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# Comprehensive Performance Report

September 30, 2019



## Description of SBI Investment Programs

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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.

### **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. At this time, the assets of various retirement programs, including local firefighter groups, are included here.

### **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.

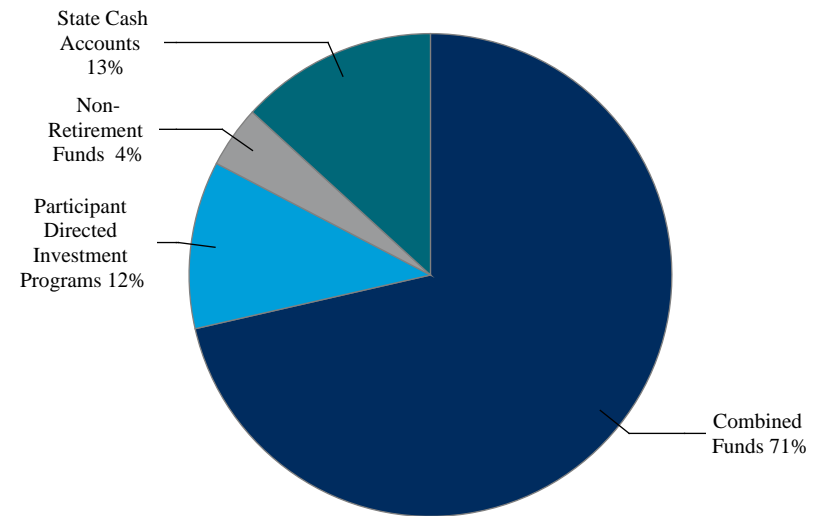
### **State Cash**

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>
<b>COMBINED FUNDS</b>	
Combined Funds	\$70,691
<b>PARTICIPANT DIRECTED INVESTMENT PROGRAMS</b>	
Supplemental Investment Fund*	2,928
Mutual Funds**	7,188
Minnesota College Savings Plan	1,493
Achieve a Better Life Experience	7
<b>NON-RETIREMENT FUNDS</b>	
Assigned Risk Plan	288
Permanent School Fund	1,544
Environmental Trust Fund	1,232
Closed Landfill Investment Fund	99
Miscellaneous	263
Other Post Employment Benefits Accounts	668
<b>STATE CASH ACCOUNTS</b>	
Treasurer's Cash	12,911
Other State Cash Accounts	166
<b>TOTAL</b>	
SBI AUM	99,478



\* Includes assets of smaller retirement funds which are invested with the SBI but are not included in the Combined Funds

\*\* Does not include the Stable Value and Money Market accounts that are used by Mutual Funds and Supplemental Investment Fund

Note: Differentials within column amounts may occur due to rounding



Quarterly Report

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Performance Reporting Legend

Manager Level Data

Aggregate Level Data

Sub-Asset Class Level Data

Asset Class Level Data

Note:

Throughout this report performance is calculated net of investment management fees, aggregates include terminated managers, and returns for all periods greater than one year are annualized. Inception Date and Since Inception Returns refer to the date of retention by the SBI. FYTD refers to the return generated by an account since July 1 of the most recent year. For historical benchmark details, please refer to the addendum of this report. Inception to date return information is included for manager accounts and total asset class but not other aggregates because of portfolio management decisions to group managers in different aggregates over time.



# Combined Funds

September 30, 2019



## Combined Funds Summary

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

	<u>One Quarter</u>
COMBINED FUNDS	
Beginning Market Value	\$70,658
Net Contributions	-655
Investment Return	687
Ending Market Value	70,691

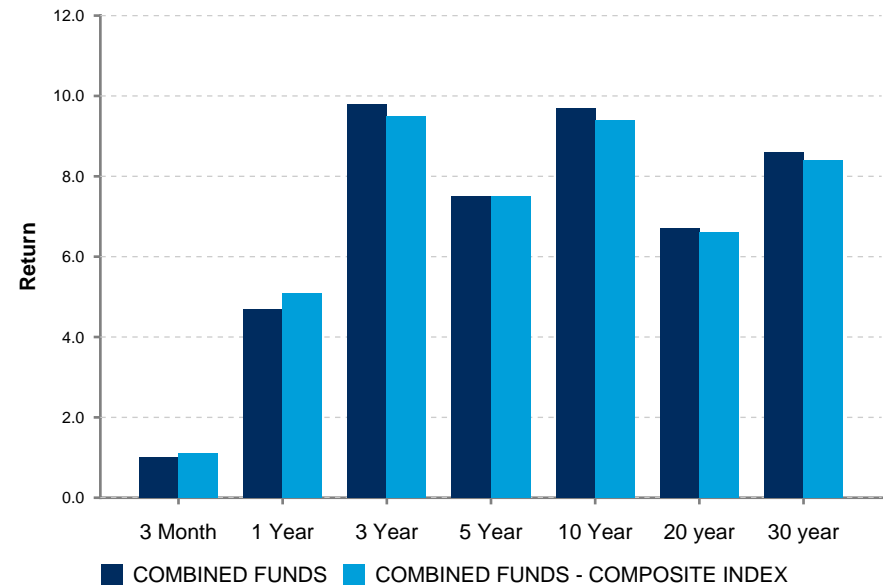
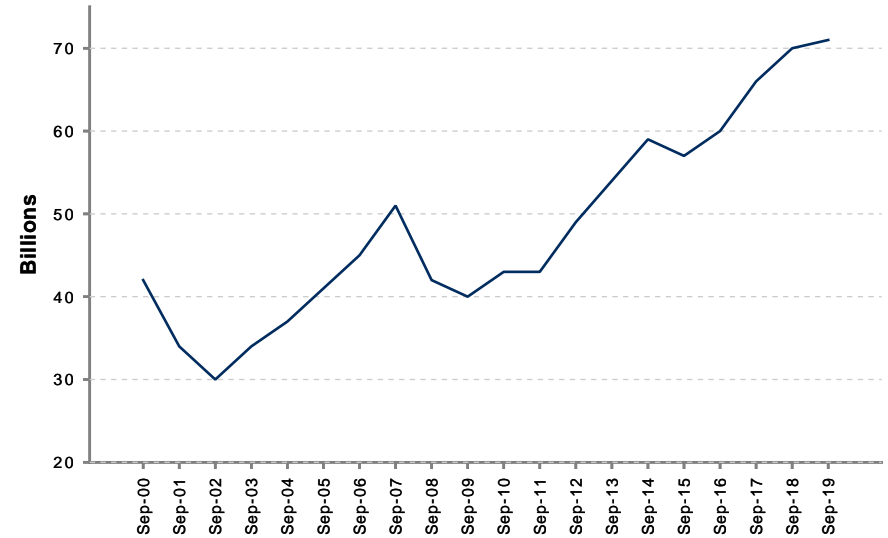
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

### Performance (Net of Fees)

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

	<u>Qtr</u>	<u>FYTD</u>	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>	<u>30 Yr</u>
COMBINED FUNDS	1.0%	1.0%	4.7%	9.8%	7.5%	9.7%	6.7%	8.6%
COMBINED FUNDS - COMPOSITE INDEX	1.1	1.1	5.1	9.5	7.5	9.4	6.6	8.4
Excess	-0.1	-0.1	-0.4	0.2	0.0	0.3	0.2	0.2

### Asset Growth



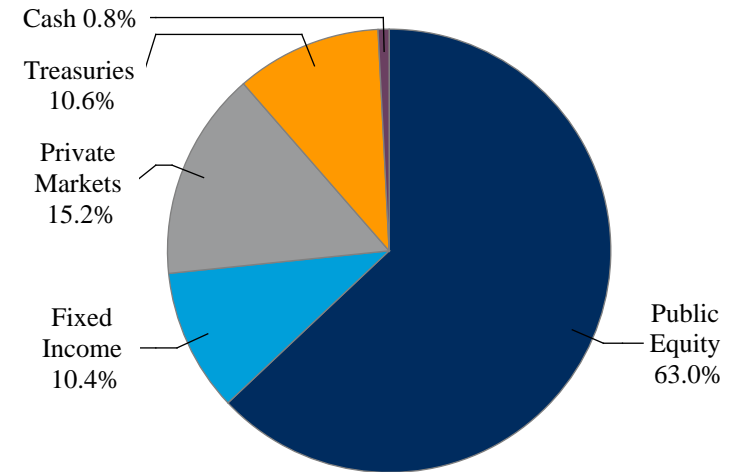


## Combined Funds Summary

### Asset Mix

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

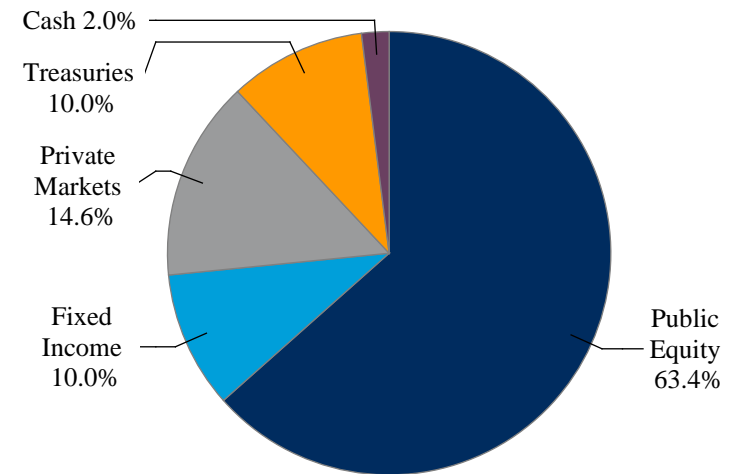
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$44,485	62.9%	53.0%
Fixed Income	7,386	10.4	10.0
Private Markets	10,751	15.2	25.0
Treasuries	7,492	10.6	10.0
Cash	577	0.8	2.0
<b>TOTAL</b>	<b>70,691</b>	<b>100.0</b>	



### Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target with the uninvested portion of Private Markets allocated to Public Equity. Asset class weights for Public Equity and Private Markets 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>Benchmark</u>
Public Equity	63.5%	Public Equity Benchmark
Fixed Income	10.0	BB Barclays U.S. Aggregate
Private Markets	14.6	Private Markets
Treasuries	10.0	BB Barclays Treasury 5+ Years
Cash	2.0	3 Month T-Bills





## Combined Funds Asset Class Performance Summary

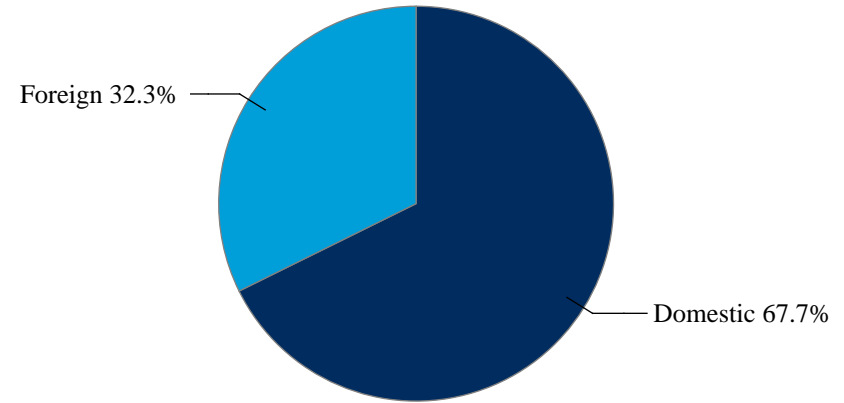
### Public Equity

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

The Public Equity benchmark is 60.3% Russell 1000, 6.7% Russell 2000, 24.75% MSCI World ex US (net), and 8.25% MSCI EM (net).

The Russell 1000 and Russell 2000 measure the performance of the 1000 largest and 2000 next largest U.S. companies based on total market capitalization.

The MSCI World ex US index is composed of large and mid cap companies that capture approximately 85% of the total market capitalization in 22 of the 23 developed markets. The MSCI Emerging Markets index is composed of large and mid cap companies that capture approximately 85% of the total market capitalization across 24 Emerging Markets countries.



	<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	0.0%	0.0%	1.1%	10.9%	8.3%	10.9%	5.9%	8.8%
Public Equity Benchmark	0.1	0.1	1.5	10.8				
Excess	-0.1	-0.1	-0.4	0.1				
Domestic Equity	0.8	0.8	2.1	12.8	10.1	13.0	6.4	9.3
Domestic Equity Benchmark	1.0	1.0	2.8	12.8	10.4	13.1	6.6	9.5
Excess	-0.3	-0.3	-0.7	0.1	-0.3	-0.1	-0.2	-0.2
International Equity	-1.5	-1.5	-0.9	6.4	3.4	5.0	4.6	
International Equity Benchmark	-1.8	-1.8	-1.2	6.4	2.9	4.5	4.2	
Excess	0.3	0.3	0.2	0.1	0.5	0.5	0.4	

Note:

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





## Combined Funds Asset Class Performance Summary

### Fixed Income

The Combined Funds Fixed Income program includes Core Fixed Income and Treasuries. The Combined Funds performance for these asset classes is shown here.

The Core Fixed Income benchmark is the Bloomberg Barclays U.S. Aggregate Index. This index reflects the performance of the broad bond market for investment grade (Baa or higher) bonds, U.S. Treasury and agency securities, and mortgage obligations with maturities greater than one year.

The Treasuries benchmark is the Bloomberg Barclays Treasury 5+ Years Index.

	<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>
Fixed Income	2.3%	2.3%	10.4%	3.5%	3.8%	4.6%	5.4%	6.4%
Fixed Income Benchmark	2.3	2.3	10.3	2.9	3.4	3.7	5.0	6.1
Excess	0.1	0.1	0.1	0.5	0.5	0.9	0.4	0.4
Treasuries	4.5	4.5	17.0					
BBG BARC 5Y + Us Tsy Idx	4.6	4.6	17.2					
Excess	-0.1	-0.1	-0.2					

### Cash

The Combined Funds Cash performance is shown here. Cash is held by the Combined Funds to meet the liquidity needs of the retirement systems to pay benefits.

	<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>
Cash	0.6%	0.6%	2.4%	1.7%	1.1%	0.8%	2.2%	3.7%
90 DAY T-Bill	0.6	0.6	2.4	1.5	1.0	0.5	1.8	3.0

Note:

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	1.8%	1.8%	8.0%	13.7%	9.5%	12.6%	12.5%	13.7%	12.2%
Private Equity	3.5%	3.5%	12.8%	17.4%	14.3%	15.5%	13.3%	15.6%	
Private Credit	1.4	1.4	7.5	13.0	12.7	13.4	12.3		
Resources	-3.5	-3.5	-5.3	5.2	-4.8	5.9	14.9	14.4	
Real Estate	3.1	3.1	9.6	10.5	11.0	10.1	9.0	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

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# Asset Class & Manager Performance

## September 30, 2019

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

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

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

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

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# Domestic Equity

## September 30, 2019



	<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>
<b>Total Domestic Equity</b>										
<b>ACTIVE DOMESTIC EQUITY AGGREGATE (1)</b>	<b>\$4,503,088,009</b>	<b>14.7%</b>	<b>-2.5%</b>	<b>-2.5%</b>	<b>-5.2%</b>	<b>11.4%</b>	<b>8.8%</b>	<b>12.2%</b>		
Active Domestic Equity Benchmark			-0.3	-0.3	-2.6	10.7	9.2	12.3		
Excess			-2.2	-2.2	-2.5	0.8	-0.4	-0.1		
<b>SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)</b>	<b>2,513,932,512</b>	<b>8.2</b>	<b>1.2</b>	<b>1.2</b>	<b>3.3</b>	<b>13.3</b>	<b>10.5</b>	<b>13.3</b>		
Semi Passive Domestic Equity Benchmark			1.4	1.4	3.9	13.2	10.6	13.2		
Excess			-0.2	-0.2	-0.5	0.1	-0.1	0.1		
<b>PASSIVE DOMESTIC EQUITY AGGREGATE (3)</b>	<b>23,590,546,994</b>	<b>77.1</b>	<b>1.4</b>	<b>1.4</b>	<b>3.5</b>	<b>13.0</b>	<b>10.6</b>	<b>13.1</b>		
Passive Domestic Equity Benchmark			1.3	1.3	3.5	13.1	10.6	13.1		
Excess			0.0	0.0	0.0	-0.0	-0.0	0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	15,471	0.0								
<b>TOTAL DOMESTIC EQUITY (5)</b>	<b>30,607,582,986</b>	<b>100.0</b>	<b>0.8</b>	<b>0.8</b>	<b>2.1</b>	<b>12.8</b>	<b>10.1</b>	<b>13.0</b>	<b>10.4</b>	<b>01/1984</b>
Domestic Equity Benchmark			1.0	1.0	2.8	12.8	10.4	13.1	10.6	01/1984
Excess			-0.3	-0.3	-0.6	0.1	-0.3	-0.1	-0.2	

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

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

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

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

(5) The current Domestic Equity Benchmark is 90% Russell 1000 and 10% Russell 2000.

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



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total Domestic Equity</b>					
<b>ACTIVE DOMESTIC EQUITY AGGREGATE (1)</b>	<b>-6.5%</b>	<b>20.6%</b>	<b>10.9%</b>	<b>-0.4%</b>	<b>9.3%</b>
Active Domestic Equity Benchmark	-8.0	18.3	15.7	-0.6	11.0
Excess	1.4	2.3	-4.8	0.3	-1.7
<b>SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)</b>	<b>-4.9</b>	<b>22.5</b>	<b>11.1</b>	<b>0.5</b>	<b>14.2</b>
Semi Passive Domestic Equity Benchmark	-4.8	21.7	12.1	0.9	13.2
Excess	-0.1	0.8	-1.0	-0.4	1.0
<b>PASSIVE DOMESTIC EQUITY AGGREGATE (3)</b>	<b>-5.0</b>	<b>21.3</b>	<b>12.6</b>	<b>0.5</b>	<b>12.6</b>
Passive Domestic Equity Benchmark	-5.0	21.5	12.5	0.5	12.6
Excess	-0.0	-0.2	0.1	0.0	0.0
<b>TRANSITION AGGREGATE DOMESTIC EQUITY (4)</b>					
<b>TOTAL DOMESTIC EQUITY (5)</b>	<b>-5.3%</b>	<b>21.4%</b>	<b>11.5</b>	<b>0.3</b>	<b>12.3</b>
Domestic Equity Benchmark	-5.2%	21.1%	12.7	0.5	12.6
Excess	-0.0%	0.2%	-1.3	-0.2	-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) The current Domestic Equity Benchmark is 90% Russell 1000 and 10% Russell 2000.

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>
<b>Active Large Cap Growth</b>										
<b>SANDS</b>	<b>\$470,299,932</b>	<b>1.5%</b>	<b>-5.0%</b>	<b>-5.0%</b>	<b>-0.3%</b>	<b>17.5%</b>	<b>11.7%</b>	<b>16.7%</b>	<b>11.0%</b>	<b>01/2005</b>
Russell 1000 Growth			1.5	1.5	3.7	16.9	13.4	14.9	9.9	01/2005
Excess			-6.5	-6.5	-4.0	0.6	-1.7	1.7	1.1	
<b>WINSLOW</b>	<b>268,997,045</b>	<b>0.9</b>	<b>-0.3</b>	<b>-0.3</b>	<b>3.3</b>	<b>18.0</b>	<b>13.5</b>	<b>14.6</b>	<b>10.7</b>	<b>01/2005</b>
Russell 1000 Growth			1.5	1.5	3.7	16.9	13.4	14.9	9.9	01/2005
Excess			-1.8	-1.8	-0.4	1.1	0.1	-0.3	0.8	
<b>ZEVENBERGEN</b>	<b>411,243,978</b>	<b>1.3</b>	<b>-11.1</b>	<b>-11.1</b>	<b>-5.2</b>	<b>18.7</b>	<b>11.7</b>	<b>14.4</b>	<b>10.7</b>	<b>04/1994</b>
Russell 1000 Growth			1.5	1.5	3.7	16.9	13.4	14.9	9.8	04/1994
Excess			-12.6	-12.6	-8.9	1.8	-1.7	-0.5	0.9	
<b>RUSSELL 1000 GROWTH AGGREGATE</b>	<b>1,150,540,956</b>	<b>3.8</b>	<b>-6.3</b>	<b>-6.3</b>	<b>-1.4</b>	<b>18.7</b>	<b>13.5</b>	<b>15.4</b>		
Russell 1000 Growth			1.5	1.5	3.7	16.9	13.4	14.9		
Excess			-7.8	-7.8	-5.1	1.8	0.1	0.5		





	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Large Cap Growth</b>					
<b>SANDS</b>	<b>7.0%</b>	<b>35.3%</b>	<b>-6.9%</b>	<b>2.9%</b>	<b>9.1%</b>
Russell 1000 Growth	-1.5	30.2	7.1	5.7	13.0
Excess	8.6	5.1	-13.9	-2.8	-3.9
<b>WINSLOW</b>	<b>4.2</b>	<b>33.2</b>	<b>-1.9</b>	<b>6.7</b>	<b>11.0</b>
Russell 1000 Growth	-1.5	30.2	7.1	5.7	13.0
Excess	5.7	3.0	-9.0	1.0	-2.0
<b>ZEVENBERGEN</b>	<b>2.3</b>	<b>35.1</b>	<b>-2.8</b>	<b>6.4</b>	<b>3.4</b>
Russell 1000 Growth	-1.5	30.2	7.1	5.7	13.0
Excess	3.8	4.9	-9.9	0.7	-9.6
<b>RUSSELL 1000 GROWTH AGGREGATE</b>	<b>4.7%</b>	<b>33.4%</b>	<b>1.0</b>	<b>4.6</b>	<b>9.6</b>
Russell 1000 Growth	-1.5%	30.2%	7.1	5.7	13.0
Excess	6.2%	3.2%	-6.1	-1.1	-3.4



	<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>
<b>Active Large Cap Value</b>										
<b>BARROW HANLEY</b>	<b>\$432,053,752</b>	<b>1.4%</b>	<b>3.9%</b>	<b>3.9%</b>	<b>5.2%</b>	<b>11.0%</b>	<b>8.3%</b>	<b>12.0%</b>	<b>8.2%</b>	<b>04/2004</b>
Russell 1000 Value			1.4	1.4	4.0	9.4	7.8	11.5	7.7	04/2004
Excess			2.5	2.5	1.2	1.5	0.5	0.6	0.5	
<b>EARNEST PARTNERS</b>	<b>295,288,574</b>	<b>1.0</b>	<b>-0.5</b>	<b>-0.5</b>	<b>1.2</b>	<b>12.1</b>	<b>9.3</b>	<b>11.2</b>	<b>7.0</b>	<b>07/2000</b>
Russell 1000 Value			1.4	1.4	4.0	9.4	7.8	11.5	7.2	07/2000
Excess			-1.9	-1.9	-2.8	2.7	1.5	-0.3	-0.2	
<b>LSV</b>	<b>392,258,249</b>	<b>1.3</b>	<b>1.5</b>	<b>1.5</b>	<b>-0.8</b>	<b>10.2</b>	<b>7.8</b>	<b>12.2</b>	<b>8.7</b>	<b>04/2004</b>
Russell 1000 Value			1.4	1.4	4.0	9.4	7.8	11.5	7.7	04/2004
Excess			0.1	0.1	-4.8	0.8	-0.0	0.8	1.0	
<b>RUSSELL 1000 VALUE AGGREGATE</b>	<b>1,119,600,575</b>	<b>3.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>11.2</b>	<b>8.1</b>	<b>11.7</b>		
Russell 1000 Value			1.4	1.4	4.0	9.4	7.8	11.5		
Excess			0.5	0.5	-2.1	1.8	0.3	0.2		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Large Cap Value</b>					
<b>BARROW HANLEY</b>	<b>-5.9%</b>	<b>14.6%</b>	<b>12.8%</b>	<b>-2.1%</b>	<b>13.0%</b>
Russell 1000 Value	-8.3	13.7	17.3	-3.8	13.5
Excess	2.4	0.9	-4.5	1.7	-0.5
<b>EARNEST PARTNERS</b>	<b>-7.7</b>	<b>19.9</b>	<b>16.2</b>	<b>-2.7</b>	<b>14.0</b>
Russell 1000 Value	-8.3	13.7	17.3	-3.8	13.5
Excess	0.6	6.2	-1.1	1.1	0.5
<b>LSV</b>	<b>-11.8</b>	<b>18.6</b>	<b>17.0</b>	<b>-2.2</b>	<b>14.0</b>
Russell 1000 Value	-8.3	13.7	17.3	-3.8	13.5
Excess	-3.6	4.9	-0.4	1.6	0.6
<b>RUSSELL 1000 VALUE AGGREGATE</b>	<b>-8.7%</b>	<b>17.3%</b>	<b>15.3</b>	<b>-3.2</b>	<b>13.1</b>
Russell 1000 Value	-8.3%	13.7%	17.3	-3.8	13.5
Excess	-0.4%	3.7%	-2.1	0.6	-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>
<b>Semi-Passive Large Cap</b>										
<b>BLACKROCK</b>	<b>\$1,136,709,652</b>	<b>3.7%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>3.1%</b>	<b>14.4%</b>	<b>11.4%</b>	<b>13.7%</b>	<b>10.0%</b>	<b>01/1995</b>
Semi Passive Domestic Equity Benchmark			1.4	1.4	3.9	13.2	10.6	13.2	9.5	01/1995
Excess			-0.5	-0.5	-0.8	1.3	0.8	0.5	0.4	
<b>J.P. MORGAN</b>										
	<b>1,377,222,860</b>	<b>4.5</b>	<b>1.4</b>	<b>1.4</b>	<b>3.6</b>	<b>13.1</b>	<b>10.6</b>	<b>13.5</b>	<b>9.8</b>	<b>01/1995</b>
Semi Passive Domestic Equity Benchmark			1.4	1.4	3.9	13.2	10.6	13.2	9.5	01/1995
Excess			0.0	0.0	-0.3	-0.1	-0.0	0.3	0.3	
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>										
	<b>2,513,932,512</b>	<b>8.2</b>	<b>1.2</b>	<b>1.2</b>	<b>3.3</b>	<b>13.3</b>	<b>10.5</b>	<b>13.3</b>		
Semi Passive Domestic Equity Benchmark			1.4	1.4	3.9	13.2	10.6	13.2		
Excess			-0.2	-0.2	-0.5	0.1	-0.1	0.1		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Semi-Passive Large Cap</b>					
<b>BLACKROCK</b>	<b>-4.1%</b>	<b>24.6%</b>	<b>12.5%</b>	<b>0.8%</b>	<b>14.2%</b>
Semi Passive Domestic Equity Benchmark	-4.8	21.7	12.1	0.9	13.2
Excess	0.7	2.9	0.5	-0.1	1.0
<b>J.P. MORGAN</b>					
<b>J.P. MORGAN</b>	<b>-5.4</b>	<b>21.8</b>	<b>12.3</b>	<b>0.8</b>	<b>15.0</b>
Semi Passive Domestic Equity Benchmark	-4.8	21.7	12.1	0.9	13.2
Excess	-0.6	0.1	0.2	-0.1	1.8
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>					
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>-4.9%</b>	<b>22.5%</b>	<b>11.1</b>	<b>0.5</b>	<b>14.2</b>
Semi Passive Domestic Equity Benchmark	-4.8%	21.7%	12.1	0.9	13.2
Excess	-0.1%	0.8%	-1.0	-0.4	1.0



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Small Cap Growth</b>										
<b>ARROWMARK</b>	<b>\$221,490,258</b>	<b>0.7%</b>	<b>-4.8%</b>	<b>-4.8%</b>	<b>-12.9%</b>				<b>14.2%</b>	<b>11/2016</b>
Russell 2000 Growth			-4.2	-4.2	-9.6				12.5	11/2016
Excess			-0.6	-0.6	-3.2				1.6	
<b>HOOD RIVER</b>	<b>243,015,418</b>	<b>0.8</b>	<b>-8.6</b>	<b>-8.6</b>	<b>-14.3</b>				<b>11.9</b>	<b>11/2016</b>
Russell 2000 Growth			-4.2	-4.2	-9.6				12.5	11/2016
Excess			-4.4	-4.4	-4.6				-0.7	
<b>RICE HALL JAMES</b>	<b>216,411,225</b>	<b>0.7</b>	<b>-4.6</b>	<b>-4.6</b>	<b>-16.2</b>				<b>13.3</b>	<b>11/2016</b>
Russell 2000 Growth			-4.2	-4.2	-9.6				12.5	11/2016
Excess			-0.5	-0.5	-6.6				0.7	
<b>WELLINGTON</b>	<b>251,586,164</b>	<b>0.8</b>	<b>-2.9</b>	<b>-2.9</b>	<b>-6.8</b>				<b>13.2</b>	<b>11/2016</b>
Russell 2000 Growth			-4.2	-4.2	-9.6				12.5	11/2016
Excess			1.3	1.3	2.8				0.7	
<b>RUSSELL 2000 GROWTH AGGREGATE</b>	<b>932,503,064</b>	<b>3.0</b>	<b>-5.3</b>	<b>-5.3</b>	<b>-12.5</b>	<b>9.9</b>	<b>7.8</b>	<b>10.8</b>		
Russell 2000 Growth			-4.2	-4.2	-9.6	9.8	9.1	12.2		
Excess			-1.1	-1.1	-2.9	0.1	-1.3	-1.5		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Small Cap Growth</b>					
<b>ARROWMARK</b>	<b>0.9%</b>	<b>26.2%</b>			
Russell 2000 Growth	-9.3	22.2			
Excess	10.3	4.1			
<b>HOOD RIVER</b>	<b>-7.0</b>	<b>21.3</b>			
Russell 2000 Growth	-9.3	22.2			
Excess	2.3	-0.9			
<b>RICE HALL JAMES</b>	<b>-6.9</b>	<b>27.9</b>			
Russell 2000 Growth	-9.3	22.2			
Excess	2.4	5.8			
<b>WELLINGTON</b>	<b>-11.6</b>	<b>22.6</b>			
Russell 2000 Growth	-9.3	22.2			
Excess	-2.3	0.4			
<b>RUSSELL 2000 GROWTH AGGREGATE</b>	<b>-6.2%</b>	<b>22.0%</b>	<b>4.7</b>	<b>1.0</b>	<b>-3.4</b>
Russell 2000 Growth	-9.3%	22.2%	11.3	-1.4	5.6
Excess	3.2%	-0.1%	-6.6	2.4	-9.0



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Small Cap Value</b>										
<b>GOLDMAN SACHS</b>	<b>\$363,291,600</b>	<b>1.2%</b>	<b>-0.9%</b>	<b>-0.9%</b>	<b>-5.2%</b>	<b>7.6%</b>	<b>7.5%</b>	<b>12.2%</b>	<b>9.0%</b>	<b>01/2004</b>
Russell 2000 Value			-0.6	-0.6	-8.2	6.5	7.2	10.1	7.4	01/2004
Excess			-0.3	-0.3	3.0	1.1	0.3	2.1	1.6	
<b>HOTCHKIS AND WILEY</b>	<b>292,092,105</b>	<b>1.0</b>	<b>-2.0</b>	<b>-2.0</b>	<b>-12.4</b>	<b>6.3</b>	<b>4.2</b>	<b>11.7</b>	<b>7.5</b>	<b>01/2004</b>
Russell 2000 Value			-0.6	-0.6	-8.2	6.5	7.2	10.1	7.4	01/2004
Excess			-1.4	-1.4	-4.1	-0.3	-2.9	1.7	0.1	
<b>MARTINGALE</b>	<b>282,847,523</b>	<b>0.9</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-9.2</b>	<b>5.4</b>	<b>7.4</b>	<b>11.4</b>	<b>7.3</b>	<b>01/2004</b>
Russell 2000 Value			-0.6	-0.6	-8.2	6.5	7.2	10.1	7.4	01/2004
Excess			0.3	0.3	-0.9	-1.1	0.2	1.4	-0.1	
<b>PEREGRINE</b>	<b>362,212,187</b>	<b>1.2</b>	<b>0.8</b>	<b>0.8</b>	<b>-8.1</b>	<b>7.1</b>	<b>7.0</b>	<b>10.9</b>	<b>9.6</b>	<b>07/2000</b>
Russell 2000 Value			-0.6	-0.6	-8.2	6.5	7.2	10.1	9.0	07/2000
Excess			1.4	1.4	0.1	0.5	-0.2	0.9	0.6	
<b>RUSSELL 2000 VALUE AGGREGATE</b>	<b>1,300,443,414</b>	<b>4.2</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-8.6</b>	<b>6.7</b>	<b>6.5</b>	<b>11.5</b>		
Russell 2000 Value			-0.6	-0.6	-8.2	6.5	7.2	10.1		
Excess			0.0	0.0	-0.3	0.1	-0.6	1.4		





	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Small Cap Value</b>					
<b>GOLDMAN SACHS</b>	<b>-13.3%</b>	<b>12.6%</b>	<b>24.6%</b>	<b>-5.2%</b>	<b>7.4%</b>
Russell 2000 Value	-12.9	7.8	31.7	-7.5	4.2
Excess	-0.5	4.7	-7.1	2.3	3.1
<b>HOTCHKIS AND WILEY</b>					
	<b>-14.4</b>	<b>7.9</b>	<b>19.9</b>	<b>-8.5</b>	<b>13.0</b>
Russell 2000 Value	-12.9	7.8	31.7	-7.5	4.2
Excess	-1.5	0.0	-11.8	-1.0	8.8
<b>MARTINGALE</b>					
	<b>-15.0</b>	<b>6.9</b>	<b>34.3</b>	<b>-5.2</b>	<b>7.3</b>
Russell 2000 Value	-12.9	7.8	31.7	-7.5	4.2
Excess	-2.1	-0.9	2.5	2.3	3.1
<b>PEREGRINE</b>					
	<b>-16.1</b>	<b>12.5</b>	<b>27.8</b>	<b>-6.7</b>	<b>4.1</b>
Russell 2000 Value	-12.9	7.8	31.7	-7.5	4.2
Excess	-3.3	4.7	-3.9	0.8	-0.1
<b>RUSSELL 2000 VALUE AGGREGATE</b>					
	<b>-14.7%</b>	<b>10.2%</b>	<b>26.5</b>	<b>-6.5</b>	<b>7.5</b>
Russell 2000 Value	-12.9%	7.8%	31.7	-7.5	4.2
Excess	-1.8%	2.3%	-5.2	1.0	3.3



	<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>
<b>Total Passive Domestic Equity</b>										
<b>BLACKROCK RUSSELL 1000</b>	<b>\$21,578,916,848</b>	<b>70.5%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>3.9%</b>				<b>14.4%</b>	<b>11/2016</b>
Russell 1000			1.4	1.4	3.9				14.4	11/2016
Excess			0.0	0.0	0.0				-0.0	
<b>BLACKROCK RUSSELL 2000</b>	<b>579,903,897</b>		<b>-2.4</b>	<b>-2.4</b>					<b>2.3</b>	<b>11/2018</b>
RUSSELL 2000 (DAILY)			-2.4	-2.4					2.2	11/2018
Excess			-0.0	-0.0					0.1	
<b>BLACKROCK RUSSELL 3000 (1)</b>	<b>1,431,726,249</b>	<b>4.7</b>	<b>1.2</b>	<b>1.2</b>	<b>3.0</b>	<b>12.9%</b>	<b>10.5%</b>	<b>13.1%</b>	<b>9.3</b>	<b>07/1995</b>
Passive Manager Benchmark			1.2	1.2	2.9	12.8	10.4	13.1	9.2	07/1995
<b>PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>23,590,546,994</b>	<b>77.1</b>	<b>1.4</b>	<b>1.4</b>	<b>3.5</b>	<b>13.0</b>	<b>10.6</b>	<b>13.1</b>		
Passive Domestic Equity Benchmark			1.3	1.3	3.5	13.1	10.6	13.1		
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.

The passively managed portfolios may, at times, exhibit minimal tracking error from the benchmark as a result of the Sudan and Iran restrictions.



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total Passive Domestic Equity</b>					
<b>BLACKROCK RUSSELL 1000</b>	<b>-4.8%</b>	<b>21.7%</b>			
Russell 1000	-4.8	21.7			
Excess	-0.0	-0.0			
<b>BLACKROCK RUSSELL 2000</b>					
RUSSELL 2000 (DAILY)					
Excess					
<b>BLACKROCK RUSSELL 3000 (1)</b>	<b>-5.2</b>	<b>21.1</b>	<b>12.7%</b>	<b>0.5%</b>	<b>12.6%</b>
Passive Manager Benchmark	-5.2	21.1	12.7	0.5	12.6
<b>PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>-5.0%</b>	<b>21.3%</b>	<b>12.6</b>	<b>0.5</b>	<b>12.6</b>
Passive Domestic Equity Benchmark	-5.0%	21.5%	12.5	0.5	12.6
Excess	-0.0%	-0.2%	0.1	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.

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# International Equity

## September 30, 2019



	<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>
<b>Total International Equity</b>										
<b>DEVELOPED MARKETS (1)</b>	<b>\$10,953,033,062</b>	<b>75.5%</b>	<b>-1.0%</b>	<b>-1.0%</b>	<b>-1.0%</b>	<b>6.7%</b>	<b>3.7%</b>	<b>5.5%</b>		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-0.0	-0.0	-0.0	0.2	0.6	0.8		
<b>EMERGING MARKETS (2)</b>	<b>3,560,002,323</b>	<b>24.5</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-0.2</b>	<b>5.5</b>	<b>2.3</b>	<b>3.0</b>		
BENCHMARK EM			-4.2	-4.2	-2.0	6.0	2.3	3.4		
Excess			1.2	1.2	1.8	-0.5	-0.1	-0.4		
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	1,303,316	0.0								
<b>TOTAL INTERNATIONAL EQUITY (4)</b>	<b>14,514,338,702</b>	<b>100.0</b>	<b>-1.5</b>	<b>-1.5</b>	<b>-0.9</b>	<b>6.4</b>	<b>3.4</b>	<b>5.0</b>	<b>6.3</b>	<b>10/1992</b>
International Equity Benchmark			-1.8	-1.8	-1.2	6.4	2.9	4.5	5.8	10/1992
Excess			0.3	0.3	0.2	0.0	0.5	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) Does not include impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio. The current International Equity Benchmark is 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>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total International Equity</b>					
<b>DEVELOPED MARKETS (1)</b>	<b>-14.2%</b>	<b>24.9%</b>	<b>1.3%</b>	<b>-0.3%</b>	<b>-4.1%</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-0.1	0.7	-1.5	2.8	0.2
<b>EMERGING MARKETS (2)</b>	<b>-15.4</b>	<b>37.7</b>	<b>7.5</b>	<b>-13.1</b>	<b>-3.8</b>
BENCHMARK EM	-14.6	37.3	11.2	-14.9	-2.2
Excess	-0.8	0.4	-3.7	1.9	-1.6
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)					
<b>TOTAL INTERNATIONAL EQUITY (4)</b>	<b>-14.5%</b>	<b>27.6%</b>	<b>2.6</b>	<b>-2.9</b>	<b>-4.0</b>
International Equity Benchmark	-14.2%	27.2%	4.5	-5.7	-3.9
Excess	-0.3%	0.4%	-1.8	2.8	-0.2

(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) Does not include impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio. The current International Equity Benchmark is 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>
<b>Active Developed Markets</b>										
<b>ACADIAN</b>	<b>\$382,471,159</b>	<b>2.6%</b>	<b>-1.2%</b>	<b>-1.2%</b>	<b>-5.1%</b>	<b>9.9%</b>	<b>7.3%</b>	<b>7.8%</b>	<b>6.2%</b>	<b>07/2005</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.7	07/2005
Excess			-0.3	-0.3	-4.1	3.4	4.3	3.0	1.5	
<b>COLUMBIA</b>	<b>355,354,230</b>	<b>2.4</b>	<b>-0.7</b>	<b>-0.7</b>	<b>1.7</b>	<b>9.0</b>	<b>5.9</b>	<b>6.8</b>	<b>3.0</b>	<b>03/2000</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	3.3	03/2000
Excess			0.3	0.3	2.6	2.5	2.8	2.1	-0.3	
<b>FIDELITY</b>	<b>383,112,880</b>	<b>2.6</b>	<b>-1.2</b>	<b>-1.2</b>	<b>0.2</b>	<b>7.7</b>	<b>4.5</b>	<b>6.4</b>	<b>6.2</b>	<b>07/2005</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.7	07/2005
Excess			-0.3	-0.3	1.1	1.2	1.4	1.6	1.5	
<b>JP MORGAN</b>	<b>264,763,077</b>	<b>1.8</b>	<b>-1.3</b>	<b>-1.3</b>	<b>2.6</b>	<b>8.2</b>	<b>3.7</b>	<b>5.3</b>	<b>4.9</b>	<b>07/2005</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.7	07/2005
Excess			-0.4	-0.4	3.6	1.7	0.6	0.6	0.3	
<b>MARATHON</b>	<b>455,854,184</b>	<b>3.1</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-2.2</b>	<b>6.0</b>	<b>4.4</b>	<b>6.9</b>	<b>7.8</b>	<b>11/1993</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.9	11/1993
Excess			0.4	0.4	-1.3	-0.5	1.3	2.1	2.9	
<b>MCKINLEY</b>	<b>260,257,397</b>	<b>1.8</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-3.2</b>	<b>6.6</b>	<b>3.7</b>	<b>5.8</b>	<b>4.5</b>	<b>07/2005</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.7	07/2005
Excess			-0.9	-0.9	-2.2	0.2	0.6	1.0	-0.2	
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>2,101,812,926</b>	<b>14.5</b>	<b>-1.1</b>	<b>-1.1</b>	<b>-1.2</b>	<b>7.8</b>	<b>5.0</b>	<b>6.5</b>		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-0.1	-0.1	-0.2	1.3	1.9	1.7		





	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Developed Markets</b>					
<b>ACADIAN</b>	<b>-13.5%</b>	<b>37.0%</b>	<b>8.1%</b>	<b>2.4%</b>	<b>-1.7%</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	0.6	12.8	5.4	5.4	2.6
<b>COLUMBIA</b>	<b>-14.9</b>	<b>32.7</b>	<b>-5.6</b>	<b>6.4</b>	<b>-5.6</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-0.8	8.5	-8.3	9.4	-1.2
<b>FIDELITY</b>	<b>-14.6</b>	<b>25.9</b>	<b>1.2</b>	<b>0.1</b>	<b>-5.6</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-0.5	1.7	-1.5	3.2	-1.3
<b>JP MORGAN</b>	<b>-17.3</b>	<b>28.3</b>	<b>4.0</b>	<b>-4.7</b>	<b>-5.1</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-3.3	4.1	1.2	-1.6	-0.7
<b>MARATHON</b>	<b>-13.4</b>	<b>23.1</b>	<b>-1.1</b>	<b>6.7</b>	<b>-4.0</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	0.7	-1.1	-3.8	9.7	0.3
<b>MCKINLEY</b>	<b>-15.9</b>	<b>28.5</b>	<b>-7.5</b>	<b>3.1</b>	<b>-2.7</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-1.9	4.3	-10.2	6.2	1.6
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-14.5%</b>	<b>28.4%</b>	<b>-0.2</b>	<b>3.2</b>	<b>-4.1</b>
BENCHMARK DM	-14.1%	24.2%	2.7	-3.0	-4.3
Excess	-0.4%	4.2%	-3.0	6.2	0.2



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Semi-Passive Developed Markets</b>										
AQR	\$334,572,161	2.3%	-2.8%	-2.8%	-5.0%	4.1%	2.4%	5.0%	4.7%	07/2005
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	4.7	07/2005
Excess			-1.9	-1.9	-4.0	-2.4	-0.7	0.2	0.0	
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>										
	334,572,161	2.3	-2.8	-2.8	-5.0	3.5	1.4	4.3		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-1.9	-1.9	-4.0	-3.0	-1.7	-0.5		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Semi-Passive Developed Markets</b>					
AQR	-18.2%	25.1%	0.8%	0.9%	-4.4%
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-4.1	0.9	-2.0	3.9	-0.1
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-18.7%</b>	<b>23.3%</b>	<b>-0.4</b>	<b>-0.3</b>	<b>-4.4</b>
BENCHMARK DM	-14.1%	24.2%	2.7	-3.0	-4.3
Excess	-4.6%	-0.9%	-3.1	2.7	-0.1



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Developed Markets</b>										
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>\$2,101,812,926</b>	<b>14.5%</b>	<b>-1.1%</b>	<b>-1.1%</b>	<b>-1.2%</b>	<b>7.8%</b>	<b>5.0%</b>	<b>6.5%</b>		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-0.1	-0.1	-0.2	1.3	1.9	1.7		
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>334,572,161</b>	<b>2.3</b>	<b>-2.8</b>	<b>-2.8</b>	<b>-5.0</b>	<b>3.5</b>	<b>1.4</b>	<b>4.3</b>		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-1.9	-1.9	-4.0	-3.0	-1.7	-0.5		
<b>SSgA DEVELOPED MARKETS PASSIVE</b>	<b>8,516,647,975</b>	<b>58.7</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-0.7</b>	<b>6.8</b>	<b>3.5</b>	<b>5.2</b>	<b>6.1</b>	<b>10/1992</b>
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8	5.7	10/1992
Excess			0.1	0.1	0.3	0.3	0.4	0.4	0.3	
<b>DEVELOPED MARKETS TOTAL</b>	<b>10,953,033,062</b>	<b>75.5</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-1.0</b>	<b>6.7</b>	<b>3.7</b>	<b>5.5</b>		
BENCHMARK DM			-0.9	-0.9	-0.9	6.5	3.1	4.8		
Excess			-0.0	-0.0	-0.0	0.2	0.6	0.8		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total Developed Markets</b>					
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-14.5%</b>	<b>28.4%</b>	<b>-0.2%</b>	<b>3.2%</b>	<b>-4.1%</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-0.4	4.2	-3.0	6.2	0.2
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-18.7</b>	<b>23.3</b>	<b>-0.4</b>	<b>-0.3</b>	<b>-4.4</b>
BENCHMARK DM	-14.1	24.2	2.7	-3.0	-4.3
Excess	-4.6	-0.9	-3.1	2.7	-0.1
<b>SSgA DEVELOPED MARKETS PASSIVE</b>	<b>-13.9%</b>	<b>24.7%</b>	<b>3.2</b>	<b>-2.6</b>	<b>-3.9</b>
BENCHMARK DM	-14.1%	24.2%	2.7	-3.0	-4.3
Excess	0.2%	0.5%	0.4	0.5	0.4
<b>DEVELOPED MARKETS TOTAL</b>	<b>-14.2%</b>	<b>24.9%</b>	<b>1.3</b>	<b>-0.3</b>	<b>-4.1</b>
BENCHMARK DM	-14.1%	24.2%	2.7	-3.0	-4.3
Excess	-0.1%	0.7%	-1.5	2.8	0.2



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Emerging Markets</b>										
<b>EARNEST PARTNERS</b>	<b>\$303,780,164</b>	<b>2.1%</b>	<b>-2.4%</b>	<b>-2.4%</b>	<b>3.7%</b>				<b>5.9%</b>	<b>04/2017</b>
MSCI EMERGING MARKETS			-4.2	-4.2	-2.0				4.4	04/2017
Excess			1.9	1.9	5.7				1.4	
<b>MARTIN CURRIE</b>	<b>329,928,997</b>	<b>2.3</b>	<b>-2.0</b>	<b>-2.0</b>	<b>1.4</b>				<b>8.3</b>	<b>04/2017</b>
BENCHMARK EM			-4.2	-4.2	-2.0				4.4	04/2017
Excess			2.3	2.3	3.4				3.8	
<b>MACQUARIE</b>	<b>313,190,539</b>	<b>2.2</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-0.8</b>				<b>5.9</b>	<b>04/2017</b>
BENCHMARK EM			-4.2	-4.2	-2.0				4.4	04/2017
Excess			2.9	2.9	1.2				1.5	
<b>MORGAN STANLEY</b>	<b>593,872,530</b>	<b>4.1</b>	<b>-2.2</b>	<b>-2.2</b>	<b>2.0</b>	<b>4.6%</b>	<b>2.6%</b>	<b>4.1%</b>	<b>9.0</b>	<b>01/2001</b>
BENCHMARK EM			-4.2	-4.2	-2.0	6.0	2.3	3.4	8.7	01/2001
Excess			2.1	2.1	4.0	-1.4	0.2	0.7	0.3	
<b>NEUBERGER BERMAN</b>	<b>310,268,067</b>	<b>2.1</b>	<b>-2.5</b>	<b>-2.5</b>	<b>2.8</b>				<b>5.6</b>	<b>04/2017</b>
BENCHMARK EM			-4.2	-4.2	-2.0				4.4	04/2017
Excess			1.8	1.8	4.8				1.1	
<b>PZENA</b>	<b>279,980,978</b>	<b>1.9</b>	<b>-5.6</b>	<b>-5.6</b>	<b>-6.4</b>				<b>1.7</b>	<b>04/2017</b>
BENCHMARK EM			-4.2	-4.2	-2.0				4.4	04/2017
Excess			-1.3	-1.3	-4.3				-2.7	
<b>ROCK CREEK</b>	<b>288,584,421</b>	<b>2.0</b>	<b>-2.1</b>	<b>-2.1</b>	<b>1.2</b>				<b>2.9</b>	<b>04/2017</b>
BENCHMARK EM			-4.2	-4.2	-2.0				4.4	04/2017
Excess			2.2	2.2	3.2				-1.6	



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Emerging Markets</b>					
<b>EARNEST PARTNERS</b>	<b>-15.4%</b>				
MSCI EMERGING MARKETS	-14.6				
Excess	-0.8				
<b>MARTIN CURRIE</b>					
<b>BENCHMARK EM</b>	<b>-16.6</b>				
BENCHMARK EM	-14.6				
Excess	-2.0				
<b>MACQUARIE</b>					
<b>BENCHMARK EM</b>	<b>-13.3</b>				
BENCHMARK EM	-14.6				
Excess	1.3				
<b>MORGAN STANLEY</b>					
<b>BENCHMARK EM</b>	<b>-16.7</b>	<b>37.9%</b>	<b>6.1%</b>	<b>-9.4%</b>	<b>-2.5%</b>
BENCHMARK EM	-14.6	37.3	11.2	-14.9	-2.2
Excess	-2.2	0.6	-5.1	5.5	-0.3
<b>NEUBERGER BERMAN</b>					
<b>BENCHMARK EM</b>	<b>-17.1</b>				
BENCHMARK EM	-14.6				
Excess	-2.6				
<b>PZENA</b>					
<b>BENCHMARK EM</b>	<b>-10.8</b>				
BENCHMARK EM	-14.6				
Excess	3.8				
<b>ROCK CREEK</b>					
<b>BENCHMARK EM</b>	<b>-17.6</b>				
BENCHMARK EM	-14.6				
Excess	-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>
<b>Total Emerging Markets</b>										
<b>ACTIVE EMERGING MARKETS AGGREGATE</b>	\$2,419,605,695	16.7%	-2.5%	-2.5%	0.7%	4.9%	2.0%	2.8%		
BENCHMARK EM			-4.2	-4.2	-2.0	6.0	2.3	3.4		
Excess			1.7	1.7	2.7	-1.1	-0.4	-0.5		
<b>SSGA EMERGING MARKETS PASSIVE</b>	1,140,396,628	7.9	-4.3	-4.3	-2.2	5.8	2.4		3.7	01/2012
BENCHMARK EM			-4.2	-4.2	-2.0	6.0	2.3		3.7	01/2012
Excess			-0.1	-0.1	-0.2	-0.2	0.1		0.1	
<b>EMERGING MARKETS TOTAL</b>	3,560,002,323	24.5	-3.1	-3.1	-0.2	5.5	2.3	3.0		
BENCHMARK EM			-4.2	-4.2	-2.0	6.0	2.3	3.4		
Excess			1.2	1.2	1.8	-0.5	-0.1	-0.4		





	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total Emerging Markets</b>					
<b>ACTIVE EMERGING MARKETS AGGREGATE</b>	-15.6%	37.2%	5.3%	-12.7%	-4.1%
BENCHMARK EM	-14.6	37.3	11.2	-14.9	-2.2
Excess	-1.0	-0.1	-5.9	2.2	-2.0
<b>SSGA EMERGING MARKETS PASSIVE</b>					
<b>SSGA EMERGING MARKETS PASSIVE</b>	-14.7%	37.4%	11.1	-14.6	-2.1
BENCHMARK EM	-14.6%	37.3%	11.2	-14.9	-2.2
Excess	-0.1%	0.1%	-0.1	0.3	0.0
<b>EMERGING MARKETS TOTAL</b>					
<b>EMERGING MARKETS TOTAL</b>	-15.4%	37.7%	7.5	-13.1	-3.8
BENCHMARK EM	-14.6%	37.3%	11.2	-14.9	-2.2
Excess	-0.8%	0.4%	-3.7	1.9	-1.6

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# Fixed Income

## September 30, 2019



	<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>
<b>Total Fixed Income</b>										
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>\$4,260,872,681</b>	<b>56.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>10.3%</b>	<b>3.8%</b>	<b>4.1%</b>	<b>5.0%</b>		
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7		
Excess			-0.1	-0.1	0.0	0.9	0.7	1.2		
<b>SEMI PASSIVE FIXED INCOME AGGREGATE</b>	<b>3,314,764,904</b>	<b>43.8</b>	<b>2.5</b>	<b>2.5</b>	<b>10.6</b>	<b>3.1</b>	<b>3.6</b>	<b>4.2</b>		
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7		
Excess			0.2	0.2	0.3	0.2	0.2	0.5		
TRANSITION AGGREGATE FIXED INCOME (1)	18,272	0.0								
<b>TOTAL FIXED INCOME (2)</b>	<b>7,575,655,857</b>	<b>100.0</b>	<b>2.3</b>	<b>2.3</b>	<b>10.4</b>	<b>3.5</b>	<b>3.8</b>	<b>4.6</b>	<b>7.5</b>	<b>07/1984</b>
Fixed Income Benchmark			2.3	2.3	10.3	2.9	3.4	3.7	7.2	07/1984
Excess			0.0	0.0	0.1	0.5	0.4	0.8	0.4	

(1) The Transition Aggregate Fixed Income includes fixed income securities that are being transition to a different manager.

(2) The current Fixed Income 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>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Total Fixed Income</b>					
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>0.0%</b>	<b>4.7%</b>	<b>4.4%</b>	<b>0.6%</b>	<b>6.2%</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.0	1.2	1.7	0.0	0.2
<b>SEMI PASSIVE FIXED INCOME AGGREGATE</b>	<b>-0.1</b>	<b>3.7</b>	<b>2.8</b>	<b>0.8</b>	<b>6.1</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.1	0.2	0.2	0.2	0.1
TRANSITION AGGREGATE FIXED INCOME (1)					
<b>TOTAL FIXED INCOME (2)</b>	<b>-0.0%</b>	<b>4.2%</b>	<b>3.6</b>	<b>0.7</b>	<b>6.1</b>
Fixed Income Benchmark	0.0%	3.5%	2.6	0.5	6.0
Excess	-0.1%	0.7%	0.9	0.1	0.2

(1) The Transition Aggregate Fixed Income includes fixed income securities that are being transition to a different manager.

(2) The current Fixed Income 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>
<b>Active Fixed Income Managers</b>										
<b>COLUMBIA</b>	<b>\$1,088,302,108</b>	<b>14.4%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>11.3%</b>	<b>4.2%</b>	<b>4.4%</b>	<b>4.9%</b>	<b>5.5%</b>	<b>07/1993</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	5.3	07/1993
Excess			0.2	0.2	1.0	1.3	1.0	1.1	0.2	
<b>DODGE &amp; COX</b>	<b>1,076,188,981</b>	<b>14.2</b>	<b>2.1</b>	<b>2.1</b>	<b>9.2</b>	<b>3.8</b>	<b>3.8</b>	<b>4.8</b>	<b>6.1</b>	<b>02/2000</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	5.1	02/2000
Excess			-0.2	-0.2	-1.1	0.9	0.4	1.1	0.9	
<b>PIMCO</b>	<b>968,711,485</b>	<b>12.8</b>	<b>1.6</b>	<b>1.6</b>	<b>9.7</b>	<b>3.2</b>	<b>3.7</b>	<b>4.7</b>	<b>5.6</b>	<b>10/2008</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	4.3	10/2008
Excess			-0.7	-0.7	-0.6	0.3	0.3	1.0	1.2	
<b>WESTERN</b>	<b>1,127,670,107</b>	<b>14.9</b>	<b>2.6</b>	<b>2.6</b>	<b>11.2</b>	<b>4.2</b>	<b>4.5</b>	<b>5.4</b>	<b>8.4</b>	<b>07/1984</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	7.2	07/1984
Excess			0.4	0.4	0.9	1.2	1.1	1.6	1.1	
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>4,260,872,681</b>	<b>56.2</b>	<b>2.2</b>	<b>2.2</b>	<b>10.3</b>	<b>3.8</b>	<b>4.1</b>	<b>5.0</b>		
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7		
Excess			-0.1	-0.1	0.0	0.9	0.7	1.2		



	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Active Fixed Income Managers</b>					
<b>COLUMBIA</b>	<b>0.2%</b>	<b>4.8%</b>	<b>5.2%</b>	<b>0.2%</b>	<b>5.8%</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	0.2	1.2	2.6	-0.4	-0.2
<b>DODGE &amp; COX</b>	<b>-0.0</b>	<b>4.2</b>	<b>4.8</b>	<b>0.3</b>	<b>6.0</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.1	0.7	2.2	-0.3	0.0
<b>PIMCO</b>	<b>0.4</b>	<b>4.4</b>	<b>2.8</b>	<b>1.0</b>	<b>5.5</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	0.4	0.8	0.2	0.4	-0.4
<b>WESTERN</b>	<b>-0.2</b>	<b>5.6</b>	<b>4.9</b>	<b>0.7</b>	<b>7.0</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.3	2.1	2.2	0.1	1.0
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>0.0%</b>	<b>4.7%</b>	<b>4.4</b>	<b>0.6</b>	<b>6.2</b>
BBG BARC Agg (Dly)	0.0%	3.5%	2.6	0.5	6.0
Excess	-0.0%	1.2%	1.7	0.0	0.2



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Semi Passive Fixed Income Managers</b>										
<b>BLACKROCK</b>	<b>\$1,086,983,879</b>	<b>14.3%</b>	<b>2.3%</b>	<b>2.3%</b>	<b>10.6%</b>	<b>3.1%</b>	<b>3.5%</b>	<b>4.0%</b>	<b>5.3%</b>	<b>04/1996</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	5.2	04/1996
Excess			0.0	0.0	0.3	0.1	0.2	0.2	0.1	
<b>GOLDMAN SACHS</b>	<b>1,198,641,828</b>	<b>15.8</b>	<b>2.7</b>	<b>2.7</b>	<b>10.7</b>	<b>3.3</b>	<b>3.7</b>	<b>4.3</b>	<b>5.6</b>	<b>07/1993</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	5.3	07/1993
Excess			0.4	0.4	0.4	0.4	0.3	0.6	0.3	
<b>NEUBERGER</b>	<b>1,029,139,197</b>	<b>13.6</b>	<b>2.4</b>	<b>2.4</b>	<b>10.4</b>	<b>3.0</b>	<b>3.5</b>	<b>4.3</b>	<b>6.4</b>	<b>07/1988</b>
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7	6.2	07/1988
Excess			0.1	0.1	0.1	0.1	0.1	0.5	0.2	
<b>SEMI PASSIVE FIXED INCOME</b>	<b>3,314,764,904</b>	<b>43.8</b>	<b>2.5</b>	<b>2.5</b>	<b>10.6</b>	<b>3.1</b>	<b>3.6</b>	<b>4.2</b>		
BBG BARC Agg (Dly)			2.3	2.3	10.3	2.9	3.4	3.7		
Excess			0.2	0.2	0.3	0.2	0.2	0.5		





	<u>2018 Calendar Return</u>	<u>2017 Calendar Return</u>	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>
<b>Semi Passive Fixed Income Managers</b>					
<b>BLACKROCK</b>	<b>-0.1%</b>	<b>3.7%</b>	<b>2.8%</b>	<b>0.9%</b>	<b>6.0%</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.2	0.1	0.1	0.3	0.0
<b>GOLDMAN SACHS</b>	<b>-0.0</b>	<b>3.9</b>	<b>3.0</b>	<b>0.8</b>	<b>6.1</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.0	0.4	0.3	0.2	0.1
<b>NEUBERGER</b>	<b>-0.1</b>	<b>3.6</b>	<b>2.7</b>	<b>0.7</b>	<b>6.1</b>
BBG BARC Agg (Dly)	0.0	3.5	2.6	0.5	6.0
Excess	-0.1	0.0	0.1	0.2	0.2
<b>SEMI PASSIVE FIXED INCOME</b>	<b>-0.1%</b>	<b>3.7%</b>	<b>2.8</b>	<b>0.8</b>	<b>6.1</b>
BBG BARC Agg (Dly)	0.0%	3.5%	2.6	0.5	6.0
Excess	-0.1%	0.2%	0.2	0.2	0.1

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# Treasuries

## September 30, 2019



	<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>
<b>Treasuries Managers</b>										
<b>BLACKROCK</b>	<b>\$2,497,438,632</b>	<b>33.3%</b>	<b>4.5%</b>	<b>4.5%</b>	<b>17.0%</b>				<b>9.0%</b>	<b>02/2018</b>
BBG BARC 5Y + Us Tsy Idx			4.6	4.6	17.2				9.2	02/2018
Excess			-0.1	-0.1	-0.2				-0.2	
<b>GOLDMAN SACHS</b>	<b>2,487,105,330</b>	<b>33.2</b>	<b>4.6</b>	<b>4.6</b>	<b>17.1</b>				<b>9.2</b>	<b>02/2018</b>
BBG BARC 5Y + Us Tsy Idx			4.6	4.6	17.2				9.2	02/2018
Excess			0.0	0.0	-0.0				-0.0	
<b>NEUBERGER</b>	<b>2,507,012,929</b>	<b>33.5</b>	<b>4.5</b>	<b>4.5</b>	<b>16.9</b>				<b>9.0</b>	<b>02/2018</b>
BBG BARC 5Y + Us Tsy Idx			4.6	4.6	17.2				9.2	02/2018
Excess			-0.1	-0.1	-0.3				-0.2	
TREASURIES TRANSITION ACCOUNT	0	0.0								03/2018
<b>TOTAL TREASURIES</b>	<b>7,491,556,892</b>	<b>100.0</b>	<b>4.5</b>	<b>4.5</b>	<b>17.0</b>				<b>9.1%</b>	<b>02/2018</b>
BBG BARC 5Y + Us Tsy Idx			4.6	4.6	17.2				9.2%	02/2018
Excess			-0.1	-0.1	-0.2				-0.1%	



2018 Calendar Return

2017 Calendar Return

2016 Calendar Return

2015 Calendar Return

2014 Calendar Return

**Treasuries Managers**

**BLACKROCK**

BBG BARC 5Y + Us Tsy Idx

Excess

**GOLDMAN SACHS**

BBG BARC 5Y + Us Tsy Idx

Excess

**NEUBERGER**

BBG BARC 5Y + Us Tsy Idx

Excess

**TOTAL TREASURIES**

BBG BARC 5Y + Us Tsy Idx

Excess

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# Private Markets

## September 30, 2019



## 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	1.8%	1.8%	8.0%	13.7%	9.5%	12.6%	12.5%	13.7%	12.2%
Private Equity	3.5%	3.5%	12.8%	17.4%	14.3%	15.5%	13.3%	15.6%	
Private Credit	1.4	1.4	7.5	13.0	12.7	13.4	12.3		
Resources	-3.5	-3.5	-5.3	5.2	-4.8	5.9	14.9	14.4	
Real Estate	3.1	3.1	9.6	10.5	11.0	10.1	9.0	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 September 30, 2019

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>I. PRIVATE EQUITY</b>								
<b>Adams Street Partners</b>								
<i>Adams Street Global Secondary Fund 5</i>	100,000,000	76,529,750	52,015,542	41,408,361	23,470,250	6.14	1.22	<b>7.03</b>
<i>Adams Street Global Secondary Fund 6</i>	100,000,000	16,200,000	18,780,613	1,214,007	83,800,000	54.25	1.23	<b>2.25</b>
<b>Advent International</b>								
<i>Advent International GPE VI</i>	50,000,000	52,993,313	7,933,114	100,573,095	0	16.87	2.05	<b>11.25</b>
<i>Advent International GPE VII</i>	90,000,000	84,690,641	73,745,247	76,856,730	5,400,000	15.66	1.78	<b>6.79</b>
<i>Advent International GPE VIII</i>	100,000,000	86,850,000	106,249,598	0	13,150,000	13.21	1.22	<b>3.40</b>
<i>Advent International GPE IX</i>	115,000,000	0	0	0	115,000,000	0.00	0.00	<b>0.39</b>
<b>Affinity Ventures</b>								
<i>Affinity Ventures IV</i>	4,000,000	4,000,000	361,670	1,541,970	0	-14.95	0.48	<b>15.01</b>
<i>Affinity Ventures V</i>	5,000,000	5,000,000	2,121,226	1,706,245	0	-4.64	0.77	<b>11.00</b>
<b>APAX Partners</b>								
<i>Apax VIII - USD</i>	200,000,000	222,011,295	141,509,235	211,796,833	14,644,515	14.63	1.59	<b>6.32</b>
<i>Apax IX - USD</i>	150,000,000	86,568,051	117,492,466	3,944,404	67,376,353	23.54	1.40	<b>3.11</b>
<i>Apax X - USD</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	<b>0.23</b>
<b>Arsenal Capital Partners</b>								
<i>Arsenal Fund V</i>	75,000,000	20,164,317	20,164,317	0	54,835,683	0.00	1.00	<b>0.49</b>
<b>Asia Alternatives</b>								
<i>Asia Alternatives Capital Partners V</i>	96,665,054	17,377,924	12,937,036	326,117	79,605,084	-27.91	0.76	<b>2.00</b>
<b>Banc Fund</b>								
<i>Banc Fund VIII</i>	98,250,000	98,250,000	61,930,663	153,857,973	0	13.56	2.20	<b>11.19</b>
<i>Banc Fund IX</i>	107,205,932	107,205,932	115,345,006	18,611,685	0	7.55	1.25	<b>5.06</b>
<i>Banc Fund X</i>	71,110,909	28,538,182	27,921,072	0	42,572,727	-3.54	0.98	<b>1.16</b>
<b>BlackRock</b>								
<i>BlackRock Long Term Capital</i>	250,000,000	128,286,877	128,286,877	0	121,713,123	0.00	1.00	<b>0.50</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Blackstone Capital Partners</b>								
<i>Blackstone Capital Partners IV</i>	70,000,000	84,459,884	1,721,294	200,025,244	1,832,302	37.03	2.39	<b>16.98</b>
<i>Blackstone Capital Partners V</i>	140,000,000	152,325,955	5,100,832	238,264,005	7,027,560	7.92	1.60	<b>13.41</b>
<i>Blackstone Capital Partners VI</i>	100,000,000	104,518,803	78,340,918	87,974,033	12,389,605	12.57	1.59	<b>10.94</b>
<i>Blackstone Capital Partners VII</i>	130,000,000	89,489,563	98,133,014	7,981,220	51,474,478	14.71	1.19	<b>4.00</b>
<i>Blackstone Capital Partners VIII</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	<b>0.50</b>
<b>Blackstone Strategic Partners (CSFB/ DLJ)</b>								
<i>Strategic Partners III VC</i>	25,000,000	25,019,448	2,829,063	31,323,081	1,047,970	6.03	1.37	<b>14.09</b>
<i>Strategic Partners III-B</i>	100,000,000	79,537,463	4,110,729	114,637,090	14,895,771	6.37	1.49	<b>14.09</b>
<i>Strategic Partners IV VC</i>	40,500,000	41,489,742	9,311,873	54,099,011	2,391,934	9.28	1.53	<b>11.27</b>
<i>Strategic Partners IV-B</i>	100,000,000	99,100,187	9,003,992	144,758,273	17,715,448	12.20	1.55	<b>11.04</b>
<i>Strategic Partners V</i>	100,000,000	84,263,725	18,417,161	117,583,009	37,827,176	18.99	1.61	<b>7.87</b>
<i>Strategic Partners VI</i>	150,000,000	96,292,764	48,711,920	93,745,559	59,624,500	16.80	1.48	<b>5.21</b>
<i>Strategic Partners VII</i>	150,000,000	95,173,160	104,150,009	22,229,494	68,279,185	21.34	1.33	<b>2.52</b>
<i>Strategic Partners VIII</i>	150,000,000	17,626,243	18,307,445	0	132,373,757	11.19	1.04	<b>0.75</b>
<b>Bridgepoint</b>								
<i>Bridgepoint Europe VI</i>	163,967,495	22,600,015	20,153,221	0	141,367,480	-23.88	0.89	<b>1.28</b>
<b>Brookfield Asset Management</b>								
<i>Brookfield Capital Partners Fund IV</i>	100,000,000	90,760,734	93,067,996	110,229,853	27,499,345	57.27	2.24	<b>3.80</b>
<i>Brookfield Capital Partners V</i>	250,000,000	29,176,174	25,622,925	0	220,823,826	-12.18	0.88	<b>0.93</b>
<b>Cardinal Partners</b>								
<i>DSV Partners IV</i>	10,000,000	10,000,000	30,849	39,196,082	0	10.61	3.92	<b>34.51</b>
<b>Carlyle Group</b>								
<i>Carlyle Partners VII</i>	150,000,000	36,396,572	32,603,327	102,703	113,706,131	-19.24	0.90	<b>1.54</b>
<b>Chicago Growth Partners (William Blair)</b>								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	1,075,176	69,201,191	1,650,000	8.60	1.46	<b>18.32</b>
<i>Chicago Growth Partners I</i>	50,000,000	52,441,998	1,865,244	54,532,745	300,000	1.70	1.08	<b>13.94</b>
<i>Chicago Growth Partners II</i>	60,000,000	58,347,626	3,406,479	121,871,703	1,652,374	19.74	2.15	<b>11.31</b>
<b>Court Square Capital Partners</b>								
<i>Court Square Capital Partners II</i>	175,000,000	170,186,067	17,788,826	293,299,965	16,189,027	12.87	1.83	<b>12.82</b>
<i>Court Square Capital Partners III</i>	175,000,000	181,075,938	178,607,832	91,142,790	13,078,975	17.82	1.49	<b>7.08</b>
<i>Court Square Capital Partners IV</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	<b>1.14</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Crescendo</b>								
<i>Crescendo IV</i>	101,500,000	103,101,226	3,153,357	55,121,736	0	-4.62	0.57	<b>19.32</b>
<b>CVC Capital Partners</b>								
<i>CVC European Equity Partners V</i>	133,873,328	153,813,045	18,207,579	271,080,835	1,557,066	16.47	1.88	<b>11.27</b>
<i>CVC Capital Partners VI</i>	256,095,550	255,492,099	239,740,683	115,796,003	49,417,991	14.07	1.39	<b>5.98</b>
<b>Elevation Partners</b>								
<i>Elevation Partners</i>	75,000,000	73,237,580	144,197	113,492,106	799,634	11.81	1.55	<b>14.13</b>
<b>Glouston Capital Partners**</b>								
<i>Glouston Private Equity Opportunities Fund IV</i>	5,337,098	4,378,779	1,159,479	3,606,251	1,090,000	3.66	1.09	<b>4.50</b>
<b>Goldner Hawn Johnson &amp; Morrison</b>								
<i>TrailHead Fund</i>	20,000,000	16,070,803	30,446,110	12,806,955	3,935,813	19.92	2.69	<b>7.35</b>
<i>Goldner Hawn Fund VII, L.P.</i>	75,000,000	6,379,673	6,213,880	0	68,786,120	-2.60	0.97	<b>1.18</b>
<b>GS Capital Partners</b>								
<i>GS Capital Partners V</i>	100,000,000	74,319,006	1,095,946	191,435,136	1,041,099	18.26	2.59	<b>14.25</b>
<i>GS Capital Partners VI</i>	100,000,000	110,136,316	13,065,626	130,860,795	2,551,356	7.23	1.31	<b>12.41</b>
<i>GS Vintage VII</i>	100,000,000	75,764,621	71,440,371	21,679,261	46,019,327	20.06	1.23	<b>3.00</b>
<i>West Street Capital Partners VII</i>	150,000,000	81,153,586	75,834,600	12,491,195	80,258,025	8.13	1.09	<b>2.52</b>
<i>GS China-US Cooperation Fund</i>	99,800,000	10,154,445	8,035,317	0	89,820,000	-20.87	0.79	<b>1.12</b>
<b>GTCR</b>								
<i>GTCR IX</i>	75,000,000	71,414,933	204,270	128,764,150	3,585,067	13.77	1.81	<b>13.00</b>
<i>GTCR X</i>	100,000,000	103,907,821	18,290,964	188,421,061	6,751,396	21.21	1.99	<b>8.56</b>
<i>GTCR XI</i>	110,000,000	97,445,726	96,452,802	74,878,725	13,716,556	24.34	1.76	<b>5.62</b>
<b>HarbourVest**</b>								
<i>Dover Street VII Cayman Fund</i>	2,198,112	2,073,547	287,004	1,606,086	132,416	-4.37	0.91	<b>4.50</b>
<i>HarbourVest Intl PE Partners V-Cayman US</i>	3,515,037	3,345,135	707,222	3,671,861	174,432	13.44	1.31	<b>4.50</b>
<i>Harbourvest Intl PE Partners VI-Cayman</i>	4,226,947	3,999,823	3,639,855	2,552,284	228,942	14.90	1.55	<b>4.50</b>
<i>HarbourVest Partners VIII Cayman Buyout</i>	4,506,711	4,298,488	1,467,287	4,385,420	234,000	13.91	1.36	<b>4.50</b>
<i>HarbourVest Partners VIII-Cayman Venture</i>	7,190,898	7,079,986	3,882,022	5,591,718	140,000	9.89	1.34	<b>4.50</b>
<b>Hellman &amp; Friedman</b>								
<i>Hellman &amp; Friedman Capital Partners VI</i>	175,000,000	171,037,755	8,543,993	309,639,874	5,084,864	12.94	1.86	<b>12.25</b>
<i>Hellman &amp; Friedman Capital Partners VII</i>	50,000,000	49,780,756	72,619,743	63,087,992	2,321,599	24.82	2.73	<b>10.20</b>
<i>Hellman &amp; Friedman Investors IX</i>	175,000,000	0	-313,512	0	172,258,308	0.00	0.00	<b>1.00</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>IK Investment Partners</b>								
<i>IK Fund VII</i>	179,976,867	177,217,341	169,801,985	118,317,923	8,268,372	13.38	1.63	<b>5.79</b>
<i>IK Fund VIII</i>	170,277,658	140,605,202	156,521,338	10,490,238	31,113,932	12.00	1.19	<b>2.94</b>
<i>IK Fund IX</i>	147,176,977	0	0	0	147,176,977	0.00	0.00	<b>0.22</b>
<b>Kohlberg Kravis Roberts</b>								
<i>KKR Millennium Fund</i>	200,000,000	205,167,570	178,659	424,946,028	0	16.37	2.07	<b>16.56</b>
<i>KKR 2006 Fund</i>	200,000,000	218,929,496	62,282,488	319,431,205	3,360,223	9.09	1.74	<b>12.76</b>
<i>KKR Americas Fund XII</i>	150,000,000	68,869,036	70,336,858	988,851	83,012,133	3.53	1.04	<b>3.32</b>
<i>KKR Asian Fund III</i>	100,000,000	45,476,787	56,147,404	0	56,586,846	32.38	1.23	<b>2.25</b>
<i>KKR Europe V</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.90</b>
<b>Leonard Green &amp; Partners</b>								
<i>Green Equity Investors VI</i>	200,000,000	216,367,988	216,924,027	150,920,889	20,125,964	15.79	1.70	<b>7.29</b>
<b>Lexington Capital Partners</b>								
<i>Lexington Capital Partners VI</i>	100,000,000	98,374,022	8,400,633	137,674,753	1,634,703	7.97	1.48	<b>13.52</b>
<i>Lexington Capital Partners VII</i>	200,000,000	172,466,709	49,001,283	224,787,726	38,059,995	14.65	1.59	<b>10.47</b>
<i>Lexington Capital Partners VIII</i>	150,000,000	130,580,881	109,523,152	60,761,397	34,927,109	17.69	1.30	<b>5.33</b>
<i>Lexington Co-Investment Partners IV</i>	200,000,000	138,959,268	153,867,772	8,030,822	69,071,554	15.57	1.17	<b>2.91</b>
<i>Lexington Middle Market Investors IV</i>	100,000,000	14,697,921	14,085,445	1,458,011	85,302,079	33.19	1.06	<b>2.52</b>
<i>Lexington Capital Partners IX</i>	150,000,000	0	7,320,320	0	150,000,000	0.00	0.00	<b>0.98</b>
<b>Madison Dearborn Capital Partners</b>								
<i>Madison Dearborn Capital Partners VII</i>	100,000,000	74,247,508	77,185,765	9,263,520	34,980,617	9.41	1.16	<b>3.53</b>
<b>Neuberger Berman</b>								
<i>Dyal Capital Partners III</i>	175,000,000	157,517,601	104,113,637	96,707,901	110,790,409	24.08	1.27	<b>4.19</b>
<i>Dyal Capital Partners IV</i>	250,000,000	12,321,852	10,164,975	7,218,453	244,666,225	34.55	1.41	<b>1.23</b>
<b>Nordic Capital</b>								
<i>Nordic Capital Fund VIII</i>	174,023,661	191,778,674	149,985,733	116,714,756	99,791,412	12.06	1.39	<b>5.80</b>
<i>Nordic Capital Fund IX Beta</i>	164,523,788	29,018,962	37,354,413	0	135,504,826	41.17	1.29	<b>2.20</b>
<b>North Sky Capital**</b>								
<i>North Sky Capital LBO Fund III</i>	1,070,259	720,259	319,400	730,649	350,000	15.02	1.46	<b>4.50</b>
<i>North Sky Capital Venture Fund III</i>	1,384,080	1,277,830	403,516	1,369,463	106,250	14.17	1.39	<b>4.50</b>
<b>Oak Hill Capital Management, Inc.</b>								
<i>Oak Hill Capital Partners IV</i>	150,000,000	111,004,648	105,307,289	28,267,962	60,791,788	27.13	1.20	<b>2.55</b>
<i>Oak Hill Capital Partners V</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.81</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Paine Schwartz</b>								
<i>Paine Schwartz IV</i>	75,000,000	55,500,176	54,674,309	14,823,737	20,572,978	9.16	1.25	<b>4.55</b>
<i>Paine Schwartz V</i>	150,000,000	0	-1,403,561	0	150,000,000	0.00	0.00	<b>1.16</b>
<b>Permira</b>								
<i>Permira V</i>	176,451,258	173,011,785	177,982,592	130,692,177	24,301,422	16.20	1.78	<b>5.50</b>
<i>Permira VI</i>	135,326,423	106,588,083	117,873,698	0	28,738,340	8.42	1.11	<b>2.93</b>
<i>Permira VII</i>	136,274,979	0	0	0	136,274,979	0.00	0.00	<b>0.33</b>
<b>Public Pension Capital Management</b>								
<i>Public Pension Capital</i>	150,000,000	80,038,762	84,501,812	45,529,760	80,350,177	24.47	1.62	<b>5.12</b>
<b>RWI Ventures</b>								
<i>RWI Ventures I</i>	7,603,265	7,603,265	452,827	6,122,274	0	-4.06	0.86	<b>13.01</b>
<b>Silver Lake Partners</b>								
<i>Silver Lake Partners II</i>	100,000,000	90,200,747	788,015	171,246,452	11,771,953	11.03	1.91	<b>15.00</b>
<i>Silver Lake Partners III</i>	100,000,000	91,883,682	20,664,310	174,273,455	10,559,311	17.92	2.12	<b>12.25</b>
<i>Silver Lake Partners IV</i>	100,000,000	110,963,357	131,170,350	71,937,602	5,231,461	25.38	1.83	<b>6.76</b>
<i>Silver Lake Partners V</i>	135,000,000	54,849,621	59,165,573	34,993	66,152,791	8.41	1.08	<b>2.25</b>
<b>Split Rock Partners</b>								
<i>Split Rock Partners</i>	50,000,000	47,890,906	4,161,082	58,794,192	2,109,094	3.36	1.31	<b>14.17</b>
<i>Split Rock Partners II</i>	60,000,000	59,165,000	29,186,473	47,174,545	835,000	5.42	1.29	<b>11.18</b>
<b>Summit Partners</b>								
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	115,015,327	58,818,707	185,297,717	24,040,551	26.67	2.12	<b>8.16</b>
<i>Summit Partners Growth Equity Fund IX</i>	100,000,000	89,010,000	86,940,772	22,462,537	33,452,537	23.38	1.23	<b>3.84</b>
<i>Summit Partners Growth Equity Fund X</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	<b>0.57</b>
<b>Thoma Bravo</b>								
<i>Thoma Bravo Fund XII</i>	75,000,000	72,508,720	87,672,981	3,754,581	6,317,096	12.65	1.26	<b>2.81</b>
<i>Thoma Bravo Fund XIII</i>	150,000,000	54,155,519	53,533,597	606	95,844,481	-1.49	0.99	<b>1.25</b>
<b>Thoma Cressey</b>								
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	470,929	107,057,940	0	23.59	2.15	<b>18.85</b>
<i>Thoma Cressey Fund VIII</i>	70,000,000	69,577,712	455,727	202,471,763	770,000	18.27	2.92	<b>13.17</b>
<b>Thomas H. Lee Partners</b>								
<i>Thomas H. Lee Equity Fund VII</i>	100,000,000	96,384,736	102,000,042	30,607,993	12,381,626	20.30	1.38	<b>3.81</b>
<i>Thomas H. Lee Equity Fund VIII</i>	150,000,000	23,788,070	24,462,914	0	126,211,930	14.83	1.03	<b>1.25</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Thomas, McNerney &amp; Partners</b>								
<i>Thomas, McNerney &amp; Partners I</i>	30,000,000	30,000,000	4,413,401	15,087,143	0	-6.40	0.65	<b>16.66</b>
<i>Thomas, McNerney &amp; Partners II</i>	50,000,000	48,125,000	5,822,888	107,648,037	1,875,000	16.81	2.36	<b>13.00</b>
<b>TPG Capital</b>								
<i>TPG Partners VII</i>	100,000,000	91,288,032	95,634,638	20,095,779	16,303,486	13.83	1.27	<b>3.81</b>
<i>TPG Partners VIII</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	<b>1.25</b>
<b>Vestar Capital Partners</b>								
<i>Vestar Capital Partners IV</i>	55,000,000	55,652,024	604,802	102,273,825	57,313	14.64	1.85	<b>19.55</b>
<i>Vestar Capital Partners V</i>	75,000,000	76,456,520	9,851,468	90,693,238	0	3.92	1.32	<b>13.54</b>
<i>Vestar Capital Partners VI</i>	100,000,000	106,195,246	68,244,726	118,359,663	357,259	25.92	1.76	<b>7.77</b>
<i>Vestar Capital Partners VII</i>	150,000,000	26,562,663	23,376,817	0	123,437,337	-13.32	0.88	<b>1.54</b>
<b>Warburg Pincus</b>								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	388,267	163,542,253	0	10.03	1.64	<b>21.02</b>
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,373,266	636,473	228,717,051	0	14.75	2.29	<b>17.22</b>
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	5,358,332	168,617,201	0	9.74	1.74	<b>13.93</b>
<i>Warburg Pincus Private Equity X</i>	150,000,000	150,000,000	63,197,860	195,328,700	0	9.25	1.72	<b>11.69</b>
<i>Warburg Pincus Private Equity XI</i>	200,000,000	200,299,952	169,218,915	158,971,948	0	13.69	1.64	<b>6.52</b>
<i>Warburg Pincus Private Equity XII</i>	131,000,000	118,096,500	130,677,080	10,325,813	12,903,500	10.91	1.19	<b>3.61</b>
<i>Warburg Pincus China</i>	45,000,000	42,615,000	43,735,336	5,879,250	4,320,000	12.30	1.16	<b>2.55</b>
<i>Warburg Pincus Financial Sector</i>	90,000,000	45,198,308	37,687,611	4,590,000	49,230,000	-9.28	0.94	<b>1.54</b>
<i>Warburg Pincus Global Growth</i>	250,000,000	14,959,589	13,249,198	0	234,875,000	-23.43	0.89	<b>0.86</b>
<i>Warburg Pincus China-Southeast Asia II</i>	50,000,000	1,750,000	1,750,000	0	48,250,000	0.00	1.00	<b>0.32</b>
<b>Wellspring Capital Partners</b>								
<i>Wellspring Capital Partners VI</i>	125,000,000	35,440,817	32,306,715	0	89,559,183	-15.34	0.91	<b>2.79</b>
<b>Welsh, Carson, Anderson &amp; Stowe</b>								
<i>Welsh, Carson, Anderson &amp; Stowe XI</i>	100,000,000	100,000,000	34,778,690	129,502,945	0	12.20	1.64	<b>10.95</b>
<i>Welsh, Carson, Anderson &amp; Stowe XII</i>	150,000,000	125,826,129	138,566,989	55,526,905	24,173,871	22.62	1.54	<b>4.53</b>
<i>Welsh, Carson, Anderson &amp; Stowe XIII</i>	250,000,000	1,833,825	0	0	248,166,175	0.00	0.00	<b>1.26</b>
<b>Whitehorse Capital</b>								
<i>Whitehorse Liquidity Partners III, LP</i>	100,000,000	26,119,595	24,179,140	1,836,675	75,820,849	-0.42	1.00	<b>0.50</b>
<b>Windjammer Capital Investors</b>								
<i>Windjammer Mezzanine &amp; Equity Fund II</i>	66,708,861	55,215,684	61,955	84,876,800	10,139,363	8.94	1.54	<b>19.25</b>
<i>Windjammer Senior Equity Fund III</i>	75,000,000	62,684,411	389,001	154,618,016	13,380,380	19.54	2.47	<b>13.49</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<i>Windjammer Senior Equity Fund IV</i>	100,000,000	89,524,405	126,301,888	19,948,966	18,397,478	13.51	1.63	<b>7.35</b>
<i>Windjammer Senior Equity Fund V</i>	100,000,000	11,860,854	9,097,251	0	88,139,146	-55.39	0.77	<b>1.61</b>
<i>Private Equity Total</i>	<b>15,201,741,148</b>	<b>9,651,296,337</b>	<b>6,025,801,282</b>	<b>9,041,806,996</b>	<b>6,375,541,074</b>	<b>12.37</b>	<b>1.63</b>	

## II. PRIVATE CREDIT

### Audax Group

<i>Audax Mezzanine Fund III</i>	100,000,000	97,261,225	15,442,608	110,531,068	4,376,898	9.45	1.30	<b>9.24</b>
<i>Audax Mezzanine Fund IV</i>	100,000,000	46,595,338	30,908,632	20,589,432	58,444,663	9.28	1.11	<b>4.23</b>

### BlackRock

<i>BlackRock Middle Market Senior Fund</i>	97,500,000	35,789,597	36,119,720	216,530	61,710,403	2.06	1.02	<b>1.21</b>
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### Energy Capital Partners

<i>Energy Capital Credit Solutions II</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.75</b>
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### GS Mezzanine Partners

<i>GS Mezzanine Partners 2006</i>	100,000,000	113,445,143	934,954	134,654,263	9,858,563	5.00	1.20	<b>13.24</b>
<i>GS Mezzanine Partners V</i>	150,000,000	147,704,244	1,434,390	179,089,405	37,564,028	8.98	1.22	<b>11.69</b>

### Gold Hill Venture Lending

<i>Gold Hill Venture Lending</i>	40,000,000	40,000,000	405,275	65,077,862	0	10.69	1.64	<b>14.76</b>
<i>Gold Hill 2008</i>	25,852,584	25,852,584	5,731,422	44,745,145	0	14.75	1.95	<b>11.00</b>

### Kohlberg Kravis Roberts

<i>KKR Lending Partners II</i>	75,000,000	86,088,481	25,044,294	76,209,869	8,802,924	8.97	1.18	<b>4.32</b>
<i>KKR Lending Partners III</i>	199,000,000	72,547,481	70,076,255	14,923,877	132,302,062	15.37	1.17	<b>2.22</b>

### LBC Credit Partners

<i>LBC Credit Partners IV</i>	100,000,000	84,849,186	63,082,575	32,923,851	37,291,029	10.66	1.13	<b>3.17</b>
<i>LBC Credit Partners V</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.25</b>

### Marathon

<i>Marathon Secured Private Strategies Fund II</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.00</b>
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### Merit Capital Partners

<i>Merit Mezzanine Fund IV</i>	75,000,000	70,178,571	1,610,047	135,917,682	4,821,429	11.42	1.96	<b>14.55</b>
<i>Merit Mezzanine Fund V</i>	75,000,000	70,665,306	36,219,080	68,411,564	4,334,694	9.46	1.48	<b>9.53</b>
<i>Merit Mezzanine Fund VI</i>	100,000,000	58,328,723	67,079,372	5,783,582	41,604,478	15.30	1.25	<b>3.27</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Portfolio Advisors</b>								
<i>DLJ Investment Partners III</i>	100,000,000	82,719,050	538,437	96,478,980	509,988	6.81	1.17	<b>13.03</b>
<b>Prudential Capital Partners</b>								
<i>Prudential Capital Partners II</i>	100,000,000	97,418,748	6,097,964	136,427,860	11,049,052	8.87	1.46	<b>14.01</b>
<i>Prudential Capital Partners III</i>	100,000,000	100,604,654	4,573,831	169,791,204	14,859,276	14.16	1.73	<b>10.21</b>
<i>Prudential Capital Partners IV</i>	100,000,000	107,228,983	60,815,327	75,727,184	3,818,601	9.15	1.27	<b>7.45</b>
<i>Prudential Capital Partners V</i>	150,000,000	95,317,107	100,172,352	13,469,379	58,112,879	15.42	1.19	<b>2.87</b>
<b>Summit Partners</b>								
<i>Summit Subordinated Debt Fund III</i>	45,000,000	44,088,494	3,775,715	60,443,093	2,250,000	8.94	1.46	<b>15.38</b>
<i>Summit Subordinated Debt Fund IV</i>	50,000,000	55,837,807	4,497,308	72,207,729	19,926,328	10.34	1.37	<b>11.26</b>
<b>TCW Asset Management</b>								
<i>TCW Direct Lending VI</i>	100,000,000	83,599,652	41,094,712	55,775,315	25,329,409	6.95	1.16	<b>4.78</b>
<i>TCW Direct Lending VII</i>	100,000,000	46,649,820	44,951,969	2,090,382	56,312,832	1.14	1.01	<b>1.46</b>
<i>Private Credit Total</i>	<b>2,382,352,584</b>	<b>1,662,770,194</b>	<b>620,606,240</b>	<b>1,571,485,255</b>	<b>893,279,534</b>	<b>9.78</b>	<b>1.57</b>	

### III. REAL ASSETS

#### BlackRock

<i>BlackRock Global Renewable Power Fund II</i>	98,500,000	71,851,849	64,300,805	7,302,385	31,953,056	-0.23	1.00	<b>3.60</b>
<i>BlackRock Global Renewable Power III</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.00</b>

#### EIG Global Energy Partners

<i>EIG Energy Fund XIV</i>	100,000,000	113,177,137	10,055,062	94,745,253	2,761,129	-2.63	0.93	<b>12.20</b>
<i>EIG Energy Fund XV</i>	150,000,000	158,830,662	61,908,466	126,025,464	22,639,867	4.39	1.18	<b>9.07</b>
<i>EIG Energy Fund XVI</i>	200,000,000	175,065,404	141,125,078	74,997,472	61,284,878	7.97	1.23	<b>5.80</b>

#### EnCap Energy

<i>EnCap Energy Capital Fund VII</i>	100,000,000	105,357,255	6,695,740	134,445,165	0	14.69	1.34	<b>12.00</b>
<i>EnCap Energy Capital Fund VIII</i>	100,000,000	99,410,912	29,735,050	54,781,243	4,394,899	-4.63	0.85	<b>8.75</b>
<i>Encap Energy Capital Fund IX</i>	100,000,000	110,823,005	63,499,315	83,380,279	6,773,227	11.64	1.33	<b>6.56</b>
<i>EnCap Energy Capital Fund X</i>	100,000,000	89,431,154	88,970,255	17,941,118	18,457,972	9.34	1.20	<b>4.32</b>

#### EnerVest Energy

<i>EnerVest Energy Institutional Fund XIV</i>	100,000,000	94,477,443	84,813,383	39,331,232	13,616,255	10.42	1.31	<b>4.05</b>
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Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Energy Capital Partners</b>								
<i>Energy Capital Partners II</i>	100,000,000	85,551,360	10,522,129	111,999,239	29,749,110	10.04	1.43	<b>8.95</b>
<i>Energy Capital Partners III</i>	200,000,000	212,241,686	188,477,831	72,780,457	23,035,898	9.47	1.23	<b>5.53</b>
<i>Energy Capital Partners IV</i>	150,000,000	32,176,519	38,770,699	4,438,160	121,850,930	21.53	1.34	<b>1.50</b>
<b>Energy &amp; Minerals Group</b>								
<i>NGP Midstream &amp; Resources</i>	100,000,000	103,527,211	12,924,377	177,127,292	17,857	13.79	1.84	<b>12.25</b>
<i>The Energy &amp; Minerals Group Fund II</i>	100,000,000	104,661,204	97,151,752	102,384,837	1,248,635	15.09	1.91	<b>7.77</b>
<i>The Energy &amp; Minerals Group Fund III</i>	200,000,000	193,189,614	145,655,463	18,455,888	8,858,864	-3.79	0.85	<b>5.32</b>
<i>The Energy &amp; Minerals Group Fund IV</i>	150,000,000	139,484,836	173,491,174	46,061,233	31,668,077	20.81	1.57	<b>3.67</b>
<i>The Energy &amp; Minerals Group Fund V</i>	112,500,000	53,054,068	52,346,168	0	60,153,832	-1.51	0.99	<b>0.45</b>
<i>The Energy &amp; Minerals Group Fund V Accordion</i>	17,500,000	5,103,313	5,020,444	0	12,479,556	-1.62	0.98	<b>0.45</b>
<b>First Reserve</b>								
<i>First Reserve Fund X</i>	100,000,000	100,000,000	345,851	182,429,002	0	31.05	1.83	<b>14.67</b>
<i>First Reserve Fund XI</i>	150,000,000	150,292,121	7,615,164	97,802,016	0	-7.22	0.70	<b>12.53</b>
<i>First Reserve Fund XII</i>	150,000,000	165,617,044	25,711,754	81,001,567	0	-9.83	0.64	<b>10.67</b>
<i>First Reserve Fund XIII</i>	200,000,000	189,013,029	151,013,118	64,019,391	34,769,711	8.96	1.14	<b>5.66</b>
<b>Kohlberg, Kravis, Roberts &amp; Co.</b>								
<i>KKR Global Infrastructure Investors III</i>	149,850,000	30,430,430	28,337,121	269,379	119,688,949	-11.29	0.94	<b>1.25</b>
<b>Merit Energy Partners</b>								
<i>Merit Energy Partners B</i>	24,000,000	24,000,000	3,140,663	188,273,079	0	24.28	7.98	<b>22.44</b>
<i>Merit Energy Partners C</i>	50,000,000	50,000,000	4,970,844	514,177,741	0	30.96	10.38	<b>20.68</b>
<i>Merit Energy Partners D</i>	88,000,000	70,938,303	11,709,964	333,800,338	0	22.68	4.87	<b>18.11</b>
<i>Merit Energy Partners E</i>	100,000,000	39,983,197	2,538,764	81,775,382	0	11.35	2.11	<b>14.75</b>
<i>Merit Energy Partners F</i>	100,000,000	59,522,861	10,156,598	29,476,349	0	-6.67	0.67	<b>13.27</b>
<i>Merit Energy Partners H</i>	100,000,000	100,000,000	67,682,353	29,668,582	0	-0.55	0.97	<b>8.41</b>
<i>Merit Energy Partners I</i>	169,721,518	169,721,518	206,201,949	35,839,059	0	14.02	1.43	<b>4.70</b>
<i>Merit Energy Partners K</i>	150,000,000	2,695,869	2,695,869	0	147,304,131	0.00	1.00	<b>0.50</b>
<b>NGP</b>								
<i>Natural Gas Partners IX</i>	150,000,000	173,775,602	3,806,436	244,762,733	750,911	12.05	1.43	<b>11.69</b>
<i>NGP Natural Resources X</i>	150,000,000	144,048,971	48,896,083	105,475,349	5,951,029	2.08	1.07	<b>7.72</b>
<i>Natural Gas Capital Resources XI</i>	150,000,000	138,508,362	133,217,764	36,061,956	17,686,974	9.35	1.22	<b>4.56</b>
<i>NGP Natural Resources XII</i>	149,500,000	47,426,435	46,101,851	0	101,733,090	-2.18	0.97	<b>1.91</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Sheridan</b>								
<i>Sheridan Production Partners I</i>	100,000,000	116,552,260	0	82,750,000	0	0.00	0.71	<b>12.25</b>
<i>Sheridan Production Partners II</i>	100,000,000	103,500,000	0	7,000,000	3,500,000	0.00	0.07	<b>8.75</b>
<i>Sheridan Production Partners III</i>	100,000,000	34,353,005	31,463,007	18,300,000	65,650,000	15.72	1.45	<b>4.56</b>
<i>Real Assets Total</i>	<b>4,709,571,518</b>	<b>3,857,793,640</b>	<b>2,061,068,343</b>	<b>3,299,078,639</b>	<b>1,047,978,837</b>	<b>13.86</b>	<b>1.39</b>	
<b>IV. REAL ESTATE</b>								
<b>Angelo, Gordon &amp; Co.</b>								
<i>AG Realty Fund IX</i>	100,000,000	85,141,582	97,766,699	13,500,000	18,650,000	12.01	1.31	<b>4.56</b>
<i>AG Asia Realty Fund III</i>	50,000,000	47,587,261	35,801,909	25,500,000	6,196,250	15.27	1.29	<b>2.75</b>
<i>AG Europe Realty Fund II</i>	75,000,000	44,419,306	48,279,555	28,384	30,000,000	9.29	1.09	<b>2.03</b>
<i>AG Realty Fund X</i>	150,000,000	11,250,000	10,551,758	0	138,750,000	-6.21	0.94	<b>1.16</b>
<i>AG Asia Realty Fund IV</i>	100,000,000	21,500,000	20,479,653	0	78,500,000	-7.67	0.95	<b>1.06</b>
<b>Blackstone Real Estate Partners</b>								
<i>Blackstone Real Estate Partners V</i>	100,000,000	104,213,007	8,383,773	198,817,559	4,174,052	10.81	1.99	<b>13.18</b>
<i>Blackstone Real Estate Partners VI</i>	100,000,000	109,477,567	7,750,775	212,185,500	4,907,906	13.13	2.01	<b>12.25</b>
<i>Blackstone Real Estate Partners VII</i>	100,000,000	107,804,867	54,424,581	135,336,808	13,995,597	16.50	1.76	<b>7.59</b>
<i>Blackstone Real Estate Partners VIII</i>	150,000,000	153,987,897	143,957,411	49,613,369	34,451,207	13.71	1.26	<b>4.26</b>
<i>Blackstone Real Estate Partners Asia II</i>	74,500,000	19,254,681	19,049,268	58,531	56,485,060	-1.21	0.99	<b>1.77</b>
<i>Blackstone Real Estate Partners IX</i>	300,000,000	20,985,807	20,985,807	0	279,014,193	0.00	1.00	<b>0.77</b>
<b>Blackstone Strategic Partners (CSFB)</b>								
<i>Strategic Partners III RE</i>	25,000,000	25,988,048	669,361	14,666,337	9,006	-6.50	0.59	<b>14.00</b>
<i>Strategic Partners IV RE</i>	50,000,000	51,457,110	4,353,373	47,406,186	1,099,705	0.10	1.01	<b>11.04</b>
<b>Carlyle Group</b>								
<i>Carlyle Realty Partners VIII</i>	150,000,000	21,611,477	19,472,117	22,142	128,419,532	-12.76	0.90	<b>2.15</b>
<b>Colony Capital</b>								
<i>Colony Investors III</i>	100,000,000	99,660,860	2,797,200	173,802,105	0	14.50	1.77	<b>21.51</b>
<b>Landmark Partners</b>								
<i>Landmark Real Estate Partners VIII</i>	149,500,000	51,008,559	39,643,728	19,002,603	100,746,380	21.52	1.15	<b>2.54</b>
<b>Lubert Adler</b>								
<i>Lubert-Adler Real Estate Fund VII-B</i>	74,147,868	50,901,943	54,417,408	1,731,088	24,098,057	8.66	1.10	<b>2.73</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Rockpoint</b>								
<i>Rockpoint Real Estate Fund V</i>	100,000,000	87,751,100	85,937,240	18,087,068	26,125,220	10.50	1.19	<b>4.47</b>
<i>Rockpoint Real Estate Fund VI</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	<b>0.53</b>
<b>Rockwood</b>								
<i>Rockwood Capital RE Partners X</i>	100,000,000	80,688,042	79,770,200	5,136,364	21,020,756	3.57	1.05	<b>3.96</b>
<b>Silverpeak Real Estate Partners</b>								
<i>Silverpeak Legacy Pension Partners II</i>	75,000,000	72,989,105	1,000,793	91,251,847	7,575,965	4.17	1.26	<b>13.92</b>
<i>Silverpeak Legacy Pension Partners III</i>	150,000,000	70,494,349	11,711,657	13,348,355	79,510,201	-11.16	0.36	<b>11.17</b>
<b>T.A. Associates Realty</b>								
<i>Realty Associates Fund VIII</i>	100,000,000	100,000,000	64,142	99,227,557	0	-0.08	0.99	<b>13.00</b>
<i>Realty Associates Fund X</i>	100,000,000	100,000,000	18,052,727	143,623,080	0	13.03	1.62	<b>7.33</b>
<i>Realty Associates Fund XI</i>	100,000,000	100,000,000	101,979,821	18,849,780	0	8.96	1.21	<b>3.99</b>
<i>Realty Associates Fund XII</i>	100,000,000	0	-923,817	0	100,000,000	0.00	0.00	<b>1.25</b>
<i>Real Estate Total</i>	<b>2,773,147,868</b>	<b>1,638,172,566</b>	<b>886,377,140</b>	<b>1,281,194,662</b>	<b>1,253,729,087</b>	<b>7.92</b>	<b>1.32</b>	

#### V. DISTRESSED/ OPPORTUNISTIC

##### Avenue Capital Partners

<i>Avenue Energy Opportunities Fund</i>	100,000,000	100,977,328	106,588,772	15,972,941	0	5.24	1.21	<b>5.00</b>
<i>Avenue Energy Opportunities Fund II</i>	100,000,000	100,000,000	95,171,700	417,420	0	-3.32	0.96	<b>2.15</b>

##### BlackRock\*\*

<i>BlackRock Tempus Fund</i>	1,774,870	1,774,870	309,207	1,683,064	0	6.97	1.12	<b>4.05</b>
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##### Carlyle Group

<i>Carlyle Strategic Partners IV</i>	100,000,000	44,816,741	28,810,368	20,126,174	75,267,542	9.59	1.09	<b>3.25</b>
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##### Carval Investors

<i>CVI Global Value Fund</i>	200,000,000	190,000,000	5,014,630	315,467,952	10,000,000	9.53	1.69	<b>12.47</b>
<i>CVI Credit Value Fund I</i>	100,000,000	95,000,000	6,155,633	207,569,569	5,000,000	18.77	2.25	<b>8.75</b>
<i>CVI Credit Value Fund A II</i>	150,000,000	142,500,000	18,602,989	183,916,732	7,500,000	8.36	1.42	<b>6.67</b>
<i>CVI Credit Value Fund A III</i>	150,000,000	142,500,000	92,689,352	87,992,438	7,500,000	9.12	1.27	<b>4.07</b>
<i>CVI Credit Value Fund IV</i>	150,000,000	90,203,333	94,842,630	60	60,000,000	6.16	1.05	<b>1.74</b>

Investment	Total Commitment	Total Contribution	Market Value	Distributions	Unfunded Commitment	IRR %	NET MOIC*	Period Years
<b>Merced Capital</b>								
<i>Merced Partners III</i>	100,000,000	100,000,000	12,805,382	122,497,107	0	6.16	1.35	<b>9.15</b>
<i>Merced Partners IV</i>	125,000,000	124,968,390	76,576,503	79,977,033	0	5.70	1.25	<b>5.97</b>
<i>Merced Partners V</i>	53,737,500	53,915,358	52,927,676	0	0	-0.86	0.98	<b>2.00</b>
<b>MHR Institutional Partners</b>								
<i>MHR Institutional Partners IV</i>	75,000,000	38,434,392	35,027,900	3,751,515	40,258,543	0.39	1.01	<b>5.03</b>
<b>Oaktree Capital Management</b>								
<i>Oaktree Principal Fund VI</i>	100,000,000	87,331,294	84,286,766	14,037,147	25,193,967	7.17	1.13	<b>4.50</b>
<i>Oaktree Opportunities Fund X</i>	50,000,000	46,500,021	46,991,592	11,119,660	8,500,000	12.00	1.25	<b>4.38</b>
<i>Oaktree Opportunities Fund Xb</i>	100,000,000	12,500,000	11,797,738	0	87,500,000	-5.68	0.94	<b>4.38</b>
<i>Oaktree Special Situations Fund II</i>	100,000,000	2,188,074	2,200,000	0	97,800,000	5.99	1.01	<b>1.18</b>
<b>Pimco Bravo**</b>								
<i>Pimco Bravo Fund OnShore Feeder I</i>	3,958,027	3,958,027	67,320	3,978,735	2,348,173	2.16	1.02	<b>4.50</b>
<i>Pimco Bravo Fund OnShore Feeder II</i>	5,243,670	4,685,039	2,521,163	3,550,978	4,118,804	6.33	1.30	<b>4.50</b>
<b>TSSP</b>								
<i>TSSP Adjacent Opportunities Partner</i>	50,000,000	24,497,486	24,912,524	782,950	26,285,464	7.55	1.05	<b>1.24</b>
<i>TSSP Adjacent Opportunities Contingent</i>	100,000,000	70,318	70,318	0	99,929,682	0.00	1.00	<b>1.32</b>
<i>TSSP Opportunities Partners IV</i>	50,000,000	8,088,859	8,312,337	9,829	41,911,141	5.03	1.03	<b>1.14</b>
<b>Varde Fund</b>								
<i>Varde Fund IX</i>	100,000,000	100,000,000	619,952	215,289,913	0	15.00	2.16	<b>11.02</b>
<i>Varde Fund X</i>	150,000,000	150,000,000	41,683,462	245,539,746	0	11.63	1.91	<b>9.19</b>
<i>Varde Fund XI</i>	200,000,000	200,000,000	196,324,084	102,489,281	0	7.93	1.49	<b>5.97</b>
<i>Varde Fund XIII</i>	150,000,000	7,500,000	9,292,418	0	142,500,000	23.90	1.24	<b>0.98</b>
<b>Wayzata</b>								
<i>Wayzata Opportunities Fund II</i>	150,000,000	174,750,000	2,240,735	327,229,040	30,000,000	16.48	1.89	<b>11.69</b>
<i>Wayzata Opportunities Fund III</i>	150,000,000	68,415,000	26,426,045	37,605,787	15,000,000	-2.04	0.94	<b>7.04</b>
<i>Distressed/Opportunistic Total</i>	<b>2,864,714,067</b>	<b>2,115,574,530</b>	<b>1,083,269,197</b>	<b>2,001,005,070</b>	<b>786,613,316</b>	<b>10.59</b>	<b>1.46</b>	
<i>Private Markets Total</i>	<b>27,931,527,185</b>	<b>18,925,607,267</b>	<b>10,677,122,201</b>	<b>17,194,570,622</b>	<b>10,357,141,847</b>	<b>11.81</b>	<b>1.47</b>	

<b>Investment</b>	<b>Total Commitment</b>	<b>Total Contribution</b>	<b>Market Value</b>	<b>Distributions</b>	<b>Unfunded Commitment</b>	<b>IRR %</b>	<b>NET MOIC*</b>	<b>Period Years</b>
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<i>Private Markets Portfolio Status</i>	<b>Manager Count</b>	<b>Investments Count</b>
PRIVATE EQUITY	51	137
PRIVATE CREDIT	13	25
REAL ASSETS	11	42
REAL ESTATE	11	26
DISTRESSED/ OPPORTUNISTIC	11	28
Total	97	258

### **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.

\* MOIC: Multiple of Invested Capital

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

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# Participant Directed Investment Program

## September 30, 2019

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## 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, which are 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	\$92,847,635	3.3%	7.6%	9.8%	8.2%	9.8%	01/1980
U.S. ACTIVELY MANAGED FUND	60,362,194	-0.7	0.9	13.6	10.4	13.2	07/1986
U.S. STOCK INDEX FUND	358,248,991	1.2	3.0	12.8	10.5	13.1	07/1986
BROAD INTERNATIONAL STOCK FUND	109,303,224	-1.5	-0.9	6.4	3.4	5.0	09/1994
BOND FUND	108,621,148	2.3	10.4	3.5	3.8	4.6	07/1986
MONEY MARKET FUND	489,764,230	0.6	2.5	1.7	1.2	0.7	07/1986
STABLE VALUE FUND	1,601,332,885	0.7	2.7	2.3	2.2	2.6	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	107,080,245	1.3	5.9	7.3	6.1		01/2010
TOTAL SUPPLEMENTAL INVESTMENT FUND	2,927,560,550						

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>
<b>BALANCED FUND</b>	<b>\$92,847,635</b>	<b>3.3%</b>	<b>7.6%</b>	<b>9.8%</b>	<b>8.2%</b>	<b>9.8%</b>
SIF BALANCED FUND BENCHMARK		1.6	5.9	8.9	7.7	9.3
Excess		1.8	1.7	0.9	0.5	0.5

### U.S. Actively Managed Fund

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

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
<b>U.S. ACTIVELY MANAGED FUND</b>	<b>60,362,194</b>	<b>-0.7</b>	<b>0.9</b>	<b>13.6</b>	<b>10.4</b>	<b>13.2</b>
Russell 3000		1.2	2.9	12.8	10.4	13.1
Excess		-1.9	-2.0	0.7	-0.0	0.1



## 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>
<b>U.S. STOCK INDEX FUND</b>	<b>\$358,248,991</b>	<b>1.2%</b>	<b>3.0%</b>	<b>12.8%</b>	<b>10.5%</b>	<b>13.1%</b>
Russell 3000		1.2	2.9	12.8	10.4	13.1
Excess		0.0	0.0	0.0	0.0	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>
<b>BROAD INTERNATIONAL STOCK FUND</b>	<b>109,303,224</b>	<b>-1.5</b>	<b>-0.9</b>	<b>6.4</b>	<b>3.4</b>	<b>5.0</b>
International Equity Benchmark		-1.8	-1.2	6.4	2.9	4.5
Excess		0.3	0.2	0.1	0.5	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>
<b>BOND FUND</b>	<b>\$108,621,148</b>	<b>2.3%</b>	<b>10.4%</b>	<b>3.5%</b>	<b>3.8%</b>	<b>4.6%</b>
BBG BARC US Agg		2.3	10.3	2.9	3.4	3.7
Excess		0.1	0.1	0.5	0.5	0.9

### Money Market Fund

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

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
<b>MONEY MARKET FUND</b>	<b>489,764,230</b>	<b>0.6</b>	<b>2.5</b>	<b>1.7</b>	<b>1.2</b>	<b>0.7</b>
ICE BofAML US 3-Month Treasury Bill		0.6	2.4	1.5	1.0	0.5
Excess		0.0	0.2	0.2	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>
<b>STABLE VALUE FUND</b>	<b>\$1,601,332,885</b>	<b>0.7%</b>	<b>2.7%</b>	<b>2.3%</b>	<b>2.2%</b>	<b>2.6%</b>
Fixed Interest Blended Benchmark		0.5	2.7	2.4	2.0	1.6
Excess		0.2	-0.0	-0.1	0.2	1.0

### 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>
<b>VOLUNTEER FIREFIGHTER ACCOUNT</b>	<b>107,080,245</b>	<b>1.3</b>	<b>5.9</b>	<b>7.3</b>	<b>6.1</b>	
SIF Volunteer Firefighter Account BM		1.2	6.0	7.0	5.8	
Excess		0.1	-0.1	0.3	0.3	



Mutual Funds

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

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Option Since</u>
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$500,050,877	1.1%					07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,323,231,629	1.7	4.2%	13.4%	10.8%	13.2%	07/1999
VANGUARD DIVIDEND GROWTH	744,316,669	3.5	14.0	14.8			10/2016
VANGUARD MID CAP INDEX	566,932,988	0.6	3.7	10.7	9.2	13.1	01/2004
T. ROWE PRICE SMALL-CAP STOCK	778,468,293	0.2	4.5	14.5	12.0	14.9	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	293,377,319	0.3	1.3	6.6	4.7	6.0	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	284,373,434	-1.6	-1.5	6.1	3.2		07/2011
VANGUARD BALANCED INDEX	1,216,589,233	1.7	6.3	9.0	7.8	9.5	12/2003
DODGE & COX INCOME	268,868,756	2.1	9.1	3.8	3.7	4.5	07/1999
VANGUARD TOTAL BOND MARKET INDEX	333,260,871	2.4	10.4	2.9	3.3	3.7	12/2003
2020 FUND	130,616,611	1.0	5.4	5.3	4.4		07/2011
2025 FUND	156,592,341	1.0	5.2	6.4	5.3		07/2011
2030 FUND	114,347,477	1.0	4.9	7.5	6.1		07/2011
2035 FUND	89,380,366	1.0	4.6	8.1	6.4		07/2011
2040 FUND	68,916,285	0.8	3.9	8.5	6.7		07/2011
2045 FUND	57,834,564	0.7	3.3	8.8	6.8		07/2011
2050 FUND	43,680,187	0.5	2.6	9.1	6.9		07/2011
2055 FUND	25,555,313	0.4	2.5	9.0	6.9		07/2011
2060 FUND	20,871,298	0.4	2.5	9.0	6.9		07/2011
INCOME FUND	94,670,699	1.0	5.5	4.8	3.9		07/2011
TD Ameritrade SDB	74,730,001						
TD Ameritrade SDB Roth	1,035,334						
Total Mutual Funds	7,187,700,545						



## Mutual Funds

### LARGE CAP EQUITY

#### **Vanguard Total Stock Market Institutional Index Plus (passive)**

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

#### **Vanguard Index Institutional Plus (passive)**

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

#### **Vanguard Dividend Growth (active) (1)**

A fund of large cap stocks which is expected to outperform the Nasdaq US Dividend Achievers Select Index, over time.

### MID CAP EQUITY

#### **Vanguard Mid Cap Index (passive) (2)**

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

### SMALL CAP EQUITY

#### **T Rowe Price Small Cap (active)**

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

### INTERNATIONAL EQUITY

#### **Fidelity Diversified International (active)**

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

#### **Vanguard Total International Stock Index (passive) (3)**

A fund that seeks to track the investment performance of the FTSE Global All Cap ex US Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
<b>Large Cap US Equity</b>						
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	\$500,050,877	1.1%				07/2019
CRSP US Total Market Index		1.1				07/2019
Excess		-0.0				
VANGUARD INSTITUTIONAL INDEX PLUS	1,323,231,629	1.7	4.2%	13.4%	10.8%	07/1999
S&P 500		1.7	4.3	13.4	10.8	07/1999
Excess		-0.0	-0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	744,316,669	3.5	14.0	14.8		10/2016
NASDAQ US Dividend Achievers Select		4.2	10.1	14.8		10/2016
Excess		-0.7	3.9	-0.1		
<b>Mid Cap US Equity</b>						
VANGUARD MID CAP INDEX	566,932,988	0.6	3.7	10.7	9.2	01/2004
CRSP US Mid Cap Index		0.6	3.7	10.7	9.2	01/2004
Excess		-0.0	-0.0	-0.0	-0.0	
<b>Small Cap US Equity</b>						
T. ROWE PRICE SMALL-CAP STOCK	778,468,293	0.2	4.5	14.5	12.0	04/2000
Russell 2000		-2.4	-8.9	8.2	8.2	04/2000
Excess		2.6	13.4	6.3	3.8	
<b>International Equity</b>						
FIDELITY DIVERSIFIED INTERNATIONAL	293,377,319	0.3	1.3	6.6	4.7	07/1999
MSCI EAFE FREE (NET)		-1.1	-1.3	6.5	3.3	07/1999
Excess		1.4	2.7	0.1	1.4	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	284,373,434	-1.6	-1.5	6.1	3.2	07/2011
FTSE Global All Cap ex US Index Net		-1.7	-1.8	6.0	3.0	07/2011
Excess		0.1	0.3	0.1	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
<b>VANGUARD BALANCED INDEX</b>	<b>\$1,216,589,233</b>	<b>1.7%</b>	<b>6.3%</b>	<b>9.0%</b>	<b>7.8%</b>	<b>12/2003</b>
Vanguard Balanced Fund Benchmark		1.6	6.3	9.0	7.8	12/2003
Excess		0.1	-0.1	-0.0	-0.0	

#### Fixed Income

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
<b>DODGE &amp; COX INCOME</b>	<b>268,868,756</b>	<b>2.1</b>	<b>9.1</b>	<b>3.8</b>	<b>3.7</b>	<b>07/1999</b>
BBG BARC Agg Bd		2.3	10.3	2.9	3.4	07/1999
Excess		-0.2	-1.2	0.9	0.3	

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
<b>VANGUARD TOTAL BOND MARKET INDEX</b>	<b>333,260,871</b>	<b>2.4</b>	<b>10.4</b>	<b>2.9</b>	<b>3.3</b>	<b>12/2003</b>
BBG BARC Agg Bd		2.3	10.3	2.9	3.4	12/2003
Excess		0.1	0.1	-0.0	-0.0	

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
<b>MONEY MARKET FUND</b>	<b>489,764,230</b>	<b>0.6</b>	<b>2.5</b>	<b>1.7</b>	<b>1.2</b>	<b>07/1986</b>
90 Day Treasury Bill		0.6	2.4	1.5	1.0	07/1986
Excess		0.0	0.2	0.2	0.2	

#### Stable Value

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
<b>STABLE VALUE FUND</b>	<b>1,601,332,885</b>	<b>0.7</b>	<b>2.7</b>	<b>2.3</b>	<b>2.2</b>	<b>11/1994</b>
Fixed Interest Blended Benchmark		0.5	2.7	2.4	2.0	11/1994
Excess		0.2	-0.0	-0.1	0.2	

- (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>
<b>SSgA</b>													
<b>2020 FUND</b>	<b>\$130,616,611</b>	<b>1.0%</b>	<b>5.4%</b>	<b>5.3%</b>	<b>4.4%</b>	<b>07/2011</b>	<b>2045 FUND</b>	<b>\$57,834,564</b>	<b>0.7%</b>	<b>3.3%</b>	<b>8.8%</b>	<b>6.8%</b>	<b>07/2011</b>
2020 FUND BENCHMARK		1.0	5.4	5.3	4.4	07/2011	2045 FUND BENCHMARK		0.7	3.3	8.8	6.8	07/2011
Excess		0.0	0.0	-0.0	-0.0		Excess		-0.0	0.0	0.0	-0.0	
<b>2025 FUND</b>	<b>156,592,341</b>	<b>1.0</b>	<b>5.2</b>	<b>6.4</b>	<b>5.3</b>	<b>07/2011</b>	<b>2050 FUND</b>	<b>43,680,187</b>	<b>0.5</b>	<b>2.6</b>	<b>9.1</b>	<b>6.9</b>	<b>07/2011</b>
2025 FUND BENCHMARK		1.0	5.2	6.4	5.3	07/2011	2050 FUND BENCHMARK		0.5	2.6	9.1	6.9	07/2011
Excess		-0.0	0.0	0.0	-0.0		Excess		0.0	0.0	0.0	-0.0	
<b>2030 FUND</b>	<b>114,347,477</b>	<b>1.0</b>	<b>4.9</b>	<b>7.5</b>	<b>6.1</b>	<b>07/2011</b>	<b>2055 FUND</b>	<b>25,555,313</b>	<b>0.4</b>	<b>2.5</b>	<b>9.0</b>	<b>6.9</b>	<b>07/2011</b>
2030 FUND BENCHMARK		1.0	4.8	7.6	6.1	07/2011	2055 FUND BENCHMARK		0.4	2.5	9.0	6.9	07/2011
Excess		0.0	0.0	-0.0	-0.0		Excess		0.0	0.0	0.0	-0.0	
<b>2035 FUND</b>	<b>89,380,366</b>	<b>1.0</b>	<b>4.6</b>	<b>8.1</b>	<b>6.4</b>	<b>07/2011</b>	<b>2060 FUND</b>	<b>20,871,298</b>	<b>0.4</b>	<b>2.5</b>	<b>9.0</b>	<b>6.9</b>	<b>07/2011</b>
2035 FUND BENCHMARK		1.0	4.5	8.1	6.4	07/2011	2060 FUND BENCHMARK		0.4	2.5	9.0	6.9	07/2011
Excess		-0.0	0.0	-0.0	-0.0		Excess		0.0	0.0	0.0	-0.0	
<b>2040 FUND</b>	<b>68,916,285</b>	<b>0.8</b>	<b>3.9</b>	<b>8.5</b>	<b>6.7</b>	<b>07/2011</b>	<b>INCOME FUND</b>	<b>94,670,699</b>	<b>1.0</b>	<b>5.5</b>	<b>4.8</b>	<b>3.9</b>	<b>07/2011</b>
2040 FUND BENCHMARK		0.8	3.9	8.5	6.7	07/2011	INCOME FUND BENCHMARK		1.0	5.5	4.8	4.0	07/2011
Excess		-0.0	0.0	-0.0	-0.0		Excess		-0.0	-0.0	-0.0	-0.0	

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



## 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.

### **AGE-BASED MANAGED ALLOCATIONS**

The Age-Based Managed Allocation Option seeks to align the investment objective and level of risk, which will become more conservative as the beneficiary ages and moves closer to entering an eligible educational institution.

### **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: September 30, 2019**

**Total = \$1,493 Million**

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
Managed Ages 0-4 BB: Managed Ages 0-4	\$38,692,711	1.21% 1.16%	4.55% 4.73%	9.14% 9.18%			7.16% 7.24%	8/12/2014
Managed Ages 5-8 BB: Managed Ages 5-8	\$70,900,774	1.31% 1.25%	5.06% 5.38%	8.37% 8.44%			6.64% 6.76%	8/12/2014
Managed Ages 9-10 BB: Managed Ages 9-10	\$62,055,123	1.49% 1.35%	5.68% 6.00%	7.67% 7.70%			6.14% 6.27%	8/12/2014
Managed Ages 11-12 BB: Managed Ages 11-12	\$93,330,791	1.46% 1.37%	5.70% 6.25%	6.77% 6.86%			5.51% 5.66%	8/12/2014
Managed Ages 13-14 BB: Managed Ages 13-14	\$134,750,765	1.43% 1.40%	5.96% 6.47%	5.96% 6.02%			4.93% 5.04%	8/12/2014
Managed Age 15 BB: Managed Age 15	\$77,268,864	1.31% 1.29%	5.56% 5.99%	5.00% 5.02%			4.18% 4.19%	8/12/2014
Managed Age 16 BB: Managed Age 16	\$91,947,981	1.17% 1.20%	4.87% 5.56%	4.42% 4.48%			3.73% 3.70%	8/12/2014
Managed Age 17 BB: Managed Age 17	\$92,277,410	1.02% 1.11%	4.51% 5.14%	3.92% 3.93%			3.33% 3.22%	8/12/2014
Managed Ages 18 & Over BB: Managed Ages 18 & Over	\$225,845,478	0.96% 1.03%	4.13% 4.70%	3.44% 3.39%			2.93% 2.73%	8/12/2014
U.S. and International Equity Option BB: U.S. and International Equity Option	\$288,845,805	1.05% 0.95%	3.49% 3.36%	10.58% 10.63%	8.37% 8.41%	10.69% 10.88%	7.01% 7.83%	10/ 1/2001

**MINNESOTA COLLEGE SAVINGS PLAN**

**Performance Statistics for the Period Ending: September 30, 2019**

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
Moderate Allocation Option BB: Moderate Allocation Option	\$73,360,496	1.45%	5.65%	7.63%	6.35%	7.83%	5.37%	8/ 2/2007
		1.35%	6.00%	7.70%	6.51%	8.20%	5.90%	
100% Fixed-Income Option BB: 100% Fixed-Income Option	\$18,185,707	1.83%	8.78%	2.73%	3.02%	3.32%	3.74%	8/16/2007
		1.88%	9.15%	3.04%	3.32%	3.77%	4.36%	
International Equity Index Option BB: International Equity Index Option	\$4,880,339	-1.61%	-1.23%	6.24%	3.09%		4.03%	6/18/2013
		-1.71%	-1.44%	6.42%	3.15%		4.25%	
Money Market Option BB: Money Market Option	\$13,589,884	0.47%	2.01%	1.25%	0.77%	0.33%	0.54%	11/ 1/2007
		0.45%	1.91%	1.12%	0.69%	0.36%	0.54%	
Principal Plus Interest Option Citigroup 3-Month U.S. Treasury Bill	\$121,457,581	0.52%	2.03%	1.73%	1.56%	1.76%	2.49%	10/10/2001
		0.56%	2.36%	1.52%	0.96%	0.52%	1.34%	
Aggressive Allocation Option BB: Aggressive Allocation Option	\$31,609,673	1.21%	4.48%	9.16%			7.11%	8/12/2014
		1.16%	4.73%	9.18%			7.24%	
Conservative Allocation Option BB: Conservative Allocation Option	\$11,805,445	1.33%	5.52%	4.95%			4.01%	8/18/2014
		1.29%	5.99%	5.02%			4.06%	
Equity and Interest Accumulation Option BB: Equity and Interest Accumulation Option	\$4,816,835	0.83%	2.31%	7.16%			5.71%	8/18/2014
		0.87%	3.09%	7.25%			5.62%	
U.S. Large Cap Equity Option BB: U.S. Large Cap Equity Option	\$34,904,592	1.68%	4.12%	13.17%			10.80%	8/12/2014
		1.70%	4.25%	13.39%			11.03%	
Matching Grant Citigroup 3-Month U.S. Treasury Bill	\$2,328,266	0.52%	2.03%	1.73%	1.56%	1.76%	2.51%	3/22/2002
		0.56%	2.36%	1.52%	0.96%	0.52%	1.32%	

# MINNESOTABLE *plan*

A member of The National ABLÉ Alliance

Performance as of  
09/30/19

Total Market Value: \$ **7,327,649**

<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	\$ 637,291	8.70%	1.61	0.48	16.27	2.10				8.78	12/15/16
ABLE Aggressive Custom Benchmark			1.61	0.44	16.55	2.33				9.33	
<b>Variance</b>			<b>0.00</b>	<b>0.04</b>	<b>(0.28)</b>	<b>(0.23)</b>				<b>(0.55)</b>	
Moderately Aggressive Option	\$ 698,916	9.54%	1.31	0.65	14.55	3.00				7.88	12/15/16
ABLE Moderately Aggressive Custom Benchmark			1.27	0.59	14.80	3.32				8.42	
<b>Variance</b>			<b>0.04</b>	<b>0.06</b>	<b>(0.25)</b>	<b>(0.32)</b>				<b>(0.54)</b>	
Growth Option	\$ 1,035,023	14.12%	1.01	0.75	12.82	3.79				6.94	12/15/16
ABLE Growth Custom Benchmark			0.94	0.74	13.05	4.22				7.48	
<b>Variance</b>			<b>0.07</b>	<b>0.01</b>	<b>(0.23)</b>	<b>(0.43)</b>				<b>(0.54)</b>	
Moderate Option	\$ 898,895	12.27%	0.60	0.94	10.93	4.53				6.01	12/15/16
ABLE Moderate Custom Benchmark			0.61	0.89	11.30	5.05				6.50	
<b>Variance</b>			<b>(0.01)</b>	<b>0.05</b>	<b>(0.37)</b>	<b>(0.52)</b>				<b>(0.49)</b>	
Moderately Conservative Option	\$ 771,180	10.52%	0.44	0.89	8.10	4.13				4.61	12/15/16
ABLE Moderately Conservative Custom Benchmark			0.42	0.84	8.45	4.62				5.04	
<b>Variance</b>			<b>0.02</b>	<b>0.05</b>	<b>(0.35)</b>	<b>(0.49)</b>				<b>(0.43)</b>	
Conservative Option	\$ 1,191,959	16.27%	0.19	0.75	4.26	3.36				2.69	12/15/16
ABLE Conservative Custom Benchmark			0.17	0.76	4.62	3.83				3.02	
<b>Variance</b>			<b>0.02</b>	<b>(0.01)</b>	<b>(0.36)</b>	<b>(0.47)</b>				<b>(0.33)</b>	
Checking Option	\$ 2,094,384	28.58%									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.



# Non-Retirement

## September 30, 2019



## 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.



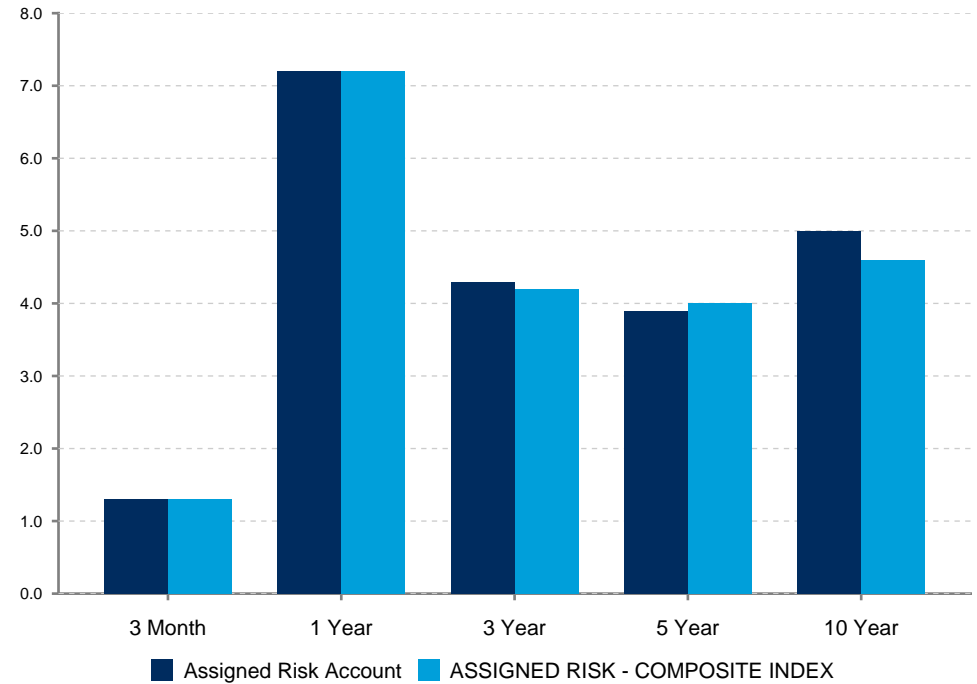


Non-Retirement

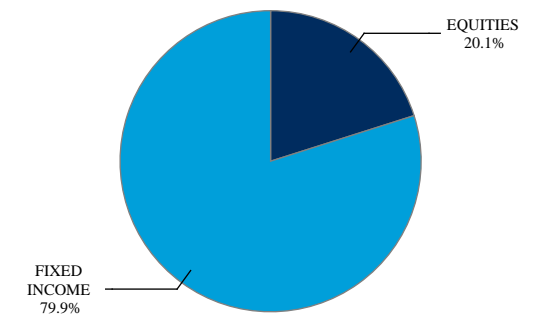
**Assigned Risk Plan**

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.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Assigned Risk Account	\$288,063,961	1.3%	7.2%	4.3%	3.9%	5.0%
EQUITIES	57,962,401	1.7	4.3	13.3	9.8	12.0
FIXED INCOME	230,101,560	1.2	7.3	1.9	2.2	3.0
ASSIGNED RISK - COMPOSITE INDEX		1.3	7.2	4.2	4.0	4.6
Excess		0.0	0.1	0.1	-0.1	0.4
S&P 500		1.7	4.3	13.4	10.8	13.2
BBG BARC US Gov: Int		1.2	7.5	1.8	2.2	2.3



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.



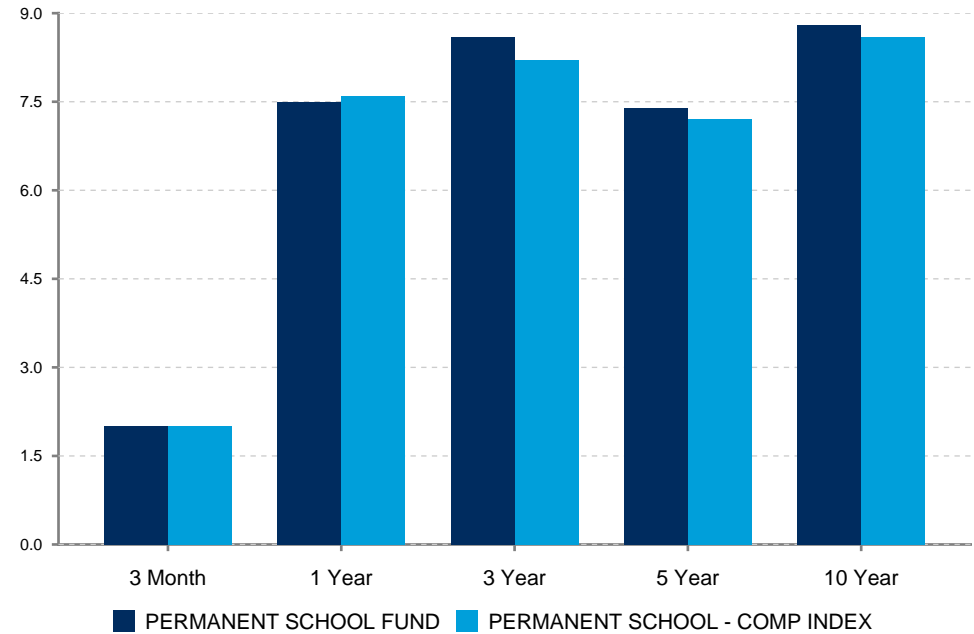
Non-Retirement

**Permanent School Fund**

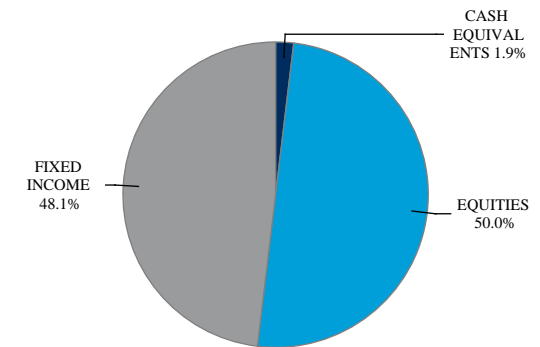
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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	\$1,544,309,975	2.0%	7.5%	8.6%	7.4%	8.8%
CASH EQUIVALENTS	29,075,788	0.6	2.5	1.6	1.1	0.7
EQUITIES	771,756,635	1.7	4.3	13.4	10.8	13.3
FIXED INCOME	743,477,552	2.4	10.8	3.5	3.8	4.2
PERMANENT SCHOOL - COMP INDEX		2.0	7.6	8.2	7.2	8.6
Excess		0.1	-0.0	0.3	0.2	0.2
S&P 500		1.7	4.3	13.4	10.8	13.2
BBG BARC US Agg		2.3	10.3	2.9	3.4	3.7



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.



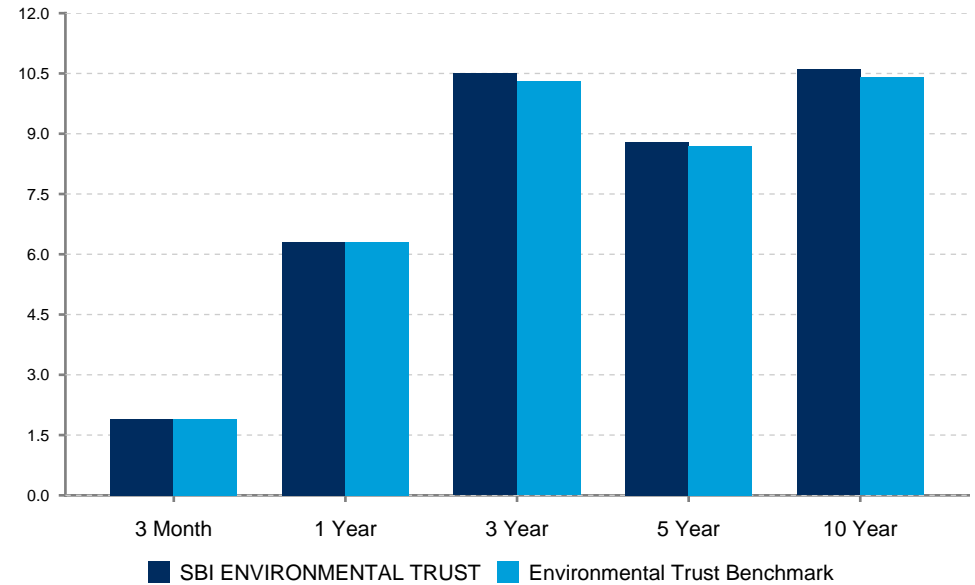
Non-Retirement

**Environmental Trust Fund**

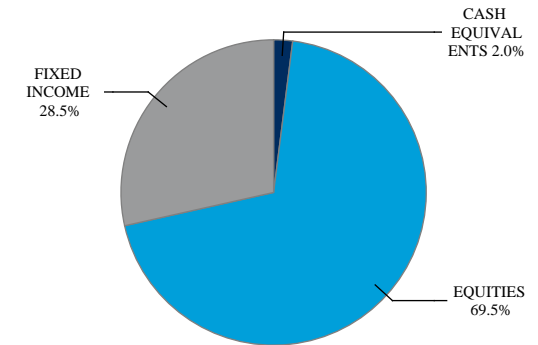
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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	\$1,231,535,378	1.9%	6.3%	10.5%	8.8%	10.6%
CASH EQUIVALENTS	24,530,585	0.6	2.5	1.6	1.1	0.7
EQUITIES	856,371,501	1.7	4.3	13.4	10.8	13.3
FIXED INCOME	350,633,292	2.4	10.8	3.5	3.8	4.2
Environmental Trust Benchmark		1.9	6.3	10.3	8.7	10.4
Excess		0.0	0.0	0.2	0.1	0.1
S&P 500		1.7	4.3	13.4	10.8	13.2
BBG BARC US Agg		2.3	10.3	2.9	3.4	3.7



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.

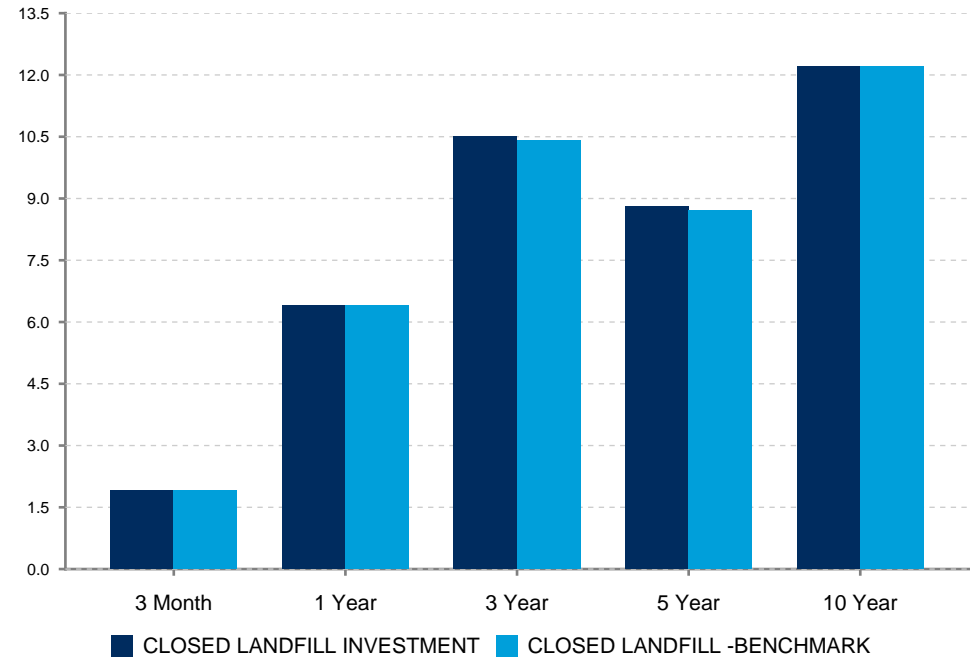


Non-Retirement

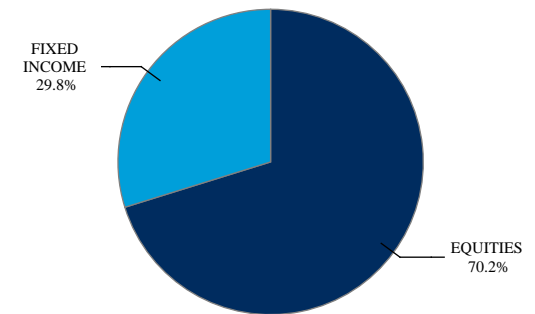
**Closed Landfill Investment Fund**

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	\$98,666,557	1.9%	6.4%	10.5%	8.8%	12.2%
EQUITIES	69,235,349	1.7	4.3	13.4	10.8	13.3
FIXED INCOME	29,431,208	2.4	10.8	3.5	3.8	
CLOSED LANDFILL -BENCHMARK		1.9	6.4	10.4	8.7	12.2
Excess		0.0	-0.1	0.2	0.1	0.1
S&P 500		1.7	4.3	13.4	10.8	13.2
BBG BARC US Agg		2.3	10.3	2.9	3.4	3.7



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>
<b>NON RETIREMENT EQUITY INDEX - MELLON</b>	<b>2,404,943,773</b>	<b>1.7</b>	<b>1.7</b>	<b>4.3</b>	<b>13.4</b>	<b>10.9</b>	<b>13.2</b>	<b>9.7</b>	<b>07/1993</b>
S&P 500 INDEX (DAILY)		1.7	1.7	4.3	13.4	10.8	13.2	9.6	07/1993
Excess		0.0	0.0	0.0	-0.0	0.0	0.0	0.1	
<b>NON RETIREMENT FIXED INCOME - PRUDENTIAL</b>	<b>1,299,927,930</b>	<b>2.4</b>	<b>2.4</b>	<b>10.8</b>	<b>3.5</b>	<b>3.8</b>	<b>4.2</b>	<b>6.0</b>	<b>07/1994</b>
BBG BARC Agg (Dly)		2.3	2.3	10.3	2.9	3.4	3.7	5.5	07/1994
Excess		0.2	0.2	0.5	0.5	0.4	0.4	0.5	
<b>RBC</b>	<b>230,101,557</b>	<b>1.2</b>	<b>1.2</b>	<b>7.3</b>	<b>1.9</b>	<b>2.2</b>	<b>3.0</b>	<b>4.9</b>	<b>07/1991</b>
RBC Custom Benchmark		1.2	1.2	7.5	1.8	2.2	2.4	5.0	07/1991
Excess		0.0	0.0	-0.2	0.1	0.1	0.7	-0.1	
MET COUNCIL OPEB BOND POOL	66,481,373	0.8	0.8	5.5					02/2009
<b>NON RETIREMENT CASH</b>	<b>131,061,207</b>	<b>0.6</b>	<b>0.6</b>	<b>2.5</b>	<b>1.6</b>	<b>1.1</b>	<b>0.7</b>	<b>2.7</b>	
iMoneyNet Money Fund Average- All Taxable		0.5	0.5	2.0	1.2	0.7	0.4		
Excess		0.1	0.1	0.5	0.4	0.3	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

## September 30, 2019



## 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	12,911,324,183	0.5	2.7	1.8	1.3	0.9
iMoneyNet Money Fund Average-All Taxable		0.5	2.0	1.2	0.7	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	97,417,516	1.1	6.4	2.7	2.7	
Housing Finance	7,651,014	0.5	2.4	1.6	1.7	
Public Facilities Authority	60,923,240	0.3	3.2	1.9	2.2	





## Addendum

### Benchmark Definitions

#### **Active Domestic Equity Benchmark:**

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

#### **Benchmark DM:**

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

#### **Benchmark EM:**

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

#### **Combined Funds Composite Index:**

The Composite Index performance is calculated by multiplying the beginning of month Composite weights by the monthly returns of the asset class benchmarks. The Combined Funds Composite weight is set as the Strategic Asset Allocation Policy Target with the uninvested portion of Private Markets allocated to Public Equity. Asset class weights for Public Equity and Private Markets 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. 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.

#### **Domestic Equity Benchmark:**

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

#### **Fixed Income 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.



## Addendum

### Benchmark Definitions (continued)

#### **Fixed Interest Blended Benchmark:**

On 6/1/2002, the benchmark was set as the 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 1/1/2019 the benchmark is 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:**

60.3% Russell 1000, 6.7% Russell 2000, 24.75% MSCI World Ex US (net), and 8.25% MSCI EM (net) effective 1/1/2019. 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 the 67% and 33% weighting.

#### **Semi-Passive Domestic Equity Benchmark:**

Russell 1000 index effective 1/1/2004. Prior to 1/1/2004 it was the Completeness Fund benchmark.