



Quarterly Report

Comprehensive Performance Report

March 31, 2023



Description of SBI Investment Programs

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.

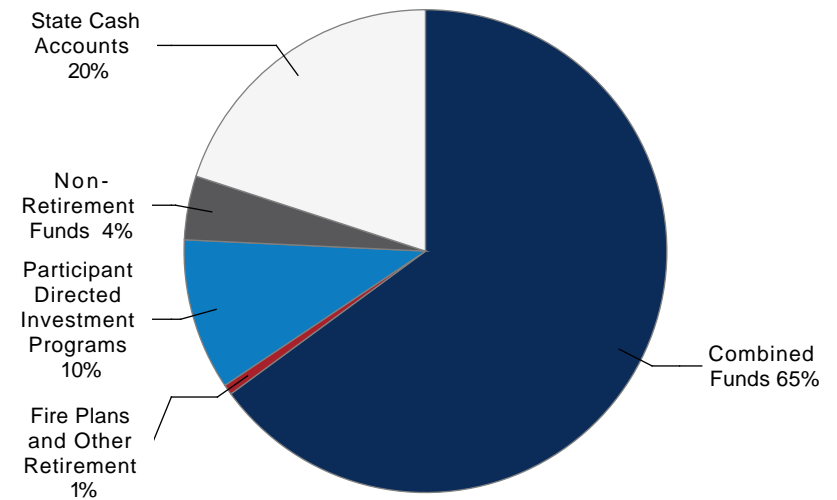
State Cash

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

	<u>\$ Millions</u>
COMBINED FUNDS	\$83,246
Fire Plans + Other Retirement Plans	881
Participant Directed Investment Program	13,001
State Deferred Compensation Plan	8,906
Health Care Savings Plan	1,715
Unclassified Employees Retirement Plan	342
Hennepin County Supplemental Retirement Plan	158
PERA Defined Contribution Plan	87
Minnesota College Savings Plan	1,759
Minnesota Achieving a Better Life Experience Plan	34
Non-Retirement Funds	5,489
Assigned Risk Plan	263
Permanent School Fund	1,820
Environmental Trust Fund	1,536
Closed Landfill Investment Fund	122
Miscellaneous Trust Funds	941
Other Postemployment Benefits Accounts	807
State Cash	25,605
Invested Treasurer's Cash	25,515
Other State Cash Accounts	90
TOTAL SBI AUM	128,223



Note: Differentials within column amounts may occur due to rounding



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Performance Reporting Legend

Manager Level Data

Aggregate Level Data

Sub-Asset Class Level Data

Asset Class Level Data

Note:

Throughout this report performance is calculated net of investment management fees, gross of administrative fees. Aggregates include terminated managers, and returns for all periods greater than one year are annualized. Inception Date and Since Inception Returns refer to the date of retention by the SBI. FYTD refers to the return generated by an account since July 1 of the most recent year. For historical benchmark details, please refer to the addendum of this report. Some aggregate inception to date return are based portfolio management decisions to re-group manager accounts in different or newly created aggregates.



Quarterly Report

Combined Funds

March 31, 2023



Combined Funds Summary

Combined Funds Change in Market Value (\$Millions)

	One Quarter
Combined Funds	
Beginning Market Value	\$80,120
Net Contributions	-684
Investment Return	3,811
Ending Market Value	83,246

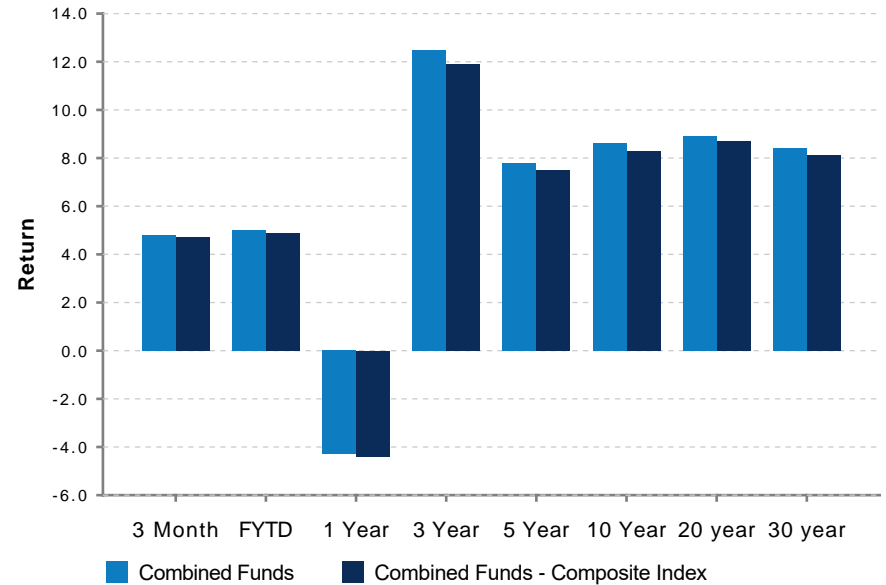
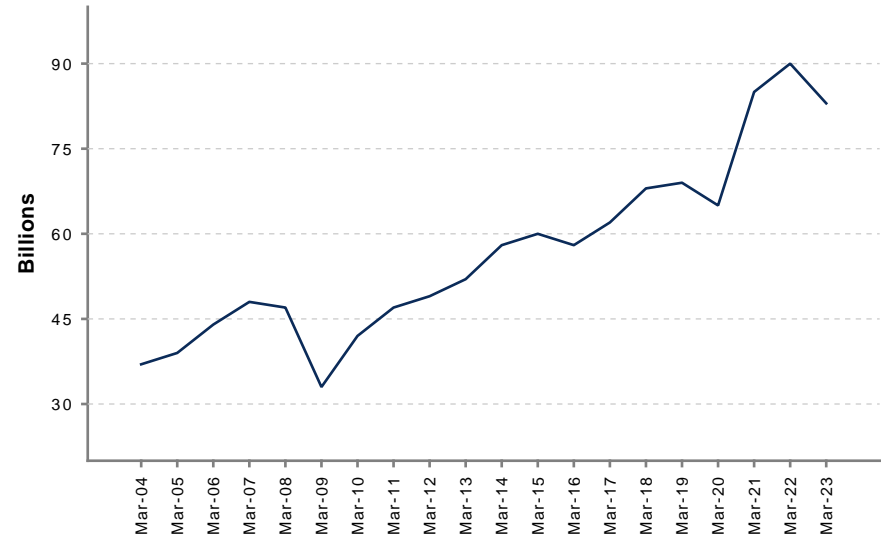
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

Performance (Net of Fees)

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

	Qtr	FYTD	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr	30 Yr
Combined Funds	4.8%	5.0%	-4.3%	12.5%	7.8%	8.6%	8.9%	8.4%
Combined Funds - Composite Index	4.7%	4.9%	-4.4%	11.9%	7.5%	8.3%	8.7%	8.1%
Excess	0.1%	0.1%	0.1%	0.6%	0.3%	0.3%	0.2%	0.2%

Asset Growth

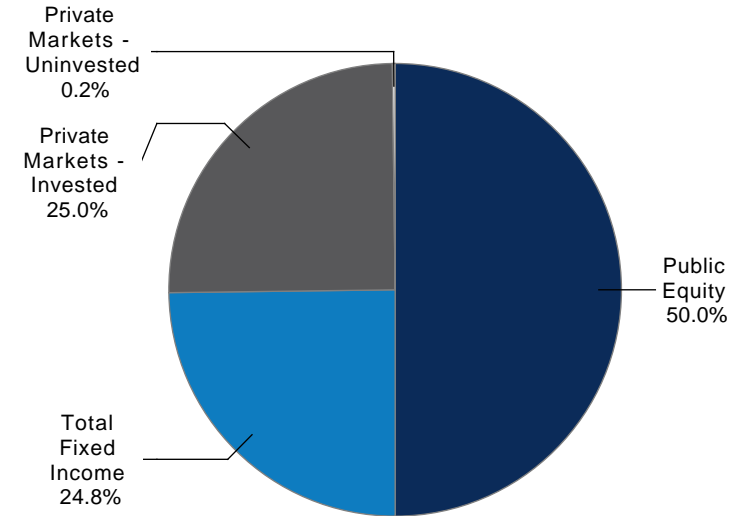


Combined Funds Summary

Asset Mix

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

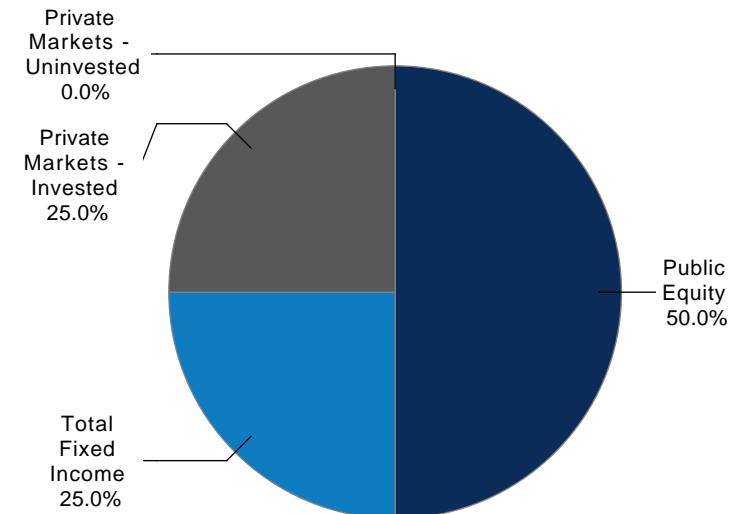
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$41,657	50.0%	50.0%
Total Fixed Income	20,626	24.8	25.0
Private Markets - Total	20,963	25.2	25.0
Private Markets - Invested	20,788	25.0	
Private Markets - Uninvested	176	0.2	
TOTAL	83,246	100.0	



Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. The Combined Funds Composite weighting shown below is as of the first day of the quarter.

	<u>Policy Weight</u>	<u>Market Index</u>
Public Equity	50.0%	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	25.0	Private Markets
Private Markets - Uninvested	0.0	





Combined Funds Asset Class Performance Summary

Public Equity

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

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

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Public Equity	\$41.7	50.0%	50.0%	7.1%	10.2%	-6.7%	17.0%	8.1%	9.7%	9.6%	8.6%
Public Equity Benchmark				7.1	10.0	-7.3	16.4	7.8			
Excess				-0.0	0.2	0.6	0.6	0.3			
Domestic Equity	27.5	33.0	33.5	7.2	9.9	-8.6	18.9	10.4	11.7	10.3	9.4
Domestic Equity Benchmark				7.2	9.7	-8.6	18.6	10.4	11.7	10.4	9.5
Excess				-0.0	0.2	0.0	0.3	0.0	0.0	-0.1	-0.1
International Equity	13.2	15.9	16.5	6.5	10.7	-2.5	13.4	3.4	4.9	7.9	6.2
International Equity Benchmark				6.9	10.0	-5.1	11.7	2.4	4.2	7.5	5.5
Excess				-0.4	0.6	2.5	1.7	0.9	0.7	0.4	0.7
Global Equity	0.9	1.1	0.0	12.6	11.4	-7.7					
MSCI AC World Index (net)				7.3	9.7	-7.4					
Excess				5.3	1.7	-0.2					

Note:

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



Combined Funds Asset Class Performance Summary

Total Fixed Income

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

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

	<u>Market Value</u>	<u>Actual Weight</u>	<u>Policy Weight</u>	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>30 Year</u>
Total Fixed Income	\$20.6	24.8%	25.0%	3.7%	0.6%	-5.1%	-2.9%	1.9%	2.1%	3.8%	5.0%
Total Fixed Income Benchmark				3.2%	-0.4%	-5.2%	-3.8%	1.5%	1.7%	3.3%	4.6%
Excess				0.5%	1.0%	0.1%	0.8%	0.3%	0.4%	0.4%	0.4%
Core/Core Plus	\$4.5	5.4%	5.0	3.4%	0.7%	-5.0%	-1.4%	1.4%	1.9%	3.7%	4.9%
Core Bonds Benchmark				3.0%	-0.1%	-4.8%	-2.8%	0.9%	1.4%	3.2%	4.5%
Excess				0.5%	0.8%	-0.2%	1.3%	0.5%	0.5%	0.5%	0.4%
Return Seeking Fixed Income	\$4.1	5.0%	5.0	3.1%	4.2%	-3.7%					
Bloomberg U.S. Aggregate				3.0%	-0.1%	-4.8%					
Excess				0.2%	4.3%	1.1%					
Treasury Protection	\$7.8	9.3%	10.0	5.0%	-2.4%	-9.5%	-7.4%	0.4%			
Bloomberg Treasury 5+ Year				4.5%	-2.3%	-9.4%	-7.5%	0.4%			
Excess				0.6%	-0.0%	-0.1%	0.1%	-0.0%			
Laddered Bond + Cash	\$4.2	5.1%	5.0	1.1%	2.5%	2.5%	0.8%	1.3%	0.9%	1.5%	3.1%
ICE BofA US 3-Month Treasury Bill				1.1%	2.4%	2.5%	0.9%	1.4%	0.9%	1.3%	2.4%
Excess				0.1%	0.1%	-0.1%	-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

	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>25 Year</u>	<u>30 Year</u>
Private Markets - Invested	1.5%	-0.7%	3.3%	15.8%	13.4%	13.0%	14.2%	12.7%	13.5%
Private Markets - Uninvested (1)	1.4%	4.0%	-12.6%						
Private Equity	2.1%	-2.0%	-0.8%	18.4%	16.8%	16.4%	16.4%	14.3%	15.8%
Private Credit	0.2%	5.6%	12.7%	12.2%	11.9%	13.2%	12.8%	12.5%	
Resources	0.7%	4.2%	19.3%	9.4%	4.3%	3.0%	13.6%	11.5%	13.0%
Real Estate	-1.3%	-0.9%	12.7%	16.1%	13.6%	13.3%	10.1%	9.6%	9.8%

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

Source: State Street Bank



Quarterly Report

Asset Class & Manager Performance

March 31, 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

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Domestic Equity										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$2,915,252,321	10.4%	4.9%	9.5%	-10.9%	19.3%	7.8%	10.6%	8.0%	06/1996
Active Domestic Equity Benchmark			4.0	7.7	-10.4	17.7	7.5	10.1	8.5	06/1996
Excess			0.9	1.8	-0.5	1.5	0.3	0.5	-0.6	
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	2,953,412,417	10.5	7.6	10.4	-7.5	19.4	11.3	12.3	8.8	06/1996
Semi Passive Domestic Equity Benchmark			7.5	9.9	-8.4	18.6	10.9	12.0	8.7	06/1996
Excess			0.1	0.4	0.9	0.9	0.4	0.2	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	22,210,978,492	79.1	7.4	10.0	-8.4	18.6	10.8	11.9	8.9	06/1996
Passive Domestic Equity Benchmark			7.4	9.9	-8.4	18.6	10.7	11.9	9.0	06/1996
Excess			-0.0	0.0	0.0	-0.0	0.0	-0.0	-0.1	
TOTAL DOMESTIC EQUITY (5)	28,079,643,229	100.0	7.2	9.9	-8.6	18.9	10.4	11.7	10.4	01/1984
Domestic Equity Benchmark			7.2	9.7	-8.6	18.6	10.4	11.7	10.6	01/1984
Excess			-0.0	0.2	0.0	0.3	0.0	0.0	-0.2	

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

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

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

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

(5) The current Domestic Equity Benchmark is the Russell 3000.

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



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Large Cap Growth										
SANDS	\$164,661,523	0.6%	17.8%	15.6%	-23.8%	5.7%	7.0%	11.2%	9.8%	01/2005
Russell 1000 Growth			14.4	12.7	-10.9	18.6	13.7	14.6	10.7	01/2005
Excess			3.5	3.0	-12.9	-12.9	-6.7	-3.4	-0.9	
WINSLOW	165,216,703	0.6	11.3	12.9	-12.0	14.6	11.7	13.6	10.8	01/2005
Russell 1000 Growth			14.4	12.7	-10.9	18.6	13.7	14.6	10.7	01/2005
Excess			-3.1	0.2	-1.1	-4.0	-2.0	-1.0	0.1	
RUSSELL 1000 GROWTH AGGREGATE (1)	329,878,227	1.2	14.4	14.3	-18.3	14.0	12.7	14.8	10.4	11/2003
Russell 1000 Growth			14.4	12.7	-10.9	18.6	13.7	14.6	10.6	11/2003
Excess			0.1	1.6	-7.4	-4.6	-1.0	0.2	-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.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Semi-Passive Large Cap										
BLACKROCK	\$1,475,720,777	5.3%	7.6%	10.1%	-7.8%	18.8%	10.9%	12.6%	10.1%	01/1995
Semi Passive Domestic Equity Benchmark			7.5	9.9	-8.4	18.6	10.9	12.0	9.7	01/1995
Excess			0.2	0.1	0.6	0.3	0.0	0.6	0.4	
J.P. MORGAN										
J.P. MORGAN	1,477,691,640	5.3	7.5	10.7	-7.2	20.0	11.7	12.6	10.1	01/1995
Semi Passive Domestic Equity Benchmark			7.5	9.9	-8.4	18.6	10.9	12.0	9.7	01/1995
Excess			0.1	0.8	1.2	1.5	0.8	0.6	0.4	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE										
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	2,953,412,417	10.5	7.6	10.4	-7.5	19.4	11.3	12.3	8.8	06/1996
Semi Passive Domestic Equity Benchmark			7.5	9.9	-8.4	18.6	10.9	12.0	8.7	06/1996
Excess			0.1	0.4	0.9	0.9	0.4	0.2	0.1	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Large Cap Value										
BARROW HANLEY	\$358,616,833	1.3%	-2.2%	7.3%	-3.4%	23.2%	9.8%	10.4%	8.4%	04/2004
Russell 1000 Value			1.0	7.2	-5.9	17.9	7.5	9.1	7.7	04/2004
Excess			-3.2	0.1	2.6	5.3	2.3	1.3	0.7	
LSV	346,239,583	1.2	0.5	7.2	-4.6	21.4	6.5	10.0	8.6	04/2004
Russell 1000 Value			1.0	7.2	-5.9	17.9	7.5	9.1	7.7	04/2004
Excess			-0.5	0.1	1.3	3.5	-1.0	0.9	0.9	
RUSSELL 1000 VALUE AGGREGATE	704,856,416	2.5	-0.9	7.3	-4.0	22.2	8.5	10.3	8.6	10/2003
Russell 1000 Value			1.0	7.2	-5.9	17.9	7.5	9.1	8.4	10/2003
Excess			-1.9	0.1	2.0	4.3	1.0	1.1	0.2	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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					
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					
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Growth										
ARROWMARK	\$173,222,662	0.6%	8.0%	13.1%	-9.5%	16.4%	4.8%		9.5%	11/2016
Russell 2000 Growth			6.1	10.7	-10.6	13.4	4.3		8.6	11/2016
Excess			2.0	2.4	1.1	3.1	0.5		0.9	
HOOD RIVER	220,630,567	0.8	6.3	10.5	-13.4	25.9	11.9		14.2	11/2016
Russell 2000 Growth			6.1	10.7	-10.6	13.4	4.3		8.6	11/2016
Excess			0.3	-0.2	-2.8	12.5	7.7		5.6	
RICE HALL JAMES	186,788,435	0.7	6.9	5.3	-8.4	17.8	3.5		9.8	11/2016
Russell 2000 Growth			6.1	10.7	-10.6	13.4	4.3		8.6	11/2016
Excess			0.8	-5.4	2.2	4.4	-0.8		1.2	
WELLINGTON	230,953,189	0.8	4.6	8.0	-13.1	12.1	3.9		8.5	11/2016
Russell 2000 Growth			6.1	10.7	-10.6	13.4	4.3		8.6	11/2016
Excess			-1.5	-2.8	-2.5	-1.2	-0.3		-0.1	
RUSSELL 2000 GROWTH AGGREGATE	811,594,853	2.9	6.3	9.1	-11.4	18.0	6.1	8.5%	7.3	11/2003
Russell 2000 Growth			6.1	10.7	-10.6	13.4	4.3	8.5	8.1	11/2003
Excess			0.2	-1.6	-0.8	4.6	1.8	0.0	-0.8	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Value										
GOLDMAN SACHS	\$269,935,098	1.0%	0.2%	4.3%	-11.4%	20.1%	3.9%	7.7%	8.3%	01/2004
Russell 2000 Value			-0.7	2.7	-13.0	21.0	4.5	7.2	7.2	01/2004
Excess			0.9	1.6	1.6	-0.9	-0.6	0.5	1.1	
HOTCHKIS AND WILEY	193,254,179	0.7	3.0	16.5	-2.7	35.3	8.9	9.6	8.6	01/2004
Russell 2000 Value			-0.7	2.7	-13.0	21.0	4.5	7.2	7.2	01/2004
Excess			3.7	13.8	10.3	14.3	4.4	2.4	1.4	
MARTINGALE	166,866,764	0.6	1.3	8.6	-4.2	27.1	5.7	9.1	7.6	01/2004
Russell 2000 Value			-0.7	2.7	-13.0	21.0	4.5	7.2	7.2	01/2004
Excess			2.0	5.8	8.7	6.0	1.1	1.9	0.4	
PEREGRINE	253,930,852	0.9	-0.2	3.2	-11.3	24.9	4.4	7.7	9.2	07/2000
Russell 2000 Value			-0.7	2.7	-13.0	21.0	4.5	7.2	8.6	07/2000
Excess			0.4	0.5	1.7	3.9	-0.2	0.5	0.6	
RUSSELL 2000 VALUE AGGREGATE	883,986,893	3.1	0.9	7.2	-8.3	25.7	5.3	8.2	8.5	10/2003
Russell 2000 Value			-0.7	2.7	-13.0	21.0	4.5	7.2	7.9	10/2003
Excess			1.6	4.5	4.7	4.7	0.7	1.0	0.6	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active All Cap										
ZEVENBERGEN (1)	\$184,935,933	0.7%	32.4%	24.4%	-27.2%	6.7%	10.0%	13.8%	10.6%	04/1994
Zevenbergen Custom Benchmark			13.9	12.6	-10.9	19.9	14.4	15.0		04/1994
Excess			18.5	11.8	-16.3	-13.2	-4.5	-1.2		
ACTIVE RUSSELL 3000 GROWTH (2)	184,935,933	0.7	32.4	24.4	-27.2				-24.7	01/2021
Russell 3000 Growth TR			13.9	12.6	-10.9				0.8	01/2021
Excess			18.5	11.8	-16.3				-25.5	

(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.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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)					
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.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$21,430,888,300	76.3%	7.5%	10.0%	-8.4%	18.5%	10.9%		12.6%	11/2016
RUSSELL 1000 (DAILY)			7.5	9.9	-8.4	18.6	10.9		12.6	11/2016
Excess			-0.0	0.0	0.0	-0.0	-0.0		-0.0	
BLACKROCK RUSSELL 2000	77,223,730	0.3	2.7	6.4	-11.9	18.1			6.0	11/2018
RUSSELL 2000 (DAILY)			2.7	6.8	-11.6	17.5			5.5	11/2018
Excess			-0.0	-0.4	-0.3	0.6			0.6	
BLACKROCK RUSSELL 3000 (1)	702,866,462	2.5	7.2	9.8	-8.5	18.7	10.6	11.8%	9.5	07/1995
Passive Manager Benchmark			7.2	9.7	-8.6	18.5	10.5	11.7	9.4	07/1995
Excess			0.0	0.0	0.1	0.3	0.2	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	22,210,978,492	79.1	7.4	10.0	-8.4	18.6	10.8	11.9	8.9	06/1996
Passive Domestic Equity Benchmark			7.4	9.9	-8.4	18.6	10.7	11.9	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.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total International Equity										
DEVELOPED MARKETS (1)	\$9,614,643,277		7.2%	13.9%	0.3%	15.4%	5.0%	55.9%	5.5%	1/1997
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	1/1997
Excess			-0.8	-0.1	3.0	2.0	1.2	1.0	0.6	
EMERGING MARKETS (2)	3,217,258,782	24.1%	4.4	2.8	-10.1	8.5	-0.7	1.9	5.1	11/1996
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9	2.0	5.3	11/1996
Excess			0.4	1.9	0.6	0.7	0.2	-0.1	-0.3	
ACWI EX-US AGGREGATE	376,942,204	2.8	7.3	11.2	-3.7				2.5	01/2021
MSCI AC WORLD ex US (NET) - DAILY			6.9	10.0	-5.1				-1.4	01/2021
Excess			0.5	1.1	1.4				4.0	
CHINA ONLY AGGREGATE	163,983,063	1.2	6.4	-4.4	-1.0				-10.4	01/2021
MSCI China A			4.7	-10.8	-9.2				-9.4	01/2021
Excess			1.8	6.4	8.2				-1.0	
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	2,474,748	0.0								
TOTAL INTERNATIONAL EQUITY (4)	13,375,289,004	100.0	6.5	10.7	-2.5	13.4	3.4	4.9	6.2	10/1992
International Equity Benchmark			6.9	10.0	-5.1	11.7	2.4	4.2	5.7	10/1992
Excess			-0.4	0.7	2.5	1.7	0.9	0.7	0.6	

(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net). Performance includes terminated manager McKinley, which terminated in February 2023.

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

(3) The Transition Aggregate International Equity contains International Equity securities that are being transitioned to a different manager.

(4) The current International Equity Benchmark is the MSCI ACWI ex USA (net). Does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio.

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



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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)					
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					
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					
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
Excess	2.3	1.1	0.8	0.9	-0.3

(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net). Performance includes terminated manager McKinley, which terminated in February 2023.

(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.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Developed Markets										
ACADIAN	\$513,679,385	3.8%	3.9%	10.3%	-5.8%	14.1%	3.6%	7.6%	6.2%	07/2005
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	07/2005
Excess			-4.1	-3.7	-3.1	0.6	-0.2	2.7	1.4	
COLUMBIA	438,800,564	3.3	9.0	18.2	0.9	15.4	6.1	7.0	3.8	03/2000
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	3.6	03/2000
Excess			1.0	4.3	3.6	1.9	2.3	2.1	0.2	
FIDELITY	440,606,811	3.3	8.5	13.2	-3.7	14.4	5.3	6.2	6.4	07/2005
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	07/2005
Excess			0.5	-0.8	-1.0	1.0	1.5	1.3	1.5	
JP MORGAN	331,746,034	2.5	8.3	14.6	-3.0	13.2	4.3	5.3	5.2	07/2005
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	07/2005
Excess			0.3	0.7	-0.3	-0.3	0.5	0.4	0.3	
MARATHON	371,748,780	2.8	7.6	14.7	-1.5	15.3	4.6	6.2	7.7	11/1993
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	5.0	11/1993
Excess			-0.5	0.7	1.2	1.8	0.8	1.3	2.7	
AQR CAPITAL MANAGEMENT	252,229,703	1.9	7.4	12.5	-2.1	13.3	1.6	4.3	4.7	07/2005
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	07/2005
Excess			-0.6	-1.4	0.7	-0.2	-2.2	-0.6	-0.1	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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
AQR CAPITAL MANAGEMENT	-12.7	8.1	6.5	20.8	-18.2
BENCHMARK DM	-14.3	12.6	7.6	22.5	-14.1
Excess	1.6	-4.5	-1.1	-1.7	-4.1



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>1 Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Developed Markets										
Active Developed Markets Aggregate (1)	\$2,350,596,152	17.6%	7.3%	13.5%	-2.9%	14.3%	4.3%	5.9%	5.5%	06/1996
BENCHMARK DM			8.0%	14.0%	-2.7%	13.5%	3.8%	4.9%	2.3%	06/1996
Excess			-0.7%	-0.4%	-0.2%	0.8%	0.5%	1.0%	3.1%	
SSgA DEVELOPED MARKETS PASSIVE	\$7,348,999,390	54.9%	8.2%	14.2%	-2.3%	14.0%	4.3%	5.4%		
BENCHMARK DM			8.0%	14.0%	-2.7%	13.5%	3.8%	4.9%		
Excess			0.1%	0.2%	0.4%	0.5%	0.5%	0.4%		
RECORD CURRENCY (2)	-\$84,965,335	-0.6%	-0.8%	-0.1%	2.8%					10/2020
DEVELOPED MARKETS (1)	\$9,614,643,277		7.2%	13.9%	0.3%	15.4%	5.0%	55.9%	5.5%	1/1997
BENCHMARK DM			8.0	14.0	-2.7	13.5	3.8	4.9	4.9	1/1997
Excess			-0.8	-0.1	3.0	2.0	1.2	1.0	0.6	

(1) Includes the historical returns of AQR and terminated managers previously classified as "Semi-Passive Developed Markets." Performance includes terminated manager McKinley, which terminated in February 2023.

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



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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	-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" erformance includes terminated manager McKinley, which terminated in February 2023.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Emerging Markets										
MARTIN CURRIE	\$372,552,441	2.8%	4.6%	2.8%	-11.8%	6.9%	-0.1%		4.8%	04/2017
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9		3.0	04/2017
Excess			0.7	2.0	-1.1	-0.9	0.8		1.8	
MACQUARIE	352,932,560	2.6	7.8	1.8	-10.8	8.6	0.4		4.0	04/2017
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9		3.0	04/2017
Excess			3.9	1.0	-0.1	0.8	1.3		1.0	
MORGAN STANLEY	440,483,401	3.3	2.6	5.7	-11.8	8.1	-1.5	1.9%	7.7	01/2001
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9	2.0	7.6	01/2001
Excess			-1.4	4.9	-1.1	0.3	-0.6	-0.1	0.1	
NEUBERGER BERMAN	325,510,282	2.4	3.7	1.5	-9.4	4.2	-3.1		1.5	04/2017
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9		3.0	04/2017
Excess			-0.3	0.6	1.3	-3.6	-2.2		-1.5	
PZENA	365,260,805	2.7	6.7	10.3	-2.6	19.3	3.2		5.3	04/2017
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9		3.0	04/2017
Excess			2.7	9.4	8.1	11.4	4.1		2.3	
ROCK CREEK	354,384,350	2.6	2.5	0.3	-11.9	7.8	-1.0		2.3	04/2017
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9		3.0	04/2017
Excess			-1.5	-0.5	-1.2	0.0	-0.1		-0.7	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE	\$2,211,123,839	16.5%	4.5%	3.8%	-9.9%	8.9%	-0.6%	1.7%	3.1%	01/2012
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9	2.0	3.1	01/2012
Excess			0.6	2.9	0.8	1.1	0.3	-0.3	-0.1	
SSGA EMERGING MARKETS PASSIVE	1,006,134,943	7.5	4.1	0.7	-10.7	7.5	-1.1	2.0	3.1	01/2012
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9	2.0	3.1	01/2012
Excess			0.1	-0.2	0.0	-0.3	-0.1	0.0	-0.0	
EMERGING MARKETS TOTAL	3,217,258,782	24.1	4.4	2.8	-10.1	8.5	-0.7	1.9	5.1	11/1996
BENCHMARK EM			4.0	0.8	-10.7	7.8	-0.9	2.0	5.3	11/1996
Excess			0.4	1.9	0.6	0.7	0.2	-0.1	-0.3	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	\$376,942,204	2.8%	7.3%	11.2%	-3.7%				2.5%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			6.9%	10.0%	-5.1%				-1.4%	01/2021
Excess			0.5%	1.1%	1.4%				4.0%	
TOTAL ACWI EX-US AGGREGATE										
TOTAL ACWI EX-US AGGREGATE	\$376,942,204	2.8%	7.3%	11.2%	-3.7%				2.5%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			6.9%	10.0%	-5.1%				-1.4%	01/2021
Excess			0.5%	1.1%	1.4%				4.0%	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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					
MSCI AC WORLD ex US (NET) - DAILY	-16.0	7.8			
Excess	3.4	4.9			



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
China Only Managers										
EARNEST PARTNERS CHINA	\$163,983,063	1.2%	6.4%	-4.4%	-1.0%				-10.4%	01/2021
MSCI China A			4.7	-10.8	-9.2				-9.4	01/2021
Excess			1.8	6.4	8.2				-1.0	
CHINA ONLY AGGREGATE	163,983,063	1.2	6.4	-4.4	-1.0				-10.4	01/2021
MSCI China A			4.7	-10.8	-9.2				-9.4	01/2021
Excess			1.8	6.4	8.2				-1.0	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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					
MSCI China A	-25.9	3.2			
Excess	1.4	-6.1			

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Global Equity

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Global Equity Managers										
ARIEL INVESTMENTS	\$384,279,933	40.9%	5.5%	4.6%	-1.5%				5.0%	01/2021
MSCI AC WORLD NET USD DAILY			7.3	9.7	-7.4				1.7	01/2021
Excess			-1.8	-5.1	5.9				3.3	
BAILLIE GIFFORD	207,273,679	22.0	19.8	15.4	-18.4				-17.1	01/2021
MSCI AC WORLD NET USD DAILY			7.3	9.7	-7.4				1.7	01/2021
Excess			12.5	5.6	-10.9				-18.8	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	348,915,024	37.1	17.3	17.4	-6.8				-5.2	01/2021
MSCI AC WORLD NET USD DAILY			7.3	9.7	-7.4				1.7	01/2021
Excess			10.0	7.6	0.6				-6.9	
GLOBAL EQUITY	940,468,636	100.0	12.6	11.4	-7.7				-4.9	01/2021
MSCI AC WORLD NET USD DAILY			7.3	9.7	-7.4				1.7	01/2021
Excess			5.3	1.7	-0.2				-6.6	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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			

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Core/Core Plus Bonds

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Bonds										
CORE (1)	\$1,924,369,026	41.1%	3.3%	1.1%	-3.9%				-3.7%	11/2020
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8				-4.6	11/2020
Excess			0.4	1.2	0.8				1.0	
CORE PLUS (1)	2,756,281,076	58.9	3.5	0.5	-5.7				-4.8	11/2020
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8				-4.6	11/2020
Excess			0.6	0.6	-0.9				-0.2	
TRANSITION AGGREGATE CORE BONDS (2)	19,278	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	4,680,669,380	100.0	3.4	0.7	-5.0	-1.4%	1.4%	1.9%	6.8	07/1984
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	6.4	07/1984
Excess			0.5	0.8	-0.2	1.3	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.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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.

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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Core										
DODGE & COX	\$1,025,667,172	21.9%	3.2%	1.7%	-3.2%	-0.2%	1.9%	2.4%	5.1%	02/2000
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	4.1	02/2000
Excess			0.3	1.8	1.6	2.6	1.0	1.0	1.0	
BLACKROCK	898,701,854	19.2	3.4	0.4	-4.8	-2.2	1.2	1.6	4.4	04/1996
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	4.3	04/1996
Excess			0.5	0.5	0.0	0.6	0.3	0.2	0.1	
CORE	1,924,369,026	41.1	3.3	1.1	-3.9				-3.7	11/2020
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8				-4.6	11/2020
Excess			0.4	1.2	0.8				1.0	

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



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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					
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					
CORE	-12.3	-1.0			
Bloomberg U.S. Aggregate	-13.0	-1.5			
Excess	0.7	0.5			



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Core Plus Bonds										
GOLDMAN SACHS	\$900,937,805	19.2%	3.4%	0.2%	-5.2%	-2.0%	1.2%	1.7%	4.8%	07/1993
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	4.5	07/1993
Excess			0.5	0.3	-0.4	0.8	0.3	0.3	0.3	
NEUBERGER	881,579,310	18.8	3.2	0.6	-5.6	-1.9	1.4	1.7	5.7	07/1988
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	5.4	07/1988
Excess			0.2	0.7	-0.8	0.9	0.5	0.3	0.3	
WESTERN	973,763,960	20.8	4.0	0.5	-6.1	-1.7	1.0	2.0	7.4	07/1984
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8	-2.8	0.9	1.4	6.4	07/1984
Excess			1.0	0.6	-1.4	1.1	0.1	0.7	1.0	
CORE PLUS	2,756,281,076	58.9	3.5	0.5	-5.7				-4.8	11/2020
Bloomberg U.S. Aggregate			3.0	-0.1	-4.8				-4.6	11/2020
Excess			0.6	0.6	-0.9				-0.2	

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



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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			

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Return Seeking Bonds

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	\$872,655,878	21.1%	4.1%	2.8%	-5.9%				-4.4%	12/2020
Credit Plus Benchmark			3.1	2.4	-4.9				-4.9	12/2020
Excess			1.1	0.3	-1.0				0.5	
PIMCO CREDIT PLUS	823,420,868	19.9	3.2	2.7	-4.9				-4.1	12/2020
Credit Plus Benchmark			3.1	2.4	-4.9				-4.9	12/2020
Excess			0.1	0.2	0.0				0.7	
CREDIT PLUS	1,696,076,747	41.0	3.7	2.7	-5.4				-4.2	12/2020
Credit Plus Benchmark			3.1	2.4	-4.9				-4.9	12/2020
Excess			0.6	0.3	-0.5				0.6	
BLACKROCK OPPORTUNISTIC	535,282,897	12.9	1.6	2.9	-0.9				-1.3	12/2020
ICE BofA US 3-Month Treasury Bill			1.1	2.4	2.5				1.1	12/2020
Excess			0.5	0.5	-3.4				-2.4	
ASHMORE EMERGING MARKET	287,866,075	7.0	3.5	5.8	-6.6				-11.0	01/2021
JPM JEMB Sovereign-only 50-50			3.5	6.9	-3.8				-7.7	01/2021
Excess			-0.1	-1.1	-2.8				-3.3	
TCW SECURITIZED CREDIT	393,710,976	9.5	2.0	0.2	-2.0				-1.1	07/2021
ICE BofA US 3-Month Treasury Bill			1.1	2.4	2.5				1.5	07/2021
Excess			0.9	-2.2	-4.5				-2.5	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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				



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds Managers										
PAYDEN RYGEL	\$285,437,255	6.9%	2.5%	6.6%	-3.0%				-2.3%	01/2021
Multi-Asset Credit Benchmark			2.9	6.4	-2.6				-2.2	01/2021
Excess			-0.4	0.2	-0.4				-0.0	
PGIM	330,352,580	8.0	2.7	6.8	-3.4				-2.8	01/2021
Multi-Asset Credit Benchmark			2.9	6.4	-2.6				-2.2	01/2021
Excess			-0.2	0.4	-0.8				-0.6	
MULTI-ASSET CREDIT	615,789,834	14.9	2.6	6.7	-3.2				-2.6	01/2021
Multi-Asset Credit Benchmark			2.9	6.4	-2.6				-2.2	01/2021
Excess			-0.3	0.3	-0.6				-0.3	
KKR	302,683,220	7.3	4.1	7.8	-3.4				-1.4	01/2021
ICE BofA US Cash Pay HY Constrained			3.7	7.2	-3.5				-1.3	01/2021
Excess			0.5	0.7	0.1				-0.0	
OAKTREE	300,599,341	7.3	3.0	7.3	-3.0				-1.1	01/2021
ICE BofA US Cash Pay HY Constrained			3.7	7.2	-3.5				-1.3	01/2021
Excess			-0.7	0.1	0.5				0.2	
HIGH YIELD	603,282,560	14.6	3.6	7.6	-3.2				-1.3	01/2021
ICE BofA US Cash Pay HY Constrained			3.7	7.2	-3.5				-1.3	01/2021
Excess			-0.1	0.4	0.3				0.1	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
Return Seeking Bonds Managers					
PAYDEN RYSEL	-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			



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds										
CREDIT PLUS	\$1,696,076,747	41.0%	3.7%	2.7%	-5.4%				-4.2%	12/2020
Credit Plus Benchmark			3.1	2.4	-4.9				-4.9	12/2020
Excess			0.6	0.3	-0.5				0.6	
OPPORTUNISTIC FI	535,282,897	13.0	1.6	2.9	-0.9				-1.3	12/2020
ICE BofA US 3-Month Treasury Bill			1.1	2.4	2.5				1.1	12/2020
Excess			0.5	0.5	-3.4				-2.4	
EMERGING MARKET DEBT	287,866,075	7.0	3.5	5.8	-6.6				-11.0	01/2021
JPM JEMB Sovereign-only 50-50			3.5	6.9	-3.8				-7.7	01/2021
Excess			-0.1	-1.1	-2.8				-3.3	
SECURITIZED CREDIT	393,717,359	9.5	2.0	0.2	-2.0				-1.1	06/2021
ICE BofA US 3-Month Treasury Bill			1.1	2.4	2.5				1.4	06/2021
Excess			0.9	-2.2	-4.5				-2.4	
MULTI-ASSET CREDIT	615,789,834	14.9	2.6	6.7	-3.2				-2.6	01/2021
Multi-Asset Credit Benchmark			2.9	6.4	-2.6				-2.2	01/2021
Excess			-0.3	0.3	-0.6				-0.3	
HIGH YIELD	603,282,560	14.6	3.6	7.6	-3.2				-1.3	01/2021
ICE BofA US Cash Pay HY Constrained			3.7	7.2	-3.5				-1.3	01/2021
Excess			-0.1	0.4	0.3				0.1	
RETURN SEEKING BONDS (1)	4,133,162,425	100.0	3.0	4.1	-3.8				-3.1	12/2020
Return Seeking Fixed Income Benchmark			2.7	4.0	-2.7				-2.6	12/2020
Excess			0.3	0.1	-1.1				-0.4	

(1) Includes Return Seeking Bonds transition account.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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			

(1) Includes Return Seeking Bonds transition account.

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Treasuries

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Treasuries Managers										
BLACKROCK	\$2,634,601,316	33.9%	5.0%	-2.4%	-9.5%	-7.6%	0.3%		0.3%	02/2018
Bloomberg Treasury 5+ Year			4.5	-2.3	-9.4	-7.5	0.4		0.4	02/2018
Excess			0.5	-0.0	-0.1	-0.1	-0.1		-0.1	
GOLDMAN SACHS	2,602,114,809	33.5	5.0	-2.3	-9.4	-7.4	0.4		0.4	02/2018
Bloomberg Treasury 5+ Year			4.5	-2.3	-9.4	-7.5	0.4		0.4	02/2018
Excess			0.6	0.1	-0.0	0.1	0.0		0.0	
NEUBERGER	2,535,206,241	32.6	5.1	-2.5	-9.7	-7.2	0.5		0.5	02/2018
Bloomberg Treasury 5+ Year			4.5	-2.3	-9.4	-7.5	0.4		0.4	02/2018
Excess			0.6	-0.1	-0.3	0.3	0.1		0.1	
TOTAL TREASURIES	7,771,922,366	100.0	5.0	-2.4	-9.5	-7.4	0.4		0.4	02/2018
Bloomberg Treasury 5+ Year			4.5	-2.3	-9.4	-7.5	0.4		0.4	02/2018
Excess			0.6	-0.0	-0.1	0.1	0.0		-0.0	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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	

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Laddered Bonds + Cash

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Laddered Bond and Cash Managers									
Neuberger Berman Ladder Bond	\$989,224,428	23.3%	1.2%	2.3%				0.9%	11/2020
ICE BofA US 3-Month Treasury Bill			1.1	2.5				1.1	11/2020
Excess			0.1	-0.2				-0.2	
Goldman Sachs Ladder Bond	990,136,545	23.4	1.1	2.3				0.9	11/2020
ICE BofA US 3-Month Treasury Bill			1.1	2.5				1.1	11/2020
Excess			0.0	-0.2				-0.2	
Treasury Ladder Aggregate	1,979,360,973	46.7	1.1	2.3				0.9	11/2020
ICE BofA US 3-Month Treasury Bill			1.1	2.5				1.1	11/2020
Excess			0.1	-0.2				-0.2	
Combined Funds STIF	2,208,033,838	52.1	1.2	2.9	1.0%	1.5%	0.9%	1.5	01/2004
iMoneyNet Money Fund Average-All Taxable			1.0	2.4	0.8	1.2	0.7	1.1	01/2004
Excess			0.1	0.4	0.2	0.3	0.3	0.4	
TEACHERS RETIREMENT CD REPO	52,723,074	1.2	1.1	2.6	1.1	1.5	1.1	1.0	02/2012
ICE BofA US 3-Month Treasury Bill			1.1	2.5	0.9	1.4	0.9	0.8	02/2012
Excess			0.0	0.1	0.2	0.1	0.2	0.2	
Laddered Bond + Cash	4,240,322,367	100.0	1.1	2.5	0.8	1.3	0.9	4.2	12/1977
ICE BofA US 3-Month Treasury Bill			1.1	2.5	0.9	1.4	0.9	4.4	12/1977
Excess			0.1	-0.1	-0.1	-0.1	0.1	-0.2	



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
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

March 31, 2023



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Uninvested Private Markets Managers										
UNINVESTED PRIVATE MARKETS 1	175,651,029	100.0	1.4	4.0	-12.6				3.3	01/2021
Uninvested Private Markets BM			1.0	4.2	-12.6				3.2	01/2021
Excess			0.3	-0.2	0.0				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.



	<u>2022 Calendar Return</u>	<u>2021 Calendar Return</u>	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>
Uninvested Private Markets Managers					
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

March 31, 2023



Combined Funds Asset Class Performance Summary

Private Markets

	<u>Last Qtr</u>	<u>FYTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>20 Year</u>	<u>25 Year</u>	<u>30 Year</u>
Private Markets - Invested	1.5%	-0.7%	3.3%	15.8%	13.4%	13.0%	14.2%	12.7%	13.5%
Private Markets -Uninvested (1)	1.4%	4.0%	-12.6%						
Private Equity	2.1%	-2.0%	-0.8%	18.4%	16.8%	16.4%	16.4%	14.3%	15.8%
Private Credit	0.2%	5.6%	12.7%	12.2%	11.9%	13.2%	12.8%	12.5%	
Resources	0.7%	4.2%	19.3%	9.4%	4.3%	3.0%	13.6%	11.5%	13.0%
Real Estate	-1.3%	-0.9%	12.7%	16.1%	13.6%	13.3%	10.1%	9.6%	9.8%

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

Source: State Street Bank

Minnesota State Board of Investment
Quarter Ending March 31, 2023
Private Markets Investments



Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	24,515,978,536	18,990,818,030	14,855,828,544	7,464,142,375	14,882,701,700	1.57	13.69	
Adams Street Partners, LLC	398,191,000	195,342,092	117,846,307	203,020,010	164,844,652	1.45	11.97	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	75,128,710	22,885,308	29,025,416	1.35	6.38	2012
Adams Street Global Secondary Fund 6	100,000,000	80,400,008	42,717,597	19,599,992	83,030,576	1.56	24.50	2017
Adams Street Global Secondary Fund 7	198,191,000	37,827,392	0	160,534,710	52,788,660	1.40	69.26	2021
Advent International Group	505,000,000	355,391,326	326,931,020	152,692,628	300,893,574	1.77	16.30	
Advent International GPE IX	115,000,000	104,657,372	11,495,408	10,342,628	143,499,360	1.48	23.99	2019
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	5,079,696	2.05	16.52	2008
Advent International GPE VII, L.P.	90,000,000	86,490,641	138,972,935	3,600,000	18,157,723	1.82	13.53	2012
Advent International GPE VIII-B	100,000,000	100,000,000	73,062,483	0	123,255,343	1.96	17.90	2016
Advent International GPE X	150,000,000	11,250,000	0	138,750,000	10,901,453	0.97	-4.68	2022
Affinity Ventures	9,000,000	9,000,000	3,590,011	0	818,406	0.49	-11.47	
Affinity Ventures IV, L.P.	4,000,000	4,000,000	1,541,970	0	3,279	0.39	-35.89	2004
Affinity Ventures V, L.P.	5,000,000	5,000,000	2,048,042	0	815,127	0.57	-8.26	2008
Apax Partners	600,000,000	523,062,755	538,261,900	161,066,025	325,167,415	1.65	16.35	
Apax IX USD L.P.	150,000,000	162,024,715	180,896,534	14,420,230	149,158,749	2.04	23.44	2016
APAX VIII - USD	200,000,000	240,451,261	348,098,981	7,966,190	46,355,355	1.64	13.65	2013
Apax X USD L.P.	150,000,000	120,586,779	9,266,385	38,679,605	129,653,312	1.15	12.92	2019
Apax XI	100,000,000	0	0	100,000,000	0	0.00		2022
Arsenal Capital Partners	175,000,000	102,279,759	13,903,312	81,440,684	97,739,465	1.09	4.72	
Arsenal Capital Partners V, L.P.	75,000,000	72,853,782	13,616,281	10,598,693	71,627,682	1.17	6.63	2019
Arsenal Capital Partners VI LP	100,000,000	29,425,977	287,031	70,841,991	26,111,782	0.90	-16.98	2021
Asia Alternatives	399,000,000	160,305,508	17,851,277	252,112,005	158,611,594	1.10	5.60	
Asia Alternatives Capital Partners V	99,000,000	99,689,009	16,719,934	12,728,504	106,413,772	1.24	9.46	2017
MN Asia Investors	300,000,000	60,616,499	1,131,343	239,383,501	52,197,822	0.88	-14.77	2020
Banc Fund	178,551,387	187,460,477	47,378,269	0	209,129,012	1.37	6.78	
Banc Fund IX, L.P.	107,205,932	107,205,932	40,052,872	0	119,854,658	1.49	6.94	2014
Banc Fund X, L.P.	71,345,455	80,254,545	7,325,397	0	89,274,354	1.20	6.27	2018
BlackRock	951,774,870	956,392,392	4,517,603	0	1,413,979,899	1.48	26.43	
BlackRock Long Term Capital, SCSP	950,000,000	954,617,522	2,660,745	0	1,413,906,522	1.48	26.57	2019
BlackRock Tempus Fund	1,774,870	1,774,870	1,856,858	0	73,377	1.09	4.48	2015

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Blackstone Group L.P.	1,535,000,000	862,461,407	706,711,530	771,266,541	532,012,652	1.44	14.76	
Blackstone Capital Partners Asia II	270,000,000	29,246,803	0	240,753,197	25,165,441	0.86	-19.12	2021
Blackstone Capital Partners IV, L.P.	70,000,000	84,459,884	201,361,236	1,832,302	243,593	2.39	37.02	2002
Blackstone Capital Partners IX	150,000,000	0	0	150,000,000	0	0.00		2022
Blackstone Capital Partners V L.P.	140,000,000	152,406,707	245,675,051	7,027,560	1,080,889	1.62	8.03	2006
Blackstone Capital Partners VI, L.P.	100,000,000	106,736,238	151,468,407	10,975,597	40,593,437	1.80	12.46	2008
Blackstone Capital Partners VII	130,000,000	139,199,091	83,886,681	9,306,402	124,562,868	1.50	12.72	2015
Blackstone Capital Partners VIII LP	150,000,000	84,797,929	5,014,030	74,769,532	92,665,912	1.15	12.08	2019
Blackstone Growth	250,000,000	202,357,166	19,306,124	64,701,951	185,416,900	1.01	0.88	2020
Blackstone Growth Equity II	150,000,000	0	0	150,000,000	0	0.00		2022
Blackstone Supplemental Account - M	125,000,000	63,257,591	0	61,900,000	62,283,612	0.98	-1.34	2021
Blackstone Strategic Partners	915,500,000	693,650,726	840,093,687	311,825,191	249,600,941	1.57	11.66	
Strategic Partners III VC, L.P.	25,000,000	25,075,239	34,045,314	99,607	109,523	1.36	5.97	2004
Strategic Partners III-B, L.P.	100,000,000	79,629,077	118,509,586	12,304,709	214,664	1.49	6.35	2004
Strategic Partners IV VC, L.P.	40,500,000	42,158,499	62,465,109	2,264,243	2,326,359	1.54	9.19	2008
Strategic Partners IV-B	100,000,000	99,439,438	153,094,848	11,585,489	2,921,062	1.57	12.16	2008
Strategic Partners IX	100,000,000	19,862,402	3,027,047	80,875,867	20,450,432	1.18	23.88	2022
Strategic Partners V, LP	100,000,000	87,151,025	135,416,710	15,878,130	8,067,259	1.65	18.51	2011
Strategic Partners VI, L.P.	150,000,000	103,952,264	128,689,646	52,730,060	28,906,071	1.52	14.26	2014
Strategic Partners VII, L.P.	150,000,000	119,822,968	123,074,062	47,260,596	79,248,532	1.69	18.76	2016
Strategic Partners VIII	150,000,000	116,559,813	81,771,365	88,826,490	107,357,039	1.62	36.46	2018
Bridgepoint	266,501,216	141,291,722	14,615,268	125,209,494	201,316,860	1.53	22.27	
Bridgepoint Europe VI L.P.	168,720,729	141,291,722	14,615,268	27,429,006	201,316,860	1.53	22.27	2018
Bridgepoint Europe VII	97,780,487	0	0	97,780,487	0	0.00		2022
Brookfield Asset Management Inc.	500,000,000	368,225,087	198,661,598	174,827,878	384,376,023	1.58	30.74	
Brookfield Capital Partners Fund IV	100,000,000	109,806,883	172,956,949	10,864,417	95,755,286	2.45	44.34	2015
Brookfield Capital Partners Fund VI	150,000,000	28,106,154	13,079	121,893,846	29,510,028	1.05	5.50	2022
Brookfield Capital Partners V L.P.	250,000,000	230,312,050	25,691,569	42,069,615	259,110,708	1.24	11.47	2018
CVC Capital Partners	390,819,625	438,437,319	609,343,979	22,764,682	261,870,831	1.99	16.90	
CVC Capital Partners VI	256,951,653	284,553,221	313,929,854	21,212,972	259,094,564	2.01	17.15	2013
CVC European Equity Partners V, L.P.	133,867,972	153,884,098	295,414,125	1,551,710	2,776,267	1.94	16.70	2008

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Canyon Partners	125,000,000	128,095,847	21,475,843	18,379,996	127,824,374	1.17	10.68	
Canyon Distressed Opportunity Fund III	125,000,000	128,095,847	21,475,843	18,379,996	127,824,374	1.17	10.68	2020
CarVal Investors	600,000,000	517,703,333	399,152,205	126,561,916	280,983,923	1.31	8.08	
CVI Credit Value Fund A II	150,000,000	142,500,000	199,242,174	7,500,000	4,185,181	1.43	8.30	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	155,693,490	7,500,000	37,927,732	1.36	8.43	2015
CVI Credit Value Fund IV	150,000,000	135,203,333	44,061,975	59,061,916	134,528,850	1.32	7.65	2017
CVI Credit Value Fund V	150,000,000	97,500,000	154,566	52,500,000	104,342,160	1.07	5.89	2020
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	30,270	3.92	10.61	
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	30,270	3.92	10.61	1985
Carlyle Group	400,000,000	296,405,757	67,112,119	169,002,763	269,489,076	1.14	6.67	
Carlyle Partners VII, L.P.	150,000,000	154,437,535	13,658,272	8,816,146	167,981,704	1.18	7.30	2017
Carlyle Partners VIII	150,000,000	22,119,848	24,578	127,880,152	20,096,833	0.91	-13.22	2021
Carlyle Strategic Partners IV, L.P.	100,000,000	119,848,374	53,429,269	32,306,465	81,410,539	1.13	6.88	2016
Chicago Growth Partners	60,000,000	58,347,626	123,930,240	1,652,374	18,263	2.12	19.54	
Chicago Growth Partners II, L.P.	60,000,000	58,347,626	123,930,240	1,652,374	18,263	2.12	19.54	2008
Clearlake Capital	100,000,000	51,373,445	2,434	48,626,555	50,794,826	0.99	-1.67	
Clearlake Capital Partners VII	100,000,000	51,373,445	2,434	48,626,555	50,794,826	0.99	-1.67	2022
Court Square	489,419,132	480,698,874	613,283,355	63,697,385	251,791,128	1.80	14.71	
Court Square Capital Partners II, L.P.	164,419,132	170,029,204	295,744,454	6,176,873	3,198,779	1.76	12.32	2006
Court Square Capital Partners III, L.P.	175,000,000	189,298,685	276,934,903	6,891,452	129,856,561	2.15	20.01	2012
Court Square Capital Partners IV, L.P.	150,000,000	121,370,985	40,603,998	50,629,060	118,735,788	1.31	17.72	2018
GTCR	210,000,000	214,082,258	435,489,638	16,665,460	125,777,961	2.62	25.60	
GTCR Fund X	100,000,000	105,821,208	214,751,215	6,751,396	652,278	2.04	21.36	2010
GTCR XI	110,000,000	108,261,050	220,738,423	9,914,064	125,125,683	3.19	33.19	2013
Goldman, Sachs & Co.	449,800,000	379,007,260	339,685,203	163,683,992	229,921,135	1.50	11.53	
GS Capital Partners VI, L.P.	100,000,000	110,285,035	143,299,966	2,551,356	1,642,503	1.31	7.10	2007
GS China-US Cooperation Fund	99,800,000	39,430,412	523,330	60,544,033	53,194,034	1.36	14.92	2018
GS Vintage VII	100,000,000	87,052,611	70,465,077	61,810,828	67,137,120	1.58	15.31	2016
West Street Capital Partners VII, L.P.	150,000,000	142,239,202	125,396,830	38,777,775	107,947,478	1.64	19.17	2016

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Goldner Hawn Johnson & Morrison	77,755,138	55,773,532	71,964,283	22,153,573	50,510,066	2.20	21.71	
GHJM TrailHead Fund	20,000,000	16,652,130	51,364,283	3,354,486	6,532,145	3.48	20.23	2012
Goldner Hawn Fund VII, L.P.	57,755,138	39,121,401	20,600,000	18,799,087	43,977,921	1.65	29.76	2018
Green Equity Investors	325,000,000	333,851,922	237,861,791	28,836,069	329,583,852	1.70	13.50	
Green Equity Investors VI, L.P.	200,000,000	224,914,839	236,849,045	11,760,406	210,963,115	1.99	14.00	2012
Green Equity Investors VIII	125,000,000	108,937,083	1,012,746	17,075,663	118,620,737	1.10	6.10	2020
HarbourVest	21,637,421	20,940,767	26,553,379	792,377	5,327,927	1.52	12.13	
Dover Street VII Cayman Fund L.P.	2,198,112	2,074,235	1,845,767	132,416	17,333	0.90	-4.48	2014
HarbourVest Intl PE Partners V-Cayman US	3,514,437	3,346,199	4,508,944	173,832	44,519	1.36	13.65	2014
Harbourvest Intl PE Partners VI-Cayman	4,227,263	4,039,473	5,532,345	190,129	2,445,021	1.97	15.51	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,390,673	5,849,345	156,000	441,494	1.43	13.42	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,090,187	8,816,978	140,000	2,379,560	1.58	11.43	2014
Hellman & Friedman	475,000,000	409,746,690	165,276,173	77,974,457	401,799,617	1.38	18.96	
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,900,888	153,705,841	2,197,702	9,911,576	3.28	24.85	2009
Hellman & Friedman Capital Partners X	250,000,000	186,382,141	7,412,203	71,030,062	174,952,421	0.98	-2.32	2021
Hellman & Friedman Investors IX, L.P.	175,000,000	173,463,661	4,158,129	4,746,693	216,935,620	1.27	11.73	2018
IK Limited	600,311,818	472,935,898	501,147,462	150,057,705	284,896,797	1.66	15.41	
IK Fund IX	152,183,013	116,486,003	0	35,696,635	120,827,936	1.04	2.76	2019
IK Fund VII	179,948,426	179,393,652	318,142,763	8,239,931	32,221,476	1.95	14.93	2013
IK Fund VIII	170,399,891	177,056,244	183,004,699	8,340,652	131,847,386	1.78	18.47	2016
IK Fund X	97,780,487	0	0	97,780,487	0	0.00		2022
Kohlberg, Kravis, Roberts & Co.	1,647,000,000	1,078,710,495	946,468,408	632,355,417	718,670,475	1.54	13.04	
KKR 2006 Fund L.P.	200,000,000	218,137,965	392,492,978	3,300,979	129,265	1.80	9.10	2006
KKR Americas Fund XII L.P.	150,000,000	146,459,730	58,705,089	16,909,238	175,574,394	1.60	17.52	2016
KKR Asian Fund III	100,000,000	95,023,847	48,897,408	15,211,669	112,226,034	1.70	22.07	2017
KKR Asian Fund IV	150,000,000	55,326,357	415,503	98,610,591	56,761,295	1.03	2.91	2020
KKR Core Investments Fund II	100,000,000	0	0	100,000,000	0	0.00		2022
KKR Core Investments Partnership	97,000,000	92,524,782	4,092,567	9,689,508	104,756,966	1.18	12.77	2021
KKR Europe V	100,000,000	88,059,677	16,882,045	16,643,999	88,362,779	1.20	10.07	2018
KKR European Fund VI (USD) SCSp	100,000,000	0	0	100,000,000	0	0.00		2022
KKR Millennium Fund	200,000,000	205,167,570	424,946,028	0	161,924	2.07	16.36	2002
KKR MN Partnership L.P.	150,000,000	77,488,217	36,790	72,511,783	81,451,197	1.05	5.41	2021
KKR North America Fund XIII	300,000,000	100,522,350	0	199,477,650	99,246,621	0.99	-1.83	2021

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Lexington Partners	1,345,000,000	1,042,303,261	749,571,879	370,041,295	809,049,712	1.50	13.37	
Lexington Capital Partners IX, L.P.	150,000,000	119,793,422	32,333,684	42,878,271	145,202,358	1.48	31.02	2018
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	145,572,539	1,634,703	949,472	1.49	7.90	2005
Lexington Capital Partners VII, L.P.	200,000,000	173,199,401	265,364,603	30,768,965	24,982,858	1.68	14.51	2009
Lexington Capital Partners VIII, L.P.	150,000,000	136,614,631	135,444,044	32,435,593	92,402,702	1.67	16.71	2014
Lexington Capital Partners X	100,000,000	0	0	100,000,000	2,872,815	0.00		2021
Lexington Co-Investment Partners IV	200,000,000	214,959,692	132,540,232	5,815,392	216,096,569	1.62	16.18	2017
Lexington Co-Investment Partners V	300,000,000	185,467,198	10,031,374	124,564,176	202,243,651	1.14	13.82	2020
Lexington Co-Investment Partners V Overage	45,000,000	29,997,000	839,090	15,842,090	30,441,762	1.04	4.09	2021
Lexington Middle Market Investors IV	100,000,000	83,897,895	27,446,313	16,102,105	93,857,524	1.45	22.88	2016
MHR Institutional Partners	75,000,000	82,309,392	23,154,284	12,448,636	97,391,655	1.46	11.20	
MHR Institutional Partners IV LP	75,000,000	82,309,392	23,154,284	12,448,636	97,391,655	1.46	11.20	2014
Madison Dearborn Capital Partners LLC	200,000,000	165,203,250	67,860,601	58,680,092	173,971,565	1.46	13.66	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	98,553,226	59,938,858	17,549,186	110,231,111	1.73	14.53	2015
Madison Dearborn Capital Partners VIII-A, L.P.	100,000,000	66,650,024	7,921,743	41,130,906	63,740,454	1.08	6.56	2019
Marathon	200,000,000	149,906,171	6,185,200	56,000,000	161,588,304	1.12	7.73	
Marathon Distressed Credit Fund	200,000,000	149,906,171	6,185,200	56,000,000	161,588,304	1.12	7.73	2020
Merced Capital	278,737,500	288,144,755	283,963,672	0	67,083,610	1.22	4.19	
Merced Partners III	100,000,000	103,878,468	133,823,596	0	1,373,642	1.30	5.53	2010
Merced Partners IV	125,000,000	124,968,390	120,597,539	0	18,000,435	1.11	2.18	2013
Merced Partners V	53,737,500	59,297,897	29,542,537	0	47,709,532	1.30	5.64	2017
Neuberger Berman LLC	625,000,000	425,930,399	335,709,726	453,721,799	393,969,196	1.71	30.80	
Dyal Capital Partners III	175,000,000	206,392,267	200,464,173	108,505,538	153,915,301	1.72	25.73	2015
Dyal Capital Partners IV	250,000,000	178,538,132	125,879,198	178,327,969	189,307,252	1.77	46.31	2018
Dyal Capital Partners V	200,000,000	41,000,000	9,366,355	166,888,292	50,746,643	1.47	27.58	2020
Nordic Capital	589,153,178	495,682,920	332,164,135	170,019,745	407,880,324	1.49	14.79	
Nordic Capital Fund VIII	176,052,242	224,335,867	294,008,523	13,200,684	70,120,920	1.62	13.50	2013
Nordic Capital Fund X	146,189,732	96,771,399	0	49,418,333	113,909,502	1.18	20.87	2020
Nordic Capital Fund XI	97,780,487	0	0	97,780,487	0	0.00		2022
Nordic Capital IX Beta, L.P.	169,130,717	174,575,654	38,155,612	9,620,240	223,849,902	1.50	18.15	2017
Oak Hill Capital Management, Inc.	250,000,000	246,282,642	219,213,126	11,268,440	182,882,522	1.63	29.96	
Oak Hill Capital Partners IV Onshore LP	150,000,000	153,245,546	219,173,712	4,305,536	65,509,900	1.86	32.89	2016
Oak Hill Capital Partners V	100,000,000	93,037,096	39,414	6,962,904	117,372,623	1.26	16.72	2018

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Oaktree Capital Management, LLC	387,000,000	193,505,587	62,914,692	247,268,839	195,517,543	1.34	10.51	
Oaktree Special Situations Fund II, L.P.	100,000,000	89,571,187	42,579,241	52,527,545	99,784,347	1.59	51.23	2018
Oaktree Special Situations Fund III	187,000,000	0	0	187,000,000	0	0.00		2022
Oaktree Special Situations Fund, L.P.	100,000,000	103,934,400	20,335,451	7,741,294	95,733,196	1.12	2.71	2014
Paine & Partners, LLC	325,000,000	194,117,225	52,575,684	154,168,293	217,254,857	1.39	12.96	
Paine Schwartz Food Chain Fund IV	75,000,000	69,629,785	35,397,971	14,228,836	56,842,708	1.32	7.00	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	124,487,440	17,177,713	39,939,457	160,412,149	1.43	25.74	2018
Paine Schwartz Food Chain VI	100,000,000	0	0	100,000,000	0	0.00		2023
Permal PE	5,337,098	4,398,274	4,605,251	1,090,000	472,871	1.15	4.78	
Glouston Private Equity Opportunities IV	5,337,098	4,398,274	4,605,251	1,090,000	472,871	1.15	4.78	2014
Permira	628,618,583	481,373,398	464,912,255	189,591,673	434,374,483	1.87	18.96	
Permira V, L.P.	177,443,907	184,423,912	380,461,905	4,573,720	113,477,042	2.68	21.14	2013
Permira VI, L.P.	135,779,971	127,426,427	73,224,679	27,920,636	161,038,625	1.84	17.39	2016
Permira VII L.P.1	152,698,903	143,977,595	11,225,671	19,946,979	134,041,674	1.01	0.51	2019
Permira VIII	162,695,802	25,545,463	0	137,150,338	25,817,142	1.01	1.06	2022
Public Pension Capital Management	240,000,000	153,972,427	100,362,143	104,738,878	199,508,178	1.95	24.50	
Public Pension Capital, LLC	240,000,000	153,972,427	100,362,143	104,738,878	199,508,178	1.95	24.50	2014
Silver Lake Partners	335,000,000	344,616,621	367,720,105	31,467,130	324,117,193	2.01	18.69	
Silver Lake Partners III, L.P.	100,000,000	93,848,011	192,228,927	9,528,468	23,896,286	2.30	18.31	2007
Silver Lake Partners IV	100,000,000	115,930,280	125,809,482	2,881,307	154,535,989	2.42	21.94	2012
Silver Lake Partners V, L.P.	135,000,000	134,838,330	49,681,696	19,057,355	145,684,918	1.45	13.26	2017
Siris Capital Group	67,875,000	0	0	67,875,000	0	0.00		
Siris V	67,875,000	0	0	67,875,000	0	0.00		2022
Split Rock	110,000,000	107,055,906	125,392,564	2,944,094	25,222,542	1.41	4.82	
Split Rock Partners II, LP	60,000,000	59,165,000	66,598,372	835,000	23,314,988	1.52	7.14	2008
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	1,907,553	1.27	2.91	2005
Summit Partners	600,000,000	431,383,090	411,555,543	382,944,601	386,192,444	1.85	27.00	
Summit Partners Growth Equity Fund IX	100,000,000	132,014,916	141,424,991	109,410,075	147,533,178	2.19	32.36	2015
Summit Partners Growth Equity Fund VIII	100,000,000	116,727,192	237,084,364	23,129,320	49,472,627	2.45	26.45	2011
Summit Partners Growth Equity Fund X-A	150,000,000	137,116,520	33,046,188	45,929,668	142,184,362	1.28	16.73	2019
Summit Partners Growth Equity Fund XI	250,000,000	45,524,462	0	204,475,538	47,002,277	1.03	5.45	2021

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TPG Capital	650,000,000	382,118,087	194,457,046	311,965,812	358,240,910	1.45	20.60	
TPG Growth V	150,000,000	93,576,832	8,437,171	64,424,321	111,300,669	1.28	21.73	2021
TPG Partners IX, L.P.	100,000,000	0	0	100,000,000	0	0.00		2022
TPG Partners VII, L.P.	100,000,000	100,923,051	156,482,102	16,965,802	39,327,007	1.94	19.73	2015
TPG Partners VIII	150,000,000	126,581,475	29,532,864	41,612,418	149,671,921	1.42	28.29	2018
TPG Tech Adjacencies II, L.P.	150,000,000	61,036,729	4,909	88,963,271	57,941,312	0.95	-8.53	2021
Thoma Bravo LLC	525,000,000	518,226,615	284,137,643	79,498,575	489,226,296	1.49	22.03	
Thoma Bravo Fund XII, L.P.	75,000,000	81,949,004	84,992,456	18,452,144	76,975,635	1.98	16.31	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	184,783,234	92,067,654	12,475,387	218,844,430	1.68	28.52	2018
Thoma Bravo Fund XIV	150,000,000	147,759,334	37	2,240,666	141,269,596	0.96	-2.86	2020
Thoma Bravo Fund XV LP	100,000,000	53,735,043	19,556	46,330,378	51,726,299	0.96	-4.47	2021
Thoma Cressey Fund VII, L.P.	50,000,000	50,000,000	107,057,940	0	410,337	2.15	23.58	2000
Thomas H. Lee Partners	400,000,000	292,811,321	262,678,078	136,720,960	220,665,590	1.65	25.65	
Thomas H. Lee Equity Fund IX	150,000,000	45,959,284	0	104,040,716	45,294,805	0.99	-2.74	2021
Thomas H. Lee Equity Fund VII, LP.	100,000,000	99,643,507	137,891,993	10,518,650	47,730,949	1.86	21.70	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	147,208,530	124,786,085	22,161,594	127,639,836	1.71	36.31	2018
Varde Fund	631,286,710	608,861,188	709,771,958	22,425,522	213,388,070	1.52	9.55	
Varde Fund IX, L.P.	100,000,000	100,000,000	216,448,853	0	0	2.16	15.01	2008
Varde Fund X, LP	150,000,000	150,000,000	253,555,170	0	5,639,341	1.73	9.97	2010
Varde Fund XI, LP	200,000,000	200,000,000	227,185,961	0	38,055,302	1.33	4.60	2013
Varde Fund XIII, L.P.	150,000,000	144,000,000	12,581,974	6,000,000	155,345,991	1.17	7.46	2018
Varde Fund XIV	31,286,710	14,861,188	0	16,425,522	14,347,437	0.97	-6.15	2022
Vestar Capital Partners	325,000,000	309,339,949	286,732,906	24,974,147	179,459,607	1.51	9.69	
Vestar Capital Partners V, L.P.	75,000,000	76,797,458	100,961,586	0	147,408	1.32	3.88	2005
Vestar Capital Partners VI, LP	100,000,000	107,516,638	152,527,578	0	62,991,813	2.00	23.59	2011
Vestar Capital Partners VII, L.P.	150,000,000	125,025,853	33,243,742	24,974,147	116,320,385	1.20	9.56	2017
Vista Equity Partners	200,000,000	147,738,030	77,223	53,474,873	160,983,054	1.09	3.88	
Vista Equity Partners Perennial	200,000,000	147,738,030	77,223	53,474,873	160,983,054	1.09	3.88	2020

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Warburg Pincus	1,416,000,000	1,119,406,375	1,060,088,779	302,448,500	757,214,055	1.62	10.97	
Warburg Pincus China-Southeast Asia II	50,000,000	23,000,000	4,097,500	27,000,000	20,069,274	1.05	3.24	2019
Warburg Pincus China, L.P.	45,000,000	46,935,000	17,602,200	0	48,379,688	1.41	9.28	2016
Warburg Pincus Financial Sector	90,000,000	90,580,867	34,617,600	3,555,000	127,978,525	1.80	21.28	2017
Warburg Pincus Global Growth 14, L.P.	300,000,000	59,651,507	0	240,000,000	58,532,640	0.98	-2.87	2022
Warburg Pincus Global Growth, L.P.	250,000,000	219,665,049	2,625,000	30,125,000	291,458,630	1.34	13.46	2018
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	172,072,950	0	39,577	1.72	9.60	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	266,806,541	0	2,762,384	1.80	9.52	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	262,255,748	0	75,830,613	1.69	11.59	2012
Warburg Pincus Private Equity XII, LP	131,000,000	129,231,500	136,468,988	1,768,500	131,765,923	2.08	18.51	2015
Warburg, Pincus Equity Partners, L.P.	100,000,000	100,000,000	163,542,253	0	396,800	1.64	10.02	1998
Wayzata Investment Partners	150,000,000	68,415,000	49,197,752	15,000,000	21,284,453	1.03	0.63	
Wayzata Opportunities Fund III	150,000,000	68,415,000	49,197,752	15,000,000	21,284,453	1.03	0.63	2012
Wellspring Capital Partners	125,000,000	150,530,185	57,804,878	14,804,475	165,720,597	1.48	20.81	
Wellspring Capital Partners VI, L.P.	125,000,000	150,530,185	57,804,878	14,804,475	165,720,597	1.48	20.81	2016
Welsh, Carson, Anderson & Stowe	650,000,000	477,512,506	468,840,007	172,487,494	363,186,245	1.74	17.82	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	161,464,441	0	6,977,966	1.68	11.69	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	150,000,000	217,586,862	0	142,727,763	2.40	26.39	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	213,945,620	89,788,704	36,054,380	203,448,429	1.37	23.97	2018
Welsh, Carson, Anderson & Stowe XIV	150,000,000	13,566,886	0	136,433,114	10,032,088	0.74	-31.17	2022
Whitehorse Capital	300,000,000	252,991,922	151,632,142	109,809,879	156,638,251	1.22	17.92	
Whitehorse Liquidity Partners III	100,000,000	103,347,359	77,944,223	14,597,329	56,234,472	1.30	16.97	2019
Whitehorse Liquidity Partners IV	100,000,000	93,240,914	52,085,997	31,205,515	60,783,977	1.21	19.23	2020
Whitehorse Liquidity Partners V	100,000,000	56,403,648	21,601,923	64,007,034	39,619,802	1.09	20.74	2021
Wind Point Partners	200,000,000	124,962,915	2,830,518	77,872,206	150,028,001	1.22	17.57	
Wind Point Partners IX	100,000,000	93,118,042	2,830,518	9,717,079	115,753,810	1.27	16.64	2019
Wind Point Partners X	100,000,000	31,844,873	0	68,155,127	34,274,191	1.08	17.49	2022
Windjammer Capital Investors	266,708,861	230,744,344	291,414,378	51,726,242	142,408,557	1.88	12.50	
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	85,449,570	10,139,363	410,640	1.55	9.01	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	94,740,728	166,415,656	21,167,914	69,240,831	2.49	17.79	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000	80,787,932	39,549,152	20,418,965	72,757,086	1.39	18.69	2017

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Private Credit	4,218,183,754	3,359,932,384	2,671,668,817	1,393,853,202	1,754,065,537	1.32	9.98	
Audax Group	350,000,000	219,906,406	213,510,553	152,372,202	64,491,216	1.26	10.43	
Audax Mezzanine Fund III, L.P.	100,000,000	105,207,316	133,977,984	0	5,663,391	1.33	9.85	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000	86,409,049	77,037,814	30,069,024	29,884,618	1.24	11.34	2015
Audax Mezzanine Fund V	150,000,000	28,290,042	2,494,755	122,303,177	28,943,208	1.11	24.06	2020
Avenue Capital Partners	200,000,000	200,977,328	174,121,190	0	162,902,517	1.68	10.04	
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	93,553,048	0	90,193,558	1.84	14.88	2017
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	80,568,142	0	72,708,960	1.52	6.93	2014
BlackRock	97,500,000	93,275,368	17,419,531	4,224,632	96,097,134	1.22	7.10	
BlackRock Middle Market Senior Fund	97,500,000	93,275,368	17,419,531	4,224,632	96,097,134	1.22	7.10	2018
Brookfield Asset Management Inc.	200,000,000	57,356,055	18,935,605	142,643,945	43,249,701	1.08	12.19	
Brookfield Real Estate Finance Fund VI	200,000,000	57,356,055	18,935,605	142,643,945	43,249,701	1.08	12.19	2021
Energy Capital Partners	28,087,500	34,513,848	11,074,135	4,647,787	25,506,335	1.06	5.32	
Energy Capital Credit Solutions II-A	28,087,500	34,513,848	11,074,135	4,647,787	25,506,335	1.06	5.32	2018
Gold Hill	65,852,584	65,852,584	113,654,899	0	2,841,706	1.77	11.78	
Gold Hill 2008	25,852,584	25,852,584	48,393,297	0	2,521,976	1.97	14.40	2008
Gold Hill Venture Lending	40,000,000	40,000,000	65,261,602	0	319,730	1.64	10.69	2004
Goldman, Sachs & Co.	227,500,000	261,181,928	316,656,514	24,922,591	550,891	1.21	6.79	
GS Mezzanine Partners 2006 Institutional	100,000,000	113,458,168	135,467,496	9,858,563	276,352	1.20	5.00	2006
GS Mezzanine Partners V, L.P.	127,500,000	147,723,760	181,189,018	15,064,028	274,539	1.23	9.07	2007
HPS Investment Partners	200,000,000	119,205,222	29,481,968	101,871,763	109,522,831	1.17	10.06	
HPS Mezzanine Partners 2019, L.P.	100,000,000	94,908,198	25,090,840	21,777,658	90,197,870	1.21	10.88	2019
HPS Strategic Investment Partners V	100,000,000	24,297,023	4,391,128	80,094,105	19,324,961	0.98	-2.95	2022
Kohlberg, Kravis, Roberts & Co.	274,000,000	371,459,248	327,364,307	89,442,728	103,069,356	1.16	9.10	
KKR Lending Partner II L.P.	75,000,000	87,050,313	84,852,023	8,802,924	5,209,557	1.03	1.69	2015
KKR Lending Partners III L.P.	199,000,000	284,408,935	242,512,284	80,639,804	97,859,798	1.20	13.12	2017
LBC Credit Partners	200,000,000	200,186,432	149,275,741	70,791,967	85,686,448	1.17	9.77	
LBC Credit Partners IV, L.P.	100,000,000	110,915,994	109,281,076	36,220,071	21,837,779	1.18	8.14	2016
LBC Credit Partners V, L.P.	100,000,000	89,270,438	39,994,664	34,571,896	63,848,669	1.16	14.91	2019
Marathon	200,000,000	99,663,621	907,660	101,358,387	128,625,214	1.30	11.71	
Marathon Secured Private Strategies Fund II	100,000,000	96,022,008	858,534	5,000,000	124,881,490	1.31	11.78	2019
Marathon Secured Private Strategies Fund III	100,000,000	3,641,613	49,125	96,358,387	3,743,724	1.04	3.20	2022

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Merit Capital Partners	350,000,000	248,931,972	349,468,068	101,001,229	66,258,146	1.67	11.56	
Merit Mezzanine Fund IV, L.P.	75,000,000	70,178,571	139,120,463	4,821,429	1,112,906	2.00	11.59	2004
Merit Mezzanine Fund V, LP	75,000,000	72,306,122	108,565,889	2,693,878	12,431,028	1.67	10.11	2009
Merit Mezzanine Fund VI	100,000,000	92,629,096	101,781,716	7,304,104	40,932,927	1.54	15.26	2016
Merit Mezzanine Fund VII	100,000,000	13,818,182	0	86,181,818	11,781,285	0.85	-20.01	2020
Oaktree Capital Management, LLC	650,000,000	415,040,920	57,227,557	241,500,000	463,206,098	1.25	12.62	
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,021	36,794,660	8,500,000	32,022,729	1.48	9.58	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	75,000,000	0	25,000,000	109,022,175	1.45	14.49	2015
Oaktree Opportunities Fund XI	300,000,000	210,000,000	1,930,511	90,000,000	241,773,417	1.16	14.31	2020
Oaktree Real Estate Debt III	200,000,000	83,540,899	18,502,386	118,000,000	80,387,777	1.18	13.14	2020
PIMCO BRAVO	5,243,670	4,745,149	5,714,432	5,350,003	254,061	1.26	4.82	
PIMCO Bravo Fund OnShore Feeder II	5,243,670	4,745,149	5,714,432	5,350,003	254,061	1.26	4.82	2014
Prudential Global Investment Mgmt	600,000,000	525,012,178	562,691,521	126,688,846	164,871,279	1.39	10.29	
PGIM Capital Partners VI, L.P.	150,000,000	58,335,492	6,631,494	91,665,094	58,426,152	1.12	21.23	2020
Prudential Capital Partners II, L.P.	100,000,000	97,930,132	145,671,152	11,049,052	492,778	1.49	9.01	2005
Prudential Capital Partners III, L.P.	100,000,000	102,871,088	174,839,469	13,586,923	3,022,104	1.73	14.13	2009
Prudential Capital Partners IV	100,000,000	113,092,265	133,370,634	1,948,707	18,448,600	1.34	8.50	2012
Prudential Capital Partners V, L.P.	150,000,000	152,783,202	102,178,772	8,439,070	84,481,645	1.22	7.38	2016
Summit Partners	95,000,000	100,002,497	136,746,526	22,177,023	2,442,584	1.39	9.06	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	62,804,226	2,250,000	536,366	1.44	8.61	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000	55,914,003	73,942,300	19,927,023	1,906,218	1.36	9.78	2008
TCW	200,000,000	174,519,135	145,912,466	67,578,060	73,212,788	1.26	8.57	
TCW Direct Lending LLC	100,000,000	83,599,652	88,264,004	25,329,409	19,210,680	1.29	8.22	2014
TCW Direct Lending VII	100,000,000	90,919,484	57,648,462	42,248,651	54,002,109	1.23	9.12	2018
TSSP	275,000,000	168,102,494	41,506,145	137,282,040	161,277,231	1.21	10.11	
Sixth Street Opportunities Partners V	75,000,000	21,628,194	9,199	53,371,806	19,914,982	0.92	-10.34	2021
Sixth Street TAO Partners (B), L.P.	50,000,000	45,791,570	19,138,671	23,362,912	40,884,097	1.31	10.66	2018
Sixth Street TAO Partners (D), L.P.	100,000,000	60,296,419	15,529,022	47,183,559	57,295,875	1.21	12.27	2018
TSSP Opportunities Partners IV (A), L.P.	50,000,000	40,386,311	6,829,253	13,363,763	43,182,278	1.24	9.97	2018

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Real Assets	4,047,571,518	3,841,796,661	2,705,033,174	503,208,046	2,155,173,353	1.27	5.34	
BlackRock	198,500,000	148,376,381	71,583,086	62,411,528	105,100,057	1.19	6.84	
BlackRock Global Renewable Power Fund II	98,500,000	101,030,503	68,717,826	7,963,383	55,844,247	1.23	6.54	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000	47,345,878	2,865,259	54,448,146	49,255,810	1.10	9.15	2019
EIG Global Energy Partners	450,000,000	470,613,496	381,892,767	77,704,481	143,725,503	1.12	2.60	
EIG Energy Fund XIV	100,000,000	113,459,470	95,309,310	2,761,129	3,653,093	0.87	-5.02	2007
EIG Energy Fund XV	150,000,000	161,497,867	156,372,490	22,871,323	19,561,025	1.09	2.03	2010
EIG Energy Fund XVI	200,000,000	195,656,159	130,210,966	52,072,029	120,511,385	1.28	5.91	2013
Encap Energy	300,000,000	321,392,774	281,250,522	8,626,429	184,992,493	1.45	8.38	
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,335,766	66,190,547	470,044	43,519,488	1.06	1.13	2010
EnCap Energy Capital Fund X, L.P.	100,000,000	104,331,762	94,244,146	4,266,330	97,454,041	1.84	15.50	2015
Encap Energy Fund IX	100,000,000	113,725,245	120,815,829	3,890,055	44,018,964	1.45	10.37	2012
Energy & Minerals Group	680,000,000	690,660,633	417,356,115	40,962,715	540,285,593	1.39	7.08	
NGP Midstream & Resources, L.P.	100,000,000	103,565,615	179,560,149	17,857	5,084,486	1.78	13.25	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	108,534,480	108,598,045	170,365	107,726,494	1.99	12.37	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	207,189,833	35,213,172	1,219,725	111,468,094	0.71	-5.00	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	162,851,575	89,122,866	14,023,899	148,299,252	1.46	8.86	2015
The Energy & Minerals Group Fund V	112,500,000	91,343,320	3,658,916	24,189,035	141,263,641	1.59	15.89	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	17,175,810	1,202,967	1,341,834	26,443,626	1.61	16.86	2019
Energy Capital Partners	350,000,000	361,800,518	338,767,451	66,552,510	190,668,810	1.46	12.14	
Energy Capital Partners III, L.P.	200,000,000	234,836,735	297,613,371	30,058,269	53,553,622	1.50	11.13	2013
Energy Capital Partners IV-A, LP	150,000,000	126,963,783	41,154,080	36,494,241	137,115,188	1.40	16.37	2017
Enervest Management Partners	100,000,000	99,177,808	101,227,299	8,915,890	47,022,182	1.49	9.18	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	99,177,808	101,227,299	8,915,890	47,022,182	1.49	9.18	2015
First Reserve	500,000,000	564,086,967	278,557,281	0	135,603,724	0.73	-7.29	
First Reserve Fund XI, L.P.	150,000,000	150,292,121	100,059,903	0	70,487	0.67	-8.77	2006
First Reserve Fund XII, L.P.	150,000,000	165,617,044	85,669,271	0	195,791	0.52	-17.90	2008
First Reserve Fund XIII, L.P.	200,000,000	248,177,802	92,828,107	0	135,337,447	0.92	-2.79	2013
Kohlberg, Kravis, Roberts & Co.	249,850,000	177,192,898	35,198,913	84,139,813	162,417,010	1.12	6.49	
KKR Global Infrastructure Investors III	149,850,000	135,210,843	34,668,952	25,591,907	122,116,210	1.16	7.38	2018
KKR Global Infrastructure Investors IV	100,000,000	41,982,055	529,961	58,547,906	40,300,800	0.97	-4.21	2021

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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Merit Energy Partners	519,721,518	384,644,480	198,400,406	94,599,899	358,997,397	1.45	5.87	
Merit Energy Partners F-II, L.P.	100,000,000	59,522,861	33,989,869	0	7,485,317	0.70	-4.93	2006
Merit Energy Partners H	100,000,000	100,000,000	29,668,582	0	54,842,361	0.85	-2.34	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	109,039,060	0	190,482,964	1.76	11.17	2014
Merit Energy Partners K, L.P.	150,000,000	55,400,101	25,702,895	94,599,899	106,186,755	2.38	38.93	2019
NGP	599,500,000	589,497,701	568,649,335	45,794,780	254,169,584	1.40	9.31	
Natural Gas Partners IX, LP	150,000,000	173,962,921	249,243,688	605,481	547,456	1.44	12.06	2007
NGP Natural Resources X, L.P.	150,000,000	149,242,325	130,193,097	757,675	18,629,591	1.00	-0.08	2011
NGP Natural Resources XI, L.P.	150,000,000	154,119,437	129,928,917	6,290,493	121,134,232	1.63	11.51	2014
NGP Natural Resources XII, L.P.	149,500,000	112,173,018	59,283,633	38,141,131	113,858,304	1.54	14.40	2017
Sheridan	100,000,000	34,353,005	32,150,000	13,500,000	32,191,001	1.87	14.74	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	32,150,000	13,500,000	32,191,001	1.87	14.74	2014

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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Real Estate	4,173,147,868	2,897,045,931	2,046,768,709	1,581,055,666	1,990,349,846	1.39	9.87	
Angelo, Gordon & Co.	550,000,000	459,180,611	263,532,407	142,680,000	370,853,330	1.38	12.01	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	47,125,000	6,196,250	18,875,353	1.39	11.51	2016
AG Asia Realty Fund IV, L.P.	100,000,000	77,350,334	29,750,000	37,072,500	73,863,544	1.34	14.97	2018
AG Europe Realty Fund II, L.P.	75,000,000	68,779,896	30,019,976	12,768,750	70,212,416	1.46	11.07	2018
AG Europe Realty Fund III	75,000,000	40,686,731	3,000,000	34,687,500	44,359,391	1.16	9.55	2020
AG Realty Fund IX	100,000,000	92,141,126	85,000,000	11,650,000	47,095,228	1.43	8.54	2014
AG Realty Fund X, L.P.	150,000,000	132,635,263	68,637,431	40,305,000	116,447,398	1.40	19.89	2018
Blackstone	1,124,500,000	892,028,690	897,494,130	398,401,431	571,894,146	1.65	13.46	
Blackstone Real Estate Partners Asia II	74,500,000	68,685,494	11,886,722	15,595,777	70,293,179	1.20	7.68	2017
Blackstone Real Estate Partners Asia III	100,000,000	13,828,482	2,368	86,909,018	12,029,827	0.87	-16.47	2021
Blackstone Real Estate Partners IX, L.P.	300,000,000	309,119,037	99,316,551	55,211,477	351,063,972	1.46	26.78	2018
Blackstone Real Estate Partners V	100,000,000	104,217,981	209,143,624	4,174,052	90,449	2.01	10.84	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,500,200	218,445,629	4,907,906	1,724,372	2.01	13.07	2007
Blackstone Real Estate Partners VII, LP	100,000,000	112,168,482	181,154,417	11,077,798	20,147,386	1.79	15.04	2011
Blackstone Real Estate Partners X	200,000,000	748,990	0	199,251,010	422,185	0.56	-30.03	2022
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000	173,760,024	177,544,819	21,274,393	116,122,776	1.69	16.19	2015
Blackstone Strategic Partners	75,000,000	77,489,811	66,234,275	916,710	920,164	0.87	-2.08	
Strategic Partners III RE, L.P.	25,000,000	25,981,820	15,252,523	9,006	99,363	0.59	-6.44	2005
Strategic Partners IV RE, L.P.	50,000,000	51,507,991	50,981,752	907,704	820,801	1.01	0.09	2008
Brookfield Asset Management Inc.	300,000,000	108,976,262	5,209,164	196,166,095	113,186,958	1.09	14.66	
Brookfield Strategic Real Estate Partners IV	300,000,000	108,976,262	5,209,164	196,166,095	113,186,958	1.09	14.66	2021
Carlyle Group	450,000,000	140,700,159	101,953,851	376,545,578	95,434,811	1.40	26.11	
Carlyle Realty Partners IX	300,000,000	16,783,149	0	283,216,851	11,334,567	0.68	-40.20	2021
Carlyle Realty Partners VIII, L.P.	150,000,000	123,917,010	101,953,851	93,328,727	84,100,244	1.50	28.41	2017
Kohlberg, Kravis, Roberts & Co.	125,000,000	74,326,002	5,580,419	52,935,309	68,935,642	1.00	0.25	
KKR Real Estate Partners Americas III	125,000,000	74,326,002	5,580,419	52,935,309	68,935,642	1.00	0.25	2021
Landmark Partners	249,500,000	99,205,389	61,444,855	173,008,010	76,771,567	1.39	17.32	
Landmark Real Estate Partners IX	100,000,000	0	0	100,000,000	0	0.00		2021
Landmark Real Estate Partners VIII, L.P.	149,500,000	99,205,389	61,444,855	73,008,010	76,771,567	1.39	17.32	2016
Lubert Adler	174,147,868	122,732,744	86,217,291	52,414,787	81,119,371	1.36	16.08	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	82,515,205	7,414,787	20,284,791	1.52	15.62	2017
Lubert-Adler Recovery and Enhancement Capital Fund	100,000,000	55,147,530	3,702,087	45,000,000	60,834,581	1.17	18.98	2021

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Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Oaktree Capital Management, LLC	200,000,000	134,475,519	36,527,552	100,000,000	108,395,699	1.08	20.08	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	134,475,519	36,527,552	100,000,000	108,395,699	1.08	20.08	2020
Rockpoint	200,000,000	179,060,071	69,882,159	41,172,282	154,026,381	1.25	8.21	
Rockpoint Real Estate Fund V, L.P.	100,000,000	99,722,723	58,755,434	17,327,032	67,292,604	1.26	6.47	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	79,337,348	11,126,725	23,845,250	86,733,778	1.23	14.92	2019
Rockwood	200,000,000	164,861,297	61,784,022	39,319,406	138,650,635	1.22	7.38	
Rockwood Capital RE Partners X, L.P.	100,000,000	94,027,411	57,507,174	7,657,118	61,211,868	1.26	6.76	2015
Rockwood Capital RE Partners XI	100,000,000	70,833,887	4,276,848	31,662,288	77,438,767	1.15	9.66	2019
Silverpeak Real Estate Partners	225,000,000	144,009,375	109,295,624	7,496,058	3,792,782	0.79	-3.81	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000	73,069,012	92,033,940	7,496,058	414,065	1.27	4.17	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000	70,940,363	17,261,685	0	3,378,717	0.29	-11.91	2008
TA Associates Realty	300,000,000	300,000,000	281,612,959	0	206,368,360	1.63	13.86	
Realty Associates Fund X	100,000,000	100,000,000	161,064,353	0	111,028	1.61	12.56	2012
Realty Associates Fund XI	100,000,000	100,000,000	111,735,946	0	61,115,238	1.73	12.76	2015
Realty Associates Fund XII	100,000,000	100,000,000	8,812,660	0	145,142,094	1.54	23.12	2018
Total	36,954,881,676	29,089,593,006	22,279,299,243	10,942,259,289	20,782,290,436	1.48	11.77	
<i>Difference**</i>					5,380,256			
Private Markets Total with Difference					20,787,670,691			

<i>Private Markets Portfolio Status</i>	Managers	Funds
PRIVATE EQUITY	58	188
PRIVATE CREDIT	18	42
REAL ASSETS	11	31
REAL ESTATE	13	34
Total	100	295

Notes

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

Data presented in this report is made public pursuant to Minn. Stat. Chs. 13 and 13D, and Minn. Stat. § 11A.24, subd. 6(c). Additional information on private markets investments may be classified as non-public and not subject to disclosure.

*Partnership interests transferred to the MSBI during 1Q2015. All data presented as of the transfer date.

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



Quarterly Report

Participant Directed Investment Program

March 31, 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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
BALANCED FUND	\$106,490,693	5.6%	-6.7%	10.7%	7.3%	8.0%	01/1980
U.S. EQUITY ACTIVELY MANAGED FUND	77,876,906	7.2	-9.0	19.0	10.7	12.1	07/1986
U.S. EQUITY INDEX FUND	387,886,083	7.2	-8.5	18.7	10.6	11.8	07/1986
BROAD INTERNATIONAL EQUITY FUND	131,522,055	6.5	-2.5	13.4	3.4	4.9	09/1994
BOND FUND	101,333,687	3.4	-5.0	-1.4	1.4	1.9	07/1986
MONEY MARKET FUND	672,123,560	1.2	3.0	1.1	1.6	1.0	07/1986
STABLE VALUE FUND	1,722,287,109	0.6	2.3	2.2	2.3	2.2	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	149,860,637	5.1	-5.6	7.7	5.2	5.9	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.



Supplemental Investment Fund Performance

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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BALANCED FUND	\$106,490,693	5.6%	-6.7%	10.7%	7.3%	8.0%
SIF BALANCED FUND BENCHMARK		5.4%	-6.4%	10.1%	7.0%	7.7%
Excess		0.2%	-0.4%	0.7%	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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
U.S. EQUITY ACTIVELY MANAGED FUND	77,876,906	7.2	-9.0	19.0	10.7	12.1
Russell 3000		7.2	-8.6	18.5	10.5	11.7
Excess		0.0	-0.4	0.5	0.3	0.4



Supplemental Investment Fund Performance

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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
U.S. EQUITY INDEX FUND	\$387,886,083	7.2%	-8.5%	18.7%	10.6%	11.8%
Russell 3000		7.2%	-8.6%	18.5%	10.5%	11.7%
Excess		0.0%	0.1%	0.3%	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).

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BROAD INTERNATIONAL EQUITY FUND	131,522,055	6.5	-2.5	13.4	3.4	4.9
International Equity Benchmark		6.9	-5.1	11.7	2.4	4.2
Excess		-0.4	2.5	1.7	0.9	0.7



Supplemental Investment Fund Performance

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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BOND FUND	\$101,333,687	3.4%	-5.0%	-1.4%	1.4%	1.9%
Bloomberg U.S. Aggregate		3.0%	-4.8%	-2.8%	0.9%	1.4%
Excess		0.5%	-0.2%	1.3%	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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
MONEY MARKET FUND	672,123,560	1.2	3.0	1.1	1.6	1.0
ICE BofA US 3-Month Treasury Bill		1.1	2.5	0.9	1.4	0.9
Excess		0.1	0.5	0.3	0.2	0.2



Supplemental Investment Fund Performance

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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
STABLE VALUE FUND	\$1,722,287,109	0.6%	2.3%	2.2%	2.3%	2.2%
Fixed Interest Blended Benchmark		1.1%	4.1%	2.0%	2.2%	1.9%
Excess		-0.5%	-1.8%	0.2%	0.1%	0.3%

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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
VOLUNTEER FIREFIGHTER ACCOUNT	149,860,637	5.1	-5.6	7.7	5.2	5.9
SIF Volunteer Firefighter Account BM		4.9	-5.4	7.0	4.8	5.6
Excess		0.2	-0.1	0.8	0.4	0.3



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.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$669,879,366	7.2%	-8.8%	18.4%			07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,648,437,826	7.5	-7.7	18.6	11.2%	12.2%	07/1999
VANGUARD DIVIDEND GROWTH	962,686,059	0.1	-2.8	17.2	12.1		10/2016
VANGUARD MID CAP INDEX	694,359,408	3.9	-9.8	18.7	8.2	10.2	01/2004
T. ROWE PRICE SMALL-CAP STOCK	827,537,496	3.4	-10.6	16.2	8.1	10.3	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	320,243,805	8.8	-5.4	11.8	4.8	6.2	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	343,539,324	6.7	-4.6	12.7	2.5	4.5	07/2011
VANGUARD BALANCED INDEX	1,288,887,670	5.6	-7.0	9.7	6.8	7.7	12/2003
DODGE & COX INCOME	293,772,995	3.1	-3.0	0.1	1.9	2.4	07/1999
VANGUARD TOTAL BOND MARKET INDEX	322,723,472	3.2	-4.7	-2.8	0.9	1.3	12/2003
2025 FUND	213,124,657	3.8	-5.6	7.6	4.6	5.4	07/2011
2030 FUND	204,009,295	4.7	-6.5	9.1	5.3	6.3	07/2011
2035 FUND	164,471,815	5.8	-6.9	9.9	5.7	6.8	07/2011
2040 FUND	133,086,762	6.2	-7.2	10.9	5.9	7.2	07/2011
2045 FUND	126,742,068	6.5	-7.4	11.9	6.2	7.5	07/2011
2050 FUND	109,361,722	6.6	-7.6	12.9	6.3	7.7	07/2011
2055 FUND	72,199,423	6.8	-7.8	13.4	6.5	7.8	07/2011
2060 FUND	55,165,154	6.8	-7.8	13.4	6.5	7.8	07/2011
2065 FUND	8,153,590	6.8	-7.8	14.7			04/2020
INCOME FUND	209,799,518	3.5	-4.9	5.7	3.9	3.7	07/2011
TD Ameritrade SDB	80,461,033						
TD Ameritrade SDB Roth	2,963,335						



Mutual Funds

LARGE CAP EQUITY

Vanguard Total Stock Market Institutional Index Plus (passive)

A passive domestic stock portfolio of large and small companies that tracks the CRSP US Total Market Index.

Vanguard Index Institutional Plus (passive)

A passive domestic stock portfolio that tracks the S&P 500.

Vanguard Dividend Growth (active) (1)

A fund of large cap stocks which is expected to outperform the S&P U.S. Dividend Growers Index, over time.

MID CAP EQUITY

Vanguard Mid Cap Index (passive) (2)

A fund that passively invests in companies with medium market capitalizations that tracks the CRSP US Mid-Cap Index.

SMALL CAP EQUITY

T Rowe Price Small Cap (active)

A fund that invests primarily in companies with small market capitalizations and is expected to outperform the Russell 2000 Index.

INTERNATIONAL EQUITY

Fidelity Diversified International (active)

A fund that invests primarily in stocks of companies located outside of the United States and is expected to outperform the MSCI index of Europe, Australasia and the Far East (EAFE), over time.

Vanguard Total International Stock Index (passive) (3)

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 developed and emerging markets, excluding the United States.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
Large Cap US Equity						
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$669,879,366	7.2%	-8.8%	18.4%		07/2019
CRSP US Total Market Index		7.2	-8.8	18.4		07/2019
Excess		0.0	0.0	0.1		
VANGUARD INSTITUTIONAL INDEX PLUS	1,648,437,826	7.5	-7.7	18.6	11.2%	07/1999
S&P 500		7.5	-7.7	18.6	11.2	07/1999
Excess		-0.0	-0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	962,686,059	0.1	-2.8	17.2	12.1	10/2016
VANGUARD DIVIDEND GROWTH INDEX		1.9	-2.9	16.5	11.0	10/2016
Excess		-1.8	0.1	0.7	1.1	
Mid Cap US Equity						
VANGUARD MID CAP INDEX	694,359,408	3.9	-9.8	18.7	8.2	01/2004
CRSP US Mid Cap Index		3.9	-9.8	18.8	8.1	01/2004
Excess		0.0	0.0	-0.0	0.0	
Small Cap US Equity						
T. ROWE PRICE SMALL-CAP STOCK	827,537,496	3.4	-10.6	16.2	8.1	04/2000
Russell 2000		2.7	-11.6	17.5	4.7	04/2000
Excess		0.7	1.0	-1.3	3.4	
International Equity						
FIDELITY DIVERSIFIED INTERNATIONAL	320,243,805	8.8	-5.4	11.8	4.8	07/1999
MSCI EAFE FREE (NET)		8.5	-1.4	13.0	3.5	07/1999
Excess		0.3	-4.0	-1.2	1.3	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	343,539,324	6.7	-4.6	12.7	2.5	07/2011
FTSE Global All Cap ex US Index Net		6.4	-5.9	12.3	2.4	07/2011
Excess		0.3	1.3	0.4	0.1	



Mutual Funds

BALANCED

Vanguard Balanced Index (passive) (4)

A fund that passively invests in a mix of domestic stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP US Total Market Index/40% Bloomberg U.S. Aggregate.

FIXED INCOME

Dodge & Cox Income Fund (active)

A fund that invests primarily in investment grade securities in the U.S. bond market which is expected to outperform the Bloomberg U.S. Aggregate, over time.

Vanguard Total Bond Market Index (passive)

A fund that passively invests in a broad, market weighted bond index that is expected to track the Bloomberg U.S. Aggregate.

Money Market Fund (5)

A fund that invests in short-term debt instruments which is expected to outperform the return on 3 Month T-Bills.

STABLE VALUE

Stable Value Fund (5)

A portfolio composed of stable value instruments which are primarily investment contracts and security backed contracts. The fund is expected to outperform the return of the 3 year Constant Maturity Treasury +45 basis points, over time.

Ending Market Value Last Qtr 1 Year 3 Year 5 Year Option Since

Balanced Funds

VANGUARD BALANCED INDEX	\$1,288,887,670	5.6%	-7.0%	9.7%	6.8%	12/2003
Vanguard Balanced Fund Benchmark		5.5	-6.9	9.8	6.9	12/2003
Excess		0.1	-0.2	-0.1	-0.1	

Fixed Income

DODGE & COX INCOME	293,772,995	3.1	-3.0	0.1	1.9	07/1999
Bloomberg U.S. Aggregate		3.0	-4.8	-2.8	0.9	07/1999
Excess		0.2	1.7	2.9	1.0	

VANGUARD TOTAL BOND MARKET INDEX	322,723,472	3.2	-4.7	-2.8	0.9	12/2003
Bloomberg U.S. Aggregate		3.0	-4.8	-2.8	0.9	12/2003
Excess		0.2	0.1	0.0	0.0	

MONEY MARKET FUND	672,123,560	1.2	3.0	1.1	1.6	07/1986
ICE BofA US 3-Month Treasury Bill		1.1	2.5	0.9	1.4	07/1986
Excess		0.1	0.5	0.3	0.2	

Stable Value

STABLE VALUE FUND	1,722,287,109	0.6	2.3	2.2	2.3	11/1994
Fixed Interest Blended Benchmark		1.1	4.1	2.0	2.2	11/1994
Excess		-0.5	-1.8	0.2	0.1	

(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.



Mutual Funds

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 decision by investing their assets in the fund that is closest to their anticipated retirement date.

Target Date Retirement Funds

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>Option Since</u>		<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>Option Since</u>
SSgA													
2025 FUND	\$213,124,657	3.8%	-5.6%	7.6%	4.6%	07/2011	2050 FUND	\$109,361,722	6.6%	-7.6%	12.9%	6.3%	07/2011
2025 FUND BENCHMARK		3.7%	-5.7%	7.5%	4.6%	07/2011	2050 FUND BENCHMARK		6.5%	-8.0%	12.8%	6.3%	07/2011
Excess		0.1%	0.1%	0.1%	0.0%		Excess		0.2%	0.3%	0.1%	0.0%	
2030 FUND	\$204,009,295	4.7%	-6.5%	9.1%	5.3%	07/2011	2055 FUND	\$72,199,423	6.8%	-7.8%	13.4%	6.5%	07/2011
2030 FUND BENCHMARK		4.6%	-6.6%	9.0%	5.3%	07/2011	2055 FUND BENCHMARK		6.6%	-8.1%	13.2%	6.5%	07/2011
Excess		0.1%	0.1%	0.1%	0.0%		Excess		0.2%	0.3%	0.1%	0.0%	
2035 FUND	\$164,471,815	5.8%	-6.9%	9.9%	5.7%	07/2011	2060 FUND	\$55,165,154	6.8%	-7.8%	13.4%	6.5%	07/2011
2035 FUND BENCHMARK		5.6%	-7.1%	9.8%	5.7%	07/2011	2060 FUND BENCHMARK		6.6%	-8.1%	13.2%	6.5%	07/2011
Excess		0.1%	0.2%	0.1%	0.0%		Excess		0.2%	0.3%	0.1%	-0.0%	
2040 FUND	\$133,086,762	6.2%	-7.2%	10.9%	5.9%	07/2011	2065 FUND	\$8,153,590	6.8%	-7.8%	14.7%		04/2020
2040 FUND BENCHMARK		6.0%	-7.4%	10.8%	5.9%	07/2011	2065 FUND BENCHMARK		6.6%	-8.1%	13.2%		04/2020
Excess		0.2%	0.2%	0.1%	0.0%		Excess		0.2%	0.3%	1.5%		
2045 FUND	\$126,742,068	6.5%	-7.4%	11.9%	6.2%	07/2011	INCOME FUND	\$209,799,518	3.5%	-4.9%	5.7%	3.9%	07/2011
2045 FUND BENCHMARK		6.3%	-7.7%	11.8%	6.1%	07/2011	INCOME FUND BENCHMARK		3.4%	-5.0%	5.7%	3.9%	07/2011
Excess		0.2%	0.3%	0.1%	0.0%		Excess		0.1%	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



MN College Savings Plan Options

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.

RISK BASED ALLOCATIONS - The Risk Based Allocation Option offers three separate allocation investment options - Aggressive, Moderate and Conservative, each of which has a fixed risk level that does not change as the Beneficiary ages.

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 inflation-linked 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: March 31, 2023

Total = \$1,759 Million

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
2038/2039 Enrollment Option	\$21,651,574	6.02%	-6.60%				-3.72%	6/11/2021
2038-2039 Custom Benchmark		5.98%	-7.10%				-3.76%	
2036/2037 Enrollment Option	\$67,734,440	7.66%	-6.66%	12.31%			6.32%	10/28/2019
2036-2037 Custom Benchmark		6.12%	-7.01%	12.48%			6.16%	
2034/2035 Enrollment Option	\$55,310,441	5.71%	-6.44%	11.79%			5.99%	10/28/2019
2034-2035 Custom Benchmark		5.68%	-6.82%	11.94%			5.84%	
2032/2033 Enrollment Option	\$61,821,538	5.41%	-6.35%	11.08%			5.68%	10/28/2019
2032-2033 Custom Benchmark		5.43%	-6.65%	11.25%			5.54%	
2030/2031 Enrollment Option	\$71,938,506	4.95%	-6.01%	10.19%			5.15%	10/28/2019
2030-2031 Custom Benchmark		4.95%	-6.23%	10.32%			5.02%	
2028/2029 Enrollment Option	\$89,469,478	4.41%	-5.31%	8.79%			4.42%	10/28/2019
2028-2029 Custom Benchmark		4.47%	-5.41%	8.89%			4.24%	
2026/2027 Enrollment Option	\$121,509,309	3.84%	-4.54%	7.21%			3.78%	10/28/2019
2026-2027 Custom Benchmark		3.92%	-4.54%	7.31%			3.63%	
2024/2025 Enrollment Option	\$163,461,699	2.75%	-3.53%	5.98%			3.33%	10/28/2019
2024-2025 Custom Benchmark		3.07%	-3.17%	6.03%			3.16%	
2022/2023 Enrollment Option	\$166,469,504	2.24%	-1.88%	4.73%			2.73%	10/28/2019
2022-2023 Custom Benchmark		2.60%	-1.37%	4.60%			2.46%	
In School Option	\$203,713,082	2.08%	-1.28%	2.97%			2.32%	10/28/2019
In School Custom Benchmark		2.39%	-1.20%	2.64%			1.76%	

MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: March 31, 2023

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
U.S. and International Equity Option	\$276,058,829	6.75%	-7.76%	15.89%	7.77%	9.06%	7.18%	10/ 1/2001
BB: U.S. and International Equity Option		6.81%	-8.13%	16.06%	7.74%	9.07%	7.86%	
Moderate Allocation Option	\$91,687,972	5.24%	-5.98%	9.14%	5.57%	6.16%	5.31%	8/ 2/2007
BB: Moderate Allocation Option		5.26%	-6.10%	9.35%	5.60%	6.25%	5.79%	
100% Fixed-Income Option	\$17,171,150	3.01%	-3.63%	-0.89%	1.51%	1.32%	2.81%	8/16/2007
BB: 100% Fixed-Income Option		2.91%	-3.66%	-0.64%	1.70%	1.62%	3.34%	
International Equity Index Option	\$10,082,560	7.49%	-1.93%	12.57%	2.73%		4.39%	6/18/2013
BB: International Equity Index Option		7.57%	-3.18%	12.07%	2.72%		4.44%	
Money Market Option	\$14,824,691	1.10%	2.51%	0.86%	1.24%	0.72%	0.63%	11/ 1/2007
BB: Money Market Option		1.02%	2.35%	0.79%	1.12%	0.64%	0.57%	
Principal Plus Interest Option	\$116,121,407	0.43%	1.48%	1.48%	1.66%	1.51%	2.34%	10/10/2001
Citigroup 3-Month U.S. Treasury Bill		1.12%	2.61%	0.95%	1.40%	0.85%	1.29%	
Aggressive Allocation Option	\$81,371,233	6.01%	-6.75%	12.44%	6.63%		6.91%	8/12/2014
BB: Aggressive Allocation Option		6.04%	-7.08%	12.70%	6.72%		6.87%	
Conservative Allocation Option	\$16,606,335	3.44%	-3.36%	4.70%	3.60%		3.56%	8/18/2014
BB: Conservative Allocation Option		3.66%	-3.15%	4.82%	3.72%		3.62%	
Equity and Interest Accumulation Option	\$7,926,142	3.83%	-3.33%	9.87%	6.21%		6.01%	8/18/2014
BB: Equity and Interest Accumulation Option		4.17%	-2.50%	9.90%	6.32%		6.02%	
U.S. Large Cap Equity Option	\$102,033,996	7.46%	-7.85%	18.41%	11.02%		11.01%	8/12/2014
BB: U.S. Large Cap Equity Option		7.50%	-7.73%	18.60%	11.19%		11.13%	
Social Choice Equity Option	\$1,087,645	5.74%	-6.99%				-2.35%	6/11/2021
BB: Social Choice Equity Option		7.18%	-8.58%				-2.47%	
Matching Grant	\$1,333,935	0.43%	1.48%	1.48%	1.66%	1.51%	2.34%	3/22/2002
Citigroup 3-Month U.S. Treasury Bill		1.12%	2.61%	0.95%	1.40%	0.85%	1.29%	

MINNESOTABLE^{plan}

A member of The National ABLE Alliance

Performance as of
3/31/2023

Total Market Value: **\$34,158,326**

<u>Fund Name</u>	<u>Market Value</u>	<u>% of Plan</u>	<u>1 Month</u>	<u>3 Months</u>	<u>YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Inception</u>	<u>Date</u>
Aggressive Option	\$2,530,482	7.41%	1.03	5.95	5.95	(8.94)	13.76	6.12		7.41	12/15/16
ABLE Aggressive Custom Benchmark			0.94	5.87	5.87	(9.10)	14.14	6.42		7.80	
Variance			0.09	0.08	0.08	0.16	(0.38)	(0.30)		(0.39)	
Moderately Aggressive Option	\$2,811,184	8.23%	1.15	5.30	5.30	(7.79)	11.38	5.52		6.55	12/15/16
ABLE Moderately Aggressive Custom Benchmark			1.15	5.32	5.32	(7.84)	11.81	5.81		6.92	
Variance			0.00	(0.02)	(0.02)	0.05	(0.43)	(0.29)		(0.37)	
Growth Option	\$4,298,647	12.58%	1.36	4.75	4.75	(6.55)	9.04	4.86		5.64	12/15/16
ABLE Growth Custom Benchmark			1.36	4.75	4.75	(6.62)	9.46	5.13		5.99	
Variance			0.00	(0.00)	(0.00)	0.07	(0.42)	(0.27)		(0.35)	
Moderate Option	\$3,791,855	11.10%	1.60	4.22	4.22	(5.39)	6.76	4.12		4.70	12/15/16
ABLE Moderate Custom Benchmark			1.57	4.18	4.18	(5.45)	7.10	4.39		5.01	
Variance			0.03	0.04	0.04	0.06	(0.34)	(0.27)		(0.31)	
Moderately Conservative Option	\$3,573,890	10.46%	1.30	3.22	3.22	(3.18)	4.83	3.27		3.61	12/15/16
ABLE Moderately Conservative Custom Benchmark			1.33	3.28	3.28	(3.07)	5.02	3.51		3.87	
Variance			(0.03)	(0.06)	(0.06)	(0.11)	(0.19)	(0.24)		(0.26)	
Conservative Option	\$6,282,194	18.39%	0.89	1.88	1.88	(0.35)	2.05	1.98		2.05	12/15/16
ABLE Conservative Custom Benchmark			0.99	2.03	2.03	0.04	2.17	2.19		2.25	
Variance			(0.10)	(0.15)	(0.15)	(0.39)	(0.12)	(0.21)		(0.20)	
Checking Account Option	\$10,870,073	31.82%									03/30/17

MINNESOTA ACHIEVE A BETTER LIFE EXPERIENCE

The Minnesota Achieve a Better Life Experience Plan (ABLE).
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.

RISK BASED ALLOCATIONS

The plan offers seven different allocation investment options: Aggressive, Moderately Aggressive, Growth, Moderate, Moderately Conservative, Conservative, and Checking. Each allocation is based on a

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Quarterly Report

Non-Retirement

March 31, 2023



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 trusted 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.



Non-Retirement

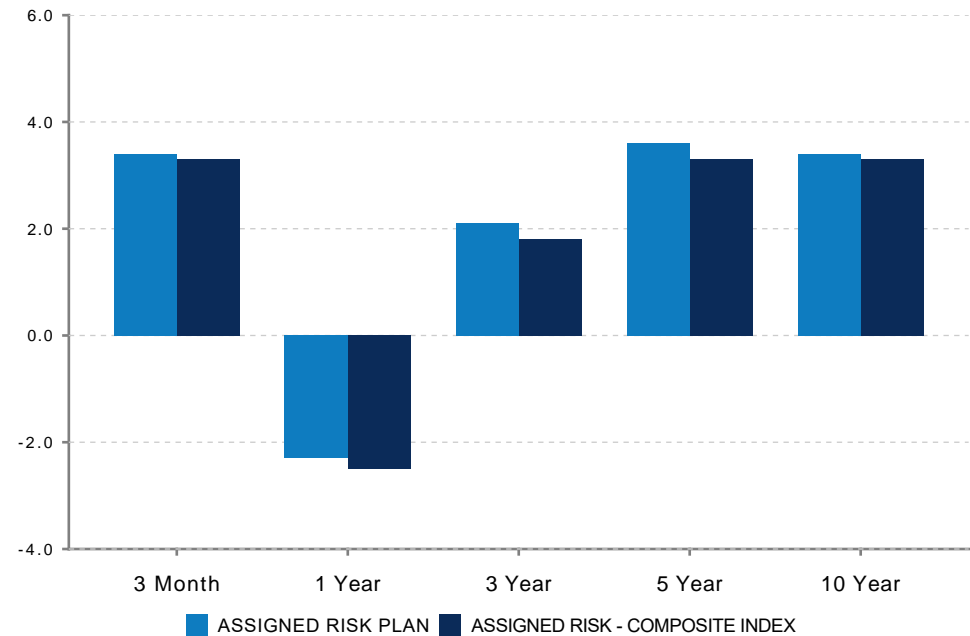
Assigned Risk Plan

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.

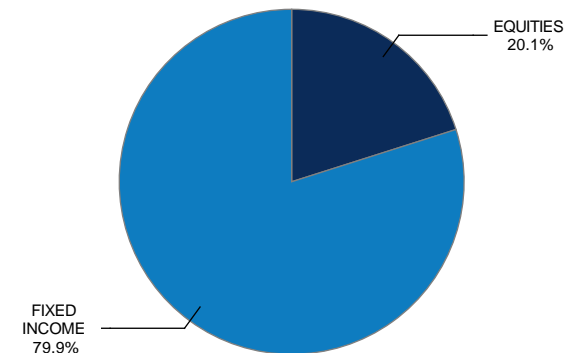
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds

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 Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
ASSIGNED RISK PLAN	\$262,503,263	3.4%	-2.3%	2.1%	3.6%	3.4%
EQUITIES	\$52,852,160	7.5%	-7.7%	18.6%	11.2%	11.9%
FIXED INCOME	\$209,651,103	2.4%	-1.4%	-2.1%	1.2%	1.0%
ASSIGNED RISK - COMPOSITE INDEX		3.3%	-2.5%	1.8%	3.3%	3.3%
Excess		0.1%	0.2%	0.2%	0.3%	0.1%
S&P 500		7.5%	-7.7%	18.6%	11.2%	12.2%
Bloomberg U.S. Government: Intermediate		2.3%	-1.5%	-2.3%	1.1%	0.9%



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.



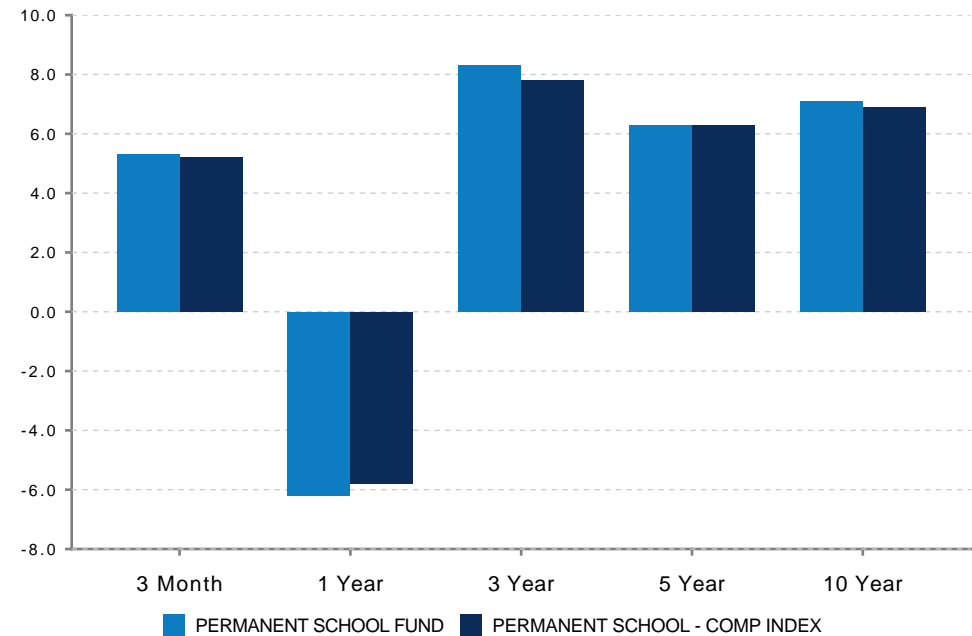
Non-Retirement

Permanent School Fund

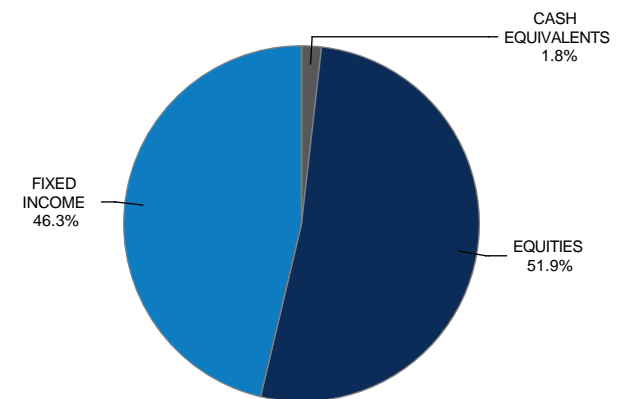
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	\$1,820,282,840	5.3%	-6.2%	8.3%	6.3%	7.1%
CASH EQUIVALENTS	33,268,089	1.2	2.8	1.0	1.5	0.9
EQUITIES	944,912,225	7.5	-7.7	18.6	11.2	12.2
FIXED INCOME	842,102,526	3.1	-5.1	-1.8	1.1	1.7
PERMANENT SCHOOL - COMP INDEX		5.2	-5.8	7.8	6.3	6.9
Excess		0.1	-0.4	0.5	0.0	0.2
S&P 500		7.5	-7.7	18.6	11.2	12.2
Bloomberg U.S. Aggregate		3.0	-4.8	-2.8	0.9	1.4



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.



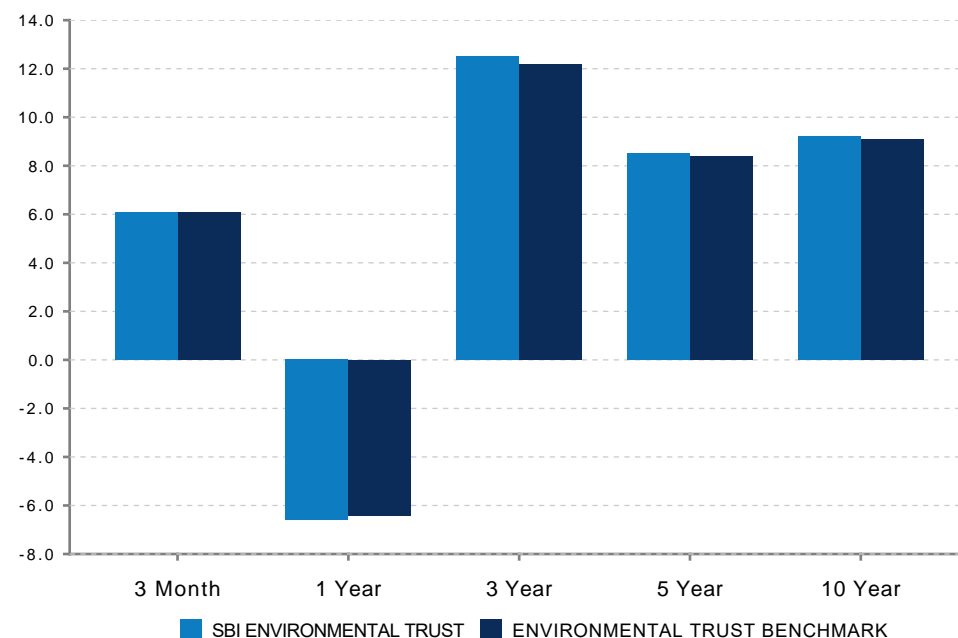
Non-Retirement

Environmental Trust Fund

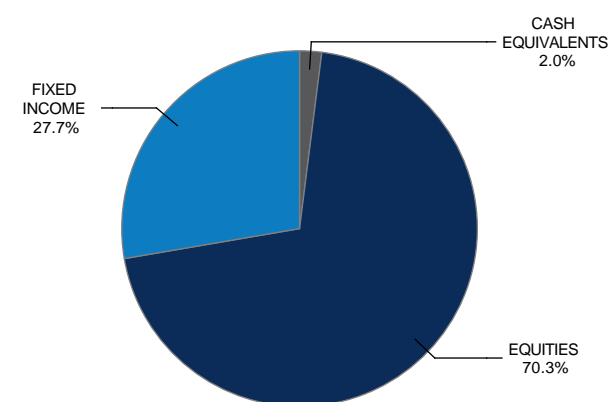
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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	1 Year	3 Year	5 Year	10 Year
SBI ENVIRONMENTAL TRUST	\$1,535,594,939	6.1%	-6.6%	12.5%	8.5%	9.2%
CASH EQUIVALENTS	30,364,312	1.2	2.8	1.0	1.5	0.9
EQUITIES	1,079,719,472	7.5	-7.7	18.6	11.2	12.2
FIXED INCOME	425,511,155	3.1	-5.1	-1.8	1.1	1.7
ENVIRONMENTAL TRUST BENCHMARK		6.1	-6.4	12.2	8.4	9.1
Excess		0.0	-0.2	0.4	0.1	0.1
S&P 500		7.5	-7.7	18.6	11.2	12.2
Bloomberg U.S. Aggregate		3.0	-4.8	-2.8	0.9	1.4



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.

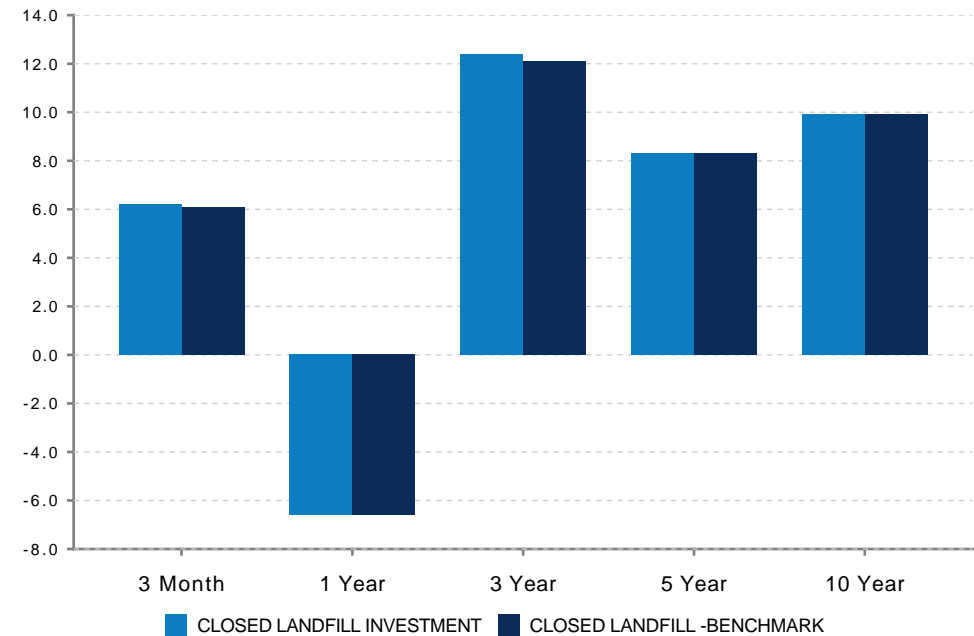


Non-Retirement

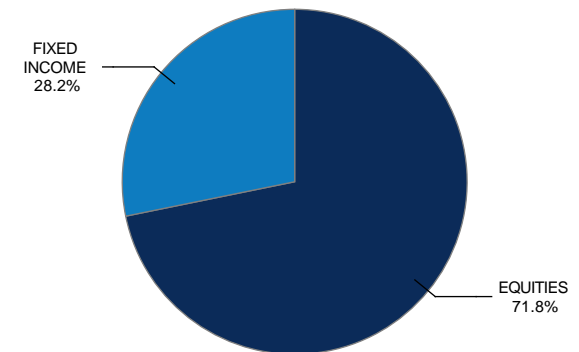
Closed Landfill Investment Fund

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	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	\$122,366,619	6.2%	-6.6%	12.4%	8.3%	9.9%
EQUITIES	87,891,993	7.5	-7.7	18.6	11.2	12.2
FIXED INCOME	34,474,626	3.1	-5.1	-1.8	1.1	
CLOSED LANDFILL -BENCHMARK		6.1	-6.6	12.1	8.3	9.9
Excess		0.1	-0.1	0.3	0.0	0.0
S&P 500		7.5	-7.7	18.6	11.2	12.2
Bloomberg U.S. Aggregate		3.0	-4.8	-2.8	0.9	1.4



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.



	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
NON RETIREMENT EQUITY INDEX - MELLON	2,963,712,714	7.5	10.0	-7.7	18.6	11.2	12.2	9.9	07/1993
S&P 500 INDEX (DAILY)		7.5	10.0	-7.7	18.6	11.2	12.2	9.8	07/1993
Excess		-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.1	
NON RETIREMENT FIXED INCOME - PRUDENTIAL	1,496,846,788	3.1	0.1	-5.1	-1.8	1.1	1.7	5.1	07/1994
Bloomberg U.S. Aggregate		3.0	-0.1	-4.8	-2.8	0.9	1.4	4.7	07/1994
Excess		0.2	0.2	-0.3	0.9	0.2	0.4	0.4	
RBC	209,651,156	2.4	0.2	-1.4	-2.1	1.2	1.0	4.3	07/1991
RBC Custom Benchmark		2.3	0.1	-1.5	-2.3	1.1	0.9	4.3	07/1991
Excess		0.1	0.0	0.1	0.2	0.1	0.1	-0.1	
MET COUNCIL OPEB BOND POOL	100,371,957	1.8	0.3	-0.7	-1.3	1.0		1.0	02/2018
NON RETIREMENT CASH ACCOUNT	709,835,335	1.2	2.6	2.8	1.0	1.5		1.5	12/2017
ICE BofA US 3-Month Treasury Bill		1.1	2.4	2.5	0.9	1.4		1.4	12/2017
Excess		0.1	0.2	0.3	0.1	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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Quarterly Report

State Cash

March 31, 2023



State Cash Accounts

Invested Treasurer's Cash

The Invested Treasurer's Cash Pool (ITC) represents the balances in more than 400 separate accounts that flow through the Minnesota State Treasury. These accounts vary greatly in size. The ITC contains the cash balances of certain State agencies and non-dedicated cash in the State Treasury.

The investment objectives of the ITC, in order of priority, are as follows:

- Safety of Principal. To preserve capital.
- Liquidity. To meet cash needs without the forced sale of securities at a loss.
- Competitive Rate of Return. To provide a level of current income consistent with the goal of preserving capital.

The SBI seeks to provide safety of principal by investing all cash accounts in high quality, liquid, short term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Treasurer's Cash	25,515,216,936	1.2	2.4	0.7	1.2	0.8
iMoneyNet Money Fund Average-All Taxable		1.0	2.4	0.8	1.2	0.7

Other State Cash Accounts

Due to differing investment objectives, strategies, and time horizons, some State agencies' accounts are invested separately. These agencies direct the investments or provide the SBI with investment guidelines and the SBI executes on their behalf. Consequently, returns are shown for informational purposes only and there are no benchmarks for these accounts.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Debt Service	89,789,249	2.3	1.3	0.9	2.2	



Addendum

Benchmark Definitions

Active Domestic Equity Benchmark:

A weighted composite each of the individual active domestic equity managers' benchmarks. Effective 3/1/2017 the calculation uses the average weight of the manager relative to the total group of active managers during the month. Prior to 3/1/2017 the beginning of the month weight relative to the total group was used.

Benchmark DM:

Since 6/1/08 the developed markets managers' benchmark, "Benchmark DM," is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net). Prior to that date, it was the MSCI EAFE Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI EAFE Free (net).

Benchmark EM:

Since 6/1/08 the emerging markets managers' benchmark, "Benchmark EM," is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was the MSCI Emerging Markets Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI Emerging Markets Free (net). Prior to 1/1/01, it was the MSCI Emerging Markets Free (gross).

Combined Funds Composite Index:

The Composite Index performance is calculated by multiplying the beginning of month Composite weights by the monthly returns of the asset class benchmarks. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. From 1/1/2018-2/28/2019 the Transitional Policy Target was used to reflect the addition of Treasuries to the Fixed Income portfolio. From 7/1/2016-12/31/2016 the composite weights were set to match actual allocation as the portfolio was brought into line with the new Strategic Asset Allocation Policy Target. 7/1/2016 to 12/1/2020 the uninvested portion of Private Markets allocated to Public Equity. Prior to 7/1/2016 the uninvested portion of the Private Markets was invested in Fixed Income and the Composite Index was adjusted accordingly. When the Strategic Asset Allocation Policy Target changes, so does the Composite Index.

Core Bonds Benchmark:

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

Credit Plus Benchmark:

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



Addendum

Domestic Equity Benchmark:

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

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

International Equity Benchmark:

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

Multi-Asset Credit Benchmark:

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

Passive Domestic Equity Benchmark:

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

Passive Manager Benchmark:

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



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.