
MINNESOTA STATE BOARD OF INVESTMENT

**MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
March 2, 2016**



**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

March 2, 2016

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AGENDA
STATE BOARD OF INVESTMENT MEETING
Wednesday, March 2, 2016
10:00 A.M.
Retirement Systems Building
Room 106 – Main Floor
60 Empire Drive, St. Paul, MN

- | | |
|---|------------|
| 1. Approval of Minutes of December 2, 2015 | TAB |
| 2. Report from the Executive Director (Mansco Perry) | A |
| A. Quarterly Investment Review
(October 1, 2015 – December 31, 2015) | |
| B. Administrative Report | B |
| 1. Reports on Budget and Travel | |
| 2. FY15 Audit | |
| 3. FY15 Annual Report | |
| 4. Sudan Update | |
| 5. Iran Update | |
| 6. Litigation Update | |
| 3. Report from the IAC Membership Review Committee
(State Auditor Rebecca Otto) | C |
| 4. Pension Fund Directors Update on Funding Status
(Dave Bergstrom, Doug Anderson and Laurie Hacking) | |
| 5. Investment Advisory Council Report (Jeff Bailey) | |
| A. Private Markets Report | D |
| 1. Review of current strategy | |
| 2. Consideration of investment commitments for private market
managers | |
| B. Public Markets, Non-Retirement, and Defined Contribution Report | E |
| 6. Other items | |

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**Minutes
State Board of Investment
December 2, 2015**

The State Board of Investment (SBI) met at 10:29 A.M. Wednesday, December 2, 2015 in Room 106, Retirement Systems Building, St. Paul, Minnesota. Governor Mark Dayton, State Auditor Rebecca Otto, Secretary of State Steve Simon, and Attorney General Lori Swanson were present. The minutes of the September 9, 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 September 30, 2015 (Combined Funds 6.8% vs. Composite 6.5%) and had provided a real rate of return of 5.6% above inflation over the latest 20 year period (Combined Funds 7.8% vs. CPI 2.2%).

Mr. Perry said that assets decreased over the quarter by 5.7% (Combined Funds ending value of \$56.7 versus a beginning value of \$60.1 billion), due to the negative investment returns and net outflows. The Combined Funds return was 20 basis points (bps) below the benchmark for the quarter (Combined Funds -4.7% vs. Composite -4.5%) and 20 bps higher for the year (Combined Funds -0.5% vs. Composite -0.7%). The Combined Funds also outperformed for longer time periods.

Mr. Perry reported that the domestic stock manager group underperformed its target for the quarter (Domestic Stocks -7.5% vs. Domestic Equity Asset Class Target -7.2%), outperformed for the year (Domestic Stocks -0.4% vs. Domestic Equity Asset Class Target -0.5%), and outperformed in longer time periods. He said the international stock manager group outperformed its target for the quarter (International Stocks -11.1% vs. International Equity Asset Class Target -12.2%) and outperformed over longer time periods. Mr. Perry then stated that the bond segment lagged its target for the quarter (Bonds 0.8% vs. Fixed Income Asset Class Target 1.2%) and for the year (Bonds 2.8% vs. Fixed Income Asset Class Target 2.9%) but outperformed its target in longer time periods. He stated that the alternative investments contributed to performance for the quarter and the year (total return of 2.8% and 4.6%, respectively). Mr. Perry concluded his report noting that, as of September 30, 2015, the SBI was responsible for managing slightly under \$77 billion of assets.

Mr. Perry referred members to Tab B of the meeting materials for the administrative report. Mr. Perry commented that the Fiscal Year 2015 audit should be completed in December and draft copies of the annual report should be distributed shortly thereafter. He noted that the updated information for Sudan and Iran was included in Tab B. Mr. Perry stated there was currently no litigation involving the SBI.

The Chair of the Investment Advisory Council (IAC), Jeff Bailey gave an overview of two agenda items from the IAC meeting that were informative and did not require action. The first was a presentation by the Retirement Plan Directors on the statewide systems' recent experience study

results. The statewide systems provided an overview of the key economic and demographic assumptions that drive the liability of those plans. The second item was a presentation by Mr. Perry that outlined the current investment objectives for the Combined Funds and highlighted investment strategies where there may be potential opportunity for future investment. This project will provide additional research opportunities for staff in the fixed income, domestic and international equities, and private equity areas.

Mr. Bailey referred Board members to the Investment Advisory Council report, found under Tab C. He discussed the agenda items covered in the November 17, 2015, IAC meeting. Mr. Bailey reviewed the five alternative investment proposals brought to the IAC. Four managers were existing managers: Kohlberg Kravis Roberts & Co. (Private Equity); Advent International (Private Equity); Merit Capital Partners (Yield-Oriented); and The Energy & Minerals Group (Resources); and one was a new manager, Madison Dearborn (Private Equity). Mr. Dayton 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 KKR Americas Fund 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 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.**

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.

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.

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.

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." The motion passed unanimously.

The meeting adjourned at 10:50 a.m.

Respectfully submitted,



Mansco Perry III
Executive Director and
Chief Investment Officer

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TAB

A

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LONG TERM OBJECTIVES

Period Ending 12/31/15

COMBINED FUNDS: \$57.9 Billion	Result	Compared to Objective (2)
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Match or Exceed Composite Index (10 Yr.)

6.7% (1)

0.2 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.

EXECUTIVE SUMMARY

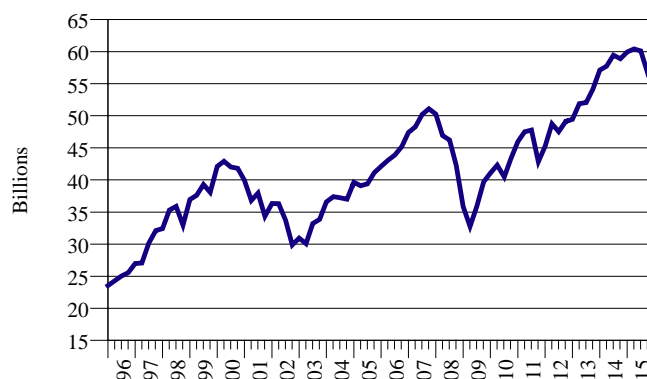
Combined Funds (Net of Fees)

Asset Growth

The market value of the Combined Funds increased 2.0% during the fourth quarter of 2015. The negative net contributions were offset by positive investment returns during the quarter.

	Asset Growth During Fourth Quarter 2015 (Millions)
Beginning Value	\$56,711
Net Contributions	-497
Investment Return	1,660
Ending Value	\$57,874

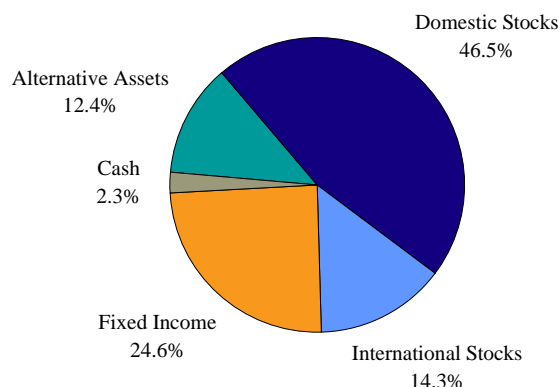
Combined Funds Market Value



Asset Mix

During the fourth quarter there was an increase in the international and domestic equities allocations due to positive investment returns. Bonds and alternatives decreased from negative performance. The allocation to cash increased due to a rebalance from domestic equities.

	Policy Targets	Actual Mix 12/31/15	Actual Market Value (Millions)
Domestic Stocks	45.0%	46.5%	\$26,899
International Stocks	15.0%	14.3%	8,276
Bonds	18.0%	24.6%	14,218
Alternative Assets*	20.0%	12.4%	7,166
Cash	2.0%	2.3%	1,315
	100.0%	100.0%	\$57,874

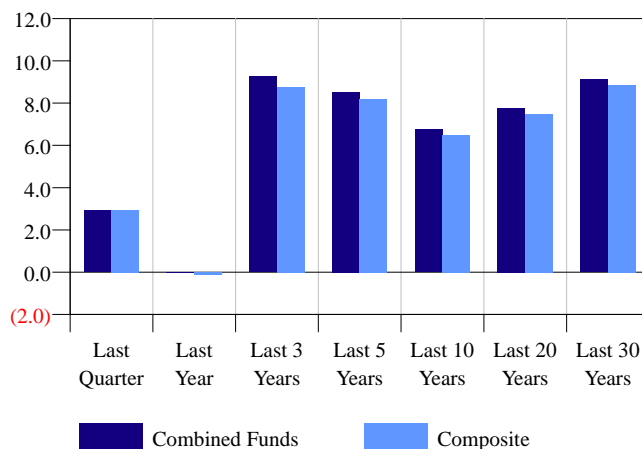


* Any uninvested allocation is held in bonds.

Fund Performance (Net of Fees)

The Combined Funds performed in line with its benchmark for the quarter and outperformed the benchmark for the year.

	Periods Ended 12/31/15						
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
Combined Funds	2.9%	0.0%	9.3%	8.5%	6.7%	7.8%	9.1%
Composite	2.9%	-0.1%	8.8%	8.2%	6.5%	7.5%	8.9%



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 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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Dom. Stocks	5.9%	0.3%	15.0%	12.2%	7.2%
Asset Class Target*	6.3%	0.5%	14.7%	12.2%	7.4%

* 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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Stocks	3.8%	-2.9%	3.2%	2.1%	3.6%
Asset Class Target*	3.2%	-5.7%	1.5%	1.1%	3.0%

* 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) outperformed 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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bonds	-0.3%	0.7%	1.8%	3.8%	4.8%
Asset Class Target	-0.6%	0.5%	1.4%	3.2%	4.5%

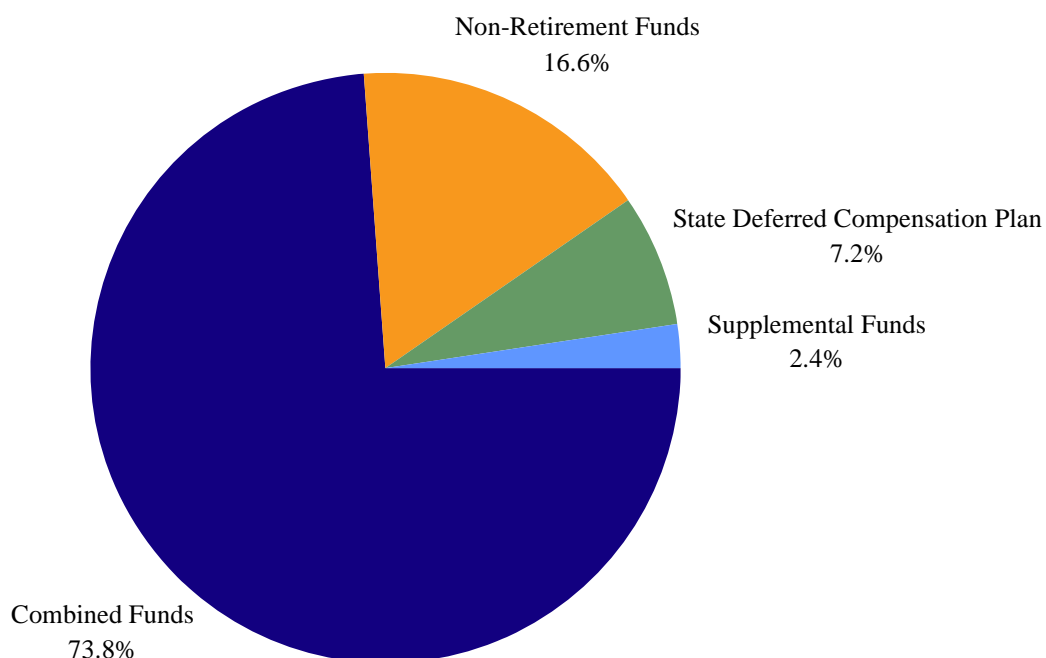
Alternative Investments

	Periods Ended 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Alternatives	-1.9%	1.4%	11.5%	12.0%	11.2%

Note: All periods over one year are annualized.

EXECUTIVE SUMMARY

Funds Under Management



12/31/15 Market Value (Billions)

Retirement Funds

Combined Funds	\$57.9
Supplemental Investment Fund	1.9
(Excluding Deferred Compensation Plan Assets)	
State Deferred Compensation Plan	5.7

Non-Retirement Funds

Assigned Risk Plan	0.3
Permanent School Fund	1.2
Environmental Trust Fund	0.9
Closed Landfill Investment Fund	0.1
Miscellaneous Trust Accounts	0.2
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	8.9
<u>Minnesota College Savings Plan</u>	<u>1.2</u>

Total	\$78.6
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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

Fourth Quarter 2015

(October 1, 2015 - December 31, 2015)

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VARIOUS CAPITAL MARKET INDICES

Periods Ended December 31, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
Domestic Equity						
Russell 3000 (broad market)	6.3%	0.5%	14.7%	12.2%	7.4%	8.3%
Russell 1000 (large cap)	6.5	0.9	15.0	12.4	7.4	8.3
Russell 2000 (small cap)	3.6	-4.4	11.7	9.2	6.8	8.0
Dow Jones Wilshire Composite	6.3	0.4	14.7	12.1	7.5	8.3
Dow Jones Industrials	7.7	0.2	12.7	11.3	7.7	8.8
S&P 500	7.0	1.4	15.1	12.6	7.3	8.2
Domestic Fixed Income						
Barclays Aggregate (1)	-0.6	0.5	1.4	3.2	4.5	5.3
Barclays Gov't/Credit	-0.7	0.1	1.2	3.4	4.5	5.3
3 month U.S. Treasury Bills	0.0	0.1	0.1	0.1	1.2	2.5
International						
MSCI Emerging Markets Free Index (2)	0.7	-14.9	-6.8	-4.8	3.6	5.2
MSCI ACWI ex USA (3)	3.2	-5.7	1.5	1.1	2.9	--
MSCI EAFE (4)	4.7	-0.8	5.0	3.6	3.0	4.4
MSCI World ex USA (5)	3.9	-3.0	3.9	2.8	2.9	4.6
Salomon Non U.S. Gov't Bond	-1.4	-5.5	-4.3	-1.3	3.0	3.7
Inflation Measure						
Consumer Price Index CPI-U (6)	-0.6%	0.7%	1.0%	1.5%	1.9%	2.2%
Consumer Price Index CPI-W (7)	-0.8%	0.4%	0.7%	1.4%	1.8%	2.1%

(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 6.3% return for the fourth quarter of 2015. The Federal Reserve followed up a strong early December employment report with the first federal funds increase in more than nine years, but Wall Street has had its doubts about the Fed's embarking upon a tightening cycle in the current economic environment. The strength of the U.S. dollar, relative to many other major currencies, continues to dominate the global investment landscape. Within the Russell 3000, Health Care was the best performing sector with an 8.8% return while Energy was the weakest sector with -0.9% 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	7.3%
Large Value	Russell 1000 Value	5.6%
Small Growth	Russell 2000 Growth	4.3%
Small Value	Russell 2000 Value	2.9%

The Russell 3000 index returned 0.5% for the year ending December 31, 2015.

DOMESTIC BONDS

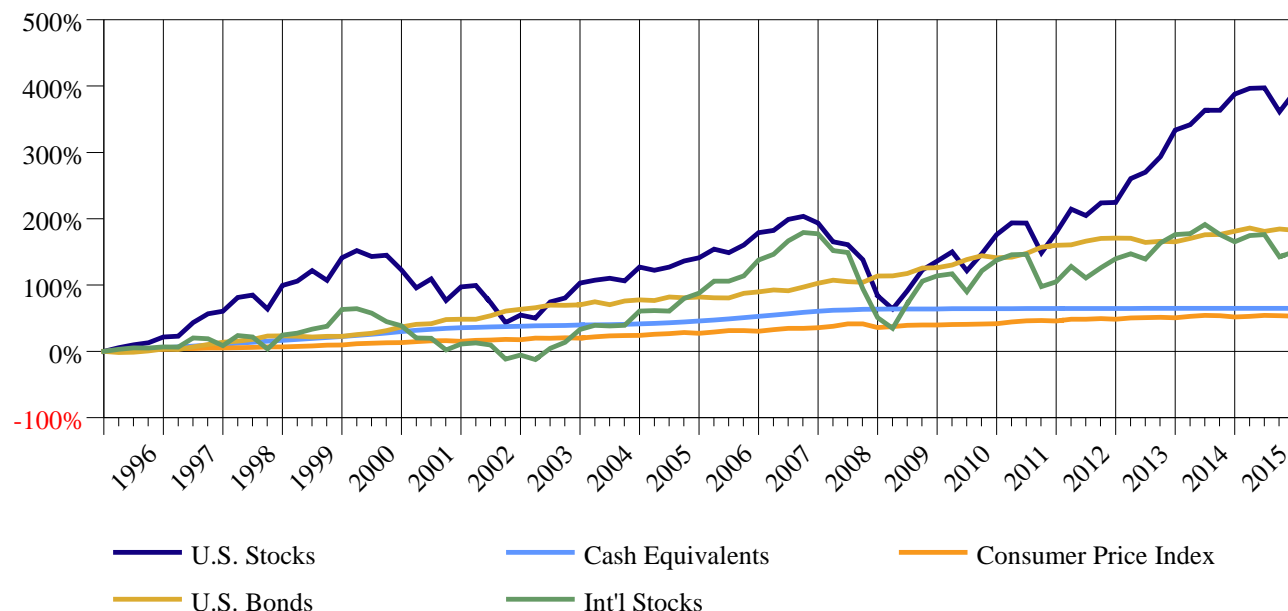
The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of -0.6% for the quarter. The 2-year U.S. Treasury yield ended the quarter higher by 47 basis points at 1.1%, the 5-year increased by 45 basis points to 1.8%, the 10-year increased by 25 basis points to 2.3%, and the 30-year increased by 20 basis points to 3.1%. CMBS bonds were the biggest detractor from return followed by Treasuries.

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

U.S. Treasury	-0.9%
Agency	-0.8%
Corporates	-0.4%
Agency MBS	-0.1%
Commercial Mortgages	-1.2%
Asset-Backed	-0.6%

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 3.9% for the quarter. World equities also posted positive returns in local currencies. However, given a strong U.S. dollar, returns in U.S. dollar terms were slighter lower. Markets reacted positively to expansive monetary policy in Europe and Japan as well as positive economic data in Japan. The top performing sectors for the quarter were Information Technology, Telecommunication Services, and Industrials. The worst performing sectors were Energy, Materials and Utilities.

The quarterly performance of the six largest stock markets, which comprise about 73% of the MSCI World ex USA index, is shown below:

Japan	9.3%
Germany	7.7%
Switzerland	2.0%
France	1.7%
United Kingdom	0.7%
Canada	-5.1%

The MSCI World ex USA index returned -3.0% during the past 12 months.

EMERGING INTERNATIONAL MARKETS

Emerging markets (as measured by MSCI Emerging Markets Free index net) provided a return of 0.7% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	4.0%
Korea	5.4%
Taiwan	1.2%
Brazil	-3.3%
South Africa	-10.6%
India	-0.9%

The Emerging Markets Free index returned -14.9% 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 75% of the value of the emerging international markets in the index.

REAL ESTATE

During the fourth quarter of 2015, private real estate posted its 24th consecutive quarter of positive returns with the NCREIF Property Index posting a return of 2.9%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. An aggregate \$107.2 billion in private real estate funds was raised in 2015, with approximately 70% of the total amount focused on North American real estate. Closed-end private real estate dry powder increased for the third straight year, ending 2015 at \$252 billion. (Source: NCREIF; Preqin)

PRIVATE EQUITY

During the fourth quarter of 2015, an aggregate \$83.2 billion in private equity funds was raised across 118 funds. Buyout funds topped the list of aggregate capital raised with \$46.9bn and Venture Capital closed the most funds with 46. At the end of 2015, there was a record 1,630 private equity funds raising capital, targeting an aggregate \$488bn. This surpasses the previous peak of \$482bn being sought at the start of 2008 by just 974 funds. (Source: Preqin)

The aggregate value of the 1,620 buyout exits in 2015 was \$416 billion. Buyout distributions beat out capital calls as the aggregate value of the 3,556 buyout deals finalized in 2015 was \$411 billion. North America continues to dominate the buyout landscape as \$255 billion, or 62%, of buyout deals were consummated here. Drilling further into the data, while 51% of the value of buyout deals were for less than \$100 million, 70% of the aggregate value was found in deals greater than \$1 billion. The largest deal being the \$67 billion merger of EMC and Dell. (Source: Preqin)

RESOURCE FUNDS

During the fourth quarter of 2015, crude oil traded between a range of \$35/bbl and \$49/bbl. The average price for the fourth quarter of 2015 was \$42/bbl, which was \$5 below the average price from the third quarter. Continued concerns surrounding an increase in global supply coupled with decreasing demand from China contributed to the drop in oil prices in the quarter. (Source: Bloomberg)

COMBINED FUNDS

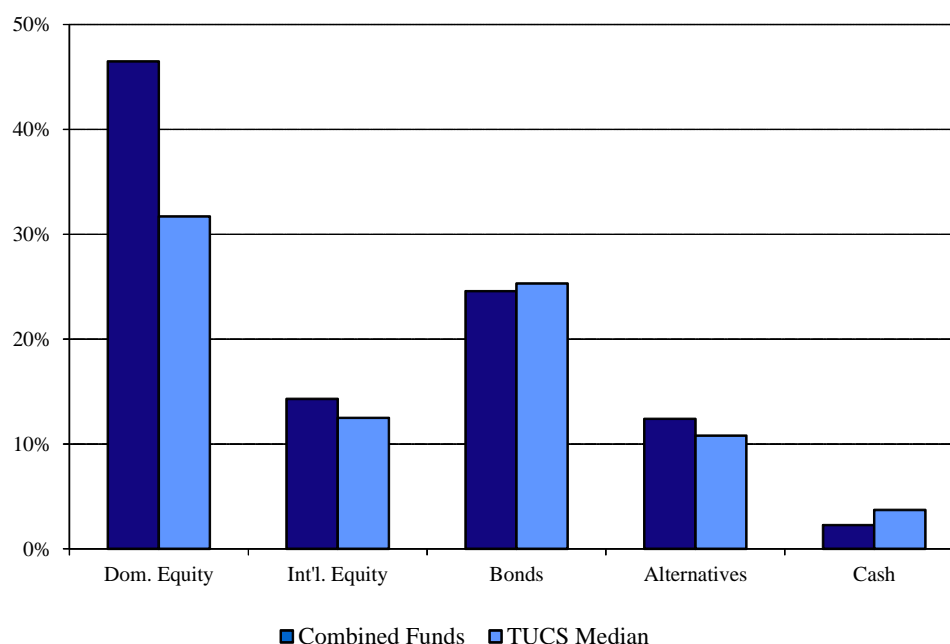
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

On 12/31/15, the asset mix of the Combined Funds was:

	\$ Million	%
Domestic Stocks	\$26,899	46.5%
International Stocks	8,276	14.3%
Bonds	14,218	24.6%
Alternative Assets	7,166	12.4%
Unallocated Cash	1,315	2.3%
Total	\$57,874	100.0%

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:



	Domestic Equity	Int'l Equity	Bonds	Alternatives	Cash
Combined Funds	46.5%	14.3%	24.6%	12.4%	2.3%
Median Allocation in TUCS*	31.7%	12.5%	25.3%	10.8%**	3.7%

* Public and corporate plans over \$1 billion.

** May include assets other than alternatives.

COMBINED FUNDS

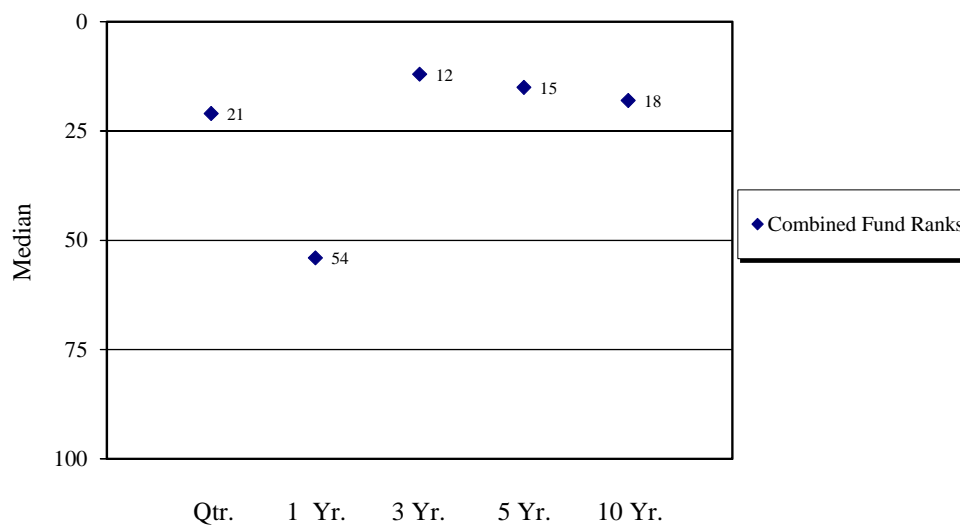
Performance Compared to Other Pension Funds

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 12/31/15				
	Quarter	1 Year	3 Years	5 Years	10 Years
Combined Funds					
Percentile Rank in TUCS*	21st	54th	12th	15th	18th

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

Note: All periods over one year are annualized.

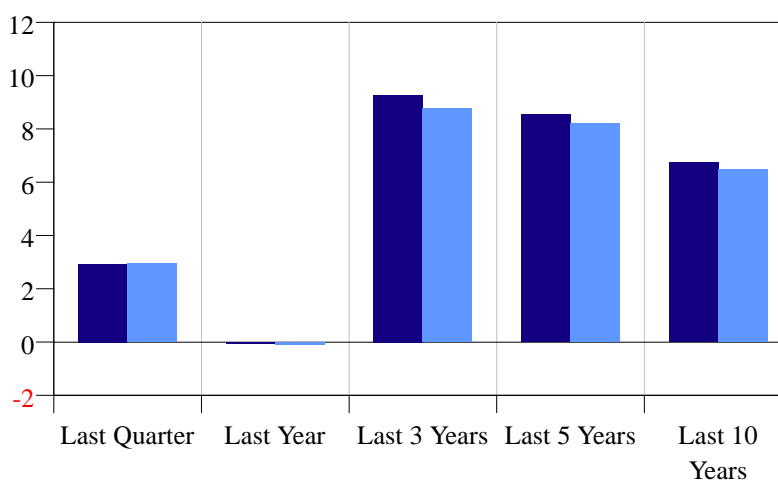
COMBINED FUNDS

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:

	Maret Index	Combined Funds Composite 4Q/15
Domestic Stocks	Russell 3000	45.0%
Int'l Stocks	MSCI ACWI Free ex USA	15.0%
Bonds	Barclays Capital Aggregate	25.0% *
Alternative Investments	Alternative Investments	13.0% *
<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 12/31/15

Combined Funds **		2.9%	0.0%	9.3%	8.5%	6.7%
Composite		2.9%	-0.1%	8.8%	8.2%	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

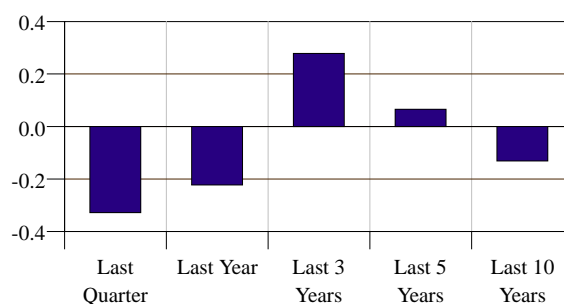
Target: Russell 3000

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Stocks	5.9%	0.3%	15.0%	12.2%	7.2%
Asset Class Target*	6.3%	0.5%	14.7%	12.2%	7.4%

* 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

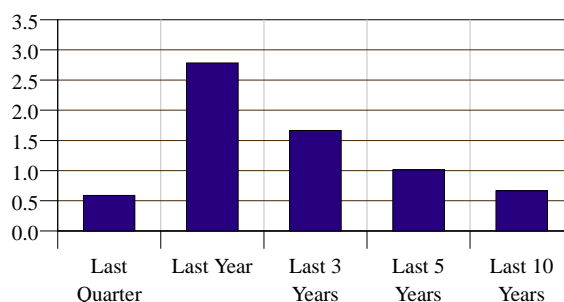
Target: Standard MSCI ACWI Free ex U.S. (net)

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Stocks	3.8%	-2.9%	3.2%	2.1%	3.6%
Asset Class Target*	3.2%	-5.7%	1.5%	1.1%	3.0%

* 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)



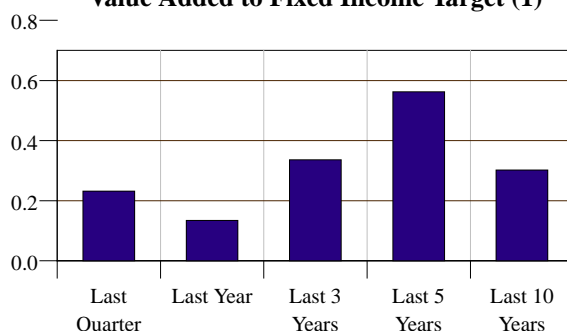
Bonds

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bonds	-0.3%	0.7%	1.8%	3.8%	4.8%
Asset Class Target	-0.6%	0.5%	1.4%	3.2%	4.5%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Alternatives	-1.9%	1.4%	11.5%	12.0%	11.2%
Inflation	-0.6%	0.7%	1.0%	1.5%	1.9%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate	1.5%	15.4%	15.2%	13.8%	7.3%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity	0.5%	10.6%	14.6%	14.0%	12.5%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Resource	-9.7%	-23.7%	1.2%	5.7%	10.8%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Yield Oriented	-5.3%	-10.5%	9.3%	10.7%	12.2%

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.

Note: All periods over one year are annualized.

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 December 31, 2015 the market value of the entire Fund was \$1.9 billion.

Investment Options

	12/31/15 Market Value (In Millions)
Balanced Fund - a balanced portfolio utilizing both common stocks and bonds.	\$362
U.S. Stock Actively Managed Fund - an actively managed, all common stock portfolio.	\$207
U.S. Stock Index Fund - a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	\$464
Broad International Stock Fund - a portfolio of non U.S. stocks that incorporates both active and passive management.	\$172
Bond Fund - an actively managed, all bond portfolio.	\$128
Money Market Fund - a portfolio utilizing short-term, liquid debt securities.	\$292
Stable Value Fund - a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	\$201
Volunteer Firefighter Account - a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$53

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%	59.9%
Bonds	35.0%	35.6%
Cash	5.0%	4.5%
	100.0%	100.0%

Periods Ended 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	3.5%	0.6%	9.7%	8.8%	6.7%
Benchmark*	3.6%	0.7%	9.3%	8.6%	6.2%

* 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 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	5.8%	0.1%	15.1%	12.3%	7.1%
Benchmark*	6.3%	0.5%	14.7%	12.2%	7.4%

* 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 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	6.3%	0.5%	14.8%	12.1%	7.4%
Benchmark*	6.3%	0.5%	14.7%	12.2%	7.4%

* 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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	3.8%	-2.9%	3.2%	2.1%	3.7%
Benchmark*	3.2%	-5.7%	1.5%	1.1%	3.0%

* 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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	-0.3%	0.7%	1.8%	3.8%	4.8%
Barclays Agg	-0.6%	0.5%	1.4%	3.2%	4.5%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	0.1%	0.2%	0.2%	0.2%	1.4%
3 month T-Bills	0.0%	0.1%	0.1%	0.1%	1.2%

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 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	0.5%	2.0%	2.0%	2.4%	3.5%
Benchmark*	0.4%	1.5%	1.3%	1.2%	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:

	Target	Actual
Domestic Stocks	35.0%	35.4%
International Stocks	15.0%	14.9%
Bonds	45.0%	44.8%
Cash	5.0%	4.9%
	100.0%	100.0%

Periods Ended 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	2.5%	0.1%	6.4%	6.4%	--
Benchmark*	2.5%	-0.2%	6.0%	6.0%	--

* 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 December 31, 2015, the market value of the entire Fund was \$5.7 billion.

Investment Options

	12/31/15 Market Value (In Millions)
Vanguard Index Institutional Plus Shares (passive)	\$971.4
Janus Twenty (active)	\$546.3
Vanguard Mid Cap Index Institutional Shares (passive)	\$424.8
T. Rowe Price Small-Cap Stock (active)	\$559.4
Fidelity Diversified International (active)	\$288.4
Vanguard Total International Stock Index Institutional Plus (passive)	\$139.5
Vanguard Balanced Index Institutional Shares (passive)	\$675.4
Dodge & Cox Income Fund (active)	\$200.4
Vanguard Total Bond Market Index Institutional Shares (passive)	\$180.2
SIF Money Market Fund	\$62.6
SIF Stable Value Fund	\$1,310.5
State Street Global Advisors MN Target Retirement Funds	\$315.8
Income Fund	\$66.1
2020 Fund	\$73.7
2025 Fund	\$59.7
2030 Fund	\$37.2
2035 Fund	\$29.0
2040 Fund	\$18.0
2045 Fund	\$13.8
2050 Fund	\$9.1
2055 Fund	\$4.4
2060 Fund	\$4.7

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	7.1%	1.4%	15.1%	12.6%
S&P 500	7.0%	1.4%	15.1%	12.6%

Janus Twenty (active)

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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	9.8%	4.9%	15.0%	11.3%
S&P 500	7.0%	1.4%	15.1%	12.6%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	3.4%	-1.3%	14.9%	11.5%
CRSP U.S. Mid Cap	3.5%	-1.3%	15.0%	11.6%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	4.7%	-3.2%	12.5%	10.9%
Russell 2000	3.6%	-4.4%	11.7%	9.2%

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 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	4.9%	3.1%	7.7%	5.2%
MSCI EAFE	4.7%	-0.8%	5.0%	3.6%

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.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	2.8%	-4.2%	1.9%	--
ACWI ex USA IMI	3.6%	-4.0%	2.5%	--

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	3.4%	0.5%	9.3%	8.7%
Benchmark	3.5	0.7	9.4	8.7

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.1%	-0.6%	1.8%	3.6%
Barclays Agg	-0.6%	0.5%	1.4%	3.2%

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.

	Periods Ended 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-0.6%	0.4%	1.3%	3.2%
Barclays Agg	-0.6%	0.5%	1.4%	3.2%

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.

	Periods Ended 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.1%	0.2%	0.2%	0.2%
3-Mo. Treas.	0.0%	0.1%	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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.5%	2.0%	2.0%	2.4%
Benchmark	0.4%	1.5%	1.3%	1.2%

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 December 31, 2015, the market value of the entire Fund was \$1.2 billion.

Investment Options

**12/31/15
Market Value
(In Millions)**

Age Based Managed Allocation

Age Band 0-4 Years	\$23.1
Age Band 5-8 Years	\$75.0
Age Band 9-10 Years	\$73.8
Age Band 11-12 Years	\$104.8
Age Band 13-14 Years	\$123.8
Age Band 15 Years	\$60.2
Age Band 16 Years	\$56.9
Age Band 17 Years	\$55.8
Age Band 18 Years and over	\$136.2

Risk Based Managed Allocations

Aggressive	\$7.2
Moderate	\$49.7
Conservative	\$2.9

Static Options:

U.S. Large Cap Equity	\$7.1
International Equity	\$2.1
U.S. and International Equity	\$267.5
Equity and Interest Accumulation	\$1.0
100% Fixed Income	\$9.9
Money Market	\$7.7
Principal Plus Interest	\$101.5

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	7.0%	1.2%	--	--
S&P 500	7.0%	1.4%	--	--

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	2.9%	-3.5%	--	--
Benchmark	3.9%	-4.0%	--	--

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	5.4%	-0.3%	10.5%	9.2%
Benchmark	5.7%	-0.4%	10.8%	9.5%

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	3.2%	0.8%	--	--
Benchmark	3.2%	0.5%	--	--

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-0.8%	-0.4%	-0.1%	2.4%
Benchmark	-0.6%	-0.2%	0.4%	3.0%

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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.0%	0.0%	0.0%	0.0%
iMoney Net Average All Taxable	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 12/31/15			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.3%	1.2%	1.3%	1.6%
3-Month T-Bill	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.

	12/31/15 Target	12/31/15 Actual
Stocks	20.0%	18.8%
Bonds	80.0%	81.2%
Total	100.0%	100.0%

Investment Management

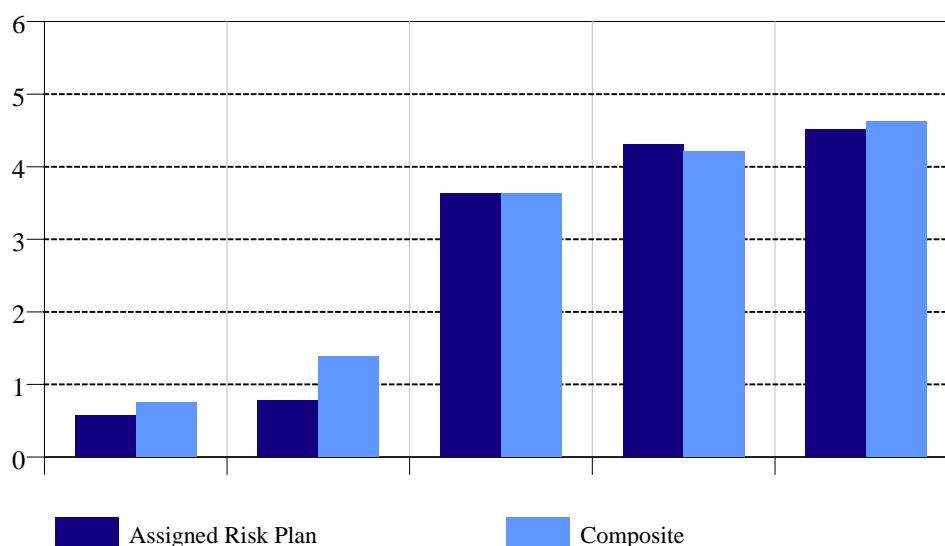
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

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 December 31, 2015 the market value of the Assigned Risk Plan was \$296 million.



Periods Ended 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	0.6%	0.8%	3.6%	4.3%	4.5%
Composite	0.8%	1.4%	3.6%	4.2%	4.6%
Equity Segment*	6.2%	-1.4%	14.5%	11.4%	7.4%
S&P 500	7.0%	1.4%	15.1%	12.6%	7.3%
Bond Segment*	-0.7%	1.3%	0.8%	2.2%	3.5%
Barclays Int Gov Index	-0.8%	1.2%	0.8%	2.1%	3.7%

* 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.

	12/31/15 Target	12/31/15 Actual
Stocks	50.0%	51.0%
Bonds	48.0%	47.0%
Cash	2.0%	2.0%
Total	100.0%	100.0%

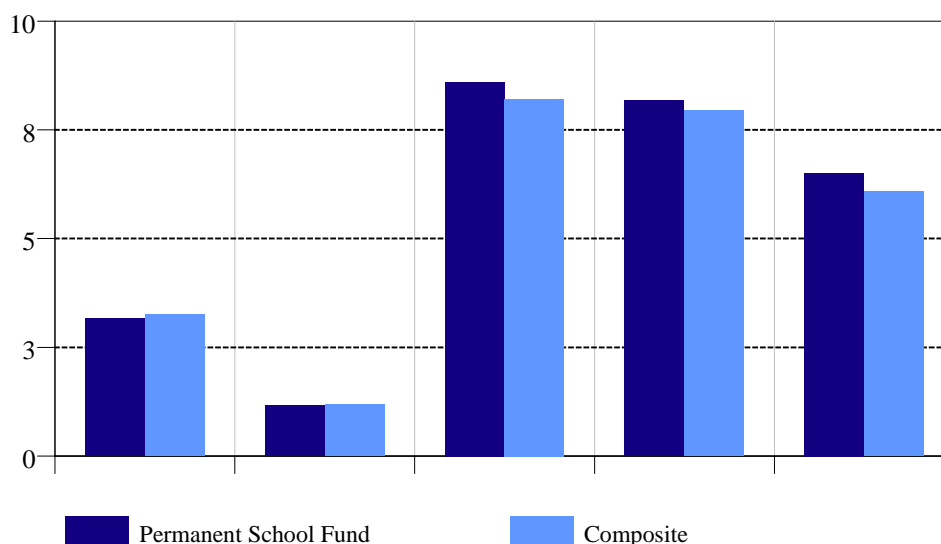
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

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 December 31, 2015 the market value of the Permanent School Fund was \$1.2 billion.



	Periods Ended 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	3.2%	1.2%	8.6%	8.2%	6.5%
Composite	3.3%	1.2%	8.2%	7.9%	6.1%
Equity Segment*	7.1%	1.5%	15.1%	12.6%	7.4%
S&P 500	7.0%	1.4%	15.1%	12.6%	7.3%
Bond Segment*	-0.7%	0.8%	2.2%	3.6%	5.1%
Barclays Agg	-0.6%	0.5%	1.4%	3.2%	4.5%

* 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.

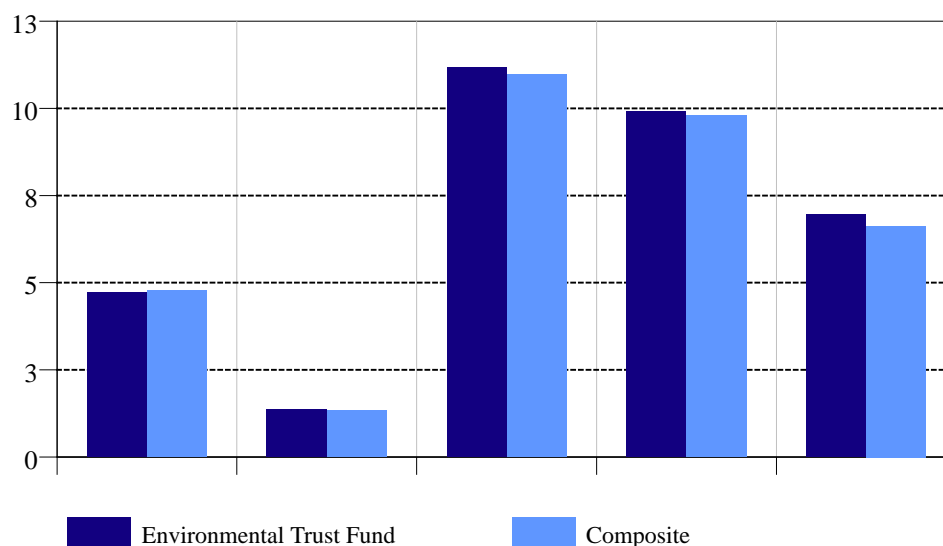
	12/31/15 Target	12/31/15 Actual
Stocks	70.0%	70.4%
Bonds	28.0%	27.6%
Cash	2.0%	2.0%
Total	100.0%	100.0%

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 December 31, 2015 the market value of the Environmental Trust Fund was \$889 million.



	Periods Ended 12/31/15				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	4.7%	1.4%	11.2%	9.9%	7.0%
Composite	4.8%	1.3%	11.0%	9.8%	6.6%
Equity Segment*	7.1%	1.5%	15.1%	12.6%	7.4%
S&P 500	7.0%	1.4%	15.1%	12.6%	7.3%
Bond Segment*	-0.7%	0.8%	2.2%	3.6%	5.1%
Barclays Agg	-0.6%	0.5%	1.4%	3.2%	4.5%

* 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.

	12/31/15 Target	12/31/15 Actual
Stocks	70.0%	69.8%
Bonds	30.0%	30.2%
Total	100.0%	100.0%

Investment Management

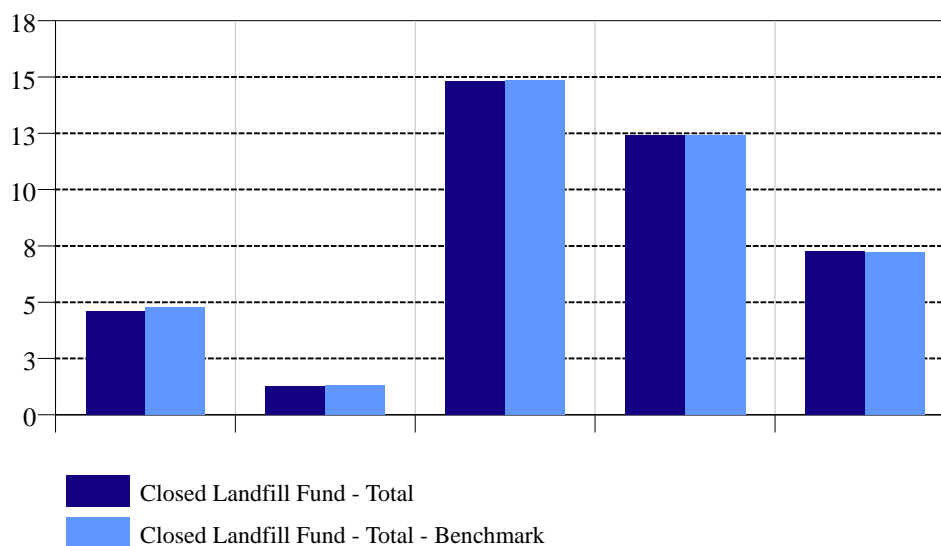
SBI staff manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500.

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 December 31, 2015, the market value of the Closed Landfill Investment Fund was \$69 million.



Periods Ended 12/31/15

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund (1)	4.6%	1.3%	14.8%	12.4%	7.3%
Composite (3)	4.8%	1.3%	14.8%	12.4%	7.2%
Equity Segment (1)	7.1%	1.5%	15.1%	12.6%	7.4%
S&P 500	7.0%	1.4%	15.1%	12.6%	7.3%
Bond Segment (1,2)	-0.7%	0.8%	--	--	--
Barclays Agg	-0.6%	0.5%	--	--	--

(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.

Period Ending 12/31/15						
	Market Value (Millions)	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Treasurer's Cash Pool*	\$8,721	0.0%	0.5%	0.4%	0.5%	1.9%
Custom Benchmark**		0.0%	0.0%	0.0%	0.0%	1.1%
3 month T-Bills		0.0%	0.1%	0.1%	0.1%	1.2%

* 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 December 31, 2015 (in Thousands)

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	439,685 2.26%	0	4,796,752 24.57%	0	9,074,593 46.49%	2,791,977 14.30%	2,417,626 12.38%	19,520,633 100%
Public Employees Retirement Fund	399,598 2.34%	0	4,201,248 24.55%	0	7,948,004 46.45%	2,445,360 14.29%	2,117,483 12.37%	17,111,693 100%
State Employees Retirement Fund	244,867 2.19%	0	2,748,439 24.58%	0	5,199,553 46.52%	1,599,745 14.31%	1,385,249 12.39%	11,177,853 100%
Public Employees Police & Fire	161,756 2.29%	0	1,741,022 24.57%	0	3,293,700 46.47%	1,013,372 14.30%	877,497 12.38%	7,087,347 100%
Highway Patrol Retirement Fund	14,521 2.29%	0	155,556 24.56%	0	294,284 46.47%	90,542 14.30%	78,402 12.38%	633,305 100%
Judges Retirement Fund	4,374 2.62%	0	40,803 24.48%	0	77,192 46.31%	23,749 14.25%	20,565 12.34%	166,683 100%
Correctional Employees Retirement	21,673 2.45%	0	216,966 24.52%	0	410,459 46.39%	126,286 14.27%	109,353 12.36%	884,737 100%
Public Employees Correctional	11,955 2.44%	0	120,008 24.53%	0	227,034 46.40%	69,852 14.27%	60,486 12.36%	489,335 100%
Legislative Retirement Fund	18 1.97%	0	226 24.67%	0	427 46.62%	131 14.30%	114 12.45%	916 100%
PERA Minneapolis Retirement	16,129 2.01%	0	197,369 24.63%	0	373,387 46.60%	114,880 14.34%	99,476 12.42%	801,241 100%
TOTAL COMBINED FUNDS	1,314,576 2.27%	0	14,218,389 24.57%	0	26,898,633 46.48%	8,275,894 14.29%	7,166,251 12.38%	57,873,743 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
MINNESOTA SUPPLEMENTAL FUNDS								
Balanced Fund	16,260 4.49%	128,838 35.64%	0	0	216,447 59.87%	0	0	361,545 100%
U.S. Stock Actively Managed Fund	0	0	0	0	206,913 100.00%	0	0	206,913 100%
Money Market Fund	291,986 100.00%	0	0	0	0	0	0	291,986 100%
U.S. Stock Index Fund	0	0	0	0	463,628 100.00%	0	0	463,628 100%
Bond Fund	0	0	127,587 100.00%	0	0	0	0	127,587 100%
Broad International Stock Fund	0	0	0	0	0	171,632 100.00%	0	171,632 100%
Stable Value Fund	0	0	200,781 100.00%	0	0	0	0	200,781 100%
Volunteer Firefighters Account	2,579 4.86%	0	23,803 44.82%	0	18,821 35.44%	7,903 14.88%	0	53,106 100%
TOTAL SUPPLEMENTAL FUNDS	310,825 16.56%	128,838 6.86%	352,171 18.76%	0	905,809 48.26%	179,535 9.56%	0	1,877,178 100%
MN DEFERRED COMP PLAN								
	70,330 1.24%	0	2,088,312 36.80%	0	3,024,618 53.30%	491,478 8.66%	0	5,674,738 100%
TOTAL RETIREMENT FUNDS	1,695,731 2.59%	128,838 0.20%	16,658,872 25.46%	0	30,829,060 47.12%	8,946,907 13.67%	7,166,251 10.95%	65,425,659 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
ASSIGNED RISK PLAN								
	2,602 0.88%	0	237,451 80.29%	0	55,692 18.83%	0	0	295,745 100%
ENVIRONMENTAL FUND								
	17,825 2.01%	245,281 27.59%	0	625,799 70.40%	0	0	0	888,905 100%
PERMANENT SCHOOL FUND								
	23,251 1.99%	551,120 47.02%	0	597,705 51.00%	0	0	0	1,172,076 100%
CLOSED LANDFILL FUND								
	0	20,908 30.23%	0	48,254 69.77%	0	0	0	69,162 100%
MISCELLANEOUS TRUST FUND								
	490 0.32%	64,778 41.93%	0	89,220 57.75%	0	0	0	154,488 100%
Other Post Employment Funds (OPEB's)								
	19,334 3.80%	97,071 19.10%	0	391,734 77.09%	0	0	0	508,139 100%
TREASURERS CASH								
	8,721,004 100.00%	0	0	0	0	0	0	8,721,004 100%
MISCELLANEOUS STATE ACCOUNTS								
	0	199,151 100.00%	0	0	0	0	0	199,151 100%
MN COLLEGE SAVINGS PLAN								
	7,689 0.66%	0	560,184 48.03%	0	430,841 36.95%	167,522 14.36%	0	1,166,236 100%
TOTAL CASH AND NON-RETIREMENT								
	8,792,195 66.73%	1,178,309 8.94%	797,635 6.05%	1,752,712 13.30%	486,533 3.69%	167,522 1.27%	0	13,174,906 100%
GRAND TOTAL								
	10,487,926 13.34%	1,307,147 1.66%	17,456,507 22.21%	1,752,712 2.23%	31,315,593 39.84%	9,114,429 11.60%	7,166,251 9.12%	78,600,565 100%

TAB

B

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EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: February 24, 2016

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 December 31, 2015 is included as **Attachment A**.

A report on travel for the period from October 1, 2015 – December 31, 2015 is included as **Attachment B**.

2. FY15 Audit

The Legislative Audit letter related to the financial audit of the State Board of Investment financial operations for Fiscal Year 2015 is included as **Attachment C**. The Office of the Legislative Auditor (OLA) issued an unqualified (clean) opinion.

3. FY15 Annual Report

A draft copy of the Fiscal Year 2015 Annual Report was distributed to the Board members/designees and Investment Advisory Council members in December and the final report was distributed in early 2016.

4. 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 fourth quarter, SBI managers sold 40,478 shares in companies on the divestment list.

Attachment D is a copy of the December 22, 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 E is an updated list of companies with operations in Sudan.

5. 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 fourth quarter, an SBI manager sold 200,000 shares in a company on the divestment list.

Attachment F is a copy of the December 22, 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.

6. 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 DECEMBER 31, 2015

ITEM	FISCAL YEAR 2016 BUDGET	FISCAL YEAR 2016 12/31/2015
PERSONAL SERVICES		
FULL TIME EMPLOYEES	\$ 4,591,000	\$ 1,893,556
PART TIME EMPLOYEES	\$ 0	0
MISCELLANEOUS PAYROLL	100,000	3,577
SUBTOTAL	\$ 4,691,000	\$ 1,897,133
STATE OPERATIONS		
RENTS & LEASES	282,000	142,082
REPAIRS/ALTERATIONS/MAINTENANCE	372,000	283,329
PRINTING & BINDING	7,000	2,221
PROFESSIONAL/TECHNICAL SERVICES	150,000	6,570
COMPUTER SYSTEMS SERVICES	20,000	5,303
COMMUNICATIONS	40,000	11,786
TRAVEL, IN-STATE	1,000	220
TRAVEL, OUT-STATE	119,000	27,301
SUPPLIES	122,000	91,139
EQUIPMENT	25,000	3,792
EMPLOYEE DEVELOPMENT	35,000	28,682
OTHER OPERATING COSTS	140,000	50,060
INDIRECT COSTS	250,000	98,612
ATTORNEY GENERAL COSTS	-	15,149
SUBTOTAL	\$ 1,563,000	\$ 766,246
TOTAL ADMINISTRATIVE BUDGET	\$ 6,254,000	\$ 2,663,379

ATTACHMENT B**STATE BOARD OF INVESTMENT****Travel Summary by Date
SBI Travel October 1, 2015 – December 31, 2015**

Purpose	Names(s)	Destination and Date	Total Cost
Manager Monitoring Alternative Investment Managers: Apax Partners; Avenue Energy Fund	A. Krech	New York, NY 10/14-10/16	\$1,530.71
Manager Search Alternative Investment Managers: Angelo, Gordon; Morgan Stanley Capital Partners			
Conference: Defined Contribution Conference Sponsored by Pension & Investment	P. Ammann	San Francisco, CA 10/18-10/20	\$1,920.62
Conference: Navigating the Future of Financial Excellence Sponsored by Public Pension Financial Forum (P2F2)	P. Anderson S. Baribeau	San Diego, CA 10/24-10/29	\$4,214.08
Conference: Callan College	S. Simon B. Black	Chicago, IL 10/26-10/28	\$1,586.77
Conference: 2015 Investor Conference Sponsored by EnCap Investments L.P.	J. Stacy	Dallas, TX 10/25-10/27	\$1,311.12
Conference: Chief Investment Officers' Symposium Sponsored by KKR Global Institute	M. Perry	Washington, DC 10/27-10/29	\$1,620.53

STATE BOARD OF INVESTMENT

Travel Summary by Date SBI Travel October 1, 2015 – December 31, 2015

Purpose	Names(s)	Destination and Date	Total Cost
Conference: Institutional Limited Partners Association (ILPA) General Partner Summit	A. Krech	New York, NY 11/3-11/5	\$1,313.17
Conference: Institutional Investor Services (IIS) Client Advisory Council Meeting Sponsored by State Street	L. Stagg	Boston, MA 11/11-11/12	\$1,252.66
In-State Travel: Eden Prairie Fire Relief Presentation	L. Stagg M. Ndungu S. Baribeau	Eden Prairie, MN 12/11	\$88.56



OFFICE OF THE LEGISLATIVE AUDITOR

STATE OF MINNESOTA • James Nobles, Legislative Auditor

January 28, 2016

Mr. Mansco Perry III, Executive Director and Chief Investment Officer
Minnesota State Board of Investment
60 Empire Drive, Suite 355
Saint Paul, MN 55103

Dear Mr. Perry:

The financial activity of the State Board of Investment, including the assets under investment, is included as part of the primary government in the State of Minnesota's annual comprehensive annual financial report (CAFR). The Office of the Legislative Auditor (OLA) audits this report and provides an independent auditor's report (audit opinion) on the accuracy and fairness of the presentation of various financial statements, footnote disclosures, and other information in the CAFR to the Department of Management and Budget. We issued an unqualified (clean) opinion on the CAFR for the fiscal year ended June 30, 2015. Your financial activity is included in the scope of that audit opinion.

In the state's CAFR, you will find the investments included in the Fiduciary Fund's financial statements (pages 45-47), which summarizes the detailed financial activity presented in the Pension Trust Fund and the Investment Trust Fund's financial statements (pages 210-223). There are also two footnote disclosures in the CAFR, which relate specifically to investments and pensions: Footnote 2 – Cash, Investments, and Derivative Instruments and Footnote 8 – Pension and Investment Trust Funds. Any financial activity of the State Board of Investment recorded in the General Fund would be indistinguishable from the state's other General Fund financial activity.

In addition, OLA audits the three statewide pension plans administered by the State of Minnesota: Minnesota State Retirement System (MSRS), Public Employees Retirement Association (PERA), and Teachers Retirement Association (TRA). Each retirement plan prepares and issues its own individual comprehensive annual financial report for its respective pension funds. Those reports include the same investment information that rolls into the state's CAFR. OLA provides an independent auditor's report (audit opinion) on each pension plan's financial report. The scope of those unqualified (clean) opinions includes the investment assets administered by the State Board of Investment.

We also provide the state and each retirement plan with a report on the Internal Controls Over Financial Reporting. For the fiscal year ending June 30, 2015, we had no written findings for any of the pension plans and no written findings or recommendations directed toward the State Board of Investment in the report to the Department of Management and Budget. When those reports are issued by OLA, they will be published on our website.

Mr. Mansco Perry III, Executive Director and Chief Investment Officer

January 28, 2016

Page 2

Due to the significance and material nature of the financial activity administered by the State Board of Investment to the pension plans and the state as a whole, we devote significant audit resources to specifically test, verify, and confirm investment balances and other investment-related financial activity.

The OLA audit opinions for the year ended June 30, 2015, for the state's CAFR and the three statewide pension plans are available at the following links:

State of MN: [2015 State of MN CAFR](#)

MSRS: [2015 MSRS CAFR](#)

PERA: [2015 PERA CAFR](#)

TRA: [2015 TRA CAFR](#)

We appreciate the cooperation and assistance provided by the staff and administration of the State Board of Investment throughout our audit process.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy Gebhard". The signature is fluid and cursive, with the first name "Tracy" and last name "Gebhard" clearly distinguishable.

Tracy Gebhard, CPA
Audit Director

Cc: Paul Anderson, Chief Financial Officer
LeaAnn Stagg, Chief Operating Officer

ATTACHMENT D

Letter to SBI International and Domestic Equity Managers

December 22, 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 September 21, 2015 letter you received. **This new list is effective December 31, 2015.**

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

- **Kamaz OJSC** **Russia**

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

- **Alstom** **France**
- **Alstom India Limited** **India**
- **Alstom T&D India Ltd.** **India**

Attachment 2 is the List of Sudan Stocks Requiring Divestment. There have been no changes to this list.

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

Restricted Sudan Stocks	
Company Name	Country of Origin
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
MAN SE	Germany
Renk AG	Germany
Volkswagen AG	Germany
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
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
Energy House Holding Co KSCC, The	Kuwait
Engen Botswana Ltd. AKA Engen	Malaysia
KLCCP Stapled Group AKA KLCC Property Holdings	Malaysia

ATTACHMENT 1

Restricted Sudan Stocks	
Company Name	Country of Origin
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petroleum 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
Kamaz OSJC	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: December 31, 2015

ATTACHMENT 2

Sudan Stocks Requiring Divestment

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

Effective Date: December 31, 2015

Historical Divestments

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this date
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
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

The following security identifiers correlate with the Fourth Quarter 2015 Sudan Company Report and are current as of November 10, 2015

ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

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KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GB	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GD	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GF	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GM	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV3E	5387753 DE	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV3E	6340078 HK	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	KUNJUF PQ	A1CV3E	B01DD23 US	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNJUF US	A1CV3E	B01DD23 US	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNJUF UV	A1CV3E	B01DD23 US	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	135 H1	A1CV3E	BP3RW39 HK	BMG5320C1082	952131	05092003
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	KUNLUN ENERGY CO LTD	KLYCV/PQ	A1J7V7	B3L2812 US	US50126A1016		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP	KLYCV US	A1J7V7	B3L2812 US	US50126A1016		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP	KLYCV UV	A1J7V7	B3L2812 US	US50126A1016		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GB	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GD	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GF	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GH	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GM	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GR	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GS	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 GY	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Quotrix Exch (XQTX)	Common Stock	PETROCHINA CO LTD-H	PC6 QT	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	PETROCHINA CO LTD-H	PC6 TH	A0M4YQ	5939507 DE	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	PETROCHINA CO LTD-H	857 HK	A0M4YQ	6226576 HK	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF US	A0M4YQ	B01DNL9 US	CNE1000003W8	011014674	Y6883Q104
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC US (OOTC)	Common Stock	PETROCHINA CO LTD-H	PCCYF UV	A0M4YQ	B01DNL9 US	CNE1000003W8	011014674	Y6883Q104
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sh SSE SEHK (SHSC)	Common Stock	PETROCHINA CO LTD-H	857 H1	A0M4YQ	BP3RWV8 HK	CNE1000003W8	011014674	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 OG	A0NANC	B28SLD9 CN	CNE1000007Q1	033421664	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	A0NANC	B28SLD9 CN	CNE1000007Q1	033421664	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Nth SSE SEHK (XSXC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	A0NANC	BP3P206 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	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UD	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UF	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UN	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UP	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR US	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UT	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR UX	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VJ	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VK	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD-ADR	PTR VY	936983	2568841 US	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GB	936983	4633327 DE	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GF	936983	4633327 DE	US71646E1001	011511449	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD-ADR	PC6A GM	936983	4633327 DE	US71646E1001	011511449	

PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GR	936983	463327 DE	71646E100	US71646E1001	011511449
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GS	936983	463327 DE	71646E100	US71646E1001	011511449
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GY	936983	463327 DE	71646E100	US71646E1001	011511449
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD -ADR	PTR SP	936983	B3K7G63 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
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Mexico (XMEX)	ADR	PETROCHINA CO LTD -ADR	PTRN MM	936983	B569834	71646E100	US71646E1001	011511449
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Buenos Floor (XBUE)	CEDEAR	PETROCHINA CO LTD-CEDEAR	PTR AR	B1C5SR2			ARDEUT113958	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Buenos Floor (XBUE)	CEDEAR	PETROCHINA CO LTD-CEDEAR	PTR AF	B1C5SR2			ARDEUT113958	
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	1639 HK	A0D86T	B02J0J3 HK		HK3298013897	021553654
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GB	A0D86T	B06L0H3 DE		HK3298013897	021553654
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GR	A0D86T	B06L0H3 DE		HK3298013897	021553654
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN		CNE0000001Z9	
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CS	A0M35W	6112125 CN		CNE0000001Z9	
NORTH HUAJIN CHEMICAL INDUSTRIES CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDIA	000059 CS	A0M30T	6796143 CN		CNE0000000NY9	
NORTH HUAJIN CHEMICAL INDUSTRIES CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDIA	000059 CH	A0M30T	6796143 CN		CNE0000000NY9	Y7742G105
TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 CG	A0M4L5	6649946 CN		CNE000001F88	
TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 CH	A0M4L5	6649946 CN		CNE000001F88	
TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Nth SSE-SEHK (XS5C)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 C1	A0M4L5	BP3RB54 CN		CNE000001F88	
SICHUAN NITROCELL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (GNC/NORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	A0RPGJ	B39G5K4 CN		CNE1000008W7	
SICHUAN NITROCELL & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CS	A0RPGJ	B39G5K4 CN		CNE1000008W7	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Buenos Floor (XBUE)	CEDEAR	CHINA PETROLEUM & CHEMICAL-CEDEAR	SNP AF	B1C5SX8 AR	16941R108		ARDEUT114071	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Buenos Floor (XBUE)	CEDEAR	CHINA PETROLEUM & CHEMICAL-CEDEAR	SNP AR	B1C5SX8 AR	16941R108		ARDEUT114071	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CH	A0M4G4	6373728 CN		CNE000001861	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	386 HK	A0M4XN	6291819 HK		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GB	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GD	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GF	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GH	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GM	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GR	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU GS	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Quotrix Exch (XQTX)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	CHU OT	A0M4XN	7027756 DE		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	SNPMF PQ	A0M4XN	B01YKR4 US		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	SNPMF US	A0M4XN	B01YKR4 US		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	SNPMF UV	A0M4XN	B01YKR4 US		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sh SSE-SEHK (SHSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-H	386 H1	A0M4XN	BP3RSM0 HK		CNE1000002Q2	012150504
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 CG	A0M4G4	6373728 CN		CNE100001861	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XS5C)	Common Stock	CHINA PETROLEUM & CHEMICAL-A	600028 C1	A0M4G4	BP3R240 CN		CNE100001861	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UB	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UD	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UF	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UM	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UN	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UP	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP US	576971	2639189 US	16941R108	US16941R1086	011893374
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UT	576971	2639189 US	16941R108	US16941R1086	011893374

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SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI UF	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI UN	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI UP	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI UT	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI VJ	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI VK	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI VY	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Frankfurt (XFRA)	SINOPEC SHANGHAI-SPONS ADR	SHI GB	887169	5734638 DE	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Frankfurt (XFRA)	SINOPEC SHANGHAI-SPONS ADR	SHI GF	887169	5734638 DE	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Frankfurt (XFRA)	SINOPEC SHANGHAI-SPONS ADR	SHI GM	887169	5734638 DE	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Frankfurt (XFRA)	SINOPEC SHANGHAI-SPONS ADR	SHI GR	887169	5734638 DE	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Frankfurt (XFRA)	SINOPEC SHANGHAI-SPONS ADR	SHI GS	887169	5734638 DE	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	Singapore (XSES)	SINOPEC SHANGHAI-SPONS ADR	SHI SP	887169	B3MNGN2	82935M109	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	OTC US (OOTC)	SINOPEC SHANGHAI PETROCHEMICALS LTD	SPTJF US	A0M4Y5	B01XTG6	00506162	CNE1000004C8	Y80373106	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	OTC US (OOTC)	SINOPEC SHANGHAI PETROCHEMICALS LTD	SPTJF UV	A0M4Y5	B01XTG6	00506162	CNE1000004C8	Y80373106	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	ADR	New York (XNYS)	SINOPEC SHANGHAI-SPONS ADR	SHI US	887169	2800059 US	908289	US82935M1099	012248750	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	Shanghai (XSHG)	SINOPEC YIZHENG CHEMICAL -A	600871 CG	A0M3V6	686740 CN		CNE0000000HS3		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	Shanghai (XSHG)	SINOPEC YIZHENG CHEMICAL -A	600871 CH	A0M3V6	686740 CN		CNE0000000HS3		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	Nth SSE-SEHK (XSSE)	SINOPEC YIZHENG CHEMICAL -A	600871 C1	A0M3V6	BWT5T11 CN		CNE0000000HS3		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	Hong Kong (XHKG)	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	684669 HK	008069662	CNE1000004D6	008069662	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	OTC US (OOTC)	SINOPEC OILFIELD SERVICE -H	YZOFF US	A0M4Y6	B01XVL5	008069662	CNE1000004D6	Y8038V103	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	OTC US (OOTC)	SINOPEC OILFIELD SERVICE -H	YZOFF UV	A0M4Y6	B01XVL5	008069662	CNE1000004D6	Y8038V103	
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Common Stock	Sh SSE-SEHK (SHSC)	SINOPEC YIZHENG CHEMICAL-H	1033 H1	A0M4Y6		008069662	CNE1000004D6		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Hong Kong (XHKG)	POLY PROPERTY GROUP CO LTD	119 HK	885546	6220387 HK	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Frankfurt (XFRA)	POLY PROPERTY GROUP CO LTD	CMJ GB	885546	B1HJUS7 DE	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Frankfurt (XFRA)	POLY PROPERTY GROUP CO LTD	CMJ GF	885546	B1HJUS7 DE	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Frankfurt (XFRA)	POLY PROPERTY GROUP CO LTD	CMJ GR	885546	B1HJUS7 DE	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Frankfurt (XFRA)	POLY PROPERTY GROUP CO LTD	CMJ GS	885546	B1HJUS7 DE	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	OTC US (OOTC)	POLY PROPERTY GROUP CO LTD	PHKIF US	885546	B23CST1 US	004580702	HK0119000674	Y7064G 05	
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	OTC US (OOTC)	POLY PROPERTY GROUP CO LTD	PHKIF UV	885546	B23CST1 US	004580702	HK0119000674	Y7064G 05	
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Common Stock	Sh SSE-SEHK (SHSC)	POLY PROPERTY GROUP CO LTD	119 H1	885546	BP3RQJ3 HK	004580702	HK0119000674		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Receipt	OTC US (OOTC)	POLY PROPERTY GROUP CO LTD	PHKIF PQ		BTJXRN4 US		UST316541090		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Receipt	OTC US (OOTC)	POLY PROPERTY GROUP CO LTD	PHKIF US		BTJXRN4 US		UST316541090		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	OTC US (OOTC)	DONGFENG MOTOR GRP CO LTD	DNFGF PQ	A0M4XY	BoxZ Y65 US	023857456	CNE 1000000312	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Hong Kong (XHKG)	DONGFENG MOTOR GRP CO LTD	489 HK	A0M4XY	B0PH5N3 HK	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Frankfurt (XFRA)	DONGFENG MOTOR GRP CO LTD	D4D GB	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Frankfurt (XFRA)	DONGFENG MOTOR GRP CO LTD	D4D GF	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Frankfurt (XFRA)	DONGFENG MOTOR GRP CO LTD	D4D GM	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Frankfurt (XFRA)	DONGFENG MOTOR GRP CO LTD	D4D GR	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Frankfurt (XFRA)	DONGFENG MOTOR GRP CO LTD	D4D GS	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Quinx Exch (XQTX)	DONGFENG MOTOR GRP CO LTD	D4D OT	A0M4XY	B0TB666 DE	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	OTC US (OOTC)	DONGFENG MOTOR GRP CO LTD	DNFGF US	A0M4XY	BoxZ Y65 US	023857456	CNE1000000312	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	Hong Kong (XHKG)	DONGFENG MOTOR GRP CO LTD	489 H1	A0M4XY	BP3RTP0 HK	023857456	CNE1000000312		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	OTC US (OOTC)	DONGFENG MOTOR GRP CO LTD	DNFGF PQ	A0M4XY	BSSQPT4 US	257738203	US2577382037		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	ADR	OTC US (OOTC)	DONGFENG MOTOR GRP-H-UNS ADR	DNFGY US		BSSQPT4 US	257738203	US2577382037		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Common Stock	OTC US (OOTC)	DONGFENG MOTOR GRP CO LTD	DNFGY UV		BSSQPT4 US	257738203	US2577382037		

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NETWORK 18 MEDIA & INVESTMENTS LTD	RELANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	NETWORK 18 MEDIA & INVESTMENTS LTD	NETM IN	AORBYT	BUJRS0 IN	INE870H01013
NETWORK 18 MEDIA & INVESTMENTS LTD	RELANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	NETWORK 18 MEDIA & INVESTMENTS LTD	NETM IS	AORBYT	BUJRS0 IN	INE870H01013
TV18 BROADCAST LTD	RELANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	NETWORK 18 MEDIA & INVESTMENTS LTD	TV18 IB	AORNSF	BICKQW8 IN	INE868H01027
TV18 BROADCAST LTD	RELANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	NETWORK 18 MEDIA & INVESTMENTS LTD	TV18 IN	AORNSF	BICKQW8 IN	INE868H01027
TV18 BROADCAST LTD	RELANCE INDUSTRIES LTD	Natl India (XNSE)	Common Stock	NETWORK 18 MEDIA & INVESTMENTS LTD	TV18 IS	AORNSF	BICKQW8 IN	INE868H01027
SCOMI ENERGY SERVICES BHD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	213406	6081595	MYL70450C007
SCOMI GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	153596	6081595	MYL70450C007
SCOMI GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI GROUP BHD	SGB MK	120745	6081595	MYL71560C008
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Euro Comp (XLON)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	27ZTEUR EU	A0M4YX	#N/A N/A	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Quotrix Exch (XQTX)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR QT	A0M4YX	B07ZG10	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GB	A0M4YX	B07ZG10 DE	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GM	A0M4YX	B07ZG10 DE	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GR	A0M4YX	B07ZG10 DE	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GS	A0M4YX	B07ZG10 DE	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Frankfurt (XFRA)	Common Stock	SHANGHAI ELECTRIC GRP CO L-H	USR GF	A0M4YX	B07ZG10 DE	CNE100000437
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTS)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELFQ	A1H9PU	BUL2823 US	US81943J1088
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTS)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELY US	A1H9PU	BUL2823 US	US81943J1088
SHANGHAI ELECTRIC GROUP CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	OTC US (OOTS)	ADR	SHANGHAI ELECTRIC-UNSP ADR	SIELY UV	A1H9PU	BUL2823 US	US81943J1088
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	A	600835 CG	A0M654	6785851 CN	CNE0000000891
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	A	600835 CH	A0M654	6785851 CN	CNE0000000891
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Nth SSE-SSEHK (XSSE)	Common Stock	A	600835 C1	A0M654	BP3R7Q7 CN	CNE0000000891
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	B	900925 CG	A0M3UQ	6797436 CN	CNE0000000639
SHANGHAI MECHANICAL AND ELECTRICAL INDUSTRY CO LTD	SHANGHAI ELECTRIC GROUP CO LTD	Shanghai (XSHG)	Common Stock	B	900925 CH	A0M3UQ	6797436 CN	CNE0000000639

ATTACHMENT E

EIRIS Conflict Risk Network (CRN) List of "Scrutinized" Companies in Sudan List Effective December 31, 2015

Company Name	Country of Origin
Andritz AG	Austria
ASEC Company for Mining	Egypt
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Caterpillar Inc.	US
China Gezhouba Group Company Ltd.	China
China Hydraulic and Hydroelectric Construction Group (Sinohydro)	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
China National Petroleum Corporation	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
China North Industries Group Corporation	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
China Petrochemical Corporation (Sinopec Group)	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
China Poly Group Corporation	China
Poly Energies Holding Co. Ltd.	China
Poly Property Group Co. Ltd.	China
Dongfeng Motor Group Co. Ltd.	China
Egypt Kuwait Holding Company	Egypt
Energy House Holding Co. K.S.C.C., The	Kuwait
GAZ Group	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
Kamaz OJSC	Russia
Neftekamsky Avtozavod aka NEFAZ	Russia
Glencore PLC	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
Harbin Electric Company Ltd.	China
Indian Oil Corporation Ltd.	India
Chennai Petroleum Corporation Ltd.	India
Lanka IOC PLC	India
Jiangxi Hongdu Aviation Industry Co. Ltd.	China
JX Holdings Inc.	Japan
Eneos Globe Company	Japan
Nippo Corp.	Japan
Toho Titanium Co.	Japan
LS Industrial Systems	South Korea

MAN SE	Germany
Renk AG	Germany
Volkswagen AG	Germany
Managem	Morocco
ONA S.A.	Morocco
Societe Metallurgique D'imiter	Morocco
Oil and Natural Gas Corporation Limited	India
Mangalore Refinery and Petrochemicals Ltd. a.k.a MRPL	India
ONGC Videsh Limited a.k.a OVL	India
Oil India Ltd.	India
Orca Gold Inc.	Canada
Pertamina Persero PT	Indonesia
Petroliam Nasional Berhad (Petronas)	Malaysia
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
Reliance Industries Ltd.	India
Network 18 Media & Investments Ltd.	India
Reliance Holdings USA Inc	India
Reliance Jio Infocomm Ltd.	India
TV18 Broadcast Ltd.	India
Scomi Group Berhad	Malaysia
KMCOB Capital Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Scomi Engineering Berhad	Malaysia
Shanghai Electric Group Co. Ltd.	China
Shanghai Electric Group Corp.	China
Shanghai Mechanical and Electrical Industry Co. Ltd.	China
Trafigura Beheer	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 December 31, 2015

<u>Company Name</u>	<u>Country of Origin</u>
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 December 31, 2015

<u>Company Name</u>	<u>Country of Origin</u>
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 Belspetsvneshtekhnika	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 (November 30, 2015)

ATTACHMENT F

Letter to SBI International and Domestic Equity Managers

December 22, 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 September 21, 2015 letter you received. **This new list is effective December 31, 2015.**

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

- **Eni Spa** **Italy**

Attachment 2 is the List of Iran Companies Requiring Divestment.

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

- **GS Engineering & Construction Corp** **South Korea**

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

COMPANY NAME	COUNTRY
Bharat Petroleum Corporation Ltd.	India
China Petroleum & Chemical Corp	China
Eni Spa	Italy
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: December 31, 2015

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
GS Engineering & Construction Corp	South Korea	June 30, 2016	December 31, 2016
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016

Effective Date: December 31, 2015

COMPLETED DIVESTMENTS

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
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

Company	ISIN	SYMBOL	CUSIP	Country
Bharat Petroleum Corporation Ltd.	INE029A01011	500547		India
China Petroleum & Chemical Corp	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	CNE0000018G1	386	16941R108	China
China Petroleum & Chemical Corp	ARDEUT114071	386	16941R108	China
Eni Spa	US26874R1086	ENI	26874R108	Italy
Eni Spa	IT0003132476	ENI	26874R108	Italy
Eni Spa	ARDEUT112612	ENI	26874R108	Italy
Gail (India) Ltd.	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	INE129A01019	532155	36268T206	India
Gazprom OAO	US3682873068	GAZP	368287207	Russia
Gazprom OAO	US3682873068	GAZP	368287207	Russia
Gazprom OAO	US3682872078	GAZP	368287207	Russia
Gazprom OAO	US3682872078	GAZP	368287207	Russia
Gazprom OAO	US3682872078	GAZP	368287207	Russia
GS Engineering & Construction Corp	KR7006360002	A006360		Korea South
Gubre Fabrikalari T.A.S.	TRAGUBRF91E2	GUBRF		Turkey
Indian Oil Corporation Ltd.	INE242A01010	530965		India
L G International	KR7001120005	A001120		Korea South
Lukoil Oil Co.	US78306P5070	LKOH	677862104	Russia
Lukoil Oil Co.	US6778628726	LKOH	677862104	Russia
Lukoil Oil Co.	US6778628072	LKOH	677862104	Russia
Lukoil Oil Co.	US6778627082	LKOH	677862104	Russia
Lukoil Oil Co.	US6778626092	LKOH	677862104	Russia
Lukoil Oil Co.	US6778622034	LKOH	677862104	Russia
Lukoil Oil Co.	US6778621044	LKOH	677862104	Russia
Lukoil Oil Co.	US5498742049	LKOH	677862104	Russia
Lukoil Oil Co.	RU0009024277	LKOH	677862104	Russia
Lukoil Oil Co.	KYG772401447	LKOH	677862104	Russia
Lukoil Oil Co.	ARDEUT114253	LKOH	677862104	Russia
Mitsui & Co. Ltd	XS0029348686	8031	606827202	Japan
Mitsui & Co. Ltd	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	JP3893600001	8031	606827202	Japan
Oil & Natural Gas Corporation Ltd.	INE213A01029	500312		India
Oil & Natural Gas Corporation Ltd.	INE213A01011	500312		India
PetroChina Co. Ltd.	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	CNE1000007Q1	857	71646E100	China
PetroChina Co. Ltd.	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	ARDEUT113958	857	71646E100	China
Toyo Engineering Corporation	JP3607800004	6330		Japan
Toyota Tsusho Corporation	US89240C1062	8015		Japan
Toyota Tsusho Corporation	JP3635000007	8015		Japan

Letter to SBI Fixed Income Managers

December 22, 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.**

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 September 21, 2015 letter you received. **This new list is effective December 31, 2015.**

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

- **Eni Spa** **Italy**

Attachment 2 is the List of Iran Companies Requiring Divestment.

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

- **GS Engineering & Construction Corp** **South Korea**

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

COMPANY NAME	COUNTRY
Bharat Petroleum Corporation Ltd.	India
China Petroleum & Chemical Corp	China
Eni Spa	Italy
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: December 31, 2015

ATTACHMENT 2

LIST OF IRAN COMPANIES REQUIRING DIVESTMENT

Company Name	Country of Origin	Divest 50 Percent By this Date	Divest 100 Percent By this Date
GS Engineering & Construction Corp	South Korea	June 30, 2016	December 31, 2016
Gazprom OAO	Russia	December 31, 2015	June 30, 2016
Lukoil Oil Co.	Russia	March 31, 2016	September 30, 2016

Effective Date: December 31, 2015

COMPLETED DIVESTMENTS

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

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COMMITTEE REPORT

DATE: February 24, 2016

TO: Members, State Board of Investment

FROM: IAC Membership Review Committee

On February 12, 2016, the Investment Advisory Council (IAC) Membership Review Committee of the Minnesota State Board of Investment (MSBI) met to review applications for IAC membership. The Committee is comprised of State Auditor Rebecca Otto and designees of the Governor (Kim Holmes), the Secretary of State (Bert Black), and the Attorney General (Christie Eller). Ms. Otto served as Chair.

The terms of nine public members of the Investment Advisory Council have expired and there was one vacant public member position on the council. The nine public members were as follows:

Mr. Jeffery Bailey	Sr. Director, Financial Benefits & Analysis Target Corporation
Mr. John Bohan	V.P., Pension Investments (Retired) Grand Metropolitan – Pillsbury
Mr. Kerry Brick	Manager, Pension Investments Cargill, Inc.
Mr. Dennis Duerst	Director, Benefit Funds Investment 3M Company
Ms. Kim Faust	Vice President and Treasurer Fairview Health Services
Mr. Douglas Gorence	President & Chief Investment Officer UMF Investment Advisors
Mr. P. Jay Kiedrowski	Senior Fellow Humphrey Institute University of MN
Mr. Gary Martin	Chief Investment Officer Macalester College
Mr. Malcolm McDonald	Director & Corporate Secretary (Retired) Space Center, Inc.

Eight of the nine members named above have submitted an application for reappointment to the IAC. John Bohan did not submit an application for reappointment. In addition, the Committee received eight new applications for membership to the Council. The new applicants are as follows:

Mr. Andrew Christensen	Director of Private Markets, Investments Carleton College
Ms. Susanna Gibbons	Director, Carlson Fixed Income Fund Carlson School of Management
Mr. Morris Goodwin Jr.	Chief Financial Officer and Senior Vice President American Public Media Group
Ms. Carol Peterfeso	Chief Treasury and Investment Officer University of St. Thomas
Mr. Robert Ryan	Sr. Vice President and Chief Financial Officer (Retired) Medtronic, Inc.
Mr. Randall Schostag	(Retired)
Mr. Lee Wenzel	
Mr. Shawn Wischmeier	Chief Investment Officer Margaret A. Cargill Philanthropies

The Committee reviewed all the applications. Additionally, the Committee reviewed the tenure, and attendance record of each current candidate.

Minnesota Statutes 15.059 requires that one-half of the public members be appointed for a term which is coterminous with the term of the governor and the terms of the remaining one-half of the members shall end on the first Monday in January one year after the terms of the other members.

Unfortunately, when the members whose terms have expired were appointed, all ten members were appointed with terms expiring in January 2016. At this time the Committee is recommending that the Board correct this error by designating that five current members serve the remainder of the current terms which are coterminous with the governors term (ending in January 2019) and one current member and four applicants be appointed to fill the five terms ending in January 2020.

After reviewing all applications, the Committee concluded that the MSBI is very fortunate to have such a large pool of applicants who met the requirements of Minnesota Statute 11A.08, subdivision 1 of being experienced in general investment matters. The Committee is making the following recommendations.

RECOMMENDATIONS:

The Committee recommends that the Board designate the following applicants as members of the Investment Advisory Council, with terms expiring in January 2019:

**Mr. Jeffery Bailey
Mr. Kerry Brick
Mr. Dennis Duerst
Mr. Gary Martin
Mr. Malcolm McDonald**

The Committee recommends that the Board appoint the following applicants as members of the Investment Advisory Council, with terms expiring in January 2020:

**Ms. Kim Faust
Ms. Susanna Gibbons
Mr. Morris Goodwin
Ms. Carol Peterfeso
Mr. Shawn Wischmeier**

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INVESTMENT ADVISORY COUNCIL REPORT

DATE: February 24, 2016

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

Staff has reviewed the following information and action agenda items:

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

Existing Managers:

Private Equity	Apax Partners	Apax IX	\$150 Million
Private Equity	Strategic Partners	SP VII	\$150 Million

New Managers:

Real Estate	Angelo, Gordon & Co.	AG Realty IX	\$100 Million
Private Equity	Carlyle Strategic Partners	CSP IV	\$100 Million
Real Estate	Rockpoint Group	Real Estate Fund V	\$100 Million

Board action is required on the second item.

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**).

- 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.
- 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, Apax Partners, LLP (“Apax”), in Apax IX (“Apax IX”).

Apax is seeking investors for a new \$7.5 billion private equity fund, Apax IX. Since the first Apax fund was raised over 30 years ago, the firm has successfully raised and advised 32 funds for a combined value of \$38 billion as of 30 September 2015¹. The SBI has invested in one of the prior Apax funds.

Apax IX intends to follow the firm’s investment strategy, which targets thesis-driven, buyout investments globally that require an equity investment of \$150 - \$600 million. The Apax strategy is anchored on three pillars: deep sector expertise, geographic flexibility, and transformational ownership. Apax has focused on four core sectors since the 1990s: Tech & Telco, Services, Healthcare and Consumer. Within its four core sectors, Apax seeks to identify attractive sub-sectors, which, in its view, often display unique characteristics or compelling investment themes, where Apax can evaluate multiple deals in multiple geographies. There is no fixed allocation of capital by region, although no more than 25% of the fund can be invested outside of Europe and North America. Instead, a flexible and opportunistic approach is used to try and identify the best deals in each sector. Apax seeks to create value by supporting meaningful operational change. This transformational ownership is led by deal teams together with the Operational Excellence Practice.

In addition to reviewing the attractiveness of the Apax IX 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 Apax IX is included as **Attachment C**.

¹ Figures converted from Fund Currency to USD at FX rates as of 30 September 2015

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 Apax 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 Apax Partners 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 Apax Partners or reduction or termination of the commitment.

2) Investment with an existing private equity manager, Strategic Partners, in Strategic Partners Fund VII, L.P. ("SP VII").

Strategic Partners is seeking investors for a new \$5.75 billion private equity fund, SP VII. Since its founding, Strategic Partners has raised over \$17 billion dedicated to secondary private equity investing. The SBI has invested in all six of the prior Strategic Partners funds.

SP VII will seek significant capital appreciation primarily through the purchase of secondary interests in mature, high-quality leveraged buyout funds from investors seeking liquidity prior to the termination of these funds, with secondary interests in mezzanine, venture capital, distressed securities, fund of funds, and other asset classes also considered. SP VII will invest opportunistically in cases where a prospective seller's original commitment ranges in size from \$100,000 for a single fund holding to \$1 billion or more for a portfolio of funds. While SP VII will have a global investment mandate, it is anticipated that its portfolio will mainly be comprised of funds managed by U.S. and Western European sponsors.

In addition to reviewing the attractiveness of the SP 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 SP VII 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 \$150 million, or 20% of Strategic Partners Fund VII, 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 Strategic Partners 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 Strategic Partners or reduction or termination of the commitment.

3) Investment with a new real estate manager, Angelo, Gordon & Co., L.P., (“Angelo, Gordon”), in AG Realty Fund IX, L.P. (“Fund IX”).

Angelo, Gordon is seeking investors for a new \$1.5 billion real estate fund, Fund IX. This fund is a successor to eight previous real estate funds managed by Angelo, Gordon.

Angelo, Gordon will seek to make opportunistic investments in commercial real estate. Fund IX will continue Angelo, Gordon’s opportunistic real estate investment activities which are focused on the acquisition of equity interests in sub-performing real estate properties, principally in the United States, across a broad range of geographical markets and product types. The Fund’s strategy will emphasize the purchase of sub-performing and distressed real estate assets which Angelo, Gordon believes can benefit from its value-add approach to repositioning and stabilizing properties. The firm typically purchases assets from owners who lack the capital, patience, or expertise to improve cash flow and value. The assets are often attractively priced due to the lack of current cash flow, difficulty in obtaining debt financing, complexity of analysis, or inefficiency of the sale process.

In addition to reviewing the attractiveness of the Fund IX 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 Fund IX 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 AG Realty Fund IX, 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 Angelo, Gordon & Co. 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 Angelo, Gordon & Co. or reduction or termination of the commitment.

4) Investment with a new private equity manager, Carlyle Strategic Partners (“CSP”), in Carlyle Strategic Partners IV, L.P. (“CSP IV”).

CSP is seeking investors for a new \$2 billion private equity fund, CSP IV. This fund is a successor to three previous private equity funds managed by CSP.

CSP IV will seek to generate returns by making investments in middle-market companies experiencing financial, operational or cyclical distress. The fund will focus primarily on situations in which the CSP team has identified an impending credit catalyst that would allow the fund to gain control of the company through a restructuring process when triggered. Once control is obtained, CSP IV intends to create value within its portfolio companies through operational improvements facilitated by CSP and Carlyle’s industry expertise. CSP IV expects to invest primarily in middle-market companies in the United States and Europe, with a small proportion of the fund invested in Asia.

In addition to reviewing the attractiveness of the CSP 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 CSP 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 \$100 million, or 20% of Carlyle Strategic Partners 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 Carlyle Strategic Partners 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 Carlyle Strategic Partners or reduction or termination of the commitment.

5) Investment with a new real estate manager, Rockpoint Group, L.L.C. (“Rockpoint”), in Rockpoint Real Estate Fund V, L.P. (“Rockpoint V”).

Rockpoint is seeking investors for a new \$2.5 billion private real estate fund, Rockpoint V. This fund is the sixth opportunistic real estate vehicle managed by Rockpoint.

Rockpoint intends to acquire high-quality, well located investments with the opportunity to add value at the asset level. Rockpoint believes that it can purchase these assets at attractive valuations by analyzing replacement cost, comparable sales and unleveraged cash flows. Fund

V will focus on acquiring office, multi-family and hospitality assets in the major coastal cities of the United States and markets that share the following attributes, (i) strong long-term economic drivers, (ii) constraints to new supply, and (iii) scale and long-term liquidity. An important element of Rockpoint's strategy is to create value at the asset level through proactive asset management. The acquisition and asset management professionals generally drive the execution of the investment strategy, which may include managing operating expenses, implementing capital expenditure programs, repositioning under-utilized assets, or re-leasing vacant space.

In addition to reviewing the attractiveness of the Rockpoint V 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 Rockpoint V 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 Rockpoint Real Estate Fund V, 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 Rockpoint 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 Rockpoint Group or reduction or termination of the commitment.

ATTACHMENT A

Minnesota State Board of Investment Pooled Alternative Investments Combined Funds December 31, 2015

Combined Funds Market Value \$57,873,743,346

Amount Available for Investment **\$4,524,743,557**

	Current Level	Target Level	Difference
Market Value (MV)	\$7,050,005,112	\$11,574,748,669	\$4,524,743,557
MV +Unfunded	\$12,124,273,873	\$20,255,810,171	\$8,131,536,298

Asset Class	Market Value	Unfunded Commitment	Total
Private Equity	\$4,448,899,754	\$2,784,008,651	\$7,232,908,405
Real Estate	\$615,157,621	\$340,261,954	\$955,419,575
Resource	\$1,226,576,963	\$1,059,057,999	\$2,285,634,962
Yield-Oriented	\$759,370,775	\$890,940,156	\$1,650,310,931
Total	\$7,050,005,113	\$5,074,268,760	\$12,124,273,873

Cash Flows December 31, 2015

Year	Capital Calls	Distributions	Net Invested
2015	\$1,541,161,769	(\$2,128,301,645)	(\$587,139,876)
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)

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ATTACHMENT B

Minnesota State Board of Investment - Alternative Investments - As of December 31, 2015

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
I. REAL ESTATE								
Blackstone								
<i>Blackstone Real Estate Partners V</i>	100,000,000	97,030,342	72,274,950	127,803,995	4,174,052	11.14	2.06	9.68
<i>Blackstone Real Estate Partners VI</i>	100,000,000	99,049,644	62,691,340	140,545,030	5,178,649	12.94	2.05	8.75
<i>Blackstone Real Estate Partners VII</i>	100,000,000	91,362,085	105,657,902	47,172,302	19,122,162	22.21	1.67	4.09
<i>Blackstone Real Estate Partners VIII</i>	150,000,000	28,756,057	28,665,017	355,115	121,592,751	-0.43	1.01	0.77
Blackstone Strategic Partners (CSFB)								
<i>Strategic Partners III RE</i>	25,000,000	25,752,810	7,839,409	7,423,118	9,006	-7.43	0.59	10.50
<i>Strategic Partners IV RE</i>	50,000,000	50,290,631	16,523,117	32,490,023	1,679,617	-0.60	0.97	7.54
Colony Capital								
<i>Colony Investors III</i>	100,000,000	100,000,000	5,100,300	172,642,105	0	14.59	1.78	18.00
Silverpeak Real Estate Partners								
<i>Silverpeak Legacy Pension Partners II</i>	75,000,000	78,416,911	24,104,821	70,464,939	7,999,182	3.72	1.21	10.50
<i>Silverpeak Legacy Pension Partners III</i>	150,000,000	69,493,465	21,867,625	6,047,028	80,506,535	-13.24	0.40	7.61
T.A. Associates Realty								
<i>Realty Associates Fund VII</i>	75,000,000	75,000,000	16,480,213	62,289,968	0	0.70	1.05	11.12
<i>Realty Associates Fund VIII</i>	100,000,000	100,000,000	66,003,378	25,859,975	0	-1.14	0.92	9.50
<i>Realty Associates Fund IX</i>	100,000,000	100,000,000	81,603,140	72,578,258	0	11.08	1.54	7.35
<i>Realty Associates Fund X</i>	100,000,000	100,000,000	106,346,409	18,367,117	0	12.61	1.25	3.83
<i>Realty Associates Fund XI</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.50
Real Estate Total	1,325,000,000	1,015,151,945	615,157,621	784,038,973	340,261,954		1.38	
II. RESOURCE								
Apache Corp.								
<i>1986 Net Profits Interest</i>	30,000,000	30,000,000	1,375,920	59,456,282	0	12.17	2.03	29.00
EIG Global Energy Partners								
<i>EIG Energy Fund XIV</i>	100,000,000	110,187,200	32,134,143	87,911,535	5,587,004	2.91	1.09	8.70
<i>EIG Energy Fund XV</i>	150,000,000	130,101,144	98,926,589	55,952,314	21,296,267	6.82	1.19	5.57
<i>EIG Energy Fund XVI</i>	200,000,000	74,199,981	50,702,240	1,668,983	125,800,019	-28.74	0.71	2.30
EnCap Energy								
<i>EnCap Energy Capital Fund VII</i>	100,000,000	95,536,192	13,957,250	129,744,110	5,016,551	16.68	1.50	8.50
<i>EnCap Energy Capital Fund VIII</i>	100,000,000	80,983,969	55,525,823	22,910,091	19,341,300	-1.40	0.97	5.25
<i>Encap Energy Fund IX</i>	100,000,000	61,490,649	55,051,956	1,936,237	38,509,351	-6.08	0.93	3.06
<i>EnCap Energy Capital Fund X</i>	100,000,000	8,458,538	6,065,212	1,536,826	93,078,288	-21.13	0.90	0.82
EnerVest Energy								
<i>EnerVest Energy Institutional Fund XIV</i>	100,000,000	34,670,584	33,753,824	0	65,329,416	-15.93	0.97	0.69
Energy & Minerals Group								
<i>NGP Midstream & Resources</i>	100,000,000	99,954,848	100,497,034	109,918,310	366,338	19.07	2.11	8.75
<i>The Energy & Minerals Group Fund II</i>	100,000,000	84,816,288	134,522,854	14,439,379	15,433,125	24.28	1.76	4.27
<i>The Energy & Minerals Group Fund III</i>	200,000,000	155,008,373	162,064,950	4,382,081	46,710,435	6.34	1.07	1.82
Energy Capital Partners								
<i>Energy Capital Partners II</i>	100,000,000	77,081,670	56,258,621	68,244,933	33,547,454	15.15	1.62	5.45
<i>Energy Capital Partners III</i>	200,000,000	49,583,540	44,123,847	0	150,416,460	-10.18	0.89	2.03
First Reserve								
<i>First Reserve Fund X</i>	100,000,000	100,000,000	522,107	182,429,002	0	31.07	1.83	11.16
<i>First Reserve Fund XI</i>	150,000,000	150,292,121	24,146,395	86,471,982	0	-7.02	0.74	9.02
<i>First Reserve Fund XII</i>	150,000,000	155,849,049	63,827,462	69,465,629	7,034,991	-4.43	0.86	7.17
<i>First Reserve Fund XIII</i>	200,000,000	26,333,734	20,888,027	2,279,302	173,666,266	-20.26	0.88	2.16
NGP								
<i>Natural Gas Partners IX</i>	150,000,000	160,622,647	50,007,963	200,496,430	2,553,852	13.25	1.56	8.19
<i>NGP Natural Resources X</i>	150,000,000	125,838,676	99,746,199	26,511,298	24,161,324	0.17	1.00	4.23
<i>Natural Gas Capital Resources XI</i>	150,000,000	16,190,442	15,545,532	0	133,809,558	-10.28	0.96	1.06
Sheridan								
<i>Sheridan Production Partners I</i>	100,000,000	100,000,000	60,710,991	82,750,000	0	8.56	1.43	8.75
<i>Sheridan Production Partners II</i>	100,000,000	100,000,000	45,362,025	7,000,000	0	-21.28	0.52	5.25
<i>Sheridan Production Partners III</i>	100,000,000	2,600,000	859,999	0	97,400,000	-85.55	0.33	1.06
Resource Total	3,030,000,000	2,029,799,646	1,226,576,963	1,215,504,724	1,059,057,999		1.20	

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III. YIELD-ORIENTED								
Audax Group								
<i>Audax Mezzanine Fund III</i>	100,000,000	87,418,559	53,687,138	47,778,014	21,089,437	8.56	1.16	5.74
<i>Audax Mezzanine Fund IV</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.73
Avenue Capital Partners								
<i>Avenue Energy Opportunities Fund</i>	100,000,000	64,026,598	58,193,071	934,495	35,973,402	-12.43	0.92	0.77
Citicorp Mezzanine								
<i>CM Liquidating Partnership</i>	100,000,000	88,029,296	6,425,965	132,324,719	0	15.99	1.58	16.16
Crescent Capital Group								
<i>TCW/Crescent Mezzanine Partners III</i>	75,000,000	68,835,269	4,102,238	156,868,939	29,733,852	35.93	2.34	14.75
Gold Hill Venture Lending								
<i>Gold Hill Venture Lending</i>	40,000,000	40,000,000	965,982	63,913,250	0	10.64	1.62	11.26
<i>Gold Hill 2008</i>	25,852,584	25,852,584	14,024,940	26,270,123	0	12.58	1.56	7.50
GS Mezzanine Partners								
<i>GS Mezzanine Partners 2006 Institutional</i>	100,000,000	74,999,888	14,012,489	119,181,608	13,858,563	4.78	1.78	9.73
<i>GS Mezzanine Partners V</i>	150,000,000	112,057,963	9,362,857	165,434,372	60,804,064	8.70	1.56	8.19
Kohlberg Kravis Roberts								
<i>KKR Lending Partners II</i>	75,000,000	29,200,201	26,117,780	5,503,395	49,944,201	6.72	1.08	0.83
Merit Capital Partners								
<i>William Blair Mezzan. Cap. Fd. III</i>	60,000,000	57,243,241	625,417	112,755,951	2,756,759	15.52	1.98	16.00
<i>Merit Mezzanine Fund IV</i>	75,000,000	70,178,571	30,995,689	74,560,091	4,821,429	8.51	1.50	11.04
<i>Merit Mezzanine Fund V</i>	75,000,000	63,795,918	46,970,475	30,119,366	11,204,082	7.50	1.21	6.03
Merit Energy Partners								
<i>Merit Energy Partners B</i>	24,000,000	24,000,000	13,597,097	179,952,067	0	24.38	8.06	19.50
<i>Merit Energy Partners C</i>	50,000,000	50,000,000	26,853,449	489,223,800	0	31.03	10.32	17.18
<i>Merit Energy Partners D</i>	88,000,000	70,938,303	44,757,100	299,459,151	0	22.96	4.85	14.60
<i>Merit Energy Partners E</i>	100,000,000	39,983,197	29,810,199	66,033,008	0	13.32	2.40	11.21
<i>Merit Energy Partners F</i>	100,000,000	59,522,861	28,252,312	27,251,921	0	-1.35	0.93	9.77
<i>Merit Energy Partners H</i>	100,000,000	81,860,748	65,374,021	7,499,078	18,139,252	-4.88	0.89	4.91
<i>Merit Energy Partners I</i>	169,721,518	4,100,000	4,176,887	0	165,621,518	1.80	1.02	1.21
Oaktree Capital Management								
<i>Oaktree Opportunities Fund X</i>	50,000,000	7,500,000	7,296,293	0	42,500,000	-3.80	0.97	0.83
<i>Oaktree Opportunities Fund Xb</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.83
Pimco Bravo**								
<i>Pimco Bravo Fund OnShore Feeder I</i>	3,958,027	3,958,027	1,505,972	2,520,956	1,165,090	2.48	1.02	1.01
<i>Pimco Bravo Fund OnShore Feeder II</i>	5,243,670	5,243,670	5,446,359	0	0	3.88	1.04	1.01
Portfolio Advisors								
<i>DLJ Investment Partners II</i>	27,375,168	23,164,217	80,528	34,829,566	0	10.37	1.51	16.00
<i>DLJ Investment Partners III</i>	100,000,000	63,523,951	10,671,873	75,601,649	38,475,338	8.05	1.36	9.53
Prudential Capital Partners								
<i>Prudential Capital Partners I</i>	100,000,000	99,713,348	8,691	155,231,567	286,652	11.06	1.56	14.70
<i>Prudential Capital Partners II</i>	100,000,000	96,891,462	9,306,950	132,369,193	3,241,291	9.13	1.46	10.50
<i>Prudential Capital Partners III</i>	100,000,000	94,805,736	55,764,534	98,858,904	8,636,658	14.39	1.63	6.71
<i>Prudential Capital Partners IV</i>	100,000,000	66,018,180	59,793,720	16,980,068	33,981,820	13.26	1.16	3.95
Summit Partners								
<i>Summit Subordinated Debt Fund III</i>	45,000,000	42,750,000	6,082,512	55,057,070	2,250,000	8.59	1.43	11.87
<i>Summit Subordinated Debt Fund IV</i>	50,000,000	49,745,151	22,299,805	39,930,617	3,754,849	9.15	1.25	7.76
TCW Asset Management								
<i>TCW Direct Lending</i>	100,000,000	36,741,017	32,647,329	3,741,017	67,000,000	-2.81	0.99	0.96
Windjammer Capital Investors								
<i>Windjammer Mezzanine & Equity Fund II</i>	66,708,861	56,569,498	372,664	84,279,335	10,139,363	8.91	1.50	15.75
<i>Windjammer Senior Equity Fund III</i>	75,000,000	61,619,620	31,195,661	105,332,310	13,380,380	18.24	2.22	9.99
<i>Windjammer Senior Equity Fund IV</i>	100,000,000	49,610,808	38,592,777	5,107,209	52,182,157	-7.93	0.88	3.85
Yield-Oriented Total	2,830,859,828	1,869,897,883	759,370,775	2,814,902,809	890,940,156		1.91	
IV. PRIVATE EQUITY								
Adams Street Partners								
<i>Adams Street Global Secondary Fund 5</i>	100,000,000	54,470,000	39,101,061	14,072,241	45,530,000	-2.00	0.98	3.54
Advent International								
<i>Advent International GPE VI</i>	50,000,000	48,175,005	46,329,430	49,027,797	1,824,995	17.66	1.98	7.75
<i>Advent International GPE VII</i>	90,000,000	68,175,000	68,374,457	10,890,083	21,825,000	9.11	1.16	3.29

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Affinity Ventures								
<i>Affinity Ventures IV</i>	4,000,000	4,000,000	2,334,272	1,541,970	0	-0.61	0.97	11.50
<i>Affinity Ventures V</i>	5,000,000	4,500,000	2,559,039	1,585,611	500,000	-2.01	0.92	7.49
APAX Partners								
<i>Apax VIII</i>	200,000,000	171,727,016	192,154,631	0	28,272,984	12.88	1.12	2.82
Banc Fund								
<i>Banc Fund VII</i>	45,000,000	45,000,000	44,951,895	812,725	0	0.19	1.02	10.75
<i>Banc Fund VIII</i>	98,250,000	98,250,000	131,695,184	20,237,973	0	12.18	1.55	7.68
<i>Banc Fund IX</i>	83,875,000	34,670,625	35,367,505	0	49,204,375	2.91	1.02	1.56
BlackRock**								
<i>BlackRock Tempus Fund</i>	1,774,870	1,774,870	1,588,888	570,982	0	28.05	1.22	0.56
Blackstone								
<i>Blackstone Capital Partners IV</i>	70,000,000	72,237,265	16,845,715	178,277,170	2,034,043	37.16	2.70	13.47
<i>Blackstone Capital Partners V</i>	140,000,000	130,900,605	64,609,625	166,674,150	9,099,395	7.99	1.77	9.91
<i>Blackstone Capital Partners VI</i>	100,000,000	76,862,201	87,540,896	10,515,748	25,516,126	10.20	1.28	7.43
<i>Blackstone Capital Partners VII</i>	130,000,000	0	0	0	130,000,000	0.00	0.00	0.50
Blackstone Strategic Partners (CSFB/ DLJ)								
<i>Strategic Partners I</i>	100,000,000	95,365,771	2,207,931	173,768,477	3,084,229	22.46	1.85	14.95
<i>Strategic Partners II-B</i>	100,000,000	86,150,492	3,135,791	159,553,417	4,697,069	35.10	1.89	12.46
<i>Strategic Partners III-B</i>	100,000,000	78,015,090	34,428,041	84,995,867	15,143,758	6.97	1.53	10.58
<i>Strategic Partners III VC</i>	25,000,000	24,637,139	8,022,251	25,365,862	1,320,078	6.40	1.36	10.58
<i>Strategic Partners IV-B</i>	100,000,000	91,287,776	30,117,938	117,893,149	24,925,617	13.18	1.62	7.77
<i>Strategic Partners IV VC</i>	40,500,000	39,424,428	21,250,746	39,671,672	3,590,088	10.65	1.55	7.54
<i>Strategic Partners V</i>	100,000,000	75,508,901	62,490,283	63,114,999	43,708,581	26.05	1.66	4.37
<i>Strategic Partners VI</i>	150,000,000	59,316,296	74,556,148	2,898,221	93,143,867	40.78	1.31	1.71
BLUM Capital Partners								
<i>Blum Strategic Partners II</i>	50,000,000	40,185,889	67,149	89,708,870	2,127,584	22.42	2.23	14.45
<i>Blum Strategic Partners III</i>	75,000,000	78,121,020	0	83,508,219	471,064	0.25	1.07	10.58
<i>Blum Strategic Partners IV</i>	150,000,000	165,020,747	0	162,043,958	5,896,033	-0.75	0.98	8.12
Brookfield Asset Management Inc.								
<i>Brookfield Capital Partners Fund IV</i>	100,000,000	27,298,811	27,489,822	0	72,701,189	-2.13	1.01	0.53
Carval Investors								
<i>CVI Global Value Fund</i>	200,000,000	190,000,000	45,554,943	272,083,046	10,000,000	9.81	1.67	8.97
<i>CVI Credit Value Fund I</i>	100,000,000	95,000,000	95,068,478	100,979,144	5,000,000	19.58	2.06	5.25
<i>CVI Credit Value Fund A II</i>	150,000,000	142,500,000	171,426,510	428,690	7,500,000	8.21	1.21	3.17
<i>CVI Credit Value Fund A III</i>	150,000,000	37,500,000	38,572,613	0	112,500,000	3.90	1.03	0.58
Chicago Growth Partners (William Blair)								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	2,257,013	64,292,866	1,650,000	8.01	1.38	14.82
<i>Chicago Growth Partners I</i>	50,000,000	52,441,998	10,064,053	50,319,021	300,000	3.29	1.15	10.43
<i>Chicago Growth Partners II</i>	60,000,000	57,711,626	45,925,589	54,637,903	2,036,374	17.35	1.74	7.81
Court Square Capital Partners								
<i>Court Square Capital Partners</i>	100,000,000	80,813,422	200,384	181,487,931	1,934,741	28.91	2.25	14.05
<i>Court Square Capital Partners II</i>	175,000,000	158,010,173	78,753,721	215,000,524	18,037,025	13.49	1.86	9.32
<i>Court Square Capital Partners III</i>	175,000,000	68,210,878	45,392,487	31,632,963	114,453,211	5.33	1.13	3.58
Crescendo								
<i>Crescendo IV</i>	101,500,000	101,500,000	11,350,759	37,386,052	0	-7.01	0.48	15.81
CVC Capital Partners								
<i>CVC European Equity Partners V</i>	133,732,015	128,611,246	59,638,457	128,837,725	5,120,769	10.68	1.47	7.77
<i>CVC Capital Partners VI</i>	249,506,387	93,610,733	82,302,908	545,893	156,403,264	-26.92	0.89	2.48
Diamond Castle Partners								
<i>Diamond Castle Partners IV</i>	92,487,949	91,151,326	58,760	94,068,606	1,377,108	0.41	1.03	9.31
DSV Partners								
<i>DSV Partners IV</i>	10,000,000	10,000,000	31,480	39,196,082	0	10.61	3.92	30.72
Elevation Partners								
<i>Elevation Partners</i>	75,000,000	69,659,671	447,627	112,437,120	451,673	11.72	1.62	10.62
Fox Paine & Company								
<i>Fox Paine Capital Fund II</i>	50,000,000	46,299,626	6,057,684	86,859,891	11,953,212	19.22	2.01	15.50
GHJM Marathon Fund								
<i>GHJM Marathon Fund V</i>	50,000,000	50,093,425	860,584	95,008,500	46,502	12.10	1.91	11.25
<i>TrailHead Fund</i>	20,000,000	13,014,187	14,087,741	6,955	6,985,813	3.30	1.08	3.85

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GS Capital Partners								
<i>GS Capital Partners 2000</i>	50,000,000	50,000,000	3,051,435	110,660,346	0	23.45	2.27	15.33
<i>GS Capital Partners V</i>	100,000,000	73,958,901	4,345,953	207,811,727	3,441,099	17.98	2.87	10.75
<i>GS Capital Partners VI</i>	100,000,000	79,793,536	31,517,804	87,828,473	22,362,054	5.92	1.50	8.91
GTCR Golder Rauner								
<i>GTCR VI</i>	90,000,000	90,000,000	2,206,811	77,813,800	0	-3.83	0.89	17.50
<i>GTCR IX</i>	75,000,000	69,539,933	8,046,211	117,507,637	5,460,067	13.97	1.81	9.50
<i>GTCR X</i>	100,000,000	85,198,604	74,719,252	71,496,842	14,801,396	19.30	1.72	5.06
<i>GTCR Fund XI</i>	110,000,000	28,862,553	29,318,127	649,653	81,137,447	4.45	1.04	2.13
HarbourVest**								
<i>Dover Street VII Cayman Fund</i>	2,198,112	2,070,612	1,246,672	830,141	127,500	0.10	1.00	1.01
<i>HarbourVest Intl PE Partners V-Cayman US</i>	3,508,990	3,248,278	2,359,805	1,232,029	260,712	12.67	1.11	1.01
<i>Harbourvest Intl PE Partners VI-Cayman</i>	4,203,254	3,100,660	2,978,450	485,941	1,102,595	14.38	1.12	1.01
<i>HarbourVest Partners VIII Cayman Buyout</i>	4,506,711	4,038,711	3,042,651	1,428,418	468,000	13.15	1.11	1.01
<i>HarbourVest Partners VIII-Cayman Venture</i>	7,190,898	6,980,898	6,118,234	1,402,653	210,000	8.51	1.08	1.01
Hellman & Friedman								
<i>Hellman & Friedman Capital Partners V</i>	160,000,000	146,165,961	3,886,367	414,391,023	8,070,303	27.93	2.86	11.08
<i>Hellman & Friedman Capital Partners VI</i>	175,000,000	169,685,591	38,709,314	294,701,539	6,437,028	12.83	1.96	8.75
<i>Hellman & Friedman Capital Partners VII</i>	50,000,000	40,662,039	40,917,311	15,278,665	9,337,961	15.27	1.38	6.70
IK Investment Partners								
<i>IK Fund VII</i>	179,162,969	114,794,043	96,953,162	12,083,105	64,368,927	-4.05	0.95	2.30
Kohlberg Kravis Roberts								
<i>KKR Millennium Fund</i>	200,000,000	200,000,000	44,669,722	378,603,080	0	16.59	2.12	13.06
<i>KKR 2006 Fund</i>	200,000,000	209,050,944	133,016,947	201,700,369	5,372,567	8.39	1.60	9.26
Leonard Green & Partners								
<i>Green Equity Investors VI</i>	200,000,000	132,371,505	149,698,412	6,988,129	68,879,512	11.44	1.18	3.80
Lexington Capital Partners								
<i>Lexington Capital Partners VI</i>	100,000,000	98,365,297	33,997,945	108,388,730	1,634,703	8.23	1.45	10.02
<i>Lexington Capital Partners VII</i>	200,000,000	158,047,100	111,508,139	129,997,093	49,169,168	17.67	1.53	6.55
<i>Lexington Capital Partners VIII</i>	150,000,000	19,652,197	24,038,183	3,281,133	131,269,967	63.60	1.39	1.82
MHR Institutional Partners								
<i>MHR Institutional Partners IV</i>	75,000,000	10,125,000	9,625,220	31,839	64,875,000	-7.28	0.95	0.71
Merced Capital								
<i>Merced Partners II</i>	75,000,000	63,768,881	15,700,507	114,095,040	0	24.24	2.04	8.75
<i>Merced Partners III</i>	100,000,000	100,000,000	66,881,834	62,497,107	0	7.16	1.29	5.65
<i>Merced Partners IV</i>	125,000,000	115,625,000	114,176,566	0	9,375,000	-0.99	0.99	2.47
Nordic Capital								
<i>Nordic Capital Fund VIII</i>	174,828,129	90,632,974	80,373,986	49,418	84,195,154	-8.61	0.89	2.30
North Sky Capital**								
<i>North Sky Capital LBO Fund III</i>	1,070,259	720,259	622,715	166,681	350,000	10.63	1.10	1.01
<i>North Sky Capital Venture Fund III</i>	1,384,080	1,277,830	1,087,680	296,681	106,250	9.21	1.08	1.01
Oaktree Capital Management								
<i>Oaktree Principal Fund VI</i>	100,000,000	13,846,999	8,596,164	6,962,555	92,716,696	30.29	1.12	1.01
Paine & Partners								
<i>Paine & Partners Capital Fund IV</i>	75,000,000	16,214,688	13,304,524	0	58,785,312	-43.00	0.82	1.05
Permal Capital**								
<i>Permal PE Opportunities IV</i>	5,337,098	4,247,098	3,130,450	1,385,487	1,090,000	7.67	1.06	1.01
PERMIRA								
<i>Permira V</i>	176,670,037	121,676,099	107,664,274	2,229,773	54,993,939	-9.54	0.90	2.00
Public Pension Capital Management								
<i>Public Pension Capital</i>	92,000,000	4,878,788	5,858,250	0	87,121,212	-29.31	1.20	1.63
RWI Ventures								
<i>RWI Ventures I</i>	7,603,265	7,603,265	487,500	6,094,262	0	-4.47	0.87	9.50
Sightline Healthcare								
<i>Sightline Healthcare Fund III</i>	20,000,000	20,000,000	16,727	8,718,066	0	-8.15	0.44	16.94
<i>Sightline Healthcare Fund IV</i>	7,700,000	7,753,673	635,724	7,096,835	0	-0.22	1.00	12.27
Silver Lake Partners								
<i>Silver Lake Partners II</i>	100,000,000	90,060,179	31,043,686	143,045,947	11,771,953	11.46	1.93	11.50
<i>Silver Lake Partners III</i>	100,000,000	86,004,153	51,104,431	99,803,926	15,442,553	15.76	1.75	8.75
<i>Silver Lake Partners IV</i>	100,000,000	34,326,442	39,781,629	6,479,906	70,606,410	29.01	1.35	3.26

Minnesota State Board of Investment
- Alternative Investments -
As of December 31, 2015

Investment	Total Commitment	Funded Commitment	MarketValue	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Split Rock Partners								
<i>Split Rock Partners</i>	50,000,000	47,454,543	34,430,885	6,858,501	2,545,457	-2.07	0.87	10.67
<i>Split Rock Partners II</i>	60,000,000	56,965,000	47,468,578	14,827,691	3,035,000	3.15	1.09	7.67
Summit Partners								
<i>Summit Ventures V</i>	25,000,000	24,125,000	34,604	33,358,461	875,000	8.10	1.38	17.75
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	70,500,000	76,503,034	10,098,648	29,500,000	13.07	1.23	4.66
TPG Capital								
<i>TPG Partners VII</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.31
Thomas H. Lee Partners								
<i>Thomas H. Lee Equity Fund VII</i>	100,000,000	1,995,720	1,995,720	0	98,004,280	0.00	1.00	0.31
T. Rowe Price	84,740,149	84,740,149	31,341,216	62,362,725	0	7.47	1.11	
Thoma Cressey								
<i>Thoma Cressey Fund VI</i>	35,000,000	33,915,000	302,317	34,128,882	1,085,000	0.18	1.02	17.36
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	6,724,589	101,295,692	0	23.69	2.16	15.35
<i>Thoma Cressey Fund VIII</i>	70,000,000	68,932,574	2,187,137	224,285,894	770,000	17.86	3.29	9.67
Thomas, McNerney & Partners								
<i>Thomas, McNerney & Partners I</i>	30,000,000	30,000,000	7,798,277	10,504,694	0	-9.76	0.61	13.15
<i>Thomas, McNerney & Partners II</i>	50,000,000	47,125,000	23,602,190	79,319,983	2,875,000	16.67	2.18	9.50
Varde Fund								
<i>Varde Fund IX</i>	100,000,000	100,000,000	34,843,679	169,334,372	0	14.69	2.04	7.52
<i>Varde Fund X</i>	150,000,000	150,000,000	175,034,898	66,623,209	0	11.08	1.61	5.70
<i>Varde Fund XI</i>	200,000,000	200,000,000	231,781,200	0	0	7.68	1.16	2.48
Vestar Capital Partners								
<i>Vestar Capital Partners IV</i>	55,000,000	53,635,969	1,135,012	101,917,140	737,136	14.69	1.92	16.04
<i>Vestar Capital Partners V</i>	75,000,000	74,758,943	53,751,278	35,038,613	241,057	2.76	1.19	10.03
<i>Vestar Capital Partners VI</i>	100,000,000	52,416,382	66,376,970	8,808,934	47,583,618	28.04	1.43	4.27
Warburg Pincus								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	1,379,911	162,262,253	0	10.03	1.64	17.51
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,000,000	25,774,191	197,773,682	0	14.74	2.24	13.71
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	16,209,505	160,077,206	0	10.16	1.76	10.43
<i>Warburg Pincus Private Equity X</i>	150,000,000	150,000,000	81,796,758	128,798,647	0	7.50	1.40	8.19
<i>Warburg Pincus Private Equity XI</i>	200,000,000	168,500,000	190,727,539	18,527,200	31,500,000	15.45	1.24	3.03
<i>Warburg Pincus Private Equity XII</i>	131,000,000	2,030,500	2,030,500	0	128,969,500	0.00	1.00	0.12
Wayzata								
<i>Wayzata Opportunities Fund</i>	100,000,000	93,180,000	13,216,531	150,259,990	18,920,000	8.98	1.75	10.03
<i>Wayzata Opportunities Fund II</i>	150,000,000	57,450,000	36,227,641	162,306,071	30,000,000	16.29	3.46	8.19
<i>Wayzata Opportunities Fund III</i>	150,000,000	54,210,000	48,949,353	136,917	95,790,000	-8.18	0.91	3.54
Welsh, Carson, Anderson & Stowe								
<i>Welsh, Carson, Anderson & Stowe VIII</i>	100,000,000	100,000,000	133,238	128,668,552	0	3.12	1.29	17.44
<i>Welsh, Carson, Anderson & Stowe IX</i>	125,000,000	123,750,000	71,835	205,602,079	1,250,000	11.19	1.66	15.51
<i>Welsh, Carson, Anderson & Stowe X</i>	100,000,000	98,000,000	35,788,774	126,184,653	2,000,000	7.93	1.65	10.04
<i>Welsh, Carson, Anderson & Stowe XI</i>	100,000,000	96,427,184	70,341,490	76,467,359	3,572,816	14.02	1.52	7.44
<i>Welsh, Carson, Anderson & Stowe XII</i>	150,000,000	30,951,462	29,231,644	0	119,048,538	-5.81	0.94	1.00
Private Equity Total	10,988,730,171	8,200,765,375	4,448,899,754	8,201,280,169	2,784,008,651		1.54	
Alternatives Total	18,174,589,999	13,115,614,849	7,050,005,112	13,015,726,675	5,074,268,760		1.53	

Notes

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

* MOIC: Multiple of Invested Capital

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

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ATTACHMENT C

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Apax IX
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$7.5 billion
<i>Fund Manager:</i>	Apax Partners, LLP as adviser to Apax IX GP Co Limited, the General Partner
<i>Manager Contact:</i>	David Kim Apax Partners, L.P. 601 Lexington Avenue 53rd Floor New York, NY 10022 (212) 753-6300

II. Organization and Staff

Since the first Apax fund was raised over 30 years ago, the firm has successfully raised and advised 32 funds for a combined value of \$38 billion as of 30 September 2015¹. These funds have invested across all investment stages through several economic cycles. Apax began as a venture capital business and during the 1980s and early 1990s focused on venture investing in Europe and the U.S.

Throughout the 1990s and early 2000s Apax gradually moved from a series of country specific funds to regional funds, eventually combining the European and U.S. operating companies to form Apax Partners, LLC. The investment team consists of approximately 100 investment professionals split by sector (Tech and Telco, Consumer, Healthcare, Services) and practice (Operational Excellence Practice, Capital Markets, and Digital Practice). Approximately 75% of the professionals are located in London, Munich and New York, with the balance split between Brazil, China, India and Israel.

In December 2013, Apax underwent a CEO succession and transition to a co-CEO leadership model. Andrew Sillitoe and Mitch Truwit were elected co-Chief Executive Officers, succeeding Martin Halusa, who held the role for the prior ten years. Apax has a proven succession model designed to ensure that the current owners of the Firm see their role as stewards. This model includes a suggested retirement age of 60; an accrual of economic benefits to partners only when they are actively involved with the firm; and a re-basing of economic ownership at the beginning of each fund to reflect expected contribution over the life of the next fund.

¹ Figures converted from Fund Currency to USD at FX rates as of 30 September 2015

III. Investment Strategy

Apax IX intends to follow the firm's investment strategy, which targets thesis-driven, buyout investments globally that require an equity investment of \$150 - \$600 million. The Apax strategy is anchored on three pillars:

Deep Sector Expertise. Apax has focused on four core sectors since the 1990s: Tech & Telco, Services, Healthcare and Consumer. Within its four core sectors, Apax seeks to identify attractive sub-sectors, which, in its view, often display unique characteristics or compelling investment themes, where Apax can evaluate multiple deals in multiple geographies. Through executing deals in targeted sub-sectors over a period of years, Apax believes it has built a unique expertise, reputation and network which enable proprietary deal flow and significant value add opportunities. Since 2010, 84% of buyouts in Apax funds have been either proprietary or have involved limited competition. Apax also establishes long, direct access with management teams, with an average of 11 months of engagement with the company prior to conducting a transaction.

Complementing Apax's four sectors, the firm has built a differentiated capability known as the Digital Practice. Apax believes that digital technology and skills are increasingly critical in today's market, and the Digital Practice therefore has a two-fold mission:

1. **Identify standalone opportunities in digital and e-commerce.** Apax seeks investments in proven digital business models, and drives improvements at digital companies.
2. **Implement "Digital Acceleration" on investments with an important digital or online element.** Digital Acceleration supports improvements to the digital capabilities of portfolio companies across all four of the firm's sectors. Specific areas of focus include: e-commerce, digital marketing, social media, mobile commerce, user interface engineering, and testing and optimization.

Geographic Flexibility. Investments in Apax funds are driven by sector insights applied globally. There is no fixed allocation of capital by region, although no more than 25% of the fund can be invested outside of Europe and North America. Instead, a flexible and opportunistic approach is used to try and identify the best deals in each sector, where they may be around the world, including to avoid overvalued markets and arbitrage relative value in attractive geographies. Apax anticipates that Fund IX will be invested approximately 30-50% in each of Europe and North America, and 15-20% in the Rest of World.

Apax also believes that a global platform and a diverse investment team increases the depth of the firm's local insight, cultural understanding, and its networks which, in turn, help Apax in sourcing and executing deals. There are four key areas in which Apax seeks to benefit from a global platform:

Value Arbitrage: Seeking relative value by identifying less popular or out-of-favor geographies in sub-sectors Apax knows well.

Global Forces: Having members of the investment team on the ground globally to help make more informed judgments on business and industry dynamics.

Global Market Opportunity and M&A: Apax seeks to add value to portfolio companies' international growth plans, whether organically, via mergers and acquisitions, global sourcing, or distribution agreements.

Global Exits: Exit opportunities can be enhanced due to presence and relationships across markets.

Transformational Ownership. Apax seeks to create value by supporting meaningful operational change. This transformational ownership is led by deal teams together with the Operational Excellence Practice (OEP). The OEP's primary value proposition is to deliver specific, "outcome-oriented" project support at the request of management. The OEP is designed to act as a service organization, assisting management in accelerating performance in line with their vision and the investment thesis.

In many cases the OEP has become a key component of the due diligence and deal underwriting process prior to closing an investment. During diligence, the team assesses operating models, seeks hidden sources of value creation, and helps establish actionable theses. It is also, at times, critical in winning over management teams.

IV. Investment Performance

Previous fund performance as of December 31, 2015 for Apax and the SBI's investments with previous funds, where applicable, is shown below:

Fund	Inception Date	Total Commitments	SBI Investment	Net IRR *	Net MOIC *
Apax Europe V	2001	€4.4 billion	--	28.5%	1.9
Apax Europe VI	2005	€4.3 billion	--	13.2%	2.0
Apax US VII	2006	\$856 million	--	13.6%	1.9
Apax Europe VII	2007	€1.2 billion	--	9.4%	1.6
Apax VIII - EUR	2012	€2.8 billion	--	25.4%	1.3
Apax VIII - USD	2012	\$3.8 billion	\$200 million	17.6%	1.2

* 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) were provided by Apax.

V. General Partner's Investment

The Apax Team will make a commitment directly and/or indirectly (including through Apax Global Alpha Limited ("AGA")) in and/or alongside the Fund in an amount equal to at least 2% of total commitments, of which 1.35% will be funded by the Apax Team other than through AGA.

VI. Management Fee

1.5% of capital committed to the Fund, declining after the investment period to 1.2% of invested capital.

Investors participating in a first close will receive a 7.5 basis point management fee discount, and investors committing \$150 million or more will receive an additional 5 basis point discount resulting in an effective management fee of 1.375%.

VII. Distributions

Limited Partners will have the option to invest in either:

- 1) **Whole of Fund Waterfall:** 100% to each investor until it has received (i) a return of all drawn down commitments and (ii) a preferred return of 8%. Thereafter, 80% to LPs and 20% to the GP, subject to a 100% catch-up.

- 2) **Deal-by-Deal Waterfall:** 100% to each investor until it has received (i) a return of all drawn down commitments related to the investments giving rise to the distribution; (ii) a return of all drawn down commitments related to realized investments (including those written off or permanently written down); (iii) a return of all drawn down commitments related to fund and management expenses; (iv) a preferred return of 8%. Thereafter, 80% to investors and 20% to the GP subject to a 100% catch-up.

Investors choosing the deal-by-deal waterfall will benefit from a discount of 5 basis points from the management fee during the investment period.

VIII. Key Person Termination

Key Persons are identified as Buddy Gumina, Tom Hall, Nico Hansen, Salim Nathoo, Alex Pellegrini, Andrew Sillitoe, Mitch Truwit and Jason Wright, together with such additional/replacement personas as approved by the Limited Partner Advisory Committee.

If Key Persons representing less than 7 “Key Person Points” are devoting a substantial majority of their time to Apax activities (assessed on a six month rolling basis), the Fund will enter a suspension period. Each Key Person holds 1 Key Person Point, with the exception of Andrew Sillitoe, Mitch Truwit and Nico Hansen who each hold 2 Key Person Points.

IX. Investment Period and Term

The Fund will have a term of 10 years, subject to extension with the approval of the LPAC and/or a majority of LPs by interest.

The Investment Period will last for a period of five years.

** 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.*

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ATTACHMENT D

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Strategic Partners Fund VII, L.P.
<i>Type of Fund:</i>	Private Equity
<i>Target Fund Size:</i>	\$5.75 billion
<i>Fund Manager:</i>	Strategic Partners
<i>Administrative Contact:</i>	Stephen Can Josh Blaine Strategic Partners Fund Solutions The Blackstone Group L.P. 345 Park Avenue New York, NY 10154 (212) 583-5000

II. Organization and Staff

Strategic Partners was established in 2000 as Donaldson, Lufkin and Jenrette's ("DLJ") dedicated secondary private equity manager prior to the acquisition of DLJ by Credit Suisse. Since its founding in 2000, Strategic Partners has raised over \$17 billion dedicated to secondary private equity investing. Strategic Partners VII will be the second secondary private equity fund sponsored by Blackstone and the seventh managed and led by the Strategic Partners team members. With over 15 years of experience, Strategic Partners is recognized as an innovative and market-leading secondary private equity investor, with broad transaction capabilities on a global scale through its network of strong relationships, as well as a leading reputation for executing transactions on a fair, timely and confidential basis.

In 2013, Blackstone acquired the Strategic Partners business from Credit Suisse. Blackstone has created an independent division for Strategic Partners to focus on its core business. Strategic Partners expects Blackstone's global capabilities, relationships and expertise to provide significant competitive advantages in sourcing and executing secondary transactions and ultimately strengthen Strategic Partners' investment platform. Strategic Partners believes that leveraging its partnership with Blackstone, while still preserving its investment philosophy and focus, should translate into enhanced investment returns for its limited partners.

Strategic Partners is headquartered in New York and also has offices in London and San Francisco. The team is comprised of 37 dedicated investment professionals and is led by Founder and Co-Head Stephen Can and Co-Head Verdun Perry, each of whom has been with Strategic Partners since its inception.

III. Investment Strategy

Like its predecessor funds, SP VII will seek significant capital appreciation primarily through the purchase of secondary interests in mature, high-quality leveraged buyout funds from investors seeking liquidity prior to the termination of these funds, with secondary interests in mezzanine, venture capital, distressed securities, fund of funds and other asset classes also considered. The Fund may also, to a lesser extent, make primary investments in underlying funds and direct equity, equity-like and debt investments. SP VII will invest opportunistically in cases where a prospective seller's original commitment ranges in size from \$100,000 for a single fund holding to \$1 billion or more for a portfolio of funds. While SP VII will have a global investment mandate, it is anticipated that its portfolio will mainly be comprised of funds managed by U.S. and Western European sponsors.

SP VII expects to seek opportunities in both non-competitive and competitive transactions. Strategic Partners believes that the team's in-depth secondary market expertise and relationships with both limited partners and fund managers will enable it to source, evaluate and close attractive secondary investments for the Fund. Historically, less than 8% of the capital invested by the SP Funds has been invested in competitive, broadly auctioned transactions. Roughly 40% of all Strategic Partners' 2015 deals were with sellers who previously had transacted with Strategic Partners.

Strategic Partners believes their strategy allows them to not only provide top performance but also capitalize on the benefits of secondary investing such as a reduction in blind pool risk, expected earlier returns of capital, reduced duration profile, diversification, and enhanced risk and volatility mitigation.

Blackstone is one of the world's largest alternatives managers across private equity, real estate, credit, hedge fund solutions, energy and tactical opportunities. Strategic Partners believes that it benefits significantly from the position that Blackstone occupies as a leading global alternative asset manager. Blackstone's scale and institutional reputation and franchise should allow Strategic Partners to gain access to incremental and proprietary opportunities.

IV. Investment Performance

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

Fund	Inception Date	Total Commitments	SBI Investment	Net IRR*	Net MOIC*
SP I	2001	\$ 832 million	\$100 million	18%	1.6
SP II	2003	\$ 1,625 million	\$100 million	31%	1.6
SP III	2005	\$ 1,900 million	\$100 million	6%	1.3
SP IV	2008	\$ 2,073 million	\$100 million	14%	1.6
SP V	2011	\$ 2,429 million	\$100 million	28%	1.6
SP VI	2014	\$ 4,363 million	\$150 million	86%	1.4

* 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) were provided by Strategic Partners.

V. General Partner's Investment

Strategic Partners professionals and Blackstone will make aggregate capital commitments to the Fund of the lesser of \$115 million or 2% of the Fund's total capital commitments.

VI. Management Fees

During the investment period, Limited Partners will pay an annual fee of 0.75% to 1.0% of capital committed to the Fund, depending on the size of investor commitment. After the investment period, the fee will be based on the value of remaining investments.

VII. Distributions

87.5% of realized profits to the Limited Partners and 12.5% to the General Partner, subject to an 8% preferred return to the Limited Partners.

VIII. Investment Period and Term

The Investment Period will last for a period of four years, subject to possible extension.

The Fund will have a term of ten years, subject to four one-year extensions.

IX. Key Person Termination

In the event any of Stephen Can, Verdun Perry or any four of the seven other current members of the Investment Committee cease to be actively involved in the affairs of the Fund and the Manager or being affiliated with the Manager, the investment period will be suspended.

** 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

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	AG Realty Fund IX, L.P.
<i>Type of Fund:</i>	Private Real Estate
<i>Target Fund Size:</i>	\$1.5 billion
<i>Fund Manager:</i>	Angelo, Gordon & Co., L.P.
<i>Manager Contact:</i>	Brigid Flanagan 245 Park Avenue New York, NY, 10167 (221) 692-8240

II. Organization and Staff

Angelo, Gordon & Co., L.P. (“Angelo, Gordon” or the “Firm”) is forming AG Realty Fund IX, L.P. (“Fund IX” or the “Fund”) to make opportunistic investments in commercial real estate. Fund IX will continue Angelo, Gordon’s opportunistic real estate investment activities which are focused on the acquisition of equity interests in sub-performing real estate properties, principally in the United States, across a broad range of geographical markets and product types.

Angelo, Gordon was founded in 1988 by John Angelo and Michael Gordon. Headquartered in New York City, the Firm is 100% employee owned and has roughly 370 employees working across their three core disciplines – credit, real estate, and private equity. As of September 30th, the firm had approximately \$27 billion in assets under management.

Over the past 21 years, Angelo, Gordon has acquired over \$18 billion of real estate assets, representing over \$7.5 billion of equity in a series of opportunistic and core plus real estate funds. Angelo, Gordon began making opportunistic investments in 1993 and has been an active investor in distressed real estate debt since 1990. Since inception, Angelo, Gordon has purchased over 300 opportunistic transactions, representing a gross purchase price of over \$13 billion and \$5.5 billion of equity.

III. Investment Strategy

Angelo, Gordon’s approach to opportunistic real estate investing centers on value creation and capital preservation. The firm has significant hands-on operating experience which helps them avoid investing in situations where under-performance cannot be corrected. The firm works with approximately 50 operating partners across the U.S., which provides Angelo, Gordon with in-depth knowledge of the partners’ respective local market. Operating partners provide Angelo, Gordon with approximately 80% of their deal flow and are often best

positioned to identify off-market or poorly marketed deals. Operating partners are also able to “work the assets” daily which improves execution of the value creation plan. The capital preservation principle is carried out with conservative underwriting, modest leverage use, and a focus on major markets.

The Fund’s strategy will emphasize the purchase of sub-performing and distressed real estate assets which Angelo, Gordon believes can benefit from its value-add approach to repositioning and stabilizing properties. The firm typically purchases assets from owners who lack the capital, patience, or expertise to improve cash flow and value. The assets are often attractively priced due to the lack of current cash flow, difficulty in obtaining debt financing, complexity of analysis, or inefficiency of the sale process.

The Fund will seek to invest in a portfolio of assets that, after stabilization, will be highly sought after by traditional institutional real estate investors and will continue to appreciate even after underperformance has been corrected. Angelo, Gordon will, therefore, seek opportunities to purchase assets with all or some of the following fundamental strengths:

- Clearly identifiable reasons for underperformance and a well-defined and achievable plan for turnaround,
- Purchase price and forecasted stabilized value that are at discounts to replacement costs,
- Favorable long-term demand growth in the local market, and
- Barriers to new supply in the local market due to restrictions on land availability, zoning, or entitlement.

The Fund will be managed by a team of experienced real estate investment professionals with a long and successful history of working together. The senior team members have worked with Angelo, Gordon for an average of approximately twelve years. The team’s experience includes significant operating experience encompassing all aspects of both real estate investment and management, including acquisition, financing, disposition, leasing, and construction management of a broad range of real estate product types in various geographic regions across the country. The purchase of assets which are out of favor and require substantial repositioning demands a great deal of discipline and operating experience supported by fundamental research, a cornerstone of Angelo, Gordon’s investment approach.

A unique aspect of the fund is the portion that will be dedicated to investments outside of the U.S. The fund will take a minority share of each opportunistic European and Asian real estate investment made in funds dedicated to those regions, subject to diversification and capital availability. The piece of each non-U.S. deal added to the fund is determined by a formula. The portion of the fund dedicated to investments outside of the U.S. is capped at 25% of the fund.

In conclusion, Angelo, Gordon believes the fund represents an attractive investment opportunity for the following reasons:

- Strong investment track record: Angelo, Gordon has been one of the most active real estate investors in the U.S. and has earned attractive rates of return with a significant realized track record.
- Focused and proven investment strategy: Angelo, Gordon has developed a strategy of investing in sub-performing properties where it believes it can correct the sub-performance, create a competitive advantage subsequent to the repositioning, and achieve healthy returns.
- Experienced real estate team: The Angelo, Gordon real estate team has a long and successful history working together and possess experience and expertise in purchasing and repositioning sub-performing properties across a wide variety of product types and geographical regions.
- Extensive network of deal sources: Angelo, Gordon has created a broad network of deal sources with local real estate operating firms, brokers, direct sellers, and distressed debt players.
- Reputation for closing deals: Angelo, Gordon has developed a reputation for closing deals put under letter of intent.

IV. Investment Performance

Previous fund performance as of September 30, 2015 for Angelo, Gordon & Co.'s Opportunistic Portfolio is shown below:

Fund	Inception Date	Total Invested Capital	Net IRR*	Net MOIC*
AG Realty Fund	1994	\$29.7 million	23%	1.9
AG Realty Fund II	1995	\$33.1 million	25%	2.1
AG Realty Fund III	1997	\$60.6 million	3%	1.3
AG Realty Fund IV	1999	\$245.0 million	8%	1.5
AG Realty Fund V	2001	\$299.7 million	26%	1.6
AG Realty Fund VI	2005	\$513.8 million	3%	1.1
AG Realty Fund VII	2007	\$1,181.7 million	14%	1.5
AG Realty Fund VIII	2011	\$1,513.5 million	18%	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 Angelo, Gordon & Co.

V. General Partner's Investment

Angelo, Gordon or its affiliates (including the firm's employees), will make a capital commitment equal to at least 3% of total capital commitments, up to a maximum of \$15 million.

VI. Takedown Schedule

Capital will be called as needed with a minimum of ten days' prior written notice.

VII. Fees

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

- a. During the Commitment Period, 1.50% per annum on capital commitments. (For Limited Partners with a capital commitment at least equal to \$75 million, the portion of the management fee based on undrawn capital commitments will be reduced to an annual rate of 1.00%.)
- b. After the Commitment Period, 1.50% per annum of Net Funded Capital Commitments.

VIII. Distributions

Amounts apportioned to each Limited Partner will be divided between and distributed to each Limited Partner and the General Partner in the following amounts and order of priority:

1. First, 100% to such Limited Partner, until the cumulative amount is equal to such Limited Partner's total capital contributions;
2. Second, 100% to such Limited Partner until the cumulative distributions made equals the preferred return at the annual compounded rate of 9% per annum;
3. Third, (a) 50% to such Limited Partner and (b) 50% to the General Partner, until the General Partner has received 20% of the aggregate distributions made pursuant to clause (2) and this clause (3); and
4. Thereafter, (a) 80% to such Limited Partner, and (b) 20% to the General Partner.

IX. Key Persons

If at any time during the Commitment Period both of Adam Schwartz and Reid Liffman (or any replacement to either of their positions approved by the Advisory Committee) cease to be actively involved with the General Partner or Angelo, Gordon in the management of the Partnership, the Commitment Period will be automatically suspended.

X. Investment Period and Term

The term of the Partnership is eight years, i.e., four years after the end of the investment period, subject to the discretion of the General Partner to extend the term for up to two additional one-year periods.

** 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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ATTACHMENT F

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Carlyle Strategic Partners IV, L.P.
<i>Type of Fund:</i>	Private Equity
<i>Total Fund Size:</i>	\$2 billion
<i>Fund Manager:</i>	Carlyle Strategic Partners
<i>Manager Contact:</i>	Shary Moalemzadeh 520 Madison Avenue New York, NY 10022 (212) 813-4900

II. Organization and Staff

Carlyle Strategic Partners (“CSP” or the “firm”) has formed Carlyle Strategic Partners IV (the “Fund” or “CSP IV”) to generate returns for its limited partners by making investments in middle-market companies experiencing financial, operational or cyclical distress. CSP IV is the fourth in a series of funds raised by CSP since it was formed in 2003. As of September 30, 2015, CSP had invested \$2.3 billion and distributed \$4.2 billion across three funds.

Carlyle Strategic Partners is a dedicated distressed and special situations strategy within The Carlyle Group (“Carlyle”). Carlyle was founded in 1987 by William Conway, Daniel D’Aniello and David Rubenstein. Today it has grown into a global alternative asset management firm with approximately \$188 billion assets under management, 1,700 employees and 35 offices as of September 30, 2015.

The CSP team has access to this global network and is led by Shary Moalemzadeh and Ian Jackson. The CSP investment committee is chaired by William Conway and includes Mitch Petrick, James Hance and Shary Moalemzadeh. CSP has offices in New York, London and Hong Kong with a total of 14 investment professionals and 4 dedicated European sourcers with experience in distressed investing, private equity, high yield debt trading, restructuring and investment banking.

III. Investment Strategy

CSP IV intends to invest in the debt and/or equity of proprietarily sourced companies affected by market- and company-specific dislocations. The fund will focus primarily on situations in which the CSP team has identified an impending credit catalyst that would allow the fund to gain control of the company through a restructuring process when triggered. Once control is obtained, CSP IV intends to create value within its portfolio companies through operational improvements facilitated by CSP and Carlyle’s industry expertise. CSP IV expects to invest primarily in middle-market companies in the United States and Europe, with a small

proportion of the fund invested in Asia. CSP believes that middle-market companies are often overlooked by other distressed funds and thus present an attractive opportunity to generate returns with its private equity approach to distressed investing.

The Fund's investment approach is flexible in terms of capital structure, liquidity requirements and investment horizons. CSP IV expects to invest in both equity and debt securities, liquid and illiquid opportunities, and control and non-control situations. The following are three paths for consummating and realizing an investment to further illustrate this flexible approach:

- 1) Purchase debt at a discount to face value and CSP's view of intrinsic value. At such levels, and assuming the analysis is correct, CSP IV would expect to generate a return with or without control. If the debt is repaid, the fund would target a return of 1.5x-2.0x multiple of invested capital (MOIC).
- 2) Alternatively, if in connection with a financial restructuring the purchased debt is exchanged for equity, CSP would gain control of the company, implement various value-creation initiatives and target a 2.0x-4.0x MOIC.
- 3) In addition, CSP also may attempt to gain control upfront through a negotiated transaction or purchasing assets directly out of a restructuring process. In this scenario, CSP would attempt to create value through various pre-identified operational improvements and target a 2.0x-4.0x MOIC.

CSP believes that it has an edge in the distressed investing sector as a result of being a part of the Carlyle global platform, consisting of:

- Access to proprietary opportunities unique to Carlyle
- Carlyle's reputation as a successful owner-operator of assets allowing CSP to play the role of "white knight" (i.e. the preferred buyer over another, more hostile offer)
- Sector analysis capabilities for deal sourcing and due diligence
- Bottoms-up approach that leverages information provided by the Carlyle platform
- Focus on operational improvements enabled by access to Carlyle's operations experts
- Successful exits using Carlyle's global reach among other financial sponsors, capital markets participants and strategic buyers

CSP has a consistent 11-year track record of strong investment returns across various market environments. CSP expects the current market environment to provide many opportunities suitable for its strategy particularly in industrials, healthcare, retail, technology/business services, oil & gas, and other commodities related industries.

IV. Investment Performance

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

Fund	Inception Date	Total Committed Capital	Net IRR*	Net MOIC*	Fund Status
Fund I	2004	\$211 million	36.5%	2.0	Realized
Fund II	2007	\$1.4 billion	11.5%	1.5	Liquidating
Fund III	2011	\$703 million	30.9%	1.3	Active

* 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) were provided by CSP.

V. General Partner's Investment

The General Partner and its affiliates will commit to invest 3% of targeted capital commitments or \$100 million.

VI. Takedown Schedule

The General Partner will draw down capital commitments pro rata as needed to fund investments and operations (including partnership expenses, organizational expenses and management fees). Capital calls will be payable upon seven calendar days' prior written notice to the limited partners.

VII. Fees

The Partnership will pay a management fee to the Manager semiannually in advance, starting on the date of the initial investment, at the following rate for Limited Partners with Commitments between \$75 million and \$150 million:

- (i) during the investment period, 1.4% per annum of capital commitments;
- (ii) after the investment period, 1.25% per annum of the cost basis of unrealized portfolio investments.

In addition, any investor in the first closing will receive an Early Close Discount, and will only pay management fees on invested capital until January 1, 2017.

VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to the limited partner until they received their Realized Capital and Costs and the 8% preferred return on Realized Capital and Costs.

Then, 100% to the General Partner until the General Partner has received an amount that is equal to 20% of the amount of the Preferred Return.

Thereafter, 80% to the limited partner and 20% to the General Partner.

IX. Key-Person Termination

New letters of intent for investments will not be originated if at any point during the fund there are fewer than two of William Conway, Ian Jackson, Shary Moalemzadeh, Mitch Petrick or any replacements approved by the investment advisory committee not performing their required duties on behalf of the fund.

X. Investment Period and Term

The investment period ends three years after the final closing date. The Partnership's term will be ten years from the final closing date, subject to extension with the consent of the Advisory Committee for up to two additional consecutive one-year periods.

** 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

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Rockpoint Real Estate Fund V, L.P.
<i>Type of Fund:</i>	Private Real Estate
<i>Target Fund Size:</i>	\$2.5 billion
<i>Fund Manager:</i>	Rockpoint Group
<i>Manager Contact:</i>	Hank Midgley 500 Boylston St, Suite 1880 Boston, MA 02116 (617) 530-3973

II. Organization and Staff

Rockpoint Group (“Rockpoint” or the “Firm”) is sponsoring Rockpoint Real Estate Fund V (the “Fund” or “Rockpoint V”) to invest in opportunistic real estate transactions in the United States.

Rockpoint was founded in 2003 by Keith Gelb, Bill Walton and three other managing members of the predecessor firm, Westbrook Real Estate Partners. Rockpoint V is the sixth opportunistic real estate vehicle managed by Rockpoint and the tenth opportunistic real estate vehicle involving Mr. Gelb and Mr. Walton. The firm is headquartered in Boston, with additional primary offices in Dallas and San Francisco. Rockpoint has 27 investment professionals and 29 additional employees. Mr. Gelb and Mr. Walton continue to lead the firm today along with three newer managing members, Paisley Boney, Tom Gilbane and Aric Shalev.

In addition to the opportunistic strategy, Rockpoint began managing a lower-return, lower-risk Core Plus strategy in 2014. Since 2003, Rockpoint’s opportunistic strategies have raised approximately \$11 billion of equity and invested in 213 transactions representing a total capitalization of \$30 billion, including co-investments and debt.

III. Investment Strategy

Rockpoint intends to acquire high-quality, well located investments with the opportunity to add value at the asset level. Rockpoint believes that it can purchase these assets at attractive valuations by analyzing replacement cost, comparable sales and unleveraged cash flows.

Fund V will focus on acquiring office, multi-family and hospitality assets in the major coastal cities of the United States and markets that share the following attributes:

- Strong long-term economic drivers
- Constraints to new supply
- Scale and long-term liquidity

The Fund may also acquire properties outside these markets or asset classes when Rockpoint believes such an investment will generate the most attractive risk-adjusted return at the time.

Rockpoint sources investment opportunities through its team's relationships with operating partners, advisors, agents, lenders and owners of real estate. Rockpoint believes that the tenure and cohesiveness of its team, as well as its reputation of providing sellers with speed and certainty, results in the Firm receiving more favorable opportunities than its competitors. Potential investments undergo an extensive underwriting process that involves site inspections, market analysis, engineering and environmental assessments, entitlement analysis, financial modeling and a thorough understanding of capitalization and structural options available. This work is completed by a deal team that typically includes Managing Members, Principals, a Vice President, an Associate and a legal professional.

An important element of Rockpoint's strategy is to create value at the asset level through proactive asset management. The acquisition and asset management professionals generally drive the execution of the investment strategy, which may include managing operating expenses, implementing capital expenditure programs, repositioning under-utilized assets, or re-leasing vacant space. In addition, the Rockpoint team will engage third parties such as operating partners, architects, engineers, attorneys and consultants, to implement the strategy developed for each investment. Fund V will occasionally invest in development opportunities but it will not commit more than 10% of total capital commitments to unentitled land. The loan-to-value ratio of Fund V is capped at 75% but Rockpoint expects leverage for non-development opportunities to be in the 60-65% range.

Fund V expects to continue Rockpoint's deliberate focus on timely exits once business plans are achieved and when capital markets conditions permit. During underwriting, multiple exit strategies and a target hold period are identified. However, central to Rockpoint's strategy is monetizing gains and reducing portfolio risk when appropriate. This has led to a successful track record in terms of IRR despite some potential lost opportunity in higher MOICs.

IV. Investment Performance

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

Fund	Inception Date	Total Committed Capital	Net IRR*	Net MOIC*	Fund Status
Rockpoint I	2004	\$904 million	11.5%	1.2x	Substantially Realized
Rockpoint II	2005	\$1.7 billion	-2.6%	0.9x	Liquidating
Rockpoint III	2007	\$2.5 billion	15.0%	1.4x	Liquidating
Rockpoint IV	2011	\$2.0 billion	22.2%	1.6x	Active
Rockpoint V	2015	\$2.1 billion	-	-	Investing

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

V. General Partner's Investment

Rockpoint will commit 1.5% of aggregate capital commitments.

VI. Takedown Schedule

The general partner will draw down capital commitments from time to time as needed to fund investments and to pay fund liabilities and expenses. The general partner will generally give 10 days written notice prior to any drawdown of unfunded capital commitments.

VII. Fees

During the Investment Period each Limited Partner will pay Rockpoint an annual management fee of 1.5% on their capital commitments up to \$50 million, 1.25% on commitments between \$50 and \$100 million, and 1.125% on commitments above \$100 million. After the Investment Period each Limited Partner will pay the blended rate on their contributions to fund the remaining 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 to Fund V plus a 9% preferred return.

Second, 60% to the General Partner and 40% to the Limited 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

The Investment Period will be suspended if either Bill Walton or Keith Gelb cease to have an active management role in the affairs of Fund V or to devote at least 95% of their business time to the affairs of Rockpoint.

X. Investment Period and Term

The Investment Period began in May, 2015 and will continue until May, 2019. The Term will end eight years from May, 2015 with the possibility of two one-year extensions with consent of the Advisory Committee.

** 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

DATE: February 24, 2016

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:

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• Public Markets Manager Activity	5
• Non-Retirement Manager Update	8
• Deferred Compensation Manager Update	9
• Manager Performance Summaries	A-1

Public Markets Economic and Market Overview Fourth Quarter 2015

Overview

Global stocks markets advanced amid increased merger and acquisition activity and a strong year-end rally in the technology sector. The U.S. Federal Reserve Bank raised interest rates for the first time in nearly a decade, but cautioned that future rate increases would depend on the pace of U.S. economic growth. Central banks in Europe and Japan ramped up stimulus measures in an attempt to jumpstart lackluster economies. U.S. bonds fell and the dollar rose against the euro and the yen.

Overall, the *Russell 3000 Index* rose 6.3% in the fourth quarter. Sector performance was mixed, with a combination of cyclical and defensive sectors beating the benchmark. Among defensive sectors, consumer staples, healthcare and telecommunications outperformed, but utilities lagged. Similarly, materials, information technology and industrials delivered stronger returns than the index, but consumer discretionary underperformed. Driven by significant decline in energy prices and continued concerns of slower growth, the energy sector had the largest decline in the fourth quarter. Large capitalization stocks outperformed small capitalization stocks, and growth outperformed value.

The quarter started with a strong rally in international equity developed markets in October, had a relatively uneventful November and fell back again in December. Overall, these equity markets reacted positively to expansive monetary policy in Europe and Japan, as well as positive economic data released in Japan. The top performing sectors for the quarter were Information Technology, Telecommunication Services, and Industrials. The Energy sector posted negative returns.

Emerging markets equities posted a small gain during the quarter, steadying as China rolled out more stimulus measures to help offset its decelerating economy. Stocks in the information technology, consumer discretionary, and healthcare sectors led gains, while the telecommunications, industrials and materials sectors weighed on the performance of the *MSCI Emerging Markets Index*. Most emerging markets currencies weakened against the U.S. dollar. In both the developed and emerging equity markets, small capitalization stocks outperformed large capitalization stocks, and growth outperformed value.

Market sentiment shifted from risk off to risk on in October with the FOMC's removal of dovish language from their policy statement. This along with strong employment data cleared the path for the Fed's eventual rate hike in December when the FOMC changed the Federal Funds rate target from 0 to .25 to .25 to .50. Given the anticipation of the rate hike, rates rose throughout the quarter with rates in the short end of the curve leading the way. The Barclays Aggregate Index fell .57% for the quarter with treasuries and CMBS detracting the most from performance.

SBI Portfolio

In the fourth quarter, the SBI's overall portfolio, the Combined Funds, matched the composite benchmark return. Domestic equities underperformed the *Russell 3000 Index* return (6.3%) by 40 basis points, while international equities outpaced the *MSCI ACWI ex U.S. Index* return (3.2%) by 60 basis points. The fixed income portfolio, while in negative territory, outpaced the *Barclays Aggregate Index* return (-0.6%) by 30 basis points.

Domestic Equity

Domestically, the large cap growth managers outperformed the *Russell 1000 Growth Index* by 0.3% for the quarter and trailed by 1.1% for the year. The quarterly return was helped by sector allocation, an overweight to Technology (Apple) and ADR exposure to Alibaba and Baidu were the main drivers. For the year, sector allocation was negative. Exposure to Alibaba and Baidu hurt performance. The large cap value managers underperformed the *Russell 1000 Value Index* by 0.7% for the quarter and outperformed by 0.6% for the year. Negative stock selection across several sectors detracted from the quarterly return. Positive sector allocation helped the one year return, particularly the underweight to Energy. The SBI's small cap growth managers trailed the *Russell 2000 Growth Index* in large part due to the underperformance of Next Century Growth's portfolio. The manager's subpar stock selection in the Healthcare and Consumer Discretionary sectors significantly detracted from performance for the quarter. The SBI's small cap value portfolio trailed the *Russell 2000 Value Index* during the fourth quarter. Poor stock selection in the Consumer Discretionary sector was the largest detractor from performance. Conversely, solid stock picking in the Financials and Energy sectors partially offset the aforementioned headwind. In aggregate, the SBI's semi-passive, domestic equity portfolio slightly trailed the *Russell 1000 Index*, during the quarter. Subpar stock selection in the Information Technology and Consumer Discretionary sectors were the largest drags on performance, while astute stock picking in the Energy sector was the largest positive contributor.

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 the United Kingdom, France and Japan. Country allocation was positive in Canada, Japan and Spain. The SBI's semi-passive international equity managers overall outperformed the benchmark due to positive stock selection in France, the United Kingdom and Spain. Country allocation was positive in Canada, Spain and UK.

Emerging Markets Equity

The SBI's emerging markets equity managers outpaced the MSCI Emerging Markets Index (net) during the quarter. Both stock selection and country allocation added value. The portfolio's underweight to South Africa as well as stock selection in that market and in China and Russia added value. Stock selection in the financials and information technology sectors was also positive.

Fixed Income

For SBI's Fixed Income allocation, the majority of fixed income managers outperformed the Barclays Aggregate Index for the quarter. An underweight to duration and overall flattening yield curve bias contributed to performance as Treasuries sold off ahead of the FOMC rate decision, particularly Treasuries in the short end of the curve. Exposure to corporate bonds in the financial sector added to performance while corporate bonds in the energy, metals and mining sectors detracted from performance. An overweight to non-agency CMBS also detracted from performance.

Public Markets Manager Activity Fourth Quarter 2015

Manager Summary

For the quarter, the majority of investment managers performed in line with expectations. There were some noteworthy manager developments for the quarter involving Winslow Capital, Sands Capital, Goldman Sachs, Martingale, Pyramis, SSgA, Dodge & Cox, Western Asset Management, BlackRock and Aberdeen Asset Management.

Winslow Capital

Clark Winslow transferred the CEO title to Justin Wright, effective 12/31/15. Staff has no concerns with the transition.

Sands Capital

Tom Ricketts, one of three portfolio managers on the strategy in which the SBI is invested, will be departing Sands on June 30, 2016 to pursue other interests. He will be replaced by Wes Johnston, who has managed the Global Life Sciences sector the last 3 years. Wes joined Sands in 2004. Staff will monitor the change but currently does not have any concerns with the pending change.

Goldman Sachs

During the quarter, GSAM announced some modest changes in sector coverage for the Value Equity Team. Co-Lead Portfolio Manager Rob Crystal will maintain his portfolio management responsibilities but will assume Healthcare coverage from Sector Portfolio Manager David Deuchler for the Small Cap Value portfolio. To add capacity for this change, Sector Portfolio Manager Sean Butkus will assume Mr. Crystal's Industrials sector coverage. This change in responsibilities was driven by the Small Cap Value's underperformance in the Healthcare sector. Mr. Crystal expects to invest in more traditional, higher quality, cash generating Healthcare companies as opposed to the more emerging, less established Healthcare companies that previously filled this segment of the portfolio. Staff is comfortable with this announcement, but will closely monitor this transition in responsibilities.

Martingale

On December 9, 2015, the SBI was informed that Martingale's CIO Bill Jacques was being promoted to CEO, and the current CEO Arnie Wood would become Co-Chair, Investments alongside Alan Strassman, who is now the Co-Chair, Administration. James "Mac" Eysenbach, the Director of Research will assume the CIO responsibilities. These changes became effective on January 1, 2016. Staff has no concerns with this announcement, but will monitor the situation.

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 December 2015, Steven Lipiner was appointed Chief Financial Officer of SSgA. Steven succeeds Keith Crawford, who transitioned to the lead of State Street's global merger and acquisition function. Also in December 2015, Greg Ehret, President of SSgA, announced his decision to leave SSgA to pursue other career opportunities. Ron O'Hanley, CEO of SSgA, resumed the role of President. Staff is concerned with the level of turnover in senior level management at SSgA and will continue to monitor the situation.

Dodge and Cox

Portfolio manager Kent Radspinner retired from Dodge & Cox at the end of 2015. Mr. Radspinner joined Dodge and Cox in 1996 and served as a fixed income analyst, portfolio manager and member of the Fixed Income Investment Policy Committee. The SBI's portfolio, which was previously managed by Kent Radspinner will now be overseen by the Fixed Income Investment Policy Committee. Staff has no concerns but will monitor the portfolio for consistency issues during and after the transition.

Western Asset Management

Mr. Brett Canon, Director of Risk Management & Operations announced his plans to retire from the firm. Ms. Jennifer Murphy joined Western Asset as Chief Operation Officer effective May 2015. Mr. Canon will continue to serve as senior advisor and Ms. Murphy will continue to oversee the firm's finance, risk management and operations functions. Staff has no concerns at this time.

BlackRock

Kelly Campbell, Managing Director and Senior Strategist with BlackRock's Customized Core Fixed Income and Inflation-linked bond businesses, departed the firm in the fourth quarter 2015 to pursue opportunities outside the firm. Staff has no concerns but will monitor the portfolio for consistency issues during and after the transition.

Aberdeen Asset Management

Neil Moriarty, SBI portfolio manager and head of US Core Fixed Income strategies, is suing Aberdeen Asset Management based on allegations he was denied a promotion to head of North American fixed income in favor of Charles Tan, appointed in 2014 to replace Chris Gagnier. Moriarty is seeking compensation for lost wages, legal fees and other injuries caused by Aberdeen's alleged acts of retaliation, after he filed an age discrimination complaint with human resources. Staff will be monitoring the progress and outcome of this litigation, and any potential effects on investment performance.

2015 Manager Meetings

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

Investment Manager

Asset Class

- | | |
|---|----------------------|
| • Mellon Capital Management Corporation | Domestic Equity |
| • J. P. Morgan Investment Management Inc. | Domestic Equity |
| • Columbia Threadneedle Investments | International Equity |

Non-Retirement Manager Update Fourth 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 consumer staples was the main detractor to performance. For the year, stock selection in technology caused the majority of the underperformance and stock selection in consumer discretionary and consumer staples also lagged the benchmark.

Staff continues to monitor the anticipated sale of 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.

Internal Stock Pool

The performance in the domestic equity portfolio tracked the index, the S&P 500 for the quarter and the year. This quarter, staff transitioned the portfolio from ETF's to futures in replicating the risk and return profile of the index.

Fixed Income

RBC Global Asset Management

The fixed income portfolio slightly outperformed the benchmark, the Barclays Intermediate Government, for the quarter and slightly underperformed for the year. For the quarter, excess yield from the securitized sector contributed to positive relative performance. For the year, while the duration position was neutral relative to benchmark, wider spreads led to a slight performance drag from non-treasury holdings.

Internal Bond Pool

The bond portfolio slightly underperformed its benchmark for the quarter and outperformed for the year. For the quarter, security selection within industrial corporates was the biggest detractor to performance. The one year return benefited from an overweight allocation to asset backed securities (ABS) and security selection.

Deferred Compensation Managers Fourth 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 and the year the portfolio benefited from strong stock selection and an overweight in the technology and consumer discretionary sectors. A small overweight and strong stock selection in the health care sector also benefited the one year return.

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 tracked the benchmark, CRSP US Mid Cap Index, for the quarter and the year.

T. Rowe Price

The small cap equity portfolio outperformed the benchmark, the Russell 2000, for the quarter and for the year. For the year, stock selection in the financials, energy and industrial sectors was the primary contributor to performance.

International Equities

Fidelity Diversified International

The international equity portfolio outperformed its benchmark, the MSCI EAFE Free, for the quarter and the year. For the quarter, stock selection in health care and technology was the main contributor to the outperformance.

Vanguard Total International Stock Index

The portfolio underperformed 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 fixed income portfolio outperformed its benchmark, the Barclays Aggregate, for the quarter and underperformed for the year. Performance for the quarter was helped by positive security selection within corporate holdings and an overweight to the financial institutions sub-sector, an underweight to U.S. Treasuries and the portfolio's shorter duration relative to the benchmark. The one year underperformance was attributed to certain emerging market-related corporate holdings, an underweight to U.S. Treasuries and an overweight to the Industrial sub-sector.

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 underperformed for the quarter and 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, defensive corporate issue selection, and issues in securitized governments, taxable municipals and asset backed securities (ABS). For the year, an overweight to non-Treasury sectors and high quality corporate holdings contributed to the outperformance.



STATE BOARD OF INVESTMENT

Domestic Equity Manager Performance Summaries

Fourth Quarter 2015

MINNESOTA STATE BOARD OF INVESTMENT

Domestic Equity

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COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS

Periods Ended December 31, 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	7.6	4.6	17.6	13.4
<i>Russell 1000 Growth Index</i>	7.3	5.7	16.8	13.5
Russell 1000 Value Aggregate	4.9	-3.2	14.3	11.3
<i>Russell 1000 Value Index</i>	5.6	-3.8	13.1	11.3
Russell 2000 Growth Aggregate	1.2	1.0	12.9	8.7
<i>Russell 2000 Growth Index</i>	4.3	-1.4	14.3	10.7
Russell 2000 Value Aggregate	1.9	-6.5	12.3	10.1
<i>Russell 2000 Value Index</i>	2.9	-7.5	9.1	7.7
Active Manager Aggregate	5.2	-0.4	15.1	11.4
<i>Benchmark</i>	5.8	-0.6	14.1	11.6
Semi-Passive Aggregate	6.2	0.5	15.2	13.0
<i>Benchmark</i>	6.5	0.9	15.0	12.4
Passive Manager (BlackRock)	6.3	0.5	14.7	12.1
<i>Russell 3000 Index</i>	6.3	0.5	14.7	12.2
Total Aggregate	5.9	0.3	15.0	12.2
<i>Russell 3000 Index</i>	6.3	0.5	14.7	12.2

Calendar Years

	2015	2014	2013	2012	2011
Russell 1000 Growth Aggregate	4.6	9.6	42.0	15.5	-0.4
<i>Russell 1000 Growth Index</i>	5.7	13.0	33.5	15.3	2.6
Russell 1000 Value Aggregate	-3.2	13.1	36.5	16.9	-2.1
<i>Russell 1000 Value Index</i>	-3.8	13.5	32.5	17.5	0.4
Russell 2000 Growth Aggregate	1.0	-3.4	47.2	12.0	-5.6
<i>Russell 2000 Growth Index</i>	-1.4	5.6	43.3	14.6	-2.9
Russell 2000 Value Aggregate	-6.5	7.5	40.8	19.6	-4.5
<i>Russell 2000 Value Index</i>	-7.5	4.2	34.5	18.1	-5.5
Active Manager Aggregate	-0.4	9.3	40.2	15.4	-2.7
<i>Active Manager Benchmark</i>	-0.6	11.0	34.7	16.3	0.0
Semi-Passive Aggregate	0.5	14.2	33.2	17.7	2.2
<i>Benchmark</i>	0.9	13.2	33.1	16.4	1.5
Passive Manager (BlackRock)	0.5	12.6	33.5	16.4	0.8
<i>Russell 3000 Index</i>	0.5	12.6	33.6	16.4	1.0
Total Aggregate	0.3	12.3	35.1	16.6	0.4
<i>Russell 3000 Index</i>	0.5	12.6	33.6	16.4	1.0

**COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS**

Periods Ended December 2015

Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Russell 1000 Growth Index	7.3	5.7	16.8	13.5	--
INTECH	5.8	4.0	16.3	13.2	7.4
<i>Benchmark</i>	7.3	5.7	16.8	13.5	8.2
Jacobs Levy	6.2	4.3	17.3	14.2	7.1
<i>Benchmark</i>	7.3	5.7	16.8	13.5	8.2
Sands Capital	11.0	2.9	16.9	15.3	10.0
<i>Benchmark</i>	7.3	5.7	16.8	13.5	8.2
Winslow-Large Cap	8.6	6.7	17.6	13.1	9.4
<i>Benchmark</i>	7.3	5.7	16.8	13.5	8.2
Zevenbergen Capital	7.0	6.4	20.9	11.4	10.1
<i>Benchmark</i>	7.3	5.7	16.8	13.5	8.9
Aggregate	7.6	4.6	17.6	13.4	
 Russell 1000 Value Index	 5.6	 -3.8	 13.1	 11.3	 --
Barrow, Hanley	5.7	-2.1	14.4	12.0	7.4
<i>Benchmark</i>	5.6	-3.8	13.1	11.3	6.9
Earnest Partners	3.1	-2.7	13.5	9.1	5.9
<i>Benchmark</i>	5.6	-3.8	13.1	11.3	6.4
LSV Asset Mgmt.	4.8	-2.2	16.3	13.5	8.3
<i>Benchmark</i>	5.6	-3.8	13.1	11.3	6.9
Systematic Financial Mgmt.	5.6	-5.7	12.4	9.2	6.6
<i>Benchmark</i>	5.6	-3.8	13.1	11.3	6.9
Aggregate	4.9	-3.2	14.3	11.3	

(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 December 2015

Performance versus Russell Style Benchmarks for All Periods

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception ⁽¹⁾
Small Cap					
Russell 2000 Growth Index	4.3	(1.4)	14.3	10.7	--
McKinley Capital	5.2	3.6	17.0	12.7	6.9
<i>Benchmark</i>	<i>4.3</i>	<i>-1.4</i>	<i>14.3</i>	<i>10.7</i>	<i>8.1</i>
Next Century Growth	-2.8	-1.7	11.4	6.1	2.5
<i>Benchmark</i>	<i>4.3</i>	<i>-1.4</i>	<i>14.3</i>	<i>10.7</i>	<i>4.0</i>
Aggregate	1.2	1.0	12.9	8.7	
 Russell 2000 Value Index	 2.9	 -7.5	 9.1	 7.7	 --
Goldman Sachs	3.0	-5.2	12.3	10.9	8.9
<i>Benchmark</i>	<i>2.9</i>	<i>-7.5</i>	<i>9.1</i>	<i>7.7</i>	<i>6.8</i>
Hotchkis & Wiley	3.0	-8.5	14.7	10.8	8.1
<i>Benchmark</i>	<i>2.9</i>	<i>-7.5</i>	<i>9.1</i>	<i>7.7</i>	<i>6.8</i>
Martingale Asset Mgmt.	2.1	-5.2	13.3	10.6	6.8
<i>Benchmark</i>	<i>2.9</i>	<i>-7.5</i>	<i>9.1</i>	<i>7.7</i>	<i>6.8</i>
Peregrine Capital	0.3	-6.7	10.1	8.7	9.8
<i>Benchmark</i>	<i>2.9</i>	<i>-7.5</i>	<i>9.1</i>	<i>7.7</i>	<i>8.9</i>
Aggregate	1.9	-6.5	12.3	10.1	
Active Mgr. Aggregate (2)	5.2	-0.4	15.1	11.4	

(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 December 2015
Versus Manager Benchmarks

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Semi-Passive Managers (2)					
BlackRock Institutional	6.2	0.8	15.4	13.2	9.3
<i>Benchmark</i>	6.5	0.9	15.0	12.4	9.0
INTECH	6.0	0.7	14.3	12.4	12.4
<i>Benchmark</i>	6.5	0.9	15.0	12.4	12.6
JP Morgan	6.6	0.8	15.7	13.0	9.3
<i>Benchmark</i>	6.5	0.9	15.0	12.4	9.0
Mellon Capital	6.0	-0.2	15.3	13.4	8.7
<i>Benchmark</i>	6.5	0.9	15.0	12.4	9.0
Semi-Passive Aggregate (R1000)	6.2	0.5	15.2	13.0	
Passive Manager (R3000)					
BlackRock Institutional	6.3	0.5	14.7	12.1	8.7
<i>Benchmark</i>	6.3	0.5	14.7	12.2	8.6
Total Aggregate (3)	5.9	0.3	15.0	12.2	10.2
<i>Benchmark (3,4)</i>	6.3	0.5	14.7	12.2	10.4
<i>Russell 3000 Index (3)</i>	6.3	0.5	14.7	12.2	10.7
<i>Russell 1000 Index (3)</i>	6.5	0.9	15.0	12.4	10.9
<i>Russell 2000 Index (3)</i>	3.6	-4.4	11.7	9.2	9.2

(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**

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
Russell 1000 Growth Aggregate	\$3,011,674,266	10.8%	\$2,797,993,190	10.4%
INTECH	\$611,220,427	2.2%	\$577,939,987	2.2%
Jacobs Levy	\$711,472,412	2.6%	\$670,094,536	2.5%
Sands Capital	\$715,365,792	2.6%	\$644,679,201	2.4%
Winslow-Large Cap	\$327,479,694	1.2%	\$301,429,050	1.1%
Zevenbergen Capital	\$646,135,941	2.3%	\$603,850,417	2.3%
Russell 1000 Value Aggregate	\$2,917,907,087	10.5%	\$2,780,768,484	10.4%
Barrow Hanley	\$817,255,167	2.9%	\$772,921,843	2.9%
Earnest Partners	\$550,291,157	2.0%	\$533,586,621	2.0%
LSV Asset Mgmt.	\$823,317,537	3.0%	\$785,762,480	2.9%
Systematic Financial Mgmt.	\$727,043,225	2.6%	\$688,497,540	2.6%
Russell 2000 Growth Aggregate	\$762,024,137	2.7%	\$752,682,241	2.8%
McKinley Capital	\$400,965,621	1.4%	\$381,209,264	1.4%
Next Century Growth	\$361,058,516	1.3%	\$371,472,977	1.4%
Russell 2000 Value Aggregate	\$1,035,494,197	3.7%	\$1,016,123,100	3.8%
Goldman Sachs	\$259,792,792	0.9%	\$252,302,267	0.9%
Hotchkis & Wiley	\$238,810,890	0.9%	\$231,959,361	0.9%
Martingale Asset Mgmt.	\$207,040,802	0.7%	\$202,840,094	0.8%
Peregrine Capital	\$329,849,712	1.2%	\$329,021,377	1.2%
Semi-Passive Manager Aggregate	\$10,457,737,535	37.6%	\$10,132,052,179	37.8%
BlackRock Institutional	\$2,512,239,487	9.0%	\$2,365,427,884	8.8%
INTECH	\$2,290,796,384	8.2%	\$2,446,939,677	9.1%
JP Morgan	\$2,890,071,759	10.4%	\$2,710,441,971	10.1%
Mellon Capital	\$2,764,629,905	9.9%	\$2,609,242,647	9.7%
Passive Manager	\$9,619,602,187	34.6%	\$9,329,594,504	34.8%
BlackRock Institutional	\$9,619,602,187	34.6%	\$9,329,594,504	34.8%
Total Portfolio	\$27,804,439,409	100.0%	\$26,809,213,698	100.0%

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

	2015	2014	2013	2012	2011
LARGE CAP					
Russell 1000 Growth Index	5.7	13.0	33.5	15.3	2.6
INTECH	4.0	12.8	34.1	17.8	0.1
Jacobs Levy	4.3	12.9	37.0	13.0	6.6
Sands Capital	2.9	9.1	42.4	24.2	2.7
Winslow - Large Cap	6.7	11.0	37.4	13.7	0.1
Zevenbergen Capital	6.4	3.4	60.6	8.0	-9.8
Aggregate	4.6	9.6	42.0	15.5	-0.4
 Russell 1000 Value Index	 -3.8	 13.5	 32.5	 17.5	 0.4
Barrow, Hanley	-2.1	13.0	35.5	15.5	1.7
Earnest Partners	-2.7	14.0	32.0	10.7	-4.7
LSV Asset Mgmt.	-2.2	14.0	41.2	20.4	-0.8
Systematic Financial Mgmt.	-5.7	11.6	35.0	18.2	-7.4
Aggregate	-3.2	13.1	36.5	16.9	-2.1
 SMALL CAP					
Russell 2000 Growth Index	-1.4	5.6	43.3	14.6	-2.9
McKinley Capital	3.6	2.0	51.6	23.2	-7.9
Next Century Growth	-1.7	-6.5	50.3	1.9	-4.5
Aggregate	1.0	-3.4	47.2	12.0	-5.6
 Russell 2000 Value Index	 -7.5	 4.2	 34.5	 18.1	 -5.5
Goldman Sachs	-5.2	7.4	39.3	16.6	1.3
Hotchkis & Wiley	-8.5	13.0	46.0	24.1	-10.8
Martingale Asset Mgmt.	-5.2	7.3	43.1	20.1	-5.2
Peregrine Capital	-6.7	4.1	37.3	18.8	-4.1
Aggregate	-6.5	7.5	40.8	19.6	-4.5
 Active Mgr. Aggregate	 -0.4	 9.3	 40.2	 15.4	 -2.7
<i>Active Mgr. Aggregate Benchmark (1)</i>	<i>-0.6</i>	<i>11.0</i>	<i>34.7</i>	<i>16.3</i>	<i>0.0</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

	2015	2014	2013	2012	2011
Semi-Passive Managers					
Russell 1000 Index	0.9	13.2	33.1	16.4	1.5
BlackRock Institutional	0.8	14.2	33.3	19.0	1.6
INTECH	0.7	11.6	33.0	16.6	2.9
JP Morgan	0.8	15.0	33.7	17.6	1.1
Mellon Capital	-0.2	15.9	32.6	17.3	4.6
Semi-Passive Aggregate (R1000)	0.5	14.2	33.2	17.7	2.2
Passive Managers					
Russell 3000 Index	0.5	12.6	33.6	16.4	1.0
BlackRock Institutional	0.5	12.6	33.5	16.4	0.8
Total Aggregate	0.3	12.3	35.1	16.6	0.4
<i>Russell 3000 Index</i>	<i>0.5</i>	<i>12.6</i>	<i>33.6</i>	<i>16.4</i>	<i>1.0</i>
<i>Russell 1000 Index</i>	<i>0.9</i>	<i>13.2</i>	<i>33.1</i>	<i>16.4</i>	<i>1.5</i>
<i>Russell 2000 Index</i>	<i>-4.4</i>	<i>4.9</i>	<i>38.8</i>	<i>16.3</i>	<i>-4.2</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

International Manager Performance Summaries

Fourth Quarter 2015

MINNESOTA STATE BOARD OF INVESTMENT

International Managers

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COMBINED RETIREMENT FUNDS
INTERNATIONAL MANAGERS
Periods Ended December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Developed Markets (2)					
Acadian	6.3	2.4	8.3	5.4	4.9
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Columbia	6.7	6.4	7.6	5.4	2.2
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	2.6
J.P. Morgan	3.5	-4.7	2.6	2.8	4.1
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Marathon Asset Management	5.8	6.7	9.6	7.1	8.3
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.7
McKinley	6.1	3.1	8.7	4.9	4.6
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Fidelity	5.0	0.1	6.2	4.9	6.0
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Aggregate	5.6	3.2	7.5	5.3	
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	
Active Emerging Markets (3)					
Capital International	1.5	-16.4	-7.5	-7.0	7.7
<i>Benchmark</i>	0.7	-14.9	-6.8	-4.8	8.5
Morgan Stanley	0.2	-9.4	-3.9	-2.4	9.6
<i>Benchmark</i>	0.7	-14.9	-6.8	-4.8	8.5
Aggregate	0.8	-12.7	-5.6	-4.7	
<i>Benchmark</i>	0.7	-14.9	-6.8	-4.8	
Semi-Passive Developed Markets (2)					
AQR	4.6	0.9	6.2	4.5	5.1
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Fidelity	3.5	-0.7	5.5	4.2	5.4
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
State Street	4.3	-0.9	5.6	3.1	4.0
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	4.2
Aggregate	4.0	-0.3	5.7	4.0	
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	

(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 December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Passive Developed Markets (2)					
State Street	3.9	-2.6	4.3	3.2	6.0
<i>Benchmark</i>	3.9	-3.0	3.9	2.8	5.7
Passive Emerging Markets (3)					
State Street	0.7	-14.6	-6.6	--	-0.9
<i>Benchmark</i>	0.7	-14.9	-6.8	--	-1.1
Equity Only (4)	3.8	-2.9	3.2	2.1	6.3
<i>Benchmark (5)</i>	3.2	-5.7	1.5	1.1	5.7
Total Program (5,9)	3.8	-2.9	3.2	2.1	6.5
<i>Benchmark (6,9)</i>	3.2	-5.7	1.5	1.1	5.7
<i>SBI Int'l Equity Target (6,9)</i>	3.2	-5.7	1.5	1.1	5.7
<i>MSCI ACWI Free ex USA (7,9)</i>	3.2	-5.7	1.5	1.1	6.0
<i>MSCI World ex USA (net) (9)</i>	3.9	-3.0	3.9	2.8	5.8
<i>MSCI EAFE Free (net) (9)</i>	4.7	-0.8	5.0	3.6	5.7
<i>MSCI Emerging Markets Free (8,9)</i>	0.7	-14.9	-6.8	-4.8	6.7

(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 December 2015

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
Active Developed Markets	\$2,428,272,026	28.7%	\$2,298,491,432	28.2%
Acadian	\$370,569,661	4.4%	\$348,671,386	4.3%
Columbia	\$359,392,647	4.3%	\$336,968,391	4.1%
J.P. Morgan	\$277,042,954	3.3%	\$267,580,268	3.3%
Marathon	\$771,187,605	9.1%	\$729,193,887	9.0%
McKinley	\$306,674,597	3.6%	\$289,088,928	3.6%
Fidelity	\$343,404,562	4.1%	\$326,988,571	4.0%
Active Emerging Markets	\$1,294,382,900	15.3%	\$1,284,385,430	15.8%
Capital International	\$587,800,414	7.0%	\$578,973,497	7.1%
Morgan Stanley	\$706,582,486	8.4%	\$705,411,934	8.7%
Semi-Passive Developed Markets	\$1,133,826,108	13.4%	\$1,090,195,644	13.4%
AQR	\$337,256,607	4.0%	\$322,530,107	4.0%
Fidelity	\$497,456,948	5.9%	\$480,831,630	5.9%
State Street	\$299,112,554	3.5%	\$286,833,907	3.5%
Passive Developed Markets	\$3,348,389,904	39.6%	\$3,221,188,096	39.6%
State Street	\$3,348,389,904	39.6%	\$3,221,188,096	39.6%
Passive Emerging Markets	\$250,558,729	3.0%	\$248,862,754	3.1%
State Street	\$250,558,729	3.0%	\$248,862,754	3.1%
Total Portfolio	\$8,455,429,666	100.0%	\$8,143,123,357	100.0%

COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Calendar Year Returns

	2015	2014	2013	2012	2011
Active Developed Markets (1)					
Acadian	2.4	-1.7	26.1	17.6	-12.9
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Columbia	6.4	-5.6	23.9	19.0	-12.1
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
J.P. Morgan	-4.7	-5.1	19.5	18.4	-10.2
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Marathon	6.7	-4.0	28.5	17.9	-9.2
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
McKinley	3.1	-2.7	28.0	16.9	-15.5
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Fidelity	0.1	-5.6	26.7	20.3	-11.9
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Aggregate	3.2	-4.1	25.4	17.9	-11.7
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Active Emerging Markets (2)					
Capital International	-16.4	-5.9	0.7	13.8	-22.8
<i>Benchmark</i>	-14.9	-2.2	-2.6	18.2	-18.4
Morgan Stanley	-9.4	-2.4	0.5	21.1	-17.8
<i>Benchmark</i>	-14.9	-2.2	-2.6	18.2	-18.4
Aggregate	-12.7	-4.1	0.6	17.5	-20.6
<i>Benchmark</i>	-14.9	-2.2	-2.6	18.2	-18.4
Semi-Passive Developed Markets (1)					
AQR	0.9	-4.4	24.1	20.8	-13.9
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Fidelity	-0.7	-4.0	23.2	19.4	-12.6
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
State Street	-0.9	-5.1	25.3	17.3	-15.6
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Aggregate	-0.3	-4.4	24.0	19.2	-13.8
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2

- (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

	2015	2014	2013	2012	2011
Passive Developed Markets (1)					
State Street	-2.6	-3.9	21.4	16.7	-11.9
<i>Benchmark</i>	-3.0	-4.3	21.0	16.4	-12.2
Passive Emerging Markets (2)					
State Street	-14.6	-2.1	-2.5	18.5	--
<i>Benchmark</i>	-14.9	-2.2	-2.6	18.2	--
Equity Only (3) (4)	-2.9	-4.0	17.8	17.6	-14.2
<i>Benchmark</i>	-5.7	-3.9	15.3	16.8	-13.7
Total Program (4)	-2.9	-4.0	17.8	17.6	-14.2
<i>Benchmark</i>	-5.7	-3.9	15.3	16.8	-13.7
<i>SBI Int'l Equity Target (5)</i>	-5.7	-3.9	15.3	16.8	-13.7
<i>MSCI ACWI Free ex USA (net)</i>	-5.7	-3.9	15.3	16.8	-13.7
MSCI World ex USA (net)	-3.0	-4.3	21.0	16.4	-12.2
MSCI EAFE Free (net)	-0.8	-4.9	22.8	17.3	-12.1
<i>MSCI Emerging Markets Free (net)</i>	-14.9	-2.2	-2.6	18.2	-18.4

- (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

Bond Manager Performance Summaries

Fourth Quarter 2015

MINNESOTA STATE BOARD OF INVESTMENT

Bond Managers

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COMBINED RETIREMENT FUNDS
BOND MANAGERS
Periods Ended December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Managers					
Barclays Aggregate Index	-0.6	0.5	1.4	3.2	
Aberdeen	-0.6	0.8	2.0	4.3	5.5
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	5.4
Columbia (RiverSource)	-0.4	0.2	1.6	3.9	5.5
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	5.5
Dodge & Cox	0.1	0.3	2.4	4.1	6.4
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	5.4
PIMCO	-0.1	1.0	1.7	3.7	6.3
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	4.6
Western	-0.2	0.7	2.1	4.2	8.7
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	7.6
Active Mgr. Aggregate	-0.2	0.6	1.9	4.0	
Semi-Passive Managers					
BlackRock	-0.4	0.9	1.6	3.5	5.6
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	5.5
Goldman	-0.4	0.8	1.7	3.7	5.8
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	5.5
Neuberger	-0.5	0.7	1.6	3.5	6.8
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	6.6
Semi-Passive Mgr. Aggregate	-0.5	0.8	1.6	3.6	
<i>Benchmark</i>	-0.6	0.5	1.4	3.2	
Historical Aggregate (2,3)	-0.3	0.7	1.8	3.8	7.8
<i>Benchmark (3,4)</i>	-0.6	0.5	1.4	3.2	7.6
Barclays Aggregate Index (3,4)	-0.6	0.5	1.4	3.2	7.6

(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 December 2015

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
Semi-Passive	\$7,300,559,314	50.4%	\$7,334,669,342	50.4%
BlackRock	\$1,964,089,600	13.5%	\$1,972,671,537	13.6%
Goldman	\$2,739,443,239	18.9%	\$2,751,532,837	18.9%
Neuberger	\$2,597,026,476	17.9%	\$2,610,464,969	17.9%
Active Managers	\$7,197,986,751	49.6%	\$7,213,032,018	49.6%
Aberdeen	\$1,122,777,815	7.7%	\$1,129,565,811	7.8%
Columbia (RiverSource)	\$1,214,639,031	8.4%	\$1,219,534,080	8.4%
Dodge & Cox	\$1,531,929,095	10.6%	\$1,530,666,790	10.5%
PIMCO	\$1,634,361,508	11.3%	\$1,636,184,453	11.2%
Western	\$1,694,279,302	11.7%	\$1,697,080,884	11.7%
Total Portfolio	\$14,498,546,065	100.0%	\$14,547,701,360	100.0%

COMBINED RETIREMENT FUNDS
BOND MANAGERS
Calendar Year Returns

	2015	2014	2013	2012	2011
Active Managers					
Aberdeen	0.8	6.7	-1.5	7.7	8.0
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Columbia (RiverSource)	0.2	5.8	-1.0	6.9	8.1
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Dodge & Cox	0.3	6.0	0.9	8.5	5.0
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
PIMCO	1.0	5.5	-1.3	9.3	4.5
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Western	0.7	7.0	-1.4	7.8	7.1
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Active Mgr. Aggregate	0.6	6.2	-0.8	8.1	6.4
<i>Benchmark</i>	0.5	6.0	(2.0)	4.2	7.8
Semi-Passive Managers					
BlackRock	0.9	6.0	-1.8	5.0	8.0
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Goldman	0.8	6.1	-1.7	5.4	8.3
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Neuberger	0.7	6.1	-2.0	5.4	7.6
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Semi-Passive Mgr. Aggregate	0.8	6.1	-1.8	5.3	8.0
<i>Benchmark</i>	0.5	6.0	(2.0)	4.2	7.8
Historical Aggregate	0.7	6.1	-1.3	6.7	7.2
<i>Benchmark</i>	0.5	6.0	-2.0	4.2	7.8
Barclays Aggregate Index	0.5	6.0	-2.0	4.2	7.8

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



STATE BOARD OF INVESTMENT

Non-Retirement Manager Performance Summaries

Fourth Quarter 2015

MINNESOTA STATE BOARD OF INVESTMENT

Non-Retirement Managers

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NON-RETIREMENT MANAGERS
Periods Ended December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	6.2	-1.4	14.5	11.4	9.7
<i>S&P 500 Index</i>	<i>7.0</i>	<i>1.4</i>	<i>15.1</i>	<i>12.6</i>	<i>9.4</i>
RBC Global Asset Management (2)	-0.7	1.3	0.8	2.2	5.3
<i>Barclays Intermediate Government</i>	<i>-0.8</i>	<i>1.2</i>	<i>0.8</i>	<i>2.1</i>	<i>5.4</i>
Internal Stock Pool	7.1	1.5	15.1	12.6	9.2
<i>S&P 500 Index</i>	<i>7.0</i>	<i>1.4</i>	<i>15.1</i>	<i>12.6</i>	<i>9.1</i>
Internal Bond Pool - Trust	-0.7	0.8	2.2	3.6	6.3
<i>Barclays Aggregate</i>	<i>-0.6</i>	<i>0.5</i>	<i>1.4</i>	<i>3.2</i>	<i>5.8</i>

(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 December 2015

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
GE Asset Management	\$56,876,072	1.9%	\$53,569,852	1.9%
RBC Global Asset Management	\$238,868,351	8.0%	\$234,080,083	8.1%
Internal Stock Pool	\$1,749,682,253	58.4%	\$1,646,139,833	56.9%
Internal Bond Pool - Trust	\$952,829,036	31.8%	\$958,005,912	33.1%
Total Portfolio	\$2,998,255,712	100.0%	\$2,891,795,680	100.0%

NON-RETIREMENT MANAGERS
Calendar Year Returns

	2015	2014	2013	2012	2011
GE Asset Management	-1.4	13.2	34.5	16.8	-2.2
<i>S&P 500 Index</i>	<i>1.4</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>
RBC Global Asset Management (1)	1.3	2.5	-1.3	1.8	7.1
<i>Barclays Intermediate Gov</i>	<i>1.2</i>	<i>2.5</i>	<i>-1.2</i>	<i>1.7</i>	<i>6.2</i>
Internal Stock Pool	1.5	13.7	32.2	16.0	2.2
<i>S&P 500 Index</i>	<i>1.4</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>
Internal Bond Pool - Trust	0.8	6.0	0.0	5.8	5.6
<i>Barclays Aggregate</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</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.



STATE BOARD OF INVESTMENT

Deferred Compensation Plan Minnesota College Savings Plan Performance Summaries

Fourth 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 December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(2)
Large Cap Equity					
Janus Twenty	9.8	4.9	15.0	11.3	4.3
<i>S&P 500</i>	<i>7.0</i>	<i>1.4</i>	<i>15.1</i>	<i>12.6</i>	<i>4.4</i>
Vanguard Institutional Index Plus	7.1	1.4	15.1	12.6	4.4
<i>S&P 500</i>	<i>7.0</i>	<i>1.4</i>	<i>15.1</i>	<i>12.6</i>	<i>4.4</i>
Mid Cap Equity					
Vanguard Mid-Cap Index	3.4	-1.3	14.9	11.5	9.4
<i>CRSP US Mid Cap (3)</i>	<i>3.5</i>	<i>-1.3</i>	<i>15.0</i>	<i>11.6</i>	<i>9.4</i>
Small Cap Equity					
T. Rowe Price Small-Cap Stock	4.7	-3.2	12.5	10.9	9.7
<i>Russell 2000</i>	<i>3.6</i>	<i>-4.4</i>	<i>11.7</i>	<i>9.2</i>	<i>7.1</i>
International					
Fidelity Diversified International	4.9	3.1	7.7	5.2	6.6
<i>MSCI EAFE Free</i>	<i>4.7</i>	<i>-0.8</i>	<i>5.0</i>	<i>3.6</i>	<i>3.5</i>
Vanguard Total International Stock Index	2.8	-4.2	1.9	--	0.7
<i>FTSE Global All Cap ex US (5)</i>	<i>3.6</i>	<i>-4.0</i>	<i>2.5</i>	<i>--</i>	<i>1.0</i>
Balanced					
Vanguard Balanced Index Inst. Fund	3.4	0.5	9.3	8.7	6.9
<i>60% CRSP US Tot Mkt, 40% Barclays Agg (4)</i>	<i>3.5</i>	<i>0.7</i>	<i>9.4</i>	<i>8.7</i>	<i>6.9</i>
Fixed Income					
Dodge & Cox Income Fund	0.1	-0.6	1.8	3.6	5.7
<i>Barclays Aggregate</i>	<i>-0.6</i>	<i>0.5</i>	<i>1.4</i>	<i>3.2</i>	<i>5.2</i>
Vanguard Total Bond Market Index Inst.	-0.6	0.4	1.3	3.2	4.4
<i>Barclays Aggregate</i>	<i>-0.6</i>	<i>0.5</i>	<i>1.4</i>	<i>3.2</i>	<i>4.4</i>
SIF Money Market (1)	0.1	0.2	0.2	0.2	2.2
3 Month T-Bills	0.0	0.1	0.1	0.1	1.9
SIF Fixed Interest (1)					
Galliard Capital Management	0.5	2.0	2.0	2.4	4.7
<i>3-Year Constant Maturity Treasury +45bp</i>	<i>0.4</i>	<i>1.5</i>	<i>1.3</i>	<i>1.2</i>	<i>3.6</i>

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 December 2015

MN Target Retirement Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
SSgA					
Income Fund	0.7	-1.4	2.4	--	3.8
Income Fund Benchmark	0.8	-1.3	2.6	--	3.9
2020 Fund	1.3	-1.6	4.1	--	6.0
2020 Fund Benchmark	1.4	-1.6	4.2	--	6.1
2025 Fund	2.0	-1.9	5.6	--	6.9
2025 Fund Benchmark	2.1	-1.9	5.7	--	7.0
2030 Fund	2.5	-2.0	6.5	--	7.4
2030 Fund Benchmark	2.7	-2.0	6.7	--	7.5
2035 Fund	2.9	-2.0	7.2	--	7.6
2035 Fund Benchmark	3.1	-2.0	7.4	--	7.8
2040 Fund	3.2	-2.2	7.6	--	7.5
2040 Fund Benchmark	3.4	-2.1	7.8	--	7.7
2045 Fund	3.4	-2.4	7.9	--	7.5
2045 Fund Benchmark	3.6	-2.3	8.2	--	7.6
2050 Fund	3.6	-2.5	7.9	--	7.5
2050 Fund Benchmark	3.8	-2.4	8.1	--	7.6
2055 Fund	3.6	-2.5	7.9	--	7.5
2055 Fund Benchmark	3.8	-2.4	8.1	--	7.6
2060 Fund	3.6	-2.5	7.9	--	7.5
2060 Fund Benchmark	3.8	-2.4	8.1	--	7.6

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 December 2015

SSgA Index Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception ⁽¹⁾
S&P 500 Index Fund	7.1	1.4	15.1	--	12.6
<i>S&P 500</i>	<i>7.0</i>	<i>1.4</i>	<i>15.1</i>	<i>--</i>	<i>12.6</i>
DJ-UBS Roll Select Commodity Index Fund	-9.4	-23.4	-16.2	--	-13.1
<i>DJ-UBS Roll Select Commodity Index</i>	<i>-9.4</i>	<i>-23.4</i>	<i>-16.1</i>	<i>--</i>	<i>-13.0</i>
Russell Small/Mid Cap Index Fund	3.0	-3.5	12.8	--	13.6
<i>Russell Small Cap Completeness Index</i>	<i>3.0</i>	<i>-3.4</i>	<i>12.8</i>	<i>--</i>	<i>13.6</i>
Global All-Cap Equity ex-US Index Fund	3.0	-4.4	1.9	--	0.8
<i>MSCI ACWI ex USA IMI</i>	<i>3.5</i>	<i>-4.6</i>	<i>2.0</i>	<i>--</i>	<i>0.6</i>
Global Real Estate Securities Index Fund	3.8	0.2	5.9	--	7.2
<i>FTSE EPRA/NAREIT Dev Liquid</i>	<i>3.9</i>	<i>-0.5</i>	<i>5.5</i>	<i>--</i>	<i>6.5</i>
Long Government Bond Index Fund	-1.4	-1.1	2.5	--	8.0
<i>Barclays Long Government</i>	<i>-1.4</i>	<i>-1.2</i>	<i>2.5</i>	<i>--</i>	<i>8.0</i>
Bond Index Fund	-0.5	0.6	1.5	--	3.0
<i>Barclays Aggregate</i>	<i>-0.6</i>	<i>0.5</i>	<i>1.4</i>	<i>--</i>	<i>3.0</i>
Inflation Protected Bond Index Fund	-0.6	-1.4	-2.3	--	1.5
<i>Barclays U.S. TIPS</i>	<i>-0.6</i>	<i>-1.4</i>	<i>-2.3</i>	<i>--</i>	<i>1.6</i>
High Yield Bond Index Fund	-2.0	-5.2	1.0	--	4.1
<i>Barclays U.S. High Yield Very Liquid</i>	<i>-2.1</i>	<i>-5.3</i>	<i>1.0</i>	<i>--</i>	<i>4.2</i>
U.S. Short-Term Gov/Credit Index Fund	-0.4	0.6	0.6	--	1.4
<i>Barclays 1-3 Yr Govt/Credit</i>	<i>-0.4</i>	<i>0.7</i>	<i>0.7</i>	<i>--</i>	<i>0.9</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

	2015	2014	2013	2012	2011
Large Cap Equity					
Janus Twenty	4.9	8.9	33.1	22.3	-8.2
<i>S&P 500</i>	<i>1.4</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>
Vanguard Institutional Index Plus	1.4	13.7	32.4	16.0	2.1
<i>S&P 500</i>	<i>1.4</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>
Mid Cap Equity					
Vanguard Mid-Cap Index	-1.3	13.8	35.2	16.0	-2.0
<i>CRSP US Mid Cap (2)</i>	<i>-1.3</i>	<i>13.8</i>	<i>35.4</i>	<i>16.0</i>	<i>-1.9</i>
Small Cap Equity					
T. Rowe Price Small-Cap Stock	-3.2	6.9	37.6	18.0	-0.1
<i>Russell 2000</i>	<i>-4.4</i>	<i>4.9</i>	<i>38.8</i>	<i>16.3</i>	<i>-4.2</i>
International					
Fidelity Diversified International	3.1	-3.2	25.2	19.4	-13.8
<i>MSCI EAFE Free</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>
Vanguard Total International Stock Index	-4.2	-4.1	15.2	18.3	-14.6
<i>FTSE Global All Cap ex US (4)</i>	<i>-4.0</i>	<i>-3.1</i>	<i>15.9</i>	<i>17.0</i>	<i>-14.3</i>
Balanced					
Vanguard Balanced Index Inst. Fund	0.5	10.0	18.1	11.5	4.3
<i>60% CRSP US Tot Mkt, 40% Barclays Agg (3)</i>	<i>0.7</i>	<i>10.0</i>	<i>18.2</i>	<i>11.6</i>	<i>4.1</i>
Fixed Income					
Dodge & Cox Income Fund	-0.6	5.5	0.6	7.9	4.8
<i>Barclays Aggregate</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>
Vanguard Total Bond Market Index Inst.	0.4	5.9	-2.1	4.2	7.7
<i>Barclays Aggregate</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>
SIF Money Market (1)	0.2	0.1	0.2	0.3	0.2
3 Month T-Bills	0.1	0.0	0.1	0.1	0.1
SIF Fixed Interest (1)					
Galliard Capital Management	2.0	1.8	2.2	2.8	3.4
<i>3-Year Constant Maturity Treasury +45bp</i>	<i>1.5</i>	<i>1.3</i>	<i>1.0</i>	<i>0.8</i>	<i>1.2</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

MN Target Retirement Funds	2015	2014	2013	2012	2011
SSgA					
Income Fund	-1.4	3.6	5.1	9.7	4.6
Income Fund Benchmark	-1.3	3.8	5.3	9.8	4.8
2020 Fund	-1.6	5.3	8.8	12.5	7.3
2020 Fund Benchmark	-1.6	5.5	9.1	12.5	7.4
2025 Fund	-1.9	5.9	13.2	13.7	5.9
2025 Fund Benchmark	-1.9	6.2	13.5	13.7	6.0
2030 Fund	-2.0	6.3	16.0	14.3	4.9
2030 Fund Benchmark	-2.0	6.6	16.3	14.1	5.0
2035 Fund	-2.0	6.4	18.1	14.9	3.5
2035 Fund Benchmark	-2.0	6.7	18.5	14.7	3.6
2040 Fund	-2.2	6.4	19.7	15.5	1.5
2040 Fund Benchmark	-2.1	6.6	20.0	15.3	1.6
2045 Fund	-2.4	6.2	21.3	16.0	0.0
2045 Fund Benchmark	-2.3	6.5	21.6	15.8	0.1
2050 Fund	-2.5	6.2	21.4	15.9	0.1
2050 Fund Benchmark	-2.4	6.5	21.7	15.8	0.1
2055 Fund	-2.5	6.2	21.4	15.9	0.1
2055 Fund Benchmark	-2.4	6.5	21.7	15.8	0.1
2060 Fund	-2.5	6.2	21.4	16.0	--
2060 Fund Benchmark	-2.4	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

SSgA Index Funds	2015	2014	2013	2012	2011
S&P 500 Index Fund	1.4	13.7	32.4	16.0	2.1
<i>S&P 500</i>	<i>1.4</i>	<i>13.7</i>	<i>32.4</i>	<i>16.0</i>	<i>2.1</i>
DJ-UBS Roll Select Commodity Index Fund	-23.4	-15.3	-9.3	--	--
DJ-UBS Roll Select Commodity Index	-23.4	-15.2	-9.1	--	--
Russell Small/Mid Cap Index Fund	-3.5	7.5	38.4	--	--
<i>Russell Small Cap Completeness Index</i>	<i>-3.4</i>	<i>7.4</i>	<i>38.5</i>	<i>--</i>	<i>--</i>
Global All-Cap Equity ex-US Index Fund	-4.4	-4.2	15.4	18.2	--
<i>MSCI ACWI ex USA IMI</i>	<i>-4.6</i>	<i>-3.9</i>	<i>15.8</i>	<i>17.0</i>	<i>--</i>
Global Real Estate Securities Index Fund	0.2	15.5	2.7	28.9	-5.4
<i>FTSE EPRA/NAREIT Dev Liquid</i>	<i>-0.5</i>	<i>15.0</i>	<i>2.5</i>	<i>27.5</i>	<i>-5.8</i>
Long Government Bond Index Fund	-1.1	24.6	-12.5	3.8	29.2
<i>Barclays Long Government</i>	<i>-1.2</i>	<i>24.7</i>	<i>-12.5</i>	<i>3.8</i>	<i>29.1</i>
Bond Index Fund	0.6	6.0	-2.1	4.2	7.8
<i>Barclays Aggregate</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>	<i>4.2</i>	<i>7.8</i>
Inflation Protected Bond Index Fund	-1.4	3.6	-8.6	6.9	13.5
<i>Barclays U.S. TIPS</i>	<i>-1.4</i>	<i>3.6</i>	<i>-8.6</i>	<i>7.0</i>	<i>13.6</i>
High Yield Bond Index Fund	-5.2	2.1	6.6	14.8	5.7
<i>Barclays U.S. High Yield Very Liquid</i>	<i>-5.3</i>	<i>2.1</i>	<i>6.6</i>	<i>15.4</i>	<i>6.1</i>
U.S. Short-Term Gov/Credit Index Fund	0.6	0.7	0.6	3.9	1.5
<i>Barclays 1-3 Yr Govt/Credit</i>	<i>0.7</i>	<i>0.8</i>	<i>0.6</i>	<i>1.3</i>	<i>1.6</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**

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
Fixed Income	\$443,187,337	7.8%	\$452,733,149	8.3%
Dodge & Cox Income Fund	\$200,366,580	3.5%	\$201,382,882	3.7%
Vanguard Total Bond Market Index Inst.	\$180,192,579	3.2%	\$190,694,826	3.5%
Money Market	\$62,628,178	1.1%	\$60,655,442	1.1%
Stable Value	\$1,310,485,339	23.1%	\$1,301,620,663	23.7%
Galliard Stable Value Composite	\$1,310,485,339	23.1%	\$1,301,620,663	23.7%
Large Cap Equity	\$1,517,709,062	26.7%	\$1,419,529,309	25.9%
Janus Twenty	\$546,338,564	9.6%	\$500,365,816	9.1%
Vanguard Institutional Index Plus	\$971,370,498	17.1%	\$919,163,493	16.8%
Mid Cap Equity	\$424,796,234	7.5%	\$407,326,478	7.4%
Vanguard Mid-Cap Index	\$424,796,234	7.5%	\$407,326,478	7.4%
Small Cap Equity	\$559,426,733	9.9%	\$536,721,579	9.8%
T. Rowe Price Small-Cap Stock	\$559,426,733	9.9%	\$536,721,579	9.8%
Balanced	\$675,377,409	11.9%	\$653,778,668	11.9%
Vanguard Balanced Index Inst. Fund	\$675,377,409	11.9%	\$653,778,668	11.9%
International	\$427,937,774	7.5%	\$413,980,299	7.5%
Fidelity Diversified International	\$288,415,743	5.1%	\$267,610,368	4.9%
Vanguard Total International Stock Index	\$139,522,031	2.5%	\$146,369,932	2.7%
Target Retirement Funds	\$315,817,850	5.6%	\$301,644,471	5.5%
Income Fund	\$66,098,570	1.2%	\$68,166,451	1.2%
2020 Fund	\$73,700,657	1.3%	\$71,191,459	1.3%
2025 Fund	\$59,705,833	1.1%	\$55,083,286	1.0%
2030 Fund	\$37,232,137	0.7%	\$34,397,648	0.6%
2035 Fund	\$28,954,190	0.5%	\$27,730,711	0.5%
2040 Fund	\$18,001,593	0.3%	\$16,605,568	0.3%
2045 Fund	\$13,837,903	0.2%	\$12,209,929	0.2%
2050 Fund	\$9,142,180	0.2%	\$7,976,470	0.1%
2055 Fund	\$4,447,598	0.1%	\$3,905,557	0.1%
2060 Fund	\$4,697,188	0.1%	\$4,377,391	0.1%

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

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Equity					
MNCSP US Intl Equity Allocation	5.4	-0.3	10.5	9.2	6.1
MNCSP US Intl Equity Allocation Benchmark	5.7	-0.4	10.8	9.5	7.1
MNCSP Equity Interest Allocation	3.2	0.8	--	--	2.3
MNCSP Equity Interest Benchmark	3.2	0.5	--	--	2.0
MNCSP Intl Eq Index Allocation	2.9	-3.5	--	--	0.7
MNCSP Intl Eq Index Allocation Benchmark	3.9	-4.0	--	--	1.1
MNCSP US LC Equity Allocation	7.0	1.2	--	--	5.9
MNCSP US LC Equity Allocation Benchmark	7.0	1.4	--	--	6.1
Fixed Income					
MNCSP Fixed Income Allocation	-0.8	-0.4	-0.1	2.4	3.7
MNCSP Fixed Income Allocation Benchmark	-0.6	-0.2	0.4	3.0	4.4
MNCSP Principal Interest Allocation	0.3	1.2	1.3	1.6	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 December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Allocation Options					
MNCSP Aggressive Allocation	4.0	-0.4	--	--	1.5
MNCSP Aggressive Allocation Benchmark	4.4	-0.2	--	--	1.7
MNCSP Moderate Allocation	2.9	-0.3	6.4	6.5	4.3
MNCSP Moderate Allocation Benchmark	3.2	-0.1	6.6	7.1	5.0
MNCSP Conservative Allocation	1.2	0.0	--	--	0.4
MNCSP Conservative Allocation Benchmark	1.4	0.0	--	--	0.3
Managed Allocation Options					
MNCSP Managed 0-4 Yrs	4.2	-0.3	--	--	1.6
*MNCSP Managed 0-4 Yrs - Bench	4.4	-0.2	--	--	1.7
MNCSP Managed 5-8 Yrs	3.5	-0.3	--	--	1.5
*MNCSP Managed 5-8 Yrs - Bench	3.8	-0.2	--	--	1.6
MNCSP Managed 9-10 Yrs	2.9	-0.3	--	--	1.3
*MNCSP Managed 9-10 Yrs - Bench	3.2	-0.1	--	--	1.4
MNCSP Managed 11-12 Yrs	2.2	-0.3	--	--	1.1
*MNCSP Managed 11-12 Yrs - Bench	2.6	-0.1	--	--	1.2
MNCSP Managed 13-14 Yrs	1.7	-0.3	--	--	0.9
*MNCSP Managed 13-14 Yrs - Bench	2.0	-0.1	--	--	1.1
MNCSP Managed 15 Yrs	1.3	0.0	--	--	0.9
*MNCSP Managed 15 Yrs - Bench	1.4	0.0	--	--	0.8
MNCSP Managed 16 Yrs	1.1	0.2	--	--	0.9
*MNCSP Managed 16 Yrs - Bench	1.2	0.0	--	--	0.7
MNCSP Managed 17 Yrs	0.9	0.3	--	--	0.9
*MNCSP Managed 17 Yrs - Bench	0.9	0.0	--	--	0.6
MNCSP Managed 18+ Yrs	0.7	0.5	--	--	0.9
*MNCSP Managed 18+ Yrs - Bench	0.7	0.0	--	--	0.5

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

MINNESOTA COLLEGE SAVINGS PLAN
ALLOCATION OPTIONS UNDERLYING FUNDS
Periods Ended December 2015

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
TIAA-CREF:Bond Idx;Inst	-0.7	0.5	1.3	3.1	--
Barclays Agg (SBI Toolbox Returns)	-0.6	0.5	1.4	3.2	4.5
TIAA-CREF:EM Eq Idx;Inst	-0.2	-14.8	-7.2	-5.2	--
MSCI:Emer Markets	0.7	-14.6	-6.4	-4.5	3.9
TIAA-CREF:Eq Idx;Inst	6.2	0.5	14.7	12.1	7.3
Russell 3000 Index	6.3	0.5	14.7	12.2	7.4
TIAA-CREF:Hi-Yld;Inst	-1.8	-3.7	1.6	4.9	--
ML:1-3 BB US HY CP	0.1	1.2	3.6	5.0	6.7
TIAA-CREF:Infl Bond;Inst	-0.8	-1.6	-2.4	2.3	3.6
Barclays U.S. TIPS Index	-0.6	-1.4	-2.3	2.5	3.9
TIAA-CREF:Itl Eq Ix;Inst	3.7	-0.5	4.7	3.7	3.1
MSCI EAFE USD Index	4.7	-0.8	5.0	3.6	3.0
TIAA-CREF:Money Mkt;Inst	0.0	0.0	0.0	0.0	1.4
MFR Avg All-Taxble	0.1	0.2	0.1	0.1	1.2
TIAA-CREF:Real Est;Inst	7.0	4.6	10.9	11.8	6.8
NAREIT All Equity Index	7.7	2.8	10.6	11.9	7.4
TIAA-CREF:S&P500 Idx;Ins	7.0	1.4	15.0	12.5	7.2
S&P 500 Index	7.0	1.4	15.1	12.6	7.3

MINNESOTA COLLEGE SAVINGS PLAN
FUND OPTIONS

	December 31, 2015		September 30, 2015	
	Market Value	Percent	Market Value	Percent
Fixed Income	\$119,096,764	10.2%	\$118,671,977	10.5%
MNCSP Fixed Income Allocation	\$9,875,794	0.8%	\$9,879,985	0.9%
MNCSP Principal Interest Allocation	\$101,532,446	8.7%	\$101,272,729	8.9%
MNCSP Money Market Allocation	\$7,688,524	0.7%	\$7,519,263	0.7%
Equity	\$277,727,948	23.8%	\$264,999,471	23.4%
MNCSP US Intl Equity Allocation	\$267,494,130	22.9%	\$256,621,184	22.6%
MNCSP Equity Interest Allocation	\$971,248	0.1%	\$869,241	0.1%
MNCSP Intl Eq Index Allocation	\$2,145,302	0.2%	\$2,092,505	0.2%
MNCSP US LC Equity Allocation	\$7,117,268	0.6%	\$5,416,541	0.5%
Allocation Options	\$59,809,862	5.1%	\$56,342,475	5.0%
MNCSP Aggressive Allocation	\$7,172,237	0.6%	\$5,666,464	0.5%
MNCSP Moderate Allocation	\$49,719,827	4.3%	\$47,537,479	4.2%
MNCSP Conservative Allocation	\$2,917,798	0.3%	\$3,138,532	0.3%
Managed Allocation Options	\$709,601,188	60.8%	\$694,591,901	61.2%
MNCSP Managed 0-4 Yrs	\$23,140,088	2.0%	\$22,774,541	2.0%
MNCSP Managed 5-8 Yrs	\$74,969,234	6.4%	\$73,780,655	6.5%
MNCSP Managed 9-10 Yrs	\$73,775,240	6.3%	\$76,915,879	6.8%
MNCSP Managed 11-12 Yrs	\$104,814,168	9.0%	\$101,985,492	9.0%
MNCSP Managed 13-14 Yrs	\$123,776,355	10.6%	\$119,181,706	10.5%
MNCSP Managed 15 Yrs	\$60,181,587	5.2%	\$58,291,158	5.1%
MNCSP Managed 16 Yrs	\$56,941,036	4.9%	\$58,355,844	5.1%
MNCSP Managed 17 Yrs	\$55,824,138	4.8%	\$52,125,138	4.6%
MNCSP Managed 18+ Yrs	\$136,179,342	11.7%	\$131,181,488	11.6%

