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# MINNESOTA STATE BOARD OF INVESTMENT

MINNESOTA STATE BOARD  
OF INVESTMENT  
MEETING  
December 2, 2015



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

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**STATE BOARD OF INVESTMENT**

**AGENDA AND MINUTES**

**December 2, 2015**

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**AGENDA**  
**STATE BOARD OF INVESTMENT MEETING**  
**Wednesday, December 2, 2015**  
**10:00 A.M.**  
**Retirement Systems Building**  
**Room 106 – Main Floor**  
**60 Empire Drive, St. Paul, MN**

- |   |            |
|---|------------|
| <b>1. Approval of Minutes of September 9, 2015</b>  | <b>TAB</b> |
| <b>2. Report from the Executive Director (M. Perry)</b>                                       | <b>A</b>   |
| A. Quarterly Investment Review<br>(July 1, 2015 – September 30, 2015)                         |            |
| B. Administrative Report  | <b>B</b>   |
| 1. Reports on Budget and Travel   |            |
| 2. FY15 Audit Report  |            |
| 3. Draft of FY15 Annual Report  |            |
| 4. Tentative Meeting Dates for Calendar Year 2016   |            |
| 5. Legislation  |            |
| 6. Sudan Update   |            |
| 7. Iran Update  |            |
| 8. Litigation Update  |            |
| <b>3. Investment Advisory Council Report (J. Bailey)</b>                                      |            |
| A. Private Markets Report   | <b>C</b>   |
| 1. Review of current strategy   |            |
| 2. Consideration of investment commitments with four existing<br>managers and one new manager |            |
| B. Public Markets, Non-Retirement, and Defined Contribution Report                            | <b>D</b>   |
| <b>4. Other items</b>   |            |

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**Minutes  
State Board of Investment  
September 9, 2015**

The State Board of Investment (SBI) met at 10:00 A. M. Wednesday, September 9, 2015 in Room 106, Retirement Systems Building, St. Paul, Minnesota. State Auditor Rebecca Otto, Secretary of State Steve Simon, and Attorney General Lori Swanson were present. Governor Dayton was absent and Secretary of State Simon Chaired the meeting. The minutes of the June 3, 2015 meeting were approved.

**Executive Director's Report**

Executive Director Mansco Perry referred members to Tab A of the meeting materials, and he reported that the Combined Funds had outperformed its Composite Index over the ten year period ending June 30, 2015 (Combined Funds 7.8% vs. Composite 7.5 %) and had provided a real rate of return of 6.1% above inflation over the latest 20 year period (Combined Funds 8.4% vs. CPI 2.3%).

Mr. Perry said that assets decreased slightly over the quarter by 0.5% (Combined Funds ending value of \$60.1 versus a beginning value of \$60.4 billion), due to net outflows outweighing investment returns. The Combined Funds return was ten basis points (bps) above the benchmark for the quarter (Combined Funds 0.3% vs. Composite 0.2%) and 40 bps higher for the year (Combined Funds 4.4% vs. Composite 4.0%). The Combined Funds also outperformed for longer time periods.

Mr. Perry reported that the domestic stock manager group performed in-line with its target for the quarter (Domestic Stocks 0.1% vs. Domestic Equity Asset Class Target 0.1%) and outperformed for the year (Domestic Stocks 7.7% vs. Domestic Equity Asset Class Target 7.3%). He said the international stock manager group outperformed its target for the quarter (International Stocks 1.3% vs. International Equity Asset Class Target 0.5%) and for the year (International Stocks -3.8% vs. International Equity Asset Class Target -5.3%). Mr. Perry then stated that the bond segment surpassed its target for the quarter (Bonds -1.5% vs. Fixed Income Asset Class Target -1.7%) and for the year (Bonds 2.1% vs. Fixed Income Asset Class Target 1.9%). He stated that alternative investments added to total performance for the quarter and the year (3.7% for the quarter and 7.6% for the year). Mr. Perry concluded his report noting that, as of June 30, 2015, the SBI was responsible for managing more than \$82 billion of assets.

Mr. Perry referred members to Tab B of the meeting materials for the administrative report. He reported that fiscal year to date, the SBI was running below budget. Mr. Perry then described the Conservation Easement Accounts, an item of legislation that passed which created three accounts to pool previous and future appropriations to cover the monitoring and enforcement costs associated with conservation easement efforts. Two of the accounts will be administered by the Board of Water and Soil Resources and one will be administered by the Department of Natural Resources. The SBI was asked to manage the funds, which will have an asset allocation of 70% equities and 30% bonds. State Auditor Otto moved approval of the recommendation, which reads: **"The Executive Director of the State Board of Investment recommends that the SBI approve**

**the investment of the three Conservation Easement Accounts in the SBI Internal Equity and Bond Pools with an asset allocation of 70% to equities and 30% to bonds.”** The motion passed unanimously.

Mr. Perry updated members that the SBI continues to work with the Department of Human Services on the feasibility of the SBI’s involvement with the Minnesota Achieving a Better Life Experience Act. Next, Mr. Perry stated that Sudan and Iran holdings updates were provided.

Mr. Perry stated there was currently no litigation involving the SBI.

Executive Director, Teachers Retirement Association, Laurie Hacking referred members to Tab C and discussed the Administrative Committee Report, related to the SBI Executive Director’s evaluation and salary process. She referenced the evaluation forms that were included in Tab C and noted that the Governor’s office will coordinate the distribution of the forms once completed. Attorney General Swanson moved approval of the proposed evaluation and salary process, which reads: **“The Committee recommends that the SBI adopt the following performance evaluation and salary process for the SBI Executive Director:**

- **The evaluation will be completed by October 1.**
- **The evaluation will be based on the results of the Executive Director’s workplan for the fiscal year ending the previous June 30.**
- **The SBI deputies/designees will develop an appropriate evaluation form for use by each member.**
- **As Chair of the Board, the Governor (or his representative) will coordinate distribution of the evaluation forms. Board members will forward completed evaluations to the Executive Director with a copy to the Governor or the Governor’s designee and are encouraged to meet individually with the Executive Director to review their own evaluation.**
- **Upon satisfactory performance evaluations from a majority of responding Board Members, the Executive Director’s annual salary adjustment will be any Cost-of-Living Adjustment (COLA)/Across the Board (ATB)/General Salary Increase approved by the Managerial Plan for a Fiscal Year as submitted to the Legislature to the extent that it is within the Executive Director’s salary range. The adjustment shall be effective January 1 of the next calendar year. The motion passed unanimously.**

Mr. Perry introduced Ms. Faust and indicated that she would be reporting to the Board on Investment Advisory Council actions since Mr. Bailey, the Chairperson of the Investment Advisory Council, was unable to attend the meeting. Ms. Faust referred Board members to the Investment Advisory Council report, found under Tab D. Ms. Faust reviewed the six alternative investment proposals brought to the IAC. Three managers were existing managers (Warburg Pincus (Private Equity); Summit Partners (Private Equity); and Audax (Private Credit)) and three were new managers (Brookfield Capital Partners (Private Equity); Thomas H. Lee Partners (Private Equity); and TPG Partners (Private Equity)). State Auditor Otto moved approval of all recommendations in Tab D of the meeting materials, which reads: **“The Investment Advisory**



**Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$150 million, or 20% of Warburg Pincus Private Equity XII L.P. whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Warburg Pincus upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Warburg Pincus or reduction or termination of the commitment.**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Summit Partners Growth Equity Fund IX, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Summit upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Summit or reduction or termination of the commitment.**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Audax Mezzanine Fund IV L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Audax upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Audax or reduction or termination of the commitment.**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Brookfield Capital Partners IV, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Brookfield upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may**

**result in the imposition of additional terms and conditions on Brookfield or reduction or termination of the commitment.**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Thomas H. Lee Equity Fund VII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by THL upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on THL or reduction or termination of the commitment.**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of TPG Partners VII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by TPG upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on TPG or reduction or termination of the commitment.**

The motion passed unanimously.

The meeting adjourned at 10:55 a.m.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mansco Perry III". The signature is written in a cursive, flowing style.

Mansco Perry III  
Executive Director and  
Chief Investment Officer

TAB

A

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# LONG TERM OBJECTIVES

Period Ending 9/30/15

<b>COMBINED FUNDS: \$56.7 Billion</b>	<b>Result</b>	<b>Compared to Objective (2)</b>
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**Match or Exceed Composite Index (10 Yr.)**

6.8% (1)

0.3 percentage point above the target

Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Combined Funds over the latest 10 year period.

**Provide Real Return (20 Yr.)**

7.8%

5.6 percentage points above CPI

Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.

(1) Performance is calculated net of fees.

(2) Differential from composite may occur due to rounding.

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## EXECUTIVE SUMMARY

### Combined Funds (Net of Fees)

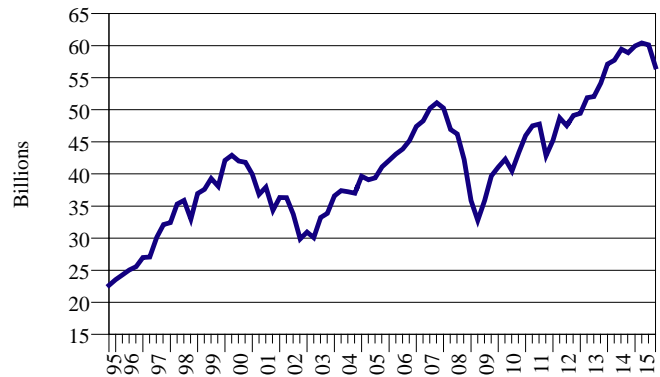
#### Asset Growth

The market value of the Combined Funds decreased 5.7% during the third quarter of 2015. The negative net contributions and negative investment returns contributed to this decrease for the quarter.

#### Asset Growth During Third Quarter 2015 (Millions)

Beginning Value	\$60,125
Net Contributions	-607
Investment Return	-2,807
Ending Value	\$56,711

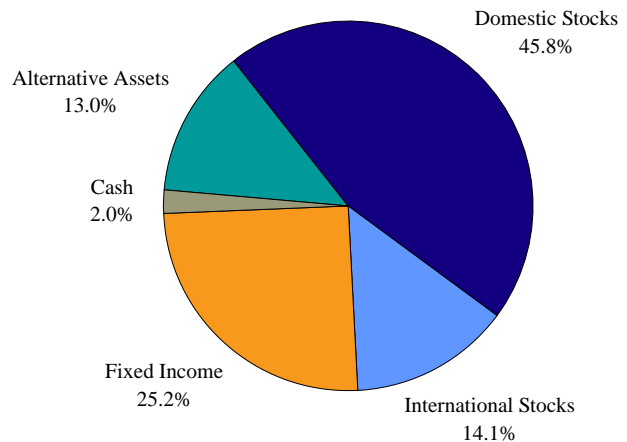
#### Combined Funds Market Value



#### Asset Mix

During the third quarter there was a decrease in the international and domestic equities allocations from negative investment returns and slight increases to fixed income and alternatives as a result of positive returns.

	Policy Targets	Actual Mix 9/30/15	Actual Market Value (Millions)
Domestic Stocks	45.0%	45.8%	\$25,956
International Stocks	15.0%	14.1%	7,967
Bonds	18.0%	25.2%	14,275
Alternative Assets*	20.0%	13.0%	7,353
Cash	2.0%	2.0%	1,158
	100.0%	100.0%	\$56,711

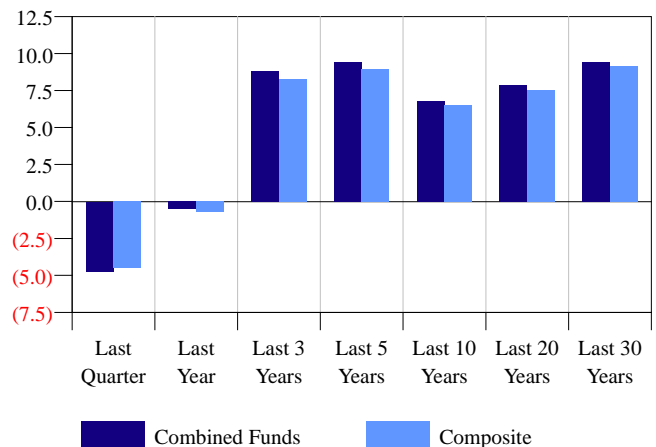


\* Any uninvested allocation is held in bonds.

#### Fund Performance (Net of Fees)

The Combined Funds underperformed its benchmark for the quarter and outperformed the benchmark for the year.

	Periods Ended 9/30/15						
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
<b>Combined Funds</b>	-4.7%	-0.5%	8.8%	9.4%	6.8%	7.8%	9.4%
Composite	-4.5%	-0.7%	8.3%	8.9%	6.5%	7.6%	9.2%



Note: All periods over one year are annualized.

Column sums throughout this report may not add due to rounding.

## EXECUTIVE SUMMARY

### Stock and Bond Manager Performance (Net of Fees)

#### Domestic Stocks

The domestic stock manager group (active, semi-passive and passive combined) underperformed its target for the quarter and outperformed for the year.

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

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Dom. Stocks</b>	-7.5%	-0.4%	12.9%	13.5%	6.9%
Asset Class Target*	-7.2%	-0.5%	12.5%	13.3%	6.9%

\* The Domestic Equity Asset Class Target is the Russell 3000 effective 10/1/03. From 7/1/99 to 9/30/03, it was the Wilshire 5000 Investable Index.

#### International Stocks

The international stock manager group (active, semi-passive and passive combined) outperformed its target for the quarter and for the year.

**MSCI ACWI Free ex USA (net):** The Morgan Stanley Capital International All Country World Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global developed and emerging markets. There are 45 countries included in this index. It does not include the United States.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Int'l Stocks</b>	-11.1%	-9.6%	3.8%	2.7%	3.7%
Asset Class Target*	-12.2%	-12.2%	2.3%	1.8%	3.1%

\* Since 6/1/08 the International Equity Asset Class Target is the Standard MSCI ACWI ex U.S. (net). From 10/1/07 to 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex USA (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex USA (net).

#### Bonds

The bond manager group (active and semi-passive combined) underperformed its target for the quarter and for the year.

**Barclays Aggregate:** The Barclays Aggregate Bond Index reflects the performance of the broad bond market for investment grade (Baa or higher) bonds, U.S. treasury and agency securities, and mortgage obligations with maturities greater than one year.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Bonds</b>	0.8%	2.8%	2.1%	3.7%	4.9%
Asset Class Target	1.2%	2.9%	1.7%	3.1%	4.6%

#### Alternative Investments

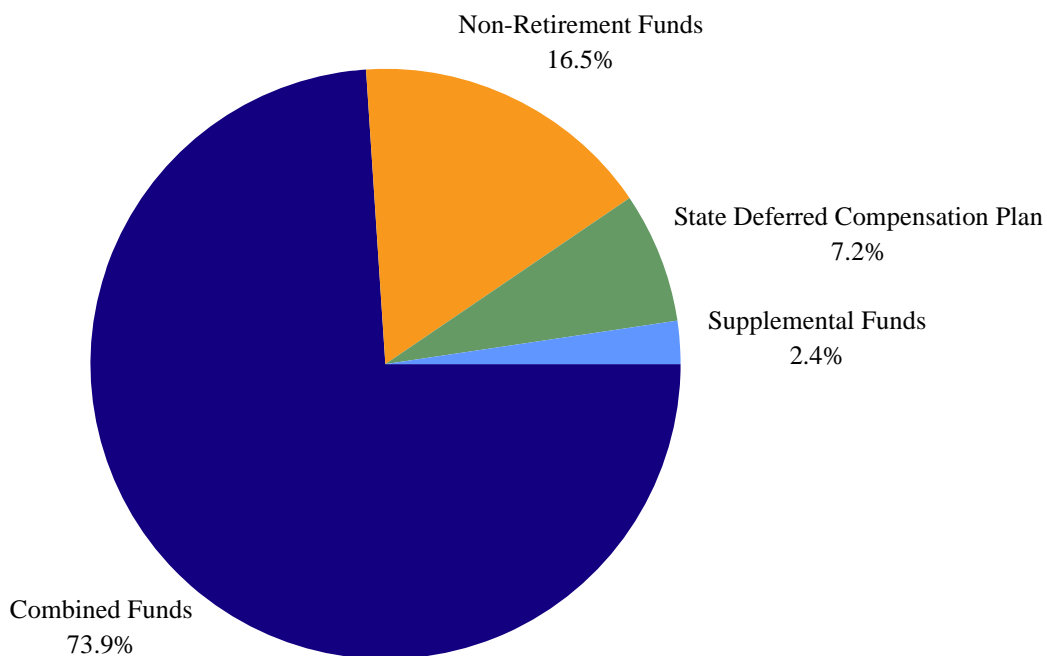
	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Alternatives</b>	2.8%	4.6%	13.4%	13.3%	12.8%

Note: All periods over one year are annualized.



## EXECUTIVE SUMMARY

### Funds Under Management



### 9/30/15 Market Value (Billions)

#### Retirement Funds

Combined Funds	\$56.7
Supplemental Investment Fund (Excluding Deferred Compensation Plan Assets)	1.8
State Deferred Compensation Plan	5.5

#### Non-Retirement Funds

Assigned Risk Plan	0.3
Permanent School Fund	1.1
Environmental Trust Fund	0.9
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.1
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	8.6
<u>Minnesota College Savings Plan</u>	<u>1.1</u>

<b>Total</b>	<b>\$76.7</b>
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Note: Amounts and percentages may not add due to rounding.

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# MINNESOTA STATE BOARD OF INVESTMENT

## QUARTERLY INVESTMENT REPORT

Third Quarter 2015  
(July 1, 2015 - September 30, 2015)

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## VARIOUS CAPITAL MARKET INDICES

Periods Ended September 30, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Equity</b>					
Russell 3000 (broad market)	-7.2%	-0.5%	12.5%	13.3%	6.9%
Russell 1000 (large cap)	-6.8	-0.6	12.7	13.4	7.0
Russell 2000 (small cap)	-11.9	1.2	11.0	11.7	6.5
Dow Jones Wilshire Composite	-7.3	-0.5	12.4	13.3	7.1
Dow Jones Industrials	-7.0	-2.1	9.3	11.4	7.2
S&P 500	-6.4	-0.6	12.4	13.3	6.8
<b>Domestic Fixed Income</b>					
Barclays Aggregate (1)	1.2	2.9	1.7	3.1	4.6
Barclays Gov't/Credit	1.2	2.7	1.6	3.1	4.6
3 month U.S. Treasury Bills	0.0	0.0	0.1	0.1	1.3
<b>International</b>					
MSCI Emerging Markets Free Index (2)	-17.9	-19.3	-5.3	-3.6	4.3
MSCI ACWI ex USA (3)	-12.2	-12.2	2.3	1.8	3.0
MSCI EAFE (4)	-10.2	-8.7	5.6	4.0	3.0
MSCI World ex USA (5)	-10.6	-10.1	4.6	3.4	2.9
Salomon Non U.S. Gov't Bond	1.7	-7.0	-4.6	-1.3	2.9
<b>Inflation Measure</b>					
Consumer Price Index CPI-U (6)	-0.3%	0.0%	0.9%	1.7%	1.8%
Consumer Price Index CPI-W (7)	-0.5%	-0.6%	0.6%	1.7%	1.8%

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

(2) Morgan Stanley Capital International Emerging Markets Free Index (Net index).

(3) Morgan Stanley Capital International All Country World Index ex USA (Net index).

(4) Morgan Stanley Capital International Index of Europe, Australasia and the Far East (EAFE) (Net index).

(5) Morgan Stanley Capital International World ex USA Index (Developed Markets) (Net index).

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

(7) Consumer Price Index (CPI) for all wage earners, also known as CPI-W.

Note: All periods over one year are annualized.

## FINANCIAL MARKETS REVIEW

### DOMESTIC STOCKS

The U.S. stock market, as measured by the Russell 3000 index, posted a -7.2% return for the third quarter of 2015. Despite continued economic growth domestically, uncertainty surrounding the pace of global growth and a prolonged commodity glut sent equities lower around the world. As rates fall in the fixed income market, it makes dividend paying sectors in the equity market, like Utilities and Consumer Staples, relatively more attractive. Within the Russell 3000, Utilities was the best performing sector with a -0.3% return while Energy was the weakest sector with -19.0% return for the quarter. Large cap stocks outperformed small cap stocks during the quarter.

Performance for the Russell Style Indices for the quarter is shown below:

Large Growth	Russell 1000 Growth	-5.3%
Large Value	Russell 1000 Value	-8.4%
Small Growth	Russell 2000 Growth	-13.1%
Small Value	Russell 2000 Value	-10.7%

The Russell 3000 index returned -0.5% for the year ending September 30, 2015.

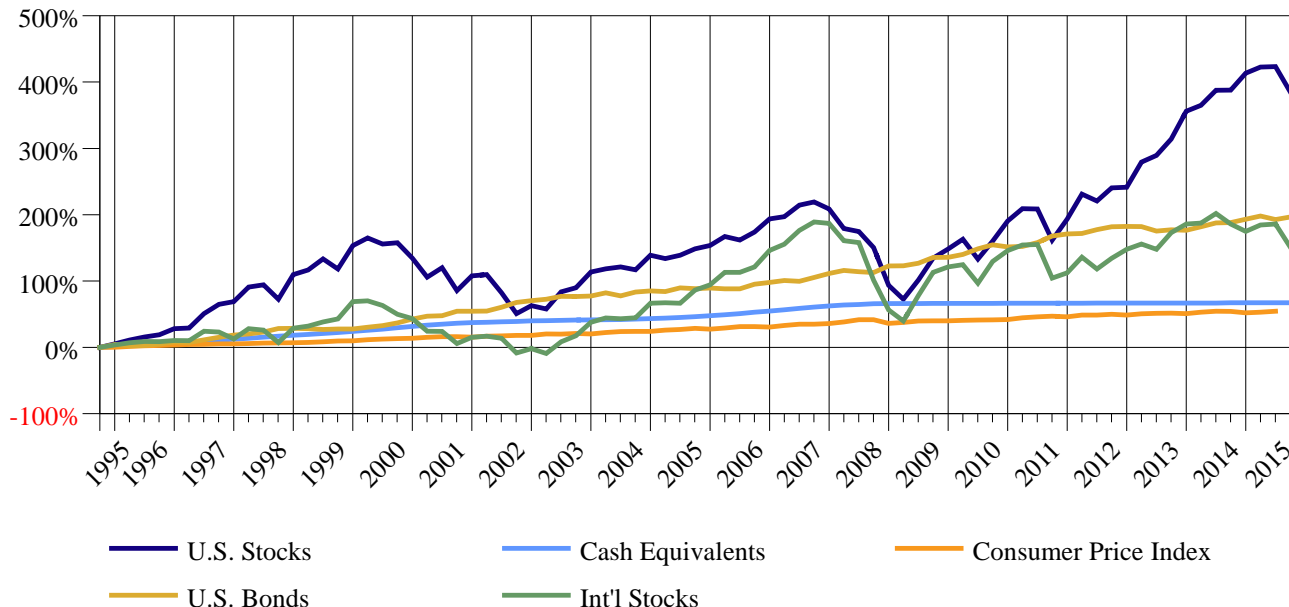
### DOMESTIC BONDS

The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 1.2% for the quarter. The 2-year U.S. Treasury yield ended the quarter lower by 1 basis point at 0.6%, the 5-year decreased by 30 basis points to 1.4%, the 10-year decreased by 32 basis points to 2.0%, and the 30-year decreased by 27 basis points to 2.9%. Treasury bonds were the biggest driver of return followed by CMBS.

The major sector returns for the Barclays Capital U.S. Aggregate Bond Index for the quarter were:

U.S. Treasury	1.7%
Agency	-0.2%
Corporates	0.8%
Agency MBS	1.3%
Commercial Mortgages	1.5%
Asset-Backed	0.7%

### PERFORMANCE OF CAPITAL MARKETS Cumulative Returns



## FINANCIAL MARKETS REVIEW

### DEVELOPED INTERNATIONAL MARKETS

In aggregate, developed international stock markets (as measured by MSCI World ex USA index net) provided a return of -10.6% for the quarter. World equities also posted negative returns in local currencies. However, given a strong U.S. dollar, returns in U.S. dollar terms were slightly lower. Concerns over the global impact of China's economic slowdown dominated financial markets in the third quarter. Volatility returned to global markets sparked by worries about weakness in the Chinese economy and the possible effect into other emerging and developed markets. The top performing sectors for the quarter were Consumer Staples, Utilities and Health Care. The worst performing sectors were Materials, Energy and Financials. The quarterly performance of the six largest stock markets, which comprise about 74% of the MSCI World ex USA index, is shown below:

Japan	-11.8%
United Kingdom	-10.0%
France	-6.4%
Switzerland	-7.0%
Germany	-10.9%
Canada	-14.1%

### EMERGING INTERNATIONAL MARKETS

Emerging markets (as measured by MSCI Emerging Markets Free index net) provided a return of -17.9% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	-22.7%
Korea	-11.8%
Taiwan	-16.9%
Brazil	-33.6%
South Africa	-18.6%
India	-6.7%

The Emerging Markets Free index returned -19.3% during the last year.

The Emerging Markets Free (EMF) index is compiled by MSCI and measures performance of 23 stock markets in Latin America, Asia, Africa and Eastern Europe. EMF includes only those securities foreign investors are allowed to hold. The markets listed above comprise about 74% of the value of the emerging international markets in the index.

### REAL ESTATE

During the third quarter of 2015, private real estate posted its 23rd consecutive quarter of positive returns with the NCREIF Property Index posting a return of 3.1%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. An aggregate \$37.5 billion in private real estate funds was raised in 3Q 2015, with the largest fund\* being the \$4.2bn Carlyle Realty Partners VII. While fundraising is on pace to exceed the 2014 total, fewer vehicles have closed in recent years, continuing the trend where a handful of managers are dominating the fundraising landscape. (Source: NCREIF; Preqin)

\* Blackstone Real Estate Partners VIII closed to institutional investors in Q1 2015, having raised \$14.5bn. It then raised additional capital from retail investors, and reached a final close in Q3 2015 on \$15.8bn.

### PRIVATE EQUITY

During the third quarter of 2015, an aggregate \$137 billion in private equity funds was raised across 178 funds. Buyout funds topped the list of aggregate capital raised with \$47bn and Venture Capital closed the most funds with 43. Limited Partners, as surveyed by Preqin, continue to be bullish on the asset class. This is evidenced by the recent successful fundraises by General Partners and the record level of dry powder, \$1.3 trillion, ready to be deployed. (Source: Preqin)

Buyout activity in 3Q 2015, as measured by deal activity, increased to 889 compared to the 834 deals in 2Q 2015. However, the aggregate value of deals decreased from \$101.5 billion in 2Q to \$85.1 billion in 3Q, with the largest deal being Carlyle Group and GIC's \$8 billion purchase of Veritas.

The number of private-equity backed exits increased in 3Q 2015 to 397, where the aggregate value of exits decreased to \$116 billion. (Source: Preqin)

### RESOURCE FUNDS

During the third quarter of 2015, crude oil traded between a range of \$38/bbl and \$59/bbl. The average price for the first quarter of 2015 was \$47/bbl, which was \$11 below the average price from the second quarter. A rising U.S. dollar and increased supply from the U.S. and OPEC countries contributed to the drop in oil prices in the quarter. (Source: Bloomberg, Raymond James)

## COMBINED FUNDS

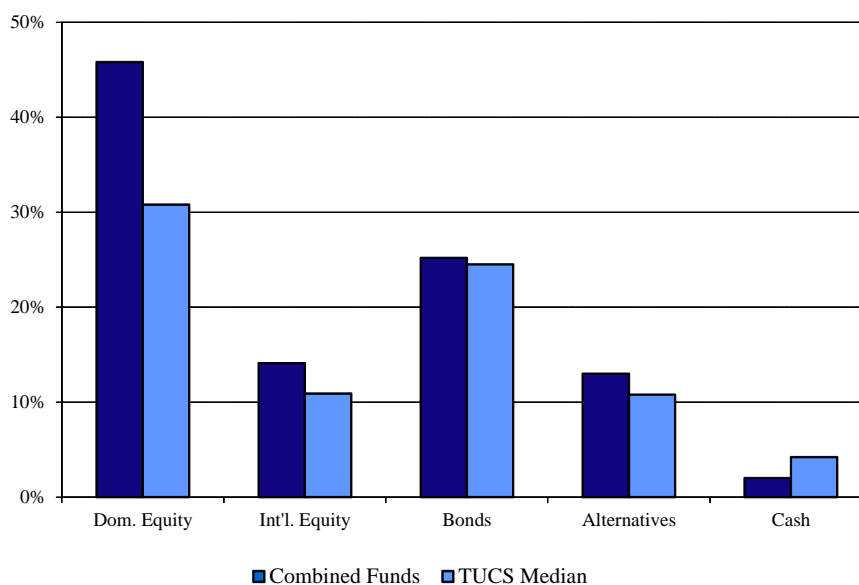
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

### Asset Mix Compared to Other Pension Funds

On 9/30/15, the asset mix of the Combined Funds was:

	<b>\$ Million</b>	<b>%</b>
Domestic Stocks	\$25,956	45.8%
International Stocks	7,967	14.1%
Bonds	14,275	25.2%
Alternative Assets	7,353	13.0%
Unallocated Cash	1,158	2.0%
<b>Total</b>	<b>\$56,711</b>	<b>100.0%</b>

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bonds and other assets of the public and corporate funds in TUCS over \$1 billion are shown below:



	<b>Domestic Equity</b>	<b>Int'l Equity</b>	<b>Bonds</b>	<b>Alternatives</b>	<b>Cash</b>
<b>Combined Funds</b>	45.8%	14.1%	25.2%	13.0%	2.0%
Median Allocation in TUCS*	30.8%	10.9%	24.5%	10.8%**	4.2%

\* Public and corporate plans over \$1 billion.

\*\* May include assets other than alternatives.

## COMBINED FUNDS

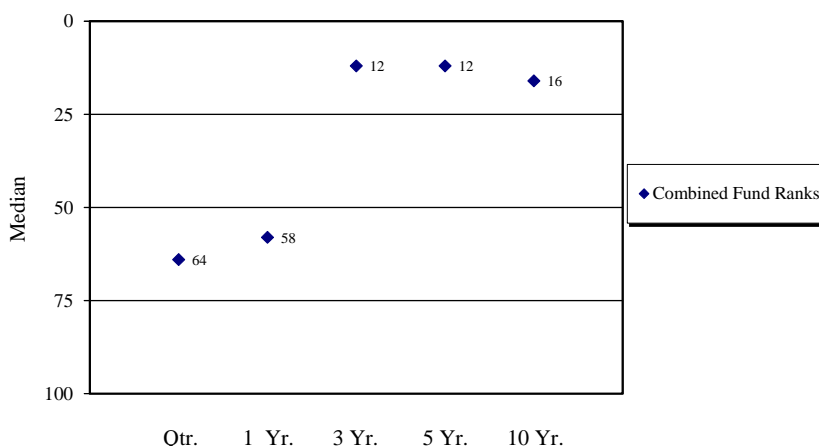
### Performance Compared to Other Pension Funds

While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- **Differing Allocations.** Asset allocation will have a dominant effect on return. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide 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. This will result in different choices on asset mix. Since asset mix will largely determine investment results, a universe ranking is not 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 in Trust Universe Comparison Service (TUCS) are shown below.

The SBI's returns are ranked against public and corporate plans with over \$1 billion in assets. All funds in TUCS report their returns gross of fees.



**Periods Ended 9/30/15**

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>	<u>10 Years</u>
Combined Funds					
Percentile Rank in TUCS*	64th	58th	12th	12th	16th

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

Note: All periods over one year are annualized.

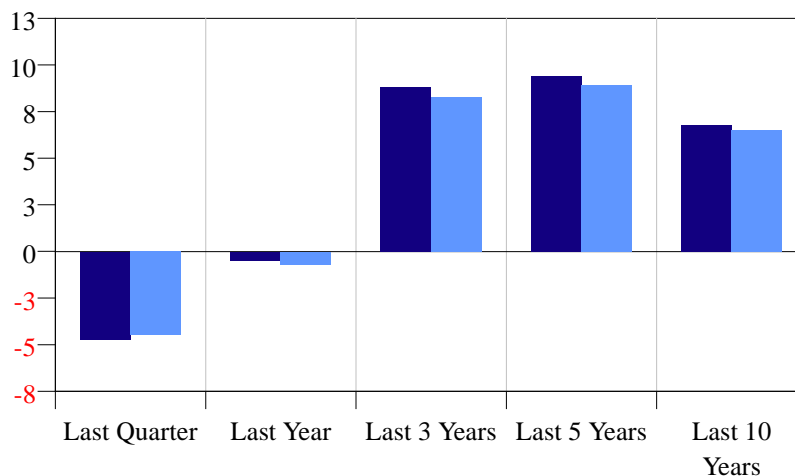


### COMBINED FUNDS Performance Compared to Composite Index

The Combined Funds' performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the asset allocation of the Combined Funds:

	<b>Maret Index</b>	<b>Combined Funds Composite 3Q/15</b>
Domestic Stocks	Russell 3000	45.0%
Int'l Stocks	MSCI ACWI Free ex USA	15.0%
Bonds	Barclays Capital Aggregate	25.7% *
Alternative Investments	Alternative Investments	12.3% *
<u>Unallocated Cash</u>	<u>3 Month T-Bills</u>	<u>2.0%</u>
		100.0%

\* Alternative asset and fixed income weights are reset in the composite at the start of each month to reflect the amount of unfunded commitments in alternative asset classes. The above Combined Funds Composite weighting was as of the beginning of the quarter.



**Periods Ended 9/30/15**

Combined Funds **		-4.7%	-0.5%	8.8%	9.4%	6.8%
Composite		-4.5%	-0.7%	8.3%	8.9%	6.5%

\*\* Actual returns are reported net of fees.

Note: All periods over one year are annualized.

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## STOCK AND BOND MANAGERS

### Performance of Asset Pools

(Net of Fees)

#### Domestic Stocks

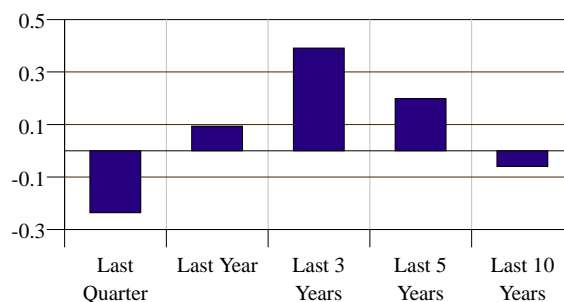
**Target:** Russell 3000

**Expectation:** If one-third of the pool is actively managed, one-third is semi-passively managed, and one-third is passively managed, the entire pool is expected to exceed the target by .18% - .40% annualized over time.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Stocks</b>	<b>-7.5%</b>	<b>-0.4%</b>	<b>12.9%</b>	<b>13.5%</b>	<b>6.9%</b>
Asset Class Target*	-7.2%	-0.5%	12.5%	13.3%	6.9%

\* The Domestic Equity Asset Class Target is the Russell 3000 effective 10/1/03. From 7/1/99 to 9/30/03, it was the Wilshire 5000 Investable Index.

Value Added to Domestic Equity Target (1)



#### International Stocks

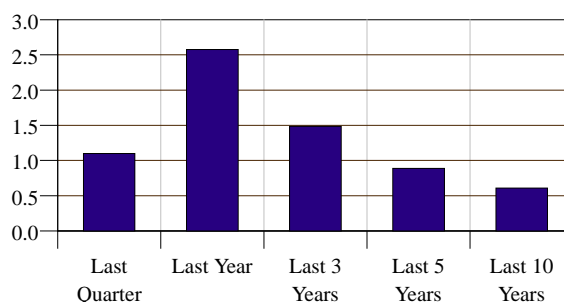
**Target:** Standard MSCI ACWI Free ex U.S. (net)

**Expectation:** If at least one-third of the pool is managed actively, no more than one-third is semi-passively managed, and at least one-quarter is passively managed, the entire pool is expected to exceed the target by .25% - .75% annualized, over time.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Int'l Stocks</b>	<b>-11.1%</b>	<b>-9.6%</b>	<b>3.8%</b>	<b>2.7%</b>	<b>3.7%</b>
Asset Class Target*	-12.2%	-12.2%	2.3%	1.8%	3.1%

\* The Int'l Equity Asset Class Target is MSCI ACWI Free ex U.S. (net) effective 10/1/03.

Value Added to International Equity Target (1)



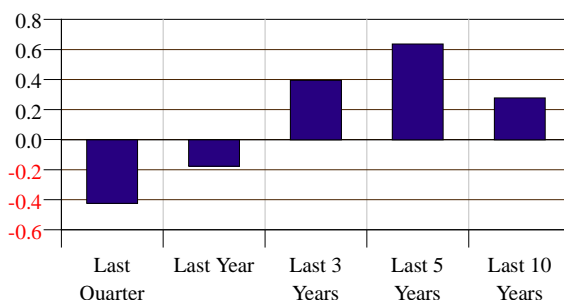
#### Bonds

**Target:** Barclays Capital Aggregate Bond Index

**Expectation:** If half of the pool is actively managed and half is managed semi-passively, the entire pool is expected to exceed the target by .20% - .35% annualized, over time.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Bonds</b>	<b>0.8%</b>	<b>2.8%</b>	<b>2.1%</b>	<b>3.7%</b>	<b>4.9%</b>
Asset Class Target	1.2%	2.9%	1.7%	3.1%	4.6%

Value Added to Fixed Income Target (1)



Note: All periods over one year are annualized.

(1) Graph data is based on actual return and may not match table due to rounding.

## ALTERNATIVE INVESTMENTS

### Performance of Asset Categories (Net of Fees)

#### Alternative Investments

**Expectation:** The Alternative investments are measured against themselves using actual portfolio returns.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Alternatives	2.8%	4.6%	13.4%	13.3%	12.8%
Inflation	-0.3%	0.0%	0.9%	1.7%	1.8%

#### Real Estate Investments (Equity emphasis)

**Expectation:** Real estate investments are expected to exceed the rate of inflation by 5% annualized, over the life of the investment.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate	2.9%	17.7%	15.7%	14.7%	7.4%

The SBI began its real estate program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

#### Private Equity Investments (Equity emphasis)

**Expectation:** Private equity investments are expected to exceed the rate of inflation by 10% annualized, over the life of the investment.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity	3.1%	11.2%	15.9%	14.8%	13.9%

The SBI began its private equity program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

#### Resource Investments (Equity emphasis)

**Expectation:** Resource investments are expected to exceed the rate of inflation by 5% annualized, over the life of the investment.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Resource	3.2%	-16.0%	4.9%	9.5%	14.1%

The SBI began its resource program in the mid-1980's and periodically makes new investments. Some of the existing investments are relatively immature and returns may not be indicative of future results.

#### Yield Oriented Investments (Debt emphasis)

**Expectation:** Yield oriented investments are expected to exceed the rate of inflation by 5.5% annualized, over the life of the investment.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Yield Oriented	0.9%	-3.2%	12.7%	12.4%	14.8%

The SBI began its yield oriented program in 1994. Some of the existing investments are relatively immature and returns may not be indicative of future results.

## SUPPLEMENTAL INVESTMENT FUND

The Minnesota Supplemental Investment Fund (SIF) is a multi-purpose investment program that offers a range of investment options to state and local public employees.

The SIF provides some or all of the investment options to the Unclassified Employees Retirement Plan, Minnesota Deferred Compensation Plan, Public Employees Defined Contribution Plan, Hennepin County Supplemental Retirement Plan, Health Care Savings Plan, local police and firefighter retirement plans and the Voluntary Statewide Volunteer Firefighter plan.

A wide diversity of investment goals exists among the Fund's participants. In order to meet those needs, the Fund has been structured much like a "family of mutual funds." Participants may allocate their investments among one or more accounts that are appropriate for their needs, within the statutory requirements and rules established by the participating organizations. Participation in the Fund is accomplished through the purchase or sale of shares in each account.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. All returns are net of investment management fees.

On September 30, 2015 the market value of the entire Fund was \$1.8 billion.

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### Investment Options

	<b>9/30/15 Market Value (In Millions)</b>
<b>Balanced Fund</b> - a balanced portfolio utilizing both common stocks and bonds.	\$352
<b>U.S. Stock Actively Managed Fund</b> - an actively managed, all common stock portfolio.	\$201
<b>U.S. Stock Index Fund</b> - a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	\$438
<b>Broad International Stock Fund</b> - a portfolio of non U.S. stocks that incorporates both active and passive management.	\$170
<b>Bond Fund</b> - an actively managed, all bond portfolio.	\$127
<b>Money Market Fund</b> - a portfolio utilizing short-term, liquid debt securities.	\$288
<b>Stable Value Fund</b> - a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	\$197
<b>Volunteer Firefighter Account</b> - a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$31

## SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

### BALANCED FUND

#### Investment Objective

The primary investment objective of the Balanced Fund is similar to that of the Combined Funds. The Account seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility.

#### Asset Mix

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

	Target	Actual
Stocks	60.0%	57.8%
Bonds	35.0%	37.4%
Cash	5.0%	4.8%
	100.0%	100.0%

#### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>-4.0%</b>	<b>0.8%</b>	<b>8.6%</b>	<b>9.5%</b>	<b>6.5%</b>
Benchmark*	-3.9%	0.9%	8.1%	9.1%	6.0%

\* 60% Russell 3000/35% Barclays Aggregate Bond Index/5% T-Bills Composite.

### U.S. STOCK ACTIVELY MANAGED FUND

#### Investment Objective

The U.S. Stock Actively Managed Fund's investment objective is to generate above-average returns from capital appreciation on common stocks.

#### Asset Mix

The U.S. Stock Actively Managed Fund is invested primarily in the common stocks of US companies. The managers in the account also hold varying levels of cash.

#### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>-7.6%</b>	<b>-0.4%</b>	<b>13.1%</b>	<b>13.6%</b>	<b>6.8%</b>
Benchmark*	-7.2%	-0.5%	12.5%	13.3%	6.9%

\* Russell 3000.

### U.S. STOCK INDEX FUND

#### Investment Objective and Asset Mix

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

The Fund is invested 100% in common stock.

#### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>-7.2%</b>	<b>-0.5%</b>	<b>12.5%</b>	<b>13.2%</b>	<b>7.0%</b>
Benchmark*	-7.2%	-0.5%	12.5%	13.3%	6.9%

\* Russell 3000.

Note: All periods over one year are annualized.

## SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

### **BROAD INTERNATIONAL STOCK FUND**

#### **Investment Objective and Asset Mix**

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. At least 25% of the Fund is "passively managed" and no more than 33% of the Fund is "semi-passively managed." These portions of the Fund are designed to track and modestly outperform, respectively, the return of 23 developed markets included in the MSCI World ex USA Index. The remainder of the Fund is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>-11.1%</b>	<b>-9.6%</b>	<b>3.8%</b>	<b>2.7%</b>	<b>3.7%</b>
Benchmark*	-12.2%	-12.2%	2.3%	1.8%	3.1%

\* The Int'l Equity Asset Class Target is MSCI ACWI ex USA (net).

### **BOND FUND**

#### **Investment Objective**

The investment objective of the Bond Fund is to exceed the return of the broad domestic bond market by investing in fixed income securities.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>0.8%</b>	<b>2.8%</b>	<b>2.1%</b>	<b>3.7%</b>	<b>4.9%</b>
Barclays Agg	1.2%	2.9%	1.7%	3.1%	4.6%

#### **Asset Mix**

The Bond Fund invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years.

### **MONEY MARKET FUND**

#### **Investment Objective**

The investment objective of the Money Market Fund is to protect principal by investing in short-term, liquid U.S. Government securities.

	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>1.5%</b>
3 month T-Bills	0.0%	0.0%	0.1%	0.1%	1.3%

#### **Asset Mix**

The Fund is invested entirely in high-quality, short-term U.S. Treasury and Agency securities. The average maturity of the portfolios is less than 90 days.

Note: All periods over one year are annualized.

## SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

### STABLE VALUE FUND

#### Investment Objective

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

#### Asset Mix

The Fund is invested in a well-diversified portfolio of high-quality fixed income securities with strong credit ratings. The Fund also invests in contracts issued by highly rated insurance companies and banks which are structured to provide principal protection for the Fund's diversified bond portfolios, regardless of daily market changes.

#### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>0.5%</b>	<b>1.9%</b>	<b>2.0%</b>	<b>2.5%</b>	<b>3.6%</b>
Benchmark*	0.4%	1.4%	1.2%	1.1%	2.2%

\* The Stable Value Fund Benchmark is the 3-year Constant Maturity Treasury Bill +45 basis points.

### VOLUNTEER FIREFIGHTER ACCOUNT

The investment objective of the Volunteer Firefighter Account is to maximize long-term returns while limiting short-term portfolio return volatility.

The Account is invested in a balanced portfolio:

	<b>Target</b>	<b>Actual</b>
Domestic Stocks	35.0%	34.3%
International Stocks	15.0%	14.6%
Bonds	45.0%	45.9%
Cash	5.0%	5.2%
	100.0%	100.0%

#### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Account</b>	<b>-3.9%</b>	<b>-0.3%</b>	<b>6.0%</b>	<b>6.9%</b>	<b>--</b>
Benchmark*	-3.9%	-0.6%	5.6%	6.5%	--

\* The benchmark for this account is 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Barclays Aggregate, 5% 3 Month T-Bills.

Note: All periods over one year are annualized.



## DEFERRED COMPENSATION PLAN ACCOUNTS

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

Participants choose from 4 actively managed mutual funds, 5 passively managed mutual funds and 11 target retirement fund options.

The SBI also offers a money market option and a stable value option. All provide for daily pricing needs of the plan administrator. Participants may also choose from hundreds of funds in a mutual fund window. The current plan structure became effective July 1, 2011. The investment options and objectives are outlined below.

On September 30, 2015, the market value of the entire Fund was \$5.5 billion.

### Investment Options

	<b>9/30/15 Market Value (In Millions)</b>
Vanguard Index Institutional Plus Shares (passive)	\$919.2
Janus Twenty (active)	\$500.4
Vanguard Mid Cap Index Institutional Shares (passive)	\$407.3
T. Rowe Price Small-Cap Stock (active)	\$536.7
Fidelity Diversified International (active)	\$267.6
Vanguard Total International Stock Index Institutional Plus (passive)	\$146.4
Vanguard Balanced Index Institutional Shares (passive)	\$653.8
Dodge & Cox Income Fund (active)	\$201.4
Vanguard Total Bond Market Index Institutional Shares (passive)	\$190.7
SIF Money Market Fund	\$60.7
SIF Stable Value Fund	\$1,301.6
State Street Global Advisors MN Target Retirement Funds	\$301.6
Income Fund	\$68.2
2020 Fund	\$71.2
2025 Fund	\$55.1
2030 Fund	\$34.4
2035 Fund	\$27.7
2040 Fund	\$16.6
2045 Fund	\$12.2
2050 Fund	\$8.0
2055 Fund	\$3.9
2060 Fund	\$4.4

## DEFERRED COMPENSATION PLAN ACCOUNTS

### LARGE CAP EQUITY

#### Vanguard Index Institutional Plus (passive)

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

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-6.4%</b>	<b>-0.6%</b>	<b>12.4%</b>	<b>13.3%</b>
S&P 500	-6.4%	-0.6%	12.4%	13.3%

#### Janus Twenty (active)

A concentrated fund of large cap stocks which is expected to outperform the S&P 500, over time.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-5.4%</b>	<b>1.2%</b>	<b>11.5%</b>	<b>11.2%</b>
S&P 500	-6.4%	-0.6%	12.4%	13.3%

### MID CAP EQUITY

#### Vanguard Mid Cap Index (passive)

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

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-7.5%</b>	<b>1.7%</b>	<b>14.7%</b>	<b>13.6%</b>
CRSP U.S. Mid Cap	-7.4%	1.8%	14.8%	13.7%

### SMALL CAP EQUITY

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

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

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-10.3%</b>	<b>0.9%</b>	<b>11.4%</b>	<b>13.5%</b>
Russell 2000	-11.9%	1.2%	11.0%	11.7%

### INTERNATIONAL EQUITY

#### Fidelity Diversified International (active)

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

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-9.5%</b>	<b>-2.7%</b>	<b>7.8%</b>	<b>5.8%</b>
MSCI EAFE	-10.2%	-8.7%	5.6%	4.0%

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

A fund that seeks to track the investment performance of the MSCI All Country World ex USA Investable Market Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-11.6%</b>	<b>-10.7%</b>	<b>3.2%</b>	<b>--</b>
ACWI ex USA IMI	-11.8%	-10.9%	3.2%	--

Note: All periods over one year are annualized.

## DEFERRED COMPENSATION PLAN ACCOUNTS

### LARGE CAP EQUITY

#### Vanguard Balanced Index (passive)

A fund that passively invests in a mix of domestic stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP US Total Market Index/40% Barclays Aggregate.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-3.8%</b>	<b>1.0%</b>	<b>8.2%</b>	<b>9.4%</b>
Benchmark	-3.9	1.0	8.2	9.3

### FIXED INCOME

#### Dodge & Cox Income Fund (active)

A fund that invests primarily in investment grade securities in the U.S. bond market which is expected to outperform the Barclays Aggregate, over time.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>-0.8%</b>	<b>0.2%</b>	<b>2.1%</b>	<b>3.6%</b>
Barclays Agg	1.2%	2.9%	1.7%	3.1%

#### Vanguard Total Bond Market Index (passive)

A fund that passively invests in a broad, market weighted bond index that is expected to track the Barclays Aggregate.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
	<b>Fund</b>	<b>1.2%</b>	<b>2.8%</b>	<b>1.6%</b>
Barclays Agg	1.2%	2.9%	1.7%	3.1%

#### SIF Money Market Fund

A fund that invests in short-term debt instruments which is expected to outperform the return on 3-month U.S. Treasury Bills.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
	<b>Fund</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.2%</b>
3-Mo. Treas.	0.0%	0.0%	0.1%	0.1%

### SIF STABLE VALUE FUND

A portfolio composed of stable value instruments which are primarily investment contracts and security backed contracts. The fund is expected to outperform the return of the 3 year Constant Maturity Treasury +45 basis points, over time.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	<b>0.5%</b>	<b>1.9%</b>	<b>2.0%</b>	<b>2.5%</b>
Benchmark	0.4%	1.4%	1.2%	1.1%

### MN TARGET RETIREMENT ACCOUNTS

Target retirement funds offer a mix of investments that are adjusted over time to reduce risk and become more conservative as the target retirement date approaches.

**See the "Performance Summaries" section of the Public Markets, Non-Retirement, and Defined Contribution Report.**

Note: All periods over one year are annualized.

## MN COLLEGE SAVINGS PLAN ACCOUNTS

The Minnesota College Savings Plan is an education savings plan designed to help families set aside funds for future college costs. The SBI is responsible for the investments and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan.

The SBI and OHE contract jointly with TIAA-CREF to provide administrative, marketing, communication, recordkeeping and investment management services.

On September 30, 2015, the market value of the entire Fund as \$1.1 billion.

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### Investment Options

**9/30/15  
Market Value  
(In Millions)**

#### Age Based Managed Allocation

Age Band 0-4 Years	\$22.8
Age Band 5-8 Years	\$73.8
Age Band 9-10 Years	\$76.9
Age Band 11-12 Years	\$102.0
Age Band 13-14 Years	\$119.2
Age Band 15 Years	\$58.3
Age Band 16 Years	\$58.4
Age Band 17 Years	\$52.1
Age Band 18 Years and over	\$131.2

#### Risk Based Managed Allocations

Aggressive	\$5.7
Moderate	\$47.5
Conservative	\$3.1

#### Static Options:

U.S. Large Cap Equity	\$5.4
International Equity	\$2.1
U.S. and International Equity	\$256.6
Equity and Interest Accumulation	\$0.9
100% Fixed Income	\$9.9
Money Market	\$7.5
Principal Plus Interest	\$101.3

## MN COLLEGE SAVINGS PLAN ACCOUNTS

### AGE-BASED MANAGED ALLOCATIONS

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

See the "Performance Summaries" section of the Public Markets, Non-Retirement, and Defined Contribution Report.

### RISK BASED ALLOCATIONS

The Risk Based Allocation Option offers three separate allocation investment options: Aggressive, Moderate and Conservative, which have a fixed risk level and does not change as the Beneficiary ages.

See the "Performance Summaries" section of the Public Markets, Non-Retirement, and Defined Contribution Report.

### U.S. LARGE CAP EQUITY INDEX

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

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-6.5%	-0.9%	--	--
S&P 500	-6.4%	-0.6%	--	--

### INTERNATIONAL EQUITY INDEX

A fund that passively invests in a mix of developed and emerging market equities. The fund is expected to track a weighted benchmark of 80% MSCI ACWI World ex USA and 20% Emerging Markets Free Index.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-11.5%	-10.3%	--	--
Benchmark	-12.0%	-11.0%	--	--

### U.S. AND INTERNATIONAL EQUITY INDEX

A fund that invests in a mix of equities, both U.S. and international, across all capitalization ranges and real estate-related securities. The fund is expected to track a weighted benchmark of 60% Russell 3000, 24% International, 6% Emerging Markets, and 10% Real Estate Securities Fund.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-7.5%	-2.3%	9.4%	10.2%
Benchmark	-7.8%	-2.7%	9.6%	10.4%

Note: All periods over one year are annualized.

## MN COLLEGE SAVINGS PLAN ACCOUNTS

### EQUITY AND INTEREST ACCUMULATION

A fund that passively invests half of the portfolio in equities across all capitalization ranges and the other half in a funding agreement. The fund is expected to track a weighted benchmark of 50% Russell 3000 and 50% 3-month T-Bill.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	-3.6%	0.3%	--	--
<b>Benchmark</b>	-3.6%	-0.1%	--	--

### 100% FIXED INCOME

A fund that passively invests in fixed income holdings that tracks the Barclays Aggregate and two active funds that invest in inflation-linked bonds and high yield securities. The fund is expected to track a weighted benchmark of 70% Barclays Aggregate, 20% inflation-linked bond, and 10% high yield.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	0.2%	1.5%	0.2%	2.3%
<b>Benchmark</b>	0.2%	1.7%	0.7%	2.9%

### MONEY MARKET

An active fund that invests in high-quality, short-term money market instruments of both domestic and foreign issuers that tracks the iMoneyNet Average All Taxable benchmark.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	0.0%	0.0%	0.0%	0.0%
<b>iMoney Net Average All Taxable</b>	0.0%	0.0%	0.0%	0.0%

### PRINCIPAL PLUS INTEREST OPTION

A passive fund where contributions are invested in a Funding Agreement issued by TIAA-CREF Life. The funding agreement provides for a return of principal plus a guaranteed rate of interest which is made by the insurance company to the policyholder, not the account owners. The account is expected to outperform the return of the 3-month T-Bill.

	Periods Ended 9/30/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Fund</b>	0.3%	1.3%	1.3%	1.7%
<b>3-Month T-Bill</b>	0.0%	0.0%	0.0%	0.1%

Note: All periods over one year are annualized.

## ASSIGNED RISK PLAN

### Investment Objectives

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

### Asset Mix

The Assigned Risk Plan is invested in a portfolio of common stocks and bonds. The actual asset mix will fluctuate in response to changes in the Plan's liability stream.

	9/30/15 Target	9/30/15 Actual
Stocks	20.0%	18.3%
Bonds	80.0%	81.7%
Total	100.0%	100.0%

### Investment Management

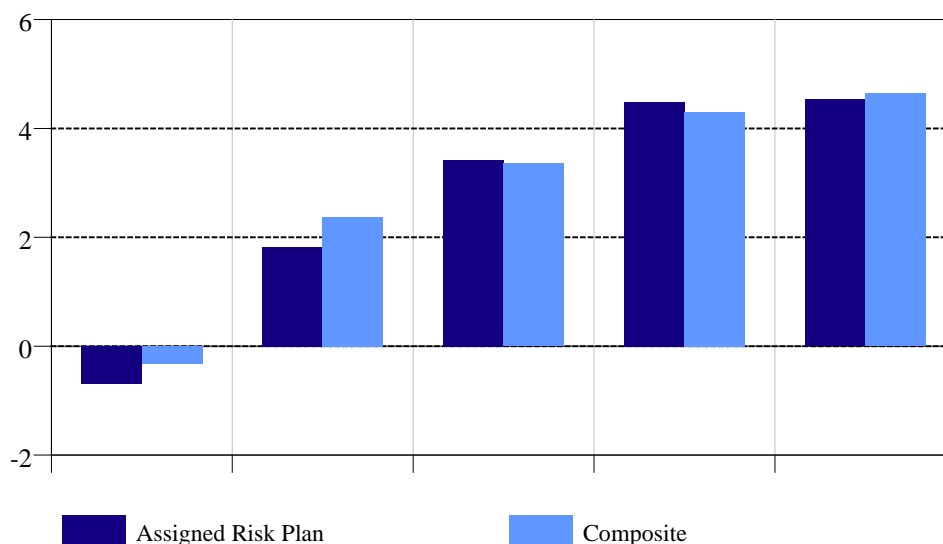
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

### Performance Benchmarks

Since July 1, 2011, the fixed income benchmark has been the Barclays Capital Intermediate Government Index. Since July 1, 1994, the equity benchmark has been the S&P 500 index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets.

### Market Value

On September 30, 2015 the market value of the Assigned Risk Plan was \$288 million.



### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Fund*</b>	<b>-0.7%</b>	<b>1.8%</b>	<b>3.4%</b>	<b>4.5%</b>	<b>4.5%</b>
Composite	-0.3%	2.4%	3.4%	4.3%	4.6%
<b>Equity Segment*</b>	<b>-8.2%</b>	<b>-3.4%</b>	<b>12.1%</b>	<b>12.3%</b>	<b>6.9%</b>
S&P 500	-6.4%	-0.6%	12.4%	13.3%	6.8%
<b>Bond Segment*</b>	<b>1.2%</b>	<b>3.0%</b>	<b>1.1%</b>	<b>2.2%</b>	<b>3.7%</b>
Barclays Int Gov Index	1.2%	3.0%	1.1%	2.0%	3.9%

\* Actual returns are calculated net of fees.

Note: All periods over one year are annualized.

## PERMANENT SCHOOL FUND

### Investment Objectives

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

### Asset Mix

Effective with FY98, the Permanent School Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds provide portfolio diversification and a more stable stream of current income.

	9/30/15 Target	9/30/15 Actual
Stocks	50.0%	49.3%
Bonds	48.0%	48.7%
Cash	2.0%	2.1%
Total	100.0%	100.0%

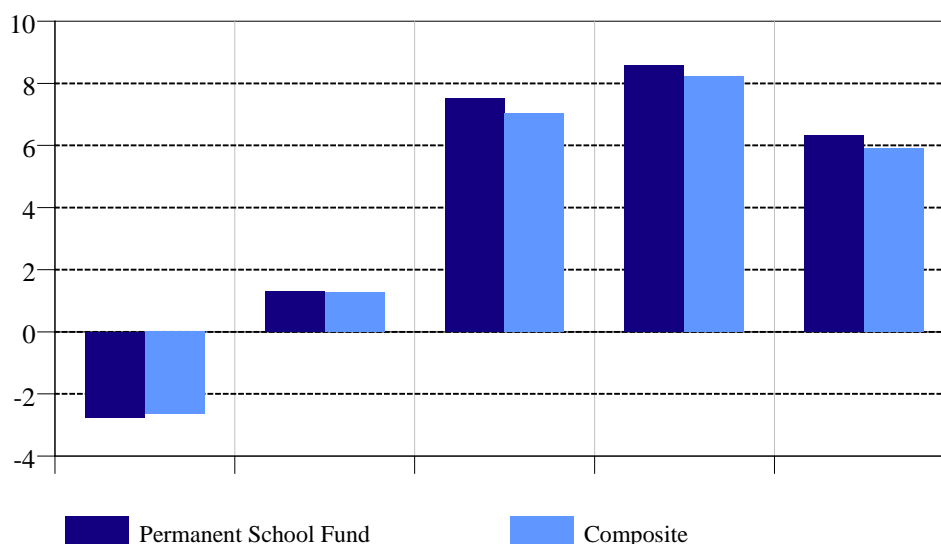
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

### Investment Management

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

### Market Value

On September 30, 2015 the market value of the Permanent School Fund was \$1.1 billion.



	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Fund*</b>	<b>-2.8%</b>	<b>1.3%</b>	<b>7.5%</b>	<b>8.6%</b>	<b>6.3%</b>
Composite	-2.6%	1.3%	7.0%	8.2%	5.9%
<b>Equity Segment*</b>	<b>-6.4%</b>	<b>-0.5%</b>	<b>12.4%</b>	<b>13.3%</b>	<b>6.8%</b>
S&P 500	-6.4%	-0.6%	12.4%	13.3%	6.8%
<b>Bond Segment*</b>	<b>1.1%</b>	<b>3.2%</b>	<b>2.7%</b>	<b>3.6%</b>	<b>5.3%</b>
Barclays Agg	1.2%	2.9%	1.7%	3.1%	4.6%

\* Actual returns are calculated net of fees.

Note: All periods over one year are annualized.



## ENVIRONMENTAL TRUST FUND

### Investment Objectives

The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending.

### Asset Mix

The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. As of July 1, 1999, the asset allocation changed from 50% stocks/50% fixed income to 70% stocks/30% fixed income.

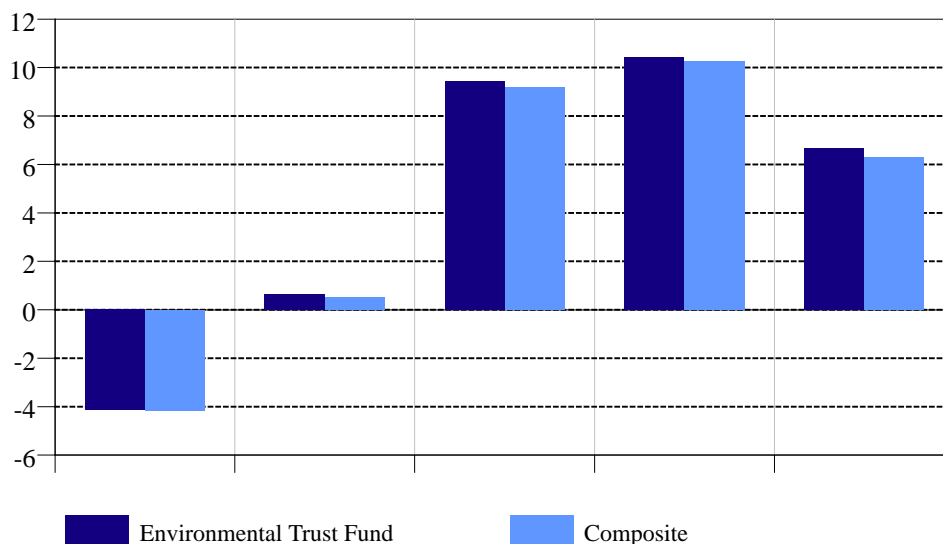
	9/30/15 Target	9/30/15 Actual
Stocks	70.0%	68.3%
Bonds	28.0%	29.6%
Cash	2.0%	2.1%
Total	100.0%	100.0%

### Investment Management

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

### Market Value

On September 30, 2015 the market value of the Environmental Trust Fund was \$852 million.



	Periods Ended 9/30/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Fund*</b>	<b>-4.1%</b>	<b>0.6%</b>	<b>9.5%</b>	<b>10.4%</b>	<b>6.7%</b>
Composite	-4.2%	0.5%	9.2%	10.3%	6.3%
<b>Equity Segment*</b>	<b>-6.4%</b>	<b>-0.5%</b>	<b>12.4%</b>	<b>13.3%</b>	<b>6.9%</b>
S&P 500	-6.4%	-0.6%	12.4%	13.3%	6.8%
<b>Bond Segment*</b>	<b>1.1%</b>	<b>3.2%</b>	<b>2.7%</b>	<b>3.6%</b>	<b>5.2%</b>
Barclays Agg	1.2%	2.9%	1.7%	3.1%	4.6%

\* Actual returns are calculated net of fees.

Note: All periods over one year are annualized.

## CLOSED LANDFILL INVESTMENT FUND

### Investment Objectives

The investment objective of the Closed Landfill Investment Fund is to increase the market value of the Fund and to reduce volatility to meet future expenditures. By statute, the assets of the Fund are unavailable for expenditure until after the fiscal year 2020 to pay for long-term costs of maintaining the integrity of landfills in Minnesota once they are closed.

### Asset Mix

The Closed Landfill Investment Fund is invested in a balanced portfolio of 70% common stocks and 30% bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. From July of 1999 to September of 2014 the Closed Landfill Investment Fund was invested entirely in common stock.

	9/30/15 Target	9/30/15 Actual
Stocks	70.0%	68.2%
Bonds	30.0%	31.8%
Total	100.0%	100.0%

### Investment Management

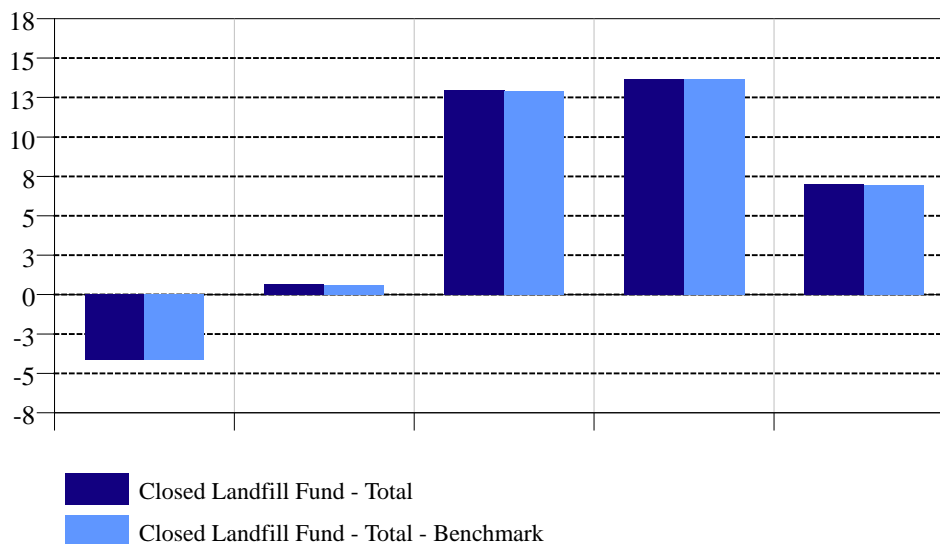
SBI staff manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500.

### Legislation

In FY 2011 \$48 million was transferred out of the general fund, leaving a balance of \$1 million in the account. Legislation was enacted in 2013 to replenish the principle and earnings back into the fund and in FY 2014 a repayment was made in the amount of \$64.2 million. In 2015 legislation was passed which repealed any further repayments..

### Market Value

On September 30, 2015, the market value of the Closed Landfill Investment Fund was \$66 million.



### Periods Ended 9/30/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Total Fund (1)</b>	<b>-4.1%</b>	<b>0.7%</b>	<b>12.9%</b>	<b>13.7%</b>	<b>7.0%</b>
<b>Composite (3)</b>	<b>-4.2%</b>	<b>0.6%</b>	<b>12.9%</b>	<b>13.7%</b>	<b>7.0%</b>
<b>Equity Segment (1)</b>	<b>-6.4%</b>	<b>-0.5%</b>	<b>12.4%</b>	<b>13.3%</b>	<b>6.9%</b>
<b>S&amp;P 500</b>	<b>-6.4%</b>	<b>-0.6%</b>	<b>12.4%</b>	<b>13.3%</b>	<b>6.8%</b>
<b>Bond Segment (1,2)</b>	<b>1.1%</b>	<b>3.2%</b>	--	--	--
<b>Barclays Agg</b>	<b>1.2%</b>	<b>2.9%</b>	--	--	--

(1) Actual returns are calculated net of fees.

(2) Bond Segment admission date 9/10/14. Returns to be reported upon first full quarter of history (12/31/2014)

(3) The benchmark of the fund is the S&P 500 from mid July 1999 to 9/9/14. As of 9/10/14 the benchmark consist of S&P 500 (70%) and Barclays Aggregate (30%).

Note: All periods over one year are annualized.

## STATE CASH ACCOUNTS

### Description

State Cash Accounts represent the balances in more than 400 separate accounts that flow through the Minnesota State Treasury. These accounts vary greatly in size.

Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and non-dedicated cash in the State treasury.

In addition, each State of Minnesota bond sale requires two additional pools, one for bond proceeds and one for debt reserve transfer.

Because of special legal restrictions, a small number of cash accounts cannot be commingled. These accounts are invested separately.

### Investment Objectives

**Safety of Principal.** To preserve capital.

**Liquidity.** To meet cash needs without the forced sale of securities at a loss.

**Competitive Rate of Return.** To provide a level of current income consistent with the goal of preserving capital.

### Asset Mix

The SBI maximizes 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, and certificates of deposit.

### Investment Management

All state cash accounts are managed by SBI investment staff. As noted above, most of the assets of the cash accounts are invested through the large commingled investment pool.

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	Period Ending 9/30/15					
	Market Value (Millions)	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Treasurer's Cash Pool*	\$8,595	0.1%	0.6%	0.5%	0.5%	2.0%
Custom Benchmark**		0.0%	0.0%	0.0%	0.0%	1.2%
3 month T-Bills		0.0%	0.0%	0.1%	0.1%	1.3%

\* Actual returns are calculated net of fees.

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

**MINNESOTA STATE BOARD OF INVESTMENT**  
**Composition of State Investment Portfolios By Type of Investment**  
**Market Value September 30, 2015 (in Thousands)**

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>COMBINED RETIREMENT FUNDS</b>								
Teachers Retirement Fund	376,257 1.97%	0	4,830,624 25.19%	0	8,783,361 45.81%	2,696,649 14.06%	2,488,185 12.98%	19,175,076 100%
Public Employees Retirement Fund	338,473 2.02%	0	4,210,977 25.18%	0	7,656,678 45.78%	2,350,737 14.05%	2,169,014 12.97%	16,725,879 100%
State Employees Retirement Fund	218,726 2.00%	0	2,758,344 25.18%	0	5,015,403 45.79%	1,539,819 14.06%	1,420,783 12.97%	10,953,075 100%
Public Employees Police & Fire	138,215 2.00%	0	1,746,952 25.18%	0	3,176,424 45.79%	975,219 14.06%	899,830 12.97%	6,936,640 100%
Highway Patrol Retirement Fund	12,808 2.06%	0	156,841 25.17%	0	285,179 45.76%	87,555 14.05%	80,787 12.96%	623,170 100%
Judges Retirement Fund	3,968 2.42%	0	41,041 25.07%	0	74,624 45.59%	22,911 14.00%	21,140 12.92%	163,684 100%
Correctional Employees Retirement	18,910 2.20%	0	216,257 25.13%	0	393,213 45.70%	120,723 14.03%	111,391 12.95%	860,494 100%
Public Employees Correctional	10,126 2.15%	0	118,531 25.15%	0	215,522 45.72%	66,169 14.04%	61,054 12.95%	471,402 100%
Legislative Retirement Fund	37 1.78%	0	525 25.25%	0	954 45.89%	293 14.09%	270 12.99%	2,079 100%
PERA Minneapolis Retirement	40,762 5.10%	0	195,046 24.39%	0	354,650 44.34%	108,884 13.61%	100,466 12.56%	799,808 100%
<b>TOTAL COMBINED FUNDS</b>	1,158,282 2.04%	0	14,275,138 25.17%	0	25,956,008 45.77%	7,968,959 14.05%	7,352,920 12.97%	56,711,307 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>MINNESOTA SUPPLEMENTAL FUNDS</b>								
Balanced Fund	17,071 4.84%	131,703 37.38%	0	0	203,587 57.78%	0	0	352,361 100%
U.S. Stock Actively Managed Fund	0	0	0	0	201,334 100.00%	0	0	201,334 100%
Money Market Fund	287,848 100.00%	0	0	0	0	0	0	287,848 100%
U.S. Stock Index Fund	0	0	0	0	437,767 100.00%	0	0	437,767 100%
Bond Fund	0	0	126,855 100.00%	0	0	0	0	126,855 100%
Broad International Stock Fund	0	0	0	0	0	169,677 100.00%	0	169,677 100%
Stable Value Fund	0	0	196,779 100.00%	0	0	0	0	196,779 100%
Volunteer Firefighters Account	1,590 5.19%	0	14,075 45.88%	0	10,529 34.32%	4,487 14.62%	0	30,681 100%
<b>TOTAL SUPPLEMENTAL FUNDS</b>	306,509 17.00%	131,703 7.30%	337,709 18.73%	0	853,217 47.32%	174,164 9.66%	0	1,803,302 100%
<b>MN DEFERRED COMP PLAN</b>								
	63,072 1.15%	0	2,071,352 37.75%	0	2,869,202 52.29%	483,684 8.81%	0	5,487,310 100%
<b>TOTAL RETIREMENT FUNDS</b>								
	1,527,863 2.39%	131,703 0.21%	16,684,199 26.07%	0	29,678,427 46.37%	8,626,807 13.48%	7,352,920 11.49%	64,001,919 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
<b>ASSIGNED RISK PLAN</b>	1,629 0.57%	0	233,471 81.16%	0	52,550 18.27%	0	0	287,650 100%
<b>ENVIRONMENTAL FUND</b>	17,834 2.09%	252,438 29.62%	0	581,953 68.29%	0	0	0	852,225 100%
<b>PERMANENT SCHOOL FUND</b>	23,270 2.06%	550,979 48.67%	0	557,872 49.28%	0	0	0	1,132,121 100%
<b>CLOSED LANDFILL FUND</b>	0	21,047 31.83%	0	45,069 68.17%	0	0	0	66,116 100%
<b>MISCELLANEOUS TRUST FUND</b>	491 0.34%	62,884 43.76%	0	80,333 55.90%	0	0	0	143,708 100%
<b>Other Post Employment Funds (OPEB's)</b>	21,454 4.48%	72,811 15.21%	0	384,388 80.31%	0	0	0	478,653 100%
<b>TREASURERS CASH</b>	8,383,906 100.00%	0	0	0	0	0	0	8,383,906 100%
<b>MISCELLANEOUS STATE ACCOUNTS</b>	0	210,979 100.00%	0	0	0	0	0	210,979 100%
<b>MN COLLEGE SAVINGS PLAN</b>	7,519 0.66%	0	551,665 48.62%	0	403,086 35.53%	172,336 15.19%	0	1,134,606 100%
<b>TOTAL CASH AND NON-RETIREMENT</b>	8,456,103 66.64%	1,171,138 9.23%	785,136 6.19%	1,649,615 13.00%	455,636 3.59%	172,336 1.36%	0	12,689,964 100%
<b>GRAND TOTAL</b>	9,983,966 13.02%	1,302,841 1.70%	17,469,335 22.78%	1,649,615 2.15%	30,134,063 39.29%	8,799,143 11.47%	7,352,920 9.59%	76,691,883 100%

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# **EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT**

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DATE: November 25, 2015

TO: Members, State Board of Investment

FROM: **Mansco Perry III**

## **1. Reports on Budget and Travel**

A report on the SBI's administrative budget for the fiscal year to date through September 30, 2015 is included as **Attachment A**.

A report on travel for the period from July 1, 2015 – September 30, 2015 is included as **Attachment B**.

## **2. FY15 Audit Report**

The Legislative Auditor is working on the financial audit of SBI operations for FY15. We will inform you of the results upon completion of the audit.

## **3. Draft of FY15 Annual Report**

A draft of the SBI's annual report for FY15 will be distributed to the Board members/designees and IAC members in December.

## **4. Tentative Meeting Dates for Calendar 2016**

The quarterly meetings of the SBI are normally held in March, June, September and December. The dates for the IAC and SBI meetings for calendar 2016 are:

<b>IAC</b>	<b>SBI</b>
<b>Tuesday, February 16, 2016</b>	<b>Wednesday, March 2, 2016</b>
<b>Tuesday, May 17, 2016</b>	<b>Thursday, June 2, 2016</b>
<b>Tuesday, August 16, 2016</b>	<b>Thursday, September 8, 2016</b>
<b>Tuesday, November 15, 2016</b>	<b>Thursday, December 1, 2016</b>

Staff will confirm the availability of Board members for the above dates over the next few weeks.

## 5. Legislation

I will give a verbal update on the status of any legislative matters at the meeting.

## 6. Sudan Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.243 that requires SBI actions concerning companies with operations in Sudan. Staff receives periodic reports from the Empowering Responsible Investment (EIRIS) Conflict Risk Network (CRN) about the status of companies with operations in Sudan.

The SBI is restricted from purchasing stock in the companies designated as highest offenders by the CRN. Accordingly, staff updates the list of restricted stocks and notifies investment managers that they may not purchase shares in companies on the restricted list. Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the CRN list and writes letters as required by law.

According to the law, after 90 days following the SBI's communication, a company continues to have active business operations in Sudan, the SBI must divest holdings of the company according to the following schedule:

- at least 50% shall be sold within nine months after the company appeared on the Task Force list; and
- 100% shall be sold within fifteen months after the company appeared on the list.

In the third quarter, SBI managers divested 9,978 shares in companies on the divestment list.

**Attachment C** is a copy of the September 21, 2015 letter sent to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested.

**Attachment D** is an updated list of companies with operations in Sudan.

## 7. Iran Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.244 that requires SBI actions concerning companies with operations in Iran.

SBI receives information on companies with Iran operations from IW Financial, through Glass Lewis. Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the restricted list and writes letters as required by the law.

According to the law, if after 90 days following the SBI's communication a company continues to have scrutinized business operations, the SBI must divest all publicly traded securities of the company according to the following schedule:

- at least 50% shall be sold within nine months after the company appeared on the scrutinized list; and
- 100% within fifteen months after the company appeared on the scrutinized list.

In the third quarter, SBI was not required to divest any shares of companies on the divestment list.

**Attachment E** is a copy of the September 21, 2015 letter sent to each international equity manager and domestic equity manager and fixed income manager containing the end of quarter restricted list and the list of companies to be divested.

## **8. Litigation Update**

SBI legal counsel will give a verbal update on the status of any litigation at the meeting.



**ATTACHMENT A**

**STATE BOARD OF INVESTMENT  
FISCAL YEAR 2016 ADMINISTRATIVE BUDGET REPORT  
FISCAL YEAR TO DATE THROUGH SEPTEMBER 30, 2015**

<b>ITEM</b>	<b>FISCAL YEAR 2016 BUDGET</b>	<b>FISCAL YEAR 2016 9/30/2015</b>
<b>PERSONAL SERVICES</b>		
FULL TIME EMPLOYEES	\$ 4,591,000	\$ 1,039,190
PART TIME EMPLOYEES	\$ 0	\$ 0
MISCELLANEOUS PAYROLL	100,000	0
<b>SUBTOTAL</b>	<b>\$ 4,691,000</b>	<b>\$ 1,039,190</b>
<b>STATE OPERATIONS</b>		
RENTS & LEASES	282,000	70,975
REPAIRS/ALTERATIONS/MAINTENANCE	372,000	1,078
PRINTING & BINDING	7,000	2,370
PROFESSIONAL/TECHNICAL SERVICES	150,000	3,750
COMPUTER SYSTEMS SERVICES	20,000	2,321
COMMUNICATIONS	40,000	4,197
TRAVEL, IN-STATE	1,000	59
TRAVEL, OUT-STATE	119,000	12,507
SUPPLIES	122,000	5,615
EQUIPMENT	25,000	0
EMPLOYEE DEVELOPMENT	35,000	16,468
OTHER OPERATING COSTS	140,000	20,241
INDIRECT COSTS	250,000	49,306
<b>SUBTOTAL</b>	<b>\$ 1,563,000</b>	<b>\$ 188,887</b>
<b>TOTAL ADMINISTRATIVE BUDGET</b>	<b>\$ 6,254,000</b>	<b>\$ 1,228,077</b>



## ATTACHMENT B

### STATE BOARD OF INVESTMENT

#### Travel Summary by Date SBI Travel July 1, 2015 – September 30, 2015

<b>Purpose</b>	<b>Names(s)</b>	<b>Destination and Date</b>	<b>Total Cost</b>
<b>Conference:</b> Pacific Pension Institute	M. Perry	San Francisco 7/22-7/24	\$1,379.47
<b>Manager Search Alternative Investment Manager:</b> Brookfield Capital Partners	A. Krech	Toronto, Canada 7/23-7/24	\$775.59
<b>Manager Monitoring Alternative Investment Managers:</b> Gold Hill Capital; KKR; Silver Lake Partners <b>Manager Search Alternative Investment Manager:</b> TPG Capital	R. Hill	San Francisco, CA 7/26-7/28	\$2,055.14
<b>Conference:</b> Badger/Gopher Roundtable	A. Krech	Stevens Point, WI 7/30-7/31	\$331.02
<b>Manager Monitoring Alternative Investment Managers:</b> Adams Street Partners; Merit Capital Partners <b>Manager Search Alternative Investment Managers:</b> Madison Dearborn; Wind Point Partners	A. Krech	Chicago, IL 8/5-8/7	\$1,156.77
<b>Conference:</b> ABLE Forum (Achieving a Better Life Experience)	P. Ammann	Chicago, IL 8/6	\$359.31

**STATE BOARD OF INVESTMENT**  
**Travel Summary by Date**  
**SBI Travel July 1, 2015 – September 30, 2015**

<b>Purpose</b>	<b>Names(s)</b>	<b>Destination and Date</b>	<b>Total Cost</b>
<b>Conference:</b> The Carlyle Group 2015 Washington DC Investor Conference	M. Perry	Washington, DC 9/15-9/17	\$1,635.92
<b>Manager Search</b> <b>Alternative Investment</b> <b>Manager:</b> Lubert-Alder	A. Krech J. Stacy	Chicago, IL 9/21	\$673.85
<b>Conference:</b> National Association of State Investment Officers (NASIO)	M. Perry L. Stagg	Phoenix, AZ 9/27-9/30	\$992.06
<b>Manager Monitoring</b> <b>Alternative Investment</b> <b>Manager:</b> Energy & Minerals Group	A. Krech	Houston, TX 9/29-10/1	\$1,854.54
<b>Conference:</b> 2015 T. Rowe Price Investment Symposium	M. Ndungu	Baltimore, MD 9/30-10/2	\$1,718.28



## ATTACHMENT C

September 21, 2015

### Regarding: Sudan Companies

Dear Manager:

The Minnesota State Board of Investment (SBI) sent you prior communication concerning holdings in companies doing business in Sudan. **This new communication applies to all SBI equity portfolios managed by your organization and replaces all prior communications. This communication also applies to all depository receipts or ADR's of any of the listed companies.**

*Minnesota Statutes*, section 11A.243 requires the SBI to implement a Sudan restriction.

**Attachment 1** is the List of Restricted Sudan Stocks. **These securities may not be purchased for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached list makes changes to the List of Restricted Sudan Companies that was attached to the June 23, 2015 letter you received. **This new list is effective September 30, 2015.**

The following company has been **removed** from the Restricted List:

- **Statesman Resources Limited** **Canada**

**Attachment 2** is the List of Sudan Stocks Requiring Divestment.

The following company has been **added** to the Divestment List:

- **Shanghai Electric Group Co. Ltd.** **China**

**If you own securities of companies on the List of Sudan Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must divest those holdings according to the schedule provided in the Attachment:**

- At least 50 percent of a company's holdings must be sold by the date indicated, and
- At least 100 percent of a company's holdings must be sold by the date indicated.

**Attachment 3** is a list of security identifiers for the companies on the List of Restricted Sudan Stocks (**Attachment 1**) that your organization may use. The SBI does not represent that this is a complete list of identifiers. The manager is responsible for identifying all listings. Please note that the list of security identifiers may have information on companies not on the restricted list.

If you have any questions about this matter, please contact your assigned SBI Investment Officer or Mercy Ndungu.

Sincerely,

LeaAnn M. Stagg  
Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Director, Public Markets  
Tammy Brusehaver, Investment Officer, Public Markets  
Inma Conde Goldman, Investment Officer, Public Markets  
Stephanie Gleeson, Investment Officer, Public Markets  
Robert Weiler, Investment Officer, Public Markets  
Patricia Ammann, Investment Officer, DC & Trust Services  
Mercy Ndungu, Investment Officer, DC & Trust Services  
Nate Blumenshine, Investment Analyst

**ATTACHMENT 1**

<b>Restricted Sudan Stocks</b>	
<b>Company Name</b>	<b>Country of Origin</b>
Andritz AG	Austria
Orca Gold Inc.	Canada
AKM Industrial Company Limited	China
China Gezhouba Group Company Limited	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
China Petroleum and Chemical Corporation AKA Sinopec Corp.	China
China Poly Group Corporation	China
Daqing Huake Group Company Limited	China
Dongfeng Motor Group Company Limited	China
Harbin Electric Company Ltd.	China
Jiangxi Hongdu Aviation	China
Jinan Diesel Company Limited	China
Kingdream PLC	China
NORINCO International Cooperation Ltd	China
North Huajin Chemical Industries Co.	China
North Navigation Control Technology Co. Ltd	China
Petrochina Co. Ltd AKA China National Petroleum Corporation (CNPC)	China
Poly Property Group Co. Ltd.	China
Power Construction Corporation of China Ltd.	China
Shanghai Electric Group Co. Ltd.	China
Sichuan Nitrocell Co. Ltd	China
Sinopec Engineering Group Co. Ltd.	China
Sinopec Shanghai Petrochemicals Ltd	China
Sinopec Yizheng Chemical Fibre Co Ltd	China
ASEC Company for Mining (ASCOM)	Egypt
Egypt Kuwait Holding Company	Egypt
Alstom	France
MAN SE	Germany
Renk AG	Germany
Volkswagan AG	Germany
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Alstom India Ltd	India
Alstom T&D India Ltd. (formerly Areva T&D India)	India
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Indian Oil Corporation Ltd.	India
Lanka IOC Limited	India
Mangalore Refinery and Petrochemicals Limited	India
Oil and Natural Gas Corp. Ltd.	India
Oil India Limited	India

## ATTACHMENT 1

### Restricted Sudan Stocks

Company Name	Country of Origin
Energy House Holding Co KSCC, The	Kuwait
Engen Botswana Ltd. AKA Engen	Malaysia
KLCCP Stapled Group AKA KLCC Property Holdings	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petroliam Nasional Berhad AKA Petronas	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia
Petronas Gas Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Scomi Engineering Berhad	Malaysia
Scomi Group Berhad	Malaysia
Managem	Morocco
Societe Metallurgique D'imiter	Morocco
GAZ Auto Plant	Russia
GAZ Group	Russia
Pavlovsky Bus Plant	Russia
LS Industrial Systems	South Korea

Note: List contains parent companies and subsidiaries publicly traded.  
AKA means "Also Known As"

Source: EIRIS Conflict Risk Network

Effective Date: September 30, 2015

## ATTACHMENT 2

### **Sudan Stocks Requiring Divestment**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this date</b>
Volkswagen AG	Germany	June 30, 2015	December 31, 2015
Shanghai Electric Group Co. Ltd.	China	March 31, 2016	September 30, 2016

Effective Date: September 30, 2015

### **Historical Divestments**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this date</b>
China Petroleum and Chemical Corporation AKA Sinopec Corp	China	April 30, 2008	October 31, 2008
PetroChina Company	China	April 30, 2008	October 31, 2008
Oil and Natural Gas Corp AKA ONGC	India	April 30, 2008	October 31, 2008
Malaysia International Shipping Company AKA MISC Berhad	Malaysia	April 30, 2008	October 31, 2008
Alstom	France	April 30, 2008	October 31, 2008
Dongfeng Motor Group Company Limited	China	March 31, 2011	September 30, 2011
Andritz AG	Austria	September 30, 2014	March 31, 2015
Bharat Electronics Limited	India	September 30, 2014	March 31, 2015
Bharat Heavy Electricals	India	September 30, 2014	March 31, 2015
MAN SE	Germany	December 31, 2014	June 30, 2015
Poly Property Group	China	March 31, 2015	September 30, 2015



ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XV	632305	B28F3F6 GB	AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	BX Wofidaps (XBRN)	Common Stock	ANDRITZ AG	ANDR BW	632305	BHLZ8M4 CH	AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	SIX Swiss Ex (XSWX)	Common Stock	ANDRITZ AG	ANDR SE	632305	BHLZ8M4 CH	AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	BX Wofidaps (XBRN)	Common Stock	ANDRITZ AG	ANDR SW	632305	BHLZ8M4 CH	AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XO	632305		AT0000730007	A11123105
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XS	632305		AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	Euro Comp (XLON)	Common Stock	ANDRITZ AG	ANDRCH EU	632305		AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	Blockmatch (BLOX)	Common Stock	ANDRITZ AG	ANDR B3	632305		AT0000730007	
ANDRITZ AG	ANDRITZ GROUP	Liquidnet (LIQU)	Common Stock	ANDRITZ AG	ANDR V3	632305		AT0000730007	
ANDRITZ AG	ANDRITZ GROUP	ITG Post (XPOS)	Common Stock	ANDRITZ AG	ANDR V0	632305		AT0000730007	013042748
ANDRITZ AG	ANDRITZ GROUP	UBS MTF (XUBS)	Common Stock	ANDRITZ AG	ANDR S2	632305		AT0000730007	
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTS)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY UV	094522102	B3DY4P2 US	US0345221024	096104871
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTS)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY PQ	094522102	B3DY4P2 US	US0345221024	
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTS)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY PQ	094522102	B3DY4P2 US	US0345221024	
ASEC COMPANY FOR MINING (ASCOM) aka ASEC COMPANY FOR MINING	ASEC COMPANY FOR MINING	EGX (KCAI)	Common Stock	ASEC CO FOR MINING	ASCM EC	A0078K	B04CCH2 EG	EGS10001C013	
ASEC COMPANY FOR MINING (ASCOM) aka ASEC COMPANY FOR MINING	ASEC COMPANY FOR MINING	EGX (KCAI)	Common Stock	ASEC CO FOR MINING	ASCM EY	A0078K	B04CCH2 EG	EGS10001C013	
ASEC COMPANY FOR MINING (ASCOM) aka ASEC COMPANY FOR MINING	ASEC COMPANY FOR MINING	EGX (KCAI)	Common Stock	ASEC CO FOR MINING	ASCM EY	A0078K	B04CCH2 EG	EGS10001C013	
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (NSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IB	120304	6139715 IN	INE263A01016	
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (NSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IN	120304	6139715 IN	INE263A01016	
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (NSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IS	120304	6139715 IN	INE263A01016	
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (NSE)	Second Lending	BHARAT ELECTRONICS LTD-SLB	BHE/S IN				
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (NSE)	Second Lending	BHARAT ELECTRONICS LTD-SLB	BHE/S IS				
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (NSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IB	A1JUKM	B6SNRV2 IN	INE257A01026	
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (NSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IN	A1JUKM	B6SNRV2 IN	INE257A01026	
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (NSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IS	A1JUKM	B6SNRV2 IN	INE257A01026	
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (NSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SLB	BHEL/S IN				
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (NSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SLB	BHEL/S IS				
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-	A0M31Z	600068 CG	6377214 CN	CNE000000GF1	
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-	A0M31Z	600068 CH	6377214 CN	CNE000000GF1	
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Nth SSE-SEHK (XSSE)	Common Stock	CHINA GEZHOUBA GROUP CO LT-	A0M31Z	600068 C1	BP3R693 CN	CNE000000GF1	
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	A1JNL6	601669 CG	B4TH690 CN	CNE1000017G1	
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	A1JNL6	601669 CH	B4TH690 CN	CNE1000017G1	
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Nth SSE-SEHK (XSSE)	Common Stock	SINOHYDRO GROUP LTD-A	A1JNL6	601669 C1	BP3R4M2 CN	CNE1000017G1	
DAGONG HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	A0IMC2	000985 CH	6277949 CN	CNE000001402	
DAGONG HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	A0IMC2	000985 CS	6277949 CN	CNE000001402	
JINAN DIESEL ENGINE CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	A0M3ZT	000817 CH	6486109 CN	CNE000000MS3	
JINAN DIESEL ENGINE CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	A0M3ZT	000817 CS	6486109 CN	CNE000000MS3	
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GB	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GD	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GF	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GM	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV8E	5387753 DE	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV8E	6340078 HK	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV8E	6340078 HK	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTS)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF PQ	A1CV8E	B01DD23 US	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTS)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF US	A1CV8E	B01DD23 US	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTS)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF UV	A1CV8E	B01DD23 US	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sth SSE-SEHK (SHSC)	Common Stock	KUNLUN ENERGY CO LTD	135 H1	A1CV8E	BP3RW39 HK	BMG5320C1082	050092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTS)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY PQ	A1JUV7	B3L2812 US	US50126A1016	

KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP	KLYCY US	A1JV7	B3L2812 US	50126A101	US50126A1016				
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP	KLYCY UV	A1JV7	B3L2812 US	50126A101	US50126A1016				
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GB	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GD	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GF	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GH	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GM	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GR	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GS	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 GY	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Quotrix Exch (XQTX)	Common Stock	PETROCHINA CO LTD-H	PO6 QT	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PO6 TH	A0MAYQ	5939507 DE		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0MAYQ	6226576 HK		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTS)	Common Stock	PETROCHINA CO LTD-H	PCCYF US	A0MAYQ	B01DNL9 US		CNE10000033W8	011014674			Y6883Q104
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTS)	Common Stock	PETROCHINA CO LTD-H	PCCYF UV	A0MAYQ	B01DNL9 US		CNE10000033W8	011014674			Y6883Q104
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sh SSE-SEHK (SHSE)	Common Stock	PETROCHINA CO LTD-H	857 H1	A0MAYQ	BP3RWW8 HK		CNE10000033W8	011014674			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CG	A0MAYQ	B28SLD9 CN		CNE1000007Q1	033421664			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	A0MAYQ	B28SLD9 CN		CNE1000007Q1	033421664			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	NH SSE-SEHK (XSSC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	A0MAYQ	BP3R206 CN		CNE1000007Q1	033421664			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UB	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UD	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UF	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UN	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UP	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR US	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UT	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UX	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VJ	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VK	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VY	936983	2568841 US	74646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GB	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GF	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GM	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GR	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GS	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GY	936983	4633327 DE	71646E100	US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD-ADR	PTR SP	936983	B3KT683 SG		US71646E1001	011511449			
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD-ADR	PC6A TH	936983	74646E100		US71646E1001	011511449			
AKMI INDUSTRIAL CO LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKMI INDUSTRIAL CO LTD	1639 HK	A0D86T	B021013 HK		HK8298013897	021553654			
AKMI INDUSTRIAL CO LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Berlin (XBER)	Common Stock	AKMI INDUSTRIAL CO LTD	AIQ GB	A0D86T	B06L0H3 DE		HK8298013897	021553654			
AKMI INDUSTRIAL CO LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Berlin (XBER)	Common Stock	AKMI INDUSTRIAL CO LTD	AIQ GR	A0D86T	B06L0H3 DE		HK8298013897	021553654			
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE000000VZ9				
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CS	A0M35W	6112125 CN		CNE000000VZ9				
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A	000059 CH	A0M30T	6796143 CN		CNE000000NY9				
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNCC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-A	000059 CS	A0M30T	6796143 CN		CNE000000NY9				



NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (NCG/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 CG	A0M4L5	6649846 CN	CNE000001F88
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (NCG/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 CH	A0M4L5	6649846 CN	CNE000001F88
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (NCG/NORINCO)	NH SSE-SEHK (XSSC)	Common Stock	NORTH NAVIGATION CONTROL T-A	600435 C1	A0M4L5	BP3RB54 CN	CNE000001F88
SICHUAN NITROCELL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (NCG/NORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO. LTD-A	002246 CH	A0RPGJ	B39G5K4 CN	CNE100000BW7
SICHUAN NITROCELL CO. LTD.	CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO. LTD-A	002246 CS	A0RPGJ	B39G5K4 CN	CNE100000BW7
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Buenos Aires (XBUE)	CEDEAR	CHINA PETROLEUM & CHEMICAL	SNP AF	B1C5SX8 AR	1694 R108	ARDEUT114071
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Buenos Aires (XBUE)	CEDEAR	CHINA PETROLEUM & CHEMICAL	SNP AR	B1C5SX8 AR	1694 R108	ARDEUT114071
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL	600028 CH	A0M4G4	6373728 CN	CNE0000018G1
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL	386 HK	A0M4XX	6291919 HK	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GB	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GD	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GF	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GH	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GM	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GR	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Frankfurt (XFR)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU GS	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Quotix Exch (QOTX)	Common Stock	CHINA PETROLEUM & CHEMICAL	CHU QT	A0M4XX	7027756 DE	CNE100002Q2
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	OTC US (OOTS)	Common Stock	CHINA PETROLEUM & CHEMICAL	SNPMF PQ	B01XKR4 US	1694 R108	Y15010104
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	OTC US (OOTS)	Common Stock	CHINA PETROLEUM & CHEMICAL	SNPMF US	B01XKR4 US	1694 R108	Y15010104
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	OTC US (OOTS)	Common Stock	CHINA PETROLEUM & CHEMICAL	SNPMF UV	B01XKR4 US	1694 R108	Y15010104
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Sh SSE-SEHK (SHSC)	Common Stock	CHINA PETROLEUM & CHEMICAL	386 H1	B01XKR4 US	1694 R108	Y15010104
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL	600028 CG	A0M4G4	6373728 CN	CNE1000018G1
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	NH SSE-SEHK (XSSC)	Common Stock	CHINA PETROLEUM & CHEMICAL	600028 C1	A0M4G4	6373728 CN	CNE1000018G1
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UB	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UD	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UF	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UM	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UN	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UP	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP US	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UT	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP UX	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP VJ	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP VK	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL	SNP VY	578971	2639189 US	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA GB	578971	BORSW00 DE	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA GF	578971	BORSW00 DE	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA GM	578971	BORSW00 DE	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA GR	578971	BORSW00 DE	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA GS	578971	BORSW00 DE	US16941R1086
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEMICAL	CHUA TH	578971	BORSW00 DE	US16941R1086
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CH	A0M37A	6136385 CN	CNE000000XXK7
KINGDREAM PLC	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CS	A0M37A	6136385 CN	CNE000000XXK7
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC CORP	Sh SSE-SEHK (SHSC)	Common Stock	SINOPEC ENGINEERING GROUP	2386 H1	A1T97T	B92NYC9	CNE100001NV2











SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	A	600835 CG	A0M654	6755851 CN	CNE000000B91
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	A	600835 CH	A0M654	6755851 CN	CNE000000B91
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Nfr SSE-SEHK (XSSE)	Common Stock	A	600835 C1	A0M654	BP3R707 CN	CNE000000B91
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	B	900825 CG	A0M3UQ	6797436 CN	916599 CNE000000G39 0320999050
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	B	900825 CH	A0M3UQ	6797436 CN	916599 CNE000000G39 0320999050





## ATTACHMENT D

### EIRIS Conflict Risk Network (CRN) List of "Scrutinized" Companies in Sudan List Effective September 30, 2015

Company Name	Country of Origin
<b>Alstom</b>	France
Alstom India Ltd	France
Alstom T&D India Ltd.	France
<b>Andritz AG</b>	Austria
<b>ASEC Company for Mining</b>	Egypt
<b>Bharat Electronics Limited</b>	India
<b>Bharat Heavy Electricals Limited</b>	India
<b>Caterpillar Inc.</b>	US
<b>China Gezhouba Group Company Ltd.</b>	China
<b>China Hydraulic and Hydroelectric Construction Group (Sinohydro)</b>	China
Power Construction Corporation of China Ltd.	China
PowerChina Hydropower Development Group Ltd.	China
Sinohydro Bureau 7 Co. Ltd.	China
Sinohydro Engineering Bureau 8 Co. Ltd	China
<b>China National Petroleum Corporation</b>	China
CNPC General Capital Ltd.	China
CNPC HK Overseas Capital Ltd.	China
Daqing Huake Group Co. Ltd.	China
Jinan Diesel Engine Co. Ltd.	China
Kunlun Energy Co. Ltd.	China
PetroChina Co. Ltd.	China
<b>China North Industries Group Corporation</b>	China
AKM Industrial Co. Ltd.	China
NORINCO International Cooperation Ltd.	China
North Huajin Chemical Industries	China
North Navigation Control Technology Co. Ltd	China
Sichuan Nitrocell Co. Ltd	China
<b>China Petrochemical Corporation (Sinopec Group)</b>	China
China Petroleum and Chemical Corporation a.k.a. Sinopec Corp	China
Kingdream PLC	China
Sinopec Capital 2013 Ltd.	China
Sinopec Engineering Group Co. Ltd.	China
Sinopec Group Overseas Development 2012 Ltd.	China
Sinopec Group Overseas Development 2013 Ltd.	China
Sinopec Kanton Holdings Ltd.	China
Sinopec Shanghai Petrochemicals Ltd.	China
Sinopec Yizheng Chemical Fibre Co. Ltd.	China
<b>China Poly Group Corporation</b>	China
Poly Energies Holding Co. Ltd.	China
Poly Property Group Co. Ltd.	China
<b>Dongfeng Motor Group Co. Ltd.</b>	China
<b>Egypt Kuwait Holding Company</b>	Egypt
<b>Energy House Holding Co. K.S.C.C., The</b>	Kuwait
<b>GAZ Group</b>	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
<b>Glencore PLC</b>	Switzerland
Glencore Canada Corp.	Switzerland
Glencore Canada Financial Corp.	Switzerland
Glencore Finance Canada Ltd.	Switzerland
Glencore Finance Dubai Ltd.	Switzerland
Glencore Finance Europe	Switzerland
Glencore Funding LLC	Switzerland
Viterra Inc.	Switzerland
<b>Harbin Electric Company Ltd.</b>	China
<b>Indian Oil Corporation Ltd.</b>	India
Chennai Petroleum Corporation Ltd.	India
Lanka IOC PLC	India
<b>Jiangxi Hongdu Aviation Industry Co. Ltd.</b>	China
<b>JX Holdings Inc.</b>	Japan
Eneos Globe Company	Japan
Nippo Corp.	Japan
Toho Titanium Co.	Japan
<b>LS Industrial Systems</b>	South Korea

<b>MAN SE</b>	
Renk AG	Germany
Volkswagen AG	Germany
<b>Managem</b>	Germany
ONA S.A.	Morocco
Societe Metallurgique D'imiter	Morocco
<b>Oil and Natural Gas Corporation Limited</b>	Morocco
Mangalore Refinery and Petrochemicals Ltd. a.k.a MRPL	India
ONGC Videsh Limited a.k.a OVL	India
<b>Oil India Ltd.</b>	India
<b>Orca Gold Inc.</b>	India
<b>Pertamina Persero PT</b>	Canada
<b>Petroliam Nasional Berhad (Petronas)</b>	Indonesia
Engen Botswana Ltd.	Malaysia
Gas District Cooling Putrajaya Sdn Bhd	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company a.k.a MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petronas Capital Ltd.	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Bhd	Malaysia
Petronas Gas Bhd	Malaysia
Putrajaya Holdings Sdn Bhd	Malaysia
<b>Reliance Industries Ltd.</b>	India
Network 18 Media & Investments Ltd.	India
Reliance Holdings USA Inc	India
Reliance Jio Infocomm Ltd.	India
TV18 Broadcast Ltd.	India
<b>Scomi Group Berhad</b>	India
KMCOB Capital Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Scomi Engineering Berhad	Malaysia
<b>Shanghai Electric Group Co. Ltd.</b>	Malaysia
Shanghai Electric Group Corp.	China
Shanghai Mechanical and Electrical Industry Co. Ltd.	China
<b>Trafigura Beheer</b>	China
	Netherlands

Note: List contains parent companies and subsidiaries publicly traded

**EIRIS Conflict Risk Network (CRN) List of Companies in Sudan for "Substantial Action"**  
**List Effective September 30, 2015**

<b><u>Company Name</u></b>	<b><u>Country of Origin</u></b>
Atlas Copco AB	Sweden
Wartsila OYJ	Finland

**EIRIS Conflict Risk Network (CRN) List of Companies in Sudan with "No Publicly Traded Equity"**  
**or "Not Relevant under the CRN Targeted Divestment Model"**  
**List Effective September 30, 2015**

<b><u>Company Name</u></b>	<b><u>Country of Origin</u></b>
Abdel Hadi Abdullah Al-Qahtani & Sons Group of Companies	Saudi Arabia
Abdel Moniem International Petroleum Co. Ltd. (Petromoniem)	Sudan
ACES (Arab Center for Engineering Studies) Khartoum	Jordan
Africa Energy Sa Nigeria Ltd.	Nigeria
Ansan Wikfs Investments Ltd.	Yemen
Antonov	Ukraine
APS Engineering Company Roma S.p.A.	Italy
Arcadia Petroleum Ltd.	UK
Ariab Mining Company	Sudan
Blue Coat Systems	USA
China International Water & Electric Corporation	China
Concorp Petroleum Limited	Sudan
Daedong Industrial Machinery Co., Ltd	South Korea
Dindir Petroleum International	Jordan
European Marmot Co. Group	Switzerland
Express Petroleum and Gas Company	Nigeria
GIAD Motor Co Ltd.	Sudan
Hemia II AS	Norway
Hi-Tech Petroleum Group Co., Ltd.	Sudan
HTC Yemen International Ltd.	Yemen
IGS (International Geoscience Services) Ltd.	United Kingdom
MAM Holding Group Co. Ltd.	Sudan
Mott MacDonald	UK
Niel Petroleum S.A.	Luxembourg
Petroneeds Service International Company	Sudan
PetroTrans Company Ltd.	Hong Kong
Quest Qualitas FZCO	United Arab Emirates
RAM Energy	Sudan
SFTUE Belspetsvneshtchnika	Belarus
Shandong Electric Power Construction Corporation	China
SMEC Holdings Limited	Australia
Soma Group	Turkey
Star Petroleum S.A.	Spain
STR Projetos e Participacoes	Brazil
Sudanese Petroleum Pipeline Holding Co. Ltd.	Sudan
Sudan Petroleum Corporation (Sudapet)	Sudan
Sudatel Telecom Group Limited	Sudan
Toro Gold Ltd.	UK
UAE for Gold Minerals and Investment Company Ltd.	United Arab Emirates
Vitol Group	Switzerland

Source: EIRIS Conflict Risk Network (August 31, 2015)

## ATTACHMENT E

September 21, 2015

### Regarding: Iran Companies

Dear Manager:

The Minnesota State Board of Investment (SBI) sent you prior communication concerning holdings in companies doing business in Iran. **This new communication applies to all SBI equity portfolios managed by your organization and replaces all prior communications. This communication also applies to all depository receipts or ADR's of any of the listed companies.**

*Minnesota Statutes*, section 11A.244, requires the Minnesota State Board of Investment (SBI) to implement an Iran restriction.

**Attachment 1** is the List of Restricted Iran Companies. **These securities may not be purchased for the SBI portfolio that your organization manages.** If you own securities of companies on the Restricted List **and** the companies are **not** on the divestment list, then you do not need to sell your holdings. Please note that the attached list makes changes to the List of Restricted Iran Companies that was attached to the June 23, 2015 letter you received. **This new list is effective September 30, 2015.**

The following companies have been **added** to the Restricted List:

- **GS Engineering & Construction Corp**      **South Korea**
- **Toyo Engineering Corporation**      **Japan**

The following companies have been **removed** from the Restricted List:

- **Harbin Electric Company Ltd.**      **China**
- **Marie Tecnimont S.p.A.**      **Italy**

**Attachment 2** is the List of Iran Companies Requiring Divestment.

The following company has been **added** to the Divestment List:

- **Lukoil Oil Co.**      **Russia**

**If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must divest those holdings according to the schedule provided in the Attachment:**

- At least 50 percent of a company's holdings must be sold by the date indicated, and
- At least 100 percent of a company's holdings must be sold by the date indicated.

**Attachment 3** is a list of security identifiers for the companies on the List of Restricted Iran Companies (**Attachment 1**) that your organization may use. The SBI does not represent that this is a complete list of identifiers. The manager is responsible for identifying all listings.

If you have any questions about this matter, please contact either your assigned SBI Investment Officer or Mercy Ndungu.

Sincerely,

LeaAnn M. Stagg  
Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Director, Public Markets  
Patricia Ammann, Investment Officer, DC & Trust Services  
Mercy Ndungu, Investment Officer, DC & Trust Services  
Tammy Brusehaver, Investment Officer, Public Markets  
Inma Conde Goldman, Investment Officer, Public Markets  
Stephanie Gleeson, Investment Officer, Public Markets  
Robert Weiler, Investment Officer, Public Markets  
Nate Blumenshine, Investment Analyst

**ATTACHMENT 1**  
**RESTRICTED IRAN COMPANIES**  
**SECURITIES OF COMPANIES MAY NOT BE PURCHASED FOR PORTFOLIO**

<b>COMPANY NAME</b>	<b>COUNTRY</b>
Bharat Petroleum Corporation Ltd.	India
China Petroleum & Chemical Corp	China
Gail (India) Ltd.	India
Gazprom OAO	Russia
GS Engineering & Construction Corp	South Korea
Gubre Fabrikalari T.A.S.	Turkey
Indian Oil Corporation Ltd.	India
L G International	South Korea
Lukoil Oil Co.	Russia
Mitsui & Co. Ltd	Japan
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: September 30, 2015

**ATTACHMENT 2**

**LIST OF IRAN COMPANIES REQUIRING DIVESTMENT**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016

Effective Date: September 30, 2015

**HISTORICAL DIVESTMENTS**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013



**ATTACHMENT 3**  
**IRAN RESTRICTED COMPANIES**  
**Security Identifiers**

<b>Company</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>Country</b>
Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547		India
China Petroleum & Chemical Corp	B4QSP22	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	2639189	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	B0RSW00	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	2654375	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	7027756	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6291819	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	B01XKR4	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6373728	CNE0000018G1	386	16941R108	China
China Petroleum & Chemical Corp	B1C5SX8	ARDEUT114071	386	16941R108	China
Gail (India) Ltd.	B1HJ0L7	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	3235520	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B2NTDN1	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B033102	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	2498517	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	3235490	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	6133405	INE129A01019	532155	36268T206	India
Gazprom OAO	5385003	US3682873068	GAZP	368287207	Russia
Gazprom OAO	B0338T0	US3682873068	GAZP	368287207	Russia
Gazprom OAO	2016629	US3682872078	GAZP	368287207	Russia
Gazprom OAO	B54DNZ5	US3682872078	GAZP	368287207	Russia
Gazprom OAO	5140989	US3682872078	GAZP	368287207	Russia
Gazprom OAO	BNC9DM8	US3682872078	GAZP	368287207	Russia
Gazprom OAO	5259528	US3682872078	GAZP	368287207	Russia
Gazprom OAO	3313181	US3682871088	GAZP	368287207	Russia
Gazprom OAO	2398899	US3682871088	GAZP	368287207	Russia
Gazprom OAO	B59L4L7	RU0007661625	GAZP	368287207	Russia
Gazprom OAO	4364928	RU0007661625	GAZP	368287207	Russia
Gazprom OAO	B0ZNNX7	RU0007661625	GAZP	368287207	Russia
Gazprom OAO	B2NH841	ARDEUT114261	GAZP	368287207	Russia
GS Engineering & Construction Corp	B06ZHC9	KR7006360002	A006360		Korea South
GS Engineering & Construction Corp	6537096	KR7006360002	A006360		Korea South
Gubre Fabrikalari T.A.S.	B188YV1	TRAGUBRF91E2	GUBRF		Turkey
Gubre Fabrikalari T.A.S.	B03MTC7	TRAGUBRF91E2	GUBRF		Turkey
Indian Oil Corporation Ltd.	6253767	INE242A01010	530965		India
L G International	B02PV43	KR7001120005	A001120		Korea South
L G International	6537115	KR7001120005	A001120		Korea South
Lukoil Oil Co.	2538059	US78306P5070	LKOH	677862104	Russia
Lukoil Oil Co.	3188453	US6778628726	LKOH	677862104	Russia
Lukoil Oil Co.	B3BHZF0	US6778628726	LKOH	677862104	Russia
Lukoil Oil Co.	2121051	US6778628072	LKOH	677862104	Russia
Lukoil Oil Co.	3188464	US6778628072	LKOH	677862104	Russia
Lukoil Oil Co.	2149707	US6778627082	LKOH	677862104	Russia
Lukoil Oil Co.	2149785	US6778626092	LKOH	677862104	Russia
Lukoil Oil Co.	B00HSJ5	US6778622034	LKOH	677862104	Russia
Lukoil Oil Co.	2539580	US6778622034	LKOH	677862104	Russia
Lukoil Oil Co.	B442LL7	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	B9DK6C3	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	3189876	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	5060388	US6778621044	LKOH	677862104	Russia

**ATTACHMENT 3**  
**IRAN RESTRICTED COMPANIES**  
**Security Identifiers**

<b>Company</b>	<b>SEDOL</b>	<b>ISIN</b>	<b>SYMBOL</b>	<b>CUSIP</b>	<b>Country</b>
Lukoil Oil Co.	2537432	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	BGHVTJ9	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	B0330Z0	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	5353873	US5498742049	LKOH	677862104	Russia
Lukoil Oil Co.	B02P187	RU0009024277	LKOH	677862104	Russia
Lukoil Oil Co.	3189809	RU0009024277	LKOH	677862104	Russia
Lukoil Oil Co.	B59SNS8	RU0009024277	LKOH	677862104	Russia
Lukoil Oil Co.	4560588	RU0009024277	LKOH	677862104	Russia
Lukoil Oil Co.	4559014	KYG772401447	LKOH	677862104	Russia
Lukoil Oil Co.	B1FRJY9	ARDEUT114253	LKOH	677862104	Russia
Mitsui & Co. Ltd	4597058	XS0029348686	8031	606827202	Japan
Mitsui & Co. Ltd	2597061	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B1HHX89	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B03KWZ5	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	6597302	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	4594071	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	5736463	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	B0ZGPX0	JP3893600001	8031	606827202	Japan
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01029	500312		India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01011	500312		India
PetroChina Co. Ltd.	B3KTK63	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	4633327	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	B569834	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	2568841	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	B28SLD9	CNE1000007Q1	857	71646E100	China
PetroChina Co. Ltd.	6226576	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	B17HOR7	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	B01DNL9	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	5939507	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	B1C5SR2	ARDEUT113958	857	71646E100	China
Toyo Engineering Corporation	6899718	JP3607800004	6330		Japan
Toyo Engineering Corporation	B02MHK2	JP3607800004	6330		Japan
Toyota Tsusho Corporation	B3DTSN3	US89240C1062	8015		Japan
Toyota Tsusho Corporation	6900580	JP3635000007	8015		Japan
Toyota Tsusho Corporation	B3BK3N3	JP3635000007	8015		Japan
Toyota Tsusho Corporation	B6361P8	JP3635000007	8015		Japan

September 21, 2015

**Regarding: Iran Companies**

Dear Manager:

The Minnesota State Board of Investment (SBI) sent you prior communication concerning holdings in companies doing business in Iran. **This communication applies to the SBI fixed income portfolio managed by your organization.**

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The following companies have been **added** to the Restricted List:

- **GS Engineering & Construction Corp**      **South Korea**
- **Toyo Engineering Corporation**      **Japan**

The following companies have been **removed** from the Restricted List:

- **Harbin Electric Company Ltd.**      **China**
- **Marie Tecnimont S.p.A.**      **Italy**

**Attachment 2** is the List of Iran Companies Requiring Divestment.

The following company has been **added** to the Divestment List:

- **Lukoil Oil Co.**      **Russia**

**If you own securities of companies on the List of Iran Companies Requiring Divestment in the SBI portfolio that your organization manages, then you must divest those holdings according to the schedule provided in the Attachment:**

- At least 50 percent of a company's holdings must be sold by the date indicated, and
- At least 100 percent of a company's holdings must be sold by the date indicated.

If you have any questions about this matter, please contact Aaron Griga, Cassandra Boll or Mercy Ndungu.

Sincerely,

LeaAnn M. Stagg  
Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Director, Public Markets  
Aaron Griga, Investment Officer, Public Markets  
Cassandra Boll, Investment Officer, Cash Mgmt. Services & Public Markets  
Steve Kuettel, Investment Officer, Cash Mgmt. Services  
Patricia Ammann, Investment Officer, DC & Trust Services  
Mercy Ndungu, Investment Officer, DC & Trust Services  
Nate Blumenshine, Investment Analyst

**ATTACHMENT 1**  
**RESTRICTED IRAN COMPANIES**  
**SECURITIES OF COMPANIES MAY NOT BE PURCHASED FOR PORTFOLIO**

<b>COMPANY NAME</b>	<b>COUNTRY</b>
Bharat Petroleum Corporation Ltd.	India
China Petroleum & Chemical Corp	China
Gail (India) Ltd.	India
Gazprom OAO	Russia
GS Engineering & Construction Corp	South Korea
Gubre Fabrikalari T.A.S.	Turkey
Indian Oil Corporation Ltd.	India
L G International	South Korea
Lukoil Oil Co.	Russia
Mitsui & Co. Ltd	Japan
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyo Engineering Corporation	Japan
Toyota Tsusho Corporation	Japan

Effective Date: September 30, 2015

**ATTACHMENT 2**

**LIST OF IRAN COMPANIES REQUIRING DIVESTMENT**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016

Effective Date: September 30, 2015

**HISTORICAL DIVESTMENTS**

<b>Company Name</b>	<b>Country of Origin</b>	<b>Divest 50 Percent By this Date</b>	<b>Divest 100 Percent By this Date</b>
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

**TAB**

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## INVESTMENT ADVISORY COUNCIL REPORT

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DATE: November 25, 2015

TO: Members, State Board of Investment

FROM: **Members, Investment Advisory Council**

The Investment Advisory Council met on November 17, 2015 to review the following information and action agenda items:

- Review of current strategy.
- Consideration of new commitments.

### **Existing Managers:**

Private Equity	Kohlberg Kravis Roberts & Co.	Americas Fund XII	\$150 Million
Private Equity	Advent International	GPE VIII	\$100 Million
Yield-Oriented	Merit Capital Partners	Mezzanine Fund VI	\$100 Million
Resources	The Energy & Minerals Group	Fund IV	\$150 Million

### **New Manager:**

Private Equity	Madison Dearborn	Capital Partners VII	\$100 Million
----------------	------------------	----------------------	---------------

**Board action is required on the last five items.**

### **INFORMATION ITEM:**

#### **1) Review of Current Strategy.**

To increase overall portfolio diversification, 20% of the Combined Funds is allocated to alternative investments. Alternative investments include real estate, private equity, resource, and yield-oriented investments in which Minnesota State Board of Investment (SBI) participation is limited to commingled funds or other pooled vehicles. Charts summarizing the Board's current commitments are attached (see **Attachments A and B**).

- a. The real estate investment strategy is to establish and maintain a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main component of this portfolio consists of investments in diversified Real Estate Investment Trusts (REITs) and closed-end commingled funds. The remaining portion of the portfolio can include investments in less diversified, more focused (specialty) commingled funds and REITs.

- b. The private equity investment strategy, which includes leveraged buyouts and venture capital, 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.
- c. 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, energy service industry investments and other investments that are diversified geographically and by type.
- d. The strategy for yield-oriented investments is to target funds that typically provide a current return and may have an equity component such as subordinated debt or mezzanine investments. Yield-oriented investments will provide diversification by including investments in the private equity, resource and real estate categories.

#### **ACTION ITEMS:**

- 1) **Investment with an existing private equity manager, Kohlberg Kravis Roberts & Co. L.P. (“KKR”), in KKR Americas Fund XII L.P. (“KKR XII”).**

KKR is seeking investors for a new \$10-12 billion private equity fund, KKR XII. This fund is a successor to 11 previous private equity funds focused on the Americas managed by KKR. The SBI has invested in seven of the prior KKR funds.

KKR XII will seek to generate returns by investing in a diversified portfolio of approximately 30-40 private equity opportunities in the US, Canada and Mexico. KKR XII intends to make equity commitments in the \$350-600 million range in companies valued between \$500 million - \$2 billion. KKR uses macroeconomic and company-specific analysis to identify investment opportunities. KKR XII intends to invest in companies connected to the following sectors: Retail & Consumer; Energy; Financial Services; Health Care; Industrials; and Technology, Media & Telecom. Within these sectors, KKR believes it can identify the companies that have sustainable competitive advantages and the potential for increased value through active involvement.

In addition to reviewing the attractiveness of the KKR XII investment offering, staff conducted on-site due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on KKR XII is included as **Attachment C**.

#### **RECOMMENDATION:**

**The Investment Advisory Council concurs with Staff’s recommendation that the SBI authorize the Executive Director, with assistance from the SBI’s legal counsel,**

to negotiate and execute a commitment of up to \$150 million, or 20% of KKR Americas Fund XII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by KKR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on KKR or reduction or termination of the commitment.

2) **Investment with an existing private equity manager, Advent International Corporation (“Advent”), in Advent International GPE VIII, L.P. (“Advent VIII”).**

Advent is seeking investors for a new \$12 billion private equity fund, Advent VIII. This fund is a successor to seven previous global private equity funds managed by Advent. The SBI has invested in two of the prior Advent funds.

Advent VIII will seek to generate returns by pursuing a sector-focused, operationally intensive, and control-oriented investment strategy, primarily in the developed private equity markets of Europe and North America. Advent VIII is size agnostic and could make equity commitments of \$100 million - \$1 billion in companies ranging from \$200 million - \$3 billion in value. Advent VIII intends to invest in approximately 30 companies in the following sectors: Business & Financial Services; Healthcare; Industrial; Retail, Consumer & Leisure; and Technology, Media & Telecom. Advent seeks to create value by making tangible operational and strategic improvements to its portfolio companies.

In addition to reviewing the attractiveness of the Advent VIII investment offering, staff conducted on-site due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Advent VIII is included as **Attachment D**.

**RECOMMENDATION:**

**The Investment Advisory Council concurs with Staff’s recommendation that the SBI authorize the Executive Director, with assistance from the SBI’s legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Advent International GPE VIII, L.P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Advent upon this approval. Until the Executive Director on behalf of**

**the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Advent or reduction or termination of the commitment.**

**3) Investment with an existing yield-oriented manager, Merit Capital Partners VI, L.P. (“Merit Capital”), in Merit Mezzanine Fund VI L.P. (“Merit VI”).**

Merit Capital is seeking investors for a new \$600 million mezzanine debt fund, Merit VI. This fund is a successor to five previous mezzanine debt funds managed by some of the senior managers of Merit Capital. The SBI has invested in three of the prior Merit Capital funds.

Merit VI will seek to generate returns by investing in a diversified portfolio of mezzanine debt and equity in approximately 20 middle market US companies while also focusing on principal preservation. Investment sizes are expected to average \$30 million in companies valued between \$25-150 million. Merit VI intends to source most if its investment opportunities without the involvement of another private equity fund. Merit Capital believes that it can create additional value through these non-traditional mezzanine investments by influencing company management decisions to increase the value of Merit VI’s debt and equity positions in its portfolio companies.

In addition to reviewing the attractiveness of the Merit VI investment offering, staff conducted on-site due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Merit VI is included as **Attachment E**.

**RECOMMENDATION:**

**The Investment Advisory Council concurs with Staff’s recommendation that the SBI authorize the Executive Director, with assistance from the SBI’s legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Merit Mezzanine Fund VI L. P., whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Merit Capital upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Merit Capital or reduction or termination of the commitment.**

**4) Investment with an existing resource manager, The Energy & Minerals Group (“EMG”), in The Energy & Minerals Group Fund IV, LP (“EMG IV”).**

EMG is seeking investors for a new \$4 billion resource fund, EMG IV. This fund is a successor to three previous resource funds managed by EMG. The SBI has invested in all three prior EMG funds.

EMG IV will seek to generate returns by investing in energy, steel industry inputs, coal, platinum group metals and base metals businesses. EMG believes its flexibility regarding geography, commodity and business function allows it to adapt to the ever-changing natural resources investment landscape. EMG IV expects to invest between \$100-600 million in 10-12 companies with market values greater than \$1 billion. EMG IV intends to make investments in assets that are low-cost sources of supply, produce high-quality commodity-based products and are strategically located near key export points or end users.

In addition to reviewing the attractiveness of the EMG IV investment offering, staff conducted on-site due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on EMG IV is included as **Attachment F**.

**RECOMMENDATION:**

**The Investment Advisory Council concurs with Staff’s recommendation that the SBI authorize the Executive Director, with assistance from the SBI’s legal counsel, to negotiate and execute a commitment of up to \$150 million, or 20% of The Energy & Minerals Group Fund IV, LP, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by The Energy & Minerals Group upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on The Energy & Minerals Group or reduction or termination of the commitment.**

**5) Investment with a new private equity manager, Madison Dearborn Partners (“MDP”), in Madison Dearborn Capital Partners VII (“MDP VII”).**

MDP is seeking investors for a new \$3.75 billion private equity fund, MDP VII. This fund is a successor to six previous private equity funds managed by MDP.

MDP VII will seek to generate returns by making buyout and growth equity investments in 15-20 middle and upper middle market companies located primarily in

the US. MDP VII intends to make equity commitments in the \$150-400 million range in companies valued between \$100 million - \$2.5 billion. MDP VII intends to invest in the following industries: Basic Industries; Business & Government Services; Consumer; Financial & Transaction Services; Health Care; and Technology, Media & Telecom. MDP seeks to create the majority of its returns through earnings growth of its underlying portfolio companies as opposed to multiple expansion or financial engineering. MDP believes that it differentiates itself from other private equity firms through its unique Midwest network.

In addition to reviewing the attractiveness of the MDP VII investment offering, staff conducted on-site due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on MDP VII is included as **Attachment G**.

**RECOMMENDATION:**

**The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of Madison Dearborn Capital Partners VII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Madison Dearborn upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Madison Dearborn or reduction or termination of the commitment.**

**ATTACHMENT A**

**Minnesota State Board of Investment**  
*Pooled Alternative Investments*  
*Combined Funds*  
*September 30, 2015*

Combined Funds Market Value	\$56,711,307,391
Amount Available for Investment	<b>\$4,035,402,694</b>

	<b>Current Level</b>	<b>Target Level</b>	<b>Difference</b>
Market Value (MV)	\$7,306,858,784	\$11,342,261,478	\$4,035,402,694
MV +Unfunded	\$12,499,485,193	\$19,848,957,587	\$7,349,472,393

<b>Asset Class</b>	<b>Market Value</b>	<b>Unfunded Commitment</b>	<b>Total</b>
Private Equity	\$4,563,957,990	\$2,743,782,858	\$7,307,740,848
Real Estate	\$644,389,847	\$365,826,612	\$1,010,216,460
Resource	\$1,308,372,064	\$1,132,077,709	\$2,440,449,773
Yield-Oriented	\$790,138,883	\$950,939,230	\$1,741,078,113
<b>Total</b>	<b>\$7,306,858,784</b>	<b>\$5,192,626,409</b>	<b>\$12,499,485,193</b>

*Cash Flows*  
*September 30, 2015*

<b>Year</b>	<b>Capital Calls</b>	<b>Distributions</b>	<b>Net Invested</b>
2015 (as of 9/30)	\$1,078,995,930	(\$1,576,561,285)	(\$497,565,355)
2014	\$1,378,984,263	(\$2,133,698,037)	(\$754,713,774)
2013	\$1,257,559,066	(\$2,522,817,494)	(\$1,265,258,428)
2012	\$882,478,614	(\$1,458,621,458)	(\$576,142,844)





**ATTACHMENT B**  
**Minnesota State Board of Investment**  
- Alternative Investments -  
As of September 30, 2015

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>I. REAL ESTATE</b>								
<b>Blackstone</b>								
<i>Blackstone Real Estate Partners V</i>	100,000,000	97,030,342	80,296,291	120,242,824	4,174,052	11.34	<b>2.07</b>	9.42
<i>Blackstone Real Estate Partners VI</i>	100,000,000	99,049,644	76,666,912	133,143,964	5,178,649	13.76	<b>2.12</b>	8.50
<i>Blackstone Real Estate Partners VII</i>	100,000,000	87,743,006	102,319,325	43,005,748	22,741,241	22.84	<b>1.66</b>	3.84
<i>Blackstone Real Estate Partners VIII</i>	150,000,000	6,483,725	6,483,725	0	143,516,275	0.00	<b>1.00</b>	0.52
<b>Blackstone Strategic Partners (CSFB)</b>								
<i>Strategic Partners III RE</i>	25,000,000	25,752,810	8,054,671	7,147,796	9,006	-7.63	<b>0.59</b>	10.25
<i>Strategic Partners IV RE</i>	50,000,000	50,268,576	18,937,088	30,042,987	1,701,672	-0.62	<b>0.97</b>	7.29
<b>Colony Capital</b>								
<i>Colony Investors II</i>	80,000,000	78,482,328	2,600	90,022,404	0	4.68	<b>1.15</b>	20.50
<i>Colony Investors III</i>	100,000,000	100,000,000	5,048,100	172,642,105	0	14.59	<b>1.78</b>	17.75
<b>Silverpeak Real Estate Partners</b>								
<i>Silverpeak Legacy Pension Partners II</i>	75,000,000	78,416,911	24,386,103	67,095,635	7,999,182	3.14	<b>1.17</b>	10.25
<i>Silverpeak Legacy Pension Partners III</i>	150,000,000	69,493,465	21,340,274	6,047,028	80,506,535	-13.95	<b>0.39</b>	7.36
<b>T.A. Associates Realty</b>								
<i>Realty Associates Fund VII</i>	75,000,000	75,000,000	38,772,302	40,044,687	0	0.72	<b>1.05</b>	10.87
<i>Realty Associates Fund VIII</i>	100,000,000	100,000,000	68,213,957	21,817,094	0	-1.44	<b>0.90</b>	9.25
<i>Realty Associates Fund IX</i>	100,000,000	100,000,000	87,615,850	63,047,104	0	10.87	<b>1.51</b>	7.10
<i>Realty Associates Fund X</i>	100,000,000	100,000,000	106,252,649	14,531,049	0	12.21	<b>1.21</b>	3.58
<i>Realty Associates Fund XI</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.25
<b>Real Estate Total</b>	<b>1,405,000,000</b>	<b>1,067,720,807</b>	<b>644,389,847</b>	<b>808,830,425</b>	<b>365,826,612</b>		<b>1.36</b>	
<b>II. RESOURCE</b>								
<b>Apache Corp.</b>								
<i>1986 Net Profits Interest</i>	30,000,000	30,000,000	1,466,970	59,446,718	0	12.18	<b>2.03</b>	28.75
<b>EIG Global Energy Partners</b>								
<i>EIG Energy Fund XIV</i>	100,000,000	108,921,954	40,954,385	84,988,900	6,852,249	4.79	<b>1.16</b>	8.45
<i>EIG Energy Fund XV</i>	150,000,000	130,101,144	105,562,613	53,017,212	21,296,267	8.23	<b>1.22</b>	5.31
<i>EIG Energy Fund XVI</i>	200,000,000	66,199,981	49,507,464	1,117,639	133,800,019	-25.61	<b>0.76</b>	2.05
<b>EnCap Energy</b>								
<i>EnCap Energy Capital Fund VII</i>	100,000,000	94,967,792	16,638,385	129,699,293	5,584,951	17.50	<b>1.54</b>	8.25
<i>EnCap Energy Capital Fund VIII</i>	100,000,000	78,328,941	60,033,358	22,910,091	21,996,329	2.62	<b>1.06</b>	5.00
<i>Encap Energy Fund IX</i>	100,000,000	56,993,729	53,090,339	1,936,237	43,006,271	-3.25	<b>0.97</b>	2.81
<i>EnCap Energy Capital Fund X</i>	100,000,000	5,864,908	3,847,820	1,536,826	95,671,919	-13.25	<b>0.92</b>	0.57
<b>EnerVest Energy</b>								
<i>EnerVest Energy Institutional Fund XIV</i>	100,000,000	4,207,631	4,207,631	0	95,792,369	0.00	<b>1.00</b>	0.44
<b>Energy &amp; Minerals Group</b>								
<i>NGP Midstream &amp; Resources</i>	100,000,000	99,725,129	122,488,217	107,876,372	596,057	21.38	<b>2.31</b>	8.50
<i>The Energy &amp; Minerals Group Fund II</i>	100,000,000	83,424,792	143,318,549	13,428,835	16,817,329	29.80	<b>1.88</b>	4.02
<i>The Energy &amp; Minerals Group Fund III</i>	200,000,000	148,761,558	158,117,470	288,946	51,252,342	6.86	<b>1.06</b>	1.57
<b>Energy Capital Partners</b>								
<i>Energy Capital Partners II</i>	100,000,000	77,081,670	68,034,394	67,319,352	33,547,454	18.52	<b>1.76</b>	5.20
<i>Energy Capital Partners III</i>	200,000,000	49,583,540	41,135,546	0	150,416,460	-20.30	<b>0.83</b>	1.78
<b>First Reserve</b>								
<i>First Reserve Fund X</i>	100,000,000	100,000,000	533,374	182,429,002	0	31.07	<b>1.83</b>	10.91
<i>First Reserve Fund XI</i>	150,000,000	150,292,121	37,664,287	86,471,982	0	-4.23	<b>0.83</b>	8.77
<i>First Reserve Fund XII</i>	150,000,000	154,213,171	76,206,248	68,152,263	8,670,869	-1.89	<b>0.94</b>	6.92
<i>First Reserve Fund XIII</i>	200,000,000	24,595,553	19,965,847	2,279,302	175,404,447	-22.00	<b>0.90</b>	1.91
<b>NGP</b>								
<i>Natural Gas Partners IX</i>	150,000,000	159,413,639	59,893,275	199,415,166	3,762,860	14.58	<b>1.63</b>	7.94
<i>NGP Natural Resources X</i>	150,000,000	122,007,743	118,884,308	14,180,208	27,992,257	4.71	<b>1.09</b>	3.97
<i>Natural Gas Capital Resources XI</i>	150,000,000	8,532,740	8,493,596	0	141,467,260	-1.42	<b>1.00</b>	0.81
<b>Sheridan</b>								
<i>Sheridan Production Partners I</i>	100,000,000	100,000,000	68,618,001	82,750,000	0	9.90	<b>1.51</b>	8.50
<i>Sheridan Production Partners II</i>	100,000,000	100,000,000	49,196,985	7,000,000	0	-20.66	<b>0.56</b>	5.00
<i>Sheridan Production Partners III</i>	100,000,000	1,850,000	513,001	0	98,150,000	-81.14	<b>0.28</b>	0.81
<b>Resource Total</b>	<b>3,030,000,000</b>	<b>1,955,067,736</b>	<b>1,308,372,064</b>	<b>1,186,244,344</b>	<b>1,132,077,709</b>		<b>1.28</b>	
<b>III. YIELD-ORIENTED</b>								
<b>Audax Group</b>								
<i>Audax Mezzanine Fund III</i>	100,000,000	80,981,970	52,897,743	40,431,699	27,526,025	8.17	<b>1.15</b>	5.49
<i>Audax Mezzanine Fund IV</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.48
<b>Avenue Capital Partners</b>								
<i>Avenue Energy Opportunities Fund</i>	100,000,000	54,026,598	53,515,722	934,495	45,973,402	-1.37	<b>1.01</b>	0.52
<b>Citicorp Mezzanine</b>								
<i>CM Liquidating Partnership</i>	100,000,000	88,029,296	6,429,909	132,324,719	0	16.00	<b>1.58</b>	15.91
<b>Crescent Capital Group</b>								
<i>TCW/Crescent Mezzanine Partners III</i>	75,000,000	68,835,269	5,320,752	156,868,939	29,733,852	35.96	<b>2.36</b>	14.50

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<b>Gold Hill Venture Lending</b>								
Gold Hill Venture Lending	40,000,000	40,000,000	1,048,961	63,913,250	0	10.67	<b>1.62</b>	11.01
Gold Hill 2008	25,852,584	25,852,584	16,054,326	24,471,023	0	13.03	<b>1.57</b>	7.25
<b>GS Mezzanine Partners</b>								
GS Mezzanine Partners 2006 Institutional	100,000,000	74,999,888	14,964,038	117,943,487	13,858,563	4.76	<b>1.77</b>	9.48
GS Mezzanine Partners V	150,000,000	112,057,963	10,812,014	159,577,562	61,343,845	8.78	<b>1.52</b>	7.94
<b>Kohlberg Kravis Roberts</b>								
KKR Lending Partners II	75,000,000	26,491,620	26,854,432	2,071,846	49,945,974	6.78	<b>1.09</b>	0.58
<b>Merit Capital Partners</b>								
William Blair Mezzan. Cap. Fd. III	60,000,000	57,243,241	497,574	112,755,951	2,756,759	15.51	<b>1.98</b>	15.75
Merit Mezzanine Fund IV	75,000,000	70,178,571	31,175,883	74,560,091	4,821,429	8.64	<b>1.51</b>	10.79
Merit Mezzanine Fund V	75,000,000	60,091,837	43,341,381	29,594,343	14,908,163	7.70	<b>1.21</b>	5.78
<b>Merit Energy Partners</b>								
Merit Energy Partners B	24,000,000	24,000,000	19,936,420	179,405,232	0	24.48	<b>8.31</b>	19.25
Merit Energy Partners C	50,000,000	50,000,000	37,742,394	489,223,800	0	31.11	<b>10.54</b>	16.92
Merit Energy Partners D	88,000,000	70,938,303	59,544,518	299,261,151	0	23.26	<b>5.06</b>	14.35
Merit Energy Partners E	100,000,000	39,983,197	33,197,443	65,640,670	0	13.77	<b>2.47</b>	10.96
Merit Energy Partners F	100,000,000	59,522,861	36,343,448	27,251,921	0	1.28	<b>1.07</b>	9.52
Merit Energy Partners H	100,000,000	81,860,748	69,751,544	7,499,078	18,139,252	-2.71	<b>0.94</b>	4.66
Merit Energy Partners I	169,721,518	4,100,000	4,213,066	0	165,621,518	2.77	<b>1.03</b>	0.95
<b>Oaktree Capital Management</b>								
Oaktree Opportunities Fund X	50,000,000	3,750,000	3,750,000	0	46,250,000	0.00	<b>1.00</b>	0.58
Oaktree Opportunities Fund Xb	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.58
<b>Pimco Bravo**</b>								
Pimco Bravo Fund OnShore Feeder I	3,958,027	3,958,027	2,781,695	1,355,866	0	5.81	<b>1.05</b>	0.75
Pimco Bravo Fund OnShore Feeder II	5,243,670	5,243,670	5,396,434	0	0	2.93	<b>1.03</b>	0.75
<b>Portfolio Advisors</b>								
DLJ Investment Partners II	27,375,168	23,164,217	77,910	34,829,566	0	10.37	<b>1.51</b>	15.75
DLJ Investment Partners III	100,000,000	59,873,018	12,700,066	68,303,204	42,126,271	7.64	<b>1.35</b>	9.27
<b>Prudential Capital Partners</b>								
Prudential Capital Partners I	100,000,000	99,713,348	23,182	155,231,567	286,652	11.06	<b>1.56</b>	14.45
Prudential Capital Partners II	100,000,000	96,771,583	14,968,654	129,349,420	4,404,499	9.52	<b>1.49</b>	10.25
Prudential Capital Partners III	100,000,000	94,489,771	59,988,678	88,974,642	8,952,623	13.81	<b>1.58</b>	6.46
Prudential Capital Partners IV	100,000,000	51,851,396	45,117,657	15,286,998	48,148,604	12.48	<b>1.16</b>	3.70
<b>Summit Partners</b>								
Summit Subordinated Debt Fund II	45,000,000	40,500,000	153,887	93,649,473	4,500,000	56.28	<b>2.32</b>	18.16
Summit Subordinated Debt Fund III	45,000,000	42,750,000	6,934,945	53,725,767	2,250,000	8.48	<b>1.42</b>	11.62
Summit Subordinated Debt Fund IV	50,000,000	51,000,000	26,566,239	34,727,987	2,500,000	8.06	<b>1.20</b>	7.51
<b>TCW Asset Management</b>								
TCW Direct Lending	100,000,000	31,841,017	27,508,945	3,741,017	71,900,000	-5.13	<b>0.98</b>	0.71
<b>Windjammer Capital Investors</b>								
Windjammer Mezzanine & Equity Fund II	66,708,861	56,569,498	397,942	84,279,335	10,139,363	8.91	<b>1.50</b>	15.50
Windjammer Senior Equity Fund III	75,000,000	61,619,620	31,490,296	105,175,582	13,380,380	18.44	<b>2.22</b>	9.74
Windjammer Senior Equity Fund IV	100,000,000	39,563,120	28,640,787	4,652,684	61,472,057	-9.83	<b>0.84</b>	3.60
<b>Yield-Oriented Total</b>	<b>2,875,859,828</b>	<b>1,851,852,232</b>	<b>790,138,883</b>	<b>2,857,012,365</b>	<b>950,939,230</b>		<b>1.97</b>	
<b>IV. PRIVATE EQUITY</b>								
<b>Adams Street Partners</b>								
Adams Street Global Secondary Fund 5	100,000,000	52,970,000	39,937,347	14,072,241	47,030,000	1.86	<b>1.02</b>	3.28
<b>Advent International</b>								
Advent International GPE VI	50,000,000	48,025,005	55,667,970	41,588,598	1,974,995	18.75	<b>2.03</b>	7.50
Advent International GPE VII	90,000,000	63,900,000	66,964,183	10,890,083	26,100,000	12.91	<b>1.22</b>	3.03
<b>Affinity Ventures</b>								
Affinity Ventures IV	4,000,000	4,000,000	2,334,272	1,541,970	0	-0.63	<b>0.97</b>	11.25
Affinity Ventures V	5,000,000	4,500,000	2,559,039	1,585,611	500,000	-2.09	<b>0.92</b>	7.24
<b>APAX Partners</b>								
Apax VIII	200,000,000	118,727,016	131,288,452	0	81,272,984	10.34	<b>1.11</b>	2.56
<b>Banc Fund</b>								
Banc Fund VII	45,000,000	45,000,000	45,182,565	812,725	0	0.26	<b>1.02</b>	10.50
Banc Fund VIII	98,250,000	98,250,000	133,704,692	18,665,973	0	13.02	<b>1.55</b>	7.43
Banc Fund IX	83,875,000	29,400,000	30,275,120	0	52,850,000	5.56	<b>1.03</b>	1.31
<b>BlackRock**</b>								
BlackRock Tempus Fund	1,774,870	1,774,870	1,749,622	410,248	0	26.45	<b>1.22</b>	0.30
<b>Blackstone</b>								
Blackstone Capital Partners IV	70,000,000	72,227,720	20,717,691	176,116,810	2,043,588	37.27	<b>2.73</b>	13.22
Blackstone Capital Partners V	140,000,000	130,900,605	80,351,206	155,051,302	9,099,395	8.41	<b>1.80</b>	9.66
Blackstone Capital Partners VI	100,000,000	65,427,367	77,679,471	9,699,205	36,657,697	12.13	<b>1.34</b>	7.18
Blackstone Capital Partners VII	130,000,000	0	0	0	130,000,000	0.00	<b>0.00</b>	0.25

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<b>Blackstone Strategic Partners (CSFB/ DLJ)</b>								
<i>Strategic Partners I</i>	100,000,000	94,994,054	2,207,931	171,070,528	3,455,946	22.39	<b>1.82</b>	14.69
<i>Strategic Partners II-B</i>	100,000,000	86,132,346	3,245,172	159,236,584	4,715,215	35.11	<b>1.89</b>	12.20
<i>Strategic Partners III-B</i>	100,000,000	77,964,271	37,075,196	82,297,464	15,194,577	7.05	<b>1.53</b>	10.33
<i>Strategic Partners III VC</i>	25,000,000	24,575,947	8,445,789	24,954,108	1,381,270	6.52	<b>1.36</b>	10.33
<i>Strategic Partners IV-B</i>	100,000,000	90,897,251	30,024,763	116,184,343	25,316,142	13.10	<b>1.61</b>	7.51
<i>Strategic Partners IV VC</i>	40,500,000	39,404,352	22,082,613	36,466,086	3,610,164	9.98	<b>1.49</b>	7.29
<i>Strategic Partners V</i>	100,000,000	74,522,419	64,613,623	56,527,841	44,695,063	26.31	<b>1.63</b>	4.12
<i>Strategic Partners VI</i>	150,000,000	53,952,913	69,630,865	2,460,163	98,507,250	60.15	<b>1.34</b>	1.46
<b>BLUM Capital Partners</b>								
<i>Blum Strategic Partners II</i>	50,000,000	40,185,889	68,247	89,708,870	2,127,584	22.42	<b>2.23</b>	14.20
<i>Blum Strategic Partners III</i>	75,000,000	78,121,020	710,305	83,192,039	471,064	0.38	<b>1.07</b>	10.33
<i>Blum Strategic Partners IV</i>	150,000,000	170,916,780	30,163,811	143,244,293	5,896,033	-0.08	<b>1.01</b>	7.86
<b>Brookfield Asset Management Inc.</b>								
<i>Brookfield Capital Partners Fund IV</i>	100,000,000	0	0	0	100,000,000	0.00	<b>0.00</b>	0.28
<b>Carval Investors</b>								
<i>CVI Global Value Fund</i>	200,000,000	190,000,000	50,594,180	267,251,598	10,000,000	9.88	<b>1.67</b>	8.72
<i>CVI Credit Value Fund I</i>	100,000,000	95,000,000	100,762,967	95,135,351	5,000,000	20.20	<b>2.06</b>	5.00
<i>CVI Credit Value Fund A II</i>	150,000,000	142,500,000	171,664,053	428,690	7,500,000	9.30	<b>1.21</b>	2.92
<i>CVI Credit Value Fund A III</i>	150,000,000	30,000,000	31,060,200	0	120,000,000	5.02	<b>1.04</b>	0.33
<b>Chicago Growth Partners (William Blair)</b>								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	2,201,713	64,292,866	1,650,000	8.01	<b>1.38</b>	14.56
<i>Chicago Growth Partners I</i>	50,000,000	52,441,998	12,053,144	50,319,021	300,000	4.02	<b>1.19</b>	10.18
<i>Chicago Growth Partners II</i>	60,000,000	56,858,323	51,309,386	46,270,271	2,889,677	17.33	<b>1.72</b>	7.55
<b>Court Square Capital Partners</b>								
<i>Court Square Capital Partners</i>	100,000,000	80,813,422	722,315	180,966,005	1,934,741	28.91	<b>2.25</b>	13.80
<i>Court Square Capital Partners II</i>	175,000,000	160,711,474	78,548,669	213,903,526	15,335,724	13.65	<b>1.82</b>	9.07
<i>Court Square Capital Partners III</i>	175,000,000	62,948,309	39,081,691	30,198,810	119,173,108	5.05	<b>1.10</b>	3.33
<b>Crescendo</b>								
<i>Crescendo IV</i>	101,500,000	101,500,000	12,781,040	34,972,153	0	-7.29	<b>0.47</b>	15.56
<b>CVC Capital Partners</b>								
<i>CVC European Equity Partners V</i>	133,850,953	127,322,128	83,762,796	110,672,339	6,528,825	12.47	<b>1.53</b>	7.51
<i>CVC Capital Partners VI</i>	255,164,485	37,615,639	30,393,232	545,893	218,056,457	-24.01	<b>0.82</b>	2.23
<b>Diamond Castle Partners</b>								
<i>Diamond Castle Partners IV</i>	92,487,949	91,155,162	66,310	93,825,657	1,373,272	0.36	<b>1.03</b>	9.06
<b>DSV Partners</b>								
<i>DSV Partners IV</i>	10,000,000	10,000,000	31,486	39,196,082	0	10.61	<b>3.92</b>	30.47
<b>Elevation Partners</b>								
<i>Elevation Partners</i>	75,000,000	69,255,040	3,109,692	107,494,921	856,304	11.41	<b>1.60</b>	10.37
<b>Fox Paine &amp; Company</b>								
<i>Fox Paine Capital Fund II</i>	50,000,000	46,299,626	16,742,515	77,327,771	11,953,212	19.40	<b>2.03</b>	15.25
<b>GHJM Marathon Fund</b>								
<i>GHJM Marathon Fund V</i>	50,000,000	50,093,425	9,491,548	87,837,964	46,502	12.35	<b>1.94</b>	11.00
<i>TrailHead Fund</i>	20,000,000	13,014,187	12,547,043	6,955	6,985,813	-1.87	<b>0.96</b>	3.60
<b>GS Capital Partners</b>								
<i>GS Capital Partners 2000</i>	50,000,000	50,000,000	4,084,649	109,659,356	0	23.46	<b>2.27</b>	15.08
<i>GS Capital Partners V</i>	100,000,000	73,958,901	21,968,450	187,728,781	3,441,099	18.19	<b>2.84</b>	10.50
<i>GS Capital Partners VI</i>	100,000,000	79,793,536	30,447,853	87,828,473	22,362,054	5.77	<b>1.48</b>	8.66
<b>GTCR Golder Rauner</b>								
<i>GTCR VI</i>	90,000,000	90,000,000	2,223,639	77,813,800	0	-3.83	<b>0.89</b>	17.25
<i>GTCR VII</i>	131,250,000	130,265,615	249,986	306,551,141	984,385	21.83	<b>2.36</b>	15.65
<i>GTCR IX</i>	75,000,000	69,539,933	15,186,157	110,555,030	5,460,067	14.07	<b>1.81</b>	9.25
<i>GTCR X</i>	100,000,000	83,764,050	85,188,526	54,249,581	16,235,950	18.76	<b>1.66</b>	4.81
<i>GTCR Fund XI</i>	110,000,000	29,150,000	29,724,430	0	80,850,000	3.29	<b>1.02</b>	1.88
<b>HarbourVest**</b>								
<i>Dover Street VII Cayman Fund</i>	2,198,112	2,055,612	1,509,907	614,003	142,500	3.83	<b>1.03</b>	0.75
<i>HarbourVest Intl PE Partners V-Cayman US</i>	3,516,178	3,248,278	2,875,987	870,063	267,900	17.40	<b>1.15</b>	0.75
<i>Harbourvest Intl PE Partners VI-Cayman</i>	4,228,753	2,705,072	3,009,681	189,192	1,523,681	19.72	<b>1.18</b>	0.75
<i>HarbourVest Partners VIII Cayman Buyout</i>	4,506,711	3,986,711	3,261,120	1,136,461	520,000	11.90	<b>1.10</b>	0.75
<i>HarbourVest Partners VIII-Cayman Venture</i>	7,190,898	6,910,898	6,478,901	1,073,883	280,000	9.91	<b>1.09</b>	0.75
<b>Hellman &amp; Friedman</b>								
<i>Hellman &amp; Friedman Capital Partners V</i>	160,000,000	146,115,880	3,822,206	413,799,372	8,120,384	27.92	<b>2.86</b>	10.83
<i>Hellman &amp; Friedman Capital Partners VI</i>	175,000,000	169,633,928	63,816,432	290,177,601	6,488,691	14.12	<b>2.09</b>	8.50
<i>Hellman &amp; Friedman Capital Partners VII</i>	50,000,000	36,995,990	36,972,339	12,570,866	13,004,010	13.80	<b>1.34</b>	6.45
<b>IK Investment Partners</b>								
<i>IK Fund VII</i>	180,937,635	114,794,043	96,187,550	7,279,701	66,143,593	-9.54	<b>0.90</b>	2.05
<b>Kohlberg Kravis Roberts</b>								
<i>KKR Millennium Fund</i>	200,000,000	200,000,000	60,315,468	359,791,679	0	16.56	<b>2.10</b>	12.81
<i>KKR 2006 Fund</i>	200,000,000	209,050,944	142,000,264	193,995,249	5,372,567	8.60	<b>1.61</b>	9.01
<b>Leonard Green &amp; Partners</b>								
<i>Green Equity Investors VI</i>	200,000,000	132,347,345	146,697,535	5,864,769	68,903,672	11.41	<b>1.15</b>	3.54

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Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>Lexington Capital Partners</b>								
<i>Lexington Capital Partners VI</i>	100,000,000	98,365,297	38,007,224	105,226,018	1,634,703	8.44	<b>1.46</b>	9.76
<i>Lexington Capital Partners VII</i>	200,000,000	156,887,236	113,704,059	121,799,176	49,276,376	17.64	<b>1.50</b>	6.30
<i>Lexington Capital Partners VIII</i>	150,000,000	15,132,735	21,954,163	26,185	134,867,265	60.66	<b>1.45</b>	1.57
<b>MHR Institutional Partners</b>								
<i>MHR Institutional Partners IV</i>	75,000,000	10,125,000	9,810,275	0	64,875,000	-6.09	<b>0.97</b>	0.45
<b>Merced Capital</b>								
<i>Merced Partners II</i>	75,000,000	63,768,881	16,275,724	112,510,597	0	24.22	<b>2.02</b>	8.50
<i>Merced Partners III</i>	100,000,000	100,000,000	75,531,252	52,997,107	0	7.24	<b>1.29</b>	5.40
<i>Merced Partners IV</i>	125,000,000	106,250,000	101,976,519	0	18,750,000	-3.68	<b>0.96</b>	2.22
<b>Nordic Capital</b>								
<i>Nordic Capital Fund VIII</i>	177,149,408	90,632,974	83,154,907	49,418	86,516,434	-7.59	<b>0.92</b>	2.05
<b>North Sky Capital**</b>								
<i>North Sky Capital LBO Fund III</i>	1,070,259	720,259	663,801	131,875	350,000	11.19	<b>1.10</b>	0.75
<i>North Sky Capital Venture Fund III</i>	1,384,080	1,277,830	1,214,406	208,125	106,250	12.12	<b>1.11</b>	0.75
<b>Oaktree Capital Management</b>								
<i>Oaktree Principal Fund VI</i>	100,000,000	13,059,435	9,784,923	6,563,695	93,504,260	59.90	<b>1.25</b>	0.75
<b>Paine &amp; Partners</b>								
<i>Paine &amp; Partners Capital Fund IV</i>	75,000,000	8,846,036	6,335,142	0	66,153,964	-50.20	<b>0.72</b>	0.80
<b>Permal Capital**</b>								
<i>Permal PE Opportunities IV</i>	5,337,098	4,097,098	3,529,568	910,487	1,240,000	9.76	<b>1.08</b>	0.75
<b>PERMIRA</b>								
<i>Permira V</i>	178,350,629	115,142,998	106,985,124	2,229,773	63,207,631	-6.16	<b>0.95</b>	1.75
<b>Public Pension Capital Management</b>								
<i>Public Pension Capital</i>	92,000,000	4,878,788	4,896,428	0	87,121,212	-57.10	<b>1.00</b>	1.37
<b>RWI Ventures</b>								
<i>RWI Ventures I</i>	7,603,265	7,603,265	487,621	6,094,262	0	-4.51	<b>0.87</b>	9.25
<b>Sightline Healthcare</b>								
<i>Sightline Healthcare Fund III</i>	20,000,000	20,000,000	131,912	8,648,898	0	-8.09	<b>0.44</b>	16.69
<i>Sightline Healthcare Fund IV</i>	7,700,000	7,753,673	718,882	7,096,835	0	-0.01	<b>1.01</b>	12.01
<b>Silver Lake Partners</b>								
<i>Silver Lake Partners II</i>	100,000,000	90,002,836	40,032,022	127,291,756	11,771,953	11.00	<b>1.86</b>	11.25
<i>Silver Lake Partners III</i>	100,000,000	85,907,011	74,677,895	81,881,563	15,442,553	17.27	<b>1.82</b>	8.50
<i>Silver Lake Partners IV</i>	100,000,000	33,158,284	40,324,201	6,479,906	71,774,568	37.71	<b>1.41</b>	3.01
<b>Split Rock Partners</b>								
<i>Split Rock Partners</i>	50,000,000	47,072,725	32,383,379	6,858,501	2,927,275	-2.77	<b>0.83</b>	10.42
<i>Split Rock Partners II</i>	60,000,000	56,245,000	44,177,727	10,465,998	3,755,000	-1.09	<b>0.97</b>	7.42
<b>Summit Partners</b>								
<i>Summit Ventures V</i>	25,000,000	24,125,000	100,897	33,274,796	875,000	8.11	<b>1.38</b>	17.50
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	65,500,000	69,156,117	10,098,648	34,500,000	12.99	<b>1.21</b>	4.41
<b>T. Rowe Price</b>	87,569,750	87,569,750	33,621,914	59,913,952	0	5.42	<b>1.07</b>	
<b>Thoma Cressey</b>								
<i>Thoma Cressey Fund VI</i>	35,000,000	33,915,000	608,137	34,128,882	1,085,000	0.28	<b>1.02</b>	17.11
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	6,955,638	100,163,805	0	23.65	<b>2.14</b>	15.10
<i>Thoma Cressey Fund VIII</i>	70,000,000	68,932,574	28,465,107	185,137,484	770,000	17.31	<b>3.10</b>	9.42
<b>Thomas, McNerney &amp; Partners</b>								
<i>Thomas, McNerney &amp; Partners I</i>	30,000,000	30,000,000	9,165,175	10,504,694	0	-8.23	<b>0.66</b>	12.90
<i>Thomas, McNerney &amp; Partners II</i>	50,000,000	46,125,000	27,394,283	79,319,983	3,875,000	17.72	<b>2.31</b>	9.25
<b>Varde Fund</b>								
<i>Varde Fund IX</i>	100,000,000	100,000,000	34,256,357	164,621,975	0	14.34	<b>1.99</b>	7.27
<i>Varde Fund X</i>	150,000,000	150,000,000	193,760,481	42,711,605	0	11.05	<b>1.58</b>	5.44
<i>Varde Fund XI</i>	200,000,000	180,000,000	206,646,120	0	20,000,000	7.43	<b>1.15</b>	2.22
<b>Vestar Capital Partners</b>								
<i>Vestar Capital Partners IV</i>	55,000,000	53,635,969	1,158,159	101,917,140	737,136	14.69	<b>1.92</b>	15.79
<i>Vestar Capital Partners V</i>	75,000,000	74,758,943	59,816,168	27,848,093	241,057	2.62	<b>1.17</b>	9.78
<i>Vestar Capital Partners VI</i>	100,000,000	53,500,615	63,543,097	8,808,934	46,499,385	28.18	<b>1.35</b>	4.02
<b>Warburg Pincus</b>								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	806,509	162,262,253	0	10.00	<b>1.63</b>	17.26
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,000,000	36,559,799	195,254,161	0	15.15	<b>2.32</b>	13.46
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	21,112,699	157,346,456	0	10.37	<b>1.78</b>	10.18
<i>Warburg Pincus Private Equity X</i>	150,000,000	150,000,000	102,020,051	117,995,235	0	8.60	<b>1.47</b>	7.93
<i>Warburg Pincus Private Equity XI</i>	200,000,000	142,500,000	164,800,568	17,274,600	57,500,000	17.54	<b>1.28</b>	2.77
<b>Wayzata</b>								
<i>Wayzata Opportunities Fund</i>	100,000,000	93,180,000	18,230,578	147,012,696	18,920,000	9.15	<b>1.77</b>	9.78
<i>Wayzata Opportunities Fund II</i>	150,000,000	57,450,000	44,741,544	157,170,872	30,000,000	16.60	<b>3.51</b>	7.94
<i>Wayzata Opportunities Fund III</i>	150,000,000	43,935,000	39,873,824	136,917	106,065,000	-7.55	<b>0.91</b>	3.29

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Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
<b>Welsh, Carson, Anderson &amp; Stowe</b>								
<i>Welsh, Carson, Anderson &amp; Stowe VIII</i>	100,000,000	100,000,000	133,326	128,668,552	0	3.12	<b>1.29</b>	17.19
<i>Welsh, Carson, Anderson &amp; Stowe IX</i>	125,000,000	123,750,000	865,757	205,436,798	1,250,000	11.22	<b>1.67</b>	15.26
<i>Welsh, Carson, Anderson &amp; Stowe X</i>	100,000,000	98,000,000	50,787,538	111,196,036	2,000,000	8.01	<b>1.65</b>	9.79
<i>Welsh, Carson, Anderson &amp; Stowe XI</i>	100,000,000	95,440,856	73,340,405	72,454,617	4,559,144	14.54	<b>1.53</b>	7.19
<i>Welsh, Carson, Anderson &amp; Stowe XII</i>	150,000,000	30,951,462	29,655,586	0	119,048,538	-4.50	<b>0.96</b>	0.75
<i>Private Equity Total</i>	<b>10,801,771,033</b>	<b>8,056,962,825</b>	<b>4,563,957,990</b>	<b>8,106,301,317</b>	<b>2,743,782,858</b>		<b>1.57</b>	
<i>Alternatives Total</i>	<b>18,112,630,861</b>	<b>12,931,603,600</b>	<b>7,306,858,784</b>	<b>12,958,388,450</b>	<b>5,192,626,409</b>		<b>1.57</b>	

**Notes:** None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results. Ultimately, the actual performance and value of any investment is not known until final liquidation. Because there is no industry-standardized method for valuation or reporting, comparisons of performance and valuation data among different investments are difficult.

\* MOIC: Multiple of Invested Capital

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



## ATTACHMENT C

### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

<b>Name of Fund:</b>	KKR Americas Fund XII L.P.
<b>Type of Fund:</b>	Private Equity
<b>Target Fund Size:</b>	\$10-12 billion
<b>Fund Manager:</b>	Kohlberg Kravis Roberts & Co. L.P.
<b>Manager Contact:</b>	Ari Barkan 9 West 57 <sup>th</sup> St. New York, NY, 10019 (212) 271-9107

#### II. Organization and Staff

Kohlberg Kravis Roberts & Co. L.P. (“KKR” or the “Firm”) is forming KKR Americas Fund XII L.P. (“KKR XII” or the “Fund”) to engage primarily in buyouts, build-ups, control, growth and other private equity investments in the United States, Canada and Mexico. The Fund is a continuation of KKR’s nearly four decades of private equity investing experience.

KKR was established in 1976 and continues to be one of the world’s largest private equity firms. Two of the Firm’s founders, Henry R. Kravis and George R. Roberts, are co-Chairman and co-CEOs as well as members of the Firm’s Management Committee and regional Private Equity Investment committees. Currently, KKR has 180 private equity investment professionals dedicated to sourcing, analyzing, executing, and managing private equity investments. The Americas team of about 60 investment professionals is led by Alex Navab. The nine members in the senior KKR Americas private equity team have an average tenure of 16 years with the Firm and 21 years of private equity experience. Since 1976 through September 30, 2015, KKR funds have invested \$66.7 billion in over 335 transactions and returned over \$107 billion to its investors.

In addition to the experience of their investment professionals, they have a significant global network of resources available to contribute additional expertise to the investment process, including ~50 operational professionals, over 40 capital markets professionals, a roster of over 30 Senior Advisors as well as a dedicated macro team and public affairs team.

### **III. Investment Strategy**

KKR's approach is to fully combine its global resources with the Americas team's experience and operational expertise to build partnerships with leading businesses. KKR XII intends to focus on situations where a meaningful amount of capital can be invested in businesses with sustainable competitive advantages and the potential for increased value through active involvement.

The Americas private equity teams utilize both a "top down" and a "bottom up" approach in identifying attractive investment opportunities. KKR XII intends to invest across several industries to create a well diversified portfolio.

The six industries of focus for the KKR XII are currently:

- Retail & Consumer
- Energy
- Financial Services
- Health Care
- Industrials
- Technology, Media & Telecommunications

KKR has been actively investing in North America across these industries for almost four decades. KKR believes that it has demonstrated an ability to navigate the challenges of cyclical markets by adapting its investment strategies, financial structures, and operational focus to existing market conditions.

By leveraging the industry expertise and extensive industry relationships and network of its team members, KKR XII intends to determine which investment themes it wants to pursue and use this filter to target specific investments behind identified themes which are then reviewed at a micro level. In particular, the Fund intends to focus on investments that have opportunities to drive returns through enhanced innovation, operational improvements, creative structuring and accretive M&A.

Investment criteria for a target portfolio company include:

- High quality, leading companies with defensible market positions
- Companies with opportunities for significant operational improvements
- Companies that have competitive advantages and operate in sectors with consolidation opportunities
- Strong management team leadership operating in growing markets with attractive product returns

Partnering with capable, trustworthy managers and entrepreneurs whose interests are aligned with investors, and who are willing to work with KKR to institutionalize their businesses, is a key tenet to KKR's strategy in the Americas.



KKR believes its nearly 40-year track record gives it a competitive advantage at the global level in sourcing proprietary opportunities, structuring differentiated and compelling financial transactions across both equity and debt, building successful businesses and creating value across a broad range of industry sectors.

#### **IV. Investment Performance**

Previous fund performance as of June 30, 2015 for KKR and the SBI's investments with previous funds, where applicable, is shown below:

<b>Fund</b>	<b>Inception Date</b>	<b>Total Invested Capital</b>	<b>SBI Commitment</b>	<b>Net IRR*</b>	<b>Net MOIC*</b>
KKR 1984 Fund	1984	\$1.1 billion	\$25 million	29.3%	5.1
KKR 1986 Fund	1986	\$857 million	\$18 million	12.1%	12.5
KKR 1987 Fund	1987	\$6.2 billion	\$146 million	28.8%	2.7
KKR 1993 Fund	1993	\$2.0 billion	\$150 million	22.7%	2.0
KKR 1996 Fund	1996	\$6.1 billion	\$200 million	13.2%	1.9
KKR Millennium Fund	2002	\$6.0 billion	\$200 million	16.6%	2.1
KKR 2006 Fund	2006	\$17.1 billion	\$200 million	8.6%	1.6
KKR North America Fund XI	2012	\$5.0 billion	--	22.3%	1.4

\* Previous Fund investments may be relatively immature and therefore, returns may not be indicative of future results. Net IRR and MOIC provided by State Street for all funds except Fund XI which is provided by KKR.

#### **V. General Partner's Investment**

KKR and its executives will commit at least \$700 million to the Fund.

## **VI. Takedown Schedule**

Capital will be called as needed with at least 10-business days prior written notice.

## **VII. Fees**

Management fees will be payable quarterly in advance based on the following:

- a. During the Investment Period, 1.50% per annum on capital commitments.
- b. After the Investment Period, 1.25% per annum on invested capital stepping down by 0.25% every eight quarters until it reaches 0.75% per annum.
- c. After the eleventh anniversary of the first portfolio investment the fee will be reduced to 0.50% per annum on the cost basis of invested capital.

Management fees will be reduced by 100% in the case of all limited partners of the Partnership's share of "Other Fees", which are fees that KKR charges portfolio companies (directors fees, investment banking fees, transaction fees, break-up fees, etc.), but, ultimately, reimburses Limited Partners.

## **VIII. Distributions**

First, 100% to the Limited Partner until the cumulative distributions received by the Limited Partner equals the sum of its capital contributions with respect to (i) each realized portfolio investment and the amount of net write-downs among all other Portfolio Investments; and (ii) expenses of the Fund, including the Management Fee, allocated to each Realized Portfolio Investment and such net write-downs, and (iii) a preferred return on the amounts above at the rate of 7% per annum

Second, 100% to the General Partner until the general partner has received as carried interest 20% of the sum of the distributed preferred return; and

Thereafter, 80% to the Limited Partner and 20% to the General Partner.

## **IX. Key Persons**

In the event that fewer than six of the following twelve Key Executives cease to devote the majority of their business time to the operation of KKR, Limited Partners will have 60 days to reduce their unused capital commitments. The Key Executives for KKR XII are Henry R. Kravis, George R. Roberts, Alexander Navab, Pete Stavros, Tagar Olson, Marc S. Lipschultz, Herald Chen, James C. Momtazee, Nate Taylor, Robert Antablin, William Cornog and Derick Prella.

**X. *Investment Period and Term***

The investment period for KKR XII will commence on the date on which the first investment by the fund is made, and will continue for up to six years. The Fund will be terminated on the eleventh anniversary of the date on which the first portfolio company investment was made, subject to two one-year extensions if approved by the majority interest of LPs.

*\* This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.*



## ATTACHMENT D

### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

<i>Name of Fund:</i>	Advent International GPE VIII, L.P.
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$12 billion
<i>Fund Manager:</i>	Advent International Corporation
<i>Manager Contact:</i>	Maggie Littlefield Sahlman Advent International Corporation 75 State Street Boston, MA 02109 (617) 951-9732

#### II. Organization and Staff

Advent International Corporation (“Advent”) is one of the world’s largest and most experienced global private equity firms, operating from offices in 10 countries and employing 173 investment professionals. Since its inception in 1989, the Firm has raised more than \$35 billion for its buyout funds from over 350 institutional investors worldwide. Through June 30, 2015, Advent’s Global Private Equity Program (“GPE”) has invested \$21.8 billion in 224 companies, representing an aggregate enterprise value of approximately \$90 billion and aggregate revenue of approximately \$70 billion at entry. In addition to the GPE program, Advent is currently investing LAPEF VI, the sixth generation of its Latin American Private Equity Program (“LAPEF”), which focuses on control-oriented investments in later-stage companies throughout Latin America. In recent GPE funds, there have been 1-2 investments where GPE and LAPEF have invested alongside each other.

The GPE team comprises 132 investment professionals with a mix of operating, strategic consulting and financial backgrounds. Its 26 Investment Partners have an average of 17 years of experience in private equity and have worked with Advent for an average of 14 years. The Advent Portfolio Support Group (“PSG” or the “Group”) is an in-house team of 16 professionals with operating and consulting experience who bring tools, expertise and resources to support the transformational initiatives that comprise the specific value creation plans at Advent’s portfolio companies. Advent has also developed a global network of external Operating Partners, senior industry executives who work with the Firm on an independent consulting basis in specific sub-sectors.

### III. Investment Strategy

As with its predecessor funds, GPE VIII will pursue Advent's long-established strategy of sector-focused, operationally intensive, and control-oriented investing, primarily across the developed private equity markets of Europe and North America. GPE VIII plans to invest primarily in companies in five core sectors in which Advent has substantial experience and deep local and international knowledge: (1) Business & Financial Services; (2) Healthcare; (3) Industrial; (4) Retail, Consumer & Leisure; and (5) Technology, Media & Telecom ("TMT"). Within these sectors, the GPE Team will use its deep expertise, combined with a resource-intensive approach, to proactively generate investment opportunities in sub-sectors that are undergoing substantial change, have outstanding growth potential or display other attractive characteristics.

Using its sector expertise and extensive global resources, Advent identifies target companies and sources compelling investment opportunities through a systematic origination process. In assessing the merits of an investment opportunity, the Team seeks not only to articulate a clear path to attractive returns through a defined value creation plan, but also to demonstrate the ability to achieve "break-out" return potential through tangible operational or strategic levers that, if properly executed, can deliver upside. Post-investment, the deal team works closely with the Portfolio Support Group and external Operating Partners to provide maximum support to management as it implements the value creation plan. The goal is to create a strong partnership with management to drive revenue and EBITDA growth. Once results have been achieved, the deal team proactively seeks an exit, the basis for which is often conceived at the time of investment. As an international investor, Advent is well-positioned to identify the most attractive exit alternatives for realizing its investments, including cross-border sales to strategic and financial buyers and IPOs.

### IV. Investment Performance

Previous fund performance as of June 30, 2015 for Advent and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Inception Date	Total Invested Capital	SBI Commitment	Net IRR*	Net MOIC*
ESSF(GPE I)	1989	\$173 million	--	16.9%	2.23
GPE II	1993	\$324 million	--	22.0%	2.02
GPE III	1997	\$986 million	--	10.7%	1.68
GPE IV	2001	\$1.5 billion	--	43.9%	3.03
GPE V	2005	€2.3 billion	--	46.1%	2.52
GPE VI	2008	€6.7 billion	\$50 million	18.8%	2.03
GPE VII	2012	€5.1 billion	\$90 million	12.9%	1.22

\* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) provided by Advent for Funds I-V and State Street for Funds VI-VII.

**V. General Partner's Investment**

Minimum of \$360 million.

**VI. Takedown Schedule**

Capital contributions will be payable upon ten (10) calendar days' prior written notice.

**VII. Management Fee**

1.50% of capital committed to the Fund during the investment period; 1.50% of invested capital thereafter.

**VIII. Distributions**

Distributions to the partners first in proportion to allocated undistributed net income then in proportion to their respective capital accounts, except that distributions to the General Partner will be limited to tax distributions until (a) Limited Partners receive distributions equal to the cost of liquidated investments, written-off investments and the fees and expenses of the Fund not related to investments and (b) the value of the Limited Partners' interests in the Fund plus prior distributions equals 125% of capital contributed to the Fund.

**IX. Key Person**

If any three of the following eight members of the Advent's senior management group fail to devote requisite business time to the GPE funds, the Investment Period will be suspended unless the majority of Limited Partners vote for it to continue. The eight members are: Ron Ayles, James Brocklebank, Ralf Huel, Jan Janshen, David M. Mussafer, David M. McKenna, Chris Pike, and Fred Wakeman.

**X. *Investment Period and Term***

The term of the fund is ten years, subject to extension with Advisory Committee approval.

The Commitment Period will last for a period of six years from the commencement date of the Fund, subject to extension with the Limited Partners' approval.

*\* This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and any supplemental thereto.*



## ATTACHMENT E

### YIELD-ORIENTED MANAGER SUMMARY PROFILE

#### ***I. Background Data***

<b><i>Name of Fund:</i></b>	Merit Mezzanine Fund VI, L.P.
<b><i>Type of Fund:</i></b>	Yield-Oriented
<b><i>Target Fund Size:</i></b>	\$600 million
<b><i>Fund Manager:</i></b>	Merit Capital Partners VI, L.P.
<b><i>Manager Contact:</i></b>	Marc Walfish 303 West Madison St., Ste. 2100 Chicago, IL 60606 312-592-6150

#### ***II. Organization and Staff***

Merit Capital Partners (“Merit” or the “Firm”) is forming Mezzanine Fund VI (“Fund VI” or the “Fund”) to make direct privately-negotiated mezzanine investments, focusing on lower-middle market, privately-owned business throughout the United States and Canada.

The Firm has managed five prior mezzanine funds. Funds I, II and III were named William Blair Mezzanine, reflecting the investment bank’s involvement in the General Partner. Beginning with Fund IV, William Blair was no longer involved as a general partner, necessitating a name change to Merit.

The seven senior managers of the General Partner will be Thomas F. Campion, Evan R. Gallinson, David M. Jones, Timothy J. MacKenzie, Daniel E. Pansing, Terrance M. Shipp and Marc J. Walfish, who have collectively managed the five prior mezzanine funds. These individuals have an average experience in the mezzanine industry of over 25 years. Based in Chicago, Merit currently has 11 investment professionals and 4 additional employees.

#### ***III. Investment Strategy***

Fund VI intends to provide investors with an attractive risk-adjusted return by constructing a diversified portfolio providing current income and equity-oriented capital appreciation. As Merit pursues this strategy it will follow the same strategy it developed in prior funds, incorporating the principals of disciplined investing, unique origination, transaction control, active management and diversification.

While traditional mezzanine funds are largely focused on providing financing to buyout deals led by private equity investors, Merit seeks to target the non-

traditional mezzanine market. Opportunities in the non-traditional mezzanine market are often sourced, structured, negotiated and monitored without the involvement of a private equity fund or an investment banker. Companies seeking mezzanine capital in this market typically are most concerned with confidentiality, creative structuring, minimizing financial risk, certainty of closing, and the relationship established with their investment partner.

The profile of a non-traditional mezzanine portfolio will generally consist of more varied investment types than that of a traditional mezzanine provider. The portfolio may consist of transactions completed directly with management owners, including minority or majority recapitalizations and growth investments. It may also include independent/fundless sponsor transactions, which are originated by small investor groups that pursue leveraged buyout transactions without committed capital from a traditional private equity fund.

As the Firm pursues non-traditional mezzanine transactions, Merit will follow the same investment strategy developed in the five prior funds, incorporating five underlying principles:

***Disciplined Investing:*** The Firm intends to adhere to the same prudent credit standards it has employed over the past 20-plus years. Closely following rigorous credit standards are particularly important given that a majority of the Funds' capital will be deployed in subordinate debt.

***Unique Origination Capabilities:*** Merit proactively pursues opportunities in the non-traditional mezzanine market by utilizing an extensive network of executives, attorneys, lenders, accountants and wealth managers, as well as working with fundless sponsors and boutique M&A advisors. The Firm believes that this origination strategy results in attractive entry pricing and higher risk-adjusted returns than its peer group.

***Transaction Control:*** Merit intends to be the lead investor in substantially all of its investments. Serving as lead investor provides control of the transaction and gives the General Partner the flexibility to develop the capital structure, set transaction terms, and obtain favorable pricing which includes significant equity upside. Merit believes that mezzanine investor who invest alongside equity funds generally have less control over transaction structure and pricing.

***Active Portfolio Management:*** Given the relatively high levels of equity ownership that Merit takes in portfolio companies, the Firm is committed to developing a close relationship with company management and being an integral part of the strategic decision making process. Consistent with this approach, at least one principal of the General Partner is or was a member of the Board of Directors in 72 of the 75 portfolio companies in prior funds. Additionally, by not investing alongside equity funds, Merit is integrally involved in the investment exit process, including decisions on timing and means of exit.

**Diversification:** Merit intends to assemble a balanced, well-diversified portfolio for Fund VI of approximately 20 separate companies. Consistent with prior funds, Fund VI is expected to invest in businesses in a wide variety of industries, generally within the manufacturing and specialty distribution segments, so that the Fund's results are not excessively impacted by any one sector of the economy. Additionally, the Firm expects to diversify the portfolio by financing various types of transactions such as management buyouts, recapitalizations, and situations where growth capital is needed. This strategy enhances diversification, and allows the Firm to focus on the most attractive market segment at any point in time.

#### **IV. Investment Performance**

Previous fund performance as of June 30, 2015 for Merit Capital Partners and the SBI's investments with previous funds, where applicable, is shown below:

<b>Fund</b>	<b>Inception Date</b>	<b>Total Invested Capital</b>	<b>SBI Commitment</b>	<b>Net IRR*</b>	<b>Net MOIC*</b>
William Blair Mezz Fund I	1993	\$113 million	--	14.4%	1.8
William Blair Mezz. Fund II	1997	\$197 million	--	12.2%	1.7
William Blair Mezz. Fund III	2000	\$296 million	\$60 million	15.5%	2.0
Merit Mezz. Fund IV	2005	\$425 million	\$75 million	8.6%	1.5
Merit Mezz. Fund V	2010	\$488 million	\$75 million	7.7%	1.2

\* Fund IV-V investments may be relatively immature and therefore, returns may not be indicative of future results. Net IRR and MOIC numbers provided by Merit Capital for Funds I-II and State Street for Funds III-V.

#### **V. General Partner's Investment**

The General Partner will commit at least 2.5% of aggregate committed capital to Fund VI.

## **VI. Takedown Schedule**

Commitments are expected to be drawn down as needed with not less than 10 days' prior written notice.

## **VII. Management Fee**

During the Investment Period the management fee will be payable quarterly at an annual rate of 1.75% on aggregate commitments up to \$50 million and 1.5% on any commitments above \$50 million. After the Investment Period the fee will step down to 1.5% of Invested Capital.

The management fee will be reduced each year by all fees received by the General Partner in connection with Fund VI activities.

## **VIII. Distributions**

Over the life of the fund, Limited Partners will receive 80% of realized profits according to size of commitment, and the General Partner will receive 20%. The General Partner distribution is subject to a Limited Partner capital account and distribution hurdle that must be greater than 120% of contributed capital or contributed capital plus an 8.16% preferred return.

## **IX. Key Person Termination**

If any four of the seven senior managers cease to be active in Fund VI affairs, no further Capital Call Notice will be delivered without the approval of two-thirds of the Limited Partners.

## **X. Investment Period and Term**

The 5-year Investment Period will begin the earlier of nine months after the initial closing of the fund or the General Partner notifying Limited Partners that it has begun. The 10-year term of the Fund will begin on the same date as the Investment Period. There will be three possible one-year extensions at the consent of the majority of Advisory Committee members or Limited Partners.

*\* This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.*

## ATTACHMENT F

### RESOURCE MANAGER SUMMARY PROFILE

#### ***I. Background Data***

<b><i>Name of Fund:</i></b>	The Energy & Minerals Group Fund IV, LP
<b><i>Type of Fund:</i></b>	Resource Limited Partnership
<b><i>Target Fund Size:</i></b>	\$4.0 billion
<b><i>Fund Manager:</i></b>	EMG Fund IV Management, LP
<b><i>Manager Contact:</i></b>	Alexandra Holzer 811 Main Street, Suite 4200 Houston, TX 77002 P: 713-579-5029

#### ***II. Organization and Staff***

The Energy and Minerals Group (“EMG” or the “Firm”) is raising The Energy & Minerals Group Fund IV (“EMG IV” or the “Fund”) to invest in the natural resource industry, which includes the entire energy complex, and all facets of the minerals and metals industry. EMG will place a particular emphasis on non-substitutable, industrial commodities.

In 2006 co-founders John T. Raymond and John G. Calvert formed a joint venture with Natural Gas Partners (NGP) to assist in fund-raising efforts for Fund I. In 2009, EMG was formed by the co-founders to manage all investment activities of Fund I and all subsequent funds. In addition to the two co-founders, Lee R. Raymond, retired CEO of ExxonMobil also sits on the investment committee for the fund. The three members of the investment committee have extensive operating, leadership and investment experience in a variety of natural resources industries. The firm has 12 additional investment professionals and 15 additional support staff. Since 2006, EMG has committed nearly \$11.4 billion to 26 portfolio companies in the natural resource industry. The Firm operates out of offices in Houston and Dallas, TX.

#### ***III. Investment Strategy***

EMG seeks to generate what it believes to be the most attractive risk-adjusted returns across the natural resources industry by following an investment strategy with “three dimensional” diversity across geography, commodity and business function, which allows the Firm to adapt to the ever-changing investment landscape.

The Firm has a global network of relationships and the capability to pursue opportunities in multiple jurisdictions. The Firm’s strategy is to invest in jurisdictions that have a historical precedent of rule of law and general operating practices. To date, EMG has executed

transactions in the United States, Canada, South Africa, the United Kingdom, and Australia, with the majority of capital being invested in North America. In addition, EMG pursues investments that are related to a variety of commodities. The Firm has expertise across the entire energy value chain as well as the spectrum of steel industry inputs, coal, platinum group metals, and base metals. This expertise should enable EMG to understand current sub-sector dynamics and allocate resources appropriately to pursue the most attractive projects on a risk-adjusted basis. Within each of these commodities, EMG invests in both the upstream (or extractive) business function as well as the midstream (or infrastructure) business function.

Because EMG is not solely focused on one sub-sector of the industry in one region (e.g., North American upstream oil and gas), it is able to allocate capital to the most attractive risk-adjusted opportunities across the natural resources industry in the previously mentioned countries and pivot away from markets and/or commodities where the Firm believes risk-adjusted returns are no longer appropriate.

EMG believes that to properly balance risk and return when assessing investment opportunities, it is imperative to analyze opportunities based upon subsurface fundamentals. To this end, EMG investment opportunities are screened, rigorously diligenced and modeled utilizing underwriting considerations based on a bottoms-up analysis grounded in the understanding of the subsurface science.

In order to execute on the Firm's broad mandate, EMG has a consistent investment thesis and approach. Specifically, the Firm seeks to identify investments that comply with each of the following three key tenets:

1. ***Low-cost sources of supply and/or production:*** EMG believes businesses with low-cost sources of supply and/or production, either direct or underlying, will be able to compete effectively throughout commodity price cycles
2. ***High-quality commodity-based products:*** The Firm targets companies with high-quality products, either direct or derivatives thereof, in order to maximize margins and achieve superior profitability
3. ***Strategic proximal locations:*** EMG seeks to ensure that its portfolio companies are strategically located near their direct end user(s) or key export points in order to have the ability to deliver the respective products to market on a cost competitive basis.

The Firm believes that businesses built on these tenets are able to withstand commodity price cycles. EMG's underwriting of opportunities reflects this belief, and focuses on the durability of margins, rather than speculation on commodity prices. While high or rising commodity prices generally benefit EMG's investments, the Firm is focused on investment opportunities with hard assets that are integral to existing and growing markets, and do not rely on high commodity prices to generate returns.

Fund IV will typically target equity investments of up to \$1 billion (in some instances greater than \$1 billion, with Fund commitments ranging from \$100 million to \$600 million and the balance typically funded by a combination of co-investors and strategic investors) in entities with accomplished management teams specializing in hard assets that are integral to existing and growing markets. EMG expects Fund IV to have 10-12 portfolio companies.

#### **IV. Investment Performance**

The historical investment performance of EMG as of June 30, 2015 is presented below:

<b>Fund</b>	<b>Inception Date</b>	<b>Total Invested Capital</b>	<b>SBI Commitment</b>	<b>Net IRR*</b>	<b>Net MOIC*</b>
NGP Midstream & Resources, L.P. (EMG Fund I)	2007	\$1.3 billion	\$100 million	21.4%	2.3
The Energy & Minerals Group Fund II, L.P.	2011	\$1.7 billion	\$100 million	29.8%	1.9
The Energy & Minerals Group Fund III, L.P.	2014	\$2.7 billion	\$200 million	6.9%	1.1

\* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) provided by State Street.

#### **V. General Partner's Investment**

The General Partner will make a commitment equal to 2.0% of the aggregate commitments.

#### **VI. Takedown Schedule**

Contributions of capital may be called by the General Partner generally upon not less than 10 business days' notice to the Limited Partners.

#### **VII. Management Fee**

During the Investment Period, 1.75% per annum of the overall commitments up to \$2 billion and 1.50% of the overall commitments in excess of \$2 billion up to \$3.5 billion and 1.00% of the Overall Commitments in excess of \$3.5 billion. At the end of the Investment Period the Management Fee will be reduced to 1.5% of the aggregate funded commitments less the amount of invested capital returned to Partners upon liquidation of investments.

## **VIII. Distributions**

First, 100% to the Limited Partner until the cumulative distributions received by the Limited Partner equals the sum of its capital contributions with respect to (i) each realized portfolio investment and the amount of net write-downs among all other Portfolio Investments; and (ii) expenses of the Fund, including the Management Fee, allocated to each Realized Portfolio Investment and such net write-downs, and (iii) a preferred return on the amounts above at the rate of 8% per annum.

Second, 80% to the General Partner and 20% to the Limited Partner until the general partner has received as carried interest 20% of the sum of the distributed preferred return.

Thereafter, 80% to the Limited Partner and 20% to the General Partner.

## **IX. Key Persons**

If either John Raymond or John Calvert cease to be actively involved or devote substantially all of their business time to EMG funds, the investment period will be suspended unless the majority of LPs vote within 90 days for it to continue.

## **X. Investment Period and Term**

The investment period will terminate on the “earliest to occur of (a) the fifth anniversary of the Final Closing Date (b) the date when the Total Commitments have been (i) called and invested or (ii) reserved to pay Operating Costs or Management Fees, (c) the date on which the General Partner has obtained the approval of the Advisory Board to terminate the Investment Period or (d) the date otherwise terminated pursuant to this Agreement.”

The Fund will terminate after 10 years, subject to two one-year extensions.

*\* This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the “PPM”). It is qualified in its entirety by the more detailed information provided in the PPM.*



## ATTACHMENT G

### PRIVATE EQUITY MANAGER SUMMARY PROFILE

#### I. Background Data

<i>Name of Fund:</i>	Madison Dearborn Capital Partners VII
<i>Type of Fund:</i>	Private Equity Limited Partnership
<i>Target Fund Size:</i>	\$3.75 billion
<i>Fund Manager:</i>	Madison Dearborn Partners
<i>Manager Contact:</i>	David Pequet Three First National Plaza, Suite 4600 Chicago, IL 60602 (312) 895-1188

#### II. Organization and Staff

Madison Dearborn Partners (“MDP” or the “Firm”) is forming Madison Dearborn Capital Partners VII (the “Fund” and, together with its parallel funds, “Fund VII”) to make buyout and growth equity investments in established middle and upper middle-market companies located primarily in the United States.

MDP was founded in 1992 and operates out of a single office in Chicago. The firm has a total of 45 investment professionals led by 15 managing directors with John Canning Jr. serving as Chairman, and Paul Finnegan and Samuel Mencoff as co-CEOs. The average tenure of the 15 managing directors at MDP and the predecessor firm, First Chicago Venture Capital, is 21 years. Since MDP’s formation in 1992, the firm has invested \$16.7 billion in 129 companies across six prior investment funds.

#### III. Investment Strategy

Madison Dearborn seeks to invest in companies that are well-positioned to achieve substantial growth and value appreciation through carefully defined value creation initiatives. The foundation of MDP’s investment focus is centered on the following:

***Middle and Upper-Middle Market Focus:*** Fund VII will seek to make equity and equity related investments ranging from \$100 million to \$400 million in businesses with enterprise values ranging from \$100 million to \$2.5 billion. The Firm believes that a middle and upper-middle market focus allows MDP to fully leverage its unique sourcing angles to generate deal flow away from the competitive mainstream, and also believes it can effectively implement change on companies in this market segment during its period of ownership. Additionally, companies in this size range often have multiple exit options, including corporate buyers, financial investors, and the public markets.

***Blend of Buyout and Growth Equity Investments:*** Fund VII will target both value-oriented mature companies and growth-oriented businesses with attractive operating track records. The Firm targets buyout investments in sound, profitable companies that are market leaders in their industries or have the potential to become dominant players, and which have strong, defensible characteristics. The investments are generally between \$150 million and \$400 million of equity in companies with an enterprise value of up to \$2.5 billion. Growth equity investments are made in companies with a proven business model and a track record of revenue and EBITDA growth. Growth investments generally range from \$100 million to \$200 million, are often consummated without the use of leverage, and may take the form of either a control or significant minority investment. Approximately one-third of MDP capital has been deployed in growth investments and two-thirds in buyouts across prior funds, and the composition of Fund VII is expected to be similar.

***Unique Midwest Franchise:*** Madison Dearborn's history in Chicago dates back to the early 1980s when the founders of MDP began investing on behalf of First Chicago Venture Capital. Over the last 30 years the Firm has evolved into a leading private equity franchise with a strong reputation and extensive network of contacts and relationships in the Midwestern United States. The Principals are also deeply involved in the Chicago and Midwest business, civic, and philanthropic communities, including representation on the boards of many of the region's prominent universities, hospitals, museums, and business and charitable organizations. Madison Dearborn believes that this Midwestern "home field advantage" provide a clear competitive advantage in sourcing transactions. The Firm's network leads to deal flow with limited or no competition and often provides a decisive advantage when other potential buyers are involved. Approximately 40% of MDP investments since 2009 have been in Chicago or Midwest-based businesses.

***Industry Focused Approach:*** The Firm is organized into six industry verticals with dedicated teams:

- Basic Industries
- Business & Government Services
- Consumer
- Financial and Transaction Services
- Health Care
- Telecom, Media & Technology (TMT)

MDP believes that its extensive experience in each of these sectors provides a competitive advantage with respect to (i) sourcing; (ii) early assessment of investment opportunities; (iii) due diligence; and (iv) development and implementation of value creation plans.

After closing an investment, MDP believes it can transform, grow and professionalize its portfolio companies to create value for investors. The Firm draws on industry executives and specialist consultants who are available to support its efforts to help companies meet near and long-term goals. MDP believes that 79% of equity value

created in its investments exited since 2009 has come from EBITDA growth as opposed to multiple expansion or financial engineering.

#### **IV. Investment Performance**

Previous fund performance as of September 30, 2015 for investments in Funds I through VI is shown below:

<b>Fund</b>	<b>Inception Date</b>	<b>Total Invested Capital</b>	<b>Net IRR*</b>	<b>Net MOIC*</b>	<b>Fund Status</b>
MDCP	1993	\$543 million	28.1%	3.4x	Realized
MDCP II	1997	\$886 million	22.0%	2.3x	Realized
MDCP III	1999	\$2.2 billion	8.6%	1.5x	Realized
MDCP IV	2001	\$3.6 billion	14.5%	2.0x	Liquidating
MDCP V	2006	\$5.8 billion	7.0%	1.5x	Liquidating
MDCP VI	2009	\$3.6 billion	22.8%	1.7x	Active

\* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Net MOIC provided by MDP.

#### **V. General Partner's Investment**

MDP principals commit to invest 6% of aggregate commitments, as of the Partnership's final closing, with the Limited Partners of Fund VII.

#### **VI. Takedown Schedule**

The general partner will draw down capital commitments from time to time as needed to fund investments and operations (including partnership expenses, organizational expenses, and management fees). The general partner will give at least 10 days written notice prior to any drawdown of unfunded capital commitments.

#### **VII. Fees**

Management fees will be payable quarterly in advance based on the following:

- a. During the Investment Period, 1.50% per annum charged on capital commitments.
- b. After the Investment Period, 0.75% per annum on aggregate funded commitments less distributions constituting returns of capital and permanent write-downs.

Management fees will be reduced by 100% in the case of all limited partners of the Partnership's share of "Transaction Fees", which are fees that MDP charges portfolio companies (directors fees, investment banking fees, transaction fees, break-up fees, etc.), but, ultimately, reimburses Limited Partners.

## **VIII. Distributions**

First, 100% to the Limited Partner until the cumulative distributions received by the Limited Partner equals the sum of its capital contributions with respect to (i) each realized portfolio investment and the amount of net write-downs among all other Portfolio Investments; and (ii) expenses of the Fund, including the Management Fee, allocated to each Realized Portfolio Investment and such net write-downs, and (iii) a preferred return on the amounts above at the rate of 8% per annum

Second, 100% to the General Partner until the general partner has received as carried interest 20% of the sum of the distributed preferred return; and

Thereafter, 80% to the Limited Partner and 20% to the General Partner.

## **IX. Key Persons**

In the event that certain individuals associated with the Manager and the General Partner cease to be associated with the Manager or ceases to own certain interests in the General Partner or the Manager, as described in the Partnership Agreement, the General Partner shall provide prompt written notice to the Limited Partners that a "Trigger Event" has occurred. Following a Trigger Event, the General Partner shall not deliver a Capital Call Notice or make new investments without the approval of Limited Partners holding a majority of aggregate commitments.

Specifically, a "Trigger Event" occurs when (a) fewer than six of the approved Partners are devoting substantially all of their business time to the Partnership, (b) all of John A. Canning, Jr., Paul J. Finnegan and Samuel M. Menco cease to remain active in the partnership for any reason or (c) any two of John A. Canning, Jr., Paul J. Finnegan and Samuel M. Menco cease to remain active in the partnership for any reason other than death or disability.

**X. *Investment Period and Term***

The Investment Period shall begin on the initial closing date and end six years after the Effective Date, which is the date the General Partner notifies Limited Partners that the Principals have commenced actively identifying investments for the Fund. The term of the Fund will end on the tenth anniversary of the Effective Date. However, the term of the Fund may be extended by the General Partner with the consent of the Advisory Committee, for up to two additional one-year periods and one additional one-year period with majority Limited Partner approval. The Fund is also subject to earlier termination pursuant to the terms of the Partnership Agreement.

*\* This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.*

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## **INVESTMENT ADVISORY COUNCIL REPORT**

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DATE: November 25, 2015

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

**SUBJECT: Public Markets, Non-Retirement, and Defined Contribution Report**

This section of the report provides a brief overview of economic and capital market performance as it pertains to the SBI portfolio. Also, included in this section is a summary of investment manager activity and performance summaries of the equity and fixed income managers in the SBI portfolio.

Also, we have included commentary and performance for the non-retirement managers, deferred compensation plan mutual funds, and performance for options within the Minnesota College Savings Plan.

The report includes the following sections:

	<b>Page</b>
• Public Markets Economic and Market Overview	3
• Public Markets Manager Activity	5
• Non-Retirement Manager Update	8
• Deferred Compensation Manager Update	9
• Manager Performance Summaries	A-1

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## Public Markets Economic and Market Overview Third Quarter 2015

### Overview

With concerns over the most recent potential “Grexit” abating (Greece exiting from the Euro currency), the market shifted its focus to the slowing global economy, and more specifically, China’s faltering economy. The situation became even more unsettling in mid-August when the People’s Bank of China chose to allow its currency, the yuan, to devalue relative to the U.S. dollar, prompting other emerging market currencies to depreciate sharply. Due to this precarious macroeconomic backdrop, investors flocked to safety as volatility spiked worldwide. International markets posted their worst quarterly returns in four years. The Emerging Markets were hit even harder and were pushed into bear market territory.

Unfortunately, the carnage did not skip the domestic markets as global growth concerns, coupled with a looming rate hike, pushed all major U.S. stock indices well into negative territory for the calendar year. Similar to the foreign markets, the *S&P 500 Index* endured its worst quarter in four years, retreating (6.4%) during the third quarter. While the large cap universe struggled, the small cap segment, typically characterized with higher levels of risk and volatility, performed even worse as evidenced by a decline in the *Russell 2000 Index*.

Despite the disappointing market returns, there were some positive developments that were somewhat lost amid the headlines. For example, the Eurozone continues to show signs of recovery from the depths of the European debt crisis, as evidenced by its upwardly revised second-quarter GDP growth figure. Additionally, the United States continues to post healthy underlying economic data, including solid corporate earnings growth and improving unemployment rates. Finally, the consumer, which drives much of the developed world’s economy remains strong, benefiting from the lower gasoline prices, as oil prices dropped to a six-year low during the period.

There was no place to hide during the quarter, as the vast majority of developed and emerging market equity strategies, regardless of style or market capitalization, struggled from an absolute return perspective. In the United States, the *Russell 3000 Index* declined (7.2%), with the Healthcare and Energy sectors as the largest detractors. For the international markets, the *MSCI World ex-US Index* fell (10.6%), with the Financials and Materials sectors representing the largest laggards. The *MSCI Emerging Markets Free (net) Index* retreated (17.9%), with China and Brazil among the largest detractors from a country perspective.

In Fixed Income markets, investors gravitated toward the safety of U.S. Treasuries, pushing the 10-year note yield down to almost 1.9%. More broadly speaking, the *Barclays Aggregate Index* rose 1.2% for the quarter, as the “risk-off” market environment took hold due to the slowing global growth trends and the uncertainty regarding the Federal Open Market Committee’s (“FOMC”) decision on whether to increase the Fed Funds rate. Subsequent to the quarter end, the Committee decided to leave its target interest rate near zero, citing global macroeconomic and financial market concerns.

## **SBI Portfolio**

For the third quarter, the SBI's portfolio slightly trailed the composite benchmark. Domestic equities decreased (7.5%) which was 30 basis points (bps) behind the *Russell 3000 Index*, while international stocks (*MSCI ACWI Free ex USA Index*) declined by (11.1%), beating its aggregate benchmark by 110 bps. The fixed income allocation added 0.8%, but trailed the *Barclays Aggregate Index* by 40 bps.

## **Domestic Equity**

Domestically, large cap growth managers trailed the *Russell 1000 Growth Index* due to poor asset allocation across the majority of sectors. Similarly, large cap value managers underperformed the *Russell 1000 Value Index* due to negative stock selection across several sectors. The small cap universe significantly underperformed the large cap universe during the quarter. From a style perspective, the small cap growth segment was the worst hit, falling (13.1%) during the period, while the small cap value segment retreated (10.7%). Despite the negative performance, SBI's active small cap growth portfolio outperformed the *Russell 2000 Growth Index*. Stock selection in the Healthcare and Information Technology sectors led the way. Conversely, the SBI's active small cap value portfolio slightly trailed the *Russell 2000 Value Index* due primarily to the underperformance of Hotchkis & Wiley. More specifically, Hotchkis & Wiley's underweight position in the Financials sector coupled with disappointing stock selection in the Healthcare and Materials sectors were drags on performance. The semi-passive, domestic equity portfolio slightly outpaced the *Russell 1000 Index* during the quarter. Stock selection in the Energy sector provided the largest lift to returns, while subpar stock selection in the Financials and Consumer Staples sectors partially offset these gains.

## **International Equity**

Active international equity managers outperformed the *MSCI World ex-USA Index (net)* for the quarter, as stock selection and country allocation added alpha. From a country point-of-view, stock selection was positive in Japan, Germany, and Canada. Country allocation was positive in Denmark, Canada, and Australia. Semi-passive international managers outperformed the benchmark due to positive stock selection in Germany, Canada, and UK. Country allocation was positive in Italy, France and Denmark.

## **Emerging Markets Equity**

Within Emerging Markets, the aggregate portfolio outperformed the *MSCI Emerging Markets Free (net) Index*. Active managers benefited from an overweight position and stock selection in India, an underweight position and stock selection in Brazil, and weighting decisions and stock selection in the Financials, Energy, and Consumer Discretionary sectors. The passive Emerging Markets portfolio generated positive tracking error primarily due to underweight positions in restricted stocks (Iran and Sudan), coupled with the subsequent overweight positions in non-restricted names.

## **Fixed Income**

For the SBI's Fixed Income allocation, most of the fixed income managers underperformed the *Barclays Aggregate Index* for the quarter. An underweight duration position in the aggregate portfolio detracted from performance, as Treasuries rallied upon a dovish FOMC rate decision. Also, sector exposure to corporate bonds detracted from performance, as corporate spreads widened on excess supply issuance, particularly those of lower credit quality. Exposure to CMBS and ABS contributed positively to performance.

## **Public Markets Manager Activity Third Quarter 2015**

### **Manager Summary**

For the quarter, the vast majority of investment managers performed in line with expectations and no commentary was necessary. There were some noteworthy manager developments for the quarter involving AQR, Goldman Sachs, J.P. Morgan, McKinley, Morgan Stanley, Pyramis, and SSgA.

### **AQR**

As of August 2015, AQR ended its employment relationship with Hitesh Mittal, formerly AQR's Head of Trading. Mr. Mittal has been referenced in reports about an SEC investigation of ITG that relates to misconduct that occurred in 2010 and 2011 while Mr. Mittal was employed at ITG. He subsequently joined AQR in 2012. AQR immediately put Mr. Mittal on leave when allegations surfaced, and later terminated the relationship to avoid further distraction to the business. AQR Principal, Brian Hurst, AQR's former Head of Trading, reassumed the role effective July 31, 2015. Brian left the Head of Trading role to work full-time as a Portfolio Manager on several strategies, including Risk Parity, at AQR. AQR has hired a third party law firm, Milbank, to review all of AQR's and Mr. Mittal's trading. AQR will share the findings of this review with clients when they are available. The SBI will closely examine the findings of that review and any subsequent actions or notifications concerning this matter.

### **Goldman Sachs**

On July 13, 2015, Goldman Sachs announced that Dolores Bamford, an Energy Research Analyst and Portfolio Manager, was retiring effective September 1, 2015. Ms. Bamford served as the Co-Lead Portfolio Manager for the Mid Cap Value strategy and contributed stock ideas to the SMID and Small Cap Value strategies. (The SBI is invested in the Small Cap Value portfolio.) Adam Agress rejoined the U.S. Value Equity Team on July 6, 2015 and has assumed Ms. Bamford's Energy research responsibilities for the Mid Cap Value, as well as the Small Cap Value/SMID strategies. Mr. Agress has 9 years of industry experience and served as a Research Analyst and Sector Portfolio Manager on the U.S. Value Equity Team from 2007 to 2011, where he worked closely with Ms. Bamford. Given the depth of the U.S. Value Team, staff is not concerned with the change, but will monitor the transition.

### **J.P. Morgan**

As was previously announced, Kathleen Stack, the team's Consumer Analyst, retired September 30, 2015. Lisa Sadioglu, with 15 years of industry experience, and Tim Gamache, with 10 years of industry experience, have assumed Ms. Stack's coverage. Additionally, Helge Skibeli, who is currently the Head of U.S. Equity Research, will be assuming a new role as Global Head of Developed Market Equity Research. Kay Herr, the current Associate Director of U.S. Research will be elevated to Associate Director of Global Developed Markets Research, and David Small, who is currently an Insurance Analyst, will be transitioning to Associate Director of U.S. Research. These promotions were driven by the U.S. team's excellent performance, which occurred under the leadership of the aforementioned individuals. Given the depth and experience of J.P. Morgan's investment team, staff is not concerned with these announcements, but will monitor the transitions closely.

### **McKinley Capital**

On September 28, 2015, the SBI was informed that Denali Kempfel would assume the firm's Chief Operating Officer position effective September 30, 2015. Ms. Kempfel is responsible for the day-to-day administrative and general business operations of the firm. Previously, Ms. Kempfel served as the Executive Vice President and General Counsel of Arctic Slope Regional Corporation (ASRC). J.L. McCarrey, III, who had served as the interim Chief Operating Officer since January 16, 2015, will continue as the firm's Chief Compliance Officer and General Counsel. Staff is comfortable with this addition to McKinley's executive team.

### **Morgan Stanley**

On October 1<sup>st</sup>, 2015, Morgan Stanley Chairman and CEO James Gorman named Dan Simkowitz as the Global Head of Investment Management, responsible for Traditional Asset Management, Alternative Investment Partners (AIP), and Merchant Banking & Real Estate Investing (MB&REI), replacing Greg Fleming in the role. Previously, Greg Flemming was responsible for both the Wealth Management and the Investment Management divisions. Greg remains in charge of the Wealth Management division. This change is reflective of the size, growth, and needs of each business under the Morgan Stanley umbrella: Institutional Securities, Wealth Management and Investment Management. Each of these business units warrant individual leadership.

Dan Simkowitz joined Morgan Stanley in 1990 and has worked in Capital Markets and M&A, most recently serving as Co-Head of Global Capital Markets. In his previous role as Co-Head of Global Capital Markets, Dan served on the Firm's Operating Committee, the Firm's Risk Committee, and was the Co-Chair of the Firm's Capital Commitment Committee from 2009 to 2014. Staff has no concerns with this announcement.

During the 3Q15, Morgan Stanley's Emerging Markets Equity team hired Jessica Whitt as a senior analyst focusing on Latin America. Jessica has 10 years of investment experience. Prior to joining, Ms. Whitt was an Analyst focusing on Industrials at Moon Capital Management. While the emerging markets group has added analysts to other regional teams, this is a new position for the team covering Latin America. Staff has no concerns with this announcement.

### **Pyramis**

In October 2015, "Pyramis Global Advisors" was renamed as "Fidelity Institutional Asset Management". According to the firm, the name change will allow them to provide clients with more integrated service under the Fidelity brand. Staff has no concerns with the announcement, but will monitor the situation.

### **SSgA**

In September 2015, Mathew Steinaway assumed the role of Chief Risk Officer, taking over for David Saulnier who left the firm to pursue other opportunities. Mr. Saulnier had been hired in November 2014 following an extensive search process. In 2014, Saulnier replaced Matthew Steinaway, who had been serving in the role on an interim basis. Steinaway resumed his position as Head of Global Cash Management. Staff has no concerns with the announcement, but will monitor the situation.

## 2015 Manager Meetings

Staff continued with the SBI Stock and Bond Manager Annual Reviews. The third quarter manager reviews are noted below.

<b>Investment Manager</b>	<b>Asset Class</b>
• Capital International, Inc.	International Equity
• Pacific Investment Management Company LLC	Fixed Income
• Sands Capital Management, LLC	Domestic Equity
• Zevenbergen Capital Investment LLC	Domestic Equity
• Mellon Capital Management Corporation	Domestic Equity
• J. P. Morgan Investment Management Inc.	Domestic Equity
• Columbia Threadneedle Investments	International Equity
• Western Asset Management Company	Fixed Income

## **Non-Retirement Manager Update Third Quarter 2015**

### **Domestic Equities**

#### ***GE Asset Management***

The domestic equity portfolio underperformed its benchmark, the S&P 500, for the quarter and for the year. Stock selection in technology, consumer discretionary, and financials lagged the benchmark during the quarter. For the year, stock selection in technology, energy, and utilities detracted from performance.

During the quarter, General Electric Company (GE) announced it will explore the sale of its investment management division, GE Asset Management (GEAM). A buyer is anticipated to be chosen in the first quarter of 2016 and the transaction is expected to close mid-year 2016.

Staff is monitoring the situation closely.

#### ***Internal Stock Pool***

The performance in the domestic equity portfolio tracked the index, the S&P 500 for the quarter and the year. In addition to fully replicating the risk and return profile of the index, the portfolio utilizes an overlay of S&P ETF's to equitize cash. As a result the portfolio continues to maintain a low tracking error.

### **Fixed Income**

#### ***RBC Global Asset Management***

The fixed income portfolio tracked the benchmark, the Barclays Intermediate Government for the quarter and underperformed the index for the year. For the year, excess yield from securitized assets were offset by price depreciation arising from the portfolios positioning on the yield curve relative to the benchmark.

#### ***Internal Bond Pool***

The bond portfolio slightly underperformed its benchmark for the quarter and outperformed for the year. During the quarter, the yield curve steepened due to heavy new corporate issuance and investor concerns regarding China's slow economic growth and its dampening effect on global growth. For the quarter, the portfolio's positioning on the yield curve and an overweight allocation to corporate bonds detracted from performance. For the year, an overweight allocation to asset backed securities (ABS) and security selection effects contributed to outperformance.



## **Deferred Compensation Managers Third Quarter 2015**

### **Domestic Equities**

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

The domestic equity portfolio outperformed its benchmark, the S&P 500, for the quarter and for the year. For the quarter the portfolio benefited from strong stock selection and an overweight in consumer discretionary and technology sectors and an underweight in the energy sector. The one year return benefited from an underweight to energy, an overweight to consumer discretionary and stock selection in the healthcare sector.

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

The domestic equity portfolio tracked the return of the S&P 500 Index for the quarter and the year.

#### ***Vanguard Mid-Cap Index***

The mid-cap equity portfolio trailed the benchmark, CRSP US Mid Cap Index, for the quarter and the year by approximately the expense ratio.

#### ***T. Rowe Price***

The small cap equity portfolio outperformed the benchmark, the Russell 2000, for the quarter and underperformed for the year. For the year, stock selection in technology, consumer discretionary, and materials along with a slight overweight in materials, were the primary detractors to performance.

### **International Equities**

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

Despite generating negative results, the portfolio outperformed the benchmark, the MSCI EAFE Free, for the quarter and the year. For the quarter, the portfolio benefited from favorable stock selection, sector allocations and a minimal average cash position helped in a declining market environment. However, some of the gains were offset by poor stock selection in consumer discretionary, health care, a zero weight allocation to utilities and an overweight to emerging markets relative to the index. For the year, active positions in information technology, consumer staples, industrials and an out-of-index allocation to U.S. stocks benefited relative performance.

#### ***Vanguard Total International Stock Index***

The portfolio outperformed its benchmark, the FTSE Global All Cap ex US Index, for the quarter and for the year. In the short term, the international portfolio will have higher tracking error as a result of fair value pricing, which tends to smooth out over time.

## **Fixed Income**

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

The portfolio underperformed the benchmark, the Barclays Aggregate, for the quarter and for the year. Performance for the quarter and the year were hurt by the portfolio's shorter relative duration, an underweight to US treasuries, and certain corporate holdings.

### ***Vanguard Total Bond Market Index***

The portfolio tracked the benchmark, the Barclays Aggregate Index, for the quarter and the year.

### ***Balanced and Conservative Options***

#### ***Vanguard Balanced***

The portfolio slightly outperformed for the quarter and tracked its benchmark for the year. The benchmark is a combined return of 60% CRSP US total Market and 40% Barclays Aggregate.

### ***Galliard Capital Management***

The stable value portfolio outperformed its benchmark, the 3 Year Constant Maturity Treasury plus 0.45%, for the quarter and the year. For the quarter, the portfolio benefited from holdings in high quality corporate issues, agency mortgage backed securities, taxable municipals and asset backed securities (ABS). In addition, the portfolio's yield curve positioning relative to the index contributed positively to performance. For the year, the overweight to non-Treasury sectors and bond positioning along the intermediate part of the curve continued to benefit returns.

## **Target Retirement Funds**

State Street Global Advisors (SSGA) has managed the MN Target Retirement Funds since June of 2011. As a result of the growth in assets, investment fees were reduced during the third quarter from 17 to 12 basis points. The investment objectives and asset allocation for these funds remain unchanged. Separately, the State Street Global Advisor 1-10 Year U.S TIPS Index Fund was recently added to the asset allocation mix in certain target retirement funds.



# STATE BOARD OF INVESTMENT

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## Domestic Equity Manager Performance Summaries

Third Quarter 2015



# MINNESOTA STATE BOARD OF INVESTMENT

## Domestic Equity

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**COMBINED RETIREMENT FUNDS  
ACTIVE DOMESTIC EQUITY MANAGERS**

**Periods Ended September 30, 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	-6.9	0.8	14.3	14.5
<i>Russell 1000 Growth Index</i>	-5.3	3.2	13.6	14.5
Russell 1000 Value Aggregate	-9.0	-3.4	13.1	12.6
<i>Russell 1000 Value Index</i>	-8.4	-4.4	11.6	12.3
Russell 2000 Growth Aggregate	-11.6	7.3	12.0	12.3
<i>Russell 2000 Growth Index</i>	-13.1	4.0	12.8	13.3
Russell 2000 Value Aggregate	-10.9	0.1	13.0	13.2
<i>Russell 2000 Value Index</i>	-10.7	-1.6	9.2	10.2
<b>Active Manager Aggregate</b>	-8.8	-0.3	13.4	13.1
<i>Benchmark</i>	-8.1	-0.4	12.2	12.9
<b>Semi-Passive Aggregate</b>	-6.8	-0.4	13.0	14.0
<i>Benchmark</i>	-6.8	-0.6	12.7	13.4
<b>Passive Manager (BlackRock)</b>	-7.2	-0.5	12.5	13.2
<i>Russell 3000 Index</i>	-7.2	-0.5	12.5	13.3
<b>Total Aggregate</b>	-7.5	-0.4	12.9	13.5
<i>Russell 3000 Index</i>	-7.2	-0.5	12.5	13.3

**Calendar Years**

	2014	2013	2012	2011	2010
Russell 1000 Growth Aggregate	9.6	42.0	15.5	-0.4	19.3
<i>Russell 1000 Growth Index</i>	13.0	33.5	15.3	2.6	16.7
Russell 1000 Value Aggregate	13.1	36.5	16.9	-2.1	15.0
<i>Russell 1000 Value Index</i>	13.5	32.5	17.5	0.4	15.5
Russell 2000 Growth Aggregate	-3.4	47.2	12.0	-5.6	29.1
<i>Russell 2000 Growth Index</i>	5.6	43.3	14.6	-2.9	29.1
Russell 2000 Value Aggregate	7.5	40.8	19.6	-4.5	30.5
<i>Russell 2000 Value Index</i>	4.2	34.5	18.1	-5.5	24.5
<b>Active Manager Aggregate</b>	9.3	40.2	15.4	-2.7	19.7
<i>Active Manager Benchmark</i>	11.0	34.7	16.3	0.0	18.7
<b>Semi-Passive Aggregate</b>	14.2	33.2	17.7	2.2	15.2
<i>Benchmark</i>	13.2	33.1	16.4	1.5	16.1
<b>Passive Manager (BlackRock)</b>	12.6	33.5	16.4	0.8	17.2
<i>Russell 3000 Index</i>	12.6	33.6	16.4	1.0	16.9
<b>Total Aggregate</b>	12.3	35.1	16.6	0.4	17.1
<i>Russell 3000 Index</i>	12.6	33.6	16.4	1.0	16.9

**COMBINED RETIREMENT FUNDS  
ACTIVE DOMESTIC EQUITY MANAGERS**

**Periods Ended September 2015**

**Performance versus Russell Style Benchmarks for All Periods**

	<b>Last Quarter</b>	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>	<b>Since Inception(1)</b>
<b>Russell 1000 Growth Index</b>	<b>-5.3</b>	<b>3.2</b>	<b>13.6</b>	<b>14.5</b>	<b>--</b>
INTECH	-5.2	5.6	13.5	14.6	7.0
<i>Benchmark</i>	-5.3	3.2	13.6	14.5	7.7
Jacobs Levy	-5.5	3.4	14.3	15.4	6.7
<i>Benchmark</i>	-5.3	3.2	13.6	14.5	7.7
Sands Capital	-7.9	-3.8	12.6	16.2	9.2
<i>Benchmark</i>	-5.3	3.2	13.6	14.5	7.7
Winslow-Large Cap	-6.0	3.6	13.9	13.7	8.8
<i>Benchmark</i>	-5.3	3.2	13.6	14.5	7.7
Zevenbergen Capital	-9.4	-2.7	18.0	12.6	9.9
<i>Benchmark</i>	-5.3	3.2	13.6	14.5	8.7
<b>Aggregate</b>	<b>-6.9</b>	<b>0.8</b>	<b>14.3</b>	<b>14.5</b>	
<b>Russell 1000 Value Index</b>	<b>-8.4</b>	<b>-4.4</b>	<b>11.6</b>	<b>12.3</b>	<b>--</b>
Barrow, Hanley	-8.5	-3.7	12.9	12.7	7.1
<i>Benchmark</i>	-8.4	-4.4	11.6	12.3	6.6
Earnest Partners	-7.3	0.5	12.3	11.1	5.8
<i>Benchmark</i>	-8.4	-4.4	11.6	12.3	6.2
LSV Asset Mgmt.	-8.4	-2.1	15.9	14.4	8.1
<i>Benchmark</i>	-8.4	-4.4	11.6	12.3	6.6
Systematic Financial Mgmt.	-11.6	-7.3	10.5	10.7	6.3
<i>Benchmark</i>	-8.4	-4.4	11.6	12.3	6.6
<b>Aggregate</b>	<b>-9.0</b>	<b>-3.4</b>	<b>13.1</b>	<b>12.6</b>	

(1) Since inception by the SBI. Inception dates as follows:

4/1/94: Zevenbergen Capital

7/1/00: Earnest Partners

4/1/04: Barrow Hanley, LSV Asset Mgmt., Systematic Financial Mgmt.

1/1/05: INTECH, Jacobs Levy, Sands Capital, Winslow-Large Cap

Note: All aggregates include the performance of terminated managers



**COMBINED RETIREMENT FUNDS**  
**ACTIVE DOMESTIC EQUITY MANAGERS**

Periods Ended September 2015

**Performance versus Russell Style Benchmarks for All Periods**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception <sup>(1)</sup>
<b>Small Cap</b>					
<b>Russell 2000 Growth Index</b>	<b>-13.1</b>	<b>4.0</b>	<b>12.8</b>	<b>13.3</b>	<b>--</b>
McKinley Capital	-11.5	3.6	16.5	15.4	6.6
<i>Benchmark</i>	<i>-13.1</i>	<i>4.0</i>	<i>12.8</i>	<i>13.3</i>	<i>7.9</i>
Next Century Growth	-11.8	11.4	9.7	10.9	2.7
<i>Benchmark</i>	<i>-13.1</i>	<i>4.0</i>	<i>12.8</i>	<i>13.3</i>	<i>3.8</i>
<b>Aggregate</b>	<b>-11.6</b>	<b>7.3</b>	<b>12.0</b>	<b>12.3</b>	
<b>Russell 2000 Value Index</b>	<b>-10.7</b>	<b>-1.6</b>	<b>9.2</b>	<b>10.2</b>	<b>--</b>
Goldman Sachs	-10.4	-0.5	12.1	13.4	8.8
<i>Benchmark</i>	<i>-10.7</i>	<i>-1.6</i>	<i>9.2</i>	<i>10.2</i>	<i>6.7</i>
Hotchkis & Wiley	-12.9	-2.3	15.5	14.8	8.0
<i>Benchmark</i>	<i>-10.7</i>	<i>-1.6</i>	<i>9.2</i>	<i>10.2</i>	<i>6.7</i>
Martingale Asset Mgmt.	-9.5	2.4	14.3	13.5	6.8
<i>Benchmark</i>	<i>-10.7</i>	<i>-1.6</i>	<i>9.2</i>	<i>10.2</i>	<i>6.7</i>
Peregrine Capital	-10.6	0.9	11.4	11.8	9.9
<i>Benchmark</i>	<i>-10.7</i>	<i>-1.6</i>	<i>9.2</i>	<i>10.2</i>	<i>8.9</i>
<b>Aggregate</b>	<b>-10.9</b>	<b>0.1</b>	<b>13.0</b>	<b>13.2</b>	
<b>Active Mgr. Aggregate (2)</b>	<b>-8.8</b>	<b>-0.3</b>	<b>13.4</b>	<b>13.1</b>	

(1) Since inception by the SBI. Inception dates as follows:

7/1/00: Next Century, Peregrine Capital

1/1/04: Goldman Sachs, Hotchkis & Wiley, Martingale Asset Mgmt., McKinley Capital

(2) The Active Manager Aggregate Benchmark is the aggregate of the weighted average of the active manager benchmarks and is not the Russell 3000.

Note: All aggregates include the performance of terminated managers

**COMBINED RETIREMENT FUNDS  
DOMESTIC EQUITY MANAGERS  
Periods Ended September 2015  
Versus Manager Benchmarks**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
<b>Semi-Passive Managers (2)</b>					
BlackRock Institutional	-7.0	0.0	13.2	14.2	9.1
<i>Benchmark</i>	-6.8	-0.6	12.7	13.4	8.8
INTECH	-6.2	-0.6	12.3	13.3	11.8
<i>Benchmark</i>	-6.8	-0.6	12.7	13.4	11.9
JP Morgan	-6.8	-0.1	13.4	14.0	9.1
<i>Benchmark</i>	-6.8	-0.6	12.7	13.4	8.8
Mellon Capital	-7.1	-0.7	13.0	14.6	8.5
<i>Benchmark</i>	-6.8	-0.6	12.7	13.4	8.8
<b>Semi-Passive Aggregate (R1000)</b>	<b>-6.8</b>	<b>-0.4</b>	<b>13.0</b>	<b>14.0</b>	
<b>Passive Manager (R3000)</b>					
BlackRock Institutional	-7.2	-0.5	12.5	13.2	8.5
<i>Benchmark</i>	-7.2	-0.5	12.5	13.3	8.4
<b>Total Aggregate (3)</b>	<b>-7.5</b>	<b>-0.4</b>	<b>12.9</b>	<b>13.5</b>	<b>10.1</b>
<i>Benchmark (3,4)</i>	-7.2	-0.5	12.5	13.3	10.2
<i>Russell 3000 Index (3)</i>	-7.2	-0.5	12.5	13.3	10.6
<i>Russell 1000 Index (3)</i>	-6.8	-0.6	12.7	13.4	10.7
<i>Russell 2000 Index (3)</i>	-11.9	1.2	11.0	11.7	9.1

(1) Since retention by the SBI. Inception dates as follows:

1/1/95: BlackRock Institutional (semi-passive), J.P. Morgan, Mellon Capital

7/1/95: BlackRock Institutional (passive)

4/1/10: INTECH

(2) Semi-Passive managers' benchmark is the Russell 1000 index beginning 1/1/04 and was the Completeness Fund benchmark prior to 1/1/04.

(3) Total Aggregate and Benchmarks Inception as of 1/1/84

(4) The Total Aggregate benchmark is the Russell 3000 effective 10/1/03. From 7/1/99 to 9/30/03, it was the Wilshire 5000 Investable Index. From 11/1/93 to 6/30/99, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/93, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Note: All aggregates include the performance of terminated managers.

**COMBINED RETIREMENT FUNDS  
DOMESTIC EQUITY MANAGERS**

	September 30, 2015		June 30, 2015	
	Market Value	Percent	Market Value	Percent
<b>Russell 1000 Growth Aggregate</b>	<b>\$2,797,993,190</b>	<b>10.4%</b>	<b>\$3,005,506,197</b>	<b>10.2%</b>
INTECH	\$577,939,987	2.2%	\$609,351,593	2.1%
Jacobs Levy	\$670,094,536	2.5%	\$709,155,870	2.4%
Sands Capital	\$644,679,201	2.4%	\$700,332,209	2.4%
Winslow-Large Cap	\$301,429,050	1.1%	\$320,517,099	1.1%
Zevenbergen Capital	\$603,850,417	2.3%	\$666,149,426	2.3%
<b>Russell 1000 Value Aggregate</b>	<b>\$2,780,768,484</b>	<b>10.4%</b>	<b>\$3,056,719,154</b>	<b>10.4%</b>
Barrow Hanley	\$772,921,843	2.9%	\$844,468,741	2.9%
Earnest Partners	\$533,586,621	2.0%	\$575,456,540	2.0%
LSV Asset Mgmt.	\$785,762,480	2.9%	\$857,510,926	2.9%
Systematic Financial Mgmt.	\$688,497,540	2.6%	\$779,282,947	2.7%
<b>Russell 2000 Growth Aggregate</b>	<b>\$752,682,241</b>	<b>2.8%</b>	<b>\$851,688,198</b>	<b>2.9%</b>
McKinley Capital	\$381,209,264	1.4%	\$430,609,675	1.5%
Next Century Growth	\$371,472,977	1.4%	\$421,078,523	1.4%
<b>Russell 2000 Value Aggregate</b>	<b>\$1,016,123,100</b>	<b>3.8%</b>	<b>\$1,140,020,611</b>	<b>3.9%</b>
Goldman Sachs	\$252,302,267	0.9%	\$281,557,557	1.0%
Hotchkis & Wiley	\$231,959,361	0.9%	\$266,241,924	0.9%
Martingale Asset Mgmt.	\$202,840,094	0.8%	\$224,133,241	0.8%
Peregrine Capital	\$329,021,377	1.2%	\$368,087,890	1.3%
<b>Semi-Passive Manager Aggregate</b>	<b>\$10,132,052,179</b>	<b>37.8%</b>	<b>\$11,251,979,690</b>	<b>38.3%</b>
BlackRock Institutional	\$2,365,427,884	8.8%	\$2,544,057,665	8.7%
INTECH	\$2,446,939,677	9.1%	\$2,608,571,205	8.9%
JP Morgan	\$2,710,441,971	10.1%	\$3,290,358,068	11.2%
Mellon Capital	\$2,609,242,647	9.7%	\$2,808,992,752	9.6%
<b>Passive Manager</b>	<b>\$9,329,594,504</b>	<b>34.8%</b>	<b>\$10,055,973,783</b>	<b>34.2%</b>
BlackRock Institutional	\$9,329,594,504	34.8%	\$10,055,973,783	34.2%
<b>Total Portfolio</b>	<b>\$26,809,213,698</b>	<b>100.0%</b>	<b>\$29,361,887,634</b>	<b>100.0%</b>

**COMBINED RETIREMENT FUNDS**  
**ACTIVE DOMESTIC EQUITY MANAGERS**  
**Calendar Year Returns**  
**Russell Style Manager Benchmarks**

	2014	2013	2012	2011	2010
<b>LARGE CAP</b>					
<b>Russell 1000 Growth Index</b>	<b>13.0</b>	<b>33.5</b>	<b>15.3</b>	<b>2.6</b>	<b>16.7</b>
INTECH	12.8	34.1	17.8	0.1	19.5
Jacobs Levy	12.9	37.0	13.0	6.6	19.5
Sands Capital	9.1	42.4	24.2	2.7	26.8
Winslow - Large Cap	11.0	37.4	13.7	0.1	16.8
Zevenbergen Capital	3.4	60.6	8.0	-9.8	22.9
<b>Aggregate</b>	<b>9.6</b>	<b>42.0</b>	<b>15.5</b>	<b>-0.4</b>	<b>19.3</b>
<b>Russell 1000 Value Index</b>	<b>13.5</b>	<b>32.5</b>	<b>17.5</b>	<b>0.4</b>	<b>15.5</b>
Barrow, Hanley	13.0	35.5	15.5	1.7	10.4
Earnest Partners	14.0	32.0	10.7	-4.7	18.5
LSV Asset Mgmt.	14.0	41.2	20.4	-0.8	14.0
Systematic Financial Mgmt.	11.6	35.0	18.2	-7.4	18.1
<b>Aggregate</b>	<b>13.1</b>	<b>36.5</b>	<b>16.9</b>	<b>-2.1</b>	<b>15.0</b>
<b>SMALL CAP</b>					
<b>Russell 2000 Growth Index</b>	<b>5.6</b>	<b>43.3</b>	<b>14.6</b>	<b>-2.9</b>	<b>29.1</b>
McKinley Capital	2.0	51.6	23.2	-7.9	28.5
Next Century Growth	-6.5	50.3	1.9	-4.5	29.6
<b>Aggregate</b>	<b>-3.4</b>	<b>47.2</b>	<b>12.0</b>	<b>-5.6</b>	<b>29.1</b>
<b>Russell 2000 Value Index</b>	<b>4.2</b>	<b>34.5</b>	<b>18.1</b>	<b>-5.5</b>	<b>24.5</b>
Goldman Sachs	7.4	39.3	16.6	1.3	27.0
Hotchkis & Wiley	13.0	46.0	24.1	-10.8	43.4
Martingale Asset Mgmt.	7.3	43.1	20.1	-5.2	27.4
Peregrine Capital	4.1	37.3	18.8	-4.1	27.3
<b>Aggregate</b>	<b>7.5</b>	<b>40.8</b>	<b>19.6</b>	<b>-4.5</b>	<b>30.5</b>
<b>Active Mgr. Aggregate</b>	<b>9.3</b>	<b>40.2</b>	<b>15.4</b>	<b>-2.7</b>	<b>19.7</b>
<i>Active Mgr. Aggregate Benchmark (1)</i>	<i>11.0</i>	<i>34.7</i>	<i>16.3</i>	<i>0.0</i>	<i>18.7</i>

(1) The Active Manager Aggregate Benchmark is the aggregate of the weighted average of the active manager benchmarks and is not the Russell 3000.

Note: All aggregates include the performance of terminated managers. Returns shown are full-year returns only. Performance of managers hired during a calendar year are reported beginning with the following calendar year.

**COMBINED RETIREMENT FUNDS**  
**DOMESTIC EQUITY MANAGERS**  
**Calendar Year Returns**  
**Versus Manager Benchmarks**

	2014	2013	2012	2011	2010
<b>Semi-Passive Managers</b>					
<b>Russell 1000 Index</b>	<b>13.2</b>	<b>33.1</b>	<b>16.4</b>	<b>1.5</b>	<b>16.1</b>
BlackRock Institutional	14.2	33.3	19.0	1.6	14.0
INTECH	11.6	33.0	16.6	2.9	--
JP Morgan	15.0	33.7	17.6	1.1	16.8
Mellon Capital	15.9	32.6	17.3	4.6	13.7
<b>Semi-Passive Aggregate (R1000)</b>	<b>14.2</b>	<b>33.2</b>	<b>17.7</b>	<b>2.2</b>	<b>15.2</b>
<b>Passive Managers</b>					
<b>Russell 3000 Index</b>	<b>12.6</b>	<b>33.6</b>	<b>16.4</b>	<b>1.0</b>	<b>16.9</b>
BlackRock Institutional	12.6	33.5	16.4	0.8	17.2
<b>Total Aggregate</b>	<b>12.3</b>	<b>35.1</b>	<b>16.6</b>	<b>0.4</b>	<b>17.1</b>
<i>Russell 3000 Index</i>	<i>12.6</i>	<i>33.6</i>	<i>16.4</i>	<i>1.0</i>	<i>16.9</i>
<i>Russell 1000 Index</i>	<i>13.2</i>	<i>33.1</i>	<i>16.4</i>	<i>1.5</i>	<i>16.1</i>
<i>Russell 2000 Index</i>	<i>4.9</i>	<i>38.8</i>	<i>16.3</i>	<i>-4.2</i>	<i>26.9</i>

Note: All aggregates include the performance of terminated managers. Returns shown are full year returns only. Performance of managers hired during a calendar year are reported beginning with the following calendar year.





# STATE BOARD OF INVESTMENT

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## International Manager Performance Summaries

Third Quarter 2015





# MINNESOTA STATE BOARD OF INVESTMENT

## International Managers

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**COMBINED RETIREMENT FUNDS  
INTERNATIONAL MANAGERS  
Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
<b>Active Developed Markets (2)</b>					
Acadian	-7.9	-6.0	8.1	5.8	4.4
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
Columbia	-9.4	-1.4	6.6	5.9	1.8
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	2.4
J.P. Morgan	-12.3	-11.7	3.8	3.5	3.8
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
Marathon Asset Management	-7.8	-1.7	9.3	7.3	8.2
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	4.6
McKinley	-9.0	-2.8	8.1	5.6	4.1
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
Fidelity	-10.0	-6.9	6.6	5.6	5.7
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
<b>Aggregate</b>	<b>-9.0</b>	<b>-4.5</b>	<b>7.4</b>	<b>5.7</b>	
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	
<b>Active Emerging Markets (3)</b>					
Capital International	-18.5	-20.9	-6.3	-6.4	7.7
<i>Benchmark</i>	-17.9	-19.3	-5.3	-3.6	8.6
Morgan Stanley	-13.7	-14.2	-2.4	-1.2	9.7
<i>Benchmark</i>	-17.9	-19.3	-5.3	-3.6	8.6
<b>Aggregate</b>	<b>-15.9</b>	<b>-17.3</b>	<b>-4.2</b>	<b>-3.8</b>	
<i>Benchmark</i>	-17.9	-19.3	-5.3	-3.6	
<b>Semi-Passive Developed Markets (2)</b>					
AQR	-8.0	-5.9	7.5	5.1	4.8
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
Fidelity	-10.1	-6.6	6.4	5.1	5.1
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
State Street	-10.2	-8.8	6.8	3.6	3.6
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	3.9
<b>Aggregate</b>	<b>-9.5</b>	<b>-7.0</b>	<b>6.8</b>	<b>4.7</b>	
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	

(1) Since inception by the SBI. Inception dates as follows:

10/1/92: State Street (semi-passive developed markets)

10/1/93: Marathon Asset Management (active developed markets)

1/1/00: Columbia (active developed markets)

1/1/01: Capital International, Morgan Stanley (active emerging markets)

7/1/05: Acadian, J.P. Morgan, McKinley (active developed markets) AQR, Fidelity (semi-passive developed markets)

(2) Pyramis changed its name to Fidelity in October 2015.

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

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

**COMBINED RETIREMENT FUNDS**  
**INTERNATIONAL MANAGERS**  
**Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
<b>Passive Developed Markets (2)</b>					
State Street	-10.4	-9.7	5.0	3.8	5.9
<i>Benchmark</i>	-10.6	-10.1	4.6	3.4	5.6
<b>Passive Emerging Markets (3)</b>					
State Street	-17.7	-18.7	-5.0	--	-1.1
<i>Benchmark</i>	-17.9	-19.3	-5.3	--	-1.3
Equity Only (4)	-11.1	-9.6	3.8	2.7	6.2
<i>Benchmark (5)</i>	-12.2	-12.2	2.3	1.8	5.6
<b>Total Program (5,9)</b>	<b>-11.1</b>	<b>-9.6</b>	<b>3.8</b>	<b>2.7</b>	<b>6.4</b>
<i>Benchmark (6,9)</i>	-12.2	-12.2	2.3	1.8	5.6
<i>SBI Int'l Equity Target (6,9)</i>	-12.2	-12.2	2.3	1.8	5.6
<i>MSCI ACWI Free ex USA (7,9)</i>	-12.2	-12.2	2.3	1.8	5.9
<i>MSCI World ex USA (net) (9)</i>	-10.6	-10.1	4.6	3.4	5.7
<i>MSCI EAFE Free (net) (9)</i>	-10.2	-8.7	5.6	4.0	5.5
<i>MSCI Emerging Markets Free (8,9)</i>	-17.9	-19.3	-5.3	-3.6	6.8

(1) Since retention by the SBI. Inception dates as follows:

10/1/92: State Street (passive developed markets)

1/1/12: State Street (passive emerging markets)

- (2) Since 6/1/08 the developed markets managers' benchmark is the Standard (large + mid) MSCI World ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex U.S. (net). From 10/1/03 to 9/30/07 the benchmark was MSCI World ex U.S. (net). Prior to that date, it was MSCI EAFE Free (net). From 10/1/01 to 5/31/02 the benchmark was the Provisional MSCI EAFE Free (net).
- (3) Since 6/1/08 the emerging markets manager's benchmark is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was MSCI Emerging Markets Free (net). Prior to that date, it was MSCI Emerging Markets Free (gross). From 10/1/01 to 5/31/02 the benchmark was the Provisional MSCI Emerging Markets Free (net).
- (4) Equity managers only. Includes impact of terminated managers.
- (5) Includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00.
- (6) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 7/1/99 to 12/31/00 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 7/1/99 to 9/30/03, the weighting of each index fluctuated with market capitalization. From 10/1/01 to 5/31/02 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 5/1/96, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/96 fixed weights. 100% EAFE Free (net) prior to 5/1/96.
- (7) MSCI ACWI Free ex U.S. (gross) through 12/31/00. MSCI ACWI Free ex U.S. (net) thereafter.
- (8) MSCI Emerging Markets Free (gross) through 12/31/00. MSCI Emerging Markets Free (net) thereafter.
- (9) Total Program and Benchmarks Inception as of 10/1/92

**COMBINED RETIREMENT FUNDS  
INTERNATIONAL STOCK MANAGERS  
Periods Ended September 2015**

	<b>September 30, 2015</b>		<b>June 30, 2015</b>	
	<b>Market Value</b>	<b>Percent</b>	<b>Market Value</b>	<b>Percent</b>
<b>Active Developed Markets</b>	<b>\$2,298,491,432</b>	<b>28.2%</b>	<b>\$2,527,080,262</b>	<b>27.6%</b>
Acadian	\$348,671,386	4.3%	\$378,654,108	4.1%
Columbia	\$336,968,391	4.1%	\$372,050,727	4.1%
J.P. Morgan	\$267,580,268	3.3%	\$304,967,954	3.3%
Marathon	\$729,193,887	9.0%	\$790,626,332	8.6%
McKinley	\$289,088,928	3.6%	\$317,550,101	3.5%
Fidelity	\$326,988,571	4.0%	\$363,231,039	4.0%
<b>Active Emerging Markets</b>	<b>\$1,284,385,430</b>	<b>15.8%</b>	<b>\$1,527,798,398</b>	<b>16.7%</b>
Capital International	\$578,973,497	7.1%	\$710,522,023	7.8%
Morgan Stanley	\$705,411,934	8.7%	\$817,276,376	8.9%
<b>Semi-Passive Developed Markets</b>	<b>\$1,090,195,644</b>	<b>13.4%</b>	<b>\$1,204,504,268</b>	<b>13.2%</b>
AQR	\$322,530,107	4.0%	\$350,462,058	3.8%
Fidelity	\$480,831,630	5.9%	\$534,704,554	5.8%
State Street	\$286,833,907	3.5%	\$319,337,656	3.5%
<b>Passive Developed Markets</b>	<b>\$3,221,188,096</b>	<b>39.6%</b>	<b>\$3,595,128,986</b>	<b>39.3%</b>
State Street	\$3,221,188,096	39.6%	\$3,595,128,986	39.3%
<b>Passive Emerging Markets</b>	<b>\$248,862,754</b>	<b>3.1%</b>	<b>\$302,205,418</b>	<b>3.3%</b>
State Street	\$248,862,754	3.1%	\$302,205,418	3.3%
<b>Total Portfolio</b>	<b>\$8,143,123,357</b>	<b>100.0%</b>	<b>\$9,156,717,331</b>	<b>100.0%</b>

**COMBINED RETIREMENT FUNDS  
INTERNATIONAL STOCK MANAGERS  
Calendar Year Returns**

	2014	2013	2012	2011	2010
<b>Active Developed Markets (1)</b>					
Acadian	-1.7	26.1	17.6	-12.9	13.9
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Columbia	-5.6	23.9	19.0	-12.1	15.2
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
J.P. Morgan	-5.1	19.5	18.4	-10.2	7.6
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Marathon	-4.0	28.5	17.9	-9.2	14.4
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
McKinley	-2.7	28.0	16.9	-15.5	11.8
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Fidelity	-5.6	26.7	20.3	-11.9	11.7
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
<b>Aggregate</b>	<b>-4.1</b>	<b>25.4</b>	<b>17.9</b>	<b>-11.7</b>	<b>11.9</b>
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
<b>Active Emerging Markets (2)</b>					
Capital International	-5.9	0.7	13.8	-22.8	16.1
<i>Benchmark</i>	-2.2	-2.6	18.2	-18.4	18.9
Morgan Stanley	-2.4	0.5	21.1	-17.8	18.4
<i>Benchmark</i>	-2.2	-2.6	18.2	-18.4	18.9
<b>Aggregate</b>	<b>-4.1</b>	<b>0.6</b>	<b>17.5</b>	<b>-20.6</b>	<b>17.1</b>
<i>Benchmark</i>	-2.2	-2.6	18.2	-18.4	18.9
<b>Semi-Passive Developed Markets (1)</b>					
AQR	-4.4	24.1	20.8	-13.9	11.4
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Fidelity	-4.0	23.2	19.4	-12.6	11.5
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
State Street	-5.1	25.3	17.3	-15.6	8.7
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
<b>Aggregate</b>	<b>-4.4</b>	<b>24.0</b>	<b>19.2</b>	<b>-13.8</b>	<b>10.6</b>
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9

- (1) Since 6/1/08 the developed markets manager's benchmark is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net).
- (2) Since 6/1/08 the emerging markets manager's benchmark is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was MSCI Emerging Markets Free (net).
- (3) Equity managers only. Includes impact of terminated managers.
- (4) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex USA (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex USA (net).

**COMBINED RETIREMENT FUNDS**  
**INTERNATIONAL STOCK MANAGERS**  
**Calendar Year Returns**

	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Passive Developed Markets (1)</b>					
State Street	-3.9	21.4	16.7	-11.9	9.9
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
<b>Passive Emerging Markets (2)</b>					
State Street	-2.1	-2.5	18.5	--	--
<i>Benchmark</i>	-2.2	-2.6	18.2	--	--
Equity Only (3) (4)	-4.0	17.8	17.6	-14.2	12.3
<i>Benchmark</i>	-3.9	15.3	16.8	-13.7	11.2
<b>Total Program (4)</b>	<b>-4.0</b>	<b>17.8</b>	<b>17.6</b>	<b>-14.2</b>	<b>12.3</b>
<i>Benchmark</i>	-3.9	15.3	16.8	-13.7	11.2
<i>SBI Int'l Equity Target (5)</i>	-3.9	15.3	16.8	-13.7	11.2
<i>MSCI ACWI Free ex USA (net)</i>	-3.9	15.3	16.8	-13.7	11.2
MSCI World ex USA (net)	-4.3	21.0	16.4	-12.2	8.9
MSCI EAFE Free (net)	-4.9	22.8	17.3	-12.1	7.7
<i>MSCI Emerging Markets Free (net)</i>	-2.2	-2.6	18.2	-18.4	18.9

- (1) Since 6/1/08 the developed markets manager's benchmark is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net).
- (2) Since 6/1/08 the emerging markets manager's benchmark is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was MSCI Emerging Markets Free (net).
- (3) Equity managers only. Includes impact of terminated managers.
- (4) Since 6/1/08 the International Equity asset class target is the Standard (large + mid) MSCI ACWI ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex USA (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex USA (net).



# STATE BOARD OF INVESTMENT

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## Bond Manager Performance Summaries

Third Quarter 2015





# MINNESOTA STATE BOARD OF INVESTMENT

## Bond Managers

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**COMBINED RETIREMENT FUNDS**  
**BOND MANAGERS**  
**Periods Ended September 2015**

	<b>Last Quarter</b>	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>	<b>Since Inception (1)</b>
<b>Active Managers</b>					
<b>Barclays Aggregate Index</b>	<b>1.2</b>	<b>2.9</b>	<b>1.7</b>	<b>3.1</b>	
Aberdeen	1.2	3.3	2.4	4.3	5.6
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>5.5</i>
Columbia (RiverSource)	0.0	2.1	1.9	3.9	5.6
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>5.6</i>
Dodge & Cox	0.0	1.4	2.7	4.1	6.5
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>5.5</i>
PIMCO	0.4	3.2	2.1	3.7	6.6
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>4.8</i>
Western	0.7	2.5	2.4	4.1	8.8
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>7.7</i>
<b>Active Mgr. Aggregate</b>	<b>0.4</b>	<b>2.5</b>	<b>2.3</b>	<b>4.0</b>	
<b>Semi-Passive Managers</b>					
BlackRock	1.1	3.0	1.9	3.4	5.7
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>5.6</i>
Goldman	1.1	3.0	1.9	3.6	5.9
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>5.6</i>
Neuberger	1.3	3.2	1.9	3.5	6.8
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>6.6</i>
<b>Semi-Passive Mgr. Aggregate</b>	<b>1.2</b>	<b>3.1</b>	<b>1.9</b>	<b>3.5</b>	
<i>Benchmark</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	
<b>Historical Aggregate (2,3)</b>	<b>0.8</b>	<b>2.8</b>	<b>2.1</b>	<b>3.7</b>	<b>7.9</b>
<i>Benchmark (3,4)</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>3.1</i>	<i>7.7</i>
Barclays Aggregate Index (3,4)	1.2	2.9	1.7	3.1	7.7

(1) Since inception by the SBI. Inception dates as follows:

7/1/84: Western  
7/1/88: Neuberger  
7/1/93: Columbia, Goldman  
4/1/96: BlackRock  
1/1/00: Aberdeen, Dodge & Cox  
10/1/08: PIMCO

(2) Includes performance of terminated managers.

(3) Historical Aggregate and benchmarks inception date: 7/1/84

(4) Prior to July 1994, this index reflects the Solomon BIG

**COMBINED RETIREMENT FUNDS**  
**BOND MANAGERS**  
**Periods Ending September 2015**

	<b>September 30, 2015</b>		<b>June 30, 2015</b>	
	<b>Market Value</b>	<b>Percent</b>	<b>Market Value</b>	<b>Percent</b>
<b>Semi-Passive</b>	<b>\$7,334,669,342</b>	<b>50.4%</b>	<b>\$7,249,659,531</b>	<b>50.2%</b>
BlackRock	\$1,972,671,537	13.6%	\$1,950,380,120	13.5%
Goldman	\$2,751,532,837	18.9%	\$2,722,243,347	18.9%
Neuberger	\$2,610,464,969	17.9%	\$2,577,036,064	17.9%
<b>Active Managers</b>	<b>\$7,213,032,018</b>	<b>49.6%</b>	<b>\$7,181,582,466</b>	<b>49.8%</b>
Aberdeen	\$1,129,565,811	7.8%	\$1,116,184,129	7.7%
Columbia (RiverSource)	\$1,219,534,080	8.4%	\$1,220,077,919	8.5%
Dodge & Cox	\$1,530,666,790	10.5%	\$1,530,809,941	10.6%
PIMCO	\$1,636,184,453	11.2%	\$1,629,281,003	11.3%
Western	\$1,697,080,884	11.7%	\$1,685,229,473	11.7%
<b>Total Portfolio</b>	<b>\$14,547,701,360</b>	<b>100.0%</b>	<b>\$14,431,241,997</b>	<b>100.0%</b>

**COMBINED RETIREMENT FUNDS**  
**BOND MANAGERS**  
**Calendar Year Returns**

	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Active Managers</b>					
Aberdeen	6.7	-1.5	7.7	8.0	10.7
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Columbia (RiverSource)	5.8	-1.0	6.9	8.1	8.1
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Dodge & Cox	6.0	0.9	8.5	5.0	7.8
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
PIMCO	5.5	-1.3	9.3	4.5	12.1
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Western	7.0	-1.4	7.8	7.1	10.9
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
<b>Active Mgr. Aggregate</b>	<b>6.2</b>	<b>-0.8</b>	<b>8.1</b>	<b>6.4</b>	<b>10.0</b>
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
<b>Semi-Passive Managers</b>					
BlackRock	6.0	-1.8	5.0	8.0	6.5
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Goldman	6.1	-1.7	5.4	8.3	8.0
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Neuberger	6.1	-2.0	5.4	7.6	9.1
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
<b>Semi-Passive Mgr. Aggregate</b>	<b>6.1</b>	<b>-1.8</b>	<b>5.3</b>	<b>8.0</b>	<b>7.9</b>
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
<b>Historical Aggregate</b>	<b>6.1</b>	<b>-1.3</b>	<b>6.7</b>	<b>7.2</b>	<b>9.0</b>
<i>Benchmark</i>	6.0	-2.0	4.2	7.8	6.5
Barclays Aggregate Index	6.0	-2.0	4.2	7.8	6.5

The benchmark for the Fixed Income Asset Class is the Barclays Capital U.S. Aggregate Bond Index.



# STATE BOARD OF INVESTMENT

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## Deferred Compensation Plan Minnesota College Savings Plan Performance Summaries

Third Quarter 2015



# MINNESOTA STATE BOARD OF INVESTMENT

## Deferred Compensation Plan and Minnesota College Savings Plan

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**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(2)
<b>Large Cap Equity</b>					
Janus Twenty	-5.4	1.2	11.5	11.2	3.8
<i>S&amp;P 500</i>	-6.4	-0.6	12.4	13.3	4.0
Vanguard Institutional Index Plus	-6.4	-0.6	12.4	13.3	4.1
<i>S&amp;P 500</i>	-6.4	-0.6	12.4	13.3	4.0
<b>Mid Cap Equity</b>					
Vanguard Mid-Cap Index	-7.5	1.7	14.7	13.6	9.3
<i>CRSP US Mid Cap (3)</i>	-7.4	1.8	14.8	13.7	9.3
<b>Small Cap Equity</b>					
T. Rowe Price Small-Cap Stock	-10.3	0.9	11.4	13.5	9.5
<i>Russell 2000</i>	-11.9	1.2	11.0	11.7	7.0
<b>Balanced</b>					
Vanguard Balanced Index Inst. Fund	-3.8	1.0	8.2	9.4	6.8
<i>60% CRSP US Tot Mkt, 40% Barclays Agg (4)</i>	-3.9	1.0	8.2	9.3	6.7
<b>Fixed Income</b>					
Dodge & Cox Income Fund	-0.8	0.2	2.1	3.6	5.8
<i>Barclays Aggregate</i>	1.2	2.9	1.7	3.1	5.4
Vanguard Total Bond Market Index Inst.	1.2	2.8	1.6	3.0	4.5
<i>Barclays Aggregate</i>	1.2	2.9	1.7	3.1	4.5
SIF Money Market (1)	0.0	0.1	0.2	0.2	2.2
3 Month T-Bills	0.0	0.0	0.1	0.1	1.9
<b>SIF Fixed Interest (1)</b>					
Galliard Capital Management	0.5	1.9	2.0	2.5	4.8
<i>3-Year Constant Maturity Treasury +45bp</i>	0.4	1.4	1.2	1.1	3.7
<b>International</b>					
Fidelity Diversified International	-9.5	-2.7	7.8	5.8	6.3
<i>MSCI EAFE Free</i>	-10.2	-8.7	5.6	4.0	3.3
Vanguard Total International Stock Index	-11.6	-10.7	3.2	--	0.1
<i>FTSE Global All Cap ex US (5)</i>	-11.8	-10.9	3.2	--	0.2

Benchmarks for the Funds are noted in italics below the Fund names.

- (1) SIF Money Market Account and SIF Fixed Interest Accounts are Supplemental Investment Fund options (SIF), which are also offered under the Deferred Compensation Plan.
- (2) Since retention by the SBI. Time periods varies for each manager.
- (3) Benchmark is the CRSP US Mid-Cap Index beginning February 2013. Prior to that date it was the MSCI US Mid-Cap 450 Index.
- (4) Benchmark is 60% CRSP US Total Market Index and 40% Barclays Aggregate Bond Index beginning January 2013. Prior to that date it was 60% MSCI US Broad Market Index and 40% Barclays Aggregate Bond Index.
- (5) Benchmark is the FTSE Global All Cap ex US Index beginning June 2013; MSCI ACWI ex USA IMI beginning December 2010; MSCI EAFE and Emerging Markets Index beginning August 2006. Prior to that date it was the total International Composite Index, which is the MSCI EAFE Index and the Select Emerging Markets Free Index.



**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Periods Ended September 2015**

<b>MN Target Retirement Funds</b>	<b>Last Quarter</b>	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>	<b>Since Inception (1)</b>
<b>SSgA</b>					
Income Fund	-3.1	-1.6	2.5	--	3.9
Income Fund Benchmark	-3.1	-1.6	2.6	--	4.0
2020 Fund	-4.1	-2.1	4.0	--	6.0
2020 Fund Benchmark	-4.1	-2.1	4.1	--	6.1
2025 Fund	-5.2	-2.6	5.3	--	6.8
2025 Fund Benchmark	-5.2	-2.6	5.4	--	6.9
2030 Fund	-6.1	-3.0	6.1	--	7.2
2030 Fund Benchmark	-6.1	-2.9	6.2	--	7.3
2035 Fund	-6.6	-3.3	6.7	--	7.4
2035 Fund Benchmark	-6.6	-3.2	6.8	--	7.5
2040 Fund	-7.2	-3.6	7.1	--	7.2
2040 Fund Benchmark	-7.2	-3.6	7.1	--	7.3
2045 Fund	-7.8	-4.0	7.4	--	7.1
2045 Fund Benchmark	-7.8	-4.0	7.5	--	7.2
2050 Fund	-8.1	-4.2	7.4	--	7.1
2050 Fund Benchmark	-8.1	-4.2	7.4	--	7.1
2055 Fund	-8.1	-4.2	7.4	--	7.1
2055 Fund Benchmark	-8.1	-4.2	7.4	--	7.1
2060 Fund	-8.1	-4.2	7.4	--	7.1
2060 Fund Benchmark	-8.1	-4.2	7.4	--	7.1

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

(1) Since retention by the SBI. Time period varies for each manager.

**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Periods Ended September 2015**

<b>SSgA Index Funds</b>	<b>Last Quarter</b>	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>	<b>Since Inception (1)</b>
S&P 500 Index Fund	-6.4	-0.6	12.4	--	11.6
<i>S&amp;P 500</i>	<i>-6.4</i>	<i>-0.6</i>	<i>12.4</i>	<i>--</i>	<i>11.6</i>
DJ-UBS Roll Select Commodity Index Fund	-13.6	-25.0	-15.0	--	-11.4
<i>DJ-UBS Roll Select Commodity Index</i>	<i>-13.6</i>	<i>-25.0</i>	<i>-14.9</i>	<i>--</i>	<i>-11.2</i>
Russell Small/Mid Cap Index Fund	-10.5	-0.2	12.9	--	13.7
<i>Russell Small Cap Completeness Index</i>	<i>-10.5</i>	<i>-0.2</i>	<i>12.9</i>	<i>--</i>	<i>13.7</i>
Global All-Cap Equity ex-US Index Fund	-11.8	-11.2	3.0	--	0.1
<i>MSCI ACWI ex USA IMI</i>	<i>-11.9</i>	<i>-11.4</i>	<i>2.7</i>	<i>--</i>	<i>-0.1</i>
Global Real Estate Securities Index Fund	-0.7	3.9	6.7	--	6.7
<i>FTSE EPRA/NAREIT Dev Liquid</i>	<i>-1.0</i>	<i>3.1</i>	<i>6.0</i>	<i>--</i>	<i>6.0</i>
Long Government Bond Index Fund	5.0	8.7	2.7	--	8.8
<i>Barclays Long Government</i>	<i>5.0</i>	<i>8.6</i>	<i>2.8</i>	<i>--</i>	<i>8.8</i>
Bond Index Fund	1.2	3.0	1.7	--	3.3
<i>Barclays Aggregate</i>	<i>1.2</i>	<i>2.9</i>	<i>1.7</i>	<i>--</i>	<i>3.3</i>
Inflation Protected Bond Index Fund	-1.1	-0.8	-1.9	--	1.8
<i>Barclays U.S. TIPS</i>	<i>-1.1</i>	<i>-0.8</i>	<i>-1.8</i>	<i>--</i>	<i>1.8</i>
High Yield Bond Index Fund	-5.4	-4.4	2.9	--	4.8
<i>Barclays U.S. High Yield Very Liquid</i>	<i>-5.3</i>	<i>-4.3</i>	<i>2.9</i>	<i>--</i>	<i>5.0</i>
U.S. Short-Term Gov/Credit Index Fund	0.3	1.1	0.8	--	1.5
<i>Barclays 1-3 Yr Govt/Credit</i>	<i>0.3</i>	<i>1.2</i>	<i>0.9</i>	<i>--</i>	<i>1.0</i>

Benchmarks for the SSgA Funds are noted in italics below the Fund names.

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

**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Calendar Year Returns**

	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Large Cap Equity</b>					
Janus Twenty	8.9	33.1	22.3	-8.2	7.0
<i>S&amp;P 500</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>	<i>15.1</i>
Vanguard Institutional Index Plus	13.7	32.4	16.0	2.1	15.1
<i>S&amp;P 500</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>	<i>15.1</i>
<b>Mid Cap Equity</b>					
Vanguard Mid-Cap Index	13.8	35.2	16.0	-2.0	25.7
<i>CRSP US Mid Cap (2)</i>	<i>13.8</i>	<i>35.4</i>	<i>16.0</i>	<i>-1.9</i>	<i>25.7</i>
<b>Small Cap Equity</b>					
T. Rowe Price Small-Cap Stock	6.9	37.6	18.0	-0.1	32.5
<i>Russell 2000</i>	<i>4.9</i>	<i>38.8</i>	<i>16.3</i>	<i>-4.2</i>	<i>26.9</i>
<b>Balanced</b>					
Vanguard Balanced Index Inst. Fund	10.0	18.1	11.5	4.3	13.3
<i>60% CRSP US Tot Mkt, 40% Barclays Agg (3)</i>	<i>10.0</i>	<i>18.2</i>	<i>11.6</i>	<i>4.1</i>	<i>13.5</i>
<b>Fixed Income</b>					
Dodge & Cox Income Fund	5.5	0.6	7.9	4.8	7.2
<i>Barclays Aggregate</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>	<i>6.5</i>
Vanguard Total Bond Market Index Inst.	5.9	-2.1	4.2	7.7	6.6
<i>Barclays Aggregate</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>	<i>6.5</i>
SIF Money Market (1)	0.1	0.2	0.3	0.2	0.2
3 Month T-Bills	0.0	0.1	0.1	0.1	0.1
<b>SIF Fixed Interest (1)</b>					
Galliard Capital Management	1.8	2.2	2.8	3.4	4.1
<i>3-Year Constant Maturity Treasury +45bp</i>	<i>1.3</i>	<i>1.0</i>	<i>0.8</i>	<i>1.2</i>	<i>1.5</i>
<b>International</b>					
Fidelity Diversified International	-3.2	25.2	19.4	-13.8	9.7
<i>MSCI EAFE Free</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>	<i>7.7</i>
Vanguard Total International Stock Index	-4.1	15.2	18.3	-14.6	11.1
<i>FTSE Global All Cap ex US (4)</i>	<i>-3.1</i>	<i>15.9</i>	<i>17.0</i>	<i>-14.3</i>	<i>10.7</i>

Numbers in blue include returns prior to retention by SBI.

Benchmarks for the Funds are noted in italics below the Fund names.

- (1) SIF Money Market Account and SIF Fixed Interest Accounts are Supplemental Investment Fund options (SIF), which are also offered under the Deferred Compensation Plan accounts.
- (2) Benchmark is the CRSP US Mid-Cap Index beginning February 2013. Prior to that date it was the MSCI US Mid-Cap 450 Index.
- (3) Benchmark is 60% CRSP US Total Market Index and 40% Barclays Aggregate Bond Index beginning January 2013. Prior to that date it was 60% MSCI US Broad Market Index and 40% Barclays Aggregate Bond Index.
- (4) Benchmark is the FTSE Global All Cap ex US Index beginning June 2013; MSCI ACWI ex USA IMI beginning December 2010; MSCI EAFE and Emerging Markets Index beginning August 2006. Prior to that date it was the total International Composite Index, which is the MSCI EAFE Index and the Select Emerging Markets Free Index.

**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Calendar Year Returns**

<b>MN Target Retirement Funds</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>SSgA</b>					
Income Fund	3.6	5.1	9.7	4.6	9.6
Income Fund Benchmark	3.8	5.3	9.8	4.8	10.1
2020 Fund	5.3	8.8	12.5	7.3	13.6
2020 Fund Benchmark	5.5	9.1	12.5	7.4	13.9
2025 Fund	5.9	13.2	13.7	5.9	14.6
2025 Fund Benchmark	6.2	13.5	13.7	6.0	14.7
2030 Fund	6.3	16.0	14.3	4.9	15.1
2030 Fund Benchmark	6.6	16.3	14.1	5.0	15.3
2035 Fund	6.4	18.1	14.9	3.5	15.7
2035 Fund Benchmark	6.7	18.5	14.7	3.6	15.8
2040 Fund	6.4	19.7	15.5	1.5	15.9
2040 Fund Benchmark	6.6	20.0	15.3	1.6	16.1
2045 Fund	6.2	21.3	16.0	0.0	16.2
2045 Fund Benchmark	6.5	21.6	15.8	0.1	16.2
2050 Fund	6.2	21.4	15.9	0.1	16.1
2050 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2055 Fund	6.2	21.4	15.9	0.1	16.1
2055 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2060 Fund	6.2	21.4	16.0	--	--
2060 Fund Benchmark	6.5	21.7	15.8	--	--

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

Numbers in blue include returns prior to retention by SBI.

**MN STATE 457 DEFERRED COMPENSATION PLAN**  
**FUND OPTIONS**  
**Calendar Year Returns**

<b>SSgA Index Funds</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
S&P 500 Index Fund	13.7	32.4	16.0	2.1	15.1
<i>S&amp;P 500</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>	<i>15.1</i>
DJ-UBS Roll Select Commodity Index Fund	-15.3	-9.3	--	--	--
DJ-UBS Roll Select Commodity Index	-15.2	-9.1	--	--	--
Russell Small/Mid Cap Index Fund	7.5	38.4	--	--	--
<i>Russell Small Cap Completeness Index</i>	<i>7.4</i>	<i>38.5</i>	--	--	--
Global All-Cap Equity ex-US Index Fund	-4.2	15.4	18.2	--	--
<i>MSCI ACWI ex USA IMI</i>	<i>-3.9</i>	<i>15.8</i>	<i>17.0</i>	--	--
Global Real Estate Securities Index Fund	15.5	2.7	28.9	-5.4	19.1
<i>FTSE EPRA/NAREIT Dev Liquid</i>	<i>15.0</i>	<i>2.5</i>	<i>27.5</i>	<i>-5.8</i>	<i>18.4</i>
Long Government Bond Index Fund	24.6	-12.5	3.8	29.2	9.5
<i>Barclays Long Government</i>	<i>24.7</i>	<i>-12.5</i>	<i>3.8</i>	<i>29.1</i>	<i>9.4</i>
Bond Index Fund	6.0	-2.1	4.2	7.8	6.6
<i>Barclays Aggregate</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>	<i>6.5</i>
Inflation Protected Bond Index Fund	3.6	-8.6	6.9	13.5	6.2
<i>Barclays U.S. TIPS</i>	<i>3.6</i>	<i>-8.6</i>	<i>7.0</i>	<i>13.6</i>	<i>6.3</i>
High Yield Bond Index Fund	2.1	6.6	14.8	5.7	12.5
<i>Barclays U.S. High Yield Very Liquid</i>	<i>2.1</i>	<i>6.6</i>	<i>15.4</i>	<i>6.1</i>	<i>15.1</i>
U.S. Short-Term Gov/Credit Index Fund	0.7	0.6	3.9	1.5	2.4
<i>Barclays 1-3 Yr Govt/Credit</i>	<i>0.8</i>	<i>0.6</i>	<i>1.3</i>	<i>1.6</i>	<i>2.8</i>

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

Benchmarks for the Funds are noted in italics below the Fund names.

Numbers in blue include returns prior to retention by SBI.

**MN STATE 457 DEFERRED COMPENSATION PLAN  
FUND OPTIONS**

	September 30, 2015		June 30, 2015	
	Market Value	Percent	Market Value	Percent
<b>Fixed Income</b>	<b>\$452,733,149</b>	<b>8.3%</b>	<b>\$458,037,364</b>	<b>7.9%</b>
Dodge & Cox Income Fund	\$201,382,882	3.7%	\$206,403,600	3.6%
Vanguard Total Bond Market Index Inst.	\$190,694,826	3.5%	\$190,307,274	3.3%
Money Market	\$60,655,442	1.1%	\$61,326,490	1.1%
<b>Stable Value</b>	<b>\$1,301,620,663</b>	<b>23.7%</b>	<b>\$1,299,405,228</b>	<b>22.5%</b>
Galliard Stable Value Composite	\$1,301,620,663	23.7%	\$1,299,405,228	22.5%
<b>Large Cap Equity</b>	<b>\$1,419,529,309</b>	<b>25.9%</b>	<b>\$1,518,022,151</b>	<b>26.3%</b>
Janus Twenty	\$500,365,816	9.1%	\$530,961,970	9.2%
Vanguard Institutional Index Plus	\$919,163,493	16.8%	\$987,060,181	17.1%
<b>Mid Cap Equity</b>	<b>\$407,326,478</b>	<b>7.4%</b>	<b>\$436,748,735</b>	<b>7.6%</b>
Vanguard Mid-Cap Index	\$407,326,478	7.4%	\$436,748,735	7.6%
<b>Small Cap Equity</b>	<b>\$536,721,579</b>	<b>9.8%</b>	<b>\$602,159,488</b>	<b>10.4%</b>
T. Rowe Price Small-Cap Stock	\$536,721,579	9.8%	\$602,159,488	10.4%
<b>Balanced</b>	<b>\$653,778,668</b>	<b>11.9%</b>	<b>\$683,486,940</b>	<b>11.9%</b>
Vanguard Balanced Index Inst. Fund	\$653,778,668	11.9%	\$683,486,940	11.9%
<b>International</b>	<b>\$413,980,299</b>	<b>7.5%</b>	<b>\$460,392,059</b>	<b>8.0%</b>
Fidelity Diversified International	\$267,610,368	4.9%	\$292,816,945	5.1%
Vanguard Total International Stock Index	\$146,369,932	2.7%	\$167,575,114	2.9%
<b>Target Retirement Funds</b>	<b>\$301,644,471</b>	<b>5.5%</b>	<b>\$307,154,562</b>	<b>5.3%</b>
Income Fund	\$68,166,451	1.2%	\$71,479,699	1.2%
2020 Fund	\$71,191,459	1.3%	\$73,664,160	1.3%
2025 Fund	\$55,083,286	1.0%	\$55,542,406	1.0%
2030 Fund	\$34,397,648	0.6%	\$34,944,988	0.6%
2035 Fund	\$27,730,711	0.5%	\$26,833,527	0.5%
2040 Fund	\$16,605,568	0.3%	\$16,452,725	0.3%
2045 Fund	\$12,209,929	0.2%	\$11,687,687	0.2%
2050 Fund	\$7,976,470	0.1%	\$8,109,117	0.1%
2055 Fund	\$3,905,557	0.1%	\$3,754,917	0.1%
2060 Fund	\$4,377,391	0.1%	\$4,685,336	0.1%

**MINNESOTA COLLEGE SAVINGS PLAN**  
**STATIC OPTIONS (1)**  
**Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
<b>Equity</b>					
MNCSP US Intl Equity Allocation	-7.5	-2.3	9.4	10.2	5.8
MNCSP US Intl Equity Allocation Benchmark	-7.8	-2.7	9.6	10.4	6.9
MNCSP Equity Interest Allocation	-3.6	0.3	--	--	0.1
MNCSP Equity Interest Benchmark	-3.6	-0.1	--	--	-0.3
MNCSP Intl Eq Index Allocation	-11.5	-10.3	--	--	-0.5
MNCSP Intl Eq Index Allocation Benchmark	-12.0	-11.0	--	--	-0.5
MNCSP US LC Equity Allocation	-6.5	-0.9	--	--	1.2
MNCSP US LC Equity Allocation Benchmark	-6.4	-0.6	--	--	1.4
<b>Fixed Income</b>					
MNCSP Fixed Income Allocation	0.2	1.5	0.2	2.3	3.9
MNCSP Fixed Income Allocation Benchmark	0.2	1.7	0.7	2.9	4.6
MNCSP Principal Interest Allocation	0.3	1.3	1.3	1.7	2.7
MNCSP Principal Interest Allocation Benchmark	0.0	0.0	0.0	0.1	1.4
MNCSP Money Market Allocation	0.0	0.0	0.0	0.0	0.3
MNCSP Money Market Allocation Benchmark	0.0	0.0	0.0	0.0	0.4

(1) Since retention by the SBI. Time periods varies for each option

**MINNESOTA COLLEGE SAVINGS PLAN**  
**ALLOCATION OPTIONS**  
**Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
<b>Allocation Options</b>					
MNCSP Aggressive Allocation	-6.0	-1.5	--	--	-1.5
MNCSP Aggressive Allocation Benchmark	-6.2	-1.8	--	--	-1.7
MNCSP Moderate Allocation	-4.4	-0.7	5.9	7.1	4.0
MNCSP Moderate Allocation Benchmark	-4.6	-0.9	6.1	7.6	4.8
MNCSP Conservative Allocation	-2.1	0.3	--	--	-0.6
MNCSP Conservative Allocation Benchmark	-2.3	0.0	--	--	-0.8
<b>Managed Allocation Options</b>					
MNCSP Managed 0-4 Yrs	-6.0	-1.6	--	--	-1.5
*MNCSP Managed 0-4 Yrs - Bench	-6.2	-1.8	--	--	-1.7
MNCSP Managed 5-8 Yrs	-5.2	-1.1	--	--	-1.2
*MNCSP Managed 5-8 Yrs - Bench	-5.4	-1.3	--	--	-1.3
MNCSP Managed 9-10 Yrs	-4.4	-0.8	--	--	-0.9
*MNCSP Managed 9-10 Yrs - Bench	-4.6	-0.9	--	--	-1.0
MNCSP Managed 11-12 Yrs	-3.6	-0.4	--	--	-0.6
*MNCSP Managed 11-12 Yrs - Bench	-3.8	-0.5	--	--	-0.7
MNCSP Managed 13-14 Yrs	-2.9	-0.1	--	--	-0.3
*MNCSP Managed 13-14 Yrs - Bench	-3.0	-0.1	--	--	-0.4
MNCSP Managed 15 Yrs	-2.1	0.3	--	--	0.0
*MNCSP Managed 15 Yrs - Bench	-2.3	0.0	--	--	-0.2
MNCSP Managed 16 Yrs	-1.7	0.4	--	--	0.2
*MNCSP Managed 16 Yrs - Bench	-1.9	0.1	--	--	-0.1
MNCSP Managed 17 Yrs	-1.3	0.6	--	--	0.3
*MNCSP Managed 17 Yrs - Bench	-1.5	0.1	--	--	-0.1
MNCSP Managed 18+ Yrs	-0.9	0.7	--	--	0.5
*MNCSP Managed 18+ Yrs - Bench	-1.1	0.2	--	--	0.0

(1) Since retention by the SBI. Time period varies for each option.



**MINNESOTA COLLEGE SAVINGS PLAN**  
**ALLOCATION OPTIONS UNDERLYING FUNDS**  
**Periods Ended September 2015**

	<b>Last Quarter</b>	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>	<b>Last 10 Years</b>
TIAA-CREF:Bond Idx;Inst	1.3	3.0	1.6	2.9	--
Barclays Agg (SBI Toolbox Returns)	1.2	2.9	1.7	3.1	4.6
TIAA-CREF:EM Eq Idx;Inst	-17.3	-18.6	-5.2	-3.8	--
MSCI:Emer Markets	-17.8	-19.0	-4.9	-3.2	4.6
TIAA-CREF:Eq Idx;Inst	-7.2	-0.5	12.5	13.2	6.9
Russell 3000 Index	-7.2	-0.5	12.5	13.3	6.9
TIAA-CREF:Hi-Yld;Inst	-4.6	-2.6	3.2	5.8	--
ML:1-3 BB US HY CP	-1.2	1.8	4.2	5.3	6.6
TIAA-CREF:Infl Bond;Inst	-0.8	-0.9	-2.0	2.3	3.7
Barclays U.S. TIPS Index	-1.1	-0.8	-1.8	2.5	4.0
TIAA-CREF:Intl Eq Ix;Inst	-10.0	-8.0	6.0	4.3	3.1
MSCI EAFE USD Index	-10.2	-8.7	5.6	4.0	3.0
TIAA-CREF:Money Mkt;Inst	0.0	0.0	0.0	0.0	1.5
MFR Avg All-Taxble	0.0	0.1	0.1	0.1	1.3
TIAA-CREF:Real Est;Inst	2.4	11.6	9.1	12.1	6.4
NAREIT All Equity Index	1.0	7.8	9.0	11.9	6.8
TIAA-CREF:S&P500 Idx;Ins	-6.4	-0.6	12.3	13.2	6.7
S&P 500 Index	-6.4	-0.6	12.4	13.3	6.8

**MINNESOTA COLLEGE SAVINGS PLAN  
FUND OPTIONS**

	<b>September 30, 2015</b>		<b>June 30, 2015</b>	
	<b>Market Value</b>	<b>Percent</b>	<b>Market Value</b>	<b>Percent</b>
<b>Fixed Income</b>	<b>\$118,671,977</b>	<b>10.5%</b>	<b>\$125,994,178</b>	<b>10.5%</b>
MNCSP Fixed Income Allocation	\$9,879,985	0.9%	\$10,453,248	0.9%
MNCSP Principal Interest Allocation	\$101,272,729	8.9%	\$106,983,220	8.9%
MNCSP Money Market Allocation	\$7,519,263	0.7%	\$8,557,710	0.7%
<b>Equity</b>	<b>\$264,999,471</b>	<b>23.4%</b>	<b>\$287,846,836</b>	<b>24.0%</b>
MNCSP US Intl Equity Allocation	\$256,621,184	22.6%	\$279,667,014	23.4%
MNCSP Equity Interest Allocation	\$869,241	0.1%	\$364,210	0.0%
MNCSP Intl Eq Index Allocation	\$2,092,505	0.2%	\$2,862,491	0.2%
MNCSP US LC Equity Allocation	\$5,416,541	0.5%	\$4,953,121	0.4%
<b>Allocation Options</b>	<b>\$56,342,475</b>	<b>5.0%</b>	<b>\$57,897,334</b>	<b>4.8%</b>
MNCSP Aggressive Allocation	\$5,666,464	0.5%	\$4,596,792	0.4%
MNCSP Moderate Allocation	\$47,537,479	4.2%	\$50,504,977	4.2%
MNCSP Conservative Allocation	\$3,138,532	0.3%	\$2,795,565	0.2%
<b>Managed Allocation Options</b>	<b>\$694,591,901</b>	<b>61.2%</b>	<b>\$725,279,821</b>	<b>60.6%</b>
MNCSP Managed 0-4 Yrs	\$22,774,541	2.0%	\$25,352,739	2.1%
MNCSP Managed 5-8 Yrs	\$73,780,655	6.5%	\$82,362,877	6.9%
MNCSP Managed 9-10 Yrs	\$76,915,879	6.8%	\$80,573,033	6.7%
MNCSP Managed 11-12 Yrs	\$101,985,492	9.0%	\$110,196,015	9.2%
MNCSP Managed 13-14 Yrs	\$119,181,706	10.5%	\$118,799,977	9.9%
MNCSP Managed 15 Yrs	\$58,291,158	5.1%	\$57,396,980	4.8%
MNCSP Managed 16 Yrs	\$58,355,844	5.1%	\$61,426,258	5.1%
MNCSP Managed 17 Yrs	\$52,125,138	4.6%	\$51,457,626	4.3%
MNCSP Managed 18+ Yrs	\$131,181,488	11.6%	\$137,714,316	11.5%



# STATE BOARD OF INVESTMENT

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## Non-Retirement Manager Performance Summaries

Third Quarter 2015



# MINNESOTA STATE BOARD OF INVESTMENT

## Non-Retirement Managers

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**NON-RETIREMENT MANAGERS**  
**Periods Ended September 2015**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	-8.2	-3.4	12.1	12.3	9.5
<i>S&amp;P 500 Index</i>	-6.4	-0.6	12.4	13.3	9.2
RBC Global Asset Management (2)	1.2	3.0	1.1	2.2	5.4
<i>Barclays Intermediate Government</i>	1.2	3.0	1.1	2.0	5.5
Internal Stock Pool	-6.4	-0.5	12.4	13.3	8.9
<i>S&amp;P 500 Index</i>	-6.4	-0.6	12.4	13.3	8.8
Internal Bond Pool - Trust	1.1	3.2	2.7	3.6	6.4
<i>Barclays Aggregate</i>	1.2	2.9	1.7	3.1	5.9

(1) Since retention by the SBI. Inception dates as follows:

7/1/91: RBC Global Asset Management

7/1/93: Internal Stock Pool

7/1/94: Internal Bond Pool - Trust

1/1/95: GE Asset Management

(2) Prior to July 2011, a blended benchmark consisting of 25% Merrill Lynch (ML) Mortgage Master, 25% ML 1-3 Yr Gov't, 25% ML 5-10 Year Treasury/Ag, 15% ML 3-5 Year Treasury/Ag, and 10% ML 91-day T-Bill was utilized.

**NON-RETIREMENT MANAGERS**  
**Periods Ended September 2015**

	<b>September 30, 2015</b>		<b>June 30, 2015</b>	
	<b>Market Value</b>	<b>Percent</b>	<b>Market Value</b>	<b>Percent</b>
GE Asset Management	\$53,569,852	1.9%	\$63,208,051	2.1%
RBC Global Asset Management	\$234,080,083	8.1%	\$244,029,590	8.1%
Internal Stock Pool	\$1,646,139,833	56.9%	\$1,760,081,830	58.4%
Internal Bond Pool - Trust	\$958,005,912	33.1%	\$946,567,244	31.4%
<b>Total Portfolio</b>	<b>\$2,891,795,680</b>	<b>100.0%</b>	<b>\$3,013,886,715</b>	<b>100.0%</b>

**NON-RETIREMENT MANAGERS**  
**Calendar Year Returns**

	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>
GE Asset Management	13.2	34.5	16.8	-2.2	10.7
<i>S&amp;P 500 Index</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>	<i>15.1</i>
RBC Global Asset Management (1)	2.5	-1.3	1.8	7.1	8.4
<i>Barclays Intermediate Gov</i>	<i>2.5</i>	<i>-1.2</i>	<i>1.7</i>	<i>6.2</i>	<i>5.0</i>
Internal Stock Pool	13.7	32.2	16.0	2.2	15.1
<i>S&amp;P 500 Index</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>	<i>15.1</i>
Internal Bond Pool - Trust	6.0	0.0	5.8	5.6	6.3
<i>Barclays Aggregate</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>	<i>6.5</i>

(1) Prior to July 2011, a blended benchmark consisting of 25% Merrill Lynch (ML) Mortgage Master, 25% ML 1-3 Year Gov't, 25% ML 5-10 Year Treasury/Ag, 15% ML 3-5 Year Treasury/Ag, and 10% ML 91-day T-Bill was utilized.



