

### Comprehensive Performance Report

**December 31, 2017** 



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### **Description of SBI Investment Programs**

The Minnesota State Board of Investment is responsible for the investment management of various retirement funds, trust funds and cash accounts.

### **Combined Funds**

The Combined Funds represent the assets for both the active and retired public employees in the statewide retirement systems, the biggest of which are the Public Employees Retirement Association (PERA), the Teachers Retirement Association (TRA), and the Minnesota State Retirement System (MSRS). The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

### **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**

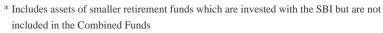
The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It contains the cash balances of special or dedicated accounts necessary for the operation 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.



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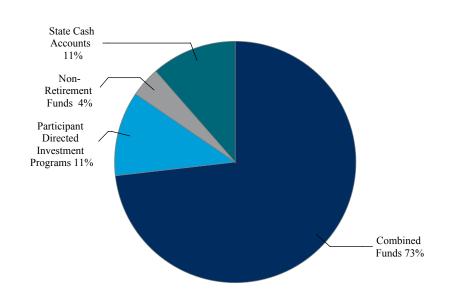
### **Funds Under Management**

	\$ Millions
COMBINED FUNDS	
Combined Funds	\$68,377
PARTICIPANT DIRECTED INVESTMENT PROGRAMS	
Supplemental Investment Fund*	3,692
State Deferred Compensation Plan**	5,515
Minnesota College Savings Plan	1,398
Achieve a Better Life Experience	2
NON-RETIREMENT FUNDS	
Assigned Risk Plan	319
Permanent School Fund	1,390
Environmental Trust Fund	1,106
Closed Landfill Investment Fund	88
Miscellaneous Trust Accounts	230
Ohter Post Employment Benefits Accounts	629
STATE CASH ACCOUNTS	
Treasurers Cash	10,550
Other State Cash Accounts	138
TOTAL	
SBI AUM	93,431



<sup>\*\*</sup> Does not include the Stable Value and Money Market accounts that are used by Deferred Compensation and Supplemental Investment Fund

Note: Differentials within column amounts may occur due to rounding





### **Quarterly Report**



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Note:

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





### **Combined Funds**

**December 31, 2017** 





### **Combined Funds Summary**

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

•	One Quarter
COMBINED FUNDS	
Beginning Market Value	\$66,083
Net Contributions	-597
Investment Return	2,891
Ending Market Value	68,377

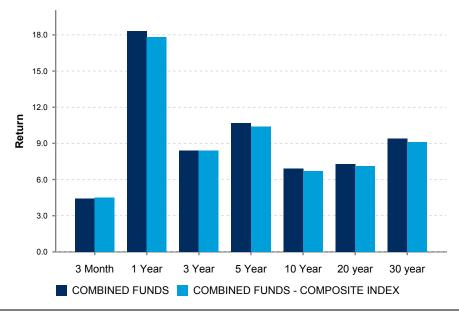
The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

### **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>	<b>FYTD</b>	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>	<u>30 Yr</u>
COMBINED FUNDS	4.4%	8.6%	18.3%	8.4%	10.7%	6.9%	7.3%	9.4%
COMBINED FUNDS - COMPOSITE INDEX	4.5	8.5	17.8	8.4	10.4	6.7	7.1	9.1
Excess	-0.1	0.1	0.5	-0.0	0.3	0.2	0.1	0.3







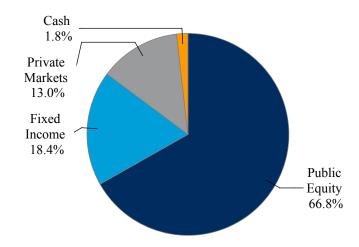
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### **Combined Funds Summary**

### **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.

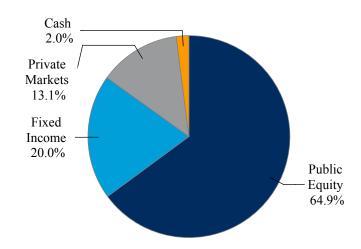
	(Millions)	Actual Mix	<b>Policy Target</b>
Public Equity	\$45,672	66.8%	58.0%
Fixed Income	12,581	18.4	20.0
Private Markets	8,922	13.0	20.0
Cash	1,203	1.8	2.0
TOTAL	68,377	100.0	



### **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.

	Target Weight	Market Index
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





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### **Combined Funds Asset Class Performance Summary**

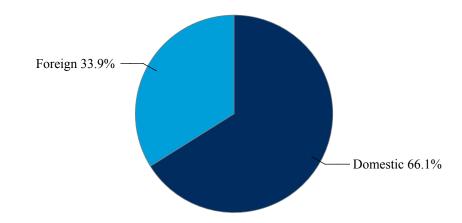
### **Public Equity**

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.



	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year
Public Equity	5.7%	11.2%	23.4%	10.2%	13.6%	7.1%	6.8%
Public Equity Benchmark	5.9	11.3	23.0				
Excess	-0.2	-0.1	0.4				
Domestic Equity	6.2	11.1	21.4	10.7	15.5	8.5	7.0
Domestic Equity Benchmark	6.3	11.2	21.1	11.1	15.6	8.6	7.2
Excess	-0.2	-0.1	0.3	-0.4	-0.0	-0.1	-0.2
International Equity	4.7	11.4	27.7	8.4	7.5	2.3	6.0
International Equity Benchmark	5.0	11.5	27.2	7.8	6.8	1.8	5.6
Excess	-0.3	-0.1	0.5	0.5	0.7	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.

	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	20 Year
Fixed Income	0.5%	1.5%	4.2%	2.8%	2.6%	4.5%	5.3%
Fixed Income Benchmark	0.4	1.2	3.5	2.2	2.1	4.0	5.0
Excess	0.1	0.3	0.7	0.6	0.5	0.5	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.

	Last Qtr	<b>FYTD</b>	1 Year	3 Year	<u>5 Year</u>	10 Year	20 Year
Cash	0.3%	0.6%	1.1%	0.6%	0.5%	0.8%	2.6%
90 DAY T-BILL	0.3	0.5	0.9	0.4	0.3	0.4	2.1
iMoneyNet Money Fund Average-All Taxable	0.2	0.4	0.5	0.2	0.1	0.3	1.8

Note:

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





### **Combined Funds Asset Class Performance Summary**

Private Markets									
	Last Qtr	<b>FYTD</b>	1 Year	3 Year	<u>5 Year</u>	10 Year	20 Year	<u>25 year</u>	30 year
Private Markets	4.3%	7.2%	18.5%	9.0%	12.1%	8.8%	12.4%	13.3%	12.1%
Private Equity	5.6%	10.7%	22.2%	14.6%	15.4%	10.8%	13.8%	15.5%	
Private Credit	6.0	5.5	17.6	12.5	14.7	10.8	13.1		
Resources	0.5	-0.6	11.8	-8.2	1.7	6.2	12.1	14.6	
Real Estate	3.1	5.6	10.2	10.9	12.6	4.6	8.6	8.8	

### **Private Markets**

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

### **Private Equity Investments**

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

### **Private Credit Investments**

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

#### **Resource Investments**

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

#### **Real Estate Investments**

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

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



### **Quarterly Report**



### Asset Class & Manager Performance December 31, 2017

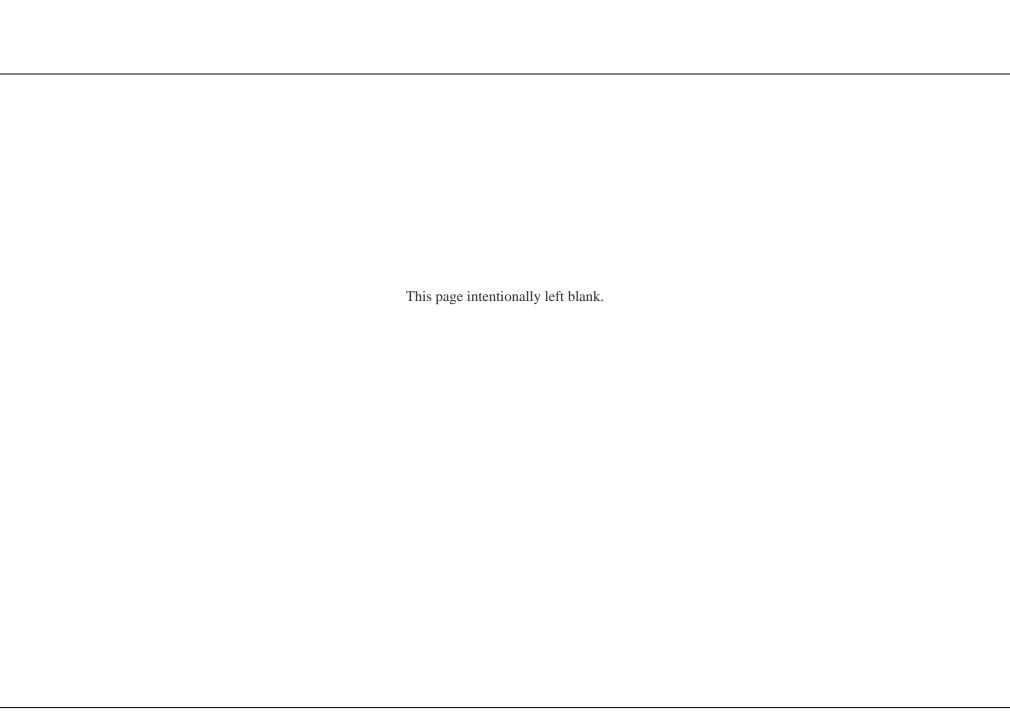
The assets of the Combined Funds are allocated to public equity, fixed income, private markets, and cash. Each asset class may be further differentiated by geography, management style, and/or strategy. Managers are hired to manage the assets accordingly. This diversification is intended to reduce wide 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.







### **Domestic Equity** December 31, 2017





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
<b>Total Domestic Equity</b>										
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	\$4,759,786,378	15.2%	4.5%	9.9%	20.6%	10.0%	15.3%	8.0%		
Active Domestic Equity Benchmark			4.8	10.2	18.3	10.8	15.3	8.5		
Excess			-0.3	-0.3	2.3	-0.8	0.1	-0.5		
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	2,527,974,364	8.1	6.8	12.3	22.5	11.0	15.8	8.8		
Semi Passive Domestic Equity Benchmark			6.6	11.4	21.7	11.2	15.7	8.6		
Excess			0.2	0.9	0.8	-0.2	0.1	0.2		
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	24,068,916,914	76.8	6.5	11.3	21.3	11.1	15.6	8.6		
Passive Domestic Equity Benchmark			6.5	11.3	21.5	11.1	15.6	8.6		
Excess			-0.0	-0.0	-0.2	-0.0	-0.0	0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	421,007	0.0								
TOTAL DOMESTIC EQUITY (5)	31,357,098,663	100.0	6.2	11.1	21.4	10.7	15.5	8.5	10.5	01/1984
Domestic Equity Benchmark			6.3	11.2	21.1	11.1	15.6	8.6	10.7	01/1984
Excess			-0.2	-0.1	0.2	-0.4	-0.0	-0.1	-0.2	

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



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

<sup>(3)</sup> The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000 and Russell 3000.

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

<sup>(5)</sup> The current Domestic Equity Benchmark is the Russell 3000.



	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
<b>Total Domestic Equity</b>					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	20.6%	10.9%	-0.4%	9.3%	40.2%
Active Domestic Equity Benchmark	18.3	15.7	-0.6	11.0	34.7
Excess	2.3	-4.8	0.3	-1.7	5.5
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	22.5	11.1	0.5	14.2	33.2
Semi Passive Domestic Equity Benchmark	21.7	12.1	0.9	13.2	33.1
Excess	0.8	-1.0	-0.4	1.0	0.1
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	21.3	12.6	0.5	12.6	33.5
Passive Domestic Equity Benchmark	21.5	12.5	0.5	12.6	33.6
Excess	-0.2	0.1	0.0	0.0	-0.0

TRANSITION AGGREGATE DOMESTIC EQUITY (4)

TOTAL DOMESTIC EQUITY (5)	21.4%	11.5	0.3	12.3	35.1
Domestic Equity Benchmark	21.1%	12.7	0.5	12.6	33.6
Excess	0.2%	-1.3	-0.2	-0.2	1.6

- (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.





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Growth										
SANDS	\$493,024,254	1.6%	3.8%	11.0%	35.3%	9.0%	15.0%	11.1%	10.3%	01/2005
Russell 1000 Growth			7.9	14.2	30.2	13.8	17.3	10.0	9.7	01/2005
Excess			-4.1	-3.3	5.1	-4.7	-2.3	1.1	0.7	
WINSLOW	210,243,038	0.7	5.9	12.2	33.2	11.7	16.3	9.3	10.2	01/2005
Russell 1000 Growth			7.9	14.2	30.2	13.8	17.3	10.0	9.7	01/2005
Excess			-1.9	-2.0	3.0	-2.1	-1.0	-0.7	0.5	
ZEVENBERGEN	455,648,217	1.5	4.1	7.8	35.1	11.8	18.3	9.5	10.5	04/1994
Russell 1000 Growth			7.9	14.2	30.2	13.8	17.3	10.0	9.7	04/1994
Excess			-3.8	-6.4	4.9	-2.0	1.0	-0.5	0.8	

RUSSELL 1000 GROWTH AGGREGATE	1,158,915,509	3.7	4.3	9.9	33.4	12.1	17.0	9.6
Russell 1000 Growth			7.9	14.2	30.2	13.8	17.3	10.0
Excess			-3.6	-4.3	3.2	-1.7	-0.3	-0.4





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Large Cap Growth					
SANDS	35.3%	-6.9%	2.9%	9.1%	42.4%
Russell 1000 Growth	30.2	7.1	5.7	13.0	33.5
Excess	5.1	-13.9	-2.8	-3.9	8.9
WINSLOW	33.2	-1.9	6.7	11.0	37.4
Russell 1000 Growth	30.2	7.1	5.7	13.0	33.5
Excess	3.0	-9.0	1.0	-2.0	3.9
ZEVENBERGEN	35.1	-2.8	6.4	3.4	60.6
Russell 1000 Growth	30.2	7.1	5.7	13.0	33.5
Excess	4.9	-9.9	0.7	-9.6	27.1

RUSSELL 1000 GROWTH AGGREGATE	33.4%	1.0	4.6	9.6	42.0
Russell 1000 Growth	30.2%	7.1	5.7	13.0	33.5
Excess	3.2%	-6.1	-1.1	-3.4	8.5





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Value										
BARROW HANLEY	\$382,024,072	1.2%	6.0%	8.2%	14.6%	8.2%	14.1%	7.2%	8.3%	04/2004
Russell 1000 Value			5.3	8.6	13.7	8.7	14.0	7.1	8.1	04/2004
Excess			0.6	-0.4	0.9	-0.5	0.1	0.1	0.2	
EARNEST PARTNERS	273,196,405	0.9	8.3	13.0	19.9	10.7	15.3	7.3	7.2	07/2000
Russell 1000 Value			5.3	8.6	13.7	8.7	14.0	7.1	7.4	07/2000
Excess			3.0	4.4	6.2	2.0	1.3	0.2	-0.2	
LSV	425,465,104	1.4	7.4	13.6	18.6	10.7	16.9	8.4	9.7	04/2004
Russell 1000 Value			5.3	8.6	13.7	8.7	14.0	7.1	8.1	04/2004
Excess			2.1	5.0	4.9	2.0	2.9	1.3	1.5	

RUSSELL 1000 VALUE AGGREGATE	1,080,685,580	3.4	7.1	11.5	17.3	9.4	15.1	7.4
Russell 1000 Value			5.3	8.6	13.7	8.7	14.0	7.1
Excess			1.8	2.9	3.7	0.7	1.1	0.3





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Large Cap Value					
BARROW HANLEY	14.6%	12.8%	-2.1%	13.0%	35.5%
Russell 1000 Value	13.7	17.3	-3.8	13.5	32.5
Excess	0.9	-4.5	1.7	-0.5	3.0
EARNEST PARTNERS	19.9	16.2	-2.7	14.0	32.0
Russell 1000 Value	13.7	17.3	-3.8	13.5	32.5
Excess	6.2	-1.1	1.1	0.5	-0.5
LSV	18.6	17.0	-2.2	14.0	41.2
Russell 1000 Value	13.7	17.3	-3.8	13.5	32.5
Excess	4.9	-0.4	1.6	0.6	8.7

RUSSELL 1000 VALUE AGGREGATE	17.3%	15.3	-3.2	13.1	36.5
Russell 1000 Value	13.7%	17.3	-3.8	13.5	32.5
Excess	3.7%	-2.1	0.6	-0.4	3.9





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Semi-Passive Large Cap										
BLACKROCK	\$1,023,764,993	3.3%	7.0%	13.2%	24.6%	12.2%	16.6%	9.1%	10.1%	01/1995
Semi Passive Domestic Equity Benchmark			6.6	11.4	21.7	11.2	15.7	8.6	9.6	01/1995
Excess			0.4	1.9	2.9	1.0	0.9	0.5	0.4	
J.P. MORGAN	1,504,209,372	4.8	6.6	11.6	21.8	11.3	16.2	9.4	10.0	01/1995
Semi Passive Domestic Equity Benchmark			6.6	11.4	21.7	11.2	15.7	8.6	9.6	01/1995
Excess			-0.0	0.3	0.1	0.1	0.5	0.8	0.3	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	2,527,974,364	8.1	6.8	12.3	22.5	11.0	15.8	8.8		
Semi Passive Domestic Equity Benchmark			6.6	11.4	21.7	11.2	15.7	8.6		
Excess			0.2	0.9	0.8	-0.2	0.1	0.2		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Semi-Passive Large Cap					
BLACKROCK	24.6%	12.5%	0.8%	14.2%	33.3%
Semi Passive Domestic Equity Benchmark	21.7	12.1	0.9	13.2	33.1
Excess	2.9	0.5	-0.1	1.0	0.2
J.P. MORGAN	21.8	12.3	0.8	15.0	33.7
Semi Passive Domestic Equity Benchmark	21.7	12.1	0.9	13.2	33.1
Excess	0.1	0.2	-0.1	1.8	0.6
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	22.5%	11.1	0.5	14.2	33.2
Semi Passive Domestic Equity Benchmark	21.7%	12.1	0.9	13.2	33.1
Excess	0.8%	-1.0	-0.4	1.0	0.1





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Growth										
ARROWMARK	\$207,191,582	0.7%	4.4%	11.8%	26.2%				31.5%	11/2016
Russell 2000 Growth			4.6	11.1	22.2				29.2	11/2016
Excess			-0.2	0.7	4.1				2.2	
HOOD RIVER	230,723,667	0.7	2.2	6.0	21.3				26.5	11/2016
Russell 2000 Growth			4.6	11.1	22.2				29.2	11/2016
Excess			-2.4	-5.1	-0.9				-2.7	
MCKINLEY	282,090,033	0.9	0.7	8.0	12.2	9.5%	15.2%	6.8%	7.7	01/2004
Russell 2000 Growth			4.6	11.1	22.2	10.3	15.2	9.2	9.3	01/2004
Excess			-3.8	-3.1	-10.0	-0.8	0.0	-2.4	-1.6	
RICE HALL JAMES	215,842,682	0.7	8.6	12.5	27.9				36.2	11/2016
Russell 2000 Growth			4.6	11.1	22.2				29.2	11/2016
Excess			4.0	1.4	5.8				7.0	
WELLINGTON	237,454,158	0.8	3.7	9.4	22.6				29.7	11/2016
Russell 2000 Growth			4.6	11.1	22.2				29.2	11/2016
Excess			-0.9	-1.7	0.4				0.5	
RUSSELL 2000 GROWTH AGGREGATE	1,173,302,122	3.7	3.7	9.3	22.0	8.9	12.9	5.9		
Russell 2000 Growth			4.6	11.1	22.2	10.3	15.2	9.2		
Excess			-0.9	-1.7	-0.1	-1.4	-2.3	-3.3		





ARCOWMARK 26.2% Russell 2000 Growth 22.2 Excess 4.1  HOOD RIVER 21.3 Russell 2000 Growth 22.2 Excess -0.9  MCKINLEY 12.2 12.9% 3.6% 2.0% 51 Russell 2000 Growth 22.2 11.3 -1.4 5.6 43 Excess -10.0 1.6 5.0 -3.6 8  RICE HALL JAMES 27.9 Russell 2000 Growth 22.2 Excess 5.8  WELLINGTON 22.6	
ARROWMARK       26.2%         Russell 2000 Growth       22.2         Excess       4.1         HOOD RIVER         Russell 2000 Growth       22.2         Excess       -0.9         MCKINLEY       12.2       12.9%       3.6%       2.0%       51         Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RIGE HALL JAMES         Russell 2000 Growth       22.2         Excess       5.8	
Excess 4.1  HOOD RIVER 21.3  Russell 2000 Growth 22.2  Excess -0.9  MCKINLEY 12.2 12.9% 3.6% 2.0% 51  Russell 2000 Growth 22.2 11.3 -1.4 5.6 43  Excess -10.0 1.6 5.0 -3.6 8  RICE HALL JAMES 27.9  Russell 2000 Growth 22.2  Excess 5.8	
HOOD RIVER 21.3 Russell 2000 Growth 22.2 Excess -0.9  MCKINLEY 12.2 12.9% 3.6% 2.0% 51 Russell 2000 Growth 22.2 11.3 -1.4 5.6 43 Excess -10.0 1.6 5.0 -3.6 8  RICE HALL JAMES 27.9 Russell 2000 Growth 22.2 Excess 5.8	
Russell 2000 Growth       22.2         Excess       -0.9         MCKINLEY       12.2       12.9%       3.6%       2.0%       51         Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9         Russell 2000 Growth       22.2       Excess       5.8	
Russell 2000 Growth       22.2         Excess       -0.9         MCKINLEY       12.2       12.9%       3.6%       2.0%       51         Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9         Russell 2000 Growth       22.2       Excess       5.8	
MCKINLEY       12.2       12.9%       3.6%       2.0%       51         Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9         Russell 2000 Growth       22.2         Excess       5.8	
MCKINLEY         12.2         12.9%         3.6%         2.0%         51           Russell 2000 Growth         22.2         11.3         -1.4         5.6         43           Excess         -10.0         1.6         5.0         -3.6         8           RICE HALL JAMES         27.9         22.2         Excess         5.8         5.8	
Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9         Russell 2000 Growth       22.2       2.2       2.2       2.3	
Russell 2000 Growth       22.2       11.3       -1.4       5.6       43         Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9         Russell 2000 Growth       22.2       22.2       22.2       22.2       23.8       24.2	
Excess       -10.0       1.6       5.0       -3.6       8         RICE HALL JAMES       27.9       Russell 2000 Growth       22.2         Excess       5.8	6%
RICE HALL JAMES         27.9           Russell 2000 Growth         22.2           Excess         5.8	3
Russell 2000 Growth         22.2           Excess         5.8	3
Russell 2000 Growth         22.2           Excess         5.8	
Excess 5.8	
WELLINGTON 22.6	
WELLINGTON 22.6	
Russell 2000 Growth 22.2	
Excess 0.4	
RUSSELL 2000 GROWTH 22.0% 4.7 1.0 -3.4 4.7 AGGREGATE	7.2
Russell 2000 Growth 22.2% 11.3 -1.4 5.6 45	3.3
Excess -0.1% -6.6 2.4 -9.0	





Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
\$364,383,027	1.2%	4.1%	10.2%	12.6%	10.0%	14.7%	10.8%	10.2%	01/2004
		2.0	7.3	7.8	9.5	13.0	8.2	8.5	01/2004
		2.0	2.9	4.7	0.4	1.7	2.6	1.7	
308,888,405	1.0	1.9	7.3	7.9	5.8	14.3	10.9	8.9	01/2004
		2.0	7.3	7.8	9.5	13.0	8.2	8.5	01/2004
		-0.1	0.1	0.0	-3.8	1.3	2.7	0.4	
297,213,482	0.9	1.9	8.2	6.9	10.8	15.9	9.1	8.6	01/2004
		2.0	7.3	7.8	9.5	13.0	8.2	8.5	01/2004
		-0.2	0.9	-0.9	1.3	2.9	0.9	0.1	
376,398,253	1.2	5.8	10.8	12.5	10.3	13.9	9.4	10.9	07/2000
		2.0	7.3	7.8	9.5	13.0	8.2	10.1	07/2000
		3.8	3.5	4.7	0.8	0.9	1.2	0.8	
	\$364,383,027 308,888,405 297,213,482	\$364,383,027 1.2%  308,888,405 1.0  297,213,482 0.9	\$364,383,027  1.2%  4.1%  2.0  2.0  2.0  308,888,405  1.0  1.9  2.0  -0.1  297,213,482  0.9  1.9  2.0  -0.2  376,398,253  1.2  5.8  2.0	\$364,383,027  1.2%  2.0  7.3  2.0  2.9  308,888,405  1.0  1.9  7.3  2.0  7.3  -0.1  0.1  297,213,482  0.9  1.9  8.2  2.0  7.3  -0.2  0.9  376,398,253  1.2  5.8  10.8  2.0  7.3	\$364,383,027  1.2%  4.1%  2.0  7.3  7.8  2.0  2.9  4.7   308,888,405  1.0  1.9  7.3  7.9  2.0  7.3  7.8  -0.1  0.1  0.0   297,213,482  0.9  1.9  8.2  6.9  2.0  7.3  7.8  -0.2  0.9  -0.9   376,398,253  1.2  5.8  10.8  12.5  2.0  7.3  7.8	\$364,383,027  1.2%  4.1%  2.0  7.3  7.8  9.5  2.0  2.9  4.7  0.4   308,888,405  1.0  1.9  7.3  7.9  5.8  2.0  7.3  7.8  9.5  -0.1  0.1  0.0  -3.8   297,213,482  0.9  1.9  8.2  6.9  10.8  2.0  7.3  7.8  9.5  -0.2  0.9  1.3  376,398,253  1.2  5.8  10.8  12.5  10.3  2.0  7.3  7.8  9.5	\$364,383,027  1.2% 4.1% 2.0 7.3 7.8 9.5 13.0 2.0 2.9 4.7 0.4 1.7  308,888,405 1.0 1.9 7.3 7.9 5.8 14.3 2.0 7.3 7.8 9.5 13.0 -0.1 0.1 0.0 -3.8 1.3  297,213,482 0.9 1.9 8.2 6.9 10.8 15.9 2.0 7.3 7.8 9.5 13.0 -0.2 0.9 1.9 1.9 1.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	\$364,383,027  1.2%  4.1%  10.2%  12.6%  10.0%  14.7%  10.8%  2.0  7.3  7.8  9.5  13.0  8.2  2.0  2.9  4.7  0.4  1.7  2.6   308,888,405  1.0  1.9  7.3  7.9  5.8  14.3  10.9  2.0  7.3  7.8  9.5  13.0  8.2  -0.1  0.1  0.0  -3.8  1.3  2.7   297,213,482  0.9  1.9  8.2  6.9  10.8  15.9  9.1  2.0  7.3  7.8  9.5  13.0  8.2  -0.1  0.1  0.0  -3.8  1.3  2.7	\$364,383,027  1.2%  4.1%  10.2%  12.6%  10.0%  14.7%  10.8%  10.2%  2.0  7.3  7.8  9.5  13.0  8.2  8.5  2.0  2.9  4.7  0.4  1.7  2.6  1.7  308,888,405  1.0  1.0  1.9  7.3  7.9  5.8  14.3  10.9  8.9  2.0  7.3  7.8  9.5  13.0  8.2  8.5  -0.1  0.1  0.0  -3.8  1.3  2.7  0.4  297,213,482  0.9  1.9  8.2  6.9  10.8  15.9  9.1  8.6  2.0  7.3  7.8  9.5  13.0  8.2  8.5  -0.2  0.9  1.9  1.0  1.0  1.0  1.0  1.0  1.0

RUSSELL 2000 VALUE AGGREGATE	1,346,883,167	4.3	3.6	9.2	10.2	9.2	14.6	9.9
Russell 2000 Value			2.0	7.3	7.8	9.5	13.0	8.2
Excess			1.5	2.0	2.3	-0.3	1.6	1.7





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Small Cap Value					
GOLDMAN SACHS	12.6%	24.6%	-5.2%	7.4%	39.3%
Russell 2000 Value	7.8	31.7	-7.5	4.2	34.5
Excess	4.7	-7.1	2.3	3.1	4.8
HOTCHKIS AND WILEY	7.9	19.9	-8.5	13.0	46.0
Russell 2000 Value	7.8	31.7	-7.5	4.2	34.5
Excess	0.0	-11.8	-1.0	8.8	11.5
MARTINGALE	6.9	34.3	-5.2	7.3	43.1
Russell 2000 Value	7.8	31.7	-7.5	4.2	34.5
Excess	-0.9	2.5	2.3	3.1	8.5
PEREGRINE	12.5	27.8	-6.7	4.1	37.3
Russell 2000 Value	7.8	31.7	-7.5	4.2	34.5
Excess	4.7	-3.9	0.8	-0.1	2.8

RUSSELL 2000 VALUE AGGREGATE	10.2%	26.5	-6.5	7.5	40.8
Russell 2000 Value	7.8%	31.7	-7.5	4.2	34.5
Excess	2.3%	-5.2	1.0	3.3	6.3





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	\$11,961,738,244	38.1%	6.6%	11.3%	21.7%				24.2%	11/2016
Russell 1000			6.6	11.4	21.7				24.3	11/2016
Excess			-0.0	-0.0	-0.0				-0.0	
BLACKROCK RUSSELL 3000 (1)	12,107,178,669	38.6	6.3	11.2	21.1	11.1%	15.6%	8.6%	9.4	07/1995
Passive Manager Benchmark			6.3	11.2	21.1	11.1	15.6	8.6	9.3	07/1995
Excess			0.0	0.0	0.0	0.0	0.0	0.0	0.1	

PASSIVE DOMESTIC EQUITY AGGREGATE	24,068,916,914	76.8	6.5	11.3	21.3	11.1	15.6	8.6
Passive Domestic Equity Benchmark			6.5	11.3	21.5	11.1	15.6	8.6
Excess			-0.0	-0.0	-0.2	-0.0	-0.0	0.0



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



	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	21.7%				
Russell 1000	21.7				
Excess	-0.0				
BLACKROCK RUSSELL 3000 (1)	21.1	12.7%	0.5%	12.6%	33.5%
Passive Manager Benchmark	21.1	12.7	0.5	12.6	33.6
Excess	0.0	0.0	0.0	0.0	-0.0
PASSIVE DOMESTIC EQUITY AGGREGATE	21.3%	12.6	0.5	12.6	33.5
Passive Domestic Equity Benchmark	21.5%	12.5	0.5	12.6	33.6

0.0

0.0

-0.2%

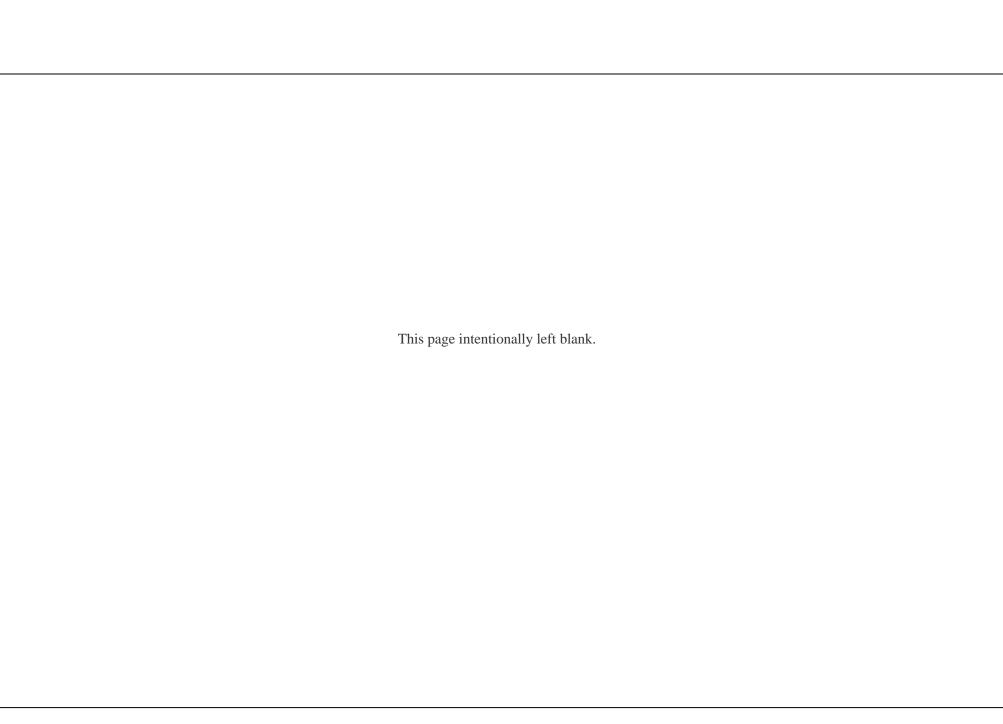
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-0.0

Excess

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





### **International Equity** December 31, 2017





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total International Equity										
DEVELOPED MARKETS (1)	\$11,787,551,014	75.1%	4.2%	10.2%	24.9%	8.1%	8.3%	2.6%		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			-0.1	0.2	0.7	0.7	0.9	0.7		
EMERGING MARKETS (2)	3,899,196,563	24.9	6.3	15.1	37.7	8.8	4.4	1.2		
BENCHMARK EM			7.4	15.9	37.3	9.1	4.3	1.7		
Excess			-1.1	-0.8	0.4	-0.3	0.1	-0.5		
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	3,362,140	0.0								

TOTAL INTERNATIONAL EQUITY (4)	15,690,109,717	100.0	4.7	11.4	27.6	8.3	7.5	2.3	6.9	10/1992
International Equity Benchmark			5.0	11.5	27.2	7.8	6.8	1.8	6.4	10/1992
Excess			-0.3	-0.1	0.4	0.5	0.7	0.5	0.5	



<sup>(1)</sup> The current benchmak for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

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

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

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



	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Total International Equity					
DEVELOPED MARKETS (1)	24.9%	1.3%	-0.3%	-4.1%	23.3%
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	0.7	-1.5	2.8	0.2	2.2
EMERGING MARKETS (2)	37.7	7.5	-13.1	-3.8	0.2
BENCHMARK EM	37.3	11.2	-14.9	-2.2	-2.6
Excess	0.4	-3.7	1.9	-1.6	2.9

TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)

TOTAL INTERNATIONAL EQUITY (4)	27.6%	2.6	-2.9	-4.0	17.8
International Equity Benchmark	27.2%	4.5	-5.7	-3.9	15.3
Excess	0.4%	-1.8	2.8	-0.2	2.5



<sup>(1)</sup> The current benchmak for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

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

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

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



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	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Developed Markets										
ACADIAN	\$548,997,634	3.5%	5.4%	12.9%	37.0%	14.9%	13.5%	3.4%	7.5%	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			1.2	2.9	12.8	7.5	6.0	1.5	1.9	
COLUMBIA	450,544,633	2.9	6.5	14.2	32.7	10.1	9.3	3.7	3.2	03/2000
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	3.7	03/2000
Excess			2.3	4.1	8.5	2.7	1.9	1.8	-0.5	
FIDELITY	437,675,344	2.8	4.6	10.8	25.9	8.5	8.8	3.4	7.1	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			0.3	0.7	1.7	1.1	1.4	1.5	1.5	
JP MORGAN	369,748,463	2.4	5.3	12.6	28.3	8.4	7.6	2.9	5.8	07/2005
BENCHMARK DM	, ,		4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			1.1	2.5	4.1	1.0	0.2	1.0	0.3	
MARATHON	938,741,799	6.0	3.5	8.1	23.1	9.1	9.9	4.7	8.5	11/1993
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.4	11/1993
Excess			-0.8	-2.0	-1.1	1.7	2.4	2.8	3.1	
MCKINLEY	364,806,950	2.3	4.5	13.0	28.5	7.1	8.8	0.8	5.3	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			0.3	2.9	4.3	-0.3	1.4	-1.1	-0.2	
ACTIVE DEVELOPED MARKETS AGGREGATE	3,110,514,824	19.8	4.7	11.3	28.4	9.7	9.7	3.4		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			0.5	1.2	4.2	2.4	2.3	1.5		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Developed Markets					
ACADIAN	37.0%	8.1%	2.4%	-1.7%	26.1%
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	12.8	5.4	5.4	2.6	5.1
COLUMBIA	32.7	-5.6	6.4	-5.6	23.9
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	8.5	-8.3	9.4	-1.2	2.9
LACESS	0.0	-0.0	J. <del>1</del>	-1.2	2.3
FIDELITY	25.9	1.2	0.1	-5.6	26.7
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	1.7	-1.5	3.2	-1.3	5.7
JP MORGAN	28.3	4.0	-4.7	-5.1	19.5
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	4.1	1.2	-1.6	-0.7	-1.5
MARATHON	23.1	-1.1	6.7	-4.0	28.5
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	-1.1	-3.8	9.7	0.3	7.5
MCKINLEY	28.5	-7.5	3.1	-2.7	28.0
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	4.3	-10.2	6.2	1.6	7.0
ACTIVE DEVELOPED MARKETS AGGREGATE	28.4%	-0.2	3.2	-4.1	25.4
BENCHMARK DM	24.2%	2.7	-3.0	-4.3	21.0
Excess	4.2%	-3.0	6.2	0.2	4.4





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	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Semi-Passive Developed Markets										
AQR	\$425,362,268	2.7%	3.1%	9.9%	25.1%	8.4%	8.6%	2.9%	6.2%	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			-1.1	-0.2	0.9	1.0	1.1	1.0	0.7	
FIDELITY	598,801,298	3.8	3.0	8.5	22.5	6.1	7.2	1.8	6.0	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			-1.2	-1.6	-1.7	-1.2	-0.3	-0.0	0.5	
SSgA	369,109,645	2.4	2.1	7.5	22.7	6.9	7.8	1.4	5.1	07/2005
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	5.6	07/2005
Excess			-2.2	-2.5	-1.5	-0.4	0.3	-0.4	-0.5	
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	1,393,273,211	8.9	2.8	8.6	23.3	7.0	7.7	2.1		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			-1.4	-1.5	-0.9	-0.4	0.3	0.2		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Semi-Passive Developed Markets					
AQR	25.1%	0.8%	0.9%	-4.4%	24.1%
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	0.9	-2.0	3.9	-0.1	3.1
FIDELITY	22.5	-1.7	-0.7	-4.0	23.2
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	-1.7	-4.5	2.3	0.3	2.2
SSgA	22.7	0.6	-0.9	-5.1	25.3
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	-1.5	-2.2	2.1	-0.8	4.2
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	23.3%	-0.4	-0.3	-4.4	24.0
BENCHMARK DM	24.2%	2.7	-3.0	-4.3	21.0
Excess	-0.9%	-3.1	2.7	-0.1	3.0





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
<b>Total Developed Markets</b>										
ACTIVE DEVELOPED MARKETS AGGREGATE	\$3,110,514,824	19.8%	4.7%	11.3%	28.4%	9.7%	9.7%	3.4%		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			0.5	1.2	4.2	2.4	2.3	1.5		
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	1,393,273,211	8.9	2.8	8.6	23.3	7.0	7.7	2.1		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			-1.4	-1.5	-0.9	-0.4	0.3	0.2		
SSgA DEVELOPED MARKETS PASSIVE	7,283,762,979	46.4	4.2	10.1	24.7	7.8	7.9	2.3	6.6	10/1992
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9	6.3	10/1992
Excess			-0.0	0.0	0.5	0.5	0.4	0.4	0.3	
DEVELOPED MARKETS TOTAL	11,787,551,014	75.1	4.2	10.2	24.9	8.1	8.3	2.6		
BENCHMARK DM			4.2	10.1	24.2	7.4	7.5	1.9		
Excess			-0.1	0.2	0.7	0.7	0.9	0.7		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
<b>Total Developed Markets</b>					
ACTIVE DEVELOPED MARKETS AGGREGATE	28.4%	-0.2%	3.2%	-4.1%	25.4%
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	4.2	-3.0	6.2	0.2	4.4
SEMI-PASSIVE DEVELOPED MARKETS AGGREGATE	23.3	-0.4	-0.3	-4.4	24.0
BENCHMARK DM	24.2	2.7	-3.0	-4.3	21.0
Excess	-0.9	-3.1	2.7	-0.1	3.0
SSgA DEVELOPED MARKETS PASSIVE	24.7%	3.2	-2.6	-3.9	21.4
BENCHMARK DM	24.2%	2.7	-3.0	-4.3	21.0
Excess	0.5%	0.4	0.5	0.4	0.4
DEVELOPED MARKETS TOTAL	24.9%	1.3	-0.3	-4.1	23.3
BENCHMARK DM	24.2%	2.7	-3.0	-4.3	21.0
Excess	0.7%	-1.5	2.8	0.2	2.2





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Emerging Markets										
EARNEST PARTNERS	\$322,203,626	2.1%	7.1%	13.2%					22.3%	04/2017
MSCI EMERGING MARKETS			7.4	15.9					23.2	04/2017
Excess			-0.3	-2.7					-0.9	
MARTIN CURRIE	354,771,803	2.3	7.7	20.4					31.1	04/2017
BENCHMARK EM			7.4	15.9					23.2	04/2017
Excess			0.2	4.5					7.9	
MACQUARIE	334,392,586	2.1	2.8	14.9					23.2	04/2017
BENCHMARK EM			7.4	15.9					23.2	04/2017
Excess			-4.6	-1.0					-0.0	
MODO AN OTANI EV	050 407 700	4.0		40.0	27.00/	0.00/	F 40/	4.00/	40.0	04/0004
MORGAN STANLEY BENCHMARK EM	658,427,700	4.2	5.5	13.8	37.9%	9.8%	5.4%	1.8%	10.6	01/2001
			7.4	15.9	37.3	9.1 0.7	4.3	1.7	10.2	01/2001
Excess			-1.9	-2.1	0.6	0.7	1.0	0.1	0.4	
NEUBERGER BERMAN	342,101,974	2.2	7.8	18.2					26.3	04/2017
BENCHMARK EM	,,		7.4	15.9					23.2	04/2017
Excess			0.4	2.3					3.1	
PZENA	310,744,711	2.0	4.5	9.6					15.8	04/2017
BENCHMARK EM			7.4	15.9					23.2	04/2017
Excess			-3.0	-6.3					-7.4	
ROCK CREEK	320,701,983	2.0	5.8	13.3					19.3	04/2017
BENCHMARK EM			7.4	15.9					23.2	04/2017
Excess			-1.7	-2.6					-3.9	





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	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Emerging Markets					
EARNEST PARTNERS					
MSCI EMERGING MARKETS					
Excess					
MARTIN CURRIE					
BENCHMARK EM					
Excess					
MACQUARIE					
BENCHMARK EM					
Excess					
MORGAN STANLEY	37.9%	6.1%	-9.4%	-2.5%	0.5%
BENCHMARK EM	37.3	11.2	- <b>9.4</b> % -14.9	-2.3 % -2.2	-2.6
Excess	0.6	-5.1	5.5	-0.3	3.1
EXCESS	0.0	-0.1	5.5	-0.3	3.1
NEUBERGER BERMAN					
BENCHMARK EM					
Excess					
PZENA					
BENCHMARK EM					
Excess					
ROCK CREEK					
BENCHMARK EM					
Excess					

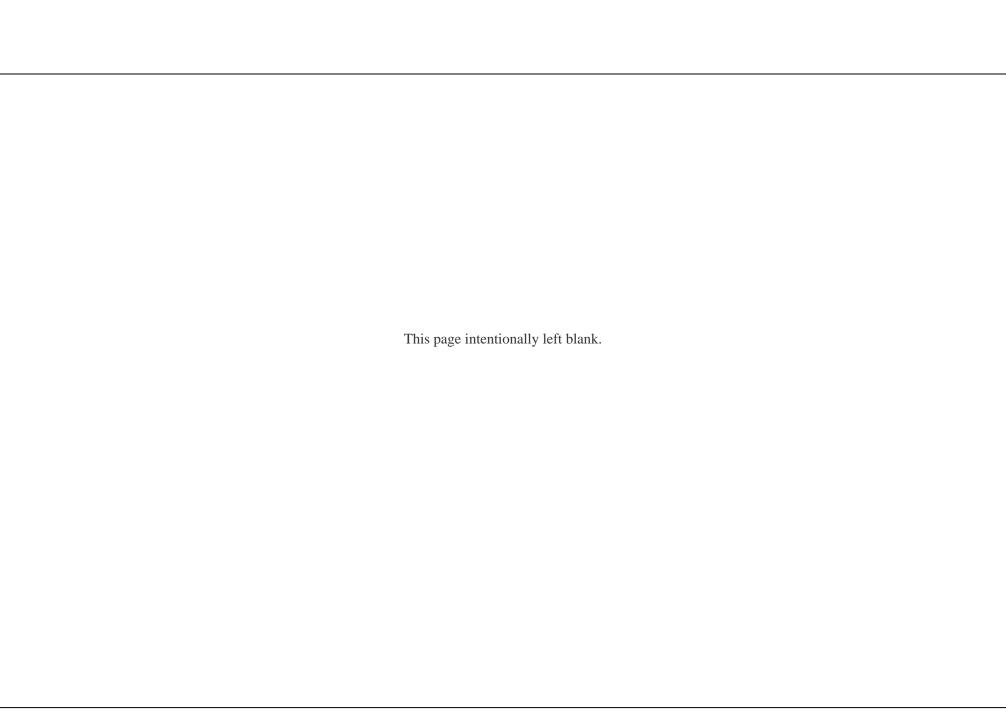




	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE	\$2,643,344,383	16.8%	5.9%	14.7%	37.2%	8.0%	4.0%	1.0%		
BENCHMARK EM			7.4	15.9	37.3	9.1	4.3	1.7		
Excess			-1.6	-1.2	-0.1	-1.1	-0.4	-0.7		
SSGA EMERGING MARKETS PASSIVE	1,255,852,180	8.0	7.4	16.0	37.4	9.2	4.5		6.7	01/2012
BENCHMARK EM			7.4	15.9	37.3	9.1	4.3		6.5	01/2012
Excess			-0.0	0.1	0.1	0.1	0.1		0.1	
EMERGING MARKETS TOTAL	3,899,196,563	24.9	6.3	15.1	37.7	8.8	4.4	1.2		
BENCHMARK EM			7.4	15.9	37.3	9.1	4.3	1.7		
Excess			-1.1	-0.8	0.4	-0.3	0.1	-0.5		



	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE	37.2%	5.3%	-12.7%	-4.1%	0.6%
BENCHMARK EM	37.3	11.2	-14.9	-2.2	-2.6
Excess	-0.1	-5.9	2.2	-2.0	3.2
SSGA EMERGING MARKETS PASSIVE	37.4%	11.1	-14.6	-2.1	-2.5
BENCHMARK EM	37.3%	11.2	-14.9	-2.2	-2.6
Excess	0.1%	-0.1	0.3	0.1	0.1
EMERGING MARKETS TOTAL	37.7%	7.5	-13.1	-3.8	0.2
BENCHMARK EM	37.3%	11.2	-14.9	-2.2	-2.6
Excess	0.4%	-3.7	1.9	-1.6	2.9





## **Fixed Income** December 31, 2017





	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Fixed Income										
ACTIVE FIXED INCOME AGGREGATE	\$6,074,016,709	46.9%	0.6%	1.7%	4.7%	3.2%	3.0%	4.7%		
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0		
Excess			0.2	0.5	1.2	1.0	0.9	0.7		
SEMI PASSIVE FIXED INCOME AGGREGATE	6,871,693,554	53.1	0.4	1.3	3.7	2.4	2.3	4.3		
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0		
Excess			-0.0	0.0	0.2	0.2	0.2	0.2		
TRANSITION AGGREGATE FIXED INCOME (1)	143,572	0.0								
TOTAL FIXED INCOME (2)	12,945,853,835	100.0	0.5	1.5	4.2	2.8	2.6	4.5	7.7	07/1984
Fixed Income Benchmark			0.4	1.2	3.5	2.2	2.1	4.0	7.3	07/1984
Excess			0.1	0.3	0.7	0.6	0.5	0.5	0.4	

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



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

<sup>(2)</sup> 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.



	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Total Fixed Income					
ACTIVE FIXED INCOME AGGREGATE	4.7%	4.4%	0.6%	6.2%	-0.8%
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	1.2	1.7	0.0	0.2	1.2
SEMI PASSIVE FIXED INCOME AGGREGATE	3.7	2.8	0.8	6.1	-1.8
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.2	0.2	0.2	0.1	0.2

TRANSITION AGGREGATE FIXED INCOME (1)

TOTAL FIVED INCOME (2)	4.20/	2.6	0.7	£ 1	4.2
TOTAL FIXED INCOME (2)	4.2%	3.0	0.7	6.1	-1.3
Fixed Income Benchmark	3.5%	2.6	0.5	6.0	-2.0
Excess	0.7%	0.9	0.1	0.2	0.7

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



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

<sup>(2)</sup> 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.



	<b>Ending Market Value</b>	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Fixed Income Managers										
COLUMBIA	\$1,182,161,072	9.1%	0.7%	1.9%	4.8%	3.4%	2.9%	4.6%	5.5%	07/1993
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	5.3	07/1993
Excess			0.3	0.6	1.2	1.1	0.8	0.6	0.2	
DODGE & COX	1,674,004,237	12.9	0.5	1.7	4.2	3.1	3.2	5.3	6.2	02/2000
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	5.2	02/2000
Excess			0.1	0.4	0.7	0.9	1.1	1.3	1.0	
PIMCO	1,598,690,076	12.3	0.4	1.5	4.4	2.7	2.5		5.7	10/2008
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1		4.3	10/2008
Excess			0.1	0.2	0.8	0.5	0.4		1.5	
WESTERN	1,619,161,325	12.5	0.8	2.0	5.6	3.7	3.3	5.1	8.5	07/1984
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	7.4	07/1984
Excess			0.4	0.7	2.1	1.5	1.2	1.1	1.2	
ACTIVE FIXED INCOME AGGREGATE	6,074,016,709	46.9	0.6	1.7	4.7	3.2	3.0	4.7		
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0		
Excess			0.2	0.5	1.2	1.0	0.9	0.7		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Active Fixed Income Managers					
COLUMBIA	4.8%	5.2%	0.2%	5.8%	-1.0%
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	1.2	2.6	-0.4	-0.2	1.0
OODGE & COX	4.2	4.8	0.3	6.0	0.9
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.7	2.2	-0.3	0.0	3.0
PIMCO	4.4	2.8	1.0	5.5	-1.3
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.8	0.2	0.4	-0.4	0.7
WESTERN	5.6	4.9	0.7	7.0	-1.4
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	2.1	2.2	0.1	1.0	0.7
ACTIVE FIXED INCOME AGGREGATE	4.7%	4.4	0.6	6.2	-0.8
BBG BARC Agg (Dly)	3.5%	2.6	0.5	6.0	-2.0
Excess	1.2%	1.7	0.0	0.2	1.2



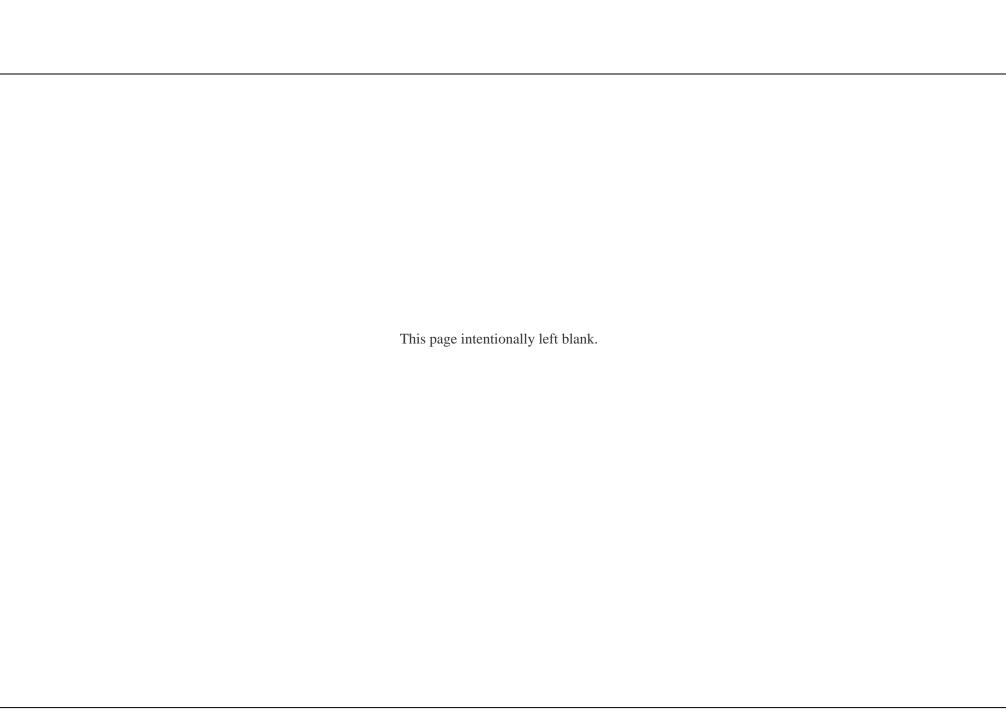
	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Semi Passive Fixed Income Managers										
BLACKROCK	\$2,092,632,908	16.2%	0.4%	1.2%	3.7%	2.4%	2.3%	3.9%	5.3%	04/1996
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	5.3	04/1996
Excess			-0.0	0.0	0.1	0.2	0.2	-0.1	0.1	
GOLDMAN SACHS	2,519,887,810	19.5	0.4	1.3	3.9	2.5	2.4	4.4	5.6	07/1993
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	5.3	07/1993
Excess			0.0	0.1	0.4	0.3	0.3	0.4	0.3	
NEUBERGER	2,259,172,836	17.5	0.4	1.3	3.6	2.3	2.2	4.5	6.5	07/1988
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0	6.3	07/1988
Excess			-0.0	0.0	0.0	0.1	0.1	0.5	0.2	
SEMI PASSIVE FIXED INCOME	6,871,693,554	53.1	0.4	1.3	3.7	2.4	2.3	4.3		
BBG BARC Agg (Dly)			0.4	1.2	3.5	2.2	2.1	4.0		
Excess			-0.0	0.0	0.2	0.2	0.2	0.2		





	2017 Calendar Return	2016 Calendar Return	2015 Calendar Return	2014 Calendar Return	2013 Calendar Return
Semi Passive Fixed Income Managers					
BLACKROCK	3.7%	2.8%	0.9%	6.0%	-1.8%
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.1	0.1	0.3	0.0	0.2
GOLDMAN SACHS	3.9	3.0	0.8	6.1	-1.7
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.4	0.3	0.2	0.1	0.3
NEUBERGER	3.6	2.7	0.7	6.1	-2.0
BBG BARC Agg (Dly)	3.5	2.6	0.5	6.0	-2.0
Excess	0.0	0.1	0.2	0.2	0.1
SEMI PASSIVE FIXED INCOME	3.7%	2.8	0.8	6.1	-1.8
BBG BARC Agg (Dly)	3.5%	2.6	0.5	6.0	-2.0
Excess	0.2%	0.2	0.2	0.1	0.2







### **Private Markets** December 31, 2017





### **Combined Funds Asset Class Performance Summary**

Private Markets									
	Last Qtr	<b>FYTD</b>	1 Year	3 Year	5 Year	10 Year	<b>20 Year</b>	<u>25 year</u>	<u>30 year</u>
Private Markets	4.3%	7.2%	18.5%	9.0%	12.1%	8.8%	12.4%	13.3%	12.1%
Private Equity	5.6%	10.7%	22.2%	14.6%	15.4%	10.8%	13.8%	15.5%	
Private Credit	6.0	5.5	17.6	12.5	14.7	10.8	13.1		
Resources	0.5	-0.6	11.8	-8.2	1.7	6.2	12.1	14.6	
Real Estate	3.1	5.6	10.2	10.9	12.6	4.6	8.6	8.8	

#### **Private Markets**

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

#### **Private Equity Investments**

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

#### **Private Credit Investments**

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

#### **Resource Investments**

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

#### **Real Estate Investments**

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

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



	T-4-1	As of December .	71, 2017		II. for deal	IDD	Total Fooded United IRD Burket											
Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years										
I. PRIVATE EQUITY																		
Adams Street Partners																		
Adams Street Global Secondary Fund 5	100,000,000	76,529,750	61,997,253	24,176,700	23,470,250	5.52	1.13	5.54										
Adams Street Global Secondary Fund 6	48,148,500	0	0	0	48,148,500	0.00	0.00	0.75										
Advent International																		
Advent International GPE VI	50,000,000	50,000,000	23,300,396	84,135,574	0	17.34	2.15	9.76										
Advent International GPE VII	90,000,000	83,475,000	105,492,913	34,200,083	6,525,000	18.61	1.67	5.29										
Advent International GPE VIII	100,000,000	45,150,000	46,856,173	0	54,850,000	6.51	1.04	1.90										
Affinity Ventures																		
Affinity Ventures IV	4,000,000	4,000,000	589,390	1,541,970	0	-13.16	0.53	13.51										
Affinity Ventures V	5,000,000	5,000,000	2,734,636	1,706,245	0	-2.43	0.89	9.50										
APAX Partners																		
Apax VIII - USD	200,000,000	207,506,059	214,932,820	59,533,581	18,490,653	12.25	1.32	4.82										
Apax IX - USD	150,000,000	69,300,000	68,928,760	0	80,700,000	-1.60	0.99	1.62										
Asia Alternatives																		
Asia Alternatives Capital Partners V	99,000,000	2,385,421	1,942,052	75	96,614,579	-19.15	0.81	0.50										
Banc Fund																		
Banc Fund VII	45,000,000	45,000,000	34,503,218	30,944,725	0	3.59	1.45	12.76										
Banc Fund VIII	98,250,000	98,250,000	143,627,695	68,969,973	0	15.16	2.16	9.69										
Banc Fund IX	107,205,932	107,205,932	127,778,965	5,160,021	0	15.33	1.24	3.56										
Blackstone Capital Partners																		
Blackstone Capital Partners IV	70,000,000	72,354,340	8,217,816	192,717,027	1,916,968	37.06	2.78	15.48										
Blackstone Capital Partners V	140,000,000	130,994,409	13,975,934	229,831,027	8,522,239	8.03	1.86	11.92										
Blackstone Capital Partners VI	100,000,000	91,190,370	88,326,139	51,151,794	14,978,326	11.51	1.53	9.44										
Blackstone Capital Partners VII	130,000,000	26,330,971	25,817,298	1,790,474	105,321,842	-8.63	1.05	2.50										
Blackstone Strategic Partners (CSFB/ DLJ)																		
Strategic Partners II-B	100,000,000	86,190,387	1,068	162,536,282	4,657,174	35.07	1.89	14.47										
Strategic Partners III VC	25,000,000	24,851,658	5,707,201	28,791,976	1,105,559	6.41	1.39	12.59										
Strategic Partners III-B	100,000,000	78,148,399	14,133,817	105,903,853	15,010,449	6.62		12.59										
Strategic Partners IV VC	40,500,000	40,167,526	12,001,187	48,697,892	2,846,990	9.23	1.51	9.55										
Strategic Partners IV-B	100,000,000	92,258,954	19,313,695	133,961,059	18,161,186	12.51	1.66	9.77										
Strategic Partners V	100,000,000	79,374,743	31,127,129	100,591,658	39,842,739	20.23	1.66	6.38										
Strategic Partners VI	150,000,000	85,619,171	73,597,284	51,987,705	67,279,050	20.27	1.47	3.71										
Strategic Partners VII	150,000,000	50,937,270	57,492,360	4,354,121	103,393,743	71.57	1.21	1.02										
2gre I williers , II	120,000,000	30,737,270	57,172,300	1,55 1,121	105,575,745	, 1.57		1.02										

As of December 31, 2017  Total Funded ManketValue Birteilantions Unfunded IRR MOICS Period											
Investment	Commitment	Commitment	MarketValue	Distributions	Commitment	%	MOIC*	Years			
Blum Capital Partners											
Blum Strategic Partners II	50,000,000	40,185,889	131,809	89,708,870	2,127,584	22.42	2.24	16.47			
Blum Strategic Partners III	75,000,000	78,121,020	0	83,524,046	471,064	0.26	1.07	12.59			
Blum Strategic Partners IV	150,000,000	172,056,780	0	167,939,991	4,756,033	-0.89	0.98	10.12			
<b>Brookfield Asset Management</b>											
Brookfield Capital Partners Fund IV	100,000,000	59,730,955	75,230,692	10,053,428	47,555,780	32.39	1.43	2.31			
Cardinal Partners											
DSV Partners IV	10,000,000	10,000,000	31,085	39,196,082	0	10.61	3.92	33.02			
Carlyle Group											
Carlyle Partners VII, LP	150,000,000	0	0	0	150,000,000	0.00	0.00	0.04			
Chicago Growth Partners (William Blair)											
William Blair Capital Partners VII	50,000,000	48,150,000	68,355	67,985,017	1,650,000	8.26	1.41	16.83			
Chicago Growth Partners I	50,000,000	52,441,998	3,364,830	54,532,745	300,000	2.28	1.10	12.44			
Chicago Growth Partners II	60,000,000	58,095,626	6,434,118	116,513,720	1,652,374	19.59	2.12	9.81			
Court Square Capital Partners											
Court Square Capital Partners	100,000,000	80,827,220	104,698	182,160,766	1,920,943	28.91	2.26	16.07			
Court Square Capital Partners II	175,000,000	158,445,938	42,680,025	263,164,847	17,601,260	13.07	1.93	11.33			
Court Square Capital Partners III	175,000,000	128,257,841	93,720,930	63,968,665	54,406,248	11.24	1.23	5.59			
Crescendo											
Crescendo IV	101,500,000	101,500,000	11,618,105	42,303,255	0	-5.55	0.53	17.82			
CVC Capital Partners											
CVC European Equity Partners V	134,022,714	132,667,980	39,145,026	219,390,929	1,454,586	14.99	1.95	9.77			
CVC Capital Partners VI	259,588,178	230,659,054	237,334,064	29,760,386	34,929,250	12.24	1.16	4.48			
Diamond Castle Partners											
Diamond Castle Partners IV	92,487,949	91,151,326	0	94,068,606	1,377,108	0.40	1.03	11.32			
<b>Elevation Partners</b>											
Elevation Partners	75,000,000	69,311,710	151,770	113,492,106	799,634	11.82	1.64	12.63			
Fox Paine & Company											
Fox Paine Capital Fund II	50,000,000	46,299,626	4,125,047	86,859,891	11,953,212	18.88	1.97	17.51			
GHJM Marathon Fund											
GHJM Marathon Fund V	50,000,000	50,093,425	0	95,997,592	46,502	12.11	1.92	13.20			
TrailHead Fund	20,000,000	15,414,187	23,591,911	2,406,955	4,585,813	14.24	1.69	5.80			
Glouston Capital Partners (fka Permal)**											
Glouston Private Equity Opportunities Fund IV	5,337,098	4,247,098	1,829,376	2,765,487	1,090,000	3.32	1.08	3.01			

	Tetal	As of December	31, 401/		II. Com J. J.	IDD		Danie 1
Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
GS Capital Partners								
GS Capital Partners 2000	50,000,000	50,000,000	170,884	115,122,481	0	23.49	2.31	17.35
GS Capital Partners V	100,000,000	73,958,901	1,290,219	220,052,952	1,041,099	18.25	2.99	12.76
GS Capital Partners VI	100,000,000	80,215,619	17,714,218	121,570,984	3,388,669	6.97	1.74	10.92
West Street Capital Partners	150,000,000	22,500,000	19,860,908	0	127,500,000	-15.07	0.88	1.03
GS Vintage VII	100,000,000	28,988,899	25,624,691	5,272,019	71,134,226	42.63	1.07	1.51
GTCR								
GTCR IX	75,000,000	71,414,933	6,443,013	119,144,001	3,585,067	13.46	1.76	11.51
GTCR X	100,000,000	93,248,604	70,228,673	135,009,003	6,751,396	22.53	2.20	7.06
GTCR Fund XI	110,000,000	93,258,444	95,429,274	21,719,647	16,741,556	16.90	1.26	4.13
HarbourVest**								
Dover Street VII Cayman Fund	2,198,112	2,065,696	612,388	1,317,837	132,416	-4.20	0.93	3.01
Harbour Vest Intl PE Partners V-Cayman US	3,532,733	3,340,605	1,318,037	2,867,908	192,128	13.82	1.25	3.01
Harbourvest Intl PE Partners VI-Cayman	4,253,005	3,916,781	3,986,451	1,479,202	336,224	17.44	1.40	3.01
HarbourVest Partners VIII-Cayman Buyout	4,506,711	4,272,711	2,302,162	3,188,644	234,000	14.49	1.29	3.01
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,050,898	4,477,942	3,628,576	140,000	6.39	1.15	3.01
Hellman & Friedman								
Hellman & Friedman Capital Partners V	160,000,000	146,165,961	3,190,775	415,483,079	8,070,303	27.90	2.86	13.09
Hellman & Friedman Capital Partners VI	175,000,000	171,037,755	42,220,581	311,889,122	5,084,864	13.19	2.07	10.76
Hellman & Friedman Capital Partners VII	50,000,000	47,461,919	61,452,154	41,025,044	2,538,081	23.13	2.16	8.70
IK Investment Partners								
IK Fund VII	180,780,329	172,208,922	160,075,027	64,501,543	8,571,407	9.86	1.30	4.30
IK Fund VIII	176,970,042	61,797,320	64,329,927	2,213,957	117,318,625	11.70	1.08	1.45
Kohlberg Kravis Roberts								
KKR Millennium Fund	200,000,000	200,000,000	18,776,871	400,827,308	0	16.28	2.10	15.07
KKR 2006 Fund	200,000,000	211,063,288	67,420,840	290,278,563	3,360,223	8.57	1.69	11.27
KKR Americas Fund XII	150,000,000	2,274,687	1,179,427	0	147,725,313	-48.71	0.52	1.83
KKR Asian Fund III	100,000,000	0	0	0	100,000,000	0.00	0.00	0.75
Leonard Green & Partners								
Green Equity Investors VI	200,000,000	213,778,395	197,271,147	104,311,000	20,999,508	14.51	1.41	5.80
Lexington Capital Partners								
Lexington Capital Partners VI	100,000,000	98,365,297	15,672,694	128,407,974	1,634,703	7.92	1.46	12.02
Lexington Capital Partners VII	200,000,000	170,296,470	72,607,580	191,163,725	38,224,269	15.26	1.55	8.97
Lexington Capital Partners VIII	150,000,000	77,519,960	70,998,249	27,462,869	81,765,263	24.64	1.27	3.84
Lexington Middle Market Investors IV	100,000,000	0	259,341	0	100,000,000	0.00	0.00	1.03
Lexington Co-Investment Partners IV	200,000,000	31,104,587	30,923,745	0	168,895,413	-0.59	0.99	1.42
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		As of December	31, 2017					
Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Madison Dearborn Capital Partners								
Madison Dearborn Capital Partners VII	100,000,000	32,305,748	30,569,810	1,105,151	68,742,206	-2.01	0.98	2.
Neuberger Berman								
Dyal Capital Partners III	175,000,000	129,479,666	67,045,838	75,464,200	120,377,984	26.52	1.10	2.
Nordic Capital								
Nordic Capital Fund VIII	180,981,117	133,205,933	142,280,310	58,635,734	63,116,699	17.81	1.51	4.
North Sky Capital**								
North Sky Capital LBO Fund III	1,070,259	720,259	418,482	546,794	350,000	15.33	1.34	3.
North Sky Capital Venture Fund III	1,384,080	1,277,830	538,638	952,354	106,250	8.82	1.17	3.
Oak Hill Capital Management, Inc.								
Oak Hill Capital Partners IV	150,000,000	15,000,000	0	13,130,886	148,076,542	-17.78	0.88	1.
Paine & Partners								
Paine & Partners Capital Fund IV	75,000,000	49,126,479	48,455,759	1,074,740	26,929,526	0.61	1.01	3
Permira								
Permira V	179,479,699	166,420,997	210,207,589	5,794,763	13,058,702	10.73	1.30	4
Permira VI	141,816,027	30,573,898	31,124,498	0	111,242,129	3.15	1.02	1
Public Pension Capital Management								
Public Pension Capital	100,000,000	53,470,728	69,625,830	2,510,909	47,166,185	18.88	1.35	3
RWI Ventures								
RWI Ventures I	7,603,265	7,603,265	483,052	6,094,262	0	-4.25	0.87	11
Silver Lake Partners								
Silver Lake Partners II	100,000,000	90,144,987	13,040,459	156,595,970	11,771,953	10.94	1.88	13
Silver Lake Partners III	100,000,000	91,564,385	45,093,773	158,486,770	10,559,311	18.54	2.22	10
Silver Lake Partners IV	100,000,000	96,645,531	106,565,968	33,124,810	15,746,239	24.98	1.45	5
Silver Lake Partners V	135,000,000	0	0	0	135,000,000	0.00	0.00	(
Split Rock Partners								
Split Rock Partners	50,000,000	47,890,906	15,986,912	43,656,715	2,109,094	2.78	1.25	12
Split Rock Partners II	60,000,000	58,845,000	39,031,454	34,863,729	1,155,000	5.64	1.26	9
Summit Partners	•		, ,					
Summit Ventures V	25,000,000	24,125,000	0	33,463,419	875,000	8.12	1.39	19
Summit Partners Growth Equity Fund VIII	100,000,000	106,489,649	81,262,415	95,113,904	17,232,062	20.42		6
Summit Partners Growth Equity Fund IX	100,000,000	18,300,000	13,059,852	9,973,626	81,700,000	44.60		2
Γ. Rowe Price	51,652,633	51,652,633	25,555,456	28,588,721	0	4.47		
Thoma Bravo	21,022,033	21,002,000	20,000,100	20,000,721	Ü	1.17	2.00	
Thoma Bravo Fund XII	75,000,000	38,226,600	35,971,786	2,298,018	39,071,418	-0.08	1.00	1
Thoma Cressey	, 5,000,000	20,220,000	22,7 / 1,7 00	2,270,010	27,071,110	0.00	2,00	-
Thoma Cressey Fund VII	50,000,000	50,000,000	844,812	106,625,069	0	23.60	2.15	17
Thoma Cressey Fund VIII	70,000,000	68,932,574	1,515,060	233,860,926	770,000	18.26		11
Page 56	, 0,000,000	00,752,574	1,515,000	233,000,720	770,000	10.20	J.71	11,

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Thomas H. Lee Partners								
Thomas H. Lee Equity Fund VII	100,000,000	60,794,242	76,342,956	5,929,545	44,209,689	39.10	1.35	2.31
Thomas, McNerney & Partners								
Thomas, McNerney & Partners I	30,000,000	30,000,000	3,328,417	15,087,143	0	-8.15	0.61	15.16
Thomas, McNerney & Partners II	50,000,000	48,125,000	14,174,330	95,314,704	1,875,000	16.73	2.28	11.51
TPG Capital								
TPG Partners VII	100,000,000	46,645,570	47,863,795	6,237,106	59,352,480	15.70	1.16	2.31
Vestar Capital Partners								
Vestar Capital Partners IV	55,000,000	53,635,969	637,677	102,249,550	57,313	14.65	1.92	18.06
Vestar Capital Partners V	75,000,000	74,936,812	19,265,527	82,866,015	63,188	4.30	1.36	12.04
Vestar Capital Partners VI	100,000,000	99,970,993	100,075,371	72,444,917	1,351,209	31.93	1.73	6.28
Warburg Pincus								
Warburg Pincus Equity Partners	100,000,000	100,000,000	603,204	163,222,253	0	10.03	1.64	19.53
Warburg Pincus Private Equity VIII	100,000,000	100,000,000	12,316,718	220,385,951	0	14.90	2.33	15.72
Warburg Pincus Private Equity IX	100,000,000	100,000,000	11,779,384	164,844,296	0	10.00	1.77	12.44
Warburg Pincus Private Equity X	150,000,000	150,000,000	70,013,127	159,880,302	0	8.14	1.53	10.19
Warburg Pincus Private Equity XI	200,000,000	194,200,000	176,999,053	99,770,286	5,800,000	13.05	1.43	5.03
Warburg Pincus Private Equity XII	131,000,000	63,469,500	62,998,900	1,008,700	67,530,500	1.05	1.01	2.12
Warburg Pincus China	45,000,000	16,020,000	14,003,870	1,935,000	30,915,000	-1.16	0.99	1.05
Warburg Pincus Financial Sector	90,000,000	0	0	0	90,000,000	0.00	0.00	0.05
Wellspring Capital Partners								
Wellspring Capital Partners VI	125,000,000	0	0	0	125,000,000	0.00	0.00	1.30
Welsh, Carson, Anderson & Stowe								
Welsh, Carson, Anderson & Stowe X	100,000,000	98,000,000	5,156,889	162,137,595	2,000,000	8.12	1.71	12.05
Welsh, Carson, Anderson & Stowe XI	100,000,000	100,000,000	54,155,345	108,344,678	0	13.04	1.63	9.45
Welsh, Carson, Anderson & Stowe XII	150,000,000	61,907,194	75,206,467	3,541,414	88,092,806	14.34	1.27	3.04
Windjammer Capital Investors			, ,	•				
Windjammer Mezzanine & Equity Fund II	66,708,861	56,569,498	63,310	84,876,800	10,139,363	8.94	1.50	17.76
Windjammer Senior Equity Fund III	75,000,000	61,619,620	12,203,284	139,618,687	13,380,380	19.31	2.46	12.00
Windjammer Senior Equity Fund IV	100,000,000	78,087,703	84,765,734	7,347,571	24,581,218	6.56		5.85
Private Equity Total	11,656,168,141	8,373,168,852	4,598,425,366	8,775,418,621	3,565,381,835	12.30	1.60	

		As of December	31, 2017					
Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
II. PRIVATE CREDIT								
Audax Group								
Audax Mezzanine Fund III	100,000,000	92,424,480	36,129,117	82,926,331	9,040,161	9.94	1.29	7.
Audax Mezzanine Fund IV	100,000,000	21,324,796	19,203,371	3,259,897	79,322,154	11.12	1.05	2.
Citicorp Mezzanine								
CM Liquidating Partnership	100,000,000	88,029,296	1,186,265	149,642,633	0	16.45	1.71	18.
Crescent Capital Group								
TCW/Crescent Mezzanine Partners III	75,000,000	68,835,269	2,408,452	156,868,939	29,733,852	35.88	2.31	16.
<b>GS Mezzanine Partners</b>								
GS Mezzanine Partners 2006	100,000,000	74,999,888	1,288,950	134,136,541	9,858,563	4.99	1.81	11.
GS Mezzanine Partners V	150,000,000	112,057,963	3,864,979	175,833,297	37,701,823	8.91	1.60	10.
Gold Hill Venture Lending								
Gold Hill Venture Lending	40,000,000	40,000,000	621,789	64,391,012	0	10.63	1.63	13.
Gold Hill 2008	25,852,584	25,852,584	7,558,380	33,841,601	0	11.85	1.60	9.
Kohlberg Kravis Roberts								
KKR Lending Partners II	75,000,000	83,442,730	64,338,208	34,059,772	9,602,976	13.40	1.18	2
KKR Lending Partners III	159,000,000	7,155,000	8,186,644	0	151,845,000	14.57	1.14	0
LBC Credit Partners								
LBC Credit Partners IV	100,000,000	40,000,000	39,610,904	3,061,958	61,665,309	12.11	1.07	1.
Merit Capital Partners								
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	184,620	113,323,763	2,756,759	15.51	1.98	18.
Merit Mezzanine Fund IV	75,000,000	70,178,571	16,857,052	108,814,045	4,821,429	10.57	1.79	13
Merit Mezzanine Fund V	75,000,000	70,420,408	43,603,713	55,042,586	4,579,592	9.74	1.40	8.
Merit Mezzanine Fund VI	77,853,125	34,700,000	36,577,818	0	43,153,125	8.30	1.05	1.
Portfolio Advisors								
DLJ Investment Partners II	27,375,168	23,164,217	82,796	34,829,566	0	10.37	1.51	18.
DLJ Investment Partners III	100,000,000	72,260,040	0	96,336,774	29,739,249	6.61	1.33	11.
Prudential Capital Partners								
Prudential Capital Partners II	100,000,000	97,182,295	5,165,002	135,703,635	2,950,458	8.86	1.45	12.
Prudential Capital Partners III	100,000,000	96,463,176	15,777,148	148,264,594	6,979,218	13.58	1.70	8.
Prudential Capital Partners IV	100,000,000	96,664,671	71,445,602	49,036,519	3,901,443	10.62	1.25	5.
Prudential Capital Partners V	150,000,000	37,959,085	37,161,486	2,442,765	112,040,915	10.34	1.04	1.
Summit Partners								
Summit Subordinated Debt Fund III	45,000,000	42,750,000	6,843,590	58,922,343	2,250,000	9.45	1.54	13.
Summit Subordinated Debt Fund IV	50,000,000	55,134,261	15,108,214	58,695,671	18,596,627	9.86	1.34	9.
TCW Asset Management								
TCW Direct Lending	100,000,000	88,388,168	63,600,252	32,641,341	20,362,858	6.95	1.09	3.
Private Credit Total	2,085,080,877	1,496,630,141	496,804,351	1,732,075,584	640,901,511	13.09	1.49	
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		As of December 3	31, 2017					
Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
III. REAL ASSETS								
BlackRock								
BlackRock Global Renewable Power Fund II	98,500,000	24,819,154	23,985,057	537,604	74,098,979	-6.87	0.99	2.10
EIG Global Energy Partners								
EIG Energy Fund XIV	100,000,000	113,013,074	11,954,681	92,181,918	2,761,129	-3.10	0.92	10.71
EIG Energy Fund XV	150,000,000	151,824,733	91,441,213	93,476,633	24,307,985	5.43	1.22	7.57
EIG Energy Fund XVI	200,000,000	133,880,546	110,106,691	47,258,940	85,672,593	7.60	1.18	4.30
EnCap Energy								
EnCap Energy Capital Fund VII	100,000,000	97,492,592	9,033,952	132,528,983	0	15.08	1.45	10.51
EnCap Energy Capital Fund VIII	100,000,000	94,419,855	43,868,010	41,165,429	7,537,547	-3.44	0.90	7.25
Encap Energy Capital Fund IX	100,000,000	104,599,389	75,047,770	62,986,053	11,818,591	15.58	1.32	5.07
EnCap Energy Capital Fund X	100,000,000	69,229,785	62,252,808	15,477,128	38,556,958	13.58	1.12	2.83
EnerVest Energy								
EnerVest Energy Institutional Fund XIV	100,000,000	85,564,991	80,830,247	7,147,017	16,189,803	1.78	1.03	2.56
Energy Capital Partners								
Energy Capital Partners II	100,000,000	80,880,014	43,000,408	92,508,280	29,749,110	13.22	1.68	7.46
Energy Capital Partners III	200,000,000	111,864,021	120,738,015	8,889,828	91,636,549	7.65	1.16	4.04
Energy & Minerals Group								
NGP Midstream & Resources	100,000,000	100,090,315	62,411,623	129,728,655	230,871	14.91	1.92	10.76
The Energy & Minerals Group Fund II	100,000,000	96,199,618	125,144,271	67,652,814	4,081,648	18.65	2.00	6.28
The Energy & Minerals Group Fund III	200,000,000	188,234,770	157,130,243	11,237,815	13,511,285	-4.08	0.89	3.82
The Energy & Minerals Group Fund IV	150,000,000	87,772,333	99,574,849	15,740,031	75,287,074	17.14	1.31	2.18
First Reserve								
First Reserve Fund X	100,000,000	100,000,000	421,230	182,429,002	0	31.05	1.83	13.17
First Reserve Fund XI	150,000,000	150,292,121	8,066,009	94,066,313	0	-8.52	0.68	11.03
First Reserve Fund XII	150,000,000	160,448,761	39,193,647	74,965,794	3,134,711	-8.40	0.71	9.18
First Reserve Fund XIII	200,000,000	92,442,258	79,803,942	21,947,422	107,557,742	5.88	1.10	4.17
Merit Energy Partners								
Merit Energy Partners B	24,000,000	24,000,000	8,627,500	182,321,687	0	24.29	7.96	20.95
Merit Energy Partners C	50,000,000	50,000,000	19,659,078	497,681,630	0	31.05	10.35	19.19
Merit Energy Partners D	88,000,000	70,938,303	30,250,605	311,288,474	0	23.07	4.81	16.61
Merit Energy Partners E	100,000,000	39,983,197	17,658,875	73,805,235	0	13.97	2.29	13.26
Merit Energy Partners F	100,000,000	59,522,861	19,676,861	27,251,921	0	-4.04	0.79	11.78
Merit Energy Partners H	100,000,000	100,000,000	69,608,687	18,410,723	0	-3.57	0.88	6.92
Merit Energy Partners I	100,000,000	100,000,000	07,000,007	10,110,723	V	3.57	0.00	0.72

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
NGP								_
Natural Gas Partners IX	150,000,000	161,702,525	8,455,351	235,442,290	1,473,974	11.78	1.51	10.20
NGP Natural Resources X	150,000,000	140,809,345	71,746,378	90,937,099	9,190,655	5.08	1.16	6.23
Natural Gas Capital Resources XI	150,000,000	116,945,845	124,446,973	17,344,708	39,216,161	20.55	1.21	3.06
NGP Natural Resources XII	149,500,000	0	0	0	149,500,000	0.00	0.00	0.42
Sheridan								
Sheridan Production Partners I	100,000,000	116,550,000	66,894,010	82,750,000	0	5.87	1.28	10.76
Sheridan Production Partners II	100,000,000	103,500,000	50,220,028	7,000,000	3,500,000	-12.74	0.55	7.25
Sheridan Production Partners III	100,000,000	34,350,000	38,728,994	13,675,000	65,650,000	34.31	1.53	3.07
Real Assets Total	4,029,721,518	3,207,470,405	1,964,190,491	2,754,130,746	878,284,885	15.80	1.47	

Investment	Total	Funded	MarketValue	Distributions	Unfunded	IRR	MOIC*	Period
	Commitment	Commitment	17141 Ret 7 4114e	Distributions	Commitment	<b>%</b>		Years
IV. REAL ESTATE								
Angelo, Gordon & Co.								
AG Realty Fund IX	100,000,000	60,750,000	66,564,221	1,500,000	39,760,000	9.60	1.12	3.07
AG Asia Realty Fund III	50,000,000	28,250,000	27,822,126	5,000,000	24,558,750	16.31	1.16	1.25
<b>Blackstone Real Estate Partners</b>								
Blackstone Real Estate Partners V	100,000,000	97,030,342	27,906,800	179,140,540	4,174,052	10.95	2.13	11.68
Blackstone Real Estate Partners VI	100,000,000	99,320,387	15,958,757	201,178,595	4,907,906	13.12	2.19	10.76
Blackstone Real Estate Partners VII	100,000,000	95,357,438	81,849,383	94,443,704	15,126,809	17.86	1.85	6.10
Blackstone Real Estate Partners VIII	150,000,000	85,088,788	78,492,123	28,955,886	85,841,781	14.91	1.26	2.77
Blackstone Real Estate Partners Asia II	75,000,000	0	0	0	75,000,000	0.00	0.00	0.28
Blackstone Strategic Partners (CSFB)								
Strategic Partners III RE	25,000,000	25,752,810	2,919,620	12,275,431	9,006	-6.83	0.59	12.51
Strategic Partners IV RE	50,000,000	50,670,125	9,380,092	40,849,124	1,300,123	-0.34	0.99	9.55
Carlyle Group								
Carlyle Realty Partners VIII	150,000,000	630,910	115,534	0	149,369,090	-82.37	0.18	0.66
Colony Capital								
Colony Investors III	100,000,000	100,000,000	4,934,300	172,642,105	0	14.54	1.78	20.01
Landmark Partners								
Landmark Real Estate Partners VIII	149,500,000	16,765,979	16,765,979	67,715	132,734,021	-1.25	1.00	1.04
Lubert Adler								
Lubert-Adler Real Estate Fund VII	40,844,723	18,536,967	18,294,948	0	22,307,756	-10.15	0.99	1.23
Rockpoint								
Rockpoint Real Estate Fund V	100,000,000	47,038,733	48,632,051	5,586,764	58,548,031	8.08	1.15	2.98
Rockwood								
Rockwood Capital RE Partners X	100,000,000	30,342,875	29,093,022	772,727	69,657,125	-1.49	0.98	2.47
Silverpeak Real Estate Partners								
Silverpeak Legacy Pension Partners II	75,000,000	77,196,820	3,721,408	87,952,458	9,219,273	4.37	1.19	12.42
Silverpeak Legacy Pension Partners III	150,000,000	70,240,358	15,773,277	9,666,881	79,759,642	-12.35	0.36	9.67
T.A. Associates Realty								
Realty Associates Fund VIII	100,000,000	100,000,000	27,661,229	69,738,214	0	-0.31	0.97	11.51
Realty Associates Fund IX	100,000,000	100,000,000	4,092,921	156,109,810	0	10.44	1.60	9.36
Realty Associates Fund X	100,000,000	100,000,000	68,809,842	76,244,970	0	12.23	1.45	5.84
Realty Associates Fund XI	100,000,000	85,000,000	86,975,910	578,667	15,000,000	4.60	1.03	2.50
Real Estate Total	2,015,344,723	1,287,972,532	635,763,542	1,142,703,591	787,273,364	7.81	1.38	

	Total	Funded	31, 2017		Unfunded	IRR		Period
Investment	Commitment	Commitment	MarketValue	Distributions	Commitment	ikk %	MOIC*	Years
V. DISTRESSED/ OPPORTUNISTIC								
Avenue Capital Partners								
Avenue Energy Opportunities Fund	100,000,000	100,000,000	121,098,100	934,495	0	9.35	1.22	3.51
Avenue Energy Opportunities Fund II	100,000,000	25,000,000	25,048,725	0	75,000,000	0.30	1.00	0.60
BlackRock**								
BlackRock Tempus Fund	1,774,870	1,774,870	712,070	1,324,425	0	11.10	1.15	2.50
Carlyle Group								
Carlyle Strategic Partners IV	100,000,000	13,462,919	13,216,866	3,350,035	89,887,064	31.98	1.23	1.75
Carval Investors								
CVI Global Value Fund	200,000,000	190,000,000	30,335,550	290,286,276	10,000,000	9.64	1.69	10.98
CVI Credit Value Fund I	100,000,000	95,000,000	30,848,117	180,676,509	5,000,000	18.99	2.23	7.20
CVI Credit Value Fund A II	150,000,000	142,500,000	84,257,693	117,573,010	7,500,000	9.11	1.42	5.17
CVI Credit Value Fund A III	150,000,000	112,500,000	138,273,075	0	37,500,000	14.10	1.23	2.58
Merced Capital								
Merced Partners II	75,000,000	63,768,881	286,504	130,393,875	0	23.97	2.05	10.76
Merced Partners III	100,000,000	100,000,000	47,817,233	85,997,107	0	6.51	1.34	7.60
Merced Partners IV	125,000,000	125,000,000	109,050,674	44,372,049	0	6.95	1.23	4.48
Merced Partners V	53,737,500	48,363,750	51,614,761	0	5,373,750	6.80	1.07	0.50
MHR Institutional Partners			,					
MHR Institutional Partners IV	75,000,000	23,062,500	19,225,066	1,733,418	53,446,511	-6.61	0.91	3.53
Oaktree Capital Management	, ,	, ,	, ,	, ,	, ,			
Oaktree Principal Fund VI	100,000,000	49,395,781	45,795,888	13,606,490	63,811,849	23.83	1.20	3.01
Oaktree Opportunities Fund X	50,000,000	30,000,000	31,001,150	5,619,660	25,000,000	22.43	1.22	2.89
Oaktree Opportunities Fund Xb	100,000,000	0	0	0	100,000,000	0.00	0.00	2.89
Pimco Bravo	, ,				, ,			
Pimco Bravo Fund OnShore Feeder I	3,958,027	3,958,027	254,843	3,756,401	2,125,839	1.40	1.01	3.01
Pimco Bravo Fund OnShore Feeder II	5,243,670	4,618,670	5,028,832	716,624	1,336,436	6.92	1.24	3.0
Varde Fund	, ,	, ,	, ,	,	, ,			
Varde Fund IX	100,000,000	100,000,000	7,248,176	207,952,106	0	14.99	2.15	9.53
Varde Fund X	150,000,000	150,000,000	79,854,639	210,594,322	0	12.47	1.94	7.70
Varde Fund XI	200,000,000	200,000,000	220,238,483	51,183,477	0	8.01	1.36	4.4
Wayzata	, ,	,,	.,,	,,				
Wayzata Opportunities Fund	100,000,000	93,180,000	743,030	156,425,778	18,920,000	8.44	1.69	12.04
Wayzata Opportunities Fund II	150,000,000	174,750,000	12,269,677	316,890,359	30,000,000	16.54		10.2
Wayzata Opportunities Fund III	150,000,000	68,415,000	36,389,116	32,728,171	15,000,000	0.42		5.5
Distressed/Opportunistic Total	2,439,714,067	1,914,750,398	1,110,608,270	1,856,114,586	539,901,449		1.55	

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR % MOIC	* Period Years
Private Markets Total	22,226,029,326	16,279,992,328	8,805,792,019	16,260,443,127	6,411,743,044	12.39 1.5	4

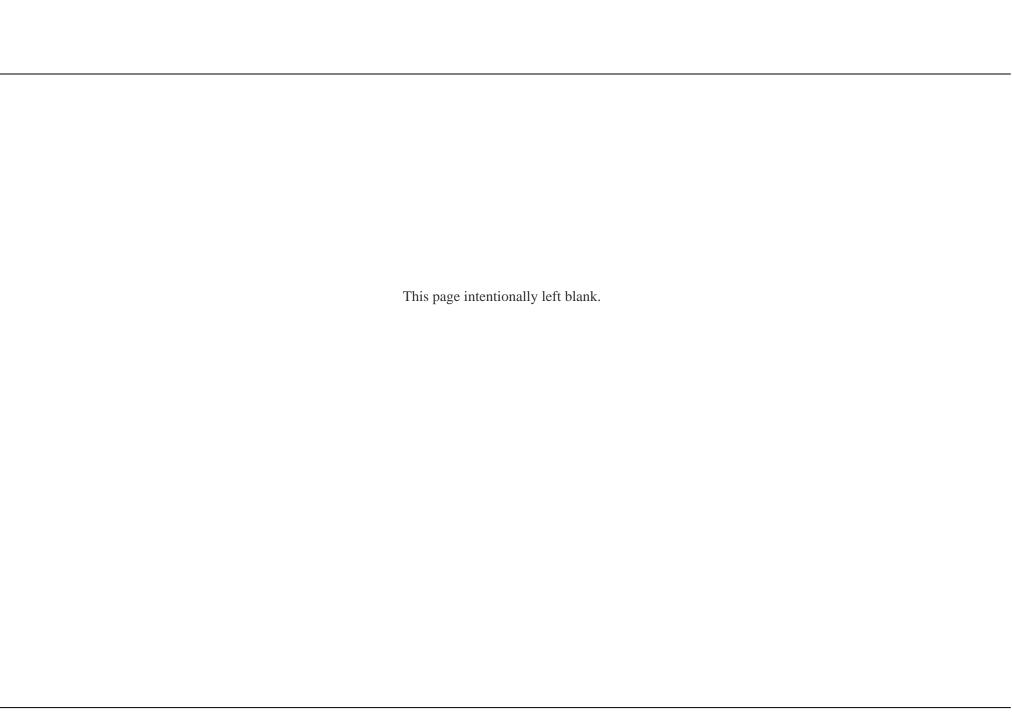
Private Markets Portfolio Status	Investment Manager Count	Investments Count
PRIVATE EQUITY	52	126
PRIVATE CREDIT	12	24
REAL ASSETS	10	36
REAL ESTATE	11	21
DISTRESSED/ OPPORTUNISTIC	11	24
Total	96	231

#### **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.

<sup>\*</sup> MOIC: Multiple of Invested Capital

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

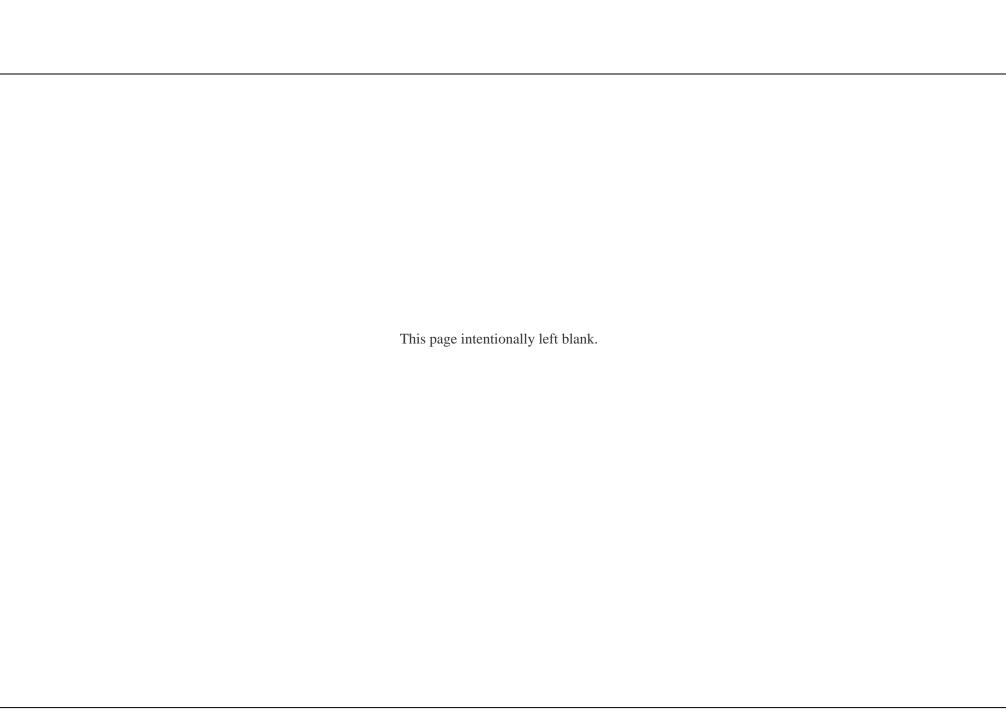




### Participant Directed Investment Program

**December 31, 2017** 





### **Quarterly Report**



### **Participant Directed Investment Program**

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. The objective of the Plan is to be competitive in the marketplace by providing quality investment options with low fees to its participants. Investment goals among the PDIP's many participants are varied.

- The Supplemental Investment Fund (SIF) is 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.



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### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
BALANCED FUND	\$438,080,020	4.0%	14.0%	7.8%	10.4%	7.3%	01/1980
U.S. ACTIVELY MANAGED FUND	244,217,244	5.9	22.7	10.7	15.7	8.5	07/1986
U.S. STOCK INDEX FUND	615,668,826	6.3	21.1	11.1	15.6	8.7	07/1986
BROAD INTERNATIONAL STOCK FUND	205,232,177	4.7	27.7	8.4	7.5	2.4	09/1994
BOND FUND	169,850,163	0.5	4.2	2.8	2.6	4.5	07/1986
MONEY MARKET FUND	393,873,761	0.3	1.1	0.6	0.4	0.6	07/1986
STABLE VALUE FUND	1,534,526,462	0.6	2.1	2.0	2.0	3.0	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	90,409,281	3.1	13.2	6.6	7.8		01/2010
TOTAL SUPPLEMENTAL INVESTMENT FUND	3,691,858,666						

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.





#### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
BALANCED FUND	\$438,080,020	4.0%	14.0%	7.8%	10.4%	7.3%
SIF BALANCED FUND BENCHMARK		3.9	13.7	7.5	10.0	6.7
Excess		0.1	0.4	0.2	0.4	0.6

### **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.

	Ending Market Value	Last Qtr	1 Year	3 Year	<u>5 Year</u>	10 Year
U.S. ACTIVELY MANAGED FUND	244,217,244	5.9	22.7	10.7	15.7	8.5
Russell 3000		6.3	21.1	11.1	15.6	8.6
Excess		-0.4	1.6	-0.4	0.1	-0.1





#### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
U.S. STOCK INDEX FUND	\$615,668,826	6.3%	21.1%	11.1%	15.6%	8.7%
Russell 3000		6.3	21.1	11.1	15.6	8.6
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).

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	<u>5 Year</u>	10 Year
BROAD INTERNATIONAL STOCK FUND	205,232,177	4.7	27.7	8.4	7.5	2.4
International Equity Benchmark		5.0	27.2	7.8	6.8	1.8
Excess		-0.3	0.5	0.5	0.7	0.5





#### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
BOND FUND	\$169,850,163	0.5%	4.2%	2.8%	2.6%	4.5%
BBG BARC US Agg		0.4	3.5	2.2	2.1	4.0
Excess		0.1	0.7	0.6	0.5	0.5

### **Money Market Fund**

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

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
MONEY MARKET FUND	393,873,761	0.3	1.1	0.6	0.4	0.6
90 DAY T-BILL		0.3	0.9	0.4	0.3	0.4
Excess		0.0	0.2	0.2	0.2	0.2





#### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
STABLE VALUE FUND	\$1,534,526,462	0.6%	2.1%	2.0%	2.0%	3.0%
Fixed Interest Blended Benchmark		0.4	1.9	1.6	1.4	1.5
Excess		0.1	0.2	0.5	0.6	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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
VOLUNTEER FIREFIGHTER ACCOUNT	90,409,281	3.1	13.2	6.6	7.8	
SIF Volunteer Firefighter Account BM		3.1	12.7	6.2	7.4	
Excess		0.0	0.5	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.

Deferred Compensation Plan participants may also invest in the money market option and stable value option in the Supplemental Investment Fund program. All provide for the daily pricing needs of the plan administrator. In addition, participants may also choose from hundreds of funds available through a mutual fund brokerage window. The current plan structure became effective July 1, 2011.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
VANGUARD INSTITUTIONAL INDEX PLUS	\$1,250,793,844	6.6%	21.8%	11.4%	15.8%	8.5%	07/1999
VANGUARD DIVIDEND GROWTH	609,633,169	5.6	19.3				10/2016
VANGUARD MID CAP INDEX	542,778,955	5.6	19.3	9.4	15.0	9.0	01/2004
T. ROWE PRICE SMALL-CAP STOCK	691,451,147	3.4	15.5	10.0	14.8	11.4	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	320,579,636	3.7	26.7	7.9	8.8	2.2	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	204,399,478	4.9	27.6	8.6	7.2		07/2011
VANGUARD BALANCED INDEX	789,623,566	4.0	13.9	7.6	10.1	7.2	12/2003
DODGE & COX INCOME	237,858,078	0.5	4.4	3.1	3.1	5.0	07/1999
VANGUARD TOTAL BOND MARKET INDEX	211,128,260	0.4	3.6	2.2	2.0	4.0	12/2003
2020 FUND	118,561,751	2.4	9.9	4.9	5.7		07/2011
2025 FUND	110,409,303	3.3	13.1	6.1	7.4		07/2011
2030 FUND	74,912,610	4.1	16.3	7.2	8.7		07/2011
2035 FUND	59,514,109	4.5	18.0	7.8	9.5		07/2011
2040 FUND	42,952,508	4.9	19.4	8.3	10.1		07/2011
2045 FUND	36,093,020	5.1	20.4	8.6	10.6		07/2011
2050 FUND	25,351,497	5.4	21.3	9.0	10.8		07/2011
2055 FUND	14,220,613	5.4	21.3	9.0	10.8		07/2011
2060 FUND	14,386,876	5.4	21.3	9.0	10.8		07/2011
INCOME FUND	84,021,752	2.0	8.3	4.2	4.2		07/2011
TD Ameritrade SDB	76,081,458						
TD Ameritrade SDB Roth	549,265						
Total Deferred Compensation Plan	5,515,300,895						



#### **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
Large Cap US Equity						
VANGUARD INSTITUTIONAL INDEX PLUS	\$1,250,793,844	6.6%	21.8%	11.4%	15.8%	07/1999
S&P 500		6.6	21.8	11.4	15.8	07/1999
Excess		-0.0	-0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	609,633,169	5.6	19.3			10/2016
NASDAQ US Dividend Achievers Select		8.1	22.3			10/2016
Excess		-2.5	-3.0			
Mid Cap US Equity						
VANGUARD MID CAP INDEX	542,778,955	5.6	19.3	9.4	15.0	01/2004
CRSP US Mid Cap Index		5.6	19.3	9.4	15.1	01/2004
Excess		0.0	-0.0	-0.0	-0.0	
Small Cap US Equity						
T. ROWE PRICE SMALL-CAP STOCK	691,451,147	3.4	15.5	10.0	14.8	04/2000
Russell 2000		3.3	14.6	10.0	14.1	04/2000
Excess		0.0	0.8	0.1	0.7	
International Equity						
FIDELITY DIVERSIFIED INTERNATIONAL	320,579,636	3.7	26.7	7.9	8.8	07/1999
MSCI EAFE FREE (NET)		4.2	25.0	7.8	7.9	07/1999
Excess		-0.6	1.6	0.1	0.9	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	204,399,478	4.9	27.6	8.6	7.2	07/2011
FTSE Global All Cap ex US Index Net		5.3	27.2	8.3	7.2	07/2011
Excess		-0.5	0.4	0.3	-0.0	





#### **Deferred Compensation Options**

Vanguard Balanced Index (passive) (4)	Balanced Funds			
A fund that passively invests in a mix of domestic stocks and bonds. The fund is	VANGUARD BALANCED INDEX	\$789,623,566	4.0%	13.9%
expected to track a weighted benchmark of 60% CRSP US Total Market Index/40% BB Barclays U.S. Aggregate.	Vanguard Balanced Fund Benchmark		3.9	13.8

#### **FIXED INCOME**

BALANCED

#### **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						
VANGUARD BALANCED INDEX	\$789,623,566	4.0%	13.9%	7.6%	10.1%	12/2003
Vanguard Balanced Fund Benchmark		3.9	13.8	7.6	10.1	12/2003
Excess		0.0	0.0	-0.0	-0.0	
Fixed Income						
DODGE & COX INCOME	237,858,078	0.5	4.4	3.1	3.1	07/1999
BBG BARC Agg Bd		0.4	3.5	2.2	2.1	07/1999
Excess		0.1	0.8	0.9	1.0	
VANGUARD TOTAL BOND MARKET INDEX	211,128,260	0.4	3.6	2.2	2.0	12/2003
BBG BARC Agg Bd		0.4	3.5	2.2	2.1	12/2003
Excess		0.0	0.0	-0.1	-0.1	
MONEY MARKET FUND	393,873,761	0.3	1.1	0.6	0.4	07/1986
90 DAY T-BILL		0.3	0.9	0.4	0.3	07/1986
Excess		0.0	0.2	0.2	0.2	
Stable Value						
STABLE VALUE FUND	1,534,526,462	0.6	2.1	2.0	2.0	11/1994
Fixed Interest Blended Benchmark		0.4	1.9	1.6	1.4	11/1994
Excess		0.1	0.2	0.5	0.6	



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

<sup>(2)</sup> Prior to 02/01/2013 the benchmark was the MSCI US Mid-Cap 450 Index

<sup>(3)</sup> Prior to 06/01/2013 the benchmark was MSCI ACWI ex USA IMI.

<sup>(4)</sup> Prior to 01/01/2013 the benchmark was 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate.

<sup>(5)</sup> SIF Money Market and SIF Fixed Interest are Supplemental Investment Fund opitons 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 decison by investing their assets in the fund that is closest to their anticipated retirement date.

Target	Date	Retirem	ent	Funds
Taruet	Date	remen	ıeııı	runus.

raiget Date Nethelin	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since		Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
SSgA													
2020 FUND	\$118,561,751	2.4%	9.9%	4.9%	5.7%	07/2011	2045 FUND	\$36,093,020	5.1%	20.4%	8.6%	10.6%	07/2011
2020 FUND BENCHMARK		2.4	9.9	4.9	5.8	07/2011	2045 FUND BENCHMARK		5.1	20.4	8.6	10.7	07/2011
Excess		-0.0	-0.0	0.0	-0.1		Excess		-0.0	0.0	0.1	-0.1	
2025 FUND	110,409,303	3.3	13.1	6.1	7.4	07/2011	2050 FUND	25,351,497	5.4	21.3	9.0	10.8	07/2011
2025 FUND BENCHMARK		3.3	13.1	6.1	7.5	07/2011	2050 FUND BENCHMARK		5.4	21.3	8.9	10.9	07/2011
Excess		-0.0	-0.0	0.0	-0.1		Excess		-0.0	0.0	0.1	-0.1	
2030 FUND	74,912,610	4.1	16.3	7.2	8.7	07/2011	2055 FUND	14,220,613	5.4	21.3	9.0	10.8	07/2011
2030 FUND BENCHMARK		4.1	16.3	7.2	8.8	07/2011	2055 FUND BENCHMARK		5.4	21.3	8.9	10.9	07/2011
Excess		-0.0	-0.0	0.0	-0.1		Excess		-0.0	0.0	0.1	-0.1	
2035 FUND	59,514,109	4.5	18.0	7.8	9.5	07/2011	2060 FUND	14,386,876	5.4	21.3	9.0	10.8	07/2011
2035 FUND BENCHMARK		4.5	18.0	7.8	9.6	07/2011	2060 FUND BENCHMARK		5.4	21.3	8.9	10.9	07/2011
Excess		-0.0	-0.0	0.0	-0.1		Excess		-0.0	0.0	0.1	-0.1	
2040 FUND	42,952,508	4.9	19.4	8.3	10.1	07/2011	INCOME FUND	84,021,752	2.0	8.3	4.2	4.2	07/2011
2040 FUND BENCHMARK		4.9	19.4	8.2	10.2	07/2011	INCOME FUND BENCHMARK		2.1	8.4	4.2	4.3	07/2011
Excess		-0.0	0.0	0.0	-0.1		Excess		-0.0	-0.0	-0.0	-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: December 29, 2017

Fund Name	<b>Ending Market</b>	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Managed Ages 0-4	\$28,628,271	4.56%	18.30%	8.38%	-	-	8.20%	8/12/2014
BM: Managed Ages 0-4		4.48%	17.87%	8.46%	-	-	8.29%	
Managed Ages 5-8	\$72,619,669	3.91%	16.33%	7.58%			7.44%	8/12/2014
BM: Managed Ages 5-8		3.97%	15.99%	7.73%			7.57%	
Managed Ages 9-10	\$70,055,254	3.49%	14.42%	6.86%			6.71%	8/12/2014
BM: Managed Ages 9-10		3.46%	14.14%	6.99%			6.84%	
Managed Ages 11-12	\$103,731,903	2.97%	12.50%	6.07%			5.92%	8/12/2014
BM: Managed Ages 11-12		2.94%	12.16%	6.14%			6.00%	
Managed Ages 13-14	\$141,861,212	2.51%	10.64%	5.26%			5.14%	8/12/2014
BM: Managed Ages 13-14		2.42%	10.22%	5.29%			5.16%	
Managed Age 15	\$79,524,695	2.04%	8.39%	4.32%			4.21%	8/12/2014
BM: Managed Age 15		1.89%	8.02%	4.22%			4.11%	
Managed Age 16	\$78,433,941	1.80%	7.39%	3.87%			3.76%	8/12/2014
BM: Managed Age 16		1.63%	6.86%	3.63%			3.53%	
Managed Age 17	\$73,877,626	1.55%	6.38%	3.41%			3.32%	8/12/2014
BM: Managed Age 17		1.36%	5.72%	3.05%			2.96%	
Managed Ages 18 & Over	\$180,120,400	1.29%	5.17%	2.92%			2.83%	8/12/2014
BM: Managed Ages 18 & Over		1.10%	4.58%	2.46%			2.38%	
U.S. and International Equity Option	\$310,206,668	5.43%	21.71%	9.75%	12.32%	6.20%	7.19%	10/ 1/2001
BM: U.S. and International Equity Option		5.51%	21.72%	9.90%	12.61%	6.90%	8.11%	





#### MINNESOTA COLLEGE SAVINGS PLAN

Performance Statistics for the Period Ending: December 29, 2017

					]			
Fund Name	<b>Ending Market</b>	3 Months	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Moderate Allocation Option	\$65,292,518	3.52%	14.37%	6.83%	8.01%	5.48%	5.43%	8/ 2/2007
BM: Moderate Allocation Option		3.46%	14.14%	6.99%	8.26%	6.04%	6.02%	
100% Fixed-Income Option	\$13,978,820	0.35%	3.20%	2.16%	1.33%	3.35%	3.65%	8/16/2007
BM: 100% Fixed-Income Option		0.42%	3.55%	2.47%	1.76%	3.98%	4.33%	
International Equity Index Option	\$4,168,038	4.31%	27.46%	8.12%			6.52%	6/18/2013
BM: International Equity Index Option		4.87%	27.44%	8.14%			6.92%	
Money Market Option	\$11,058,483	0.19%	0.58%	0.23%	0.14%	0.26%	0.32%	11/ 1/2007
BM: Money Market Option		0.17%	0.47%	0.20%	0.13%	0.29%	0.35%	
Principal Plus Interest Option	\$113,514,662	0.40%	1.48%	1.39%	1.35%	1.99%	2.56%	10/10/2001
Citigroup 3-Month U.S. Treasury Bill		0.28%	0.84%	0.38%	0.24%	0.34%	1.26%	
Aggressive Allocation Option	\$18,461,584	4.57%	18.33%	8.36%			8.15%	8/12/2014
BM: Aggressive Allocation Option		4.48%	17.87%	8.46%			8.29%	
Conservative Allocation Option	\$8,173,194	1.97%	8.37%	4.29%			3.96%	8/18/2014
BM: Conservative Allocation Option		1.89%	8.02%	4.22%			3.91%	
Equity and Interest Accumulation Option	\$2,251,518	3.37%	11.05%	6.15%			6.23%	8/18/2014
BM: Equity and Interest Accumulation Option		3.28%	10.58%	5.76%			5.85%	
U.S. Large Cap Equity Option	\$19,899,489	6.58%	21.62%	11.20%			12.14%	8/12/2014
BM: U.S. Large Cap Equity Option		6.64%	21.83%	11.41%			12.37%	
Matching Grant	\$2,465,895	0.40%	1.48%	1.39%	1.35%	1.99%	2.58%	3/22/2002
Citigroup 3-Month U.S. Treasury Bill		0.28%	0.84%	0.38%	0.24%	0.34%	1.24%	



### Performance as of 12/31/17

Total Market Value: \$ 1,580,995

												Inception
Fund Name Aggressive Option ABLE Aggressive Custom Benchmark Variance	<u>Mar</u> \$	<u>ket Value</u> 180,328	<u>% of Plan</u> 11.41%	1 Month 0.95 1.06 (0.11)	4.54 4.77 (0.23)	<u>YTD</u> 17.62 18.35 <b>(0.73)</b>	1 Year 17.62 18.35 (0.73)	3 Year	<u>5 Year</u>	<u>10 Year</u>	16.72	<u>Date</u> 12/15/16
Moderately Aggressive Option ABLE Moderately Aggressive Custom Benchmark Variance	\$	145,112	9.18%	0.88 0.91 <b>(0.03)</b>	3.89 4.00 <b>(0.11)</b>	14.90 15.47 <b>(0.57)</b>	14.90 15.47 <b>(0.57)</b>				14.24	12/15/16
Growth Option ABLE Growth Custom Benchmark Variance	\$	244,945	15.49%	0.72 0.77 <b>(0.05)</b>	3.13 3.24 <b>(0.11)</b>	11.98 12.65 <b>(0.67)</b>	11.98 12.65 <b>(0.67)</b>				11.67	12/15/16
Moderate Option ABLE Moderate Custom Benchmark <b>Variance</b>	\$	230,317	14.57%	0.64 0.63 <b>0.01</b>	2.43 2.49 <b>(0.06)</b>	9.47 9.89 <b>(0.42)</b>	9.47 9.89 <b>(0.42)</b>				9.38	12/15/16
Moderately Conservative Option ABLE Moderately Conservative Custom Benchmark Variance	\$	163,168	10.32%	0.38 0.47 <b>(0.09)</b>	1.62 1.74 <b>(0.12)</b>	6.48 6.90 <b>(0.42)</b>	6.48 6.90 <b>(0.42)</b>				6.51	12/15/16
Conservative Option ABLE Conservative Custom Benchmark Variance	\$	265,148	16.77%	0.19 0.24 <b>(0.05)</b>	0.68 0.76 <b>(0.08)</b>	2.79 3.00 <b>(0.21)</b>	2.79 3.00 <b>(0.21)</b>				2.87	12/15/16
Checking Option	\$	351,977	22.26%									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.





**December 31, 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 trusteed by the Public Employees Retirement Association.
- Miscellanous Trust Accounts are other small funds managed by the SBI for a variety of purposes.

All equity, fixed income, and cash assets for these accounts are managed externally by investment management firms retained by the SBI.



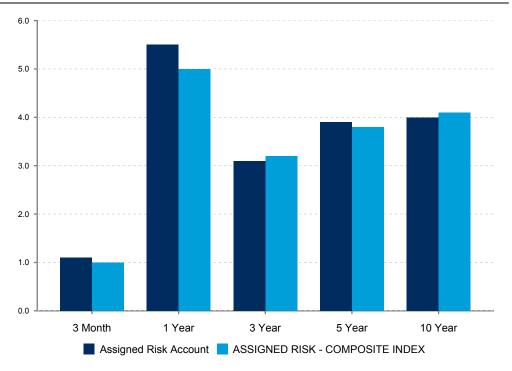


#### **Assigned Risk Plan**

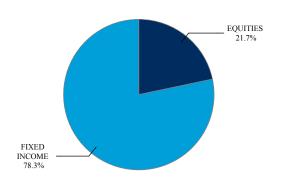
The Assigned Risk plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of ongoing claims and operating expenses.

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The equity segment is passively managed to track the performance of the S&P 500.

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



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
Assigned Risk Account	\$318,695,515	1.1%	5.5%	3.1%	3.9%	4.0%
EQUITIES	69,252,515	6.6	22.6	10.0	15.2	8.1
FIXED INCOME	249,443,000	-0.4	1.3	1.2	1.0	2.7
ASSIGNED RISK - COMPOSITE INDEX		1.0	5.0	3.2	3.8	4.1
Excess		0.1	0.5	-0.1	0.0	-0.1
S&P 500		6.6	21.8	11.4	15.8	8.5
BBG BARC US Gov: Int		-0.4	1.1	1.1	0.9	2.7



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



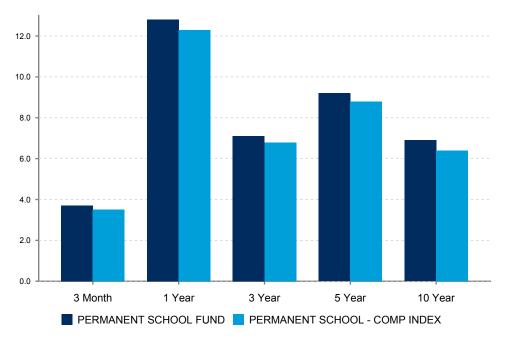


#### **Permanent School Fund**

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

The Permanent School Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds provide portfolio diversification and a more stable stream of current income.

The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 50% equity, and 48% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	\$1,389,727,448	3.7%	12.8%	7.1%	9.2%	6.9%
CASH EQUIVALENTS	25,106,914	0.3	1.0	0.5	0.4	0.6
EQUITIES	741,932,645	6.6	21.9	11.4	15.8	8.5
FIXED INCOME	622,687,888	0.5	4.0	2.7	2.8	4.6
PERMANENT SCHOOL - COMP INDEX		3.5	12.3	6.8	8.8	6.4
Excess		0.2	0.5	0.3	0.4	0.5
S&P 500		6.6	21.8	11.4	15.8	8.5
BBG BARC US Agg		0.4	3.5	2.2	2.1	4.0

Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. Prior to 7/1/97 the Fund allocation was 100% fixed income.



CASH EQUIVAL ENTS 1.8%

**EQUITIES** 

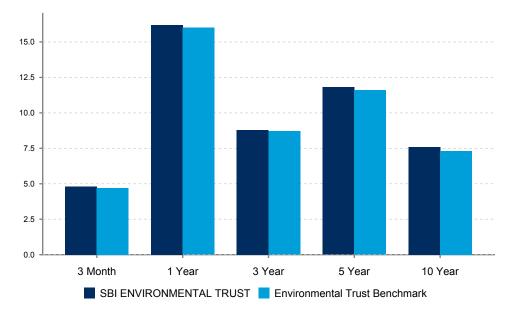


#### **Environmental Trust Fund**

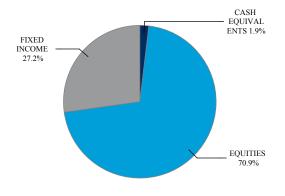
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 70% equities, and 28% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
SBI ENVIRONMENTAL TRUST	\$1,105,713,317	4.8%	16.2%	8.8%	11.8%	7.6%
CASH EQUIVALENTS	21,107,343	0.3	1.0	0.5	0.4	0.6
EQUITIES	783,971,402	6.6	21.9	11.4	15.8	8.5
FIXED INCOME	300,634,573	0.5	4.0	2.7	2.8	4.6
Environmental Trust Benchmark		4.7	16.0	8.7	11.6	7.3
Excess		0.0	0.2	0.1	0.2	0.3
S&P 500		6.6	21.8	11.4	15.8	8.5
BBG BARC US Agg		0.4	3.5	2.2	2.1	4.0



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. From 7/1/94 to 7/1/99, the Fund's target allocation and benchmark was 50% fixed income and 50% stock. Prior to 7/1/94 the Fund was invested entirely in short-term instruments as part of the Invested Treasurer's Cash pool.

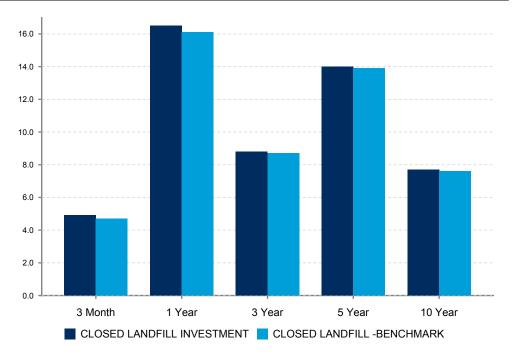




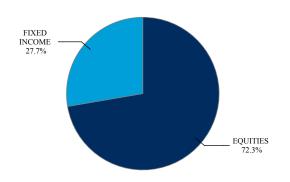
#### **Closed Landfill Investment Fund**

The investment objective of the Closed Landfill Investment Fund is to increase the market value of the Fund and to reduce volatility to meet future expenditures. By statute, the assets of the Fund are unavailable for expenditure until after the fiscal year 2020 to pay for long-term costs of maintaining the integrity of landfills in Minnesota once they are closed. In FY 2011, \$48 million was transferred out of the general fund leaving a balance of \$1 million in the account. Legislation was enacted in 2013 to replenish the principal and earnings back into the fund and in FY 2014 a repayment was made in the amount of \$64.2 million. In 2015, legislation was passed which repealed any further repayments.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 70% equities and 30% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	\$88,000,417	4.9%	16.5%	8.8%	14.0%	7.7%
EQUITIES	63,652,377	6.6	21.9	11.4	15.8	8.5
FIXED INCOME	24,348,040	0.5	4.0	2.7		
CLOSED LANDFILL -BENCHMARK		4.7	16.1	8.7	13.9	7.6
Excess		0.1	0.4	0.1	0.1	0.1
S&P 500		6.6	21.8	11.4	15.8	8.5
BBG BARC US Agg		0.4	3.5	2.2	2.1	4.0



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. Prior to 9/10/14 the Fund's target allocation and benchmark was 100% domestic equity.





	Ending Market Value	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
MELLON	2,307,528,478								12/2017
S&P 500 INDEX (DAILY)									12/2017
Excess									
	000 470								
SBI INTERNAL EQUITY INDEX	309,179								
NON RETIREMENT EQUITY INDEX	2,307,837,657	6.6	11.4	21.9	11.4	15.8	8.5	9.8	07/1993
S&P 500 INDEX (DAILY)		6.6	11.4	21.8	11.4	15.8	8.5	9.7	07/1993
Excess		-0.0	-0.0	0.0	0.0	-0.0	0.0	0.1	
PRUDENTIAL	1,108,657,418								12/2017
BBG BARC Agg (Dly)									12/2017
Excess									
NON RETIREMENT FIXED	1,108,657,418	0.5	1.2	4.0	2.7	2.8	4.6	6.1	07/1994
INCOME	1,100,037,410	0.5	1.2	4.0	2.1	2.0	4.0	0.1	07/1994
BBG BARC Agg (Dly)		0.4	1.2	3.5	2.2	2.1	4.0	5.6	07/1994
Excess		0.1	0.0	0.4	0.5	0.7	0.6	0.5	
RBC	249,442,933	-0.4	0.1	1.4	1.2	1.0	2.8	5.0	07/1991
Voyageur Custom Index		-0.4	-0.1	1.1	1.1	0.9	2.8	5.1	07/1991
Excess		0.0	0.1	0.2	0.1	0.1	-0.0	-0.1	

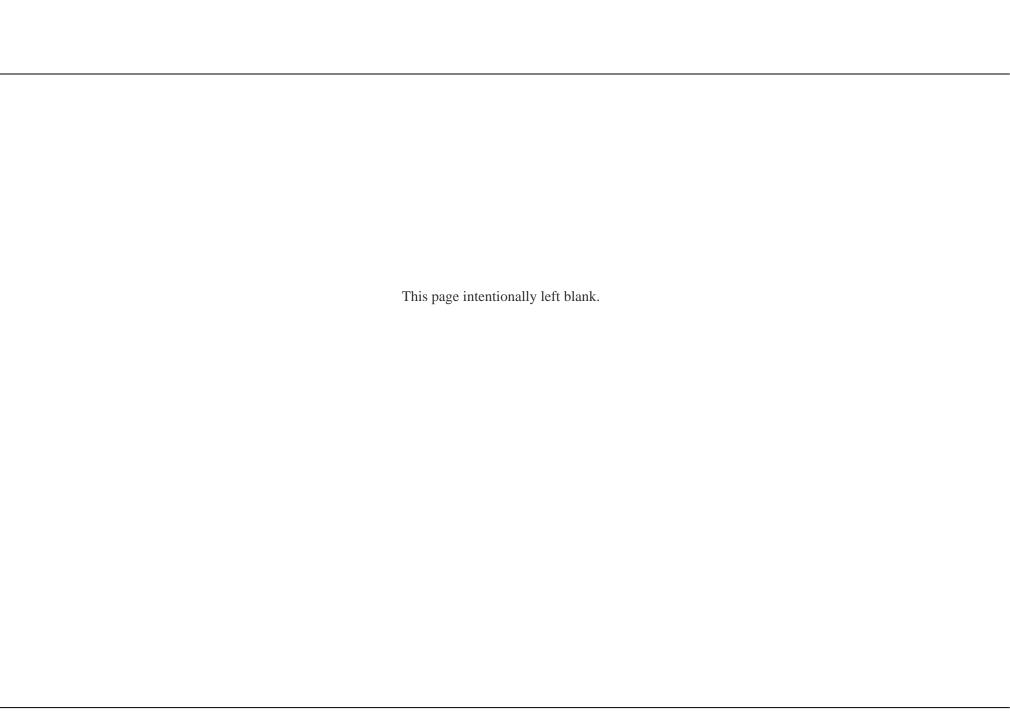
#### Note:

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 Mortgage Master.

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

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





#### **Quarterly Report**



# State Cash December 31, 2017



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#### **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.

	<b>Ending Market Value</b>	Last Qtr	1 Year	3 Year	5 Year	10 Year
Treasurer's Cash	10,549,598,662	0.3	1.1	0.8	0.7	1.1
iMoneyNet Money Fund Average-All Taxable		0.2	0.5	0.2	0.1	0.3

#### **Other State Cash Accounts**

Due to differing investment objectives, strategies, and time horizons, some State agencies' accounts are invested seperately. 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.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Debt Service	75,378,407	0.4	3.7	2.3		
Housing Finance	48,008,645	0.0	1.0	1.3		
Public Facilities Authority	14,978,299	-0.1	3.0	2.1		



#### 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.

#### **Fixed Income Benchmark:**

In 2016, the Barclays Agg was rebranded Bloomberg Barclays Agg to reflect an ownership change. Prior to 9/18/2008 this index was called the Lehman Brothers Aggregate Bond Index. From 7/1/84-6/30/94 the asset class benchmark was the Salomon Brothers Broad Investment Grade Index.



#### Addendum



#### **Benchmark Definitions (continued)**

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

On 6/1/2002, the benchmark was set as the 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

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

Since 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 (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.

