

# MINNESOTA STATE BOARD OF INVESTMENT

*2015 Annual Report*





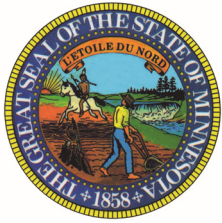
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This annual report can be accessed on our website at [www.sbi.state.mn.us](http://www.sbi.state.mn.us)



MINNESOTA  
STATE  
BOARD OF  
INVESTMENT



**Board Members**  
Governor  
Mark Dayton

State Auditor  
Rebecca Otto

Secretary of State  
Steve Simon

Attorney General  
Lori Swanson

**Executive Director**  
Mansco Perry

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*An Equal Opportunity  
Employer*

December 2015

**The Minnesota State Board of Investment (SBI) is pleased to present its report for the fiscal year ending June 30, 2015.**

**Investment Environment**

During FY15, the U.S. equity markets returned 7.3% as measured by the Russell 3000 Index. Within the Russell 3000, larger stocks outpaced smaller companies and growth led value companies.

International equity markets returned -5.3% for the fiscal year as measured by the Morgan Stanley Capital International (MSCI) All Country World Index excluding the United States net taxes on dividends (ACWI ex U.S.), which represents the developed and emerging international investments outside the U.S. The returns in the developed markets and emerging markets were disappointing.

The U.S. bond market, as measured by the Barclays Capital Aggregate Bond Index, returned 1.9% for the fiscal year. Within the bond market, U.S. Treasuries and agency mortgage-backed securities were the best performing sectors followed by commercial mortgage-backed securities and asset-backed securities.

As we look forward, the investment environment remains challenging. We will endeavor to seek returns within appropriate levels of risk tolerance.

**SBI Results for Fiscal Year 2015**

Within this investment environment, the Combined Funds returned 4.4% during fiscal year 2015. Over the recent ten year period, the Funds generated an annualized return of 7.8%. (See page 8).

**On June 30, 2015, assets under management totaled \$82.3 billion.** This total is the aggregate of numerous pension funds, trust funds and cash accounts, each with different investment objectives. In establishing a comprehensive management program, the Board develops an investment strategy for each fund which reflects its unique requirements. **The primary purpose of this annual report is to communicate the investment goals, policies and performance of each fund managed by the Board.** Obtaining those results will sustain the financial condition of our clients. Through the investment programs presented in this report, the Minnesota State Board of Investment seeks to enhance the management and performance of the assets under its control.

Sincerely,

A handwritten signature in dark ink, reading "Mansco Perry III".

Mansco Perry III  
Executive Director and  
Chief Investment Officer



# State Board of Investment

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**Governor Mark Dayton, Chair**  
**State Auditor Rebecca Otto**  
**Secretary of State Steve Simon**  
**State Attorney General Lori Swanson**

## **Investment Advisory Council**

The Legislature has established a seventeen member Investment Advisory Council (IAC) to advise the Board and its staff on investment-related matters.

The IAC fulfills its statutory duty to the SBI by providing advice and independent due diligence review of the investment policy and implementation recommendations that guide the SBI's investment of assets.

The Board appoints ten members from the public experienced in finance and investment. These members traditionally have come from the Minneapolis and St. Paul investment community.

The Commissioner of Minnesota Management & Budget and the Executive Directors of the three statewide retirement systems are permanent members of the Council.

Two active employee representatives and one retiree representative are appointed to the Council by the Governor.

All proposed investment policies are reviewed by the IAC before they are presented to the Board for action.

## **Public Members**

*Jeffery Bailey, Chair*  
Sr. Director, Financial  
Benefits & Analysis  
Target Corporation

*John E. Bohan*  
V.P., Pension Investments  
(Retired)  
Grand Metropolitan - Pillsbury

*Kerry Brick*  
Manager, Pension Investments  
Cargill, Inc.

*Dennis Duerst*  
Director, Benefit Funds Investment  
3M Company

*Kim Faust*  
Vice President and Treasurer  
Fairview Health Services

*Douglas Gorence*  
Pres. & Chief Investment Officer  
UMF Investment Advisors

*P. Jay Kiedrowski*  
Senior Fellow  
Humphrey Institute  
University of MN

*Gary Martin*  
Chief Investment Officer  
Macalester College

*Malcolm W. McDonald*  
Vice Chair  
Director & Corporate Secretary  
(Retired)  
Space Center, Inc.

## **Permanent Members**

*Doug Anderson*  
Executive Director  
Public Employees Retirement  
Association

*David Bergstrom*  
Executive Director  
MN State Retirement System

*Myron Frans*  
Commissioner  
Minnesota Management & Budget

*Laurie Fiori Hacking*  
Executive Director  
Teachers Retirement Association

## **Employee and Retirement Representative**

*Denise Anderson*  
Governor's Appointee  
Active Employee Representative

*Elaine Voss*  
Governor's Appointee  
Retiree Representative

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As of December 2015

## Staff, Consultants & Custodians

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*Mansco Perry III*

Executive Director and Chief Investment Officer

### Senior Leadership Team

*Paul T. Anderson*  
Chief Financial Officer

*Andrew Krech*  
Director,  
Private Markets

*Michael J. Menssen*  
Director,  
Public Markets

*Charlene Olson*  
Executive Assistant

*LeaAnn M. Stagg*  
Assistant Executive Director  
and Chief Operating Officer

*Aaron D. Griga*  
Investment Officer,  
Public Markets

*Steven P. Kuettel*  
Investment Officer,  
Cash Mgmt. Services

*Mercy Ndungu*  
Investment Officer,  
DC & Trust Services and  
Cash Mgmt. Services

*Jonathan Stacy*  
Investment Officer,  
Private Markets

*Robert Weiler*  
Investment Officer,  
Public Markets

*William J. Nicol*  
Accounting Director

*Iryna Shafir*  
Account Officer, Senior

### Consultants

General Consultant  
*Callan Associates Inc.*  
Chicago, Illinois

Special Projects Consultant  
*Pension Consulting Alliance*  
Portland, Oregon

### Investment Staff

*Patricia Ammann*  
Investment Officer,  
DC & Trust Services

*Nathan Blumenshine*  
Investment Analyst,  
Private Markets

*Cassandra Boll*  
Investment Officer,  
Public Markets and  
Private Markets

*Tammy Brusehaver*  
Investment Officer,  
Public Markets

*Stephanie Gleeson*  
Investment Officer,  
Public Markets

*Inma Conde Goldman*  
Investment Officer,  
Public Markets

### Administrative Staff

*Shirley Baribeau*  
Project Team Leader

*Julie Grill*  
Accounting Officer,  
Intermediate

*Kailee Kemp*  
Office Administrative Specialist

*Kathy Leisz*  
Information Technology  
Specialist 2

*Melissa Mader*  
Office Administrative Specialist,  
Intermediate

*Wendy Murphy*  
Accounting Officer, Senior

### Custodian Banks

Retirement and Trust Funds  
*State Street Bank & Trust Co.*  
Boston, Massachusetts

State Cash Accounts  
*Wells Fargo & Company*  
St. Paul, Minnesota

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As of December 2015



**The Minnesota State Board of Investment is responsible for the investment management of various retirement funds, trust funds and cash accounts. On June 30, 2015, the market value of all assets was \$82.3 billion.**

### **Constitutional and Statutory Authority**

The Minnesota State Board of Investment (SBI) is established by Article XI of the Minnesota Constitution to invest all state funds. Its membership as specified in the Constitution is comprised of the Governor (who is designated as chair of the Board), State Auditor, Secretary of State and State Attorney General.

All investments undertaken by the SBI are governed by the prudent person rule and other standards codified in *Minnesota Statutes*, Chapter 11A and Chapter 356A.

### **Prudent Person Rule**

The prudent person rule, as codified in *Minnesota Statutes*, Section 11A.09, requires all members of the Board, Investment Advisory Council, and SBI staff to “...act in good faith and ...exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom.” *Minnesota Statutes*, Section 356A.04 contains similar codification of the prudent person rule applicable to the investment of pension fund assets.

### **Authorized Investments**

In addition to the prudent person rule, *Minnesota Statutes*, Section 11A.24 contains a specific list of asset classes available for investment including common stocks, bonds, short term securities, real estate, private equity, and resource funds. The section prescribes the maximum percentage of fund assets that may be invested in various asset classes and contains specific restrictions to ensure the quality of the investments.

### **Investment Policies**

Within the requirements defined by state law, the State Board of Investment, in conjunction with SBI staff and the Investment Advisory Council, establishes investment policies for all funds under its control. These investment policies are tailored to the particular needs of each fund and specify investment objectives, risk tolerance, asset allocation, investment management structure and specific performance standards.

The Board, its staff, and the Investment Advisory Council have conducted detailed analyses that address investment objectives, asset allocation policy and management structure of each of the funds under the SBI's control. The studies guide the on-going management of these funds and are updated periodically.

### **Important Notes**

Readers should note that the SBI's returns in this report are shown *after* transactions costs and fees are deducted. Performance is computed and reported after all applicable charges to assure that the Board's focus is on true net returns.

Due to the large number of individual securities owned by the funds managed by the SBI, this report does not include asset listings. **A complete list of securities is available on the SBI's website at [www.sbi.state.mn.us](http://www.sbi.state.mn.us).** A new listing is posted each June 30 and December 31.

## Funds Under Management

**Market Value  
June 30, 2015\***

### **Retirement Funds**

**\$67.8 billion**

#### **Combined Funds**

**\$60.1 billion**

The Combined Funds represent the assets for both the active and retired public employees in ten statewide retirement plans:

Teachers Retirement Fund	\$ 20.4 billion
Public Employees Retirement Fund	17.7 billion
Public Employees Police and Fire Fund	7.3 billion
Public Employees Correctional Fund	490 million
Public Employees MERF Division	840 million
State Employees Retirement Fund	11.6 billion
Correctional Employees Fund	906 million
Highway Patrol Retirement Fund	663 million
Legislative Retirement Fund	3 million
Judges Retirement Fund	174 million

#### **State Deferred Compensation Plan**

**\$5.8 billion**

The State Deferred Compensation Plan provides public employees with a tax-sheltered retirement savings program that is a supplemental plan to their primary retirement plan.

#### **Supplemental Investment Fund (SIF)**

**\$1.9 billion**

The Supplemental Investment Fund includes assets of the unclassified state employees retirement plan, a defined benefit plan, other defined contribution retirement plans, a healthcare savings plan, and various retirement programs for local firefighters. Participating plans use one or more of the eight accounts which have different investment objectives designed to meet a wide range of needs and objectives.

Note: There are two investment options from the Supplemental Investment Fund (SIF) program that are also offered in the \$5.8 billion State Deferred Compensation Plan. To avoid double counting these assets, the \$1.4 billion of State Deferred Compensation dollars invested in these SIF portfolios are not included in the amounts below.

Effective July 1, 2015, the names of the funds within the SIF program were changed to reflect more descriptive titles of the underlying investment options. The name changes do not affect the investment guidelines or operations of the funds.

<b>Balanced Fund</b> (Previously Income Share Acct.)	stocks and bonds	\$369 million
<b>U.S. Stock Index Fund</b> (Previously, Common Stock Index Acct.)	passively managed stocks	473 million
<b>U.S. Stock Actively Managed Fund</b> (Previously, Growth Share Acct.)	actively managed stocks	219 million
<b>Bond Fund</b> (Previously, Bond Market Acct.)	actively managed bonds	126 million
<b>Broad International Stock Fund</b> (Previously, Int'l Share Acct.)	non-U.S. stocks	191 million
<b>Stable Value Fund</b> (Previously, Fixed Interest Acct.)	stable value investments	194 million
<b>Money Market Fund</b> (Previously, Money Market Acct.)	short-term debt securities	266 million
<b>Volunteer Firefighter Account</b>	stocks and bonds	32 million

## Funds Under Management

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**Market Value  
June 30, 2015\***

### **Non-Retirement Funds**

**\$14.5 billion**

#### **Assigned Risk Plan**

\$307 million

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

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

\$69 million

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.

#### **Environmental Trust Fund**

\$893 million

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.

#### **Minnesota College Savings Plan**

\$1.2 billion

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.

#### **Miscellaneous State Accounts**

\$234 million

#### **Miscellaneous Trust Accounts**

\$149 million

#### **Other Postemployment Benefits Accounts (OPEBs)**

\$505 million

These accounts are the assets set aside by local units of government for the payment of retiree benefits trusted by the Public Employees Retirement Association.

#### **Permanent School Fund**

\$1.2 billion

The Permanent School Fund is a trust established for the benefit of Minnesota public schools.

#### **State Cash Accounts**

\$10.0 billion

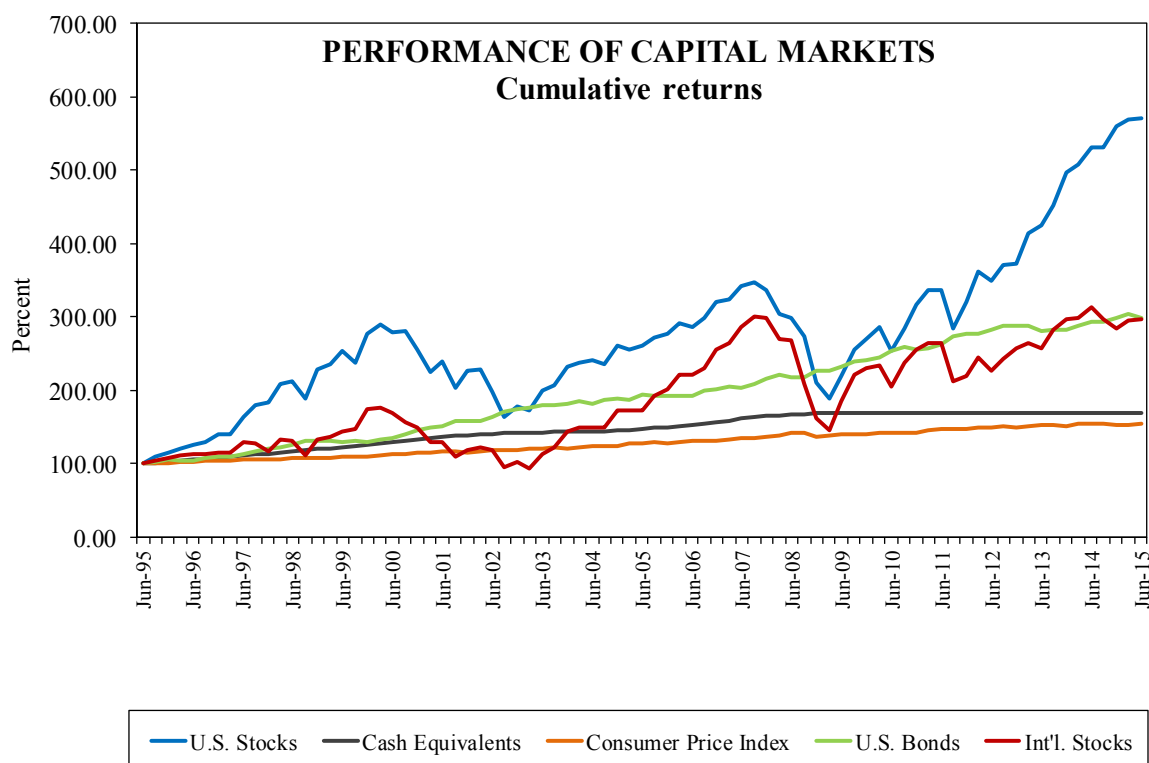
These accounts are the cash balances of state government funds including the General Fund, transportation funds, and miscellaneous cash accounts. Assets are invested through the Invested Treasurers Cash Pool in high quality, liquid, debt securities.

### **Total Assets Invested by SBI**

**\$82.3 billion**

\* Totals may not add due to rounding.

Figure 1.



## Periods Ending June 30, 2015

	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>Domestic Equity</b>				
Russell 3000	7.3%	17.7%	17.5%	8.2%
<b>Domestic Fixed Income</b>				
Barclays Capital Aggregate (1)	1.9	1.8	3.3	4.4
3 month U.S. Treasury Bills	0.0	0.1	0.1	1.4
<b>International Equity</b>				
MSCI ACWI ex USA (net)	-5.3	9.4	7.8	5.5
<b>Inflation Measure</b>				
Consumer Price Index CPI-U (2)	0.1	1.3	1.8	2.1

(1) Barclays Capital Aggregate Bond index. Includes governments, corporates and mortgages.

(2) Consumer Price Index (CPI) for all urban consumers, also known as CPI-U.

## Combined Funds

**The Combined Funds represent the assets of both active and retired public employees who participate in the defined benefit plans of three state-wide retirement systems: Teachers Retirement Association (TRA), Public Employees Retirement Association (PERA) and the Minnesota State Retirement System (MSRS). On June 30, 2015, the Combined Funds had a market value of \$ 60.1 billion.**

### Background

The Combined Funds consist of the assets of active employees and retired members of ten different retirement funds. The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies.

Figure 2 identifies the ten different retirement funds which comprise the Combined Funds.

### Investment Objectives

One overriding responsibility of the State Board of Investment (SBI) with respect to the management of the Combined Funds is to ensure that sufficient funds are available to finance promised benefits.

#### Actuarial Assumed Return

Employee and employer contribution rates are specified in state law as a percentage of an employee's salary. The rates are set so that contributions plus expected investment earnings will cover the projected cost of promised pension benefits. The investment returns needed to meet these projected pension costs are set by statute. For TRA, the investment rate is a select and ultimate of at least 8.0% on an annualized basis for the period July 1, 2012 through June 30, 2017 and 8.5% over time thereafter. MSRS and PERA must generate investment

returns of at least 8.0% on an annualized basis.

#### Time Horizon

In general, pension assets will accumulate in the Combined Funds for 30 to 40 years during an employee's years of active service. A typical retiree can be expected to draw benefits for an additional 15 to 20 years. This provides the Combined Funds with a long investment time horizon and permits the Board to take advantage of the long run return opportunities offered by common stocks and other equity investments in order to meet the actuarial return target.

### Asset Allocation

The allocation of assets among stocks, bonds, alternative investments (alternative investments include private equity, real estate, mezzanine debt, and resource) and cash has a dramatic impact on investment results. In fact, asset allocation decisions overwhelm the impact of individual security selection within a total portfolio.

As illustrated in Figure 1, historical evidence indicates that common stocks will provide the greatest opportunity to maximize investment returns

**Figure 2. Composition of Combined Funds as of June 30, 2015**

Teachers Retirement Association (TRA)	34.0%
Public Employees Retirement Association (PERA)	
Public Employees Retirement Fund	29.43%
Public Employees Police and Fire Fund	12.20
Public Employees Correctional Fund	0.82
Public Employees MERF Division	1.40
<b>Total PERA</b>	<b>43.8</b>
Minnesota State Retirement System (MSRS)	
State Employees Retirement Fund	19.30
Correctional Employees Fund	1.51
Highway Patrol Retirement Fund	1.10
Legislative Retirement Fund	0.01
Judges Retirement Fund	0.29
<b>Total MSRS</b>	<b>22.2</b>
<b>Funds Total*</b>	<b>100.0%</b>

\* Total may not add due to rounding.

## Combined Funds

over the long-term. As a result, the Board has chosen to incorporate a large commitment to common stocks in the asset allocation policy for the retirement funds. In order to limit the short run volatility of returns exhibited by common stocks, the Board includes other asset classes such as bonds, real estate, resource funds and yield-oriented investments in the total portfolio. 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.

### Long-Term Allocation Policy

The Combined Funds have a policy asset allocation that is based on the investment objectives of the Combined Funds and the expected long run performance of the capital markets. The SBI periodically reviews this policy allocation. The current policy asset allocation of the Combined Funds that was approved by the Board in December 2008 and reaffirmed each fiscal year thereafter is as follows:

Domestic Stocks	45%
International Stocks	15
Bonds	18
Alternative Assets	20
Unallocated Cash	2

The unfunded allocation to alternative investments is held in bonds until it is needed for investment. As a result, the actual amount invested in bonds at any time can be above the target allocation.

Figure 3 presents the actual asset mix of the Combined Funds at the end of fiscal year 2015. Historical asset mix data are displayed in Figure 4.

### Asset Mix Compared to Other Pension Funds

The Board finds it instructive to review asset mix and performance of the Combined Funds relative to other pension fund investors. The comparison universe used by the SBI is the Master Trust portion of the Trust Universe Comparison Service (TUCS). This universe contains information on public and corporate pension and trust funds with over \$1 billion with a diversified asset mix.

Comparisons of the Combined Funds' actual asset mix to the median allocation to stocks, bonds and other assets of the funds in TUCS on June 30, 2015 are also displayed in Figure 3.

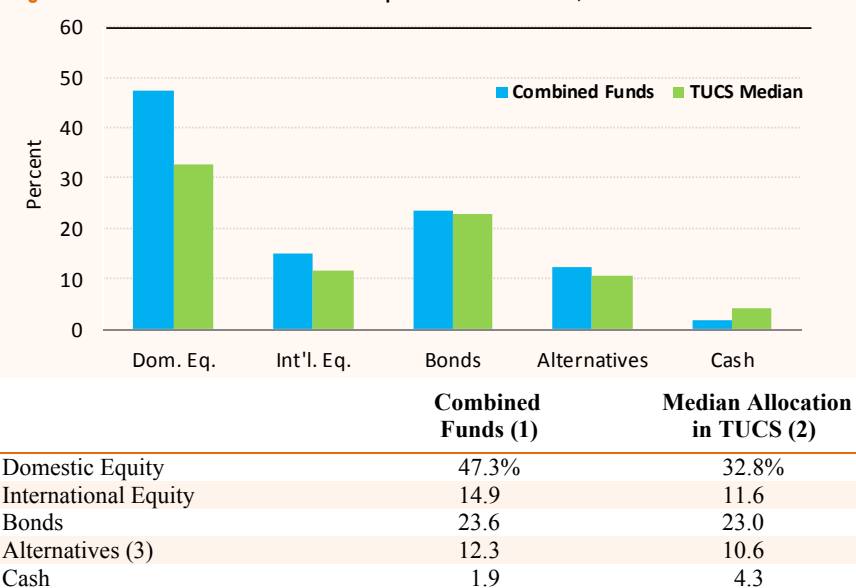
The Combined Funds were overweighted in domestic equities, international equities, alternative investments and bonds relative to the median allocation in TUCS, and were underweighted in cash.

### Total Return Vehicles

The SBI invests the majority of the Combined Funds' assets in **common stocks** (both domestic and international.) A large allocation is consistent with the investment time horizon of the Combined Funds and the advantageous long-term risk-return characteristics of common stocks. Including international stocks in the asset mix allows the SBI to diversify holdings across world markets and offers the opportunity to enhance returns and reduce the volatility of the total portfolio. The rationale underlying the inclusion of **private equity** is similar.

The Board recognizes that this sizable policy allocation to common stock and private equity likely will produce more volatile portfolio returns than a more conservative policy focused on fixed income securities. It is understood that this policy may result in quarters

Figure 3. Combined Funds Asset Mix Comparison as of June 30, 2015



- (1) May not add to 100% due to rounding.
- (2) Represents the median allocation by asset class, and does not add to 100%.
- (3) TUCS may include assets other than alternatives.

## Combined Funds

or even years of disappointing results. Nevertheless, the long run return benefits of this policy are expected to compensate for the additional volatility.

### **Diversification Vehicles**

The Board includes other asset classes in the Combined Funds to provide some protection against highly inflationary or deflationary environments and to diversify the portfolio sufficiently to avoid excessive return volatility.

**Real Estate and resource** (oil and gas) investments provide an inflation hedge that other financial assets cannot offer. Under normal financial conditions, such as low to moderate inflation, the returns on these assets are not highly correlated with common stocks. As a result, inclusion of these assets in the Combined Funds serves to dampen return volatility.

The allocation to **bonds** acts as a hedge against a deflationary economic environment. In the event of substantial deflation, high quality fixed income assets are expected to protect principal and generate significant capital gains. Bonds, like real estate and resource funds, under normal financial conditions, help to diversify the Combined Funds, thereby controlling return volatility.

**Yield oriented** alternative investments provide the opportunity for higher long term returns than those typically available from bonds, yet still generate sufficient current income. Typically, these investments (e.g., subordinated debt, mezzanine debt, or resource income investments such as producing properties) are structured more like fixed

income securities with the opportunity to participate in the appreciation of the underlying assets. While these investments may have an equity component, they display a return pattern more like a bond. Therefore, they will help reduce the volatility of the total portfolio, but should also generate higher returns relative to more traditional bond investments.

## Investment Management

All assets in the Combined Funds are managed externally by investment management firms retained by contract. More information on the structure, management and performance of the various investment pools is included in the **Investment Pool** section of this report.

## Return Objectives

The Board measures the performance of the Combined Funds relative to the following total rate of return objectives:

- **Provide Real Returns.** Over a twenty year period, the

Combined Funds are expected to produce returns that exceed inflation by 3 to 5 percentage points on an annualized basis.

- **Match or Exceed Market Returns.** Over a ten year period, the Combined Funds are expected to match or exceed a composite of market indices weighted using the asset allocation of the Combined Funds.

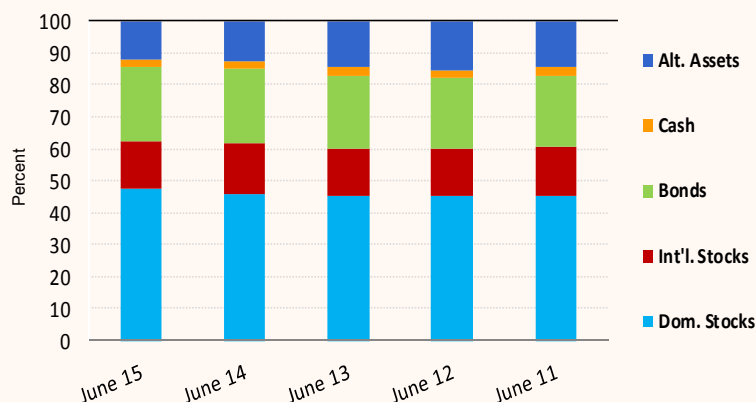
*Performance is reported net of all fees and costs to assure that the Board's focus is on true net return.*

## Investment Results

### **Comparison to Inflation**

Over the last twenty years, the Combined Funds exceeded inflation by 6.1 percentage points. Historical results compared to inflation are shown in Figure 5.

Figure 4. Combined Funds Historical Asset Mix Fiscal Year 2011-2015





## Combined Funds

### Comparison to Market Returns

The Combined Funds' performance is also evaluated relative to a composite of market indices which is weighted in a manner that reflects the asset allocation of the Combined Funds. Performance relative to this standard will measure two effects:

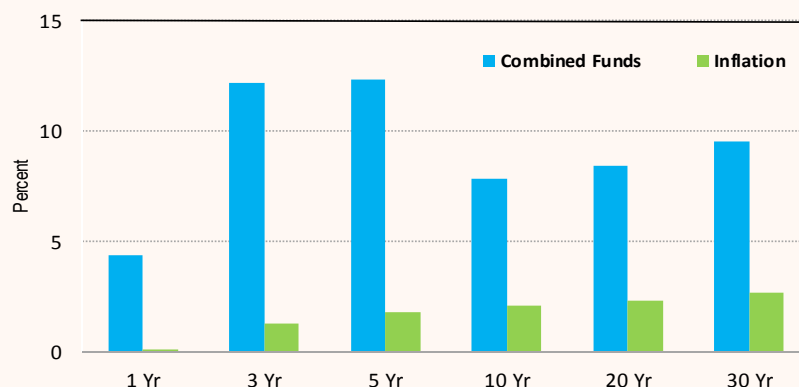
- The ability of the managers selected by the SBI, in aggregate, to add value to the returns available from the broad capital markets.
- The impact of the SBI's re-balancing activity. The SBI rebalances the total Fund when market movements take the stock (domestic and international), bond, or cash segments above or below long term asset allocation targets. This policy imposes a low risk discipline of "buy low-sell high" among asset classes on a total fund basis.

Performance results and a breakdown of the composite index are shown in Figures 6 and 7. The Combined Funds exceeded the composite index over the last ten years by 0.3 percentage point and, therefore, met the stated performance goal. The Funds exceeded the composite index over the last five years and outperformed by 0.5 percentage point over the most recent fiscal year. These results are largely a measure of value added or lost from active management after all fees and expenses have been taken into consideration.

### Comparison to Other Funds

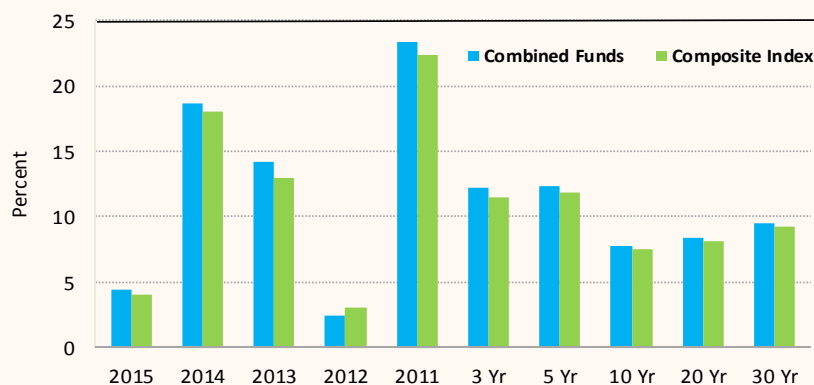
While the SBI is concerned with how its returns compare to other pension investors, universe comparison data should be used with great care. There are two

Figure 5. Combined Funds Performance vs. Inflation For Periods Ending June 30, 2015



	Annualized					
	1 Yr.	3 Yr.	5 Yr.	10 Yr.	20 Yr.	30 Yr.
Combined Funds	4.4%	12.2%	12.3%	7.8%	8.4%	9.5%
Inflation	0.1	1.3	1.8	2.1	2.3	2.7

Figure 6. Combined Funds Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011
Combined Funds	4.4%	18.6%	14.2%	2.4%	23.3%
Composite Index	4.0	18.0	12.9	3.0	22.4

	Annualized				
	3 Yr.	5 Yr.	10 Yr.	20 Yr.	30 Yr.
Combined Funds	12.2%	12.3%	7.8%	8.4%	9.5%
Composite Index	11.5	11.8	7.5	8.1	9.3



## Combined Funds

primary reasons why such comparisons will provide an “apples-to-oranges” look at performance:

- ***Differing Allocations.***  
Asset allocation has a dominant effect on returns. The allocation to stocks among the funds in TUCS typically ranges from 20% to 90%, too wide a range for meaningful comparison. In addition, it appears that many funds do not include alternative asset holdings in their reports to TUCS. This further distorts comparisons among funds.
- ***Differing Goals/Liabilities.***  
Each pension fund structures its portfolio to meet its own liabilities and risk tolerance, leading to different choices on asset mix. Since asset mix will largely determine investment results, a universe ranking may not be relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

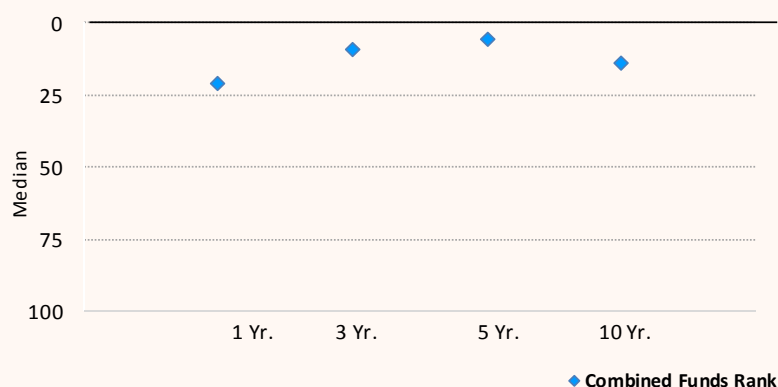
With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds with over \$1 billion in assets in the Master Trust portion of TUCS is displayed in Figure 8. It shows that the Combined Funds have ranked above the top quartile over the last one, three, five and ten year periods.

**Figure 7. Composite Index for Period Ending June 30, 2015**

Asset Class	Market Index	Composite Index Wts. *
Domestic Stocks	Russell 3000	45.0%
Int'l Stocks	MSCI ACWI ex USA (net)	15.0
Domestic Bonds	Barclays Capital Aggregate	25.9
Alternative Investments	Alternative Investments	12.1
Unallocated Cash	3 Month T-Bills	2.0
<b>Total</b>		<b>100.0%</b>

\* Weights are reset in the composite at the start of each month to reflect the combined allocation policies of the Combined Funds.

**Figure 8. Combined Funds Performance Compared to Other Pension Funds**



	1 Yr.	3 Yr.	Annualized 5 Yr.	10 Yr.
Combined Funds	21st	9th	6th	14th
Percentile Rank in TUCS*				

\* Compared to public and corporate plans greater than \$1 billion, gross of fees.

**To gain greater operating efficiency, external managers are grouped into several “Investment Pools” which are segregated by asset class. The various retirement funds participate in one or more of the pools corresponding to their individual asset allocation strategies.**

The Combined Funds and Supplemental Investment Fund (SIF) share many of the same stock and bond managers. This sharing is accomplished by grouping managers by asset class into several Investment Pools. The individual funds participate in the Investment Pools by purchasing units which function much like shares of a mutual fund.

This investment management structure allows the SBI to gain greater operating efficiency within asset classes and to keep management costs as low as possible for all participants.

### Domestic Stock Pool

The Domestic Stock Pool is used by the Combined Funds and the Supplemental Investment Fund U.S. Stock Actively Managed Fund, U.S. Stock Index Fund, and the stock portions of the Balanced Fund and Volunteer Firefighter Account.

The following are the dollar values as of June 30, 2015 of each fund’s participation in the Pool:

Combined Funds (active, passive and semi-passive)	\$28.4 billion
U.S. Stock Active (active and semi-passive)	\$219.0 million

U.S. Stock Index (passive)	\$472.7 million
Stock portion of the Balanced Fund (passive)	\$219.4 million
Volunteer Firefighter Account (active and passive)	\$11.1 million

### Management Structure

The SBI uses three styles of management to invest the assets of the Domestic Stock Pool:

- **Active Management.** The target is to have less than half the portfolio actively managed. At the end of fiscal year 2015, approximately 27% of the Domestic Stock Pool was actively managed by a group of 15 external investment managers. The assets allocated to each of the managers ranged in size from approximately \$220 million to \$850 million.
- **Semi-Passive Management.** The target is to have less than half the portfolio semi-passively managed. At the end of fiscal year 2015, approximately 38% of the Domestic Stock Pool was managed by a group of four semi-passive external investment managers with portfolios ranging from \$2.5 billion to \$3.3 billion.

— **Passive Management.** The target is to have at least a quarter of the portfolio passively managed. At the end of fiscal year 2015, approximately 35% of the Stock Pool was managed passively by a single manager with a portfolio of \$10 billion.

The goal of the Domestic Stock Pool is to outperform the asset class target, the Russell 3000 Index, over time. The Russell 3000 Index can be segmented into sub-indexes or Russell style indexes.

Assets of the Pool are allocated based on the Russell style indexes in proportion to the style weighting within the Russell 3000. Assets within each style are then allocated to managers within the designated style. This allocation is done to minimize the style bias within the Pool.

Each **active manager** is expected to add value over the long run relative to the Russell style index which reflects its investment approach or style.

The **semi-passive managers** are expected to add incremental value relative to the Russell 1000 Index. However, they employ a strategy that more closely tracks the benchmark than active management and are generally more consistent at generating modest excess returns.

## Investment Pools

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The **passive manager** in the Domestic Stock Pool manages its portfolio to consistently and inexpensively track the Russell 3000 index.

A description of each domestic stock manager's investment approach is included in the **Investment Manager Summaries** section beginning on Page 54.

### ***FY 2015 Changes***

During fiscal year 2015, no changes were made to the manager structure.

### ***Investment Performance***

A comprehensive monitoring system has been established to ensure that the many elements of the Domestic Stock Pool conform to the SBI's investment policies. Published performance benchmarks are used for each domestic stock manager. These benchmarks enable the SBI to evaluate the managers' results, both individually and in aggregate, with respect to risk incurred and returns achieved. Two primary long-term **risk objectives** have been established for the domestic stock managers:

- ***Investment Approach.*** Each manager (active, semi-passive, or passive) is expected to hold a portfolio that is consistent, in terms of risk characteristics, with the manager's stated investment approach. In the short run, market fluctuations may result in a departure from the active managers' risk targets as part of their specific investment strategies.
- ***Diversification.*** The passive and semi-passive managers are expected to hold highly diversified portfolios, while

each active domestic stock manager may hold a more concentrated portfolio, appropriate for the particular investment strategy and style.

The domestic stock managers successfully fulfilled their long-term risk objectives during fiscal year 2015. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained levels of diversification that were appropriate for their respective active, semi-passive and passive approaches.

The Board's **return objectives** for active and semi-passive stock managers are measured against the published Russell style indices that represent the managers' specific investment approaches. These indices take into account the equity market forces that affect certain investment styles. Thus, a Russell style index or benchmark is a more appropriate return target against which to judge these managers' returns than the Russell 3000 broad market index.

Active managers are expected to exceed their benchmark by an amount appropriate for their active risk level. This active risk level varies by manager and is influenced by the manager's stated strategy and style.

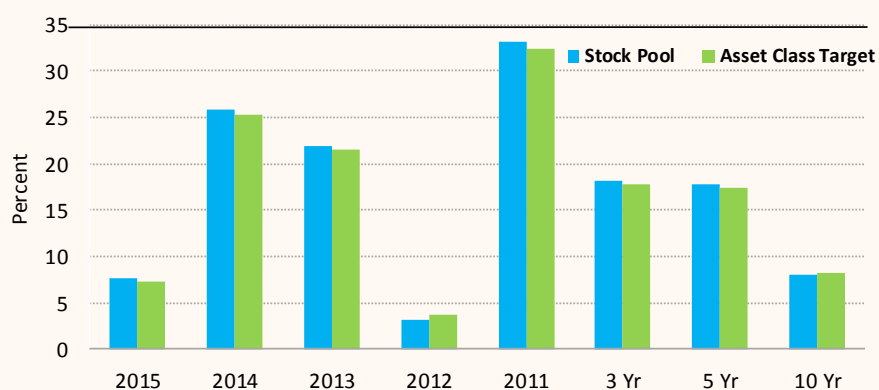
In aggregate, the Domestic Stock Pool exceeded the Russell 3000 Index by 0.4 percentage point for the fiscal year. The active manager group and the semi-passive manager group both outperformed their respective benchmarks. The passive manager matched the one year benchmark.

Relative to the aggregate benchmark, the outperformance of the active manager group was due to stock selection in the Health Care sector and an underweight to Energy sector. The semi-passive managers benefited from overall stock selection, particularly in the Consumer Discretionary sector.

## Investment Pools

Figure 9 provides details of the historical performance of the entire pool. Manager performance relative to the respective benchmarks for the fiscal year end was mixed. Ten of 15 active managers outperformed their assigned benchmarks, while one matched and four managers underperformed. Three of the four semi-passive managers outperformed the Russell 1000, while one trailed the benchmark. The passive manager tracked the Russell 3000 index return. Individual manager performance for fiscal year 2015 is shown in Figure 10. Aggregate portfolio sector characteristics are shown in Figure 11.

**Figure 9. Domestic Stock Pool Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
<b>Stock Pool</b>	<b>7.7%</b>	<b>25.9%</b>	<b>21.9%</b>	<b>3.1%</b>	<b>33.1%</b>	<b>18.2%</b>	<b>17.8%</b>	<b>8.1%</b>
Asset Class Target*	7.3	25.2	21.5	3.8	32.4	17.7	17.5	8.2

\* Reflects the Russell 3000 since 10/1/2003; the Wilshire 5000 Investable from 7/1/1999 thru 9/30/03.

## Investment Pools

**Figure 10. Domestic Stock Manager Performance For Period Ending June 30, 2015**

	1 Year		3 Years		5 Years		Market Value
	Actual	Bmk	Actual	Bmk	Actual	Bmk	(\$ in millions)
	%	%	%	%	%	%	
<b>Active Managers</b>							
<b>Large Cap Growth (Russell 1000 Growth)</b>							
INTECH	11.4	10.6	17.7	18.0	18.4	18.6	609.4
Jacobs Levy Equity Mgmt.	10.6	10.6	18.3	18.0	19.5	18.6	709.2
Sands Capital Mgmt.	7.8	10.6	18.8	18.0	21.9	18.6	700.3
Winslow Capital Mgmt.	12.2	10.6	18.6	18.0	18.7	18.6	320.5
Zevenbergen Capital	7.4	10.6	23.4	18.0	18.7	18.6	666.1
<b>Large Cap Value (Russell 1000 Value)</b>							
Barrow, Hanley	6.4	4.1	18.4	17.3	17.4	16.5	844.5
Earnest Partners	9.4	4.1	16.2	17.3	15.2	16.5	575.5
LSV Asset Mgmt.	7.2	4.1	22.5	17.3	18.7	16.5	857.5
Systematic Financial Mgmt.	3.9	4.1	18.1	17.3	16.1	16.5	779.3
<b>Small Cap Growth (Russell 2000 Growth)</b>							
McKinley Capital	10.7	12.3	24.4	20.1	21.1	19.3	430.6
Next Century Growth	15.8	12.3	14.5	20.1	15.8	19.3	421.1
<b>Small Cap Value (Russell 2000 Value)</b>							
Goldman Sachs	4.0	0.8	18.8	15.5	18.2	14.8	281.6
Hotchkis & Wiley	5.7	0.8	22.9	15.5	20.2	14.8	266.2
Martingale Asset Mgmt.	4.7	0.8	20.6	15.5	18.4	14.8	224.1
Peregrine Capital Mgmt.	3.6	0.8	17.3	15.5	16.5	14.8	368.1
<b>Semi-Passive Managers (Russell 1000)</b>							
BlackRock Institutional	8.5	7.4	18.4	17.7	18.4	17.6	2,544.1
INTECH	6.4	7.4	17.1	17.7	17.3	17.6	2,608.6
J.P. Morgan Investment Mgmt.	8.3	7.4	18.6	17.7	18.2	17.6	3,290.4
Mellon Capital Mgmt.	8.3	7.4	18.1	17.7	18.5	17.6	2,809.0
<b>Passive Manager (Russell 3000)</b>							
BlackRock Institutional	7.3	7.3	17.7	17.7	17.5	17.5	10,056.0
<b>Aggregate Domestic Stock Pool (1)</b>	<b>7.7</b>	<b>7.3</b>	<b>18.2</b>	<b>17.7</b>	<b>17.8</b>	<b>17.5</b>	<b>29,361.9</b>
<b>Asset Class Target</b>							
Russell 3000		7.3		17.7		17.5	

(1) Aggregate includes the performance of terminated managers.

**Figure 11. Domestic Stock Pool Allocations Russell Global (US) Sector Weights For Period Ending June 30, 2015**

<b>Russell Sector</b>	<b>Active Managers %</b>	<b>Semi-Passive Managers %</b>	<b>Passive Manager %</b>	<b>Aggregate Domestic Stock Pool %</b>	<b>Benchmarks Russell 1000 %</b>	<b>Russell 3000 %</b>
Consumer Discretionary	14.7	13.6	14.4	14.0	14.3	14.3
Consumer Staples	3.2	7.2	7.1	6.1	7.9	7.5
Energy	6.1	8.4	7.0	7.5	8.4	8.0
Financial Services	20.3	18.3	19.1	18.8	18.6	19.1
Health Care	15.2	14.0	14.6	14.1	13.8	13.9
Materials and Processing	4.0	3.8	4.0	4.0	4.1	4.3
Producer Durables	11.6	11.7	10.6	11.4	11.2	11.4
Technology	15.1	16.3	15.7	15.8	16.5	16.3
Utilities	2.9	5.8	4.7	4.7	5.2	5.2
Cash	1.6	0.4	1.3	1.3	N/A	N/A
Unassigned*	5.3	0.5	1.5	2.3	N/A	N/A
Assigned Benchmark:	Russell 3000	Russell 1000	Russell 3000	Russell 3000		

\* Holdings not included in benchmark.

### Bond Pool

The Bond Pool is used by the Combined Funds, the Supplemental Investment Fund Bond Fund and the bond portion of the Volunteer Firefighter Account.

The following are the dollar values as of June 30, 2015 of each fund's participation in the Pool:

Combined Funds (active)	\$14.2 billion
Bond Fund (active)	\$126.3 million
Volunteer Firefighter Account (active and passive)	\$14.7 million

#### Investment Management

The SBI uses a two part approach for the management of the Bond Pool:

- **Active Management.** The target is to have no more than half of the Bond Pool managed actively. At the end of fiscal year 2015, approximately 50% of the Bond Pool was actively managed by five external investment managers with portfolios ranging in size from \$1.1 billion to more than \$1.6 billion.
- **Semi-Passive Management.** The target is to have at least half of the assets of the Bond Pool managed semi-passively. At the end of fiscal year 2015, approximately 50% of the bond segment was invested by three managers with portfolios of \$1.9 to \$2.7 billion each.

The group of **active** bond managers is retained for its blend of investment styles. Each active manager has the goal of outperforming the Barclays Capital Aggregate Bond Index by focusing on high quality fixed income securities across all sectors of the market. The managers vary, however, in the emphasis they place on interest rate anticipation (duration) and in the manner in which they approach security selection and sector weighting decisions. In keeping with the objective of utilizing the Bond Pool as a deflation hedge, the active managers are restricted regarding the duration of their portfolios. This requirement is designed to prevent the dilution of the deflation hedge of the total pool due to an excessively short duration position. In addition, the duration restriction helps to avoid extreme variability in total returns relative to the benchmark. The SBI constrains the duration range of the active managers' portfolios to a band of plus or minus two years around the duration of the Barclays Capital Aggregate. The active bond managers focus on high quality (BBB or better) rated bonds. Four managers have been granted authority to invest a limited portion of their portfolios in BB and B rated dollar denominated debt and three have been given authority to invest in investment grade non-dollar denominated issues. The managers use this additional authority on a tactical basis.

The goal of the **semi-passive** managers is to add incremental value relative to the Barclays Capital Aggregate Bond Index through superior bond selection and sector allocation rather than through interest rate exposure. Semi-passive managers'

portfolios are constrained to plus or minus 0.2 years around the duration of the Barclays Capital Aggregate. One manager has been granted authority to invest a limited portion of its portfolio in BB and B rated dollar denominated debt and in investment grade non-dollar denominated issues. The manager uses this additional authority on a tactical basis.

A description of each bond manager's investment approach is included in the **Investment Manager Summaries** section beginning on Page 63.

#### FY 2015 Changes

There were no changes to the bond program in fiscal year 2015.

#### Investment Performance

The SBI constrains the **risk** of the active bond managers' portfolios to ensure that they fulfill their deflation hedge and total fund diversification roles. As noted earlier, the managers are restricted in terms of the duration of their portfolios and the quality of their fixed income investments. The active and semi-passive bond managers successfully fulfilled their long-term risk objectives during fiscal year 2015. The managers constructed portfolios consistent with stated investment approaches and maintained appropriate levels of quality and duration.

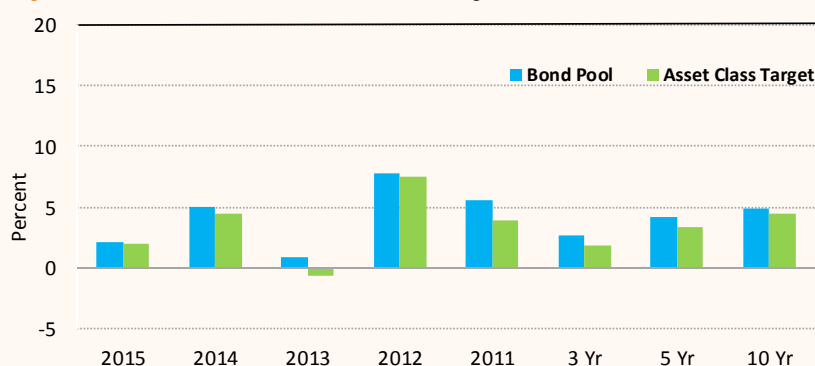
The **returns** of each of the bond managers are compared to the Barclays Capital Aggregate. Individual managers are expected to exceed the target, net of fees, on an annualized basis. In total, the pool outperformed the Barclays Capital Aggregate by 0.2 percentage point for the recent fiscal year. Relative to the

## Investment Pools

benchmark, the pool benefited from overweight positions in MBS, CMBS, and ABS, and security selection in the spread sectors (corporate and mortgage securities). Performance over the long-term is satisfactory. The pool outperformed the asset class target by 0.4 percentage point over the ten year period ending June 30, 2015. Four of the five active managers outperformed the benchmark while one underperformed for the fiscal year. All semi-passive managers outperformed the benchmark for the fiscal year.

Figure 12 shows historical performance for the entire pool. Individual manager performance is shown in Figure 13. Aggregate portfolio sector and portfolio characteristics are shown in Figure 14.

**Figure 12. Bond Pool Performance For Period Endings June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
Bond Pool	2.1%	5.0%	0.8%	7.8%	5.5%	2.6%	4.2%	4.8%
Asset Class Target*	1.9	4.4	-0.7	7.5	3.9	1.8	3.3	4.4

\* The Bond Pool asset class target has been the Barclays Capital Aggregate Bond Index since July 1994.

**Figure 13. Bond Manager Performance For Period Ending June 30, 2015**

	1 Year		3 Years		5 Years		Market Value
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	(\$ in millions)
<b>Active Managers</b>							
Aberdeen Asset Mgmt.	2.4	1.9	2.9	1.8	4.7	3.3	1,116.2
Columbia Mgmt.	2.2	1.9	2.8	1.8	4.5	3.3	1,220.1
Dodge & Cox Investment Mgmt.	1.5	1.9	3.6	1.8	4.7	3.3	1,530.8
PIMCO	3.0	1.9	3.1	1.8	4.5	3.3	1,629.3
Western Asset Mgmt.	2.0	1.9	3.1	1.8	4.8	3.3	1,685.2
<b>Semi-Passive Managers</b>							
BlackRock Financial Mgmt.	2.1	1.9	2.1	1.8	3.6	3.3	1,950.4
Goldman Sachs Asset Mgmt.	2.0	1.9	2.2	1.8	3.9	3.3	2,722.2
Neuberger Investment Mgmt.	2.0	1.9	2.1	1.8	3.8	3.3	2,577.0
<b>Aggregate Bond Pool (1)</b>	<b>2.1</b>	<b>1.9</b>	<b>2.6</b>	<b>1.8</b>	<b>4.2</b>	<b>3.3</b>	<b>14,431.2</b>
<b>Asset Class Target</b>							
Barclays Capital Aggregate		1.9		1.8		3.3	

(1) Aggregate represents Combined Funds performance and includes the performance of terminated managers.



## Investment Pools

**Figure 14. Bond Pool Sector Weights and Portfolio Characteristics for the Period Ending June 30, 2015**

	Active Managers %	Semi-Passive Managers %	Aggregate Bond Pool %	Barclays Capital Benchmark %
Treasury	21.2	28.0	24.6	36.7
Government-Related	1.1	2.8	1.9	3.4
Corporate	38.5	31.9	35.2	23.8
U.S. Mortgage	20.6	25.3	22.9	27.6
Commercial Mortgage	5.0	5.6	5.3	0.0
Asset Backed	3.5	4.8	4.2	0.6
Municipal	0.0	0.6	0.3	0.0
Other	10.1	1.0	5.6	7.9

Note: May not equal 100% due to rounding.

	Active Managers %	Semi-Passive Managers %	Aggregate Bond Pool %	Barclays Capital Benchmark %
Average Quality	AA	AA	AA	AA
Average Yield to Maturity	2.68	2.50	2.60	2.29
Effective Duration**	5.23	5.44	5.33	5.47
Weighted Average Life***	8.2 Yrs.	7.3 Yrs.	7.8	7.3 Yrs.

\*\* Measures the interest rate sensitivity of a bond. It is the approximation of the percentage price change of the bond per 100 bp increase or decrease in prevailing market interest rates. Effective duration takes into consideration how the cashflows of the bonds change when interest rates change. This measure is most appropriate for bonds (and portfolios) with optionality, such as callable bonds and mortgage bonds.

\*\*\* The weighted average life (WAL) of a bond is the average number of years for which each dollar of unpaid principal of a bond remains outstanding. Once calculated, WAL tells how many years it will take to pay half of the outstanding principal.

### International Stock Pool

The International Stock Pool is used by the Combined Funds, the Broad International Stock Fund and the international portion of the Volunteer Firefighter Account in the Supplemental Investment Fund.

The following are the dollar values as of June 30, 2015 of each fund's participation in the International Stock Pool:

Combined Funds (mixed)	\$9.0 billion
Broad Int'l Stock Fund (mixed)	\$191 million
Volunteer Firefighter Account (active and passive)	\$5 million

#### Management Structure

Currently, the SBI uses three styles of management to invest the assets of the International Stock Pool:

- **Active Management.** The target is to have at least one-third of the International Stock Pool managed actively. At the end of fiscal year 2015, approximately 44% of the Pool was actively managed by a group of eight external managers with portfolios ranging in size from \$305 million to over \$817 million. Six of these managers manage portfolios in the developed markets and two manage portfolios in the emerging markets.
- **Semi-Passive Management.** The target is to have no more than 33% of the International Stock Pool

managed semi-passively. At the end of fiscal year 2015, 13% of the Pool was semi-passively managed by a group of three external managers with portfolios ranging in size from \$319 million to \$535 million.

- **Passive Management.** The target is to have at least 25% of the International Stock Pool managed passively. At the end of fiscal year 2015, approximately 43% of the International Stock Pool was passively managed by a single manager in two separate portfolios, one a developed markets equity index account and the other an emerging markets equity index account, with \$3.6 billion and \$302 million respectively.

The goal of the International Stock Pool is to outperform the asset class target, which is the MSCI ACWI ex USA Index (net). The SBI uses the market capitalization weights of the developed and emerging markets as they are represented in the pool's benchmark index as target weights for the developed and emerging markets within the International Stock Pool. At the end of fiscal year 2015, 80% of the International Stock Pool was invested in the developed markets and 20% was invested in the emerging markets.

Six of the eight **active** managers and the three **semi-passive** managers invest entirely in developed markets and use a variety of investment approaches in an effort to maximize the value added to the MSCI World ex USA Index (net) over time. These managers address currency management as

part of their investment process. Their views on currency may be factored into their country and security selection, or they may explicitly hedge currency exposure on an opportunistic basis, or they may seek to add value by actively managing currency positions. Managers are not required to hedge currency risk.

Two of the eight **active** managers invest entirely in emerging markets. They are expected to add incremental value, over time, relative to the MSCI Emerging Markets Index (net) which is made up of markets in developing countries throughout the world.

The **passive** manager in the International Stock Pool designs one of its portfolios to consistently and inexpensively track the developed markets MSCI World ex USA Index (net) and designs the other portfolio to track the MSCI Emerging Markets Index (net).

A description of each international stock manager's investment approach is included in the **Investment Manager Summaries** section beginning on Page 59.

#### FY 2015 Changes

During fiscal year 2015, there were no changes to the International Stock Pool.

#### Investment Performance

Similar to the Domestic Stock Pool, two long-term **risk objectives** have been established for the international equity managers:

- **Investment Approach.** Each manager (active, semi-passive or passive) is expected to hold a portfolio that is consistent with the

## Investment Pools

manager's stated investment approach.

- **Diversification.** While the index manager is expected to hold a well-diversified portfolio which closely tracks its target index and the semi-passive managers are expected to hold risk-adjusted portfolios which modestly outperform the index, each active manager is expected to hold a portfolio which represents its best ideas for outperforming the index.

The international stock managers successfully fulfilled their long-term risk objectives during fiscal year 2015. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

The Board's *return objectives* for the International Stock Program are stated relative to the Morgan Stanley Capital International (MSCI) Standard indices which includes large and mid-capitalization stocks.

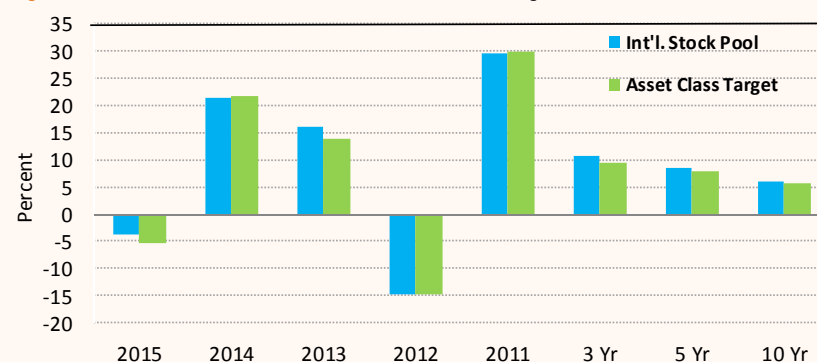
The indices are capitalization weighted and measured in U.S. dollar terms, with currencies unhedged. Individual active managers are expected to exceed their benchmark by an amount appropriate for their level of active risk. The active risk level varies by manager and is influenced by the manager's stated strategy and style. Performance results for the International Stock Pool are shown in Figure 15. In aggregate, performance over the last ten year period exceeded the benchmark by 0.5 percentage point and performance over the last five year period exceeded

the benchmark by 0.6 percentage point. The Pool outperformed the target by 1.5 percentage points for the fiscal year.

Individual manager performance during fiscal year 2015 is shown in Figure 16. Five out of six active developed market managers outperformed the benchmark for the year. One active emerging markets manager outperformed and one underperformed the MSCI Emerging Markets Index (net) benchmark. All three semi-passive developed markets managers outperformed their benchmark. Finally, the developed markets passively managed portion of the program exceeded the return of the MSCI World ex USA Index (net). The emerging markets passively managed portion of the program exceeded the return of the MSCI Emerging Markets Index (net).

The International Stock Pool's country weights are displayed in Figure 17.

Figure 15. Int'l. Stock Pool Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	3 Yr.	5 Yr.	10 Yr.
Int'l. Stock Pool	-3.8%	21.4%	16.1%	-14.7%	29.6%	10.7%	8.4%	6.1%
Asset Class Target*	-5.3	21.8	13.6	-14.6	29.7	9.4	7.8	5.6

\* MSCI ACWI ex USA (net) since 10/1/03. Composite of EAFE-Free and Emerging Markets Free from 5/1/96 through 9/30/03.

## Investment Pools

**Figure 16. International Manager Performance For Period Ending June 30, 2015**

	1 Year		3 Years		5 Years		Market Value
	Actual	Bmk	Actual	Bmk	Actual	Bmk	(\$ in millions)
	%	%	%	%	%	%	
<b>Active Managers</b>							
<b>Developed Mkts (MSCI World ex USA net)</b>							
Acadian Asset Mgmt.	-5.5	-5.3	13.9	11.1	10.7	9.0	378.7
Columbia Mgmt. Investment Advisers, LLC	3.5	-5.3	13.2	11.1	11.8	9.0	372.1
J.P. Morgan Investment Mgmt. Co.	-3.8	-5.3	10.9	11.1	9.5	9.0	305.0
Marathon Asset Management	-0.1	-5.3	14.9	11.1	12.0	9.0	790.6
McKinley Capital Management	0.1	-5.3	13.9	11.1	10.8	9.0	317.6
Pyramis Global Advisors Trust Co.	-2.0	-5.3	13.4	11.1	11.0	9.0	363.2
<b>Semi-Passive Managers</b>							
<b>Developed Mkts (MSCI World ex USA net)</b>							
AQR Capital Management	-4.3	-5.3	13.6	11.1	10.4	9.0	350.5
Pyramis Global Advisors Trust Co.	-2.0	-5.3	13.0	11.1	10.6	9.0	534.7
State Street Global Advisors	-4.5	-5.3	13.4	11.1	9.1	9.0	319.3
<b>Active Managers</b>							
<b>Emerging Mkts (MSCI Emerging Markets net)</b>							
Capital International, Inc.	-7.6	-5.1	3.0	3.7	0.7	3.7	710.5
Morgan Stanley Investment Mgmt.	-3.5	-5.1	5.4	3.7	5.3	3.7	817.3
<b>Passive Managers</b>							
<b>Developed Mkts (MSCI World ex USA net)</b>							
State Street Global Advisors	-4.9	-5.3	11.5	11.1	9.4	9.0	3,595.1
<b>Passive Managers</b>							
<b>Emerging Mkts (MSCI Emerging Markets net)</b>							
State Street Global Advisors	-4.7	-5.1	3.9	3.7			302.2
<b>Aggregate International Stock Pool (1)</b>	<b>-3.8</b>	<b>-5.3</b>	<b>10.7</b>	<b>9.4</b>	<b>8.4</b>	<b>7.8</b>	<b>9,156.7</b>
<b>Asset Class Target</b>							
MSCI ACWI ex USA (net)		-5.3		9.4		7.8	

(1) Aggregate represents Combined Funds performance and includes the performance of terminated managers.

**Figure 17. International Stock Pool Aggregate Country Weights For Period Ending June 30, 2015**

Country	Pool Weights* %	Benchmark Weights** %
Australia	4.3	4.9
Austria	0.3	0.1
Belgium	1.2	0.9
Brazil	1.2	1.6
Canada	6.0	6.6
Chile	0.2	0.3
China	2.1	5.4
Colombia	0.1	0.1
Czech Republic	0.1	0.0
Denmark	1.7	1.2
Egypt	0.1	0.0
Finland	0.8	0.6
France	6.0	6.9
Germany	6.2	6.4
Greece	0.0	0.1
Hong Kong	2.8	2.3
Hungary	0.0	0.0
India	2.1	1.7
Indonesia	0.4	0.5
Ireland	0.5	0.3
Israel	0.3	0.4
Italy	1.6	1.7
Japan	17.8	16.3
Korea	1.9	3.1
Malaysia-EM	0.4	0.7
Mexico	1.1	1.0
Netherlands	2.8	2.0
New Zealand	0.1	0.1
Norway	0.5	0.5
Peru	0.0	0.1
Philippines	0.4	0.3
Poland	0.3	0.3
Portugal	0.1	0.1
Qatar	0.0	0.2
Russia	0.2	0.8
Singapore	0.9	1.0
South Africa	1.1	1.7
Spain	2.0	2.5
Sweden	1.9	2.1
Switzerland	6.5	6.6
Taiwan	1.6	2.8
Thailand	0.5	0.5
Turkey	0.1	0.3
United Arab Emirates	0.1	0.2
United Kingdom	14.5	14.5
USA	1.6	N/A
Non-Benchmark Countries	5.0	N/A
Miscellaneous Accounting Entries	0.5	N/A
<b>Total***</b>	<b>100.0</b>	<b>100.0</b>

\* Grouped by country of incorporation. Source: State Street Bank.

\*\* Benchmark is the MSCI ACWI ex USA Index (net). Source: Factset.

\*\*\* Totals may not add due to rounding.

### **Alternative Investment Pool**

Like the stock and bond segments, alternative assets (real estate, private equity, resource funds and yield-oriented investments) are managed on a pooled basis.

#### **Statutory Constraints**

The statutory constraints for any alternative assets investment for the Combined Funds are as follows:

- Each investment must involve at least four other investors.
- SBI's participation in an investment may not exceed 20% of the total investment.

### **Management Structure**

Given their long investment time horizon, the Combined Funds are especially well suited for alternative investments. Up to 20% of the market value of the Combined Funds is targeted for alternative investments. Market value plus unfunded commitments may be up to 35% of the total market value of the Combined Funds. A breakdown of the Pool by segment is shown in Figure 18. The SBI does not establish an allocation target for each segment. As of June 30, 2015, the market value of current alternative investments was \$7.3 billion, or 12.3% of the Combined Funds.

Descriptions of each of the alternative investments are included in the **Investment Manager Summaries** section beginning on Page 68.

#### **Real Estate**

The real estate investment strategy calls for the

establishment and maintenance of a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main components of this portfolio consist of investments in closed-end commingled funds. The remaining portion of the portfolio may include investments in less diversified, more focused (specialty) commingled funds and REITs.

Prospective real estate managers are reviewed and selected based on the manager's experience, investment strategy and performance history. During fiscal year 2015, the SBI approved and closed on commitments with Blackstone Real Estate Partners. The SBI will continue to review real estate managers for possible inclusion in the pool.

#### **Private Equity**

The private equity investment strategy is to establish and maintain a broadly diversified private equity portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location.

Prospective private equity managers are reviewed and selected based, primarily, on the manager's experience, investment strategy, diversification potential and performance history.

During fiscal year 2015, the SBI approved and closed on commitments with Welsh, Carson, Anderson & Stowe, Paine & Partners, Oaktree Capital Management, MHR Institutional Partners, and CarVal Investors. The SBI will continue to review and add new private

equity investments as attractive opportunities are identified.

#### **Resource Funds**

The strategy for resource investments is to establish and maintain a portfolio of resource investment vehicles that provide an inflation hedge and additional diversification. Resource investments will include oil and gas investments and energy service industry investments that are diversified by geographic area as well as by type.

Resource investments are selected based on the manager's experience, investment strategy and performance history. During fiscal year 2015, the SBI approved and closed on commitments with Merit Energy Company, Natural Gas Partners, Sheridan Production Partners, and EnCap Investments. The SBI will continue to review resource investments for possible inclusion in the pool.

#### **Yield-Oriented**

The strategy for yield-oriented investments is to target funds that typically provide a current return and may have an equity component. Structures such as subordinated debt investments and mezzanine investments are typical yield-oriented investments. Managers are selected based on the manager's performance, experience and investment strategy. During fiscal year 2015, the SBI approved and closed on commitments with TCW Asset Management, Oaktree Capital Management, Kohlberg Kravis and Roberts, and Avenue Capital Partners. The SBI will continue to review yield-oriented investment opportunities for inclusion in the pool.

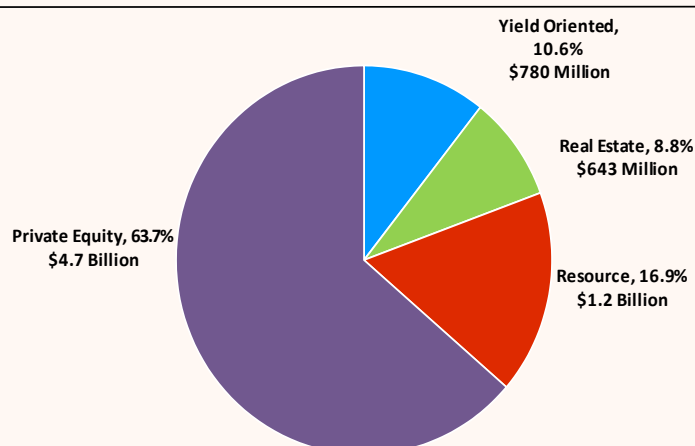
## Investment Pools

### Investment Performance

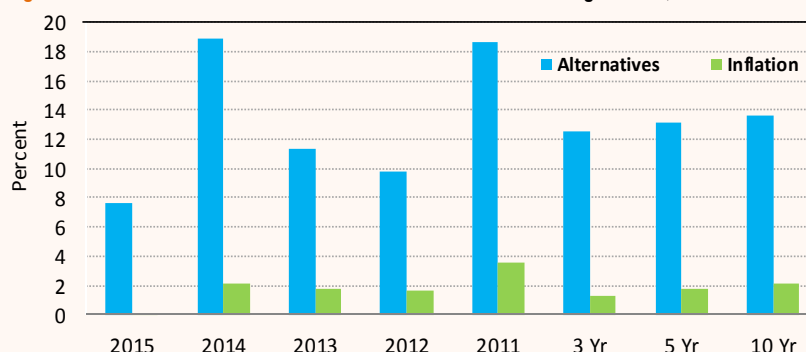
The SBI reviews performance of its alternative investments relative to inflation, as measured by changes in the Consumer Price Index (CPI). The Alternative Investment Pool provided a positive contribution to overall fund performance for the Combined Funds. The Pool provided a 7.6% return in fiscal year 2015 and has provided a 13.6% return annualized over the past ten years. Performance of the Alternative Investment Pool is shown in Figure 19 for the period ending June 30, 2015.

At this time, benchmarks have not been established for the alternative investment fund managers. The long-term nature of these investments and the lack of comprehensive data on the returns provided by the alternative investment markets preclude comprehensive performance evaluation. In the future, as markets for these asset classes become more institutionalized, the SBI hopes to integrate appropriate performance standards for these assets into its performance analysis. A listing of individual investment funds can be found in the **Investment Manager Summaries** section.

**Figure 18. Alternative Investment Asset Mix as of June 30, 2015**



**Figure 19. Alternative Investment Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
Alt. Investments	7.6%	18.9%	11.3%	9.8%	18.6%	12.5%	13.1%	13.6%
Inflation	0.1	2.1	1.8	1.7	3.6	1.3	1.8	2.1



## Supplemental Investment Fund (SIF)

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**The Supplemental Investment Fund program is an investment program that offers a range of investment options to state and local public employees. The program serves individuals who participate in defined contribution or supplemental retirement savings plans and many local volunteer fire relief associations. On June 30, 2015, the market value of the entire Fund was \$1.9 billion.**

The Supplemental Investment Fund (SIF) program provides investment vehicles for a variety of retirement plans. It provides some or all of the investment options for the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan, Hennepin County Supplemental Retirement Plan, Health Care Savings Plan and the St. Paul Teachers Retirement Fund Association. The State Deferred Compensation Plan uses two of the SIF investment options, the Stable Value Fund and the Money Market Fund, for its participants. (Please note that in this report the value of the State Deferred Compensation Plan's SIF investments are included only in the Deferred Compensation Plan market values.) 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.

Effective July 1, 2015, the names of the funds within the SIF program were changed to reflect more descriptive titles of the underlying investment options. The name changes do not affect the investment guidelines or operations of the funds.

The Volunteer Firefighter Account is available only for those local firefighter entities that participate in the Statewide

Volunteer Firefighter Plan administered by PERA. Local entities that participate in this Plan must have all their assets invested in the Volunteer Firefighter Account.

### Fund Structure

Investment goals among the SIF's many participants are varied. In order to meet the variety of goals, the Supplemental Investment Fund 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. Participation in the SIF is accomplished through the purchase or sale of shares in each Fund.

### Fund Management

The Supplemental Investment Fund program offers eight investment options which are shown in Figure 20. The objectives, asset allocation, management and performance of each Fund in the SIF program

**Figure 20. Accounts in the Supplemental Investment Fund**

<b>Balanced Fund</b>	a balanced portfolio of U.S. common stocks, fixed income and cash.
<b>U.S. Stock Actively Managed Fund</b>	an actively managed portfolio of U.S. common stocks.
<b>U.S. Stock Index Fund</b>	a passively managed portfolio of U.S. common stocks.
<b>Broad International Stock Fund</b>	a portfolio of actively, semi-passively, and passively managed non-U.S. stocks.
<b>Bond Fund</b>	a portfolio of both actively and semi-passively managed fixed income securities.
<b>Money Market Fund</b>	a portfolio of short-term, liquid debt securities.
<b>Stable Value Fund</b>	a high quality fixed income portfolio and includes a portfolio of stable value instruments, security backed contracts, insurance company investment contracts and bank investment contracts.
<b>Volunteer Firefighter Account</b>	a balanced portfolio of U.S. and international common stocks, fixed income and cash.



## Supplemental Investment Fund (SIF)

are explained in the following sections.

### Share Values

A share value is established daily for each account in the SIF program, and participants buy or sell shares based on the most recent share value.

In the Balanced Fund, the U.S. Stock Actively Managed Fund, the U.S. Stock Index Fund, the Broad International Stock Fund, the Bond Fund and Volunteer Firefighter Account, shares are priced based on the market value of each Fund. Performance of these Funds is a function of the income and capital appreciation (or depreciation) generated by the securities in the Funds.

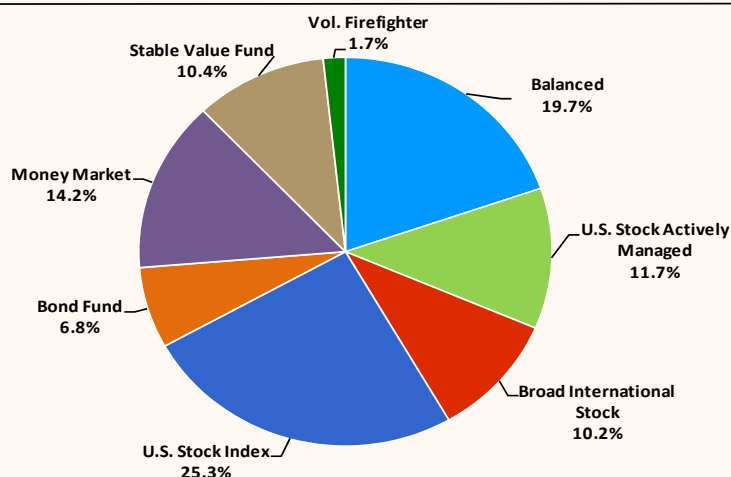
In the Stable Value Fund, shares are priced based on the blended crediting rate of the investments in the Fund. Performance is calculated based on changes in these share values.

In the Money Market Fund, share values remain constant and the accrued interest income is credited to the Fund through the purchase of additional shares.

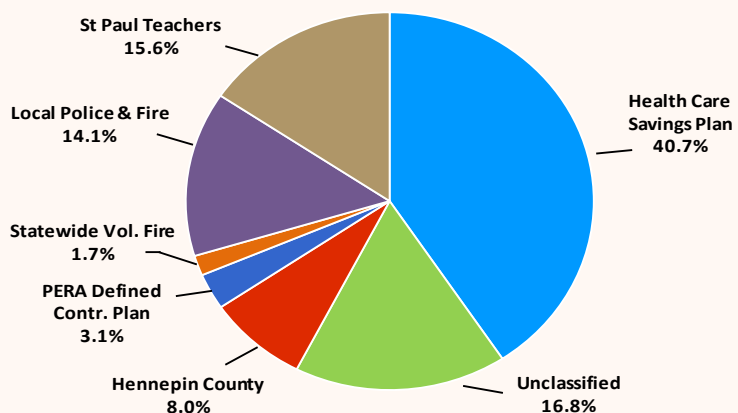
The investment returns shown in this report are calculated using a time-weighted rate of return formula. These returns are net of investment management fees and transaction costs. They do not, however, reflect administrative expenses that may be deducted by the retirement systems to defray administrative costs.

The distribution of assets by market value in the Supplemental Investment Fund as of June 30, 2015 is shown by Fund in Figure 21 and by Plan in Figure 22.

**Figure 21. Composition by Fund as of June 30, 2015**



**Figure 22. Participation by Plan as of June 30, 2015**



Note: Does not include Deferred Compensation Plan assets in the SIF Stable Value Fund and Money Market Funds which are reported elsewhere in the Annual Report.

## Supplemental Investment Fund (SIF)

### Balanced Fund

#### Objective

The investment objectives of the Balanced Fund are to earn a return both from capital appreciation (increases in market value) and current yield (dividends from stock and interest on bonds). The Balanced Fund pursues these objectives within the constraints of protecting against adverse financial environments and limiting short-run portfolio return volatility.

The SBI invests the Balanced Fund in a balanced portfolio of common stocks and fixed income securities with the following long-term asset mix: 60% domestic common stocks, 35% bonds, 5% cash equivalents.

Domestic common stocks provide the potential for significant long-term capital appreciation, while bonds provide both a hedge against deflation and the diversification needed to limit excessive portfolio return volatility.

At the close of fiscal year 2015, the value of the Balanced Fund was \$369 million.

#### Management

All the assets of the Balanced Fund are invested by external managers. The fixed income assets are invested in the Bond Fund, which includes active and semi-passive external investment managers retained by the SBI. The common stock segment is managed externally as part of a passively managed index portfolio of the Domestic Stock Pool designed to track the returns of the Russell 3000 Index. The manager for this portion of the Fund is BlackRock Institutional Trust

Co. The cash portion of the Fund is actively managed by State Street Global Advisors.

#### Performance

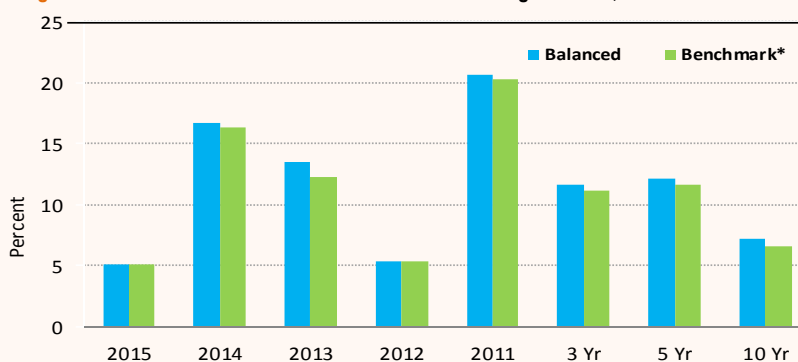
As with the other SBI funds which use a multi-manager investment structure, the Board evaluates the performance of the Balanced Fund on two levels:

- **Total Fund.** The Balanced Fund is expected to exceed the returns of a composite of market indices weighted in the same proportion as its long-term asset allocation.
- **Individual Manager.** The passive stock manager is expected to closely track the performance of the Russell 3000. The group of external bond managers for the Fund are expected to exceed the performance of the Barclays Capital Aggregate Bond Index.

The cash manager for the Fund is expected to exceed the performance of 3 month U.S. Treasury bills.

The Balanced Fund provided a return of 5.1% for fiscal year 2015, tracking its benchmark. Over the most recent ten years, the Balanced Fund exceeded its benchmark by 0.6 percentage point. Figure 23 shows a history of performance results.

Figure 23. Balance Fund Performance for Periods Endings June 30, 2015



	2015	2014	2013	2012	2011	3 Yr.	5 Yr.	10 Yr.
<b>Balanced</b>	<b>5.1%</b>	<b>16.7%</b>	<b>13.5%</b>	<b>5.3%</b>	<b>20.6%</b>	<b>11.6%</b>	<b>12.1%</b>	<b>7.2%</b>
<b>Benchmark*</b>	<b>5.1</b>	<b>16.3</b>	<b>12.2</b>	<b>5.4</b>	<b>20.3</b>	<b>11.1</b>	<b>11.7</b>	<b>6.6</b>

\* 60% Russell 3000/35% Barclays Capital Aggregate Bond Index/5% T-Bills Composite since 10/1/03.

## Supplemental Investment Fund (SIF)

### U.S. Stock Actively Managed Fund

#### Objective

The investment objective of the U.S. Stock Actively Managed Fund is to generate high returns from capital appreciation. To achieve this objective, the Fund is invested primarily in U.S. common stock.

At the close of fiscal year 2015, the value of the Fund was \$219 million.

#### Management

The assets of the U.S. Stock Actively Managed Fund are invested by the external active and semi-passive domestic equity managers used by the Combined Funds in the Domestic Stock Pool. This allocation reflects a more aggressive investment than is available through passive management. The Fund may hold a small amount of cash that represents new contributions received prior to investment in the market and cash that may be held by the individual managers in the Fund.

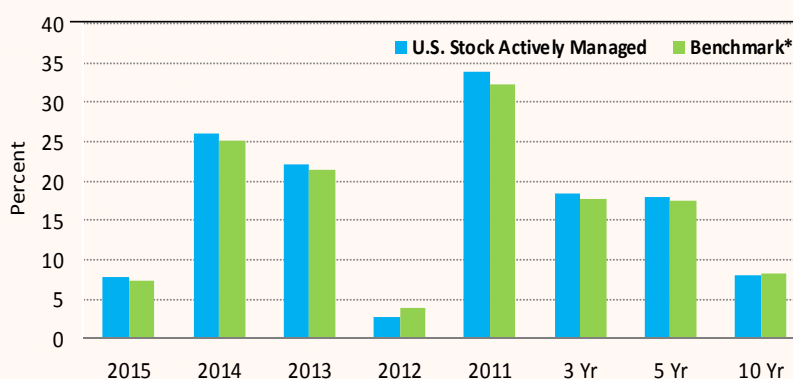
#### Performance

As with the Balanced Fund, the Board evaluates the performance of the U.S. Stock Actively Managed Fund on two levels:

- **Total Fund.** The U.S. Stock Actively Managed Fund is expected to exceed the returns of the Russell 3000 Index.
- **Individual Manager.** Performance objectives for the individual managers are described in the **Investment Pools** section of this report.

The U.S. Stock Actively Managed Fund provided a return of 7.9% for the fiscal year, outperforming its benchmark by 0.6 percentage point. Over the last ten year period, the Account trailed its benchmark by 0.2 percentage point. See the discussion in the Investment Pools section concerning the Domestic Stock Pool for performance information on the managers used by this Fund. A history of performance results is shown in Figure 24.

Figure 24. U.S. Stock Actively Managed Fund Performance For Periods Ending June 30, 2015



	Annualized							
	2015	2014	2013	2012	2011	3 Yr.	5 Yr.	10 Yr.
U.S. Stock	7.9%	26.1%	22.1%	2.7%	33.8%	18.5%	18.0%	8.0%
Benchmark*	7.3	25.2	21.5	3.8	32.4	17.7	17.5	8.2

\* Russell 3000 since 10/1/03.

## Supplemental Investment Fund (SIF)

### U.S. Stock Index Fund

#### Objective

The investment objective of the U.S. Stock Index Fund is to generate returns that track the performance of the broad U.S. common stock market as represented by the Russell 3000 Index. To accomplish this objective, the SBI allocates all of the assets of the Fund to passively managed domestic stocks.

At the end of fiscal year 2015, the Fund had a market value of \$473 million.

#### Management

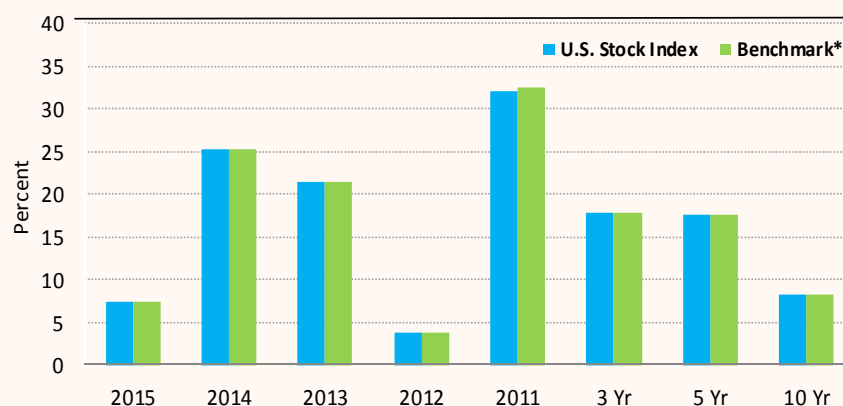
The Fund participates in the passive portfolio of the Domestic Stock Pool which is managed by BlackRock Institutional Trust Co.

#### Performance

The performance objective of the U.S. Stock Index Fund is to track the performance of the Russell 3000. The SBI recognizes that the Fund's returns may deviate slightly from those of the Russell 3000 due to the effects of management fees, trading costs and cash flows.

As expected, the U.S. Stock Index Fund tracked the Russell 3000 Index for the fiscal year and closely tracked over longer periods as shown in Figure 25.

Figure 25. U.S. Stock Index Fund Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
U.S. Stock Index	7.3%	25.2%	21.5%	3.8%	32.0%	17.7%	17.5%	8.2%
Benchmark*	7.3	25.2	21.5	3.8	32.4	17.7	17.5	8.2

\* Russell 3000 since 10/1/03.

## Supplemental Investment Fund (SIF)

### Broad International Stock Fund

#### Objective

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.

Typically, a majority of the Fund is invested in the largest international stock markets (United Kingdom, Japan, Canada, France, Germany, and Switzerland). A large share is invested in other well established markets in Europe and the Pacific region. In addition, at the end of fiscal year 2015, approximately twenty-two percent of the Fund was invested in developing countries or emerging markets around the world, including those in Latin America, Asia, Eastern Europe, the Middle East and Africa.

At the end of fiscal year 2015, the Fund had a market value of \$191 million.

#### Management

The structure of the Broad International Stock Fund combines active, semi-passive, and passive management. Approximately forty-four percent of the Fund is actively managed by several developed and emerging markets stock managers that use a variety of investment styles and approaches. These managers buy and sell stocks in an attempt to maximize market value. About forty-three percent of the Fund is passively managed to approximate closely the returns of the international markets. The remainder of the Fund is semi-passively managed to add incremental value over the index return by investing in broadly diversified portfolios of stocks

in the developed and emerging markets. Overall, the Fund is designed to consistently track the return of the MSCI ACWI ex USA Index (net), a developed and emerging markets index. The Fund uses the same managers used by the Combined Funds in the International Stock Pool.

#### Performance

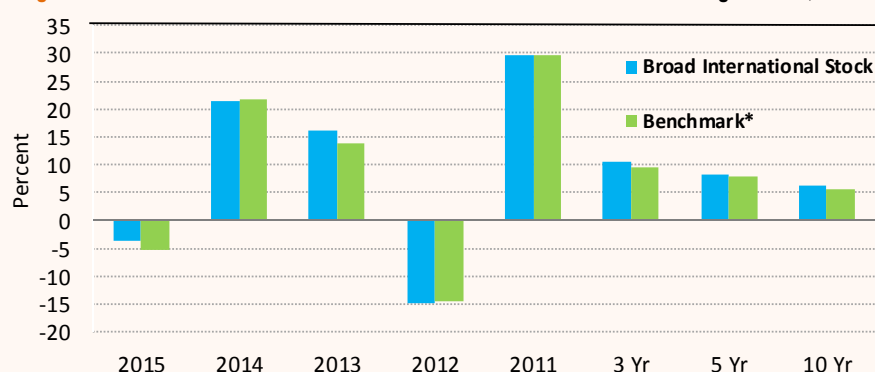
The Board evaluates the performance of the Broad International Stock Fund on two levels:

- **Total Fund.** The Broad International Stock Fund is expected to exceed the returns of the MSCI ACWI ex USA Index (net).
- **Individual Manager.** Performance objectives for the individual managers are described in the **Investment Pools** section of this report.

During fiscal year 2015, the Broad International Stock Fund produced a return of -3.8%, which outperformed the MSCI ACWI ex USA Index (net) by 1.5 percentage points. Over the most recent ten year period, the Broad International Stock Fund exceeded its benchmark by 0.5 percentage point.

See the discussion on performance of the international managers in the Investment Pools section of this report. Total Fund results for the last ten years are shown in Figure 26.

**Figure 26. Broad International Stock Fund Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	3 Yr.	5 Yr.	10 Yr.
<b>Broad International</b>	-3.8%	21.4%	16.1%	-14.7%	29.6%	10.7%	8.4%	6.1%
Benchmark*	-5.3	21.8	13.6	-14.6	29.7	9.4	7.8	5.6

\* The International Equity Asset Class Target is MSCI ACWI ex USA Index (net) since 10/1/03.

## Supplemental Investment Fund (SIF)

### Bond Fund

#### Objective

The objective of the Bond Fund is to earn returns from fixed income securities. The Fund is invested primarily in investment-grade government bonds, corporate bonds and mortgage securities with intermediate to long maturities. A small portion of the Fund, not to exceed ten percent, is invested in below investment grade and non-U.S. securities.

At the end of fiscal year 2015, the market value of the Account was \$126 million.

The Fund earns investment returns through interest income and capital appreciation. Because bond prices move inversely with interest rates, the Fund entails some risk for investors. Historically, however, it represents a lower risk alternative than the investment options that include common stocks.

#### Management

The Bond Fund invests in the Bond Pool used by the Combined Funds. The Bond Pool retains both active and semi-passive managers.

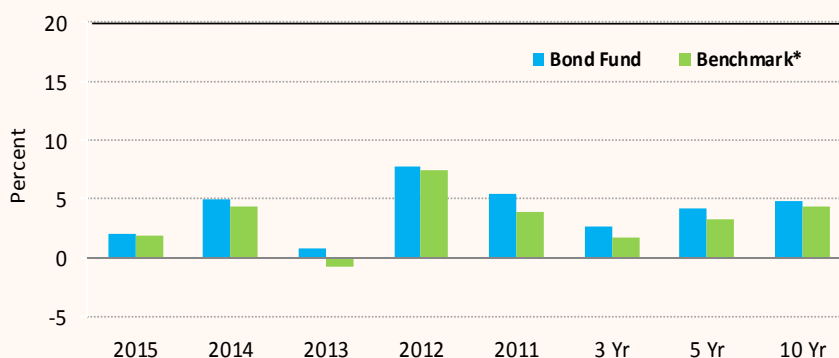
#### Performance

The Board evaluates the performance of the Bond Fund on two levels:

- **Total Fund.** The Fund is expected to exceed the returns of the Barclays Capital Aggregate Bond Index.
- **Individual Manager.** Performance objectives for the individual managers are described in the **Investment Pools** section of this report.

For fiscal year 2015, the Bond Fund produced a return of 2.1%, which was 0.2 percentage point above the Barclays Capital Aggregate benchmark. For the most recent ten year period, the Fund exceeded its benchmark by 0.4 percentage point. See the discussion regarding bond manager performance in the Investment Pools section. Total Fund results for the last ten years are shown in Figure 27.

**Figure 27. Bond Fund Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
<b>Bond Fund</b>	<b>2.1%</b>	<b>5.0%</b>	<b>0.8%</b>	<b>7.8%</b>	<b>5.5%</b>	<b>2.6%</b>	<b>4.2%</b>	<b>4.8%</b>
Barclays Cap. Agg.	1.9	4.4	-0.7	7.5	3.9	1.8	3.3	4.4

## Supplemental Investment Fund (SIF)

### Money Market Fund

#### Objective

The Money Market Fund invests in high-quality, short-term debt instruments. The Fund's investment objectives are to preserve capital and offer competitive money market returns.

At the end of fiscal year 2015, the Money Market Fund had a market value of \$266 million.

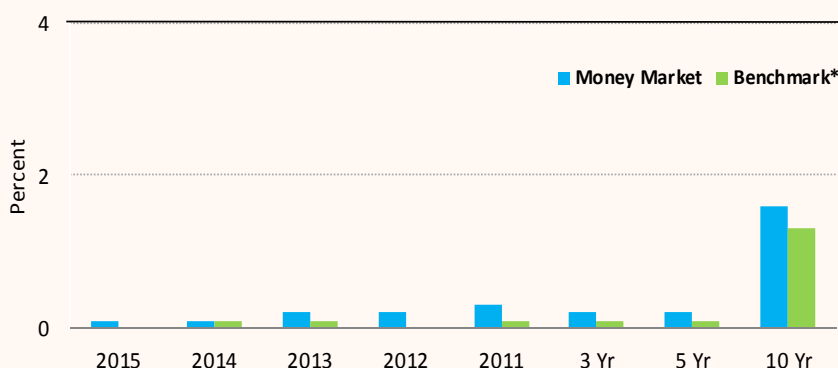
#### Management

The Fund uses the same cash manager as the Combined Funds, which is State Street Global Advisors.

#### Performance

The Fund is expected to produce returns competitive with those available from short-term debt securities. For fiscal year 2015, the Money Market Fund generated a return of 0.1%, which was 0.1 percentage point above the 3 month U.S. Treasury Bills. Over the most recent ten year period, the Account exceeded its target by 0.2 percentage point. Total Account results for the last ten years are shown in Figure 28.

Figure 28. Money Market Fund Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
Money Market	0.1%	0.1%	0.2%	0.2%	0.3%	0.2%	0.2%	1.6%
3 Month T-Bills	0.0	0.1	0.1	0.0	0.1	0.1	0.1	1.3

## Supplemental Investment Fund (SIF)

### Stable Value Fund

#### Objective

The investment objectives of the Stable Value Fund are to protect investors from loss of their original investment and to provide competitive interest earnings using somewhat longer-term investments than typically found in a money market fund.

At the end of fiscal year 2015, the Account totaled \$194 million, excluding Deferred Compensation Plan participation.

#### Management

The assets in the Fund are invested primarily in well-diversified portfolios of high-quality investment grade fixed income securities. The Fund also invests in investment contracts issued by banks and insurance companies, including non-U.S. financial institutions that provide principal protection for the diversified bond portfolios regardless of daily market value changes. Instruments in the Fund typically have maturities of two to four years. Performance reflects the blended interest yield available from all investments in the pool along with any cash held for liquidity purposes.

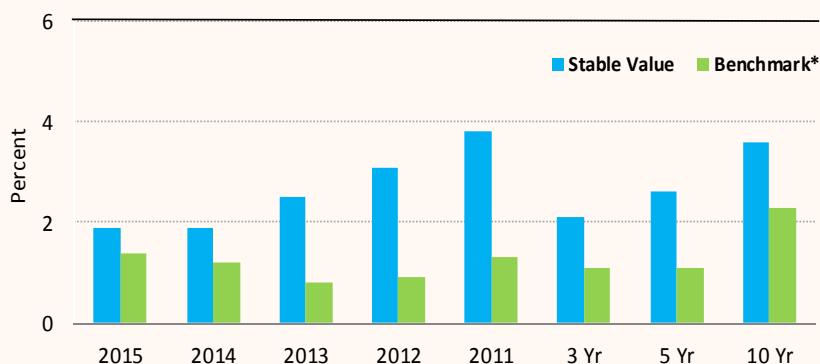
The manager for the Fund is Galliard Capital Management, a subsidiary of Wells Fargo Bank.

Figure 29 shows a history of the Fund's performance results.

#### Performance

The Stable Value Fund is expected to exceed the returns of its custom benchmark, the 3 year Constant Maturity Treasury plus 45 basis points (0.45%). During fiscal year 2015, the Stable Value Fund provided a return of 1.9%, which was 0.5 percentage point above its benchmark. Over the most recent ten year period, the Stable Value Fund exceeded its benchmark by 1.3 percentage points.

Figure 29. Stable Value Fund Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized		
Stable Value	1.9%	1.9%	2.5%	3.1%	3.8%	2.1%	2.6%	3.6%
Benchmark*	1.4	1.2	0.8	0.9	1.3	1.1	1.1	2.3

\* 3 Year Constant Maturity Treasury plus 45 basis points.



## Supplemental Investment Fund (SIF)

### Statewide Volunteer Firefighter Retirement Plan

*Minnesota Statutes*, Chapter 353G creates a statewide voluntary plan for local relief associations. Local entities may choose to join the statewide plan which is trustee by PERA. Investments of the plan are invested in the Supplemental Investment Fund Volunteer Firefighter Plan. Participation in the plan is effective on December 31 of a given year. The SBI must evaluate the assets of each local entity that seeks to join the plan. In 2015, 12 local entities joined the plan, transferring \$4.6 million to the SBI for investment. At the close of fiscal year 2015, 91 local fire entities, representing \$32 million in assets, were in the Plan.

#### Objective

The investment objective of the Volunteer Firefighter Plan is to earn a high rate of return from both capital appreciation (increases in market value) and current yield (dividends from stocks and interest on bonds). The Plan pursues this objective within the constraints of protecting against adverse financial environments and limiting short-run portfolio return volatility.

The SBI invests the Plan in a balanced portfolio of domestic common stocks, international stocks and fixed income securities with the following long-term asset mix: 35% domestic stocks, 15% international stocks, 45% fixed income, 5% cash equivalents.

Domestic stocks provide the potential for significant long-term capital appreciation,

international stocks provide similar potential and a measure of diversification, and bonds provide both a hedge against deflation and the diversification needed to limit excessive portfolio return volatility.

#### Management

The Plan's investment management structure combines active and passive management used by the Combined Funds. The domestic stock segment is managed as part of the passively managed index fund within the Domestic Stock Pool designed to track the returns of the Russell 3000 Index. The international stock segment invests in the International Stock Pool which uses a combination of active, semi-passive and passive management to invest across a broad range of developed and emerging markets. The bond segment invests in the Bond Pool used by the Combined Funds. The Bond

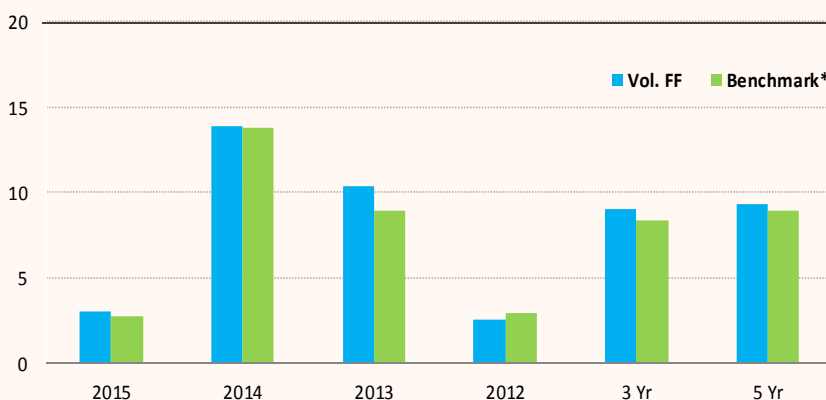
Pool retains both active and semi-passive managers.

#### Performance

As with other SBI funds which utilize a multi-manager investment structure, the Board evaluates the performance of the Volunteer Firefighter Plan on two levels:

- **Total Account.** The Volunteer Firefighter Account is expected to exceed the returns of a composite of market indices weighted in the same proportion as its long-term asset allocation.
- **Individual Manager.** The passive domestic stock and passive international stock managers are expected to closely track the performance of their respective benchmarks. The performance objectives of the individual

Figure 30. Volunteer Firefighter Account Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized 3 Yr.	5 Yr.
Volunteer Firefighter	3.0%	13.9%	10.4%	2.6%	17.5%	8.9%	9.3%
Benchmark*	2.7	13.8	8.9	2.9	17.1	8.4	8.9

\* 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Barclays Capital Aggregate, 5% 3 month T-Bills.

## Supplemental Investment Fund (SIF)

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international equity and bond managers are described in their respective sections of this report.

The Statewide Volunteer Firefighter Plan was established January 1, 2010. The Plan provided a return of 3.0% for the year ending June 30, 2015 and exceeded its composite benchmark by 0.3 percentage point. Over the most recent five year period, the Plan exceeded its benchmark by 0.4 percentage point.

Figure 30 shows a history of the Account's performance results.

### **Local Fire Fund Activity**

#### **Volunteer Fire Plans Investment**

Volunteer firefighter retirement plans that are not eligible to be consolidated with PERA may invest their assets with the SBI through the Supplemental Investment Fund (SIF). There are more than 630 local volunteer firefighter plans with investment authority that could participate in SIF. As of the end of fiscal year 2015, there were 186 plans participating in the SIF with \$264 million in assets.

#### **Local Plan Performance Reports**

The SBI provides participating local plans with reports showing annual returns and market value for all SIF Funds in compliance with *Minnesota Statutes*, Chapter 356. The local plans are responsible for providing their specific data to the Office of the State Auditor.

***The State Deferred Compensation Plan (Plan) provides public employees with a tax-sheltered retirement savings program that is a supplemental plan to their primary retirement plan. (In most cases, the primary plan is TRA, PERA, or MSRS.) On June 30, 2015 the market value of the State Deferred Compensation Plan was \$5.8 billion.***

### **Program Structure**

The State 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.

#### **Actively Managed Options**

The Plan offers a range of actively managed options that allows participants the flexibility to create an investment program that satisfies their needs.

- **Large-Cap Equity**

This option is a concentrated portfolio of large cap stocks. The fund is expected to outperform the S&P 500 over time. Currently, Janus Twenty is the mutual fund offered.

- **Small-Cap Equity**

This option invests primarily in companies with small market capitalizations. The fund is expected to outperform the Russell 2000 over time. T. Rowe Price

Small-Cap Stock Fund is the fund currently offered.

- **Bond Fund**

This option invests primarily in investment grade securities in the U.S. bond market. The fund is expected to outperform the Barclays Capital Aggregate over time. The fund currently offered is the Dodge & Cox Income Fund.

- **International Equity**

This option invests primarily in stocks of companies in developed countries located outside the United States. The fund is expected to outperform the Morgan Stanley Capital International (MSCI) Index of Europe, Australasia and the Far East (EAFE) over time. The fund currently offered is the Fidelity Diversified International Fund.

- **Money Market Fund**

This option invests in high quality short-term debt instruments and is expected to outperform the return on three month U.S. Treasury bills. This option is the SIF Money Market Fund invested by State Street Global Advisors (SSgA.)

- **Stable Value Fund**

This option is invested in the SIF Stable Value Fund which is a well-diversified portfolio of high-quality fixed income securities with strong credit ratings. The option also

invests in contracts issued by highly rated insurance companies and banks which are structured to provide principal protection for the option's diversified bond portfolios, regardless of daily market changes.

The option is expected to outperform the return of the three year Constant Maturity Treasury plus 45 basis points (0.45%), over time. Currently, Galliard Capital Management, Inc. manages the option.

#### **Passively Managed Options**

The plan offers a range of passively managed options that allows participants the flexibility to create a lower cost investment program that satisfies their needs.

- **Large-Cap Equity**

This option is a passive domestic stock portfolio that tracks the S&P 500. The fund currently offered is the Vanguard Institutional Index Plus Fund.

- **Mid-Cap Equity**

This option invests in companies with medium market capitalizations that track the CRSP U.S. Mid-Cap Index. The fund currently offered is the Vanguard Mid-Capitalization Index Institutional Fund.

## State Deferred Compensation 457b Plan

- **Balanced Fund**

This option is a mix of stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP U.S. Total Market Index and 40% Barclays Capital Aggregate Bond Index. The fund currently offered is the Vanguard Balanced Index Fund.

- **Bond Fund**

This option invests in a broad range of U.S. fixed income securities. The fund is expected to track the performance of the Barclays Capital Aggregate Bond Index. The fund currently offered is the Vanguard Total Bond Market Index Fund.

- **International Equity**

This option invests in international equities and is expected to track the FTSE Global All Cap ex U.S. Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States. The fund currently offered is the Vanguard Total International Stock Index Fund.

### Minnesota Target Retirement Funds

The plan offers a range of target date funds, which are diversified options with allocations that change over time to reduce risk and become more conservative as the target retirement date approaches. The funds are currently offered by State Street Global Advisors (SSgA.)

Performance results for the mutual fund investment options for fiscal year 2015 are shown in Figures 31 and 32.

**Figure 31. State Deferred Compensation Plan (457b Plan) For Fiscal Year Ending June 30, 2015<sup>(1) (2)</sup>**

	1 Year		3 Years		5 Years		Market Value <sup>(3)</sup>
	Actual	Bmk	Actual	Bmk	Actual	Bmk	(\$ in millions)
	%	%	%	%	%	%	
<b>Actively Managed</b>							
Janus Twenty (S&P 500)	7.8	7.4	16.4	17.3	14.8	17.3	531.0
T. Rowe Price Small-Cap (Russell 2000)	5.7	6.5	17.4	17.8	18.8	17.1	602.2
Fidelity Diversified Int'l. (MSCI EAFE)	2.1	-4.2	14.1	12.0	11.4	9.5	292.8
Dodge & Cox Income Fund (Barclays Capital Aggregate)	1.0	1.9	3.2	1.8	4.3	3.3	206.4
SIF Money Market (3 Month T-Bills)	0.1	0.0	0.2	0.1	0.2	0.1	61.3
SIF Stable Value (3 year Constant Maturity Treas. +45 basis points)	1.9	1.4	2.1	1.1	2.6	1.1	1,299.4
<b>Passively Managed</b>							
Vanguard Institutional Index (S&P 500)	7.4	7.4	17.3	17.3	17.3	17.3	987.1
Vanguard Mid-Cap Index (CRSP US Mid-Cap)	8.7	8.7	19.7	19.8	18.3	18.3	436.7
Vanguard Total Int'l Stock Index (FTSE Global All Cap ex US)	-4.5	-4.2	9.9	10.3	8.2	8.1	167.6
Vanguard Balanced Index Inst. (60% CRSP US Total Market, 40% Barclays Capital Aggregate)	5.1	5.1	11.1	11.2	11.9	11.9	683.5
Vanguard Tot. Bond Market Index (Barclays Capital Aggregate)	1.7	1.9	1.7	1.8	3.3	3.3	190.3

- (1) Benchmarks for the Funds are noted in parentheses below the Fund names. The dates the Funds were retained by the SBI differ.
- (2) Returns are reported net of fund operating expenses, but do not include the MSRS administrative fee.
- (3) Market value of SBI participation in fund.

## State Deferred Compensation 457b Plan

**Figure 32. State Deferred Compensation Plan (457b Plan) For Fiscal Year Ending June 30, 2015 <sup>(1) (2)</sup>**

	1 Year Actual %	Bmk %	3 Years Actual %	Bmk %	Market Value <sup>(3)</sup> (\$ in millions)
<b>MN Target Retirement Funds</b>					
Income Fund	-0.1	0.0	4.7	4.9	71.5
2020 Fund	0.1	0.2	6.9	7.0	73.7
2025 Fund	0.8	0.9	8.9	9.0	55.5
2030 Fund	1.4	1.5	10.2	10.3	34.9
2035 Fund	1.6	1.7	11.1	11.2	26.8
2040 Fund	1.7	1.7	11.8	11.9	16.5
2045 Fund	1.7	1.7	12.5	12.6	11.7
2050 Fund	1.7	1.7	12.6	12.7	8.1
2055 Fund	1.7	1.7	12.6	12.7	3.8
2060 Fund	1.7	1.7	12.6	12.7	4.7

Note: Managed by SSgA, each Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation. The underlying index funds are listed below.

<b>SSgA Index Funds</b>					
S&P 500 Index Fund (S&P 500)	7.4	7.4	17.3	17.3	
Russell Small/Mid Cap Index Fund (Russell Small Cap Completeness Index)	6.2	6.1	19.2	19.2	
DJ-UBS Roll Select Commodity Index Fund (DJ-UBS Roll Select Commodity Index)	-22.6	-22.6	-7.9	-7.7	
Global All Cap Equity ex US Index Fund (MSCI ACWI ex USA IMI)	-4.8	-5.0	9.9	9.8	
Global Real Estate Securities Index Fund (FTSE EPRA/NAREIT Dev Liquid)	0.1	-0.6	8.8	8.2	
Long Government Bond Index Fund (Barclays Capital Long Government)	6.2	6.2	1.2	1.2	
Bond Index Fund (Barclays Capital Aggregate)	1.9	1.9	1.8	1.8	
Inflation Protection Bond Index Fund (Barclays Capital U.S. TIPS)	-1.7	-1.7	-0.8	-0.8	
High Yield Bond Index Fund (Barclays Capital U.S. High Yield Very Liquid)	-1.3	-1.1	6.3	6.3	
U.S. Short-Term Govt/Credit Index Fund (Barclays Capital 1-3 Yr. Govt/Credit)	0.9	0.9	0.9	0.9	

(1) Target Retirement Funds inception date is July 2011.

(2) Returns are reported net of fund operating expenses, but do not include the MSRS administrative fee.

(3) Market value of SBI participation in fund.

*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. On June 30, 2015, the market value of the Plan was just under \$1.2 billion.*

### Program Structure

The Minnesota Legislature authorized establishment of the Minnesota College Savings Plan (the Plan) in 1997 and in 2001 the Plan was launched. The State Board of Investment (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. (TFI) to provide administrative, marketing, communication, recordkeeping and investment management services.

During fiscal year 2015, SBI staff worked with OHE in a Request for Proposal process to find the most competitive plan in the national 529 marketplace. The SBI and OHE renewed a five year contract with TFI. The re-launch of the Plan occurred in August 2014 and included a significant reduction in the Plan Management Fee and additional investment options.

#### **Objective**

The objective of the Plan is to be competitive in the market place by providing quality investment options with low fees to its participants. The Plan is a direct-sold plan (i.e. may be purchased directly without an investment advisor) and offers nine Age Based Managed

Allocation Options, three Risk-Based Allocation Options and seven Static Investment Options. The Plan has both active and passive management through TIAA-CREF's mutual funds. While all options are priced daily, participants may re-allocate their investment twice per calendar year.

- **Age Based Managed Allocation Option**

This investment option seeks to align the investment objective and level of risk to the investment horizon by taking into account the beneficiary's age and the number of years before the beneficiary turns 18 and is expected to enter college. Depending on the beneficiary's age, the assets contributed to this option are placed in one of six age bands. As the beneficiary ages, assets are moved from one age band to the next. The age bands for younger beneficiaries seek a favorable long-term return by investing in a high level of risk but greater potential for higher returns than more conservative investments. As a beneficiary nears college age, the age bands allocate less to equity and real estate and more to fixed-income and money market securities to preserve capital.

#### **Risk Based Allocation Option**

These Investment Options provide a fixed risk level and do not change as the beneficiary ages. There are three separate Risk Based Allocation Options: Aggressive, Moderate or Conservative.

The aggressive option seeks to generate a favorable long-term return by investing in mutual funds that invest primarily in equity securities and, to a less extend invest in debt securities. Approximately 48% of the fund is allocated to U.S. equity securities; 19% to developed international equities; 5% to emerging markets equities; 8% real estate securities; 14% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 4% to inflation-linked bonds and 2% to high yielding debt securities.

The moderate option seeks to provide a favorable long-term total return by allocating to a balanced mix of domestic and foreign equity securities, fixed income and real estate-related securities. Approximately 36% of the fund is allocated to US equity securities; 14% to developed international equities; 4% to emerging



markets equities; 6% real estate securities; 28% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 8% to inflation-linked bonds and 4% to high yielding debt securities.

The conservative allocation option seeks to provide a conservative to moderate total return by investing in mutual funds that invest primarily in debt securities and, to a less extend invest in equity securities. This option also invest in a funding agreement. Approximately 18% of the fund is allocated to U.S. equity securities; 7% to developed international equities; 2% to emerging markets equities; 3% real estate securities; 32% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 9% to inflation-linked bonds; 4% to high yielding debt securities and 25% in a funding agreement issued by TIAA-CREF Life (see the Principal Plus Interest Option for further detail on the funding agreement).

- **International Equity Index Option**

This Investment Option seeks to provide a favorable long-term total return, mainly through capital appreciation. Approximately 80% of the fund is allocated to equity securities of issuers located in developed markets and 20% is allocated to equity securities of issuers located in emerging markets.

- **U.S. and International Equity Option**

This investment option seeks to provide a favorable long-term total return, mainly from capital appreciation, by allocating primarily in a blend of equity and real estate-related securities.

Approximately 60% of the fund is allocated to US equity securities, 24% to equity issuers located in developed markets and 6% to equity securities of issuers located in emerging markets and 10% to real estate-related securities.

- **U.S. Large Cap Equity Option**

This investment option seeks to provide a favorable long-term total return mainly from capital appreciation. All assets of the fund are invested in an S&P 500 index fund.

- **Equity and Interest Accumulation Option**

This investment seeks to provide a moderate long-term total return. Approximately half of its assets are invested in an equity index fund and the other half in a funding agreement.

- **100% Fixed-Income Option**

This investment option seeks to provide preservation of capital along with a moderate rate of return through a diversified mix of fixed income investments. Approximately 70% of the fund is allocated to public, investment-grade, taxable bonds

denominated in US dollars, and 20% to inflation-linked bonds and 10% is allocated to a high yield fund.

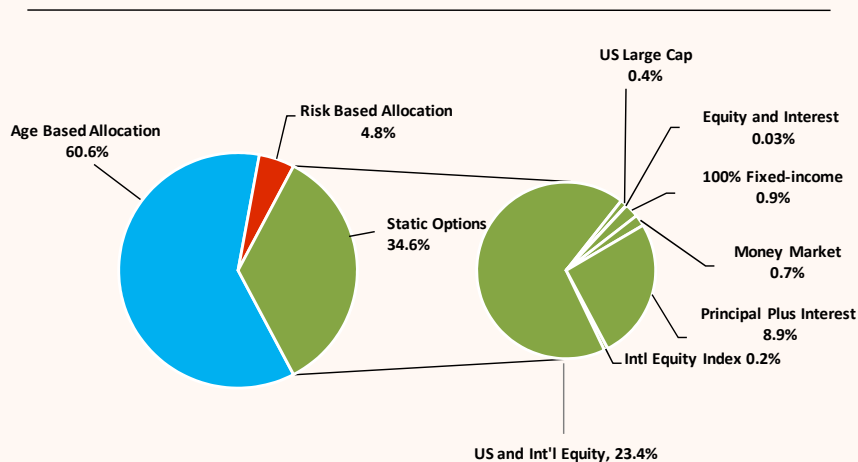
- **Money Market Option**

This investment option seeks to provide high current income consistent with preserving capital. All assets of the fund are invested in high-quality, short-term money market instruments of both domestic and foreign issuers.

- **Principal Plus Interest Option**

This investment option seeks to preserve capital and provide a stable return. The contributions into this investment option 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 and allows for the possibility that additional interest may be credited as declared periodically by TIAA-CREF Life. As of June 30, 2015, the Minnesota College Savings Plan distribution of assets is shown in Figure 33 and performance is shown in Figure 34.

Figure 33. MN College Savings Plan Assets by Investment Option as of June 30, 2015



# Minnesota State College Savings Plan

**Figure 34. Minnesota State College Savings Plan (529 Plan) For Fiscal Year Ending June 30, 2015<sup>(1)</sup>**

	1 Year		3 Year		Market	Inception
	Actual	Bmk	Actual	Bmk	Value <sup>(2)</sup>	Date <sup>(3)</sup>
	%	%	%	%	(\$ in millions)	
<b>Age Based Managed Allocation Option</b>						
Age Band 0-4 Years	--	--	--	--	\$25.4	8/12/14
Age Band 5-8 Years	--	--	--	--	82.4	8/12/14
Age Band 9-10 Years	--	--	--	--	80.6	8/12/14
Age Band 11-12 Years	--	--	--	--	110.2	8/12/14
Age Band 13-14 Years	--	--	--	--	118.8	8/12/14
Age Band 15 Years	--	--	--	--	57.4	8/12/14
Age Band 16 Years	--	--	--	--	61.4	8/12/14
Age Band 17 Years	--	--	--	--	51.5	8/12/14
Ages 18 Years and Over	--	--	--	--	137.7	8/12/14
<b>Risk Based Allocation Option</b>						
Aggressive Allocation	--	--	--	--	4.6	8/12/14
Moderate Allocation	2.4	2.6	8.9	9.3	50.5	8/02/14
Conservative Allocation	--	--	--	--	2.8	8/18/14
<b>Static Options</b>						
International Equity Index	-4.3	-4.3	--	--	2.9	06/18/13
U.S. and International Equity	3.4	3.5	14.3	14.8	279.7	10/01/01
U.S. Large Cap Equity	--	--	--	--	5.0	08/12/14
Equity and Interest Accumulation	--	--	--	--	0.4	08/18/14
100% Fixed-Income	0.8	1.1	0.7	1.2	10.5	08/16/07
Money Market	0.0	0.0	0.0	0.0	8.6	11/01/07
Principal Plus Interest (4)	1.2	0.0	1.3	0.0	107.0	10/10/01

Note: Each Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation.  
The returns of the underlying index funds managed by TIAA-CREF are listed below.

<b>TIAA-CREF Index Funds</b>				
T-C Equity Index Fund	7.3	7.3	17.7	17.7
Russell 3000 Index				
T-C International Equity Index Fund*	-4.0	-4.2	12.0	12.0
MSCI EAFE Index				
T-C Real Estate Securities Fund	6.0	4.1	8.6	9.1
FTSE NAREIT Index				
T-C Emerging Markets Equity Index Fund	-5.1	-4.8	3.1	4.1
MSCI Emerging Markets Index				
T-C Bonds Index Fund	1.8	1.9	1.6	1.8
Barclays Capital U.S. Agg. Index				
T-C Money Market Fund	0.0	0.1	0.0	0.1
iMoneyNet Average All Taxable				
T-C Short-Term Bond Fund	-2.1	-1.7	-1.0	-0.8
Barclays Capital U.S. TIPS Index				
T-C High-Yield	0.0	2.3	6.3	5.6
BOFAML High Yield BB/B Cash Day Index				
T-C S&P 500 Index	7.3	7.4	17.2	17.3
S&P 500 Index				

(1) Returns are reported net of investment management fees, Program Management Fees and State Administrative Fees.

(2) Market value of SBI participation in fund.

(3) A total of seven investment options were added as part of the August 12, 2014 re-launch of the MN College Savings Plan. Of the Seven added, three were age based managed allocation options.

(4) The credit rating of 1.4% for the underlying Funding Agreement is guaranteed through 8/31/16.



## Assigned Risk Plan

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*The Minnesota Workers Compensation Assigned Risk Plan was established in 1983 to provide workers' compensation coverage to Minnesota employers rejected by a private insurance carrier. On June 30, 2015, the market value of the Plan's portfolio was \$307 million.*

The Assigned Risk Plan operates as a non-profit, tax-exempt entity and is administered by the Department of Commerce. The Plan provides disability income, medical expenses, retraining expenses and death benefits with payments being made either periodically or in lump sum.

### Investment Objectives

The SBI recognizes that the Assigned Risk Plan has limited tolerance for risk due to erratic cash flows, no allowance for surplus, and generally short duration liabilities.

Therefore, the SBI has established two investment objectives for the Plan:

- To minimize mismatch between assets and liabilities.
- To provide sufficient liquidity (cash) for payment of on-going claims and operating expenses.

Performance relative to these objectives is measured against a composite index that reflects the asset allocation of the portfolio.

### Asset Allocation

The SBI believes that due to the uncertainty of premium and liability cash flows, the Plan should be invested very conservatively.

The **bond** segment is invested to fund the shorter-term liabilities (less than 10 years) and the common stock segment is invested to fund the longer-term liabilities. The result is a high fixed income allocation which minimizes the possibility of a future fund deficit. The smaller **stock** exposure provides higher expected returns and hedges some of the inflation risk associated with the liability stream.

The current long term asset allocation targets for the Plan are as follows:

Domestic Stocks	20%
Domestic Bonds	80

The asset allocation may fluctuate in response to changes in the liability stream projected by the Plan's actuary and further analysis by the SBI staff. Figure 35 presents the actual asset mix of the Assigned Risk Plan at the end of fiscal year 2015.

### Investment Management

RBC Global Asset Management (U.S.) manages the bond segment of the Assigned Risk Plan, and GE Asset Management manages the equity segment of the Plan.

#### Bond Segment

The bond segment is designed to fund the shorter-term liabilities of the Plan with a target duration of about three years. The

segment is actively managed to add incremental value through sector, and security decisions.

#### Stock Segment

The stock segment is structured to fund the longer-term liabilities of the Plan. Currently, the equity segment is managed with a broadly diversified portfolio of high quality, large capitalization companies.

### Investment Performance

Due to the focus on liability matching, the Assigned Risk Plan's investment portfolio is conservatively structured. While active management is utilized, return enhancement plays a secondary role.

The Assigned Risk Plan is measured against a composite index which is weighted to reflect the asset allocation of the Plan:

- The target for the fixed income component is a custom benchmark which reflects the duration target established for the bond segment (approximately three years).
- The target for the equity component is the S&P 500.

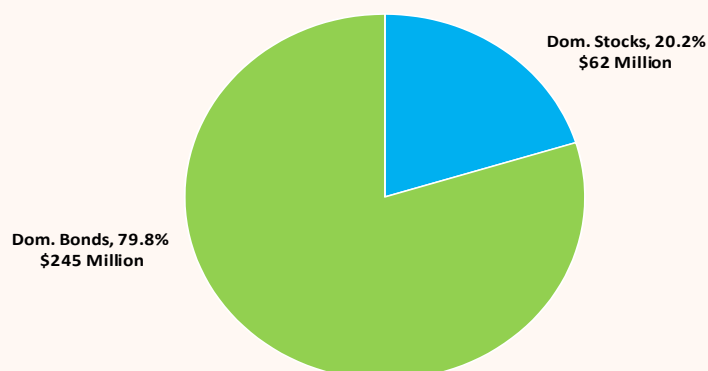
During fiscal year 2015, the **bond** segment underperformed its benchmark by 0.1%. The **stock** segment underperformed its benchmark by 0.7 percentage point.

## Assigned Risk Plan

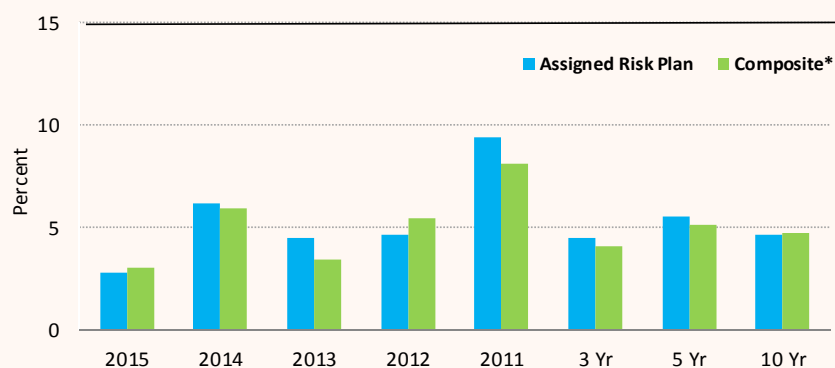
**Overall**, the Assigned Risk Plan provided a return of 2.8% for fiscal year 2015, below the composite index by 0.4 percentage point. For the most recent three year and five year periods, the Plan outperformed its composite index by 0.4 percentage point for both time periods, and underperformed by 0.1 percentage point over the ten year period.

Historical performance results are presented in Figure 36.

**Figure 35. Assigned Risk Plan Asset Mix as of June 30, 2015**



**Figure 36. Assigned Risk Plan Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
<b>Total Fund</b>	<b>2.8%</b>	<b>6.2%</b>	<b>4.5%</b>	<b>4.6%</b>	<b>9.4%</b>	<b>4.5%</b>	<b>5.5%</b>	<b>4.6%</b>
Composite Index*	3.0	5.9	3.4	5.4	8.1	4.1	5.1	4.7
<b>Stock Segment</b>	<b>6.7</b>	<b>25.3</b>	<b>23.2</b>	<b>2.3</b>	<b>27.6</b>	<b>18.1</b>	<b>16.5</b>	<b>8.1</b>
S&P 500	7.4	24.6	20.6	5.4	30.7	17.3	17.3	7.9
<b>Bond Segment</b>	<b>1.7</b>	<b>1.5</b>	<b>-0.5</b>	<b>4.6</b>	<b>5.3</b>	<b>0.9</b>	<b>2.5</b>	<b>3.5</b>
Benchmark	1.8	1.5	-0.6	5.0	2.9	0.9	2.1	3.7

\* Weighted 20% stocks, 80% bonds.

## Closed Landfill Investment Fund

*The Closed Landfill Investment Fund is a trust fund 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. On June 30, 2015 the market value of the Fund was \$69 million.*

### Investment Objective

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.

### Asset Allocation

The Fund is invested in a balanced portfolio of common stocks (70%) and bonds (30%). Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. Figure 37 presents the actual asset mix of the Closed Landfill Fund at the end of fiscal year 2015.

### Investment Management

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

### Investment Performance

For fiscal year 2015, the Fund outperformed its composite benchmark by 0.2 percentage point. For the most recent three year, five year and 10 year periods, the fund tracked its composite index. Performance results are shown in Figure 38.

Figure 37. Closed Landfill Fund Asset Mix as of June 30, 2015

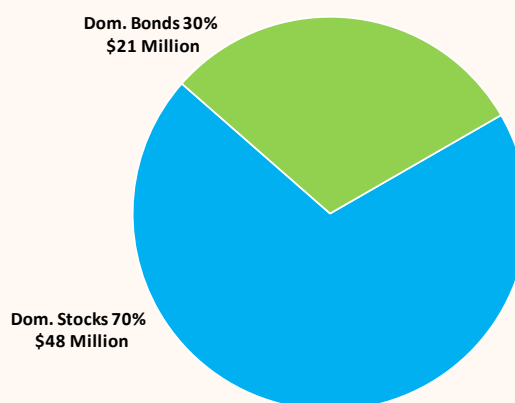
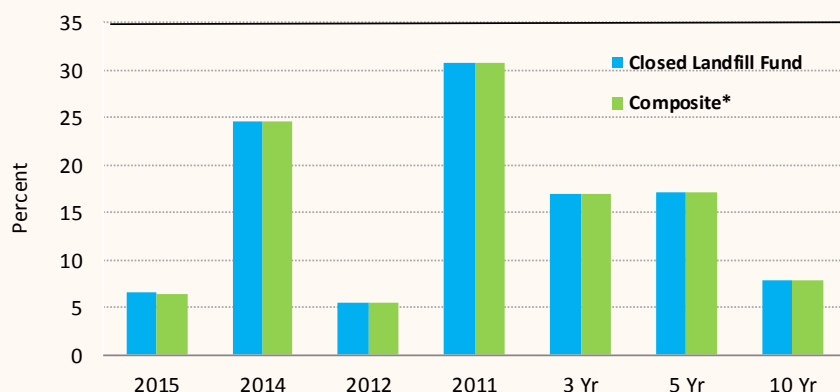


Figure 38. Closed Landfill Fund Performance For Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized		
Total Fund	6.6%	24.5%	20.5%	5.5%	30.8%	16.9%	17.1%	7.9%
Composite Index*	6.4	24.6	20.6	5.4	30.7	16.9	17.1	7.8

\* 70% S&P 500/30% Barclays Capital Aggregate.

## Permanent School Fund

**The Permanent School Fund is a trust fund created by the Minnesota State Constitution and designated as a long-term source of revenue for public schools. Proceeds from land sales, mining royalties, timber sales, lake shore and other leases are invested in the Fund. Income generated by the Fund's assets is appropriated directly to school districts. On June 30, 2015, the market value of the Fund was \$1.2 billion.**

### Investment Objective

The State Board of Investment invests the Permanent School Fund to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity that will assist school districts.

### Investment Constraints

The Fund's investment objectives are influenced by the legal provisions under which its investments must be managed. These provisions require that the Fund's principal remain inviolate. Any net realized capital gains from stock or bond investments must be added to the principal. Moreover, if the Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

### Asset Allocation

In order to produce a growing level of spendable income, the Fund is invested to grow over time, and, therefore, has exposure to equities. The current asset allocation is 50% stock/48% fixed income/2% cash.

Prior to fiscal year 1998, the Permanent School Fund had been invested entirely in fixed income securities for more than

a decade. While this asset allocation maximized current income, it limited the long term growth of the Fund and caused the income stream to lose value in inflation adjusted terms, over time.

To solve both issues, a proposal to introduce equities to the Fund's asset mix was presented during fiscal year 1997. Since this modification would reduce short term income and have budgetary implications for the state, the consent of the executive and legislative branches was necessary. It was favorably received by the Legislature and incorporated into the K-12 education finance bill. As a result, the Fund allocation was shifted to a 50% stock/48% fixed income/2% cash allocation during July 1997.

Figure 39 presents the actual asset mix of the Permanent School Fund at the end of fiscal year 2015.

### Investment Management

SBI staff internally manages all assets of the Permanent School Fund. Given the unique constraints of the Fund, management by SBI staff is considered to be the most cost effective at this time.

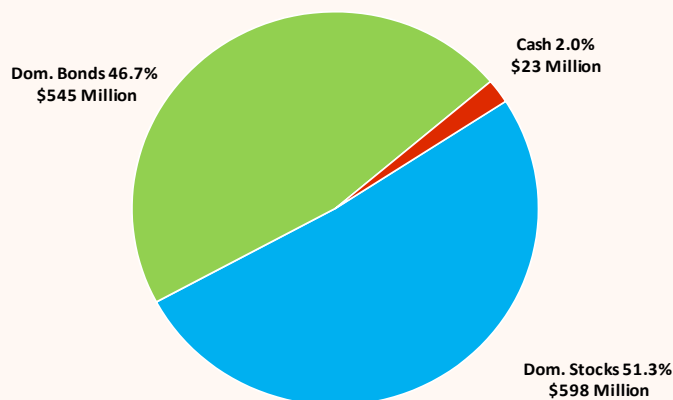
### Stock Segment

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

### Bond Segment

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions, and

**Figure 39. Permanent School Fund Asset Mix as of June 30, 2015**



## Permanent School Fund

its performance is measured against the Barclays Capital Aggregate Bond Index.

### Investment Performance

The **stock** segment of the Permanent School Fund had a negative tracking error of 0.1 percentage point for the year compared to its benchmark, the S&P 500.

The **bond** segment outperformed its benchmark by 0.6 percentage point during the current fiscal year, primarily due to the overweight to the corporate sector and a short duration position relative to the benchmark.

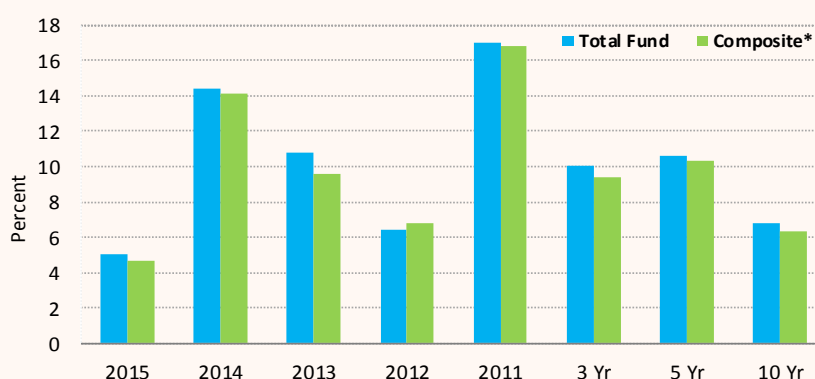
**Overall**, the Permanent School Fund provided a return of 5.0% for fiscal year 2015, outperforming its composite index by 0.3 percentage point. The Fund outperformed its composite index over the most recent three, five and ten year periods due to the incremental value added by bonds.

Total account results for the last three, five and ten years are shown in Figure 40.

Spendable income generated by the portfolio over the last five fiscal years is shown below:

<u>Fiscal Year</u>	<u>Millions</u>
2011	\$23
2012	\$24
2013	\$25
2014	\$24
2015	\$26

Figure 40. Permanent School Fund Performance for Periods Ending June 30, 2015



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
<b>Total Fund</b>	<b>5.0%</b>	<b>14.4%</b>	<b>10.8%</b>	<b>6.4%</b>	<b>17.0%</b>	<b>10.0%</b>	<b>10.6%</b>	<b>6.8%</b>
Composite*	4.7	14.1	9.6	6.8	16.8	9.4	10.3	6.3
<b>Stock Segment</b>	<b>7.5</b>	<b>24.5</b>	<b>20.5</b>	<b>5.5</b>	<b>30.8</b>	<b>17.3</b>	<b>17.4</b>	<b>7.9</b>
S&P 500	7.4	24.6	20.6	5.4	30.7	17.3	17.3	7.9
<b>Bond Segment</b>	<b>2.5</b>	<b>5.0</b>	<b>1.4</b>	<b>6.5</b>	<b>4.3</b>	<b>3.0</b>	<b>3.9</b>	<b>5.1</b>
Barclays Agg.	1.9	4.4	-0.7	7.5	3.9	1.8	3.3	4.4

\* 50% S&P 500/ 48% Barclays Capital Aggregate/ 2% 3 Month T-Bills.

**The Environmental Trust Fund was established in 1988 by the Minnesota Legislature to provide a long-term, consistent and stable source of funding for activities that protect and enhance the environment. On June 30, 2015, the market value of the Fund was \$893 million.**

By statute, the State Board of Investment invests the assets of the Environmental Trust Fund. The Legislature funds environmental projects from a portion of the market value of the Fund.

### Investment Objective

The Environmental Trust Fund's investment objective is long-term growth in order to produce a growing level of spending within the constraints of maintaining adequate portfolio quality and liquidity.

A constitutional amendment passed in November 1998 continues the mandate that 40 percent of the net proceeds from the state lottery be credited to the Fund through 2025.

The amendment provides for spending 5.5 percent of the Fund's market value annually. The amendment eliminated accounting restrictions on capital gains and losses and the provision that the principal must remain inviolate.

### Asset Allocation

After the constitutional amendment was adopted in November 1998, SBI staff worked with the Legislative Citizen Commission on Minnesota Resources to establish an asset allocation policy that is consistent with the Commission's goals for spending and growth of the Fund. The allocation positions the Fund for the best long-term

growth potential while meeting the objective of the Fund to produce a growing level of spending.

The current long term asset allocation targets for the Fund are:

Domestic Stocks	70%
Domestic Bonds	28
Cash	2

Figure 41 presents the actual asset mix of the Fund at the end of fiscal year 2015.

### Investment Management

SBI staff internally manages all assets of the Environmental Trust Fund. Management by SBI staff is considered to be the most cost effective at this time.

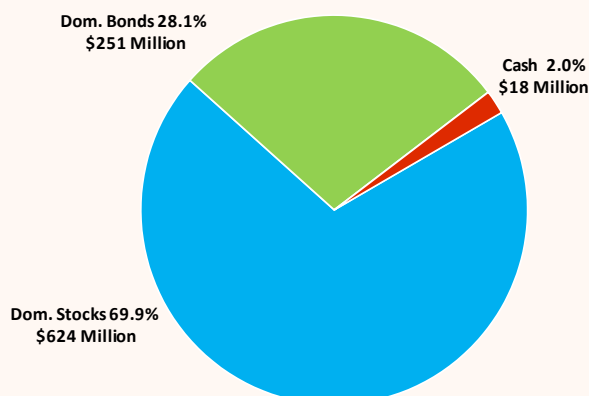
### Stock Segment

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

### Bond Segment

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions, and its performance is measured against the Barclays Capital Aggregate Bond Index.

Figure 41. Environmental Trust Fund Asset Mix as of June 30, 2015



# Environmental Trust Fund

## Investment Performance

During the fiscal year, the *stock* segment underperformed its benchmark by 0.1 percentage point.

The *bond* segment outperformed its benchmark by 0.6 percentage points during the fiscal year, primarily due to the overweight to the corporate sector and a short duration position relative to the benchmark.

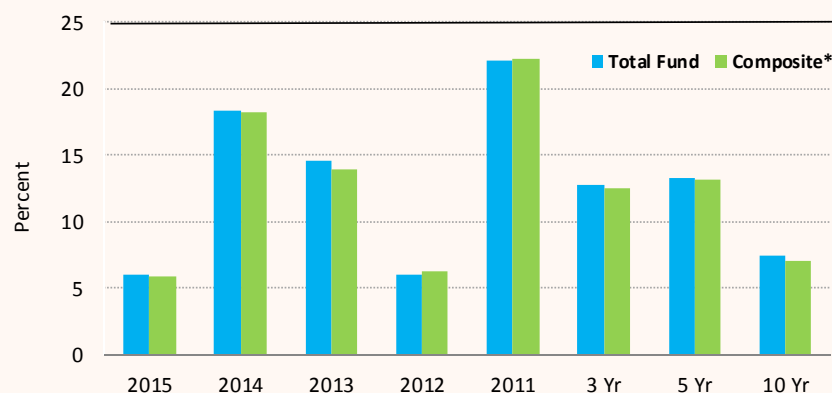
**Overall**, the Environmental Trust Fund provided a return of 6.0% for fiscal year 2015 and outperformed its composite index by 0.2 percentage point. The Fund outperformed its composite index over the most recent three, five and ten years due to the incremental value added by bonds.

Performance results are presented in Figure 42.

Spendable income generated by the Fund over the last five fiscal years is shown below:

<u>Fiscal Year</u>	<u>Millions</u>
2011	\$26
2012	\$25
2013	\$25
2014	\$34
2015	\$34

**Figure 42. Environmental Trust Fund Performance For Periods Ending June 30, 2015**



	2015	2014	2013	2012	2011	Annualized		
						3 Yr.	5 Yr.	10 Yr.
<b>Total Fund</b>	<b>6.0%</b>	<b>18.3%</b>	<b>14.6%</b>	<b>6.0%</b>	<b>22.1%</b>	<b>12.8%</b>	<b>13.2%</b>	<b>7.4%</b>
Composite*	5.8	18.2	13.9	6.3	22.2	12.5	13.1	7.0
<b>Stock Segment</b>	<b>7.5</b>	<b>24.5</b>	<b>20.5</b>	<b>5.5</b>	<b>30.8</b>	<b>17.3</b>	<b>17.4</b>	<b>8.0</b>
S&P 500	7.4	24.6	20.6	5.4	30.7	17.3	17.3	7.9
<b>Bond Segment</b>	<b>2.5</b>	<b>5.0</b>	<b>1.4</b>	<b>6.5</b>	<b>4.3</b>	<b>3.0</b>	<b>3.9</b>	<b>5.1</b>
Barclays Agg.	1.9	4.4	-0.7	7.5	3.9	1.8	3.3	4.4

\* Weighted 70% S&P 500/ 28% Barclays Capital Aggregate/ and 2% 3 month T-Bill.

## Other Postemployment Benefits Accounts (OPEBs)

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***These accounts are the assets set aside by local units of government for the payment of retiree benefits trusted by the Public Employees Retirement Association. On June 30, 2015, the total market value of these accounts was \$505 million.***

Under the provisions of *Minnesota Statutes*, Section 471.6175, local units of government, including school districts, may choose PERA as trustee to administer post employment health benefits. Assets of these accounts are invested by the SBI in the same internally managed investment pools in which the Permanent School Fund and Environmental Trust Fund are invested.

As of June 30, 2015, there were 22 entities with OPEB investment accounts invested by the SBI. In total, these accounts represented \$505 million. Staff anticipates that the number of these accounts will increase in the future.

### ***Duluth OPEB***

The SBI is required to report the returns provided on assets invested by the City of Duluth for this purpose. Duluth made its first investment with the SBI July 2007. As of June 30, 2015, returns for Duluth were as follows:

	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>
Equities	7.5%	17.3%	17.4%
Fixed Income	2.5	3.0	3.9
<b>Total</b>	<b>6.0</b>	<b>12.2</b>	<b>12.0</b>

Duluth is responsible for the asset allocation decisions in this account and as of June 30, 2015, the asset allocation was the following:

	<u>Actual Asset Mix</u>
Equities	70.3%
Fixed Income	29.7
<b>Total</b>	<b>100.0%</b>



## Cash Management and Related Programs

**The State Board of Investment manages the cash balances of more than 400 state agency accounts with the objectives of preserving capital and providing competitive money market returns. On June 30, 2015, the total market value of these accounts was \$10.3 billion.**

Most of the cash accounts are invested in a short-term pooled fund referred to as the Invested 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.

Approximately \$234 million of assets are in separately managed dedicated accounts because of special legal restrictions. The vast majority of these assets are related to state or state agency debt issuance including debt service reserves and proceeds.

### Investment Objectives

The investment objectives for investing the state cash accounts are to preserve capital, to meet the state's cash needs without the forced sale of securities at a loss, and to provide a level of current income consistent with the goal of preserving capital.

### Asset Allocation

The SBI generates current income while preserving capital 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, short term corporates, and certificates of deposit. The composition of the Pool as of June 30, 2015 is shown in Figure 43. At the end of the fiscal year, the Pool had a current yield of 0.48% and a

weighted average maturity of 320 days.

### Investment Management

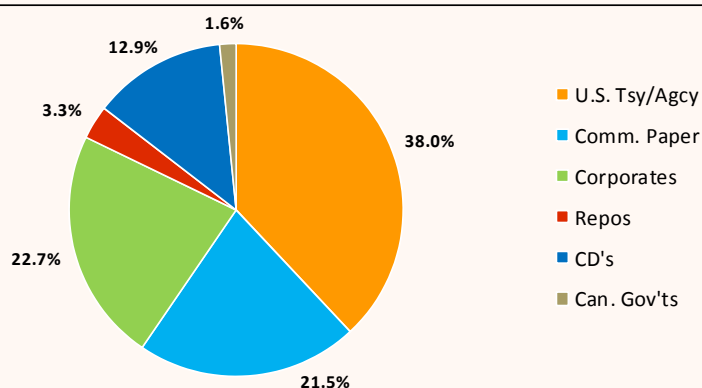
All state cash accounts are managed by SBI investment staff, and most of the assets of the cash accounts are invested in the Invested Treasurer's Cash Pool.

### Investment Performance

The SBI measures the performance of the Invested Treasurer's Cash Pool against a benchmark which reflects the maturity structure of the pool.

For fiscal year 2015, the Treasurer's Cash Pool outperformed its benchmark, the IMoneyNet's All Taxable Money Fund Index, by 0.5 percentage point. Performance results are shown in Figure 44.

**Figure 43. Invested Treasurer's Cash Fund Distribution as of June 30, 2015\***



\* Totals may not add due to rounding.

**Figure 44. Invested Treasurer's Cash Pool Performance**

	Period Ending 6/30/15			
	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Invested Treasurer's Cash Pool*	0.5%	0.5%	0.5%	2.1%
Custom Benchmark**	0.0	0.0	0.0	1.3
3 month T-Bills	0.0	0.1	0.1	1.3

\* Actual returns are calculated net of fees.

\*\* The Treasurer's Cash Pool is measured against the IMoneyNet, All Taxable Money Fund Report Average.

## **Cash Management and Related Programs**

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### **Securities Lending Program**

The SBI participates in a securities lending program in which securities held by the SBI on behalf of the retirement systems are loaned to banks and security dealers for a daily fee. These loans are fully collateralized. Currently, the SBI's securities lending activity is undertaken by the SBI's master custodian bank, State Street Bank and Trust. State Street Bank generated additional income for the retirement systems of approximately \$32.8 million during fiscal year 2015.

### **Certificate of Deposit Program**

The SBI manages a certificate of deposit (CD) program in which it purchases CD's from Minnesota financial institutions. The return SBI receives is based on CD rates quoted in the national market.

The SBI's Certificate of Deposit program provides a reliable source of capital to Minnesota financial institutions, regardless of size, many of which do not have access to the national CD market. The Board designed the program so that no single institution is favored in the allocation of assets. Only the cash reserves of the retirement funds are used in the program.

During fiscal year 2015, the SBI purchased \$321.7 million of CD's from all Minnesota financial institutions.

### **Securities Repurchase Program**

The SBI created the Securities Repurchase Program to help meet the increased needs of some banks throughout the state.

Under the program, the SBI temporarily buys securities such as Treasuries and Agencies from banks under a repurchase agreement (repo). At the end of the agreement period, the securities are returned to the selling banks ("repurchased") and the bank pays the SBI principal and interest.

The transactions are fully collateralized and range in size from \$100,000 to \$2 million per institution. For ease of administration, the program uses the same rates, offering dates and maturity dates as the SBI's CD program, and uses only the cash reserves of the retirement funds.

During fiscal year 2015, the SBI purchased \$33.8 million in repos from Minnesota financial institutions.

### Legislative Update

Several bills of interest to the SBI were adopted during the 2015 legislative session.

Laws of Minnesota 2015, Regular Session, Chapter 68, Article 1, Section 1, amended the interest rate actuarial assumption for PERA and MSRS to 8% along with related reductions in salary and payroll growth assumptions. The TRA assumptions for interest rate, salary and payroll growth remain unchanged.

Laws of Minnesota 2015, Regular Session, Chapter 71, Article 7, Section 44, added Minnesota Statute 256Q.01 to establish accounts for certain persons with disabilities, known as the Minnesota Achieving a Better Life Experience (ABLE) plan. This plan is subject to section 529A of the Internal Revenue Code. The Department of Human Services and State Board of Investment are allowed to jointly contract with a third-party provider for administration and investment management services.

Laws of Minnesota 2015, 1<sup>st</sup> Special Session, Chapter 4, Article 4, Section 5, added Minnesota Statute 84.69 which creates the Natural Resources Conservation Easement Account to be managed by Department of Natural Resources (DNR). Section 74 of the same Session Law added Minnesota Statute 103B.103 which creates the Water and Soil Conservation Easement Stewardship Account and the Mitigation Easement Stewardship Account to be managed by the Board of Water and Soil Resources (BWSR). These accounts are created to pool previous and future appropriations to cover the

monitoring and enforcement costs associated with conservation easement efforts.

Laws of Minnesota 2015, 1<sup>st</sup> Special Session, Chapter 4, Article 3, Section 12, repeals the previously enacted schedule of repayments to the Closed Landfill Investment Fund from the general fund after receiving the first and only repayment in the amount of \$64.2 million in FY15. The Fund changed its asset allocation from 100% equities to a 70% equities and 30% bonds allocation at the time of the contribution.

### Sudan Issues

*Minnesota Statutes*, section 11A.243 concerns the SBI's investment in companies with operations in Sudan. The law requires the SBI to make its best efforts to identify all "scrutinized companies" in which the SBI has direct or indirect holdings or could possibly have holdings in the future.

The SBI receives a list of companies from Empowering Responsible Investment (EIRIS) Conflict Risk Network. Staff periodically sends a list of restricted Sudan companies to managers and has required divestment of holdings in compliance with the law. Staff reports to the Board each quarter on its actions to implement the law.

### Iran Issues

*Minnesota Statutes*, section 11A.244, requires the SBI to take a series of steps to identify companies that do business in Iran, communicate with those companies, and divest stock and bonds over a specified period of

time if the companies continue their business activities in Iran.

The SBI retains the firm Ideal Works (IW) Financial to provide a list of companies to implement the law. Staff periodically sends a list of restricted Iran companies to managers and has required divestment of holdings in compliance with the law. Staff reports to the Board each quarter on its actions to implement the law.

### Tobacco Issues

At its September 1998 meeting, the Board adopted a resolution that required each active and semi-passive equity manager to divest by September 2001 shares of any company which obtained more than 15 percent of its revenues from the manufacture of consumer tobacco products. Staff notified each active and semi-passive equity manager of the policy.

At the close of fiscal year 2001, the SBI had divested from its active portfolios all shares of companies covered by its divestment resolution.

### Shareholder Resolutions

In previous years, the SBI co-sponsored a number of tobacco related shareholder resolutions. The SBI did not co-sponsor a tobacco related resolution for the 2015 proxy season.

As a stockholder the State Board of Investment (SBI) is entitled to participate in corporate annual meetings through direct attendance or by casting its votes by proxy. Through proxy voting, the Board directs company representatives to vote its shares in a particular way on resolutions under consideration at annual meetings. These resolutions range from issues

involving the election of corporate directors and ratification of auditors to matters such as merger proposals and corporate social responsibility issues. In effect, as a shareholder the SBI can participate in shaping corporate policies and practices.

The Board recognizes its fiduciary responsibility to cast votes on proxy issues. Except for the shares held by the international managers, the SBI does not delegate the duty to its external investment managers. Rather, the SBI actively votes all shares according to guidelines established by its Proxy Committee. The Board delegates proxy voting responsibilities to its Proxy Committee which is comprised of a designee of each Board member. The four member Committee meets only if it has a quorum and casts votes on proxy issues based on a majority vote of those present. In the event that it reaches a tie vote or a quorum is not present, the Committee will cast a vote to abstain.

### **International Equity Manager Country Guidelines**

The SBI approved the discontinuation of the International Equity Manager Country Guidelines at the June 3, 2015 Board Meeting.

### **Proxy Voting Guidelines**

The Committee has formulated guidelines by which it votes on a wide range of corporate governance and social responsibility issues. Each year the Proxy Committee reviews existing guidelines and

determines which issues it will review on a case-by-case basis.

#### **Corporate Governance Issues**

The voting guidelines for major corporate governance issues are summarized below:

##### **Routine Matters**

In general, the SBI supports management on routine matters such as uncontested election of directors, selection of auditors, and limits on director and officer liability or increases in director and officer indemnification permitted under the laws of the state of incorporation.

##### **Shareholder Rights Issues**

In general, the SBI opposes proposals that would restrict shareholder ability to effect change. Such proposals include instituting super-majority requirements to ratify certain actions or events, creating classified boards, barring shareholders from participating in the determination of the rules governing the board's actions (e.g. quorum requirements and the duties of directors), prohibiting or limiting shareholder action by written consent, and granting certain stockholders superior voting rights over other stockholders.

In general, the SBI supports proposals that preserve or enhance shareholder rights to effect change. Such proposals include requiring shareholder approval of poison pill plans, repealing classified boards, adopting secret balloting of proxy votes, reinstating cumulative voting, and adopting anti-greenmail provisions.

##### **Executive Compensation**

In general, the SBI supports efforts to have boards of directors comprised of a majority of independent

directors, to have compensation committees made up entirely of independent directors, and to have executive compensation linked to a company's long-term performance.

##### **Buyout Proposals**

In general, the SBI supports friendly takeovers and management buyouts.

##### **Special Cases**

The Proxy Committee evaluates hostile takeovers, contested elections of directors, and re-capitalization plans on a case-by-case basis.

##### **Social Responsibility Issues**

The voting guidelines for major social responsibility issues are shown below:

##### **Northern Ireland**

The SBI supports resolutions that call for the adoption of the MacBride Principles as a means to encourage equal employment opportunities in Northern Ireland.

##### **Tobacco and Liquor**

In general, the SBI supports a variety of tobacco and liquor related resolutions including those that call for corporations to limit their promotion of tobacco and liquor products and to report on their involvement in tobacco issues.

##### **Environmental Protection**

In general, the SBI supports resolutions that require a corporation to report or disclose to shareholders company efforts in the environmental arena.

##### **Other Social Responsibility Issues**

In general, the SBI supports proposals that require a company to report or disclose to shareholders company efforts

concerning a variety of social responsibility issues. In the past, these reporting resolutions have included issues such as affirmative action programs, animal testing procedures and nuclear plant safety procedures.

### Summary of FY 2015 Proxy Proposals

During fiscal year 2015 the SBI voted proxies for approximately 2,000 U.S. corporations.

As in past years, the issues on corporate ballots included a broad range of proposals in the corporate governance area, according to information provided by the proxy adviser firm Glass Lewis.

During the fifth year of advisory votes on executive compensation under the Dodd-Frank Act, investors endorsed a large majority of companies' pay programs, providing 90% support on average. Investors continued to support having such votes take place on an annual basis in the future. Other major corporate governance issues addressed by shareholder proposals included declassification of boards, majority vote requirement for election of directors, and elimination of supermajority requirement proposals.

In the social responsibility area, increased disclosure on companies' lobbying activities and political contributions, environmental related proposals, and sustainability reporting were the major issues according to information provided by Glass Lewis.

### Mandate on Northern Ireland

#### Requirements

The SBI is responsible for implementing certain statutory provisions concerning its investments in U.S. companies with operations in Northern Ireland. The statute requires the State Board of Investment (SBI) to:

- Annually compile a list of U.S. corporations with operations in Northern Ireland in which the SBI invests.
- Annually determine whether those corporations have taken affirmative action to eliminate religious or ethnic discrimination. The statute lists nine goals modeled after the MacBride Principles.
- Sponsor, co-sponsor and support resolutions that encourage U.S. companies to pursue affirmative action in Northern Ireland, where feasible.

The statute does not require the SBI to divest existing holdings in any companies and does not restrict future investments by the SBI.

#### Implementation

The SBI uses the services of Ideal Works (IW) Financial to monitor corporate activity in Northern Ireland. In January 2015, the SBI held stocks or bonds in 131 of 140 corporations identified by IW Financial as having operations in Northern Ireland.

### Shareholder Resolutions

The SBI did not file any shareholder resolutions for the 2015 proxy season regarding the MacBride Principles. Shareholder activity has been greatly reduced over the last several years due to many companies having signed the Principles.



### **Domestic Equity Program Managers**

#### **Active Managers**

##### **Large Cap Growth (Russell 1000 Growth)**

###### **INTECH Investment Management, LLC (INTECH)**

Using a proprietary mathematical process, the investment strategy is designed to determine more efficient weightings of the securities within the Russell 1000 Growth Index, while reducing the risk of significant relative underperformance. INTECH does not forecast individual stock alphas, but uses natural relative stock price volatility and correlation characteristics to build a portfolio. Essentially, the firm adjusts the capitalization weights of the Russell 1000 Growth Index to potentially more efficient combinations. The investment process only uses securities in the Russell 1000 Growth Index and utilizes embedded risk controls aimed at mitigating portfolio risk, which include active-weight range limits around the benchmark holdings, a constraint on beta, and maximizing the information ratio. Once the target weights are determined, the portfolio is then rebalanced to those target proportions and re-optimized on a regular basis. The portfolio is continually evaluated to ensure that diversification and return characteristics are consistent with the investment objectives and underlying mathematical theorem. INTECH was retained by SBI as an active manager in January 2005.

###### **Jacobs Levy Equity Management, Inc.**

Jacobs Levy believes that the stock market is a complex system and that intensive modeling can identify market inefficiencies that offer opportunities for profitable active investment. Recognizing that good judgment is critical, the firm has developed a multidimensional investment approach that combines human insight and intuition, finance and behavioral theory, and leading-edge quantitative and statistical methods. The Jacobs Levy investment system is designed to be dynamic and forward-looking, which can help the process adjust to the market's changing environments and opportunities, and it relies on proprietary research for "disentangling" the market's complexity. The firm's proprietary systems have been engineered to be integrated across all investment functions, from security selection through portfolio construction, trading, performance attribution, and guideline compliance. Expected returns for each security in the investment universe are generated from numerous models and become the inputs for the proprietary portfolio optimizer. The optimizer is run daily with the objective of constructing portfolios that can provide consistent outperformance relative to the underlying benchmark, with controlled residual risk, or tracking error. Extensive automated data scrubbing and human fact checking are conducted daily. Risk, liquidity, trading costs, and investor guidelines are incorporated into the optimization process. Jacobs Levy was retained by the SBI as an active manager in January 2005.

###### **Sands Capital Management, LLC**

Sands invests in concentrated portfolios of high-quality, seasoned, growing businesses. Bottom-up, company-focused and long-term oriented research is the cornerstone of the investment process. To be considered as a potential holding, companies must demonstrate superior historical and projected sales and earnings growth; have the potential for wealth creation; and reside in growing sectors. The team then narrows the opportunity set by identifying potential leaders in attractive business spaces. The strategy focuses on six key investment criteria: 1) sustainable above average earnings growth; 2) leadership position in a promising business space; 3) significant competitive advantages or unique business franchise; 4) management with a clear mission and value added focus; 5) financial strength; and 6) rational valuation relative to the overall market and the company's business prospects. Sands was retained by the SBI as an active manager in January 2005.

###### **Winslow Capital Management, LLC**

Winslow believes that investing in quality large cap companies with above-average growth provides the best opportunity for achieving superior portfolio returns over the long term. The investment philosophy is founded on bottom up, fundamental research. The strategy identifies companies that can grow earnings above consensus expectations to build portfolios with forward weighted earnings growth in the range of 15-20% annually. A quantitative screen is employed

for factors such as revenue, earnings and cash flow growth, return on invested capital, earnings consistency, earnings revisions, low financial leverage and high free cash flow rates relative to net income.

Resulting companies are subjected to a qualitative assessment within the context of industry sectors. Detailed examination of income statements, cash flow and balance sheet projections is conducted, along with a judgment on the quality of management. Attractively valued stocks are chosen based on P/E relative to the benchmark, sector peers, the company's sustainable future growth rate and return on invested capital. Final portfolio construction includes diversification by economic sectors, earnings growth rates, price/earnings ratios and market capitalizations. Winslow was retained by the SBI as an active manager in January 2005.

### **Zevenbergen Capital Investments LLC**

Zevenbergen's investment philosophy is founded on the principles that superior fundamentals drive stock price appreciation and exceptional management combined with balance sheet strength provides capital protection. The firm employs a forward looking, bottom-up investment process designed for long-term results. Portfolios are constructed with companies presenting established and prospective revenue, cash flow and earnings growth, while diversification and risk control are accomplished through a blend of company size, expected growth rates, and appropriate portfolio weightings. The firm remains fully invested to ensure market

participation. Zevenbergen was retained by the SBI in April 1994.

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### **Large Cap Value (Russell 1000 Value)**

#### **Barrow, Hanley, Mewhinney & Strauss, LLC (BHMS)**

BHMS believes that markets are inefficient and can best be exploited through adherence to a value-oriented investment process dedicated to the selection of securities on a bottom-up basis. The overall portfolio will always reflect all three value characteristics: price/earnings and price/book ratios below the market and dividend yields above the market. The stocks must also be attractive according to the firm's dividend discount and relative return models. Analysts provide fundamental analysis in the final step of their investment process. BHMS was retained by the SBI in April 2004.

#### **Earnest Partners, LLC**

Earnest Partners utilizes a proprietary valuation and performance model, and rigorous fundamental review to identify stocks with the most attractive risk adjusted returns. They have identified six performance drivers – valuation measures, operating trends, market trends, growth measures, profitability measures and macroeconomic measures – and have done extensive research to determine which combination of performance drivers, or return patterns, precede outperformance for stocks in each sector. The firm's fundamental review generally includes conversations with the company's management team and industry specialists, a

review of the company's financial reports, analysis of industry and company-specific studies, as well as independent field research. They control risk using a statistical approach designed to measure and control the prospects of substantially underperforming the benchmark. The portfolio is diversified across industry groups. Earnest Partners was retained by the SBI in July 2000.

#### **LSV Asset Management**

LSV's philosophy is that superior long-term results can be achieved by systematically exploiting the judgmental biases and behavioral weaknesses that influence the decisions of many investors. They use quantitative techniques to rank securities based on fundamental measures of value, past performance, and indicators of near-term appreciation potential. Their risk control discipline limits the portfolio's industry and sector concentrations. LSV was retained by the SBI in April 2004.

#### **Systematic Financial Management, L.P.**

Systematic believes that stock prices follow earnings cycles and that superior portfolio returns are achievable by purchasing attractively valued stocks exhibiting positive earnings catalysts which are reflective of improving fundamentals. Systematic seeks to invest in companies trading at compelling valuations that are exceeding investor expectations, have increasing sales and improving margins, and are generating strong levels of free-cash flow. Their investment process involves a strong blend of quantitative screening and fundamental security analysis

coupled with a rigorous monitoring of all holdings. Systematic was retained by the SBI in April 2004.

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### ***Small Cap Growth (Russell 2000 Growth)***

#### ***McKinley Capital Management, LLC***

McKinley uses a quantitatively driven investment process to systematically search for and identify signs of accelerating growth. The primary model includes a risk-adjusted relative return measurement designed to identify inefficiently priced common stocks relative to the market while adjusting for risk. The candidates are then filtered and scrutinized for liquidity factors and earnings acceleration. The earnings model identifies securities with strong earnings acceleration. The qualitative review begins after the quantitative process has identified candidates for possible inclusion in the portfolio. The purpose of the qualitative analysis is to confirm that the earnings picture revealed through the quantitative analysis is both reasonable and sustainable. New ideas are taken from the quantitative screening process and confirmed through the qualitative review. McKinley was retained by the SBI in January 2004.

#### ***Next Century Growth Investors, LLC***

Next Century Growth's (NCG) goal is to invest in the highest quality and fastest growing companies in America. They believe that growth opportunities exist regardless of the economic cycle. NCG uses fundamental analysis to identify companies that will surpass

consensus earnings estimates. Their investment process focuses on growth companies that have superior top line revenue growth (15% or greater), an expanding market opportunity, strong management, and are well poised to outperform the market. NCG believes in industry diversification; sector exposures are limited to twice the benchmark weighting and individual positions to five percent. NCG was retained by the SBI in July 2000.

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### ***Small Cap Value (Russell 2000 Value)***

#### ***Goldman Sachs Asset Management, L.P.***

Goldman Sachs manages a small cap value portfolio using a strong valuation discipline to purchase well-positioned, cash generating businesses run by shareholder-oriented management teams. Portfolio managers are organized by industry, and use industry-specific valuation measures to evaluate companies within their area. They decompose the historical financial reports, meet with management to evaluate their competitive position within the industry, and evaluate each company's valuation attractiveness relative to other comparable companies within the sector. Goldman Sachs was retained by the SBI in January 2004.

#### ***Hotchkis and Wiley Capital Management, LLC***

Hotchkis and Wiley seeks to exploit mispriced securities in the small cap market by investing in "undiscovered" and "out of favor" companies. They invest in stocks of which the

present value of the company's future cash flows exceeds the current market price. Industry analysts determine a company's normal earnings power, or sustainable earnings level under equilibrium economic and competitive market conditions, which becomes the basis for security valuation. Hotchkis and Wiley was retained by the SBI in January 2004.

#### ***Martingale Asset Management, L.P.***

Martingale employs a systematic, quantitatively-driven investment approach that seeks to exploit behavioral biases. The process uses a 21 factor model, where the factors are fairly evenly distributed among the three broad buckets of value, growth, and quality, culminating in an alpha score for each stock in the viable universe. This score is then added to an industry rating, yielding an overall composite score for each stock. Value traps are avoided by favoring stocks with positive relative strength and earnings estimate revisions versus peers. Martingale builds a risk-aware portfolio of the highest ranked stocks by maintaining industry, sector, style, and size exposures that are similar to the benchmark. Martingale was retained by the SBI in January 2004.

#### ***Peregrine Capital Management***

Peregrine's small cap value investment process begins with their proprietary valuation analysis, which is designed to identify the small cap value stocks most likely to outperform. The valuation analysis identifies the most underpriced securities on a sector-by-sector basis. The firm analyzes sixty fundamental



factors to identify the most relevant factors in each sector. The focus of the team's fundamental research is to determine if one or more of the style's "Value Buy Criteria" are present. These include resolvable short-term problems, unrecognized assets, take-over potential, fundamental undervaluation and catalysts for change. The portfolio is diversified and sector weights are aligned closely to the benchmark allowing stock selection to drive performance. Peregrine was retained by the SBI in July 2000.

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### **Semi-Passive Managers**

#### **Semi-Passive Managers (Russell 1000)**

##### **BlackRock Institutional Trust Company, N.A. (formerly Barclays Global Investors)**

BlackRock has a disciplined, rigorous and repeatable investment process incorporating a unique blend of bottom-up stock selection insights across relative value, earnings quality and sentiment while combining broader top-down thematic insights to generate risk controlled and consistent active returns. The relative value criteria assesses intrinsic value relative to market price. Earnings quality criteria help identify companies likely to sustain earnings growth and avoid negative surprises. Sentiment criteria help identify market participants' beliefs regarding valuation. The thematic criteria seeks to exploit opportunities from a collection of stocks that move together because they share a common exposure which is currently less obvious to the market. In

addition to insights, research is also emphasized in the continuous evolution of the strategy. For example, research is incorporated through top down thematic insights to capture macro views as well as through a program which utilizes big data techniques to capture alpha from the large volumes of unstructured data (text, internet search and social media). The strategy seeks to minimize investment and operational risks not associated with adding value. Implementation costs are also considered when balancing return potential with risk profile of trades. The firm was retained by the SBI for semi-passive management in January 1995.

##### **INTECH Investment Management, LLC (INTECH)**

Using a proprietary mathematical process, the investment strategy is designed to determine more efficient weightings of the securities within the Russell 1000 benchmark. No specific sector or security selection decisions based on fundamentals are utilized. Risk parameters include: 1) maximize information ratio, 2) security positions limited to lesser of 1.0% or 8 times maximum index security weight, and 3) beta equal to or less than benchmark beta, and 4) constraining the weighted average capital distribution to be roughly equal to the capital distribution of the benchmark. Target security positions are established using a weekly optimization routine designed to build a portfolio that will outperform a passive benchmark over the long term. Rebalancing to target proportions occurs every six business days. INTECH was

retained by SBI as a semi-passive manager in April 2010.

##### **J.P. Morgan Investment Management, Inc.**

J.P. Morgan believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast earnings and dividends for the stock universe and enter these into a stock valuation model that calculates a dividend discount rate for each security. The stocks are ranked according to this valuation measure within their economic sectors. Stocks most undervalued are placed in the first quintile. The portfolio takes overweight positions in stocks in the first and second quintiles, while underweighting stocks in the fourth and fifth quintiles. In addition, the portfolio will closely approximate the sectors and style of the benchmark. The portfolio remains fully invested at all times. The firm was retained by the SBI in January 1995.

##### **Mellon Capital Management Corporation**

Mellon Capital employs a systematic investment approach that seeks to generate alpha through diversified sources of return. The quantitatively-inspired stock ranking model is based on three primary drivers: valuation, behavioral/momentum, and earnings stability factors. The final portfolio is composed of stocks with the highest rankings, while maintaining a similar risk profile to the benchmark in terms of sector, size, and style exposures. Mellon Capital

## **Investment Manager Summaries**

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attempts to allocate most of the total risk level set by the client specifically to stock selection. The firm always remains fully invested. The SBI retained the firm as a semi-passive manager in January 1995.

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### ***Passive Manager***

#### ***Passive Manager (R3000)***

##### ***BlackRock Institutional Trust Company, N.A. (formerly Barclays Global Investors)***

For the passive account, BlackRock seeks to minimize tracking error, transaction costs and investment and operational risks. The portfolio is managed against the asset class target (Russell 3000 index) using a proprietary optimization process that integrates a transaction cost model. The resulting portfolio closely matches the characteristics of the benchmark with less exposure to illiquid stocks. The firm was retained by the SBI for passive management in July 1995.

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### **International Program Managers**

#### **Active Developed Markets Managers**

##### **Acadian Asset Management LLC**

Acadian uses stock factors in an effort to predict how well each security in its universe of over 40,000 stocks will perform relative to its region/industry peer group and then ranks all securities by their relative attractiveness. Acadian also applies separate models to forecast peer group returns, in an effort to predict how well each stock's region/industry peer group will perform relative to world equities. The two forecasts are then combined to determine a world-relative return forecast for each stock in the allowable universe. The stock and peer group valuation models are customized to each market. At the individual stock level, Acadian uses a wide range of quantitative factors including valuation, earnings, size and price movements. At the peer group level, Acadian utilizes valuation, risk, growth and economic indicators. Acadian then uses a sophisticated portfolio optimization system to trade off the expected return of the stocks with such considerations as the client's benchmark index, desired level of risk, transaction cost estimates, available liquidity, and other requirements. Portfolios are normally fully invested, with a minimal amount of cash. Country and sector weights fall out of the bottom-up stock selection process, with overall portfolio risk control ensuring the desired level of diversification. The last step of the process is a careful review of optimized portfolios by the

investment team before trading, in an effort to ensure the portfolio meets the client's investment goals. Acadian was retained by the SBI in July 2005.

##### **Columbia Threadneedle Investments**

Columbia's objective is to focus on key forces of change in the markets and the companies that will benefit. They believe that a good understanding of the likely impact of these changes at a company level, complemented with an appreciation of the ability of management to exploit these changes, creates significant opportunities to pick winners and avoid losers. Companies are analyzed within a macroeconomic and global sector/thematic framework. "Top-down" views on macroeconomics and trends in global sectors combine with "bottom-up" company analysis along regional and global sector lines. Analysts propose a rating of A through to E for approximately 150 to 200 stocks in each region reflecting the expected performance on a 12-month view. Columbia was retained by the SBI in February 2000. In December 2003 Columbia acquired Threadneedle International LTD, a United Kingdom based asset manager to manage its international equity assets.

##### **J.P. Morgan Investment Management Inc.**

J.P. Morgan's international equity process focuses on stock selection as the primary source of added value, seeking to build a portfolio diversified by both sector and region. Approximately 200 investors are based locally in regional markets, providing insights on 1300 companies. These regional

teams manage regional equity portfolios, generating local market insights and conducting research on companies in an effort to identify the highest conviction stocks within their region. The highest conviction regional stocks are further analyzed by a team of London-based Global Sector Specialists who seek to identify global "industry winners", pinpointing well-managed, profitable companies that possess solid financial positions, whose earnings are growing faster than their competitors yet whose stocks are trading at or below market multiples. Each global sector specialist ranks each of the stocks within his or her sector on a scale from A to D. These rankings will be based on a variety of factors including: the information gathered from the regional investment professionals and the global sector specialists own knowledge of industry dynamics and relative valuations. The final stage of the investment process rests with a team of senior portfolio managers, who are responsible for constructing risk controlled portfolios, capturing the best thinking of both the local and global teams. The emphasis is on delivering alpha through bottom-up stock picking. J.P. Morgan was retained by the SBI in July 2005.

##### **Marathon Asset Management LLP**

At the heart of Marathon's investment philosophy is the "capital cycle" approach to investment. This approach is based on the idea that the prospect of high returns will attract excessive capital (and hence competition), and vice versa. In addition, the assessment of how management responds to the forces of the capital cycle, particularly

whether they curtail investment when returns have been poor - and how they are incentivized, are critical to the investment outcome. Given the contrarian and long-term nature of the capital cycle, the approach results in strong views versus the market and long holding periods (5 years plus). The investment philosophy guides a focused team of investment generalists who seek investment opportunities in the growth and value universes and across the capitalization spectrum. Marathon was retained by the SBI in November 1993.

### **McKinley Capital Management, LLC**

Using proprietary quantitative models, McKinley's investment process searches for and identifies signs of accelerating growth. The initial universe consists of all publicly traded non-U.S. stocks, from all capitalization categories in more than 60 countries. The primary model includes a risk-adjusted relative return measurement designed to identify inefficiently priced common stocks in US dollars relative to the market while adjusting for risk. The remaining candidates then pass through liquidity and strength of earnings tests. The earnings tests identify securities with strong earnings acceleration. In the final portfolio construction process, McKinley examines a variety of qualitative factors which could ultimately impact earnings. These factors include a qualitative data check and street research analysis of economic factors, specific industry themes and company fundamentals. The final portfolio will hold between 50-75 stocks, providing diversification and risk control by issue, industry, sector and

country. McKinley was retained by the SBI in July 2005.

### **Pyramis Global Advisors, LLC (formerly Fidelity Mgmt. Trust Co.)**

Pyramis' International Growth strategy is a core, growth-oriented strategy that provides diversified exposure to the developed international markets benchmark. The investment process combines active stock selection and regional asset allocation. Four portfolio managers in London, Smithfield, Rhode Island, and Toronto construct regional sub-portfolios, selecting stocks based on Pyramis analysts' bottom-up research and their own judgment and expertise. The four regional portfolios are combined according to the policy determined by Pyramis' Asset Allocation Group (AAG). The AAG is comprised of senior investment professionals who base their decisions from micro-economic data derived from portfolio manager inputs, analysts' field research, and proprietary data on liquidity, market activity, and fund flows. Portfolio guidelines seek to ensure risk is commensurate with the performance target and to focus active risk on stock selection. Resulting portfolios typically contain between 200 to 250 holdings. Pyramis was retained by the SBI in July 2005.

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### **Semi-Passive Developed Markets Managers**

#### **AQR Capital Management, LLC**

AQR employs a disciplined quantitative approach emphasizing both top-down country/currency allocation and bottom-up security selection decisions to generate excess

returns. AQR's investment philosophy is based on the fundamental concepts of value and momentum. AQR's international equity product incorporates stock selection, country selection, and currency selection models as the primary alpha sources. Dynamic strategy allocation (between the three primary alpha sources) and style weighting are employed as secondary alpha sources. AQR was retained by the SBI in July 2005.

### **Pyramis Global Advisors, LLC (formerly Fidelity Mgmt. Trust Co.)**

Pyramis' Select International strategy combines active stock selection with quantitative risk control to provide consistent excess returns above the benchmark index while minimizing relative volatility and risk. Pyramis' investment philosophy is based on the premise that international markets are semi-efficient and pricing anomalies exist. Research conducted by the firm's international equity analysts and portfolio managers provides the basis for stock selection and portfolio construction.

By combining five regional sub-portfolios in the U.K., Canada, Continental Europe, Japan, and the Pacific Basin ex Japan, the portfolio manager produces a portfolio made up of the best ideas of the firm's research analysts located throughout the world. Each regional portfolio is created so that stock selection is the largest contributor to active return while systematic, sector, and factor risks are minimized. The portfolio manager uses a combination of proprietary and third-party optimization models to monitor

and control risk within each regional module. Resulting portfolios typically contain between 275 to 325 holdings. Pyramis was retained by the SBI in July 2005.

### **State Street Global Advisors**

The International Alpha Strategy seeks to create value through superior security selection. Stocks are quantitatively ranked by region according to those factors which have been shown to identify mispricing over a long term investment horizon: value, sentiment, earnings quality, and earnings growth. The strategy also incorporates an element to evaluate the macro environment for a portion of the model determined by prevailing market conditions in forming an intermediate term view of factors that will be successful. This element allows a disciplined approach seeking to be adaptive to the macroeconomic environment and respond to changing conditions. The stock scores derived from the combination of these viewpoints are translated into forecasts of stock outperformance. The regional portfolio managers review all suggestions in terms of selections and weightings. A separate process projects transaction costs for each stock. Proprietary portfolio construction software is then used to generate a recommended buy/sell list based on the tradeoff between expected outperformance and the trading costs. State Street Global Advisor's risk management process permits multiple and simultaneous risk penalties and implies that, as industry, country and capitalization deviations become greater and greater, the incremental expected return from a stock must increase in

order to compensate for the greater benchmark relative risk. The managers also impose country, sector, industry, and security specific bands relative to the benchmark as an additional risk management tool and manage other exposures such as capitalization, beta and yield to be similar to that of the underlying benchmark. The investment process creates core portfolios that provide clients with stringent risk control, the return of the asset class, and the benefit of active management. SSgA was retained by the SBI in July 2005.

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### **Passive Developed Markets Managers**

#### **State Street Global Advisors**

State Street uses a full replication strategy to construct the portfolio. Exchange-traded stock index futures, approved by the Commodity Futures Trading Commission, are also used to minimize tracking error and trade cash flows in order to minimize transactions costs. State Street Global Advisors was retained by the SBI in October 1992.

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### **Active Emerging Markets Managers**

#### **Capital International, Inc.**

Capital International, Inc. has a long history of investing in emerging markets for its affiliate, Capital Guardian Trust Company, one of the Capital Group Companies. Capital is distinguished by its extensive commitment to fundamental research, with a large team of experienced analysts focused on gathering in-depth information first-hand on markets and companies around the globe.

This extensive research is applied using a security-by-security approach to portfolio construction and a unique method of portfolio management that has been in place for more than 40 years. Capital emphasizes long-term investments in companies and goes to great lengths to determine the difference between the fundamental value of a company and its price in the marketplace. This basic, fundamental approach is blended with macroeconomic and political judgments on the outlook for economies, industries, currencies and markets. A critical ingredient in this blending process is the recognition that the relative importance of each factor will vary from time to time, and none can be treated as being of paramount importance at all times. The account is divided among six portfolio managers and a research portfolio. The research portfolio is managed by a team of research analysts who select stocks within the sectors they cover. All portfolio managers are free to make their own decisions (within risk control limits) as to sector, quality emphasis, cash reserves, and issue selection. The SBI retained Capital International, Inc., in January 2001.

#### **Morgan Stanley Investment Management Inc.**

Morgan Stanley Investment Management is an emerging markets specialist. Their belief is that the emerging markets are a distinct asset class offering a diverse set of investment opportunities. As both macroeconomic and stock-specific factors drive the emerging markets, Morgan Stanley integrates both top-down country allocation and

bottom-up stock selection in order to produce superior performance over the medium to long term. Effective investment management requires a dedicated manager who utilizes a set of investment tools tailored to the return and risk potential of this asset class. Morgan Stanley's core investment style combines growth and value as both are potential drivers of performance in emerging markets investing. They believe that growth-oriented companies trading at attractive valuations offer the best return prospects in the emerging markets. Morgan Stanley Investment Management was retained by the SBI for emerging market management in January 2001.

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### ***Passive Emerging Markets Managers***

#### ***State Street Global Advisors***

State Street manages an emerging markets index portfolio designed to track the Morgan Stanley Capital International Emerging Markets index. State Street uses an optimized strategy to construct the portfolio. Exchange traded stock index futures, approved by the Commodity Futures Trading Commission, are also used to minimize tracking error, obtain exposure where local access is inaccessible, and trade cash flows in order to minimize transactions costs. State Street was retained by the SBI in December 2011 for passive emerging markets management.

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### **Fixed Income Program Managers**

#### **Active Managers**

##### **Aberdeen Asset Management Inc.**

Aberdeen believes there are pricing inefficiencies inherent in bond markets and that diligent credit analysis, security structure evaluation, and relative value assessment can be used to exploit these inefficiencies. The firm generally avoids interest rate forecasting and sector rotation because they believe these strategies will not deliver consistent excess returns versus the benchmark over time. The firm's value added is derived primarily from individual security selection. Portfolio managers and analysts research bonds within their sector of expertise to determine the intrinsic value of each bond. The result is a portfolio that is constructed bond by bond. Sector weightings are a by-product of the bottom-up security selection. Aberdeen was retained by the SBI in February 2000.

##### **Columbia Threadneedle Investments**

Columbia manages portfolios using a bottom-up, relative value approach in combination with a top-down, macro outlook that guides the firm's relative value decisions. The firm employs in-depth fundamental research and credit analysis combined with proprietary valuation disciplines to identify individual relative value opportunities across market sectors. The duration and maturity structure of the portfolio are managed using rigorous analysis centered on the firm's proprietary interest rate research. Columbia is committed to diversification of

sources of active risk in the portfolios it manages, and believes that proper diversification combined with consistent evaluation of risk-reward trade-offs leads to competitive risk-adjusted performance. Columbia was retained by the SBI in July 1993.

##### **Dodge & Cox**

Dodge & Cox manages a diversified portfolio of securities that are selected through bottom-up, fundamental analysis. The firm believes that by combining fundamental research with a long-term investment horizon it is possible to uncover and act upon inefficiencies in the valuation of market sectors and individual securities. When this fundamental research effort is combined with a disciplined program of risk analysis, the firm believes attractive returns are possible over the long-term. In seeking above average returns, Dodge & Cox emphasizes market sector and individual security selection, strives to build portfolios which have a higher yield than the broad bond market, and analyzes portfolio and individual security risk. Dodge & Cox was retained by the SBI in February 2000.

##### **Pacific Investment Management Company, LLC (PIMCO)**

PIMCO's investment approach seeks to provide consistent excess returns with similar risk relative to the benchmark over a business cycle. PIMCO's approach to investing has three key principles: diversified sources of value, a long-term orientation and bond selection from a broad universe. PIMCO relies on multiple sources of value through the use of top-down and bottom-up strategies.

PIMCO's investment process starts with an annual Secular Forum. The goal of the Secular Forum is to look beyond the current business cycle and determine how secular forces will play out over the next three to five years. Quarterly, PIMCO holds Economic Forums to evaluate global growth and inflation over the next six to twelve months. Following PIMCO's Secular and Economic Forums, the PIMCO Investment Committee (IC) works on a consensus basis to develop major strategies that serve as a model for all portfolios. The IC makes use of the top-down outlook determined by the Forum Process, in which all investment professionals participate, as well as bottom-up input from the CIOs and specialists who each focus on their respective asset classes. The IC defines a set of target risk exposures for portfolios. Generalist portfolio managers collaborate with sector specialists, who perform in-depth research and recommend individual securities, for portfolio implementation. PIMCO was retained by the SBI in September 2008.

##### **Western Asset Management Company**

Western emphasizes the use of multiple strategies and active sector rotation and issue selection, while constraining overall interest rate risk relative to the benchmark. Multiple strategies are proportioned so that results do not depend on one or two opportunities, and no single adverse market event would have an overwhelming effect. Western believes that this approach adds consistent value over time and can reduce volatility. Long term value investing is Western Asset's

fundamental approach. In making their sector decision, the firm seeks out the greatest long-term value by analyzing all fixed income market sectors and their economic expectations. Individual issues are identified based on relative credit strength, liquidity, issue structure, event risk, covenant protection, and market valuation. Western will tactically trade the portfolio's overall duration within a stated band around the benchmark. Western was retained by the SBI in July 1984.

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### ***Semi-Passive Managers***

#### ***BlackRock Financial Management, Inc.***

BlackRock manages a semi-passive portfolio that closely tracks the Barclays Capital Aggregate Index. BlackRock employs a controlled-duration, relative value sector rotation and security selection approach, which can be described as active management with tighter duration, sector, and quality constraints. BlackRock seeks to add value through managing portfolio duration within a narrow band relative to the benchmark, relative value sector/sub-sector rotation and security selection, rigorous quantitative analysis of the valuation of each security and of the portfolio as a whole, intense credit analysis and review, and the judgment of experienced portfolio managers. Advanced risk analytics measure the potential impact of various sector and security strategies to ensure consistent risk-adjusted value is added. BlackRock was retained by the SBI in April 1996.

#### ***Goldman Sachs Asset Management***

Goldman manages a semi-passive portfolio that closely tracks the Barclays Capital Aggregate. Goldman manages the portfolio within a risk-controlled framework. The firm relies primarily on sector allocation and security selection strategies to generate incremental return relative to the benchmark. To a lesser degree, term structure and highly controlled interest rate anticipation strategies are also implemented. Portfolios are diversified among various sectors and individual securities. Goldman combines long-term strategic investments with short-term tactical trading opportunities. Strategic investments are based on fundamental and quantitative sector research and seek to optimize the long-term risk/return profile of portfolios. Tactical trades between sectors and securities within sectors are implemented to take advantage of short-term market anomalies. Goldman was retained by the SBI in July 1993.

#### ***Neuberger Berman Fixed Income LLC***

Neuberger manages a semi-passive portfolio that closely tracks the Barclays Capital Aggregate. Neuberger's process relies on a combination of quantitative tools and active management judgment. Explicit quantification and management of risks are at the heart of their investment process. Neuberger's proprietary risk exposure analysis includes all relevant systemic factors, interest rate and spread-related, that determine a bond's expected return with respect to changes in interest rates and spreads. Neuberger analyzes

every bond in the index for all relevant factors, and capitalization weights the results to calculate index level risk exposures. For each interest rate factor, the portfolio is very closely matched to the index to ensure that the portfolio earns the same return as the index for any change in interest rates. For each spread factor, the portfolio can deviate slightly from the index as a means of seeking value-added. Risk is controlled by setting target active risk exposures that must fall within pre-established maximums. To control credit risk, corporate holdings are diversified across a large number of issues. Neuberger was retained by the SBI in July 1988.

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### **Assigned Risk Plan Managers**

#### **GE Asset Management, Inc.**

GE Asset Management manages the stock portfolio for the Assigned Risk Plan. Their strategy is to maintain a style-neutral position between value and growth stocks and focus on fundamental, bottom-up stock selection to add value. This strategy is accomplished by combining the expertise of three portfolio managers, each with different styles ranging from value to growth, supported by a staff of industry analysts. Each analyst is responsible for one or more industries and together provide analytical coverage across the full spectrum of industries. The three portfolios are combined to create a well-diversified portfolio while neutralizing the style bet. GE Asset Management was retained by the SBI in January 1995.

#### **RBC Global Asset Management (U.S.)**

RBC Global Asset Management (U.S.) Inc. ("RBC GAM-US") manages the fixed income portfolio for the Assigned Risk Plan. The main objective for the portfolio is to provide cash for the payment of workers compensation claims on the required dates. Because of the uncertainty of premium and liability cash flows, the fund is invested conservatively and is benchmarked to the Barclays Intermediate Government Index. RBC GAM-US uses a fundamental approach in managing the portfolio, with a focus primarily on security selection and secondarily on sector analysis. RBC GAM-US has managed the bond portfolio since July 1991.

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### **Stable Value Manager**

#### **Galliard Capital Management, Inc.**

Galliard Capital Management manages the Stable Value Fund in the Supplemental Investment Fund. The Stable Value Fund is managed to protect principal and provide competitive interest rates using instruments somewhat longer than typically found in money market-type accounts. The manager invests the Account in well diversified portfolios of high quality investment grade fixed income securities. The manager invests cash flows to optimize yields. The manager also invests in investment contracts with U.S. financial institutions that provide principal protection for the fixed income portfolios regardless of daily market changes. To maintain necessary liquidity, the manager invests a portion of the portfolio in its Stable Return Fund and in cash equivalents. The Stable Return Fund is a large, daily priced fund consisting of a wide range of stable value instruments that is available to retirement plans of all sizes. The firm was retained by the SBI in November 1994.

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### **Money Market Account**

#### **State Street Global Advisors**

The Money Market Account seeks to provide safety of principal, daily liquidity and a competitive yield over the long term. The Account is not a "money market fund" registered with the Securities and Exchange Commission, and is not subject to the various rules and limitations that apply to such funds. There can be no assurance that the Account will maintain a stable net asset value.

The Account invests in a diversified portfolio of U.S. dollar-denominated securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities; debt securities of domestic or foreign corporations; mortgage-backed and other asset-backed securities; taxable and tax-exempt municipal bonds; obligations of international agencies or supranational entities; inflation-indexed bonds; structured notes; loan participations; delayed funding loans and revolving credit facilities; and short-term investments, such as repurchase agreements, bank certificates of deposit, fixed time deposits, and bankers' acceptances.

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### **State Deferred Compensation Plan Managers**

#### **Dodge & Cox Income Fund**

The objective of this fund is to seek a high and stable rate of current income, consistent with long term preservation of capital, with capital appreciation being a secondary consideration. This portfolio invests primarily in intermediate term, investment-grade quality corporate and mortgage bonds, government issues, and, to a lesser extent, fixed income securities rated below investment grade. While it invests primarily in the U. S. bond market, the fund may invest up to 25% of its total assets in U.S. dollar-denominated securities of non-U.S. issuers, including emerging market issuers. The fund was retained by the SBI in July 1999.

### ***Fidelity Diversified International Fund***

The goal of this fund is capital appreciation by investing in securities of companies located outside the United States. The fund invests primarily in larger companies located in developed countries. The manager uses a bottom-up stock selection process based on the extensive fundamental research available from the company's many security analysts across the globe. The process seeks to invest in companies with durable earnings, strong competitive position, and improving profitability. Sector and country weightings are reviewed for risk control, preference is given to companies with strong balance sheets which tend to perform better in down markets. As part of the portfolio construction process and quarterly portfolio review, quantitative portfolio analysis is evaluated to examine risks exposures including style factors, sectors and geography. The fund does not employ currency hedging, to provide currency diversification to US based investors. The fund was retained by the SBI in July 1999.

### ***Janus Twenty Fund***

The fund is an actively managed large cap equity option. The investment objective of this fund is long-term growth of capital from increases in the market value of the stocks it owns. The fund will concentrate its investments in holdings of about thirty common stocks. This non-diversified fund seeks to invest in companies that the portfolio manager believes have strong current financial positions and offer growth potential. The fund was retained by the SBI in July 1999.

### ***T. Rowe Price Small Cap Stock Fund***

The strategy of this fund is to invest primarily in small-cap stocks, those below the upper end of the Russell 2000 Index at time of purchase which are believed to offer either superior earnings growth or appear undervalued. The fund normally invests at least 80% of assets in equities traded in the U.S. over-the-counter market. The manager does not favor making big bets on any particular sector or any particular stock. The fund's combination of growth and value stocks offers investors relatively more stable performance compared to other small cap stock funds. The fund was retained by the SBI in July 1999.

### ***Vanguard Institutional Index Plus Fund Plus***

The passively managed fund tracks the S&P 500 index. This fund attempts to provide investment results, before fund expenses, that parallel the performance of the Standard & Poor's 500 index. The fund invests in all, or substantially all, of the stocks that make up the S&P 500 index in approximately the same proportions as they are represented in the index. The fund may use futures and options for temporary purposes, but generally remains fully invested in common stocks. The fund was retained by the SBI in July 1999.

### ***Vanguard Mid-Capitalization Index Institutional Fund Plus***

The fund is passively managed to track the performance of the CRSP US Mid Cap Index, an index of stocks of medium-size U.S. companies. The manager holds positions in all companies in the index and uses futures and

options for handling cash needs. The fund was retained by the SBI in January 2004.

### ***Vanguard Balanced Index Fund Institutional***

The fund portfolio provides a diversified portfolio of stocks and bonds by investing in a mix of 60 percent stocks and 40 percent bonds. The manager does not change the asset mix. The fund is passively managed with the equity portfolio invested to track the returns of the CRSP US Total Market Index, which encompasses stocks of companies of all sizes and the bond portfolio invested to track the returns of the Barclays Capital Aggregate Bond index. The fund was retained by the SBI in December 2003.

### ***Vanguard Total Bond Market Index Fund Institutional Plus***

The fund is passively managed to track the performance of the Barclays Capital US Aggregate Float Adjusted Bond index. The manager uses an index sampling technique to invest in investment-grade corporate, U.S. Treasury, international dollar denominated bonds, mortgage-backed and asset-backed securities of varying maturities in order to create a portfolio of intermediate duration like the Barclays Capital Aggregate Bond Index. The fund was retained by the SBI in December 2003.

### ***Vanguard Total International Stock Index Fund Plus***

The fund is passively managed to track the returns of the FTSE Global All Cap ex US Index, a free-float-adjusted market-capitalization-weighted index designed to measure equity

market performance in developed markets and emerging markets, excluding the US. The fund invests in small, mid and large cap stocks in the market index. Fund assets are allocated based on each regions weighting in the index. The fund was retained by the SBI in December 2003.

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### **Minnesota Target Retirement Funds**

#### **State Street Global Advisors**

The MN Target Retirement Funds managed by State Street Global Advisors, seek to offer complete, low cost investment strategies with asset allocations which become more conservative as employees near retirement. Each Fund seeks to achieve its objective by investing in a set of underlying SSgA collective trust funds representing various asset classes. Over time, the allocation to asset classes and funds change according to a predetermined "glide path". (The glide path represents the shifting of asset classes over time and does not apply to the Income Fund.) Each Fund's asset allocation will become more conservative as it approaches its target retirement date. This reflects the need for reduced investment risks as retirement approaches and the need for lower volatility of a portfolio, which may be a primary source of income after retiring.

## Investment Manager Summaries

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### Alternative Investment Managers

#### Private Equity Managers

##### Adams Street Partners

Adams Street (formerly Brinson Partners) Global Secondary Fund 5 was formed in 2012. Fund 5 invests exclusively in secondary venture capital and private equity limited partnership interests which are sold by investors who, for a variety of reasons, have decided to sell some or all of their partnership interests. Adams Street Partners is based in Chicago, IL.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Global Secondary Fund 5	39,918,583	49,530,000	2012

##### Advent International

Advent International GPE VI and VII were formed for the purpose of investing primarily in buyout and recapitalization opportunities in upper middle-market companies in Europe and North America. Advent has regional headquarters in Boston and London. The funds were formed in 2008 and 2012, respectively.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Advent International GPE VI	56,010,224	1,974,995	2008
Advent International GPE VII	72,430,723	27,630,000	2012

##### Affinity Capital

Affinity Ventures Funds IV and V were formed to make venture capital investments exclusively in the health care industry, with a focus on companies in the medical device, health care service, health care information technology, and biotechnology sectors. Affinity Capital is based in Minneapolis, MN.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Affinity Ventures IV	2,258,865	0	2004
Affinity Ventures V	2,828,332	500,000	2008

##### Apax Partners

Apax Partners VIII was formed in 2013 for the purpose of investing primarily in buyout and recapitalization opportunities in upper middle-market and large capitalization companies in Europe and North America. Apax is headquartered in London.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Apax VIII	85,049,163	124,272,984	2013

##### The Banc Funds Co.

Based in Chicago, IL, Banc Fund VII, Banc Fund VIII and Banc Fund IX invest primarily in sub-regional banks, across the U.S., which have demonstrated above average growth and are likely acquisition targets.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Banc Fund VII	43,370,460	0	2005
Banc Fund VIII	130,602,841	0	2008
Banc Fund IX	23,438,928	58,940,000	2014

## Investment Manager Summaries

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### **BlackRock**

The BlackRock Tempus Fund was inherited from the Duluth Teachers Retirement Fund Administration in 2015. The Fund seeks to generate returns by making opportunistic investments in debt and equity.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
BlackRock Tempus Fund	2,159,870	0	2015

### **Blackstone Group**

Blackstone Capital Partners Funds IV, V and VI are limited partnerships which were formed in 2002, 2006, and 2008, respectively. Based in New York, the funds will invest in a variety of private equity transactions in North America and Europe.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Blackstone Capital Partners Fund IV	20,255,568	2,065,533	2002
Blackstone Capital Partners Fund V	94,649,408	9,099,395	2006
Blackstone Capital Partners Fund VI	72,185,919	40,015,469	2008

### **Blum Capital**

Blum Strategic Partners II, Blum Strategic Partners III, and Blum Strategic Partners IV were organized in 2001, 2005 and 2007, respectively. Based in San Francisco, CA the funds will focus on value-oriented private and public equity investments located primarily in the U.S.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Blum Strategic Partners II	70,295	2,127,584	2001
Blum Strategic Partners III	4,433,879	942,128	2005
Blum Strategic Partners IV	80,557,911	5,896,033	2007

### **CarVal Investors**

CVI Global Value Fund, Credit Value Funds I, II and III were formed in 2007, 2010, 2012, and 2015 respectively. The funds are based in Minneapolis with offices in Beijing, Buenos Aires, London, Copenhagen, Delhi, Luxembourg, Paris, Singapore, Shanghai and Tokyo. The Funds will make investments in loan portfolios, corporate securities, international real estate and real estate loans and special opportunities.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
CVI Global Value Fund	54,282,021	10,000,000	2007
CVI Credit Value Fund I	112,681,270	5,000,000	2010
CVI Credit Value Fund II	171,824,736	7,500,000	2012
CVI Credit Value Fund A III	15,000,000	135,000,000	2015

### **Chicago Growth Partners (formerly William Blair)**

Formed in 2001, 2005 and 2008 and based in Chicago, IL, the Chicago Growth Partners funds seek investments in a broad spectrum of private companies at various stages of corporate development.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
William Blair Capital Partners VII	1,730,045	1,650,000	2001
Chicago Growth Partners I	13,680,033	300,000	2005
Chicago Growth Partners II	48,667,239	2,889,677	2008

## Investment Manager Summaries

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### **Court Square Capital**

Court Square Capital Partners I, II and III were formed in 2001, 2006 and 2012, respectively, to make private equity investments in a diversified, global portfolio of companies. Court Square Capital is based in New York.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Court Square Capital Partners I	722,315	1,934,741	2001
Court Square Capital Partners II	122,375,446	17,840,472	2006
Court Square Capital Partners III	54,847,548	118,428,647	2012

### **Crescendo Ventures**

Crescendo Venture Fund IV was organized in 2000. They have offices in Minneapolis, MN and Palo Alto, CA. The funds will pursue opportunistic venture capital investments throughout the U.S.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Crescendo Venture Fund IV	12,731,516	0	2000

### **CVC Capital Partners**

CVC European Equity Partners V and Capital Partners VI are based in London and were formed in 2008 and 2013, respectively. CVC invests primarily in the European mid and large buyout markets, with investment opportunities available from a broad range of sectors and geographies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
CVC European Equity Partners V	91,269,108	6,516,837	2008
CVC Capital Partners VI	16,482,482	232,697,717	2013

### **Diamond Castle Partners**

Diamond Castle Partners IV, based in New York, was established in 2006 to make private equity investments primarily in the following sectors: energy and power, healthcare, media and telecom, and financial services.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Diamond Castle Partners IV	2,473,535	1,373,272	2006

### **DSV Management**

DSV Partners IV limited partnership was formed in 1985. The firm has offices in Princeton, NJ. DSV focuses on start-up and early stage investments.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
DSV Partners IV	31,493	0	1985

### **Elevation Partners**

Elevation Partners was formed in 2005 for the purpose of making private equity investments targeting the media and entertainment sectors, with a focus on content and intellectual property. Elevation has offices in Menlo Park, CA and New York.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Elevation Partners	3,115,598	858,588	2005



## Investment Manager Summaries

### **Fox Paine and Company**

Fox Paine Capital Fund II was formed in 2000. Based in Foster City, CA, the fund focuses on private equity investments in middle market operating businesses in a wide variety of industries.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Fox Paine Capital Fund II	16,623,387	11,953,212	2000

### **GTCR Golder Rauner**

GTCR Golder Rauner Funds VI, VII, IX, X and XI were formed in 1998, 2000, 2006, 2010 and 2013 are funds of a successor firm to the private equity firm of Golder, Thoma, Cressey and Rauner. The SBI has several investments with Golder, Thoma, Cressey and Rauner. Based in Chicago, IL the funds focus primarily on a wide variety of private equity investments in consolidating and fragmented industries.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
GTCR Fund VI	2,243,686	0	1998
GTCR Fund VII	280,226	984,385	2000
GTCR Fund IX	29,358,544	5,460,067	2006
GTCR Fund X	92,795,285	16,301,396	2010
GTCR Fund XI	26,942,071	83,600,000	2013

### **Goldman Sachs Capital Partners**

GS Capital Partners 2000, GS Capital Partners V, and GS Capital Partners VI were formed in 2000, 2005 and 2007, respectively, by Goldman Sachs. Based in New York, the funds will focus on domestic and international investments in four areas: energy, telecommunications, broadband, and technology.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
GS Capital Partners 2000	3,911,112	0	2000
GS Capital Partners V	21,101,791	3,441,099	2005
GS Capital Partners VI	34,413,226	23,614,436	2007

### **Goldner Hawn Johnson and Morrison**

GHJM Marathon Fund V was organized in 2004. Trailhead Fund was formed by this group in 2012. Based in Minneapolis, MN the funds will pursue primarily middle market private equity investments located in the Midwest and other parts of the U.S.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
GHJM Marathon Fund V	10,004,686	14,903	2004
GHJM Trailhead Fund	9,425,183	9,985,813	2012

### **HarbourVest**

The HarbourVest funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. Based in Boston, MA, HarbourVest is a global investment firm with multiple investment products. The following funds were formed to make direct or secondary investments in established buyout and venture capital funds.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Dover Street VII Cayman Fund L.P.	1,622,559	142,500	2015
HarbortVest Intl PE Partners V-Cayman US	2,737,147	267,408	2015
HarbortVest Intl PE Partners VI-Cayman	2,918,093	1,520,883	2015
HarbortVest Partners VIII-Cayman Buyout	3,368,235	520,000	2015
HarbortVest Partners VIII-Cayman Venture	6,543,256	280,000	2015



## Investment Manager Summaries

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### **Hellman and Friedman**

Hellman and Friedman V, VI and VII were organized in 2004, 2007 and 2009. Based in San Francisco, CA the funds will pursue opportunistic private equity investments located in the U.S. and Europe.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Hellman and Friedman V	4,440,257	8,120,384	2004
Hellman and Friedman VI	58,143,154	7,280,991	2007
Hellman and Friedman VII	34,012,096	13,187,518	2009

### **IK Investment Partners**

IK, based in London, makes investments in lower middle-market business in Europe's northern countries. IK's primary focus is businesses in the industrial, businesses services and healthcare sectors. IK Fund VII was formed in 2013.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
IK Fund VII	89,254,998	72,803,007	2013

### **Kohlberg, Kravis, Roberts & Co. (KKR)**

KKR's Funds invest in large leveraged buyouts but may include other types of investments as well. The partnerships' portfolio companies are often mature, low technology companies with diversified operations. Kohlberg, Kravis, Roberts and Co. is based in New York.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
KKR Millennium Fund	62,339,209	2,093,304	2002
KKR 2006 Fund	147,430,667	5,372,567	2006

### **Leonard Green & Partners (LGP)**

LGP invests in middle-market companies in a variety of structured transactions. LGP typically makes investments in the retail, consumer & business services, and healthcare and distribution sectors. Green Equity Investors VI was formed in 2012 to continue this investment philosophy. LGP is based in Los Angeles, CA.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Green Equity Investors VI	127,833,710	85,002,701	2012

### **Lexington Capital Partners**

Lexington Capital Partners VI, VII and VIII were formed in 2006, 2009 and 2014, respectively, for the purpose of making investments in established buyout, mezzanine and venture capital funds, primarily through secondary transactions. The funds are based in New York.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Lexington Capital Partners VI	38,201,988	1,634,703	2006
Lexington Capital Partners VII	117,419,097	50,196,104	2009
Lexington Capital Partners VIII	16,933,193	139,381,248	2014

## Investment Manager Summaries

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### **MHR Institutional Partners**

MHR is a medium-sized private equity investment firm based in New York. MHR IV was formed in 2015 to invest in distressed companies with the goal of gaining influence or control of the company and creating value through the restructuring process and revenue growth.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
MHR Institutional Partners IV	6,380,134	68,250,000	2015

### **Merced Capital (formerly EBF & Associates)**

Based in Minneapolis, MN Merced Partners II, III and IV expect to invest in securities with strong downside protection from identifiable asset value and compelling return potential from some combination of current income, asset value appreciation, secondary market instrument appreciation, and enterprise value creation or appreciation. Merced Partners II, III and IV were formed in 2006, 2010 and 2013, respectively.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Merced Partners II	16,363,693	0	2006
Merced Partners III	84,230,647	0	2010
Merced Partners IV	96,387,800	25,000,000	2013

### **Nordic Capital**

Nordic Capital is based in Stockholm, Sweden and performs buyouts of middle-market businesses, primarily in the Nordic region of Europe. Nordic focuses on healthcare and information technology businesses where they can use their expertise in these sectors to create value. Nordic Capital VIII was formed in 2013.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Nordic Capital VIII	76,644,461	89,264,278	2013

### **North Sky Capital**

North Sky Capital funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. Based in Minneapolis, North Sky manages several different investment strategies. The following funds were formed to make direct investments in established buyout and venture capital funds.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
North Sky Capital LBO Fund III, LP	679,715	350,000	2015
North Sky Capital Venture Fund III, LP	1,263,729	106,250	2015

### **Oaktree Capital Management**

Oaktree Capital Management is a global private equity firm based in Los Angeles. The Oaktree Principal Fund VI was formed in 2015 to invest in the debt or equity of companies experiencing a significant element of distress or dislocation or that are otherwise out of favor. Oaktree will seek to create control positions at attractive valuations which will allow for the maximization of value of the companies after control is obtained.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Oaktree Principal Fund VI	6,026,566	95,570,571	2015

## Investment Manager Summaries

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### **Paine & Partners**

Paine & Partners is a small private equity firm with offices in New York, Chicago and San Mateo. Paine & Partners IV was formed in 2014 to make control investments in companies involved in the global food and agribusiness sectors.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Paine & Partners Capital Fund IV	6,775,975	66,153,964	2014

### **Permal Capital**

Permal IV was inherited from the Duluth Teachers Retirement Fund Administration in 2015. Permal is a small investment firm based in New York. Permal IV was formed to purchase small portfolios of private equity investments on the secondary market.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Permal PE Opportunities IV, L.P.	3,619,482	1,240,000	2015

### **Permira**

Permira performs buyouts of middle-market companies across geographies in Europe and North America. Permira typically makes investments in the retail, consumer & business services, healthcare and telecom, media and technology sectors. Permira V was formed in 2013 to continue this investment philosophy. Permira is based in London.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Permira V	92,409,171	75,793,447	2013

### **Public Pension Capital Management (PPC)**

PPC developed an innovated approach to private equity investing, tailored to the needs and demands of modern public pensions in the United States. The fund's evergreen structure allows flexibility, increased transparency and alignment of interests of the GP and LPs. The fund invests in middle-market businesses in the industrial, specialty chemical, food and healthcare sectors. PPC was formed in 2014 and is based in New York.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Public Pension Capital Fund	2,887,446	89,112,554	2014

### **RWI Ventures**

RWI Ventures I was formed in 2000 to make venture capital investments. The Fund is based in California. The RWI Funds were transferred to the SBI from the Minneapolis Teachers Retirement Fund Association (MTRFA) on June 30, 2006 pursuant to the merger of MTRFA into TRA.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
RWI Ventures I	487,621	0	2006

## Investment Manager Summaries

### **Sightline Healthcare (Piper Jaffray)**

Sightline Healthcare Funds III, and IV were organized in 1999 and 2003, respectively. Based in Minneapolis, MN, the funds will focus on a geographically diverse portfolio of healthcare venture capital investments.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Sightline Healthcare Fund III	0	0	1999
Sightline Healthcare Fund IV	1,230,143	0	2003

### **Silver Lake Partners**

Silver Lake Partners II, III, and IV were formed in 2004, 2007, and 2012, respectively. With offices in New York and Menlo Park, CA the funds will focus primarily on large-scale private equity investing in technology companies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Silver Lake Partners II	42,760,562	11,771,953	2004
Silver Lake Partners III	75,023,040	15,442,553	2007
Silver Lake Partners IV	38,534,878	75,244,390	2012

### **Split Rock Partners**

Split Rock Partners and Split Rock Partners II were formed in 2005 and 2008, respectively, by Split Rock Partners Management (formerly part of St. Paul Venture Capital). With offices in Minneapolis, MN and Menlo Park, CA the funds will focus on private equity investments in seed and early-stage healthcare and software companies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Split Rock Partners I	34,407,144	2,927,275	2005
Split Rock Partners II	42,937,916	8,595,000	2008

### **Strategic Partners (formerly Credit Suisse)**

Strategic Partners I, II B, III B, III VC, IV B, IV VC, V and VI were formed to invest in secondary leveraged buyout, venture capital, and mezzanine debt limited partnership interests which are sold by investors who, for a variety of reasons have decided to liquidate all or a portion of their private equity holdings. All of the funds are based in New York. In 2013, the Strategic Partners funds platform was sold to The Blackstone Group and is now wholly-owned by Blackstone.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Strategic Partners Fund I	2,401,739	3,399,378	2001
Strategic Partners Fund II B	3,940,904	4,724,191	2003
Strategic Partners Fund III B	40,754,063	15,194,577	2005
Strategic Partners Fund III VC	8,685,703	1,448,343	2005
Strategic Partners Fund IV B	33,580,741	25,881,265	2008
Strategic Partners Fund IV VC	24,329,241	3,719,144	2008
Strategic Partners Fund V	73,812,818	45,186,217	2011
Strategic Partners Fund VI	51,272,938	111,633,482	2014

## Investment Manager Summaries

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### **Summit Partners**

Summit Ventures V and VIII are limited partnerships formed in 1998 and 2011. Summit Partners focuses on profitable, expansion stage firms that have not yet received any venture backing. The majority of the partnership investments are in high tech firms. Investments are diversified by location and industry type. Summit Partners is based in Boston, MA.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Summit Ventures V	100,150	875,000	1998
Summit Ventures VIII	62,983,180	34,500,000	2011

### **Thoma Cressey Bravo Equity Partners**

Thoma Cressey Bravo is one of two successor firms to the private equity firm of Golder, Thoma, Cressey and Rauner. Thoma Cressey VI, VII and VIII were formed in 1998, 2000, and 2006. Based in Chicago, IL the funds focus primarily on a wide variety of private equity investments in consolidating and fragmented industries.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Thoma Cressey Fund VI	580,556	1,085,000	1998
Thoma Cressey Fund VII	8,194,315	0	2000
Thoma Cressey Fund VIII	60,595,964	770,000	2006

### **Thomas, McNerney & Partners**

Thomas, McNerney & Partners is based in Connecticut with additional offices in Minneapolis and San Francisco. The Thomas, McNerney & Partners Fund I and Fund II were formed in 2003 and 2006 to make venture capital investments in all stages of development and across all sectors of the health care industry.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Thomas, McNerney & Partners Fund I	8,820,863	600,000	2003
Thomas, McNerney & Partners Fund II	27,407,587	3,875,000	2006

### **T. Rowe Price**

T. Rowe Price, a Baltimore-based money management firm, manages stock distributions from the SBI's alternative investment limited partnerships. T. Rowe Price has extensive research capabilities in the small capitalization company area. In addition, the firm has a large trading staff with particular expertise in the trading of small capitalization and illiquid stocks.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
T. Rowe Price	44,405,711	0	N/A

### **Varde Partners**

Varde Fund IX, X and XI are limited partnerships formed in 2008, 2010 and 2013, respectively. Based in Minneapolis, MN the funds will invest in distressed and/or mispriced private and public investments.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Varde Fund IX	36,052,585	0	2008
Varde Fund X	211,868,803	0	2010
Varde Fund XI	203,676,300	20,000,000	2013

## Investment Manager Summaries

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### **Vestar Capital Partners**

Vestar Capital Partners IV, V and VI are limited partnerships that were formed in 1999, 2006, and 2011, respectively. Based in New York, the funds invest primarily in a number of private middle market companies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Vestar Capital Partners IV	1,945,823	737,136	1999
Vestar Capital Partners V	59,898,364	241,057	2006
Vestar Capital Partners VI	59,487,241	45,817,975	2011

### **Warburg Pincus & Co.**

Warburg Pincus is based in New York. These funds will invest private equity in a wide variety of businesses located domestically and abroad. The funds listed were formed in 1998, 2002, 2005, 2007, and 2012.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Warburg Pincus Equity Partners	3,976,704	0	1998
Warburg Pincus Private Equity Partners VIII	34,955,986	0	2002
Warburg Pincus Private Equity Partners IX	22,772,708	0	2005
Warburg Pincus Private Equity Partners X	112,249,062	0	2007
Warburg Pincus Private Equity Partners XI	149,080,939	67,800,000	2012

### **Wayzata Investment Partners**

Wayzata Opportunities Funds I, II, and III were formed in 2005, 2007 and 2012, respectively, for the purpose of making investments in distressed securities where it can expect to exert significant influence on the restructuring process and potentially control the reorganized company. The Funds are based in Wayzata, MN.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Wayzata Opportunities Fund I	20,899,047	18,920,000	2005
Wayzata Opportunities Fund II	48,168,644	30,000,000	2007
Wayzata Opportunities Fund III	34,661,965	111,300,000	2012

### **Welsh, Carson, Anderson and Stowe**

Welsh, Carson, Anderson and Stowe Funds VIII, IX, X, XI and XII were formed in 1998, 2000, 2005, 2008 and 2014. Based in New York, the funds focus on private equity investments in the healthcare and information services industries.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Welsh, Carson, Anderson and Stowe Fund VIII	133,893	0	1998
Welsh, Carson, Anderson and Stowe Fund IX	19,442,816	1,250,000	2000
Welsh, Carson, Anderson and Stowe Fund X	53,085,358	2,000,000	2005
Welsh, Carson, Anderson and Stowe Fund XI	80,513,130	5,404,568	2008
Welsh, Carson, Anderson and Stowe Fund XII	30,951,462	119,048,538	2014

## Investment Manager Summaries

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### Real Estate Managers

#### Blackstone Real Estate Partners

Based in New York, Blackstone Real Estate Partners V, VI, VII and VIII were formed in 2006, 2007, 2011 and 2015 to make real estate investments in a variety of sectors, geographic locations and business climates. Blackstone will consider investments in major urban office buildings, the lodging sector, distribution and warehousing centers, retail, and a variety of real estate operating companies.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Blackstone Real Estate Partners V	83,426,927	4,174,052	2006
Blackstone Real Estate Partners VI	84,264,431	5,187,649	2007
Blackstone Real Estate Partners VII	99,872,225	23,790,432	2011
Blackstone Real Estate Partners VIII	0	150,000,000	2015

#### Colony Advisors

Colony Investors II and III are closed-end commingled real estate funds managed by Colony Capital Inc. of Los Angeles, CA. The fund's strategy is to invest in undervalued equity and debt real estate-related assets. The SBI committed to Fund II in 1995 and Fund III in 1997.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Colony Investors II	2,600	0	1995
Colony Investors III	5,164,800	0	1997

#### SilverPeak

Silverpeak Legacy Pension Partners II and III were formed in 2005 and 2007, respectively, to invest in properties, real estate companies and service businesses ancillary to the real estate industry on a global basis. The funds' worldwide headquarters are in New York, with regional headquarters in London and Tokyo. In 2010, the funds were renamed Silverpeak Legacy Pension Partners II and III to reflect the General Partner ownership change after the Lehman Brothers bankruptcy in 2008.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Silverpeak Legacy Pension Partners II	22,179,740	17,869,907	2005
Silverpeak Legacy Pension Partners III	21,262,491	80,755,893	2007

#### Strategic Partners (formerly Credit Suisse)

Strategic Partners III RE and Strategic Partners IV RE were formed in 2005 and 2008, respectively, for the purpose of purchasing secondary interests of real estate funds. The funds will follow a strategy similar to that of the Strategic Partners private equity funds, in which the SBI is also an investor. Credit Suisse sold the Strategic Partners funds platform to The Blackstone Group in 2013. Blackstone is based in New York.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
CSFB Strategic Partners III RE	8,144,923	9,006	2005
CS Strategic Partners IV RE	22,855,344	1,798,305	2008



## Investment Manager Summaries

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### **TA Associates Realty**

TA Realty Associates Funds VII, VIII, IX and X are closed-end, commingled real estate funds managed by TA Associates Realty of Boston, MA. The funds invest in small to medium sized properties generally diversified by location and type. On-site management of properties is contracted to outside firms. The SBI committed to the funds in 2004, 2006, 2008 and 2012, respectively.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
TA Realty Associates Fund VII	39,966,218	0	2004
TA Realty Associates Fund VIII	65,944,017	0	2006
TA Realty Associates Fund IX	85,109,723	0	2008
TA Realty Associates Fund X	105,291,690	0	2012

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### **Resource Funds Managers**

#### **Apache Corporation**

Apache Corporation is a Houston, TX based oil and gas company. Apache Acquisition Net Profits Interest is a private placement that was formed in 1986 to acquire a non-operating interest in the net profit generated by oil and gas properties acquired in 1986 from Occidental Petroleum Company. The fund will remain in effect throughout the producing life of the properties.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Apache Acquisition Net Profits Interest	1,530,210	0	1986

#### **EIG Global Energy Partners (formerly TCW Asset Management Company)**

Energy Partners XIV, XV and XVI were formed in 2007, 2010 and 2013 respectively, for the purpose of making mezzanine and equity investments in energy and energy-related infrastructure projects and companies on a global basis. The funds operate from offices in Washington D.C., Los Angeles, Houston, New York and London. EIG was formally spun out of TCW in 2011.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Energy Partners XIV	44,514,902	6,852,249	2007
Energy Partners XV	109,798,441	19,898,856	2010
Energy Partners XVI	35,069,111	139,300,019	2013

#### **EnCap Investments**

EnCap Energy Capital Funds VII, VIII, IX, and X were formed in 2007, 2010, 2012 and 2015 for the purpose of making privately negotiated equity and equity-linked investments in the independent sector of the oil and gas industry. EnCap Investments is based in Houston, TX.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
EnCap Energy Capital Fund VII	19,193,459	6,157,271	2007
EnCap Energy Capital Fund VIII	64,973,843	22,797,272	2010
EnCap Energy Capital Fund IX	46,329,019	49,732,251	2012
EnCap Energy Capital Fund X	3,716,235	96,283,765	2015

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## Investment Manager Summaries

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### Energy & Minerals Group

Based in Houston, TX, Energy & Minerals Group (formerly known as NGP Midstream & Resources) will make direct investments in selected areas of the energy infrastructure and natural resources sectors, primarily targeting the midstream energy sector and all facets of the mining, minerals and related power sectors. The funds were formed in 2007, 2011 and 2014.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
NGP Midstream & Resources	133,021,439	886,181	2007
Energy & Minerals Group II	127,042,162	19,875,138	2011
Energy & Minerals Group III	140,846,662	59,908,396	2014

### Energy Capital Partners

Energy Capital specializes in building and managing energy infrastructure assets to achieve capital appreciation. Energy Capital is based in Short Hills, NJ. Fund II and III were formed in 2010 and 2013, respectively.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Energy Capital Partners II	65,333,100	70,452,497	2010
Energy Capital Partners III	34,783,550	158,624,014	2013

### First Reserve

The First Reserve funds were formed in 2003, 2006, 2008 and 2013, respectively, and are structured as limited partnerships. The general partner's long-term investment strategy is to create diversified portfolios of oil and gas and other energy-related investments. First Reserve is headquartered in Greenwich, CT.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
First Reserve X	540,481	0	2003
First Reserve XI	43,148,149	0	2006
First Reserve XII	82,808,915	8,925,011	2008
First Reserve XIII	20,543,545	175,404,447	2013

### Natural Gas Partners

Natural Gas Partners is based in Irving, TX and will focus primarily on the sectors of the energy industry that are related to the production and development of crude oil and natural gas in North America. Funds IX, X and XI were formed in 2007, 2011 and 2014, respectively.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Natural Gas Partners IX	56,189,580	4,836,934	2007
NGP Natural Resources X	115,544,457	33,112,897	2011
Natural Gas Capital Resources XI	6,231,850	143,648,494	2014

## Investment Manager Summaries

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### **Sheridan Production Partners**

Sheridan Production Partners I, II and III were formed in 2007, 2010 and 2014 respectively to pursue a strategy of acquiring a portfolio of currently producing oil and gas properties and optimizing the operations of those properties through production acceleration and recovery enhancement, appropriate use of capital reinvestment and aggressive cost control. The Funds are headquartered in Houston, TX.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Sheridan Production Partners I	51,159,992	0	2007
Sheridan Production Partners II	41,957,035	0	2010
Sheridan Production Partners III-B	919,000	98,150,000	2014

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### **Yield-Oriented Managers**

#### **Audax**

Audax Mezzanine Fund III was formed in 2010 and has a ten year term. Based in New York, the fund expects to invest in a diversified portfolio of mezzanine securities, with a specific focus on the middle market.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Audax Mezzanine III	53,907,466	29,515,136	2010

#### **Avenue Capital Partners**

Avenue Capital is mid-sized global investment firm based in New York. Avenue Energy Opportunities was formed in 2015 to make investments in debt, equity and other obligations of North American energy and utility companies that are experiencing financial distress.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Avenue Energy Opportunities	26,558,954	73,441,046	2015

#### **Citicorp Capital Investors**

Citicorp Mezzanine Partners III is a limited partnership formed in 1999 by Citicorp Capital Investors Ltd. of New York. The Fund will invest in a broad range of transactions utilizing subordinated debt and equity securities.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Citicorp Mezzanine Partners III	6,435,692	0	1999

#### **Crescent Capital Group (formerly TCW/Crescent)**

TCW/Crescent Mezzanine Partners III is a Los Angeles, CA based limited partnership formed in 2001. The Fund makes mezzanine investments including subordinated debt with equity participations primarily in profitable, middle market companies. Crescent Capital Group became formerly independent of TCW in 2011.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
TCW/Crescent Mezzanine Partners III	5,458,111	29,733,852	2001

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## Investment Manager Summaries

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### **Gold Hill Venture Lending Partners**

Gold Hill Venture Lending and Gold Hill 2008 were formed in 2004 and 2008, respectively. The funds generate returns through secured loans, gains on the sales of securities acquired upon the exercise of warrants, and through the disposition of direct equity investments. Prior to forming Gold Hill, the partners executed a similar mandate for Silicon Valley Bank, and they expect to continue a close relationship for purposes of deal-sourcing. Gold Hill has offices in Santa Clara, CA and Boston, MA.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Gold Hill Venture Lending	1,553,001	0	2004
Gold Hill 2008	17,913,558	0	2008

### **Goldman Sachs Mezzanine Partners**

GS Mezzanine Partners 2006 and V are limited partnerships formed in 2006 and 2007 respectively. Based in New York, the Funds' investment objectives are to achieve long-term capital appreciation and current returns through investments in mezzanine securities. These securities will principally include fixed income securities such as debt and preferred stock, often with an equity component, such as warrants, options, a convertible feature, or common stock associated with the debt or preferred stock purchase.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
GS Mezzanine Partners 2006	16,059,458	5,000,112	2006
GS Mezzanine Partners V	10,071,947	61,343,845	2007

### **KKR**

KKR is a large global investment firm with a variety of private equity investment products. KKR Lending Partners II was formed in 2015 to make investments primarily in the senior debt securities of middle-market US companies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
KKR Lending Partners II	24,323,361	50,676,639	2015

### **Merit Capital Partners (formerly William Blair Mezzanine Partners)**

William Blair Mezzanine Capital Partners III, Merit Capital Partners IV, and Merit Capital Partners V are limited partnerships formed in 1999, 2004, and 2009. Based in Chicago, IL, the Funds will invest primarily in fixed rate subordinated debt securities. These securities generally will be purchased with a significant equity component in the form of warrants, common stock or contingent interest.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
William Blair Mezzanine Capital Partners III	497,649	2,756,759	1999
Merit Capital Partners IV	31,112,180	4,821,429	2004
Merit Capital Partners V	43,797,398	15,367,347	2009

## Investment Manager Summaries

### Merit Energy Company

Merit Energy Partners B, C, D, E, F, H and I were formed in 1996, 1998, 2000, 2003, 2005, 2011 and 2014, respectively. Based in Dallas, TX, the funds focus on resource investments in producing oil and gas properties.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Merit Energy Partners B	20,946,619	0	1996
Merit Energy Partners C	45,697,020	0	1998
Merit Energy Partners D	64,739,850	0	2000
Merit Energy Partners E	36,246,022	0	2003
Merit Energy Partners F	37,046,046	0	2005
Merit Energy Partners H	68,595,592	18,139,252	2011
Merit Energy Partners I	4,100,000	165,621,518	2014

### Oaktree Capital Management

Oaktree Capital Management is a global private equity firm based in Los Angeles. The Oaktree Opportunities Funds X and Xb were formed in 2015 to invest in the debt or equity of companies during periods of financial distress. Oaktree Opportunities Fund Xb will only be invested if the management determines that the investment opportunity exists.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Oaktree Opportunities Fund X	0	50,000,000	2015
Oaktree Opportunities Fund Xb	0	100,000,000	2015

### Pimco Bravo

The Pimco Bravo funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. Pimco is a global investment management firm with a variety of public and private investment products. The Pimco Bravo Funds primarily invest in distressed commercial and residential mortgage credit.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
Pimco Bravo OnShore Feeder I	2,683,701	5,503,093	2015
Pimco Bravo OnShore Feeder II	2,941,694	2,375,000	2015

### Portfolio Advisors (formerly DLJ/Credit Suisse)

DLJ Investment Partners II and III are limited partnerships formed in 1999 and 2006. Based in New York, the Funds will invest in a variety of securities, including subordinated debt with warrants, preferred stock with warrants, common stock or other securities, including interests in joint ventures. Credit Suisse sold the DLJ Investment Partners platform to Portfolio Advisors in 2013.

Fund	Market Value (\$)	Unfunded Commitment (\$)	Vintage Year
DLJ Investment Partners II	326,145	0	1999
DLJ Investment Partners III	12,848,790	42,126,271	2006

## Investment Manager Summaries

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### **Prudential Capital Group**

Prudential Capital Partners I, II, III, and IV were formed in 2001, 2005, 2009 and 2012, respectively. Based in Chicago, IL the Funds make mezzanine investments, typically including convertible debt, preferred stock and warrants, with a specific focus on middle market companies.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Prudential Capital Partners I	0	286,652	2001
Prudential Capital Partners II	20,484,822	3,348,297	2005
Prudential Capital Partners III	64,271,513	8,754,470	2009
Prudential Capital Partners IV	44,379,437	50,066,123	2012

### **Summit Partners**

Summit Subordinated Debt Funds II, III and IV are limited partnerships formed in 1996, 2004 and 2007, respectively. Based in Boston, MA the funds invest in many of the same companies as the Summit Venture funds. Investments by those partnerships principally take the form of subordinated debt with equity features. These yield-oriented investments provide current income over the life of the investment with the potential for additional returns.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Summit Subordinated Debt Fund II	154,668	4,500,000	1996
Summit Subordinated Debt Fund III	6,849,426	2,250,000	2004
Summit Subordinated Debt Fund IV	25,781,611	2,500,000	2007

### **TCW Asset Management**

Based in Los Angeles, TCW is a large asset management firm that makes investments in public and private companies. TCW Direct Lending was formed in 2014 to pursue a strategy of originating and investing in loans to middle-market companies primarily in the United States.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
TCW Direct Lending LLC	23,400,000	76,600,000	2014

### **Windjammer Capital Investors**

Windjammer Funds II, III and IV are limited partnerships formed in 2000, 2005 and 2012, respectively. Based in Newport Beach, CA the Funds provide subordinated debt and/or preferred stock accompanied by warrants or other forms of equity participation and, in certain instances, common stock to middle market companies. The Funds seek to generate both current income and substantial capital gains while limiting risk.

<b>Fund</b>	<b>Market Value (\$)</b>	<b>Unfunded Commitment (\$)</b>	<b>Vintage Year</b>
Windjammer Mezzanine & Equity Fund II	1,746,806	10,139,363	2000
Windjammer Senior Equity Fund III	30,378,608	13,380,380	2005
Windjammer Senior Equity Fund IV	29,149,525	61,878,306	2012

Commissions and Trading Volume  
By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Abel Noser Corporation	4,270,400	10,686			
Abg Securities As (Stockholm)	5,498,035	3,656			
Abg Securities Limited	7,765,801	5,413			
Able Noser	1,203,554	1,515			
Abn Amro Clearing Bank N.V.	1,873,090	1,905			
Academy Securities Inc	3,150,266	589			
Albert Fried & Company Llc			4,132,268		
Ambit Capital Private Limited	8,349,917	8,209			
Amherst Pierpont Securities Llc			38,013,883		
Ancora Secirities Inc	537,382	4,384			
Antique Stock Broking Ltd	376,049	374			
Apple Financial Corp.					
Aqua Securities Lp	6,644,180	3,157			
Aros Securities Ab	832,311	277			
Australiaand New Zealand Banking Grp	(181,309)				
Avior Research Pty Ltd	104,022	74			
Avondale Partners Llc	7,926,308	13,774			
Axis Capital Limited	1,772,330	1,767			
B.Riley &Co., Llc	6,525,334	25,221			
Banc Of America Securities			1,329,133,681		
Banca Imis.P.A.	199,101	219			
Banco Barclays Sa	2,133				
Banco Citibank Sa	156,418				
Banco Itau Sa	13,282,823	13,295			
Banco Pactual S.A.	3,700,806	5,784			
Banco Santander Central Hispano	5,094,475	7,393	283,635		
Bank J.Vontobel Und Co. Ag	4,712,439	5,272			
Bank Of America Intl Ny United States	6,420,051				18,000,000
Bank Of America Securities Llc			13,936,285,088		624,230,394
Bank Of America, N.A.	175,390,679		517,084,254		
Bank Of Montreal	7,993,083		7,068,781		
Bank Of New York	121,417,703				
Bank Of New York (The)/Ipa			2,065,450		20,000,000
Bank Of New York Mellon Natixis Sec.			4,659,846		
Bank Of Nova Scotia - Client			10,164,665		
Bank Of Ny/Mellon Trust Of New England			47,881,898		
Barclays Bank Of New York					59,056,669,000
Barclays Bank Plc			25,141,602		
Barclays Bank Plc London Branch			11,029,848		
Barclays Bank Plc Wholesale	(1,624,871)		78,257,130		
Barclays Capital	148,652,338	71,918	8,342,280,077		390,879,257
Barclays Capital Bbplc London Branch			3,066,030		
Barclays Capital Le	645,074,610	117,875			
Barclays Capital Securities Taiwan Ltd	18,946,441	23,424			
Barclays Securities (India) Private Ltd	15,396,505	19,166			
Batlivala+Karani Secs India Pvt. Ltd	748,679	750			
Bb&T Securities, Llc	1,626,230	4,226	28,056,856		
Bbva/Securities Ny			5,791,484		
Bdwb Bidtrading	27,797	15			
Bloombergtradebook Llc	11,507,561	7,666			
Bmo Capital Markets	123,641,655	49,747	739,164,510		
Bnp Paribas Ny Branch/Paris	778,387		8,255,180		
Bnp Paribas Prime Brokerage Acting Agent	1,389,805	2,066			
Bnp Paribas Sa	3,377,881				
Bnp Paribas Securities	20,965,278	11,260	4,457,845,650		56,993,087,000
Bnp Paribas Securities (Asia) Ltd.	14,972,759	13,486			
Bnp Paribas Securities India Private Lim	2,847,334	2,860			
Bny Brokerage	1,238,537	538			
Bny Convergenx	521,573,648	589,381			
Bny Mellon/Nomura Int'L Plc Repo			2,030,240		
Bny/Ixis Corp & Invest Bk			210,125		
Bny/Suntrust Capital Markets			3,196,164		
Bofa Algocsa	573,157	432			
Bony/Griffin Kubik Stephens					52,921,086
Bony/Toronto Dominion Securities Inc			595,524,160		84,989,490
Bradesco S.A Ctvn	1,678,621	1,711			
Brean Capital Llc	6,274,731	11,886	3,744,621		
Broadcortcapital (Thru MI)	1,365,250	4,055			
Brown Brothers Harriman + Co	38,665,112		18,811,635		
Btig, Llc	11,310,866	12,228			
Buckingham Research Group Inc	6,821,731	7,580			
Calyon Securities	5,461,386	889			
Calyon Securities (Usa) Inc.			103,654		



Commissions and Trading Volume  
By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Canaccordgenuity Inc.	18,015,551	19,937			
Canadian Imperial Bank Of Commerce	6,294,846	47			
Cantor Fitzgerald + Co	73,362,471	39,182	92,871,648		2,001,860
Cantor Fitzgerald Europe	9,996,721	3,575			
Capital Institutional Svcs Inc Equities	472,170,555	567,993			
Capital Markets/Boston	120,834,391				
Carnegie Bank A.S.	12,963,070	8,970			
Cba Equities Limited	8,352,213	8,070			
Cds Rbc Dominion Securities Inc			502,557,288		
Cheevers & Co. Inc.	6,366,905	4,386			
China International Capital Co	4,548,940	3,843			
Cibc World Mkts Inc	76,812,096	16,523	4,899,478		80,000,000
Cimb Securities (Hk) Ltd.	2,767,034	3,867			
Cimb Securities (India) Private Lim	718,716	723			
Cimb Securities Ltd., Korea Branch	6,760,938	7,862			
Cimb-Gk Securities Pte.Ltd.	13,778,202	15,343			
Citation Group	4,789,655	5,980			
Citi Algorr Bloomberg	313,272	255			
Citibank	111,919,480		953,783,509		191,904,275
Citibank Budapest Rt	383,077	579			
Citibank Canada	1,166,192	524			
Citibank N.A. London	1,019,960,957	483	92,177		
Citibank Of Colombia	10,065,384	20,299			
Citigroupglbl Market Koera Secs Ltd	13,326,508	13,861			
Citigroupglobal Markets Asia Ltd	862,893	405			
Citigroupglobal Markets Australia Pty	447,464	1,322			
Citigroupglobal Markets Inc	1,056,058,331	422,199	205,341,831	22,161	145,493,012
Citigroupglobal Markets Inc Salomon Bro	835,990		11,462,244,479		33,743,344,750
Citigroupglobal Markets India	2,224,998	2,407			
Citigroupglobal Markets Taiwan	1,572,887	176			
Clsa Australia Pty Ltd	10,673,499	9,903			
Clsa Limited	53,135	50			
Clsa Securities Korea Ltd.	20,331,960	20,575			
Clsa Singapore Pte Ltd.	78,873,213	41,140			
Comcorp Securities Inc	27,824	5			
Commerzbank Ag	255,599	128	1,591,062		
Connecticut National Bank & Trust	360,360	69			
Convergexexecution Solutions Llc	113,903,889	107,472			
Cormark Securities Inc	1,356,933	1,202			
Cowen Andcompany, Llc	206,048,692	55,326			
Craig - Hallum	19,588,381	30,106			
Credit Agricole Cib			12,825,480		
Credit Agricole Securities (Usa) Inc	1,390,514	1,057	11,513,891		
Credit Lyonnais Algo	23,382	6			
Credit Lyonnais Cash Rr	16,993	12			
Credit Lyonnais Securities (Asia)	52,798,112	54,770			
Credit Lyonnais Securities (Usa) Inc	9,627,083	9,692			
Credit Lyonnais Securities India	10,930,396	11,925			
Credit Research + Trading Llc	5,467,905	3,144			
Credit Suisse First Boston (Europe)	26,394,044	26,349			
Credit Suisse International	1,073,851,589		266,101,883		
Credit Suisse London Branch (Gfx)	8,846,111				
Credit Suisse Secs India Private Ltd	58,754,721	23,282			
Credit Suisse Securities (Europe) Ltd	156,296,774	91,694	9,186,712		
Credit Suisse Securities (Usa) Llc	2,367,997,849	806,353	21,905,585,133		10,558,391,000
Crt Capital Group Llc			17,207,476		
Cs First Boston (Hong Kong) Limited	103,820,998	100,647			
Csfb Australia Equities Ltd	12,070,348	9,601			
Csi Us Institutional Desk	12,585,552	6,214			
D Carnegie Ag	17,471,860	9,269			
Da Davidson			5,894,793		
Daewoo Securities Co Ltd	5,282,797	10,232			
Daiwa Sbcm Europe	16,541,482	9,070			
Daiwa Securities (Hk) Ltd.	66,476,760	22,980			
Daiwa Securities America Inc	18,977,794	4,981	130,236,383		386,055,954
Danske Bank A.S.	366,118	110	4,127,815		
Davidson And Garrard, Inc.			3,245,977		
Davidson D.A. + Company Inc.	20,293,818	27,093	9,539,964		
Davy Stockbrokers	3,385,250	2,014			
Dbs Vickers (Hong Kong) Limited	82,944	59			
Dbtc America/Pnc Bank, N.A.-Secs.Co			10,061,241		
Den Norske Bank	199,127	60			
Deutsche Bank Ag	17,856,027	747	191,051,896		

## Commissions and Trading Volume By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Deutsche Bank Ag Frankfurt	1,787,292	1,016			
Deutsche Bank Ag London	122,590,363	81,657			
Deutsche Bank Securities Inc	1,047,062,026	409,209	13,111,072,101		941,280,135
Deutsche Bank Trust Co			3,535,522		
Deutsche Eq In Prvt Lim Db	4,792,718	4,871			
Deutsche Morgan Grenfell Secs	11,619,787	9,390			17,376,829,000
Deutsche Securities Asia Ltd	68,350,599	68,040			
Deutsche Securities New Zealand	193,616	428			
Dhanki Securities Pvt Ltd.	696,645	700			
Dnb Nor Markets Custody Dnb Norbank Asa	1,878,207	689			
Dolat Capital Markets Ltd	11,701,639	3,149			
Dominion Securities					
Doughertycompany	23,734,204	22,569			
Dowling &Partners	216,683	60			
Drexel Hamilton Llc	1,579,105	287			
Dsp Merrill Lynch Ltd	12,315,919	14,637			
Econovest	83,879	11			
Edelweisssecurities Pvt. Ltd	583,901	587			
Emkay Global Financial Svcs Lt	883,562	881			
Erste Group Bank Ag	190,225	152			
Euromobiliare Sim S.P.A.	159,302	119			
Exane S.A.	83,391,823	66,036			
Federal Reserve Bank Of Boston			5,388,794		
Fidelity Capital Markets	192,899,781	57,738			
Fidelity Clearing Canada	23,151,494	10,933			
Financialbrokerage Group (Fbg)	8,450,460	12,636			
First Energy Capital	1,135,889	1,369			
First Tennessee Bank N A Bond Division			2,922,377		20,003,113
First Tennessee Securities Corp			5,083,500		
First Union Capital Mkts Corp			209,001		
First Union Natl Bank N.A.			50,869,000		
Flow Corretora De Mercadorias Ltda.	713,562	713			
Friedman Billings + Ramsey	50,023,417	47,712			
Ftn Financial Securities			115,007,578		
G Trade Services Ltd	29,787,966	7,890			
Gbarclayscash Sd-Bloomberg	20,688	54			
Gmp Securities Ltd.	2,784,207	1,544			
Goldman Algo Rr-Bloomberg	272,356	93			
Goldman Cash Rr-Bloomberg	52,003	65			
Goldman Sachs (Asia) L.L.C.	34,107,169	20,374			
Goldman Sachs (Asia) Llc	41,149,871	24,946			
Goldman Sachs (India)	14,427,934	12,328			
Goldman Sachs + Co	1,168,647,864	370,620	9,659,819,468	3,691	3,091,028,823
Goldman Sachs + Co Intl.	3,299,735	718			
Goldman Sachs + Company	22,321,547	94,893	11,148,652	335,748	
Goldman Sachs And Company	48,178	11			
Goldman Sachs Bank Usa	10,624,711				
Goldman Sachs Do Brasil Banco Multi Aven	1,483,044				
Goldman Sachs Do Brasil Corretora	224	100			
Goldman Sachs International	317,064,853	182,313	80,300,447		
Goodbody Stockbrokers	6,436,986	3,294			
Green Street Advisors	65,916	83			
Guggenheim Capital Markets Llc	831,544	2,449	992,969		21,995,885
Guzman And Company	229,103,122	116,947			
Hauck Undaufhaeuser Privatbankiers Kgaa	532,666	400			
Hibernia Southcoast Capital Inc	8,321,173	18,007			
Hongkong And Shanghai Banking Corp	28,404,491	26,377			
Hsbc Bankbrasil Sa Banco Multipl	2,772,654	1,386			
Hsbc Bankplc	85,259,274	51,232	3,810,438		
Hsbc Bankusa	(1,927,615)				3,014,604,000
Hsbc Securities (Usa) Inc.	20,815,216	10,750	39,189,003		
Hsbc Securities India Holdings	9,861,024	5,071			
Hsbc Securities, Inc (James Capel)	87,350	154			
Hwang-Dbssecurities Berhad			12,827		
Icbefs Llc			13,157,259		
Ichiyoshisecurities Co.,Ltd.	66,323	20			
Imperial Capital Llc	3,007,284	2,112	5,381,477		
India Infoline Ltd	64,054,802	65,135			
Ing Bank London					5,000,000
Ing Bank N V	4,105,982	7,027			
Instinet	942,225,071	305,005			
Instinet Australia Clearing Srvc Pty Ltd	9,436,983	3,110			
Instinet Pacific Limited	31,512,265	23,051			

Commissions and Trading Volume  
By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Instinet Singapore Services Pt	3,807,268	984			
Instinet U.K. Ltd	317,693,337	71,493			
Inversorabursatiles, S.A.	1,460,887	911			
Investec Bank Plc	13,946,366	6,431			
Investec Securities Ltd	1,652,156	1,618			
Investment Technology Group Inc.	2,889,289,612	458,613			
Ipopema Securities S.A.	26,773	19			
Ips Brokerage Inc	114,515,290	188,779			
Is Yatirim Menkul Degerler As	9,814	5			
Isi Groupinc	25,728,798	20,221			
Itg Australia Ltd.	31,451,202	9,447			
Itg Canada	32,091,866	7,825			
Itg Inc.	1,549,565	678			
Itg Securities (Hk) Ltd	16,931,203	6,060			
Itgi Invest Tech Mfn Intl	3,162	0			
Ivy Securities, Inc.	1,083,804	417			
J P Morgan Chase/J P Morgan Intl			23,186,009		
J P Morgan India Private Ltd	263,762	92			
J P Morgan Securities Inc	34,634,459	22,873	5,539,892		
J.E. Davy	9,984	6			
J.P. Morgan Clearing Corp.	1,311,996,096	208,439	51,643,525		9,742,307
J.P. Morgan Securities Inc.	1,230,594,443	535,200	17,725,013		
J.P. Morgan Securities Llc			466,764,274		
J.P.Morgan Securities(Far East)Ltd Seoul	859,056	295			
Janney Montgomery, Scott Inc	3,942,875	11,704	2,548,136		
Jared Mulcay &Company Inc	1,071,762	129			
Jefferies+ Company Inc	808,911,286	332,459	1,237,960,788		291,442,114
Jefferiesindia Private Limited	5,972,881	5,989			
Jefferiesinternational Ltd	55,497,305	32,998	990,576		
Jm Financial Institutional Securities Pr	2,307,014	1,160			
Jmp Securities	19,722,897	31,347			
Jnk Securities Inc	699,743	448			
Joh Berenberg Gossler And Co	10,135,919	5,141			
Jones Associates	113,506	36			
Jonestrading Institutional Services Llc	7,035,637	8,947			
Jp Morganalco Csa	497,746	349			
Jp Morganchase Bank/Hsbcsi			1,749,804,486		
Jp Morgansecurities Australia Ltd	13,442,290	8,681			
Jp Morgansecurities Plc	214,085,021	118,249	1,399,250		12,731,719,000
Jpmcb/Hsbc Bank Plc Ib Main FI Account			16,715,404		22,002,258
Jpmorgan Chase Bank N.A	36,699,165		53,306,257		30,000,000
Jpmorgan Chase Bank N.A. London	23,057,974	887			
Jpmorgan Chase Bank/Correspondent Clr Sv			1,341,616		
Jpmorgan Chase Bank/G.X.Clarke & Co.			2,309,577		
Jpmorgan Chase Bank/Rbs Securities Inc.			2,209,646,187		224,999,868
Jpmorgan Securities Inc	36,227,893	28,317	11,208,017,174		106,173,047
Jpmorgan Securities(Asia Pacific)Ltd	88,859,892	94,017			
Jpmorgan/Muni Dealer					196,000,175
Kas Associate			4,992		
Kcg Americas Llc	565,849,275	122,965			
Keefe Bruyette + Woods Inc	18,019,362	31,230			
Kempen + Co N.V.	3,483,196	1,665			
Kepler Equities Paris	16,796,197	11,828			
Keybank Capital Markets Inc	31,275,937	36,397	9,528,905		
Kgs Alphacapital Markets, Llc			5,828,341		
King, Cl,& Associates, Inc	6,035,733	9,060	562,893		
Knight Equity Markets L.P.	1,431,302,814	408,118			
Knight Securities International	491,907	1,050			
Korea Investment And Securities Co., Ltd	10,148,450	10,849			
Kotak Securities Ltd	4,218,366	4,236			
Leerink Swann And Company	4,847,050	4,270			
Liberum Capital Limited	6,867,562	812			
Liquidnetasia Limited	5,288,559	3,091			
Liquidnetaustralia Pty Ltd	451,863	225			
Liquidnetcanada Inc	9,849,413	3,169			
Liquidneteuropa Limited	7,505,108	2,241			
Liquidnetinc	1,143,742,370	448,786			
Longbow Securities Llc	7,524,988	8,720			
Loop Capital Markets	17,137,555	6,497			
Loop Capital Markets Llc	252,499	69			
M M Warburg	202,715	122			
M.W.Jenkins & Co.(Cl's Thru Sec Sett#397)	1,282,091	160			
Macquariebank Limited	148,254,268	101,209			

**Commissions and Trading Volume  
By Broker for Fiscal Year 2015**

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Macquariecapital (Europe) Ltd	10,832,252	4,804			
Macquarieequities Limited (Sydney)	129,576				
Macquariesec Nz Ltd	3,977,365	3,909			
Macquariesecurities (India) Pvt Ltd	1,573,125	1,930			
Macquariesecurities (Singapore)	7,454,798	3,839			
Macquariesecurities (Usa) Inc	37,675,212	20,689			
Macquariesecurities Ltd Seoul	16,954,179	12,648			
Mainfirstbank De	2,001,074	3,834			
Maxcor					
Maxim Group	933,136	937			
Mediobanca Spa	626,391	468			
Mellon Bank Capital Markets Invest Acct			39,938,359		
Mellon Bank Na	1,168,308	353	5,371,630		
Mellon Bank/Mellon Financial Mkts, Inc.			834,518		
Merrill Lynch	429,382	322			
Merrill Lynch And Co Inc	147,754,730	100,365			
Merrill Lynch Far East Ltd	13,073,035	19,432			
Merrill Lynch International	667,661,698	330,665	21,082,758		
Merrill Lynch Pierce Fenner + Smith Inc	807,407,645	378,558	74,887,411	44,510	27,423,112,000
Merrill Lynch Pierce Fenner And S	108,088,130	87,402			
Merrill Lynch Professional Clearing Corp	17,575,393	20,004	3,330,350		
Mesirow Financial Inc			13,080,422		
Millennium Advisors Llc			451,341		
Miller Tabak Roberts Secs Llc			11,140		
Mitsubishi Ufj Securities	932,268	1,326	6,055,203		
Mitsubishi Ufj Securities (Usa)	4,270,610	2,615	32,890,047		
Mitsubishi Ufj Securities Int Plc	7,091,048	3,939	982,150		
Mizuho Corporate Bank Ltd Hong Kong Bch	860,110	806			
Mizuho International Plc	8,396,180	5,549	3,821,278		
Mizuho Securities Asia Limited	16,580,251	10,658			
Mizuho Securities Co. Ltd			1,111,098,559		
Mizuho Securities Usa Inc	12,040,358	11,888	147,335,838		
Mkm Partners Llc	12,458,279	13,615			
Montrose Securities Equities	2,749,476	1,139			
Morgan Algo Csa	162,428	84			
Morgan Stanley Algo Rr Bloom	430,222	140			
Morgan Stanley And Co Inc	1,849,744		4,674,600		
Morgan Stanley And Co International	21,451,162	20,945			
Morgan Stanley And Co Intl Taipei Metro	8,399,878	6,286			
Morgan Stanley And Co. International	79,040,752	55,474			
Morgan Stanley Bank,N.A.			104,878,013		
Morgan Stanley Co Incorporated	1,021,402,017	304,263	9,546,899,342		113,842,997
Morgan Stanley Comm. Paper					6,257,000,000
Morgan Stanley Dw Inc.			5,049,780		
Morgan Stanley India Company Pvt Ltd	5,954,620	7,483			
Morgan Stanley Securities Limited	17,080,782	12,752			
Motilal Oswal Securities Limited	12,458,851	12,492			
National Financial Services Corp.	20,577,525	22,424	3,713,631		
National Financial Services Corporation	6,746,036	2,375			
Natixis Securities	3,198,094	982	4,206,750		
Nbc Clearing Services Incorporated	1,444,879	839			
Nederlands Centraal Instituut Voor	1,014,149	759			
Needham +Company	18,775,217	19,897			
Nesbitt Burns	9,442,276	3,734	135,772,934		
Nomura Financial Advisory + Sec India	12,319,626	11,082			
Nomura International Plc			9,791,927		
Nomura Securities International Inc	15,342,134	9,202	736,725,655		87,484,731
Nomura Securities Intl., Fixed Income			30,426,422		
Nomura Securities/Fixed Income			3,067,182,150		
Nordea Bank Denmark A.S	843,110	422			
Nordea Bank Finland Plc	6,028,853	2,268			
Northern Trust Company	(8,132,646)				
Northern Trust Company, The	5,665,281				
Northlandsecurities Inc.	6,039,530	5,344			
Numis Securities Inc.	12,827,693	18,626			
Oddo Et Cie	2,382,643	813			
Oppenheimer + Co. Inc.	49,300,240	73,511	1,087,064		
Oriel Securities Ltd	1,264,888	954			
Pacific Crest Securities	33,296,470	30,474			
Panmure Gordon And Co Ltd	404,422	405			
Parel	7,573,740	6,091			
Paribas Securities Inc			3,006,434		
Pavilion Global Markets Ltd	7,816,528	2,125			

## Trading Data

### Commissions and Trading Volume By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Peel Huntllp	95,221	30			
Penserra Securities	6,804,021	1,745			
Pershing Llc	255,979,052	214,445	422,294,371		43,405,035
Pershing Securities Limited	18,304,880	6,957			
Peters And Co Limited	1,700,191	2,063			
Pickeringenergy Partners, Inc	10,140,064	7,191			
Piper Jaffray	96,377,436	63,073	(469)		
R.B.C. Dominion Securities Corporation	2,226,300	255			
Rabobank Nederland			1,702,600		
Raymond James And Associates Inc	94,869,542	80,561	17,936,656		
Rbc Capital Markets	175,720,358	87,693	2,127,276,976		389,910,423
Rbc Dominion Securities Inc.	49,908,521	18,927			
Rbs Securities Inc.	59,918				9,016,712
Redburn Partners Llp	25,110,761	11,536			
Religare Capital Markets Ltd		285,866			
Renaissance Capital Ltd	467,455	510			
Robert W.Baird Co.Incorporate	92,474,904	99,861	10,447,854		
Rosenblatt Securities Llc	378,934,808	193,202			
Roth Capital Partners Llc	2,707,128	1,422			
Royal Bank Of Canada			4,323,123		
Royal Bank Of Canada (Australia)	1,456,663	1,551			
Royal Bank Of Canada (Uk)	413,970				
Royal Bank Of Canada Europe Ltd	25,689,870	33,525			
Royal Bank Of Scotland Plc	3,627,086		441,000		47,621,869,000
S.S Kantilal Ishwarlal Securities	20,805,387	20,815			
Samsung Securities Co Ltd	1,735,167	2,611			
Sandler Oneill + Part Lp	11,785,029	14,907			
Sanford C. Bernstein And Co. Llc	51,548,698	16,419			
Sanford Cbernstein Co Llc	581,942,075	205,827			
Santandercentral Hispano Bolsa	187,642	112			
Santanderinvestment Securities	864,994	2,203			
Scotia Capital Mkts	24,479,829	6,059	196,429,222		
Scotia Capital Usa Inc	177,191	356			
Seaport Group Securities, Llc			137,212		
Sg Americas Securities Llc	574,057,602	223,375	627,115,766		
Sg Securities Hk	37,807,814	12,948			
Sidoti + Company Llc	11,146,911	22,701			
Simmons +Company International	2,009,821	4,341			
Sj Levinson & Sons Llc	100,039,960	27,336			
Skandinaviska Enskilda Banken	221,851	67			
Skandinaviska Enskilda Banken London	3,712,651	4,004			
Smbe Nikko Capital Markets Limited	15,708,073	9,178			
Smbe Nikko Securities (Honk Kong) Ltd	11,524,865	6,915			
Societe Generale	23,215,657		249,905,807		
Societe Generale London Branch	83,074,551	46,658			
Societe Generale Ny					12,452,000,000
Southwestsecurities, Inc.			7,673,516		23,104,800
Standard Bank London Limited	28,747,392	28,784			
Standard Chartered Bank	3,088,511	602	32,226,650		
Standard Chartered Bank (Hong Kong) Limi	2,268,227	1,701			
Standard Chartered Securities Korea	1,073,253	1,078			
State Street Bank And Trust	373,058,853	111	233,098,537		1,589,786,214
State Street Bank London	7,295,815				
State Street Global Markets	1,075,593,924	332,380			
Stephens, Inc.	41,418,365	57,534	5,683,632		
Sterne Agee & Leach Inc.	77,879,175	72,586	38,377,605		
Stifel Nicolaus + Co Inc	347,702,493	137,933	20,634,881		
Sumridge Partners Llc			502,678		
Sungard Brokerage & Securities Svcs Llc	30,704,369	3,611			
Suntrust Capital Markets, Inc.	35,890,712	23,950			
Suntrust Robinson Humphrey, Inc.			14,723,652		
Svenska Handelsbanken	7,570,648	8,582			
Td Waterhouse Cda	17,042,067	10,851	49852986		
Telsey Advisory Group Llc	5,972,404	3,582			
The Bank Of New York/Prebon Financial Pr					99,997,578
The Bank Of Ny/Dbag London Global			7,290,108		
The Hongkong And Shanghai Bank	2,020,395	4,378			
Tokyo Mitsubishi International	697,170	70			
Toronto Dominion Bank	5,314,796	2,059	5,003,711		
Ubs Ag	635,086,857	43,117	40,407,028		
Ubs Ag London	4,727,386				
Ubs Financial Services Inc			33,524,871		
Ubs Securities Asia Ltd	119,457,758	107,628			

## Trading Data

### Commissions and Trading Volume By Broker for Fiscal Year 2015

	Stock \$ Volume	Stock \$ Commission	Bond \$ Volume	Bond \$ Commission	Short Term \$ Volume
Ubs Securities Canada Inc	65,215,407	19,096			
Ubs Securities India Private Ltd	14,344,729	7,797			
Ubs Securities Llc	1,599,011,544	969,940	505,818,069	1,448	9,359,599,193
Ubs Securities Pte.Ltd	9,536,907	9,464			
Ubs Securities Pte.Ltd., Seoul	21,740,878	15,762			
Ubs Warburg Australia Equities	23,873,547	17,421			
Ubs Warburg Llc			15,261,011	5,793	
Unicreditbank Ag (Hypovereinsbank)			8,134,868		
Us Bancorp Investments Inc			59,318,817		
Uti Securities Exchange Ltd	886,612	889			
Wachovia Securities	110,870	55	40,037,200		
Wedbush Morgan Securities Inc	39,861,257	33,460	518,162		
Weeden + Co.	696,902,399	285,345			
Wells Fargo Bank, N.A.			1946613.9		
Wells Fargo Securities, Llc	613,899,669	51,546	4,220,447,506		96,315,311
Western International Secs Inc	25,943,890	72,424			
Westhousesecurities Llp	1,361,591	1,014			
Westpac Banking Corporation	646,703				
William Blair & Company L.L.C	45,086,342	41,377			
Williams Capital Group Lp (The)	12,161,683	5,115			
Wolfe Trahan Securities	711,918	544			
Wood And Company	7,632,301	11,685			
Wunderlich Securities Inc.	982,154	2,153			
Yuanta Securities Company Limited	2,349,210	2,122			
<b>GRAND TOTAL</b>	<b>\$ 37,331,807,034</b>	<b>\$ 14,856,815</b>	<b>\$ 130,360,355,161</b>	<b>\$ 413,351</b>	<b>\$ 306,255,230,836</b>

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## NOTES TO THE FINANCIAL SCHEDULES

### JUNE 30, 2015

#### **Financial Report Background:**

The State Board of Investment (SBI) is the investment management vehicle for numerous retirement and non-retirement funds. The funds are separated by legal requirements and grouped into four major investment types: the Retirement Funds, the Non-Retirement Funds, the Assigned Risk Plan, and Other Funds Under Management. The SBI's goal is to maximize returns for each investment type given the appropriate level of risk. For each investment type, the funds are further broken down and reported by the entity responsible for the financial accounting and presentation of the funds. The information provided by the SBI is audited in conjunction with the audit of the reporting entities.

**Retirement Funds:** The Retirement Funds consist of funds administered by Teachers Retirement Association (TRA), Public Employees Retirement Association (PERA), Minnesota State Retirement System (MSRS), and Local Volunteer Fire Relief Associations. A list of plan participants is provided in a schedule beginning on page 100. Comprehensive Financial Reports are prepared by the respective agencies. These reports can be obtained by contacting TRA at (800) 657-3669, PERA at (800) 652-9026, MSRS at (800) 657-5757.

The Supplemental Investment Fund (SIF) is an investment option within the retirement funds that is available to various groups of participants according to state statute. SBI provides a financial schedule on the SIF as required by statute.

**Non-Retirement Funds:** The Non-Retirement Funds represent investment vehicles for Trusts and OPEBs. A listing of the Trusts and OPEBs is provided in the participation schedule on page 118. The Comprehensive Financial Reports for the OPEBs are prepared by PERA and are available by calling (800) 652-9026. The Comprehensive Financial Reports for the Trusts are prepared by Minnesota Management and Budget and are available by calling (800) 627-3529.

**Assigned Risk Plan:** The Assigned Risk Plan is a dedicated governmental fund for which the SBI is the investment vehicle for the assets made available for investment. The Comprehensive Financial Reports can be obtained from Minnesota Management and Budget by calling (800) 627-3529.

**Other Funds Under Management:** The Other Funds Under Management are the assets the State has made available for investment with SBI. The financial statement presented for the Other Funds represent the investment information at the State Board of Investment. The SBI grouped the financial information for the Other Funds into five major categories: Invested Treasurer's Cash, Debt Service, State Employee Group Insurance, Housing Finance, and Public Facilities. The detailed financial statements, supporting schedules, and further breakdown of Debt Service, State Employee Group Insurance, Housing Finance, and Public Facilities can be found in the State's Comprehensive Annual Financial Report available from Minnesota Management and Budget at (800) 627-3529.

#### **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:**

**Financial Reporting:** The SBI reporting requirements changed under the legislation passed during the 2012 legislative session. References in MS 11A.07, subdivision 4 and 11A.14, subdivision 14 to fund and participant annual statements prepared in accordance with generally accepted accounting principles were deleted. These requirements were deemed redundant to statements prepared for the State of Minnesota's Comprehensive Financial Statements and those of PERA, MSRS, and TRA retirement systems.

As required by state statute the SBI has prepared schedules for the SIF, a schedule of participation for all pooled investments, and a schedule of external manager fees.

**Authorized Investments:** *Minnesota Statutes, Section 11A.24* authorizes investments to obligations and stocks of the U.S. and Canadian governments, their agencies and their registered corporations; short term obligations of specified high quality; international securities; participation as a limited partner in venture capital, real estate or resource equity investments; and participation in registered mutual funds.

**Security Valuation:** All securities are valued at fair value except for U.S. Government short-term securities and commercial paper, which are valued at fair value less accrued interest. Accrued short-term interest is recognized as income as part of "Short-Term Gain". For long-term fixed income securities, SBI uses the Financial Times Interactive Data Services valuation system. This service provides prices for both actively traded and privately placed bonds. For equity securities, SBI uses a valuation service provided by Reuters. The basis for determining the fair value of investments that are not based on market quotations may include audited financial statements, analysis of future cash flows, and independent appraisals.

**Recognition of Security Transactions:** Security transactions are accounted for as of the date the securities are purchased or sold.

**Income Recognition:** Pool dividend income is recorded on the ex-dividend date. Pool interest and dividend income are accrued monthly. Short-term interest is accrued monthly and is presented as "Accrued Short-Term Gain."

**Amortization of Fixed Income Securities:** Premiums and discounts on fixed income purchases are amortized over the remaining life of the security using the "Effective Interest Method."

**State Board of Investment**  
**Retirement Fund - Supplemental Investment Accounts**  
**Schedule of Net Position**  
**As of June 30, 2015**  
**Amounts in (000)'s**

	<u>Stable Value</u> <u>Fund</u>	<u>Money Market</u> <u>Fund</u>	<u>Bond Fund</u>
Assets			
Security Lending Collateral			\$ 13,589
Short Term Investments			
Stable Value Fixed Interest	\$ 1,493,293		
Money Fund		\$ 327,310	
Fixed Income Investments			
Bond Pool			126,271
Equity Investments			
Domestic Stock Pool			
International Stock Pool			
Total Investments	<u>\$ 1,493,293</u>	<u>\$ 327,310</u>	<u>\$ 126,271</u>
Total Supplemental Position Assets	<u>\$ 1,493,293</u>	<u>\$ 327,310</u>	<u>\$ 139,860</u>
Liabilities			
Accrued Investment Expense	\$ 953		\$ 29
Security Lending Collateral			13,589
Total Liabilities	<u>\$ 953</u>		<u>\$ 13,618</u>
<b>Net Supplemental Position Assets</b> <b>Held in Trust</b>	<u><u>\$ 1,492,340</u></u>	<u><u>\$ 327,310</u></u>	<u><u>\$ 126,242</u></u>

<u>Balanced Fund</u>	<u>U.S. Stock Index Fund</u>	<u>U.S. Stock Actively Managed Fund</u>	<u>Broad International Stock Fund</u>	<u>Volunteer Fire Fighter Account</u>	<u>Total Supplemental Investment Fund</u>
\$ 49,695	\$ 76,768	\$ 29,422	\$ 9,504	\$ 3,624	\$ 182,602
					1,493,293
18,609				1,646	347,565
130,648				14,660	271,579
219,437	472,733	219,019		11,172	922,361
			191,492	4,686	196,178
\$368,694	\$ 472,733	\$ 219,019	\$ 191,492	\$ 32,164	\$ 3,230,976
\$ 418,389	\$ 549,501	\$ 248,441	\$ 200,996	\$ 35,788	\$ 3,413,578
\$ 35	\$ 11	\$ 119	\$ 138	\$ 7	\$ 1,292
49,695	76,768	29,422	9,504	3,624	182,602
\$ 49,730	\$ 76,779	\$ 29,541	\$ 9,642	\$ 3,631	\$ 183,894
\$ 368,659	\$ 472,722	\$ 218,900	\$ 191,354	\$ 32,157	\$ 3,229,684

**State Board of Investment**  
**Retirement Fund - Supplemental Investment Accounts**  
**Schedule of Changes in Net Position**  
**For the Fiscal Year Ended June 30, 2015**  
**Amounts in (000)'s**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Investment Income			
Interest, Dividends and Other	\$ 3,781	\$ (3,531)	\$ 10,015
Security Lending Gross Earnings			112
Less Borrower Rebates			(6)
Less Fees Paid to Agents			(29)
Security Lending Net Earnings			\$ 77
Net Increase in Fair Value of Investments	28,447		2,394
Total Investment Income (Loss)	<u>\$ 32,228</u>	<u>\$ (3,531)</u>	<u>\$ 12,486</u>
Expenses			
Administrative Expenses	(24)	\$ (18)	\$ (7)
Investment Expenses	<u>\$ (3,787)</u>		<u>(112)</u>
Total Expenses	<u>\$ (3,811)</u>	<u>\$ (18)</u>	<u>\$ (119)</u>
Net Income - Supplemental Investments	\$ 28,417	\$ (3,549)	\$ 12,367
Participant Transactions			
Additions	\$ 47,829	\$ 66,448	\$ 11,095
Withdrawals	<u>(132,240)</u>	<u>(51,232)</u>	<u>(7,684)</u>
Net Participant Transactions	<u>\$ (84,411)</u>	<u>\$ 15,216</u>	<u>\$ 3,411</u>
Total Change in Assets	<u>\$ (55,994)</u>	<u>\$ 11,667</u>	<u>\$ 15,778</u>
Net Supplemental Investment Assets Held in Trust:			
Beginning of Fiscal Year	1,548,334	315,643	110,464
<b>End of Fiscal Year</b>	<u><u>\$ 1,492,340</u></u>	<u><u>\$ 327,310</u></u>	<u><u>\$ 126,242</u></u>

<u>Balanced</u> <u>Fund</u>	<u>U.S. Stock</u> <u>Index Fund</u>	<u>U.S. Stock</u> <u>Actively</u> <u>Managed Fund</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Volunteer</u> <u>Fire Fighter</u> <u>Account</u>	<u>Total</u> <u>Supplemental</u> <u>Investment</u> <u>Fund</u>
\$ (125)	\$ (7,511)	\$ (175)	\$ 2,219	\$ 8	\$ 4,681
345	494	184	154	28	1,317
(15)	(18)	(8)		(1)	(48)
(89)	(128)	(48)	(54)	(8)	(356)
\$ 241	\$ 348	\$ 128	\$ 100	\$ 19	\$ 913
18,089	32,782	16,064	(8,706)	880	89,950
\$ 18,205	\$ 25,619	\$ 16,017	\$ (6,387)	\$ 907	\$ 95,544
\$ (21)	\$ (27)	\$ (13)	\$ (11)	\$ (59)	\$ (180)
(136)	(44)	(456)	(552)	(27)	(5,114)
\$ (157)	\$ (71)	\$ (469)	\$ (563)	\$ (86)	\$ (5,294)
\$ 18,048	\$ 25,548	\$ 15,548	\$ (6,950)	\$ 821	\$ 90,250
\$ 23,123	\$ 18,954	\$ 14,009	\$ 8,957	\$ 6,474	\$ 196,889
(22,156)	(16,688)	(13,178)	(20,318)	(1,341)	(264,837)
\$ 967	\$ 2,266	\$ 831	\$ (11,361)	\$ 5,133	\$ (67,948)
\$ 19,015	\$ 27,814	\$ 16,379	\$ (18,311)	\$ 5,954	\$ 22,302
349,644	444,908	202,521	209,665	26,203	3,207,382
\$ 368,659	\$ 472,722	\$ 218,900	\$ 191,354	\$ 32,157	\$ 3,229,684



**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u> <u>Fund</u>	<u>Money Market</u> <u>Fund</u>	<u>Bond Fund</u>
<b>Combined Retirement Funds</b>			
Correctional Employees Retirement Fund		\$16,723,979	\$213,537,261
Highway Patrolmen's Retirement Fund		11,827,943	156,362,155
Judges Retirement Fund		3,363,170	40,966,711
Legislative Retirement Fund		57,106	817,157
PERA Minneapolis Employee Retirement		13,964,131	198,351,749
Public Employee Corrections		9,816,907	115,387,205
Public Employee Police & Fire Fund		138,491,795	1,727,567,501
Public Employees Retirement Fund		340,076,488	4,166,255,725
State Employees Retirement Fund		205,232,089	2,736,250,943
Teacher's Retirement Fund		400,181,135	4,804,240,408
		<u>\$1,139,734,743</u>	<u>\$14,159,736,815</u>
<b>Fire Relief Funds &amp; Other Plans</b>			
Alaska		\$1,553	\$10,901
Albertville			43,071
Almelund		80,736	55,590
Amboy			10,460
Argyle		3,517	24,709
Arrowhead		1,318	27,939
Audubon		16,323	214,018
Aurora			46,237
Austin		21,783	152,934
Avon			
Babbitt		78,297	88,346
Backus			
Bagley		6,345	76,171
Balsam		16,645	64,730
Beardsley		184	51,274
Beaver Creek			20,890
Benson		2,760	53,061
Bertha		5,167	36,273
Bigfork		952	6,686
Bird Island		4,016	28,197
Blackduck			
Blooming Prairie		2,376	43,587

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
\$111,978,256	\$428,886,746	\$135,130,231	\$906,256,473
81,995,815	314,051,324	98,948,792	663,186,029
21,482,812	82,281,096	25,924,474	174,018,263
428,514	1,641,249	517,111	3,461,137
104,015,439	398,388,494	125,521,062	840,240,875
60,508,707	231,753,657	73,019,105	490,485,581
905,931,001	3,469,796,496	1,093,235,883	7,335,022,676
2,184,771,750	8,367,869,428	2,636,481,787	17,695,455,178
1,434,881,251	5,495,723,815	1,731,548,964	11,603,637,062
2,519,314,829	9,649,269,168	3,040,211,868	20,413,217,408
<u>\$7,425,308,374</u>	<u>\$28,439,661,473</u>	<u>\$8,960,539,277</u>	<u>\$60,124,980,682</u>

\$69,445		\$81,899
41,302	\$27,402	111,775
259,821		396,147
70,600		81,060
101,570		129,796
75,103		104,360
192,474		422,815
90,857	20,188	157,282
676,591		851,308
68,972		68,972
271,915		438,558
19,745		19,745
124,626		207,142
204,162		285,537
124,270	38,632	214,360
31,937		52,827
133,996		189,817
151,940		193,380
206,869	18,217	232,724
123,484		155,697
13,193	31,122	44,315
80,816		126,779

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Bloomington		\$11,542,615	\$33,644,226
Boyd		1,089	7,645
Bricelyn		18,467	129,652
Brimson		5,789	43,542
Brooklyn Park		203,537	1,428,961
Brooten			
Brownsville		10,657	34,742
Buffalo Fire		16,668	11,548
Buffalo Lake		8,459	59,388
Carlton		1,862	50,564
Ceylon		4,010	28,154
Chatfield		6,790	47,667
Cherry		3,716	26,090
Chisago City		82,868	174,404
Chokio		9,675	67,924
Clarissa			36,795
Clarkfield		7,964	97,738
Clear Lake		455,706	48,538
Cloquet (Perch Lake)		1,700	141,621
Columbia Heights			428,578
Coon Rapids		71,666	1,524,979
Cotton		1,142	34,536
Cyrus			29,652
Dakota		3,118	67,832
Dawson		12,749	89,503
Dayton Fire		62,324	62,785
Deer Creek		4,206	29,531
Dover		28,666	75,706
East Grand Forks		59,382	416,901
Edgerton		12,500	87,759
Edina		37,448	1,567,170
Elbow Lake		7,289	51,170
Excelsior			682,824
Eyota		96,434	112,921
Fergus Falls		31,007	1,136,767
Forest Lake		15,062	105,747

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$68,558,757	\$17,819,136	\$131,564,734
	32,282		41,016
	217,765		365,884
	66,790	10,899	127,020
	7,586,665	278,181	9,497,344
	266,688		266,688
	106,168	19,386	170,953
	138,420		166,636
	337,514		405,361
	146,961	23,617	223,004
	204,867		237,031
	280,646	63,114	398,217
	154,593		184,399
	526,338	160,061	943,671
	114,085	32,360	224,044
	58,142		94,937
	125,464		231,166
	188,915		693,159
	157,480	31,794	332,595
	1,423,588		1,852,166
	845,088		2,441,733
	157,155	30,813	223,646
	55,327	13,977	98,956
	91,691		162,641
	199,676		301,928
	289,589		414,698
	210,963		244,700
	152,675	39,921	296,968
	700,230		1,176,513
	301,319		401,578
	4,738,070		6,342,688
	187,975	22,659	269,093
	1,181,017	567,835	2,431,676
	108,422		317,777
	1,019,660	79,094	2,266,528
	206,779		327,588

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u> <u>Fund</u>	<u>Money Market</u> <u>Fund</u>	<u>Bond Fund</u>
Franklin			
Frost		\$1,511	\$10,608
Ghent			7,619
Glencoe			
Glenville		11,617	65,446
Glenwood		10,341	192,083
Golden Valley		47,539	728,942
Gonvick		3,169	22,250
Good Thunder		7,256	50,939
Grand Meadow		5,674	60,960
Greenwood		10,701	137,356
Grey Eagle		9,971	70,004
Hackensack		10,180	128,080
Hanover Regular		22,798	370,166
Hanover Special		804	13,027
Hanska		10,767	19,474
Harmony		2,382	16,723
Hawley		185	
Hayward		11,797	82,822
Hector		31,233	219,274
Henning		3,639	92,936
Herman			33,539
Hills		328	2,302
Holdingford		827	5,806
Holland		3,121	63,132
Isanti			317,407
Jacobson		9,139	16,275
Kabetogama			
Kandiyohi		5,206	96,072
Kelsey			20,071
Kerkhoven		3,339	84,021
Kiester			21,226
Kilkenny		5,617	39,438
Kimball		5,118	35,931
La Crescent		8,516	77,070
La Salle		894	6,273

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$210,219		\$210,219
	80,081		92,200
	29,776	\$6,105	43,500
	246,347		246,347
	151,492	44,587	273,142
	415,396		617,820
	1,732,765	404,456	2,913,702
	101,654		127,073
	218,623		276,818
	248,542		315,176
	378,827		526,884
	117,579	38,527	236,081
	120,046	97,374	355,680
	268,833		661,797
	9,481		23,312
			30,241
	83,303	38,466	140,874
	106,827		107,012
	384,462	24,224	503,305
	368,295		618,802
	193,502		290,077
	94,395	23,847	151,781
	17,420	4,128	24,178
	42,952		49,585
	92,563	80,984	239,800
	1,324,039	488,783	2,130,229
	86,472	34,659	146,545
	222,878		222,878
	259,861		361,139
	27,875	20,103	68,049
	167,836		255,196
	52,203		73,429
	308,472	13,944	367,471
	219,158		260,207
	613,384		698,970
	52,207		59,374

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	<u>Bond Fund</u>
	<u>Fund</u>	<u>Fund</u>	
Lafayette		\$9,519	\$66,832
Lake City		47,406	343,193
Lakeville			
Leroy		4,752	55,015
Lewiston		6,685	46,930
Littlefork		8,792	61,729
Lowry			
Lyle		3,202	22,481
Madison		4,561	31,980
Madison Lake		1,202	8,437
Maple Hill		8,860	95,267
Mapleton		1,851	12,993
Mapleview		2,652	64,275
Maplewood			771,374
Marietta		3,230	22,674
Marine St. Croix		26,630	186,957
Maynard		5,988	42,040
McDavitt		3,015	30,074
McGrath		1,046	18,635
McIntosh		1,867	13,110
Medford		1,409	89,684
Medicine Lake			234,476
Menahga		5,896	158,735
Mendota Heights		14,158	597,808
Milan		3,278	23,012
Minneota		2,731	44,911
Minnetonka		357,542	3,103,464
Montrose		1,474	10,346
Morris		2	
Morristown		17,884	125,560
Morse-Fall Lake		8,767	37,151
MSRS Empower	\$1,488,978,823	326,089,481	177,995,396
Murdock		1,784	12,522
Myrtle		57,945	55,769
Nassau		1,259	27,679
New Brighton			1,201,842

Unaudited



<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$235,522	\$20,807	\$332,680
	576,497		967,096
	4,325,954	422,581	4,748,535
	56,040		115,807
	219,026		272,641
	356,734		427,255
	100,253		100,253
	111,737	8,677	146,097
	211,589		248,130
	33,700	14,788	58,127
	104,476		208,603
	68,391		83,235
	123,444	30,537	220,908
	3,086,647	343,732	4,201,753
	121,531		147,435
	314,014		527,601
	70,610		118,638
	97,234	13,944	144,267
	24,359		44,040
	139,435		154,412
	269,988	35,589	396,670
	566,430	297,634	1,098,540
	69,523		234,154
	1,300,753	269,499	2,182,218
	174,040		200,330
	81,960	12,969	142,571
	4,216,124	812,437	8,489,567
	90,220		102,040
		27,367	27,369
	684,295	19,939	847,678
	168,098		214,016
	521,994,210	70,868,027	2,585,925,937
	91,654	19,814	125,774
	93,670		207,384
	181,468	35,491	245,897
	2,414,436		3,616,278

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	<u>Bond Fund</u>
	<u>Fund</u>	<u>Fund</u>	
New Germany		\$9,636	\$67,650
New Ulm			
New York Mills		6,423	45,091
Nicollet		15,058	77,690
Nodine		66,902	30,707
North Branch		2,574	18,070
Northfield		692,714	761,303
Northrop		3,830	26,887
Oronoco		2,573	18,065
Owatonna		45,621	320,286
Palisade Fire		147,239	
Pequot Lakes		17,548	333,273
Pera DCP	\$4,314,509	3,655,743	12,677,773
Pine Island		16,887	152,355
Pipestone		9,381	65,857
Randolph		15,567	109,288
Red Lake Falls Regular		5,589	39,239
Red Lake Falls Special			
Redwood Falls			49,932
Renville		4,333	85,550
Robbinsdale		123,912	319,978
Rose Creek		780	5,475
Roseau			
Rosemount		524,040	275,442
Roseville			2,758,923
Ruthton		24,359	13,564
Saint Clair		11,036	88,395
Saint Paul Teachers' Retirement Fund			
Saint Peter		2,048	15,185
Sandstone		510	3,582
Savage		95,726	672,059
Schroeder			
Sherburn		21,408	150,301
Silver Bay		12,178	85,497
Solway ( Main)		791	5,556
Solway(Cloquet)		4,762	144,940

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$113,625		\$190,911
	381,194		381,194
	75,735		127,249
	344,684	\$100,920	538,352
	141,850	17,977	257,436
	146,333	26,423	193,400
	3,968,508		5,422,525
	131,066		161,783
	126,839	34,580	182,057
	2,376,579	144,235	2,886,721
			147,239
	404,167		754,988
	34,223,780	2,785,672	57,657,477
	362,701		531,943
	310,828		386,066
	522,529	53,640	701,024
	65,905		110,733
		7,833	7,833
			49,932
	176,197		266,080
	1,407,521	158,689	2,010,100
	40,575	4,402	51,232
	1,868		1,868
	1,345,595		2,145,077
	6,780,705	658,999	10,198,627
	102,148		140,071
	609,975		709,406
	199,369,309	91,858,277	291,227,586
	362,037	111,944	491,214
	6,017		10,109
	1,128,796		1,896,581
	190,495		190,495
	252,446		424,155
	423,243	35,663	556,581
	41,462		47,809
	56,155		205,857

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Spring Grove		\$3,104	\$17,090
Spring Lake Park		70,225	493,026
Starbuck		3,849	27,022
Stephen		2,275	15,973
Stewart		6,051	42,479
Sturgeon Lake			8,495
Tofte		4,509	31,657
Truman		3,100	61,110
Two Harbors		9,802	240,536
Tyler		10,546	74,038
Underwood			
Vadnais Heights		13,669	95,966
Vermilion Lake		11,618	81,564
Verndale			
Viking Fire			5,697
Warroad Area		20,376	197,077
Watkins Fire		16,916	67,990
Williams		12,287	56,906
Willow River			7,750
Winnebago		1,289	9,048
Woodbury		137,624	3,266,998
Woodstock		2,779	31,820
Wrenshall			
Wykoff		5,172	36,310
Wyoming		11,391	187,067
Zumbro Falls		18,311	87,825
	<u>\$1,493,293,332</u>	<u>\$345,919,135</u>	<u>\$256,919,614</u>
<b>PERA Voluntary Share</b>			
Aitkin Fire		\$38,970	\$347,140
Albert Lea		12,495	111,306
Alborn		10,208	90,931
Alden		10,669	95,037
Ashby		18,389	163,808
Barnum		14,418	128,432
Biwabik		10,926	97,331
Brandon		13,529	120,511

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$56,493	\$7,238	\$83,925
	828,090		1,391,341
	196,915	9,474	237,260
	150,060		168,308
	135,810		184,340
	58,371		66,866
	159,423		195,589
	189,648		253,858
	322,859	138,752	711,949
	124,354		208,938
	20,295	5,143	25,438
	240,195		349,830
	136,996		230,178
	32,529		32,529
	14,405		20,102
	240,271		457,724
	220,557	53,622	359,085
	175,102		244,295
	105,568		113,318
	34,647		44,984
	4,966,926	1,354,028	9,725,576
	130,055		164,654
	119,644		119,644
	60,987		102,469
	134,323		332,781
	250,464	21,967	378,567
	\$911,189,133	\$191,491,905	\$3,198,813,119
<hr/>			
	\$264,548	\$110,974	\$761,632
	84,824	35,582	244,207
	69,297	29,069	199,505
	72,426	30,382	208,514
	124,835	52,366	359,398
	97,875	41,057	281,782
	74,174	31,115	213,546
	91,839	38,525	264,404

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Breitung		\$14,157	\$126,113
Brevator		11,270	100,393
Buyck		3,943	35,122
Cambridge Fire		27,125	241,623
Canby		22,692	202,134
Carsonville		9,494	84,572
Center City		17,699	157,656
Central Lakes		573	5,101
Clifton		18,542	165,165
Colvill		5,439	48,450
Crane Lake		6,133	54,634
Dalbo Fire Department		22,127	197,101
De Graff		1,535	13,671
Dent		15,526	138,304
Eagle's Nest		391	3,485
Echo Fire		14,207	126,553
Elbow Tulaby		5,493	48,932
Ellsburg		4,798	42,738
Elmore		10,945	97,495
Embarrass		10,353	92,227
Emmons		18,668	166,295
Evergreen		372	3,316
Fairfax		16,053	142,995
Federal Dam		6,418	57,170
Fredenberg		11,125	99,096
Gilbert		10,891	97,015
Gnesen		12,650	112,681
Goodview Fire		23,252	207,125
Grand Lake		22,443	199,923
Grand Marais		17,412	155,107
Granite Falls		24,113	214,793
Hardwick		7,843	69,862
Hewitt		7,348	65,453
Houston		20,591	183,420
Hovland Fire Department		8,010	71,350
Industrial Township		15,723	140,059

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$96,108	\$40,316	\$276,694
	76,507	32,094	220,264
	26,765	11,228	77,058
	184,136	77,242	530,126
	154,042	64,619	443,487
	64,451	27,036	185,553
	120,146	50,400	345,901
	3,887	1,631	11,192
	125,869	52,800	362,376
	36,923	15,489	106,301
	41,636	17,466	119,869
	150,206	63,010	432,444
	10,418	4,370	29,994
	105,398	44,213	303,441
	2,656	1,114	7,646
	96,443	40,457	277,660
	37,290	15,643	107,358
	32,570	13,663	93,769
	74,299	31,167	213,906
	70,285	29,483	202,348
	126,730	53,162	364,855
	2,527	1,060	7,275
	108,974	45,713	313,735
	43,568	18,276	125,432
	75,519	31,679	217,419
	73,933	31,014	212,853
	85,872	36,022	247,225
	157,845	66,214	454,436
	152,357	63,912	438,635
	118,203	49,585	340,307
	163,689	68,665	471,260
	53,241	22,334	153,280
	49,880	20,924	143,605
	139,781	58,636	402,428
	54,374	22,809	156,543
	106,736	44,774	307,292

Unaudited



**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Kettle River		\$8,155	\$72,644
Lake Bronson		7,356	65,523
Lakeland		15,222	135,591
Lester Prairie		17,173	152,975
LeSueur		47,966	427,273
Lexington		26,815	238,863
Linwood		35,767	318,612
Lutsen		11,864	105,684
Mahtowa		9,396	83,695
Manchester		7,412	66,028
Mayer		35,900	319,795
McKinley		5,745	51,172
Melrose		21,831	194,468
Mountain Iron		15,775	140,523
Normanna		2,990	26,633
North Star		2,843	25,321
Northhome		7,359	65,556
Northland Fire		5,117	45,581
Norwood-Young America		32,405	288,662
Oak Grove		65,675	585,027
Oakdale		129,310	1,151,877
Ogilvie		16,737	149,088
Osakis		32,428	288,866
Ottertail		24,575	218,913
Palo		16,298	145,178
Pennock		18,016	160,486
Pequaywan L.		4,053	36,103
Plato Fire		17,575	156,557
Porter		26,224	233,601
Rice Lake		29,726	264,792
Sabin Elmwood Fire		14,914	132,850
Sacred Heart		8,122	72,349
Saint Leo Fire		9,233	82,246
Scandia		36,450	324,690
Scandia Valley		15,000	133,615
Shevlin		14,448	128,704

Unaudited

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$55,360	\$23,223	\$159,382
	49,934	20,947	143,760
	103,331	43,346	297,490
	116,579	48,903	335,630
	325,616	136,591	937,446
	182,033	76,360	524,071
	242,807	101,854	699,040
	80,539	33,785	231,872
	63,782	26,756	183,629
	50,318	21,108	144,866
	243,709	102,233	701,637
	38,997	16,359	112,273
	148,200	62,168	426,667
	107,090	44,923	308,311
	20,297	8,514	58,434
	19,297	8,095	55,556
	49,959	20,957	143,831
	34,736	14,571	100,005
	219,983	92,280	633,330
	445,836	187,022	1,283,560
	877,821	368,234	2,527,242
	113,617	47,661	327,103
	220,139	92,345	633,778
	166,829	69,982	480,299
	110,637	46,411	318,524
	122,303	51,305	352,110
	27,513	11,541	79,210
	119,308	50,048	343,488
	178,023	74,678	512,526
	201,793	84,649	580,960
	101,242	42,470	291,476
	55,136	23,129	158,736
	62,678	26,293	180,450
	247,439	103,797	712,376
	101,825	42,714	293,154
	98,082	41,144	282,378

Unaudited

**State Board of Investment  
Retirement Plans Participation  
As of June 30, 2015**

	<u>Stable Value</u>	<u>Money Market</u>	
	<u>Fund</u>	<u>Fund</u>	<u>Bond Fund</u>
Sunburg		\$9,086	\$80,939
Tower		8,314	74,062
Twin Valley		12,742	113,500
Ulen		10,885	96,963
Victoria		50,583	450,586
Waconia		55,428	493,743
Waite Park		38,445	342,467
Warba - Feeley - Sago		9,026	80,399
Willmar		61,214	545,283
Wolf Lake		12,099	107,775
Wright		7,034	62,659
		<u>\$1,645,689</u>	<u>\$14,659,542</u>
<b>Total Pool Participation</b>	<u>\$1,493,293,332</u>	<u>\$1,487,299,567</u>	<u>\$14,431,315,971</u>

<u>Alternative</u> <u>Investment Pool</u>	<u>U.S. Stock</u>	<u>Broad</u> <u>International</u> <u>Stock Fund</u>	<u>Total</u>
	\$61,682	\$25,875	\$177,582
	56,441	23,676	162,493
	86,496	36,284	249,022
	73,893	30,997	212,738
	343,382	144,044	988,595
	376,271	157,840	1,083,282
	260,986	109,480	751,378
	61,270	25,702	176,397
	415,549	174,317	1,196,363
	82,133	34,454	236,461
	47,751	20,031	137,475
	\$11,171,724	\$4,686,386	\$32,163,341
\$7,425,308,374	\$29,362,022,330	\$9,156,717,568	\$63,355,957,142

**State Board of Investment**  
**Non Retirement Funds Participation Schedule**  
**As of June 30, 2015**  
**Amounts In (000)'s**

	<u>Non Retirement</u> <u>Cash Pool</u>	<u>Internal Bond</u> <u>Pool</u>	<u>Internal</u> <u>Equity Pool</u>	<u>Total Non</u> <u>Retirement Pools</u>
<b>Permanent School</b>	\$ 23,288	\$ 544,947	\$ 598,335	\$ 1,166,570
<b>Environmental Trust</b>	\$ 17,842	\$ 250,698	\$ 624,419	\$ 892,959
<b>Other Trusts:</b>				
Closed Landfill		\$ 20,822	\$ 48,141	\$ 68,962
Duluth Community Investment Trust	\$ 9,963	2,679	6,211	18,852
Emergency Med SVC	96	670	1,135	1,902
Ethel Currey	0	539	880	1,419
Iron Range Resources	0	50,287	63,992	114,279
Life Time Fish & Wild Life	395	5,279	13,038	18,712
Saint Louis County Environmental	0	3,224	3,953	7,177
Winona State	0	2,212	3,740	5,952
	<u>\$ 10,454</u>	<u>\$ 85,711</u>	<u>\$ 141,091</u>	<u>\$ 237,255</u>
<b>PERA OPEB:</b>				
Anoka County (Irrevocable)			\$ 51,236	\$ 51,236
Anoka County (Revocable)			437	437
Carver County		\$ 548	2,870	3,418
City of Eagan			13,041	13,041
City of Virginia			893	893
Crosby-Ironton ISD #182	\$ 84	2	3,691	3,776
Duluth		13,066	30,846	43,912
Fillmore Central ISD #2137	397			397
Hastings ISD #200	1,442			1,442
Kingsland ISD #2137			243	243
Mendota Heights Egan,				
West Saint.Paul ISD #197	152	8,406		8,558
Metro Mosquito Control District		372	2,203	0
Metropolitan Council	17		206,614	206,631
Mounds View ISD #621	8,510	6,295	8,114	22,919
Mt. Iron-Buhl District #712		2,253		2,253
Ogilvie ISD #333	461			461
Ramsey County	6,752	13,887	36,096	56,735
Roseville ISD#623		11,879		11,879
Scott County			11,249	11,249
Staples Motley ISD #2170	28	697	201	926
Washington County		9,894	32,047	41,940
Yellow Medicine ISD #2190	1,067			1,067
	<u>\$ 18,908</u>	<u>\$ 67,298</u>	<u>\$ 399,780</u>	<u>\$ 485,987</u>
<b>Total Pool Participation</b>	<u>\$ 70,492</u>	<u>\$ 948,653</u>	<u>\$ 1,763,626</u>	<u>\$ 2,782,771</u>

Unaudited

## External Stock and Bond Managers' Fees

### Total Payments for Fiscal Year 2015

#### Domestic Equity Active Managers

Barrow, Hanley, Mewhinney & Strauss, Inc.	\$ 1,586,282
Earnest Partners LLC	1,051,410
Goldman Sachs Asset Management, L.P.	2,066,974
Hotchkis and Wiley Capital Management	2,594,068
INTECH Investment Management LLC	1,697,015
Jacobs Levy Equity Management, Inc.	1,963,547
LSV Asset Management	2,765,332
Martingale Asset Management L.P.	1,529,418
McKinley Capital Management LLC	2,199,796
Next Century Growth Investors LLC	2,641,728
Peregrine Capital Management	2,536,143
Sands Capital Management LLC	2,457,245
Systematic Financial Management, L.P.	1,645,810
Winslow Capital Management LLC	1,055,480
Zevenbergen Capital Investments LLC	2,163,605

#### Domestic Equity Semi-Passive Managers (2)

BlackRock Institutional Trust Co., N.A.	2,541,883
INTECH Investment Management LLC	2,539,932
J.P. Morgan Investment Management, Inc.	3,104,592
Mellon Capital Management Corp.	2,573,234

#### Domestic Equity Passive Manager (2)

BlackRock Institutional Trust Co. N.A.	952,243
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#### Fixed Income Active Managers (2)

Aberdeen Asset Management, Inc.	1,787,433
Columbia Management Investment Advisers LLC	1,192,144
Dodge & Cox	1,628,378
Pacific Investment Management Co.LLC (PIMCO)	3,380,365
Western Asset Management Co.	1,517,225

#### Fixed Income Semi-Passive Managers (2)

BlackRock Financial Management, Inc.	1,079,376
Goldman Sachs Asset Management	1,825,474
Neuberger Berman Fixed Income LLC	775,699

cont.

## External Stock and Bond Managers' Fees

### Total Payments for Fiscal Year 2015

International Active Developed Markets Managers (2)		
Acadian Asset Management LLC	\$	1,513,990
Columbia Management Investment Advisers LLC		1,146,309
JP Morgan Investment Management Inc.		1,348,872
Marathon Asset Management LLP		2,416,872
McKinley Capital Management LLC		1,322,972
Pyramis Global Advisors Trust Company		1,646,223
International Semi Passive Developed Markets Managers (2)		
AQR Capital Management LLC		1,820,200
Pyramis Global Advisors Trust Company		988,455
State Street Global Advisors		1,426,810
International Passive Developed Markets Manager (2)		
State Street Global Advisors		606,851
International Active Emerging Markets Managers (2)		
Capital International, Inc.		5,281,759
Morgan Stanley Investment Management Inc.		6,115,735
International Passive Emerging Markets Manager		
State Street Global Advisors		310,349
Supplemental Fixed Interest Account(2)		
Galliard Capital Management, Inc.		3,786,909
Assigned Risk Plan (2)		
GE Asset Management, Inc.		175,881
RBC Global Asset Management		236,380

(1) Compensation is based on a performance-based fee formula. Four fee options are available and fees earned range from zero to twice the manager's base fee, depending on the manager's performance relative to an established benchmark. Negative amounts represent performance based refunds.

(2) Compensation is based on a specified percentage of assets under management.





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