

Comprehensive Performance Report

September 30, 2021



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

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.

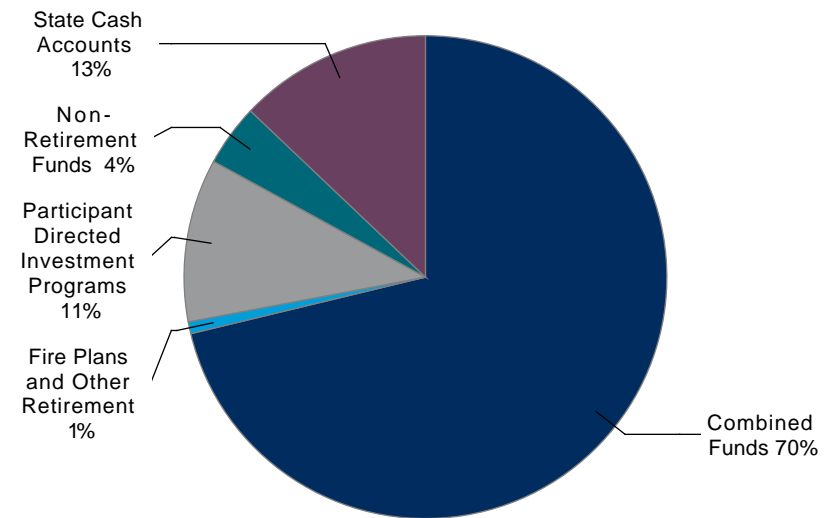
State Cash

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	\$89,948
FIRE PLANS + OTHER RETIREMENT	1,003
PARTICIPANT DIRECTED INVESTMENT PROGRAMS	13,802
State Deferred Compensation Plan	9,609
Health Care Savings Plan	1,667
Unclassified Employees Retirement Plan	390
Hennepin County Supplemental Retirement Plan	187
PERA Defined Contribution Plan	98
Minnesota College Savings Plan	1,827
Minnesota Achieve a Better Life Experience	24
NON-RETIREMENT FUNDS	5,215
Assigned Risk Plan	277
Permanent School Fund	1,946
Environmental Trust Fund	1,642
Closed Landfill Investment Fund	130
Miscellaneous Trust Funds	353
Other Postemployment Benefits Accounts	867
STATE CASH ACCOUNTS	17,957
Invested Treasurer's Cash	17,887
Other State Cash Accounts	70
TOTAL SBI AUM	127,925



Note: Differentials within column amounts may occur due to rounding



Quarterly Report

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Performance Reporting Legend

Manager Level Data

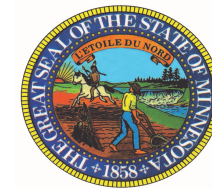
Aggregate Level Data

Sub-Asset Class Level Data

Asset Class Level Data

Note:

Throughout this report performance is calculated net of investment management fees, 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. Inception to date return information is included for manager accounts and total asset class but not other aggregates because of portfolio management decisions to group managers in different aggregates over time.



Combined Funds

September 30, 2021



Combined Funds Summary

Combined Funds Change in Market Value (\$Millions)

	<u>One Quarter</u>
COMBINED FUNDS	
Beginning Market Value	\$89,494
Net Contributions	-670
Investment Return	1,124
Ending Market Value	89,948

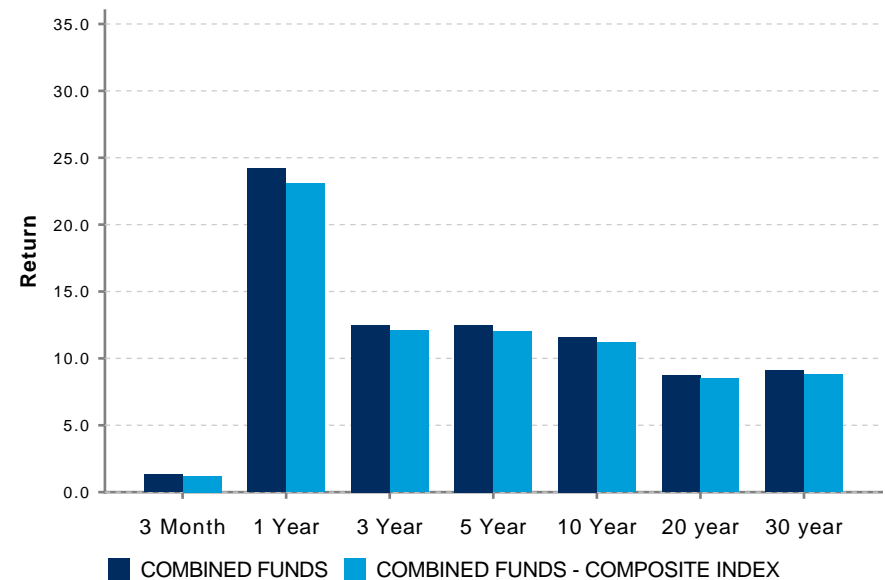
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

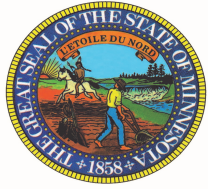
Performance (Net of Fees)

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.

	<u>Qtr</u>	<u>FYTD</u>	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>	<u>30 Yr</u>
COMBINED FUNDS	1.3%	1.3%	24.2%	12.5%	12.5%	11.6%	8.7%	9.1%
COMBINED FUNDS - COMPOSITE INDEX	1.2	1.2	23.1	12.1	12.0	11.2	8.5	8.8
Excess	0.0	0.0	1.1	0.4	0.5	0.4	0.2	0.3

Asset Growth



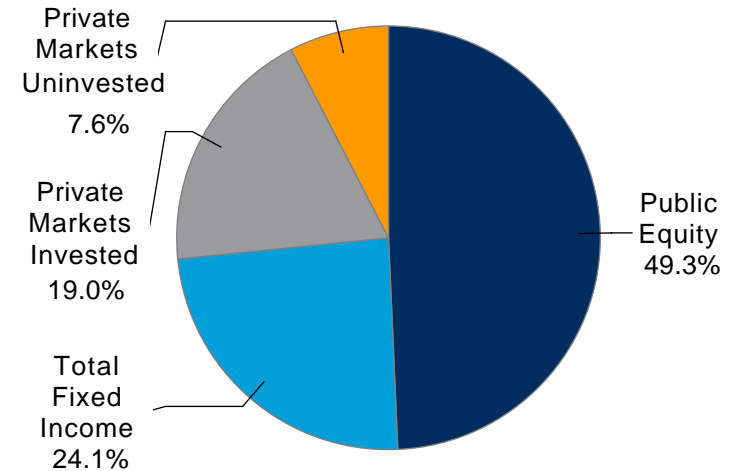


Combined Funds Summary

Asset Mix

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

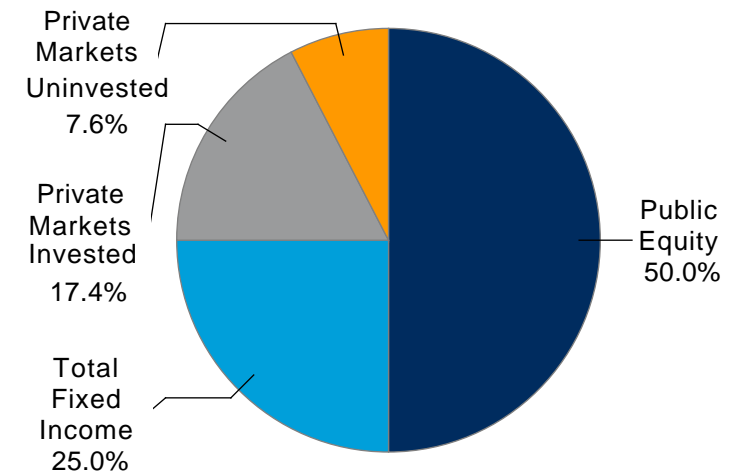
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$44,386	49.3%	50.0%
Total Fixed Income	21,681	24.1	25.0
Private Markets - Total	23,881	26.6	25.0
Private Markets - Invested	17,051	19.0	
Private Markets - Uninvested	6,831	7.6	
TOTAL	89,948	100.0	



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	17.4	Private Markets
Private Markets - Uninvested	7.6	S&P 500





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	\$44.4	49.3%	50.0%	-0.9%	-0.9%	30.2%	13.6%	14.6%	14.3%	9.1%	9.6%
Public Equity Benchmark				-1.0	-1.0	29.7	13.3	14.3			
Excess				0.1	0.1	0.5	0.3	0.3			
Domestic Equity	29.6	32.9	33.5	0.0	0.0	33.1	16.1	17.1	16.7	9.8	10.4
Domestic Equity Benchmark				-0.1	-0.1	32.5	15.9	16.8	16.6	9.9	10.5
Excess				0.1	0.1	0.6	0.2	0.3	0.1	-0.1	-0.1
International Equity	13.7	15.2	16.5	-2.6	-2.6	24.8	8.6	9.3	8.1	7.5	
International Equity Benchmark				-3.0	-3.0	24.0	8.0	8.9	7.5	7.1	
Excess				0.3	0.3	0.8	0.7	0.4	0.6	0.3	
Global Equity	1.1	1.2	0.0	-4.5	-4.5						
MSCI AC WORLD INDEX NET				-1.1	-1.1						
Excess				-3.4	-3.4						

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	\$21.7	24.1%	25.0%	0.1%	0.1%	-2.0%	7.0%	4.1%	4.0%	4.9%	6.0%
Total Fixed Income Benchmark				0.1	0.1	-3.1	6.4				
Excess				-0.0	-0.0	1.1	0.5				
Core/Core Plus	4.8	5.4	5.0	0.2	0.2	0.9	6.4	3.9	3.9	4.8	5.9
Core Bonds Benchmark				0.1	0.1	-0.9	5.4	2.9	3.0	4.3	5.5
Excess				0.1	0.1	1.8	1.1	0.9	0.9	0.5	0.5
Return Seeking Fixed Income	4.0	4.5	5.0	-0.1	-0.1						
Bloomberg U.S. Aggregate				0.1	0.1						
Excess				-0.2	-0.2						
Treasury Protection	8.7	9.7	10.0	0.2	0.2	-6.4	7.1				
Bloomberg Treasury 5+ Year				0.2	0.2	-6.8	7.1				
Excess				0.0	0.0	0.4	0.0				
Laddered Bond + Cash	4.1	4.6	5.0	0.0	0.0	0.1	1.2	1.2	0.8	1.6	3.2
ICE BofA US 3-Month Treasury Bill				0.0	0.0	0.1	1.2	1.2	0.6	1.3	2.5
Excess				0.0	0.0	0.1	-0.0	0.1	0.1	0.3	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	9.4%	9.4%	42.1%	15.9%	16.2%	12.9%	13.0%	13.9%	12.8%
Private Markets-Uninvested(1)	0.6	0.6							
Private Equity	10.3%	10.3%	52.9%	23.0%	21.7%	16.8%	14.7%	15.7%	
Private Credit	5.7%	5.7%	20.4%	10.0%	12.3%	12.1%	12.3%	12.6%	
Resources	6.6%	6.6%	21.8%	-3.0%	2.3%	1.7%	12.1%	12.8%	
Real Estate	10.2%	10.2%	22.9%	11.5%	11.3%	11.7%	8.9%	10.2%	

Private Markets

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

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

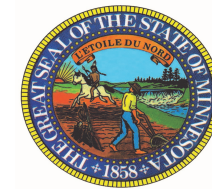
Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection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

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

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

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

(1) The Uninvested portion of the Private Markets allocation is invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash



Quarterly Report

Asset Class & Manager Performance September 30, 2021

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

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

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

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

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Domestic Equity

September 30, 2021

Minnesota State Board of Investment
Quarter Ending September 30, 2021
Domestic Equity Managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Domestic Equity										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$4,005,216,245	13.2%	-0.8%	-0.8%	43.6%	14.9%	17.3%	16.5%		
Active Domestic Equity Benchmark			-2.2	-2.2	39.7	13.2	15.1	15.7		
Excess			1.3	1.3	3.9	1.7	2.1	0.8		
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	3,225,383,035	10.7	0.1	0.1	31.1	16.4	17.3	17.0		
Semi Passive Domestic Equity Benchmark			0.2	0.2	31.0	16.4	17.1	16.8		
Excess			-0.1	-0.1	0.1	0.0	0.2	0.2		
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	23,030,355,270	76.1	0.2	0.2	31.4	16.3	17.0	16.7		
Passive Domestic Equity Benchmark			0.2	0.2	31.3	16.2	17.0	16.7		
Excess			0.0	0.0	0.1	0.0	-0.0	0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	36	0.0								
TOTAL DOMESTIC EQUITY (5)	30,260,954,586	100.0	0.0	0.0	33.1	16.1	17.1	16.7	11.0	01/1984
Domestic Equity Benchmark			-0.1	-0.1	32.5	15.9	16.8	16.6	11.2	01/1984
Excess			0.1	0.1	0.6	0.2	0.3	0.1	-0.2	

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

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

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

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

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

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



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Total Domestic Equity					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	27.3%	27.6%	-6.5%	20.6%	10.9%
Active Domestic Equity Benchmark	19.8	28.2	-8.0	18.3	15.7
Excess	7.5	-0.6	1.4	2.3	-4.8
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	21.0	30.9	-4.9	22.5	11.1
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	0.0	-0.5	-0.1	0.8	-1.0
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	20.8	31.3	-5.0	21.3	12.6
Passive Domestic Equity Benchmark	20.8	31.3	-5.0	21.5	12.5
Excess	0.0	0.0	-0.0	-0.2	0.1
TRANSITION AGGREGATE DOMESTIC EQUITY (4)					
TOTAL DOMESTIC EQUITY (5)	21.7%	30.7%	-5.3%	21.4%	11.5
Domestic Equity Benchmark	20.8%	30.8%	-5.2%	21.1%	12.7
Excess	0.9%	-0.1%	-0.0%	0.2%	-1.3

(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	\$391,644,834	1.3%	4.1%	4.1%	33.1%	28.5%	28.1%	22.3%	14.7%	01/2005
Russell 1000 Growth			1.2	1.2	27.3	22.0	22.8	19.7	12.4	01/2005
Excess			2.9	2.9	5.8	6.5	5.3	2.6	2.3	
WINSLOW	245,199,237	0.8	2.5	2.5	26.8	21.6	23.4	19.4	13.1	01/2005
Russell 1000 Growth			1.2	1.2	27.3	22.0	22.8	19.7	12.4	01/2005
Excess			1.4	1.4	-0.5	-0.4	0.6	-0.3	0.7	
RUSSELL 1000 GROWTH AGGREGATE (1)	636,844,070	2.1	3.5	3.5	34.6	31.5	30.9	23.4		
Russell 1000 Growth			1.2	1.2	27.3	22.0	22.8	19.7		
Excess			2.3	2.3	7.2	9.5	8.1	3.7		

(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>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Large Cap Growth					
SANDS	71.0%	33.5%	7.0%	35.3%	-6.9%
Russell 1000 Growth	38.5	36.4	-1.5	30.2	7.1
Excess	32.5	-2.8	8.6	5.1	-13.9
WINSLOW	37.6	34.2	4.2	33.2	-1.9
Russell 1000 Growth	38.5	36.4	-1.5	30.2	7.1
Excess	-0.9	-2.2	5.7	3.0	-9.0
RUSSELL 1000 GROWTH AGGREGATE (1)	81.3%	37.3%	4.7%	33.4%	1.0
Russell 1000 Growth	38.5%	36.4%	-1.5%	30.2%	7.1
Excess	42.8%	0.9%	6.2%	3.2%	-6.1

(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	\$1,624,873,726	5.4%	-0.0%	-0.0%	30.5%	16.0%	17.8%	17.5%	10.9%	01/1995
Semi Passive Domestic Equity Benchmark			0.2	0.2	31.0	16.4	17.1	16.8	10.5	01/1995
Excess			-0.2	-0.2	-0.4	-0.4	0.7	0.7	0.4	
J.P. MORGAN	1,600,509,309	5.3	0.2	0.2	31.5	16.8	17.4	17.1	10.8	01/1995
Semi Passive Domestic Equity Benchmark			0.2	0.2	31.0	16.4	17.1	16.8	10.5	01/1995
Excess			0.0	0.0	0.6	0.4	0.2	0.4	0.3	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	3,225,383,035	10.7	0.1	0.1	31.1	16.4	17.3	17.0		
Semi Passive Domestic Equity Benchmark			0.2	0.2	31.0	16.4	17.1	16.8		
Excess			-0.1	-0.1	0.1	0.0	0.2	0.2		



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Semi-Passive Large Cap					
BLACKROCK	20.7%	30.4%	-4.1%	24.6%	12.5%
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	-0.3	-1.0	0.7	2.9	0.5
J.P. MORGAN	21.2	31.3	-5.4	21.8	12.3
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	0.3	-0.1	-0.6	0.1	0.2
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	21.0%	30.9%	-4.9%	22.5%	11.1
Semi Passive Domestic Equity Benchmark	21.0%	31.4%	-4.8%	21.7%	12.1
Excess	0.0%	-0.5%	-0.1%	0.8%	-1.0



	<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	\$391,323,579	1.3%	-1.2%	-1.2%	37.5%	10.0%	11.6%	13.7%	8.7%	04/2004
Russell 1000 Value			-0.8	-0.8	35.0	10.1	10.9	13.5	8.3	04/2004
Excess			-0.4	-0.4	2.5	-0.1	0.6	0.2	0.3	
LSV	404,636,222	1.3	-2.2	-2.2	45.4	9.1	11.9	15.0	9.3	04/2004
Russell 1000 Value			-0.8	-0.8	35.0	10.1	10.9	13.5	8.3	04/2004
Excess			-1.4	-1.4	10.4	-0.9	0.9	1.5	1.0	
RUSSELL 1000 VALUE AGGREGATE	795,959,800	2.6	-1.7	-1.7	40.8	10.1	12.5	14.2		
Russell 1000 Value			-0.8	-0.8	35.0	10.1	10.9	13.5		
Excess			-0.9	-0.9	5.8	0.0	1.5	0.7		



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Large Cap Value					
BARROW HANLEY	2.4%	26.9%	-5.9%	14.6%	12.8%
Russell 1000 Value	2.8	26.5	-8.3	13.7	17.3
Excess	-0.4	0.4	2.4	0.9	-4.5
LSV					
LSV	-1.3	26.9	-11.8	18.6	17.0
Russell 1000 Value	2.8	26.5	-8.3	13.7	17.3
Excess	-4.1	0.4	-3.6	4.9	-0.4
RUSSELL 1000 VALUE AGGREGATE					
RUSSELL 1000 VALUE AGGREGATE	1.6%	27.4%	-8.7%	17.3%	15.3
Russell 1000 Value	2.8%	26.5%	-8.3%	13.7%	17.3
Excess	-1.2%	0.9%	-0.4%	3.7%	-2.1



	<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 Small Cap Growth										
ARROWMARK	\$219,828,356	0.7%	-1.0%	-1.0%	46.6%	10.3%			18.1%	11/2016
Russell 2000 Growth			-5.7	-5.7	33.3	11.7			17.1	11/2016
Excess			4.7	4.7	13.3	-1.4			1.0	
HOOD RIVER	274,059,895	0.9	-1.7	-1.7	55.3	21.7			24.3	11/2016
Russell 2000 Growth			-5.7	-5.7	33.3	11.7			17.1	11/2016
Excess			3.9	3.9	22.0	10.0			7.2	
RICE HALL JAMES	221,227,116	0.7	-2.6	-2.6	33.8	7.9			17.0	11/2016
Russell 2000 Growth			-5.7	-5.7	33.3	11.7			17.1	11/2016
Excess			3.1	3.1	0.5	-3.8			-0.2	
WELLINGTON	307,374,584	1.0	-1.3	-1.3	36.6	13.4			17.9	11/2016
Russell 2000 Growth			-5.7	-5.7	33.3	11.7			17.1	11/2016
Excess			4.4	4.4	3.4	1.7			0.7	
RUSSELL 2000 GROWTH AGGREGATE	1,022,489,950	3.4	-1.6	-1.6	43.2	13.6	17.3	15.3		
Russell 2000 Growth			-5.7	-5.7	33.3	11.7	15.3	15.7		
Excess			4.0	4.0	9.9	1.9	2.0	-0.5		



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Small Cap Growth					
ARROWMARK	21.9%	20.1%	0.9%	26.2%	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-12.8	-8.4	10.3	4.1	
HOOD RIVER	61.7	24.3	-7.0	21.3	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	27.0	-4.2	2.3	-0.9	
RICE HALL JAMES	23.8	18.0	-6.9	27.9	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-10.8	-10.5	2.4	5.8	
WELLINGTON	33.1	35.6	-11.6	22.6	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-1.5	7.1	-2.3	0.4	
RUSSELL 2000 GROWTH AGGREGATE	35.4%	24.6%	-6.2%	22.0%	4.7
Russell 2000 Growth	34.6%	28.5%	-9.3%	22.2%	11.3
Excess	0.8%	-3.9%	3.2%	-0.1%	-6.6



	<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	\$372,359,454	1.2%	-1.2%	-1.2%	55.8%	7.2%	10.2%	13.6%	9.6%	01/2004
Russell 2000 Value			-3.0	-3.0	63.9	8.6	11.0	13.2	8.6	01/2004
Excess			1.8	1.8	-8.1	-1.3	-0.9	0.4	1.0	
HOTCHKIS AND WILEY	225,499,410	0.7	2.2	2.2	81.4	7.7	11.3	14.2	8.8	01/2004
Russell 2000 Value			-3.0	-3.0	63.9	8.6	11.0	13.2	8.6	01/2004
Excess			5.2	5.2	17.5	-0.9	0.3	0.9	0.2	
MARTINGALE	224,194,350	0.7	0.2	0.2	66.5	6.9	9.5	14.3	8.2	01/2004
Russell 2000 Value			-3.0	-3.0	63.9	8.6	11.0	13.2	8.6	01/2004
Excess			3.2	3.2	2.6	-1.7	-1.5	1.0	-0.3	
PEREGRINE	323,386,650	1.1	-2.0	-2.0	64.3	7.8	10.9	13.3	10.3	07/2000
Russell 2000 Value			-3.0	-3.0	63.9	8.6	11.0	13.2	9.8	07/2000
Excess			1.0	1.0	0.4	-0.8	-0.2	0.1	0.4	
RUSSELL 2000 VALUE AGGREGATE	1,145,439,864	3.8	-0.5	-0.5	65.1	7.2	10.3	13.6		
Russell 2000 Value			-3.0	-3.0	63.9	8.6	11.0	13.2		
Excess			2.5	2.5	1.1	-1.4	-0.7	0.4		



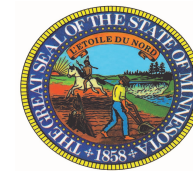
	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Small Cap Value					
GOLDMAN SACHS	2.4%	23.2%	-13.3%	12.6%	24.6%
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-2.3	0.8	-0.5	4.7	-7.1
HOTCHKIS AND WILEY	-0.2	19.7	-14.4	7.9	19.9
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-4.8	-2.7	-1.5	0.0	-11.8
MARTINGALE	-4.6	21.1	-15.0	6.9	34.3
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-9.2	-1.3	-2.1	-0.9	2.5
PEREGRINE	7.3	21.1	-16.1	12.5	27.8
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	2.7	-1.3	-3.3	4.7	-3.9
RUSSELL 2000 VALUE AGGREGATE	1.5%	21.3%	-14.7%	10.2%	26.5
Russell 2000 Value	4.6%	22.4%	-12.9%	7.8%	31.7
Excess	-3.1%	-1.1%	-1.8%	2.3%	-5.2



	<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 All Cap										
ZEVENBERGEN (1)	\$404,482,561	1.3%	-4.3%	-4.3%	17.9%	33.2%	33.0%	23.9%	13.6%	04/1994
Zevenbergen Custom Benchmark			0.7	0.7	32.9	23.7	23.9	20.2		04/1994
Excess			-5.0	-5.0	-15.0	9.4	9.1	3.7		
ACTIVE RUSSELL 3000 GROWTH (2)										
ACTIVE RUSSELL 3000 GROWTH (2)	404,482,561		-4.3	-4.3						
Russell 3000 Growth TR			0.7	0.7						
Excess			-5.0	-5.0						

(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>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active All Cap					
ZEVENBERGEN (1)	126.2%	43.0%	2.3%	35.1%	-2.8%
Zevenbergen Custom Benchmark	38.5	36.4	-1.5	30.2	7.1
Excess	87.7	6.7	3.8	4.9	-9.9

**ACTIVE RUSSELL 3000
GROWTH (2)**

Russell 3000 Growth TR

Excess

(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.

Minnesota State Board of Investment
Quarter Ending September 30, 2021
Domestic Equity Managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$21,872,401,661	72.3%	0.2%	0.2%	31.0%	16.4%			17.9%	11/2016
RUSSELL 1000 (DAILY)			0.2	0.2	31.0	16.4			17.9	11/2016
Excess			0.0	0.0	0.1	-0.0			-0.0	
BLACKROCK RUSSELL 2000	98,047,158	0.3	-4.4	-4.4	49.2				16.0	11/2018
RUSSELL 2000 (DAILY)			-4.4	-4.4	47.7				15.3	11/2018
Excess			-0.0	-0.0	1.5				0.7	
BLACKROCK RUSSELL 3000 (1)	1,059,906,451	3.5	0.0	0.0	32.6	16.3	17.0%	16.7%	10.3	07/1995
Passive Manager Benchmark			-0.1	-0.1	31.9	16.0	16.9	16.6	10.2	07/1995
Excess			0.1	0.1	0.7	0.3	0.2	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	23,030,355,270	76.1	0.2	0.2	31.4	16.3	17.0	16.7		
Passive Domestic Equity Benchmark			0.2	0.2	31.3	16.2	17.0	16.7		
Excess			0.0	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.

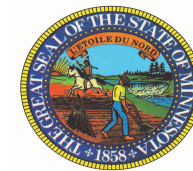


	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	20.9%	31.4%	-4.8%	21.7%	
RUSSELL 1000 (DAILY)	21.0	31.4	-4.8	21.7	
Excess	-0.0	0.0	-0.0	-0.0	
BLACKROCK RUSSELL 2000	20.8	25.2			
RUSSELL 2000 (DAILY)	20.0	25.5			
Excess	0.8	-0.3			
BLACKROCK RUSSELL 3000 (1)	21.2	31.1	-5.2	21.1	12.7%
Passive Manager Benchmark	20.9	31.0	-5.2	21.1	12.7
Excess	0.3	0.0	-0.0	0.0	0.0
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	20.8%	31.3%	-5.0%	21.3%	12.6
Passive Domestic Equity Benchmark	20.8%	31.3%	-5.0%	21.5%	12.5
Excess	0.0%	0.0%	-0.0%	-0.2%	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.

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International Equity

September 30, 2021



	<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)	\$9,480,513,249	68.4%	-0.6%	-0.6%	26.7%	8.5%	9.4%	8.7%		
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9		
Excess			0.1	0.1	0.2	0.6	0.5	0.8		
EMERGING MARKETS (2)	3,761,278,383	27.1	-7.8	-7.8	19.8	9.4	9.0	6.0		
BENCHMARK EM			-8.1	-8.1	18.2	8.6	9.2	6.1		
Excess			0.3	0.3	1.6	0.9	-0.2	-0.1		
ACWI EX-US AGGREGATE	394,798,603	2.8	-1.1	-1.1						
MSCI AC WORLD ex US (NET) - DAILY			-3.0	-3.0						
Excess			1.9	1.9						
CHINA ONLY AGGREGATE	194,161,159	1.4	-6.3	-6.3						
MSCI China A			-4.4	-4.4						
Excess			-2.0	-2.0						
TOTAL INTERNATIONAL EQUITY (4)	13,856,978,987	100.0	-2.6	-2.6	24.8	8.6	9.3	8.1	6.8	10/1992
International Equity Benchmark			-3.0	-3.0	24.0	8.0	8.9	7.5	6.3	10/1992
Excess			0.3	0.3	0.8	0.7	0.4	0.6	0.5	

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

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

(3) The Transition Aggregate International Equity 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>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Total International Equity					
DEVELOPED MARKETS (1)	9.1%	23.3%	-14.2%	24.9%	1.3%
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	1.5	0.8	-0.1	0.7	-1.5
EMERGING MARKETS (2)					
EMERGING MARKETS (2)	17.9	20.3	-15.4	37.7	7.5
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-0.4	1.9	-0.8	0.4	-3.7
ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					
CHINA ONLY AGGREGATE					
MSCI China A					
Excess					
TOTAL INTERNATIONAL EQUITY (4)	11.4%	22.4%	-14.5%	27.6%	2.6
International Equity Benchmark	10.5%	21.5%	-14.2%	27.2%	4.5
Excess	0.8%	0.9%	-0.3%	0.4%	-1.8

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

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

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

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

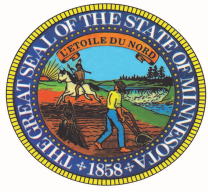
Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Developed Markets										
ACADIAN	\$383,980,240	2.8%	-3.2%	-3.2%	23.8%	7.4%	11.6%	11.1%	7.2%	07/2005
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.6	07/2005
Excess			-2.5	-2.5	-2.7	-0.5	2.7	3.2	1.6	
COLUMBIA	415,914,154	3.0	1.0	1.0	27.8	11.9	12.3	10.5	4.2	03/2000
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	4.1	03/2000
Excess			1.7	1.7	1.3	4.1	3.4	2.6	0.2	
FIDELITY	411,483,166	3.0	0.3	0.3	26.5	11.3	11.4	10.1	7.5	07/2005
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.6	07/2005
Excess			0.9	0.9	-0.0	3.4	2.6	2.3	1.9	
JP MORGAN	358,807,271	2.6	-0.4	-0.4	24.5	10.8	10.9	9.0	6.2	07/2005
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.6	07/2005
Excess			0.2	0.2	-2.0	3.0	2.1	1.1	0.5	
MARATHON	388,248,433	2.8	-0.1	-0.1	30.5	8.5	9.3	9.6	8.3	11/1993
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.4	11/1993
Excess			0.6	0.6	4.0	0.7	0.4	1.7	2.8	
MCKINLEY	299,184,637	2.2	2.6	2.6	22.4	9.8	10.7	9.6	5.9	07/2005
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.6	07/2005
Excess			3.3	3.3	-4.1	2.0	1.8	1.7	0.3	
AQR CAPITAL MANAGEMENT	367,604,704	2.7	-3.0	-3.0	21.9	5.4	6.8	7.9	5.5	07/2005
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9	5.6	07/2005
Excess			-2.4	-2.4	-4.6	-2.5	-2.1	-0.0	-0.1	



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Developed Markets					
ACADIAN	11.7%	19.1%	-13.5%	37.0%	8.1%
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	4.2	-3.4	0.6	12.8	5.4
COLUMBIA	15.0	28.9	-14.9	32.7	-5.6
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	7.4	6.4	-0.8	8.5	-8.3
FIDELITY	15.4	27.1	-14.6	25.9	1.2
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	7.8	4.6	-0.5	1.7	-1.5
JP MORGAN	14.2	28.5	-17.3	28.3	4.0
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	6.6	6.0	-3.3	4.1	1.2
MARATHON	7.6	23.5	-13.4	23.1	-1.1
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	0.1	1.0	0.7	-1.1	-3.8
MCKINLEY	16.4	25.6	-15.9	28.5	-7.5
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	8.8	3.1	-1.9	4.3	-10.2
AQR CAPITAL MANAGEMENT	6.5	20.8	-18.2	25.1	0.8
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	-1.1	-1.7	-4.1	0.9	-2.0



	<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 Developed Markets										
Active Developed Markets Aggregate (1)	\$2,625,222,604		-0.5%	-0.5%	25.5%	9.2%	10.2%	9.4%		
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9		
Excess			0.2	0.2	-1.0	1.4	1.3	1.5		
SSgA DEVELOPED MARKETS PASSIVE	\$6,855,290,645	49.5%	-0.6%	-0.6%	27.1%	8.3%	9.3%	8.3%	6.5%	10/1992
BENCHMARK DM			-0.7%	-0.7%	26.5%	7.9%	8.9%	7.9%	6.2%	10/1992
Excess			0.1%	0.1%	0.6%	0.4%	0.4%	0.4%	0.3%	
RECORD CURRENCY (2)	\$25,421,648	0.2%	0.2%	0.2%	0.4%					10/2020
DM PASSIVE EQUITY WITH CURRENCY MGMT	\$6,880,712,293	49.7%	-0.4%	-0.4%	27.5%	8.4%	9.2%	8.3%		10/1992
BENCHMARK DM			-0.7%	-0.7%	26.5%	7.9%	8.9%	7.9%		10/1992
Excess			0.3%	0.3%	1.0%	0.6%	0.4%	0.4%		
DEVELOPED MARKETS TOTAL	9,480,513,249	68.4	-0.6	-0.6	26.7	8.5	9.4	8.7		
BENCHMARK DM			-0.7	-0.7	26.5	7.9	8.9	7.9		
Excess			0.1	0.1	0.2	0.6	0.5	0.8		

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

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



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Total Developed Markets					
Active Developed Markets Aggregate (1)	12.2%	24.4%	-15.1%	26.8%	-0.3%
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	4.6	1.9	-1.0	2.6	-3.0
SSgA DEVELOPED MARKETS PASSIVE	8.2%	23.0%	-13.9%	24.7%	3.2
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	0.6%	0.5%	0.2%	0.5%	0.4
DM PASSIVE EQUITY WITH CURRENCY MGMT	8.0%	23.0%	-13.9%	23.8%	3.3
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	0.4%	0.5%	0.2%	-0.4%	0.5
DEVELOPED MARKETS TOTAL	9.1%	23.3%	-14.2%	24.9%	1.3
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	1.5%	0.8%	-0.1%	0.7%	-1.5

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



	<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	\$486,657,009	3.5%	-8.9%	-8.9%	19.1%	12.8%			12.9%	04/2017
BENCHMARK EM			-8.1	-8.1	18.2	8.6			8.7	04/2017
Excess			-0.8	-0.8	0.9	4.2			4.2	
MACQUARIE	436,808,931	3.2	-10.4	-10.4	11.9	10.5			10.5	04/2017
BENCHMARK EM			-8.1	-8.1	18.2	8.6			8.7	04/2017
Excess			-2.3	-2.3	-6.3	1.9			1.8	
MORGAN STANLEY	560,762,251	4.0	-5.0	-5.0	21.7	10.5	8.7%	6.7%	9.6	01/2001
BENCHMARK EM			-8.1	-8.1	18.2	8.6	9.2	6.1	9.2	01/2001
Excess			3.1	3.1	3.5	2.0	-0.6	0.6	0.4	
NEUBERGER BERMAN	407,537,947	2.9	-9.2	-9.2	12.0	7.0			7.2	04/2017
BENCHMARK EM			-8.1	-8.1	18.2	8.6			8.7	04/2017
Excess			-1.1	-1.1	-6.2	-1.6			-1.5	
PZENA	378,344,672	2.7	-3.4	-3.4	43.7	8.2			7.9	04/2017
BENCHMARK EM			-8.1	-8.1	18.2	8.6			8.7	04/2017
Excess			4.7	4.7	25.5	-0.4			-0.8	
ROCK CREEK	442,126,169	3.2	-8.6	-8.6	17.6	10.6			8.4	04/2017
BENCHMARK EM			-8.1	-8.1	18.2	8.6			8.7	04/2017
Excess			-0.5	-0.5	-0.6	2.0			-0.3	



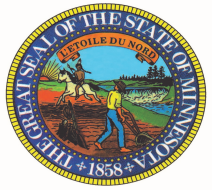
	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Emerging Markets					
MARTIN CURRIE	26.5%	27.3%	-16.6%		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	8.2	8.8	-2.0		
MACQUARIE	24.2	23.2	-13.3		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	5.9	4.7	1.3		
MORGAN STANLEY	15.7	20.4	-16.7	37.9%	6.1%
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-2.6	1.9	-2.2	0.6	-5.1
NEUBERGER BERMAN	14.2	19.7	-17.1		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	-4.1	1.3	-2.6		
PZENA	7.7	13.4	-10.8		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	-10.6	-5.1	3.8		
ROCK CREEK	22.0	22.3	-17.6		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	3.7	3.9	-3.1		



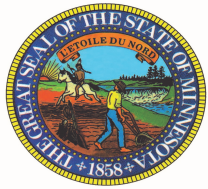
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE	\$2,712,236,980	19.6%	-7.6%	-7.6%	20.8%	9.9%	8.7%	5.8%		
BENCHMARK EM			-8.1	-8.1	18.2	8.6	9.2	6.1		
Excess			0.5	0.5	2.6	1.3	-0.5	-0.3		
SSGA EMERGING MARKETS PASSIVE	1,049,041,403	7.6	-8.3	-8.3	17.5	8.4	9.0		5.8	01/2012
BENCHMARK EM			-8.1	-8.1	18.2	8.6	9.2		5.8	01/2012
Excess			-0.2	-0.2	-0.7	-0.2	-0.2		0.0	
EMERGING MARKETS TOTAL	3,761,278,383	27.1	-7.8	-7.8	19.8	9.4	9.0	6.0		
BENCHMARK EM			-8.1	-8.1	18.2	8.6	9.2	6.1		
Excess			0.3	0.3	1.6	0.9	-0.2	-0.1		



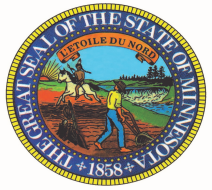
	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE	17.6%	21.4%	-15.6%	37.2%	5.3%
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-0.7	3.0	-1.0	-0.1	-5.9
SSGA EMERGING MARKETS PASSIVE	18.3%	18.1%	-14.7%	37.4%	11.1
BENCHMARK EM	18.3%	18.4%	-14.6%	37.3%	11.2
Excess	0.0%	-0.3%	-0.1%	0.1%	-0.1
EMERGING MARKETS TOTAL	17.9%	20.3%	-15.4%	37.7%	7.5
BENCHMARK EM	18.3%	18.4%	-14.6%	37.3%	11.2
Excess	-0.4%	1.9%	-0.8%	0.4%	-3.7



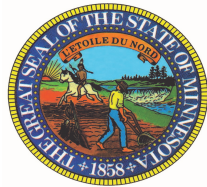
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	\$394,798,603	2.8%	-1.1%	-1.1%					10.8%	01/2021
MSCI AC WORLD ex US (NET) - DAILY			-3.0%	-3.0%					5.9%	01/2021
Excess			1.9%	1.9%					4.9%	
TOTAL ACWI EX-US AGGREGATE										
MSCI AC WORLD ex US (NET) - DAILY			-3.0%	-3.0%						
Excess			1.9%	1.9%						



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active ACWI ex-US					
EARNEST PARTNERS ACWI EX US					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					
TOTAL ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					



	<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	\$194,161,159		-6.3%	-6.3%					-7.5%	01/2021
MSCI China A			-4.4	-4.4					0.0	01/2021
Excess			-2.0	-2.0					-7.6	
CHINA ONLY AGGREGATE	\$194,161,159		-6.3%	-6.3%						
MSCI China A			-4.4%	-4.4%						
Excess			-2.0%	-2.0%						



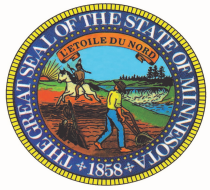
	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
China Only Managers					
EARNEST PARTNERS CHINA					
MSCI China A					
Excess					
CHINA ONLY AGGREGATE					
MSCI China A					
Excess					

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Global Equity

September 30, 2021

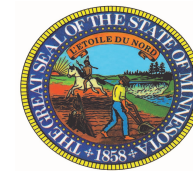


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Global Equity Managers										
ARIEL INVESTMENTS	\$364,821,293	32.6%	-3.3%	-3.3%					5.9%	01/2021
MSCI AC WORLD NET USD DAILY			-1.1	-1.1					11.1	01/2021
Excess			-2.3	-2.3					-5.2	
BAILLIE GIFFORD	334,806,081	30.0	-5.3	-5.3					5.9	01/2021
MSCI AC WORLD NET USD DAILY			-1.1	-1.1					11.1	01/2021
Excess			-4.3	-4.3					-5.2	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	418,253,801	37.4	-4.8	-4.8					6.4	01/2021
MSCI AC WORLD NET USD DAILY			-1.1	-1.1					11.1	01/2021
Excess			-3.7	-3.7					-4.8	
GLOBAL EQUITY	1,117,881,175	100.0	-4.5	-4.5					6.1	01/2021
MSCI AC WORLD NET USD DAILY			-1.1	-1.1					11.1	01/2021
Excess			-3.4	-3.4					-5.0	



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Global Equity Managers					
ARIEL INVESTMENTS					
MSCI AC WORLD NET USD DAILY					
Excess					
BAILLIE GIFFORD					
MSCI AC WORLD NET USD DAILY					
Excess					
MARTIN CURRIE INVESTMENTS - GLOBAL EQ					
MSCI AC WORLD NET USD DAILY					
Excess					
GLOBAL EQUITY					
MSCI AC WORLD NET USD DAILY					
Excess					

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Core/Core Plus Bonds

September 30, 2021



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Bonds										
CORE (1)	\$2,012,583,996	39.9%	0.2%	0.2%						
Bloomberg U.S. Aggregate			0.1	0.1						
Excess			0.1	0.1						
CORE PLUS (1)	3,033,437,767	60.1	0.2	0.2						
Bloomberg U.S. Aggregate			0.1	0.1						
Excess			0.2	0.2						
TRANSITION AGGREGATE CORE BONDS (2)	19,116	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	5,046,040,879	100.0	0.2	0.2	0.9	6.4	3.9	3.9	7.4	07/1984
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	7.0	07/1984
Excess			0.1	0.1	1.8	1.1	0.9	0.9	0.4	

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

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

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

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



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Bonds					
CORE (1)					
Bloomberg U.S. Aggregate					
Excess					
CORE PLUS (1)					
Bloomberg U.S. Aggregate					
Excess					
TRANSITION AGGREGATE CORE BONDS (2)					
TOTAL CORE/CORE PLUS BONDS (3)	9.7%	9.7%	-0.0%	4.2%	3.6
Bloomberg U.S. Aggregate	7.5%	8.7%	0.0%	3.5%	2.6
Excess	2.2%	1.0%	-0.1%	0.7%	0.9

(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>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	\$1,066,408,698	21.1%	0.2%	0.2%	1.8%	6.2%	4.2%	4.4%	5.9%	02/2000
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	4.9	02/2000
Excess			0.1	0.1	2.7	0.8	1.2	1.4	1.0	
BLACKROCK	946,175,298	18.8	0.2	0.2	-0.5	5.8	3.3	3.3	5.2	04/1996
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	5.1	04/1996
Excess			0.1	0.1	0.4	0.5	0.3	0.3	0.1	
CORE	2,012,583,996	39.9	0.2	0.2						
Bloomberg U.S. Aggregate			0.1	0.1						
Excess			0.1	0.1						

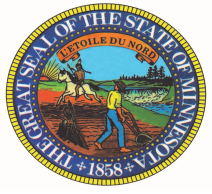


	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Active Core					
DODGE & COX	9.4%	9.6%	-0.0%	4.2%	4.8%
Bloomberg U.S. Aggregate	7.5	8.7	0.0	3.5	2.6
Excess	1.8	0.9	-0.1	0.7	2.2
BLACKROCK					
BLACKROCK	8.3	9.3	-0.1	3.7	2.8
Bloomberg U.S. Aggregate	7.5	8.7	0.0	3.5	2.6
Excess	0.8	0.6	-0.2	0.1	0.1

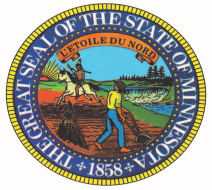
CORE

Bloomberg U.S. Aggregate

Excess



	<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	\$900,937,153	17.9%	0.3%	0.3%	-0.3%	6.0%	3.5%	3.5%	5.5%	07/1993
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	5.1	07/1993
Excess			0.2	0.2	0.6	0.6	0.5	0.5	0.4	
NEUBERGER	991,640,853	19.7	0.2	0.2	1.6	6.5	3.7	3.6	6.3	07/1988
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	6.0	07/1988
Excess			0.2	0.2	2.5	1.2	0.7	0.6	0.3	
WESTERN	1,140,859,761	22.6	0.1	0.1	1.7	7.2	4.6	4.6	8.2	07/1984
Bloomberg U.S. Aggregate			0.1	0.1	-0.9	5.4	2.9	3.0	7.0	07/1984
Excess			0.0	0.0	2.5	1.9	1.7	1.6	1.2	
CORE PLUS	3,033,437,767	60.1	0.2	0.2						
Bloomberg U.S. Aggregate			0.1	0.1						
Excess			0.2	0.2						



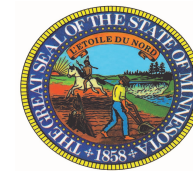
	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Core Plus Bonds					
GOLDMAN SACHS	9.0%	9.6%	-0.0%	3.9%	3.0%
Bloomberg U.S. Aggregate	7.5	8.7	0.0	3.5	2.6
Excess	1.5	0.9	-0.0	0.4	0.3
NEUBERGER	9.9	9.0	-0.1	3.6	2.7
Bloomberg U.S. Aggregate	7.5	8.7	0.0	3.5	2.6
Excess	2.4	0.3	-0.1	0.0	0.1
WESTERN ASSET MANAGEMENT	10.9	11.1	-0.2	5.6	4.9
Bloomberg U.S. Aggregate	7.5	8.7	0.0	3.5	2.6
Excess	3.4	2.4	-0.3	2.1	2.2

CORE PLUS

Bloomberg U.S. Aggregate

Excess

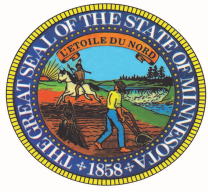
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Return Seeking Bonds

September 30, 2021

Minnesota State Board of Investment
Quarter Ending September 30, 2021
Return Seeking Bonds Managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	\$935,281,601		-0.1%	-0.1%					2.1%	12/2020
Credit Plus Benchmark			0.2	0.2					0.0	12/2020
Excess			-0.3	-0.3					2.1	
PIMCO CREDIT PLUS	815,681,827		0.3	0.3					1.4	12/2020
Credit Plus Benchmark			0.2	0.2					0.0	12/2020
Excess			0.2	0.2					1.4	
CREDIT PLUS	1,750,963,428	43.5%	0.1	0.1					1.8	12/2020
Credit Plus Benchmark			0.2	0.2					0.0	12/2020
Excess			-0.1	-0.1					1.8	
BLACKROCK OPPORTUNISTIC	505,509,515	12.6	0.1	0.1					1.0	12/2020
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.1	12/2020
Excess			0.0	0.0					1.0	
ASHMORE EMERGING MARKET	282,203,685	7.0	-4.9	-4.9					-6.7	01/2021
JPM JEMB Sovereign-only 50-50			-1.9	-1.9					-3.9	01/2021
Excess			-3.0	-3.0					-2.8	
TCW SECURITIZED CREDIT	300,529,924		0.2	0.2					0.2	07/2021
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.0	07/2021
Excess			0.2	0.2					0.2	



	<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>
Return Seeking Bonds Managers										
PAYDEN RYCEL	\$308,186,586	7.7%	0.4%	0.4%					2.5%	01/2021
Multi-Asset Credit Benchmark			0.5	0.5					2.3	01/2021
Excess			-0.1	-0.1					0.2	
PGIM	306,003,072	7.6	0.5	0.5					1.6	01/2021
Multi-Asset Credit Benchmark			0.5	0.5					2.3	01/2021
Excess			0.0	0.0					-0.8	
MULTI-ASSET CREDIT	614,189,658	15.3	0.4	0.4					2.1	01/2021
Multi-Asset Credit Benchmark			0.5	0.5					2.3	01/2021
Excess			-0.0	-0.0					-0.3	
KKR	312,468,384	7.8	1.0	1.0					3.7	01/2021
ICE BofA US Cash Pay HY Constrained			0.9	0.9					4.6	01/2021
Excess			0.0	0.0					-0.8	
OAKTREE	260,886,055	6.5	0.8	0.8					3.6	01/2021
ICE BofA US Cash Pay HY Constrained			0.9	0.9					4.6	01/2021
Excess			-0.1	-0.1					-0.9	
HIGH YIELD	573,354,439	14.2	0.9	0.9					3.7	01/2021
ICE BofA US Cash Pay HY Constrained			0.9	0.9					4.6	01/2021
Excess			-0.0	-0.0					-0.9	

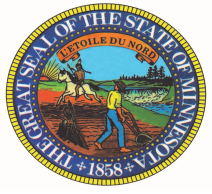


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Return Seeking Bonds										
CREDIT PLUS	\$1,750,963,428	43.5%	0.1%	0.1%					1.8%	12/2020
Credit Plus Benchmark			0.2	0.2					0.0	12/2020
Excess			-0.1	-0.1					1.8	
OPPORTUNISTIC FI	505,509,515	12.6	0.1	0.1					1.0	12/2020
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.1	12/2020
Excess			0.0	0.0					1.0	
EMERGING MARKET DEBT	282,203,685	7.0	-4.9	-4.9					-6.7	01/2021
JPM JEMB Sovereign-only 50-50			-1.9	-1.9					-3.9	01/2021
Excess			-3.0	-3.0					-2.8	
SECURITIZED CREDIT	300,529,924		0.2	0.2					0.2	06/2021
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.0	06/2021
Excess			0.2	0.2					0.2	
MULTI-ASSET CREDIT	614,189,658	15.3	0.4	0.4					2.1	01/2021
Multi-Asset Credit Benchmark			0.5	0.5					2.3	01/2021
Excess			-0.0	-0.0					-0.3	
HIGH YIELD	573,354,439	14.2	0.9	0.9					3.7	01/2021
ICE BofA US Cash Pay HY Constrained			0.9	0.9					4.6	01/2021
Excess			-0.0	-0.0					-0.9	
RETURN SEEKING BONDS	4,026,750,649	100.0	-0.1	-0.1					1.7	12/2020
Return Seeking Fixed Income Benchmark			0.1	0.1					1.3	12/2020
Excess			-0.2	-0.2					0.4	

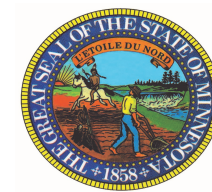


Treasuries

September 30, 2021

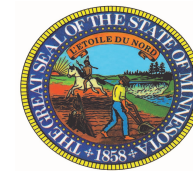


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Treasuries Managers										
BLACKROCK	\$2,765,292,498	31.8%	0.1%	0.1%	-6.7%	7.0%			5.3%	02/2018
Bloomberg Treasury 5+ Year			0.2	0.2	-6.8	7.1			5.4	02/2018
Excess			-0.0	-0.0	0.1	-0.1			-0.1	
GOLDMAN SACHS	2,957,162,678	34.0	0.2	0.2	-6.4	7.1			5.4	02/2018
Bloomberg Treasury 5+ Year			0.2	0.2	-6.8	7.1			5.4	02/2018
Excess			-0.0	-0.0	0.3	0.0			0.0	
NEUBERGER	2,980,377,091	34.2	0.2	0.2	-6.0	7.2			5.5	02/2018
Bloomberg Treasury 5+ Year			0.2	0.2	-6.8	7.1			5.4	02/2018
Excess			0.1	0.1	0.8	0.1			0.1	
TREASURIES TRANSITION ACCOUNT	0	0.0								03/2018
TOTAL TREASURIES	8,702,832,267	100.0	0.2	0.2	-6.4	7.1			5.4%	02/2018
Bloomberg Treasury 5+ Year			0.2	0.2	-6.8	7.1			5.4%	02/2018
Excess			0.0	0.0	0.4	0.0			0.0%	



	<u>2020 Calendar Return</u>	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>
Treasuries Managers					
BLACKROCK	12.5%	10.4%			
Bloomberg Treasury 5+ Year	12.8	10.4			
Excess	-0.3	-0.1			
GOLDMAN SACHS	12.7	10.6			
Bloomberg Treasury 5+ Year	12.8	10.4			
Excess	-0.1	0.1			
NEUBERGER	12.8	10.4			
Bloomberg Treasury 5+ Year	12.8	10.4			
Excess	-0.1	-0.0			
TOTAL TREASURIES	12.7%	10.4%			
Bloomberg Treasury 5+ Year	12.8%	10.4%			
Excess	-0.2%	0.0%			

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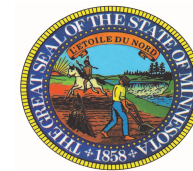
Laddered Bonds + Cash

September 30, 2021

Minnesota State Board of Investment
Quarter Ending September 30, 2021
Laddered Bond + Cash Managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Laddered Bond and Cash Managers										
Neuberger Berman Ladder Bond	\$1,552,689,328	37.6%	0.0%	0.0%					0.2%	11/2020
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.1	11/2020
Excess			0.0	0.0					0.1	
Goldman Sachs Ladder Bond	1,552,468,039	37.6	0.0	0.0					0.2	11/2020
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.1	11/2020
Excess			0.0	0.0					0.1	
Treasury Ladder Aggregate	3,105,157,367	75.2	0.0	0.0					0.2	11/2020
ICE BofA US 3-Month Treasury Bill			0.0	0.0					0.1	11/2020
Excess			0.0	0.0					0.1	
Combined Funds STIF	997,845,743		0.0	0.0	0.1%	1.2%	1.2%	0.7%		
iMoneyNet Money Fund Average-All Taxable			0.0	0.0	0.0	0.9	0.8	0.4		
Excess			0.0	0.0	0.1	0.3	0.3	0.3		
TEACHERS RETIREMENT CD REPO	25,313,563	0.6	0.0	0.0	0.1	1.4	1.4			
ICE BofA US 3-Month Treasury Bill			0.0	0.0	0.1	1.2	1.2			
Excess			-0.0	-0.0	0.0	0.2	0.2			
Laddered Bond + Cash	4,128,317,478		0.0	0.0						
ICE BofA US 3-Month Treasury Bill			0.0	0.0						
Excess			0.0	0.0						



Uninvested Private Markets

September 30, 2021

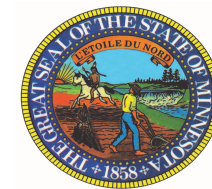


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Uninvested Private Markets Managers										
NISA PRIVATE MKT UNINV OVERLAY	\$953,838,228	14.0%	0.5%	0.5%					15.2%	01/2021
S&P 500 INDEX (DAILY)			0.6	0.6					15.9	01/2021
Excess			-0.0	-0.0					-0.7	
BLACKROCK SP INDEX	5,876,868,566	86.0	0.6	0.6					16.0	01/2021
S&P 500 INDEX (DAILY)			0.6	0.6					15.9	01/2021
Excess			-0.0	-0.0					0.1	
UNINVESTED PRIVATE PMARKETS	6,830,706,794	100.0	0.6	0.6					15.8	01/2021
S&P 500 INDEX (DAILY)			0.6	0.6					15.9	01/2021
Excess			-0.0	-0.0					-0.1	



Private Markets

September 30, 2021



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	9.4%	9.4%	42.1%	15.9%	16.2%	12.9%	13.0%	13.9%	12.8%
Private Equity	10.3%	10.3%	52.9%	23.0%	21.7%	16.8%	14.7%	15.7%	
Private Credit	5.7%	5.7%	20.4%	10.0%	12.3%	12.1%	12.3%	12.6%	
Resources	6.6%	6.6%	21.8%	-3.0%	2.3%	1.7%	12.1%	12.8%	
Real Estate	10.2%	10.2%	22.9%	11.5%	11.3%	11.7%	8.9%	10.2%	

Private Markets

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

Private Equity Investments

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

Private Credit Investments

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

Resource Investments

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

Real Estate Investments

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

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

Minnesota State Board of Investment
Private Markets Investments as of September 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	18,910,359,015	13,358,584,344	11,688,681,374	6,882,257,080	11,176,781,235	1.71	14.22	
Adams Street Partners, LLC	285,440,000	145,814,692	77,062,705	139,625,308	135,926,510	1.46	12.35	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	58,327,647	22,885,308	46,428,413	1.36	7.15	2012
Adams Street Global Secondary Fund 6	100,000,000	68,700,000	18,735,058	31,300,000	89,498,097	1.58	42.66	2017
Adams Street Global Secondary Fund 7	85,440,000	0	0	85,440,000	0	0.00		2021
Advent International Group	355,000,000	289,233,913	296,337,992	72,525,449	300,271,483	2.06	19.43	
Advent International GPE IX	115,000,000	56,649,957	9,195,408	62,025,451	92,950,121	1.80	60.29	2019
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	5,187,822	2.05	16.63	2008
Advent International GPE VII, L.P.	90,000,000	84,690,641	116,171,875	5,400,000	56,948,762	2.04	15.94	2012
Advent International GPE VIII-B	100,000,000	94,900,002	67,570,515	5,099,998	145,184,778	2.24	26.77	2016
Affinity Ventures	9,000,000	9,000,000	3,590,011	0	1,092,682	0.52	-10.85	
Affinity Ventures IV, L.P.	4,000,000	4,000,000	1,541,970	0	3,279	0.39	-39.15	2004
Affinity Ventures V, L.P.	5,000,000	5,000,000	2,048,042	0	1,089,403	0.63	-7.24	2008
Apax Partners	500,000,000	434,112,910	419,708,668	130,062,027	391,971,870	1.87	20.09	
Apax IX USD L.P.	150,000,000	150,222,938	88,277,534	18,943,491	236,875,093	2.16	31.74	2016
APAX VIII - USD	200,000,000	233,434,305	331,600,467	11,743,535	92,792,201	1.82	16.18	2013
Apax X USD L.P.	150,000,000	50,455,667	(169,333)	99,375,000	62,304,576	1.23	75.15	2019
Arsenal Capital Partners	75,000,000	59,060,290	2,514,287	18,341,088	72,780,700	1.27	18.67	
Arsenal Capital Partners V, L.P.	75,000,000	59,060,290	2,514,287	18,341,088	72,780,700	1.27	18.67	2019
Asia Alternatives	399,000,000	89,824,007	7,515,717	313,740,316	102,246,194	1.22	16.33	
Asia Alternatives Capital Partners V	99,000,000	79,681,721	7,515,717	23,882,602	93,034,382	1.26	17.61	2017
MN Asia Investors	300,000,000	10,142,286	0	289,857,714	9,211,812	0.91	-13.62	2020
Banc Fund	276,801,387	285,710,477	231,329,941	0	184,207,223	1.45	9.18	
Banc Fund IX, L.P.	107,205,932	107,205,932	25,178,049	0	103,545,707	1.20	3.95	2014
Banc Fund VIII, L.P.	98,250,000	98,250,000	205,046,223	0	0	2.09	12.40	2008
Banc Fund X, L.P.	71,345,455	80,254,545	1,105,670	0	80,661,516	1.02	1.17	2018
BlackRock	500,000,000	288,941,529	2,660,745	250,000,000	446,011,393	1.55	41.28	
BlackRock Long Term Capital, SCSP	500,000,000	288,941,529	2,660,745	250,000,000	446,011,393	1.55	41.28	2019
Blackstone Group L.P.	1,235,000,000	634,879,646	635,273,563	684,211,324	401,876,427	1.63	16.44	
Blackstone Capital Partners Asia II	270,000,000	0	0	270,000,000	0	0.00		2021
Blackstone Capital Partners IV, L.P.	70,000,000	84,459,884	200,562,452	1,832,302	1,030,024	2.39	37.02	2002
Blackstone Capital Partners V L.P.	140,000,000	152,349,646	242,729,411	7,027,560	3,166,481	1.61	8.00	2006
Blackstone Capital Partners VI, L.P.	100,000,000	106,387,331	129,461,960	11,175,309	56,734,196	1.75	12.70	2008
Blackstone Capital Partners VII	130,000,000	135,757,428	50,455,192	10,977,430	157,798,796	1.53	18.76	2015
Blackstone Capital Partners VIII LP	150,000,000	47,986,959	1,647,045	105,491,598	50,858,489	1.09	22.07	2019
Blackstone Growth	250,000,000	92,938,398	10,417,503	167,707,125	117,381,263	1.38	82.87	2020
Blackstone Supplemental Account - M	125,000,000	15,000,000	0	110,000,000	14,907,180	0.99	-0.62	2021
Blackstone Strategic Partners	815,500,000	624,208,887	719,798,507	262,497,496	283,584,823	1.61	12.03	
Strategic Partners III VC, L.P.	25,000,000	25,059,678	33,874,990	1,008,025	287,459	1.36	5.99	2004
Strategic Partners III-B, L.P.	100,000,000	79,629,077	118,509,586	12,304,709	218,388	1.49	6.35	2004
Strategic Partners IV VC, L.P.	40,500,000	42,135,370	61,361,824	2,287,372	3,422,062	1.54	9.26	2008

Minnesota State Board of Investment
Private Markets Investments as of September 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Strategic Partners IV-B	100,000,000	99,315,462	151,411,043	11,712,268	4,656,931	1.57	12.22	2008
Strategic Partners V, LP	100,000,000	86,903,910	129,878,803	21,348,547	13,349,532	1.65	18.80	2011
Strategic Partners VI, L.P.	150,000,000	101,728,787	114,355,823	54,622,199	44,135,224	1.56	15.90	2014
Strategic Partners VII, L.P.	150,000,000	106,744,102	76,656,438	58,400,494	112,683,996	1.77	23.43	2016
Strategic Partners VIII	150,000,000	82,692,502	33,750,000	100,813,882	104,831,231	1.68	65.12	2018
Bridgepoint	172,787,854	96,406,200	13,311,036	76,381,654	100,391,038	1.18	15.08	
Bridgepoint Europe VI L.P.	172,787,854	96,406,200	13,311,036	76,381,654	100,391,038	1.18	15.08	2018
Brookfield Asset Management Inc.	350,000,000	233,258,930	163,785,962	148,580,897	263,487,014	1.83	43.83	
Brookfield Capital Partners Fund IV	100,000,000	99,945,063	152,347,702	20,456,504	100,047,680	2.53	49.19	2015
Brookfield Capital Partners V L.P.	250,000,000	133,313,867	11,438,260	128,124,393	163,439,335	1.31	23.69	2018
CVC Capital Partners	392,957,252	424,349,523	495,577,889	38,919,052	312,854,110	1.91	17.28	
CVC Capital Partners VI	258,985,732	270,536,478	203,135,805	37,263,795	306,360,526	1.88	18.01	2013
CVC European Equity Partners V, L.P.	133,971,519	153,813,045	292,442,084	1,655,257	6,493,584	1.94	16.76	2008
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	30,547	3.92	10.61	
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	30,547	3.92	10.61	1985
Carlyle Group	150,000,000	98,839,478	4,405,323	55,565,845	106,090,388	1.12	8.14	
Carlyle Partners VII, L.P.	150,000,000	98,839,478	4,405,323	55,565,845	106,090,388	1.12	8.14	2017
Chicago Growth Partners	60,000,000	58,347,626	123,371,040	1,652,374	503,560	2.12	19.54	
Chicago Growth Partners II, L.P.	60,000,000	58,347,626	123,371,040	1,652,374	503,560	2.12	19.54	2008
Court Square	500,000,000	433,692,538	472,755,497	103,239,013	258,882,712	1.69	14.07	
Court Square Capital Partners II, L.P.	175,000,000	170,029,204	295,744,454	16,757,741	9,241,961	1.79	12.55	2006
Court Square Capital Partners III, L.P.	175,000,000	187,074,280	172,980,330	9,108,102	162,204,400	1.79	18.08	2012
Court Square Capital Partners IV, L.P.	150,000,000	76,589,054	4,030,713	77,373,170	87,436,350	1.19	18.20	2018
Crescendo	101,500,000	103,101,226	57,982,654	0	312,067	0.57	-4.60	
Crescendo Ventures IV	101,500,000	103,101,226	57,982,654	0	312,067	0.57	-4.60	2000
GTCR	210,000,000	210,287,523	409,209,666	14,989,866	246,229,749	3.12	29.19	
GTCR Fund X	100,000,000	104,934,096	202,619,633	6,751,396	9,493,338	2.02	21.26	2010
GTCR XI	110,000,000	105,353,427	206,590,033	8,238,470	236,736,411	4.21	42.93	2013
Goldman, Sachs & Co.	549,800,000	416,028,949	401,123,746	176,372,275	279,781,784	1.64	14.99	
GS Capital Partners V, L.P.	100,000,000	74,319,006	191,435,136	1,041,099	591,600	2.58	18.24	2005
GS Capital Partners VI, L.P.	100,000,000	110,258,192	135,798,673	2,551,356	9,364,289	1.32	7.18	2007
GS China-US Cooperation Fund	99,800,000	18,637,445	0	81,337,000	24,146,465	1.30	14.11	2018
GS Vintage VII	100,000,000	81,915,314	38,138,683	56,376,033	86,433,750	1.52	18.17	2016
West Street Capital Partners VII, L.P.	150,000,000	130,898,992	35,751,254	35,066,787	159,245,681	1.49	20.53	2016
Goldner Hawn Johnson & Morrison	77,755,138	37,908,603	42,884,283	40,018,501	34,102,403	2.03	18.80	
GHJM TrailHead Fund	20,000,000	16,652,130	42,884,283	3,354,486	13,491,442	3.39	20.26	2012
Goldner Hawn Fund VII, L.P.	57,755,138	21,256,473	0	36,664,016	20,610,961	0.97	-2.78	2018
Green Equity Investors	325,000,000	272,362,128	203,646,660	89,274,157	350,585,646	2.03	18.04	
Green Equity Investors VI, L.P.	200,000,000	221,071,637	203,646,660	15,564,648	297,572,462	2.27	18.15	2012
Green Equity Investors VIII	125,000,000	51,290,491	0	73,709,509	53,013,185	1.03	6.18	2020
HarbourVest*	21,661,708	20,931,524	23,732,172	816,664	9,350,990	1.58	13.90	

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Dover Street VII Cayman Fund L.P.	2,198,112	2,073,906	1,709,090	132,416	181,481	0.91	-3.90	2014
HarbourVest Intl PE Partners V-Cayman US	3,526,037	3,345,452	4,313,009	185,432	346,312	1.39	14.53	2014
Harbourvest Intl PE Partners VI-Cayman	4,239,950	4,039,458	4,372,499	202,816	4,003,440	2.07	18.24	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,387,189	5,365,194	156,000	853,100	1.42	13.63	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,085,519	7,972,380	140,000	3,966,656	1.68	13.75	2014
Hellman & Friedman	650,000,000	369,712,622	452,420,324	281,110,594	210,501,211	1.79	15.05	
Hellman & Friedman Capital Partners VI, L.P.	175,000,000	171,037,755	315,233,005	5,062,369	3,205,215	1.86	12.91	2007
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,879,178	136,824,497	2,222,784	26,297,552	3.27	25.11	2009
Hellman & Friedman Capital Partners X	250,000,000	0	0	250,000,000	0	0.00		2021
Hellman & Friedman Investors IX, L.P.	175,000,000	148,795,689	362,822	23,825,441	180,998,444	1.22	24.52	2018
IK Limited	509,959,032	408,800,804	405,872,216	109,358,508	260,263,556	1.63	15.57	
IK Fund IX	158,664,828	58,266,527	0	100,397,925	55,402,286	0.95	-12.35	2019
IK Fund VII	180,498,287	178,677,647	278,779,914	8,789,792	56,414,823	1.88	14.67	2013
IK Fund VIII	170,795,917	171,856,630	127,092,302	170,792	148,446,447	1.60	18.87	2016
Kohlberg, Kravis, Roberts & Co.	1,447,000,000	784,279,995	842,919,333	713,588,385	527,978,328	1.75	13.88	
KKR 2006 Fund L.P.	200,000,000	218,137,965	359,132,173	3,300,979	34,491,091	1.80	9.18	2006
KKR Americas Fund XII L.P.	150,000,000	117,279,730	35,344,279	43,990,593	205,705,817	2.06	37.30	2016
KKR Asian Fund III	100,000,000	82,935,260	17,498,017	25,882,034	116,254,779	1.61	29.41	2017
KKR Asian Fund IV	150,000,000	21,440,529	0	128,559,471	21,750,816	1.01	2.00	2020
KKR Core Investments Partnership	97,000,000	58,144,510	546,381	40,102,490	61,321,306	1.06	11.52	2021
KKR Europe V	100,000,000	61,174,431	5,452,455	41,752,818	68,292,593	1.21	20.68	2018
KKR Millennium Fund	200,000,000	205,167,570	424,946,028	0	161,924	2.07	16.37	2002
KKR MN Partnership L.P.	150,000,000	20,000,000	0	130,000,000	20,000,000	1.00		2021
KKR North America Fund XIII	300,000,000	0	0	300,000,000	0	0.00		2021
Lexington Partners	1,245,000,000	778,720,052	616,007,869	523,092,160	602,770,047	1.57	14.28	
Lexington Capital Partners IX, L.P.	150,000,000	71,194,090	16,090,030	87,758,517	91,295,044	1.51	77.12	2018
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	142,232,413	1,634,703	4,917,651	1.50	7.97	2005
Lexington Capital Partners VII, L.P.	200,000,000	172,466,709	248,233,348	38,059,995	38,961,064	1.67	14.70	2009
Lexington Capital Partners VIII, L.P.	150,000,000	136,386,669	109,161,545	32,663,555	108,975,311	1.60	18.70	2014
Lexington Co-Investment Partners IV	200,000,000	207,975,865	85,759,031	10,050,002	254,372,242	1.64	23.36	2017
Lexington Co-Investment Partners V	300,000,000	30,262,831	0	269,985,254	35,787,632	1.18	18.26	2020
Lexington Co-Investment Partners V Overage	45,000,000	8,217,000	0	36,783,000	8,269,466	1.01	0.87	2021
Lexington Middle Market Investors IV	100,000,000	53,842,866	14,531,502	46,157,134	60,191,637	1.39	31.89	2016
Madison Dearborn Capital Partners LLC	200,000,000	117,610,615	29,747,955	97,401,270	148,795,866	1.52	16.88	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	94,768,587	29,704,657	20,200,000	116,722,984	1.55	15.31	2015
Madison Dearborn Capital Partners VIII-A, L.P	100,000,000	22,842,028	43,298	77,201,270	32,072,881	1.41	53.10	2019
Neuberger Berman LLC	625,000,000	346,496,665	232,369,089	465,834,546	356,341,826	1.70	39.33	
Dyal Capital Partners III	175,000,000	194,883,930	168,197,251	108,382,050	143,678,555	1.60	28.34	2015
Dyal Capital Partners IV	250,000,000	116,612,734	64,035,859	192,452,496	143,172,766	1.78	72.91	2018
Dyal Capital Partners V	200,000,000	35,000,000	135,979	165,000,000	69,490,505	1.99	281.05	2020

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Nordic Capital	504,926,043	373,284,125	248,222,314	208,404,434	434,365,916	1.83	21.54	
Nordic Capital Fund VIII	176,743,376	220,988,400	239,081,565	28,150,754	156,380,385	1.79	16.83	2013
Nordic Capital Fund X	156,817,017	8,507,976	0	148,309,041	7,365,023	0.87	-13.43	2020
Nordic Capital IX Beta, L.P.	171,365,651	143,787,749	9,140,749	31,944,639	270,620,507	1.95	55.52	2017
North Sky Capital*	2,454,339	1,998,089	2,407,407	456,250	428,956	1.42	12.98	
North Sky Capital LBO Fund III, LP	1,070,259	720,259	942,598	350,000	151,519	1.52	14.54	2014
North Sky Capital Venture Fund III, LP	1,384,080	1,277,830	1,464,808	106,250	277,437	1.36	11.96	2014
Oak Hill Capital Management, Inc.	250,000,000	183,062,153	141,429,898	91,366,551	133,078,090	1.50	28.87	
Oak Hill Capital Partners IV Onshore LP	150,000,000	146,337,056	141,394,855	28,091,648	91,878,371	1.59	28.80	2016
Oak Hill Capital Partners V	100,000,000	36,725,097	35,043	63,274,903	41,199,719	1.12	24.44	2018
Paine & Partners, LLC	225,000,000	141,900,926	37,556,227	85,920,076	130,238,456	1.18	8.46	
Paine Schwartz Food Chain Fund IV	75,000,000	64,832,786	35,397,971	11,240,368	52,686,864	1.36	8.89	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	77,068,140	2,158,256	74,679,708	77,551,592	1.03	5.61	2018
Permal PE*	5,337,098	4,382,196	4,150,751	1,090,000	689,420	1.10	3.64	
Gloustone Private Equity Opportunities IV	5,337,098	4,382,196	4,150,751	1,090,000	689,420	1.10	3.64	2014
Permira	460,770,303	395,476,653	323,720,166	103,857,228	583,415,007	2.29	25.30	
Permira V, L.P.	178,117,492	181,954,007	287,672,383	17,012,408	277,251,240	3.10	25.50	2013
Permira VI, L.P.	137,798,147	124,325,040	36,047,783	31,187,762	210,124,171	1.98	26.57	2016
Permira VII L.P.1	144,854,664	89,197,606	0	55,657,058	96,039,596	1.08	8.72	2019
Public Pension Capital Management	175,000,000	104,145,502	82,007,631	85,397,202	123,364,365	1.97	25.64	
Public Pension Capital, LLC	175,000,000	104,145,502	82,007,631	85,397,202	123,364,365	1.97	25.64	2014
Silver Lake Partners	435,000,000	423,222,591	493,123,490	33,350,680	389,029,671	2.08	15.96	
Silver Lake Partners II, L.P.	100,000,000	90,200,747	171,694,975	11,771,953	43,679	1.90	11.02	2004
Silver Lake Partners III, L.P.	100,000,000	93,744,021	191,855,140	9,528,468	28,198,533	2.35	18.72	2007
Silver Lake Partners IV	100,000,000	114,635,026	104,751,684	2,914,956	169,720,399	2.39	25.49	2012
Silver Lake Partners V, L.P.	135,000,000	124,642,797	24,821,691	9,135,303	191,067,060	1.73	30.90	2017
Split Rock	110,000,000	107,055,906	125,392,564	2,944,094	26,463,304	1.42	5.06	
Split Rock Partners II, LP	60,000,000	59,165,000	66,598,372	835,000	22,652,176	1.51	7.42	2008
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	3,811,128	1.31	3.26	2005
Summit Partners	350,000,000	329,742,399	338,161,571	168,833,134	333,327,282	2.04	30.61	
Summit Partners Growth Equity Fund IX	100,000,000	124,860,208	88,814,878	63,954,670	186,541,470	2.21	42.02	2015
Summit Partners Growth Equity Fund VIII	100,000,000	116,727,192	229,442,550	23,129,320	53,464,413	2.42	27.27	2011
Summit Partners Growth Equity Fund X-A	150,000,000	88,154,999	19,904,143	81,749,144	93,321,399	1.28	42.88	2019
TPG Capital	550,000,000	204,501,251	102,460,308	358,647,840	216,259,525	1.56	23.68	
TPG Growth V, L.P.	150,000,000	44,093,302	526,470	107,034,034	42,965,966	0.99	-0.94	2021
TPG Partners VII, L.P.	100,000,000	96,842,016	97,775,747	11,021,648	84,542,553	1.88	20.89	2015
TPG Partners VIII	150,000,000	63,565,933	4,158,091	90,592,158	88,751,006	1.46	65.36	2018
TPG Tech Adjacencies II, L.P.	150,000,000	0	0	150,000,000	0	0.00		2021
Thoma Bravo LLC	425,000,000	391,877,935	208,638,702	102,753,742	424,619,774	1.62	24.27	
Thoma Bravo Fund XII, L.P.	75,000,000	81,455,833	22,548,786	16,164,188	126,055,701	1.82	18.43	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	166,084,959	79,031,939	30,926,697	204,101,948	1.70	49.92	2018

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Thoma Bravo Fund XIV	150,000,000	94,337,143	37	55,662,857	94,021,774	1.00	-0.67	2020
Thoma Cressey Fund VII, L.P.	50,000,000	50,000,000	107,057,940	0	440,351	2.15	23.58	2000
Thomas H. Lee Partners	400,000,000	218,577,249	163,478,285	205,098,611	238,296,219	1.84	33.35	
Thomas H. Lee Equity Fund IX	150,000,000	0	0	150,000,000	0	0.00		2021
Thomas H. Lee Equity Fund VII, LP.	100,000,000	99,213,840	132,495,294	10,948,317	51,530,596	1.85	23.96	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	119,363,409	30,982,991	44,150,294	186,765,623	1.82	73.85	2018
Thomas, McNerney & Partners	80,000,000	78,125,000	123,481,847	1,875,000	6,370,453	1.66	8.46	
Thomas, McNerney & Partners I, L.P.	30,000,000	30,000,000	15,087,143	0	3,028,284	0.60	-7.34	2002
Thomas, McNerney & Partners II, L.P.	50,000,000	48,125,000	108,394,704	1,875,000	3,342,169	2.32	16.54	2006
Vestar Capital Partners	380,000,000	320,187,006	351,018,794	68,872,294	157,565,138	1.59	11.60	
Vestar Capital Partners IV, L.P.	55,000,000	55,652,024	102,293,320	57,313	374,168	1.84	14.63	1999
Vestar Capital Partners V, L.P.	75,000,000	76,797,458	98,533,182	0	3,421,462	1.33	3.99	2005
Vestar Capital Partners VI, LP	100,000,000	106,516,978	150,071,483	35,527	50,918,615	1.89	24.04	2011
Vestar Capital Partners VII, L.P.	150,000,000	81,220,546	120,808	68,779,454	102,850,893	1.27	18.04	2017
Vista Equity Partners	200,000,000	153,344,282	77,223	47,868,621	155,445,561	1.01	1.94	
Vista Equity Partners Perennial	200,000,000	153,344,282	77,223	47,868,621	155,445,561	1.01	1.94	2020
Warburg Pincus	1,116,000,000	1,003,252,402	929,518,579	119,436,000	705,934,121	1.63	11.33	
Warburg Pincus China-Southeast Asia II	50,000,000	12,325,000	960,000	37,675,000	15,165,751	1.31	32.23	2019
Warburg Pincus China, L.P.	45,000,000	44,460,000	13,952,700	2,475,000	61,897,449	1.71	19.53	2016
Warburg Pincus Financial Sector	90,000,000	80,796,829	8,930,700	13,455,000	111,232,835	1.49	22.16	2017
Warburg Pincus Global Growth, L.P.	250,000,000	186,096,621	2,625,000	64,062,500	217,760,955	1.18	18.47	2018
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	170,819,101	0	1,103,979	1.72	9.60	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	265,629,491	0	3,669,469	1.80	9.52	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	245,212,748	0	110,810,893	1.78	13.31	2012
Warburg Pincus Private Equity XII, LP	131,000,000	129,231,500	57,846,587	1,768,500	183,900,317	1.87	20.34	2015
Warburg, Pincus Equity Partners, L.P.	100,000,000	100,000,000	163,542,253	0	392,472	1.64	10.02	1998
Wellspring Capital Partners	125,000,000	96,843,578	0	28,156,422	128,442,572	1.33	21.27	
Wellspring Capital Partners VI, L.P.	125,000,000	96,843,578	0	28,156,422	128,442,572	1.33	21.27	2016
Welsh, Carson, Anderson & Stowe	500,000,000	355,548,178	297,066,432	144,451,822	338,486,815	1.79	18.26	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	137,471,465	0	29,128,229	1.67	11.68	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	145,877,897	155,322,366	4,122,103	189,462,928	2.36	30.12	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	109,670,281	4,272,601	140,329,719	119,895,658	1.13	18.37	2018
Whitehorse Capital	200,000,000	161,866,626	76,236,906	73,650,202	124,268,045	1.24	28.43	
Whitehorse Liquidity Partners III	100,000,000	95,979,279	53,589,365	21,915,409	68,895,007	1.28	24.86	2019
Whitehorse Liquidity Partners IV	100,000,000	65,887,348	22,647,542	51,734,793	55,373,038	1.18	36.40	2020
Wind Point Partners	100,000,000	36,610,199	1,912,585	65,306,989	34,912,861	1.01	0.62	
Wind Point Partners IX	100,000,000	36,610,199	1,912,585	65,306,989	34,912,861	1.01	0.62	2019
Windjammer Capital Investors	266,708,861	191,658,745	212,508,759	77,321,119	102,557,538	1.64	10.81	
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	84,876,800	1,013,936	65,256	1.54	8.94	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	94,740,728	126,425,062	16,802,619	57,571,100	1.94	14.42	2012

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Windjammer Senior Equity Fund V, L.P.	100,000,000	41,702,333	1,206,897	59,504,564	44,921,182	1.11	6.95	2017
Private Credit	2,980,672,584	2,204,152,749	1,937,348,517	1,153,496,571	944,001,550	1.31	9.96	
Audax Group	300,000,000	182,018,767	171,251,503	132,412,853	57,021,928	1.25	9.86	
Audax Mezzanine Fund III, L.P.	100,000,000	101,768,375	122,301,403	782	11,435,033	1.31	9.57	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000	80,250,391	48,950,100	32,412,071	45,586,894	1.18	10.92	2015
Audax Mezzanine Fund V	100,000,000	0	0	100,000,000	0	0.00		2020
BlackRock	97,500,000	69,802,405	7,742,530	27,697,595	73,924,168	1.17	7.86	
BlackRock Middle Market Senior Fund	97,500,000	69,802,405	7,742,530	27,697,595	73,924,168	1.17	7.86	2018
Brookfield Asset Management Inc.	200,000,000	0	0	200,000,000	0	0.00		
Brookfield Real Estate Finance Fund VI	200,000,000	0	0	200,000,000	0	0.00		2021
Energy Capital Partners	28,087,500	16,205,916	6,416,949	18,298,533	9,353,784	0.97	-3.37	
Energy Capital Credit Solutions II-A	28,087,500	16,205,916	6,416,949	18,298,533	9,353,784	0.97	-3.37	2018
Gold Hill	65,852,584	65,852,584	113,654,899	0	5,268,542	1.81	11.99	
Gold Hill 2008	25,852,584	25,852,584	48,393,297	0	4,769,981	2.06	14.98	2008
Gold Hill Venture Lending	40,000,000	40,000,000	65,261,602	0	498,561	1.64	10.72	2004
Goldman, Sachs & Co.	250,000,000	261,176,828	315,988,287	47,422,591	1,207,189	1.21	6.80	
GS Mezzanine Partners 2006 Institutional	100,000,000	113,458,168	135,137,487	9,858,563	554,151	1.20	5.00	2006
GS Mezzanine Partners V, L.P.	150,000,000	147,718,660	180,850,800	37,564,028	653,038	1.23	9.08	2007
HPS Investment Partners	100,000,000	79,605,826	10,224,483	28,099,456	78,674,941	1.12	15.23	
HPS Mezzanine Partners 2019, L.P.	100,000,000	79,605,826	10,224,483	28,099,456	78,674,941	1.12	15.23	2019
Kohlberg, Kravis, Roberts & Co.	274,000,000	312,944,732	243,400,062	109,388,462	118,617,175	1.16	9.88	
KKR Lending Partner II L.P.	75,000,000	86,818,578	82,124,706	8,802,924	10,469,621	1.07	3.26	2015
KKR Lending Partners III L.P.	199,000,000	226,126,154	161,275,356	100,585,538	108,147,554	1.19	15.01	2017
LBC Credit Partners	200,000,000	131,881,426	77,682,111	115,398,320	79,386,344	1.19	10.56	
LBC Credit Partners IV, L.P.	100,000,000	89,570,964	74,074,951	57,898,320	35,181,754	1.22	9.15	2016
LBC Credit Partners V, L.P.	100,000,000	42,310,462	3,607,161	57,500,000	44,204,590	1.13	30.22	2019
Marathon	100,000,000	76,022,008	858,534	25,000,000	88,470,375	1.18	14.42	
Marathon Secured Private Strategies Fund II	100,000,000	76,022,008	858,534	25,000,000	88,470,375	1.18	14.42	2019
Merit Capital Partners	320,232,500	226,693,050	268,154,119	93,472,650	104,079,649	1.64	11.39	
Merit Mezzanine Fund IV, L.P.	75,000,000	70,178,571	139,120,463	4,821,429	691,519	1.99	11.58	2004
Merit Mezzanine Fund V, LP	75,000,000	71,044,898	79,266,865	3,955,102	32,912,876	1.58	9.66	2009
Merit Mezzanine Fund VI	100,000,000	85,469,581	49,766,791	14,463,619	70,475,254	1.41	15.01	2016
Merit Mezzanine Fund VII	70,232,500	0	0	70,232,500	0	0.00		2020
Oaktree Capital Management, LLC	200,000,000	42,600,000	1,941,336	157,400,000	48,017,941	1.17	15.96	
Oaktree Real Estate Debt III	200,000,000	42,600,000	1,941,336	157,400,000	48,017,941	1.17	15.96	2020
Prudential Global Investment Mgmt	550,000,000	464,827,575	471,080,249	128,653,155	179,747,647	1.40	10.44	
PGIM Capital Partners VI, L.P.	100,000,000	5,795,036	0	94,204,964	5,788,349	1.00	-0.12	2020
Prudential Capital Partners II, L.P.	100,000,000	97,418,748	136,427,860	11,049,052	9,831,350	1.50	9.07	2005
Prudential Capital Partners III, L.P.	100,000,000	102,459,875	173,394,232	13,834,730	2,660,473	1.72	14.08	2009
Prudential Capital Partners IV	100,000,000	112,244,869	110,841,593	2,136,397	36,148,993	1.31	8.40	2012

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Prudential Capital Partners V, L.P.	150,000,000	146,909,047	50,416,564	7,428,012	125,318,482	1.20	8.71	2016
Summit Partners	95,000,000	100,002,497	133,679,035	22,177,023	6,965,137	1.41	9.28	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	60,443,093	2,250,000	3,858,770	1.46	8.83	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000	55,914,003	73,235,942	19,927,023	3,106,367	1.37	10.00	2008
TCW	200,000,000	174,519,135	115,274,419	48,075,934	93,266,731	1.19	8.42	
TCW Direct Lending LLC	100,000,000	83,599,652	84,886,750	25,329,409	19,277,195	1.25	7.90	2014
TCW Direct Lending VII	100,000,000	90,919,484	30,387,669	22,746,525	73,989,535	1.15	9.57	2018
Real Assets	4,247,571,518	3,756,493,214	2,294,231,512	763,972,380	1,979,019,922	1.14	3.52	
BlackRock	198,500,000	105,495,067	32,323,466	99,968,077	77,050,204	1.04	1.49	
BlackRock Global Renewable Power Fund II	98,500,000	94,413,824	32,142,498	11,049,320	66,700,744	1.05	1.77	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000	11,081,243	180,968	88,918,757	10,349,460	0.95	-5.13	2019
EIG Global Energy Partners	450,000,000	468,204,323	346,187,077	77,704,481	149,589,269	1.06	1.54	
EIG Energy Fund XIV	100,000,000	113,459,470	95,309,310	2,761,129	4,597,654	0.88	-4.66	2007
EIG Energy Fund XV	150,000,000	161,870,879	146,523,239	22,871,323	25,613,814	1.06	1.55	2010
EIG Energy Fund XVI	200,000,000	192,873,974	104,354,527	52,072,029	119,377,801	1.16	4.30	2013
Encap Energy	400,000,000	422,788,810	327,371,795	12,270,701	165,905,956	1.17	5.51	
EnCap Energy Capital Fund VII, L.P.	100,000,000	105,406,230	137,949,713	0	3,335,097	1.34	14.50	2007
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,335,766	56,609,079	470,044	30,314,661	0.84	-4.21	2010
EnCap Energy Capital Fund X, L.P.	100,000,000	100,750,308	37,845,326	7,481,862	87,084,998	1.24	6.85	2015
Encap Energy Fund IX	100,000,000	113,296,505	94,967,677	4,318,795	45,171,201	1.24	7.20	2012
Energy & Minerals Group	680,000,000	664,387,858	361,544,797	54,240,318	507,211,176	1.31	6.87	
NGP Midstream & Resources, L.P.	100,000,000	103,565,615	179,560,149	17,857	7,245,871	1.80	13.42	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	106,674,084	104,295,500	170,365	104,862,651	1.96	13.35	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	201,327,783	22,410,545	1,284,543	95,866,540	0.59	-9.07	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	159,228,226	54,004,206	14,558,323	155,105,940	1.31	8.28	2015
The Energy & Minerals Group Fund V	112,500,000	79,270,469	1,115,700	34,782,014	121,111,266	1.54	23.69	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	14,321,681	158,697	3,427,216	23,018,908	1.62	26.88	2019
Energy Capital Partners	450,000,000	393,058,100	304,274,939	148,170,029	223,747,762	1.34	9.72	
Energy Capital Partners II-A	100,000,000	85,722,480	112,434,332	29,749,110	6,136,377	1.38	9.12	2010
Energy Capital Partners III, L.P.	200,000,000	232,270,611	171,863,054	30,058,269	135,318,714	1.32	8.90	2013
Energy Capital Partners IV-A, LP	150,000,000	75,065,009	19,977,553	88,362,650	82,292,671	1.36	16.81	2017
Enervest Management Partners	100,000,000	98,317,203	60,655,607	9,776,495	70,760,205	1.34	7.70	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	98,317,203	60,655,607	9,776,495	70,760,205	1.34	7.70	2015
First Reserve	500,000,000	538,658,177	255,655,542	8,611,580	142,967,941	0.74	-7.81	
First Reserve Fund XI, L.P.	150,000,000	150,292,121	100,059,903	0	0	0.67	-8.80	2006
First Reserve Fund XII, L.P.	150,000,000	165,617,044	83,625,426	0	8,738,878	0.56	-13.65	2008
First Reserve Fund XIII, L.P.	200,000,000	222,749,012	71,970,213	8,611,580	134,229,063	0.93	-3.25	2013
Kohlberg, Kravis, Roberts & Co.	249,850,000	89,750,058	7,453,309	169,713,248	84,063,654	1.02	1.36	
KKR Global Infrastructure Investors III	149,850,000	89,750,058	7,453,309	69,713,248	84,063,654	1.02	1.36	2018

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KKR Global Infrastructure Investors IV	100,000,000	0	0	100,000,000	0	0.00		2021
Merit Energy Partners	519,721,518	375,497,783	139,364,186	103,746,596	293,666,317	1.15	2.74	
Merit Energy Partners F-II, L.P.	100,000,000	59,522,861	32,069,360	0	6,273,606	0.64	-6.74	2006
Merit Energy Partners H	100,000,000	100,000,000	29,668,582	0	51,201,727	0.81	-3.46	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	69,639,059	0	173,380,085	1.43	8.77	2014
Merit Energy Partners K, L.P.	150,000,000	46,253,404	7,987,185	103,746,596	62,810,899	1.53	31.66	2019
NGP	599,500,000	565,982,830	435,725,795	66,270,855	237,063,442	1.19	6.17	
Natural Gas Partners IX, LP	150,000,000	173,921,032	245,366,339	605,481	4,403,059	1.44	12.07	2007
NGP Natural Resources X, L.P.	150,000,000	148,227,297	121,328,310	1,772,703	20,345,982	0.96	-1.34	2011
NGP Natural Resources XI, L.P.	150,000,000	151,773,764	64,839,147	6,793,883	112,935,654	1.17	4.72	2014
NGP Natural Resources XII, L.P.	149,500,000	92,060,737	4,191,999	57,098,788	99,378,746	1.13	5.08	2017
Sheridan	100,000,000	34,353,005	23,675,000	13,500,000	26,993,997	1.47	11.37	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	23,675,000	13,500,000	26,993,997	1.47	11.37	2014
Real Estate	3,873,147,868	2,119,697,368	1,450,340,233	1,896,816,839	1,402,087,611	1.35	8.72	
Angelo, Gordon & Co.	550,000,000	351,811,390	111,165,815	211,856,250	345,805,637	1.30	11.46	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	44,875,000	6,196,250	20,465,320	1.37	12.84	2016
AG Asia Realty Fund IV, L.P.	100,000,000	50,536,100	7,250,000	51,187,500	54,382,592	1.22	14.65	2018
AG Europe Realty Fund II, L.P.	75,000,000	68,898,968	7,153,384	10,380,000	84,758,694	1.33	12.54	2018
AG Europe Realty Fund III	75,000,000	17,272,318	0	56,625,000	18,380,384	1.06	6.13	2020
AG Realty Fund IX	100,000,000	92,141,126	41,000,000	11,650,000	86,724,268	1.39	9.13	2014
AG Realty Fund X, L.P.	150,000,000	75,375,617	10,887,431	75,817,500	81,094,380	1.22	16.26	2018
Blackstone	924,500,000	731,000,349	723,437,491	308,800,820	426,783,945	1.57	12.67	
Blackstone Real Estate Partners Asia II	74,500,000	54,293,939	5,150,328	27,210,575	56,457,567	1.13	8.93	2017
Blackstone Real Estate Partners Asia III	100,000,000	0	0	100,000,000	0	0.00		2021
Blackstone Real Estate Partners IX, L.P.	300,000,000	183,059,575	22,188,134	136,871,470	202,225,218	1.23	23.36	2018
Blackstone Real Estate Partners V	100,000,000	104,213,007	203,428,550	4,174,052	4,131,779	1.99	10.78	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,477,567	216,624,912	4,907,906	3,749,083	2.01	13.09	2007
Blackstone Real Estate Partners VII, LP	100,000,000	111,609,734	147,705,951	11,217,447	40,776,833	1.69	14.52	2011
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000	168,346,528	128,339,616	24,419,370	119,443,465	1.47	14.31	2015
Blackstone Strategic Partners	75,000,000	77,547,437	65,193,764	1,007,266	1,838,638	0.86	-2.14	
Strategic Partners III RE, L.P.	25,000,000	25,987,864	15,252,523	9,006	94,424	0.59	-6.46	2005
Strategic Partners IV RE, L.P.	50,000,000	51,559,574	49,941,241	998,260	1,744,214	1.00	0.04	2008
Brookfield Asset Management	300,000,000	0	0	300,000,000	0	0.00		
Brookfield Strategic Real Estate Partners IV	300,000,000	0	0	300,000,000	0	0.00		2021
Carlyle Group	450,000,000	87,577,972	50,711,036	403,182,256	57,171,130	1.23	18.18	
Carlyle Realty Partners IX	300,000,000	0	0	300,000,000	0	0.00		2021
Carlyle Realty Partners VIII, L.P.	150,000,000	87,577,972	50,711,036	103,182,256	57,171,130	1.23	18.18	2017
Kohlberg, Kravis, Roberts & Co.	125,000,000	0	0	125,000,000	0	0.00		
KKR Real Estate Partners Americas III	125,000,000	0	0	125,000,000	0	0.00		2021
Landmark Partners	149,500,000	71,985,646	38,201,701	83,340,615	47,453,432	1.19	10.98	

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Landmark Real Estate Partners VIII, L.P.	149,500,000	71,985,646	38,201,701	83,340,615	47,453,432	1.19	10.98	2016
Lubert Adler	174,147,868	75,197,162	46,547,038	99,923,264	53,320,299	1.33	13.36	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	46,547,038	7,414,787	45,600,936	1.36	13.48	2017
Lubert-Adler Recovery & Enhancement Capital Fund	100,000,000	7,611,949	0	92,508,477	7,719,363	1.01	1.63	2021
Oaktree Capital Management, LLC	200,000,000	29,475,519	19,000,000	190,000,000	20,526,822	1.34	199.50	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	29,475,519	19,000,000	190,000,000	20,526,822	1.34	199.50	2020
Rockpoint	200,000,000	122,644,863	38,514,466	93,138,604	110,984,930	1.22	8.04	
Rockpoint Real Estate Fund V, L.P.	100,000,000	97,067,931	38,503,239	18,715,536	79,446,219	1.22	6.85	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	25,576,932	11,227	74,423,068	31,538,710	1.23	25.37	2019
Rockwood	200,000,000	128,612,446	41,197,640	73,051,950	110,653,448	1.18	7.56	
Rockwood Capital RE Partners X, L.P.	100,000,000	89,481,956	41,103,088	12,202,573	67,978,525	1.22	7.09	2015
Rockwood Capital RE Partners XI	100,000,000	39,130,490	94,552	60,849,377	42,674,923	1.09	12.52	2019
Silverpeak Real Estate Partners	225,000,000	143,844,584	106,287,292	7,515,813	8,196,098	0.80	-3.60	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000	73,049,257	92,014,185	7,515,813	498,914	1.27	4.19	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000	70,795,327	14,273,108	0	7,697,184	0.31	-11.74	2008
TA Associates Realty	300,000,000	300,000,000	210,083,990	0	219,353,233	1.43	12.80	
Realty Associates Fund X	100,000,000	100,000,000	155,852,681	0	5,253,160	1.61	12.57	2012
Realty Associates Fund XI	100,000,000	100,000,000	51,522,920	0	103,708,573	1.55	12.23	2015
Realty Associates Fund XII	100,000,000	100,000,000	2,708,389	0	110,391,500	1.13	21.27	2018
Distressed/Opportunistic	3,639,714,067	2,712,070,025	2,374,235,378	1,037,969,128	1,497,688,497	1.43	10.21	
Avenue Capital Partners	200,000,000	200,977,328	56,309,273	0	208,009,694	1.32	6.43	
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	10,455,797	0	132,407,856	1.43	11.25	2017
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	45,853,476	0	75,601,838	1.20	3.54	2014
BlackRock*	1,774,870	1,774,870	1,796,583	0	186,435	1.12	5.93	
BlackRock Tempus Fund	1,774,870	1,774,870	1,796,583	0	186,435	1.12	5.93	2015
Canyon Partners	125,000,000	71,250,000	8,750,000	62,500,000	76,708,986	1.20	22.83	
Canyon Distressed Opportunity Fund III	125,000,000	71,250,000	8,750,000	62,500,000	76,708,986	1.20	22.83	2020
CarVal Investors	900,000,000	720,203,333	873,781,532	180,000,000	231,102,825	1.53	10.72	
CarVal Credit Value Fund I	100,000,000	95,000,000	213,343,831	5,000,000	498,998	2.25	18.71	2010
CVI Credit Value Fund A II	150,000,000	142,500,000	199,242,174	7,500,000	3,403,076	1.42	8.27	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	140,449,325	7,500,000	48,298,032	1.32	8.48	2015
CVI Credit Value Fund IV	150,000,000	120,203,333	60	30,000,000	146,416,080	1.22	7.42	2017
CVI Credit Value Fund V	150,000,000	30,000,000	0	120,000,000	32,382,990	1.08	11.50	2020
CVI Global Value Fund, L.P.	200,000,000	190,000,000	320,746,143	10,000,000	103,649	1.69	9.53	2007
Carlyle Group	100,000,000	81,070,745	44,726,105	63,603,426	45,594,020	1.11	7.91	
Carlyle Strategic Partners IV, L.P.	100,000,000	81,070,745	44,726,105	63,603,426	45,594,020	1.11	7.91	2016
MHR Institutional Partners	75,000,000	67,121,892	13,730,244	21,549,772	72,476,585	1.28	9.15	
MHR Institutional Partners IV LP	75,000,000	67,121,892	13,730,244	21,549,772	72,476,585	1.28	9.15	2014
Marathon	200,000,000	85,906,171	6,185,200	120,000,000	102,405,520	1.26	50.68	
Marathon Distressed Credit Fund	200,000,000	85,906,171	6,185,200	120,000,000	102,405,520	1.26	50.68	2020

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Merced Capital	278,737,500	288,144,755	247,664,959	0	86,832,728	1.16	3.47	
Merced Partners III	100,000,000	103,878,468	132,676,445	0	2,194,410	1.30	5.51	2010
Merced Partners IV	125,000,000	124,968,390	105,597,539	0	32,828,498	1.11	2.27	2013
Merced Partners V	53,737,500	59,297,897	9,390,975	0	51,809,820	1.03	0.85	2017
Oaktree Capital Management, LLC	650,000,000	307,111,662	65,680,111	381,489,598	334,631,524	1.30	12.78	
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,021	23,544,660	8,500,000	39,443,026	1.35	9.11	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	60,000,000	0	40,000,000	77,184,300	1.29	15.25	2015
Oaktree Opportunities Fund XI	300,000,000	60,000,000	0	240,000,000	70,978,800	1.18	33.75	2020
Oaktree Special Situations Fund II, L.P.	100,000,000	41,811,187	21,800,000	79,748,304	42,133,188	1.53	82.87	2018
Oaktree Special Situations Fund, L.P.	100,000,000	98,800,454	20,335,451	13,241,294	104,892,210	1.27	7.79	2014
PIMCO BRAVO*	9,201,697	8,657,372	8,827,308	7,735,883	1,248,372	1.16	4.84	
PIMCO BRAVO Fund Onshore Feeder I	3,958,027	3,958,027	4,016,443	2,385,880	6,553	1.02	1.60	2014
PIMCO Bravo Fund OnShore Feeder II	5,243,670	4,699,345	4,810,865	5,350,003	1,241,820	1.29	5.41	2014
TSSP	200,000,000	111,686,897	25,118,007	110,340,449	112,668,829	1.23	16.81	
TSSP Adjacent Opportunities GenPar, L.P	50,000,000	40,884,168	11,729,716	20,845,548	39,582,695	1.26	12.98	2018
TSSP Adjacent Opportunities Partners (B)	100,000,000	39,921,568	9,658,776	66,656,376	38,601,451	1.21	24.92	2018
TSSP Opportunities Partners IV (A), L.P.	50,000,000	30,881,161	3,729,515	22,838,525	34,484,683	1.24	18.51	2018
Varde Fund	600,000,000	525,000,000	652,264,324	75,000,000	200,472,973	1.62	10.25	
Varde Fund IX, L.P.	100,000,000	100,000,000	216,097,236	0	127,065	2.16	15.01	2008
Varde Fund X, LP	150,000,000	150,000,000	251,421,642	0	17,592,732	1.79	10.47	2010
Varde Fund XI, LP	200,000,000	200,000,000	184,725,408	0	89,082,001	1.37	5.34	2013
Varde Fund XIII, L.P.	150,000,000	75,000,000	20,038	75,000,000	93,671,175	1.25	14.50	2018
Wayzata Investment Partners	300,000,000	243,165,000	369,401,733	15,750,000	25,350,005	1.62	14.34	
Wayzata Opportunities Fund II, LLC	150,000,000	174,750,000	330,332,963	750,000	1,396,776	1.90	16.51	2007
Wayzata Opportunities Fund III	150,000,000	68,415,000	39,068,770	15,000,000	23,953,229	0.92	-2.04	2012
Total	33,651,465,051	24,150,997,699	19,744,837,014	11,734,511,997	16,999,578,816	1.52	11.90	
<i>Difference**</i>					51,000,930			
<i>Private Markets Total with Difference</i>					17,050,579,745			

<i>Private Markets Portfolio Status</i>	Managers	Funds
PRIVATE EQUITY	51	152
PRIVATE CREDIT	15	30
REAL ASSETS	11	33
REAL ESTATE	13	32
DISTRESSED / OPPORTUNISTIC	13	32
Total	103	279

Minnesota State Board of Investment
Private Markets Investments as of September 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
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Notes

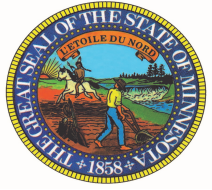
None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results. Ultimately, the actual performance and value of any investment is not known until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

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

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

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

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Participant Directed Investment Program

September 30, 2021



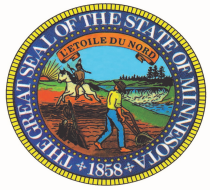
Quarterly Report

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 Fund 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. Stock Actively Managed Fund - an actively managed, U.S. common stock portfolio.
- U.S. Stock Index Fund - a passively managed, common stock portfolio designed to broadly track the performance of the U.S. stock market.
- Broad International Stock 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	\$114,553,093	0.1%	19.4%	12.6%	11.9%	11.6%	01/1980
U.S. ACTIVELY MANAGED FUND	94,077,840	-0.2	32.9	17.3	18.5	17.4	07/1986
U.S. STOCK INDEX FUND	459,385,212	0.0	32.6	16.3	17.0	16.7	07/1986
BROAD INTERNATIONAL STOCK FUND	155,562,381	-2.6	24.8	8.6	9.3	8.1	09/1994
BOND FUND	118,751,193	0.2	0.9	6.4	3.9	3.9	07/1986
MONEY MARKET FUND	606,042,306	0.0	0.2	1.3	1.3	0.8	07/1986
STABLE VALUE FUND	1,693,175,974	0.5	2.0	2.4	2.3	2.3	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	143,316,887	-0.3	14.9	10.4	9.5	9.0	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	\$114,553,093	0.1%	19.4%	12.6%	11.9%	11.6%
SIF BALANCED FUND BENCHMARK		-0.0	18.0	11.9	11.3	11.1
Excess		0.1	1.4	0.7	0.6	0.5

U.S. Actively Managed Fund

The U.S. Stock 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. ACTIVELY MANAGED FUND	94,077,840	-0.2	32.9	17.3	18.5	17.4
Russell 3000		-0.1	31.9	16.0	16.9	16.6
Excess		-0.1	1.1	1.3	1.7	0.8



Supplemental Investment Fund Performance

U.S. Stock Index Fund

The investment objective of the U.S. Stock 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. STOCK INDEX FUND	\$459,385,212	0.0%	32.6%	16.3%	17.0%	16.7%
Russell 3000		-0.1	31.9	16.0	16.9	16.6
Excess		0.1	0.7	0.3	0.2	0.1

Broad International Stock Fund

The investment objective of the Broad International Stock 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 STOCK FUND	155,562,381	-2.6	24.8	8.6	9.3	8.1
International Equity Benchmark		-3.0	24.0	8.0	8.9	7.5
Excess		0.3	0.8	0.7	0.4	0.6



Supplemental Investment Fund Performance

Bond Fund

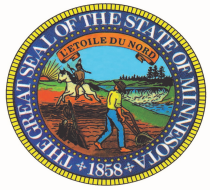
The investment objective of the Bond Fund is to exceed the return of the broad domestic bond market by investing in fixed income securities. The Bond Fund invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years. The Bond 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	\$118,751,193	0.2%	0.9%	6.4%	3.9%	3.9%
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	3.0
Excess		0.1	1.8	1.1	0.9	0.9

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	606,042,306	0.0	0.2	1.3	1.3	0.8
ICE BofA US 3-Month Treasury Bill		0.0	0.1	1.2	1.2	0.6
Excess		0.0	0.1	0.1	0.1	0.1



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	\$1,693,175,974	0.5%	2.0%	2.4%	2.3%	2.3%
Fixed Interest Blended Benchmark		0.2	0.8	1.6	1.9	1.5
Excess		0.2	1.3	0.9	0.5	0.8

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	143,316,887	-0.3	14.9	10.4	9.5	9.0
SIF Volunteer Firefighter Account BM		-0.4	13.6	9.7	8.8	8.4
Excess		0.2	1.3	0.8	0.7	0.5



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 Country 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	\$697,566,991	-0.1%	32.1%				07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,787,870,805	0.6	30.0	16.0%	16.9%	16.6%	07/1999
VANGUARD DIVIDEND GROWTH	909,527,541	0.7	21.9	14.3	14.7		10/2016
VANGUARD MID CAP INDEX	767,730,792	0.0	36.1	14.8	14.6	15.6	01/2004
T. ROWE PRICE SMALL-CAP STOCK	1,074,876,622	-1.2	40.9	16.6	17.9	17.6	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	381,328,125	1.7	21.6	13.2	11.6	10.7	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	372,355,823	-3.0	24.4	8.4	9.1	7.9	07/2011
VANGUARD BALANCED INDEX	1,503,156,898	-0.0	18.0	12.1	11.4	11.2	12/2003
DODGE & COX INCOME	338,708,125	0.1	2.0	6.2	4.2	4.3	07/1999
VANGUARD TOTAL BOND MARKET INDEX	377,625,313	0.1	-0.8	5.5	3.0	3.0	12/2003
2025 FUND	241,145,234	0.1	14.7	9.1	8.3	8.8	07/2011
2030 FUND	197,132,017	-0.4	17.1	10.7	10.0	10.1	07/2011
2035 FUND	157,608,140	-0.8	18.7	11.6	11.0	10.9	07/2011
2040 FUND	122,253,385	-1.0	20.5	12.1	11.6	11.4	07/2011
2045 FUND	110,143,620	-1.2	22.4	12.4	12.1	11.9	07/2011
2050 FUND	90,009,529	-1.3	24.1	12.7	12.6	12.1	07/2011
2055 FUND	57,769,533	-1.4	25.1	12.9	12.7	12.2	07/2011
2060 FUND	47,049,273	-1.4	25.1	12.9	12.7	12.2	07/2011
2065 FUND	3,496,836	-1.4	25.1				04/2020
INCOME FUND	249,795,331	0.2	11.7	8.0	6.5	6.1	07/2011
TD Ameritrade SDB	91,759,806						
TD Ameritrade SDB Roth	2,778,473						



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 Nasdaq US Dividend Achievers Select 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

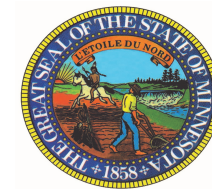
Fidelity Diversified International (active)

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	\$697,566,991	-0.1%	32.1%			07/2019
CRSP US Total Market Index		-0.1	32.1			07/2019
Excess		-0.0	-0.0			
VANGUARD INSTITUTIONAL INDEX PLUS	1,787,870,805	0.6	30.0	16.0%	16.9%	07/1999
S&P 500		0.6	30.0	16.0	16.9	07/1999
Excess		-0.0	-0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	909,527,541	0.7	21.9	14.3	14.7	10/2016
NASDAQ US Dividend Achievers Select		-0.2	21.7	13.8	15.2	10/2016
Excess		0.9	0.2	0.6	-0.5	
Mid Cap US Equity						
VANGUARD MID CAP INDEX	767,730,792	0.0	36.1	14.8	14.6	01/2004
CRSP US Mid Cap Index		0.0	36.1	14.8	14.6	01/2004
Excess		0.0	-0.0	0.0	0.0	
Small Cap US Equity						
T. ROWE PRICE SMALL-CAP STOCK	1,074,876,622	-1.2	40.9	16.6	17.9	04/2000
Russell 2000		-4.4	47.7	10.5	13.5	04/2000
Excess		3.2	-6.7	6.1	4.4	
International Equity						
FIDELITY DIVERSIFIED INTERNATIONAL	381,328,125	1.7	21.6	13.2	11.6	07/1999
MSCI EAFE FREE (NET)		-0.4	25.7	7.6	8.8	07/1999
Excess		2.1	-4.1	5.6	2.8	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	372,355,823	-3.0	24.4	8.4	9.1	07/2011
FTSE Global All Cap ex US Index Net		-2.5	25.2	8.4	9.1	07/2011
Excess		-0.5	-0.8	-0.0	-0.0	



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% BB Barclays 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	\$1,503,156,898	-0.0%	18.0%	12.1%	11.4%	12/2003
Vanguard Balanced Fund Benchmark		0.0	18.1	12.2	11.5	12/2003
Excess		-0.0	-0.1	-0.1	-0.1	

Fixed Income

DODGE & COX INCOME	338,708,125	0.1	2.0	6.2	4.2	07/1999
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	07/1999
Excess		0.0	2.9	0.9	1.3	

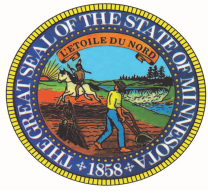
VANGUARD TOTAL BOND MARKET INDEX	377,625,313	0.1	-0.8	5.5	3.0	12/2003
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	12/2003
Excess		0.1	0.1	0.1	0.0	

MONEY MARKET FUND	606,042,306	0.0	0.2	1.3	1.3	07/1986
ICE BofA US 3-Month Treasury Bill		0.0	0.1	1.2	1.2	07/1986
Excess		0.0	0.1	0.1	0.1	

Stable Value

STABLE VALUE FUND	1,693,175,974	0.5	2.0	2.4	2.3	11/1994
Fixed Interest Blended Benchmark		0.2	0.8	1.6	1.9	11/1994
Excess		0.2	1.3	0.9	0.5	

- (1) Vanguard Dividend Growth replaced the Janus Twenty Fund in the third quarter of 2016.
(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	\$241,145,234	0.1%	14.7%	9.1%	8.3%	07/2011		2050 FUND	\$90,009,529	-1.3%	24.1%	12.7%	12.6%	07/2011
2025 FUND BENCHMARK		0.2	14.8	9.1	8.3	07/2011		2050 FUND BENCHMARK		-1.1	24.5	12.7	12.6	07/2011
Excess		-0.1	-0.1	-0.0	-0.0			Excess		-0.2	-0.3	-0.1	-0.0	
2030 FUND	197,132,017	-0.4	17.1	10.7	10.0	07/2011		2055 FUND	57,769,533	-1.4	25.1	12.9	12.7	07/2011
2030 FUND BENCHMARK		-0.3	17.3	10.7	10.0	07/2011		2055 FUND BENCHMARK		-1.2	25.5	13.0	12.8	07/2011
Excess		-0.1	-0.2	-0.0	-0.0			Excess		-0.2	-0.3	-0.1	-0.1	
2035 FUND	157,608,140	-0.8	18.7	11.6	11.0	07/2011		2060 FUND	47,049,273	-1.4	25.1	12.9	12.7	07/2011
2035 FUND BENCHMARK		-0.7	18.9	11.7	11.0	07/2011		2060 FUND BENCHMARK		-1.2	25.5	13.0	12.8	07/2011
Excess		-0.1	-0.2	-0.0	-0.0			Excess		-0.2	-0.3	-0.1	-0.1	
2040 FUND	122,253,385	-1.0	20.5	12.1	11.6	07/2011		2065 FUND	3,496,836	-1.4	25.1			04/2020
2040 FUND BENCHMARK		-0.9	20.8	12.1	11.6	07/2011		2065 FUND BENCHMARK		-1.2	25.5			04/2020
Excess		-0.2	-0.3	-0.0	-0.0			Excess		-0.2	-0.4			
2045 FUND	110,143,620	-1.2	22.4	12.4	12.1	07/2011		INCOME FUND	249,795,331	0.2	11.7	8.0	6.5	07/2011
2045 FUND BENCHMARK		-1.0	22.7	12.5	12.2	07/2011		INCOME FUND BENCHMARK		0.3	11.8	8.0	6.5	07/2011
Excess		-0.2	-0.3	-0.1	-0.0			Excess		-0.1	-0.1	0.0	-0.0	

Note: Each SSgA Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation



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: September 30, 2021

Total = \$1,827 Million

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
2038/2039 Enrollment Option	\$1,429,136	-0.50%					-0.60%	6/11/2021
2038-2039 Custom Benchmark		-0.30%					-0.12%	
2036/2037 Enrollment Option	\$47,169,286	-0.38%	22.97%				15.31%	10/28/2019
2036-2037 Custom Benchmark		-0.28%	23.23%				14.70%	
2034/2035 Enrollment Option	\$42,792,231	-0.38%	21.89%				14.68%	10/28/2019
2034-2035 Custom Benchmark		-0.24%	22.23%				14.13%	
2032/2033 Enrollment Option	\$50,069,423	-0.31%	20.73%				14.22%	10/28/2019
2032-2033 Custom Benchmark		-0.20%	21.06%				13.65%	
2030/2031 Enrollment Option	\$61,886,150	-0.24%	19.01%				13.21%	10/28/2019
2030-2031 Custom Benchmark		-0.13%	19.29%				12.67%	
2028/2029 Enrollment Option	\$80,321,372	-0.16%	16.15%				11.63%	10/28/2019
2028-2029 Custom Benchmark		-0.06%	16.40%				11.02%	
2026/2027 Enrollment Option	\$112,451,339	0.00%	13.24%				10.18%	10/28/2019
2026-2027 Custom Benchmark		0.02%	13.43%				9.61%	
2024/2025 Enrollment Option	\$157,253,701	0.09%	10.54%				8.70%	10/28/2019
2024-2025 Custom Benchmark		0.08%	10.54%				8.00%	
2022/2023 Enrollment Option	\$186,207,533	0.18%	7.43%				6.43%	10/28/2019
2022-2023 Custom Benchmark		0.07%	7.06%				5.61%	
In School Option	\$322,886,965	0.18%	5.14%				5.30%	10/28/2019
In School Custom Benchmark		0.06%	4.62%				4.24%	



MINNESOTA COLLEGE SAVINGS PLAN
Performance Statistics for the Period Ending: September 30, 2021

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
U.S. and International Equity Option BB: U.S. and International Equity Option	\$322,939,899	-0.67% -0.41%	29.43% 30.59%	13.16% 12.95%	13.62% 13.49%	13.48% 13.53%	8.09% 8.81%	10/ 1/2001
Moderate Allocation Option BB: Moderate Allocation Option	\$95,511,370	-0.25% -0.07%	17.74% 18.36%	10.43% 10.38%	9.71% 9.61%	9.32% 9.46%	6.41% 6.93%	8/ 2/2007
100% Fixed-Income Option BB: 100% Fixed-Income Option	\$21,117,684	0.42% 0.39%	1.09% 1.51%	5.27% 5.64%	3.06% 3.39%	2.74% 3.10%	3.72% 4.31%	8/16/2007
International Equity Index Option BB: International Equity Index Option	\$8,771,790	-2.23% -1.98%	23.69% 24.36%	7.75% 7.92%	8.72% 8.97%		6.03% 6.25%	6/18/2013
Money Market Option BB: Money Market Option	\$13,560,577	0.00% 0.00%	0.00% 0.01%	0.95% 0.84%	0.92% 0.80%	0.47% 0.41%	0.52% 0.46%	11/ 1/2007
Principal Plus Interest Option Citigroup 3-Month U.S. Treasury Bill	\$128,456,181	0.31% 0.01%	1.45% 0.06%	1.82% 1.14%	1.72% 1.13%	1.58% 0.60%	2.41% 1.26%	10/10/2001
Aggressive Allocation Option BB: Aggressive Allocation Option	\$65,512,765	-0.47% -0.24%	23.36% 24.37%	11.76% 11.73%	11.68% 11.58%		9.42% 9.35%	8/12/2014
Conservative Allocation Option BB: Conservative Allocation Option	\$17,411,149	0.14% 0.08%	9.16% 9.34%	6.95% 6.99%	6.03% 5.98%		5.03% 5.05%	8/18/2014
Equity and Interest Accumulation Option BB: Equity and Interest Accumulation Option	\$6,940,794	0.12% -0.01%	15.75% 15.22%	8.87% 8.86%	9.19% 9.07%		7.52% 7.42%	8/18/2014
U.S. Large Cap Equity Option BB: U.S. Large Cap Equity Option	\$82,262,468	0.56% 0.58%	29.79% 30.00%	15.83% 15.99%	16.69% 16.90%		13.88% 13.98%	8/12/2014
Social Choice Equity Option BB: Social Choice Equity Option	\$88,519	-0.40% -0.10%					0.80% 1.02%	6/11/2021
Matching Grant Citigroup 3-Month U.S. Treasury Bill	\$1,839,817	0.31% 0.01%	1.45% 0.06%	1.82% 1.14%	1.72% 1.13%	1.58% 0.60%	2.41% 1.26%	3/22/2002



Performance as of
09/30/21

Total Market Value: \$ 24,032,301

<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>Inception Date</u>
Aggressive Option	\$ 1,969,596	8.20%	(3.86)	(1.25)	11.37	28.42	12.07			12.30	12/15/16
ABLE Aggressive Custom Benchmark			(3.83)	(1.07)	11.61	29.15	12.44			12.82	
Variance			(0.03)	(0.18)	(0.24)	(0.73)	(0.37)			(0.52)	
Moderately Aggressive Option	\$ 2,278,269	9.48%	(3.36)	(1.03)	9.47	23.57	11.00			10.89	12/15/16
ABLE Moderately Aggressive Custom Benchmark			(3.27)	(0.80)	9.76	24.26	11.35			11.36	
Variance			(0.09)	(0.23)	(0.29)	(0.69)	(0.35)			(0.47)	
Growth Option	\$ 3,169,243	13.19%	(2.72)	(0.71)	7.70	18.93	9.82			9.41	12/15/16
ABLE Growth Custom Benchmark			(2.71)	(0.52)	7.93	19.51	10.18			9.87	
Variance			(0.01)	(0.19)	(0.23)	(0.58)	(0.36)			(0.46)	
Moderate Option	\$ 2,713,208	11.29%	(2.17)	(0.41)	5.88	14.37	8.57			7.92	12/15/16
ABLE Moderate Custom Benchmark			(2.15)	(0.26)	6.12	14.87	8.93			8.32	
Variance			(0.02)	(0.15)	(0.24)	(0.50)	(0.36)			(0.40)	
Moderately Conservative Option	\$ 2,839,583	11.82%	(1.50)	(0.23)	4.04	9.70	6.41			5.83	12/15/16
ABLE Moderately Conservative Custom Benchmark			(1.47)	(0.12)	4.13	9.93	6.67			6.15	
Variance			(0.03)	(0.11)	(0.09)	(0.23)	(0.26)			(0.32)	
Conservative Option	\$ 4,239,482	17.64%	(0.52)	0.00	1.50	3.51	3.37			2.98	12/15/16
ABLE Conservative Custom Benchmark			(0.56)	0.05	1.50	3.53	3.52			3.16	
Variance			0.04	(0.05)	0.00	(0.02)	(0.15)			(0.18)	
Checking Option	\$ 6,822,920	28.39%									03/30/17

MINNESOTA ACHIEVE A BETTER LIFE EXPERIENCE

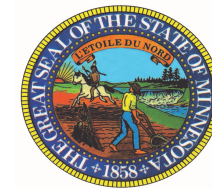
The Minnesota Achieve a Better Life Experience Plan (ABLE) is a savings plan designed to help individuals save for qualified disability expenses without losing eligibility for certain assistance programs. The plan is administered by the Department of Human Services (DHS).

The SBI and DHS have jointly contracted with Ascensus to provide recordkeeping, administrative, and investment management services for the plan.

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 fixed risk level.

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Non-Retirement

September 30, 2021



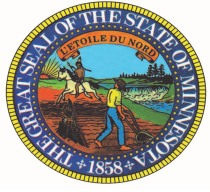
Quarterly Report

Non-Retirement Funds

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

- 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 Minnesota Workers Compensation Assigned Risk Plan provides worker compensation insurance for companies unable to obtain coverage through private carriers.
- 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

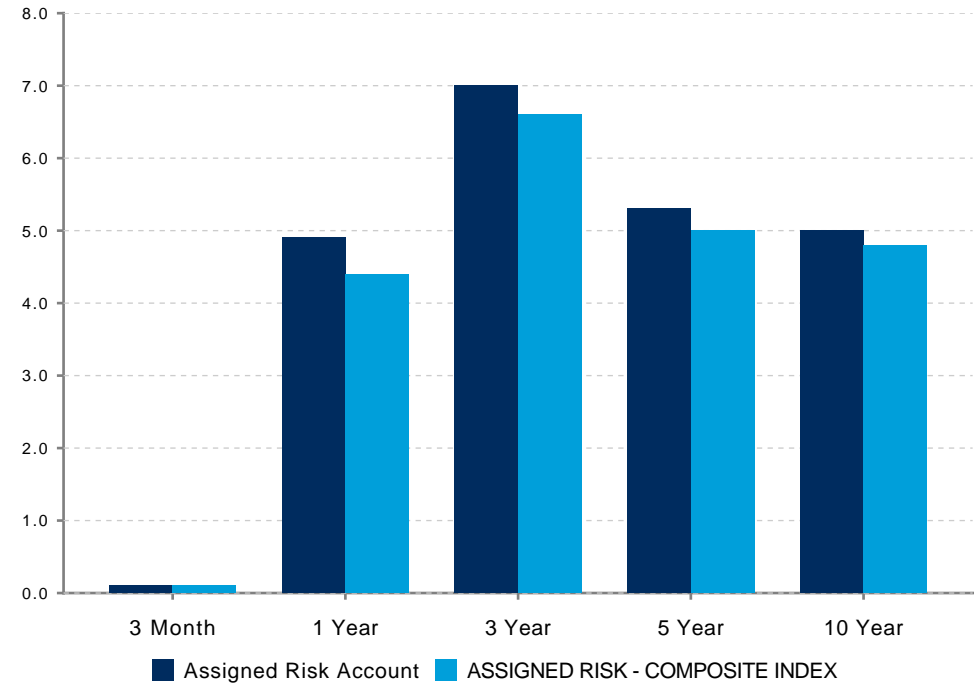
Assigned Risk Plan

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.

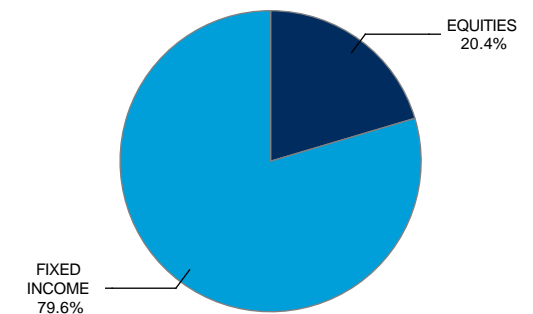
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds

The equity segment is passively managed to track the performance of the S&P 500.

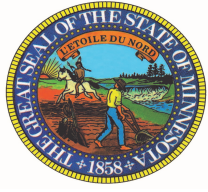
The fixed income benchmark is the Bloomberg U.S. Government Intermediate Index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 80% fixed income and 20% equities. The actual asset mix will fluctuate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



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Assigned Risk Account	\$276,905,215	0.1%	4.9%	7.0%	5.3%	5.0%
EQUITIES	56,400,515	0.6	30.0	16.0	16.8	16.4
FIXED INCOME	220,504,699	-0.0	-1.1	4.1	2.1	1.9
ASSIGNED RISK - COMPOSITE INDEX		0.1	4.4	6.6	5.0	4.8
Excess		-0.0	0.4	0.4	0.3	0.2
S&P 500		0.6	30.0	16.0	16.9	16.6
Bloomberg U.S. Government: Intermediate		-0.0	-1.3	4.0	2.0	1.8



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.



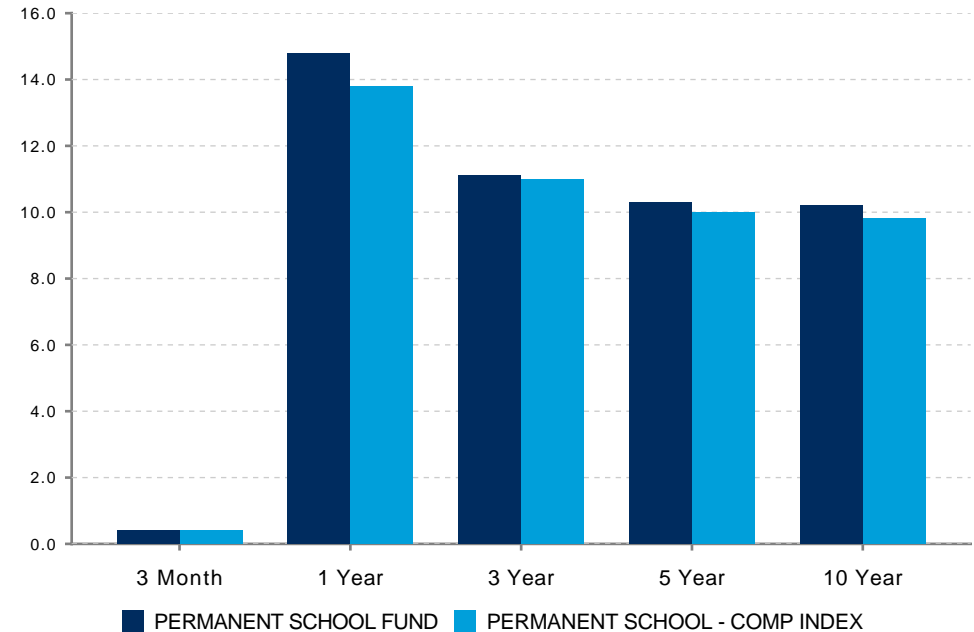
Non-Retirement

Permanent School Fund

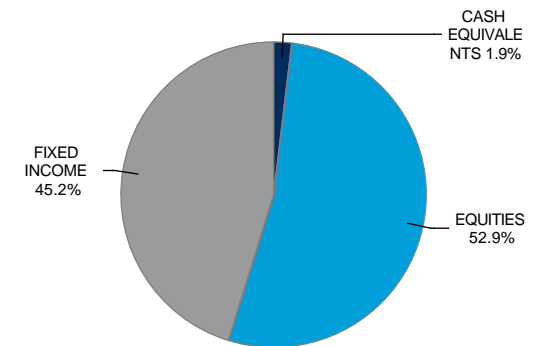
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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.

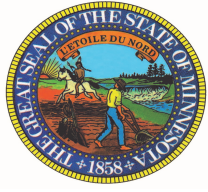
The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the 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	\$1,946,098,864	0.4%	14.8%	11.1%	10.3%	10.2%
CASH EQUIVALENTS	36,308,384	0.0	0.1	1.2	1.2	0.7
EQUITIES	1,029,496,675	0.6	30.0	16.0	16.9	16.6
FIXED INCOME	880,293,805	0.2	0.2	5.9	3.5	3.7
PERMANENT SCHOOL - COMP INDEX		0.4	13.8	11.0	10.0	9.8
Excess		0.0	1.0	0.1	0.3	0.3
S&P 500		0.6	30.0	16.0	16.9	16.6
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	3.0



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.



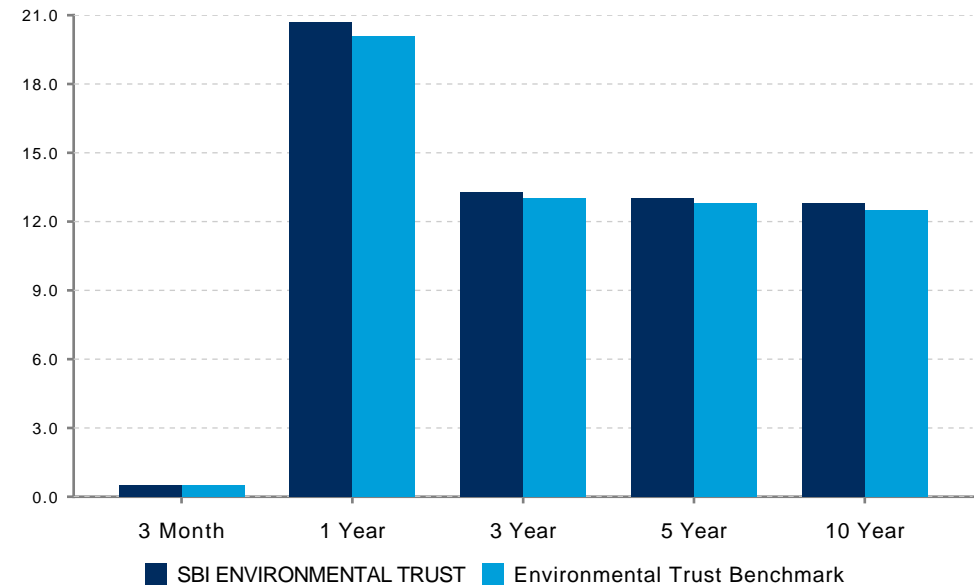
Non-Retirement

Environmental Trust Fund

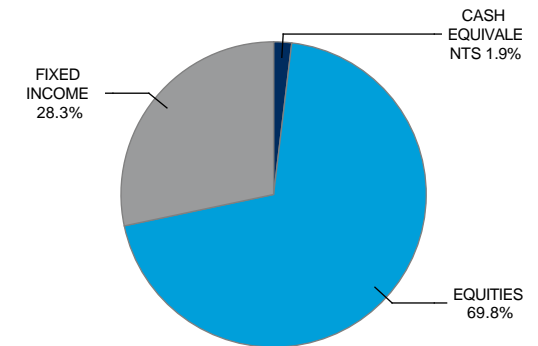
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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.

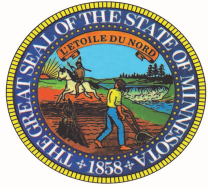
The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the 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.



	<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>
SBI ENVIRONMENTAL TRUST	\$1,641,750,888	0.5%	20.7%	13.3%	13.0%	12.8%
CASH EQUIVALENTS	31,915,549	0.0	0.1	1.2	1.2	0.7
EQUITIES	1,145,368,416	0.6	30.0	16.0	16.9	16.6
FIXED INCOME	464,466,923	0.2	0.2	5.9	3.5	3.7
Environmental Trust Benchmark		0.5	20.1	13.0	12.8	12.5
Excess		0.0	0.6	0.3	0.3	0.2
S&P 500		0.6	30.0	16.0	16.9	16.6
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	3.0



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.

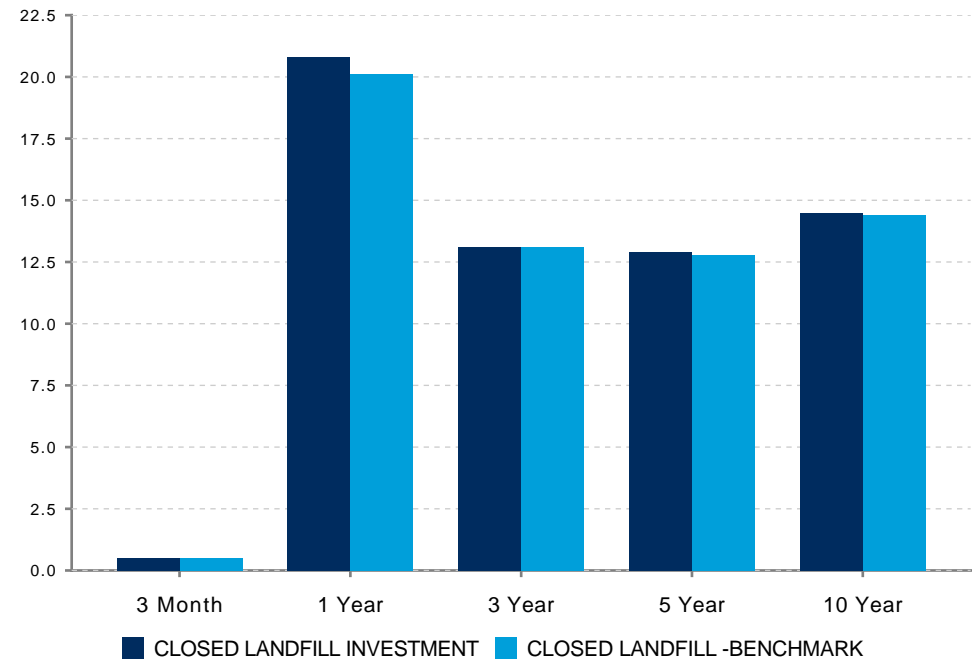


Non-Retirement

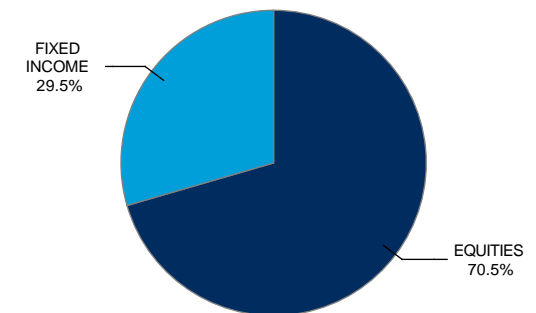
Closed Landfill Investment Fund

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 are 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.

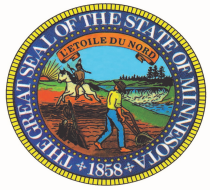
The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500. The fixed income benchmark is the Bloomberg U.S. Aggregate. The total fund benchmark is a combination of the 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	\$130,197,249	0.5%	20.8%	13.1%	12.9%	14.5%
EQUITIES	91,776,138	0.6	30.0	16.0	16.9	16.6
FIXED INCOME	38,421,111	0.2	0.2	5.9	3.5	
CLOSED LANDFILL -BENCHMARK		0.5	20.1	13.1	12.8	14.4
Excess		0.0	0.7	0.0	0.1	0.0
S&P 500		0.6	30.0	16.0	16.9	16.6
Bloomberg U.S. Aggregate		0.1	-0.9	5.4	2.9	3.0



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	3,207,711,927	0.6	0.6	30.0	16.0	16.9	16.6	10.5	07/1993
S&P 500 INDEX (DAILY)		0.6	0.6	30.0	16.0	16.9	16.6	10.5	07/1993
Excess		-0.0	-0.0	-0.0	0.0	-0.0	-0.0	0.1	
NON RETIREMENT FIXED INCOME - PRUDENTIAL	1,578,901,961	0.2	0.2	0.2	5.9	3.5	3.7	5.9	07/1994
Bloomberg U.S. Aggregate		0.1	0.1	-0.9	5.4	2.9	3.0	5.4	07/1994
Excess		0.1	0.1	1.1	0.5	0.5	0.7	0.5	
RBC	220,504,777	-0.0	-0.0	-1.1	4.1	2.1	1.9	4.7	07/1991
RBC Custom Benchmark		-0.0	-0.0	-1.3	4.0	2.0	1.8	4.8	07/1991
Excess		-0.0	-0.0	0.3	0.1	0.1	0.1	-0.1	
MET COUNCIL OPEB BOND POOL	101,903,153	-0.0	-0.0	0.2	3.0				
NON RETIREMENT CASH ACCOUNT	101,187,850	0.0	0.0	0.1	1.2				
ICE BofA US 3-Month Treasury Bill		0.0	0.0	0.1	1.2				
Excess		0.0	0.0	0.0	-0.0				

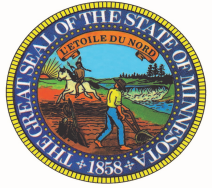
Note:

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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State Cash

September 30, 2021



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.

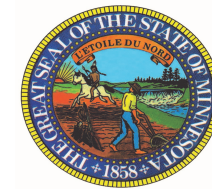
Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	<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	17,887,300,149	0.0	0.2	1.4	1.4	1.0
iMoneyNet Money Fund Average-All Taxable		0.0	0.0	0.9	0.8	0.4

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	69,562,870	-0.1	0.9	3.9	2.7	
Housing Finance	0					
Public Facilities Authority	464,998					



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.



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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 Barclays Agg and 50% Bloomberg Barclays 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.

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