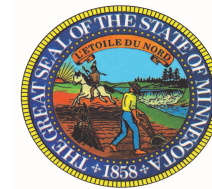


# Comprehensive Performance Report

September 30, 2017



## 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

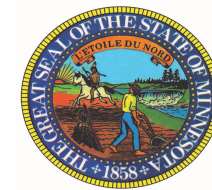
The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. Investment goals among the PDIP's many participants are varied. In order to meet the variety of goals, participants may allocate their investments among one 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.

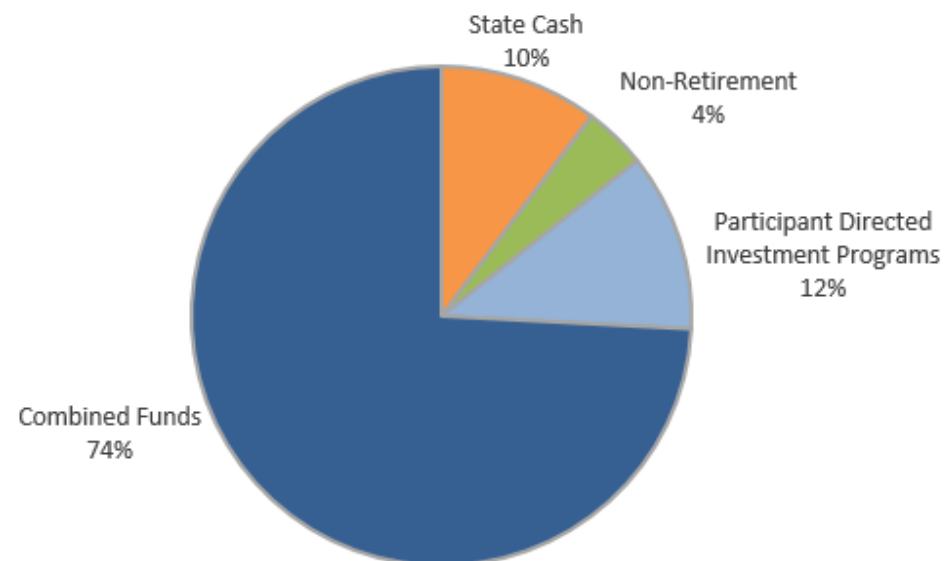
### State Cash

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

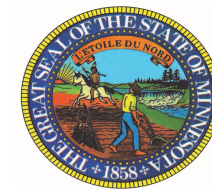
	<u>\$ Billions</u>
<b>COMBINED FUNDS</b>	
Combined Funds	\$66.1
<b>PARTICIPANT DIRECTED INVESTMENT PROGRAMS</b>	
Supplemental Investment Fund*	3.6
State Deferred Compensation Plan**	5.3
Minnesota College Savings Plan	1.4
Achieve a Better Life Experience	0.0
<b>NON-RETIREMENT FUNDS</b>	
Assigned Risk Plan	0.3
Permanent School Fund	1.3
Environmental Trust Fund	1.1
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.2
Other Post Employment Benefits Accounts	0.6
<b>STATE CASH ACCOUNTS</b>	
Invested Treasurer's Cash	9.0
Other State Cash Accounts	0.1
<b>TOTAL</b>	<b>89.1</b>



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

\*\* Does not include Money Market and Stable Value options that are included in the Supplemental Investment Fund market value

Note: Differentials within column amounts may occur due to rounding



## Quarterly Report

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### Performance Reporting Legend

**Manager Level Data**

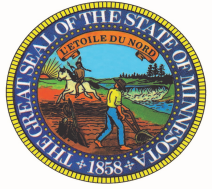
**Aggregate Level Data**

**Sub-Asset Class Level Data**

**Asset Class Level Data**

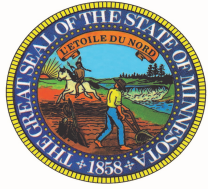
#### Note:

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, 2017



## Combined Funds Summary

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

	<u>One Quarter</u>
<b>COMBINED FUNDS</b>	
Beginning Market Value	\$64,116
Net Contributions	-586
Investment Return	2,553
Ending Market Value	66,083

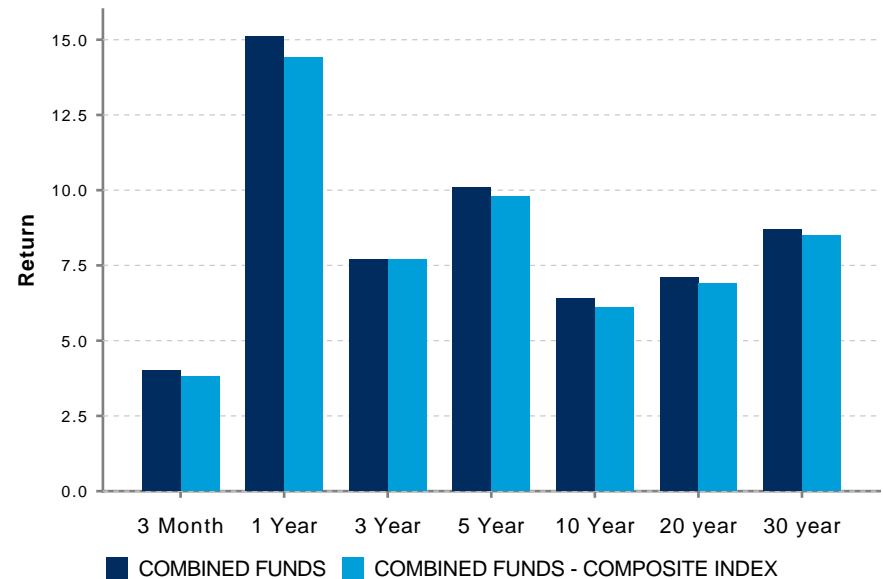
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

### 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>
<b>COMBINED FUNDS</b>	<b>4.0%</b>	<b>4.0%</b>	<b>15.1%</b>	<b>7.7%</b>	<b>10.1%</b>	<b>6.4%</b>	<b>7.1%</b>	<b>8.7%</b>
COMBINED FUNDS - COMPOSITE INDEX	3.8	3.8	14.4	7.7	9.8	6.1	6.9	8.5
Excess	0.2	0.2	0.6	0.0	0.3	0.2	0.2	0.2

### Asset Growth



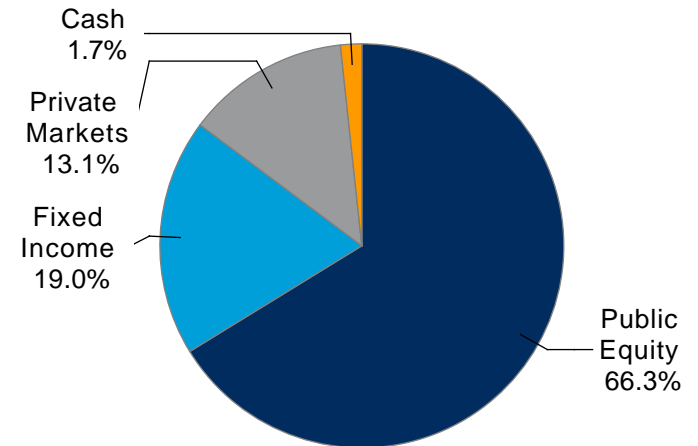


## Combined Funds Summary

### 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. The current Strategic Asset Allocation Policy Target became effective on 7/1/2016.

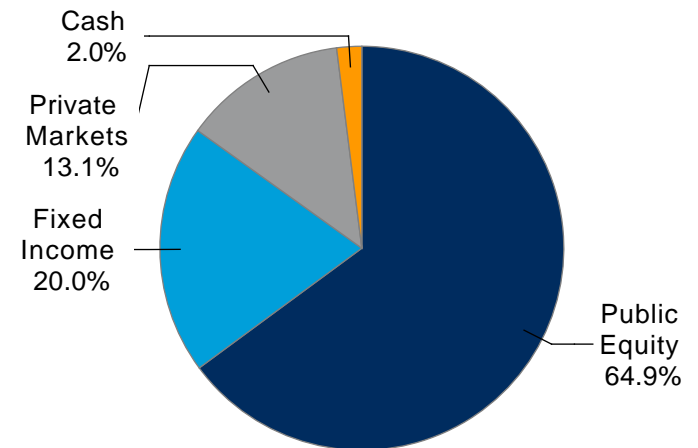
	<u>(Millions)</u>	<u>Actual Mix</u>	<u>Policy Target</u>
Public Equity	\$43,789	66.3%	58.0%
Fixed Income	12,545	19.0	20.0
Private Markets	8,644	13.1	20.0
Cash	1,104	1.7	2.0
<b>TOTAL</b>	<b>66,083</b>	<b>100.0</b>	

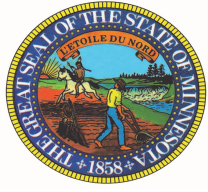


### Composite Index Comparison

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>Target Weight</u>	<u>Market Index</u>
Public Equity	64.9%	67% Russell 3000/33% MSCI ACWI ex US
Fixed Income	20.0	BB Barclays U.S. Aggregate
Private Markets	13.1	Private Markets
Cash	2.0	3 Month T-Bills





## Combined Funds Asset Class Performance Summary

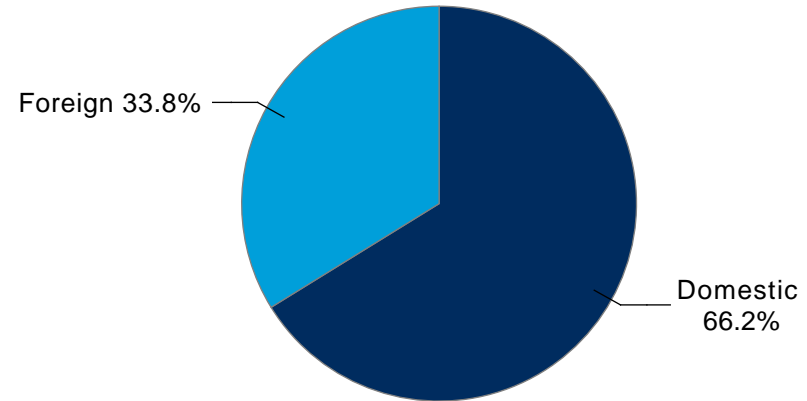
### Public Equity

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

The Public Equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex USA.

The Russell 3000 measures the performance of the 3000 largest U.S. companies based on total market capitalization.

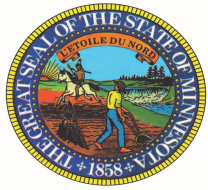
The Morgan Stanley Capital International All Country World Index ex U.S. (net) is a free float-adjusted market capitalization index that is designed to measure equity market performance in developed and emerging markets other than the United States.



	<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>
Public Equity	5.3%	5.3%	19.9%	9.4%	12.7%	6.2%	6.5%
Public Equity Benchmark	5.1	5.1	19.3				
Excess	0.2	0.2	0.5				
Domestic Equity	4.7	4.7	19.2	10.4	14.2	7.5	6.8
Domestic Equity Benchmark	4.6	4.6	18.7	10.7	14.2	7.6	7.0
Excess	0.1	0.1	0.5	-0.4	-0.0	-0.1	-0.1
International Equity	6.4	6.4	19.9	5.5	7.8	1.8	5.2
International Equity Benchmark	6.2	6.2	19.6	4.7	7.0	1.3	4.9
Excess	0.2	0.2	0.3	0.8	0.8	0.5	0.3

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 performance is shown here.

The 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.

	<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>
Fixed Income	1.0%	1.0%	1.0%	3.2%	2.6%	4.7%	5.4%
Fixed Income Benchmark	0.8	0.8	0.1	2.7	2.1	4.3	5.1
Excess	0.2	0.2	0.9	0.5	0.6	0.4	0.3

### Cash

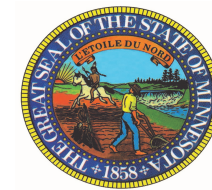
The Combined Funds Cash performance is shown here. Cash is held by the Combined Funds to meet the liquidity needs of the retirement systems to pay benefits.

The Combined Funds Cash benchmark is the iMoneyNet, All Taxable Money Fund Report Average.

	<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>
Cash	0.3%	0.3%	0.9%	0.6%	0.4%	0.9%	2.7%
90 DAY T-BILL	0.3	0.3	0.7	0.3	0.2	0.5	2.1
iMoneyNet Money Fund Average-All Taxable	0.2	0.2	0.4	0.2	0.1	0.4	1.9

Note:

For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.



## Private Markets Performance

### 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>
Total Private Markets	2.8%	2.8%	17.1%	7.8%	11.9%	8.7%	12.7%
Private Equity	4.8	4.8	19.8	13.0	15.1	10.5	13.6
Private Credit	-0.5	-0.5	14.2	13.0	13.8	10.7	12.9
Resources	-1.0	-1.0	13.5	-8.7	2.0	6.5	13.1
Real Estate	2.4	2.4	9.6	11.0	12.5	4.5	9.5

### 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.

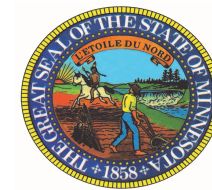
### Resources Investments

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 following pages.



## Quarterly Report

# Asset Class & Manager Performance September 30, 2017

In compliance with the Strategic Asset Allocation Policy, 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, 2017

Minnesota State Board of Investment  
Quarter Ending September 30, 2017  
Domestic Equity Managers



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Domestic Equity</b>										
<b>ACTIVE DOMESTIC EQUITY AGGREGATE (1)</b>	<b>\$4,552,668,031</b>	<b>15.1%</b>	<b>5.2%</b>	<b>5.2%</b>	<b>21.5%</b>	<b>10.3%</b>	<b>14.4%</b>	<b>7.2%</b>		
Active Domestic Equity Benchmark			5.1	5.1	19.8	11.2	14.3	7.6		
Excess			0.0	0.0	1.7	-0.9	0.1	-0.4		
<b>SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)</b>	<b>2,368,035,809</b>	<b>7.9</b>	<b>5.2</b>	<b>5.2</b>	<b>19.2</b>	<b>10.5</b>	<b>14.3</b>	<b>7.6</b>		
Semi Passive Domestic Equity Benchmark			4.5	4.5	18.5	10.6	14.3	7.5		
Excess			0.7	0.7	0.7	-0.1	0.1	0.1		
<b>PASSIVE DOMESTIC EQUITY AGGREGATE (3)</b>	<b>23,194,011,447</b>	<b>77.0</b>	<b>4.5</b>	<b>4.5</b>	<b>18.6</b>	<b>10.7</b>	<b>14.2</b>	<b>7.6</b>		
Passive Domestic Equity Benchmark			4.5	4.5	18.7	10.7	14.2	7.6		
Excess			-0.0	-0.0	-0.1	-0.0	-0.0	0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	11,963	0.0								
<b>TOTAL DOMESTIC EQUITY (5)</b>	<b>30,114,727,250</b>	<b>100.0</b>	<b>4.7</b>	<b>4.7</b>	<b>19.2</b>	<b>10.4</b>	<b>14.2</b>	<b>7.4</b>	<b>10.4</b>	<b>01/1984</b>
Domestic Equity Benchmark			4.6	4.6	18.7	10.7	14.2	7.6	10.6	01/1984
Excess			0.1	0.1	0.5	-0.4	-0.0	-0.1	-0.2	

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

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

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

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



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total Domestic Equity</b>					
<b>ACTIVE DOMESTIC EQUITY AGGREGATE (1)</b>	<b>10.9%</b>	<b>-0.4%</b>	<b>9.3%</b>	<b>40.2%</b>	<b>15.4%</b>
Active Domestic Equity Benchmark	15.7	-0.6	11.0	34.7	16.3
Excess	-4.8	0.3	-1.7	5.5	-0.9
<b>SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)</b>	<b>11.1</b>	<b>0.5</b>	<b>14.2</b>	<b>33.2</b>	<b>17.7</b>
Semi Passive Domestic Equity Benchmark	12.1	0.9	13.2	33.1	16.4
Excess	-1.0	-0.4	1.0	0.1	1.3
<b>PASSIVE DOMESTIC EQUITY AGGREGATE (3)</b>	<b>12.6</b>	<b>0.5</b>	<b>12.6</b>	<b>33.5</b>	<b>16.4</b>
Passive Domestic Equity Benchmark	12.5	0.5	12.6	33.6	16.4
Excess	0.1	0.0	0.0	-0.0	0.0
TRANSITION AGGREGATE DOMESTIC EQUITY (4)					
<b>TOTAL DOMESTIC EQUITY (5)</b>	<b>11.5</b>	<b>0.3</b>	<b>12.3</b>	<b>35.1</b>	<b>16.6</b>
Domestic Equity Benchmark	12.7	0.5	12.6	33.6	16.4
Excess	-1.3	-0.2	-0.2	1.6	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 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 the Russell 3000.

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



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Large Cap Growth</b>										
<b>SANDS</b>	<b>\$475,175,514</b>	<b>1.6%</b>	<b>6.9%</b>	<b>6.9%</b>	<b>20.9%</b>	<b>9.1%</b>	<b>14.0%</b>	<b>10.9%</b>	<b>10.2%</b>	<b>01/2005</b>
Russell 1000 Growth			5.9	5.9	21.9	12.7	15.3	9.1	9.2	01/2005
Excess			1.0	1.0	-1.0	-3.6	-1.3	1.8	1.0	
<b>WINSLOW</b>	<b>198,457,650</b>	<b>0.7</b>	<b>5.9</b>	<b>5.9</b>	<b>21.3</b>	<b>11.6</b>	<b>14.6</b>	<b>8.9</b>	<b>9.9</b>	<b>01/2005</b>
Russell 1000 Growth			5.9	5.9	21.9	12.7	15.3	9.1	9.2	01/2005
Excess			0.0	0.0	-0.6	-1.1	-0.6	-0.2	0.6	
<b>ZEVENBERGEN</b>	<b>437,798,641</b>	<b>1.5</b>	<b>3.6</b>	<b>3.6</b>	<b>26.1</b>	<b>9.5</b>	<b>17.3</b>	<b>9.2</b>	<b>10.4</b>	<b>04/1994</b>
Russell 1000 Growth			5.9	5.9	21.9	12.7	15.3	9.1	9.4	04/1994
Excess			-2.3	-2.3	4.2	-3.2	2.0	0.1	1.0	
<b>RUSSELL 1000 GROWTH AGGREGATE</b>	<b>1,111,431,805</b>	<b>3.7</b>	<b>5.4</b>	<b>5.4</b>	<b>24.5</b>	<b>11.9</b>	<b>15.8</b>	<b>9.2</b>		
Russell 1000 Growth			5.9	5.9	21.9	12.7	15.3	9.1		
Excess			-0.5	-0.5	2.6	-0.8	0.5	0.1		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Large Cap Growth</b>					
<b>SANDS</b>	<b>-6.9%</b>	<b>2.9%</b>	<b>9.1%</b>	<b>42.4%</b>	<b>24.2%</b>
Russell 1000 Growth	7.1	5.7	13.0	33.5	15.3
Excess	-13.9	-2.8	-3.9	8.9	9.0
<b>WINSLOW</b>	<b>-1.9</b>	<b>6.7</b>	<b>11.0</b>	<b>37.4</b>	<b>13.7</b>
Russell 1000 Growth	7.1	5.7	13.0	33.5	15.3
Excess	-9.0	1.0	-2.0	3.9	-1.5
<b>ZEVENBERGEN</b>	<b>-2.8</b>	<b>6.4</b>	<b>3.4</b>	<b>60.6</b>	<b>8.0</b>
Russell 1000 Growth	7.1	5.7	13.0	33.5	15.3
Excess	-9.9	0.7	-9.6	27.1	-7.3
<b>RUSSELL 1000 GROWTH AGGREGATE</b>	<b>1.0</b>	<b>4.6</b>	<b>9.6</b>	<b>42.0</b>	<b>15.5</b>
Russell 1000 Growth	7.1	5.7	13.0	33.5	15.3
Excess	-6.1	-1.1	-3.4	8.5	0.3



	<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>Active Large Cap Value</b>										
<b>BARROW HANLEY</b>	<b>\$360,561,612</b>	<b>1.2%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>14.1%</b>	<b>7.5%</b>	<b>13.2%</b>	<b>6.0%</b>	<b>8.0%</b>	<b>04/2004</b>
Russell 1000 Value			3.1	3.1	15.1	8.5	13.2	5.9	7.9	04/2004
Excess			-1.0	-1.0	-1.1	-1.0	0.0	0.1	0.1	
<b>EARNEST PARTNERS</b>	<b>252,143,423</b>	<b>0.8</b>	<b>4.3</b>	<b>4.3</b>	<b>20.4</b>	<b>10.0</b>	<b>13.4</b>	<b>6.1</b>	<b>6.8</b>	<b>07/2000</b>
Russell 1000 Value			3.1	3.1	15.1	8.5	13.2	5.9	7.2	07/2000
Excess			1.2	1.2	5.2	1.5	0.2	0.2	-0.4	
<b>LSV</b>	<b>396,088,173</b>	<b>1.3</b>	<b>5.8</b>	<b>5.8</b>	<b>21.8</b>	<b>9.8</b>	<b>16.1</b>	<b>7.0</b>	<b>9.3</b>	<b>04/2004</b>
Russell 1000 Value			3.1	3.1	15.1	8.5	13.2	5.9	7.9	04/2004
Excess			2.7	2.7	6.7	1.3	2.9	1.1	1.4	
<b>RUSSELL 1000 VALUE AGGREGATE</b>	<b>1,008,793,207</b>	<b>3.3</b>	<b>4.1</b>	<b>4.1</b>	<b>19.2</b>	<b>8.6</b>	<b>13.9</b>	<b>6.2</b>		
Russell 1000 Value			3.1	3.1	15.1	8.5	13.2	5.9		
Excess			1.0	1.0	4.1	0.0	0.7	0.3		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Large Cap Value</b>					
<b>BARROW HANLEY</b>	<b>12.8%</b>	<b>-2.1%</b>	<b>13.0%</b>	<b>35.5%</b>	<b>15.5%</b>
Russell 1000 Value	17.3	-3.8	13.5	32.5	17.5
Excess	-4.5	1.7	-0.5	3.0	-2.0
<b>EARNEST PARTNERS</b>	<b>16.2</b>	<b>-2.7</b>	<b>14.0</b>	<b>32.0</b>	<b>10.7</b>
Russell 1000 Value	17.3	-3.8	13.5	32.5	17.5
Excess	-1.1	1.1	0.5	-0.5	-6.8
<b>LSV</b>	<b>17.0</b>	<b>-2.2</b>	<b>14.0</b>	<b>41.2</b>	<b>20.4</b>
Russell 1000 Value	17.3	-3.8	13.5	32.5	17.5
Excess	-0.4	1.6	0.6	8.7	2.9
<b>RUSSELL 1000 VALUE AGGREGATE</b>	<b>15.3</b>	<b>-3.2</b>	<b>13.1</b>	<b>36.5</b>	<b>16.9</b>
Russell 1000 Value	17.3	-3.8	13.5	32.5	17.5
Excess	-2.1	0.6	-0.4	3.9	-0.6



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Semi-Passive Large Cap</b>										
<b>BLACKROCK</b>	<b>\$956,633,517</b>	<b>3.2%</b>	<b>5.8%</b>	<b>5.8%</b>	<b>21.4%</b>	<b>11.6%</b>	<b>15.1%</b>	<b>7.9%</b>	<b>9.9%</b>	<b>01/1995</b>
Semi Passive Domestic Equity Benchmark			4.5	4.5	18.5	10.6	14.3	7.5	9.4	01/1995
Excess			1.3	1.3	2.9	1.0	0.8	0.3	0.4	
<b>J.P. MORGAN</b>	<b>1,411,402,292</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>19.3</b>	<b>11.0</b>	<b>14.8</b>	<b>8.2</b>	<b>9.8</b>	<b>01/1995</b>
Semi Passive Domestic Equity Benchmark			4.5	4.5	18.5	10.6	14.3	7.5	9.4	01/1995
Excess			0.3	0.3	0.8	0.3	0.5	0.7	0.3	
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>2,368,035,809</b>	<b>7.9</b>	<b>5.2</b>	<b>5.2</b>	<b>19.2</b>	<b>10.5</b>	<b>14.3</b>	<b>7.6</b>		
Semi Passive Domestic Equity Benchmark			4.5	4.5	18.5	10.6	14.3	7.5		
Excess			0.7	0.7	0.7	-0.1	0.1	0.1		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Semi-Passive Large Cap</b>					
<b>BLACKROCK</b>	<b>12.5%</b>	<b>0.8%</b>	<b>14.2%</b>	<b>33.3%</b>	<b>19.0%</b>
Semi Passive Domestic Equity Benchmark	12.1	0.9	13.2	33.1	16.4
Excess	0.5	-0.1	1.0	0.2	2.6
<b>J.P. MORGAN</b>					
<b>J.P. MORGAN</b>	<b>12.3</b>	<b>0.8</b>	<b>15.0</b>	<b>33.7</b>	<b>17.6</b>
Semi Passive Domestic Equity Benchmark	12.1	0.9	13.2	33.1	16.4
Excess	0.2	-0.1	1.8	0.6	1.2
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>					
<b>SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>11.1</b>	<b>0.5</b>	<b>14.2</b>	<b>33.2</b>	<b>17.7</b>
Semi Passive Domestic Equity Benchmark	12.1	0.9	13.2	33.1	16.4
Excess	-1.0	-0.4	1.0	0.1	1.3



	<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>Active Small Cap Growth</b>										
<b>ARROWMARK</b>	<b>\$198,510,765</b>	<b>0.7%</b>	<b>7.1%</b>	<b>7.1%</b>					<b>31.8%</b>	<b>11/2016</b>
Russell 2000 Growth			6.2	6.2					29.0	11/2016
Excess			0.9	0.9					2.8	
<b>HOOD RIVER</b>	<b>225,717,291</b>	<b>0.7</b>	<b>3.7</b>	<b>3.7</b>					<b>28.8</b>	<b>11/2016</b>
Russell 2000 Growth			6.2	6.2					29.0	11/2016
Excess			-2.5	-2.5					-0.2	
<b>MCKINLEY</b>	<b>280,004,208</b>	<b>0.9</b>	<b>7.2</b>	<b>7.2</b>	<b>24.7%</b>	<b>11.1%</b>	<b>15.9%</b>	<b>6.5%</b>	<b>7.8</b>	<b>01/2004</b>
Russell 2000 Growth			6.2	6.2	21.0	12.2	14.3	8.5	9.1	01/2004
Excess			1.0	1.0	3.7	-1.1	1.6	-1.9	-1.3	
<b>RICE HALL JAMES</b>	<b>198,699,399</b>	<b>0.7</b>	<b>3.6</b>	<b>3.6</b>					<b>32.0</b>	<b>11/2016</b>
Russell 2000 Growth			6.2	6.2					29.0	11/2016
Excess			-2.6	-2.6					3.0	
<b>WELLINGTON</b>	<b>228,960,126</b>	<b>0.8</b>	<b>5.5</b>	<b>5.5</b>					<b>30.6</b>	<b>11/2016</b>
Russell 2000 Growth			6.2	6.2					29.0	11/2016
Excess			-0.7	-0.7					1.6	
<b>RUSSELL 2000 GROWTH AGGREGATE</b>	<b>1,131,891,790</b>	<b>3.8</b>	<b>5.5</b>	<b>5.5</b>	<b>22.1</b>	<b>10.2</b>	<b>11.9</b>	<b>5.6</b>		
Russell 2000 Growth			6.2	6.2	21.0	12.2	14.3	8.5		
Excess			-0.7	-0.7	1.1	-1.9	-2.4	-2.9		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Small Cap Growth</b>					
<b>ARROWMARK</b>					
Russell 2000 Growth					
Excess					
<b>HOOD RIVER</b>					
Russell 2000 Growth					
Excess					
<b>MCKINLEY</b>	<b>12.9%</b>	<b>3.6%</b>	<b>2.0%</b>	<b>51.6%</b>	<b>23.2%</b>
Russell 2000 Growth	11.3	-1.4	5.6	43.3	14.6
Excess	1.6	5.0	-3.6	8.3	8.6
<b>RICE HALL JAMES</b>					
Russell 2000 Growth					
Excess					
<b>WELLINGTON</b>					
Russell 2000 Growth					
Excess					
<b>RUSSELL 2000 GROWTH AGGREGATE</b>	<b>4.7</b>	<b>1.0</b>	<b>-3.4</b>	<b>47.2</b>	<b>12.0</b>
Russell 2000 Growth	11.3	-1.4	5.6	43.3	14.6
Excess	-6.6	2.4	-9.0	3.9	-2.6



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Small Cap Value</b>										
<b>GOLDMAN SACHS</b>	<b>\$350,051,703</b>	<b>1.2%</b>	<b>5.8%</b>	<b>5.8%</b>	<b>20.1%</b>	<b>11.3%</b>	<b>14.4%</b>	<b>9.5%</b>	<b>10.1%</b>	<b>01/2004</b>
Russell 2000 Value			5.1	5.1	20.5	12.1	13.3	7.1	8.5	01/2004
Excess			0.7	0.7	-0.5	-0.8	1.1	2.4	1.6	
<b>HOTCHKIS AND WILEY</b>	<b>303,135,347</b>	<b>1.0</b>	<b>5.3</b>	<b>5.3</b>	<b>24.5</b>	<b>8.5</b>	<b>15.1</b>	<b>9.6</b>	<b>8.9</b>	<b>01/2004</b>
Russell 2000 Value			5.1	5.1	20.5	12.1	13.3	7.1	8.5	01/2004
Excess			0.2	0.2	4.0	-3.6	1.8	2.5	0.4	
<b>MARTINGALE</b>	<b>291,747,553</b>	<b>1.0</b>	<b>6.2</b>	<b>6.2</b>	<b>20.7</b>	<b>13.8</b>	<b>16.5</b>	<b>7.7</b>	<b>8.6</b>	<b>01/2004</b>
Russell 2000 Value			5.1	5.1	20.5	12.1	13.3	7.1	8.5	01/2004
Excess			1.1	1.1	0.2	1.7	3.2	0.5	0.1	
<b>PEREGRINE</b>	<b>355,616,626</b>	<b>1.2</b>	<b>4.7</b>	<b>4.7</b>	<b>20.5</b>	<b>11.2</b>	<b>13.5</b>	<b>7.4</b>	<b>10.7</b>	<b>07/2000</b>
Russell 2000 Value			5.1	5.1	20.5	12.1	13.3	7.1	10.1	07/2000
Excess			-0.4	-0.4	-0.0	-0.9	0.2	0.2	0.6	
<b>RUSSELL 2000 VALUE AGGREGATE</b>	<b>1,300,551,229</b>	<b>4.3</b>	<b>5.5</b>	<b>5.5</b>	<b>21.3</b>	<b>11.1</b>	<b>14.6</b>	<b>8.3</b>		
Russell 2000 Value			5.1	5.1	20.5	12.1	13.3	7.1		
Excess			0.4	0.4	0.8	-1.0	1.4	1.2		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Small Cap Value</b>					
<b>GOLDMAN SACHS</b>	<b>24.6%</b>	<b>-5.2%</b>	<b>7.4%</b>	<b>39.3%</b>	<b>16.6%</b>
Russell 2000 Value	31.7	-7.5	4.2	34.5	18.1
Excess	-7.1	2.3	3.1	4.8	-1.4
<b>HOTCHKIS AND WILEY</b>	<b>19.9</b>	<b>-8.5</b>	<b>13.0</b>	<b>46.0</b>	<b>24.1</b>
Russell 2000 Value	31.7	-7.5	4.2	34.5	18.1
Excess	-11.8	-1.0	8.8	11.5	6.0
<b>MARTINGALE</b>	<b>34.3</b>	<b>-5.2</b>	<b>7.3</b>	<b>43.1</b>	<b>20.1</b>
Russell 2000 Value	31.7	-7.5	4.2	34.5	18.1
Excess	2.5	2.3	3.1	8.5	2.0
<b>PEREGRINE</b>	<b>27.8</b>	<b>-6.7</b>	<b>4.1</b>	<b>37.3</b>	<b>18.8</b>
Russell 2000 Value	31.7	-7.5	4.2	34.5	18.1
Excess	-3.9	0.8	-0.1	2.8	0.7
<b>RUSSELL 2000 VALUE AGGREGATE</b>	<b>26.5</b>	<b>-6.5</b>	<b>7.5</b>	<b>40.8</b>	<b>19.6</b>
Russell 2000 Value	31.7	-7.5	4.2	34.5	18.1
Excess	-5.2	1.0	3.3	6.3	1.5



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Passive Domestic Equity</b>										
<b>BLACKROCK RUSSELL 1000</b>	<b>\$11,223,810,889</b>	<b>37.3%</b>	<b>4.5%</b>	<b>4.5%</b>					<b>20.9%</b>	<b>10/2016</b>
Russell 1000			4.5	4.5					20.9	10/2016
Excess			-0.0	-0.0					-0.0	
<b>BLACKROCK RUSSELL 3000 (1)</b>	<b>11,970,200,558</b>	<b>39.7</b>	<b>4.6</b>	<b>4.6</b>	<b>18.7%</b>	<b>10.8%</b>	<b>14.2%</b>	<b>7.6%</b>	<b>9.2%</b>	<b>07/1995</b>
Passive Manager Benchmark			4.6	4.6	18.7	10.7	14.2	7.6	9.1	07/1995
Excess			0.0	0.0	-0.0	0.0	0.0	0.0	0.1	
<b>PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>23,194,011,447</b>	<b>77.0</b>	<b>4.5</b>	<b>4.5</b>	<b>18.6</b>	<b>10.7</b>	<b>14.2</b>	<b>7.6</b>		
Passive Domestic Equity Benchmark			4.5	4.5	18.7	10.7	14.2	7.6		
Excess			-0.0	-0.0	-0.1	-0.0	-0.0	0.0		

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



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total Passive Domestic Equity</b>					
<b>BLACKROCK RUSSELL 1000</b>					
Russell 1000					
Excess					
<b>BLACKROCK RUSSELL 3000 (1)</b>	<b>12.7%</b>	<b>0.5%</b>	<b>12.6%</b>	<b>33.5%</b>	<b>16.4%</b>
Passive Manager Benchmark	12.7	0.5	12.6	33.6	16.4
Excess	0.0	0.0	0.0	-0.0	0.0
<b>PASSIVE DOMESTIC EQUITY AGGREGATE</b>	<b>12.6</b>	<b>0.5</b>	<b>12.6</b>	<b>33.5</b>	<b>16.4</b>
Passive Domestic Equity Benchmark	12.5	0.5	12.6	33.6	16.4
Excess	0.1	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.

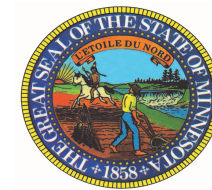
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# International Equity

## September 30, 2017



	<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>\$11,314,718,701</b>	<b>75.5%</b>	<b>5.8%</b>	<b>5.8%</b>	<b>19.0%</b>	<b>5.5%</b>	<b>8.7%</b>	<b>2.0%</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.2	0.2	0.2	0.9	0.9	0.7		
<b>EMERGING MARKETS (2)</b>	<b>3,666,567,350</b>	<b>24.5</b>	<b>8.3</b>	<b>8.3</b>	<b>21.2</b>	<b>5.0</b>	<b>4.2</b>	<b>1.0</b>		
BENCHMARK EM			7.9	7.9	22.5	4.9	4.0	1.4		
Excess			0.4	0.4	-1.2	0.1	0.2	-0.3		
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	3,349,202	0.0								
<b>TOTAL INTERNATIONAL EQUITY (4)</b>	<b>14,984,635,253</b>	<b>100.0</b>	<b>6.4</b>	<b>6.4</b>	<b>19.8</b>	<b>5.5</b>	<b>7.8</b>	<b>1.8</b>	<b>6.8</b>	<b>10/1992</b>
International Equity Benchmark			6.2	6.2	19.6	4.7	7.0	1.3	6.3	10/1992
Excess			0.2	0.2	0.2	0.8	0.8	0.5	0.5	

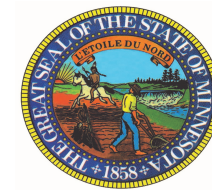
(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

(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 the Standard (large + mid) MSCI ACWI ex U.S. (net).

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



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total International Equity</b>					
<b>DEVELOPED MARKETS (1)</b>	<b>1.3%</b>	<b>-0.3%</b>	<b>-4.1%</b>	<b>23.3%</b>	<b>17.6%</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-1.5	2.8	0.2	2.2	1.1
<b>EMERGING MARKETS (2)</b>					
<b>EMERGING MARKETS (2)</b>	<b>7.5</b>	<b>-13.1</b>	<b>-3.8</b>	<b>0.2</b>	<b>17.6</b>
BENCHMARK EM	11.2	-14.9	-2.2	-2.6	18.2
Excess	-3.7	1.9	-1.6	2.9	-0.7
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)					
<b>TOTAL INTERNATIONAL EQUITY (4)</b>	<b>2.6</b>	<b>-2.9</b>	<b>-4.0</b>	<b>17.8</b>	<b>17.6</b>
International Equity Benchmark	4.5	-5.7	-3.9	15.3	16.8
Excess	-1.8	2.8	-0.2	2.5	0.8

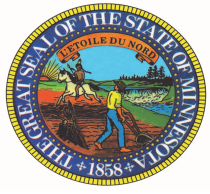
(1) The current benchmark for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

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

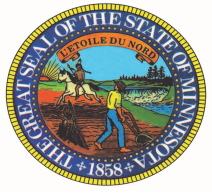
(3) The Transition Aggregate International Equity contains International Equity securities that are being transitioned to a different manager.

(4) 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 the Standard (large + mid) MSCI ACWI ex U.S. (net).

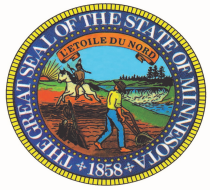
Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.



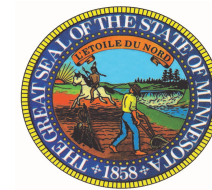
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Developed Markets</b>										
<b>ACADIAN</b>	<b>\$520,772,856</b>	<b>3.5%</b>	<b>7.1%</b>	<b>7.1%</b>	<b>30.9%</b>	<b>12.0%</b>	<b>13.5%</b>	<b>2.2%</b>	<b>7.1%</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			1.5	1.5	12.1	7.4	5.7	0.9	1.8	
<b>COLUMBIA</b>	<b>422,991,964</b>	<b>2.8</b>	<b>7.2</b>	<b>7.2</b>	<b>20.2</b>	<b>7.4</b>	<b>8.7</b>	<b>3.1</b>	<b>2.9</b>	<b>03/2000</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	3.5	03/2000
Excess			1.6	1.6	1.5	2.8	0.9	1.8	-0.6	
<b>FIDELITY</b>	<b>418,622,431</b>	<b>2.8</b>	<b>6.0</b>	<b>6.0</b>	<b>19.7</b>	<b>6.0</b>	<b>9.2</b>	<b>3.0</b>	<b>6.9</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			0.4	0.4	0.9	1.4	1.4	1.7	1.5	
<b>JP MORGAN</b>	<b>351,000,530</b>	<b>2.3</b>	<b>6.8</b>	<b>6.8</b>	<b>22.4</b>	<b>5.0</b>	<b>7.9</b>	<b>2.2</b>	<b>5.5</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			1.2	1.2	3.7	0.4	0.1	0.9	0.2	
<b>MARATHON</b>	<b>907,353,653</b>	<b>6.1</b>	<b>4.5</b>	<b>4.5</b>	<b>17.3</b>	<b>6.9</b>	<b>10.2</b>	<b>4.3</b>	<b>8.4</b>	<b>11/1993</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	11/1993
Excess			-1.1	-1.1	-1.4	2.4	2.4	3.0	3.2	
<b>MCKINLEY</b>	<b>349,004,168</b>	<b>2.3</b>	<b>8.1</b>	<b>8.1</b>	<b>19.0</b>	<b>5.5</b>	<b>8.8</b>	<b>0.4</b>	<b>5.0</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			2.5	2.5	0.2	0.9	1.0	-0.9	-0.3	
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>2,969,745,602</b>	<b>19.8</b>	<b>6.2</b>	<b>6.2</b>	<b>21.1</b>	<b>7.3</b>	<b>9.9</b>	<b>2.8</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.6	0.6	2.3	2.7	2.1	1.5		



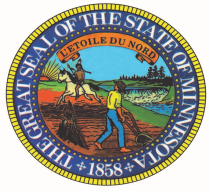
	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Developed Markets</b>					
<b>ACADIAN</b>	<b>8.1%</b>	<b>2.4%</b>	<b>-1.7%</b>	<b>26.1%</b>	<b>17.6%</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	5.4	5.4	2.6	5.1	1.2
<b>COLUMBIA</b>	<b>-5.6</b>	<b>6.4</b>	<b>-5.6</b>	<b>23.9</b>	<b>19.0</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-8.3	9.4	-1.2	2.9	2.6
<b>FIDELITY</b>	<b>1.2</b>	<b>0.1</b>	<b>-5.6</b>	<b>26.7</b>	<b>20.3</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-1.5	3.2	-1.3	5.7	3.9
<b>JP MORGAN</b>	<b>4.0</b>	<b>-4.7</b>	<b>-5.1</b>	<b>19.5</b>	<b>18.4</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	1.2	-1.6	-0.7	-1.5	2.0
<b>MARATHON</b>	<b>-1.1</b>	<b>6.7</b>	<b>-4.0</b>	<b>28.5</b>	<b>17.9</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-3.8	9.7	0.3	7.5	1.5
<b>MCKINLEY</b>	<b>-7.5</b>	<b>3.1</b>	<b>-2.7</b>	<b>28.0</b>	<b>16.9</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-10.2	6.2	1.6	7.0	0.5
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-0.2</b>	<b>3.2</b>	<b>-4.1</b>	<b>25.4</b>	<b>17.9</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-3.0	6.2	0.2	4.4	1.5



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Semi-Passive Developed Markets</b>										
<b>AQR</b>	<b>\$412,468,897</b>	<b>2.8%</b>	<b>6.5%</b>	<b>6.5%</b>	<b>20.8%</b>	<b>6.4%</b>	<b>9.7%</b>	<b>2.3%</b>	<b>6.1%</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			0.9	0.9	2.0	1.8	1.9	1.0	0.8	
<b>FIDELITY</b>	<b>581,145,753</b>	<b>3.9</b>	<b>5.3</b>	<b>5.3</b>	<b>17.3</b>	<b>4.1</b>	<b>7.8</b>	<b>1.6</b>	<b>5.9</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			-0.4	-0.4	-1.4	-0.5	-0.0	0.3	0.6	
<b>SSgA</b>	<b>361,680,538</b>	<b>2.4</b>	<b>5.4</b>	<b>5.4</b>	<b>22.1</b>	<b>4.8</b>	<b>8.9</b>	<b>0.8</b>	<b>5.0</b>	<b>07/2005</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	5.3	07/2005
Excess			-0.2	-0.2	3.4	0.2	1.1	-0.5	-0.3	
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>1,355,295,188</b>	<b>9.0</b>	<b>5.7</b>	<b>5.7</b>	<b>19.6</b>	<b>4.9</b>	<b>8.7</b>	<b>1.6</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.0	0.0	0.9	0.4	0.9	0.3		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Semi-Passive Developed Markets</b>					
<b>AQR</b>	<b>0.8%</b>	<b>0.9%</b>	<b>-4.4%</b>	<b>24.1%</b>	<b>20.8%</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-2.0	3.9	-0.1	3.1	4.4
<b>FIDELITY</b>					
<b>FIDELITY</b>	<b>-1.7</b>	<b>-0.7</b>	<b>-4.0</b>	<b>23.2</b>	<b>19.4</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-4.5	2.3	0.3	2.2	3.0
<b>SSgA</b>					
<b>SSgA</b>	<b>0.6</b>	<b>-0.9</b>	<b>-5.1</b>	<b>25.3</b>	<b>17.3</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-2.2	2.1	-0.8	4.2	0.9
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>					
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-0.4</b>	<b>-0.3</b>	<b>-4.4</b>	<b>24.0</b>	<b>19.2</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-3.1	2.7	-0.1	3.0	2.8



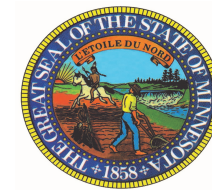
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Developed Markets</b>										
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>\$2,969,745,602</b>	<b>19.8%</b>	<b>6.2%</b>	<b>6.2%</b>	<b>21.1%</b>	<b>7.3%</b>	<b>9.9%</b>	<b>2.8%</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.6	0.6	2.3	2.7	2.1	1.5		
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>1,355,295,188</b>	<b>9.0</b>	<b>5.7</b>	<b>5.7</b>	<b>19.6</b>	<b>4.9</b>	<b>8.7</b>	<b>1.6</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.0	0.0	0.9	0.4	0.9	0.3		
<b>SSgA DEVELOPED MARKETS PASSIVE</b>	<b>6,989,677,911</b>	<b>46.6</b>	<b>5.7</b>	<b>5.7</b>	<b>19.3</b>	<b>5.0</b>	<b>8.2</b>	<b>1.7</b>	<b>6.5</b>	<b>10/1992</b>
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3	6.2	10/1992
Excess			0.1	0.1	0.5	0.5	0.4	0.4	0.3	
<b>DEVELOPED MARKETS TOTAL</b>	<b>11,314,718,701</b>	<b>75.5</b>	<b>5.8</b>	<b>5.8</b>	<b>19.0</b>	<b>5.5</b>	<b>8.7</b>	<b>2.0</b>		
BENCHMARK DM			5.6	5.6	18.7	4.6	7.8	1.3		
Excess			0.2	0.2	0.2	0.9	0.9	0.7		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total Developed Markets</b>					
<b>ACTIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-0.2%</b>	<b>3.2%</b>	<b>-4.1%</b>	<b>25.4%</b>	<b>17.9%</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-3.0	6.2	0.2	4.4	1.5
<b>SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE</b>	<b>-0.4</b>	<b>-0.3</b>	<b>-4.4</b>	<b>24.0</b>	<b>19.2</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-3.1	2.7	-0.1	3.0	2.8
<b>SSgA DEVELOPED MARKETS PASSIVE</b>	<b>3.2</b>	<b>-2.6</b>	<b>-3.9</b>	<b>21.4</b>	<b>16.7</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	0.4	0.5	0.4	0.4	0.3
<b>DEVELOPED MARKETS TOTAL</b>	<b>1.3</b>	<b>-0.3</b>	<b>-4.1</b>	<b>23.3</b>	<b>17.6</b>
BENCHMARK DM	2.7	-3.0	-4.3	21.0	16.4
Excess	-1.5	2.8	0.2	2.2	1.1



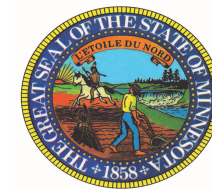
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Emerging Markets</b>										
<b>EARNEST PARTNERS</b>	<b>\$300,784,924</b>	<b>2.0%</b>	<b>5.6%</b>	<b>5.6%</b>					<b>14.1%</b>	<b>04/2017</b>
MSCI EMERGING MARKETS			7.9	7.9					14.7	04/2017
Excess			-2.2	-2.2					-0.5	
<b>MARTIN CURRIE</b>	<b>329,459,637</b>	<b>2.2</b>	<b>11.8</b>	<b>11.8</b>					<b>21.8</b>	<b>04/2017</b>
BENCHMARK EM			7.9	7.9					14.7	04/2017
Excess			4.0	4.0					7.1	
<b>MACQUARIE</b>	<b>325,153,566</b>	<b>2.2</b>	<b>11.7</b>	<b>11.7</b>					<b>19.8</b>	<b>04/2017</b>
BENCHMARK EM			7.9	7.9					14.7	04/2017
Excess			3.8	3.8					5.1	
<b>MORGAN STANLEY</b>	<b>623,910,483</b>	<b>4.2</b>	<b>7.9</b>	<b>7.9</b>	<b>20.2%</b>	<b>6.0%</b>	<b>5.3%</b>	<b>1.9%</b>	<b>10.4</b>	<b>01/2001</b>
BENCHMARK EM			7.9	7.9	22.5	4.9	4.0	1.4	9.9	01/2001
Excess			-0.0	-0.0	-2.3	1.1	1.3	0.5	0.5	
<b>NEUBERGER BERMAN</b>	<b>317,307,511</b>	<b>2.1</b>	<b>9.6</b>	<b>9.6</b>					<b>17.1</b>	<b>04/2017</b>
BENCHMARK EM			7.9	7.9					14.7	04/2017
Excess			1.7	1.7					2.4	
<b>PZENA</b>	<b>297,412,081</b>	<b>2.0</b>	<b>4.9</b>	<b>4.9</b>					<b>10.8</b>	<b>04/2017</b>
BENCHMARK EM			7.9	7.9					14.7	04/2017
Excess			-3.0	-3.0					-3.8	
<b>ROCK CREEK</b>	<b>303,169,778</b>	<b>2.0</b>	<b>7.1</b>	<b>7.1</b>					<b>12.7</b>	<b>04/2017</b>
BENCHMARK EM			7.9	7.9					14.7	04/2017
Excess			-0.8	-0.8					-1.9	



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Emerging Markets</b>					
<b>EARNEST PARTNERS</b>					
MSCI EMERGING MARKETS					
Excess					
<b>MARTIN CURRIE</b>					
BENCHMARK EM					
Excess					
<b>MACQUARIE</b>					
BENCHMARK EM					
Excess					
<b>MORGAN STANLEY</b>	<b>6.1%</b>	<b>-9.4%</b>	<b>-2.5%</b>	<b>0.5%</b>	<b>21.1%</b>
BENCHMARK EM	11.2	-14.9	-2.2	-2.6	18.2
Excess	-5.1	5.5	-0.3	3.1	2.8
<b>NEUBERGER BERMAN</b>					
BENCHMARK EM					
Excess					
<b>PZENA</b>					
BENCHMARK EM					
Excess					
<b>ROCK CREEK</b>					
BENCHMARK EM					
Excess					



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Emerging Markets</b>										
<b>ACTIVE EMERGING MARKETS AGGREGATE</b>	<b>\$2,497,197,981</b>	<b>16.7%</b>	<b>8.3%</b>	<b>8.3%</b>	<b>19.1%</b>	<b>4.4%</b>	<b>3.9%</b>	<b>0.9%</b>		
BENCHMARK EM			7.9	7.9	22.5	4.9	4.0	1.4		
Excess			0.5	0.5	-3.3	-0.5	-0.1	-0.5		
<b>SSGA EMERGING MARKETS PASSIVE</b>	<b>1,169,369,369</b>	<b>7.8</b>	<b>8.0</b>	<b>8.0</b>	<b>22.2</b>	<b>5.2</b>	<b>4.2</b>		<b>5.7</b>	<b>01/2012</b>
BENCHMARK EM			7.9	7.9	22.5	4.9	4.0		5.5	01/2012
Excess			0.2	0.2	-0.2	0.3	0.2		0.2	
<b>EMERGING MARKETS TOTAL</b>	<b>3,666,567,350</b>	<b>24.5</b>	<b>8.3</b>	<b>8.3</b>	<b>21.2</b>	<b>5.0</b>	<b>4.2</b>	<b>1.0</b>		
BENCHMARK EM			7.9	7.9	22.5	4.9	4.0	1.4		
Excess			0.4	0.4	-1.2	0.1	0.2	-0.3		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total Emerging Markets</b>					
<b>ACTIVE EMERGING MARKETS AGGREGATE</b>	<b>5.3%</b>	<b>-12.7%</b>	<b>-4.1%</b>	<b>0.6%</b>	<b>17.5%</b>
BENCHMARK EM	11.2	-14.9	-2.2	-2.6	18.2
Excess	-5.9	2.2	-2.0	3.2	-0.8
<b>SSGA EMERGING MARKETS PASSIVE</b>	<b>11.1</b>	<b>-14.6</b>	<b>-2.1</b>	<b>-2.5</b>	<b>18.5</b>
BENCHMARK EM	11.2	-14.9	-2.2	-2.6	18.2
Excess	-0.1	0.3	0.1	0.1	0.3
<b>EMERGING MARKETS TOTAL</b>	<b>7.5</b>	<b>-13.1</b>	<b>-3.8</b>	<b>0.2</b>	<b>17.6</b>
BENCHMARK EM	11.2	-14.9	-2.2	-2.6	18.2
Excess	-3.7	1.9	-1.6	2.9	-0.7

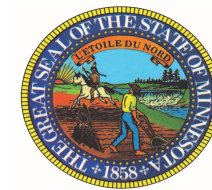
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# Fixed Income

## September 30, 2017

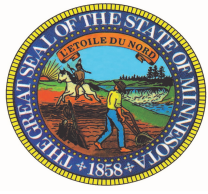


	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Total Fixed Income</b>										
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>\$6,038,842,535</b>	<b>46.9%</b>	<b>1.1%</b>	<b>1.1%</b>	<b>1.8%</b>	<b>3.6%</b>	<b>3.0%</b>	<b>4.9%</b>		
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3		
Excess			0.3	0.3	1.7	0.9	1.0	0.6		
<b>SEMI PASSIVE FIXED INCOME AGGREGATE</b>	<b>6,845,348,533</b>	<b>53.1</b>	<b>0.9</b>	<b>0.9</b>	<b>0.3</b>	<b>2.9</b>	<b>2.3</b>	<b>4.5</b>		
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3		
Excess			0.0	0.0	0.2	0.2	0.2	0.2		
TRANSITION AGGREGATE FIXED INCOME (1)	17,036	0.0								
<b>TOTAL FIXED INCOME (2)</b>	<b>12,884,208,104</b>	<b>100.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>3.2</b>	<b>2.7</b>	<b>4.7</b>	<b>7.7</b>	<b>07/1984</b>
Fixed Income Benchmark			0.8	0.8	0.1	2.7	2.1	4.3	7.4	07/1984
Excess			0.2	0.2	0.9	0.5	0.6	0.4	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>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Total Fixed Income</b>					
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>4.4%</b>	<b>0.6%</b>	<b>6.2%</b>	<b>-0.8%</b>	<b>8.1%</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	1.7	0.0	0.2	1.2	3.9
<b>SEMI PASSIVE FIXED INCOME AGGREGATE</b>	<b>2.8</b>	<b>0.8</b>	<b>6.1</b>	<b>-1.8</b>	<b>5.3</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.2	0.2	0.1	0.2	1.1
TRANSITION AGGREGATE FIXED INCOME (1)					
<b>TOTAL FIXED INCOME (2)</b>	<b>3.6</b>	<b>0.7</b>	<b>6.1</b>	<b>-1.3</b>	<b>6.7</b>
Fixed Income Benchmark	2.6	0.5	6.0	-2.0	4.2
Excess	0.9	0.1	0.2	0.7	2.5

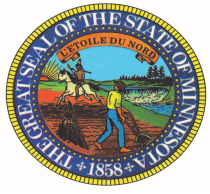
(1) The Transition Aggregate Fixed Income includes fixed income securities that are being transition to a different manager.

(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.



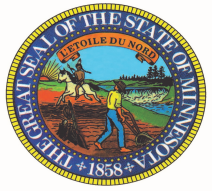
	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Active Fixed Income Managers</b>										
<b>COLUMBIA</b>	<b>\$1,174,372,665</b>	<b>9.1%</b>	<b>1.2%</b>	<b>1.2%</b>	<b>1.9%</b>	<b>3.7%</b>	<b>2.9%</b>	<b>4.8%</b>	<b>5.5%</b>	<b>07/1993</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	5.3	07/1993
Excess			0.3	0.3	1.8	1.0	0.9	0.5	0.2	
<b>DODGE &amp; COX</b>	<b>1,665,736,296</b>	<b>12.9</b>	<b>1.2</b>	<b>1.2</b>	<b>2.4</b>	<b>3.3</b>	<b>3.4</b>	<b>5.4</b>	<b>6.2</b>	<b>02/2000</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	5.2	02/2000
Excess			0.3	0.3	2.3	0.6	1.3	1.2	1.0	
<b>PIMCO</b>	<b>1,591,644,345</b>	<b>12.4</b>	<b>1.0</b>	<b>1.0</b>	<b>0.9</b>	<b>3.3</b>	<b>2.6</b>		<b>5.8</b>	<b>10/2008</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1		4.3	10/2008
Excess			0.2	0.2	0.8	0.5	0.5		1.5	
<b>WESTERN</b>	<b>1,607,089,229</b>	<b>12.5</b>	<b>1.2</b>	<b>1.2</b>	<b>2.1</b>	<b>4.0</b>	<b>3.3</b>	<b>5.3</b>	<b>8.6</b>	<b>07/1984</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	7.4	07/1984
Excess			0.4	0.4	2.0	1.3	1.3	1.0	1.2	
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>6,038,842,535</b>	<b>46.9</b>	<b>1.1</b>	<b>1.1</b>	<b>1.8</b>	<b>3.6</b>	<b>3.0</b>	<b>4.9</b>		
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3		
Excess			0.3	0.3	1.7	0.9	1.0	0.6		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Active Fixed Income Managers</b>					
<b>COLUMBIA</b>	<b>5.2%</b>	<b>0.2%</b>	<b>5.8%</b>	<b>-1.0%</b>	<b>6.9%</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	2.6	-0.4	-0.2	1.0	2.7
<b>DODGE &amp; COX</b>	<b>4.8</b>	<b>0.3</b>	<b>6.0</b>	<b>0.9</b>	<b>8.5</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	2.2	-0.3	0.0	3.0	4.2
<b>PIMCO</b>	<b>2.8</b>	<b>1.0</b>	<b>5.5</b>	<b>-1.3</b>	<b>9.3</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.2	0.4	-0.4	0.7	5.1
<b>WESTERN</b>	<b>4.9</b>	<b>0.7</b>	<b>7.0</b>	<b>-1.4</b>	<b>7.8</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	2.2	0.1	1.0	0.7	3.6
<b>ACTIVE FIXED INCOME AGGREGATE</b>	<b>4.4</b>	<b>0.6</b>	<b>6.2</b>	<b>-0.8</b>	<b>8.1</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	1.7	0.0	0.2	1.2	3.9



	<u>Ending Market Value</u>	<u>Portfolio Weight</u>	<u>Last Qtr</u>	<u>Fiscal YTD</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>Since Inception</u>	<u>Inception Date</u>
<b>Semi Passive Fixed Income Managers</b>										
<b>BLACKROCK</b>	<b>\$2,084,687,021</b>	<b>16.2%</b>	<b>0.9%</b>	<b>0.9%</b>	<b>0.2%</b>	<b>2.9%</b>	<b>2.2%</b>	<b>4.2%</b>	<b>5.4%</b>	<b>04/1996</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	5.3	04/1996
Excess			0.0	0.0	0.1	0.2	0.2	-0.1	0.1	
<b>GOLDMAN SACHS</b>	<b>2,510,104,822</b>	<b>19.5</b>	<b>0.9</b>	<b>0.9</b>	<b>0.5</b>	<b>3.0</b>	<b>2.4</b>	<b>4.6</b>	<b>5.7</b>	<b>07/1993</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	5.3	07/1993
Excess			0.1	0.1	0.4	0.3	0.3	0.3	0.3	
<b>NEUBERGER</b>	<b>2,250,556,690</b>	<b>17.5</b>	<b>0.9</b>	<b>0.9</b>	<b>0.1</b>	<b>2.9</b>	<b>2.2</b>	<b>4.7</b>	<b>6.6</b>	<b>07/1988</b>
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3	6.3	07/1988
Excess			0.0	0.0	0.0	0.1	0.1	0.4	0.2	
<b>SEMI PASSIVE FIXED INCOME</b>	<b>6,845,348,533</b>	<b>53.1</b>	<b>0.9</b>	<b>0.9</b>	<b>0.3</b>	<b>2.9</b>	<b>2.3</b>	<b>4.5</b>		
BBG BARC Agg (Dly)			0.8	0.8	0.1	2.7	2.1	4.3		
Excess			0.0	0.0	0.2	0.2	0.2	0.2		



	<u>2016 Calendar Return</u>	<u>2015 Calendar Return</u>	<u>2014 Calendar Return</u>	<u>2013 Calendar Return</u>	<u>2012 Calendar Return</u>
<b>Semi Passive Fixed Income Managers</b>					
<b>BLACKROCK</b>	<b>2.8%</b>	<b>0.9%</b>	<b>6.0%</b>	<b>-1.8%</b>	<b>5.0%</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.1	0.3	0.0	0.2	0.8
<b>GOLDMAN SACHS</b>	<b>3.0</b>	<b>0.8</b>	<b>6.1</b>	<b>-1.7</b>	<b>5.4</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.3	0.2	0.1	0.3	1.2
<b>NEUBERGER</b>	<b>2.7</b>	<b>0.7</b>	<b>6.1</b>	<b>-2.0</b>	<b>5.4</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.1	0.2	0.2	0.1	1.2
<b>SEMI PASSIVE FIXED INCOME</b>	<b>2.8</b>	<b>0.8</b>	<b>6.1</b>	<b>-1.8</b>	<b>5.3</b>
BBG BARC Agg (Dly)	2.6	0.5	6.0	-2.0	4.2
Excess	0.2	0.2	0.1	0.2	1.1

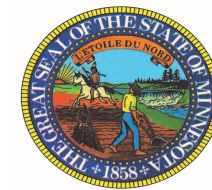
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# Private Markets

## September 30, 2017



## Private Markets Performance

### 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>
Total Private Markets	2.8%	2.8%	17.1%	7.8%	11.9%	8.7%	12.7%
Private Equity	4.8	4.8	19.8	13.0	15.1	10.5	13.6
Private Credit	-0.5	-0.5	14.2	13.0	13.8	10.7	12.9
Resources	-1.0	-1.0	13.5	-8.7	2.0	6.5	13.1
Real Estate	2.4	2.4	9.6	11.0	12.5	4.5	9.5

### 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.

### Resources 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 following pages.

Minnesota State Board of Investment  
- Alternative Investments -  
As of September 30, 2017

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>I. PRIVATE EQUITY</b>								
<b>Adams Street Partners</b>								
<i>Adams Street Global Secondary Fund 5</i>	100,000,000	74,529,750	59,418,292	21,947,518	25,470,250	4.35	<b>1.09</b>	5.29
<i>Adams Street Global Secondary Fund 6</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.50
<b>Advent International</b>								
<i>Advent International GPE VI</i>	50,000,000	50,000,000	25,926,648	81,885,584	0	17.55	<b>2.16</b>	9.50
<i>Advent International GPE VII</i>	90,000,000	81,000,000	97,237,132	34,200,083	9,000,000	18.21	<b>1.62</b>	5.04
<i>Advent International GPE VIII</i>	100,000,000	45,150,000	46,713,048	0	54,850,000	10.60	<b>1.03</b>	1.65
<b>Affinity Ventures</b>								
<i>Affinity Ventures IV</i>	4,000,000	4,000,000	1,097,452	1,541,970	0	-7.76	<b>0.66</b>	13.26
<i>Affinity Ventures V</i>	5,000,000	5,000,000	2,886,504	1,585,611	0	-2.36	<b>0.89</b>	9.25
<b>APAX Partners</b>								
<i>Apax VIII - USD</i>	200,000,000	204,727,016	212,901,949	50,484,278	18,132,238	11.89	<b>1.29</b>	4.57
<i>Apax IX - USD</i>	150,000,000	40,050,000	38,374,308	0	109,950,000	-19.04	<b>0.96</b>	1.36
<b>Banc Fund</b>								
<i>Banc Fund VII</i>	45,000,000	45,000,000	40,425,697	23,168,725	0	3.36	<b>1.41</b>	12.51
<i>Banc Fund VIII</i>	98,250,000	98,250,000	145,275,757	61,109,973	0	15.06	<b>2.10</b>	9.44
<i>Banc Fund IX</i>	107,205,932	98,629,457	117,075,434	3,283,917	8,576,475	15.56	<b>1.22</b>	3.31
<b>Blackstone Capital Partners</b>								
<i>Blackstone Capital Partners IV</i>	70,000,000	72,354,340	7,602,981	192,717,027	1,916,968	37.06	<b>2.77</b>	15.23
<i>Blackstone Capital Partners V</i>	140,000,000	130,994,409	15,571,818	227,542,468	8,522,239	8.03	<b>1.86</b>	11.67
<i>Blackstone Capital Partners VI</i>	100,000,000	88,712,973	90,813,793	43,231,091	17,323,019	11.66	<b>1.51</b>	9.19
<i>Blackstone Capital Partners VII</i>	130,000,000	16,498,486	17,136,847	179,088	113,573,850	-12.85	<b>1.05</b>	2.25
<b>Blackstone Strategic Partners (CSFB/ DLJ)</b>								
<i>Strategic Partners II-B</i>	100,000,000	86,169,494	579,021	161,941,377	4,678,067	35.07	<b>1.89</b>	14.21
<i>Strategic Partners III VC</i>	25,000,000	24,838,567	5,899,193	28,514,393	1,118,650	6.42	<b>1.39</b>	12.34
<i>Strategic Partners III-B</i>	100,000,000	78,115,035	15,562,740	103,709,850	15,043,813	6.57	<b>1.53</b>	12.34
<i>Strategic Partners IV VC</i>	40,500,000	40,139,897	12,722,010	47,954,392	2,874,619	9.40	<b>1.51</b>	9.29
<i>Strategic Partners IV-B</i>	100,000,000	92,161,937	20,832,389	131,071,759	18,258,203	12.47	<b>1.65</b>	9.52
<i>Strategic Partners V</i>	100,000,000	78,520,491	33,419,270	96,016,166	40,696,991	20.31	<b>1.65</b>	6.12
<i>Strategic Partners VI</i>	150,000,000	83,768,334	80,355,351	41,473,306	69,129,887	21.24	<b>1.45</b>	3.46
<i>Strategic Partners VII</i>	150,000,000	23,837,606	28,644,800	2,854,121	127,943,407	83.62	<b>1.32</b>	0.77
<b>Blum Capital Partners</b>								
<i>Blum Strategic Partners II</i>	50,000,000	40,185,889	133,412	89,708,870	2,127,584	22.42	<b>2.24</b>	16.21
<i>Blum Strategic Partners III</i>	75,000,000	78,121,020	0	83,524,046	471,064	0.26	<b>1.07</b>	12.34

Minnesota State Board of Investment  
- Alternative Investments -  
As of September 30, 2017

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<i>Blum Strategic Partners IV</i>	150,000,000	172,056,780	1,139,984	167,939,991	4,756,033	-0.75	<b>0.98</b>	9.87
<b>Brookfield Asset Management</b>								
<i>Brookfield Capital Partners Fund IV</i>	100,000,000	45,176,859	45,992,701	8,007,829	60,105,141	10.65	<b>1.20</b>	2.05
<b>Cardinal Partners</b>								
<i>DSV Partners IV</i>	10,000,000	10,000,000	31,115	39,196,082	0	10.61	<b>3.92</b>	32.77
<b>Chicago Growth Partners (William Blair)</b>								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	68,355	67,985,017	1,650,000	8.26	<b>1.41</b>	16.58
<i>Chicago Growth Partners I</i>	50,000,000	52,441,998	4,839,370	53,058,188	300,000	2.29	<b>1.10</b>	12.19
<i>Chicago Growth Partners II</i>	60,000,000	58,095,626	21,587,292	94,583,860	1,652,374	18.60	<b>2.00</b>	9.56
<b>Court Square Capital Partners</b>								
<i>Court Square Capital Partners</i>	100,000,000	80,827,220	104,698	182,160,766	1,920,943	28.91	<b>2.26</b>	15.81
<i>Court Square Capital Partners II</i>	175,000,000	158,426,466	46,705,023	255,654,871	17,620,732	12.96	<b>1.91</b>	11.08
<i>Court Square Capital Partners III</i>	175,000,000	103,318,875	64,516,478	63,968,665	79,345,214	10.47	<b>1.24</b>	5.33
<b>Crescendo</b>								
<i>Crescendo IV</i>	101,500,000	101,500,000	14,414,249	42,303,255	0	-5.07	<b>0.56</b>	17.57
<b>CVC Capital Partners</b>								
<i>CVC European Equity Partners V</i>	134,002,188	132,413,576	59,219,665	194,689,132	1,688,463	15.03	<b>1.92</b>	9.52
<i>CVC Capital Partners VI</i>	258,504,296	136,946,057	162,260,254	10,679,340	127,558,365	13.94	<b>1.26</b>	4.23
<b>Diamond Castle Partners</b>								
<i>Diamond Castle Partners IV</i>	92,487,949	91,151,326	0	94,068,606	1,377,108	0.40	<b>1.03</b>	11.07
<b>Elevation Partners</b>								
<i>Elevation Partners</i>	75,000,000	69,311,710	163,520	113,492,106	799,634	11.82	<b>1.64</b>	12.38
<b>Fox Paine &amp; Company</b>								
<i>Fox Paine Capital Fund II</i>	50,000,000	46,299,626	4,096,286	86,859,891	11,953,212	18.90	<b>1.96</b>	17.26
<b>GHJM Marathon Fund</b>								
<i>GHJM Marathon Fund V</i>	50,000,000	50,093,425	8,931	95,948,519	46,502	12.10	<b>1.92</b>	13.01
<i>TrailHead Fund</i>	20,000,000	15,414,187	21,652,289	2,406,955	4,585,813	12.86	<b>1.56</b>	5.61
<b>Glouston Capital Partners**</b>								
<i>Glouston Private Equity Opportunities Fund IV</i>	5,337,098	4,247,098	2,017,761	2,590,487	1,090,000	3.86	<b>1.09</b>	2.76
<b>GS Capital Partners</b>								
<i>GS Capital Partners 2000</i>	50,000,000	50,000,000	168,285	115,122,481	0	23.49	<b>2.31</b>	17.09
<i>GS Capital Partners V</i>	100,000,000	73,958,901	1,598,693	219,279,192	1,041,099	18.23	<b>2.99</b>	12.51
<i>GS Capital Partners VI</i>	100,000,000	80,215,619	20,720,045	117,108,503	3,405,134	6.97	<b>1.72</b>	10.67
<i>West Street Capital Partners</i>	150,000,000	22,500,000	20,748,578	0	127,500,000	-11.63	<b>0.92</b>	0.78
<i>GS Vintage VII</i>	100,000,000	8,770,594	9,549,822	274,313	91,229,406	50.00	<b>1.12</b>	1.26

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<b>GTCR</b>								
<i>GTCR IX</i>	75,000,000	71,414,933	6,480,810	119,144,001	3,585,067	13.49	<b>1.76</b>	11.26
<i>GTCR X</i>	100,000,000	93,248,604	68,309,457	131,964,423	6,751,396	22.34	<b>2.15</b>	6.81
<i>GTCR Fund XI</i>	110,000,000	85,558,444	86,628,139	19,591,961	24,441,556	17.23	<b>1.24</b>	3.88
<b>HarbourVest**</b>								
<i>Dover Street VII Cayman Fund</i>	2,198,112	2,070,612	716,221	1,194,976	127,500	-5.24	<b>0.92</b>	2.76
<i>HarbourVest Intl PE Partners V-Cayman US</i>	3,530,179	3,293,739	1,549,511	2,569,140	236,440	14.24	<b>1.25</b>	2.76
<i>Harbourvest Intl PE Partners VI-Cayman</i>	4,247,432	3,875,039	3,870,450	1,392,804	372,393	17.43	<b>1.36</b>	2.76
<i>HarbourVest Partners VIII Cayman Buyout</i>	4,506,711	4,220,711	2,507,300	2,816,811	286,000	14.14	<b>1.26</b>	2.76
<i>HarbourVest Partners VIII-Cayman Venture</i>	7,190,898	7,050,898	4,831,881	3,123,827	140,000	5.92	<b>1.13</b>	2.76
<b>Hellman &amp; Friedman</b>								
<i>Hellman &amp; Friedman Capital Partners V</i>	160,000,000	146,165,961	3,070,546	415,483,079	8,070,303	27.90	<b>2.86</b>	12.84
<i>Hellman &amp; Friedman Capital Partners VI</i>	175,000,000	171,035,354	41,698,527	311,033,272	5,087,265	13.18	<b>2.06</b>	10.51
<i>Hellman &amp; Friedman Capital Partners VII</i>	50,000,000	47,461,919	68,860,518	25,612,315	2,538,081	22.11	<b>1.99</b>	8.45
<b>IK Investment Partners</b>								
<i>IK Fund VII</i>	180,647,555	172,208,922	190,268,875	16,742,521	8,438,633	7.58	<b>1.20</b>	4.05
<i>IK Fund VIII</i>	175,215,409	43,212,577	43,234,802	2,213,957	134,148,734	8.71	<b>1.05</b>	1.20
<b>Kohlberg Kravis Roberts</b>								
<i>KKR Millennium Fund</i>	200,000,000	200,000,000	18,491,513	400,827,308	0	16.29	<b>2.10</b>	14.82
<i>KKR 2006 Fund</i>	200,000,000	211,063,288	73,870,514	284,498,039	3,360,223	8.66	<b>1.70</b>	11.02
<i>KKR Americas Fund XII</i>	150,000,000	0	0	0	150,000,000	0.00	<b>0.00</b>	1.58
<i>KKR Asian Fund III</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.50
<b>Leonard Green &amp; Partners</b>								
<i>Green Equity Investors VI</i>	200,000,000	213,778,395	211,003,326	67,744,414	17,755,145	12.08	<b>1.30</b>	5.55
<b>Lexington Capital Partners</b>								
<i>Lexington Capital Partners VI-B</i>	100,000,000	98,365,297	19,431,635	124,260,049	1,634,703	7.91	<b>1.46</b>	11.77
<i>Lexington Capital Partners VII</i>	200,000,000	166,986,835	74,534,641	183,137,900	41,166,114	15.25	<b>1.54</b>	8.72
<i>Lexington Capital Partners VIII</i>	150,000,000	74,237,063	70,077,820	21,763,856	83,665,740	25.31	<b>1.24</b>	3.58
<i>Lexington Middle Market Investors IV</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.78
<i>Lexington Co-Investment Partners IV</i>	200,000,000	0	0	0	200,000,000	0.00	<b>0.00</b>	1.16
<b>Madison Dearborn Capital Partners</b>								
<i>Madison Dearborn Capital Partners VII</i>	100,000,000	24,920,485	24,254,828	1,026,980	76,049,298	1.29	<b>1.01</b>	1.79
<b>Neuberger Berman</b>								
<i>Dyal Capital Partners III</i>	175,000,000	121,343,383	56,605,197	74,112,866	127,377,732	19.93	<b>1.08</b>	2.45

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<b>Nordic Capital</b>								
<i>Nordic Capital Fund VIII</i>	179,834,982	116,521,186	171,159,618	49,418	63,313,795	16.20	<b>1.47</b>	4.05
<b>North Sky Capital**</b>								
<i>North Sky Capital LBO Fund III</i>	1,070,259	720,259	434,407	501,904	350,000	14.58	<b>1.30</b>	2.76
<i>North Sky Capital Venture Fund III</i>	1,384,080	1,277,830	537,545	896,160	106,250	6.98	<b>1.12</b>	2.76
<b>Oak Hill Capital Management, Inc.</b>								
<i>Oak Hill Capital Partners IV</i>	150,000,000	15,000,000	5,511,034	2,790,511	137,790,511	-48.26	<b>0.55</b>	0.81
<b>Paine &amp; Partners</b>								
<i>Paine &amp; Partners Capital Fund IV</i>	75,000,000	39,541,862	34,935,575	1,074,740	36,514,143	-6.88	<b>0.91</b>	2.81
<b>Permira</b>								
<i>Permira V</i>	179,277,415	166,420,997	209,682,769	2,229,773	12,856,418	11.02	<b>1.27</b>	3.75
<i>Permira VI</i>	140,117,364	21,164,465	20,917,078	0	118,952,900	-1.78	<b>0.99</b>	1.18
<b>Public Pension Capital Management</b>								
<i>Public Pension Capital</i>	100,000,000	53,470,728	61,852,890	2,261,962	47,166,185	10.45	<b>1.20</b>	3.38
<b>RWI Ventures</b>								
<i>RWI Ventures I</i>	7,603,265	7,603,265	483,052	6,094,262	0	-4.28	<b>0.87</b>	11.26
<b>Silver Lake Partners</b>								
<i>Silver Lake Partners II</i>	100,000,000	90,142,191	14,919,513	156,317,295	11,771,953	11.07	<b>1.90</b>	13.26
<i>Silver Lake Partners III</i>	100,000,000	91,564,385	38,106,596	157,795,616	10,559,311	18.00	<b>2.14</b>	10.51
<i>Silver Lake Partners IV</i>	100,000,000	90,043,067	95,856,974	33,124,810	22,348,703	25.81	<b>1.43</b>	5.01
<i>Silver Lake Partners V</i>	135,000,000	0	0	0	135,000,000	0.00	<b>0.00</b>	0.50
<b>Split Rock Partners</b>								
<i>Split Rock Partners</i>	50,000,000	47,454,543	17,820,064	35,947,002	2,545,457	1.60	<b>1.13</b>	12.42
<i>Split Rock Partners II</i>	60,000,000	58,845,000	33,964,976	34,863,729	1,155,000	4.05	<b>1.17</b>	9.43
<b>Summit Partners</b>								
<i>Summit Ventures V</i>	25,000,000	24,125,000	104,720	33,358,461	875,000	8.12	<b>1.39</b>	19.51
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	106,489,649	104,798,685	62,541,418	12,212,734	19.80	<b>1.57</b>	6.41
<i>Summit Partners Growth Equity Fund IX</i>	100,000,000	14,150,000	17,326,222	0	85,850,000	41.45	<b>1.22</b>	2.09
<b>T. Rowe Price</b>	48,704,031	48,704,031	25,821,263	28,448,408	0	10.13	<b>1.11</b>	
<b>Thoma Bravo</b>								
<i>Thoma Bravo Fund XII</i>	75,000,000	30,374,491	30,408,237	0	44,625,509	-0.14	<b>1.00</b>	1.06
<b>Thoma Cressey</b>								
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	845,752	106,625,069	0	23.60	<b>2.15</b>	17.11
<i>Thoma Cressey Fund VIII</i>	70,000,000	68,932,574	1,522,009	233,860,926	770,000	18.27	<b>3.41</b>	11.42

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<b>Thomas H. Lee Partners</b>								
<i>Thomas H. Lee Equity Fund VII</i>	100,000,000	38,828,623	53,166,387	5,929,545	66,175,308	49.36	<b>1.52</b>	2.06
<b>Thomas, McNerney &amp; Partners</b>								
<i>Thomas, McNerney &amp; Partners I</i>	30,000,000	30,000,000	3,335,058	15,087,143	0	-8.23	<b>0.61</b>	14.91
<i>Thomas, McNerney &amp; Partners II</i>	50,000,000	48,125,000	14,608,052	95,314,704	1,875,000	16.86	<b>2.28</b>	11.26
<b>TPG Capital</b>								
<i>TPG Partners VII</i>	100,000,000	44,143,800	41,666,479	6,144,682	61,761,826	10.00	<b>1.08</b>	2.06
<b>Vestar Capital Partners</b>								
<i>Vestar Capital Partners IV</i>	55,000,000	53,635,969	746,153	102,141,056	57,313	14.65	<b>1.92</b>	17.81
<i>Vestar Capital Partners V</i>	75,000,000	74,936,812	19,898,764	82,528,082	63,188	4.37	<b>1.37</b>	11.79
<i>Vestar Capital Partners VI</i>	100,000,000	84,685,212	97,685,700	51,213,176	15,314,788	31.27	<b>1.76</b>	6.02
<b>Warburg Pincus</b>								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	568,188	163,222,253	0	10.03	<b>1.64</b>	19.28
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,000,000	12,769,715	219,490,951	0	14.90	<b>2.32</b>	15.47
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	10,894,099	164,844,296	0	9.95	<b>1.76</b>	12.19
<i>Warburg Pincus Private Equity X</i>	150,000,000	150,000,000	69,853,523	157,210,873	0	8.04	<b>1.51</b>	9.94
<i>Warburg Pincus Private Equity XI</i>	200,000,000	186,800,000	193,844,620	65,324,286	13,200,000	12.39	<b>1.39</b>	4.78
<i>Warburg Pincus Private Equity XII</i>	131,000,000	56,788,500	55,679,138	353,700	74,211,500	-2.04	<b>0.99</b>	1.87
<i>Warburg Pincus China</i>	45,000,000	13,050,000	10,639,134	1,935,000	33,885,000	-9.37	<b>0.96</b>	0.80
<b>Welsh, Carson, Anderson &amp; Stowe</b>								
<i>Welsh, Carson, Anderson &amp; Stowe X</i>	100,000,000	98,000,000	5,431,210	161,775,605	2,000,000	8.12	<b>1.71</b>	11.80
<i>Welsh, Carson, Anderson &amp; Stowe XI</i>	100,000,000	100,000,000	67,708,744	89,629,582	0	12.57	<b>1.57</b>	9.20
<i>Welsh, Carson, Anderson &amp; Stowe XII</i>	150,000,000	61,907,194	72,338,925	2,070,391	88,092,806	12.66	<b>1.20</b>	2.78
<b>Windjammer Capital Investors</b>								
<i>Windjammer Mezzanine &amp; Equity Fund II</i>	66,708,861	56,569,498	61,911	84,876,800	10,139,363	8.94	<b>1.50</b>	17.51
<i>Windjammer Senior Equity Fund III</i>	75,000,000	61,619,620	8,027,699	138,933,089	13,380,380	18.94	<b>2.38</b>	11.75
<i>Windjammer Senior Equity Fund IV</i>	100,000,000	78,087,703	70,879,778	6,906,820	24,581,218	-0.17	<b>1.00</b>	5.60
<b>Private Equity Total</b>	<b>11,235,024,015</b>	<b>7,933,306,558</b>	<b>4,385,318,008</b>	<b>8,280,991,656</b>	<b>3,534,016,376</b>		<b>1.60</b>	

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<b>II. PRIVATE CREDIT</b>								
<b>Audax Group</b>								
<i>Audax Mezzanine Fund III</i>	100,000,000	90,586,461	50,502,915	65,064,899	10,878,181	9.74	<b>1.28</b>	7.49
<i>Audax Mezzanine Fund IV</i>	100,000,000	12,363,775	10,390,340	2,626,287	88,283,175	9.64	<b>1.05</b>	2.48
<b>Citicorp Mezzanine</b>								
<i>CM Liquidating Partnership</i>	100,000,000	88,029,296	1,191,036	149,642,633	0	16.40	<b>1.71</b>	17.93
<b>Crescent Capital Group</b>								
<i>TCW/Crescent Mezzanine Partners III</i>	75,000,000	68,835,269	2,434,348	156,868,939	29,733,852	35.88	<b>2.31</b>	16.52
<b>GS Mezzanine Partners</b>								
<i>GS Mezzanine Partners 2006</i>	100,000,000	74,999,888	4,090,107	131,284,920	9,858,563	4.99	<b>1.81</b>	11.49
<i>GS Mezzanine Partners V</i>	150,000,000	112,057,963	7,241,875	172,683,972	37,701,823	8.98	<b>1.61</b>	9.95
<b>Gold Hill Venture Lending</b>								
<i>Gold Hill Venture Lending</i>	40,000,000	40,000,000	687,873	64,391,012	0	10.64	<b>1.63</b>	13.02
<i>Gold Hill 2008</i>	25,852,584	25,852,584	7,370,703	32,238,919	0	11.05	<b>1.53</b>	9.25
<b>Kohlberg Kravis Roberts</b>								
<i>KKR Lending Partners II</i>	75,000,000	81,865,272	62,520,630	32,482,314	11,180,434	13.59	<b>1.16</b>	2.58
<i>KKR Lending Partners III</i>	200,000,000	7,155,000	7,155,000	0	192,845,000	0.00	<b>1.00</b>	0.48
<b>LBC Credit Partners</b>								
<i>LBC Credit Partners IV</i>	100,000,000	30,000,000	29,696,427	2,515,136	71,552,577	14.91	<b>1.07</b>	1.42
<b>Merit Capital Partners</b>								
<i>William Blair Mezzan. Cap. Fd. III</i>	60,000,000	57,243,241	752,428	112,755,951	2,756,759	15.51	<b>1.98</b>	17.76
<i>Merit Mezzanine Fund IV</i>	75,000,000	70,178,571	17,101,386	108,814,045	4,821,429	10.64	<b>1.79</b>	12.80
<i>Merit Mezzanine Fund V</i>	75,000,000	70,420,408	48,072,182	49,287,846	4,579,592	9.67	<b>1.38</b>	7.79
<i>Merit Mezzanine Fund VI</i>	72,853,125	29,500,000	30,392,701	0	43,353,125	6.22	<b>1.03</b>	1.52
<b>Portfolio Advisors</b>								
<i>DLJ Investment Partners II</i>	27,375,168	23,164,217	82,725	34,829,566	0	10.37	<b>1.51</b>	17.76
<i>DLJ Investment Partners III</i>	100,000,000	72,260,040	5,841,751	93,262,919	29,739,249	7.93	<b>1.37</b>	11.28
<b>Prudential Capital Partners</b>								
<i>Prudential Capital Partners II</i>	100,000,000	97,182,295	4,957,184	135,703,635	2,950,458	8.85	<b>1.45</b>	12.26
<i>Prudential Capital Partners III</i>	100,000,000	96,385,611	38,556,442	123,452,022	7,056,782	13.45	<b>1.68</b>	8.46
<i>Prudential Capital Partners IV</i>	100,000,000	96,291,802	72,760,912	45,435,104	4,274,313	10.62	<b>1.23</b>	5.70
<i>Prudential Capital Partners V</i>	150,000,000	24,666,559	24,644,370	270,796	125,333,441	2.36	<b>1.01</b>	1.12

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<b>Summit Partners</b>								
<i>Summit Subordinated Debt Fund III</i>	45,000,000	42,750,000	6,755,800	58,922,343	2,250,000	9.46	<b>1.54</b>	13.63
<i>Summit Subordinated Debt Fund IV</i>	50,000,000	55,134,261	20,044,598	52,499,924	16,044,207	9.54	<b>1.32</b>	9.52
<b>TCW Asset Management</b>								
<i>TCW Direct Lending</i>	100,000,000	76,021,441	50,508,803	31,350,038	32,729,586	5.85	<b>1.08</b>	3.03
<i>Private Credit Total</i>	<b>2,121,080,877</b>	<b>1,442,943,955</b>	<b>503,752,536</b>	<b>1,656,383,221</b>	<b>727,922,544</b>		<b>1.50</b>	

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Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>III. REAL ASSETS</b>								
<b>Apache Corp.</b>								
<i>1986 Net Profits Interest</i>	30,000,000	30,000,000	371,580	59,838,195	0	12.15	<b>2.01</b>	30.77
<b>BlackRock</b>								
<i>BlackRock Global Renewable Power Fund II</i>	100,000,000	24,819,154	24,819,154	537,604	75,598,979	-3.90	<b>1.02</b>	1.85
<b>EIG Global Energy Partners</b>								
<i>EIG Energy Fund XIV</i>	100,000,000	113,013,074	13,640,419	92,181,918	2,761,129	-2.47	<b>0.94</b>	10.46
<i>EIG Energy Fund XV</i>	150,000,000	151,824,733	96,444,274	89,633,155	24,307,985	5.90	<b>1.23</b>	7.32
<i>EIG Energy Fund XVI</i>	200,000,000	124,880,546	119,815,251	28,199,904	94,269,162	8.50	<b>1.19</b>	4.05
<b>EnCap Energy</b>								
<i>EnCap Energy Capital Fund VII</i>	100,000,000	97,492,592	9,413,632	132,528,983	3,060,151	15.21	<b>1.46</b>	10.26
<i>EnCap Energy Capital Fund VIII</i>	100,000,000	92,787,484	44,269,740	40,019,993	8,379,469	-3.23	<b>0.91</b>	7.00
<i>Encap Energy Capital Fund IX</i>	100,000,000	102,248,109	70,815,203	62,187,806	14,169,871	15.57	<b>1.30</b>	4.82
<i>EnCap Energy Capital Fund X</i>	100,000,000	61,674,231	52,856,061	15,477,128	46,112,512	13.64	<b>1.11</b>	2.58
<b>EnerVest Energy</b>								
<i>EnerVest Energy Institutional Fund XIV</i>	100,000,000	85,064,991	79,672,549	6,510,333	16,689,803	0.97	<b>1.01</b>	2.31
<b>Energy Capital Partners</b>								
<i>Energy Capital Partners II</i>	100,000,000	80,645,205	47,798,902	88,181,019	29,983,919	13.65	<b>1.69</b>	7.21
<i>Energy Capital Partners III</i>	200,000,000	106,203,893	110,714,941	8,889,828	97,296,677	6.90	<b>1.13</b>	3.78
<b>Energy &amp; Minerals Group</b>								
<i>NGP Midstream &amp; Resources</i>	100,000,000	100,090,315	69,970,836	126,130,483	230,871	15.47	<b>1.96</b>	10.51
<i>The Energy &amp; Minerals Group Fund II</i>	100,000,000	95,039,574	128,934,407	37,791,439	5,239,852	16.35	<b>1.75</b>	6.02
<i>The Energy &amp; Minerals Group Fund III</i>	200,000,000	187,597,119	157,648,314	9,209,885	14,146,318	-4.66	<b>0.89</b>	3.57
<i>The Energy &amp; Minerals Group Fund IV</i>	150,000,000	84,403,205	95,960,471	14,909,707	77,825,878	19.09	<b>1.31</b>	1.93
<b>First Reserve</b>								
<i>First Reserve Fund X</i>	100,000,000	100,000,000	430,477	182,429,002	0	31.06	<b>1.83</b>	12.92
<i>First Reserve Fund XI</i>	150,000,000	150,292,121	11,017,880	94,066,313	0	-7.74	<b>0.70</b>	10.78
<i>First Reserve Fund XII</i>	150,000,000	159,718,304	44,288,249	71,186,004	3,865,168	-8.08	<b>0.72</b>	8.92
<i>First Reserve Fund XIII</i>	200,000,000	85,749,727	76,528,248	21,862,335	114,250,273	9.92	<b>1.15</b>	3.92

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Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>Merit Energy Partners</b>								
<i>Merit Energy Partners B</i>	24,000,000	24,000,000	7,571,190	182,321,687	0	24.28	<b>7.91</b>	20.70
<i>Merit Energy Partners C</i>	50,000,000	50,000,000	19,502,589	497,681,630	0	30.98	<b>10.34</b>	18.93
<i>Merit Energy Partners D</i>	88,000,000	70,938,303	30,684,116	311,288,474	0	22.73	<b>4.82</b>	16.36
<i>Merit Energy Partners E</i>	100,000,000	39,983,197	19,547,884	73,805,235	0	12.47	<b>2.33</b>	13.01
<i>Merit Energy Partners F</i>	100,000,000	59,522,861	21,181,925	27,251,921	0	-3.54	<b>0.81</b>	11.53
<i>Merit Energy Partners H</i>	100,000,000	100,000,000	66,939,317	18,410,723	0	-4.70	<b>0.85</b>	6.67
<i>Merit Energy Partners I</i>	169,721,518	143,099,999	177,673,245	4,296,319	26,621,519	21.68	<b>1.27</b>	2.96
<b>NGP</b>								
<i>Natural Gas Partners IX</i>	150,000,000	161,702,525	7,800,811	235,442,290	1,473,974	11.74	<b>1.50</b>	9.95
<i>NGP Natural Resources X</i>	150,000,000	140,378,747	69,605,240	89,627,571	9,621,253	4.61	<b>1.13</b>	5.98
<i>Natural Gas Capital Resources XI</i>	150,000,000	101,463,168	107,238,712	17,344,708	54,698,838	23.95	<b>1.23</b>	2.81
<b>Sheridan</b>								
<i>Sheridan Production Partners I</i>	100,000,000	116,550,000	65,974,016	82,750,000	0	5.88	<b>1.28</b>	10.51
<i>Sheridan Production Partners II</i>	100,000,000	100,000,000	59,012,955	7,000,000	0	-9.05	<b>0.66</b>	7.00
<i>Sheridan Production Partners III</i>	100,000,000	34,350,000	38,432,997	13,300,000	65,650,000	38.71	<b>1.51</b>	2.81
<b><i>Real Assets Total</i></b>	<b>3,911,721,518</b>	<b>3,175,533,177</b>	<b>1,946,575,585</b>	<b>2,742,291,592</b>	<b>786,253,602</b>		<b>1.48</b>	

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Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>IV. REAL ESTATE</b>								
<b>Angelo, Gordon &amp; Co.</b>								
<i>AG Realty Fund IX</i>	100,000,000	60,750,000	65,737,642	1,500,000	39,760,000	10.72	<b>1.11</b>	2.81
<i>AG Asia Realty Fund III</i>	50,000,000	24,477,959	24,632,439	4,375,000	27,475,791	20.04	<b>1.19</b>	1.00
<b>Blackstone Real Estate Partners</b>								
<i>Blackstone Real Estate Partners V</i>	100,000,000	97,030,342	31,242,347	173,967,639	4,174,052	10.89	<b>2.11</b>	11.43
<i>Blackstone Real Estate Partners VI</i>	100,000,000	99,320,387	19,085,727	196,178,700	4,907,906	13.03	<b>2.17</b>	10.51
<i>Blackstone Real Estate Partners VII</i>	100,000,000	95,318,583	86,118,531	83,913,174	15,165,664	17.41	<b>1.78</b>	5.84
<i>Blackstone Real Estate Partners VIII</i>	150,000,000	77,582,163	73,279,652	23,825,411	90,557,168	15.26	<b>1.25</b>	2.52
<i>Blackstone Real Estate Partners Asia II</i>	75,000,000	0	0	0	75,000,000	0.00	<b>0.00</b>	0.02
<b>Blackstone Strategic Partners (CSFB)</b>								
<i>Strategic Partners III RE</i>	25,000,000	25,752,810	3,719,452	11,430,193	9,006	-6.92	<b>0.59</b>	12.26
<i>Strategic Partners IV RE</i>	50,000,000	50,652,534	9,867,371	40,003,637	1,317,714	-0.46	<b>0.98</b>	9.29
<b>Colony Capital</b>								
<i>Colony Investors III</i>	100,000,000	100,000,000	5,178,600	172,642,105	0	14.55	<b>1.78</b>	19.76
<b>Lubert Adler</b>								
<i>Lubert-Adler Real Estate Fund VII</i>	75,000,000	10,211,181	10,211,181	0	64,788,819	-3.02	<b>1.00</b>	0.98
<b>Rockpoint</b>								
<i>Rockpoint Real Estate Fund V</i>	100,000,000	33,950,594	34,184,463	5,586,764	71,636,170	7.50	<b>1.17</b>	2.73
<b>Rockwood</b>								
<i>Rockwood Capital RE Partners X</i>	100,000,000	30,342,875	28,755,852	454,546	69,657,125	-5.27	<b>0.96</b>	2.21
<b>Silverpeak Real Estate Partners</b>								
<i>Silverpeak Legacy Pension Partners II</i>	75,000,000	78,673,707	5,237,674	87,952,458	7,742,386	4.38	<b>1.18</b>	12.17
<i>Silverpeak Legacy Pension Partners III</i>	150,000,000	70,138,753	16,438,202	9,565,276	79,861,247	-12.29	<b>0.37</b>	9.42
<b>T.A. Associates Realty</b>								
<i>Realty Associates Fund VIII</i>	100,000,000	100,000,000	36,373,189	59,980,275	0	-0.44	<b>0.96</b>	11.26
<i>Realty Associates Fund IX</i>	100,000,000	100,000,000	11,708,127	148,650,161	0	10.48	<b>1.60</b>	9.10
<i>Realty Associates Fund X</i>	100,000,000	100,000,000	75,604,069	66,216,200	0	11.96	<b>1.42</b>	5.59
<i>Realty Associates Fund XI</i>	100,000,000	40,000,000	39,773,400	578,667	60,000,000	0.91	<b>1.01</b>	2.25
<b>Real Estate Total</b>								
	<b>1,750,000,000</b>	<b>1,194,201,888</b>	<b>577,147,916</b>	<b>1,086,820,205</b>	<b>612,053,048</b>		<b>1.39</b>	

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Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>V. DISTRESSED/ OPPORTUNISTIC</b>								
<b>Avenue Capital Partners</b>								
<i>Avenue Energy Opportunities Fund</i>	100,000,000	100,000,000	116,174,500	934,495	0	8.26	<b>1.17</b>	3.25
<i>Avenue Energy Opportunities Fund II</i>	100,000,000	15,000,000	15,000,000	0	85,000,000	0.00	<b>1.00</b>	0.41
<b>BlackRock**</b>								
<i>BlackRock Tempus Fund</i>	1,774,870	1,774,870	718,610	1,324,425	0	12.14	<b>1.15</b>	2.31
<b>Carlyle Group</b>								
<i>Carlyle Strategic Partners IV</i>	100,000,000	10,212,331	10,750,447	1,457,332	91,245,001	27.32	<b>1.20</b>	1.50
<b>Carval Investors</b>								
<i>CVI Global Value Fund</i>	200,000,000	190,000,000	29,347,724	290,286,276	10,000,000	9.63	<b>1.68</b>	10.72
<i>CVI Credit Value Fund I</i>	100,000,000	95,000,000	35,999,341	174,059,737	5,000,000	18.99	<b>2.21</b>	7.01
<i>CVI Credit Value Fund A II</i>	150,000,000	142,500,000	110,763,734	84,832,839	7,500,000	8.55	<b>1.37</b>	4.92
<i>CVI Credit Value Fund A III</i>	150,000,000	112,500,000	131,692,950	0	37,500,000	12.79	<b>1.17</b>	2.33
<b>Merced Capital</b>								
<i>Merced Partners II</i>	75,000,000	63,768,881	5,989,757	124,662,721	0	23.98	<b>2.05</b>	10.51
<i>Merced Partners III</i>	100,000,000	100,000,000	53,970,366	79,997,107	0	6.66	<b>1.34</b>	7.41
<i>Merced Partners IV</i>	125,000,000	125,000,000	112,574,971	34,997,049	0	5.98	<b>1.18</b>	4.22
<i>Merced Partners V</i>	53,737,500	48,363,750	48,989,045	0	5,373,750	1.07	<b>1.01</b>	0.25
<b>MHR Institutional Partners</b>								
<i>MHR Institutional Partners IV</i>	75,000,000	18,937,500	15,112,173	1,733,418	57,571,511	-7.55	<b>0.89</b>	3.28
<b>Oaktree Capital Management</b>								
<i>Oaktree Principal Fund VI</i>	100,000,000	42,988,011	36,630,137	13,606,490	70,219,619	22.03	<b>1.17</b>	2.76
<i>Oaktree Opportunities Fund X</i>	50,000,000	25,000,000	24,786,800	5,619,660	30,000,000	23.11	<b>1.22</b>	2.64
<i>Oaktree Opportunities Fund Xb</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	2.64
<b>Pimco Bravo**</b>								
<i>Pimco Bravo Fund OnShore Feeder I</i>	3,958,027	3,958,027	306,834	3,717,270	2,086,707	1.76	<b>1.02</b>	2.76
<i>Pimco Bravo Fund OnShore Feeder II</i>	5,243,670	4,618,670	5,458,196	232,675	852,487	7.30	<b>1.23</b>	2.76
<b>Varde Fund</b>								
<i>Varde Fund IX</i>	100,000,000	100,000,000	10,231,039	203,434,498	0	14.92	<b>2.14</b>	9.28
<i>Varde Fund X</i>	150,000,000	150,000,000	91,602,115	190,453,703	0	12.10	<b>1.88</b>	7.45
<i>Varde Fund XI</i>	200,000,000	200,000,000	251,041,408	14,243,056	0	7.85	<b>1.33</b>	4.23

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<b>Investment</b>	<b>Total Commitment</b>	<b>Funded Commitment</b>	<b>Market Value</b>	<b>Distributions</b>	<b>Unfunded Commitment</b>	<b>IRR %</b>	<b>MOIC*</b>	<b>Period Years</b>
<b>Wayzata</b>								
<i>Wayzata Opportunities Fund</i>	100,000,000	93,180,000	1,139,838	156,084,065	18,920,000	8.44	<b>1.69</b>	11.79
<i>Wayzata Opportunities Fund II</i>	150,000,000	174,750,000	23,247,927	301,574,990	30,000,000	16.37	<b>1.86</b>	9.95
<i>Wayzata Opportunities Fund III</i>	150,000,000	68,415,000	39,756,787	28,735,246	107,002,048	0.05	<b>1.00</b>	5.30
<i>Distressed/Opportunistic Total</i>	<b>2,439,714,067</b>	<b>1,885,967,040</b>	<b>1,171,284,698</b>	<b>1,711,987,051</b>	<b>658,271,123</b>		<b>1.53</b>	
<i>Private Markets Total</i>	<b>21,457,540,477</b>	<b>15,631,952,617</b>	<b>8,584,078,743</b>	<b>15,478,473,725</b>	<b>6,318,516,693</b>		<b>1.54</b>	

<b>Private Markets Portfolio Status</b>	<b>Investment Manager Count</b>	<b>Investments Count</b>
PRIVATE EQUITY	49	121
PRIVATE CREDIT	12	24
REAL ASSETS	11	33
REAL ESTATE	9	19
DISTRESSED/ OPPORTUNISTIC	10	24
Total	91	221

**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.

\* MOIC: Multiple of Invested Capital

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

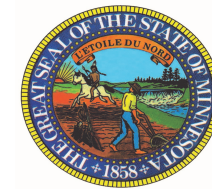


# Participant Directed Investment Program

## September 30, 2017

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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 market place 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 a program which provides individuals the opportunity to invest in many of the same investment pools as the Combined Funds. Participation in the SIF is accomplished through the purchase or sale of shares in each Fund. The SIF is 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 statutory requirements and rules established by the participating organizations. It provides some or all of the investment options for the Unclassified Employees Retirement Plan, Minnesota Deferred Compensation Plan, Public Employees Defined Contribution Plan, Hennepin County Supplemental Retirement Plan, and Health Care Savings Plan. All Funds in the SIF program, except the Stable Value Fund, are available to local volunteer fire relief associations who invest their assets with the SBI. The Volunteer Firefighter Account is available only for those local firefighter entities that participate in the Statewide Volunteer Firefighter Plan. Local entities that participate in this Plan must have all their assets invested in the Volunteer Firefighter Account.
- The Minnesota Deferred Compensation Plan offers plan participants three sets of investment options. The first is a set of actively and passively managed options that includes four mutual funds, a Money Market Fund, a Stable Value Fund and five passively managed mutual funds. 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. The Minnesota Deferred Compensation Plan uses two of the SIF investment options, the Stable Value Fund and the Money Market Fund, for its participants.
- The Minnesota College Savings Plan is an education savings plan designed to help families set aside funds for future college costs. It is established under the provisions of the Internal Revenue Code Section 529, which authorized these types of savings plans to help families meet the costs of qualified colleges nationwide. 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 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.

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 program that offers a range of investment options to state and local public employees. The SIF provides some or all of the investment options to the Unclassified Employees Retirement Plan, Minnesota Deferred Compensation Plan, Public Employees Defined Contribution Plan, Hennepin County Supplemental Retirement Plan, Health Care Savings Plan, local police and firefighter retirement plans and the Voluntary 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.

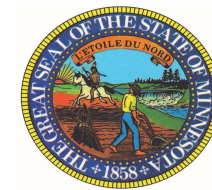
### Investment Option Descriptions

- 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 Voluntary 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	\$418,931,105	3.1%	11.5%	7.7%	9.6%	6.7%	01/1980
U.S. ACTIVELY MANAGED FUND	238,954,736	5.0	20.5	10.5	14.4	7.5	07/1986
U.S. STOCK INDEX FUND	582,374,100	4.6	18.7	10.8	14.2	7.6	07/1986
BROAD INTERNATIONAL STOCK FUND	193,649,720	6.4	19.9	5.5	7.8	1.8	09/1994
BOND FUND	160,616,036	1.0	1.0	3.2	2.6	4.7	07/1986
MONEY MARKET FUND	395,006,970	0.3	0.9	0.5	0.4	0.7	07/1986
STABLE VALUE FUND	1,563,319,725	0.5	2.1	2.0	2.0	3.1	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	77,521,006	3.0	10.2	6.2	7.4		01/2010
TOTAL SUPPLEMENTAL INVESTMENT FUND	3,630,373,398						

Note:

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



## Supplemental Investment Fund Performance

### Balanced Fund

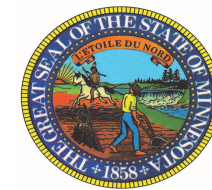
The primary investment objective of the Balanced Fund is to gain exposure to publicly traded U.S. equities, bond and cash in a diversified investment portfolio. The Fund seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility. The Balanced Fund is invested 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>\$418,931,105</b>	<b>3.1%</b>	<b>11.5%</b>	<b>7.7%</b>	<b>9.6%</b>	<b>6.7%</b>
SIF BALANCED FUND BENCHMARK		3.0	11.0	7.5	9.2	6.2
Excess		0.1	0.5	0.2	0.4	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>238,954,736</b>	<b>5.0</b>	<b>20.5</b>	<b>10.5</b>	<b>14.4</b>	<b>7.5</b>
Russell 3000		4.6	18.7	10.7	14.2	7.6
Excess		0.5	1.8	-0.2	0.2	-0.1



## Supplemental Investment Fund Performance

### U.S. Stock Index Fund

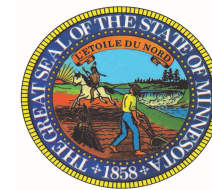
The investment objective of the U.S. Stock Index Fund is to generate returns that track those of the U.S. stock market as a whole. The Fund is designed to track the performance of the Russell 3000 Index, a broad-based equity market indicator. The Fund is invested 100% in common stock.

	<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>\$582,374,100</b>	<b>4.6%</b>	<b>18.7%</b>	<b>10.8%</b>	<b>14.2%</b>	<b>7.6%</b>
Russell 3000		4.6	18.7	10.7	14.2	7.6
Excess		0.0	-0.0	0.0	0.0	0.1

### Broad International Stock Fund

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

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
<b>BROAD INTERNATIONAL STOCK FUND</b>	<b>193,649,720</b>	<b>6.4</b>	<b>19.9</b>	<b>5.5</b>	<b>7.8</b>	<b>1.8</b>
International Equity Benchmark		6.2	19.6	4.7	7.0	1.3
Excess		0.2	0.3	0.8	0.8	0.5



## Supplemental Investment Fund Performance

### Bond Fund

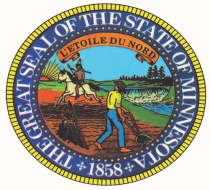
The investment objective of the Bond Fund is to exceed the return of the broad domestic bond market by investing in fixed income securities. The Bond Fund invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years. The Bond 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>\$160,616,036</b>	<b>1.0%</b>	<b>1.0%</b>	<b>3.2%</b>	<b>2.6%</b>	<b>4.7%</b>
BBG BARC US Agg		0.8	0.1	2.7	2.1	4.3
Excess		0.2	0.9	0.5	0.6	0.4

### 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>395,006,970</b>	<b>0.3</b>	<b>0.9</b>	<b>0.5</b>	<b>0.4</b>	<b>0.7</b>
90 DAY T-BILL		0.3	0.7	0.3	0.2	0.5
Excess		0.0	0.2	0.2	0.1	0.2



## Supplemental Investment Fund Performance

### Stable Value Fund

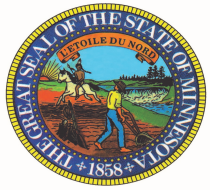
The investment objectives of the Stable Value Fund are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer-term investments than typically found in a money market fund. The Fund is invested in a well-diversified portfolio of high-quality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

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
<b>STABLE VALUE FUND</b>	<b>\$1,563,319,725</b>	<b>0.5%</b>	<b>2.1%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>3.1%</b>
3-Year Constant Maturity Treasury + 0.45%		0.5	1.9	1.6	1.4	1.6
Excess		0.1	0.2	0.4	0.7	1.5

### 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>77,521,006</b>	<b>3.0</b>	<b>10.2</b>	<b>6.2</b>	<b>7.4</b>	
SIF Volunteer Firefighter Account BM		2.9	9.3	5.8	7.0	
Excess		0.1	1.0	0.4	0.4	

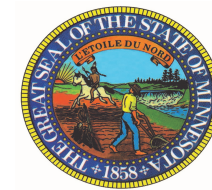


## Deferred Compensation Plan Summary

The Deferred Compensation Plan provides public employees with a tax-sheltered retirement savings plan that is supplemental to their primary retirement plan. (In most cases, the primary plan is a defined benefit plan administered by TRA, PERA, or MSRS.)

Participants choose from 4 actively managed stock and bond funds, 5 passively managed stock and bond funds and a set of 10 target date retirement fund options.

	<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 INSTITUTIONAL INDEX PLUS	\$1,178,637,835	4.5%	18.6%	10.8%	14.2%	7.5%	07/1999
VANGUARD DIVIDEND GROWTH	582,482,062	2.8	14.1				10/2016
VANGUARD MID CAP INDEX	513,448,196	3.4	15.3	9.8	14.4	8.0	01/2004
T. ROWE PRICE SMALL-CAP STOCK	683,720,554	5.3	20.2	12.1	14.5	10.3	07/1999
FIDELITY DIVERSIFIED INTERNATIONAL	302,882,730	5.1	16.4	6.2	9.1	1.8	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	193,413,374	6.0	19.3	5.3	7.5		07/2011
VANGUARD BALANCED INDEX	766,336,162	3.0	10.8	7.6	9.3	6.7	12/2003
DODGE & COX INCOME	232,892,143	1.1	2.6	3.2	3.2	5.1	07/1999
VANGUARD TOTAL BOND MARKET INDEX	210,611,954	0.7	-0.1	2.6	2.0	4.3	12/2003
2020 FUND	113,222,453	2.4	6.8	4.3	5.5		07/2011
2025 FUND	98,705,607	3.0	9.1	5.4	7.0		07/2011
2030 FUND	67,267,513	3.6	11.5	6.4	8.2		07/2011
2035 FUND	53,905,337	4.0	12.8	6.8	8.9		07/2011
2040 FUND	38,149,560	4.3	14.1	7.2	9.4		07/2011
2045 FUND	31,372,313	4.5	15.1	7.5	9.9		07/2011
2050 FUND	22,134,524	4.7	15.9	7.7	10.1		07/2011
2055 FUND	12,383,285	4.7	15.9	7.7	10.1		07/2011
2060 FUND	11,752,757	4.7	15.9	7.7	10.1		07/2011
INCOME FUND	79,412,606	2.0	5.6	3.6	4.0		07/2011
TD Ameritrade SDB	74,223,664						
TD Ameritrade SDB Roth	453,786						
Total Deferred Compensation Plan	5,267,408,416						



## Deferred Compensation Plan Options

### LARGE CAP EQUITY

#### **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

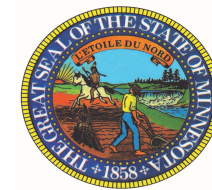
#### **Fidelity Diversified International (active)**

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>						
<b>VANGUARD INSTITUTIONAL INDEX PLUS</b>	<b>\$1,178,637,835</b>	<b>4.5%</b>	<b>18.6%</b>	<b>10.8%</b>	<b>14.2%</b>	<b>07/1999</b>
S&P 500		4.5	18.6	10.8	14.2	07/1999
Excess		0.0	-0.0	-0.0	-0.0	
<b>VANGUARD DIVIDEND GROWTH</b>	<b>582,482,062</b>	<b>2.8</b>	<b>14.1</b>			<b>10/2016</b>
NASDAQ US Dividend Achievers Select		2.8	15.5			10/2016
Excess		-0.1	-1.4			
<b>Mid Cap US Equity</b>						
<b>VANGUARD MID CAP INDEX</b>	<b>513,448,196</b>	<b>3.4</b>	<b>15.3</b>	<b>9.8</b>	<b>14.4</b>	<b>01/2004</b>
CRSP US Mid Cap Index		3.4	15.3	9.8	14.5	01/2004
Excess		0.0	0.0	-0.0	-0.0	
<b>Small Cap US Equity</b>						
<b>T. ROWE PRICE SMALL-CAP STOCK</b>	<b>683,720,554</b>	<b>5.3</b>	<b>20.2</b>	<b>12.1</b>	<b>14.5</b>	<b>07/1999</b>
Russell 2000		5.7	20.7	12.2	13.8	07/1999
Excess		-0.4	-0.6	-0.0	0.7	
<b>International Equity</b>						
<b>FIDELITY DIVERSIFIED INTERNATIONAL</b>	<b>302,882,730</b>	<b>5.1</b>	<b>16.4</b>	<b>6.2</b>	<b>9.1</b>	<b>07/1999</b>
MSCI EAFE FREE (NET)		5.4	19.1	5.0	8.4	07/1999
Excess		-0.3	-2.7	1.2	0.7	
<b>VANGUARD TOTAL INTERNATIONAL STOCK INDEX</b>	<b>193,413,374</b>	<b>6.0</b>	<b>19.3</b>	<b>5.3</b>	<b>7.5</b>	<b>07/2011</b>
FTSE Global All Cap ex US Index Net		6.0	19.2	5.1		07/2011
Excess		-0.0	0.1	0.3		



## Deferred Compensation Options

### 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.

#### **SIF 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

#### **SIF 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**

<b>VANGUARD BALANCED INDEX</b>	<b>\$766,336,162</b>	<b>3.0%</b>	<b>10.8%</b>	<b>7.6%</b>	<b>9.3%</b>	<b>12/2003</b>
Vanguard Balanced Fund Benchmark		3.1	10.9	7.6	9.3	12/2003
Excess		-0.0	-0.1	-0.0	-0.1	

#### **Fixed Income**

<b>DODGE &amp; COX INCOME</b>	<b>232,892,143</b>	<b>1.1</b>	<b>2.6</b>	<b>3.2</b>	<b>3.2</b>	<b>07/1999</b>
BBG BARC Agg Bd		0.8	0.1	2.7	2.1	07/1999
Excess		0.3	2.5	0.5	1.1	

<b>VANGUARD TOTAL BOND MARKET INDEX</b>	<b>210,611,954</b>	<b>0.7</b>	<b>-0.1</b>	<b>2.6</b>	<b>2.0</b>	<b>12/2003</b>
BBG BARC Agg Bd		0.8	0.1	2.7	2.1	12/2003
Excess		-0.1	-0.2	-0.1	-0.1	

<b>MONEY MARKET FUND</b>	<b>395,006,970</b>	<b>0.3</b>	<b>0.9</b>	<b>0.5</b>	<b>0.4</b>	<b>07/1986</b>
90 DAY T-BILL		0.3	0.7	0.3	0.2	07/1986
Excess		0.0	0.2	0.2	0.1	

#### **Stable Value**

<b>STABLE VALUE FUND</b>	<b>1,563,319,725</b>	<b>0.5</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	<b>11/1994</b>
3-Year Constant Maturity Treasury + 0.45%		0.5	1.9	1.6	1.4	11/1994
Excess		0.1	0.2	0.4	0.7	

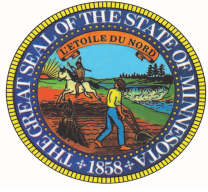
(1) Vanguard Dividend Growth replaced the Janus Twenty Fund in the third quarter of 2016.

(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) SIF Money Market and SIF Fixed Interest are Supplemental Investment Fund options which are also offered under the Deferred Compensation Plan.



## Deferred Compensation Options

### MN TARGET RETIREMENT ACCOUNTS

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

#### Target Date Retirement Funds

	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>Option Since</u>		<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>Option Since</u>	
SSgA														
2020 FUND	\$113,222,453	2.4%	6.8%	4.3%	5.5%	07/2011		2045 FUND	\$31,372,313	4.5%	15.1%	7.5%	9.9%	07/2011
2020 FUND BENCHMARK		2.4	6.9	4.3	5.5	07/2011		2045 FUND BENCHMARK		4.5	15.1	7.5	9.9	07/2011
Excess		0.0	-0.0	-0.0	-0.1			Excess		0.0	0.0	-0.0	-0.0	
2025 FUND	98,705,607	3.0	9.1	5.4	7.0	07/2011		2050 FUND	22,134,524	4.7	15.9	7.7	10.1	07/2011
2025 FUND BENCHMARK		3.0	9.2	5.4	7.1	07/2011		2050 FUND BENCHMARK		4.7	15.9	7.7	10.1	07/2011
Excess		-0.0	-0.0	-0.0	-0.0			Excess		0.0	-0.0	-0.0	-0.0	
2030 FUND	67,267,513	3.6	11.5	6.4	8.2	07/2011		2055 FUND	12,383,285	4.7	15.9	7.7	10.1	07/2011
2030 FUND BENCHMARK		3.6	11.5	6.4	8.2	07/2011		2055 FUND BENCHMARK		4.7	15.9	7.7	10.1	07/2011
Excess		-0.0	-0.0	-0.0	-0.0			Excess		0.0	0.0	-0.0	-0.0	
2035 FUND	53,905,337	4.0	12.8	6.8	8.9	07/2011		2060 FUND	11,752,757	4.7	15.9	7.7	10.1	07/2011
2035 FUND BENCHMARK		4.0	12.9	6.8	8.9	07/2011		2060 FUND BENCHMARK		4.7	15.9	7.7	10.1	07/2011
Excess		0.0	-0.0	-0.0	-0.0			Excess		0.0	0.0	-0.0	-0.0	
2040 FUND	38,149,560	4.3	14.1	7.2	9.4	07/2011		INCOME FUND	79,412,606	2.0	5.6	3.6	4.0	07/2011
2040 FUND BENCHMARK		4.3	14.1	7.2	9.5	07/2011		INCOME FUND BENCHMARK		2.0	5.6	3.7	4.1	07/2011
Excess		-0.0	-0.0	-0.0	-0.0			Excess		-0.0	-0.0	-0.1	-0.1	

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, 2017**

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
Managed Ages 0-4	\$27,297,325	3.91%	13.86%	7.76%	-	-	7.35%	8/12/2014
BM: Managed Ages 0-4		3.88%	13.94%	7.88%	-	-	7.47%	
Managed Ages 5-8	\$69,904,990	3.54%	12.26%	7.16%			6.74%	8/12/2014
BM: Managed Ages 5-8		3.51%	12.22%	7.26%			6.87%	
Managed Ages 9-10	\$68,980,575	3.08%	10.66%	6.49%			6.10%	8/12/2014
BM: Managed Ages 9-10		3.14%	10.53%	6.64%			6.25%	
Managed Ages 11-12	\$106,792,704	2.79%	9.06%	5.78%			5.42%	8/12/2014
BM: Managed Ages 11-12		2.74%	8.85%	5.88%			5.52%	
Managed Ages 13-14	\$136,943,334	2.39%	7.43%	5.06%			4.73%	8/12/2014
BM: Managed Ages 13-14		2.33%	7.19%	5.11%			4.79%	
Managed Age 15	\$79,120,386	1.81%	5.72%	4.17%			3.89%	8/12/2014
BM: Managed Age 15		1.86%	5.53%	4.09%			3.83%	
Managed Age 16	\$72,629,040	1.64%	5.00%	3.70%			3.47%	8/12/2014
BM: Managed Age 16		1.61%	4.71%	3.52%			3.29%	
Managed Age 17	\$70,731,830	1.48%	4.36%	3.30%			3.09%	8/12/2014
BM: Managed Age 17		1.36%	3.89%	2.95%			2.75%	
Managed Ages 18 & Over	\$173,240,535	1.21%	3.53%	2.79%			2.64%	8/12/2014
BM: Managed Ages 18 & Over		1.11%	3.08%	2.38%			2.22%	
U.S. and International Equity Option	\$298,715,326	4.53%	17.11%	8.99%	11.66%	5.28%	6.95%	10/ 1/2001
BM: U.S. and International Equity Option		4.63%	17.43%	9.10%	11.93%	5.89%	7.89%	

**MINNESOTA COLLEGE SAVINGS PLAN**

**Performance Statistics for the Period Ending: September 30, 2017**

Fund Name	Ending Market	3 Months	1 Year	Annualized				Inception Date
				3 Years	5 Years	10 Years	Since Inception	
Moderate Allocation Option BM: Moderate Allocation Option	\$61,668,661	3.08% 3.14%	10.55% 10.53%	6.46% 6.64%	7.58% 7.86%	5.02% 5.56%	5.21% 5.82%	8/ 2/2007
100% Fixed-Income Option BM: 100% Fixed-Income Option	\$13,698,314	0.77% 0.93%	0.35% 0.80%	2.42% 2.74%	1.29% 1.74%	3.64% 4.29%	3.70% 4.40%	8/16/2007
International Equity Index Option BM: International Equity Index Option	\$3,589,859	5.71% 5.92%	19.46% 19.82%	5.07% 5.10%			5.87% 6.16%	6/18/2013
Money Market Option BM: Money Market Option	\$10,445,187	0.19% 0.15%	0.39% 0.32%	0.16% 0.14%	0.10% 0.09%		0.31% 0.35%	11/ 1/2007
Principal Plus Interest Option Citigroup 3-Month U.S. Treasury Bill	\$113,315,034	0.40% 0.26%	1.49% 0.64%	1.37% 0.29%	1.35% 0.19%	2.05% 0.42%	2.58% 1.26%	10/10/2001
Aggressive Allocation Option BM: Aggressive Allocation Option	\$16,458,472	3.92% 3.88%	13.99% 13.94%	7.74% 7.88%			7.30% 7.47%	8/12/2014
Conservative Allocation Option BM: Conservative Allocation Option	\$7,701,213	1.91% 1.86%	5.67% 5.53%	4.14% 4.09%			3.64% 3.61%	8/18/2014
Equity and Interest Accumulation Option BM: Equity and Interest Accumulation Option	\$2,082,097	2.42% 2.40%	9.81% 9.38%	5.92% 5.53%			5.62% 5.24%	8/18/2014
U.S. Large Cap Equity Option BM: U.S. Large Cap Equity Option	\$17,295,756	4.46% 4.48%	18.41% 18.61%	10.57% 10.81%			10.90% 11.12%	8/12/2014
Matching Grant Citigroup 3-Month U.S. Treasury Bill	\$2,475,367	0.40% 0.26%	1.49% 0.64%	1.37% 0.29%	1.35% 0.19%	2.05% 0.42%	2.60% 1.24%	3/22/2002

# MINNESOTABLE<sup>plan</sup>

A member of The National ABLE Alliance

Performance as of  
09/30/17

Total Market Value: \$ 896,693

<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	\$ 94,889	10.58%	2.09	4.17	12.51					12.40	12/15/16
ABLE Aggressive Custom Benchmark			2.13	4.26	12.96						
<b>Variance</b>			<b>(0.04)</b>	<b>(0.09)</b>	<b>(0.45)</b>						
Moderately Aggressive Option	\$ 75,111	8.38%	1.65	3.46	10.60					10.60	12/15/16
ABLE Moderately Aggressive Custom Benchmark			1.73	3.65	11.02						
<b>Variance</b>			<b>(0.08)</b>	<b>(0.19)</b>	<b>(0.42)</b>						
Growth Option	\$ 162,287	18.10%	1.30	2.93	8.58					8.80	12/15/16
ABLE Growth Custom Benchmark			1.32	3.04	9.11						
<b>Variance</b>			<b>(0.02)</b>	<b>(0.11)</b>	<b>(0.53)</b>						
Moderate Option	\$ 114,897	12.81%	0.85	2.29	6.88					7.20	12/15/16
ABLE Moderate Custom Benchmark			0.92	2.42	7.23						
<b>Variance</b>			<b>(0.07)</b>	<b>(0.13)</b>	<b>(0.35)</b>						
Moderately Conservative Option	\$ 92,979	10.37%	0.57	1.64	4.79					5.10	12/15/16
ABLE Moderately Conservative Custom Benchmark			0.61	1.73	5.06						
<b>Variance</b>			<b>(0.04)</b>	<b>(0.09)</b>	<b>(0.27)</b>						
Conservative Option	\$ 168,875	18.83%	0.20	0.69	2.10					2.30	12/15/16
ABLE Conservative Custom Benchmark			0.20	0.80	2.22						
<b>Variance</b>			<b>(0.00)</b>	<b>(0.11)</b>	<b>(0.12)</b>						
Checking Option	\$ 187,655	20.93%									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.

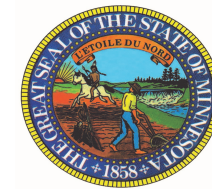


## Quarterly Report

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# Non-Retirement

## September 30, 2017



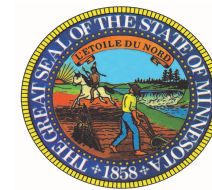
## Quarterly Report

# 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 currently managed internally by the SBI except the fixed income portion of the Assigned Risk Plan. RBC is the manager for the Assigned Risk Plan fixed income allocation.



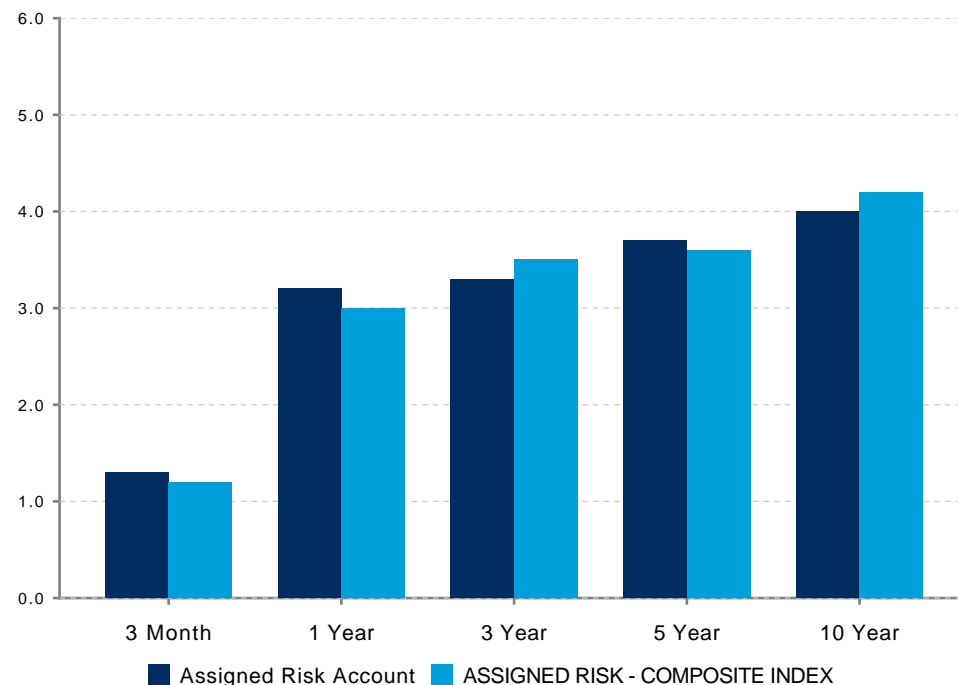
## Non-Retirement

### Assigned Risk Plan

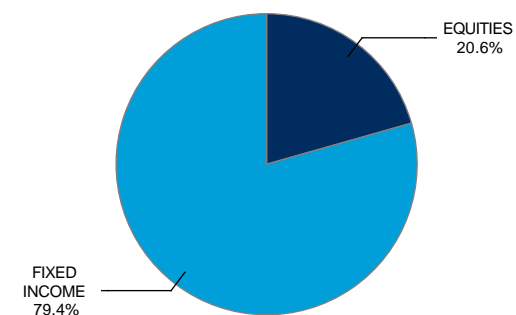
The Assigned Risk plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of ongoing claims and operating expenses.

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. RBC Global Asset Management (U.S.) Inc. manages the bond segment of the Fund. SBI Staff passively manages the equity segment to track the performance of the S&P 500.

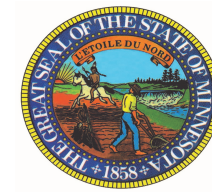
The fixed income benchmark is the Bloomberg Barclays Intermediate Government Index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 80% equities and 20% fixed income. The actual asset mix will fluctuate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



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Assigned Risk Account	\$315,346,223	1.3%	3.2%	3.3%	3.7%	4.0%
EQUITIES	64,954,638	4.5	18.2	9.1	13.6	7.2
FIXED INCOME	250,391,585	0.4	-0.4	1.7	1.1	3.0
ASSIGNED RISK - COMPOSITE INDEX		1.2	3.0	3.5	3.6	4.2
Excess		0.1	0.2	-0.2	0.0	-0.2
S&P 500		4.5	18.6	10.8	14.2	7.4
BBG BARC US Gov: Int		0.3	-0.7	1.6	1.0	3.1



Note: Prior to 1/17/2017 the Assigned Risk equity segment was managed by SSgA (formerly GE Investment Mgmt.).



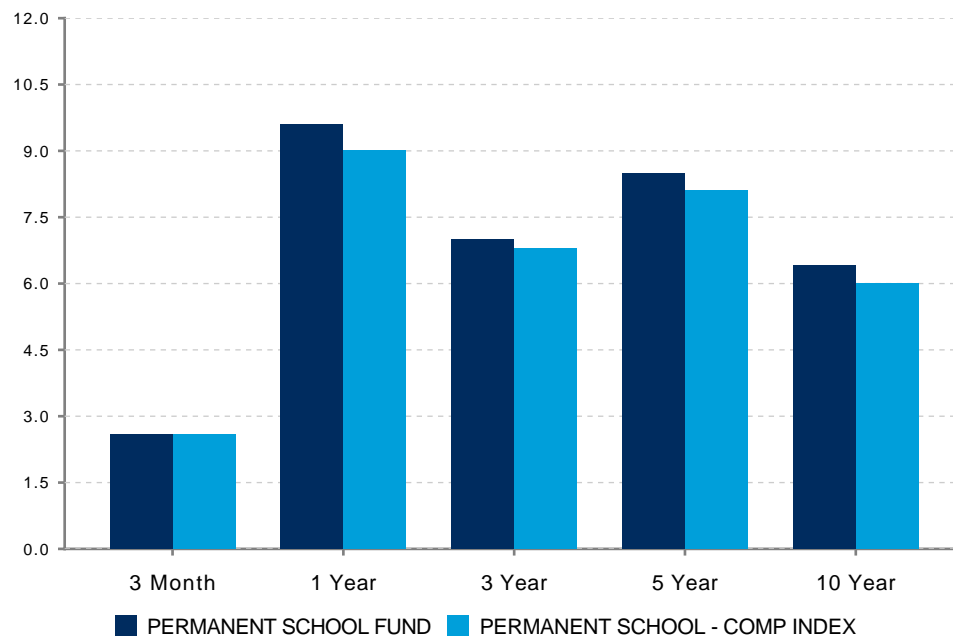
## Non-Retirement

### Permanent School Fund

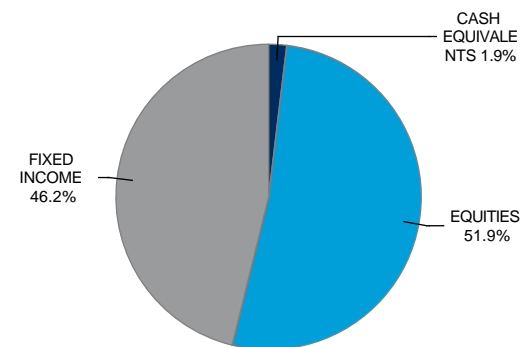
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

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.

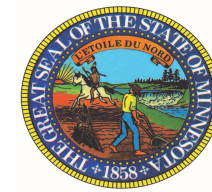
SBI staff currently manages all assets of the Permanent School Fund. The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg 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.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	\$1,345,762,879	2.6%	9.6%	7.0%	8.5%	6.4%
CASH EQUIVALENTS	25,121,254	0.3	0.8	0.4	0.3	0.7
EQUITIES	699,237,193	4.5	18.6	10.8	14.2	7.5
FIXED INCOME	621,404,433	0.7	0.8	3.1	2.8	4.9
PERMANENT SCHOOL - COMP INDEX		2.6	9.0	6.8	8.1	6.0
Excess		-0.0	0.6	0.2	0.4	0.4
S&P 500		4.5	18.6	10.8	14.2	7.4
BBG BARC US Agg		0.8	0.1	2.7	2.1	4.3



Note: Prior to 7/1/97 the Fund allocation was 100% fixed income.



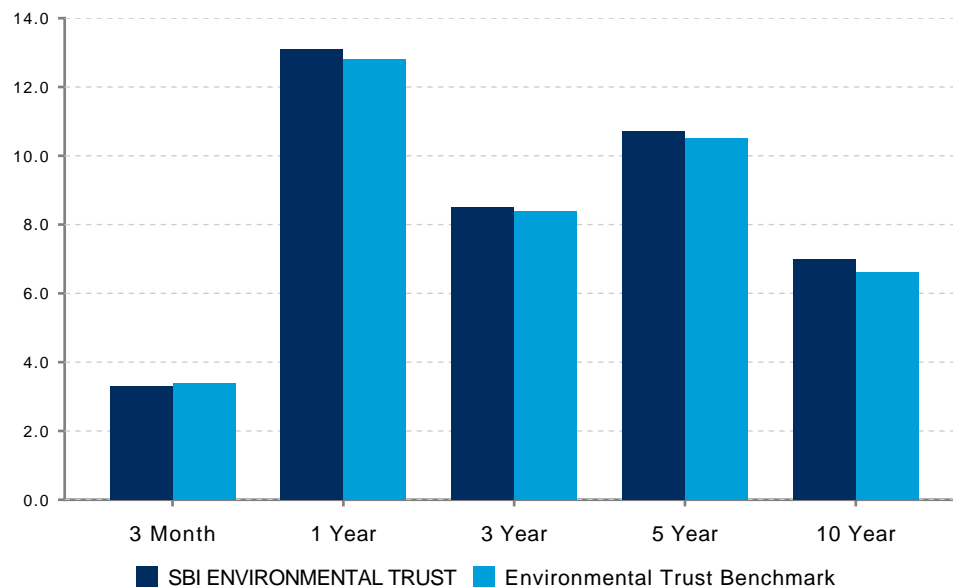
## Non-Retirement

### Environmental Trust Fund

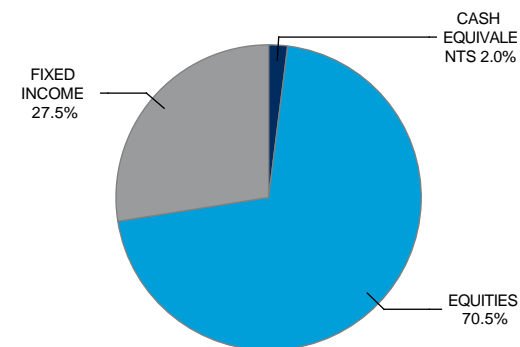
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

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.

SBI staff currently manages all assets of the Environmental Trust Fund. 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.

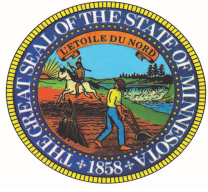


	<u>Ending Market Value</u>	<u>Last Qtr</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
SBI ENVIRONMENTAL TRUST	\$1,058,246,620	3.3%	13.1%	8.5%	10.7%	7.0%
CASH EQUIVALENTS	20,909,448	0.3	0.8	0.4	0.3	0.7
EQUITIES	746,093,610	4.5	18.6	10.8	14.2	7.5
FIXED INCOME	291,243,563	0.7	0.8	3.1	2.8	4.8
Environmental Trust Benchmark		3.4	12.8	8.4	10.5	6.6
Excess		-0.0	0.3	0.1	0.2	0.3
S&P 500		4.5	18.6	10.8	14.2	7.4
BBG BARC US Agg		0.8	0.1	2.7	2.1	4.3



Note:

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.

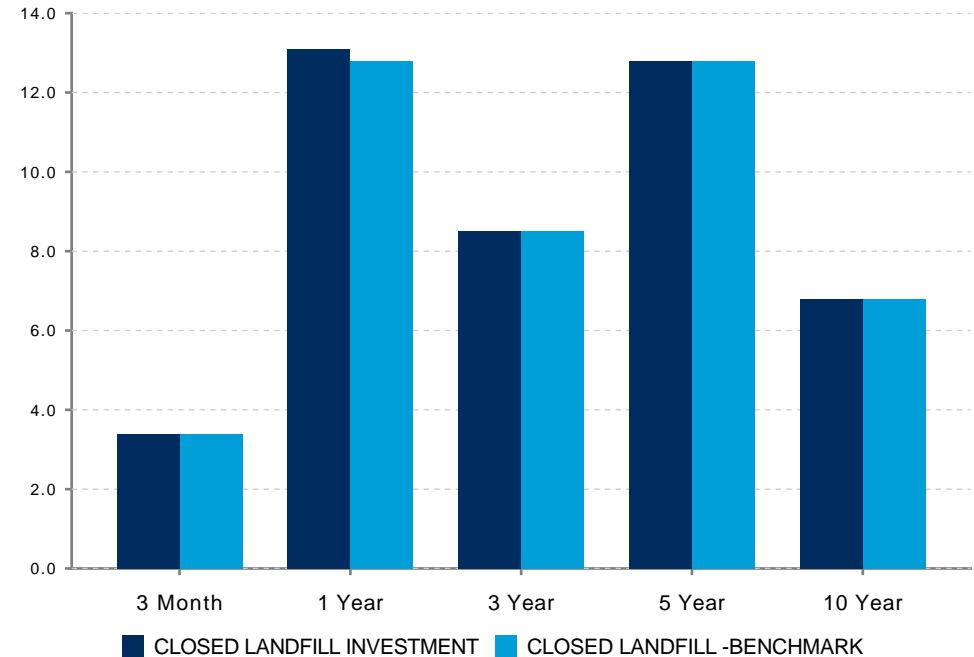


## Non-Retirement

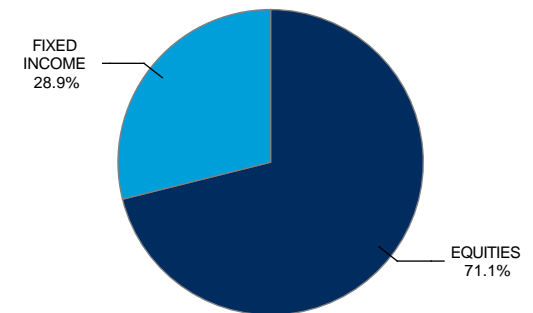
### Closed Landfill Investment Fund

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.

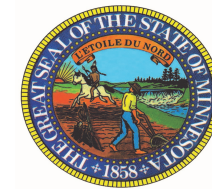
SBI staff currently manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500. The fixed income benchmark is 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.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	\$83,925,013	3.4%	13.1%	8.5%	12.8%	6.8%
EQUITIES	59,702,365	4.5	18.6	10.8	14.2	7.5
FIXED INCOME	24,222,648	0.7	0.8	3.1		
CLOSED LANDFILL -BENCHMARK		3.4	12.8	8.5	12.8	6.8
Excess		-0.0	0.4	0.1	0.0	0.1
S&P 500		4.5	18.6	10.8	14.2	7.4
BBG BARC US Agg		0.8	0.1	2.7	2.1	4.3



Note: 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>SBI INTERNAL EQUITY INDEX</b>	<b>2,179,614,000</b>	<b>4.5</b>	<b>4.5</b>	<b>18.6</b>	<b>10.8</b>	<b>14.2</b>	<b>7.5</b>	<b>9.6</b>	<b>07/1993</b>
S&P 500 INDEX (DAILY)		4.5	4.5	18.6	10.8	14.2	7.4	9.5	07/1993
Excess		-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.1	
<b>SBI INTERNAL FIXED INCOME</b>	<b>1,096,734,785</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>3.1</b>	<b>2.8</b>	<b>4.8</b>	<b>6.1</b>	<b>07/1994</b>
BBG BARC Agg (Dly)		0.8	0.8	0.1	2.7	2.1	4.3	5.6	07/1994
Excess		-0.1	-0.1	0.7	0.4	0.8	0.6	0.5	
<b>RBC</b>	<b>250,391,662</b>	<b>0.4</b>	<b>0.4</b>	<b>-0.4</b>	<b>1.7</b>	<b>1.1</b>	<b>3.0</b>	<b>5.0</b>	<b>07/1991</b>
Voyageur Custom Index		0.3	0.3	-0.7	1.6	1.0	3.1	5.1	07/1991
Excess		0.1	0.1	0.2	0.1	0.1	-0.1	-0.1	

Note:

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

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

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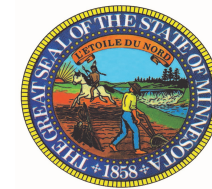


## Quarterly Report

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# State Cash

## September 30, 2017



## 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.

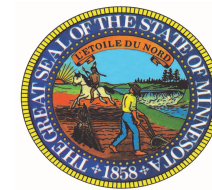
Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	<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	8,991,055,237	0.3	1.0	0.8	0.6	1.2
iMoneyNet Money Fund Average-All Taxable		0.2	0.4	0.2	0.1	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	72,825,885	0.6	1.5	2.4		
Housing Finance	48,082,956	0.4	0.6	1.5		
Public Facilities Authority	16,729,399	1.3	2.5	2.5		



## 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:**

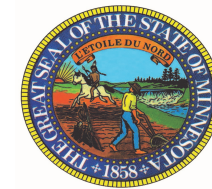
Since 6/1/08 the emerging markets managers' benchmark, "Benchmark EM," is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was the MSCI Emerging Markets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

#### **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. Effective 1/1/2017, 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 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:**

Russell 3000 effective 10/1/2003. From 7/1/1999 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/1999, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.



## Addendum

### Benchmark Definitions (continued)

#### **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

#### **International Equity Benchmark:**

Since 6/1/08 the International Equity asset class target is 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:**

67% Russell 3000 and 33% MSCI ACWI ex USA effective 7/1/2017. 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 its current weighting.

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

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