



Comprehensive Performance Report

December 31, 2020



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.

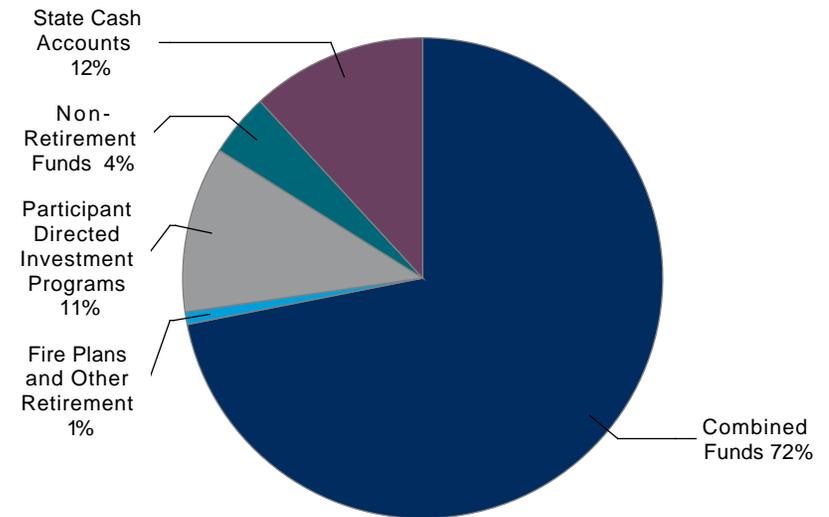
State Cash

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	\$82,140
FIRE PLANS + OTHER RETIREMENT	956
PARTICIPANT DIRECTED INVESTMENT PROGRAMS	12,782
State Deferred Compensation Plan	8,917
Health Care Savings Plan	1,486
Unclassified Employees Retirement Plan	373
Hennepin County Supplemental Retirement Plan	180
PERA Defined Contribution Plan	93
Minnesota College Savings Plan	1,717
Minnesota Achieve a Better Life Experience	17
NON-RETIREMENT FUNDS	4,834
Assigned Risk Plan	299
Permanent School Fund	1,814
Environmental Trust Fund	1,490
Closed Landfill Investment Fund	119
Miscellaneous Trust Funds	322
Other Postemployment Benefits Accounts	790
STATE CASH ACCOUNTS	13,655
Invested Treasurer's Cash	13,582
Other State Cash Accounts	74
TOTAL SBI AUM	114,367



Note: Differentials within column amounts may occur due to rounding



Quarterly Report

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Manager Level Data

Aggregate Level Data

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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

December 31, 2020



Combined Funds Summary

Combined Funds Change in Market Value (\$Millions)

	<u>One Quarter</u>
COMBINED FUNDS	
Beginning Market Value	\$74,762
Net Contributions	-611
Investment Return	7,990
Ending Market Value	82,140

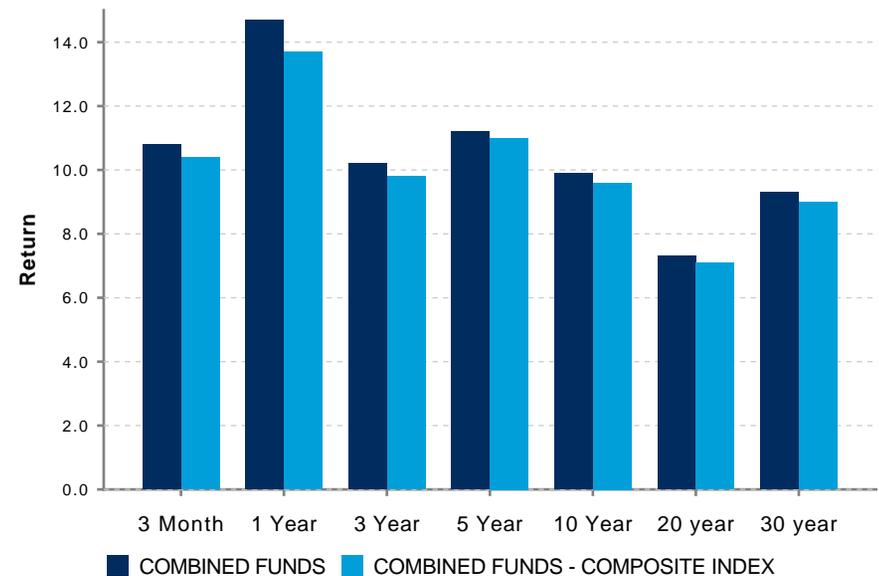
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

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	10.8%	17.6%	14.7%	10.2%	11.2%	9.9%	7.3%	9.3%
COMBINED FUNDS - COMPOSITE INDEX	10.4	16.9	13.7	9.8	11.0	9.6	7.1	9.0
Excess	0.3	0.7	1.0	0.4	0.2	0.3	0.2	0.3

Asset Growth



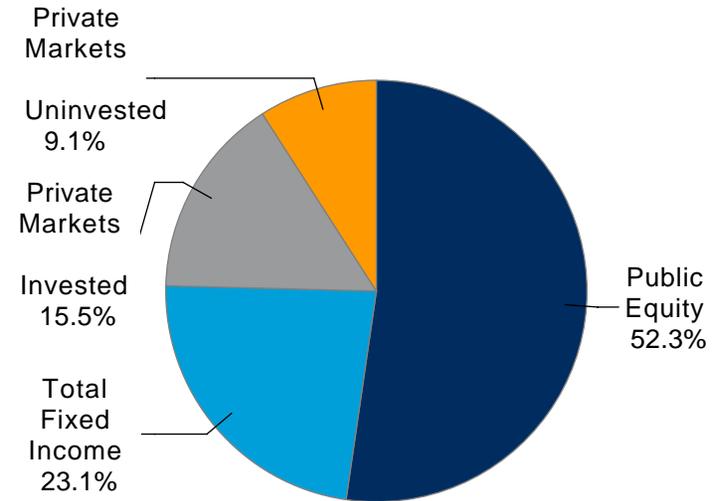


Combined Funds Summary

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.

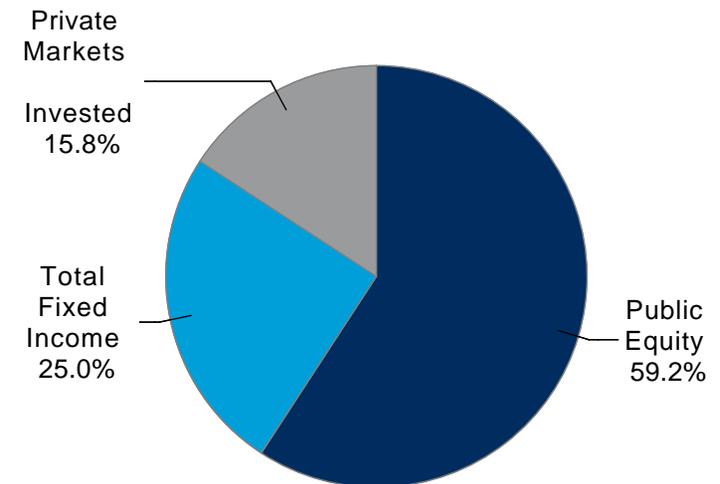
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$42,990	52.3%	50.0%
Total Fixed Income	18,962	23.1	25.0
Private Markets - Total	20,187	24.6	25.0
Private Markets - Invested	12,737	15.5	
Private Markets - Uninvested	7,450	9.1	
TOTAL	82,140	100.0	



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	59.2%	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	15.8	Private Markets
Private Markets - Uninvested	0.0	S&P 500



Note:

On 12/1/2020 the composite index included a weighting to Private Markets - Uninvested of 9.2%. Prior to 12/1/2020 the uninvested portion of private markets was allocated to public equity.



Combined Funds Asset Class Performance Summary

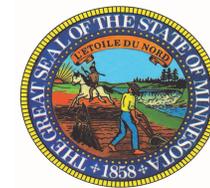
Public Equity

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	\$43.0	52.3%	50.0%	15.9%	25.6%	18.3%	11.5%	13.3%	11.5%	7.1%	10.0%
Public Equity Benchmark				15.8	25.1	17.4	11.2				
Excess				0.1	0.5	1.0	0.3				
Domestic Equity	28.0	34.1	33.5	15.4	26.0	21.7	14.6	15.3	13.8	7.7	10.6
Domestic Equity Benchmark				15.2	25.6	20.8	14.4	15.4	13.8	7.8	10.7
Excess				0.2	0.4	0.9	0.2	-0.1	0.0	-0.1	-0.1
International Equity	13.9	16.9	16.5	16.9	24.7	11.3	5.2	8.8	5.4	5.5	
International Equity Benchmark				17.1	24.2	10.5	4.8	8.9	4.9	5.2	
Excess				-0.1	0.6	0.8	0.4	-0.1	0.5	0.3	
Global Equity	1.1	1.3	0.0								
MSCI AC WORLD INDEX NET											
Excess											

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

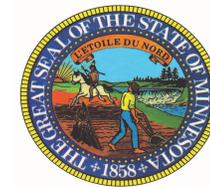
Total Fixed Income

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 Barclays U.S. Aggregate Index/ 40% Bloomberg Barclays 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	\$19.0	23.1%	25.0%	0.1%	0.8%	11.2%	7.1%	5.8%	4.8%	5.4%	6.4%
Total Fixed Income Benchmark				-0.5	-0.1	10.3					
Excess				0.5	0.9	1.0					
Core/Core Plus	4.2	5.1	5.0	1.9	3.2	9.7	6.4	5.4	4.6	5.3	6.3
Fixed Income Benchmark				0.7	1.3	7.5	5.3	4.4	3.8	4.8	5.9
Excess				1.2	1.9	2.2	1.0	0.9	0.7	0.5	0.5
Return Seeking Fixed Income	3.5	4.3	5.0								
BBG BARC Agg Bd											
Excess											
Treasury Protection	7.6	9.3	10.0	-1.7	-1.3	12.7	8.0				
BBG BARC 5Y + Us Tsy Idx				-1.9	-1.6	12.8	7.6				
Excess				0.2	0.3	-0.2	0.4				
Laddered Bond + Cash	3.6	4.4	5.0	0.0	0.1	0.6	1.6	1.3	0.8	1.8	3.4
ICE BofA US 3-Month Treasury Bill				0.0	0.1	0.7	1.6	1.2	0.6	1.5	2.7
Excess				0.0	0.0	-0.1	-0.0	0.1	0.2	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	8.7%	15.3%	7.7%	9.9%	11.1%	11.5%	11.4%	13.4%	12.2%
Private Markets - Uninvested (S&P 500)									
Private Equity	12.2%	21.0%	16.3%	15.7%	16.1%	15.1%	12.3%	15.5%	
Private Credit	1.8	5.8	1.4	7.7	10.6	11.6	11.3		
Resources	1.6	3.9	-16.3	-6.4	-3.0	1.4	11.6	12.6	
Real Estate	3.8	6.4	4.4	8.4	8.5	11.1	8.4	9.6	

Private Markets

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

Private Equity Investments

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

Private Credit Investments

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

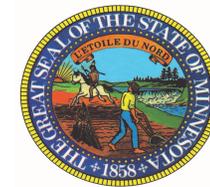
Resource Investments

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

Real Estate Investments

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

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



Quarterly Report

Asset Class & Manager Performance

December 31, 2020

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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Public Equity - Domestic

December 31, 2020

Minnesota State Board of Investment
Quarter Ending December 31, 2020
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)	\$4,151,773,056	14.5%	24.9%	35.1%	27.3%	14.9%	15.2%	13.3%		
Active Domestic Equity Benchmark			22.8	31.6	19.8	12.2	14.1	12.8		
Excess			2.2	3.5	7.5	2.7	1.1	0.5		
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	3,026,841,988	10.6	13.0	23.6	21.0	14.6	15.4	14.2		
Semi Passive Domestic Equity Benchmark			13.7	24.5	21.0	14.8	15.6	14.0		
Excess			-0.7	-0.8	0.0	-0.2	-0.2	0.2		
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	21,494,553,038	75.0	14.0	24.7	20.8	14.6	15.5	13.8		
Passive Domestic Equity Benchmark			14.0	24.7	20.8	14.6	15.5	13.8		
Excess			0.0	0.0	0.0	-0.0	-0.0	-0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	659,656	0.0								
TOTAL DOMESTIC EQUITY (5)	28,673,827,739	100.0	15.4	26.0	21.7	14.7	15.3	13.8	10.8	01/1984
Domestic Equity Benchmark			15.2	25.6	20.8	14.4	15.4	13.8	11.0	01/1984
Excess			0.2	0.4	0.9	0.2	-0.1	0.0	-0.2	

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

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

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

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

(5) Since 12/1/20 the 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>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Total Domestic Equity					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	27.6%	-6.5%	20.6%	10.9%	-0.4%
Active Domestic Equity Benchmark	28.2	-8.0	18.3	15.7	-0.6
Excess	-0.6	1.4	2.3	-4.8	0.3
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	30.9	-4.9	22.5	11.1	0.5
Semi Passive Domestic Equity Benchmark	31.4	-4.8	21.7	12.1	0.9
Excess	-0.5	-0.1	0.8	-1.0	-0.4
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	31.3	-5.0	21.3	12.6	0.5
Passive Domestic Equity Benchmark	31.3	-5.0	21.5	12.5	0.5
Excess	0.0	-0.0	-0.2	0.1	0.0
TRANSITION AGGREGATE DOMESTIC EQUITY (4)					
TOTAL DOMESTIC EQUITY (5)	30.7%	-5.3%	21.4%	11.5	0.3
Domestic Equity Benchmark	30.8%	-5.2%	21.1%	12.7	0.5
Excess	-0.1%	-0.0%	0.2%	-1.3	-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 contains Domestic Equity securities that are being transitioned to a different manager.

(5) Since 12/1/20 the 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	\$387,182,115	1.4%	18.2%	36.3%	71.0%	34.7%	25.2%	20.2%	14.6%	01/2005
Russell 1000 Growth			11.4	26.1	38.5	23.0	21.0	17.2	12.1	01/2005
Excess			6.8	10.2	32.5	11.7	4.2	3.0	2.5	
WINSLOW	226,558,666	0.8	9.6	22.8	37.6	24.4	20.2	16.6	12.7	01/2005
Russell 1000 Growth			11.4	26.1	38.5	23.0	21.0	17.2	12.1	01/2005
Excess			-1.8	-3.4	-0.9	1.4	-0.8	-0.6	0.6	
ZEVENBERGEN	484,324,349	1.7	23.0	49.1	126.2	49.0	34.2	22.3	14.2	04/1994
Russell 1000 Growth			11.4	26.1	38.5	23.0	21.0	17.2	11.1	04/1994
Excess			11.6	22.9	87.7	26.0	13.2	5.1	3.1	
RUSSELL 1000 GROWTH AGGREGATE	1,098,065,131	3.8	18.3	38.3	81.3	37.6	28.6	20.7		
Russell 1000 Growth			11.4	26.1	38.5	23.0	21.0	17.2		
Excess			6.9	12.1	42.8	14.6	7.6	3.5		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Large Cap Growth					
SANDS	33.5%	7.0%	35.3%	-6.9%	2.9%
Russell 1000 Growth	36.4	-1.5	30.2	7.1	5.7
Excess	-2.8	8.6	5.1	-13.9	-2.8
WINSLOW	34.2	4.2	33.2	-1.9	6.7
Russell 1000 Growth	36.4	-1.5	30.2	7.1	5.7
Excess	-2.2	5.7	3.0	-9.0	1.0
ZEVENBERGEN	43.0	2.3	35.1	-2.8	6.4
Russell 1000 Growth	36.4	-1.5	30.2	7.1	5.7
Excess	6.7	3.8	4.9	-9.9	0.7
RUSSELL 1000 GROWTH AGGREGATE	37.3%	4.7%	33.4%	1.0	4.6
Russell 1000 Growth	36.4%	-1.5%	30.2%	7.1	5.7
Excess	0.9%	6.2%	3.2%	-6.1	-1.1



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Large Cap Value										
BARROW HANLEY	\$359,790,154	1.3%	17.6%	24.3%	2.4%	6.9%	9.6%	10.8%	8.1%	04/2004
Russell 1000 Value			16.3	22.8	2.8	6.1	9.7	10.5	7.8	04/2004
Excess			1.3	1.5	-0.4	0.9	-0.1	0.3	0.3	
EARNEST PARTNERS	659,656	0.0	21.2	27.5	9.0	8.8	12.4	10.7	7.5	07/2000
Russell 1000 Value			16.3	22.8	2.8	6.1	9.7	10.5	7.2	07/2000
Excess			5.0	4.7	6.2	2.8	2.7	0.2	0.2	
LSV	423,597,709	1.5	19.9	25.4	-1.3	3.4	8.9	11.2	8.5	04/2004
Russell 1000 Value			16.3	22.8	2.8	6.1	9.7	10.5	7.8	04/2004
Excess			3.6	2.6	-4.1	-2.7	-0.8	0.7	0.7	
RUSSELL 1000 VALUE AGGREGATE	783,387,863	2.7	18.1	24.2	1.6	5.7	9.8	10.6		
Russell 1000 Value			16.3	22.8	2.8	6.1	9.7	10.5		
Excess			1.9	1.4	-1.2	-0.3	0.1	0.1		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Large Cap Value					
BARROW HANLEY	26.9%	-5.9%	14.6%	12.8%	-2.1%
Russell 1000 Value	26.5	-8.3	13.7	17.3	-3.8
Excess	0.4	2.4	0.9	-4.5	1.7
EARNEST PARTNERS					
EARNEST PARTNERS	28.1	-7.7	19.9	16.2	-2.7
Russell 1000 Value	26.5	-8.3	13.7	17.3	-3.8
Excess	1.5	0.6	6.2	-1.1	1.1
LSV					
LSV	26.9	-11.8	18.6	17.0	-2.2
Russell 1000 Value	26.5	-8.3	13.7	17.3	-3.8
Excess	0.4	-3.6	4.9	-0.4	1.6
RUSSELL 1000 VALUE AGGREGATE					
RUSSELL 1000 VALUE AGGREGATE	27.4%	-8.7%	17.3%	15.3	-3.2
Russell 1000 Value	26.5%	-8.3%	13.7%	17.3	-3.8
Excess	0.9%	-0.4%	3.7%	-2.1	0.6

Minnesota State Board of Investment
 Quarter Ending December 31, 2020
 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>
Semi-Passive Large Cap										
BLACKROCK	\$1,526,564,074	5.3%	12.7%	23.1%	20.7%	14.7%	16.2%	14.7%	10.6%	01/1995
Semi Passive Domestic Equity Benchmark			13.7	24.5	21.0	14.8	15.6	14.0	10.2	01/1995
Excess			-1.0	-1.4	-0.3	-0.1	0.6	0.7	0.4	
J.P. MORGAN										
J.P. MORGAN	1,500,277,914	5.2	13.2	24.2	21.2	14.6	15.5	14.3	10.5	01/1995
Semi Passive Domestic Equity Benchmark			13.7	24.5	21.0	14.8	15.6	14.0	10.2	01/1995
Excess			-0.5	-0.3	0.3	-0.2	-0.1	0.3	0.3	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE										
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	3,026,841,988	10.6	13.0	23.6	21.0	14.6	15.4	14.2		
Semi Passive Domestic Equity Benchmark			13.7	24.5	21.0	14.8	15.6	14.0		
Excess			-0.7	-0.8	0.0	-0.2	-0.2	0.2		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Semi-Passive Large Cap					
BLACKROCK	30.4%	-4.1%	24.6%	12.5%	0.8%
Semi Passive Domestic Equity Benchmark	31.4	-4.8	21.7	12.1	0.9
Excess	-1.0	0.7	2.9	0.5	-0.1
J.P. MORGAN					
J.P. MORGAN	31.3	-5.4	21.8	12.3	0.8
Semi Passive Domestic Equity Benchmark	31.4	-4.8	21.7	12.1	0.9
Excess	-0.1	-0.6	0.1	0.2	-0.1
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE					
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	30.9%	-4.9%	22.5%	11.1	0.5
Semi Passive Domestic Equity Benchmark	31.4%	-4.8%	21.7%	12.1	0.9
Excess	-0.5%	-0.1%	0.8%	-1.0	-0.4



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Growth										
ARROWMARK	\$220,160,722	0.8%	31.4%	37.6%	21.9%	13.9%			18.6%	11/2016
Russell 2000 Growth			29.6	38.9	34.6	16.2			19.7	11/2016
Excess			1.8	-1.3	-12.8	-2.3			-1.2	
HOOD RIVER	314,997,773	1.1	30.9	50.1	61.7	23.2			24.1	11/2016
Russell 2000 Growth			29.6	38.9	34.6	16.2			19.7	11/2016
Excess			1.3	11.2	27.0	7.0			4.4	
RICE HALL JAMES	222,700,218	0.8	20.9	27.5	23.8	10.8			17.4	11/2016
Russell 2000 Growth			29.6	38.9	34.6	16.2			19.7	11/2016
Excess			-8.7	-11.4	-10.8	-5.4			-2.3	
WELLINGTON	347,773,475	1.2	31.7	39.6	33.1	16.9			20.3	11/2016
Russell 2000 Growth			29.6	38.9	34.6	16.2			19.7	11/2016
Excess			2.1	0.7	-1.5	0.7			0.6	
RUSSELL 2000 GROWTH AGGREGATE	1,105,632,189	3.9	29.1	39.4	35.4	16.6	15.1	11.9		
Russell 2000 Growth			29.6	38.9	34.6	16.2	16.4	13.5		
Excess			-0.5	0.5	0.8	0.4	-1.2	-1.6		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Small Cap Growth					
ARROWMARK	20.1%	0.9%	26.2%		
Russell 2000 Growth	28.5	-9.3	22.2		
Excess	-8.4	10.3	4.1		
HOOD RIVER	24.3	-7.0	21.3		
Russell 2000 Growth	28.5	-9.3	22.2		
Excess	-4.2	2.3	-0.9		
RICE HALL JAMES	18.0	-6.9	27.9		
Russell 2000 Growth	28.5	-9.3	22.2		
Excess	-10.5	2.4	5.8		
WELLINGTON	35.6	-11.6	22.6		
Russell 2000 Growth	28.5	-9.3	22.2		
Excess	7.1	-2.3	0.4		
RUSSELL 2000 GROWTH AGGREGATE	24.6%	-6.2%	22.0%	4.7	1.0
Russell 2000 Growth	28.5%	-9.3%	22.2%	11.3	-1.4
Excess	-3.9%	3.2%	-0.1%	-6.6	2.4



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Small Cap Value										
GOLDMAN SACHS	\$415,492,645	1.4%	31.2%	35.3%	2.4%	3.0%	8.9%	9.9%	8.9%	01/2004
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7	8.7	7.6	01/2004
Excess			-2.1	-1.5	-2.3	-0.7	-0.7	1.2	1.3	
HOTCHKIS AND WILEY	218,314,795	0.8	37.8	40.0	-0.2	0.8	5.8	8.3	7.4	01/2004
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7	8.7	7.6	01/2004
Excess			4.4	3.2	-4.8	-3.0	-3.9	-0.4	-0.2	
MARTINGALE	195,486,404	0.7	27.9	28.7	-4.6	-0.6	7.1	8.8	6.9	01/2004
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7	8.7	7.6	01/2004
Excess			-5.5	-8.1	-9.2	-4.3	-2.5	0.2	-0.7	
PEREGRINE	335,394,029	1.2	36.4	40.4	7.3	2.9	9.4	9.1	9.7	07/2000
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7	8.7	9.1	07/2000
Excess			3.0	3.7	2.7	-0.8	-0.3	0.4	0.6	
RUSSELL 2000 VALUE AGGREGATE	1,164,687,873	4.1	33.4	36.4	1.5	1.7	7.9	9.0		
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7	8.7		
Excess			0.0	-0.4	-3.1	-2.1	-1.7	0.3		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Small Cap Value					
GOLDMAN SACHS	23.2%	-13.3%	12.6%	24.6%	-5.2%
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5
Excess	0.8	-0.5	4.7	-7.1	2.3
HOTCHKIS AND WILEY	19.7	-14.4	7.9	19.9	-8.5
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5
Excess	-2.7	-1.5	0.0	-11.8	-1.0
MARTINGALE	21.1	-15.0	6.9	34.3	-5.2
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5
Excess	-1.3	-2.1	-0.9	2.5	2.3
PEREGRINE	21.1	-16.1	12.5	27.8	-6.7
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5
Excess	-1.3	-3.3	4.7	-3.9	0.8
RUSSELL 2000 VALUE AGGREGATE	21.3%	-14.7%	10.2%	26.5	-6.5
Russell 2000 Value	22.4%	-12.9%	7.8%	31.7	-7.5
Excess	-1.1%	-1.8%	2.3%	-5.2	1.0

Minnesota State Board of Investment
Quarter Ending December 31, 2020
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	\$20,217,350,591	70.5%	13.7%	24.5%	20.9%	14.8%			17.4%	11/2016
RUSSELL 1000 (DAILY)			13.7	24.5	21.0	14.8			17.4	11/2016
Excess			0.0	-0.0	-0.0	-0.0			-0.0	
BLACKROCK RUSSELL 2000	151,215,378	0.5	31.4	37.6	20.8				15.2	11/2018
RUSSELL 2000 (DAILY)			31.4	37.9	20.0				14.8	11/2018
Excess			0.0	-0.3	0.8				0.4	
BLACKROCK RUSSELL 3000 (1)	1,125,987,069	3.9	14.8	25.3	21.2	14.6	15.5%	13.8%	10.0	07/1995
Passive Manager Benchmark			14.7	25.2	20.9	14.5	15.4	13.8	9.9	07/1995
Excess			0.1	0.1	0.3	0.1	0.1	0.0	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	21,494,553,038	75.0	14.0	24.7	20.8	14.6	15.5	13.8		
Passive Domestic Equity Benchmark			14.0	24.7	20.8	14.6	15.5	13.8		
Excess			0.0	0.0	0.0	-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>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	31.4%	-4.8%	21.7%		
RUSSELL 1000 (DAILY)	31.4	-4.8	21.7		
Excess	0.0	-0.0	-0.0		
BLACKROCK RUSSELL 2000	25.2				
RUSSELL 2000 (DAILY)	25.5				
Excess	-0.3				
BLACKROCK RUSSELL 3000 (1)	31.1	-5.2	21.1	12.7%	0.5%
Passive Manager Benchmark	31.0	-5.2	21.1	12.7	0.5
Excess	0.0	-0.0	0.0	0.0	0.0
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	31.3%	-5.0%	21.3%	12.6	0.5
Passive Domestic Equity Benchmark	31.3%	-5.0%	21.5%	12.5	0.5
Excess	0.0%	-0.0%	-0.2%	0.1	0.0

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

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

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Public Equity - International

December 31, 2020



	<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)	\$9,453,049,443	67.1%	15.8%	22.3%	9.1%	4.9%	7.9%	5.9%		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.1	0.7	1.5	0.7	0.2	0.7		
EMERGING MARKETS (2)	4,262,687,920	30.3	20.2	31.9	17.7	6.2	12.2	3.3		
BENCHMARK EM			19.7	31.1	18.3	6.2	12.8	3.6		
Excess			0.5	0.8	-0.6	0.1	-0.7	-0.3		
ACWI EX-US AGGREGATE	379,242,942	2.7								
MSCI AC WORLD ex US (NET) - DAILY										
Excess										
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	971,351	0.0								
TOTAL INTERNATIONAL EQUITY (4)	14,078,161,450	100.0	16.9	24.8	11.3	5.2	8.8	5.4	6.7	10/1992
International Equity Benchmark			17.1	24.2	10.5	4.8	8.9	4.9	6.3	10/1992
Excess			-0.1	0.6	0.8	0.4	-0.1	0.5	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) On 12/1/20 the International Equity Benchmark changed to the MSCI ACWI ex USA (net) from a blend of 75% MSCI World ex USA (net) and 25% MSCI Emerging Markets Free (net).

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



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Total International Equity					
DEVELOPED MARKETS (1)	23.3%	-14.2%	24.9%	1.3%	-0.3%
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	0.8	-0.1	0.7	-1.5	2.8
EMERGING MARKETS (2)					
EMERGING MARKETS (2)	20.3	-15.4	37.7	7.5	-13.1
BENCHMARK EM	18.4	-14.6	37.3	11.2	-14.9
Excess	1.9	-0.8	0.4	-3.7	1.9
ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)					
TOTAL INTERNATIONAL EQUITY (4)					
TOTAL INTERNATIONAL EQUITY (4)	22.4%	-14.5%	27.6%	2.6	-2.9
International Equity Benchmark	21.5%	-14.2%	27.2%	4.5	-5.7
Excess	0.9%	-0.3%	0.4%	-1.8	2.8

(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) On 12/1/20 the International Equity Benchmark changed to the MSCI ACWI ex USA (net) from a blend of 75% MSCI World ex USA (net) and 25% MSCI Emerging Markets Free (net).

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	\$352,402,638	2.5%	13.6%	22.2%	11.7%	4.8%	11.3%	8.3%	6.9%	07/2005
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	07/2005
Excess			-2.3	0.6	4.2	0.6	3.6	3.1	1.6	
COLUMBIA	399,526,775	2.8	15.6	25.5	15.0	8.0	9.6	7.5	3.9	03/2000
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	3.8	03/2000
Excess			-0.2	4.0	7.4	3.8	2.0	2.3	0.1	
FIDELITY	375,331,310	2.7	15.4	24.3	15.4	7.8	9.8	7.3	7.2	07/2005
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	07/2005
Excess			-0.5	2.8	7.8	3.6	2.2	2.1	1.9	
JP MORGAN	333,871,351	2.4	15.8	23.9	14.2	6.6	10.1	6.4	6.0	07/2005
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	07/2005
Excess			-0.0	2.3	6.6	2.4	2.5	1.2	0.7	
MARATHON	394,310,147	2.8	17.1	25.6	7.6	4.8	7.0	7.0	8.1	11/1993
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	11/1993
Excess			1.3	4.1	0.1	0.6	-0.7	1.9	2.8	
MCKINLEY	275,400,354	2.0	12.6	23.6	16.4	7.1	7.9	6.4	5.6	07/2005
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	07/2005
Excess			-3.2	2.0	8.8	2.9	0.2	1.2	0.4	
ACTIVE DEVELOPED MARKETS AGGREGATE	2,130,842,574	15.1	15.1	24.2	13.1	6.5	9.1	7.2		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.8	2.7	5.6	2.3	1.5	2.0		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Developed Markets					
ACADIAN	19.1%	-13.5%	37.0%	8.1%	2.4%
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	-3.4	0.6	12.8	5.4	5.4
COLUMBIA	28.9	-14.9	32.7	-5.6	6.4
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	6.4	-0.8	8.5	-8.3	9.4
FIDELITY	27.1	-14.6	25.9	1.2	0.1
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	4.6	-0.5	1.7	-1.5	3.2
JP MORGAN	28.5	-17.3	28.3	4.0	-4.7
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	6.0	-3.3	4.1	1.2	-1.6
MARATHON	23.5	-13.4	23.1	-1.1	6.7
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	1.0	0.7	-1.1	-3.8	9.7
MCKINLEY	25.6	-15.9	28.5	-7.5	3.1
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	3.1	-1.9	4.3	-10.2	6.2
ACTIVE DEVELOPED MARKETS AGGREGATE	25.0%	-14.5%	28.4%	-0.2	3.2
BENCHMARK DM	22.5%	-14.1%	24.2%	2.7	-3.0
Excess	2.5%	-0.4%	4.2%	-3.0	6.2



	<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>
Semi-Passive Developed Markets										
AQR	\$388,256,439	2.8%	14.9%	22.5%	6.5%	1.7%	5.8%	5.1%	5.3%	07/2005
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2	5.3	07/2005
Excess			-0.9	0.9	-1.1	-2.5	-1.8	-0.0	0.0	
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE										
	388,256,439	2.8	14.9	22.5	6.5	1.5	5.2	4.6		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.9	0.9	-1.1	-2.7	-2.5	-0.6		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Semi-Passive Developed Markets					
AQR	20.8%	-18.2%	25.1%	0.8%	0.9%
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	-1.7	-4.1	0.9	-2.0	3.9
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	20.8%	-18.7%	23.3%	-0.4	-0.3
BENCHMARK DM	22.5%	-14.1%	24.2%	2.7	-3.0
Excess	-1.7%	-4.6%	-0.9%	-3.1	2.7



	<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>
Total Developed Markets										
ACTIVE DEVELOPED MARKETS AGGREGATE	\$2,130,842,574	15.1%	15.1%	24.2%	13.1%	6.5%	9.1%	7.2%		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.8	2.7	5.6	2.3	1.5	2.0		
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	388,256,439	2.8	14.9	22.5	6.5	1.5	5.2	4.6		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.9	0.9	-1.1	-2.7	-2.5	-0.6		
SSgA DEVELOPED MARKETS PASSIVE	\$6,933,950,430	49.3%	16.0%	21.8%	8.2%	4.6%	8.1%	5.6%	6.4%	10/1992
BENCHMARK DM			15.8%	21.5%	7.6%	4.2%	7.6%	5.2%	6.0%	10/1992
Excess			0.1%	0.2%	0.6%	0.4%	0.4%	0.4%	0.3%	
RECORD CURRENCY	-\$17,790,207	-0.1%								10/2020
DM PASSIVE EQUITY WITH CURRENCY MGMT	\$6,916,160,224	49.1%	15.7%	21.5%	8.0%	4.6%	7.9%	5.5%		10/1992
BENCHMARK DM			15.8%	21.5%	7.6%	4.2%	7.6%	5.2%		10/1992
Excess			-0.1%	-0.0%	0.4%	0.3%	0.2%	0.3%		
DEVELOPED MARKETS TOTAL	9,453,049,443	67.1	15.8	22.3	9.1	4.9	7.9	5.9		
BENCHMARK DM			15.8	21.5	7.6	4.2	7.6	5.2		
Excess			-0.1	0.7	1.5	0.7	0.2	0.7		

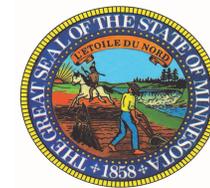


	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Total Developed Markets					
ACTIVE DEVELOPED MARKETS AGGREGATE	25.0%	-14.5%	28.4%	-0.2%	3.2%
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	2.5	-0.4	4.2	-3.0	6.2
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	20.8	-18.7	23.3	-0.4	-0.3
BENCHMARK DM	22.5	-14.1	24.2	2.7	-3.0
Excess	-1.7	-4.6	-0.9	-3.1	2.7
SSgA DEVELOPED MARKETS PASSIVE	23.0%	-13.9%	24.7%	3.2	-2.6
BENCHMARK DM	22.5%	-14.1%	24.2%	2.7	-3.0
Excess	0.5%	0.2%	0.5%	0.4	0.5
DM PASSIVE EQUITY WITH CURRENCY MGMT	23.0%	-13.9%	23.8%	3.3	-2.6
BENCHMARK DM	22.5%	-14.1%	24.2%	2.7	-3.0
Excess	0.5%	0.2%	-0.4%	0.5	0.5
DEVELOPED MARKETS TOTAL	23.3%	-14.2%	24.9%	1.3	-0.3
BENCHMARK DM	22.5%	-14.1%	24.2%	2.7	-3.0
Excess	0.8%	-0.1%	0.7%	-1.5	2.8



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Active Emerging Markets										
EARNEST PARTNERS	\$202,228,059	1.4%	21.6%	30.1%	5.6%	3.7%			8.6%	04/2017
MSCI EMERGING MARKETS (1)			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			1.9	-1.0	-12.7	-2.5			-2.3	
MARTIN CURRIE	519,788,435	3.7	21.5	37.4	26.5	10.3			16.3	04/2017
BENCHMARK EM			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			1.8	6.2	8.2	4.2			5.4	
MACQUARIE	502,188,860	3.6	16.7	31.8	24.2	9.9			14.0	04/2017
BENCHMARK EM			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			-3.0	0.6	5.9	3.7			3.1	
MORGAN STANLEY	614,403,486	4.4	18.2	31.2	15.7	5.1	11.2%	4.1%	9.8	01/2001
BENCHMARK EM			19.7	31.1	18.3	6.2	12.8	3.6	9.6	01/2001
Excess			-1.5	0.1	-2.6	-1.1	-1.7	0.5	0.2	
NEUBERGER BERMAN	426,939,659	3.0	17.4	26.5	14.2	4.2			10.0	04/2017
BENCHMARK EM			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			-2.3	-4.6	-4.1	-1.9			-0.9	
PZENA	338,361,628	2.4	28.5	34.5	7.7	2.9			6.4	04/2017
BENCHMARK EM			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			8.9	3.4	-10.6	-3.3			-4.5	
ROCK CREEK	474,487,251	3.4	20.1	32.5	22.0	7.1			10.7	04/2017
BENCHMARK EM			19.7	31.1	18.3	6.2			10.9	04/2017
Excess			0.4	1.4	3.7	0.9			-0.2	

(1) Earnest Partners transitioned its portfolio benchmark to the MSCI China A Index (Gross) by the end of December 2020. For aggregation purposes Earnest Partners is benchmarked against MSCI Emerging Markets (net) and included in the Active Emerging Markets Aggregate until 12/31/2020.



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Emerging Markets					
EARNEST PARTNERS	24.7%	-15.4%			
MSCI EMERGING MARKETS	18.4	-14.6			
Excess	6.3	-0.8			
MARTIN CURRIE	27.3	-16.6			
BENCHMARK EM	18.4	-14.6			
Excess	8.8	-2.0			
MACQUARIE	23.2	-13.3			
BENCHMARK EM	18.4	-14.6			
Excess	4.7	1.3			
MORGAN STANLEY	20.4	-16.7	37.9%	6.1%	-9.4%
BENCHMARK EM	18.4	-14.6	37.3	11.2	-14.9
Excess	1.9	-2.2	0.6	-5.1	5.5
NEUBERGER BERMAN	19.7	-17.1			
BENCHMARK EM	18.4	-14.6			
Excess	1.3	-2.6			
PZENA	13.4	-10.8			
BENCHMARK EM	18.4	-14.6			
Excess	-5.1	3.8			
ROCK CREEK	22.3	-17.6			
BENCHMARK EM	18.4	-14.6			
Excess	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	\$3,078,397,377	21.9%	20.5%	32.6%	17.3%	6.3%	11.7%	3.1%		
BENCHMARK EM			19.7	31.1	18.3	6.2	12.8	3.6		
Excess			0.8	1.4	-1.0	0.2	-1.1	-0.5		
SSGA EMERGING MARKETS PASSIVE	1,184,290,543	8.4	19.3	30.5	18.3	6.0	12.7		6.5	01/2012
BENCHMARK EM			19.7	31.1	18.3	6.2	12.8		6.4	01/2012
Excess			-0.4	-0.6	0.0	-0.1	-0.1		0.0	
EMERGING MARKETS TOTAL	4,262,687,920	30.3	20.2	31.9	17.7	6.2	12.2	3.3		
BENCHMARK EM			19.7	31.1	18.3	6.2	12.8	3.6		
Excess			0.5	0.8	-0.6	0.1	-0.7	-0.3		



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE	21.4%	-15.6%	37.2%	5.3%	-12.7%
BENCHMARK EM	18.4	-14.6	37.3	11.2	-14.9
Excess	3.0	-1.0	-0.1	-5.9	2.2
SSGA EMERGING MARKETS PASSIVE					
SSGA EMERGING MARKETS PASSIVE	18.1%	-14.7%	37.4%	11.1	-14.6
BENCHMARK EM	18.4%	-14.6%	37.3%	11.2	-14.9
Excess	-0.3%	-0.1%	0.1%	-0.1	0.3
EMERGING MARKETS TOTAL					
EMERGING MARKETS TOTAL	20.3%	-15.4%	37.7%	7.5	-13.1
BENCHMARK EM	18.4%	-14.6%	37.3%	11.2	-14.9
Excess	1.9%	-0.8%	0.4%	-3.7	1.9



	<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>
Active ACWI ex-US										
Earnest Partners ACWI ex US	\$379,242,942	2.7%								
MSCI AC WORLD ex US (NET) - DAILY										
Excess										
TOTAL ACWI EX-US AGGREGATE										
	379,242,942	2.7								
MSCI AC WORLD ex US (NET) - DAILY										
Excess										

Note: Earnest Partners ACWI ex US was funded mid-December 2020 and will have its reporting period start on 1/1/21.



Public Equity - Global

December 31, 2020



	<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	\$344,354,910	32.7%								
MSCI AC WORLD NET USD DAILY										
Excess										
BAILLIE GIFFORD	316,036,250	30.0								
MSCI AC WORLD NET USD DAILY										
Excess										
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	393,271,033	37.3								
MSCI AC WORLD NET USD DAILY										
Excess										
GLOBAL EQUITY	1,053,662,193	100.0								
MSCI AC WORLD NET USD DAILY										
Excess										

Note: The Global Equity managers were funded mid-December 2020 and will have a reporting period start of 1/1/21.



Fixed Income - Core/Core Plus December 31, 2020



	<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/Core Plus Bonds										
CORE (1)	\$1,727,491,482	39.0%								
BBG BARC Agg (Dly)										
Excess										
CORE PLUS (1)	2,706,238,489	61.0								
BBG BARC Agg (Dly)										
Excess										
TRANSITION AGGREGATE CORE BONDS (2)	19,032	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	4,433,749,003	100.0	1.9	3.2	9.7	6.4	5.4	4.6	7.6	07/1984
Fixed Income Benchmark			0.7	1.3	7.5	5.3	4.4	3.8	7.1	07/1984
Excess			1.2	1.9	2.2	1.0	0.9	0.7	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/Core Plus Benchmark is the Bloomberg Barclays U.S. Aggregate calculated daily: BBG BARC Agg (Dly). 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>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Core/Core Plus Bonds					
CORE (1)					
BBG BARC Agg (Dly)					
Excess					
CORE PLUS (1)					
BBG BARC Agg (Dly)					
Excess					
TRANSITION AGGREGATE CORE BONDS (2)					
TOTAL CORE/CORE PLUS BONDS (3)	9.7%	-0.0%	4.2%	3.6	0.7
Fixed Income Benchmark	8.7%	0.0%	3.5%	2.6	0.5
Excess	1.0%	-0.1%	0.7%	0.9	0.1

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

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

(3) The current Core/Core Plus Benchmark is the Bloomberg Barclays U.S. Aggregate calculated daily: BBG BARC Agg (Dly). 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 Bonds										
DODGE & COX	\$1,072,119,823	24.2%	2.4%	3.7%	9.4%	6.2%	5.5%	4.8%	6.2%	02/2000
BBG BARC Agg (Dly)			0.7	1.3	7.5	5.3	4.4	3.8	5.2	02/2000
Excess			1.7	2.5	1.8	0.9	1.1	1.0	1.0	
BLACKROCK	655,371,659	14.8	0.8	1.7	8.3	5.7	4.7	4.1	5.4	04/1996
BBG BARC Agg (Dly)			0.7	1.3	7.5	5.3	4.4	3.8	5.3	04/1996
Excess			0.1	0.4	0.8	0.4	0.3	0.3	0.1	
CORE	1,727,491,482	39.0								
BBG BARC Agg (Dly)										
Excess										



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Active Core Bonds					
DODGE & COX	9.6%	-0.0%	4.2%	4.8%	0.3%
BBG BARC Agg (Dly)	8.7	0.0	3.5	2.6	0.5
Excess	0.9	-0.1	0.7	2.2	-0.3
BLACKROCK					
BBG BARC Agg (Dly)	8.7	0.0	3.5	2.6	0.5
Excess	0.6	-0.2	0.1	0.1	0.3

CORE					
BBG BARC Agg (Dly)					
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	\$812,275,907	18.3%	1.3%	2.3%	9.0%	6.1%	5.0%	4.4%	5.7%	07/1993
BBG BARC Agg (Dly)			0.7	1.3	7.5	5.3	4.4	3.8	5.3	07/1993
Excess			0.6	1.0	1.5	0.8	0.6	0.5	0.4	
NEUBERGER	869,632,516	19.6	2.2	2.8	9.9	6.2	5.0	4.2	6.5	07/1988
BBG BARC Agg (Dly)			0.7	1.3	7.5	5.3	4.4	3.8	6.2	07/1988
Excess			1.5	1.5	2.4	0.9	0.5	0.4	0.3	
WESTERN	1,024,330,067	23.1	2.7	4.6	10.9	7.1	6.4	5.3	8.4	07/1984
BBG BARC Agg (Dly)			0.7	1.3	7.5	5.3	4.4	3.8	7.2	07/1984
Excess			2.0	3.3	3.4	1.8	1.9	1.4	1.2	
CORE PLUS	2,706,238,489	61.0								
BBG BARC Agg (Dly)										
Excess										



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Core Plus Bonds					
GOLDMAN SACHS	9.6%	-0.0%	3.9%	3.0%	0.8%
BBG BARC Agg (Dly)	8.7	0.0	3.5	2.6	0.5
Excess	0.9	-0.0	0.4	0.3	0.2
NEUBERGER	9.0	-0.1	3.6	2.7	0.7
BBG BARC Agg (Dly)	8.7	0.0	3.5	2.6	0.5
Excess	0.3	-0.1	0.0	0.1	0.2
WESTERN ASSET MANAGEMENT	11.1	-0.2	5.6	4.9	0.7
BBG BARC Agg (Dly)	8.7	0.0	3.5	2.6	0.5
Excess	2.4	-0.3	2.1	2.2	0.1

CORE PLUS

BBG BARC Agg (Dly)

Excess

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Fixed Income - Return Seeking

December 31, 2020

Minnesota State Board of Investment
Quarter Ending December 31, 2020
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	\$925,827,845	26.1%							1.1%	12/2020
Credit Plus Benchmark									0.7	12/2020
Excess									0.3	
PIMCO	810,810,706	22.9							0.8	12/2020
Credit Plus Benchmark									0.7	12/2020
Excess									0.1	
CREDIT PLUS	1,736,638,550	48.9							1.0	12/2020
Credit Plus Benchmark									0.7	12/2020
Excess									0.2	
BLACKROCK	504,519,551	14.2							0.7	12/2020
ICE BofA US 3-Month Treasury Bill									0.0	12/2020
Excess									0.7	
OPPORTUNISTIC FIXED INCOME	504,519,551	14.2							0.7	12/2020
ICE BofA US 3-Month Treasury Bill									0.0	12/2020
Excess									0.7	
ASHMORE	251,702,992	7.1								
JPM JEMB Sovereign-only 50-50										
Excess										
EMERGING MARKET DEBT	251,702,992	7.1								
Emerging Market Debt Benchmark										
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>
Return Seeking Bonds Managers										
PAYDEN RYGEL	\$251,067,597	7.1%								
Multi-Asset Credit Benchmark										
Excess										
PGIM	251,106,037	7.1								
Multi-Asset Credit Benchmark										
Excess										
Multi-Asset Credit	502,173,633	14.2								
Multi-Asset Credit Benchmark										
Excess										
KKR	301,223,503	8.5								
ICE BofA US Cash Pay HY Constrained										
Excess										
OAKTREE	251,717,122	7.1								
ICE BofA US Cash Pay HY Constrained										
Excess										
High Yield	552,940,625	15.6								
ICE BofA US Cash Pay HY Constrained										
Excess										
RETURN SEEKING FIXED INCOME	3,547,975,353	100.0							0.9	12/2020
Return Seeking BM									0.6	12/2020
Excess									0.3	

Note: All Return Seeking Bonds Managers are included in the ending market value but only Columbia, Pimco and BlackRock are included in the return calculation. The other managers were funded mid-December 2020 and will have a reporting period start on 1/1/21.

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Fixed Income - Treasuries

December 31, 2020



	<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	\$2,423,240,907	31.9%	-1.8%	-1.5%	12.5%				8.6%	02/2018
BBG BARC 5Y + Us Tsy Idx			-1.9	-1.6	12.8				8.7	02/2018
Excess			0.0	0.1	-0.3				-0.2	
GOLDMAN SACHS	2,580,200,662	34.0	-1.7	-1.3	12.7				8.7	02/2018
BBG BARC 5Y + Us Tsy Idx			-1.9	-1.6	12.8				8.7	02/2018
Excess			0.2	0.4	-0.1				-0.0	
NEUBERGER	2,592,186,589	34.1	-1.6	-1.1	12.8				8.6	02/2018
BBG BARC 5Y + Us Tsy Idx			-1.9	-1.6	12.8				8.7	02/2018
Excess			0.2	0.5	-0.1				-0.1	
TREASURIES TRANSITION ACCOUNT	0	0.0								
TOTAL TREASURIES	7,595,628,157	100.0	-1.7	-1.3	12.7				8.6%	02/2018
BBG BARC 5Y + Us Tsy Idx			-1.9	-1.6	12.8				8.7%	02/2018
Excess			0.2	0.3	-0.2				-0.1%	



	<u>2019 Calendar Return</u>	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>
Treasuries Managers					
BLACKROCK	10.4%				
BBG BARC 5Y + Us Tsy Idx	10.4				
Excess	-0.1				
GOLDMAN SACHS					
	10.6				
BBG BARC 5Y + Us Tsy Idx	10.4				
Excess	0.1				
NEUBERGER					
	10.4				
BBG BARC 5Y + Us Tsy Idx	10.4				
Excess	-0.0				
TOTAL TREASURIES					
	10.4%				
BBG BARC 5Y + Us Tsy Idx	10.4%				
Excess	0.0%				

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Fixed Income - Laddered Bonds + Cash

December 31, 2020

Minnesota State Board of Investment
Quarter Ending December 31, 2020
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	\$1,360,955,839	37.9%							0.1%	11/2020
ICE BofA US 3-Month Treasury Bill									0.0	11/2020
Excess									0.0	
Goldman Sachs Ladder Bond	1,360,610,956	37.8							0.0	11/2020
ICE BofA US 3-Month Treasury Bill									0.0	11/2020
Excess									0.0	
Treasury Ladder Aggregate	2,721,566,795	75.7							0.0	11/2020
ICE BofA US 3-Month Treasury Bill									0.0	11/2020
Excess									0.0	
COMBINED PLAN CASH ACCOUNT (1)	828,624,116	23.0	0.2%							10/2020
iMoneyNet Money Fund Average-All Taxable			0.0							10/2020
Excess			0.2							
TEACHERS RETIREMENT CD REPO (1)	45,146,946	1.3	0.0							10/2020
iMoneyNet Money Fund Average-All Taxable			0.0							10/2020
Excess			0.0							
Laddered Bond + Cash	3,595,337,857	100.0	0.1							
ICE BofA US 3-Month Treasury Bill			0.0							
Excess			0.1							

(1) Prior to 10/1/2020 the returns for the cash accounts was not reported in this format.



Private Markets - Uninvested

December 31, 2020

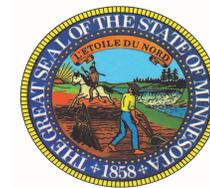


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
Uninvested Private Markets Managers										
NISA PRIVATE MKT UNINV OVERLAY	\$2,156,999,215	29.0%								
S&P 500 INDEX (DAILY)										
Excess										
BLACKROCK SP INDEX	5,293,158,075	71.0								
S&P 500 INDEX (DAILY)										
Excess										
UNINVESTED PRIVATE PMARKETS	7,450,157,290	100.0								
S&P 500 INDEX (DAILY)										
Excess										



Private Markets - Invested

December 31, 2020



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	8.7%	15.3%	7.7%	9.9%	11.1%	11.5%	11.4%	13.4%	12.2%
Private Markets - Uninvested (S&P 500)									
Private Equity	12.2%	21.0%	16.3%	15.7%	16.1%	15.1%	12.3%	15.5%	
Private Credit	1.8	5.8	1.4	7.7	10.6	11.6	11.3		
Resources	1.6	3.9	-16.3	-6.4	-3.0	1.4	11.6	12.6	
Real Estate	3.8	6.4	4.4	8.4	8.5	11.1	8.4	9.6	

Private Markets

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

Private Equity Investments

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

Private Credit Investments

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

Resource Investments

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

Real Estate Investments

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

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

Minnesota State Board of Investment
- Alternative Investments -
As of December 31, 2020

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	16,970,973,939.34	11,438,172,333.68	10,374,067,579.99	6,556,319,326.72	7,689,249,774.39	1.58	12.72	
Adams Street Partners, LLC	200,000,000.00	123,314,692.00	55,101,639.00	76,685,308.00	95,538,658.92	1.22	7.00	
Adams Street Global Secondary Fund 5 LP	100,000,000.00	77,114,692.00	48,900,493.00	22,885,308.00	45,033,450.50	1.22	5.13	2012
Adams Street Global Secondary Fund 6	100,000,000.00	46,200,000.00	6,201,146.00	53,800,000.00	50,505,208.42	1.23	23.35	2017
Advent International Group	355,000,000.00	274,846,106.00	199,468,558.00	83,237,848.00	261,370,449.10	1.68	16.11	
Advent International GPE IX	115,000,000.00	42,262,150.00	0.00	72,737,850.00	50,822,348.48	1.20	26.36	2019
Advent International GPE VI-A, L.P.	50,000,000.00	52,993,313.00	101,973,095.00	0.00	6,122,729.27	2.04	16.65	2008
Advent International GPE VII, L.P.	90,000,000.00	84,690,641.00	97,495,463.00	5,400,000.00	58,053,696.07	1.84	14.64	2012
Advent International GPE VIII-B	100,000,000.00	94,900,002.00	0.00	5,099,998.00	146,371,675.28	1.54	17.14	2016
Affinity Ventures	9,000,000.00	9,000,000.00	3,248,214.55	0.00	1,240,459.61	0.50	-12.61	
Affinity Ventures IV, L.P.	4,000,000.00	4,000,000.00	1,541,969.68	0.00	3,278.67	0.39	-41.00	2004
Affinity Ventures V, L.P.	5,000,000.00	5,000,000.00	1,706,244.87	0.00	1,237,180.94	0.59	-8.98	2008
Apax Partners	500,000,000.00	383,094,267.88	322,479,436.59	172,311,750.02	329,873,490.12	1.70	17.73	
Apax IX USD L.P.	150,000,000.00	147,859,962.69	10,228,177.24	12,368,214.55	221,265,709.67	1.57	23.00	2016
APAX VIII - USD	200,000,000.00	233,434,305.19	312,251,259.35	11,743,535.47	106,053,697.83	1.79	16.46	2013
Apax X USD L.P.	150,000,000.00	1,800,000.00	0.00	148,200,000.00	2,554,082.62	1.42	41.89	2019
Arsenal Capital Partners	75,000,000.00	45,246,688.00	2,219,877.00	31,876,652.00	45,320,756.12	1.05	5.24	
Arsenal Capital Partners V, L.P.	75,000,000.00	45,246,688.00	2,219,877.00	31,876,652.00	45,320,756.12	1.05	5.24	2019
Asia Alternatives	299,000,000.00	55,633,461.00	2,837,699.00	244,350,891.00	54,264,090.01	1.03	2.47	
Asia Alternatives Capital Partners V	99,000,000.00	55,633,461.00	2,837,699.00	44,350,891.00	54,264,090.01	1.03	2.47	2017
MN Asia Investors	200,000,000.00	0.00	0.00	200,000,000.00	0.00	0.00	0.00	2020
Banc Fund	276,801,386.55	264,844,295.64	209,219,835.10	11,957,090.91	142,581,382.47	1.33	7.36	
Banc Fund IX, L.P.	107,205,932.00	107,205,932.00	19,549,737.35	0.00	86,242,026.41	0.99	-0.33	2014
Banc Fund VIII, L.P.	98,250,000.00	98,250,000.00	189,670,097.75	0.00	9,014,431.95	2.02	12.04	2008
Banc Fund X, L.P.	71,345,454.55	59,388,363.64	0.00	11,957,090.91	47,324,924.11	0.80	-17.28	2018
BlackRock	250,000,000.00	106,555,839.96	2,660,744.66	143,444,160.04	122,154,016.59	1.17	11.00	
BlackRock Long Term Capital, SCSP	250,000,000.00	106,555,839.96	2,660,744.66	143,444,160.04	122,154,016.59	1.17	11.00	2019
Blackstone Group L.P.	840,000,000.00	477,742,607.55	568,152,647.94	430,738,923.08	208,942,127.00	1.63	15.39	
Blackstone Capital Partners IV, L.P.	70,000,000.00	84,459,883.57	200,025,997.73	1,832,302.08	1,542,414.10	2.39	37.02	2002
Blackstone Capital Partners V L.P.	140,000,000.00	152,334,232.28	239,185,175.57	7,027,560.42	4,281,867.69	1.60	7.90	2006
Blackstone Capital Partners VI, L.P.	100,000,000.00	106,152,089.86	113,824,807.01	11,175,309.23	58,814,291.16	1.63	11.81	2008
Blackstone Capital Partners VII	130,000,000.00	134,796,401.84	15,116,667.63	10,703,751.35	144,303,554.05	1.18	9.81	2015
Blackstone Capital Partners VIII LP	150,000,000.00	0.00	0.00	150,000,000.00	0.00	0.00	0.00	2019
Blackstone Growth	250,000,000.00	0.00	0.00	250,000,000.00	0.00	0.00	0.00	2020
Blackstone Strategic Partners	815,500,000.00	570,526,171.79	644,840,541.91	309,362,654.43	181,295,360.23	1.45	10.21	
Strategic Partners III VC, L.P.	25,000,000.00	25,056,898.97	33,788,877.46	1,010,804.31	376,102.55	1.36	5.99	2004
Strategic Partners III-B, L.P.	100,000,000.00	79,581,947.61	118,286,610.74	14,851,675.77	394,388.02	1.49	6.35	2004
Strategic Partners IV VC, L.P.	40,500,000.00	42,113,513.60	60,558,526.94	2,309,316.11	3,011,181.07	1.51	9.05	2008
Strategic Partners IV-B	100,000,000.00	99,291,020.64	147,370,440.18	17,529,308.03	6,896,983.18	1.55	12.12	2008
Strategic Partners V, LP	100,000,000.00	86,835,512.53	124,947,624.04	35,262,293.30	14,262,821.38	1.60	18.51	2011
Strategic Partners VI, L.P.	150,000,000.00	100,778,759.69	106,055,253.08	55,567,937.43	36,198,736.72	1.41	13.71	2014
Strategic Partners VII, L.P.	150,000,000.00	102,822,746.65	48,958,209.47	62,072,495.77	80,343,332.11	1.26	11.04	2016
Strategic Partners VIII	150,000,000.00	34,045,772.10	4,875,000.00	120,758,823.71	39,811,815.20	1.31	26.97	2018
Bridgepoint	177,498,634.41	69,134,009.80	13,311,036.26	108,364,624.61	70,751,147.68	1.22	25.75	

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Bridgepoint Europe VI L.P.	177,498,634.41	69,134,009.80	13,311,036.26	108,364,624.61	70,751,147.68	1.22	25.75	2018
Brookfield Asset Management Inc.	350,000,000.00	194,810,049.11	133,817,792.76	175,591,517.91	201,311,213.93	1.72	44.92	
Brookfield Capital Partners Fund IV	100,000,000.00	98,968,057.54	133,817,792.76	21,433,509.48	102,468,026.24	2.39	51.31	2015
Brookfield Capital Partners V L.P.	250,000,000.00	95,841,991.57	0.00	154,158,008.43	98,843,187.69	1.03	3.54	2018
CVC Capital Partners	395,126,603.61	424,349,522.89	426,578,895.11	41,088,404.17	284,603,009.09	1.68	15.73	
CVC Capital Partners VI	261,062,820.02	270,536,477.61	134,136,811.22	39,340,882.47	277,286,681.77	1.52	13.95	2013
CVC European Equity Partners V, L.P.	134,063,783.59	153,813,045.28	292,442,083.89	1,747,521.70	7,316,327.32	1.95	16.83	2008
Cardinal Partners	10,000,000.00	10,000,000.00	39,196,082.23	0.00	30,659.00	3.92	10.61	
DSV Partners IV	10,000,000.00	10,000,000.00	39,196,082.23	0.00	30,659.00	3.92	10.61	1985
Carlyle Group	150,000,000.00	73,607,469.00	4,013,081.00	80,405,612.00	65,538,291.92	0.94	-5.35	
Carlyle Partners VII, L.P.	150,000,000.00	73,607,469.00	4,013,081.00	80,405,612.00	65,538,291.92	0.94	-5.35	2017
Chicago Growth Partners	110,000,000.00	106,497,626.00	193,069,552.29	3,302,374.00	1,047,707.95	1.82	12.48	
Chicago Growth Partners II, L.P.	60,000,000.00	58,347,626.00	123,371,040.00	1,652,374.00	542,481.50	2.12	19.55	2008
William Blair Capital Partners VII, L.P.	50,000,000.00	48,150,000.00	69,698,512.29	1,650,000.00	505,226.45	1.46	8.58	2001
Court Square	500,000,000.00	394,122,863.00	435,664,827.00	142,635,939.00	216,647,001.94	1.66	13.69	
Court Square Capital Partners II, L.P.	175,000,000.00	170,245,186.00	295,260,304.00	16,396,790.00	9,744,281.12	1.79	12.56	2006
Court Square Capital Partners III, L.P.	175,000,000.00	184,101,141.00	136,401,588.00	12,081,239.00	163,093,838.88	1.63	16.95	2012
Court Square Capital Partners IV, L.P.	150,000,000.00	39,776,536.00	4,002,935.00	114,157,910.00	43,808,881.94	1.20	22.27	2018
Crescendo	101,500,000.00	103,101,226.00	57,982,653.94	0.00	274,403.70	0.57	-4.61	
Crescendo Ventures IV	101,500,000.00	103,101,226.00	57,982,653.94	0.00	274,403.70	0.57	-4.61	2000
GTCR	210,000,000.00	209,762,417.00	365,405,587.30	15,514,972.00	113,363,465.55	2.28	24.96	
GTCR Fund X	100,000,000.00	104,934,096.00	202,619,633.30	6,751,396.00	6,163,671.52	1.99	21.11	2010
GTCR XI	110,000,000.00	104,828,321.00	162,785,954.00	8,763,576.00	107,199,794.03	2.58	32.90	2013
Goldman, Sachs & Co.	549,800,000.00	396,047,630.81	383,894,381.02	184,956,023.37	189,353,126.70	1.45	13.56	
GS Capital Partners V, L.P.	100,000,000.00	74,319,006.00	191,435,136.00	1,041,099.00	1,097,949.00	2.59	18.25	2005
GS Capital Partners VI, L.P.	100,000,000.00	110,258,192.00	134,253,920.00	2,551,356.00	9,701,265.75	1.31	7.09	2007
GS China-US Cooperation Fund	99,800,000.00	15,144,445.00	0.00	84,830,000.00	11,154,730.83	0.74	-18.50	2018
GS Vintage VII	100,000,000.00	79,866,512.81	27,865,036.02	48,118,662.37	72,541,149.94	1.26	12.34	2016
West Street Capital Partners VII, L.P.	150,000,000.00	116,459,475.00	30,340,289.00	48,414,906.00	94,858,031.18	1.08	4.78	2016
Goldner Hawn Johnson & Morrison	77,755,137.50	28,476,830.35	12,806,955.48	49,450,274.41	37,919,378.61	1.78	14.44	
GHJM TrailHead Fund	20,000,000.00	16,070,803.36	12,806,955.48	3,935,812.65	25,464,111.58	2.38	15.15	2012
Goldner Hawn Fund VII, L.P.	57,755,137.50	12,406,026.99	0.00	45,514,461.76	12,455,267.03	1.00	0.43	2018
Green Equity Investors	325,000,000.00	236,546,461.57	165,677,228.52	124,997,330.35	237,926,288.25	1.71	14.25	
Green Equity Investors VI, L.P.	200,000,000.00	220,093,989.57	165,677,228.52	16,449,802.35	221,600,072.52	1.76	14.26	2012
Green Equity Investors VIII	125,000,000.00	16,452,472.00	0.00	108,547,528.00	16,326,215.73	0.99	-2.79	2020
HarbourVest*	21,683,349.30	20,931,185.31	21,298,740.75	838,305.24	8,152,838.46	1.41	11.51	
Dover Street VII Cayman Fund L.P.	2,198,112.00	2,073,906.00	1,662,612.00	132,416.00	202,972.85	0.90	-4.72	2014
HarbourVest Intl PE Partners V-Cayman US	3,536,372.85	3,345,451.64	4,099,860.80	195,767.99	447,692.31	1.36	14.06	2014
Harbourvest Intl PE Partners VI-Cayman	4,251,255.44	4,039,119.67	3,545,249.95	214,121.24	3,550,355.36	1.76	15.75	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711.00	4,387,189.00	5,055,020.00	156,000.00	924,562.25	1.36	12.87	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898.00	7,085,519.00	6,935,998.00	140,000.00	3,027,255.69	1.41	10.06	2014
Hellman & Friedman	400,000,000.00	300,965,118.00	438,758,078.35	99,518,164.00	117,974,414.51	1.85	14.68	
Hellman & Friedman Capital Partners VI, L.P.	175,000,000.00	171,037,755.00	315,233,005.35	5,084,864.00	3,067,573.73	1.86	12.91	2007
Hellman & Friedman Capital Partners VII, L.P.	50,000,000.00	49,856,571.00	123,525,073.00	2,245,784.00	31,191,946.97	3.10	24.73	2009
Hellman & Friedman Investors IX, L.P.	175,000,000.00	80,070,792.00	0.00	92,187,516.00	83,714,893.81	1.05	9.67	2018
IK Limited	516,750,102.77	354,856,585.80	317,599,131.81	169,498,502.39	223,581,633.73	1.53	13.37	

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
IK Fund IX	164,956,434.88	4,917,603.41	0.00	160,038,455.05	2,316,342.00	0.47	-98.05	2019
IK Fund VII	180,988,230.50	178,082,352.52	215,835,488.36	9,279,735.90	93,700,954.15	1.74	13.50	2013
IK Fund VIII	170,805,437.39	171,856,629.87	101,763,643.45	180,311.44	127,564,337.58	1.33	13.58	2016
Kohlberg, Kravis, Roberts & Co.	900,000,000.00	634,038,843.00	783,693,890.00	307,845,122.00	294,996,360.03	1.70	12.98	
KKR 2006 Fund L.P.	200,000,000.00	218,952,993.00	341,385,674.00	3,300,979.00	43,620,489.53	1.76	9.01	2006
KKR Americas Fund XII L.P.	150,000,000.00	96,440,792.00	4,217,501.00	60,699,138.00	127,706,549.11	1.37	18.94	2016
KKR Asian Fund III	100,000,000.00	72,152,965.00	13,144,687.00	35,169,528.00	78,878,193.22	1.28	19.65	2017
KKR Asian Fund IV	150,000,000.00	0.00	0.00	150,000,000.00	0.00	0.00		2020
KKR Europe V	100,000,000.00	41,324,523.00	0.00	58,675,477.00	44,629,203.78	1.08	14.73	2018
KKR Millennium Fund	200,000,000.00	205,167,570.00	424,946,028.00	0.00	161,924.39	2.07	16.37	2002
Lexington Partners	1,200,000,000.00	680,502,231.00	523,694,084.00	568,266,574.82	427,435,596.67	1.40	11.90	
Lexington Capital Partners IX, L.P.	150,000,000.00	37,724,234.00	7,877,184.00	117,713,253.00	40,238,404.42	1.28	79.24	2018
Lexington Capital Partners VI-B, L.P.	100,000,000.00	98,374,022.00	140,507,375.01	1,634,703.00	5,329,391.71	1.48	7.88	2005
Lexington Capital Partners VII, L.P.	200,000,000.00	172,466,709.00	237,182,550.99	38,059,995.00	37,026,651.45	1.59	14.15	2009
Lexington Capital Partners VIII, L.P.	150,000,000.00	134,716,285.00	87,554,133.00	33,785,551.99	95,100,996.13	1.36	14.40	2014
Lexington Co-Investment Partners IV	200,000,000.00	196,831,669.00	45,469,492.00	17,462,383.83	212,270,366.47	1.31	16.19	2017
Lexington Co-Investment Partners V	300,000,000.00	0.00	0.00	300,000,000.00	0.00	0.00		2020
Lexington Middle Market Investors IV	100,000,000.00	40,389,312.00	5,103,349.00	59,610,688.00	37,469,786.49	1.05	6.99	2016
Madison Dearborn Capital Partners LLC	200,000,000.00	104,244,870.00	12,709,639.00	108,428,022.00	115,705,644.42	1.23	10.01	
Madison Dearborn Capital Partners VII, L.P.	100,000,000.00	92,241,775.00	12,709,639.00	20,431,117.00	102,583,955.90	1.25	9.64	2015
Madison Dearborn Capital Partners VIII-A, L.P.	100,000,000.00	12,003,095.00	0.00	87,996,905.00	13,121,688.52	1.09	9.32	2019
Neuberger Berman LLC	625,000,000.00	277,426,781.79	168,899,617.94	480,152,166.48	190,512,821.52	1.31	23.41	
Dyal Capital Partners III	175,000,000.00	189,172,342.80	154,887,797.83	104,759,374.14	108,933,161.75	1.39	24.32	2015
Dyal Capital Partners IV	250,000,000.00	77,254,438.99	14,011,820.11	186,392,792.34	70,579,659.77	1.09	16.06	2018
Dyal Capital Partners V	200,000,000.00	11,000,000.00	0.00	189,000,000.00	11,000,000.00	1.00		2020
Nordic Capital	517,487,489.97	334,687,344.13	178,775,916.84	255,195,924.79	317,975,681.69	1.48	16.16	
Nordic Capital Fund VIII	178,614,166.48	209,887,520.06	174,001,905.16	41,122,425.37	143,917,382.67	1.51	13.16	2013
Nordic Capital Fund X	165,179,244.60	0.00	0.00	165,179,244.60	0.00	0.00		2020
Nordic Capital IX Beta, L.P.	173,694,078.89	124,799,824.07	4,774,011.68	48,894,254.82	174,058,299.02	1.43	47.96	2017
North Sky Capital*	2,454,339.00	1,998,089.00	2,260,406.13	456,250.00	476,649.74	1.37	12.32	
North Sky Capital LBO Fund III, LP	1,070,259.00	720,259.00	890,943.41	350,000.00	172,431.97	1.48	14.16	2014
North Sky Capital Venture Fund III, LP	1,384,080.00	1,277,830.00	1,369,462.72	106,250.00	304,217.77	1.31	11.10	2014
Oak Hill Capital Management, Inc.	250,000,000.00	156,831,197.95	104,755,534.23	114,965,237.55	100,311,584.10	1.31	21.85	
Oak Hill Capital Partners IV Onshore LP	150,000,000.00	145,591,858.70	104,755,534.23	26,204,576.80	93,584,434.94	1.36	23.68	2016
Oak Hill Capital Partners V	100,000,000.00	11,239,339.25	0.00	88,760,660.75	6,727,149.16	0.60	-40.15	2018
Paine & Partners, LLC	225,000,000.00	87,876,776.00	35,529,483.00	138,747,516.97	69,667,966.98	1.20	7.43	
Paine Schwartz Food Chain Fund IV	75,000,000.00	63,736,766.00	34,978,344.00	12,336,387.97	48,628,874.98	1.31	8.83	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000.00	24,140,010.00	551,139.00	126,411,129.00	21,039,092.00	0.89	-17.08	2018
Permal PE*	5,337,098.00	4,386,677.43	3,831,251.28	1,090,000.00	818,416.83	1.06	2.30	
Glouston Private Equity Opportunities IV	5,337,098.00	4,386,677.43	3,831,251.28	1,090,000.00	818,416.83	1.06	2.30	2014
Permira	467,570,937.23	357,481,668.21	266,860,124.68	148,373,152.44	465,605,373.87	2.05	23.49	
Permira V, L.P.	179,113,420.33	181,290,272.30	238,732,308.98	19,807,035.80	236,418,986.70	2.62	23.51	2013
Permira VI, L.P.	139,536,556.17	122,910,380.82	28,127,815.70	32,926,171.00	169,003,933.92	1.60	23.19	2016
Permira VII L.P.1	148,920,960.73	53,281,015.09	0.00	95,639,945.64	60,182,453.25	1.13	23.84	2019
Public Pension Capital Management	175,000,000.00	87,768,185.84	78,311,483.10	100,062,710.24	80,767,806.67	1.81	23.25	
Public Pension Capital, LLC	175,000,000.00	87,768,185.84	78,311,483.10	100,062,710.24	80,767,806.67	1.81	23.25	2014

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Silver Lake Partners	435,000,000.00	406,867,451.93	457,880,840.15	37,610,175.11	338,696,780.01	1.96	15.57	
Silver Lake Partners II, L.P.	100,000,000.00	90,200,746.70	171,694,975.15	11,771,953.34	85,376.00	1.90	11.02	2004
Silver Lake Partners III, L.P.	100,000,000.00	93,699,368.23	187,575,747.00	9,422,179.77	23,375,328.15	2.25	18.46	2007
Silver Lake Partners IV	100,000,000.00	113,099,700.00	97,461,894.00	4,168,036.00	147,635,795.87	2.17	25.37	2012
Silver Lake Partners V, L.P.	135,000,000.00	109,867,637.00	1,148,224.00	12,248,006.00	167,600,279.99	1.54	32.39	2017
Split Rock	110,000,000.00	107,055,906.00	121,560,810.00	2,944,094.00	24,808,996.02	1.37	4.67	
Split Rock Partners II, LP	60,000,000.00	59,165,000.00	62,766,618.00	835,000.00	20,395,327.36	1.41	6.47	2008
Split Rock Partners LP	50,000,000.00	47,890,906.00	58,794,192.00	2,109,094.00	4,413,668.66	1.32	3.38	2005
Summit Partners	350,000,000.00	300,551,297.27	244,620,901.27	127,793,880.00	273,742,933.65	1.72	27.36	
Summit Partners Growth Equity Fund IX	100,000,000.00	114,794,107.00	38,572,398.00	23,778,291.00	139,055,704.12	1.55	28.84	2015
Summit Partners Growth Equity Fund VIII	100,000,000.00	116,727,192.27	206,048,503.27	23,045,587.00	60,375,539.29	2.28	26.86	2011
Summit Partners Growth Equity Fund X-A	150,000,000.00	69,029,998.00	0.00	80,970,002.00	74,311,690.24	1.08	41.85	2019
TPG Capital	250,000,000.00	119,326,788.00	53,528,411.20	139,963,287.00	103,297,876.05	1.31	12.24	
TPG Partners VII, L.P.	100,000,000.00	96,934,941.00	51,829,854.20	10,656,577.00	88,586,498.15	1.45	14.48	2015
TPG Partners VIII	150,000,000.00	22,391,847.00	1,698,557.00	129,306,710.00	14,711,377.90	0.73	-37.75	2018
Thoma Bravo LLC	425,000,000.00	249,556,852.00	204,013,131.80	240,449,292.00	242,878,472.99	1.79	24.40	
Thoma Bravo Fund XII, L.P.	75,000,000.00	77,206,077.00	19,709,712.00	17,574,870.00	107,609,789.32	1.65	17.88	2016
Thoma Bravo Fund XIII, L.P.	150,000,000.00	122,350,775.00	77,245,480.00	72,874,422.00	134,815,358.76	1.73	62.48	2018
Thoma Bravo Fund XIV	150,000,000.00	0.00	0.00	150,000,000.00	0.00	0.00		2020
Thoma Cressey Fund VII, L.P.	50,000,000.00	50,000,000.00	107,057,939.80	0.00	453,324.91	2.15	23.58	2000
Thomas H. Lee Partners	250,000,000.00	173,278,191.00	111,229,162.00	96,232,087.00	195,050,316.22	1.77	32.31	
Thomas H. Lee Equity Fund VII, LP	100,000,000.00	98,994,098.00	100,139,732.00	11,168,059.00	101,583,244.59	2.04	29.95	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000.00	74,284,093.00	11,089,430.00	85,064,028.00	93,467,071.63	1.41	52.75	2018
Thomas, McNerney & Partners	80,000,000.00	78,125,000.00	122,735,180.44	1,875,000.00	6,615,941.82	1.66	8.46	
Thomas, McNerney & Partners I, L.P.	30,000,000.00	30,000,000.00	15,087,143.17	0.00	2,740,257.19	0.59	-7.93	2002
Thomas, McNerney & Partners II, L.P.	50,000,000.00	48,125,000.00	107,648,037.27	1,875,000.00	3,875,684.63	2.32	16.55	2006
Vestar Capital Partners	380,000,000.00	277,322,318.73	350,993,601.52	111,711,788.47	93,588,184.55	1.60	11.30	
Vestar Capital Partners IV, L.P.	55,000,000.00	55,652,023.63	102,293,320.28	57,313.00	372,620.04	1.84	14.63	1999
Vestar Capital Partners V, L.P.	75,000,000.00	76,772,265.14	98,507,989.57	0.00	3,058,646.69	1.32	3.96	2005
Vestar Capital Partners VI, LP	100,000,000.00	106,516,978.20	150,071,483.32	35,527.23	46,378,590.24	1.84	24.45	2011
Vestar Capital Partners VII, L.P.	150,000,000.00	38,381,051.76	120,808.35	111,618,948.24	43,778,327.58	1.14	7.86	2017
Vista Equity Partners	200,000,000.00	69,166,924.00	0.00	132,045,979.00	67,074,152.34	0.97	-3.03	
Vista Equity Partners	200,000,000.00	69,166,924.00	0.00	132,045,979.00	67,074,152.34	0.97	-3.03	2020
Warburg Pincus	1,216,000,000.00	1,017,485,506.90	1,068,937,606.95	204,998,500.00	537,907,734.47	1.58	11.25	
Warburg Pincus China-Southeast Asia II	50,000,000.00	8,700,000.00	960,000.00	41,300,000.00	7,982,083.98	1.03	5.32	2019
Warburg Pincus China, L.P.	45,000,000.00	44,460,000.00	9,340,200.00	2,475,000.00	57,965,063.44	1.51	19.16	2016
Warburg Pincus Financial Sector	90,000,000.00	71,860,808.22	4,590,000.00	22,455,000.00	79,121,019.73	1.16	11.49	2017
Warburg Pincus Global Growth, L.P.	250,000,000.00	112,522,089.05	0.00	137,000,000.00	112,108,317.00	1.00	-0.58	2018
Warburg Pincus Private Equity IX, L.P.	100,000,000.00	100,000,000.00	169,104,300.71	0.00	3,286,437.00	1.72	9.63	2005
Warburg Pincus Private Equity VIII, LP	100,000,000.00	100,368,657.25	229,106,755.46	0.00	11,011.21	2.28	14.74	2002
Warburg Pincus Private Equity X, LP	150,000,000.00	150,000,000.00	249,536,237.55	0.00	15,059,378.66	1.76	9.35	2007
Warburg Pincus Private Equity XI, LP	200,000,000.00	200,342,452.38	216,017,747.60	0.00	110,495,533.24	1.63	12.15	2012
Warburg Pincus Private Equity XII, LP	131,000,000.00	129,231,500.00	26,740,113.00	1,768,500.00	151,485,163.98	1.38	12.61	2015
Warburg, Pincus Equity Partners, L.P.	100,000,000.00	100,000,000.00	163,542,252.63	0.00	393,726.23	1.64	10.03	1998
Wellspring Capital Partners	125,000,000.00	60,275,817.00	0.00	64,724,183.00	61,517,559.11	1.02	1.64	
Wellspring Capital Partners VI, L.P.	125,000,000.00	60,275,817.00	0.00	64,724,183.00	61,517,559.11	1.02	1.64	2016

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Welsh, Carson, Anderson & Stowe	500,000,000.00	299,894,250.00	253,233,983.36	200,105,750.00	244,279,719.87	1.66	16.42	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000.00	100,000,000.00	130,320,188.36	0.00	31,624,304.77	1.62	11.46	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000.00	141,784,300.00	122,913,795.00	8,215,700.00	153,150,361.42	1.95	26.84	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000.00	58,109,950.00	0.00	191,890,050.00	59,505,053.68	1.02	5.19	2018
Whitehorse Capital	200,000,000.00	113,658,439.72	27,232,844.51	107,522,648.41	100,718,579.74	1.13	22.76	
Whitehorse Liquidity Partners III	100,000,000.00	77,838,323.17	21,701,195.03	37,834,838.35	66,423,701.48	1.13	16.97	2019
Whitehorse Liquidity Partners IV	100,000,000.00	35,820,116.55	5,531,649.48	69,687,810.06	34,294,878.26	1.11	17.86	2020
Wind Point Partners	100,000,000.00	20,269,197.00	0.00	79,735,406.00	17,826,378.31	0.88	-17.31	
Wind Point Partners IX	100,000,000.00	20,269,197.00	0.00	79,735,406.00	17,826,378.31	0.88	-17.31	2019
Windjammer Capital Investors	266,708,861.00	184,082,605.32	179,476,459.02	84,897,258.51	105,916,875.53	1.55	10.23	
Windjammer Mezzanine & Equity Fund II	66,708,861.00	55,215,683.94	84,876,799.79	1,013,935.66	63,278.13	1.54	8.94	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000.00	94,740,728.38	93,392,762.23	16,802,618.85	75,005,320.15	1.78	13.41	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000.00	34,126,193.00	1,206,897.00	67,080,704.00	30,848,277.25	0.94	-5.92	2017
Private Credit	3,005,177,583.79	2,020,355,246.50	1,750,884,138.88	1,146,447,121.46	855,568,719.63	1.29	9.50	
Audax Group	300,000,000.00	170,374,110.25	151,517,331.19	142,300,020.48	60,475,772.30	1.24	9.78	
Audax Mezzanine Fund III, L.P.	100,000,000.00	100,311,771.85	117,649,068.38	1,326,350.82	15,347,260.91	1.33	9.88	2010
Audax Mezzanine Fund IV-A, L.P.	100,000,000.00	70,062,338.40	33,868,262.81	40,973,669.66	45,128,511.39	1.13	9.33	2015
Audax Mezzanine Fund V	100,000,000.00	0.00	0.00	100,000,000.00	0.00	0.00		2020
BlackRock	97,500,000.00	69,802,405.46	6,057,159.59	27,697,594.54	68,507,989.65	1.07	4.87	
BlackRock Middle Market Senior Fund	97,500,000.00	69,802,405.46	6,057,159.59	27,697,594.54	68,507,989.65	1.07	4.87	2018
Energy Capital Partners	100,000,000.00	11,315,653.00	2,020,283.00	90,704,630.00	8,548,335.09	0.93	-9.67	
Energy Capital Credit Solutions II-A	100,000,000.00	11,315,653.00	2,020,283.00	90,704,630.00	8,548,335.09	0.93	-9.67	2018
Gold Hill	65,852,583.79	65,852,583.79	112,080,755.77	0.00	4,655,640.15	1.77	11.86	
Gold Hill 2008	25,852,583.79	25,852,583.79	46,819,153.54	0.00	4,507,169.87	1.99	14.69	2008
Gold Hill Venture Lending	40,000,000.00	40,000,000.00	65,261,602.23	0.00	148,470.28	1.64	10.68	2004
Goldman, Sachs & Co.	250,000,000.00	261,164,272.00	315,121,215.00	47,422,591.00	1,960,682.00	1.21	6.80	
GS Mezzanine Partners 2006 Institutional	100,000,000.00	113,454,150.00	134,861,849.00	9,858,563.00	794,228.00	1.20	5.00	2006
GS Mezzanine Partners V, L.P.	150,000,000.00	147,710,122.00	180,259,366.00	37,564,028.00	1,166,454.00	1.23	9.08	2007
HPS Investment Partners	100,000,000.00	41,423,491.44	7,817,048.59	65,512,508.89	36,981,902.37	1.08	13.54	
HPS Mezzanine Partners 2019, L.P.	100,000,000.00	41,423,491.44	7,817,048.59	65,512,508.89	36,981,902.37	1.08	13.54	2019
Kohlberg, Kravis, Roberts & Co.	274,000,000.00	209,191,479.00	127,426,500.00	109,388,464.00	111,247,678.80	1.14	8.00	
KKR Lending Partner II L.P.	75,000,000.00	86,566,321.00	79,747,153.00	8,802,924.00	12,308,964.97	1.06	3.26	2015
KKR Lending Partners III L.P.	199,000,000.00	122,625,158.00	47,679,347.00	100,585,540.00	98,938,713.83	1.20	13.08	2017
LBC Credit Partners	200,000,000.00	103,100,360.13	45,417,945.72	120,774,378.02	74,470,563.50	1.16	9.08	
LBC Credit Partners IV, L.P.	100,000,000.00	89,658,387.41	44,901,945.98	34,274,378.02	60,183,419.00	1.17	8.57	2016
LBC Credit Partners V, L.P.	100,000,000.00	13,441,972.72	515,999.74	86,500,000.00	14,287,144.50	1.10	27.31	2019
Marathon	100,000,000.00	46,022,007.74	723,102.09	55,000,000.00	51,088,500.00	1.13	12.38	
Marathon Secured Private Strategies Fund II	100,000,000.00	46,022,007.74	723,102.09	55,000,000.00	51,088,500.00	1.13	12.38	2019
Merit Capital Partners	312,825,000.00	226,693,050.34	241,440,771.71	86,065,149.99	114,162,618.27	1.57	11.08	
Merit Mezzanine Fund IV, L.P.	75,000,000.00	70,178,571.42	139,120,463.35	4,821,428.58	696,972.30	1.99	11.58	2004
Merit Mezzanine Fund V, LP	75,000,000.00	71,044,897.97	78,439,711.39	3,955,102.03	31,476,085.63	1.55	9.65	2009
Merit Mezzanine Fund VI	100,000,000.00	85,469,580.95	23,880,596.97	14,463,619.38	81,989,560.34	1.24	11.97	2016
Merit Mezzanine Fund VII	62,825,000.00	0.00	0.00	62,825,000.00	0.00	0.00		2020
Oaktree Capital Management, LLC	200,000,000.00	39,712,500.00	1,142,539.00	160,287,500.00	40,971,699.65	1.06	14.39	

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Oaktree Real Estate Debt III	200,000,000.00	39,712,500.00	1,142,539.00	160,287,500.00	40,971,699.65	1.06	14.39	2020
Portfolio Advisors LLC	100,000,000.00	80,867,108.33	96,478,979.85	936,315.05	379,664.54	1.20	7.49	
IP III Mezzanine Partners, L.P.	100,000,000.00	80,867,108.33	96,478,979.85	936,315.05	379,664.54	1.20	7.49	2006
Prudential Global Investment Mgmt	550,000,000.00	435,648,493.31	422,189,408.46	156,129,198.02	179,522,975.72	1.38	10.23	
PGIM Capital Partners VI, L.P.	100,000,000.00	0.00	0.00	100,000,000.00	0.00	0.00		2020
Prudential Capital Partners II, L.P.	100,000,000.00	97,418,748.23	136,427,860.16	11,049,051.89	3,899,222.62	1.44	8.63	2005
Prudential Capital Partners III, L.P.	100,000,000.00	102,368,765.60	173,303,122.49	13,873,783.24	2,645,385.41	1.72	14.10	2009
Prudential Capital Partners IV	100,000,000.00	111,117,725.36	89,745,681.86	2,184,792.33	52,163,751.43	1.28	8.17	2012
Prudential Capital Partners V, L.P.	150,000,000.00	124,743,254.12	22,712,743.95	29,021,570.56	120,814,616.26	1.15	7.73	2016
Summit Partners	95,000,000.00	100,002,496.70	132,650,821.69	22,100,132.00	7,991,656.53	1.41	9.33	
Summit Subordinated Debt Fund III, L.P.	45,000,000.00	44,088,493.92	60,443,092.91	2,250,000.00	3,856,385.70	1.46	8.87	2004
Summit Subordinated Debt Fund IV, L.P.	50,000,000.00	55,914,002.78	72,207,728.78	19,850,132.00	4,135,270.83	1.37	10.06	2008
TCW	260,000,000.00	159,185,235.01	88,800,277.22	62,128,639.47	94,603,041.06	1.15	7.36	
TCW Direct Lending LLC	100,000,000.00	83,599,651.81	72,246,878.20	25,329,408.97	26,744,107.11	1.18	6.62	2014
TCW Direct Lending VII	100,000,000.00	69,585,583.20	16,553,399.02	36,799,230.50	61,857,967.95	1.13	9.81	2018
TCW TALF Opportunities Fund	60,000,000.00	6,000,000.00	0.00	0.00	6,000,966.00	1.00	0.02	2020
Real Assets	4,147,571,518.00	3,670,517,014.06	2,115,115,666.84	735,390,723.32	1,734,154,284.46	1.05	1.48	
BlackRock	198,500,000.00	102,565,717.96	20,469,747.94	102,897,426.00	87,567,768.70	1.05	2.70	
BlackRock Global Renewable Power Fund II	98,500,000.00	89,988,765.96	20,429,936.64	15,474,378.00	75,874,624.27	1.07	3.14	2017
BlackRock Global Renewable Power Infrastructure III	100,000,000.00	12,576,952.00	39,811.30	87,423,048.00	11,693,144.43	0.93	-12.10	2019
EIG Global Energy Partners	450,000,000.00	460,714,195.64	332,226,266.19	82,090,869.35	149,831,853.47	1.05	1.29	
EIG Energy Fund XIV	100,000,000.00	113,459,470.15	95,309,310.22	2,761,129.24	4,563,817.05	0.88	-4.77	2007
EIG Energy Fund XV	150,000,000.00	159,823,963.65	139,398,551.97	22,871,322.62	28,150,870.31	1.05	1.23	2010
EIG Energy Fund XVI	200,000,000.00	187,430,761.84	97,518,404.00	56,458,417.49	117,117,166.11	1.15	4.31	2013
Encap Energy	400,000,000.00	416,304,206.40	298,485,824.11	18,727,082.97	112,048,575.10	0.99	-0.65	
EnCap Energy Capital Fund VII, L.P.	100,000,000.00	105,388,243.96	135,600,208.68	0.00	2,420,369.73	1.31	14.15	2007
EnCap Energy Capital Fund VIII, L.P.	100,000,000.00	103,335,766.37	54,781,242.63	470,043.98	19,404,304.67	0.72	-9.82	2010
EnCap Energy Capital Fund X, L.P.	100,000,000.00	94,984,030.73	21,939,160.31	13,246,667.66	63,985,475.52	0.90	-3.66	2015
Encap Energy Fund IX	100,000,000.00	112,596,165.34	86,165,212.49	5,010,371.33	26,238,425.18	1.00	-0.07	2012
Energy & Minerals Group	680,000,000.00	659,593,985.00	359,375,714.00	58,169,661.00	438,170,111.34	1.21	5.55	
NGP Midstream & Resources, L.P.	100,000,000.00	103,565,615.00	179,560,149.00	17,857.00	4,744,870.21	1.78	13.31	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000.00	106,674,084.00	104,295,500.00	170,365.00	89,492,447.83	1.82	12.80	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000.00	201,327,783.00	22,410,545.00	1,284,543.00	95,069,897.12	0.58	-10.31	2014
The Energy & Minerals Group Fund IV, LP	150,000,000.00	154,434,353.00	51,835,123.00	18,487,666.00	142,029,331.51	1.26	8.00	2015
The Energy & Minerals Group Fund V	112,500,000.00	79,270,469.00	1,115,700.00	34,782,014.00	89,806,309.23	1.15	11.20	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000.00	14,321,681.00	158,697.00	3,427,216.00	17,027,255.44	1.20	15.33	2019
Energy Capital Partners	450,000,000.00	369,377,250.00	267,672,773.00	166,017,458.00	202,470,361.29	1.27	8.55	
Energy Capital Partners II-A	100,000,000.00	85,722,480.00	112,434,332.00	29,749,110.00	4,676,149.98	1.37	8.94	2010
Energy Capital Partners III, L.P.	200,000,000.00	229,544,583.00	137,856,688.00	28,474,141.00	149,547,041.44	1.25	7.99	2013
Energy Capital Partners IV-A, LP	150,000,000.00	54,110,187.00	17,381,753.00	107,794,207.00	48,247,169.87	1.21	10.69	2017
Enervest Management Partners	100,000,000.00	97,898,144.00	41,386,634.00	10,195,554.00	53,238,442.27	0.97	-1.06	
Enervest Energy Institutional Fund XIV-A, L.P.	100,000,000.00	97,898,144.00	41,386,634.00	10,195,554.00	53,238,442.27	0.97	-1.06	2015
First Reserve	500,000,000.00	530,978,253.00	253,080,853.10	14,687,234.00	132,873,283.07	0.73	-9.18	
First Reserve Fund XI, L.P.	150,000,000.00	150,292,121.00	98,378,656.10	0.00	150,375.15	0.66	-9.45	2006

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
First Reserve Fund XII, L.P.	150,000,000.00	165,617,044.00	83,516,783.00	0.00	10,502,046.79	0.57	-13.35	2008
First Reserve Fund XIII, L.P.	200,000,000.00	215,069,088.00	71,185,414.00	14,687,234.00	122,220,861.13	0.90	-5.48	2013
Kohlberg, Kravis, Roberts & Co.	149,850,000.00	74,017,840.00	4,870,953.00	83,465,676.00	71,301,735.44	1.03	2.81	
KKR Global Infrastructure Investors III	149,850,000.00	74,017,840.00	4,870,953.00	83,465,676.00	71,301,735.44	1.03	2.81	2018
Merit Energy Partners	519,721,518.00	368,950,674.00	105,118,787.00	110,293,705.00	265,935,257.73	1.01	0.12	
Merit Energy Partners F-II, L.P.	100,000,000.00	59,522,861.00	31,422,724.00	0.00	5,483,414.18	0.62	-7.78	2006
Merit Energy Partners H	100,000,000.00	100,000,000.00	29,668,582.00	0.00	46,464,842.71	0.76	-4.87	2011
Merit Energy Partners I, L.P.	169,721,518.00	169,721,518.00	43,839,059.00	0.00	163,211,908.47	1.22	5.61	2014
Merit Energy Partners K, L.P.	150,000,000.00	39,706,295.00	188,422.00	110,293,705.00	50,775,092.37	1.28	29.89	2019
NGP	599,500,000.00	555,763,743.06	411,303,114.50	75,346,057.00	198,454,891.18	1.10	3.90	
Natural Gas Partners IX, LP	150,000,000.00	173,921,032.06	245,366,338.51	605,481.00	2,641,745.53	1.43	11.97	2007
NGP Natural Resources X, L.P.	150,000,000.00	147,769,572.00	117,841,415.00	2,230,428.00	23,556,356.69	0.96	-1.34	2011
NGP Natural Resources XI, L.P.	150,000,000.00	149,772,839.00	47,839,666.00	7,650,923.00	97,035,244.53	0.97	-1.17	2014
NGP Natural Resources XII, L.P.	149,500,000.00	84,300,300.00	255,695.00	64,859,225.00	75,221,544.43	0.90	-6.00	2017
Sheridan	100,000,000.00	34,353,005.00	21,125,000.00	13,500,000.00	22,262,004.87	1.26	7.84	
Sheridan Production Partners III-B, L.P.	100,000,000.00	34,353,005.00	21,125,000.00	13,500,000.00	22,262,004.87	1.26	7.84	2014
Real Estate	2,948,147,868.10	1,944,397,248.97	1,409,215,449.21	1,091,249,780.75	1,132,858,689.33	1.31	8.80	
Angelo, Gordon & Co.	550,000,000.00	309,178,121.00	61,290,815.00	242,846,250.00	311,912,349.54	1.21	9.63	
AG Asia Realty Fund III, L.P.	50,000,000.00	47,587,261.00	37,750,000.00	6,196,250.00	27,394,865.27	1.37	14.00	2016
AG Asia Realty Fund IV, L.P.	100,000,000.00	35,446,684.00	0.00	63,000,000.00	40,037,589.00	1.13	10.83	2018
AG Europe Realty Fund II, L.P.	75,000,000.00	69,004,017.00	28,384.00	5,250,000.00	79,250,996.25	1.15	8.56	2018
AG Europe Realty Fund III	75,000,000.00	10,273,727.00	0.00	64,500,000.00	10,091,161.50	0.98	-1.75	2020
AG Realty Fund IX	100,000,000.00	92,141,126.00	23,500,000.00	11,650,000.00	96,097,256.02	1.30	8.54	2014
AG Realty Fund X, L.P.	150,000,000.00	54,725,306.00	12,431.00	92,250,000.00	59,040,481.50	1.08	8.58	2018
Blackstone	824,500,000.00	630,935,942.55	692,940,157.87	298,457,032.50	291,541,313.58	1.56	12.15	
Blackstone Real Estate Partners Asia II	74,500,000.00	37,016,379.92	2,396,798.80	41,884,834.65	34,904,668.49	1.01	0.63	2017
Blackstone Real Estate Partners IX, L.P.	300,000,000.00	103,846,766.25	14,257,501.42	209,839,518.10	98,923,900.42	1.09	11.42	2018
Blackstone Real Estate Partners V	100,000,000.00	104,213,007.00	203,205,561.41	4,174,052.00	2,786,722.90	1.98	10.73	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000.00	109,477,567.00	215,885,212.79	4,907,906.00	4,371,983.53	2.01	13.10	2007
Blackstone Real Estate Partners VII, LP	100,000,000.00	111,234,027.89	145,263,185.02	11,217,447.36	39,498,167.50	1.66	14.59	2011
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000.00	165,148,194.49	111,931,898.43	26,433,274.39	111,055,870.74	1.35	12.66	2015
Blackstone Strategic Partners	75,000,000.00	77,524,676.84	65,033,699.64	1,030,039.36	2,015,450.49	0.86	-2.14	
Strategic Partners III RE, L.P.	25,000,000.00	25,987,863.91	15,252,522.71	9,006.00	97,393.33	0.59	-6.46	2005
Strategic Partners IV RE, L.P.	50,000,000.00	51,536,812.93	49,781,176.93	1,021,033.36	1,918,057.16	1.00	0.05	2008
Carlyle Group	150,000,000.00	64,827,430.00	18,054,472.00	103,315,341.00	51,954,065.80	1.08	7.80	
Carlyle Realty Partners VIII, L.P.	150,000,000.00	64,827,430.00	18,054,472.00	103,315,341.00	51,954,065.80	1.08	7.80	2017
Colony Capital LLC	100,000,000.00	99,660,860.00	173,802,105.00	0.00	2,363,100.00	1.77	14.49	
Colony Investors III	100,000,000.00	99,660,860.00	173,802,105.00	0.00	2,363,100.00	1.77	14.49	1997
Landmark Partners	149,500,000.00	71,519,488.13	26,465,744.86	83,806,772.87	53,340,342.73	1.12	9.63	
Landmark Real Estate Partners VIII, L.P.	149,500,000.00	71,519,488.13	26,465,744.86	83,806,772.87	53,340,342.73	1.12	9.63	2016
Lubert Adler	74,147,868.10	63,877,819.78	16,445,337.96	11,122,180.21	60,496,282.96	1.20	9.74	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868.10	63,877,819.78	16,445,337.96	11,122,180.21	60,496,282.96	1.20	9.74	2017
Oaktree Capital Management, LLC	100,000,000.00	9,500,000.00	9,500,000.00	100,000,000.00	8,324,253.00	1.88	150.68	
Oaktree Real Estate Opportunities Fund VIII	100,000,000.00	9,500,000.00	9,500,000.00	100,000,000.00	8,324,253.00	1.88	150.68	2020

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Rockpoint	200,000,000.00	111,678,417.00	36,095,669.00	103,415,380.00	84,395,090.68	1.08	3.58	
Rockpoint Real Estate Fund V, L.P.	100,000,000.00	96,378,261.00	36,084,442.00	18,715,536.00	69,526,001.28	1.10	3.88	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000.00	15,300,156.00	11,227.00	84,699,844.00	14,869,089.40	0.97	-2.71	2019
Rockwood	200,000,000.00	111,937,331.08	22,706,089.62	89,727,064.71	96,841,948.93	1.07	3.53	
Rockwood Capital RE Partners X, L.P.	100,000,000.00	85,209,227.82	22,706,089.62	16,475,301.06	71,428,904.29	1.10	4.17	2015
Rockwood Capital RE Partners XI	100,000,000.00	26,728,103.26	0.00	73,251,763.65	25,413,044.64	0.95	-33.62	2019
Silverpeak Real Estate Partners	225,000,000.00	143,757,162.59	105,887,112.47	7,529,720.10	8,647,850.44	0.80	-3.62	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000.00	73,035,349.59	91,687,518.60	7,529,720.10	545,307.87	1.26	4.15	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000.00	70,721,813.00	14,199,593.87	0.00	8,102,542.57	0.32	-11.95	2008
TA Associates Realty	300,000,000.00	250,000,000.00	180,994,245.79	50,000,000.00	161,026,641.18	1.37	11.11	
Realty Associates Fund X	100,000,000.00	100,000,000.00	150,369,809.73	0.00	10,506,343.11	1.61	12.65	2012
Realty Associates Fund XI	100,000,000.00	100,000,000.00	29,781,015.06	0.00	100,540,748.07	1.30	8.57	2015
Realty Associates Fund XII	100,000,000.00	50,000,000.00	843,421.00	50,000,000.00	49,979,550.00	1.02	3.91	2018
Distressed/Oppportunistic	3,639,714,067.00	2,508,246,132.81	2,225,979,061.23	1,190,921,913.67	1,204,677,303.02	1.37	9.42	
Avenue Capital Partners	200,000,000.00	200,977,328.00	31,589,518.00	0.00	158,159,785.83	0.94	-1.56	
Avenue Energy Opportunities Fund II	100,000,000.00	100,000,000.00	417,420.00	0.00	90,654,900.00	0.91	-3.55	2017
Avenue Energy Opportunities Fund, L.P.	100,000,000.00	100,977,328.00	31,172,098.00	0.00	67,504,885.83	0.98	-0.48	2014
BlackRock*	1,774,870.00	1,774,870.00	1,737,311.95	0.00	232,166.94	1.11	5.83	
BlackRock Tempus Fund	1,774,870.00	1,774,870.00	1,737,311.95	0.00	232,166.94	1.11	5.83	2015
Canyon Partners	125,000,000.00	58,750,000.00	8,750,000.00	75,000,000.00	58,750,000.00	1.15	15.41	
Canyon Distressed Opportunity Fund III	125,000,000.00	58,750,000.00	8,750,000.00	75,000,000.00	58,750,000.00	1.15	15.41	2020
CarVal Investors	900,000,000.00	730,703,333.00	852,547,275.09	169,500,000.00	235,887,847.41	1.49	10.58	
CarVal Credit Value Fund I	100,000,000.00	95,000,000.00	212,205,835.74	5,000,000.00	1,634,057.53	2.25	18.72	2010
CVI Credit Value Fund A II	150,000,000.00	142,500,000.00	199,242,173.52	7,500,000.00	1,274,714.96	1.41	8.08	2012
CVI Credit Value Fund A III	150,000,000.00	142,500,000.00	120,541,318.35	7,500,000.00	61,885,363.42	1.28	8.00	2015
CVI Credit Value Fund IV	150,000,000.00	145,703,333.00	59.76	4,500,000.00	155,861,055.00	1.07	4.23	2017
CVI Credit Value Fund V	150,000,000.00	15,000,000.00	0.00	135,000,000.00	15,000,000.00	1.00	0.00	2020
CVI Global Value Fund, L.P.	200,000,000.00	190,000,000.00	320,557,887.72	10,000,000.00	232,656.50	1.69	9.53	2007
Carlyle Group	100,000,000.00	65,659,957.93	28,156,617.93	62,444,725.60	35,787,703.85	0.97	-2.26	
Carlyle Strategic Partners IV, L.P.	100,000,000.00	65,659,957.93	28,156,617.93	62,444,725.60	35,787,703.85	0.97	-2.26	2016
MHR Institutional Partners	75,000,000.00	55,684,392.00	7,941,856.00	27,198,884.00	60,427,254.98	1.23	8.02	
MHR Institutional Partners IV LP	75,000,000.00	55,684,392.00	7,941,856.00	27,198,884.00	60,427,254.98	1.23	8.02	2014
Marathon	200,000,000.00	10,000,000.00	3,613,524.73	193,485,193.23	8,557,570.04	1.22	24.81	
Marathon Distressed Credit Fund	200,000,000.00	10,000,000.00	3,613,524.73	193,485,193.23	8,557,570.04	1.22	24.81	2020
Merced Capital	278,737,500.00	285,449,091.35	233,759,646.00	2,673,787.00	92,838,000.94	1.14	3.28	
Merced Partners III	100,000,000.00	103,878,467.92	129,676,445.00	0.00	9,811,056.43	1.34	6.11	2010
Merced Partners IV	125,000,000.00	124,968,390.43	98,722,539.00	0.00	39,823,570.98	1.11	2.39	2013
Merced Partners V	53,737,500.00	56,602,233.00	5,360,662.00	2,673,787.00	43,203,373.53	0.86	-4.71	2017
Oaktree Capital Management, LLC	650,000,000.00	240,214,689.00	36,605,837.85	431,889,598.00	237,717,608.62	1.14	7.01	
Oaktree Opportunities Fund X, L.P.	50,000,000.00	46,500,021.00	13,969,659.74	8,500,000.00	42,768,737.70	1.22	7.06	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000.00	55,000,000.00	0.00	45,000,000.00	58,396,140.00	1.06	5.62	2015
Oaktree Opportunities Fund XI	300,000,000.00	15,000,000.00	0.00	285,000,000.00	15,000,000.00	1.00		2020
Oaktree Special Situations Fund II, L.P.	100,000,000.00	26,731,187.00	5,000,000.00	78,148,304.00	26,144,614.64	1.17	38.84	2018
Oaktree Special Situations Fund, L.P.	100,000,000.00	96,983,481.00	17,636,178.11	15,241,294.00	95,408,116.28	1.17	6.17	2014

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
PIMCO BRAVO*	9,201,697.00	8,654,932.53	8,289,636.15	7,200,650.84	1,438,074.38	1.12	3.93	
PIMCO BRAVO Fund Onshore Feeder I	3,958,027.00	3,958,027.00	3,989,987.10	2,359,424.78	33,382.59	1.02	1.62	2014
PIMCO Bravo Fund OnShore Feeder II	5,243,670.00	4,696,905.53	4,299,649.05	4,841,226.06	1,404,691.79	1.21	4.36	2014
TSSP	200,000,000.00	82,212,539.00	13,001,647.00	130,779,075.00	78,484,553.97	1.11	10.75	
TSSP Adjacent Opportunities GenPar, L.P	100,000,000.00	26,080,450.00	1,410,173.00	75,329,519.00	26,455,735.69	1.07	15.53	2018
TSSP Adjacent Opportunities Partners (B)	50,000,000.00	36,488,479.00	8,946,867.00	22,458,388.00	33,130,163.50	1.15	10.29	2018
TSSP Opportunities Partners IV (A), L.P.	50,000,000.00	19,643,610.00	2,644,607.00	32,991,168.00	18,898,654.78	1.10	9.40	2018
Varde Fund	600,000,000.00	525,000,000.00	633,688,381.00	75,000,000.00	207,598,998.62	1.60	10.32	
Varde Fund IX, L.P.	100,000,000.00	100,000,000.00	216,097,236.00	0.00	338,297.74	2.16	15.02	2008
Varde Fund X, LP	150,000,000.00	150,000,000.00	250,804,375.00	0.00	19,601,407.84	1.80	10.60	2010
Varde Fund XI, LP	200,000,000.00	200,000,000.00	166,766,732.00	0.00	102,614,993.04	1.35	5.30	2013
Varde Fund XIII, L.P.	150,000,000.00	75,000,000.00	20,038.00	75,000,000.00	85,044,300.00	1.13	15.09	2018
Wayzata Investment Partners	300,000,000.00	243,165,000.00	366,297,809.53	15,750,000.00	28,797,737.44	1.62	14.44	
Wayzata Opportunities Fund II, LLC	150,000,000.00	174,750,000.00	327,229,039.53	750,000.00	2,888,567.00	1.89	16.48	2007
Wayzata Opportunities Fund III	150,000,000.00	68,415,000.00	39,068,770.00	15,000,000.00	25,909,170.44	0.95	-1.37	2012
Total	30,711,584,976.22	21,581,687,976.02	17,875,261,896.15	10,720,328,865.91	12,616,508,770.83	1.41	10.50	

Difference**
Private Markets Total with Difference

120,573,797.34
12,737,082,568.17

Private Markets Portfolio Status	Managers	Funds
PRIVATE EQUITY	51	143
PRIVATE CREDIT	15	31
REAL ASSETS	11	32
REAL ESTATE	12	28
DISTRESSED/ OPPORTUNISTIC	13	32
Total	102	266

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.

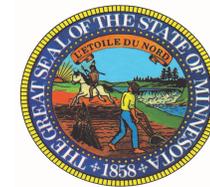
** Difference is from an in-kind stock distribution liquidating account, cash transactions posted to next day and distributions received in foreign currency during the month

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Participant Directed Investment Program

December 31, 2020



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.

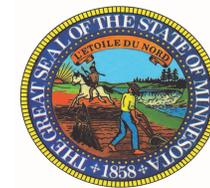
Investment Option Descriptions

- 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	\$106,140,025	9.5%	17.3%	11.5%	11.5%	10.2%	01/1980
U.S. ACTIVELY MANAGED FUND	85,588,200	16.0	27.6	17.0	16.8	14.5	07/1986
U.S. STOCK INDEX FUND	453,307,129	14.8	21.2	14.6	15.5	13.8	07/1986
BROAD INTERNATIONAL STOCK FUND	139,624,904	16.9	11.3	5.2	8.8	5.4	09/1994
BOND FUND	113,711,846	1.9	9.7	6.4	5.4	4.6	07/1986
MONEY MARKET FUND	586,268,005	0.0	0.7	1.7	1.4	0.8	07/1986
STABLE VALUE FUND	1,707,086,592	0.6	2.5	2.5	2.4	2.4	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	138,585,275	8.4	14.7	9.3	9.6	8.0	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% Barclays Aggregate Bond Index/5% T-Bills Composite.

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
BALANCED FUND	\$106,140,025	9.5%	17.3%	11.5%	11.5%	10.2%
SIF BALANCED FUND BENCHMARK		9.0	15.9	11.1	11.1	9.8
Excess		0.5	1.4	0.5	0.4	0.3

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	85,588,200	16.0	27.6	17.0	16.8	14.5
Russell 3000		14.7	20.9	14.5	15.4	13.8
Excess		1.4	6.7	2.5	1.3	0.7



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	\$453,307,129	14.8%	21.2%	14.6%	15.5%	13.8%
Russell 3000		14.7	20.9	14.5	15.4	13.8
Excess		0.1	0.3	0.1	0.1	0.0

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	139,624,904	16.9	11.3	5.2	8.8	5.4
International Equity Benchmark		17.1	10.5	4.8	8.9	4.9
Excess		-0.1	0.8	0.4	-0.1	0.5



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 Barclays 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	\$113,711,846	1.9%	9.7%	6.4%	5.4%	4.6%
BBG BARC US Agg		0.7	7.5	5.3	4.4	3.8
Excess		1.2	2.2	1.0	0.9	0.7

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	586,268,005	0.0	0.7	1.7	1.4	0.8
ICE BofA US 3-Month Treasury Bill		0.0	0.7	1.6	1.2	0.6
Excess		0.0	0.0	0.1	0.2	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	\$1,707,086,592	0.6%	2.5%	2.5%	2.4%	2.4%
Fixed Interest Blended Benchmark		0.2	0.9	2.1	1.9	1.5
Excess		0.4	1.6	0.4	0.4	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 Barclays 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	138,585,275	8.4	14.7	9.3	9.6	8.0
SIF Volunteer Firefighter Account BM		7.9	13.1	8.7	9.1	7.5
Excess		0.5	1.6	0.6	0.5	0.4



Mutual Funds

The mutual fund investment line-up provides investment options to the Minnesota Deferred Compensation Plan (MNDCP), Unclassified Retirement Plan, Health Care Savings Plan, and the Hennepin 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	\$604,899,234	14.7%	21.2%				07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,591,129,964	12.2	18.4	14.2%	15.2%	13.9%	07/1999
VANGUARD DIVIDEND GROWTH	819,625,682	8.9	12.0	13.7			10/2016
VANGUARD MID CAP INDEX	661,880,286	18.0	18.3	12.1	13.3	12.4	01/2004
T. ROWE PRICE SMALL-CAP STOCK	951,083,527	24.8	25.0	17.5	17.4	14.4	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	367,451,483	11.8	19.8	9.6	10.2	7.6	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	341,559,151	16.9	11.3	5.0	9.1		07/2011
VANGUARD BALANCED INDEX	1,413,712,845	9.0	16.4	11.3	11.3	10.0	12/2003
DODGE & COX INCOME	329,651,740	2.5	9.5	6.2	5.7	4.6	07/1999
VANGUARD TOTAL BOND MARKET INDEX	417,067,732	0.7	7.7	5.4	4.5	3.8	12/2003
2025 FUND	210,841,744	7.6	11.1	7.4	8.6		07/2011
2030 FUND	162,847,496	9.6	15.1	9.1	10.3		07/2011
2035 FUND	129,436,328	11.1	17.5	10.1	11.3		07/2011
2040 FUND	103,651,537	12.2	18.4	10.5	11.8		07/2011
2045 FUND	93,204,211	13.3	19.0	10.7	12.2		07/2011
2050 FUND	70,438,993	14.3	19.5	10.9	12.6		07/2011
2055 FUND	46,004,739	14.9	19.9	11.1	12.7		07/2011
2060 FUND	38,097,616	14.9	19.9	11.0	12.7		07/2011
2065 FUND	1,807,656	14.9					04/2020
INCOME FUND	240,206,616	6.0	9.7	6.5	6.7		07/2011
TD Ameritrade SDB	87,931,809						08/2017
TD Ameritrade SDB Roth	2,028,308						08/2017



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.

	<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>
Large Cap US Equity						
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$604,899,234	14.7%	21.2%			07/2019
CRSP US Total Market Index		14.7	21.0			07/2019
Excess		-0.0	0.2			
VANGUARD INSTITUTIONAL INDEX PLUS	1,591,129,964	12.2	18.4	14.2%	15.2%	07/1999
S&P 500		12.1	18.4	14.2	15.2	07/1999
Excess		0.0	0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	819,625,682	8.9	12.0	13.7		10/2016
NASDAQ US Dividend Achievers Select		10.3	15.6	13.7		10/2016
Excess		-1.4	-3.6	-0.0		
Mid Cap US Equity						
VANGUARD MID CAP INDEX	661,880,286	18.0	18.3	12.1	13.3	01/2004
CRSP US Mid Cap Index		18.0	18.2	12.1	13.3	01/2004
Excess		-0.0	0.0	0.0	-0.0	
Small Cap US Equity						
T. ROWE PRICE SMALL-CAP STOCK	951,083,527	24.8	25.0	17.5	17.4	04/2000
Russell 2000		31.4	20.0	10.2	13.3	04/2000
Excess		-6.6	5.0	7.3	4.1	
International Equity						
FIDELITY DIVERSIFIED INTERNATIONAL	367,451,483	11.8	19.8	9.6	10.2	07/1999
MSCI EAFE FREE (NET)		16.0	7.8	4.3	7.4	07/1999
Excess		-4.2	12.0	5.4	2.7	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	341,559,151	16.9	11.3	5.0	9.1	07/2011
FTSE Global All Cap ex US Index Net		17.2	11.1	4.8	8.9	07/2011
Excess		-0.3	0.2	0.2	0.2	



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 BB Barclays 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 BB Barclays U.S. Aggregate.

Money Market Fund (5)

A fund that invests in short-term debt instruments which is expected to outperform the return on 90-Day U.S. Treasury 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

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
VANGUARD BALANCED INDEX	\$1,413,712,845	9.0%	16.4%	11.3%	11.3%	12/2003
Vanguard Balanced Fund Benchmark		9.0	17.3	11.6	11.5	12/2003
Excess		0.0	-0.9	-0.3	-0.2	

Fixed Income

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
DODGE & COX INCOME	329,651,740	2.5	9.5	6.2	5.7	07/1999
BBG BARC Agg Bd		0.7	7.5	5.3	4.4	07/1999
Excess		1.8	1.9	0.8	1.3	

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
VANGUARD TOTAL BOND MARKET INDEX	417,067,732	0.7	7.7	5.4	4.5	12/2003
BBG BARC Agg Bd		0.7	7.5	5.3	4.4	12/2003
Excess		0.0	0.2	0.0	0.0	

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
MONEY MARKET FUND	586,268,005	0.0	0.7	1.7	1.4	07/1986
ICE BofA US 3-Month Treasury Bill		0.0	0.7	1.6	1.2	07/1986
Excess		0.0	0.0	0.1	0.2	

Stable Value

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
STABLE VALUE FUND	1,707,086,592	0.6	2.5	2.5	2.4	11/1994
Fixed Interest Blended Benchmark		0.2	0.9	2.1	1.9	11/1994
Excess		0.4	1.6	0.4	0.4	

- (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 Barclays 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	\$210,841,744	7.6%	11.1%	7.4%	8.6%	07/2011	2050 FUND	\$70,438,993	14.3%	19.5%	10.9%	12.6%	07/2011
2025 FUND BENCHMARK		7.7	11.1	7.4	8.5	07/2011	2050 FUND BENCHMARK		14.4	19.5	10.9	12.6	07/2011
Excess		-0.0	0.1	0.0	0.0		Excess		-0.1	0.0	-0.0	0.0	
2030 FUND	162,847,496	9.6	15.1	9.1	10.3	07/2011	2055 FUND	46,004,739	14.9	19.9	11.1	12.7	07/2011
2030 FUND BENCHMARK		9.7	15.0	9.1	10.3	07/2011	2055 FUND BENCHMARK		15.0	19.9	11.1	12.7	07/2011
Excess		-0.1	0.1	0.0	0.0		Excess		-0.1	-0.1	-0.0	0.0	
2035 FUND	129,436,328	11.1	17.5	10.1	11.3	07/2011	2060 FUND	38,097,616	14.9	19.9	11.0	12.7	07/2011
2035 FUND BENCHMARK		11.2	17.5	10.1	11.3	07/2011	2060 FUND BENCHMARK		15.0	19.9	11.1	12.7	07/2011
Excess		-0.1	0.1	0.0	0.0		Excess		-0.1	-0.1	-0.0	0.0	
2040 FUND	103,651,537	12.2	18.4	10.5	11.8	07/2011	2065 FUND	1,807,656	14.9				04/2020
2040 FUND BENCHMARK		12.3	18.4	10.5	11.8	07/2011	2065 FUND BENCHMARK		15.0				04/2020
Excess		-0.1	0.1	0.0	0.0		Excess		-0.1				
2045 FUND	93,204,211	13.3	19.0	10.7	12.2	07/2011	INCOME FUND	240,206,616	6.0	9.7	6.5	6.7	07/2011
2045 FUND BENCHMARK		13.4	18.9	10.7	12.2	07/2011	INCOME FUND BENCHMARK		6.0	9.6	6.5	6.7	07/2011
Excess		-0.1	0.0	-0.0	0.0		Excess		-0.0	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 Barclays U.S. Aggregate and two active funds that invest in inflation-linked bonds and high yield securities. The fund is expected to track a weighted benchmark of 70% BB Barclays 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.



MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: December 31, 2020

Total = \$1,717 Million

Fund Name	Ending Market	3 Months	1 Year	Annualized			Inception Date
				3 Years	5 Years	10 Years	
2036/2037 Enrollment Option	\$28,322,395	11.58%	14.03%			16.25%	10/28/2019
2036-2037 Custom Benchmark		12.11%	13.12%			15.46%	
2034/2035 Enrollment Option	\$32,941,668	11.04%	13.37%			15.60%	10/28/2019
2034-2035 Custom Benchmark		11.66%	12.62%			14.94%	
2032/2033 Enrollment Option	\$39,246,810	10.55%	13.30%			15.35%	10/28/2019
2032-2033 Custom Benchmark		11.11%	12.45%			14.60%	
2030/2031 Enrollment Option	\$50,789,116	9.83%	12.46%			14.44%	10/28/2019
2030-2031 Custom Benchmark		10.30%	11.63%			13.70%	
2028/2029 Enrollment Option	\$68,469,917	8.45%	11.16%			12.96%	10/28/2019
2028-2029 Custom Benchmark		8.95%	10.21%			12.15%	
2026/2027 Enrollment Option	\$98,109,125	7.04%	10.36%			11.71%	10/28/2019
2026-2027 Custom Benchmark		7.46%	9.44%			10.96%	
2024/2025 Enrollment Option	\$140,658,923	5.64%	9.24%			10.30%	10/28/2019
2024-2025 Custom Benchmark		5.99%	8.20%			9.43%	
2022/2023 Enrollment Option	\$173,446,950	4.00%	6.85%			7.72%	10/28/2019
2022-2023 Custom Benchmark		4.18%	5.71%			6.82%	
2020/2021 Enrollment Option	\$192,000,924	2.87%	6.11%			4.70%	10/28/2019
2020-2021 Custom Benchmark		2.96%	5.05%			3.67%	
In School Option	\$186,107,047	2.66%	6.52%			6.64%	10/28/2019
In School Custom Benchmark		2.66%	4.91%			5.31%	



MINNESOTA COLLEGE SAVINGS PLAN
Performance Statistics for the Period Ending: December 31, 2020

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	\$302,062,128	14.43% 15.02%	14.65% 13.94%	10.68% 10.31%	12.43% 12.26%	10.82% 10.86%	7.73% 8.46%	10/ 1/2001
Moderate Allocation Option BB: Moderate Allocation Option	\$86,748,938	9.14% 9.54%	12.61% 11.97%	8.78% 8.66%	9.49% 9.45%	8.00% 8.24%	6.17% 6.71%	8/ 2/2007
100% Fixed-Income Option BB: 100% Fixed-Income Option	\$23,784,858	1.15% 1.39%	6.96% 7.24%	4.93% 5.25%	4.35% 4.68%	3.35% 3.84%	3.93% 4.54%	8/16/2007
International Equity Index Option BB: International Equity Index Option	\$6,821,443	16.07% 16.84%	9.48% 10.00%	4.59% 4.74%	8.43% 8.58%		5.75% 6.01%	6/18/2013
Money Market Option BB: Money Market Option	\$15,806,606	0.00% 0.00%	0.37% 0.28%	1.34% 1.16%	0.94% 0.80%	0.46% 0.41%	0.55% 0.49%	11/ 1/2007
Principal Plus Interest Option Citigroup 3-Month U.S. Treasury Bill	\$136,330,985	0.38% 0.02%	1.85% 0.58%	1.89% 1.56%	1.72% 1.16%	1.65% 0.60%	2.45% 1.31%	10/10/2001
Aggressive Allocation Option BB: Aggressive Allocation Option	\$49,364,884	11.68% 12.28%	13.60% 13.08%	9.69% 9.55%	11.01% 10.89%		8.88% 8.75%	8/12/2014
Conservative Allocation Option BB: Conservative Allocation Option	\$15,683,606	4.85% 5.11%	8.53% 8.17%	6.11% 6.16%	6.27% 6.24%		4.97% 5.01%	8/18/2014
Equity and Interest Accumulation Option BB: Equity and Interest Accumulation Option	\$5,856,160	7.25% 7.31%	11.57% 11.28%	8.20% 8.37%	8.50% 8.43%		7.16% 7.13%	8/18/2014
U.S. Large Cap Equity Option BB: U.S. Large Cap Equity Option	\$62,092,248	12.07% 12.15%	18.20% 18.40%	13.97% 14.18%	15.00% 15.22%		13.00% 13.10%	8/12/2014
Matching Grant Citigroup 3-Month U.S. Treasury Bill	\$2,126,317	0.38% 0.02%	1.85% 0.58%	1.89% 1.56%	1.72% 1.16%	1.65% 0.60%	2.45% 1.31%	3/22/2002

MINNESOTABLE *plan*

A member of The National ABLE Alliance

Performance as of
12/31/20

Total Market Value: \$ 16,577,035

<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	\$ 1,371,111	8.27%	4.61	15.32	15.57	15.57	10.05			11.73	12/15/16
ABLE Aggressive Custom Benchmark			4.75	15.83	16.56	16.56	10.59			12.40	
Variance			(0.14)	(0.51)	(0.99)	(0.99)	(0.54)			(0.67)	
Moderately Aggressive Option	\$ 1,609,898	9.71%	3.95	12.88	14.51	14.51	9.27			10.53	12/15/16
ABLE Moderately Aggressive Custom Benchmark			4.09	13.35	15.65	15.65	9.92			11.24	
Variance			(0.14)	(0.47)	(1.14)	(1.14)	(0.65)			(0.71)	
Growth Option	\$ 2,176,814	13.13%	3.25	10.43	13.05	13.05	8.40			9.23	12/15/16
ABLE Growth Custom Benchmark			3.42	10.86	14.36	14.36	9.09			9.97	
Variance			(0.17)	(0.43)	(1.31)	(1.31)	(0.69)			(0.74)	
Moderate Option	\$ 1,877,117	11.32%	2.56	8.02	11.56	11.56	7.42			7.92	12/15/16
ABLE Moderate Custom Benchmark			2.72	8.38	12.72	12.72	8.11			8.60	
Variance			(0.16)	(0.36)	(1.16)	(1.16)	(0.69)			(0.68)	
Moderately Conservative Option	\$ 1,872,930	11.30%	1.78	5.43	8.43	8.43	5.69			5.90	12/15/16
ABLE Moderately Conservative Custom Benchmark			1.89	5.67	9.36	9.36	6.28			6.47	
Variance			(0.11)	(0.24)	(0.93)	(0.93)	(0.59)			(0.57)	
Conservative Option	\$ 2,910,989	17.56%	0.71	1.98	4.13	4.13	3.26			3.16	12/15/16
ABLE Conservative Custom Benchmark			0.72	2.04	4.38	4.38	3.59			3.47	
Variance			(0.01)	(0.06)	(0.25)	(0.25)	(0.33)			(0.31)	
Checking Option	\$ 4,758,176	28.70%									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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Quarterly Report

Non-Retirement

December 31, 2020



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

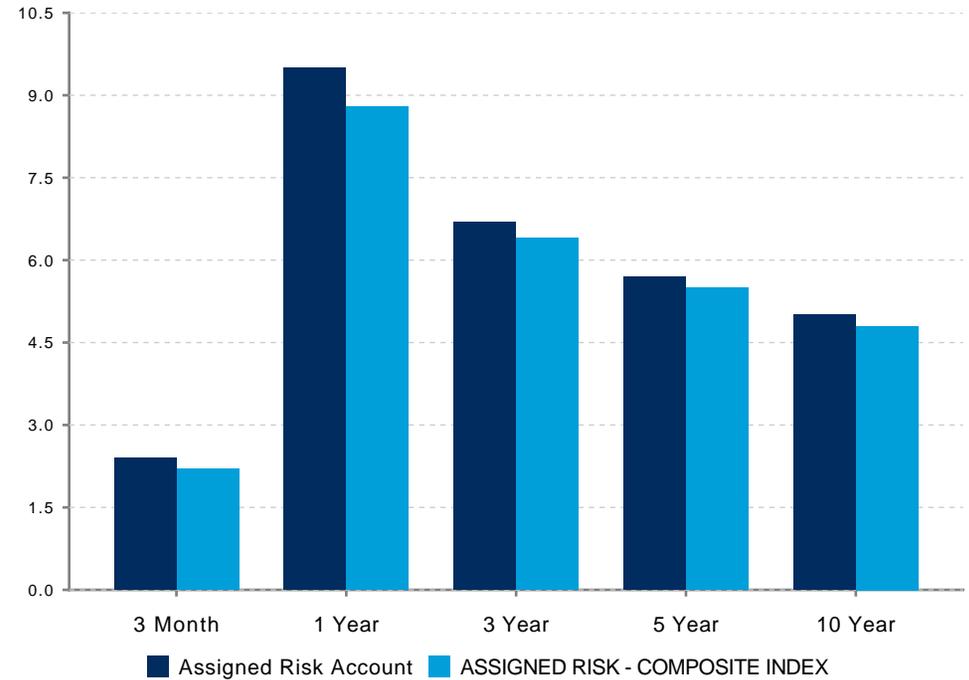
Assigned Risk Plan

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.

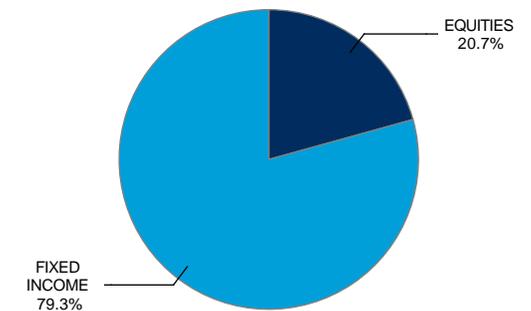
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds

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

The fixed income benchmark is the Bloomberg Barclays Intermediate Government 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% equities and 20% 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>
Assigned Risk Account	\$298,572,286	2.4%	9.5%	6.7%	5.7%	5.0%
EQUITIES	61,851,175	12.1	18.4	14.2	15.0	13.2
FIXED INCOME	236,721,111	-0.1	6.0	4.2	3.0	2.6
ASSIGNED RISK - COMPOSITE INDEX		2.2	8.8	6.4	5.5	4.8
Excess		0.2	0.7	0.3	0.2	0.2
S&P 500		12.1	18.4	14.2	15.2	13.9
BBG BARC US Gov: Int		-0.2	5.7	4.1	2.9	2.5



Note: Since 12/1/2017 the Assigned Risk equity segment has been managed by Mellon. From 1/17/2017-11/30/2017 it was managed internally by SBI staff. Prior to 1/17/2017 the equity segment was managed by SSgA (formerly GE Investment Mgmt.). RBC manages the fixed income segment of the Fund.



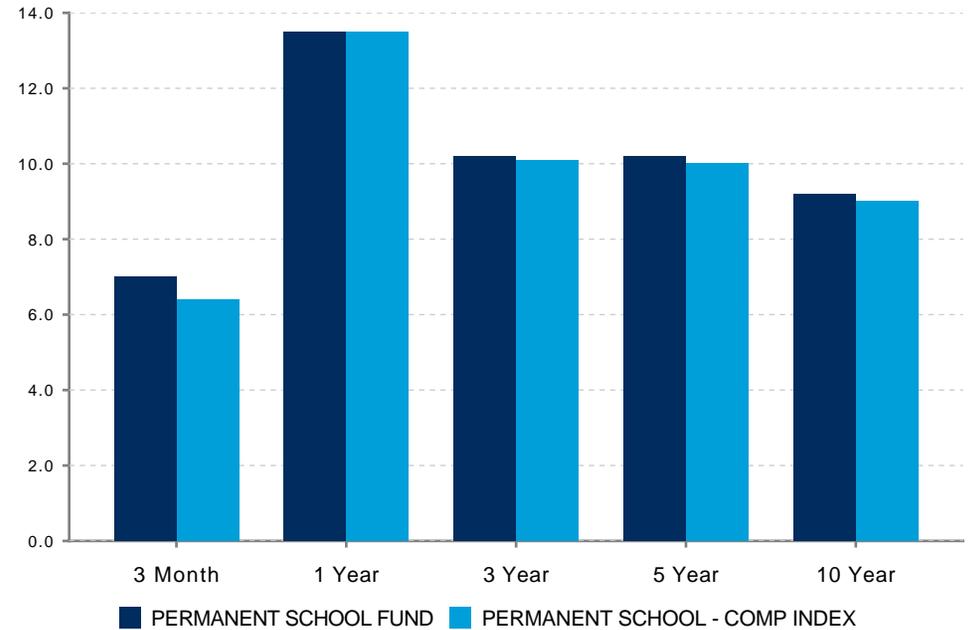
Non-Retirement

Permanent School Fund

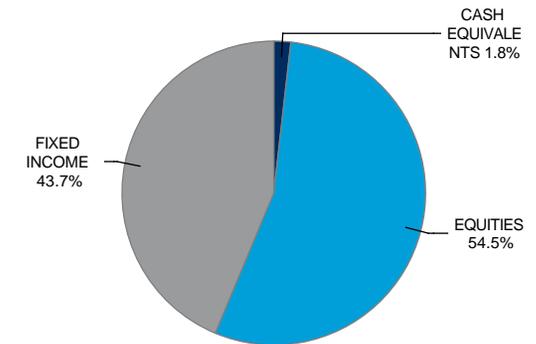
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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.

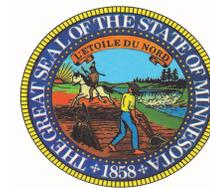
The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination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



	<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>
PERMANENT SCHOOL FUND	\$1,813,672,883	7.0%	13.5%	10.2%	10.2%	9.2%
CASH EQUIVALENTS	33,344,719	0.0	0.6	1.6	1.2	0.7
EQUITIES	988,146,512	12.1	18.4	14.2	15.2	13.9
FIXED INCOME	792,181,652	1.5	8.2	5.9	5.0	4.3
PERMANENT SCHOOL - COMP INDEX		6.4	13.5	10.1	10.0	9.0
Excess		0.6	-0.0	0.1	0.2	0.2
S&P 500		12.1	18.4	14.2	15.2	13.9
BBG BARC US Agg		0.7	7.5	5.3	4.4	3.8



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.



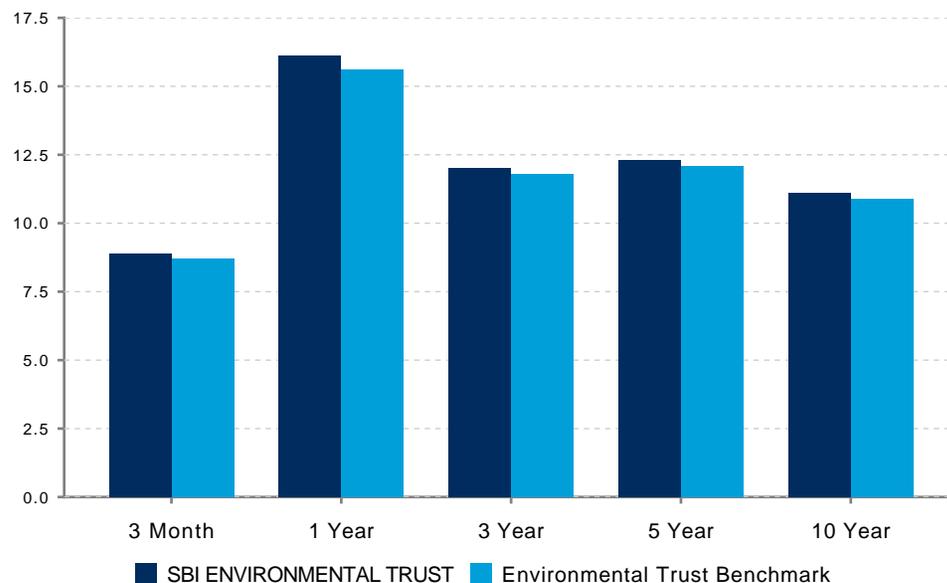
Non-Retirement

Environmental Trust Fund

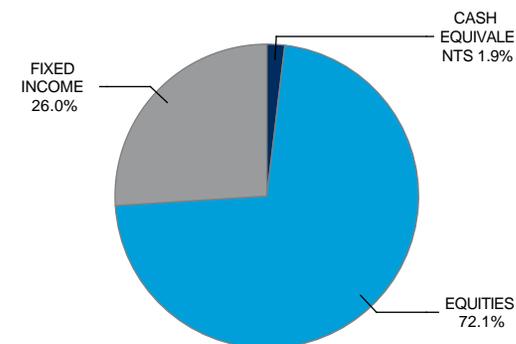
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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 Barclays 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	\$1,490,135,199	8.9%	16.1%	12.0%	12.3%	11.1%
CASH EQUIVALENTS	27,673,511	0.0	0.6	1.6	1.2	0.7
EQUITIES	1,074,906,737	12.1	18.4	14.2	15.2	13.9
FIXED INCOME	387,554,951	1.5	8.2	5.9	5.0	4.3
Environmental Trust Benchmark		8.7	15.6	11.8	12.1	10.9
Excess		0.2	0.5	0.2	0.2	0.2
S&P 500		12.1	18.4	14.2	15.2	13.9
BBG BARC US Agg		0.7	7.5	5.3	4.4	3.8



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.

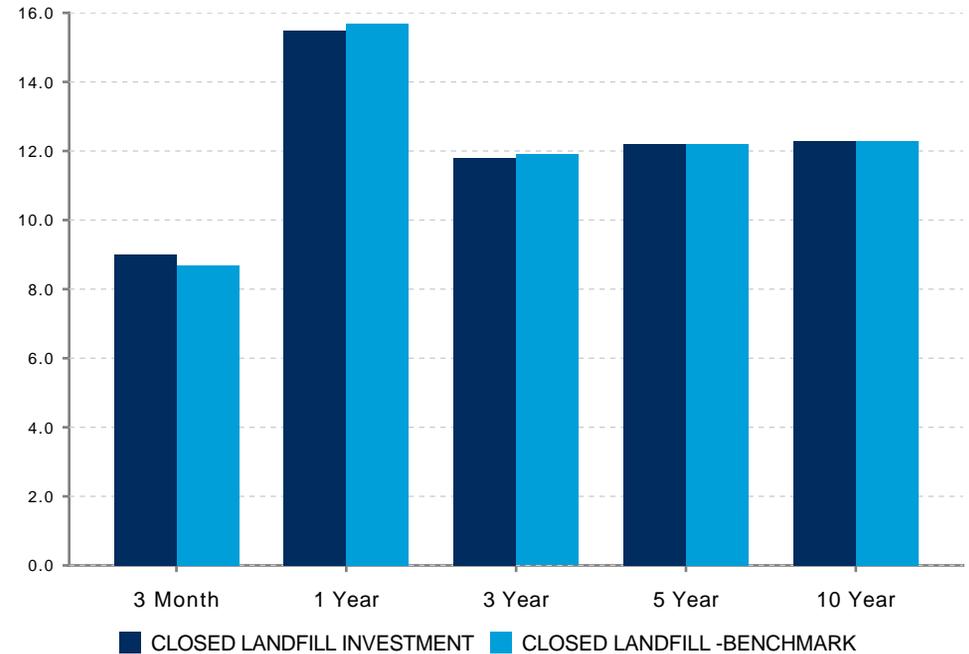


Non-Retirement

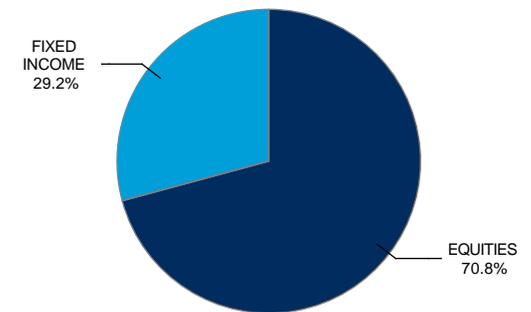
Closed Landfill Investment Fund

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 Barclays 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.



	<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>
CLOSED LANDFILL INVESTMENT	\$119,278,487	9.0%	15.5%	11.8%	12.2%	12.3%
EQUITIES	84,461,724	12.1	18.4	14.2	15.2	13.9
FIXED INCOME	34,816,763	1.5	8.2	5.9	5.0	
CLOSED LANDFILL -BENCHMARK		8.7	15.7	11.9	12.2	12.3
Excess		0.4	-0.3	-0.0	0.1	0.0
S&P 500		12.1	18.4	14.2	15.2	13.9
BBG BARC US Agg		0.7	7.5	5.3	4.4	3.8



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	3,035,226,124	12.1	22.2	18.4	14.2	15.2	13.9	10.2	07/1993
S&P 500 INDEX (DAILY)		12.1	22.2	18.4	14.2	15.2	13.9	10.2	07/1993
Excess		-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.1	
NON RETIREMENT FIXED INCOME - PRUDENTIAL	1,407,566,508	1.5	2.8	8.2	5.9	5.0	4.3	6.1	07/1994
BBG BARC Agg (Dly)		0.7	1.3	7.5	5.3	4.4	3.8	5.6	07/1994
Excess		0.8	1.5	0.7	0.5	0.5	0.4	0.5	
RBC	236,721,010	-0.1	0.2	6.0	4.2	3.0	2.6	4.9	07/1991
RBC Custom Benchmark									07/1991
Excess									
MET COUNCIL OPEB BOND POOL	56,018,378	0.0	0.2	3.0					
NON RETIREMENT CASH	167,762,833	0.0	0.1	0.5	1.6	1.2	0.7	2.6	
iMoneyNet Money Fund Average- All Taxable		0.0	0.0	0.3	1.2	0.9	0.4		
Excess		0.0	0.1	0.2	0.4	0.4	0.3		

Note:

RBC is the manager for the fixed income portion of the assigned risk account. RBC changed its name from Voyager Asset Management on 1/1/2010. The current benchmark is the Bloomberg Barclays Intermediate Government Index. Prior to 7/1/11 the Voyager Custom Index was 10% 90 day T-Bill, 25% Merrill 1-3 Government, 15% Merrill 3-5 Government, 25% Merrill 5-10 Government, 25% Merrill Mortgage Master.

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

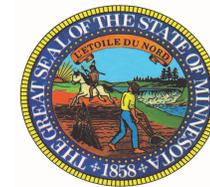
In addition to the Non-Retirement Funds listed on the previous pages, the Non Retirement Equity Index and the Non Retirement Fixed Income accounts also include the assets of various smaller Miscellaneous Trust Accounts and Other Post Employment Benefits.

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State Cash

December 31, 2020



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.

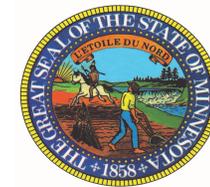
Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	<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	13,581,583,120	0.1	1.0	1.9	1.5	1.0
iMoneyNet Money Fund Average-All Taxable		0.0	0.3	1.2	0.9	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	70,445,999	0.8	4.8	3.8	3.2	
Public Facilities Authority	3,393,922	0.2	0.9	1.6	1.9	



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:

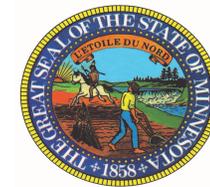
The Composite Index performance is calculated by multiplying the beginning of month Composite weights by the monthly returns of the asset class benchmarks. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. From 1/1/2018-2/28/2019 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:

In 2016, the Barclays Agg was rebranded Bloomberg Barclays Agg to reflect an ownership change. 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.

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.



Addendum

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-US9Net). 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).

Passive Domestic Equity Benchmark:

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

Passive Manager Benchmark:

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

Public Equity Benchmark:

Since 12/1/2020 it is 67% Russell 3000 and 33% MSCI ACWI ex-US(net). From 1/1/2019 to 12/1/2020 it was 60.3% Russell 1000, 6.7% Russell 2000, 24.75% MSCI World Ex US (net), and 8.25% MSCI EM (net). From 7/1/2017 thru 12/31/2018 it was 67% Russell 3000 and 33% MSCI ACWI ex USA. Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a total Public Equity return. From 6/30/16-6/30/17 the Public Equity benchmark adjusted by 2% each quarter from 75% Russell 3000 and 25% MSCI ACWI ex USA until it reached 67% and 33%.

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 Barclays U.S. Aggregate Index/ 40% Bloomberg Barclays 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.