										
PAYDEN RYGEL	\$292,554,737	7.1%	0.3%	0.3%	11.4%				-1.0%	01/2021
Multi-Asset Credit Benchmark			0.4	0.4	10.7				-0.9	01/2021
Excess			-0.2	-0.2	0.6				-0.1	
PGIM	337,699,196	8.2	0.2	0.2	10.7				-1.5	01/2021
Multi-Asset Credit Benchmark			0.4	0.4	10.7				-0.9	01/2021
Excess			-0.3	-0.3	-0.0				-0.6	
MULTI-ASSET CREDIT	630,253,933	15.3	0.2	0.2	11.0				-1.3	01/2021
Multi-Asset Credit Benchmark			0.4	0.4	10.7				-0.9	01/2021
Excess			-0.2	-0.2	0.3				-0.4	
KKR	310,851,331	7.6	0.6	0.6	10.9				-0.2	01/2021
ICE BofA US Cash Pay HY Constrained			0.5	0.5	10.2				-0.3	01/2021
Excess			0.1	0.1	0.6				0.2	
OAKTREE	306,992,985	7.5	0.6	0.6	10.3				-0.2	01/2021
ICE BofA US Cash Pay HY Constrained			0.5	0.5	10.2				-0.3	01/2021
Excess			0.1	0.1	0.0				0.2	
HIGH YIELD	617,844,316	15.0	0.6	0.6	10.6				-0.2	01/2021
ICE BofA US Cash Pay HY Constrained			0.5	0.5	10.2				-0.3	01/2021
Excess			0.1	0.1	0.3				0.1	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Return Seeking Bonds Managers					
PAYDEN RYGEL	-9.6%	2.6%			
Multi-Asset Credit Benchmark	-10.0	2.7			
Excess	0.4	-0.1			
PGIM	-11.5	3.2			
Multi-Asset Credit Benchmark	-10.0	2.7			
Excess	-1.5	0.5			
MULTI-ASSET CREDIT	-10.6	2.9			
Multi-Asset Credit Benchmark	-10.0	2.7			
Excess	-0.6	0.2			
KKR	-11.0	4.7			
ICE BofA US Cash Pay HY Constrained	-11.1	5.3			
Excess	0.1	-0.6			
OAKTREE	-9.5	4.5			
ICE BofA US Cash Pay HY Constrained	-11.1	5.3			
Excess	1.6	-0.8			
HIGH YIELD	-10.3	4.6			
ICE BofA US Cash Pay HY Constrained	-11.1	5.3			
Excess	0.8	-0.7			





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds										
CREDIT PLUS	\$1,644,396,898	40.0%	-3.0%	-3.0%	3.9%				-4.6%	12/2020
Credit Plus Benchmark			-2.6	-2.6	4.3				-4.9	12/2020
Excess			-0.4	-0.4	-0.4				0.3	
OPPORTUNISTIC FI	540,717,972	13.1	0.3	0.3	5.4				-0.7	12/2020
ICE BofA US 3-Month Treasury Bill			1.3	1.3	4.5				1.8	12/2020
Excess			-1.0	-1.0	0.9				-2.5	
EMERGING MARKET DEBT	280,405,107	6.8	-3.8	-3.8	9.6				-9.9	01/2021
JPM JEMB Sovereign-only 50-50			-2.7	-2.7	11.6				-6.5	01/2021
Excess			-1.0	-1.0	-1.9				-3.4	
SECURITIZED CREDIT	401,112,897	9.7	0.5	0.5	3.3				-0.0	06/2021
ICE BofA US 3-Month Treasury Bill			1.3	1.3	4.5				2.2	06/2021
Excess			-0.8	-0.8	-1.2				-2.2	
MULTI-ASSET CREDIT	630,253,933	15.3	0.2	0.2	11.0				-1.3	01/2021
Multi-Asset Credit Benchmark			0.4	0.4	10.7				-0.9	01/2021
Excess			-0.2	-0.2	0.3				-0.4	
HIGH YIELD	617,844,316	15.0	0.6	0.6	10.6				-0.2	01/2021
ICE BofA US Cash Pay HY Constrained			0.5	0.5	10.2				-0.3	01/2021
Excess			0.1	0.1	0.3				0.1	
RETURN SEEKING BONDS (1)	4,114,868,652	100.0	-1.3	-1.3	6.5				-2.7	12/2020
Return Seeking Fixed Income Benchmark			-0.8	-0.8	6.7				-2.1	12/2020
Excess			-0.5	-0.5	-0.2				-0.6	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Return Seeking Bonds					
CREDIT PLUS	-14.5%	0.9%			
Credit Plus Benchmark	-13.7	0.0			
Excess	-0.7	0.9			
OPPORTUNISTIC FI	-5.4	0.3			
ICE BofA US 3-Month Treasury Bill	1.5	0.0			
Excess	-6.8	0.2			
EMERGING MARKET DEBT	-17.2	-10.1			
JPM JEMB Sovereign-only 50-50	-14.8	-5.3			
Excess	-2.4	-4.8			
SECURITIZED CREDIT	-4.6				
ICE BofA US 3-Month Treasury Bill	1.5				
Excess	-6.1				
MULTI-ASSET CREDIT	-10.6	2.9			
Multi-Asset Credit Benchmark	-10.0	2.7			
Excess	-0.6	0.2			
HIGH YIELD	-10.3	4.6			
ICE BofA US Cash Pay HY Constrained	-11.1	5.3			
Excess	0.8	-0.7			
RETURN SEEKING BONDS (1)	-11.3	0.9			
Return Seeking Fixed Income Benchmark	-9.8	0.8			
Excess	-1.6	0.1			





Treasuries September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Treasuries Managers										
BLACKROCK	\$2,680,322,462	34.7%	-7.3%	-7.3%	-4.5%	-10.6%	-1.3%		-1.4%	02/2018
Bloomberg Treasury 5+ Year			-7.2	-7.2	-4.5	-10.6	-1.2		-1.3	02/2018
Excess			-0.1	-0.1	-0.0	-0.1	-0.1		-0.1	
GOLDMAN SACHS	2,372,398,696	30.8	-7.0	-7.0	-4.4	-10.4	-1.1		-1.2	02/2018
Bloomberg Treasury 5+ Year			-7.2	-7.2	-4.5	-10.6	-1.2		-1.3	02/2018
Excess			0.2	0.2	0.1	0.1	0.0		0.0	
NEUBERGER	2,660,809,777	34.5	-7.2	-7.2	-4.9	-10.4	-1.2		-1.3	02/2018
Bloomberg Treasury 5+ Year			-7.2	-7.2	-4.5	-10.6	-1.2		-1.3	02/2018
Excess			-0.1	-0.1	-0.4	0.2	0.0		0.0	
TOTAL TREASURIES	7,713,530,936	100.0	-7.2	-7.2	-4.6	-10.5	-1.2		-1.3	02/2018
Bloomberg Treasury 5+ Year			-7.2	-7.2	-4.5	-10.6	-1.2		-1.3	02/2018
Excess			-0.0	-0.0	-0.1	0.1	-0.0		-0.0	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	
Treasuries Managers						
BLACKROCK	-20.6%	-4.0%	12.5%	10.4%		
Bloomberg Treasury 5+ Year	-20.3	-3.8	12.8	10.4		
Excess	-0.3	-0.2	-0.3	-0.1		
GOLDMAN SACHS	-20.6	-3.9	12.7	10.6		
Bloomberg Treasury 5+ Year	-20.3	-3.8	12.8	10.4		
Excess	-0.3	-0.1	-0.1	0.1		
NEUBERGER	-20.5	-3.4	12.8	10.4		
Bloomberg Treasury 5+ Year	-20.3	-3.8	12.8	10.4		
Excess	-0.2	0.4	-0.1	-0.0		
TOTAL TREASURIES	-20.6	-3.7	12.7	10.4		
Bloomberg Treasury 5+ Year	-20.3	-3.8	12.8	10.4		
Excess	-0.3	0.0	-0.2	0.0		





Laddered Bonds + Cash September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year	Since Inception	Inception Date
Laddered Bond and Cash Managers									
Neuberger Berman Ladder Bond	\$1,122,638,922	28.8%	1.3%	4.7%				1.6%	11/2020
ICE BofA US 3-Month Treasury Bill			1.3	4.5				1.7	11/2020
Excess			0.0	0.2				-0.2	
Goldman Sachs Ladder Bond	1,124,056,038	28.9	1.3	4.7				1.6	11/2020
ICE BofA US 3-Month Treasury Bill			1.3	4.5				1.7	11/2020
Excess			0.0	0.3				-0.1	
Treasury Ladder Aggregate	2,246,694,960	57.7	1.3	4.7				1.6	11/2020
ICE BofA US 3-Month Treasury Bill			1.3	4.5				1.7	11/2020
Excess			0.0	0.2				-0.1	
Combined Funds STIF	1,578,909,132	40.5	1.4	4.8	1.9%	1.8%	1.2%	1.6	01/2004
iMoneyNet Money Fund Average- All Taxable			1.3	4.3	1.6	1.5	0.9	1.2	01/2004
Excess			0.1	0.5	0.3	0.3	0.3	0.4	
TEACHERS RETIREMENT CD REPO	68,218,398	1.8	1.3	4.6	1.8	1.9	1.3	1.2	02/2012
ICE BofA US 3-Month Treasury Bill			1.3	4.5	1.7	1.7	1.1	1.0	02/2012
Excess			0.0	0.1	0.1	0.2	0.2	0.2	
Laddered Bond + Cash	3,894,121,627	100.0	1.4	4.7	1.6	1.7	1.2	4.2	12/1977
ICE BofA US 3-Month Treasury Bill			1.3	4.5	1.7	1.7	1.1	4.4	12/1977
Excess			0.0	0.3	-0.1	-0.1	0.1	-0.2	





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Laddered Bond and Cash Managers					
Neuberger Berman Ladder Bond	0.8%	0.0%			
ICE BofA US 3-Month Treasury Bill	1.5	0.0			
Excess	-0.6	-0.0			
Goldman Sachs Ladder Bond	0.9	0.1			
ICE BofA US 3-Month Treasury Bill	1.5	0.0			
Excess	-0.5	0.0			
Treasury Ladder Aggregate	0.9	0.0			
ICE BofA US 3-Month Treasury Bill	1.5	0.0			
Excess	-0.6	-0.0			
Combined Funds STIF	1.7	0.1	0.5%	2.3%	2.0%
iMoneyNet Money Fund Average- All Taxable	1.4	0.0	0.3	1.9	1.5
Excess	0.4	0.1	0.2	0.5	0.5
TEACHERS RETIREMENT CD REPO	1.5	0.1	1.0	2.5	1.8
ICE BofA US 3-Month Treasury Bill	1.5	0.0	0.7	2.3	1.9
Excess	0.1	0.0	0.4	0.2	-0.0
Laddered Bond + Cash	1.1	0.0	0.6	2.3	1.9
ICE BofA US 3-Month Treasury Bill	1.5	0.0	0.7	2.3	1.9
Excess	-0.4	-0.0	-0.1	0.1	0.0



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Uninvested Private Markets September 30, 2023





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Uninvested Private Markets										
UNINVESTED PRIVATE MARKET	S (1) 198,786,779	100.0	1.5	1.5	12.3				3.8	01/2021
Uninvested Private Markets BM			1.3	1.3	12.3				3.5	01/2021
Excess			0.2	0.2	0.0				0.3	

(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. The benchmark is ICE BofA US 3-Month Treasury Bill, prior to 11/02/2022 it was S&P 500.





	2022 Calendar Return	2021 Calendar Return	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return
Uninvested Private Markets					
UNINVESTED PRIVATE MARKETS (1)	-17.6	28.6			
Uninvested Private Markets BM	-17.5	28.7			
Excess	-0.1	-0.1			

(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. The benchmark is ICE BofA US 3-Month Treasury Bill, prior to 11/02/2022 it was S&P 500.



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Private Markets September 30, 2023





Combined Funds Asset Class Performance Summary

Private Markets									
	Last Qtr	FYTD	<u>1 Year</u>	<u>3 Year</u>	5 Year	<u>10 Year</u>	20 Year	25 Year	30 Year
Private Markets - Invested	2.2%	2.2%	6.6%	19.0%	13.0%	12.7%	14.1%	12.5%	13.5%
Private Markets -Uninvested(1)	1.5%	1.5%	12.3%						
Private Equity	3.0%	3.0%	9.1%	21.0%	16.6%	16.3%	16.4%	13.7%	15.8%
Private Credit	2.8%	2.8%	10.9%	15.7%	11.4%	13.1%	13.0%	12.3%	
Resources	-1.5%	-1.5%	-1.9%	15.7%	3.0%	2.2%	12.9%	12.0%	12.6%
Real Estate	-1.3%	-1.3%	-5.9%	15.2%	11.5%	12.3%	9.6%	9.5%	9.6%

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	25,402,399,761	19,538,755,656	15,105,604,972	7,933,680,087	16,034,710,883	1.59	13.7	
Adams Street Partners, LLC	465,355,000	231,296,684	120,113,440	234,867,675	211,563,520	1.43	12.2	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	77,395,843	22,885,308	27,105,871	1.36	6.3	2012
Adams Street Global Secondary Fund 6	100,000,000	80,400,008	42,717,597	19,599,992	84,950,206	1.59	21.9	2017
Adams Street Global Secondary Fund 7	265,355,000	73,781,984	0	192,382,375	99,507,443	1.35	60.0	2021
Advent International Group	505,000,000	392,016,302	355,574,763	116,067,652	319,995,656	1.72	16.0	
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	3,993,506	2.03	16.4	2008
Advent International GPE VII, L.P.	90,000,000	86,490,641	143,472,935	3,600,000	13,406,762	1.81	13.4	2012
Advent International GPE VIII-B	100,000,000	100,000,000	97,206,226	0	110,251,584	2.07	18.0	2016
Advent International GPE IX	115,000,000	107,532,348	11,495,408	7,467,652	149,128,279	1.49	19.8	2019
Advent International GPE X	150,000,000	45,000,000	0	105,000,000	43,215,525	0.96	-9.6	2022
Affinity Ventures	9,000,000	9,000,000	3,590,011	0	788,645	0.49	-11.3	
Affinity Ventures IV, L.P.	4,000,000	4,000,000	1,541,970	0	3,279	0.39	-34.9	2004
Affinity Ventures V, L.P.	5,000,000	5,000,000	2,048,042	0	785,366	0.57	-8.2	2008
Apax Partners	600,000,000	531,152,087	562,525,922	159,134,261	321,334,425	1.66	16.1	
APAX VIII - USD	200,000,000	240,451,261	364,650,169	7,966,190	33,197,427	1.65	13.7	2013
Apax IX USD L.P.	150,000,000	162,024,715	183,103,826	15,072,256	142,783,006	2.01	21.8	2016
Apax X USD L.P.	150,000,000	128,676,111	14,771,927	36,095,815	145,353,992	1.24	15.2	2019
Apax XI	100,000,000	0	0	100,000,000	0		0.0	2022
Arsenal Capital Partners	175,000,000	102,279,759	13,903,312	81,440,684	99,762,470	1.11	4.6	
Arsenal Capital Partners V, L.P.	75,000,000	72,853,782	13,616,281	10,598,693	75,257,800	1.22	7.2	2019
Arsenal Capital Partners VI LP	100,000,000	29,425,977	287,031	70,841,991	24,504,670	0.84	-15.8	2021
Asia Alternatives	649,000,000	177,787,167	18,807,242	485,401,180	182,067,218	1.13	6.2	
Asia Alternatives Capital Partners V	99,000,000	102,570,125	17,649,075	10,618,222	114,076,710	1.28	9.7	2017
MN Asia Investors	550,000,000	75,217,042	1,158,167	474,782,958	67,990,508	0.92	-7.5	2020
Banc Fund	178,551,387	187,460,477	54,011,636	0	165,025,531	1.17	3.1	
Banc Fund IX, L.P.	107,205,932	107,205,932	46,686,239	0	90,769,933	1.28	4.1	2014
Banc Fund X, L.P.	71,345,455	80,254,545	7,325,397	0	74,255,598	1.02	0.5	2018
BlackRock	951,774,870	956,392,392	4,593,604	0	1,797,867,529	1.88	33.3	
BlackRock Long Term Capital, SCSP	950,000,000	954,617,522	2,660,745	0	1,797,851,250	1.89	33.4	2019
BlackRock Tempus Fund	1,774,870	1,774,870	1,932,859	0	16,279	1.10	4.9	2015



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Blackstone Group L.P.	1,535,000,000	921,966,530	727,695,528	719,056,359	582,956,857	1.42	14.4	
Blackstone Capital Partners Asia II	270,000,000	67,509,678	997	202,490,322	66,556,103	0.99	-2.6	2021
Blackstone Capital Partners IV, L.P.	70,000,000	84,459,887	201,361,236	1,765,384	251,821	2.39	37.0	2002
Blackstone Capital Partners V L.P.	140,000,000	152,408,625	245,685,920	7,027,560	1,226,894	1.62	8.0	2006
Blackstone Capital Partners VI, L.P.	100,000,000	106,861,279	160,243,953	10,975,597	33,275,450	1.81	12.4	2008
Blackstone Capital Partners VII	130,000,000	139,730,208	90,511,335	9,306,402	128,519,580	1.57	13.0	2015
Blackstone Capital Partners VIII LP	150,000,000	99,750,744	6,202,841	62,130,457	108,350,277	1.15	9.6	2019
Blackstone Capital Partners IX	150,000,000	0	0	150,000,000	0		0.0	2022
Blackstone Growth	250,000,000	206,007,459	23,689,245	65,441,696	179,009,130	0.98	-0.9	2020
Blackstone Growth Equity II	150,000,000	0	0	150,000,000	0		0.0	2022
Blackstone Supplemental Account - M	125,000,000	65,238,651	0	59,918,939	65,767,601	1.01	0.5	2021
Blackstone Strategic Partners	915,500,000	704,835,393	861,331,315	273,968,248	241,957,165	1.57	11.5	
Strategic Partners III VC, L.P.	25,000,000	25,075,239	34,045,314	99,607	93,376	1.36	6.0	2004
Strategic Partners III-B, L.P.	100,000,000	79,629,077	118,509,586	12,304,709	214,476	1.49	6.3	2004
Strategic Partners IV VC, L.P.	40,500,000	42,175,414	62,659,747	2,247,328	2,032,353	1.53	9.1	2008
Strategic Partners IV-B	100,000,000	99,541,961	155,239,588	6,656,298	1,047,269	1.57	12.2	2008
Strategic Partners V, LP	100,000,000	87,497,031	141,091,599	11,706,005	2,324,077	1.64	18.4	2011
Strategic Partners VI, L.P.	150,000,000	104,319,217	133,274,950	31,350,277	24,886,394	1.52	14.0	2014
Strategic Partners VII, L.P.	150,000,000	122,913,746	128,966,485	44,177,540	76,852,211	1.67	17.9	2016
Strategic Partners VIII	150,000,000	117,486,626	83,901,365	88,046,490	107,028,613	1.63	31.5	2018
Strategic Partners IX	100,000,000	26,197,082	3,642,681	77,379,994	27,478,396	1.19	19.5	2022
Bridgepoint	262,299,491	159,330,724	14,957,084	112,368,330	220,268,644	1.48	18.2	
Bridgepoint Europe VI L.P.	158,812,506	159,330,724	14,957,084	8,881,345	220,268,644	1.48	18.2	2018
Bridgepoint Europe VII	103,486,985	0	0	103,486,985	0		0.0	2022
Brookfield Asset Management Inc.	500,000,000	387,190,864	203,384,237	159,287,939	453,589,765	1.70	30.6	
Brookfield Capital Partners Fund IV	100,000,000	112,445,274	174,977,804	8,880,337	99,371,349	2.44	43.3	2015
Brookfield Capital Partners V L.P.	250,000,000	245,678,311	28,311,500	29,474,882	315,246,432	1.40	15.5	2018
Brookfield Capital Partners Fund VI	150,000,000	29,067,280	94,933	120,932,720	38,971,985	1.34	37.0	2022
Canyon Partners	125,000,000	128,095,847	21,475,843	18,379,996	139,050,604	1.25	12.3	
Canyon Distressed Opportunity Fund III	125,000,000	128,095,847	21,475,843	18,379,996	139,050,604	1.25	12.3	2020
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	30,226	3.92	10.6	
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	30,226	3.92	10.6	1985
Carlyle Group	400,000,000	337,096,602	70,587,486	128,503,114	316,415,547	1.15	6.7	
Carlyle Strategic Partners IV, L.P.	100,000,000	119,848,374	53,429,269	32,306,465	84,225,163	1.15	6.9	2016
Carlyle Partners VII, L.P.	150,000,000	154,627,392	17,067,398	8,816,709	171,108,712	1.22	7.4	2017
Carlyle Partners VIII	150,000,000	62,620,836	90,819	87,379,940	61,081,673	0.98	-4.5	2021
CarVal Investors	600,000,000	500,195,400	419,747,661	97,659,071	248,509,491	1.34	7.9	
CVI Credit Value Fund A II	150,000,000	142,500,000	199,242,174	7,500,000	3,995,207	1.43	8.3	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	168,545,561	7,500,000	25,367,183	1.36	8.3	2015
CVI Credit Value Fund IV	150,000,000	117,695,400	51,805,361	30,159,071	113,523,302	1.40	7.6	2017
CVI Credit Value Fund V	150,000,000	97,500,000	154,566	52,500,000	105,623,798	1.08	4.9	2020



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Chicago Growth Partners	60,000,000	58,347,626	123,930,240	1,652,374	10,752	2.12	19.5	
Chicago Growth Partners II, L.P.	60,000,000	58,347,626	123,930,240	1,652,374	10,752	2.12	19.5	2008
Clearlake Capital	100,000,000	57,849,852	268,947	42,308,461	59,908,567	1.04	3.9	
Clearlake Capital Partners VII	100,000,000	57,849,852	268,947	42,308,461	59,908,567	1.04	3.9	2022
Court Square	489,419,132	486,791,840	623,000,686	59,114,128	276,713,328	1.85	14.8	
Court Square Capital Partners II, L.P.	164,419,132	170,245,229	295,744,454	5,681,078	3,120,795	1.76	12.3	2006
Court Square Capital Partners III, L.P.	175,000,000	189,661,714	283,583,858	6,528,524	139,282,244	2.23	20.2	2012
Court Square Capital Partners IV, L.P.	150,000,000	126,884,897	43,672,374	46,904,526	134,310,289	1.40	18.6	2018
CVC Capital Partners	449,968,767	439,217,183	659,719,100	127,320,322	210,423,704	1.98	16.6	
CVC Capital Partners VI	238,218,759	285,333,085	364,160,873	19,933,172	207,626,338	2.00	16.5	2013
CVC Capital Partners IX	105,875,004	0	0	105,875,002	0		0.0	2023
CVC European Equity Partners V, L.P.	105,875,004	153,884,098	295,558,227	1,512,148	2,797,366	1.94	16.7	2008
Goldman, Sachs & Co.	449,800,000	382,005,486	346,237,950	163,730,787	233,274,983	1.52	11.3	
GS Capital Partners VI, L.P.	100,000,000	110,285,035	143,299,966	2,551,356	1,626,161	1.31	7.1	2007
GS China-US Cooperation Fund	99,800,000	40,727,812	523,330	59,480,800	51,345,510	1.27	9.8	2018
GS Vintage VII	100,000,000	88,753,437	77,017,824	60,824,619	65,937,955	1.61	15.1	2016
West Street Capital Partners VII, L.P.	150,000,000	142,239,202	125,396,830	40,874,012	114,365,358	1.69	18.7	2016
Goldner Hawn Johnson & Morrison	144,941,388	61,940,728	71,964,283	82,712,627	64,095,899	2.20	22.0	
GHJM TrailHead Fund	20,000,000	16,652,130	51,364,283	2,894,486	5,668,386	3.42	20.0	2012
Goldner Hawn Fund VII, L.P.	57,755,138	39,121,401	20,600,000	18,799,087	52,260,317	1.86	31.3	2018
Goldner Hawn VIII	67,186,250	6,167,196	0	61,019,054	6,167,196	1.00	0.0	2023
Green Equity Investors	325,000,000	344,406,449	239,279,297	18,949,050	367,992,182	1.76	13.7	
Green Equity Investors VI, L.P.	200,000,000	232,549,897	237,599,043	4,125,348	239,243,994	2.05	14.2	2012
Green Equity Investors VIII	125,000,000	111,856,552	1,680,254	14,823,702	128,748,188	1.17	7.8	2020
GTCR	110,000,000	108,261,050	239,444,420	10,416,556	121,596,621	3.33	33.1	
GTCR XI	110,000,000	108,261,050	239,444,420	10,416,556	121,596,621	3.33	33.1	2013
HarbourVest	21,151,783	20,940,767	26,750,518	783,097	4,535,806	1.49	11.6	
Dover Street VII Cayman Fund L.P.	2,198,112	2,074,235	1,845,767	132,416	17,992	0.90	-4.5	2014
HarbourVest Intl PE Partners V-Cayman US	3,286,645	3,346,199	4,508,944	169,400	27,089	1.36	13.5	2014
Harbourvest Intl PE Partners VI-Cayman	3,969,417	4,039,473	5,729,484	185,281	2,013,990	1.92	14.7	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,390,673	5,849,345	156,000	350,229	1.41	13.0	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,090,187	8,816,978	140,000	2,126,505	1.54	10.8	2014
Hellman & Friedman	575,000,000	411,550,907	169,808,700	180,345,348	438,098,536	1.48	19.1	
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,914,704	154,063,260	2,183,886	10,895,837	3.30	24.9	2009
Hellman & Friedman Investors IX, L.P.	175,000,000	175,254,062	8,333,237	7,131,400	236,556,046	1.40	13.4	2018
Hellman & Friedman Capital Partners X	250,000,000	186,382,141	7,412,203	71,030,062	190,646,653	1.06	4.4	2021
Hellman & Friedman Capital Partners XI	100,000,000	0	0	100,000,000	0		0.0	2023



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
IK Limited	564,043,252	483,040,234	505,290,760	144,902,607	278,411,829	1.62	14.5	
IK Fund VII	158,812,506	179,393,652	322,286,061	8,029,848	13,196,826	1.87	14.2	2013
IK Fund VIII	158,812,506	177,056,244	183,004,699	8,128,001	135,534,942	1.80	17.8	2016
IK Fund IX	142,931,255	126,590,339	0	25,257,773	129,680,061	1.02	1.4	2019
IK Fund X	103,486,985	0	0	103,486,985	0		0.0	2022
Kohlberg, Kravis, Roberts & Co.	1,797,000,000	1,161,979,342	981,169,386	709,953,986	810,444,438	1.54	13.0	
KKR 2006 Fund L.P.	200,000,000	218,137,965	392,492,978	3,300,979	62,576	1.80	9.1	2006
KKR Americas Fund XII L.P.	150,000,000	147,160,604	86,477,212	17,931,609	169,597,339	1.74	18.4	2016
KKR Ascendant Strategy	150,000,000	0	0	150,000,000	0		0.0	2023
KKR Asian Fund III	100,000,000	95,426,962	52,594,068	16,019,039	116,489,485	1.77	21.2	2017
KKR Asian Fund IV	150,000,000	71,229,508	1,640,757	83,932,694	72,652,681	1.04	3.2	2020
KKR Core Investments Partnership	97,000,000	102,078,443	5,416,200	1,522,803	116,820,261	1.20	11.2	2021
KKR Core Investments Fund II	100,000,000	0	0	100,000,000	411,004		0.0	2022
KKR Europe V	100,000,000	93,160,199	16,882,045	12,028,893	96,889,779	1.22	9.6	2018
KKR European Fund VI (USD) SCSp	100,000,000	16,320,027	0	83,679,973	12,602,472	0.77	-22.8	2022
KKR Millennium Fund	200,000,000	205,167,570	424,946,028	0	161,992	2.07	16.4	2002
KKR MN Partnership L.P.	150,000,000	80,563,632	720,098	69,436,368	86,478,372	1.08	5.7	2021
KKR North America Fund XIII	300,000,000	132,734,432	0	172,101,628	138,278,476	1.04	4.7	2021
Lexington Partners	1,345,000,000	1,116,259,240	780,674,715	299,576,854	894,705,524	1.50	13.2	
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	145,958,371	1,634,703	518,223	1.49	7.9	2005
Lexington Capital Partners VII, L.P.	200,000,000	173,297,773	268,037,134	30,670,593	21,603,910	1.67	14.4	2009
Lexington Capital Partners VIII, L.P.	150,000,000	136,614,631	141,338,458	32,435,593	86,826,778	1.67	16.0	2014
Lexington Capital Partners IX, L.P.	150,000,000	120,801,264	36,390,257	42,151,230	142,710,099	1.48	24.3	2018
Lexington Capital Partners X	100,000,000	15,000,000	0	85,000,000	18,873,405	1.26	38.8	2021
Lexington Co-Investment Partners IV	200,000,000	217,604,004	145,102,376	4,876,834	223,645,881	1.69	16.2	2017
Lexington Co-Investment Partners V	300,000,000	237,692,751	11,199,526	73,506,775	272,321,414	1.19	15.0	2020
Lexington Co-Investment Partners V Overage	45,000,000	32,976,900	1,265,648	13,199,021	36,089,297	1.13	9.2	2021
Lexington Middle Market Investors IV	100,000,000	83,897,895	31,382,945	16,102,105	92,116,516	1.47	19.8	2016
Madison Dearborn Capital Partners LLC	200,000,000	177,522,826	76,945,924	53,450,893	156,006,843	1.31	9.4	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	99,909,716	60,112,099	16,966,707	87,684,064	1.48	9.9	2015
Madison Dearborn Capital Partners VIII-A, L.P	100,000,000	77,613,110	16,833,825	36,484,186	68,322,779	1.10	6.8	2019
Marathon	400,000,000	161,906,171	6,185,200	244,000,000	184,948,296	1.18	9.2	
Marathon Distressed Credit Fund	200,000,000	161,906,171	6,185,200	44,000,000	184,948,296	1.18	9.2	2020
Marathon Distressed Credit Fund II	200,000,000	0	0	200,000,000	0		0.0	2023
Merced Capital	178,737,500	184,266,287	157,295,389	0	61,190,295	1.19	3.4	
Merced Partners IV	125,000,000	124,968,390	123,722,539	0	14,978,125	1.11	2.2	2013
Merced Partners V	53,737,500	59,297,897	33,572,850	0	46,212,170	1.35	5.9	2017
MHR Institutional Partners	75,000,000	83,022,509	26,033,416	11,735,519	94,050,849	1.45	9.9	
MHR Institutional Partners IV LP	75,000,000	83,022,509	26,033,416	11,735,519	94,050,849	1.45	9.9	2014



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Neuberger Berman LLC	625,000,000	448,415,246	372,061,494	461,005,175	409,615,802	1.74	29.5	
Dyal Capital Partners III	175,000,000	212,783,584	213,288,776	108,355,278	168,447,163	1.79	26.0	2015
Dyal Capital Partners IV	250,000,000	178,538,132	125,879,198	178,327,969	200,702,210	1.83	41.5	2018
Dyal Capital Partners V	200,000,000	57,093,530	32,893,520	174,321,928	40,466,428	1.28	18.2	2020
Nordic Capital	564,043,252	529,517,829	356,820,051	169,309,378	431,810,943	1.49	14.2	
Nordic Capital Fund VIII	158,812,506	225,322,480	295,912,941	14,154,861	53,610,336	1.55	12.4	2013
Nordic Capital IX Beta, L.P.	158,812,506	180,204,637	60,907,110	29,965,694	228,033,142	1.60	18.4	2017
Nordic Capital Fund X	142,931,255	114,276,381	0	31,346,817	142,275,180	1.25	19.5	2020
Nordic Capital Fund XI	103,486,985	9,714,332	0	93,842,005	7,892,284	0.81	-18.8	2022
Oak Hill Capital Management, Inc.	250,000,000	246,752,679	238,587,803	10,794,620	179,825,976	1.70	29.0	
Oak Hill Capital Partners IV Onshore LP	150,000,000	153,245,546	219,478,696	4,299,116	77,057,793	1.94	33.1	2016
Oak Hill Capital Partners V	100,000,000	93,507,133	19,109,107	6,495,504	102,768,183	1.30	14.3	2018
Oaktree Capital Management, LLC	387,000,000	203,254,046	64,370,664	237,320,535	195,482,232	1.28	8.3	
Oaktree Special Situations Fund, L.P.	100,000,000	103,812,382	21,791,423	7,741,294	80,716,452	0.99	-0.3	2014
Oaktree Special Situations Fund II, L.P.	100,000,000	99,441,664	42,579,241	42,579,241	114,765,780	1.58	41.5	2018
Oaktree Special Situations Fund III	187,000,000	0	0	187,000,000	0		0.0	2022
Paine & Partners, LLC	325,000,000	222,439,239	88,798,649	126,213,642	214,901,613	1.37	12.1	
Paine Schwartz Food Chain Fund IV	75,000,000	69,915,101	35,397,971	13,943,520	61,147,842	1.38	7.5	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	128,316,549	53,257,921	36,110,348	132,136,256	1.44	21.8	2018
Paine Schwartz Food Chain VI	100,000,000	24,207,589	142,757	76,159,774	21,617,514	0.90	-11.0	2023
Permal PE	5,337,098	4,401,655	4,672,751	1,090,000	372,412	1.15	4.5	
Glouston Private Equity Opportunities IV	5,337,098	4,401,655	4,672,751	1,090,000	372,412	1.15	4.5	2014
Permira	587,606,272	485,751,195	471,350,933	181,651,368	427,817,102	1.85	18.0	
Permira V, L.P.	158,812,506	184,652,677	384,903,043	4,457,110	107,444,673	2.67	20.8	2013
Permira VI, L.P.	127,050,005	128,354,778	75,222,218	27,208,779	160,959,598	1.84	16.1	2016
Permira VII L.P.1	142,931,255	147,198,277	11,225,671	16,331,887	135,923,538	1.00	0.0	2019
Permira VIII	158,812,506	25,545,463	0	133,653,592	23,489,293	0.92	-8.0	2022
Public Pension Capital Management	285,000,000	162,847,264	103,037,390	142,444,407	209,227,460	1.92	22.8	
Public Pension Capital, LLC	285,000,000	162,847,264	103,037,390	142,444,407	209,227,460	1.92	22.8	2014
Silver Lake Partners	335,000,000	345,824,244	375,075,877	30,936,107	349,831,696	2.10	18.7	
Silver Lake Partners III, L.P.	100,000,000	93,881,275	192,945,926	9,528,468	27,782,492	2.35	18.4	2007
Silver Lake Partners IV	100,000,000	116,267,955	127,803,434	2,881,307	170,902,220	2.57	22.1	2012
Silver Lake Partners V, L.P.	135,000,000	135,675,014	54,326,517	18,526,332	151,146,984	1.51	13.3	2017
Siris Capital Group	67,875,000	0	0	67,875,000	0		0.0	
Siris V	67,875,000	0	0	67,875,000	0		0.0	2022
Split Rock	110,000,000	107,055,906	125,392,564	2,944,094	28,391,832	1.44	5.0	
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	3,049,215	1.29	3.1	2005
Split Rock Partners II, LP	60,000,000	59,165,000	66,598,372	835,000	25,342,617	1.55	7.3	2008



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Summit Partners	600,000,000	454,788,281	415,618,004	283,817,213	424,416,328	1.85	26.2	
Summit Partners Growth Equity Fund VIII	100,000,000	116,727,192	237,084,364	23,129,320	47,912,270	2.44	26.1	2011
Summit Partners Growth Equity Fund IX	100,000,000	133,092,794	145,487,452	32,610,000	150,938,595	2.23	30.8	2015
Summit Partners Growth Equity Fund X-A	150,000,000	141,151,520	33,046,188	41,894,668	158,677,569	1.36	17.0	2019
Summit Partners Growth Equity Fund XI	250,000,000	63,816,775	0	186,183,225	66,887,893	1.05	7.4	2021
TA Associates	80,000,000	0	0	80,000,000	0		0.0	
TA XV	80,000,000	0	0	80,000,000	0		0.0	2023
Thoma Bravo LLC	525,000,000	532,458,175	284,137,643	65,267,015	548,191,905	1.56	21.9	
Thoma Cressey Fund VII, L.P.	50,000,000	50,000,000	107,057,940	0	397,316	2.15	23.6	2000
Thoma Bravo Fund XII, L.P.	75,000,000	81,949,004	84,992,456	18,452,144	81,112,894	2.03	16.1	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	184,783,234	92,067,654	12,475,387	239,278,875	1.79	27.4	2018
Thoma Bravo Fund XIV	150,000,000	147,759,334	37	2,240,666	160,409,749	1.09	4.1	2020
Thoma Bravo Fund XV LP	100,000,000	67,966,603	19,556	32,098,818	66,993,072	0.99	-1.6	2021
Thomas H. Lee Partners	400,000,000	313,647,181	290,760,031	115,885,100	233,763,653	1.67	25.1	
Thomas H. Lee Equity Fund VII, LP.	100,000,000	99,643,507	137,891,993	10,518,650	43,846,569	1.82	20.6	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	147,832,088	152,868,038	21,538,036	128,854,473	1.91	37.8	2018
Thomas H. Lee Equity Fund IX	150,000,000	66,171,586	0	83,828,414	61,062,610	0.92	-9.2	2021
TPG Capital	650,000,000	420,209,462	198,853,460	274,960,109	419,218,448	1.47	20.0	
TPG Growth V	150,000,000	114,079,435	9,350,280	44,834,827	137,419,650	1.29	18.5	2021
TPG Partners VII, L.P.	100,000,000	101,140,861	156,773,574	16,747,992	41,578,029	1.96	19.6	2015
TPG Partners VIII	150,000,000	147,805,765	32,439,011	20,560,691	181,207,013	1.45	25.7	2018
TPG Partners IX, L.P.	100,000,000	3,158,534	0	96,841,466	2,973,599	0.94	-5.9	2022
TPG Tech Adjacencies II, L.P.	150,000,000	54,024,867	290,595	95,975,133	56,040,157	1.04	3.8	2021
Varde Fund	631,286,710	618,560,068	730,670,341	12,726,642	204,606,955	1.51	9.4	
Varde Fund IX, L.P.	100,000,000	100,000,000	216,671,921	0	0	2.17	15.0	2008
Varde Fund X, LP	150,000,000	150,000,000	253,807,303	0	5,213,492	1.73	10.0	2010
Varde Fund XI, LP	200,000,000	200,000,000	227,185,961	0	33,029,569	1.30	4.3	2013
Varde Fund XIII, L.P.	150,000,000	144,000,000	33,005,156	6,000,000	140,867,006	1.21	7.6	2018
Varde Fund XIV	31,286,710	24,560,068	0	6,726,642	25,496,887	1.04	6.3	2022
Vestar Capital Partners	325,000,000	313,110,158	288,485,240	35,480,280	193,705,890	1.54	9.8	
Vestar Capital Partners V, L.P.	75,000,000	76,797,458	100,961,586	0	148,804	1.32	3.9	2005
Vestar Capital Partners VI, LP	100,000,000	108,816,906	154,279,912	0	70,099,866	2.06	23.6	2011
Vestar Capital Partners VII, L.P.	150,000,000	127,495,794	33,243,742	35,480,280	123,457,220	1.23	9.3	2017
Vista Equity Partners	200,000,000	160,275,547	77,223	40,937,356	185,963,000	1.16	5.9	
Vista Equity Partners Perennial	200,000,000	160,275,547	77,223	40,937,356	185,963,000	1.16	5.9	2020



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Warburg Pincus	1,416,000,000	1,140,400,707	1,117,289,694	281,198,500	757,649,406	1.64	11.0	
Warburg Pincus China, L.P.	45,000,000	46,935,000	19,177,200	0	45,146,352	1.37	7.9	2016
Warburg Pincus China-Southeast Asia II	50,000,000	26,000,000	4,097,500	24,000,000	23,845,144	1.07	4.1	2019
Warburg Pincus Financial Sector	90,000,000	90,547,022	38,367,900	3,555,000	129,007,923	1.85	19.8	2017
Warburg Pincus Global Growth, L.P.	250,000,000	225,842,735	22,202,391	23,875,000	297,495,692	1.42	13.5	2018
Warburg Pincus Global Growth 14, L.P.	300,000,000	71,501,998	0	228,000,000	73,967,688	1.03	3.6	2022
Warburg Pincus Equity Partners, LP	100,000,000	100,000,000	163,986,349	0	0	1.64	10.0	1998
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	172,072,950	0	112,205	1.72	9.6	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	266,806,541	0	2,745,729	1.80	9.5	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	280,618,184	0	71,638,950	1.76	12.0	2012
Warburg Pincus Private Equity XII, LP	131,000,000	129,231,500	149,960,678	1,768,500	113,689,725	2.04	17.2	2015
Wayzata Investment Partners	150,000,000	68,415,000	53,255,290	15,000,000	17,566,585	1.04	0.7	
Wayzata Opportunities Fund III	150,000,000	68,415,000	53,255,290	15,000,000	17,566,585	1.04	0.7	2012
Wellspring Capital Partners	125,000,000	152,108,535	57,804,878	12,973,229	167,822,285	1.48	17.8	
Wellspring Capital Partners VI, L.P.	125,000,000	152,108,535	57,804,878	12,973,229	167,822,285	1.48	17.8	2016
Welsh, Carson, Anderson & Stowe	650,000,000	494,365,057	474,651,929	155,634,943	388,899,098	1.75	17.5	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	161,464,441	0	6,860,939	1.68	11.7	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	150,000,000	223,398,784	0	135,820,383	2.39	25.4	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	223,784,823	89,788,704	26,215,177	231,325,733	1.43	22.9	2018
Welsh, Carson, Anderson & Stowe XIV	150,000,000	20,580,234	0	129,419,766	14,892,043	0.72	-33.3	2022
Whitehorse Capital	300,000,000	262,953,218	168,962,563	101,660,962	153,645,508	1.23	16.1	
Whitehorse Liquidity Partners III	100,000,000	104,399,300	87,921,425	13,545,388	48,738,432	1.31	15.9	2019
Whitehorse Liquidity Partners IV	100,000,000	98,738,091	56,377,098	25,708,339	62,768,694	1.21	16.0	2020
Whitehorse Liquidity Partners V	100,000,000	59,815,828	24,664,040	62,407,235	42,138,381	1.12	17.4	2021
Wind Point Partners	200,000,000	143,493,782	7,792,341	64,303,162	182,508,279	1.33	19.7	
Wind Point Partners IX	100,000,000	95,116,394	7,792,341	12,680,550	130,794,931	1.46	20.3	2019
Wind Point Partners X	100,000,000	48,377,388	0	51,622,612	51,713,348	1.07	11.6	2022
Windjammer Capital Investors	441,708,861	232,306,454	291,584,064	225,164,132	151,884,731	1.91	12.5	
Windjammer Capital Fund VI	175,000,000	0	0	175,000,000	0		0.0	2023
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	85,449,570	10,139,363	237,869	1.55	9.0	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	94,740,728	166,415,656	21,167,914	72,511,706	2.52	17.6	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000	82,350,042	39,718,838	18,856,855	79,135,156	1.44	18.0	2017



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Credit	4,180,010,084	3,302,073,981	2,487,183,893	1,380,426,414	1,926,576,005	1.34	10.5	
Audax Group	350,000,000	228,977,462	217,398,193	143,863,280	73,044,012	1.27	10.4	
Audax Mezzanine Fund III, L.P.	100,000,000	105,207,316	133,977,984	0	5,438,999	1.33	9.8	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000	89,410,665	79,037,405	27,067,129	32,842,773	1.25	11.4	2015
Audax Mezzanine Fund V	150,000,000	34,359,481	4,382,805	116,796,151	34,762,240	1.14	18.2	2020
Avenue Capital Partners	200,000,000	200,977,328	183,908,393	0	156,286,486	1.69	9.8	
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	82,538,314	0	69,991,472	1.51	6.6	2014
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	101,370,079	0	86,295,014	1.88	14.6	2017
BlackRock	97,500,000	93,899,899	32,420,560	3,600,101	103,281,156	1.45	11.8	
BlackRock Middle Market Senior Fund	97,500,000	93,899,899	32,420,560	3,600,101	103,281,156	1.45	11.8	2018
Brookfield Asset Management Inc.	200,000,000	75,536,438	27,272,847	146,318,749	58,007,854	1.13	15.2	
Brookfield Real Estate Finance Fund VI	200,000,000	75,536,438	27,272,847	146,318,749	58,007,854	1.13	15.2	2021
Castlelake L.P.	100,000,000	0	0	100,000,000	0		0.0	
Castlelake Aviation V Stable Yield	100,000,000	0	0	100,000,000	0		0.0	2023
Energy Capital Partners	28,087,500	37,189,231	16,823,059	7,721,328	24,086,829	1.10	7.2	
Energy Capital Credit Solutions II-A	28,087,500	37,189,231	16,823,059	7,721,328	24,086,829	1.10	7.2	2018
Gold Hill	65,852,584	65,852,584	113,654,899	0	2,853,376	1.77	11.8	
Gold Hill Venture Lending	40,000,000	40,000,000	65,261,602	0	296,653	1.64	10.7	2004
Gold Hill 2008	25,852,584	25,852,584	48,393,297	0	2,556,723	1.97	14.4	2008
HPS Investment Partners	200,000,000	126,341,393	35,193,080	99,442,717	117,151,083	1.21	10.4	
HPS Mezzanine Partners 2019, L.P.	100,000,000	95,382,125	30,801,952	26,010,856	88,532,228	1.25	10.5	2019
HPS Strategic Investment Partners V	100,000,000	30,959,268	4,391,128	73,431,861	28,618,854	1.07	9.2	2022
Kohlberg, Kravis, Roberts & Co.	274,000,000	381,327,068	344,086,559	80,601,499	104,504,932	1.18	9.5	
KKR Lending Partner II L.P.	75,000,000	87,059,946	84,914,571	8,802,924	4,884,105	1.03	1.5	2015
KKR Lending Partners III L.P.	199,000,000	294,267,122	259,171,988	71,798,575	99,620,826	1.22	13.5	2017
LBC Credit Partners	200,000,000	209,124,424	166,695,084	61,614,942	84,627,934	1.20	10.5	
LBC Credit Partners IV, L.P.	100,000,000	120,067,673	121,268,495	27,043,046	21,451,800	1.19	8.6	2016
LBC Credit Partners V, L.P.	100,000,000	89,056,751	45,426,590	34,571,896	63,176,134	1.22	15.3	2019
Marathon	200,000,000	133,522,008	6,041,232	72,500,000	159,315,345	1.24	9.9	
Marathon Secured Private Strategies Fund II	100,000,000	96,022,008	5,858,534	10,000,000	121,476,420	1.33	10.2	2019
Marathon Secured Private Strategies Fund III	100,000,000	37,500,000	182,698	62,500,000	37,838,925	1.01	3.5	2022
Merit Capital Partners	350,000,000	261,659,244	350,219,996	88,273,956	87,001,421	1.67	11.7	
Merit Mezzanine Fund IV, L.P.	75,000,000	70,178,571	139,120,463	4,821,429	1,112,861	2.00	11.6	2004
Merit Mezzanine Fund V, LP	75,000,000	72,306,122	108,565,889	2,693,878	11,295,379	1.66	9.9	2009
Merit Mezzanine Fund VI	100,000,000	92,629,096	102,533,644	7,304,104	50,068,340	1.65	16.6	2016
Merit Mezzanine Fund VII	100,000,000	26,545,455	0	73,454,545	24,524,841	0.92	-12.4	2020
Oaktree Capital Management, LLC	650,000,000	491,640,920	72,513,527	171,900,000	532,203,338	1.23	10.8	
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,021	42,044,660	8,500,000	27,069,370	1.49	9.2	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	75,000,000	0	25,000,000	112,660,875	1.50	13.3	2015
Oaktree Real Estate Debt III	200,000,000	115,140,899	28,272,091	93,400,000	99,797,745	1.11	8.4	2020
Oaktree Opportunities Fund XI	300,000,000	255,000,000	2,196,776	45,000,000	292,675,348	1.16	11.0	2020



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
PIMCO BRAVO	5,000,000	4,501,479	5,714,432	0	248,042	1.32	5.9	
PIMCO Bravo Fund OnShore Feeder II	5,000,000	4,501,479	5,714,432	0	248,042	1.32	5.9	2014
Prudential Global Investment Mgmt	600,000,000	538,564,118	570,829,167	119,163,807	181,894,213	1.40	10.4	
Prudential Capital Partners II, L.P.	100,000,000	97,930,132	145,671,152	11,049,052	488,725	1.49	9.0	2005
Prudential Capital Partners III, L.P.	100,000,000	102,871,088	174,839,469	13,586,923	2,614,968	1.73	14.1	2009
Prudential Capital Partners IV	100,000,000	113,143,330	133,421,700	1,948,707	21,164,444	1.37	8.8	2012
Prudential Capital Partners V, L.P.	150,000,000	155,543,064	107,691,937	9,214,818	84,906,317	1.24	7.4	2016
PGIM Capital Partners VI, L.P.	150,000,000	69,076,504	9,204,909	83,364,307	72,719,760	1.19	21.3	2020
Summit Partners	95,000,000	100,002,497	137,062,090	22,177,023	2,096,874	1.39	9.1	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	62,804,226	2,250,000	537,254	1.44	8.6	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000	55,914,003	74,257,864	19,927,023	1,559,621	1.36	9.8	2008
TCW	189,570,000	174,519,135	158,607,192	61,326,852	64,645,146	1.28	8.8	
TCW Direct Lending LLC	89,570,000	83,599,652	88,959,322	14,899,409	19,478,473	1.30	8.3	2014
TCW Direct Lending VII	100,000,000	90,919,484	69,647,870	46,427,443	45,166,672	1.26	9.5	2018
TSSP	375,000,000	178,438,753	48,743,584	201,922,161	175,327,964	1.26	10.7	
Sixth Street TAO Partners (B), L.P.	50,000,000	47,792,516	21,343,712	22,779,296	42,493,937	1.34	10.5	2018
Sixth Street TAO Partners (D), L.P.	100,000,000	61,073,149	16,220,703	24,755,519	62,325,883	1.29	13.3	2018
TSSP Opportunities Partners IV (A), L.P.	50,000,000	40,386,311	10,466,797	7,870,950	42,878,817	1.32	10.9	2018
Sixth Street Opportunities Partners V	75,000,000	29,186,777	712,372	46,516,396	27,629,328	0.97	-3.4	2021
Sixth Street TAO Partners (B) Vintage 2023	100,000,000	0	0	100,000,000	0		0.0	2023



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Assets	4,197,571,518	3,975,729,722	2,895,925,506	540,081,163	2,040,334,377	1.24	4.9	
BlackRock	198,500,000	167,035,921	71,583,086	42,276,038	128,687,633	1.20	7.0	
BlackRock Global Renewable Power Fund II	98,500,000	104,674,253	68,717,826	2,843,682	60,472,213	1.23	6.3	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000	62,361,668	2,865,259	39,432,356	68,215,420	1.14	10.7	2019
EIG Global Energy Partners	450,000,000	470,613,496	386,533,145	77,704,481	131,559,927	1.10	2.2	
EIG Energy Fund XIV	100,000,000	113,459,470	95,309,310	2,761,129	3,546,122	0.87	-5.0	2007
EIG Energy Fund XV	150,000,000	161,497,867	157,372,838	22,871,323	16,550,492	1.08	1.8	2010
EIG Energy Fund XVI	200,000,000	195,656,159	133,850,997	52,072,029	111,463,313	1.25	5.2	2013
Encap Energy	300,000,000	322,310,920	343,024,681	8,326,109	129,663,811	1.47	8.4	
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,358,528	67,987,234	0	39,006,844	1.04	0.6	2010
Encap Energy Fund IX	100,000,000	113,725,245	135,756,692	3,890,055	31,330,147	1.47	10.4	2012
EnCap Energy Capital Fund X, L.P.	100,000,000	105,227,147	139,280,755	4,436,053	59,326,820	1.89	15.6	2015
Energy & Minerals Group	680,000,000	692,989,392	422,759,082	44,221,087	524,123,221	1.37	6.5	
NGP Midstream & Resources, L.P.	100,000,000	103,565,615	179,560,149	17,857	4,525,782	1.78	13.2	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	108,534,480	108,598,045	170,365	105,365,280	1.97	11.8	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	207,635,331	37,373,504	1,219,725	107,912,313	0.70	-4.9	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	163,745,339	92,365,501	14,023,899	144,509,833	1.45	8.2	2015
The Energy & Minerals Group Fund V	112,500,000	92,332,817	3,658,916	23,199,538	136,383,670	1.52	12.4	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	17,175,810	1,202,967	5,589,703	25,426,343	1.55	13.3	2019
Energy Capital Partners	500,000,000	432,339,711	344,743,682	155,190,146	266,839,432	1.41	12.1	
Energy Capital Partners III, L.P.	200,000,000	235,844,231	302,156,801	30,959,867	51,376,351	1.50	11.0	2013
Energy Capital Partners IV-A, LP	150,000,000	141,502,455	42,428,686	28,311,088	157,601,429	1.41	15.6	2017
Energy Capital Partners V	150,000,000	54,993,025	158,195	95,919,191	57,861,652	1.06	5.2	2023
Enervest Management Partners	100,000,000	99,538,995	101,510,847	8,554,703	54,387,465	1.57	9.8	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	99,538,995	101,510,847	8,554,703	54,387,465	1.57	9.8	2015
First Reserve	500,000,000	554,272,050	311,200,198	11,058,656	83,423,650	0.71	-7.8	
First Reserve Fund XI, L.P.	150,000,000	150,292,121	100,059,903	0	47,299	0.67	-8.8	2006
First Reserve Fund XII, L.P.	150,000,000	165,617,044	85,669,271	0	157,160	0.52	-17.9	2008
First Reserve Fund XIII, L.P.	200,000,000	238,362,885	125,471,024	11,058,656	83,219,191	0.88	-4.0	2013



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Kohlberg, Kravis, Roberts & Co.	249,850,000	198,152,170	41,106,379	66,522,668	192,956,505	1.18	8.7	
KKR Global Infrastructure Investors III	149,850,000	137,945,643	39,367,445	23,457,806	132,894,029	1.25	9.5	2018
KKR Global Infrastructure Investors IV	100,000,000	60,206,527	1,738,934	43,064,862	60,062,477	1.03	3.0	2021
Merit Energy Partners	519,721,518	407,944,488	208,453,712	71,299,891	303,947,025	1.26	3.8	
Merit Energy Partners F-II, L.P.	100,000,000	59,522,861	34,229,124	0	5,443,382	0.67	-5.7	2006
Merit Energy Partners H	100,000,000	100,000,000	29,668,582	0	42,680,840	0.72	-4.4	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	114,039,060	0	150,311,023	1.56	8.3	2014
Merit Energy Partners K, L.P.	150,000,000	78,700,109	30,516,946	71,299,891	105,511,779	1.73	27.2	2019
NGP	599,500,000	596,179,574	631,210,695	41,407,385	200,506,708	1.40	9.1	
Natural Gas Partners IX, LP	150,000,000	174,005,353	249,411,654	605,481	281,339	1.43	12.0	2007
NGP Natural Resources X, L.P.	150,000,000	149,453,733	134,061,091	546,267	14,336,522	0.99	-0.2	2011
NGP Natural Resources XI, L.P.	150,000,000	155,018,759	141,097,692	6,121,762	104,445,331	1.58	10.4	2014
NGP Natural Resources XII, L.P.	149,500,000	117,701,729	106,640,258	34,133,875	81,443,516	1.60	14.8	2017
Sheridan	100,000,000	34,353,005	33,800,000	13,520,000	24,239,000	1.69	12.1	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	33,800,000	13,520,000	24,239,000	1.69	12.1	2014



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Estate	4,523,147,868	3,102,116,460	2,145,479,150	1,752,523,443	2,023,745,709	1.34	9.0	
Angelo, Gordon & Co.	650,000,000	467,562,691	279,782,407	235,655,000	348,233,169	1.34	10.2	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	47,125,000	6,196,250	15,753,329	1.32	9.7	2016
AG Asia Realty Fund IV, L.P.	100,000,000	79,350,334	33,500,000	36,797,500	72,856,745	1.34	13.1	2018
AG Asia Realty Fund V	100,000,000	0	0	100,000,000	0		0.0	2023
AG Europe Realty Fund II, L.P.	75,000,000	68,635,121	33,769,976	12,768,750	66,480,945	1.46	10.2	2018
AG Europe Realty Fund III	75,000,000	45,713,586	3,000,000	29,437,500	52,396,009	1.21	10.4	2020
AG Realty Fund IX	100,000,000	92,141,126	89,250,000	11,650,000	33,217,901	1.33	6.6	2014
AG Realty Fund X, L.P.	150,000,000	134,135,263	73,137,431	38,805,000	107,528,239	1.35	15.4	2018
Blackstone	1,124,500,000	919,179,776	912,071,183	379,653,810	578,944,608	1.62	13.1	
Blackstone Real Estate Partners Asia II	74,500,000	71,364,889	15,661,080	13,180,625	69,193,751	1.19	6.5	2017
Blackstone Real Estate Partners Asia III	100,000,000	16,299,930	2,368	85,271,960	13,864,137	0.85	-16.0	2021
Blackstone Real Estate Partners V	100,000,000	104,217,981	209,143,624	4,174,052	115,917	2.01	10.8	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,528,873	218,686,894	4,907,906	1,282,383	2.01	13.1	2007
Blackstone Real Estate Partners VII, LP	100,000,000	112,390,951	181,803,934	10,855,329	17,408,243	1.77	14.8	2011
Blackstone Real Estate VIII, L.P.	150,000,000	174,957,764	179,007,465	20,688,271	113,547,945	1.67	15.3	2015
Blackstone Real Estate Partners IX, L.P.	300,000,000	321,138,934	107,765,817	48,039,452	356,096,159	1.44	21.6	2018
Blackstone Real Estate Partners X	200,000,000	9,280,453	0	192,536,214	7,436,073	0.80	-27.8	2022
Blackstone Strategic Partners	75,000,000	77,489,811	66,234,275	916,710	848,605	0.87	-2.1	
Strategic Partners III RE, L.P.	25,000,000	25,981,820	15,252,523	9,006	85,914	0.59	-6.5	2005
Strategic Partners IV RE, L.P.	50,000,000	51,507,991	50,981,752	907,704	762,691	1.00	0.1	2008
Brookfield Asset Management Inc.	400,000,000	179,792,065	9,938,993	230,080,121	182,532,637	1.07	11.6	
Brookfield Strategic Real Estate Partners IV	300,000,000	179,792,065	9,938,993	130,080,121	182,532,637	1.07	11.6	2021
Brookfield Strategic Real Estate Partners V	100,000,000	0	0	100,000,000	0		0.0	2023
Carlyle Group	450,000,000	168,295,359	110,866,382	353,687,878	115,087,149	1.34	22.7	
Carlyle Realty Partners VIII, L.P.	150,000,000	125,783,301	110,866,382	96,199,936	78,524,271	1.51	25.9	2017
Carlyle Realty Partners IX	300,000,000	42,512,058	0	257,487,942	36,562,878	0.86	-23.9	2021
Kohlberg, Kravis, Roberts & Co.	125,000,000	84,667,369	6,636,723	47,565,174	69,849,620	0.90	-7.6	
KKR Real Estate Partners Americas III	125,000,000	84,667,369	6,636,723	47,565,174	69,849,620	0.90	-7.6	2021
Landmark Partners	249,500,000	106,417,751	68,477,957	165,795,648	82,671,178	1.42	17.1	
Landmark Real Estate Partners VIII, L.P.	149,500,000	106,417,751	68,477,957	65,795,648	82,671,178	1.42	17.1	2016
Landmark Real Estate Partners IX	100,000,000	0	0	100,000,000	0		0.0	2021
Lubert Adler	174,147,868	145,107,744	89,073,212	31,986,552	101,198,109	1.31	14.6	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	82,515,205	7,414,787	21,400,136	1.54	15.5	2017
Lubert-Adler Recovery and Enhancement Capital Fund	100,000,000	77,522,530	6,558,008	24,571,765	79,797,972	1.11	10.8	2021
Oaktree Capital Management, LLC	200,000,000	150,475,519	36,992,552	84,000,000	124,115,968	1.07	10.0	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	150,475,519	36,992,552	84,000,000	124,115,968	1.07	10.0	2020
Rockpoint	200,000,000	187,539,300	69,882,159	33,085,489	140,421,853	1.12	4.0	
Rockpoint Real Estate Fund V, L.P.	100,000,000	103,224,362	58,755,434	14,217,829	51,778,175	1.07	1.9	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	84,314,938	11,126,725	18,867,660	88,643,679	1.18	9.6	2019



Investments		Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Rockwood		200,000,000	171,579,701	61,784,022	32,601,002	124,544,528	1.09	2.9	
Rockwood Capital RE Partners X, L.P.		100,000,000	96,754,684	57,507,174	4,929,845	49,645,091	1.11	2.9	2015
Rockwood Capital RE Partners XI		100,000,000	74,825,018	4,276,848	27,671,157	74,899,436	1.06	3.0	2019
Silverpeak Real Estate Partners		225,000,000	144,009,375	109,295,624	7,496,058	3,691,966	0.78	-3.8	
Silverpeak Legacy Pension Partners II, L.P.		75,000,000	73,069,012	92,033,940	7,496,058	416,950	1.27	4.2	2005
Silverpeak Legacy Pension Partners III, L.P.		150,000,000	70,940,363	17,261,685	0	3,275,016	0.29	-11.8	2008
TA Associates Realty		450,000,000	300,000,000	324,443,661	150,000,000	151,606,319	1.59	12.8	
Realty Associates Fund X		100,000,000	100,000,000	161,165,518	0	19,366	1.61	12.6	2012
Realty Associates Fund XI		100,000,000	100,000,000	144,706,386	0	18,086,752	1.63	11.2	2015
Realty Associates Fund XII		100,000,000	100,000,000	18,571,757	0	133,500,201	1.52	18.2	2018
Realty Associates Fund XIII		150,000,000	0	0	150,000,000	0		0.0	2023
Total		38,303,129,231	29,918,675,818	22,634,193,522	11,606,711,108	22,025,366,974	1.49	11.7	
	Difference**					17,439,382			
Private Markets Total with Difference						22,042,806,356			

Private Markets Portfolio Status	Managers	Funds
Private Equity	59	193
Private Credit	18	42
Real Assets	11	32
Real Estate	13	37
Total	101	304

<u>Notes</u>

None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results and may slightly differ from final fiscal year end report. Ultimately, the actual performance and value of any investment is not known until final liquidation. Because there is no industry-standardized method for valuation or reporting comparisons of performance and valuation data among different investments is difficult.

Data presented in this report is made public pursuant to Minn. Stat. Chs. 13 and 13D, and Minn. Stat. § 11A.24, subd. 6(c). Additional information on private markets investments may be classified as non-public and not subject to disclosure. *Partnership interests transferred to the MSBI during 1Q2015. All data presented as of the transfer date.

** Difference is from an in-kind stock distribution liquidating account, cash transactions posted to next day and distributions received in foreign currency during the month.

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SBBI MINNESOTA STATE BOARD OF INVESTMENT

Quarterly Report

Participant Directed Investment Program

September 30, 2023





Quarterly Report

Participant Directed Investment Program

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. The objective of the Plan is to be competitive in the marketplace by providing quality investment options with low fees to its participants. Investment goals among the PDIP's many participants are varied.

- The Supplemental Investment Fund (SIF) is an investment platform that provides participants with the option to invest in many of the same pools as the Combined Funds in addition to a Stable Value Fund and a Money Market Fund. The Volunteer Firefighter Account is an option in the SIF for local firefighter entities that join the Statewide Voluntary Firefighter Plan administered by PERA. The investment vehicles are structured much like a family of mutual funds where participating entities buy or sell units in each fund. Participants may allocate their investments among one or more funds that are appropriate for their needs and are within statutory requirements and rules established by the participating organizations.
- The Mutual Fund Line-up is an investment platform that offers participants three sets of investment options. The first is a set of actively and passively managed mutual funds, a Stable Value Fund and a Money Market Fund. The second is a set of target date funds called Minnesota Target Retirement Funds. The third is a self-directed brokerage account window which offers thousands of mutual funds. The SBI has no direct management responsibilities for funds within the self-directed brokerage account window. Participants may allocate their investments among one or more accounts that are appropriate for their needs within the statutory requirements and rules established by the participating organizations.
- The SBI is responsible for the investment options provided in the two State Sponsored Savings Plans established under provisions of the Internal Revenue Code 529, the Minnesota College Savings Plan and Minnesota Achieving a Better Life Experience Plan (ABLE). The Minnesota College Savings Plan is an educational savings plan designed to help families save for qualified nationwide 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 have contracted jointly with TIAA-CREF Tuition Financing, Inc. to provide administrative, marketing, communication, recordkeeping and investment management services. The ABLE Plan is a savings plan designed to help individuals save for qualified disability expenses without losing eligibility for certain assistance programs. The plan is administered by the Department of Human Services (DHS). The SBI and DHS have jointly contracted with Ascensus to provide recordkeeping, administrative, and investment management services for the plan.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. These returns are net of investment management fees and transaction costs. They do not, however, reflect administrative expenses that may be deducted by the retirement systems or other agencies to defray administrative costs.





Supplemental Investment Fund Summary

The Minnesota Supplemental Investment Fund (SIF) is a multi-purpose investment platform that offers a range of investment options to state and local public employees. This investment platform provides some or all of the investment options to the Public Employees Retirement Association (PERA) Defined Contribution Plan, local pension plans and the Statewide Volunteer Firefighter plan.

A wide diversity of investment goals exists among the Fund's participants. In order to meet those needs, the Fund has been structured much like a "family of mutual funds." Participants may allocate their investments among one or more accounts that are appropriate for their needs, within the statutory requirements and rules established by the participating organizations. Participation in the Fund is accomplished through the purchase or sale of shares in each account. All returns are net of investment management fees.

Investment Option Descriptions

- Balanced Fund a balanced portfolio utilizing both common stocks and bonds
- U.S. Equity Actively Managed Fund an actively managed, U.S. common stock portfolio.
- U.S. Equity Index Fund a passively managed, common stock portfolio designed to broadly track the performance of the U.S. stock market.
- Broad International Equity Fund a portfolio of non-U.S. stocks that incorporates both active and passive management.
- Bond Fund an actively managed, bond portfolio.
- Money Market Fund a portfolio utilizing short-term, liquid debt securities.
- Stable Value Fund a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.
- Volunteer Firefighter Account a balanced portfolio only used by the Statewide Volunteer Firefighter Plan.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
BALANCED FUND	\$105,507,520	-3.0%	13.0%	4.2%	6.2%	7.6%	01/1980
U.S. EQUITY ACTIVELY MANAGED FUND	80,360,701	-3.0	21.1	8.5	9.2	11.5	07/1986
U.S. EQUITY INDEX FUND	376,625,875	-3.2	20.5	9.6	9.3	11.4	07/1986
BROAD INTERNATIONAL EQUITY FUND	131,047,952	-3.0	19.2	5.4	3.8	4.2	09/1994
BOND FUND	97,968,718	-3.3	1.7	-4.8	0.6	1.6	07/1986
MONEY MARKET FUND	730,157,553	1.4	5.0	2.0	1.9	1.3	07/1986
STABLE VALUE FUND	1,656,746,933	0.7	2.7	2.2	2.4	2.2	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	149,039,315	-3.0	10.7	2.0	4.5	5.6	01/2010

Note:

The Market Values for the Money Market Fund, the Stable Value Fund, and the Total Supplemental Investment Fund also include assets held through other plans.





Balanced Fund

The primary investment objective of the Balanced Fund is to gain exposure to publicly traded U.S. equities, bond and cash in a diversified investment portfolio. The Fund seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility. The Balanced 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 benchmark is a blend of 60% Russell 3000/35% Bloomberg U.S. Aggregate/5% 3 Month T-Bills.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	10 Year
BALANCED FUND	\$105,507,520	-3.0%	13.0%	4.2%	6.2%	7.6%
SIF BALANCED FUND BENCHMAR	RΚ	-3.0%	12.6%	4.0%	5.9%	7.4%
Excess		-0.0%	0.4%	0.2%	0.3%	0.3%

U.S. Equity Actively Managed Fund

The U.S. Equity Actively Managed Fund's investment objective is to generate above-average returns from capital appreciation on common stocks. The U.S. Stock Actively Managed Fund is invested primarily in the common stocks of U.S. companies. The managers in the account also hold varying levels of cash.

	Ending Market Value	Last Qtr	1 Year	<u>3 Year</u>	5 Year	10 Year
U.S. EQUITY ACTIVELY MANAGED FUND	80,360,701	-3.0	21.1	8.5	9.2	11.5
Russell 3000		-3.3	20.5	9.4	9.1	11.3
Excess		0.2	0.7	-0.8	0.0	0.2





U.S. Equity Index Fund

The investment objective of the U.S. Equity Index Fund is to generate returns that track those of the U.S. stock market as a whole. The Fund is designed to track the performance of the Russell 3000 Index, a broad-based equity market indicator. The Fund is invested 100% in common stock.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
U.S. EQUITY INDEX FUND	\$376,625,875	-3.2%	20.5%	9.6%	9.3%	11.4%
Russell 3000		-3.3%	20.5%	9.4%	9.1%	11.3%
Excess		0.0%	0.0%	0.2%	0.2%	0.1%

Broad International Equity Fund

The investment objective of the Broad International Equity Fund is to earn a high rate of return by investing in the stock of companies outside the U.S. Portions of the Fund are passively managed and semi-passively managed. These portions of the Fund are designed to track and modestly outperform, respectively, the return of developed markets included in the MSCI World ex USA Index. A portion of the Fund is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value. The International Equity Benchmark is currently the MSCI ACWI ex USA (net).

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
BROAD INTERNATIONAL EQUITY FUND	131,047,952	-3.0	19.2	5.4	3.8	4.2
International Equity Benchmark		-3.8	20.4	3.7	2.6	3.3
Excess		0.8	-1.2	1.6	1.2	0.8





Bond Fund

The investment objective of the Bond Fund is to exceed the return of the broad domestic bond market by investing in fixed income securities. The Bond Fund invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years. The Bond Fund benchmark is the Bloomberg U.S. Aggregate.

	Ending Market Value	Last Qtr	1 Year	<u>3 Year</u>	5 Year	10 Year
BOND FUND	\$97,968,718	-3.3%	1.7%	-4.8%	0.6%	1.6%
Bloomberg U.S. Aggregate		-3.2%	0.6%	-5.2%	0.1%	1.1%
Excess		-0.0%	1.1%	0.4%	0.5%	0.5%

Money Market Fund

The investment objective of the Money Market Fund is to protect principal by investing in short-term, liquid U.S. Government securities. The Fund is invested entirely in high-quality, short-term U.S. Treasury and Agency securities. The average maturity of the portfolios is less than 90 days. Please note that the Market Value for the Money Market Fund reflects assets held through the Deferred Compensation Plan as well.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
MONEY MARKET FUND	730,157,553	1.4	5.0	2.0	1.9	1.3
ICE BofA US 3-Month Treasury Bill		1.3	4.5	1.7	1.7	1.1
Excess		0.1	0.5	0.3	0.2	0.2





Stable Value Fund

The investment objectives of the Stable Value Fund are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer-term investments than typically found in a money market fund. The Fund is invested in a well-diversified portfolio of high-quality fixed income securities with strong credit ratings. The Fund also invests in contracts issued by highly rated insurance companies and banks which are structured to provide principal protection for the Fund's diversified bond portfolios, regardless of daily market changes. The Stable Value Fund Benchmark is the 3-year Constant Maturity Treasury Bill +45 basis points. Please note that the Market Value for the Stable Value Fund reflects assets held through the Deferred Compensation Plan as well.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
STABLE VALUE FUND	\$1,656,746,933	0.7%	2.7%	2.2%	2.4%	2.2%
Fixed Interest Blended Benchmark		1.2%	4.7%	2.7%	2.4%	2.1%
Excess		-0.5%	-2.0%	-0.5%	0.0%	0.2%

Volunteer Firefighter Account

The Volunteer Firefighter Account is different than other SIF program options. It is available only to the local entities that participate in the Statewide Volunteer Firefighter Plan (administered by PERA) and have all of their assets invested in the Volunteer Firefighter Account. There are other volunteer firefighter plans that are not eligible to be consolidated that may invest their assets through other SIF program options. The investment objective of the Volunteer Firefighter Account is to maximize long-term returns while limiting short-term portfolio return volatility. The account is invested in a balanced portfolio of domestic equity, international equity, fixed income and cash. The benchmark for this account is 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	<u>3 Year</u>	5 Year	10 Year
VOLUNTEER FIREFIGHTER ACCOUN	IT 149,039,315	-3.0	10.7	2.0	4.5	5.6
SIF Volunteer Firefighter Account BM		-3.1	10.6	1.7	4.1	5.2
Excess		0.0	0.1	0.3	0.4	0.4





Mutual Funds

The mutual fund investment line-up provides investment options to the Minnesota Deferred Compensation Plan (MNDCP), Unclassified Retirement Plan, Health Care Savings Plan, and the Hennepin County Retirement Plan. The MNDCP is a tax-sheltered retirement savings plan that is supplemental to public employees primary retirement plan. (In most cases, the primary plan is a defined benefit plan administered by TRA, PERA, or MSRS.) Participants can choose from active and passively managed stock and bond funds, a Stable Value Fund, a Money Market Fund, a set of 10 target date retirement fund options, and a brokerage window where participants can choose from hundreds of mutual funds.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$722,400,339	-3.3%	20.4%	9.3%			07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,722,545,109	-3.3	21.6	10.1	9.9%	11.9%	07/1999
VANGUARD DIVIDEND GROWTH	915,402,356	-5.5	10.8	8.2	9.2		10/2016
VANGUARD MID CAP INDEX	686,577,832	-5.1	12.6	7.3	6.5	9.1	01/2004
T. ROWE PRICE SMALL-CAP STOCK	801,290,806	-5.7	6.9	4.7	5.2	8.8	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	314,276,040	-6.1	22.6	1.2	4.3	5.0	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	340,766,358	-4.0	20.5	3.9	2.8	3.6	07/2011
VANGUARD BALANCED INDEX	1,290,692,377	-3.2	12.1	3.4	5.7	7.3	12/2003
DODGE & COX INCOME	290,519,438	-2.8	3.1	-3.2	1.3	2.2	07/1999
VANGUARD TOTAL BOND MARKET INDEX	305,144,595	-3.1	0.7	-5.2	0.1	1.1	12/2003
2025 FUND	205,966,192	-1.9	8.0	2.3	3.9	5.0	07/2011
2030 FUND	212,977,611	-2.6	10.5	2.6	4.6	5.9	07/2011
2035 FUND	171,053,352	-3.6	12.9	2.7	4.9	6.3	07/2011
2040 FUND	141,994,004	-4.1	14.0	3.1	5.0	6.6	07/2011
2045 FUND	135,728,711	-4.3	15.0	3.6	5.2	6.8	07/2011
2050 FUND	121,297,720	-4.3	15.9	4.2	5.4	7.1	07/2011
2055 FUND	80,428,615	-4.3	16.8	4.5	5.6	7.1	07/2011
2060 FUND	61,011,255	-4.3	16.8	4.5	5.6	7.1	07/2011
2065 FUND	11,514,606	-4.3	16.8	4.5			04/2020
INCOME FUND	199,936,036	-1.7	7.1	1.6	3.4	3.6	07/2011
Charles Schwab SDB TD	78,756,291						
Charles Schwab SDB Roth	3,179,253						





Mutual Funds

LARGE CAP EQUITY		Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	Option Since
Vanguard Total Stock Market Institutional Index Plus (passive)	Large Cap US Equity						
A passive domestic stock portfolio of large and small companies that tracks the CRSP US Total Market Index.	VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$722,400,339	-3.3%	20.4%	9.3%		07/2019
	CRSP US Total Market Index		-3.3	20.4	9.3		07/2019
Vanguard Index Institutional Plus (passive)	Excess		0.0	0.0	0.0		
A passive domestic stock portfolio that tracks the S&P 500.	VANGUARD INSTITUTIONAL INDEX PLUS	1,722,545,109	-3.3	21.6	10.1	9.9%	07/1999
Vanguard Dividend Growth (active) (1)	S&P 500		-3.3	21.6	10.2	9.9	07/1999
A fund of large cap stocks which is expected to outperform the S&P U.S.	Excess		-0.0	-0.0	-0.0	-0.0	
Dividend Growers Index, over time.	VANGUARD DIVIDEND GROWTH	915,402,356	-5.5	10.8	8.2	9.2	10/2016
MID CAP EOUITY	VANGUARD DIVIDEND GROWTH INDEX		-3.9	17.4	8.6	9.1	10/2016
Vanguard Mid Cap Index (passive) (2)	Excess		-1.6	-6.6	-0.4	0.1	
A fund that passively invests in companies with medium market capitalizations	Mid Cap US Equity						
that tracks the CRSP US Mid-Cap Index.	VANGUARD MID CAP INDEX	686,577,832	-5.1	12.6	7.3	6.5	01/2004
	CRSP US Mid Cap Index		-5.1	12.6	7.3	6.5	01/2004
SMALL CAP EQUITY	Excess		-0.0	0.0	-0.0	0.0	
T Rowe Price Small Cap (active)	Small Cap US Equity						
A fund that invests primarily in companies with small market capitalizations and is expected to outperform the Russell 2000 Index.	T. ROWE PRICE SMALL-CAP STOCK	801,290,806	-5.7	6.9	4.7	5.2	04/2000
	Russell 2000		-5.1	8.9	7.2	2.4	04/2000
INTERNATIONAL EQUITY	Excess		-0.6	-2.0	-2.5	2.8	
Fidelity Diversified International (active)	International Equity						
A fund that invests primarily in stocks of companies located outside of the	FIDELITY DIVERSIFIED	314,276,040	-6.1	22.6	1.2	4.3	07/1999
United States and is expected to outperform the MSCI index of Europe, Australasia and the Far East (EAFE), over time.	MSCI EAFE FREE (NET)		-4.1	25.6	5.8	3.2	07/1999
rustrulusia and the rai East (Erri E), over unite.	Excess		-2.0	-3.1	-4.6	1.1	
Vanguard Total International Stock Index (passive) (3)	VANGUARD TOTAL INTERNATIONAL STOCK INDEX	340,766,358	-4.0	20.5	3.9	2.8	07/2011
A fund that seeks to track the investment performance of the FTSE Global All Cap ex US Index, an index designed to measure equity market performance in	FTSE Global All Cap ex US Index Net		-3.4	20.2	4.0	2.7	07/2011
developed and emerging markets, excluding the United States.	Excess		-0.7	0.3	-0.1	0.1	



BALANCED



12/2003

12/2003

Last Qtr 1 Year 3 Year 5 Year Option Since

3.4%

3.5

-0.1

5.7%

5.8

-0.1

Mutual Funds

Excess

Vanguard Balanced Index (passive) (4)	Balanced Funds
A fund that passively invests in a mix of domestic stocks and bonds. The fund is	VANGUARD BALANCED INDEX
expected to track a weighted benchmark of 60% CRSP US Total Market Index/40% Bloomberg U.S. Aggregate.	Vanguard Balanced Fund Benchmark
	Excess
FIXED INCOME	
Dodge & Cox Income Fund (active)	Fixed Income
A fund that invests primarily in investment grade securities in the U.S. bond	DODGE & COX INCOME
market which is expected to outperform the Bloomberg U.S. Aggregate, over	Bloomberg U.S. Aggregate
time.	Excess
Vanguard Total Bond Market Index (passive)	VANGUARD TOTAL BOND MARKET INDEX
A fund that passively invests in a broad, market weighted bond index that is	
expected to track the Bloomberg U.S. Aggregate.	Bloomberg U.S. Aggregate
	Excess
Money Market Fund (5)	
A fund that invests in short-term debt instruments which is expected to	MONEY MARKET FUND
outperform the return on 3 Month T-Bills.	ICE BofA US 3-Month Treasury Bill
STABLE VALUE	Excess
Stable Value Fund (5)	
A portfolio composed of stable value instruments which are primarily	Stable Value
investment contracts and security backed contracts. The fund is expected to	STABLE VALUE FUND
outperform the return of the 3 year Constant Maturity Treasury $+45$ basis points,	Fixed Interest Blended Benchmark
over time.	Frees

(1) Prior to 09/20/2021 the benchmark was the NASDAQ US Dividend Achievers Select Index.

(2) Prior to 02/01/2013 the benchmark was the MSCI US Mid-Cap 450 Index.

(3) Prior to 06/01/2013 the benchmark was MSCI ACWI ex USA IMI.

(4) Prior to 01/01/2013 the benchmark was 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate.

(5) Money Market and Stable Value are Supplemental Investment Fund options which are also offered to eligible plans that invest through other plans.

l Income						
E & COX INCOME	290,519,438	-2.8	3.1	-3.2	1.3	07/1999
berg U.S. Aggregate		-3.2	0.6	-5.2	0.1	07/1999
3		0.5	2.5	2.0	1.2	
UARD TOTAL BOND ET INDEX	305,144,595	-3.1	0.7	-5.2	0.1	12/2003
berg U.S. Aggregate		-3.2	0.6	-5.2	0.1	12/2003
3		0.1	0.1	0.0	0.0	
Y MARKET FUND	730,157,553	1.4	5.0	2.0	1.9	07/1986
ofA US 3-Month Treasury		1.3	4.5	1.7	1.7	07/1986
6		0.1	0.5	0.3	0.2	
e Value						
LE VALUE FUND	1,656,746,933	0.7	2.7	2.2	2.4	11/1994
nterest Blended Benchmark		1.2	4.7	2.7	2.4	11/1994

-0.5

-2.0

-0.5

0.0

-3.2%

-3.2

-0.0

12.1%

12.4

-0.2

Ending Market Value

\$1,290,692,377





MN TARGET RETIREMENT ACCOUNTS

Target retirement funds offer a mix of investments that are adjusted over time to reduce risk and become more conservative as the target retirement date approaches. A participant only needs to make one investment decison by investing their assets in the fund that is closest to their anticipated retirement date.

Target Date Retirement Funds

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since		Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
SSgA													
2025 FUND	\$205,966,192	-1.9%	8.0%	2.3%	3.9%	07/2011	2050 FUND	\$121,297,720	-4.3%	15.9%	4.2%	5.4%	07/2011
2025 FUND BENCHMARK		-1.9%	8.0%	2.3%	3.9%	07/2011	2050 FUND BENCHMARK		-4.2%	15.7%	4.2%	5.4%	07/2011
Excess		-0.0%	0.0%	-0.0%	0.0%		Excess		-0.1%	0.2%	-0.0%	0.0%	
2030 FUND	\$212,977,611	-2.6%	10.5%	2.6%	4.6%	07/2011	2055 FUND	\$80,428,615	-4.3%	16.8%	4.5%	5.6%	07/2011
2030 FUND BENCHMARK		-2.6%	10.5%	2.6%	4.6%	07/2011	2055 FUND BENCHMARK		-4.2%	16.6%	4.5%	5.6%	07/2011
Excess		-0.1%	0.1%	-0.0%	0.0%		Excess		-0.1%	0.3%	-0.0%	0.0%	
2035 FUND	\$171,053,352	-3.6%	12.9%	2.7%	4.9%	07/2011	2060 FUND	\$61,011,255	-4.3%	16.8%	4.5%	5.6%	07/2011
2035 FUND BENCHMARK		-3.5%	12.8%	2.7%	4.9%	07/2011	2060 FUND BENCHMARK		-4.2%	16.6%	4.5%	5.6%	07/2011
Excess		-0.1%	0.1%	-0.0%	0.0%		Excess		-0.1%	0.2%	-0.0%	-0.0%	
2040 FUND	\$141,994,004	-4.1%	14.0%	3.1%	5.0%	07/2011	2065 FUND	\$11,514,606	-4.3%	16.8%	4.5%		04/2020
2040 FUND BENCHMARK		-4.0%	13.8%	3.1%	5.0%	07/2011	2065 FUND BENCHMARK		-4.2%	16.6%	4.5%		04/2020
Excess		-0.1%	0.2%	-0.0%	0.0%		Excess		-0.1%	0.2%	-0.0%		
2045 FUND	\$135,728,711	-4.3%	15.0%	3.6%	5.2%	07/2011	INCOME FUND	\$199,936,036	-1.7%	7.1%	1.6%	3.4%	07/2011
2045 FUND BENCHMARK		-4.2%	14.8%	3.7%	5.2%	07/2011	INCOME FUND BENCHMARK		-1.7%	7.1%	1.6%	3.4%	07/2011
Excess		-0.1%	0.2%	-0.0%	0.0%		Excess		-0.0%	-0.0%	-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





The Minnesota College Savings Plan is an education savings plan designed to help families set aside funds 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. Please see the next page for the performance as reported by TIAA.

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. The managed allocation changed from Age-Based to Enrollment-Based on October 28, 2019.

<u>RISK BASED ALLOCATIONS</u> - 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.

ASSET CLASS BASED ALLOCATIONS

U.S. LARGE CAP EQUITY INDEX - A passive domestic stock portfolio that tracks the S&P 500.

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 capitalization ranges and real estate-related securities. The fund is expected to track a weighted benchmark of 60% Russell 3000, 24% International, 6% Emerging Markets, and 10% Real Estate Securities Fund.

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.

EQUITY AND INTEREST ACCUMULATION - A fund that passively invests half of the portfolio in U.S. equities across all 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 U.S. Aggregate and two active funds that invest in inflationlinked bonds and high yield securities. The fund is expected to track a weighted benchmark of 70% Bloomberg 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 iMoneyNet Average All Taxable benchmark.

SOCIAL CHOICE EQUITY ALLOCATION – An actively managed fund that seeks to provide a favorable long-term total return that reflects the investment performance of the overall U.S. equity market while giving special consideration to companies whose activities are consistent with certain environmental, social and governance criteria.







MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: September 30, 2023

Total = \$1,743 Million

				Annualized				
Fund Name	Ending Market	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
2040/2041 Enrollment Option	\$2,940,217	-3.65%					0.40%	5/12/2023
2040-2041 Custom Benchmark		-3.42%					1.13%	
2038/2039 Enrollment Option	\$27,600,612	-3.69%	15.06%				-2.65%	6/11/2021
2038-2039 Custom Benchmark		-3.38%	15.62%				-2.50%	
2036/2037 Enrollment Option	\$73,876,794	-3.58%	14.50%	5.01%			5.62%	10/28/2019
2036-2037 Custom Benchmark		-3.31%	14.99%	5.41%			5.59%	
2034/2035 Enrollment Option	\$60,192,805	-3.47%	13.85%	4.65%			5.30%	10/28/2019
2034-2035 Custom Benchmark		-3.24%	14.30%	5.03%			5.27%	
2032/2033 Enrollment Option	\$65,769,003	-3.28%	12.77%	4.15%			4.97%	10/28/2019
2032-2033 Custom Benchmark		-3.11%	13.20%	4.54%			4.93%	
2030/2031 Enrollment Option	\$75,217,132	-2.95%	11.06%	3.53%			4.41%	10/28/2019
2030-2031 Custom Benchmark		-2.76%	11.63%	3.92%			4.40%	
2028/2029 Enrollment Option	\$93,320,123	-2.62%	9.28%	2.71%			3.71%	10/28/2019
2028-2029 Custom Benchmark		-2.41%	10.01%	3.11%			3.68%	
2026/2027 Enrollment Option	\$124,396,600	-2.25%	7.63%	1.96%			3.13%	10/28/2019
2026-2027 Custom Benchmark		-1.88%	8.64%	2.41%			3.17%	
2024/2025 Enrollment Option	\$164,860,077	-1.33%	5.88%	1.67%			2.85%	10/28/2019
2024-2025 Custom Benchmark		-0.85%	7.42%	2.20%			2.94%	
In School Option	\$317,735,774	-1.01%	4.34%	0.97%			2.02%	10/28/2019
In School Custom Benchmark		-0.45%	5.70%	1.17%			1.79%	





MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: September 30, 2023

				Annualized					
Fund Name	Ending Market	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	
U.S. and International Equity Option	\$266,683,560	-4.10%	18.77%	7.26%	6.68%	8.44%	7.10%	10/1/2001	
BB: U.S. and International Equity Option		-3.76%	19.38%	7.77%	6.67%	8.50%	7.77%		
Moderate Allocation Option	\$92,631,548	-3.27%	11.80%	3.16%	4.65%	5.81%	5.13%	8/2/2007	
BB: Moderate Allocation Option		-3.06%	12.41%	3.53%	4.74%	5.93%	5.62%		
100% Fixed-Income Option	\$17,175,600	-2.09%	1.97%	-3.29%	0.86%	1.37%	2.54%	8/16/2007	
BB: 100% Fixed-Income Option		-2.06%	2.22%	-3.09%	1.11%	1.66%	3.06%		
International Equity Index Option	\$9,715,128	-4.28%	22.81%	4.47%	2.89%	3.50%	4.00%	6/18/2013	
BB: International Equity Index Option		-3.86%	22.86%	4.33%	2.79%	3.56%	4.08%		
Money Market Option	\$19,901,710	1.26%	4.44%	1.65%	1.56%	0.96%	0.77%	11/1/2007	
BB: Money Market Option		1.24%	4.28%	1.59%	1.46%	0.88%	0.70%		
Principal Plus Interest Option	\$105,865,883	0.48%	1.84%	1.47%	1.69%	1.54%	2.33%	10/10/2001	
Citigroup 3-Month U.S. Treasury Bill		1.38%	4.71%	1.78%	1.74%	1.12%	1.39%		
Aggressive Allocation Option	\$86,461,967	-3.70%	15.29%	5.22%	5.68%		6.61%	8/12/2014	
BB: Aggressive Allocation Option		-3.41%	15.88%	5.67%	5.76%		6.62%		
Conservative Allocation Option	\$15,797,248	-2.04%	6.83%	1.17%	3.02%		3.30%	8/18/2014	
BB: Conservative Allocation Option		-1.69%	7.97%	1.55%	3.24%		3.43%		
Equity and Interest Accumulation Option	\$8,337,236	-1.39%	10.74%	5.54%	5.55%		6.01%	8/18/2014	
BB: Equity and Interest Accumulation Optic	'n	-0.91%	12.67%	5.94%	5.89%		6.12%		
U.S. Large Cap Equity Option	\$111,695,387	-3.32%	21.43%	9.98%	9.76%		10.98%	8/12/2014	
BB: U.S. Large Cap Equity Option		-3.27%	21.62%	10.15%	9.92%		11.10%		
Social Choice Equity Option	\$1,437,731	-3.43%	19.13%				-0.70%	6/11/2021	
BB: Social Choice Equity Option		-3.25%	20.46%				0.11%		
Matching Grant	\$1,159,142	0.48%	1.84%	1.47%	1.69%	1.54%	2.33%	3/22/2002	
Citigroup 3-Month U.S. Treasury Bill		1.38%	4.71%	1.78%	1.74%	1.12%	1.39%		

MINNESOTABLE plan

Incontion

Performance as of 09/30/23

Total Market Value: \$37,459,078

Fund Name Aggressive Option AllE Aggressive Custom Benchmark Market Value S2,676,013 % of Plan S2,676,013 1 Month 7.14% 3 Month (4.19) (3.72) 5 Ver 6.62 12 Vear 14.60 5 Vear 5.13 10 Vear 4.96 Incention 6.95 Date 6.95 12/15/16 Moderately Aggressive Custom Benchmark Variance \$3,046,131 8.13% (3.67) (3.09) (3.30) 5.86 5.58 12.41 4.03 (0.46) 4.49 6.10 12/15/16 Moderately Aggressive Custom Benchmark Variance \$3,046,131 8.13% (3.67) (3.09) (3.30) 5.58 12.41 4.03 (0.46) 4.49 6.10 12/15/16 Growth Option ABLE Moderately Aggressive Custom Benchmark Variance \$4,519,336 12.06% (3.09) (2.52) 2.50 10.46 2.95 3.97 5.21 12/15/16 Moderate Option ABLE Moderate Custom Benchmark Variance \$4,270,114 11.40% (2.57) (2.28) 3.75 8.22 1.79 3.37 4.28 12/15/16 Moderate Option ABLE Moderate Custom Benchmark Variance \$3,994,994 10.66% 1.81) 1.34) 3.30 6.65 1.51 2.81												Inception	
ABLE Moderately Aggressive Custom Benchmark And the formation of the formation	Aggressive Option ABLE Aggressive Custom Benchmark			(4.19) (4.12)	(3.72) (3.46)	6.62 6.89	14.60 15.06	5.13 5.46	4.96 5.24	<u>10 Year</u>	6.95 7.35		
ABLE Growth Custom Benchmark (3.05) (2.52) 5.00 10.86 3.24 4.25 5.57 Wariance (0.04) (0.23) (0.25) (0.46) (0.29) (0.28) (0.36) Moderate Option ABLE Moderate Custom Benchmark \$4,270,114 11.40% (2.57) (2.28) 3.75 8.22 1.79 3.37 4.28 12/15/16 Moderate Custom Benchmark \$4,270,114 11.40% (2.57) (2.28) 3.75 8.22 1.79 3.37 4.28 12/15/16 Moderate Custom Benchmark \$4,270,114 11.40% (2.57) (2.28) 3.75 8.22 1.79 3.37 4.28 12/15/16 Moderately Conservative Option \$3,994,994 10.66% (1.81) (1.34) 3.30 6.65 1.51 2.81 3.35 12/15/16 Moderately Conservative Option \$3,994,994 10.66% (1.81) (1.14) 3.73 7.23 1.75 3.07 3.65 (0.30) (0.30) (0.30) (0.30) (0.30) (0.30) (0.30) (0.30) (0.30) (0.30) (0.30)	ABLE Moderately Aggressive Custom Benchmark	\$3,046,131	8.13%	(3.65)	(3.09)	5.86	12.87	4.34	4.77		6.48	12/15/16	
ABLE Moderate Custom Benchmark (2.53) (2.08) 4.01 8.72 2.05 3.64 4.60 Variance (0.04) (0.20) (0.26) (0.50) (0.27) (0.32) Moderately Conservative Option \$3,994,994 10.66% (1.81) (1.34) 3.30 6.65 1.51 2.81 3.35 12/15/16 ABLE Moderately Conservative Custom Benchmark \$6,909,819 18.45% (0.61) 0.00 2.78 4.37 1.01 1.92 2.03 12/15/16 Conservative Option \$6,909,819 18.45% (0.61) 0.00 2.78 4.37 1.01 1.92 2.03 12/15/16 ABLE Conservative Custom Benchmark \$6,909,819 18.45% (0.61) 0.00 2.78 4.37 1.01 1.92 2.03 12/15/16 Variance \$6,909,819 18.45% (0.61) 0.00 2.78 4.37 1.01 1.92 2.03 12/15/16 Variance (0.12) (0.20) (0.58) (0.85) (0.28) (0.26) (0.26) (0.26) (0.26)	ABLE Growth Custom Benchmark	\$4,519,336	12.06%	(3.05)	(2.52)	5.00	10.86	3.24	4.25		5.57	12/15/16	
ABLE Moderately Conservative Custom Benchmark (1.69) (1.14) 3.73 7.23 1.75 3.07 3.65 Variance (0.12) (0.20) (0.43) (0.58) (0.24) (0.26) (0.30) Conservative Option \$6,909,819 18.45% (0.61) 0.00 2.78 4.37 1.01 1.92 2.03 12/15/16 ABLE Conservative Custom Benchmark (0.49) 0.20 3.36 5.22 1.29 2.18 2.28 Variance (0.12) (0.20) (0.58) (0.28) (0.26) (0.25)	ABLE Moderate Custom Benchmark	\$4,270,114	11.40%	(2.53)	(2.08)	4.01	8.72	2.05	3.64		4.60	12/15/16	
ABLE Conservative Custom Benchmark (0.49) 0.20 3.36 5.22 1.29 2.18 2.28 Variance (0.12) (0.20) (0.58) (0.85) (0.26) (0.25)	ABLE Moderately Conservative Custom Benchmark	\$3,994,994	10.66%	(1.69)	(1.14)	3.73	7.23	1.75	3.07		3.65	12/15/16	
Checking Account Option \$12,042,671 32.15% 03/30/17	ABLE Conservative Custom Benchmark	\$6,909,819	18.45%	(0.49)	0.20	3.36	5.22	1.29	2.18		2.28	12/15/16	
	Checking Account Option	\$12,042,671	32.15%									03/30/17	

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Minnesota State Board of Investment Quarter Ending September 30, 2023 Non-Retirement Funds SBBI MINNESOTA STATE BOARD OF INVESTMENT

Quarterly Report





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

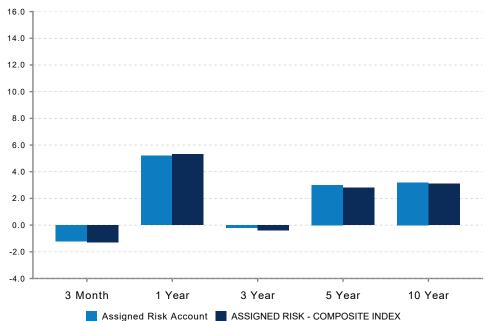
The Assigned Risk plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of ongoing claims and operating expenses.

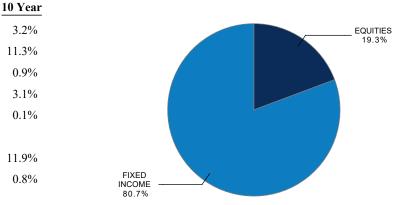
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds

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.

Ending Maulast Value





	Ending Market Value	Last Qtr	1 Year	<u>3 Year</u>	<u>5 Year</u>	10 Year
ASSIGNED RISK PLAN	\$258,649,445	-1.2%	5.2%	-0.2%	3.0%	3.2%
EQUITIES	\$49,965,555	-3.3%	21.7%	10.2%	9.9%	11.3%
FIXED INCOME	\$208,683,890	-0.8%	1.4%	-3.0%	0.8%	0.9%
ASSIGNED RISK - COMPOSITE INDEX		-1.3%	5.3%	-0.4%	2.8%	3.1%
Excess		0.0%	-0.1%	0.2%	0.3%	0.1%
S&P 500		-3.3%	21.6%	10.2%	9.9%	11.9%
Bloomberg U.S. Government: Intermediate		-0.8%	1.3%	-3.2%	0.7%	0.8%

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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.



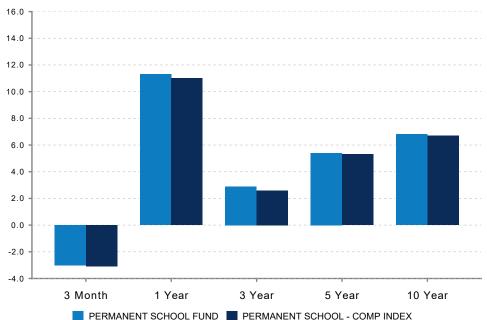


Permanent School Fund

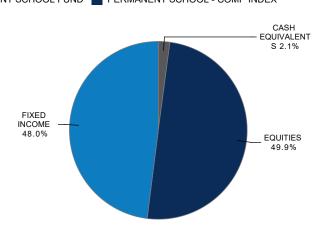
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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.



	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	10 Year
PERMANENT SCHOOL FUND	\$1,834,630,550	-3.0%	11.3%	2.9%	5.4%	6.8%
CASH EQUIVALENTS	38,193,755	1.4	4.8	1.9	1.8	1.2
EQUITIES	915,044,050	-3.3	21.7	10.2	9.9	11.9
FIXED INCOME	881,392,745	-3.0	1.2	-5.0	0.3	1.4
PERMANENT SCHOOL - COMP INDEX		-3.1	11.0	2.6	5.3	6.7
Excess		0.1	0.3	0.3	0.0	0.2
S&P 500		-3.3	21.6	10.2	9.9	11.9
Bloomberg U.S. Aggregate		-3.2	0.6	-5.2	0.1	1.1



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



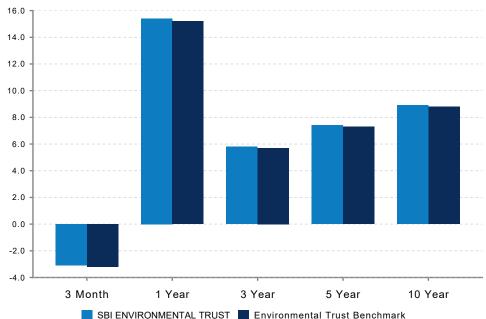


Environmental Trust Fund

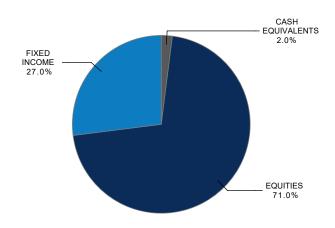
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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.



	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
SBI ENVIRONMENTAL TRUST	\$1,562,055,765	-3.1%	15.4%	5.8%	7.4%	8.9%
CASH EQUIVALENTS	31,108,759	1.4	4.8	1.9	1.8	1.2
EQUITIES	1,109,678,562	-3.3	21.7	10.2	9.9	11.9
FIXED INCOME	421,268,444	-3.0	1.2	-5.0	0.3	1.4
Environmental Trust Benchmark		-3.2	15.2	5.7	7.3	8.8
Excess		0.1	0.2	0.1	0.1	0.1
S&P 500		-3.3	21.6	10.2	9.9	11.9
Bloomberg U.S. Aggregate		-3.2	0.6	-5.2	0.1	1.1



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. 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.

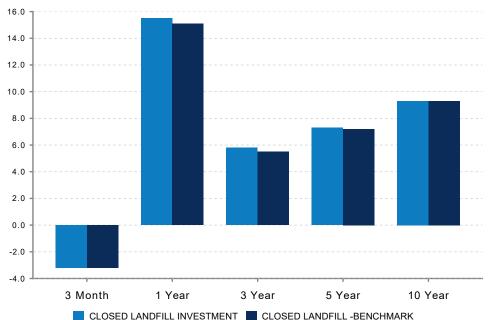




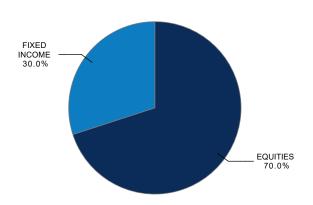
Closed Landfill Investment Fund

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.



	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	10 Year
CLOSED LANDFILL INVESTMENT	\$123,699,820	-3.2%	15.5%	5.8%	7.3%	9.3%
EQUITIES	86,611,607	-3.3	21.7	10.2	9.9	11.9
FIXED INCOME	37,088,213	-3.0	1.2	-5.0	0.3	
CLOSED LANDFILL -BENCHMARK		-3.2	15.1	5.5	7.2	9.3
Excess		0.1	0.3	0.3	0.0	0.1
S&P 500		-3.3	21.6	10.2	9.9	11.9
Bloomberg U.S. Aggregate		-3.2	0.6	-5.2	0.1	1.1



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.





	Ending Market Value	Last Qtr	Fiscal YTD	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	10 Year	Since Inception	Inception Date
NON RETIREMENT EQUITY INDEX - MELLON	2,988,711,440	-3.3	-3.3	21.6	10.1	9.9	11.9	9.9	07/1993
S&P 500 INDEX (DAILY)		-3.3	-3.3	21.6	10.2	9.9	11.9	9.8	07/1993
Excess		0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.1	
NON RETIREMENT FIXED INCOME - PRUDENTIAL	1,527,352,722	-3.0	-3.0	1.2	-5.0	0.3	1.4	4.9	07/1994
Bloomberg U.S. Aggregate		-3.2	-3.2	0.6	-5.2	0.1	1.1	4.4	07/1994
Excess		0.3	0.3	0.5	0.2	0.2	0.3	0.4	
RBC	208,683,795	-0.8	-0.8	1.4	-3.0	0.8	0.9	4.2	07/1991
RBC Custom Benchmark		-0.8	-0.8	1.3	-3.2	0.7	0.8	4.2	07/1991
Excess		-0.0	-0.0	0.1	0.2	0.1	0.1	-0.1	
MET COUNCIL OPEB BOND POOL	116,424,015	-0.2	-0.2	1.9	-1.8	0.7			02/2009
NON RETIREMENT CASH ACCOUNT	732,684,376	1.4	1.4	4.8	1.9	1.8		1.8	12/2017
ICE BofA US 3-Month Treasury Bill		1.3	1.3	4.5	1.7	1.7		1.7	12/2017
Excess		0.1	0.1	0.3	0.2	0.1		0.1	

Note:

RBC is the manager for the fixed income portion of the Assigned Risk Account. RBC changed its name from Voyageur Asset Management on 1/1/2010. The current benchmark is the 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.

Prior to 12/1/17 the Non Retirement Equity Index and Non Retirement Fixed Income accounts were managed internally by SBI staff.

In addition to the Non-Retirement Funds listed on the previous pages, the Non Retirement Equity Index and the Non Retirement Fixed Income accounts also include the assets of various smaller Miscellaneous Trust Accounts and Other Post Employment Benefits.



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Minnesota State Board of Investment Quarter Ending September 30, 2023 State Cash SBBI MINNESOTA STATE BOARD OF INVESTMENT

Quarterly Report







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.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
Treasurer's Cash	25,407,330,156	1.4	4.8	1.3	1.6	1.0
iMoneyNet Money Fund Average-All Taxable		1.3	4.3	1.6	1.5	0.9

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.

	Ending Market Value	Last Qtr	<u>1 Year</u>	<u>3 Year</u>	5 Year	10 Year
Debt Service	100,338,937	-3.2	5.8	-0.3	2.0	1.2
Housing Finance (1)	849,046,451	1.2				





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 Index.

Core Bonds Benchmark:

The Core Bonds Benchmark is the Bloomberg U.S. Aggregate. Prior to 2016 this index was called the Barclays Agg. Prior to 9/18/2008 this index was called the Lehman Brothers Aggregate Bond Index. From 7/1/84-6/30/94 the asset class benchmark was the Salomon Brothers Broad Investment Grade Index. The SBI name for this benchmark changed from Fixed Income to Core Bonds on March 31, 2020.

Credit Plus Benchmark:

40% Bloomberg US Corporate Bond Index, 30% Bloomberg US Mortgage Backed Index, 20% BofA ML US High Yield BB-B Cash Pay Constrained Index, and 10% JPM EMBI Global Diversified Index.



Addendum



Domestic Equity Benchmark:

Since 12/1/2020 the benchmark is the Russell 3000. From 1/1/2019-11/30/2020 the benchmark was 90% Russell 1000 and 10% Russell 2000. From 10/1/2003 to 12/31/2018 it was the Russell 3000. From 7/1/1999 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/1999, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Fixed Interest Blended Benchmark: Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

International Equity Benchmark:

Since 12/1/2020 equals the MSCI ACWI ex-US(Net). From 1/1/2018 to 1/1/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 6/1/08 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 7/1/99 to 12/31/00 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 7/1/99 to 9/30/03, the weighting of each index fluctuated with market capitalization. From 10/1/01 to 5/31/02 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 5/1/96, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/96 fixed weights. Prior to 5/1/96 it was 100% the EAFE Free (net).

Multi-Asset Credit Benchmark:

33.33% ICE BofA High Yield, 33.33% S&P LSTA Leveraged Loan, and 33.33% JPM EMBI Global Diversified Index.

Passive Domestic Equity Benchmark:

A weighted average of the Russell 1000, Russell 2000 and Russell 3000 effective 11/1/2018. From 10/1/2016 to 11/1/2018 it was a weighted average of the Russell 1000 and Russell 3000. From 10/1/2003 to 10/1/2016 it was equal to the Russell 3000. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Passive Manager Benchmark:

Russell 3000 effective 10/1/2003. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.



Addendum



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.

