
MINNESOTA STATE BOARD OF INVESTMENT

MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
March 4, 2015



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

STATE BOARD OF INVESTMENT

AGENDA AND MINUTES

March 4, 2015

AGENDA
STATE BOARD OF INVESTMENT MEETING
Wednesday, March 4, 2015
Retirement Systems Building
Room 106 – Main Floor
60 Empire Drive, St. Paul, MN

- | | |
|--|------------|
| | TAB |
| 1. Approval of Minutes of December 2, 2014 | |
| 2. Report from the Executive Director (M. Perry) | |
| A. Quarterly Investment Review
(October 1, 2014 – December 31, 2014) | A |
| B. Administrative Report | B |
| <u>Information Updates</u> | |
| 1. Reports on Budget and Travel | |
| 2. FY14 Audit Report | |
| 3. Duluth Teachers Retirement Fund Association Update | |
| 4. Sudan Update | |
| 5. Iran Update | |
| 6. Legislative Update | |
| 7. Litigation Update | |
| 8. Staffing Update and Implications | |
| <u>Action Items</u> | |
| 1. Target Date Funds for Unclassified Plan Participants | |
| 2. Metropolitan Council Other Postemployment Benefits | |
| 3. Investment Manager Guidelines | |
| 4. Proxy Voting Committee Reauthorization | |
| 5. Proxy Voting Guidelines | |
| 3. Investment Advisory Council Report (J. Bailey) | |
| A. Private Markets Report | C |
| 1. Review of current strategy | |
| 2. Consideration of investment commitments with four existing
managers and two new managers | |
| B. Public Markets, Non-Retirement, and Defined Contribution Report | D |
| 4. Israel Bond Discussion | |
| 5. Other Items | |

**Minutes
State Board of Investment
December 2, 2014**

The State Board of Investment (SBI) met at 10:00 A. M. Tuesday, December 2, 2014 in Room 112, State Capitol, St. Paul, Minnesota. Governor Mark Dayton, State Auditor Rebecca Otto, Secretary of State Mark Ritchie and Attorney General Lori Swanson were present. The minutes of the September 9, 2014 meeting were approved.

Executive Director's Report

Mr. 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, 2014 (Combined Funds 8.3% vs. Composite 8.0%) and had provided a real rate of return of 6.5% above inflation over the latest 20 year period (Combined Funds 8.9% vs. CPI 2.4%).

Mr. Perry said that assets decreased slightly over the quarter (Combined Funds ending value of \$58.9 versus a beginning value of \$59.5 billion), primarily due to negative cash flow, but a small decrease in investment return also affected ending market value. He said that the asset allocation was on target and he stated that the Combined Funds returns were slightly below benchmark for the quarter (Combined Funds -0.1% vs. Composite 0.0%), but above benchmark for the year (Combined Funds 12.7% vs. Composite 12.5%) as well as all succeeding time periods.

Mr. Perry reported that the domestic stock manager group performed in-line with its target for the quarter (Domestic Stocks 0.0% vs. Domestic Equity Asset Class Target 0.0%), slightly underperformed for the year (Domestic Stocks 17.6% vs. Domestic Equity Asset Class Target 17.8%), and outperformed in longer time periods. He said the international stock manager group underperformed its target for the quarter (International Stocks -5.4% vs. International Equity Asset Class Target -5.3%) and for the year (International Stocks 4.7% vs. International Equity Asset Class Target 4.8%), but outperformed over longer time periods. Mr. Perry stated that the bond segment performed in-line with its target for the quarter (Bonds 0.2% vs. Fixed Income Asset Class Target 0.2%) and outperformed its target in all other time periods. He stated that the alternative investments continue to be a strong contributor to performance (5.8% for the quarter and 23.2% for the year). He concluded his report noting that, as of September 30, 2014, the SBI was responsible for managing close to \$80 billion of assets.

Mr. Perry referred members to Tab B of the meeting materials for the administrative report. He reported that the SBI budget and travel were in line with expectations. Next, he stated that the report documenting the findings of the legislative audit would be available in the first quarter of 2015. He also noted that a draft copy of the annual report would be distributed in December to Board and IAC members for review and that the final version is expected to be published in January. Mr. Perry stated that Sudan and Iran holdings updates were provided.

Mr. Perry provided an update to the Minnesota 529 College Savings Plan, stating that Morningstar had raised the rating for the State's 529 Plan from negative to neutral. He reminded everyone that, due to the lack of a state tax incentive, further rating increases should not be expected.

Next, Mr. Perry provided an update on the Duluth Teachers Retirement Fund Association (DTRFA) assets. He reported that the Duluth Teachers membership had voted in favor of the merger and the SBI and Duluth had been working to transfer their assets to the SBI. The DTRFA assets will be invested in the SBI Combined Funds allocation but accounted for in a separate account until the merger with the Teacher's Retirement Assets (TRA) takes place as of July 1, 2015.

Mr. Perry informed Board members that, going forward, Staff will streamline and improve the manager reports. The goal is to focus on longer term manager performance and summary manager information.

Mr. Perry concluded his administrative report noting that there is currently no litigation involving the SBI.

Mr. Bailey referred members to Tab C and Tab D for the manager results and noted that there were no manager action items at this time. Mr. Bailey then updated the Board on the transition management services RFI process, which was a follow-up item from the September board meeting. He stated that based on the analysis of the RFI responses received from the eleven transition managers, the staff had narrowed the field to five very large and experienced transition managers. Mr. Ritchie moved approval of the recommendation, which reads: **"The Investment Advisory Council concurs with Staff's recommendation that the State Board of Investment authorize the Executive Director to retain the following five firms to provide transition management services: BlackRock, Inc., Citigroup Global Markets Inc., Northern Trust Investments, Inc., Russell Implementation Services Inc., and State Street Bank Global Markets."** The Board approved the recommendation.

Mr. Bailey proceeded to Tab E and discussed the internally managed equity portfolio designed to track the performance of the S&P 500 Index. Mr. Ritchie moved approval of the recommendation, which reads: **"The Investment Advisory Council concurs with Staff's recommendation to authorize the Executive Director to retain an external manager to manage the Internal Stock Fund if Staff is unable to enter into a futures trading agreement to trade S&P 500 futures."** After a brief discussion, the Board approved the measure.

Mr. Bailey updated the Board on Pacific Investment Management Company (PIMCO). A report was included in Tab F. While there was no action item, Staff will continue to monitor PIMCO closely given the key leadership turnover in 2014.

Mr. Bailey then discussed the six alternative investment proposals, included in Tab G. Four managers are existing managers (NGP Energy Capital Management (Resource); Sheridan Production Partners (Resource); Welsh, Carson, Anderson & Stowe (Private Equity); Paine & Partners (Private Equity)) and two are new managers (Oaktree Capital Management (Private Equity); TCW Direct Lending Group (Yield Oriented)). Ms. Otto moved approval of all recommendations in Tab G 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 NGP XI, 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 NGP 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 NGP 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 Sheridan III, 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 Sheridan 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 Sheridan 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 WCAS XII, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by WCAS 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 WCAS 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 Paine & Partners IV, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Paine & 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 Paine & Partners 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 Principal Fund VI, 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 Oaktree 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 Oaktree 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 Direct Lending VI, 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 TCW 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 TCW or reduction or termination of the commitment. The motion passed.

Ms. Rossoff from Minnesota Break the Bonds addressed the Board and a discussion followed. In response to a question from Governor Dayton, Mr. Perry noted that a review of the country guidelines would be presented at the Administrative Committee in May. That review will be presented to the Board at its June 2015 meeting. Governor Dayton requested that the Board discuss its practice and process for security transactions at the March meeting.

The meeting adjourned at 11:00 a.m.

Respectfully submitted,



Mansco Perry III
Executive Director and
Chief Investment Officer

TAB

A

LONG TERM OBJECTIVES

Period Ending 12/31/14

COMBINED FUNDS: \$60.0 Billion	Result	Compared to Objective (2)
Match or Exceed Composite Index (10 Yr.)	7.8% (1)	0.3 percentage point above the target
Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Combined Funds over the latest 10 year period.		
Provide Real Return (20 Yr.)	9.0%	6.7 percentage point above CPI
Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.		

(1) Performance is calculated net of fees.

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

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EXECUTIVE SUMMARY

Combined Funds (Net of Fees)

Asset Growth

The market value of the Combined Funds increased 1.8% during the fourth quarter of 2014 as positive investment return in domestic equities and fixed income more than offset negative net contribution.

Asset Growth During Fourth Quarter 2014 (Millions)

Beginning Value	\$58,897
Net Contributions	-390
Investment Return	1,459
Ending Value	\$59,966

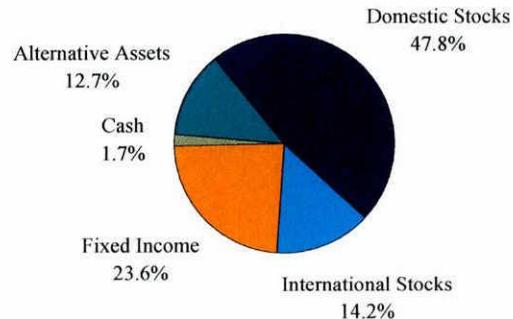
Combined Funds Market Value



Asset Mix

The allocation to domestic equities increased from strong investment return during the quarter and the international equities decreased as a result of negative returns.

	Policy Targets	Actual Mix 12/31/14	Actual Market Value (Millions)
Domestic Stocks	45.0%	47.8%	\$28,639
International Stocks	15.0%	14.2%	8,511
Bonds	18.0%	23.6%	14,139
Alternative Assets*	20.0%	12.7%	7,640
Cash	2.0%	1.7%	1,036
	100.0%	100.0%	\$59,965

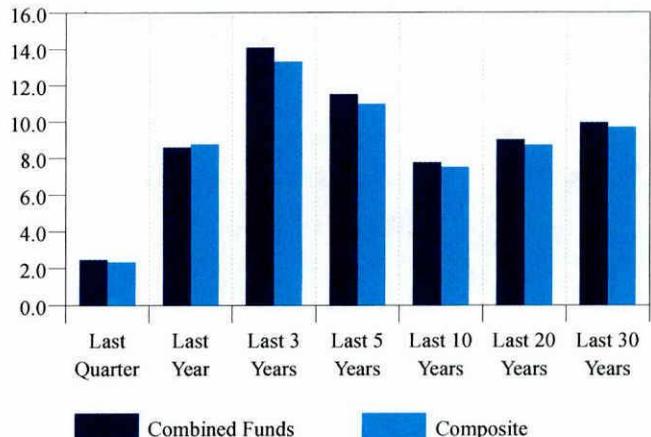


* Any uninvested allocation is held in bonds.

Fund Performance (Net of Fees)

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

	Periods Ended 12/31/14						
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
Combined Funds	2.5%	8.6%	14.1%	11.5%	7.8%	9.0%	10.0%
Composite	2.3%	8.8%	13.3%	11.0%	7.5%	8.7%	9.7%



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) matched its target for the quarter and underperformed 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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Dom. Stocks	5.2%	12.3%	21.0%	15.8%	7.9%
Asset Class Target*	5.2%	12.6%	20.5%	15.6%	7.9%

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

International Stocks

The international stock manager group (active, semi-passive and passive combined) outperformed its target for the quarter and underperformed 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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Stocks	-3.3%	-4.0%	9.9%	5.1%	5.5%
Asset Class Target*	-3.9%	-3.9%	9.0%	4.4%	5.2%

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

Bonds

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

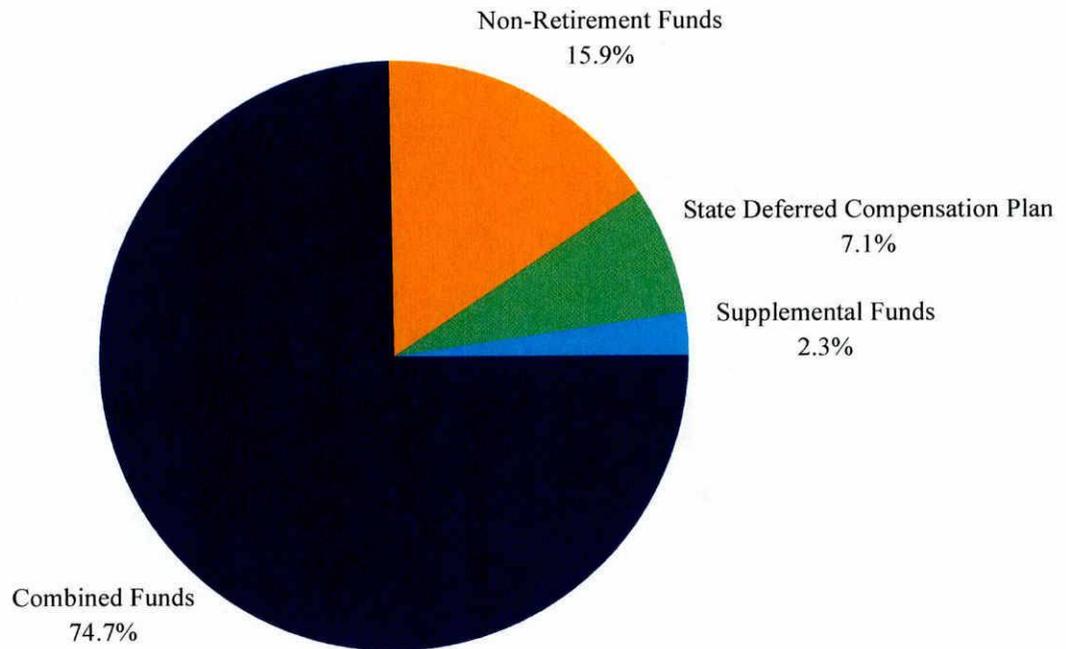
	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bonds	1.7%	6.1%	3.8%	5.5%	5.0%
Asset Class Target	1.8%	6.0%	2.7%	4.4%	4.7%

Alternative Investments

	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Alternatives	1.1%	18.0%	15.5%	14.6%	15.2%

Note: All periods over one year are annualized.

EXECUTIVE SUMMARY
Funds Under Management



	12/31/14 Market Value (Billions)
Retirement Funds	
Combined Funds	\$60.0
Supplemental Investment Fund (Excluding Deferred Compensation Plan Assets)	1.8
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	0.1
Other Post Employment Benefits Accounts	0.5
State Cash Accounts	8.6
<u>Minnesota College Savings Plan</u>	<u>1.2</u>
Total	\$80.3

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MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Fourth Quarter 2014

(October 1, 2014 - December 31, 2014)

Table of Contents

	Page
Capital Market Indices _____	2
Financial Markets Review _____	3
Combined Funds _____	5
Stock and Bond Manager Pools _____	9
Alternative Investments _____	10
Supplemental Investment Fund _____	11
Fund Description	
Income Share Account	
Growth Share Account	
Common Stock Index Account	
International Share Account	
Bond Market Account	
Money Market Account	
Fixed Interest Account	
Volunteer Firefighter Account	
Deferred Compensation Plan _____	15
Minnesota College Savings Plan Accounts _____	18
Assigned Risk Plan _____	21
Permanent School Fund _____	22
Environmental Trust Fund _____	23
Closed Landfill Investment Fund _____	24
State Cash Accounts _____	25
Composition of State Investment Portfolios _____	26

VARIOUS CAPITAL MARKET INDICES

Periods Ended December 31, 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity					
Russell 3000 (broad market)	5.2%	12.6%	20.5%	15.6%	7.9%
Russell 1000 (large cap)	4.9	13.2	20.6	15.6	8.0
Russell 2000 (small cap)	9.7	4.9	19.2	15.5	7.8
Dow Jones Wilshire Composite	5.2	12.5	20.4	15.7	8.1
Dow Jones Industrials	5.2	10.0	16.3	14.2	7.9
S&P 500	4.9	13.7	20.4	15.5	7.7
Domestic Fixed Income					
Barclays Aggregate (1)	1.8	6.0	2.7	4.4	4.7
Barclays Gov't/Credit	1.8	6.0	2.8	4.7	4.7
3 month U.S. Treasury Bills	0.0	0.0	0.1	0.1	1.5
International					
MSCI Emerging Markets Free Index (2)	-4.5	-2.2	4.0	1.8	8.4
MSCI ACWI ex USA (3)	-3.9	-3.9	9.0	4.4	5.1
MSCI EAFE (4)	-3.6	-4.9	11.1	5.3	4.4
MSCI World ex USA (5)	-3.7	-4.3	10.5	5.2	4.6
Salomon Non U.S. Gov't Bond	-2.9	-2.7	-1.9	0.9	2.6
Inflation Measure					
Consumer Price Index CPI-U (6)	-1.4%	0.8%	1.3%	1.7%	2.1%
Consumer Price Index CPI-W (7)	-1.8%	0.3%	1.1%	1.7%	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 5.2% return for the fourth quarter of 2014. While the fourth quarter marked the end of quantitative easing, the rally in U.S. equities resumed, with gains fueled by Fed reassurance, foreign central bank stimulus, and encouraging domestic economic reports. Within the Russell 3000, Consumer Discretionary was the best performing sector with a 8.7% return while Energy was the weakest with a -13.3% return for the quarter. Small cap stocks outperformed large cap stocks during the quarter.

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

Large Growth	Russell 1000 Growth	4.8%
Large Value	Russell 1000 Value	5.0%
Small Growth	Russell 2000 Growth	10.1%
Small Value	Russell 2000 Value	9.4%

The Russell 3000 index returned 12.6 % for the year ending December 31, 2014.

DOMESTIC BONDS

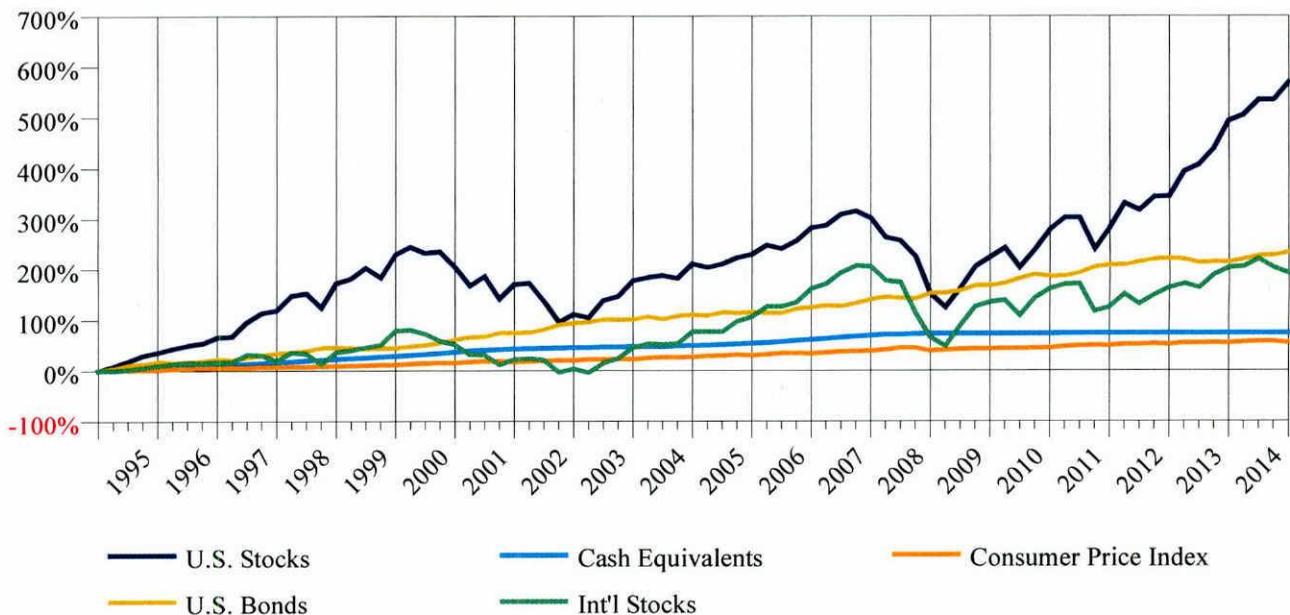
The U.S. bond market, as measured by the Barclays Capital U.S. Aggregate Bond Index, produced a total return of 1.8% for the quarter. Yields on shorter U.S. Treasuries decreased slightly during the quarter, while the long end decrease was more pronounced, resulting in a flattening of the yield curve.

The 2-year U.S. Treasury ended the year lower than Q3 by 7 basis points at 0.7%, the 5-year decreased by 15 basis points to 1.7%, the 10-year decreased by 33 basis points to 2.2%, and the 30-year decreased by 45 basis points to 2.8%. Sector returns were evenly distributed, with United States Treasury Bonds slightly outperforming the benchmark during the quarter, and asset backed securities lagging.

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

U.S. Treasury	1.9%
Agency	1.5%
Corporates	1.7%
Agency MBS	1.8%
Commercial Mortgages	1.5%
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 -3.7% for the quarter. World equities posted slightly positive returns in local currencies, however given the strong U.S. dollar, returns in U.S. dollar terms were negative. Important macroeconomic forces were weakness in Europe and Japan and the slowing down of economic growth in China. The top performing sectors for the quarter were Consumer Discretionary, Information Technology and Consumer Staples. The two worst performing sectors were Energy and Materials. The quarterly performance of the six largest stock markets, which comprise about 73% of the World ex U.S. index, is shown below:

Japan	-2.4%
United Kingdom	-4.2%
Canada	-4.8%
France	-6.1%
Switzerland	-2.2%
Germany	-0.4%

The MSCI World ex USA Index (net) returned -4.3% during the last year.

EMERGING INTERNATIONAL MARKETS

Emerging markets (as measured by MSCI Emerging Markets Free index net) provided a return of -4.5% for the quarter. The quarterly performance of the six largest stock markets in the index is shown below:

China	7.2%
Korea	-7.9%
Taiwan	1.7%
Brazil	-14.9%
South Africa	2.9%
India	-0.7%

The Emerging Markets Free index returned -2.2% 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 73% of the value of the emerging international markets in the index.

REAL ESTATE

During the fourth quarter of 2014, private real estate posted its 20th consecutive quarter of positive returns with the NCREIF Property Index posting a return of 3.0%. Real Estate markets have seen a healthy recovery since the 2008-2009 crash. An aggregate \$28 billion in private real estate funds was raised in 4Q 2014, which brought the total raised in 2014 to \$120 billion. (Source: NCREIF; Preqin)

PRIVATE EQUITY

During the fourth quarter of 2014, an aggregate \$124 billion in private equity funds was raised, bringing the 2014 total to \$495 billion. The ongoing moderate economic recovery, combined with a low interest rate environment and a record level of dry powder at \$1.2 trillion, continue to fuel investor demand for increasing private equity investments. (Source: Preqin)

Buyout activity in 4Q 2014 increased over 3Q 2014; however the aggregate value of the deals decreased (\$78 billion vs. \$89 billion). The number of private-equity backed exits declined slightly in 4Q 2014, with the aggregate value of exits reaching \$90 billion. (Source: Preqin)

RESOURCE FUNDS

During the fourth quarter of 2014, crude oil traded between a range of \$53/bbl and \$91/bbl. The average price for the fourth quarter of 2014 was \$73/bbl, which was \$24 below the average price from the third quarter. OPEC's decision not to cut output, combined with weaker global energy demand and increased production in the U.S. contributed to the continued decline in oil prices. (Source: Bloomberg)

COMBINED FUNDS

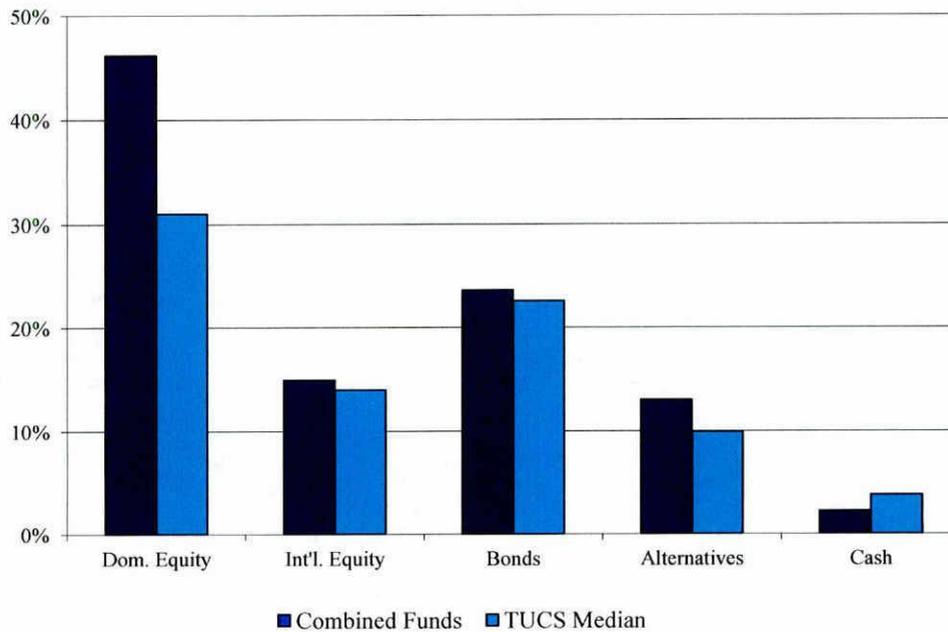
The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over \$1 billion are included in the comparisons shown in this section.

Asset Mix Compared to Other Pension Funds

On 12/31/14, the asset mix of the Combined Funds was:

	\$ Million	%
Domestic Stocks	\$28,639	47.8%
International Stocks	8,511	14.2%
Bonds	14,139	23.6%
Alternative Assets	7,640	12.7%
Unallocated Cash	1,036	1.7%
Total	\$59,965	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:



	<u>Domestic</u> <u>Equity</u>	<u>Int'l</u> <u>Equity</u>	<u>Bonds</u>	<u>Alternatives</u>	<u>Cash</u>
Combined Funds	47.8%	14.2%	23.6%	12.7%	1.7%
Median Allocation in TUCS*	32.4%	11.6%	23.7%	9.6%**	3.6%

* Public and corporate plans over \$1 billion.
 ** May include assets other than alternatives.

COMBINED FUNDS

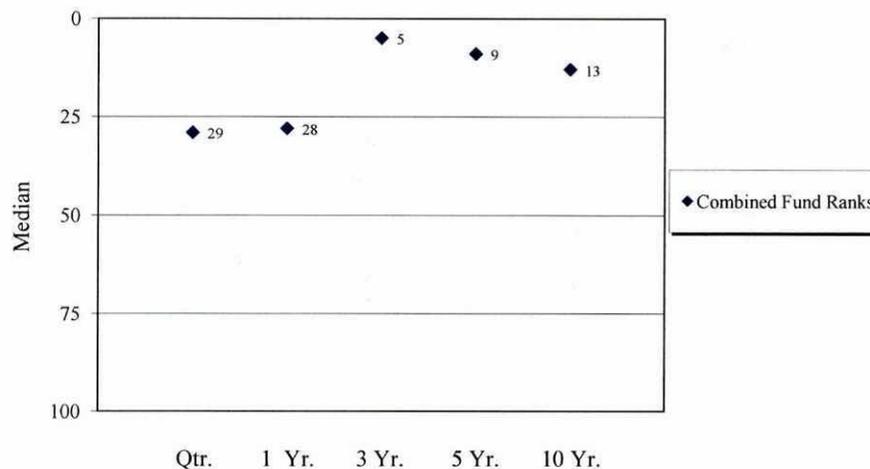
Performance Compared to Other Pension Funds

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 12/31/14				
	Quarter	1 Year	3 Years	5 Years	10 Years
Combined Funds					
Percentile Rank in TUCS*	29th	28th	5th	9th	13th

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

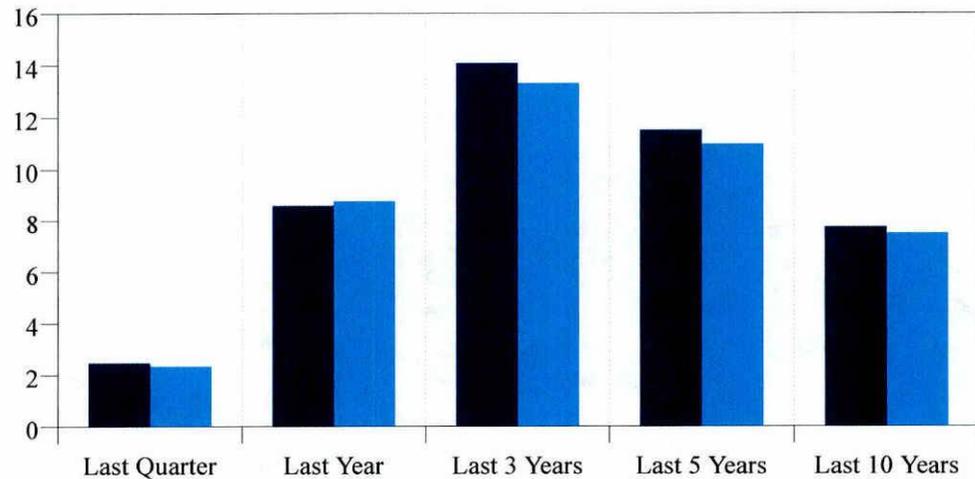
Note: All periods over one year are annualized.

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:

	Market Index	Combined Funds Composite 4Q/14
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%*
Unallocated Cash	3 Month T-Bills	2.0%
		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 12/31/14

Combined Funds **		2.5%	8.6%	14.1%	11.5%	7.8%
Composite		2.3%	8.8%	13.3%	11.0%	7.5%

** 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

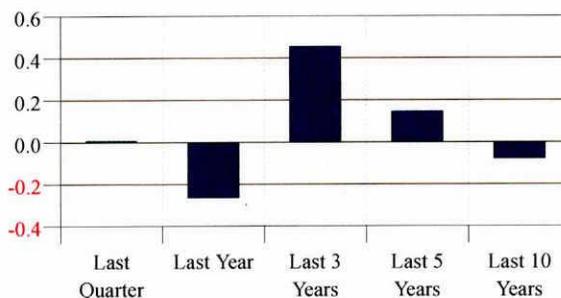
Target: Russell 3000

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Stocks	5.2%	12.3%	21.0%	15.8%	7.9%
Asset Class Target*	5.2%	12.6%	20.5%	15.6%	7.9%

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

Value Added to Domestic Equity Target (1)



International Stocks

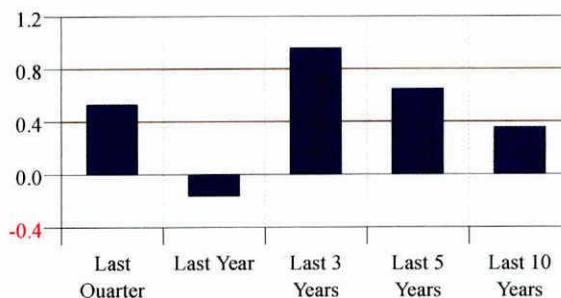
Target: Standard MSCI ACWI Free ex U.S. (net)

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

	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Int'l Stocks	-3.3%	-4.0%	9.9%	5.1%	5.5%
Asset Class Target*	-3.9%	-3.9%	9.0%	4.4%	5.2%

* 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)



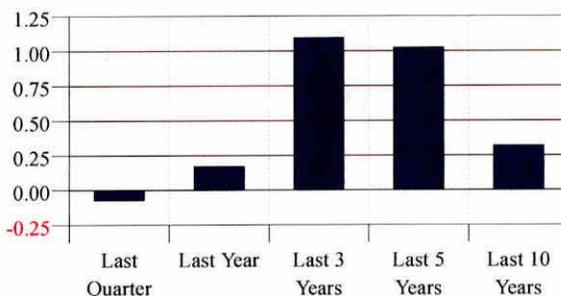
Bonds

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bonds	1.7%	6.1%	3.8%	5.5%	5.0%
Asset Class Target	1.8%	6.0%	2.7%	4.4%	4.7%

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Alternatives	1.1%	18.0%	15.5%	14.6%	15.2%
Inflation	-1.4%	0.8%	1.3%	1.7%	2.1%

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate	3.6%	16.9%	12.8%	11.1%	7.6%

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Private Equity	1.0%	16.9%	16.1%	15.2%	15.7%

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Resource	-0.6%	16.8%	13.4%	15.4%	26.9%

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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Yield Oriented	2.3%	24.9%	18.7%	15.8%	17.1%

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

SUPPLEMENTAL INVESTMENT FUND

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

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

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

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

On 12/31/2014 the market value of the entire Fund was \$1.8 billion.

Investment Options

	12/31/14 Market Value (In Millions)
Income Share Account - a balanced portfolio utilizing both common stocks and bonds.	\$365
Growth Share Account - an actively managed, all common stock portfolio.	\$213
Common Stock Index Account - a passively managed, all common stock portfolio designed to track the performance of the entire U.S. stock market.	\$470
International Share Account - a portfolio of non U.S. stocks that incorporates both active and passive management.	\$190
Bond Market Account - an actively managed, all bond portfolio.	\$121
Money Market Account - a portfolio utilizing short-term, liquid debt securities.	\$254
Fixed Interest Account - a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.	\$204
Volunteer Firefighter Account - a balanced portfolio only used by the Voluntary Statewide Volunteer Firefighter Plan.	\$32

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

INCOME SHARE ACCOUNT

Investment Objective

The primary investment objective of the Income Share Account 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 Income Share Account 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%	61.5%
Bonds	35.0%	34.2%
Cash	5.0%	4.3%
	100.0%	100.0%

Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	3.8%	9.5%	13.7%	11.4%	7.2%
Benchmark*	3.8%	9.6%	13.0%	11.1%	6.6%

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

GROWTH SHARE ACCOUNT

Investment Objective

The Growth Share Account's investment objective is to generate above-average returns from capital appreciation on common stocks.

Asset Mix

The Growth Share Account is invested primarily in the common stocks of US companies. The managers in the account also hold varying levels of cash.

Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	5.2%	12.2%	21.2%	15.8%	7.7%
Benchmark*	5.2%	12.6%	20.5%	15.6%	7.9%

* Russell 3000.

COMMON STOCK INDEX ACCOUNT

Investment Objective and Asset Mix

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

The Account is invested 100% in common stock.

Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	5.2%	12.6%	20.5%	15.7%	8.0%
Benchmark*	5.2%	12.6%	20.5%	15.6%	7.9%

* Russell 3000.

Note: All periods over one year are annualized.

SUPPLEMENTAL INVESTMENT FUND ACCOUNTS

INTERNATIONAL SHARE ACCOUNT

Investment Objective and Asset Mix

The investment objective of the International Share Account is to earn a high rate of return by investing in the stock of companies outside the U.S. At least 25% of the Account is "passively managed" and no more than 33% of the Account is "semi-passively managed." These portions of the Account 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 Account 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 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	-3.3%	-4.0%	9.9%	5.1%	5.6%
Benchmark*	-3.9%	-3.9%	9.0%	4.4%	5.2%

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

BOND MARKET ACCOUNT

Investment Objective

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

	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	1.7%	6.1%	3.8%	5.5%	5.0%
Barclays Agg	1.8%	6.0%	2.7%	4.4%	4.7%

Asset Mix

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

MONEY MARKET ACCOUNT

Investment Objective

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

	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	0.0%	0.1%	0.2%	0.2%	1.7%
3 month T-Bills	0.0%	0.0%	0.1%	0.1%	1.5%

Asset Mix

The Account 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

FIXED INTEREST ACCOUNT

Investment Objective

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

Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	0.5%	1.8%	2.3%	2.9%	3.7%
Benchmark*	0.4%	1.3%	1.1%	1.2%	2.5%

* The Fixed Interest 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%	36.0%
International Stocks	15.0%	14.7%
Bonds	45.0%	44.5%
Cash	5.0%	4.8%
	100.0%	100.0%

Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Account	2.1%	6.5%	10.3%	8.8%	--
Benchmark*	2.0%	6.5%	9.6%	8.3%	--

* The benchmark for this account is 35% Russell 3000, 15% MSCI ACWI Free 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, 2014, the market value of the entire Fund was \$5.7 billion.

Investment Options

	12/31/14 Market Value (In Millions)
Vanguard Index Institutional Plus Shares (passive)	\$984
Janus Twenty (active)	\$540
Vanguard Mid Cap Index Institutional Shares (passive)	\$416
T. Rowe Price Small-Cap Stock (active)	\$598
Fidelity Diversified International (active)	\$269
Vanguard Total International Stock Index Institutional Plus (passive)	\$150
Vanguard Balanced Index Institutional Shares (passive)	\$675
Dodge & Cox Income Fund (active)	\$206
Vanguard Total Bond Market Index Institutional Shares (passive)	\$184
SIF Money Market Account	\$60
SIF Fixed Interest Account (stable value)	\$1,325
State Street Global Advisors MN Target Retirement Funds	\$268
Income Fund	\$35
2015 Fund	\$34
2020 Fund	\$61
2025 Fund	\$49
2030 Fund	\$30
2035 Fund	\$23
2040 Fund	\$13
2045 Fund	\$9
2050 Fund	\$7
2055 Fund	\$3
2060 Fund	\$4

DEFERRED COMPENSATION PLAN ACCOUNTS

LARGE CAP EQUITY

Vanguard Index Institutional Plus (passive)

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

	Periods Ended 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	4.9%	13.7%	20.4%	15.4%
S&P 500	4.9%	13.7%	20.4%	15.5%

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	5.9%	8.9%	21.1%
S&P 500	4.9%	13.7%	20.4%	15.5%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	6.6%	13.8%	21.3%	17.1%
CRSP U.S. Mid Cap	6.6%	13.8%	21.4%	17.1%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	9.2%	6.9%	20.2%	18.1%
Russell 2000	9.7%	4.9%	19.2%	15.5%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-1.1%	-3.2%	13.1%	6.5%
MSCI EAFE	-3.6%	-4.9%	11.1%	5.3%

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	-4.2%	-4.1%	9.3%
ACWI ex USA IMI	-3.7%	-3.1%	9.5%	--

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	3.9%	10.0%	13.2%	11.4%
Benchmark	3.9	10.0	13.2	11.4

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.9%	5.5%	4.6%	5.2%
Barclays Agg	1.8%	6.0%	2.7%	4.4%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	1.7%	5.9%	2.6%	4.4%
Barclays Agg	1.8%	6.0%	2.7%	4.4%

SIF Money Market Account

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.0%	0.1%	0.2%	0.2%
3-Mo. Treas.	0.0%	0.0%	0.1%	0.1%

SIF FIXED INTEREST ACCOUNT

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

	Periods Ended 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.5%	1.8%	2.3%	2.9%
Benchmark	0.4%	1.3%	1.1%	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, 2014, the market value of the entire Fund as \$1.2 billion.

Investment Options

12/31/14
Market Value
(In Millions)

Age Based Managed Allocation

Age Band 0-4 Years	\$26
Age Band 5-8 Years	\$88
Age Band 9-10 Years	\$84
Age Band 11-12 Years	\$113
Age Band 13-14 Years	\$117
Age Band 15 Years	\$54
Age Band 16 Years	\$54
Age Band 17 Years	\$49
Age Band 18 Years and over	\$124

Risk Based Managed Allocations

Aggressive	\$2
Moderate	\$47
Conservative	\$2

Static Options:

U.S. Large Cap Equity	\$2
International Equity	\$2
U.S. and International Equity	\$278
Equity and Interest Accumulation	\$0.2
100% Fixed Income	\$10
Money Market	\$9
Principal Plus Interest	\$104

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	4.8%	--	--	--
S&P 500	4.9%	--	--	--

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	-4.3%	-5.3%	--	--
Benchmark	-3.7%	-4.2%	--	--

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	3.3%	8.1%	16.6%	12.6%
Benchmark	3.2%	8.6%	17.0%	12.9%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	2.7%	--	--	--
Benchmark	2.6%	--	--	--

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	1.1%	4.8%	1.5%	3.7%
Benchmark	1.2%	5.3%	2.1%	4.4%

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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.0%	0.0%	0.0%	-0.1%
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 12/31/14			
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.3%	1.3%	1.4%	1.9%
3-Month T-Bill	0.0%	0.0%	0.1%	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.

	12/31/14 Target	12/31/14 Actual
Stocks	20.0%	21.0%
Bonds	80.0%	79.0%
Total	100.0%	100.0%

Investment Management

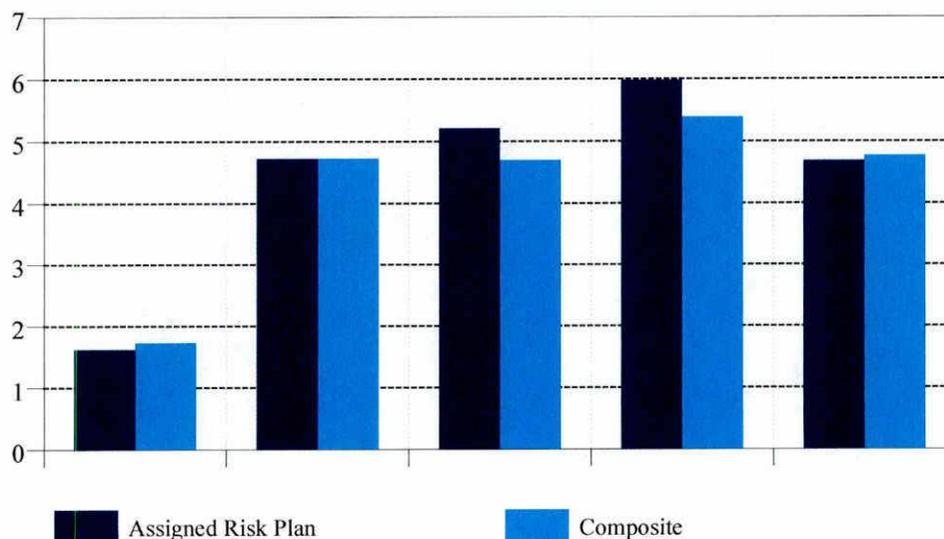
RBC Global Asset Management (US) manages the bond segment of the Fund. GE Investment Management manages the equity segment.

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, 2014 the market value of the Assigned Risk Plan was \$296 million.



Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	1.6%	4.7%	5.2%	6.0%	4.7%
Composite	1.7%	4.7%	4.7%	5.4%	4.8%
Equity Segment*	4.0%	13.2%	21.2%	14.0%	7.8%
S&P 500	4.9%	13.7%	20.4%	15.5%	7.7%
Bond Segment*	0.9%	2.5%	1.0%	3.6%	3.7%
Barclays Int Gov Index	0.9%	2.5%	1.0%	2.8%	3.8%

* 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.

	12/31/14 Target	12/31/14 Actual
Stocks	50.0%	51.1%
Bonds	48.0%	47.0%
Cash	2.0%	1.9%
Total	100.0%	100.0%

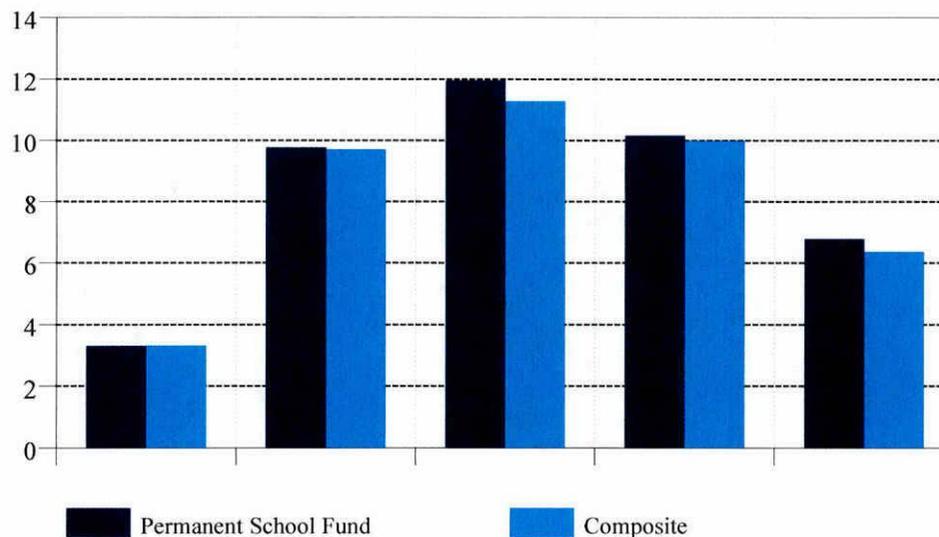
Prior to FY98, the Fund was invested entirely in fixed income securities in order to maximize current income. It is understood that the change in asset mix will reduce portfolio income in the short term, but will enhance the value of the fund, over time.

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, 2014 the market value of the Permanent School Fund was \$1.2 billion.



Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	3.3%	9.8%	12.0%	10.2%	6.8%
Composite	3.3%	9.7%	11.3%	10.0%	6.4%
Equity Segment*	5.0%	13.7%	20.3%	15.5%	7.7%
S&P 500	4.9%	13.7%	20.4%	15.5%	7.7%
Bond Segment*	1.7%	6.0%	3.9%	4.7%	5.3%
Barclays Agg	1.8%	6.0%	2.7%	4.4%	4.7%

* 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.

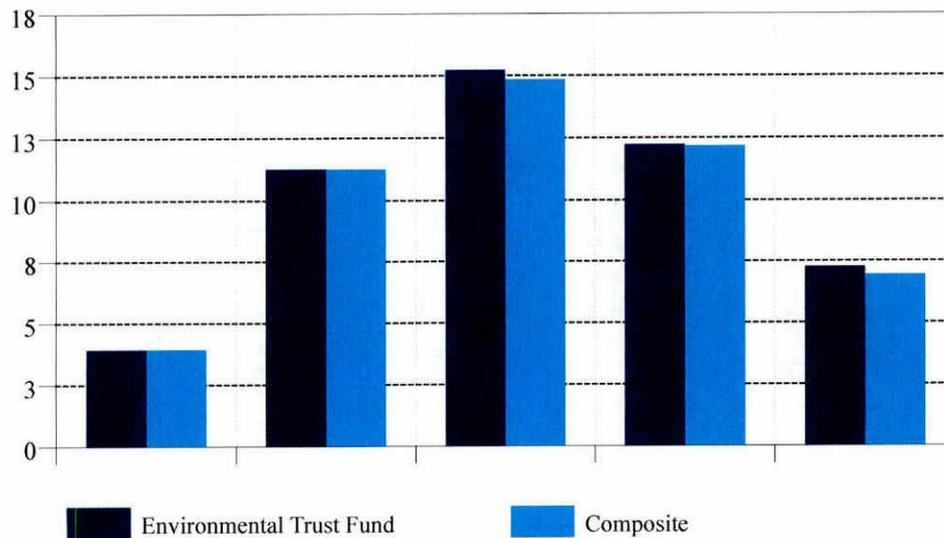
Investment Management

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, 2014 the market value of the Environmental Trust Fund was \$883 million.

	12/31/14 <u>Target</u>	12/31/14 <u>Actual</u>
Stocks	70.0%	70.5%
Bonds	28.0%	27.6%
Cash	2.0%	1.9%
Total	100.0%	100.0%



	Periods Ended 12/31/14				
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund*	3.9%	11.3%	15.2%	12.2%	7.3%
Composite	4.0%	11.3%	14.9%	12.2%	6.9%
Equity Segment*	5.0%	13.7%	20.3%	15.5%	7.7%
S&P 500	4.9%	13.7%	20.4%	15.5%	7.7%
Bond Segment*	1.7%	6.0%	3.9%	4.7%	5.3%
Barclays Agg	1.8%	6.0%	2.7%	4.4%	4.7%

* 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 common stocks and 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.

	12/31/14 Target	12/31/14 Actual
Stocks	70.0%	70.4%
Bonds	30.0	29.6
Total	100.0%	100.0%

Investment Management

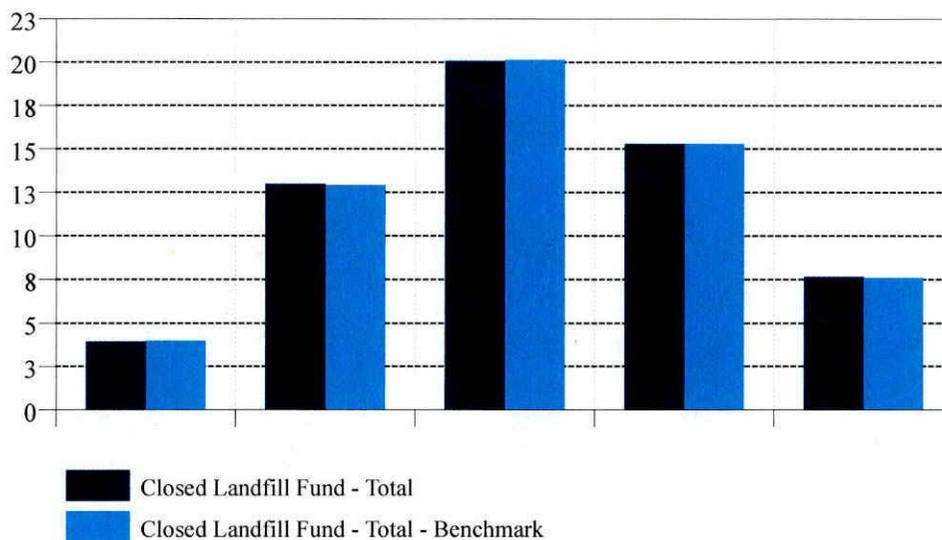
SBI staff manage all assets of the Closed Landfill Investment Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500.

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 account principle and earnings back into the fund and FY 2014 was the first of four scheduled payments to the fund.

Market Value

On December 31, 2014, the market value of the Closed Landfill Investment Fund was \$65 million



Periods Ended 12/31/14

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Fund (1)	4.0%	13.0%	20.1%	15.3%	7.7%
Composite (3)	4.0%	12.9%	20.1%	15.3%	7.6%
Equity Segment (1)	5.0%	13.7%	20.3%	15.5%	7.7%
S&P 500	4.9%	13.7%	20.4%	15.5%	7.7%
Bond Segment (1,2)	1.7%	--	--	--	--
Barclays Agg	1.8%	--	--	--	--

(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 12/31/14

	Market Value (Millions)	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Treasurer's Cash Pool*	\$8,578	0.1%	0.4%	0.5%	0.5%	2.2%
Custom Benchmark**		0.0%	0.0%	0.0%	0.0%	1.4%
3 month T-Bills		0.0%	0.0%	0.1%	0.1%	1.5%

* 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, 2014 (in Thousands)

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
COMBINED RETIREMENT FUNDS								
Teachers Retirement Fund	345,396 1.71%	0	4,778,175 23.58%	0	9,677,966 47.77%	2,876,204 14.20%	2,581,937 12.74%	20,259,678 100%
Public Employees Retirement Fund	313,068 1.78%	0	4,141,463 23.57%	0	8,388,336 47.73%	2,492,937 14.19%	2,237,883 12.73%	17,573,687 100%
State Employees Retirement Fund	185,350 1.60%	0	2,730,246 23.60%	0	5,529,984 47.82%	1,643,461 14.21%	1,475,317 12.76%	11,564,358 100%
Public Employees Police & Fire	125,980 1.72%	0	1,727,639 23.58%	0	3,499,250 47.76%	1,039,945 14.19%	933,548 12.74%	7,326,362 100%
Highway Patrol Retirement Fund	10,896 1.63%	0	157,311 23.60%	0	318,626 47.80%	94,693 14.21%	85,005 12.75%	666,531 100%
Judges Retirement Fund	3,159 1.80%	0	41,236 23.56%	0	83,521 47.72%	24,821 14.18%	22,282 12.74%	175,019 100%
Correctional Employees Retirement	15,262 1.71%	0	210,805 23.58%	0	426,974 47.77%	126,893 14.20%	113,910 12.74%	893,844 100%
Public Employees Correctional	9,134 1.93%	0	111,241 23.54%	0	225,314 47.66%	66,961 14.16%	60,111 12.71%	472,761 100%
Legislative Retirement Fund	89 1.51%	0	1,396 23.62%	0	2,828 47.86%	841 14.23%	755 12.78%	5,909 100%
PERA Minneapolis Retirement	26,023 2.93%	0	206,633 23.29%	0	418,529 47.17%	124,383 14.02%	111,657 12.58%	887,225 100%
Duluth Teachers Retirement	2,120 1.51%	0	33,203 23.63%	0	67,251 47.86%	19,986 14.22%	17,942 12.77%	140,502 100%
TOTAL COMBINED FUNDS	1,036,477 1.73%	0	14,139,348 23.58%	0	28,638,579 47.76%	8,511,125 14.19%	7,640,347 12.74%	59,965,876 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
MINNESOTA SUPPLEMENTAL FUNDS								
Income Share Account	15,601 4.27%	124,771 34.20%	0	0	224,550 61.53%	0	0	364,922 100%
Growth Share Account	0	0	0	0	212,978 100.00%	0	0	212,978 100%
Money Market Account	253,512 100.00%	0	0	0	0	0	0	253,512 100%
Common Stock Index	0	0	0	0	470,302 100.00%	0	0	470,302 100%
Bond Market Account	0	0	120,704 100.00%	0	0	0	0	120,704 100%
International Share Account	0	0	0	0	0	189,597 100.00%	0	189,597 100%
Fixed Interest Account	0	0	203,665 100.00%	0	0	0	0	203,665 100%
Volunteer Firefighters Account	1,553 4.84%	0	14,291 44.46%	0	11,570 36.00%	4,729 14.71%	0	32,143 100%
TOTAL SUPPLEMENTAL FUNDS	270,666 14.65%	124,771 6.75%	338,660 18.33%	0	919,400 49.76%	194,326 10.52%	0	1,847,823 100%
MN DEFERRED COMP PLAN	66,476 1.17%	0	2,080,477 36.65%	0	3,046,868 53.68%	482,788 8.50%	0	5,676,609 100%
TOTAL RETIREMENT FUNDS	1,373,619 2.04%	124,771 0.18%	16,558,485 24.53%	0	32,604,847 48.31%	9,188,239 13.61%	7,640,347 11.32%	67,490,308 100%

	Cash & ST	Bonds Int	Bonds Ext	Stock Int	Stock Ext	Ext Intl	Alternative	Total
ASSIGNED RISK PLAN	1,232 0.42%	0	233,019 78.82%	0	61,378 20.76%	0	0	295,629 100%
ENVIRONMENTAL FUND	16,909 1.92%	243,753 27.62%	0	621,865 70.46%	0	0	0	882,527 100%
PERMANENT SCHOOL FUND	21,626 1.87%	544,110 46.97%	0	592,630 51.16%	0	0	0	1,158,366 100%
CLOSED LANDFILL FUND	0	19,156 29.58%	0	45,609 70.42%	0	0	0	64,765 100%
MISCELLANEOUS TRUST FUND	495 0.33%	62,023 41.85%	0	85,688 57.82%	0	0	0	148,206 100%
Other Post Employment Funds (OPEB's)	19,743 4.12%	66,737 13.92%	0	393,067 81.97%	0	0	0	479,547 100%
TREASURERS CASH	8,328,247 100.00%	0	0	0	0	0	0	8,328,247 100%
MISCELLANEOUS STATE ACCOUNTS	0	250,018 100.00%	0	0	0	0	0	250,018 100%
MN COLLEGE SAVINGS PLAN	9,114 0.78%	0	549,797 47.18%	0	423,755 36.37%	182,650 15.67%	0	1,165,316 100%
TOTAL CASH AND NON-RETIREMENT	8,397,366 65.75%	1,185,797 9.28%	782,816 6.13%	1,738,859 13.61%	485,133 3.80%	182,650 1.43%	0	12,772,621 100%
GRAND TOTAL	9,770,985 12.17%	1,310,568 1.63%	17,341,301 21.61%	1,738,859 2.17%	33,089,980 41.23%	9,370,889 11.68%	7,640,347 9.52%	80,262,929 100%

TAB

B

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: February 25, 2015

TO: Members, State Board of Investment

FROM: **Mansco Perry III**

INFORMATION UPDATES:

1. Reports on Budget and Travel

A report on the SBI's administrative budget for the period ending December 31, 2014 is included as **Attachment A** on **page 7**.

A report on travel for the period from October 1, 2014 – December 31, 2014 is included as **Attachment B** on **page 9**.

2. Results of FY14 Financial Audit

The Legislative Auditor's office has indicated that they have no findings for the FY14 Financial Audit of the SBI. Each member of the State Board of Investment will receive a copy of the audit letter when it becomes available.

3. Duluth Teachers Retirement Fund Association (DTRFA) Update

After the approval to merge DTRFA with Teachers Retirement Association (TRA) in 2014, State Statutes required the DTRFA to begin investing its assets with SBI. The DTRFA transferred assets are invested in the Combined Funds allocation but are accounted for in a separate account until the official merger with TRA takes place as of July 1, 2015. Total DTRFA assets are approximately \$225 million.

The SBI and DTRFA have worked together on the asset transfer over the past several months. To date, 95% of the DTRFA assets have been transferred to the SBI. There are a few remaining assets that will transfer to the SBI once they are able to be liquidated.

4. Update on Sudan

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 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, if 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 divested 226 shares in companies on the divestment list.

Attachment C on page 11 is a copy of the December 19, 2014 letter sent to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested.

Attachment D on page 25 is an updated list of companies with operations in Sudan.

5. Update on Iran

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, SBI held no shares of companies on the divestment list.

Attachment E on **page 29** is a copy of the December 19, 2014 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. Legislative Update

I will give a verbal update on the status of legislative matters at the Board meeting on March 4, 2015.

7. Litigation Update

SBI legal counsel will give the Board a verbal update on the status of the litigation at the Board meeting on March 4, 2015.

8. Staffing Update and Implications

Since the beginning of FY 2015, we have recruited and hired seven new members of the investment staff. This enabled the organization to fill vacancies created by retirement and attribution as well as new staff positions. While we have greater depth on the investment staff, we were unable to fill the positions as quickly as originally anticipated. This has resulted in a delay to the start of several projects in the current work plan. These projects were intended to prepare us for the development of a new asset allocation study in FY16 and FY17. During the year, it has become apparent that the timing of a new asset allocation study should be accelerated rather than be delayed. At the June 2015 SBI meeting, we will be presenting the FY 2016 proposed work plan. At that time, we will be proposing a combined portfolio review and asset allocation study which will incorporate the delayed projects and a new asset allocation together. We believe this approach will be more productive than delaying the projects.

Also, we have been successful in filling only one of the accounting positions the Board approved as part of the current year budget plan. We believe that it is necessary to hire additional staff members with strong accounting backgrounds in order to minimize the risk of managing our operation. Given the complexity resulting from an increased regulatory environment, the reporting needs of the entities for which the SBI manages, and the need to "self-police" our operational environment I will be asking the Board for its approval and assistance to create several new positions, e.g., Deputy/Assistant Chief Financial Officer, Internal Auditor, Compliance Officer, and Investment Accountants through the annual budget process. While these will represent growth in the size of the organization, moving forward without addressing such needs will increase the risk of managing the SBI and leave the organization vulnerable.

ACTION ITEMS:

1. Target Date Funds for Unclassified Plan Participants

In the 2014 legislative session, language was added to Chapter 296, Article 13, authorizing the State Board of Investment to determine and make available an appropriate array of investment options within the state's various defined contribution plans, in order to enhance participants' ability to reach their retirement plan goals.

As a result of this change, the Minnesota State Retirement System (MSRS), has requested that the SBI add target date funds to the investment lineup for the state's Unclassified Plan. This is anticipated to be a first step of changes that will be required over the next few years to appropriately align the investment options in the state's defined contribution retirement plans.

A target date fund offers participants a balanced investment option in which the asset allocation changes gradually and automatically over time to become less aggressive as the participant approaches retirement. Target date funds were designed to provide the less savvy investment participants in defined contribution plans with a simplified approach to achieving more appropriately balanced investment portfolios and better retirement outcomes.

MSRS current research shows that approximately 48% of participants in the state's Unclassified Plan are invested in only one investment option and may be lacking appropriate diversification. MSRS believes that the growing prevalence of target date funds in defined contribution plans over the past decade has been and will continue to be a constructive development that has helped improve diversification, asset allocation and ultimately retirement outcomes for many plan participants.

Target Date Funds managed by State Street Global Advisors (SSgA), have been included in the state's Deferred Compensation Plan since 2011, and their usage has grown to almost 5% of total plan assets at December 31, 2014. MSRS believes that enabling Unclassified Plan participants to utilize Target Date Funds will facilitate better retirement planning for these employees. If approved, Unclassified Plan members will be allowed to enroll in the target date funds provided by SSgA.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that Unclassified Plan participants be allowed to invest in Target Date Funds, as currently provided by SSgA.

2. Metropolitan Council (Met Council) Other Postemployment Benefits (OPEB)

The Met Council recently requested the assistance of the SBI in determining a more refined long-term asset/liability management approach for its OPEB plans. With two-thirds of the Met Council's closed OPEB plans fully funded, the Met Council wants to reduce its exposure to investment risk by moving a portion of its investment assets into a laddered bond portfolio, managed by the SBI, that is structured to meet its projected OPEB cash benefit payments. Currently, the Met Council has invested its OPEB liability related assets totaling approximately \$200 million in the pooled investment options available to all statewide OPEBs investing with the SBI.

Given the Council's relatively large OPEB asset size and existing statutory authority, the SBI has determined that it can manage such an account for the Met Council. **Attachment F on page 39** outlines the proposed approach for the establishment of the Met Council separate account OPEB laddered bond portfolio, as well as the investment management by the SBI and the interaction with PERA as the administrator of the Met Council OPEB assets. Met Council investment guidelines surrounding the purchase of individual securities in the laddered bond portfolio are also included as **Attachment G on page 41** for review.

The SBI does not anticipate a significant increase in work load associated with management of the Met Council's separate account laddered bond portfolio. Given the relatively small increase in work load, the SBI will additionally consider a similar approach for other OPEB entities, if requested, once they become fully funded and reach a minimum initial asset size of at least \$100 million.

Staff has worked with the Met Council and PERA to develop a "Statement of Understanding" surrounding the establishment and on-going investment management of the separately managed, laddered bond portfolio that will be executed if approved by the SBI Board at the March 2015 SBI meeting. If approved, implementation of the new Met Council OPEB separate account would occur as early as July 1, 2015.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation to establish a separate, OPEB sub-account for the Met Council that will be managed by the SBI and hold individual fixed income securities that are structured to meet the Met Council's OPEB cash benefit outflow projections.

The IAC also concurs with SBI Staff's recommendation to approve the investment guidelines for the separate OPEB sub-account for the Met Council.

3. Investment Manager Guidelines

The investment manager guidelines in **Attachment H** on **page 43** have been written in conformity with the policies and directives of the State Board of Investment and the requirements of Minnesota Statutes Chapters 11A and 356A. Consistent with past practice, the Executive Director will highlight any changes made to the investment manager guidelines as part of the Annual Work Plan presented to the Administrative Committee and the Board. Every five years the full set of guidelines will be presented for approval by the Board.

RECOMMENDATION:

Staff recommends that the Board approve the Investment Manager Guidelines.

4. Proxy Voting Committee Reauthorization

In March 1982, the Board established the Proxy Voting Committee to carry out the SBI's voting responsibilities. Each Board member has one designee on the Committee. The current membership is:

Emily Johnson Piper	Governor's designee
Celeste Grant	State Auditor's designee
Bert Black	Secretary of State's designee
Christie Eller	Attorney General's designee

According to statute, committees of this nature must be re-authorized every two years. The last authorization was in March 2013. A resolution to accomplish this is in **Attachment I** on **page 155**.

RECOMMENDATION:

The Executive Director recommends that the SBI adopt the resolution which reauthorizes the Proxy Voting Committee and delegates proxy voting responsibilities according to established guidelines.

5. Proxy Voting Guidelines

The Proxy Voting Committee votes the Board's proxies according to Guidelines approved by the Board. The Committee recommends that the Board review and reaffirm the Proxy Voting Guidelines as shown in **Attachment J** on **page 157**.

RECOMMENDATION:

The Proxy Voting Committee recommends that the Board reaffirm the Proxy Voting Guidelines.

ATTACHMENT A

**STATE BOARD OF INVESTMENT
FISCAL YEAR 2015 ADMINISTRATIVE BUDGET REPORT
FISCAL YEAR TO DATE THROUGH DECEMBER 31, 2014**

ITEM	FISCAL YEAR 2015 BUDGET	FISCAL YEAR 2015 12/31/2014
PERSONAL SERVICES		
FULL TIME EMPLOYEES	\$ 4,151,000	\$ 1,582,493
PART TIME EMPLOYEES	-	
MISCELLANEOUS PAYROLL	100,000	67,524
SUBTOTAL	\$ 4,251,000	\$ 1,650,016
STATE OPERATIONS		
RENTS & LEASES	242,000	120,375
REPAIRS/ALTERATIONS/MAINTENANCE	12,000	4,949
PRINTING & BINDING	5,000	2,048
PROFESSIONAL/TECHNICAL SERVICES	150,000	106
COMPUTER SYSTEMS SERVICES	20,000	4,165
COMMUNICATIONS	30,000	12,622
TRAVEL, IN-STATE	1,000	323
TRAVEL, OUT-STATE	56,000	24,630
SUPPLIES	52,000	8,421
EQUIPMENT	33,000	937
EMPLOYEE DEVELOPMENT	25,000	10,297
OTHER OPERATING COSTS	221,000	2,435
SUBTOTAL	\$ 847,000	\$ 191,308
TOTAL ADMINISTRATIVE BUDGET	\$ 5,098,000	\$ 1,841,324

ATTACHMENT B

STATE BOARD OF INVESTMENT

**Travel Summary by Date
SBI Travel October 1, 2014 – December 31, 2014**

Purpose	Name(s)	Destination and Date	Total Cost
Conference: Vision 2014 Sponsored by Vanguard Manager Monitoring Consultant: Callan Associates	P. Ammann	Chicago, IL 10/5-10/7	\$969.10
Conference: National Council on Teachers Retirement (NCTR)	M. Perry	Indianapolis, IN 10/14-10/15	\$1,261.79
Conference: Public Pension Financial Forum (P2F2)	P. Anderson	Nashville, TN 10/25-10/29	\$1,723.90
Conference: 2014 Chief Investment Officers' Symposium Sponsored by KKR Global Institute	M. Perry	Washington, DC 10/28-10/29	\$1,514.42
Manager Monitoring Domestic Equity Managers: BlackRock Institutional Trust Company; Mellon Capital Management Corporation Manager Monitoring Consultant: Callan Associates	L. Stagg M. Menssen	San Francisco, CA 10/29-10/31	\$4,059.72
Manager Monitoring Master Custodian: Institutional Investor Services Client Advisory Council Meeting Sponsored by State Street Corporation	L. Stagg	Boston, MA 11/5-11/6	\$1,250.08

ATTACHMENT C

Letter to SBI International and Domestic Equity Managers

December 19, 2014

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 25, 2014 letter you received. **This new list is effective December 31, 2014.**

- The following companies have been **added** to the Restricted List:
 - Schlumberger LTD Curacao
 - Daqing Oilfield Drilling & Exploration China
 - China Petroleum Pipeline Engineering Corp China
 - MCM Co. LTD—Soudan Morocco
 - Meyas Sand Minerals Co. Ltd Canada
 - Panorama Petroleum Canada

Attachment 2 is the List of Sudan Stocks Requiring Divestment. The following company has been **added** to the divestment list:

- Volkswagen AG Germany

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 Patricia Ammann.

Sincerely,

LeaAnn M. Stagg
Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Director, Public Markets
Patricia Ammann, 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 Office, Public Markets

ATTACHMENT 1

Restricted Sudan Stocks	
Company Name	Country of Origin
Andritz AG	Austria
Orca Gold Inc.	Canada
Meyas Sand Minerals Co. Ltd	Canada
Panorama Petroleum	Canada
Statesman Resources Limited	Canada
China Poly Group Corporation	China
Poly Property Group Co. Ltd.	China
China Gezhouba Group Company Limited	China
Power Construction Corporation of China Ltd. AKA China Hydraulic and Hydroelectric Construction Group AKA Sinohydro Group	China
China Machinery Engineering Corporation	China
Petro China Co. Ltd AKA China National Petroleum Corporation (CNPC)	China
Daqing Huake Group Company Limited	China
Daqing Oilfield Drilling & Exploration Engineering Corporation	China
China Petroleum Pipeline Engineering Corporation	China
Jinan Diesel Company Limited	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
NORINCO International Cooperation Ltd	China
North Huajin Chemical Industries Co. aka Liaoning Huajin Tongda Chemical Co. Ltd.	China
Sichuan Nitrocell Co. Ltd	China
North Navigation Control Technology Co. Ltd (formerly China North Optical-Electrical Technology Company Limited)	China
AKM Industrial Company Limited	China
China Petroleum and Chemical Corporation AKA Sinopec Corp.	China
Sinopec Engineering Group Co. Ltd.	China
Kingdream PLC	China
Sinopec Shanghai Petrochemicals Ltd	China
Sinopec Yizheng Chemical Fibre Co Ltd	China
Jiangxi Hongdu Aviation AKA Hongdu Aviation	China
Dongfeng Motor Group Company Limited	China
Harbin Electric Company Ltd.	China
Schlumberger Ltd.	Curacao
Egypt Kuwait Holding Company	Egypt
Alstom	France
Etablissements Maurel et Prom	France
MAN SE	Germany
Renk AG	Germany
Volkswagen AG	Germany
Kunlun Energy Co. Ltd	Hong Kong
Sinopec Kanton Holdings Limited	Hong Kong
Alstom India Ltd	India
Alstom T&D India Ltd. (formerly Areva T&D India)	India
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Indian Oil Corporation Ltd. AKA IOCL	India
Chennai Petroleum Corporation Ltd. AKA CPCL	India
Lanka IOC Limited	India
Oil and Natural Gas Company AKA ONGC	India
Mangalore Refinery and Petrochemicals Limited	India
Oil India Limited	India

ATTACHMENT 1

Restricted Sudan Stocks	
Company Name	Country of Origin
Energy House Holding Co KSCC, The (formerly AREF Energy Holding Company)	Kuwait
Petroliam Nasional Berhad AKA Petronas	Malaysia
Engen	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Berhad	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Petronas Gas Berhad	Malaysia
Petronas Dagangan Berhad	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Scomi Group Berhad	Malaysia
Scomi Engineering Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Managem	Morocco
MCM Co. Ltd-Soudan	Morocco
Societe Metallurgique D'imiter	Morocco
GAZ Group	Russia
GAZ Auto Plant	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

SBI Effective Date: December 31, 2014

Unless noted, the SBI does not have exposure in any of these companies

ATTACHMENT 2

Sudan Stocks Requiring Divestment

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
Alstom	France	April 30, 2008	October 31, 2008
Dongfeng Motor Group Company Limited	China	March 31, 2011	September 30, 2011
Andritz AG	Austria	September 30, 2014	March 31, 2015
Bharat Electronics Limited	India	September 30, 2014	March 31, 2015
Bharat Heavy Electricals	India	September 30, 2014	March 31, 2015
MAN SE	Germany	December 31, 2014	June 30, 2015
Poly Property Group	China	March 31, 2015	September 30, 2015
Volkswagen AG	Germany	June 30, 2015	December 31, 2015

Note: AKA means "Also Known As"

Source: Conflict Risk Network

SBI Effective Date: December 31, 2014

Security Identifiers for "Scrutinized" Stocks

The following security identifiers correlate with the Fourth Quarter 2014 Sudan Company Report and are current as of November 14, 2014

ALL DATA IS FROM BLOOMBERG LP UNLESS OTHERWISE NOTED.

STOCKS ADDED SINCE LAST REPORT ARE HIGHLIGHTED

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS	Fondscode
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IB	A0EAYM	6230834 IN			INE878A01011			
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IN	A0EAYM	6230834 IN			INE878A01011			
ALSTOM INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	ALSTOM PROJECTS INDIA LTD	ALST IS	A0EAYM	6230834 IN			INE878A01011			
ALSTOM SA	ALSTOM	BATS Europa (BATE)	Common Stock	ALSTOM	ALO BQ	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	EM Paris (XPAR)	Common Stock	ALSTOM	ALO BF	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	TOM MTF (TMX)	Common Stock	ALSTOM	ALO MT	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Aquis Exchg (AQXE)	Common Stock	ALSTOM	ALO QX	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Turquoise (TRGX)	Common Stock	ALSTOM	ALO QT	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Chi-X Alt TS (CHIX)	Common Stock	ALSTOM	ALSP IX	A0F7BK	800J8Q5 FR			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GB	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GD	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GE	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GF	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GH	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GI	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GM	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GR	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GS	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD GY	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Frankfurt (XFRA)	Common Stock	ALSTOM	AOMD TH	A0F7BK	80G0412 DE			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Tradegate (XGAT)	Common Stock	ALSTOM	AOMFF PQ	A0F7BK	80GLY93 US			FR0010220475	022581074		
ALSTOM SA	ALSTOM	OTC US (OOTC)	Common Stock	ALSTOM	AOMFF PQ	A0F7BK	80GLY93 US			FR0010220475	022581074	F0259M475	
ALSTOM SA	ALSTOM	OTC US (OOTC)	Common Stock	ALSTOM	AOMFF UV	A0F7BK	80GLY93 US			FR0010220475	022581074	F0259M475	
ALSTOM SA	ALSTOM	Euro Comp (XLON)	Common Stock	ALSTOM	ALO EU	A0F7BK	80YLTQ7 GB			FR0010220475	022581074	F0259M475	
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO LI	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	LSE EuropeQS (XLON)	Common Stock	ALSTOM	ALO LO	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO YA	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XB	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XD	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XE	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XI	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XO	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XS	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALO XV	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro OTC (XLON)	Common Stock	ALSTOM	ALOUSDX XB	A0F7BK	80YLTQ7 GB			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Euro TLX (ETLX)	Common Stock	ALSTOM	ALO TE	A0F7BK	83NVFN8 IT			FR0010220475	022581074		
ALSTOM SA	ALSTOM	SIX Swiss Ex (XSWX)	Common Stock	ALSTOM	ALO SE	A0F7BK	BRTM7F9 CH			FR0010220475	022581074		
ALSTOM SA	ALSTOM	SIX Swiss Ex (XSWX)	Common Stock	ALSTOM	ALO SW	A0F7BK	BRTM7F9 CH			FR0010220475	022581074		
ALSTOM SA	ALSTOM	Blockmatch (BLOX)	Common Stock	ALSTOM	ALOP B3	A0F7BK				FR0010220475			
ALSTOM SA	ALSTOM	Blockmatch (BLOX)	Common Stock	ALSTOM	ALOP L3	A0F7BK				FR0010220475			
ALSTOM SA	ALSTOM	Blockmatch (BLOX)	Common Stock	ALSTOM	ALOP S2	A0F7BK				FR0010220475			
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR	ALSTOM	ALSMY PQ	A1CS4B	83DY42Z US	021244207		US0212442075	081982660		
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR	ALSTOM	ALSMY US	A1CS4B	83DY42Z US	021244207		US0212442075	081982660		
ALSTOM SA	ALSTOM	OTC US (OOTC)	GDR	ALSTOM	ALSMY UV	A1CS4B	83DY42Z US	021244207		US0212442075	081982660		
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IB	A0R8B7	6139890 IN			INE200A01026			
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IN	A0R8B7	6139890 IN			INE200A01026			
ALSTOM T&D INDIA LTD	ALSTOM	Natl India (XNSE)	Common Stock	AREVA T&D INDIA LTD	ATD IS	A0R8B7	6139890 IN			INE200A01026			
ANDRITZ AG	ANDRITZ GROUP	Vieana (VBAH)	Common Stock	ANDRITZ AG	ANDR AV	632305	81WVVF8 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BATS Europa (BATE)	Common Stock	ANDRITZ AG	ANDR EB	632305	81WVVF8 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Chi-X Europe (CHIX)	Common Stock	ANDRITZ AG	ANDR IX	632305	81WVVF8 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Turquoise (TRGX)	Common Stock	ANDRITZ AG	ANDR EU	632305	81WVVF8 AT			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GB	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GD	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GF	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GM	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GN	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GP	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GS	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Xetra (XETR)	Common Stock	ANDRITZ AG	A22 GT	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Tradegate (XGAT)	Common Stock	ANDRITZ AG	A22 TH	632305	81X9FH2 DE			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	Common Stock	ANDRITZ AG	ADRZF US	632305	81XBL36 US			AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	Common Stock	ANDRITZ AG	ADRZF US	632305	81XBL36 US			AT0000730007	013042748	A11123105	
ANDRITZ AG	ANDRITZ GROUP	Euro Comp (XLON)	Common Stock	ANDRITZ AG	ANDR EU	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	LSE EuropeQS (XLON)	Common Stock	ANDRITZ AG	ANDR LV	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	LSE EuropeQS (XLON)	Common Stock	ANDRITZ AG	ANDR LO	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XA	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XB	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XD	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XE	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XL	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Euro OTC (XLON)	Common Stock	ANDRITZ AG	ANDR XV	632305	828F3F6 GB			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BX Worldcaps (XBRN)	Common Stock	ANDRITZ AG	ANDR BW	632305	8H2L8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	SIX Swiss Ex (XSWX)	Common Stock	ANDRITZ AG	ANDR SE	632305	8H2L8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	BX Worldcaps (XBRN)	Common Stock	ANDRITZ AG	ANDR SW	632305	8H2L8M4 CH			AT0000730007	013042748		
ANDRITZ AG	ANDRITZ GROUP	Blockmatch (BLOX)	Common Stock	ANDRITZ AG	ANDR RV3	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	Liquidnet (LIGU)	Common Stock	ANDRITZ AG	ANDR LV3	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	UBS MTF (XUBS)	Common Stock	ANDRITZ AG	ANDR S2	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY PC	632305				AT0000730007			
ANDRITZ AG	ANDRITZ GROUP	OTC US (OOTC)	ADR	ANDRITZ AG-UNSPON ADR	ADRZY US	632305				AT0000730007			
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IB	120304	6139715 IN			INE263A01016			
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IN	120304	6139715 IN			INE263A01016			
BHARAT ELECTRONICS LIMITED	BHARAT ELECTRONICS LIMITED	Natl India (XNSE)	Common Stock	BHARAT ELECTRONICS LIMITED	BHE IS	120304	6139715 IN			INE263A01016			

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Shoavam	ISIN	COMMON	CINE	Fondscode
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IB	A1JLKM	B6SNRV2 IN			INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IN	A1JLKM	B6SNRV2 IN			INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Common Stock	BHARAT HEAVY ELECTRICALS	BHEL IS	A1JLKM	B6SNRV2 IN			INE257A01026			
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SLB	BHEUS IN								
BHARAT HEAVY ELECTRICALS	BHARAT HEAVY ELECTRICALS LIMITED	Natl India (XNSE)	Second Lending	BHARAT HEAVY ELECTRICALS-SLB	BHEUS IS								
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 CG	A0M31Z	6377214 CN			CNE000000QF1			
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 CH	A0M31Z	6377214 CN			CNE000000QF1			
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Shanghai (XSHG)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 C1	A0M31Z	6377214 CN			CNE000000QF1			
CHINA GEZHOUBA GROUP COMPANY LTD	CHINA GEZHOUBA GROUP COMPANY LTD	Nth SSE-SEHK (XSSC)	Common Stock	CHINA GEZHOUBA GROUP CO LT-A	600068 C1	A0M31Z	6377214 CN			CNE000000QF1			
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CG	A1JNL6	B4TH690 CN			CNE1000017G1			
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Shanghai (XSHG)	Common Stock	SINOHYDRO GROUP LTD-A	601669 CH	A1JNL6	B4TH690 CN			CNE1000017G1			
POWER CONSTRUCTION CORPORATION OF CHINA LTD	CHINA HYDRAULIC AND HYDROELECTRIC CONSTRUCTION GROUP (SINOHYDRO)	Nth SSE-SEHK (XSSC)	Common Stock	SINOHYDRO GROUP LTD-A	601669 C1	A1JNL6	B4TH690 CN			CNE1000017G1			
CHINA MACHINERY ENGINEERING CORPORATION	CHINA MACHINERY ENGINEERING CORPORATION	Hong Kong (XHKG)	Common Stock	CHINA MACHINERY ENGINEERING-H	1828 HK	A1KAFT	B94VG58 HK			CNE100001NP4	086987414		
CHINA MACHINERY ENGINEERING CORPORATION	CHINA MACHINERY ENGINEERING CORPORATION	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERING-H	C3M GF	A1KAFT				CNE100001NP4	086987414		
CHINA MACHINERY ENGINEERING CORPORATION	CHINA MACHINERY ENGINEERING CORPORATION	Frankfurt (XFRA)	Common Stock	CHINA MACHINERY ENGINEERING-H	C3M GR	A1KAFT				CNE100001NP4	086987414		
DAQING HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000985 CH	A0M4C2	6277949 CN			CNE000001402			
DAQING HUAKE GROUP CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	DAQING HUAKE GROUP CO-A	000985 CS	A0M4C2	6277949 CN			CNE000001402			
JINAN DIESEL ENGINE CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CH	A0M3ZT	6486109 CN			CNE000000MS3			
JINAN DIESEL ENGINE CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shenzhen (XSHE)	Common Stock	JINAN DIESEL ENGINE CO-A	000617 CS	A0M3ZT	6486109 CN			CNE000000MS3			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GB	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GF	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GM	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GR	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 GS	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	Common Stock	KUNLUN ENERGY CO LTD	CTJ1 TH	A1CV3E	5387753 DE	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Hong Kong (XHKG)	Common Stock	KUNLUN ENERGY CO LTD	135 HK	A1CV3E	6340078 HK	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF PQ	A1CV3E	801DD23 US	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF US	A1CV3E	801DD23 US	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	Common Stock	KUNLUN ENERGY CO LTD	KUNUF LV	A1CV3E	801DD23 US	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sth SSE-SEHK (SHSC)	Common Stock	KUNLUN ENERGY CO LTD	135 H1	A1CV3E	6340078 HK	952131		BMG5320C1082	050092003		
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY PQ	A1J7V7	83L2812 US	50128A101		US50128A1016			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY US	A1J7V7	83L2812 US	50128A101		US50128A1016			
KUNLUN ENERGY CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	OTC Exchange (OOTC)	ADR	CNPC HONG KONG LTD-UNSP ADR	KLYCY UV	A1J7V7	83L2812 US	50128A101		US50128A1016			
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 GT	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	801DNL9 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	801DNL9 US			CNE1000003W8	011014674	Y6883Q104	
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Sth SSE-SEHK (SHSC)	Common Stock	PETROCHINA CO LTD-H	857 H1	A0M4YQ	6226576 HK			CNE1000003W8	011014674		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CG	A0NANC	928SLD9 CN			CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Shanghai (XSHG)	Common Stock	PETROCHINA CO LTD-A	601857 CH	A0NANC	928SLD9 CN			CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Nth SSE-SEHK (XSSC)	Common Stock	PETROCHINA CO LTD-A	601857 C1	A0NANC	928SLD9 CN			CNE1000007Q1	033421664		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UB	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UD	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UF	936983	2568841 US	74646E100		US71646E1001	011511449		

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	GUSIP	Stocvam	USIN	COMMON	CINS	Fondscod9e
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UN	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR US	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UP	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UT	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR UX	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VJ	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VK	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	New York (XNYS)	ADR	PETROCHINA CO LTD -ADR	PTR VY	936983	2568841 US	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GB	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GF	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GM	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GR	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GS	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Frankfurt (XFRA)	ADR	PETROCHINA CO LTD -ADR	PC6A GY	936983	4633327 DE	71646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Singapore (XSES)	ADR	PETROCHINA CO LTD -ADR	PTR SP	936983	B3KTK63 SG			US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Mexico (XMEX)	ADR	PETROCHINA CO LTD -ADR	PTRN MM	936983	8569834 MX	74646E100		US71646E1001	011511449		
PETROCHINA CO LTD	CHINA NATIONAL PETROLEUM CORP aka CNPC	Tradegate (XGAT)	ADR	PETROCHINA CO LTD -ADR	PC6A TH	936983		74646E100		US71646E1001	011511449		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Hong Kong (XHKG)	Common Stock	AKM INDUSTRIAL CO LTD	1639 HK	A0D86T	802J0J3 HK			HK8298013897	021553654		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GB	A0D86T	806L0H3 DE			HK8298013897	021553654		
AKM INDUSTRIAL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Berlin (XBER)	Common Stock	AKM INDUSTRIAL CO LTD	AIQ GR	A0D86T	806L0H3 DE			HK8298013897	021553654		
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CH	A0M35W	6112125 CN			CNE000000V29			
NORINCO INTERNATIONAL COOPERATION LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORINCO INTL COOPERATION -A	000065 CS	A0M35W	6112125 CN			CNE000000V29			
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-	000059 CH	A0M30T	6796143 CN			CNE000000N99			
NORTH HUAJIN CHEMICAL INDUSTRIES CO LTD	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORTH HUAJIN CHEMICAL INDU-	000059 CS	A0M30T	6796143 CN			CNE000000N99			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 CG	A0M4L5	6649946 CN			CNE000001F88			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 CH	A0M4L5	6649946 CN			CNE000001F88			
NORTH NAVIGATION CONTROL TECHNOLOGY CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Nth SSE-SEHK (XSSC)	Common Stock	NORTH NAVIGATION CONTROL T-	600435 C1	A0M4L5	BP3R854 CN			CNE000001F88			
SICHUAN NITROCELL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CH	A0RPGJ	839G5K4 CN			CNE100000BW7			
SICHUAN NITROCELL CO. LTD.	CHINA NORTH INDUSTRIES GROUP CORPORATION (CNGCINORINCO)	Shenzhen (XSHE)	Common Stock	SICHUAN NITROCELL CO LTD-A	002246 CS	A0RPGJ	839G5K4 CN			CNE100000BW7			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-	600028 CH	A0M4G4	6373728 CN			CNE0000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	CHINA PETROLEUM & CHEMICAL-	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-	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-	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-	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-	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-	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-	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-	CHU GS	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-	CHU GY	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-	CHU QT	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-	SNPMF PQ	A0M4XN	801XKR4 US			CNE1000002Q2	012150504	Y15010104	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	SNPMF US	A0M4XN	801XKR4 US			CNE1000002Q2	012150504	Y15010104	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	SNPMF UV	A0M4XN	801XKR4 US			CNE1000002Q2	012150504	Y15010104	
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sth SSE-SEHK (SHSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	386 H1	A0M4XN	BP3R5MD HK			CNE1000002Q2	012150504		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	CHINA PETROLEUM & CHEMICAL-	600028 CG	A0M4G4	6373728 CN			CNE1000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	CHINA PETROLEUM & CHEMICAL-	600028 C1	A0M4G4	BP3R240 CN			CNE1000018G1			
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	SNP UB	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	SNP UD	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	SNP UF	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-	SNP UM	578971	2639189 US	16941R108		US16941R1086	011899374		

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicavam	ISIN	COMMON	CNS	Fondscode
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UN	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UP	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP US	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UT	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP UX	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP VJ	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP VK	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	SNP VY	578971	2639189 US	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GB	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GF	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GM	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GR	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GS	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	ADR	CHINA PETROLEUM & CHEMICAL-ADR	CHUA GY	578971	BORSW00 DE	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Mexico (XMEX)	ADR	CHINA PETROLEUM & CHEM - ADR	SNPN MM	578971	B4QSP22 MX	16941R108		US16941R1086	011899374		
CHINA PETROLEUM & CHEMICAL CORP aka SINOPEC CORP	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Tradegate (XGAT)	ADR	CHINA PETROLEUM & CHEM-ADR	CHUA TH	578971		16941R108		US16941R1086	011899374		
KINGDREAM PLC	SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CH	A0M37A	6136385 CN			CNE000000XK7			
KINGDREAM PLC	SINOPEC GROUP	Shenzhen (XSHE)	Common Stock	KINGDREAM PUBLIC LIMITED - A	000852 CS	A0M37A	6136385 CN			CNE000000XK7			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sh SSE-SEHK (SHSC)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 H1	A1197T	892NYC9			CNE100001NV2	093502256		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC ENGINEERING GROUP-H	2386 HK	A1197T	892NYC9			CNE100001NV2	093502256		
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GF	A1197T	896WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GM	A1197T	896WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GR	A1197T	896WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Munich (XMUN)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS GS	A1197T	896WKB3			CNE100001NV2			
SINOPEC ENGINEERING GROUP CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Quotrix Exch (XQTX)	Common Stock	SINOPEC ENGINEERING GROUP-H	1NS QT	A1197T	896WKB3 DE			CNE100001NV2			
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GB	923923	4601197 DE			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GF	923923	4601197 DE			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GR	923923	4601197 DE			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC KANTONS HOLDINGS	SAK GS	923923	4601197 DE			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 HK	923923	6162692 HK			BMG8165U1009	011563384		
SINOPEC KANTON HOLDINGS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC KANTONS HOLDINGS	934 H1	923923	6P3RX08 HK			BMG8165U1009	011563384		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 CG	A0M3RA	6802794			CNE000000BB2			
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 CH	A0M3RA	6802794			CNE000000BB2			
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Nth SSE-SEHK (XSSC)	Common Stock	SINOPEC SHANGHAI PETROCHE-A	600688 C1	A0M3RA	8P3R596 CN			CNE000000BB2			
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GB	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GD	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GF	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GH	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GM	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GR	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GS	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SGJH GT	A0M4Y5	5888632 DE		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKG)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	338 HK	A0M4Y5	6797458 HK		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SPTJF US	A0M4Y5	801XTG6 US			CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	SPTJF UV	A0M4Y5	801XTG6 US			CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Sh SSE-SEHK (SHSC)	Common Stock	SINOPEC SHANGHAI PETROCHEM-H	338 H1	A0M4Y5	8P3RXRO HK		908303	CNE1000004C8	005096162		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UB	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UD	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UF	887169	2800059 US		908289	US82935M1099	012248750		

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS	Fondscode
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UN	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UP	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UT	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI UX	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI VJ	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI VK	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI VY	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GB	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GF	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GM	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GR	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Frankfurt (XFRA)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI GS	887169	5734638 DE	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Singapore (XSES)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI SP	887169	B3MNGN2	82935M109	908289	US82935M1099	012248750		
SINOPEC SHANGHAI PETROCHEMICALS LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	New York (XNYS)	ADR	SINOPEC SHANGHAI-SPONS ADR	SHI US	887169	2800059 US		908289	US82935M1099	012248750		
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CG	ADM3V6	6986740			CNE000000HS3			
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Shanghai (XSHG)	Common Stock	SINOPEC YIZHENG CHEMICAL -A	600871 CH	ADM3V6	6986740			CNE000000HS3			
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	Hong Kong (XHKHG)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	1033 HK	A0M4Y6	6984669 HK		917709	CNE1000004D6	008069662		
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFF US	A0M4Y6	B01XVL5 US			CNE1000004D6	008069662		
SINOPEC YIZHENG CHEMICAL FIBRE CO LTD	CHINA PETROCHEMICAL CORP aka SINOPEC GROUP	OTC US (OOTC)	Common Stock	SINOPEC YIZHENG CHEMICAL-H	YZCFV UV	A0M4Y6	B01XVL5 US			CNE1000004D6	008069662		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Hong Kong (XHKHG)	Common Stock	POLY PROPERTY GROUP CO LTD	119 HK	885546	6220987 HK			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD	CMJ GB	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD	CMJ GF	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD	CMJ GR	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Frankfurt (XFRA)	Common Stock	POLY PROPERTY GROUP CO LTD	CMJ GS	885546	B1HJJS7 DE			HK0119000674	004580702		
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP CO LTD	PHKIF US	885546	B23CST1 US			HK0119000674	004580702	Y7064G105	
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	OTC US (OOTC)	Common Stock	POLY PROPERTY GROUP CO LTD	PHKIF UV	885546	B23CST1 US			HK0119000674	004580702	Y7064G105	
POLY PROPERTY GROUP CO LTD	CHINA POLY GROUP CORPORATION	Sth SSE-SEHK (SHSC)	Common Stock	POLY PROPERTY GROUP CO LTD	119 H1	885546	BP3RQJ3 HK			HK0119000674	004580702		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF PQ	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF UV	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKHG)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	489 HK	A0M4XY	B0PH5N3 HK			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GB	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GF	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GM	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GS	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GR	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Frankfurt (XFRA)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D GY	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Quotrix Exch (XQTX)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	D4D QT	A0M4XY	B0TBB66 DE			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF US	A0M4XY	B0XZY65 US			CNE100000312	023857456	Y21042109	
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	Hong Kong (XHKHG)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	489 H1	A0M4XY	BP3RTP0 HK			CNE100000312	023857456		
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF PQ		B3SQPT4 US	257738203		US2577382037			
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	ADR	DONGFENG MOTOR GRP CO LTD-H	DNFGF US		B3SQPT4 US	257738203		US2577382037			
DONGFENG MOTOR GROUP COMPANY LIMITED	DONGFENG MOTOR GROUP COMPANY LIMITED	OTC US (OOTC)	Common Stock	DONGFENG MOTOR GRP CO LTD-H	DNFGF UV		B3SQPT4 US	257738203		US2577382037			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Kuwait (XKUW)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHOLDIN KK	ADH1G7	B0S8H15 KW			EG69082C013			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EC	ADH1G7	B0QMD00 EG			EGS69082C013			
EGYPT KUWAIT HOLDING CO	EGYPT KUWAIT HOLDING CO	Cairo (XCAI)	Common Stock	EGYPT KUWAIT HOLDING CO SAE	EKHO EY	ADH1G7	B0QMD00 EG			EGS69082C013			
ENERGY HOUSE HOLDING CO KSCC/THE	ENERGY HOLDING CO KSCC/THE	Kuwait (XKUW)	Common Stock	ENERGY HOLDING CO KSCC/THE	ENERGYH KK	A0KD4C	B138W99 KW			KW0EQ0601801			
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Equiduct (XEQT)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU BQ	853155	B05DY78 FR		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	BATS Europe (BATE)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU EB	853155	B05DY78 FR		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	EN Paris (XPAR)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU FP	853155	B05DY78 FR		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Chi-X Europe (CHIX)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU IX	853155	B05DY78 FR		005107	FR0000051070	003285910		

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Secoam	ISIN	CUMMUN	CINS	Fondscode
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Turquoise (TRQX)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU TQ	853155	B05DY78 FR		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GB	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GD	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GF	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GR	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Frankfurt (XFRA)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX GS	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Quotrix Exch (XQTX)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX QT	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Tradegate (XGAT)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	ETX TH	853155	B06LR20 DE		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	OTC US (OOTC)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MREL US	853155	B06MN99 US			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	OTC US (OOTC)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MREL UV	853155	B06MN99 US			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	LSE EuropeQS (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU LI	853155	B28K469 GB		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	LSE EuropeQS (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU LO	853155	B28K469 GB		005107	FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XB	853155	B28K469 GB			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XD	853155	B28K469 GB			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XE	853155	B28K469 GB			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XS	853155	B28K469 GB			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro OTC (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU XV	853155	B28K469 GB			FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Euro Comp (XLON)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAU EU	853155				FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	Blockmatch (BLOX)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAUP B3	853155				FR0000051070	003285910		
ETABLISSEMENTS MAUREL ET PROM	ETABLISSEMENTS MAUREL ET PROM	UBS MTF (XUBS)	Common Stock	ETABLISSEMENTS MAUREL ET PROM	MAUP S2	853155				FR0000051070	003285910		
GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ-CLS	GAZA RM	903426	B5BKBJ8 RU		950579	RU0009034268	034991693		
GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock	GAZ-CLS	GAZA RX	903426	B5BKBJ9 RU		950579	RU0009034268	034991693		
GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Preference	GAZ-CLS-PFD	GAZAP RM	910283	B5BKC29 RU			RU0009102834			
GAZ AUTO PLANT	GAZ GROUP	MICEX Main (MISX)	Preference	GAZ-CLS-PFD	GAZAP RX	910283	B5BKC29 RU			RU0009102834			
PAVLOVSKY BUS PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock	PAVLOVSKY BUS-CLS	PAZA RM	908324	B57MPG4 RU			RU0009083240			
PAVLOVSKY BUS PLANT	GAZ GROUP	MICEX Main (MISX)	Common Stock	PAVLOVSKY BUS-CLS	PAZA RX	908324	B57MPG4 RU			RU0009083240			
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Hong Kong (XHKG)	Common Stock	HARBIN ELECTRIC CO LTD-H	1133 HK	ADM4X8	8452781 HK		930709	CNE10000030C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GB	ADM4X8	B1HJDX0 DE		930709	CNE10000030C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GF	ADM4X8	B1HJDX0 DE		930709	CNE10000030C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	Frankfurt (XFRA)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6H GR	ADM4X8	B1HJDX0 DE		930709	CNE10000030C0	011043780		
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6W US	ADM4X8	B3BHKK0 US		930709	CNE10000030C0	011043780	Y30683109	
HARBIN ELECTRIC CO LTD	HARBIN ELECTRIC CO LTD	OTC US (OOTC)	Common Stock	HARBIN ELECTRIC CO LTD-H	HP6W UV	ADM4X8	B3BHKK0 US		930709	CNE10000030C0	011043780	Y30683109	
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IB	A08968	6121563 IN			INE178A01016			
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IN	A08968	6121563 IN			INE178A01016			
CHENNAI PETROLEUM CORPORATION LIMITED	INDIAN OIL CORP LTD aka IOCL	Mumbai (XBOM)	Common Stock	CHENNAI PETROLEUM CORP LTD	MRL IS	A08968	6121563 IN			INE178A01016			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IN	A089FM	6253767 IN			INE242A01010			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IB	A089FM	6253767 IN			INE242A01010			
INDIAN OIL CORP LTD	INDIAN OIL CORP LTD aka IOCL	Natl India (XNSE)	Common Stock	INDIAN OIL CORPORATION LTD	IOCL IS	A089FM	6253767 IN			INE242A01010			
LANKA IOC PLC	INDIAN OIL CORP LTD aka IOCL	Colombo (XCOL)	Common Stock	LANKA IOC PLC	LI0C SL	A0083L	6059154 LK			LK0345N00005			
JIANGXI HONGDU AVIATION INDUSTRY CO LTD	JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CG	ADM4EK	6304375 CN			CNE0000015N3			
JIANGXI HONGDU AVIATION INDUSTRY CO LTD	JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Shanghai (XSHG)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 CH	ADM4EK	6304375 CN			CNE0000015N3			
JIANGXI HONGDU AVIATION INDUSTRY CO LTD	JIANGXI HONGDU AVIATION INDUSTRY CO LTD	Nth SSE-SEHK (XSSC)	Common Stock	JIANGXI HONGDU AVIATION-A	600316 C1	ADM4EK	BP3R8J7 CN			CNE0000015N3			
LS INDUSTRIAL SYSTEMS CO, LTD	LS INDUSTRIAL SYSTEMS CO, LTD	Korea (XKRX)	Common Stock	LS INDUSTRIAL SYSTEMS	010120 KP	895487	8378217 KR			KR7010120004			
LS INDUSTRIAL SYSTEMS CO, LTD	LS INDUSTRIAL SYSTEMS CO, LTD	Korea (XKRX)	Common Stock	LS INDUSTRIAL SYSTEMS	010120 KS	895487	8378217 KR			KR7010120004			
MAN SE	MAN SE	Equiduct (XEQT)	Common Stock	MAN SE	MAN BQ	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BX Worldcaps (XBRN)	Common Stock	MAN SE	MAN BV	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BATS Europe (BATE)	Common Stock	MAN SE	MAN EB	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GB	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GD	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GF	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GH	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GI	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GM	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GR	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GS	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Xetra (XETR)	Common Stock	MAN SE	MAN GT	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Quotrix Exch (XQTX)	Common Stock	MAN SE	MAN GT	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	BX Worldcaps (XBRN)	Common Stock	MAN SE	MAN SW	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Tradegate (XGAT)	Common Stock	MAN SE	MAN TH	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Turquoise (TRQX)	Common Stock	MAN SE	MAN TQ	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	Chi-X Europe (CHIX)	Common Stock	MAN SE	MAN IX	593700	5663520 DE		944020	DE0005937007	001117254		
MAN SE	MAN SE	SIX Swiss Ex (XSWX)	Common Stock	MAN SE	MAN SE	593700	5628883 CH		944020	DE0005937007	001117254		
MAN SE	MAN SE	Euro Comp (XLON)	Common Stock	MAN SE	MAN EU	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XA	593700	B10LRX1 GB		944020	DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XB	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XD	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XE	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XG	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XH	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XI	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XJ	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XK	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XL	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XM	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XN	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XO	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XP	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XQ	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XR	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XS	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XT	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XV	593700	B10LRX1 GB			DE0005937007	001117254		
MAN SE	MAN SE	Euro OTC (XLON)	Common Stock	MAN SE	MAN XW	593700	B10LRX						

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sic.com	ISIN	COMMOV	CINS	Fondscode
Volkswagen AG	MAN SE	Blockmatch (BLOX)	Preference	VOLKSWAGEN AG-PREF	VOW30 B3	766403				DE0007664039			
Volkswagen AG	MAN SE	Liquidnet (LIQU)	Preference	VOLKSWAGEN AG-PREF	VOW30 L3	766403				DE0007664039			
Volkswagen AG	MAN SE	UBS MTF (XUBS)	Preference	VOLKSWAGEN AG-PREF	VOW30 S2	766403				DE0007664039			
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY PQ	879511	2930484 US	928662303		US9286623031	011526233		
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR	VLKAY US	879511	2930484 US	928662303		US9286623031	011526233		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GF	879511	2930484 US	928662303		US9286623031	011526233		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GR	879511	862V8T7 DE	928662303		US9286623031	011526233		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR	VOW4 GY	879511	862V8T7 DE	928662303		US9286623031	011526233		
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VLKPY PQ	ADDP2R	2265960 US	928662402	928662402		US9286624021	042872202		
Volkswagen AG	MAN SE	OTC US (OOTC)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VLKPY US	ADDP2R	2265960 US	928662402	928662402		US9286624021	042872202		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VOW5 GB	ADDP2R	8603118 DE	928662402	928662402		US9286624021	042872202		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VOW5 GF	ADDP2R	8603118 DE	928662402	928662402		US9286624021	042872202		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VOW5 GR	ADDP2R	8603118 DE	928662402	928662402		US9286624021	042872202		
Volkswagen AG	MAN SE	Frankfurt (XFRA)	ADR	VOLKSWAGEN AG-SPONS ADR PFI VOW5 GV	ADDP2R	8603118 DE	928662402	928662402		US9286624021	042872202		
MANAGEM	MANAGEM	Casablanca (XCAS)	Common Stock	MANAGEM	MNGC MG	165414	6287454 MA			MA000001058			
SOCIETE METALLURGIQUE D'IMITER	MANAGEM	Casablanca (XCAS)	Common Stock	SOCIETE METALLURGI D'IMITER	SMI MG	256307	6007759 MA			MA000001068			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IB	ADNANW	6121530 IN			INE103A01014			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IN	ADNANW	6121530 IN			INE103A01014			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP LTD	Mumbai (XBOM)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	MRPL IS	ADNANW	6121530 IN			INE103A01014			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP LTD	Nat India (XNSE)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	ONGC IN	A1H6P4	6139362 IN			INE213A01029			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP LTD	Nat India (XNSE)	Common Stock	MANGALORE REFINERY & PETROCHEMICALS LIMITED	ONGC IB	A1H6P4	6139362 IS			INE213A01029			
MANGALORE REFINERY & PETROCHEMICALS LIMITED	OIL & NATURAL GAS CORP LTD	Nat India (XNSE)	Second Lending	MANGALORE REFINERY & PETROCHEMICALS LIMITED	ONGC/S IN					N.A.			
OIL & NATURAL GAS CORP LTD	OIL & NATURAL GAS CORP	Nat India (XNSE)	Second Lending	OIL & NATURAL GAS CORP - SLB	ONGC/S IS					N.A.			
OIL INDIA LTD	OIL INDIA LTD	Nat India (XNSE)	Common Stock	OIL INDIA LTD	OINL IB	ADXPFF	B409HQ9 IN			INE274J01014			
OIL INDIA LTD	OIL INDIA LTD	Nat India (XNSE)	Common Stock	OIL INDIA LTD	OINL IS	ADXPFF	B409HQ9 IN			INE274J01014			
OIL INDIA LTD	OIL INDIA LTD	Nat India (XNSE)	Common Stock	OIL INDIA LTD	OINL IS	ADXPFF	B409HQ9 IN			INE274J01014			
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG CN	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DV	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DS	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG DV	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TJ	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Venture (XTSX)	Common Stock	ORCA GOLD INC	ORG TN	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF PQ	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	OTC US (OOTC)	Common Stock	ORCA GOLD INC	CANWF US	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	CANWF UV	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GB	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GF	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GR	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
ORCA GOLD INC	ORCA GOLD INC	Frankfurt (XFRA)	Common Stock	ORCA GOLD INC	HJ6A GS	A1T8LS	884J7Q3 CA	68558102		CA685581024	091768224		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Venture (XTSX)	Common Stock	PANORAMA PETROLEUM INC	PPA CN	A116E2	BN0C728 CA	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	PPA DV	A116E2	BN0C728 CA	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	PPA TV	A116E2	BN0C728 CA	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	PPA TN	A116E2	BN0C728 CA	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	AZUEF PQ	A116E2	BN0C752 US	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	AZUEF US	A116E2	BN0C752 US	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	OTC US (OOTC)	Common Stock	PANORAMA PETROLEUM INC	AZUEF UV	A116E2	BN0C752 US	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	TMPI GF	A116E2	BN0C9CF4 DE	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	TMPI GR	A116E2	BN0C9CF4 DE	69862105		CA698621057	035608958		
PANORAMA PETROLEUM INC	PANORAMA PETROLEUM INC	Euro Comp (XLON)	Common Stock	PANORAMA PETROLEUM INC	TMPI EU	A116E2	BN0C9CF4 DE	69862105		CA698621057	035608958		
PETROLIUM NASIONAL BERHAD aka PETRONAS	PETROLIUM NASIONAL BERHAD aka PETRONAS	Gaborone (XBOT)	Common Stock	PETROLIUM NASIONAL BERHAD	ENGN BG	546632	8063G04			BW000000058			
KLCC PROPERTY HOLDINGS BHD	PETROLIUM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XXLS)	Common Stock	KLCC PROPERTY HOLDINGS BHD	KLCCSS MK	A1T91X	892NSW7 MY			MYL52355S008			
MALAYSIA INTERNATIONAL SHIPPING COMPANY aka MISC BHD	PETROLIUM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XXLS)	Common Stock	MISC BHD	MISC MK	880504	6557997 MY		905279	MYL38160C005	003527883		
MALAYSIA MARINE AND HEAVY ENGINEERING HOLDINGS BHD	PETROLIUM NASIONAL BERHAD aka PETRONAS	Bursa Malaysia (XXLS)	Common Stock	MALAYSIA MARINE AND HEAVY EN	MMHE MK	A1C7U6	83WSNN7			MYL51860C001	055049394		
PETRONAS CHEMICALS GROUP BHD	PETRONAS	Bursa Malaysia (XXLS)	Common Stock	PETRONAS CHEMICALS GROUP BHD	PICHEM MK	A1C891	85KQGT3 MY			MYL51830C008	055800235		
PETRONAS DAGANGAN BHD	PETRONAS	Bursa Malaysia (XXLS)	Common Stock	PETRONAS DAGANGAN BHD	PETD MK	895131	6695938 MY			MYL56810C001	005378044		
PETRONAS GAS BHD	PETRONAS	Bursa Malaysia (XXLS)	Common Stock	PETRONAS GAS BHD	PTG MK	896633	6703972 MY			MYL80330C004	007078959		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XA	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XB	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XF	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XL	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XG	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XH	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XI	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XJ	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XK	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XL	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XM	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XN	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XO	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XP	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XQ	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XR	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XS	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XT	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XU	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XV	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XW	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB XZ	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD	SLB YA	853390	0779203 GB	806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro OTC (XLON)	Common Stock	SCHLUMBERGER LTD</									

Company	Primary Company (Affiliate/Parent)	Exchange	Security Type	Security Name	Ticker	WPK Number	SEDOL	CUSIP	Sicovam	ISIN	COMMON	CINS	Fondscode
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GB	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GD	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GF	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GH	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GM	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GR	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GS	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Frankfurt (XFRA)	Common Stock	SCHLUMBERGER LTD	SCL GY	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Quotrix Exch (XQTX)	Common Stock	SCHLUMBERGER LTD	SCL QT	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Tradegate (XGAT)	Common Stock	SCHLUMBERGER LTD	SCL TH	853390	4779351 DE	806857108	981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Mexico (XMEX)	Common Stock	SCHLUMBERGER LTD	SLBN MM	853390	8043L56 MX		981783	AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	Euro Comp (XLON)	Common Stock	SCHLUMBERGER LTD	SLBCHP EU	853390		806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	BM&FBOVESPA (BVMF)	BDR	SCHLUMBERGER - BDR	SLBG34 BZ			806857108		AN8068571086	010104491		
SCHLUMBERGER LTD	SCHLUMBERGER LTD	BM&FBOVESPA (BVMF)	BDR	SCHLUMBERGER - BDR	SLBG34 BZ					BRSLBGBDR003			
SCOMI ENERGY SERVICES BHD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENERGY SERVICES BHD	SES MK	215406				BRSLBGBDR003			
SCOMI ENGINEERING BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI ENGINEERING BHD	SEB MK	903056				MYL704500007			
SCOMI GROUP BERHAD	SCOMI GROUP BERHAD	Bursa Malaysia (XKLS)	Common Stock	SCOMI GROUP BHD	SGB MK	120745				MYL736800007			
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	OTC US (OTC)	Common Stock	STATESMAN RESOURCES LTD	SRRHF US	A1J2NC	B6SCJ24 US	857652200		CA8576522004	025302885		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	OTC US (OTC)	Common Stock	STATESMAN RESOURCES LTD	SRRHF UV	A1J2NC	B6SCJ24 US	857652200		CA8576522004	025302885		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CN	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR CV	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR DS	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885		
STATESMAN RESOURCES LIMITED	STATESMAN RESOURCES LIMITED	Venture (XTSX)	Common Stock	STATESMAN RESOURCES LTD	SRR DV	A1J2NC	B80L116 CA	857652200		CA8576522004	025302885		

ATTACHMENT D

EIRIS Conflict Risk Network (CRN) List of "Scrutinized" Companies in Sudan
List Effective Through February 28, 2015

<u>Company Name</u>	<u>Country of Origin</u>
Alstom	France
Alstom India Ltd	India
Alstrom T&D India Ltd.	India
Andritz AG	Austria
Bharat Electronics Limited	India
Bharat Heavy Electricals Limited	India
Caterpillar Inc.	US
China Gezhouba Group Company Ltd.	China
China Hydraulic and Hydroelectric Construction Group AKA Sinohydro	China
Power Construction Corporation of China Ltd.	China
Sichuan Power Development Co., Ltd.	China
Sinohydro Bureau 7 Co., Ltd.	China
Sinohydro Engineering Bureau 8 Co. Ltd	China
China Machinery Engineering Corporation	China
China National Petroleum Corporation AKA CNPC	China
CNPC General Capital Ltd.	British Virgin Islands
CNPC HK Overseas Capital Ltd.	Hong Kong
Daqing Huake Group Co., Ltd.	China
Jinan Diesel Co., Ltd.	China
Kunlun Energy Co., Ltd.	Hong Kong
PetroChina Co., Ltd.	China
China North Industries Group Corporation AKA CNGC/NORINCO	China
AKM Industrial Co., Ltd.	China
NORINCO International Cooperation Ltd.	China
North Huajin Chemical Industries Co., Ltd.	China
North Navigation Control Technology Co., Ltd	China
Sichuan Nitrocell Co., Ltd	China
China Petrochemical Corporation AKA Sinopec Group	China
China Petroleum and Chemical Corporation AKA Sinopec Corp	China
Kingdream PLC	China
Sinopec Capital 2013 Ltd.	British Virgin Islands
Sinopec Engineering Group Co. Ltd.	China
Sinopec Group Overseas Development 2012 Ltd.	British Virgin Islands
Sinopec Group Overseas Development 2013 Ltd.	British Virgin Islands
Sinopec Kanton Holdings Ltd.	Hong Kong
Sinopec Shanghai Petrochemicals Ltd.	China
Sinopec Yizheng Chemical Fibre Co., Ltd.	China
China Poly Group Corporation	China
Poly Energies Holding Co. Ltd.	Hong Kong
Poly Property Group Co. Ltd.	China
Dongfeng Motor Group Co. Ltd.	China
Egypt Kuwait Holding Company	Egypt
Energy House Holding Company KSCC (previously known as AREF Energy Holding Company)	Kuwait
Etablissements Maurel et Prom	France
GAZ Group	Russia
GAZ Auto Plant	Russia
Pavlovsky Bus Plant	Russia
Glencore PLC	Switzerland
Caracal Energy Inc.	Canada
Glencore Canada Corp.	Canada
Glencore Canada Financial Corp.	Canada
Glencore Finance Canada Ltd.	Canada
Glencore Finance Dubai Ltd.	Dubai
Glencore Finance Europe	Germany
Glencore Funding LLC	USA
Viterra Inc.	Canada
Harbin Electric Company Ltd.	China
Indian Oil Corporation Ltd. AKA IOCL	India
Chennai Petroleum Corporation Limited AKA CPCL	India
Lanka IOC Ltd	India
Jiangxi Hongdu Aviation Industry Co., Ltd	China
JX Holdings Inc.	Japan
Eneos Globe Company	Japan
Nippo Corporation	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, AKA ONGC	India
Mangalore Refinery and Petrochemicals Ltd. AKA MRPL	India
ONGC Videsh Limited AKA OVL	India
Oil India Ltd.	India
Orca Gold Inc. (previously known as Shark Minerals)	Canada
Panorama Petroleum Inc.	Canada
Pertamina Persero PT	Indonesia
Petroliam Nasional Berhad AKA Petronas	Malaysia
Engen	Malaysia
Gas District Cooling Putrajaya Sdn Bhd	Malaysia
KLCC Property Holdings Bhd	Malaysia
Malaysia International Shipping Company AKA MISC Bhd	Malaysia
Malaysia Marine and Heavy Engineering Holdings Bhd	Malaysia
Midciti Sukuk Bhd	Malaysia
Petronas Capital Ltd.	Malaysia
Petronas Chemicals Group Berhad	Malaysia
Petronas Dagangan Bhd	Malaysia
Petronas Gas Bhd	Malaysia
Putrajaya Holdings Sdn Bhd	Malaysia
Ranhill Berhad	Malaysia
Ranhill Power Sdn Bhd	Malaysia
Ranhill Powertron Sdn	Malaysia
Ranhill Powertron II Sdn	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
Schlumberger Ltd.	India
Scomi Group Berhad	Curacao
KMCOB Capital Berhad	Malaysia
Scomi Energy Services Bhd	Malaysia
Scomi Engineering Berhad	Malaysia
Statesman Resources Limited	Malaysia
Trafigura Beheer	Canada
	Netherlands

Note: List contains parent companies and subsidiaries publicly traded
AKA means "also known as"

EIRIS Conflict Risk Network (CRN) List of Companies in Sudan for "Substantial Action"
List Effective Through February 28, 2015

Company Name	Country of Origin
Atlas Copco	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 Through February 28, 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.	Sudan
ACES AKA Arab Center for Engineering Studies Khartoum	Jordan
Africa Energy Sa Nigeria Ltd.	Nigeria
Ansan Wikfs Investments Ltd.	Yemen
APS Engineering Company Roma S.p.A.	Italy
Arcadia Petroleum Ltd.	UK
Blue Coat Systems	USA
China International Water & Electric Corp AKA CWE	China
Concorp Petroleum Limited	Sudan
Daedong Industrial Machinery Co., Ltd	South Korea
Dindir Petroleum International/Edgo Group	Jordan
Emirates Telecommunication Corporation	UAE
European Marmot Co. Group	Switzerland
Express Petroleum and Gas Company	Nigeria
FMC Technologies Inc.	US
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
Kamaz OJSC	Russia
La Mancha Resources	Canada
Lahmeyer International	Germany
MAM Holding Group Co. Ltd.	Sudan
Mott MacDonald	UK
MTN Group	South Africa
Niel Petroleum S.A.	Luxembourg
Petronneeds Service International Company	Sudan
PetroTrans Company Ltd.	Hong Kong
Quest Qualitas FZCO	United Arab Emirates
Saras S.p.A.	Italy
SFTUE Belspetsvneshteknika	Belarus
Shandong Electric Power Construction Corporation	China
Shanghai Electric Group Co. Ltd	China
SMEC Holdings Limited AKA Snowy Mountain Engineering Corporation	Australia
Soma Group	Turkey
Star Petroleum S.A.	Spain
STR Projetos e Participacoes	Brazil
Sudanese Petroleum Pipeline Holding Co., Ltd.	Sudan
Sudan Petroleum Corporation AKA 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
Zain Group	Kuwait

Source: EIRIS Conflict Risk Network: EIRIS CRN is a project of the merger November 10, 2010 of Save Darfur Coalition and Genocide Intervention Network

ATTACHMENT E

Letter to SBI International and Domestic Equity Managers

December 19, 2014

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 25, 2014 letter you received. **This new list is effective December 31, 2014.**

The following company has been **removed** to the restricted list:

- **Lukoil Oil Co.** **Russia**

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

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 Patricia Ammann.

Sincerely,

LeaAnn M. Stagg
Chief Operating Officer

Enclosures

cc: Michael J. Menssen, Director, Public Markets
Patricia Ammann, 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 Office, Public Markets

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
Daelim Industrial	South Korea
Gail (India) Ltd.	India
Gubre Fabrikalari T.A.S.	Turkey
Harbin Electric Company Ltd.	China
Indian Oil Corporation Ltd.	India
L G International	South Korea
Marie Tecnimont S.p.A.	Italy
Mitsui & Co. Ltd	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	India
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyota Tsusho Corporation	Japan

Effective Date: December 31, 2014

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
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

Effective Date: December 31, 2014

ATTACHMENT 3
IRAN RESTRICTED COMPANIES
Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	COUNTRY
Bharat Petroleum Corporation Ltd.	6099723	INE029A01011	500547		India
China Petroleum & Chemical Corp	2639189	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	B4QSP22	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	2654375	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	BORSW00	US16941R1086	386	16941R108	China
China Petroleum & Chemical Corp	B01XKR4	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	7027756	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6291819	CNE1000002Q2	386	16941R108	China
China Petroleum & Chemical Corp	6373728	CNE0000018G1	386	16941R108	China
China Petroleum & Chemical Corp	B1C5SX8	ARDEUT114071	386	16941R108	China
Daelim Industrial	6246604	KR7000211003	A000210		South Korea
Daelim Industrial	B1T52M8	KR7000211003	A000210		South Korea
Daelim Industrial	6249584	KR7000210005	A000210		South Korea
Gail (India) Ltd.	B1HJ0L7	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	3235520	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B2NTDN1	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	B033102	US36268T2069	532155	36268T206	India
Gail (India) Ltd.	2498517	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	3235490	US36268T1079	532155	36268T206	India
Gail (India) Ltd.	6133405	INE129A01019	532155	36268T206	India
Gubre Fabrikalari T.A.S.	B03MTC7	TRAGUBRF91E2	GUBRF		Turkey
Gubre Fabrikalari T.A.S.	B188YV1	TRAGUBRF91E2	GUBRF		Turkey
Harbin Electric Company Ltd.	2407665	US4114591005	1133		China
Harbin Electric Company Ltd.	B3BHKK0	CNE1000003C0	1133		China
Harbin Electric Company Ltd.	B1HJDX0	CNE1000003C0	1133		China
Harbin Electric Company Ltd.	6422761	CNE1000003C0	1133		China
Indian Oil Corporation Ltd.	6253767	INE242A01010	530965		India
L G International	B02PV43	KR7001120005	A001120		Korea South
L G International	6537115	KR7001120005	A001120		Korea South
Maire Tecnimont S.p.A.	B68TGK2	US56064T1016	MT	56064T101	Italy
Maire Tecnimont S.p.A.	B2N7CX8	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	BBHGQ65	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	B4XXV22	IT0004931058	MT	56064T101	Italy
Maire Tecnimont S.p.A.	BBGTNT7	IT0004931058	MT	56064T101	Italy
Mitsui & Co. Ltd	4597058	XS0029348686	8031	606827202	Japan
Mitsui & Co. Ltd	2597061	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B1HHX89	US6068272029	8031	606827202	Japan
Mitsui & Co. Ltd	B0ZGPX0	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	B03KWZ5	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	5736463	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	4594071	JP3893600001	8031	606827202	Japan
Mitsui & Co. Ltd	6597302	JP3893600001	8031	606827202	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	6628644	INE580A01013	500075		India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01029	500312		India
Oil & Natural Gas Corporation Ltd.	6139362	INE213A01011	500312		India
PetroChina Co. Ltd.	B569834	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	B3KTK63	US71646E1001	857	71646E100	China

ATTACHMENT 3
IRAN RESTRICTED COMPANIES
Security Identifiers

COMPANY_NAME	SEDOL	ISIN	SYMBOL	CUSIP	COUNTRY
PetroChina Co. Ltd.	2568841	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	4633327	US71646E1001	857	71646E100	China
PetroChina Co. Ltd.	B28SLD9	CNE1000007Q1	857	71646E100	China
PetroChina Co. Ltd.	B17H0R7	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	5939507	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	B01DNL9	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	6226576	CNE1000003W8	857	71646E100	China
PetroChina Co. Ltd.	B1C5SR2	ARDEUT113958	857	71646E100	China
Toyota Tsusho Corporation	B3DTSN3	US89240C1062	8015		Japan
Toyota Tsusho Corporation	B6361P8	JP3635000007	8015		Japan
Toyota Tsusho Corporation	B3BK3N3	JP3635000007	8015		Japan
Toyota Tsusho Corporation	6900580	JP3635000007	8015		Japan

Letter SBI Fixed Income Managers

December 19, 2014

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 25, 2014 letter you received. **This new list is effective December 31, 2014.**

The following company has been **removed** from the restricted list:

- **Lukoil Oil Co.** **Russia**

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

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 Patricia Ammann.

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

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
Daelim Industrial	South Korea
Gail (India) Ltd.	India
Gubre Fabrikalari T.A.S.	Turkey
Harbin Electric Company Ltd.	China
Indian Oil Corporation Ltd.	India
L G International	South Korea
Marie Tecnimont S.p.A.	Italy
Mitsui & Co. Ltd	Japan
Nagarjuna Fertilizers & Chemicals Ltd.	India
Oil & Natural Gas Corporation Ltd.	India
PetroChina Co. Ltd.	China
Toyota Tsusho Corporation	Japan

Effective Date: December 31, 2014

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
Mitsui & Company, Ltd.	Japan	September 30, 2012	March 31, 2013
Toyota Tsusho	Japan	September 30, 2012	March 31, 2013

Effective Date: December 31, 2014

ATTACHMENT F

Metropolitan Council Other Postemployment Benefits (OPEB) Establishment of a Separately Managed Account

Metropolitan Council OPEB Investments

The Metropolitan Council (the "Met Council") has invested its OPEB liability related assets totaling approximately \$200 million with the State Board of Investment (SBI) in the pooled investment options that are available to all statewide OPEBs investing with the SBI. Striving to benefit from the low investment fee structure offered by the SBI, the Met Council recently requested the assistance of the SBI in determining a more refined long-term asset/liability management approach for its OPEB plans. With two-thirds of the Met Council's OPEB plans being fully funded, the Met Council would like to reduce its exposure to investment risk by moving some of the payout portion of its investment assets into a laddered bond portfolio which would increase the certainty needed for the Met Council's cash distributions for OPEB benefit payments.

Statutory Authorities

The Met Council's OPEB assets are administered in a revocable trust account by the Public Employees Retirement Association (PERA) under Minnesota Statute (MS) 471.6175 (Trust for Postemployment Benefits) and are invested by the SBI pursuant to MS Chapter 11A.14. MS Chapter 11A.14, subdivision 1 provides for the establishment of investment vehicles for assets of the participating public retirement plans and nonretirement funds. MS 471.6175, subdivision 5 specifies that the Met Council may provide investment direction to PERA as the trust administrator, and PERA must certify (and decertify) Met Council assets to the SBI for investment under section 11A.14 subject to the policies and procedures established by the SBI. Assets may only be invested as authorized in 11A.24.

Establishment of a Separately Managed Sub Account for the Met Council

Given the Met Council's relatively large OPEB asset size and statutory authority, the SBI Staff has determined that it can accommodate this request. If approved, the Met Council will supply the SBI with projections of its future annual cash available for separate account bond purchases and future cash benefit outflows to be funded by the interest receipts and principal maturities of the separate account bond holdings. The SBI will not be responsible for making either projection.

OPEB Asset Allocation Decision

As with all statewide OPEBs invested with the SBI, the Met Council will continue to be responsible for the asset allocation decision for its overall OPEB portfolio. In addition to the portfolio of individual fixed income securities, and where appropriate, the Met Council will continue to use one or more of the SBI pooled equity, fixed income and cash investment accounts.

SBI Investment Approach

The SBI will manage the securities in the separately managed sub-account in accordance with Chapter 11A, and the Met Council established investment guidelines surrounding the purchase of individual securities in the bond portfolio OPEB sub-account outlined in the attached document. The investment management of the Met Council's OPEB portfolio by the SBI will be based on PERA certification (or decertification), Minnesota statutes, SBI policies and procedures, and Met Council established investment guidelines that are in-place at the time of the action.

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ATTACHMENT G

MINNESOTA STATE BOARD OF INVESTMENT INVESTMENT GUIDELINES METROPOLITAN COUNCIL'S LADDERED BOND PORTFOLIO

The investment actions of the Minnesota State Board of Investment (SBI) in managing the Metropolitan Council's Laddered Bond Portfolio will be governed and evaluated by the following guidelines which are comprised below:

A1. ELIGIBLE INVESTMENTS

The Manager may purchase or sell fixed income instruments. The investments must satisfy the following criteria:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) Governmental bonds, notes, bills, mortgages, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the U.S. Government. The obligations in which the Manager may invest under this subdivision include guaranteed or insured issues of:
 - (1) the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;
- (c) Cash equivalent reserves shall be invested in the SBI's Short-Term Investment Fund, managed by its custodian bank.

A2. SEPARATE ACCOUNT AND DAILY PRICING

The Metropolitan Council's Laddered Bond portfolio will be managed as a separate account. All assets will be held in custody by the SBI's custodian bank. All securities held in the portfolio must be capable of being priced on a daily basis and accessible by the custodian.

A3. LEVERAGE

The Metropolitan Council's Laddered Bond portfolio may not use leverage at any time. Leverage exists when the market value of the assets in the portfolio exceeds the owner's (SBI) equity in the assets when viewing the portfolio at any time. Leverage is presumed to exist if the owner's equity is unable to satisfy all of the obligations existing in the portfolio.

The Manager may not short or lend out individual securities.

A4. TRADE PROCESSING AND PRICING

- (a) The Manager must report all trades to the SBI's custodian bank via facsimile, SWIFT or affirmation by Trade Date + 1 at 11:00 AM EST (10:00 CST). For same day settlement trades, the deadline is 10:30 AM EST (9:30 CST). Any trades after these deadlines should not be sent until the following day to ensure a smooth and accurate pricing process.

- (b) The account will be priced by the SBI's custodian bank and such prices will be used to measure performance of the Metropolitan Council's Laddered Bond Portfolio.

2015 GUIDELINES**TABLE OF CONTENTS**

	Page
Part A: External Domestic Equity	45
External Active Domestic Common Stock Managers	47
External Semi-Passive Domestic Common Stock Managers	51
External Passive Domestic Common Stock Manager	55
Part A: International Equity	57
Active International Developed Markets Equity Managers	59
Semi-Passive International Developed Markets Equity Managers	65
Passive International Developed Markets Equity Manager	71
Active International Emerging Markets Equity Managers	75
Passive International Emerging Markets Equity Manager	81
Part A: External Fixed Income	85
External Active Fixed Income Managers	87
External Semi-Passive Fixed Income Managers	95
Part A: Assigned Risk Plan	105
Assigned Risk Plan Common Stock Manager	107
Assigned Risk Plan Bond Manager	111
Part A: Internal Equity and Fixed Income	115
Internal Active Fixed Income Manager	117
Internal Passive Domestic Common Stock Manager	125
Part B: External Domestic Equity, External International Equity, External Fixed Income, Assigned Risk Plan, Internal Equity and Internal Fixed Income Managers	127
<hr/>	
Stable Asset Manager	133
External Stable Asset Manager	135
Short-Term	139
Invested Treasurer's Cash Pool	141
Short Term Fixed Income	147
Short Term Investment Fund Retirement and Non Retirement Assets	151

Part A:

Investment Manager Guidelines

External Domestic Equity

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL ACTIVE DOMESTIC COMMON STOCK MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) external active domestic common stock managers will be governed and evaluated by the following guidelines, which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. This benchmark will also be used to calculate the manager's performance based fee. SBI reserves the right to change the benchmark upon prior written notification to Manager.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading common stocks, stock index futures, exchange traded funds, cash equivalents identified under A3(h), and the SBI STIF fund. The Manager may hold any security received as a distribution from an existing holding. The Manager must have the SBI's written approval to purchase equity options, preferred stocks, warrants and convertible issues. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) The stocks held must be issued by corporations organized under the laws of the U.S. or its states, the Dominion of Canada or its provinces, and/or be listed on an exchange regulated by an agency of the United States (including NASDAQ) or Canadian national government at time of purchase. These include REITS and American Depositary Receipts (ADR's) traded on such an exchange. Securities issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, they will be publicly traded securities and can be priced on a daily basis.
- (c) The Manager may not purchase restricted stock or letter stock.

- (d) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased in the Account. The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.
- (e) Debt securities cannot be purchased in the Account.
- (f) Without prior written authorization from the SBI, manager may not purchase open or closed-end funds or pooled investment vehicles. Investments in Business Development Companies that are members of managers' assigned benchmark at time of purchase are permitted.
- (g) The Manager shall not hold at any time more than three (3) percent of the total outstanding shares of any corporation in the SBI's portfolio. If a holding should breach this level or the Manager desires to hold a larger position, the Manager must notify the SBI in writing for approval.
- (h) Cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures exposure.
- (i) Stock options, if authorized, and stock index futures, purchased through a regulated exchange, may be used to adjust the effective equity exposure of the portfolio. Over-the-counter derivative instruments are not permitted. All option and futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (j) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (k) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

- (l) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. PROXY VOTING

The Manager may not vote proxies on behalf of the SBI's account unless specifically requested by the SBI to do so.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL SEMI-PASSIVE DOMESTIC COMMON STOCK MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) external semi-passive domestic common stock managers will be governed and evaluated by the following guidelines, which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. SBI reserves the right to change the benchmark upon prior written notification to Manager.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading common stocks, stock index futures, exchange traded funds, cash equivalents identified under A3(h), and the SBI STIF fund. The Manager may hold any security received as a distribution from an existing holding. The Manager must have the SBI's written approval to purchase equity options, preferred stocks, warrants and convertible issues. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) The stocks held must be issued by corporations organized under the laws of the U.S. or its states, the Dominion of Canada or its provinces, and/or be listed on an exchange regulated by an agency of the United States (including NASDAQ) or Canadian national government at time of purchase. These include REITS and American Depository Receipts (ADR's) traded on such an exchange. Securities issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, they will be publicly traded securities and can be priced on a daily basis.
- (c) The Manager may not purchase restricted stock or letter stock.
- (d) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased in the Account. The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.

- (e) Debt securities can not be purchased in the Account.
- (f) Without prior written authorization from the SBI, manager may not purchase open or closed-end funds or pooled investment vehicles. Investments in Business Development Companies that are members of managers' assigned benchmark at time of purchase are permitted.
- (g) The Manager shall not hold at any time more than three (3) percent of the total outstanding shares of any corporation in the SBI's portfolio. If a holding should breach this level or the Manager desires to hold a larger position, the Manager must notify the SBI in writing for approval.
- (h) Cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures exposure.
- (i) Stock options, if authorized, and stock index futures, purchased through a regulated exchange, may be used to adjust the effective equity exposure of the portfolio. Over-the-counter derivative instruments are not permitted. All option and futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (j) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (k) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

- (l) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. PROXY VOTING

The Manager may not vote proxies on behalf of the SBI's account unless specifically requested by the SBI to do so.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL PASSIVE DOMESTIC COMMON STOCK MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) external passive domestic common stock manager will be governed and evaluated by the following guidelines, which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in line with a predetermined benchmark assigned to the Manager. The Manager is responsible for managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) An actual portfolio that has a realized active risk level relative to the benchmark of ____ bps or less, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark. And,
- (b) A portfolio that tracks the return of the benchmark closely. Over time, the annual return shortfall relative to the benchmark, due to fees and trading expenses, should be no more than ____%.

A2. BENCHMARK INDEX

The benchmark is the _____. SBI reserves the right to change the benchmark upon prior written notification to Manager.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading common stocks that are in the benchmark index, stock index futures, exchange traded funds, cash equivalents identified under A3(b), and the SBI STIF fund. The Manager may sell any securities removed from the target index over a reasonable period of time. The investments must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.

- (b) Cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures exposure.
- (c) Stock index futures, purchased through a regulated futures exchange, may be used to equitize cash in the portfolio. Over-the-counter futures instruments are not permitted. All futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur. Securities issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, they will be publicly traded securities and can be priced on a daily basis
- (d) The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.
- (e) Debt securities cannot be purchased in the Account.
- (f) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.
- (g) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. PROXY VOTING

The Manager may not vote proxies on behalf of the SBI's account unless specifically requested by the SBI to do so.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Part A:

Investment Manager Guidelines

International Equity

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
ACTIVE INTERNATIONAL DEVELOPED MARKETS EQUITY MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) active international developed markets equity managers will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE MARKETS

Manager may invest in eligible securities in countries in the _____ index. Manager may not invest in countries in the _____ index. Manager must request authorization to invest in any countries that are not represented in either index. The country classification of a security shall be its country of listing.

The SBI groups the countries in the benchmark index in the following manner and the Manager must satisfy the requirements associated with investing in Group II and Group III countries.

Group I. The Manager is not restricted regarding publicly traded securities of companies in markets classified as Group I, if applicable.

Group II. The Manager may purchase publicly traded securities of companies in markets classified as Group II, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

Group III. The Manager may invest in publicly traded securities of companies in markets classified as Group III, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

A4. ELIGIBLE INVESTMENTS

Subject to the constraints in A3 above, the Manager is restricted to trading common stocks; preferred stocks; exchange traded funds; currency forwards and spot; Reits; stapled units; cash in Eligible Markets, unless received as a distribution from an Eligible Investment; cash equivalents identified in A4(b) and the SBI's STIF fund. The Manager may hold any security received as a voluntary or involuntary distribution from an existing holding or which was acquired when it was part of the benchmark index. The Manager must have the SBI's written approval to purchase warrants, rights, open-end country funds and closed-end country or regional funds, stock index futures and options, currency futures and options, convertible preferred stock, trusts (other than Reits), collective investment schemes, and any security that is not specifically outlined

in this guideline. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) U.S. cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank with the exception of cash equivalents used as collateral to maintain futures and currency forwards exposure.
- (c) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased in the Account. The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.
- (d) Debt securities, including convertible bonds, with the exception of cash equivalents may not be purchased in the Account.
- (e) In the SBI's portfolio, the Manager shall not at any time hold more than three (3) percent of the total outstanding shares of any corporation. If a holding should breach this level or the Manager desire to hold a larger position, the Manager must notify the SBI in writing for approval.
- (f) The stock of companies domiciled in the US shall not be held in the Account, unless included in the benchmark index or received as a distribution from an existing holding which is otherwise an eligible security. However, with the SBI's prior written authorization, Manager may hold open-end and closed-end funds, which invest primarily in international securities. The Manager may purchase dually listed _____ index securities that are listed on a U.S. exchange. The Manager may purchase Canadian Investment Trusts, provided they have no trading restrictions, trade on a public market and can be priced daily.
- (g) American Depository Receipts (ADR's), Global Depository Receipts (GDR's) and Crest Depository Interests (CDI's) may be held in the Account provided they are issued by a company which is traded or listed on an eligible market and can be priced on a daily basis. Non-U.S. securities issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, they will be publicly-traded securities in their local market(s) and can be priced on a daily basis.

- (h) Upon written authorization by the SBI, stock options purchased through a governmentally regulated futures exchange and stock index futures approved by the Commodity Futures Trading Commission (CFTC) may be used to adjust the effective equity exposure of the portfolio. Over-the-counter derivative instruments are not permitted. All futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (i) For eligible market countries outside the _____ index, eligible securities shall not exceed 10% of the Account's market value at the time of purchase.
- (j) Currency forwards may be used to adjust the effective non-US currency exposure of the portfolio. Manager is permitted to hedge all or any portion of the non-US currency exposure back to the US dollar and may also attempt to add value from anticipated declines in the value of any non-US currency, through hedging out of one non-US currency into another non-US currency. The Manager is permitted to increase the exposure to any non-US currency of an eligible market beyond that established by the equity security holdings of the portfolio or that of the country allocation within the benchmark; provided, however, that the total non-U.S. currency exposure of all securities and currency forwards may not exceed the total market value of the portfolio. The Manager has no obligation to hedge currency risk and will not be required to do so.
- (k) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (l) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated List and Manager must follow direction provided.
- (m) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A5. COUNTERPARTY BANKS

Each counterparty bank used by the Manager to execute currency transactions must have a long-term credit rating of A3/A-/A- or better from at least two of the following rating organizations: S&P, Moody's, or Fitch/IBCA. Prior written authorization is required to execute currency transactions with counterparty banks rated A3/A-/A- or better by only one of the aforementioned rating agencies.

Any agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that the SBI's liability for settlement, commissions and fees is limited solely to funds of the SBI under the Manager's control and does not constitute a general obligation of the State of Minnesota.

The Manager is responsible for monitoring the counterparty credit ratings of each counterparty bank and/or counterparty group, and the Manager will promptly notify the SBI of any counterparty rating downgrade below the A3/A-/A- level.

A6. PROXY VOTING

The SBI retains the right to vote its proxies directly. Unless the SBI notifies the Manager that it is exercising this right, the Manager shall vote all proxies on behalf of the SBI. On a best efforts basis, the Manager shall vote all proxies according to guidelines provided to the Manager by the SBI. The Manager shall report annually on its voting practices with respect to the SBI portfolio. This report shall be received by the SBI within sixty (60) days following the fiscal year ending June 30. The SBI represents that such delegation of voting rights is consistent with applicable *Minnesota Statutes*. The SBI agrees to instruct the Custodian to forward all proxy materials to the Manager upon receipt. Manager shall not be liable with regard to voting of proxies in the event proxy materials are not received by the Manager in a timely manner.

A7. U.S. TREASURY REPORTING

In order to meet the requirements of the Treasury International Capital (TIC) Form SLT, and for as long as that remains a reporting requirement, the Manager must report quarterly to the SBI that all assets in the SBI's portfolio are held in custody at the SBI's custodian bank or its sub-custodian network. If any assets in the SBI's portfolio, such as holdings in a comingled fund, are held in custody outside of the SBI's custodian bank or its sub-custodian network, the Manager must report quarterly to the SBI that these assets are being properly reported by the respective custodian.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
SEMI-PASSIVE INTERNATIONAL DEVELOPED MARKETS
EQUITY MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) active international developed markets equity managers will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____ Index, unhedged, with dividends net of tax withholdings. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE MARKETS

Manager may invest in eligible securities in countries in the _____ index. Manager may not invest in countries in the _____ index. Manager must request authorization to invest in any countries that are not represented in either index. The country classification of a security shall be its country of listing.

The SBI groups the countries in the benchmark index in the following manner and the Manager must satisfy the requirements associated with investing in Group II and Group III countries.

Group I. The Manager is not restricted regarding publicly traded securities of companies in markets classified as Group I, if applicable.

Group II. The Manager may purchase publicly traded securities of companies in markets classified as Group II, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

Group III. The Manager may invest in publicly traded securities of companies in markets classified as Group III, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

A4. ELIGIBLE INVESTMENTS

Subject to the constraints in A3 above, the Manager is restricted to trading common stocks; preferred stocks; exchange traded funds; currency forwards and spot; Reits; stapled units; cash in Eligible Markets, unless received as a distribution from an Eligible Investment; cash equivalents identified in A4(b) and the SBI's STIF fund. The Manager may hold any security received as a voluntary or involuntary distribution from an existing holding or which was

acquired when it was part of the benchmark index. The Manager must have the SBI's written approval to purchase warrants, rights, open-end country funds and closed-end country or regional funds, stock index futures and options, currency futures and options, convertible preferred stock, trusts (other than Reits), collective investment schemes, and any security that is not specifically outlined in this guideline. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) U.S. cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank with the exception of cash equivalents used as collateral to maintain futures and currency forwards exposure.
- (c) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased in the Account. The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.
- (d) Debt securities, including convertible bonds, with the exception of cash equivalents may not be purchased in the Account.
- (e) In the SBI's portfolio, the Manager shall not at any time hold more than three (3) percent of the total outstanding shares of any corporation. If a holding should breach this level or the Manager desire to hold a larger position, the Manager must notify the SBI in writing for approval.
- (f) The stock of companies domiciled in the US shall not be held in the Account, unless included in the benchmark index or received as a distribution from an existing holding which is otherwise an eligible security. However, with the SBI's prior written authorization, Manager may hold open-end and closed-end funds, which invest primarily in international securities. The Manager may purchase dually listed _____ index securities that are listed on a U.S. exchange. The Manager may purchase Canadian Investment Trusts, provided they have no trading restrictions, trade on a public market and can be priced daily.

- (g) American Depository Receipts (ADR's), Global Depository Receipts (GDR's) and Crest Depository Interests (CDI's) may be held in the Account provided they are issued by a company which is traded or listed on an eligible market and can be priced on a daily basis. Non-U.S. securities issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, they will be publicly-traded securities in their local market(s) and can be priced on a daily basis.
- (h) Upon written authorization by the SBI, stock options purchased through a governmentally regulated futures exchange and stock index futures approved by the Commodity Futures Trading Commission (CFTC) may be used to adjust the effective equity exposure of the portfolio. Over-the-counter derivative instruments are not permitted. All futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (i) For eligible market countries outside the _____ index, eligible securities shall not exceed 10% of the Account's market value at the time of purchase.
- (j) Currency forwards may be used to adjust the effective non-US currency exposure of the portfolio. Manager is permitted to hedge all or any portion of the non-US currency exposure back to the US dollar and may also attempt to add value from anticipated declines in the value of any non-US currency, through hedging out of one non-US currency into another non-US currency. The Manager is permitted to increase the exposure to any non-US currency of an eligible market beyond that established by the equity security holdings of the portfolio or that of the country allocation within the benchmark; provided, however, that the total non-U.S. currency exposure of all securities and currency forwards may not exceed the total market value of the portfolio. The Manager has no obligation to hedge currency risk and will not be required to do so.
- (k) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (l) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated List and Manager must follow direction provided.

- (m) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided

A5. COUNTERPARTY BANKS

Each counterparty bank used by the Manager to execute currency transactions must have a long-term credit rating of A3/A-/A- or better from at least two of the following rating organizations: S&P, Moody's, or Fitch/IBCA. Prior written authorization is required to execute currency transactions with counterparty banks rated A3/A-/A- or better by only one of the aforementioned rating agencies.

Any agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that the SBI's liability for settlement, commissions and fees is limited solely to funds of the SBI under the Manager's control and does not constitute a general obligation of the State of Minnesota.

The Manager is responsible for monitoring the counterparty credit ratings of each counterparty bank and/or counterparty group, and the Manager will promptly notify the SBI of any counterparty rating downgrade below the A3/A-/A- level.

A6. PROXY VOTING

The SBI retains the right to vote its proxies directly. Unless the SBI notifies the Manager that it is exercising this right, the Manager shall vote all proxies on behalf of the SBI. On a best efforts basis, the Manager shall vote all proxies according to guidelines provided to the Manager by the SBI. The Manager shall report annually on its voting practices with respect to the SBI portfolio. This report shall be received by the SBI within sixty (60) days following the fiscal year ending June 30. The SBI represents that such delegation of voting rights is consistent with applicable *Minnesota Statutes*. The SBI agrees to instruct the Custodian to forward all proxy materials to the Manager upon receipt. Manager shall not be liable with regard to voting of proxies in the event proxy materials are not received by the Manager in a timely manner.

A7. U.S. TREASURY REPORTING

In order to meet the requirements of the Treasury International Capital (TIC) Form SLT, and for as long as that remains a reporting requirement, the Manager must report quarterly to the SBI that all assets in the SBI's portfolio are held in custody at the SBI's custodian bank or its sub-custodian network. If any assets in the SBI's portfolio, such as holdings in a comingled fund, are held in custody outside of the SBI's custodian bank or its sub-custodian network, the Manager must report quarterly to the SBI that these assets are being properly reported by the respective custodian.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
PASSIVE INTERNATIONAL DEVELOPED MARKETS EQUITY MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) Passive Fund Manager will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RETURN/TRACKING ERROR OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in line with a predetermined benchmark provided to the Manager. The Manager is responsible for managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) An actual portfolio that has a realized active risk level relative to the benchmark of _____ or less, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.
And,
- (b) A portfolio that tracks the return of the benchmark closely. Over time, the annual excess return relative to the benchmark, should exceed _____.

A2. BENCHMARK INDEX

The benchmark is the _____ Index, unhedged, with dividends net of tax withholdings. SBI reserves the right to change the benchmark upon notification to the Manager.

The SBI groups the countries in the benchmark index in the following manner and the Manager must satisfy the requirements associated with investing in Group II and Group III countries. The Manager may invest in countries not in the Benchmark Index and not listed in Groups I, II, or III below with prior written notification to the SBI.

Group I. The Manager is not restricted regarding publicly traded securities of companies in markets classified as Group I, if applicable.

Group II. The Manager may purchase publicly traded securities of companies in markets classified as Group II, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

Group III. The Manager may invest in publicly traded securities of companies in markets classified as Group III, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading companies in the benchmark index but is able to trade pre-announced index changes in advance of the effective date of their inclusion in the benchmark index; Commodity Futures Trading Commission (CFTC) approved stock index futures; exchange traded funds; currency forwards and spot; cash in countries in the Benchmark Index, unless received as a distribution from an Eligible Investment; cash equivalents identified in A3(b) and the SBI's STIF fund. The Manager may hold any security received as a voluntary or involuntary distribution from an existing holding or which was acquired when it was part of the benchmark index. The Manager must have the SBI's written approval to purchase any security that is not specifically outlined in this guideline. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Section 11A.24.
- (b) U.S. cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures and currency forwards exposure.
- (c) CFTC approved stock index futures may be used to equitize cash in the portfolio. Over-the-counter instruments are not permitted. All future transactions must be entered into and maintained with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.

- (d) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated List and Manager must follow direction provided.
- (e) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.
- (f) Currency forwards may be used to adjust the effective non-US currency exposure of the portfolio. Manager is permitted to hedge all or any portion of the non-US currency exposure back to the US dollar. The Manager is not permitted to increase the exposure to any non-US currency of an eligible market beyond that established by the holdings of the portfolio or that of the country allocation within the benchmark. The total non-U.S. currency exposure of all securities and currency forwards may not exceed the total market value of the portfolio. The Manager has no obligation to hedge currency risk and will not be required to do so.

A4. PROXY VOTING

The SBI retains the right to vote its proxies directly. Unless the SBI notifies the Manager that it is exercising this right, the Manager shall vote all proxies on behalf of the SBI. On a best efforts basis, the Manager shall vote all proxies according to guidelines provided to the Manager by the SBI. The Manager shall report annually on its voting practices with respect to the SBI portfolio. This report shall be received by the SBI within sixty (60) days following the fiscal year ending June 30. The SBI represents that such delegation of voting rights is consistent with applicable *Minnesota Statutes*. The SBI agrees to instruct the Custodian to forward all proxy materials to the Manager upon receipt. Manager shall not be liable with regard to voting of proxies in the event proxy materials are not received by the Manager in a timely manner.

The SBI reserves the right to review the proxies and, on a limited basis (not to exceed 6 times per year), may notify the Manager to have Institutional Shareholder Services (ISS) override the standing instructions with SBI's vote. Any override on a meeting in Japan will be sent to the Manager at least 9 business days before the meeting. We understand the custodian will handle any notice past this deadline on a "best efforts" basis. The SBI will notify the Manager of an override via fax with authorized signature to a designee of the custodian, and will be followed up with an email to that designee of the custodian and copy the designee of the Manager via e-mail.

A5. U.S. TREASURY REPORTING

In order to meet the requirements of the Treasury International Capital (TIC) Form SLT, and for as long as that remains a reporting requirement, the Manager must report quarterly to the SBI that all assets in the SBI's portfolio are held in custody at the SBI's custodian bank or its sub-custodian network. If any assets in the SBI's portfolio, such as holdings in a comingled fund, are held in custody outside of the SBI's custodian bank or its sub-custodian network, the Manager must report quarterly to the SBI that these assets are being properly reported by the respective custodian.

A6. COUNTERPARTY BANKS

Each counterparty bank used by the Manager to execute currency transactions must have a long-term credit rating of A3/A-/A- or better from at least two of the following rating organizations: S&P, Moody's, or Fitch/IBCA. Prior written authorization is required to execute currency transactions with counterparty banks rated A3/A-/A- or better by only one of the aforementioned rating agencies.

Any agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that the SBI's liability for settlement, commissions and fees is limited solely to funds of the SBI under the Manager's control and does not constitute a general obligation of the State of Minnesota.

The Manager is responsible for monitoring the counterparty credit ratings of each counterparty bank and/or counterparty group, and the Manager will promptly notify the SBI of any counterparty rating downgrade below the A3/A-/A- level.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
ACTIVE INTERNATIONAL EMERGING MARKETS EQUITY MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) international emerging markets equity managers will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark provided to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE MARKETS

Manager may invest in eligible securities in countries in the _____ index. Manager may not invest in countries in the _____ index, except as allowed in Guideline A4(e). Manager must request authorization to invest in any countries that are not represented in either index or are not listed in Group I, II or III below. The country classification of a security shall be its country of listing.

The SBI groups the countries in the benchmark index in the following manner and the Manager must satisfy the requirements associated with investing in Group II and Group III countries.

Group I. The Manager is not restricted regarding publicly traded securities of companies in markets classified as Group I, if applicable.

Group II. The Manager may purchase publicly traded securities of companies in markets classified as Group II, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

Group III. The Manager may invest in publicly traded securities of companies in markets classified as Group III, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

A4. ELIGIBLE INVESTMENTS

Subject to the constraints in A3 above, the Manager is restricted to trading common stocks; preferred stocks; exchange traded funds; currency forwards and spot; Reits; stapled units; cash in Eligible Markets, unless received as a distribution from an Eligible Investment; cash equivalents identified in A4(b) and the SBI's STIF fund. The Manager may hold any security received as a voluntary or involuntary distribution from an existing holding or which was

acquired when it was part of the benchmark index. The Manager must have the SBI's written approval to purchase warrants, rights, open-end country funds and closed-end country or regional funds, stock index futures and options, currency futures and options, convertible preferred stock, trusts (other than Reits), collective investment schemes, and any security that is not specifically outlined in this guideline. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Section 11A.24.
- (b) U.S. cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures and currency forwards exposure.
- (c) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased. The Manager may purchase IPO's, provided the IPO's have no trading restrictions, trade on a public market and can be priced daily.
- (d) Debt securities, including convertible bonds, with the exception of cash equivalents may not be purchased in the Account.
- (e) The stock of companies in, or open and closed-end funds investing principally in, any of the following countries shall not be held in the Account, unless received as a distribution from an existing holding which is otherwise an eligible security: U.S.; and all _____ markets unless 50% or more of either the company's/fund's revenues, profits or assets come from an emerging market country(ies) as set out in A3 above. Notwithstanding the foregoing sentence, Manager may hold closed-end funds (or open-end funds that have been converted from closed-end funds held by the Account), provided all or substantially all of the assets of such instruments or funds satisfy this constraint. The Manager may not at any time hold more than 3% of the assets of a Closed-end Fund unless it can be demonstrated that an SEC filing is not required when ownership exceeds 5%. In addition, Manager may purchase securities listed in Hong Kong to gain exposure to China. The above mentioned 50% revenue/profits/assets rule does not apply to these investments.

- (f) For emerging market countries outside the benchmark index, eligible securities shall not exceed 10% of the Account's market value in aggregate.
- (g) American Depository Receipts (ADR's), Global Depository Receipts (GDR's) and Crest Depository Interests (CDI's) may be held in the Account provided they are issued by a company which is traded or listed on an eligible market, including as allowed in Guideline A4(e), and can be priced on a daily basis. Non-U.S. securities and Depository Receipts issued pursuant to Rule 144A may be purchased for the Account if, upon issuance, these securities (or their underlying shares in the case of Depository Receipts) will be publicly-traded securities in their local market(s) or another regulated market and can be priced on a daily basis.
- (h) In the SBI's portfolio, the Manager shall not at any time hold more than three (3) percent of the total outstanding shares of any corporation. If a holding should breach this level or the Manager desire to hold a larger position, the Manager must notify the SBI in writing for approval.
- (i) Currency forwards may be used to adjust the effective non-U.S. country exposure of the Account from 0 to 100%. Hedging back to USD or to the Euro is permitted. Cross hedging from one eligible market currency into another eligible market currency is permitted with prior written notification to Staff. The total non-U.S. currency exposure of all securities and currency forwards may not exceed the total market value of the portfolio. The Manager has no obligation to hedge currency risk and will not be required to do so.
- (j) If investing locally in India under the SBI's Foreign Institutional Investor (FII) registration, the Manager may not convert depository receipts of Indian companies into local shares to be held or traded in India.
- (k) Over-the-counter derivative instruments are not permitted.
- (l) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (m) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated List and Manager must follow direction provided.

- (n) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A5. COUNTERPARTY BANKS

Each counterparty bank used by the Manager to execute currency transactions must have a long-term credit rating of A3/A-/A- or better from at least two of the following rating organizations: S&P, Moody's, or Fitch/IBCA. Prior written authorization is required to execute currency transactions with counterparty banks rated A3/A-/A- or better by only one of the aforementioned rating agencies.

Any agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that the SBI's liability for settlement, commissions and fees is limited solely to funds of the SBI under the Manager's control and does not constitute a general obligation of the State of Minnesota.

The Manager is responsible for monitoring the counterparty credit ratings of each counterparty bank and/or counterparty group, and the Manager will promptly notify the SBI of any counterparty rating downgrade below the A3/A-/A- level.

A6. PROXY VOTING

The SBI retains the right to vote its proxies directly. Unless the SBI notifies the Manager that it is exercising this right with respect to all proxies, the Manager shall vote all proxies on behalf of the SBI. On a best efforts basis, the Manager shall vote all proxies according to guidelines provided to the Manager by the SBI. The Manager shall report annually on its voting practices with respect to the SBI portfolio. This report shall be received by the SBI within sixty (60) days following the fiscal year ending June 30. The SBI represents that such delegation of voting rights is consistent with applicable *Minnesota Statutes*. The SBI agrees to instruct the Custodian to forward all proxy materials to the Manager upon receipt. Manager shall not be liable with regard to voting of proxies in the event proxy materials are not received by the Manager in a timely manner.

A7. U.S. TREASURY REPORTING

In order to meet the requirements of the Treasury International Capital (TIC) Form SLT, and for as long as that remains a reporting requirement, the Manager must report quarterly to the SBI that all assets in the SBI's portfolio are held in custody at the SBI's custodian bank or its sub-custodian network. If any assets in the SBI's portfolio, such as holdings in a comingled fund, are held in custody outside of the SBI's custodian bank or its sub-custodian network, the Manager must report quarterly to the SBI that these assets are being properly reported by the respective custodian.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
PASSIVE INTERNATIONAL EMERGING MARKETS EQUITY MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) Passive Fund Manager will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RETURN/TRACKING ERROR OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in line with a predetermined benchmark provided to the Manager. The Manager is responsible for managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) An actual portfolio that has a realized active risk level relative to the benchmark of ____ or less, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark. And,
- (b) A portfolio that tracks the return of the benchmark closely. Over time, the annual excess return or shortfall relative to the benchmark, due to trading expenses, fees and investment restrictions, shall be between ____.

A2. BENCHMARK INDEX

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

The SBI groups the countries in the benchmark index in the following manner and the Manager must satisfy the requirements associated with investing in Group II and Group III countries.

Group I. The Manager is not restricted regarding publicly traded securities of companies in markets classified as Group I, if applicable.

Group II. The Manager may purchase publicly traded securities of companies in markets classified as Group II, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

Group III. The Manager may invest in publicly traded securities of companies in markets classified as Group III, if applicable, and if the Manager believes it would be a breach of fiduciary responsibility not to do so. If the Manager chooses to invest in one or more of these markets, the Manager must notify the SBI in writing of its decision to do so.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading companies in the benchmark index but is able to trade pre-announced index changes in advance of the effective date of their inclusion in the benchmark index; ADR's, GDR's foreign shares, and NVDR shares of such companies; Commodity Futures Trading Commission (CFTC) approved stock index futures; exchange traded funds; currency forwards and spot; cash in countries in the Benchmark Index, unless received as a distribution from an Eligible Investment; cash equivalents identified in A3(b) and the SBI's STIF fund. The Manager may hold any security received as a voluntary or involuntary distribution from an existing holding or which was acquired when it was part of the benchmark index. The Manager must have the SBI's written approval to purchase any security that is not specifically outlined in this guideline. The investments of the Manager must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Section 11A.24.
- (b) U.S. cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures and currency forwards exposure.
- (c) CFTC approved stock index futures may be used to equitize cash in the portfolio. Over-the-counter instruments are not permitted. All future transactions must be entered into and maintained with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (d) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated List and Manager must follow direction provided.
- (e) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

- (f) Currency forwards may be used to adjust the effective non-US currency exposure of the portfolio. Manager is permitted to hedge all or any portion of the non-US currency exposure back to the US dollar. The Manager is not permitted to increase the exposure to any non-US currency of an eligible market beyond that established by the holdings of the portfolio or that of the country allocation within the benchmark. The total non-U.S. currency exposure of all securities and currency forwards may not exceed the total market value of the portfolio. The Manager has no obligation to hedge currency risk and will not be required to do so.
- (g) If investing locally in India under the SBI's Foreign Institutional Investor (FII) registration, the Manager may not convert depository receipts of Indian companies into local shares to be held or traded in India.

A4. PROXY VOTING

The SBI retains the right to vote its proxies directly. Unless the SBI notifies the Manager that it is exercising this right, the Manager shall vote all proxies on behalf of the SBI. On a best efforts basis, the Manager shall vote all proxies according to guidelines provided to the Manager by the SBI. The Manager shall report annually on its voting practices with respect to the SBI portfolio. This report shall be received by the SBI within sixty (60) days following the fiscal year ending June 30. The SBI represents that such delegation of voting rights is consistent with applicable *Minnesota Statutes*. The SBI agrees to instruct the Custodian to forward all proxy materials to the Manager upon receipt. Manager shall not be liable with regard to voting of proxies in the event proxy materials are not received by the Manager in a timely manner.

A5. U.S. TREASURY REPORTING

In order to meet the requirements of the Treasury International Capital (TIC) Form SLT, and for as long as that remains a reporting requirement, the Manager must report quarterly to the SBI that all assets in the SBI's portfolio are held in custody at the SBI's custodian bank or its sub-custodian network. If any assets in the SBI's portfolio, such as holdings in a comingled fund, are held in custody outside of the SBI's custodian bank or its sub-custodian network, the Manager must report quarterly to the SBI that these assets are being properly reported by the respective custodian.

A6. COUNTERPARTY BANKS

Each counterparty bank used by the Manager to execute currency transactions must have a long-term credit rating of A3/A-/A- or better from at least two of the following rating organizations: S&P, Moody's, or Fitch/IBCA. Prior written authorization is required to execute currency transactions with counterparty banks rated A3/A-/A- or better by only one of the aforementioned rating agencies.

Any agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that the SBI's liability for settlement, commissions and fees is limited solely to funds of the SBI under the Manager's control and does not constitute a general obligation of the State of Minnesota.

The Manager is responsible for monitoring the counterparty credit ratings of each counterparty bank and/or counterparty group, and the Manager will promptly notify the SBI of any counterparty rating downgrade below the A3/A-/A- level.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Part A:

Investment Manager Guidelines

External Fixed Income

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL ACTIVE FIXED INCOME MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) external active fixed income managers will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark not to exceed _____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of _____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range. The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. The SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager may purchase or sell fixed income instruments, interest rate derivative instruments which are defined as interest rate futures on U.S. Treasury securities, Eurodollar futures, and interest rate options on U.S. Treasury futures and Eurodollar futures. The investments must satisfy the following criteria:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) Governmental bonds, notes, bills, mortgages, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the Government. The obligations in which the Manager may invest under this subdivision include guaranteed or insured issues of:
 - (1) the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;
 - (2) Canada and its provinces, provided the principal and interest is payable in United States dollars;
 - (3) the International Bank for Reconstruction and Development, the Inter- American Development Bank, the Asian Development Bank, the African Development Bank, or any other United States Government sponsored organization of which the United States is a member, provided the principal and interest is payable in United States dollars.
- (c) Fixed income securities issued by any U.S. state or U.S. territory, or any municipality, political subdivision, agency or instrumentality thereof, provided that:
 - (1) such securities may not be purchased by the Manager directly from the issuer or the issuer's agent, such as an underwriter or underwriting syndicate. All purchases of securities under this subdivision must be transacted in the secondary market;
 - (2) securities issued by the State of Minnesota or an agency of the State of Minnesota may not be purchased by the Manager; and

- (3) the principal and interest of such obligations shall be payable in United States dollars.
- (d) The Manager may invest funds in fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof provided that:
- (1) the principal and interest of such obligations shall be payable in United States dollars; and
 - (2) obligations shall be rated among the top four quality categories by a nationally recognized statistical rating organization (NRSRO) at time of purchase; and
 - (3) the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer.
- (e) With the SBI's prior written authorization, the Manager may invest up to 15 percent of the portfolio, measured on a market value or contribution to duration basis, whichever is greater, in below investment grade fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof. At time of purchase, the bond must be rated B or higher by a NRSRO provided that:
- (1) the principal and interest of such obligations shall be payable in United States dollars; and
 - (2) participation is limited to 20 percent of a single offering;
 - (3) participation is limited to 10 percent of an issuer's total outstanding obligations;
 - (4) the manager shall not hold more than 2 percent of the market value of the portfolio in any one issuer, and
 - (5) the total value of such instruments plus the value of any non-dollar investments allowed under A3(1) below not exceed 20 percent of the total portfolio, measured on a market value or contribution to duration basis, whichever is greater.

- (f) Mortgage-backed securities purchased must be rated in the top four quality categories by a NRSRO at time of purchase and the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer, excluding the following issuers: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- (g) Asset-backed securities purchased must be rated in the top four quality categories by a NRSRO at time of purchase, and the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer.
- (h) For mortgage-backed securities and asset-backed securities, if the entity issues both direct and also as a servicer through a bankruptcy remote entity or trust, the manager is limited to 5% of the market value of the portfolio for direct issues, and 10% of the market value as a servicer, excluding the following issuers: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- (i) Yankee bonds and Eurodollar bonds purchased must be rated in the top four quality categories by a NRSRO at time of purchase and the Manager shall not hold more than 5 percent of the market value of the portfolio in any one issuer.
 - (1) Non-Developed Market bonds that are not in the Barclays Capital Aggregate Bond Index are not eligible for inclusion in the portfolio. Per index rules, any Non-Developed Market bond added to the portfolio must be:
 - (i) U.S. Dollar-denominated;
 - (ii) rated in the top four quality categories by a NRSRO at time of purchase; and
 - (iii) must be part of an issuance of \$250 million or more.
 - (2) Non-Developed Market debt shall be limited to 5% of the market value of the portfolio, and no single Non-Developed Market bond shall exceed 2% of the market value of the portfolio.
 - (3) The _____ index is to be the determinant of Developed vs. Non-Developed economies.
- (j) The Manager may invest up to 5 percent of the market value of the portfolio in non-rated securities. All non-rated security investments must be reported to the SBI on a quarterly basis.

- (k) Supranational and sovereign debt obligations including debt of subdivisions and agencies of foreign states. Dollar denominated bonds purchased must be rated in the top four quality categories by a NRSRO at the time of purchase and the manager shall not hold more than 5 percent of the market value of the portfolio in any one issuer.
- (l) Cash equivalent reserves shall be invested in the SBI's STIF fund, managed by its custodian bank. With prior written SBI authorization, the Manager may purchase and manage cash equivalent reserves outside of the SBI's STIF fund.
- (m) With prior written authorization from SBI, the Manager may invest up to 15 percent of the portfolio, measured on a market value or contribution to duration basis, whichever is greater, in non-dollar denominated bonds, provided that the total value of such instruments plus the value of any below investment grade corporate investments allowed under A3(e) above not exceed 20 percent of the total portfolio, measured on a market value or contribution to duration basis, whichever is greater. Non-dollar denominated bonds purchased must be rated in the top four quality categories by a NRSRO at the time of purchase and the manager shall not hold more than 5 percent of the market value of the portfolio in any one issuer. The manager shall have discretion to hedge the portfolio's currency exposure, up to the amount invested in non-dollar bonds, using currency forwards, futures or options.
 - (1) Non-Dollar denominated bonds must be from companies and/or sovereigns in Developed Market economies only. Non-Developed market debt must be dollar-denominated, as per section A3(i). The _____ index is to be the determinant of Developed vs. Non-Developed economies.
- (n) Interest rate options on U.S. Treasury futures and Eurodollar futures, interest rate futures on U.S. Treasury securities and Eurodollar futures must be purchased or sold through a governmentally regulated exchange. Over-the-counter instruments are not permitted. All options and futures transactions must be entered into and maintained with a fully offsetting amount of collateral as defined in A4(b)(2) below. The portfolio may not be leveraged in any way.
- (o) Preferred bond securities of investment-grade companies are permitted with the following constraints:
 - (1) The issue's coupon payments must be cumulative.
 - (2) The issue may not be convertible into common stock.

- (3) Call features are permitted.
- (4) The total exposure to preferred bonds may not exceed 5% of the value of the portfolio on a market value or CTD basis, whichever is greater.
- (5) The portfolio may not hold any more than 2% exposure to one company's preferred bonds on a market value or CTD basis, whichever is greater.
- (p) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. INVESTMENT CONSTRAINTS

(a) Duration Guidelines

- (1) The option-adjusted duration of the portfolio must be within +/-2 years of the duration of the Barclays Capital Aggregate Index.

(b) Derivative Guidelines

(1) Restrictions

Total net notional exposure from all derivative contracts must be less than 50% of the manager's portfolio net asset value and the total net contribution to duration exposure due to all derivative contracts must be less than 50% of the _____ index duration.

(2) Collateral Guidelines

All cash and cash equivalents, which is defined as:

- (i) All investment grade securities with an effective duration and spread duration of one year or less.
- (ii) All U.S. Treasury securities (excluding U.S. Treasury Inflation Indexed Securities) with an effective duration of three years or less.
- (iii) U.S. Agency debentures from FNMA, FHLMC, FFCB, and FHLB with an effective duration of three years or less.

- (iv) All U.S. Treasury Inflation Indexed Securities with a maturity of 5 years or less.
- (v) Any U.S. Treasury security that will satisfy the delivery requirement for a derivative contract currently being held in the manager's SBI portfolio.

(3) Net Notional Liability Exposure

Total liability exposure due to derivative contracts will be calculated on a net notional value basis.

All futures contracts will use their current price to calculate the net notional value.

All net positions for puts and calls sold by the manager will have a notional value equal to the current notional value of the underlying contract. All net positions for puts and calls purchased by the manager will have a notional value of zero.

(4) Derivative Contracts subject to the Above Constraints

The following derivative contracts are subject to the above constraints:

- (i) interest rate futures on U.S. Treasury securities and Eurodollar futures;
- (ii) interest rate options on U.S. Treasury futures and options on Eurodollar futures; and
- (iii) all TBA mortgages.

A5. QUALIFIED INSTITUTIONAL BUYER

SBI is a Qualified Institutional Buyer ("QIB") as such term is defined in Rule 144A(a)(1)(i) of the General Rules and Regulations under the Securities Act of 1933 (17 CFR Part 230.144A). SBI agrees to promptly notify the Manager in writing, if SBI ceases to be a QIB and further agrees to provide such evidence of its status as a QIB as the Manager may reasonably request from time to time.

A6. REPORTING

- (a) The manager is expected to provide the SBI staff with a "Derivative Report" within ten (10) business days after month end. The report should show each derivative contract, the number of contracts, the total notional value for each contract, and the total contribution to duration for each contract. The report should also show which contracts offset each other to calculate the total net notional value of the portfolio. The SBI reserves the right to ask for a "Derivative Report" at any time during the month. The report should also show the portfolio assets that qualify as collateral, as defined in A4(b)(2), their duration, and their market value.

- (b) The Manager is expected to provide the SBI staff with an overall portfolio characteristics report within twelve (12) business days after month end. The report should show the sector and quality breakdown on a market value basis and on a contribution to duration basis and both reports should show a total for the SBI portfolio, the Barclays Capital Aggregate Benchmark and the difference between the two, all numbers should be expressed as a percentage to two decimal places. In the sector breakdown, a category showing the allocation to non-dollar bonds must be included. In the quality breakdown, there must be one category for all below investment grade securities.

The 1 month, 3 month, YTD, 1 year, 3 year, 5 year, and since inception performance versus the benchmark showing value added, tracking error, the information ratio, T-statistic, and Sharpe Ratio should be provided.

The report should include a portfolio characteristic summary showing the convexity, option adjusted duration, term to maturity, average quality, yield to maturity, and average coupon for the portfolio and the Barclays Capital Aggregate.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL SEMI-PASSIVE FIXED INCOME MANAGERS**

The investment actions of the Minnesota State Board of Investment (SBI) external semi-passive fixed income managers will be governed and evaluated by the following guidelines which are comprised of Parts A and B:

Part A:

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range. The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. The SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager may purchase or sell fixed income instruments, interest rate derivative instruments which are defined as interest rate futures on U.S. Treasury securities, Eurodollar futures, and interest rate options on U.S. Treasury futures and Eurodollar futures. The investments must satisfy the following criteria:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) Governmental bonds, notes, bills, mortgages, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the Government. The obligations in which the Manager may invest under this subdivision include guaranteed or insured issues of:
 - (1) the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;
 - (2) Canada and its provinces, provided the principal and interest is payable in United States dollars;
 - (3) the International Bank for Reconstruction and Development, the Inter- American Development Bank, the Asian Development Bank, the African Development Bank, or any other United States Government sponsored organization of which the United States is a member, provided the principal and interest is payable in United States dollars.
- (c) The manager may invest in fixed income securities issued by any U.S. state or U.S. territory, or any municipality, political subdivision, agency or instrumentality thereof, provided that:
 - (1) such securities may not be purchased by the Manager directly from the issuer or the issuer's agent, such as an underwriter or underwriting syndicate. All purchases of securities under this subdivision must be transacted in the secondary market;
 - (2) securities issued by the State of Minnesota or an agency of the State of Minnesota may not be purchased by the Manager; and

- (3) the principal and interest of such obligations shall be payable in United States dollars.
- (d) The Manager may invest funds in fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof provided that:
- (1) the principal and interest of such obligations of corporations shall be payable in United States dollars; and
 - (2) obligations shall be rated among the top four quality categories by nationally recognized statistical rating organization (NRSRO) at time of purchase; and
 - (3) the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer.
- (e) With the SBI's prior written authorization, the Manager may invest up to 5 percent of the portfolio, measured on a market value or contribution to duration basis, whichever is greater, in below investment grade fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof. At time of purchase, the bond must be rated B or higher by NRSRO provided that:
- (1) the principal and interest of such obligations of corporations shall be payable in United States dollars; and
 - (2) participation is limited to 20 percent of a single offering;
 - (3) participation is limited to 10 percent of an issuer's total outstanding obligations;
 - (4) the manager shall not hold more than 2 percent of the market value of the portfolio in any one issuer, and
 - (5) the total value of such instruments plus the value of any non-dollar investments allowed under A3(1) below not exceed 10 percent of the total portfolio, measured on a market value or contribution to duration basis, whichever is greater.
- (f) Mortgage-backed securities purchased must be rated in the top four quality categories by NRSRO at time of purchase and the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer, excluding the following issuers: Government National Mortgage

Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.

- (g) Asset-backed securities purchased must be rated in the top four quality categories by NRSRO at time of purchase and the Manager shall not hold more than 5 percent of the market value of the portfolio in one issuer.
- (h) For mortgage-backed securities and asset-backed securities, if the entity issues both direct and also as a servicer through a bankruptcy remote entity or trust, the manager is limited to 5% of the market value of the portfolio for direct issues, and 10% of the market value as a servicer, excluding the following issuers: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- (i) Yankee bonds and Eurodollar bonds purchased must be rated in the top four quality categories by NRSRO at time of purchase. Manager shall not hold more than 5 percent of the market value of the portfolio in any one issuer.
 - (1) Non-Developed Market bonds that are not in the _____ Index are not eligible for inclusion in the portfolio. Per index rules, any Non-Developed Market bond added to the portfolio must be:
 - (i) U.S. Dollar-denominated;
 - (ii) rated in the top four quality categories by NRSRO at time of purchase; and
 - (iii) must be part of an issuance of \$250 million or more.
 - (2) Non-Developed Market debt shall be limited to 5% of the market value of the portfolio, and no single Non-Developed Market bond shall exceed 2% of the market value of the portfolio.
 - (3) The _____ index is to be the determinant of Developed vs. Non-Developed economies.
- (j) The Manager may invest up to 5 percent of the market value of the portfolio in non-rated securities. All non-rated security investments must be reported to the SBI on a quarterly basis.

- (k) Supranational and sovereign debt obligations including debt of subdivisions and agencies of foreign states. Dollar denominated bonds purchased must be rated in the top four quality categories by NRSRO at time of purchase, and the manager shall not hold more than 2 percent of the market value of the portfolio in any one issuer.
- (l) Cash equivalent reserves shall be invested in the SBI's STIF fund, managed by its custodian bank. With prior written SBI authorization, the Manager may purchase and manage cash equivalent reserves outside of the SBI's STIF fund.
- (m) Interest rate options on U.S. Treasury futures and Eurodollar futures, interest rate futures on U.S. Treasury securities and Eurodollar futures must be purchased through a governmentally regulated exchange. Over-the-counter instruments are not permitted. All options and futures transactions must be entered into and maintained with collateral as defined in A4(d)(2) below. The portfolio may not be leveraged in any way.
- (n) With prior written authorization from SBI, the Manager may invest up to 5 percent of the portfolio, measured on a market value or contribution to duration basis, whichever is greater, in non-dollar denominated bonds, provided that the total value of such instruments plus the value of any below investment grade corporate investments allowed under A3(e) above not exceed 10 percent of the total portfolio, measured on a market value or contribution to duration basis, whichever is greater. Non-dollar denominated bonds purchased must be rated in the top four quality categories by NRSRO at time of purchase, and the manager shall not hold more than 2 percent of the market value of the portfolio in any one issuer. The manager shall have discretion to hedge the portfolio's currency exposure, up to the amount invested in non-dollar bonds, using currency forwards, futures or options.
 - (1) Non-Dollar denominated bonds must be from companies and/or sovereigns in Developed Market economies only. Non-Developed market debt must be dollar-denominated, as per section A3(i). The _____ index is to be the determinant of Developed vs. Non-Developed economies.
- (o) Preferred bond securities of investment-grade companies are permitted with the following constraints:
 - (1) The issue's coupon payments must be cumulative.
 - (2) The issue may not be convertible into common stock.

- (3) Call features are permitted.
 - (4) The total exposure to preferred bonds may not exceed 5% of the value of the portfolio on a market value or CTD basis, whichever is greater.
 - (5) The portfolio may not hold any more than 2% exposure to one company's preferred bonds on a market value or CTD basis, whichever is greater.
- (p) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. INVESTMENT CONSTRAINTS

The investment parameters are based on contribution to duration. Contribution to duration is the sector percentage multiplied by the sector's duration of the _____ benchmark.

(a) Sector Weighting Guidelines

- | | |
|---------------------------|--|
| Treasury/Agency Sector | +/- 50% of the Government sector contribution to duration of the _____ benchmark. |
| Mortgage Sector | +/- 50% of the Mortgage-Backed sector contribution to duration of the _____ benchmark. |
| Corporate Sector | +/- 50% of the Combined Corporate and Asset-Backed sectors contribution to duration of the _____ benchmark. |
| Issues Outside the Index* | Maximum 10% of the _____ benchmark contribution to duration. These must be eligible securities as defined in A3 above. |

* Issues collateralized by securities that are part of the index are not considered to be outside the index. For instance, CMO's collateralized by mortgages that are part of the index are not considered to be outside the index.

(b) Corporate Credit Guidelines

AAA/AA +/- 75% of the combined AAA and AA sector contribution to duration of the _____ benchmark.

A/BBB +/- 50% of the combined A and BBB sector contribution to duration of the _____ benchmark.

(c) Duration Guidelines

(1) The option-adjusted duration of the portfolio must be within +/-0.2 years of the duration of the _____ index.

(d) Derivative Guidelines

(1) Restrictions

Total net notional exposure from all derivative contracts must be less than 50% of the manager's portfolio net asset value and the total net contribution to duration exposure due to all derivative contracts must be less than 50% of the _____ index duration.

(2) Collateral Guidelines

All cash and cash equivalents, which is defined as:

- (i) All investment grade securities with an effective duration and spread duration of one year or less.
- (ii) All U.S. Treasury securities (excluding U.S. Treasury Inflation Indexed Securities) with an effective duration of three years or less.
- (iii) U.S. Agency debentures from FNMA, FHLMC, FFCB, and FHLB with an effective duration of three years or less.
- (iv) All U.S. Treasury Inflation Indexed Securities with a maturity of 5 years or less.
- (v) Any U.S. Treasury security that will satisfy the delivery requirement for a derivative contract currently being held in the manager's SBI portfolio.

(3) Net Notional Liability Exposure

Total liability exposure due to derivative contracts will be calculated on a net notional value basis. All futures contracts will use their current price to calculate the net notional value.

All net positions for puts and calls sold by the manager will have a notional value equal to the current notional value of the underlying contract. All net positions for puts and calls purchased by the manager will have a notional value of zero.

(4) Derivative Contracts subject to the Above Constraints

The following derivative contracts are subject to the above constraints:

- 1) interest rate futures on U.S. Treasury securities and Eurodollar futures;
- 2) interest rate options on U.S. Treasury futures and options on Eurodollar futures; and
- 3) all TBA mortgages.

A5. QUALIFIED INSTITUTIONAL BUYER

SBI is a Qualified Institutional Buyer ("QIB") as such term is defined in Rule 144A(a)(1)(i) of the General Rules and Regulations under the Securities Act of 1933 (17 CFR Part 230.144A). SBI agrees to promptly notify the Manager in writing, if SBI ceases to be a QIB and further agrees to provide such evidence of its status as a QIB as the Manager may reasonably request from time to time.

A6. REPORTING

- (a) The manager is expected to provide the SBI staff with a "Derivative Report" within ten (10) business days after month end. The report should show each derivative contract, the number of contracts, the total notional value for each contract, and the total contribution to duration for each contract. The report should also show which contracts offset each other to calculate the total net notional value of the portfolio. The SBI reserves the right to ask for a "Derivative Report" at any time during the month. The report should also show the portfolio assets that qualify as collateral, as defined in A4(d)(2), their duration, and their market value.

- (b) The Manager is expected to provide the SBI staff with an overall portfolio characteristics report within twelve (12) business days after month end. The report should show the sector and quality breakdown on a market value basis and on a contribution to duration basis and both reports should show a total for the SBI portfolio, the _____ benchmark and the difference between the two, all numbers should be expressed as a percentage to two decimal places. In the sector breakdown, a category showing the allocation to non-dollar bonds must be included. In the quality of breakdown, there must be one category for all below investment grade securities.

The 1 month, 3 month, YTD, 1 year, 3 year, 5 year, and since inception performance versus the benchmark showing value added, tracking error, the information ratio, T-statistic, and Sharpe Ratio should be provided.

The report should include a portfolio characteristic summary showing the convexity, option adjusted duration, term to maturity, average quality, yield to maturity, and average coupon for the portfolio and the _____ benchmark.

The report should show a comparison of the SBI's portfolio to the _____ index by sector, credit, and duration; the percentage difference between the portfolio and index, and a column showing the guideline constraints.

March 2015

Executive Director and Chief Investment Office/
Chief Operating Officer

Date _____

Part A:

Investment Manager Guidelines

Assigned Risk Plan

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
ASSIGNED RISK PLAN COMMON STOCK MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) Assigned Risk Common Stock Manager will be governed and evaluated by the following guidelines which is comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVE

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark assigned to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent five-year period, the actual portfolio shall have a realized active risk level relative to the benchmark in the range of ____ to ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a five-year rolling period basis to ascertain the trend in active risk. In addition, the current active risk level will be compared to the active risk of the product at the time the manager was hired. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a five-year rolling period basis to ascertain the trend in the information ratio. In addition, the current information ratio will be compared to the information ratio of the product at the time the Manager was hired.

A2. BENCHMARK

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading common stocks, stock index futures, exchange traded funds and cash equivalents identified under A3(h), and the SBI STIF fund. The Manager may hold any security received as a distribution from an existing holding. The Manager must have the SBI's written approval to purchase equity options, preferred stocks, warrants and convertible issues. The Manager's investments must satisfy the following criteria and constraints.

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) The stocks held must be issued by corporations organized under the laws of the U.S. or its states, the Dominion of Canada or its provinces and/or be listed on an exchange regulated by an agency of the United States (including NASDAQ) or Canadian national government at the time of purchase. These include REITS and American Depository Receipts (ADR's) traded on such an exchange.
- (c) The Manager may not purchase restricted stock or letter stock.
- (d) Private placements, defined as those securities for which a public market does not exist or which will be subject to any known trading restrictions at any time during which the security is held in the SBI's portfolio, may not be purchased in the Account.
- (e) Debt securities may not be purchased in the Account.
- (f) Without prior written authorization from SBI, Manager may not purchase open or closed-end funds or pooled investment vehicles. Investments in Business Development Companies that are members of managers assigned benchmark at time of purchase are permitted.
- (g) The Manager shall not hold at any time more than three (3) percent of the total outstanding shares of any corporation in the SBI's portfolio. If a holding should breach this level or the Manager desires to hold a larger position, the Manager must notify the SBI in writing for approval.
- (h) Cash equivalents shall be invested in the SBI's STIF fund, managed by its custodian bank, with the exception of cash equivalents used as collateral to maintain futures exposure.

- (i) Stock options, if authorized, and stock index futures, purchased through a regulated exchange, may be used to adjust the effective equity exposure of the portfolio. Over-the-counter derivative instruments are not permitted. All option and futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (j) The Manager may not purchase stocks from the SBI's List of Restricted Tobacco Stocks. The SBI will periodically provide the Manager with an updated List.
- (k) The Manager may not purchase stocks from the SBI's List of Restricted Sudan Stocks. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.
- (l) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. PROXY VOTING

The Manager may not vote proxies on behalf of the SBI's account unless specifically requested by the SBI to do so.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
ASSIGNED RISK PLAN BOND MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) Assigned Risk Plan Bond Manager will be governed and evaluated by the following guidelines which is comprised of Parts A and B:

Part A

A1. RISK/RETURN OBJECTIVE

The Manager is expected to deliver cumulative returns in excess of the benchmark. Excess returns are expected to be ____ basis points net of fees over time on an annualized basis.

A2. BENCHMARK

The benchmark portfolio for this Account is the _____ benchmark.

Performance will be monitored and evaluated against this benchmark.

The SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager may purchase or sell fixed income instruments, interest rate derivative instruments which are defined as interest rate futures on U.S. Treasury securities. The investments must satisfy the following criteria:

- (a) All securities held must be covered by the authorization in Minnesota Statutes Chapter 11A.24.
- (b) Governmental bonds, notes, bills, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the Government. The obligations in which the Manager may invest under this subdivision include guaranteed or insured issues of the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;
- (c) Fixed income securities issued by any U.S. state or U.S. territory, or any municipality, political subdivision, agency or instrumentality thereof, provided that:

- (1) such securities may not be purchased by the Manager directly from the issuer or the issuer's agent, such as an underwriter of underwriting syndicate. All purchases of securities under this subdivision must be transacted in the secondary market; and
 - (2) the principal and interest of such obligations shall be payable in United States dollars;
 - (3) such securities must be general obligation issues and rated at least AA by a nationally recognized agency; and
 - (4) such securities must have maturities up to but no more than 15 years.
- (d) Mortgage-backed pass-through securities issued by the Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation and must be rated AAA by a nationally recognized rating agency.
 - (e) Interest rate futures on U.S. Treasury securities must be purchased or sold through a governmentally regulated exchange. Over-the-counter instruments are not permitted. All futures transactions must be entered into and maintained with a fully offsetting amount of collateral as defined in A4(f). The portfolio may not be leveraged in any way.

A4. INVESTMENT CONSTRAINTS

- (a) Duration: The duration of the portfolio must be within +/- 0.5 years of the duration of the benchmark.
- (b) The manager may purchase up to 10 percent of the portfolio, measured on a market value basis, in longer-maturity bonds that would be benchmark-eligible except for having maturities between 10 and 15 years.
- (c) The manager may purchase up to ten percent of the portfolio, measured on a market value basis, in securities in A3 (c).
- (d) The manager may purchase up to ten percent of the portfolio, measured on a market value basis, in securities in A3(d).
- (e) The total amount purchased in (c) and (d) may not exceed ten percent of the portfolio.
- (f) Derivative Guidelines

(1) Restrictions

Total net notional exposure from all derivative contracts must be less than 20% of the manager's portfolio net asset value and the total net contribution to duration exposure due to all derivative contracts must be less than 20% of the _____ index duration.

(2) Collateral Guidelines

All cash and cash equivalents, which is defined as:

- (i) All investment grade securities with an effective duration and spread duration of one year or less.
- (ii) All U.S. Treasury securities (excluding U.S. Treasury Inflation Indexed Securities) with an effective duration of three years or less.
- (iii) U.S. Agency debentures from FNMA, FHLMC, FFCB, and FHLB with an effective duration of three years or less.
- (iv) All U.S. Treasury Inflation Indexed Securities with a maturity of 5 years or less.
- (v) Any U.S. Treasury security that will satisfy the delivery requirement for a derivative contract currently being held in the manager's SBI portfolio.

(3) Net Notional Liability Exposure

Total liability exposure due to derivative contracts will be calculated on a net notional value basis.

All futures contracts will use their current price to calculate the net notional value.

(4) Derivative Contracts subject to the Above Constraints

The following derivative contracts are subject to the constraints defined in A4(f).

(1) Interest rate futures on U.S. Treasuries

(2) All TBA mortgages.

(g) The Manager is not constrained regarding:

(1) Transactions turnover

(2) Number of fixed income issues which must be held at any given point in time.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Investment Manager Guidelines
Internal Equity and Fixed Income

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
INTERNAL ACTIVE FIXED INCOME MANAGER**

The investment actions of Minnesota State Board of Investment (SBI) internal active fixed income manager will be governed and evaluated by the following guidelines:

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in excess of a predetermined benchmark provided to the Manager. The Manager is responsible for actively managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) Over the most recent 5-year period, the actual portfolio shall have a realized active risk level relative to the benchmark not to exceed ____, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The level of active risk in the actual portfolio will be monitored on a 5-year rolling period basis to ascertain the trend in active risk. And,

- (b) A portfolio information ratio of ____ or greater over the most recent 5-year period, where the information ratio is the annualized excess return over the benchmark, net of fees and expenses, divided by the annualized standard deviation of excess return over the benchmark.

The Manager must notify and explain to Staff in the Quarterly Manager Commentary (see investment guideline B5 (b)) any deviation from this range.

The information ratio will also be monitored on a 5-year rolling period basis to ascertain the trend in the information ratio.

A2. BENCHMARK

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager may purchase or sell fixed income instruments, interest rate derivative instruments which are defined as interest rate futures on U.S. Treasury securities, Eurodollar futures, and interest rate options on U.S. Treasury futures and Eurodollar futures. The investments must satisfy the following criteria:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) Governmental bonds, notes, bills, mortgages, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the Government. The obligations in which the Manager may invest under this subdivision include guaranteed or insured issues of:
 - (1) the United States, its agencies, its instrumentalities, or organizations created and regulated by an act of Congress;
 - (2) Canada and its provinces, provided the principal and interest is payable in United States dollars;
 - (3) the International Bank for Reconstruction and Development, the Inter- American Development Bank, the Asian Development Bank, the African Development Bank, or any other United States Government sponsored organization of which the United States is a member, provided the principal and interest is payable in United States dollars.
- (c) Fixed income securities issued by any U.S. state or U.S. territory, or any municipality, political subdivision, agency or instrumentality thereof, provided that:
 - (1) such securities may not be purchased by the Manager directly from the issuer or the issuer's agent, such as an underwriter of underwriting syndicate. All purchases of securities under this subdivision must be transacted in the secondary market; and
 - (2) the principal and interest of such obligations shall be payable in United States dollars.

- (d) The Manager may invest funds in fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof provided that:
 - (1) the principal and interest of such obligations shall be payable in United States dollars; and
 - (2) obligations shall be rated among the top four quality categories by Moody's, Standard & Poor's or Fitch/IBCA at time of purchase; and
 - (3) the Manager may not hold more than 5% of the market value of the portfolio in one issuer.

- (e) The Manager may invest up to 10% of the portfolio measured on a market value or contribution to duration basis, whichever is greater, in below investment grade fixed income securities issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof. At the time of purchase, the bonds must be rated BB by Moody's, Standard & Poor's or Fitch/IBCA provided that:
 - (1) the principal and interest of such obligations shall be payable in United States dollars; and
 - (2) participation is limited to 20% of a single offering and
 - (3) participation is limited to 10% of an issuer's total outstanding obligations and
 - (4) the Manager shall not hold more than 2% of the market value of the portfolio in any one issuer.

- (f) Mortgage-backed securities purchased must be rated in the top four quality categories by Moody's, Standard & Poor's, or Fitch/IBCA at time of purchase and the Manager shall not hold more than 5% of the market value of the portfolio in one issuer, excluding the following issuers: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.

- (g) Asset-backed securities purchased must be rated in the top four quality categories by Moody's, Standard & Poor's, or Fitch/IBCA at time of purchase and the Manager shall not hold more than 5% of the market value of the portfolio in one issuer.

- (h) For mortgage-backed securities and asset-backed securities, if the entity issues both direct and also as a servicer through a bankruptcy remote entity or trust, the Manager is limited to 5% of the market value of the portfolio for direct issues, and 10% of the market value as a servicer, excluding the following issuers: Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- (i) Supranational and sovereign debt obligations including debt of subdivisions and agencies of foreign states. Dollar denominated bonds purchased must be rated in the top four quality categories by a NRSRO at the time of purchase and the manager shall not hold more than 5 percent of the market value of the portfolio in any one issuer.
- (j) Yankee bonds and Eurodollar bonds purchased must be rated in the top four quality categories by Moody's, Standard & Poor's, or Fitch/IBCA at time of purchase and the Manager shall not hold more than 5% of the market value of the portfolio in one issuer.
- (k) The Manager may invest up to 5% of the market value of the portfolio in non-rated securities. All non-rated security investments must be approved by the SBI Executive Director/Chief Investment Officer prior to purchase.
- (l) Cash equivalent reserves shall be invested in the SBI's STIF fund, managed by its custodian bank. With prior written SBI authorization, the Manager may purchase and manage cash equivalent reserves outside of the SBI's STIF fund.
- (m) Interest rate options on U.S. Treasury futures and Eurodollar futures, interest rate futures on U.S. Treasury securities and Eurodollar futures must be purchased or sold through a governmentally regulated exchange. Over-the-counter instruments are not permitted. All options and futures transactions must be entered into and maintained with a fully offsetting amount of collateral as defined in A4(b)(2) below. The portfolio may not be leveraged in any way.
- (n) Preferred bond securities of investment-grade companies are permitted with the following constraints:
 - (1) The issue's coupon payments must be cumulative.
 - (2) The issue may not be convertible into common stock.
 - (3) Call features are permitted.

- (4) The total exposure to preferred bonds may not exceed 5% of the value of the portfolio on a market value or CTD basis, whichever is greater.
- (5) The portfolio may not hold any more than 2% exposure to one company's preferred bonds on a market value or CTD basis, whichever is greater.
- (o) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. INVESTMENT CONSTRAINTS

(a) Duration Guidelines

- (1) The option-adjusted duration of the portfolio must be within +/- 1 years of the duration of the _____ Index.

(b) Derivative Guidelines

(1) Restrictions

Total net notional exposure from all derivative contracts must be less than 50% of the manager's portfolio net asset value and the total net contribution to duration exposure due to all derivative contracts must be less than 50% of the _____ index duration.

(2) Collateral Guidelines

All cash and cash equivalents, which is defined as:

- (i) all investment grade securities with an effective duration and spread duration of one year or less.
- (ii) All U.S. Treasury securities (excluding U.S. Treasury Inflation Indexed securities) with an effective duration of 3 years or less.
- (iii) U.S. Agency debentures from FNMA, FHLMC, FFCB, and FHLB with an effective duration of 3 years or less.
- (iv) All U.S. Treasury Inflation Indexed Securities with a maturity of 5 years or less.

(v) Any U.S. Treasury security that will satisfy the delivery requirement for a derivative contract currently being held in the Manager's SBI portfolio.

(3) Net Notional Liability Exposure

Total liability exposure due to derivative contracts will be calculated on a net notional value basis.

All futures contracts will use their current price to calculate the net notional value.

All net positions for puts and calls sold by the manager will have a notional value equal to the current notional value of the underlying contract. All net positions for puts and calls purchased by the Manager will have a notional value of zero.

(4) Derivative Contracts subject to the Above Constraints

The following derivative contracts are subject to the above constraints:

- (i) Interest rate futures on U.S. Treasury securities and Eurodollar futures;
- (ii) Interest rate options on U.S. Treasury futures; and options on Eurodollar futures; and
- (iii) All TBA mortgages.

A5. COMMUNICATION

- (a) The manager is expected to report periodically on returns and portfolio statistics to the Executive Director/Chief Investment Officer and Chief Operating Officer. In addition, the manager will meet with the Executive Director/Chief Investment Officer or Chief Operating Officer periodically to review the results of the manager's investment decision-making process.

A6. COMPLIANCE WITH GUIDELINES

- (a) The manager must immediately inform the SBI Executive Director/Chief Investment Officer and Chief Operating Officer, in writing, if the manager becomes aware of any violations of these guidelines.

- (b) The manager shall have 30 days to remedy any violations of these guidelines.
- (c) Within twenty (20) business days following the SBI's June 30 fiscal year end, the manager must certify, in writing, that they are in compliance with these guidelines and have been in compliance over the last twelve months. If the manager has violated the guidelines in the past twelve months and cannot certify compliance over this period, the manager must describe in the letter all violations that occurred in the last twelve months.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
INTERNAL PASSIVE DOMESTIC COMMON STOCK MANAGER**

The investment actions of the Minnesota State Board of Investment (SBI) internal passive domestic common stock manager will be governed and evaluated by the following guidelines:

A1. RISK/RETURN OBJECTIVES

The Manager will be evaluated, in part, based on performance in delivering cumulative returns, net of fees and expenses, in line with a predetermined benchmark assigned to the Manager. The Manager is responsible for managing the absolute level and composition of the active risk of the Manager's portfolio relative to the benchmark. The Manager's objectives are:

- (a) An actual portfolio that has realized active risk level relative to the benchmark of _____ or less, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark. And,
- (b) A portfolio that tracks the return of the benchmark closely. Over time, the annual return shortfall relative to the benchmark, due to fees and trading expenses, should be no more than .

A2. BENCHMARK INDEX

The benchmark is the _____. SBI reserves the right to change the benchmark upon notification to the Manager.

A3. ELIGIBLE INVESTMENTS

The Manager is restricted to trading common stocks that are in the benchmark index, stock index futures, stock index exchange traded funds, and the SBI STIF fund. The Manager may sell any securities removed from the target index over a reasonable period of time. The investments must satisfy the following criteria and constraints:

- (a) All securities held must be covered by the authorization in *Minnesota Statutes* Chapter 11A.24.
- (b) Cash equivalent reserves shall be invested in the SBI's STIF fund, managed by its custodian bank.

- (c) Stock index futures, purchased through a regulated futures exchange, may be used to equitize cash in the portfolio. Over-the-counter futures instruments are not permitted. All futures transactions must be entered into with a fully offsetting amount of cash or cash equivalents. The cash or cash equivalent position used to offset the futures position at the time of purchase, plus any mark to market adjustments, must be maintained over the life of the futures position to ensure that a leveraged position, as defined in Part B4, does not occur.
- (d) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

A4. PROXY VOTING

The Manager may not vote proxies on behalf of the SBI's account unless specifically requested by the Executive Director/Chief Investment Officer or Chief Operating Officer to do so.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Part B:

Investment Manager Guidelines

**External Domestic Equity,
External International Equity,
External Fixed Income,
Assigned Risk Plan,
Internal Equity and
Internal Fixed Income Managers**

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL DOMESTIC EQUITY, EXTERNAL INTERNATIONAL EQUITY,
EXTERNAL FIXED INCOME, ASSIGNED RISK PLAN, INTERNAL EQUITY,
AND INTERNAL FIXED INCOME MANAGERS**

Part B:

B1. PERFORMANCE EVALUATION

Manager performance will be evaluated according to qualitative and quantitative guidelines set forth in the SBI's Manager Continuation Policy. These guidelines, which may change from time to time, assist the SBI in its decisions concerning retention and termination of investment managers.

B2. SEPARATE ACCOUNT AND DAILY PRICING

The SBI's portfolio will be managed as a separate account. All assets will be held in custody by the SBI's custodian bank. All securities held in the portfolio must be capable of being priced on a daily basis and accessible by the custodian. Commingled vehicles may not be held in the portfolio without the prior written approval of the SBI.

B3. OPTION AND FUTURES TRADING AGREEMENT

Any option and futures trading agreement entered into by the Manager on behalf of the SBI's account must be reviewed and approved by legal representatives of the SBI before entering into the agreement. Any such agreement must provide that SBI's liability, including margin requirements, commissions and fees, is limited solely to funds of the SBI under Manager's control and does not constitute a general obligation of the State of Minnesota. The total SBI liability for margin requirements, commissions and fees among all brokers should be limited to the total market value of the SBI's assets under the Manager's control.

B4. LEVERAGE

The Manager may not leverage the account at any time. Leverage exists when the market value of the assets in the portfolio exceeds the owner's (SBI) equity in the assets when viewing the portfolio at any time. Leverage is presumed to exist if the owner's equity is unable to satisfy all of the obligations existing in the portfolio.

The Manager may not short individual securities.

B5. COMMUNICATION

The SBI requires its investment managers to communicate, at a minimum, with SBI staff on the following basis:

- (a) The Manager is expected to meet with SBI staff to review the results of the Manager's investment decision-making process on at least an annual basis.
- (b) The Manager is expected to provide SBI staff with a "Manager Commentary" as described in the SBI's Manager Continuation Policy within ten (10) business days after quarter end. The Commentary will summarize performance results over both the most recent quarter and year, discuss current investment strategy, discuss all organizational changes affecting the management of the SBI's account, and affirm account reconciliation with the custodian bank.
- (c) The Manager will promptly inform SBI staff and the SBI custodian of any known litigation relating to any holding in the Account. Responsibility to initiate, consider or participate in any bankruptcy, securities class action or other litigation against or involving any issuer of securities held in or formerly held in the Account or to advise or take any action with respect to any litigation shall remain with the SBI, and the Manager shall not have any responsibility to, and shall not, initiate, consider or participate in any such matters on behalf of the SBI or the Account unless specifically so requested by the SBI with the consent of the Minnesota Attorney General or his or her designee.

B6. ACCOUNT RECONCILIATION

The Manager shall assist in account reconciliation as follows:

- (a) To ensure accurate daily reporting, the Manager is required to complete the following forms:
 - (1) **Weekly Share and Pricing Reconciliation** –the Manager must reconcile with the custodial bank using State Street's Insight system. The reconciliations must be completed using data for the final business day of each week. The Manager must email the completed reconciliation form to minnrecon@statestreet.com no later than the first business day of the following week by 5 pm EST. The reconciliation will include a comparison of the number of shares for each security between the Manager's records and State Street's, and any differences must be reconciled. The reconciliation should also include the identification of security price differences of 5% or greater at the security level. The

Manager should reconcile cash as an individual holding. On this form, the Manager must note all discrepancies or positively state that there are no discrepancies.

- (2) **Weekly Performance & Net Asset Value Comparison**—the Manager must provide preliminary net asset values and month-to-date performance weekly. This report must be completed using data for the final business day of each week. The Manager will include this information on the share and pricing reconciliation form and will email the completed reconciliation form to minnrecon@statestreet.com no later than the first business day of the following week by 5 pm EST. Net asset values are comprised of the total market value of the entire fund, plus all open trades and pending income.
- (b) The Manager must report all trades to the SBI's custodian bank via facsimile, SWIFT or affirmation by Trade Date + 1 at 11:00 AM EST. For same day settlement trades, the deadline is 10:30 AM EST. Any trades after these deadlines should not be sent until the following day to ensure a smooth and accurate pricing process.
- (c) **Daily Pricing Requests**—The Manager must respond to all pricing inquiries from the custodian bank by no later than 5 PM EST on a daily basis. As an alternative to responding to individual security pricing requests, the Manager may send a comprehensive holdings report—with shares and prices—to the custodian bank on a daily basis as long as it is submitted before the 5 pm EST deadline.
- (d) The account will be priced by the SBI's custodian bank and such prices will be used to measure performance of the SBI Account. The Manager agrees to accept the prices established by the custodian bank. The Manager may appeal to the SBI if the Manager and custodian bank cannot arrive at mutually agreeable pricing. At the end of each quarter, the Manager must report to the SBI in the quarterly Manager Commentary whether or not the Manager agrees with the Custodian's pricing for the quarter.

B7. COMPLIANCE WITH GUIDELINES

The Manager must immediately inform the SBI, in writing, if the Manager becomes aware of any violations of these guidelines.

At the end of each quarter, the Manager must certify to the SBI in the quarterly Manager Commentary that the Manager is in compliance with these guidelines and has been in compliance over the last three months. If the Manager has violated the guidelines in the past three months and cannot certify compliance over this period, the Manager must describe in a letter all violations that occurred in the last three months.

B8. FUTURE MODIFICATIONS

The SBI reserves the right to modify these investment guidelines at any time. Managers will be notified in advance of changes to the investment guidelines.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Investment Manager Guidelines

External Stable Asset Manager

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
EXTERNAL STABLE ASSET MANAGER**

The investment actions of State Board of Investment (SBI) external stable asset manager will be governed and evaluated using the following guidelines:

Part A

A1. INVESTMENT OBJECTIVES

The Manager's portfolio is expected to:

- preserve principal
- provide adequate liquidity for inter-fund transfers and withdrawals
- achieve market returns over the benchmark while controlling investment return volatility within acceptable limits

The Manager is expected to deliver cumulative returns in excess of the returns of the benchmark, over time, net of fees and expenses.

A2. BENCHMARK

The Manager's portfolio is compared to the _____ benchmark.

The Manager's portfolio will maintain a minimum average credit quality rating of A for contract issues and AA- for securities underlying alternative investment contracts.

A3. LEVERAGE

The Manager may not leverage the account at any time. Leverage exists when the market value of the assets in the portfolio exceeds the owner's (SBI) equity in the assets when viewing the portfolio at any time. Leverage is presumed to exist if the owner's equity is unable to satisfy all of the obligations existing in the portfolio.

A4. ACCEPTABLE INVESTMENTS

The Manager may trade high quality fixed income securities, cash equivalents and investment contracts that have a stated maturity and that satisfy the following constraints and criteria:

- (a) Guaranteed Investment Contracts/Bank Investment Contracts: Investment contracts issued by banks or insurance companies must be from a financial institution that at the time of issuance has a credit rating of at least A with Standard & Poor's or at

least AA3 with Moody's, and the contract may have a maturity of no more than five years.

- (b) **Separate Account Contracts:** Separate account contracts issued by insurance companies, in which the assets are held in a separate account of the issuer and are protected from other creditors of the company must be issued by an insurance company on the Manager's approved list at the time of issuance. The maturity of such contract may not exceed five years, and the underlying assets must satisfy the provisions of Minnesota Statutes § 11A.24 and the criteria described elsewhere in this section.
- (c) **Security-Backed Investment Contracts:** Security-backed investment contracts (wrappers) must provide benefit responsiveness, be issued by financial institutions or other corporations that are rated at least A- and have an average maturity of no more than seven years. Fixed income securities purchased by the Manager which underlie these contracts must be rated AAA or better if a single security is used or must have an average portfolio rating of AA- or higher for multiple security portfolios. All securities must individually satisfy the provisions of Minnesota Statutes § 11A.24 and the criteria outlined under "Acceptable Underlying Assets."
- (d) **Acceptable Underlying Assets of security-backed investment contracts are:**
 - (1) Treasury Securities.
 - (2) Agency Obligations, including mortgage pass-through securities and mortgage-backed securities backed by U.S. agencies but not including interest-only, principal-only, or inverse floater instruments.
 - (3) Asset Backed Securities rated in the highest two rating categories.
 - (4) Other Fixed Income Securities must be rated A or better and be publicly traded, or AAA if used in a single security contract.
- (e) Short-Term Investments with maturities no longer than twelve months must comply with the provisions of Minnesota Statutes § 11A.24, subdivision 4.
- (f) The Manager may hold units of the _____ up to a maximum of _____ percent of the portfolio. The _____ should serve as a buffer fund to provide liquidity for participant withdrawals and contributions. Cash equivalents (short-term investments) should be minimal and should not exceed 3 percent of the portfolio.

A5. PERFORMANCE EVALUATION

Manager performance will be evaluated according to qualitative and quantitative guidelines established in the SBI's Manager Continuation Policy. These guidelines, which may change from time to time, assist the SBI in its decisions concerning retention and termination of investment managers.

A6. PORTFOLIO CONSIDERATIONS

(a) Credit, Risk and Diversification

The average quality of the instruments held in the portfolio will be at least AA. The average quality of securities underlying security-backed contracts will be at least AA-. The Manager will use its internal credit review process to determine acceptable contract issuers. No single wrap provider shall guarantee more than 25% of the Fund's assets, measured on the basis of gross principal exposure to the financial institution. No more than 5% of the aggregate portfolio will be invested in traditional investment contracts from any one contract issuer.

(b) Portfolio Duration

The weighted average duration of the total portfolio must be at least 2 years and no more than 3.5 years.

(c) Legal Review

The Manager will perform any needed legal review of investment contracts as part of its investment product review.

A7. COMMUNICATION

The SBI requires Manager to communicate, at a minimum, with SBI staff on the following basis:

- (a) The Manager is expected to meet with SBI staff to review the results of the Manager's investment decision-making process on at least an annual basis.
- (b) The Manager is expected to provide SBI staff with a "Manager Commentary" as described in the Manager Continuation Policy, within ten (10) business days after quarter-end. The commentary will summarize performance results over the most recent quarter and year, discuss current investment strategy, discuss all organizational changes affecting the management of the SBI's portfolio, and affirm account reconciliation with the custodial bank.
- (c) The Manager will promptly inform SBI staff and the SBI's custodian of any litigation relating to any holding in the portfolio. Responsibility to initiate, consider or participate in any bankruptcy, securities class action or other litigation against or involving any issuer of securities held in or formerly held in the Account or to advise or take any action with respect to any litigation shall remain with the SBI, and the Manager shall not have any responsibility to, and shall not, initiate, consider or participate in any such matters on behalf of the SBI or the Account unless specifically so requested by the SBI with the consent of the Minnesota Attorney General or his or her designee.

A8. ACCOUNT RECONCILIATION

The SBI's custodian bank will set book values for portfolio investments and such values will be used to measure performance of the SBI's portfolio. The Manager will provide all information requested by the SBI's custodian bank and will transmit values for its Stable Return Fund. The Manager agrees to accept the values established by the custodian. The Manager will review the custodian's values on a monthly basis and report any differences or discrepancies to the custodian. The Manager may appeal to the SBI if the Manager and the custodian cannot arrive at mutually agreeable values. At the end of the each quarter, the Manager will report to the SBI that the Manager agrees with the custodian's values for the quarter.

A9. COMPLIANCE WITH GUIDELINES

The Manager must immediately inform the SBI, in writing, if the Manager becomes aware of any violations of these guidelines.

At the end of each quarter, the Manager must certify to the SBI in the quarterly Manager Commentary that the Manager is in compliance with these guidelines and has been in compliance over the last three months. If the Manager has violated the guidelines in the past three months and cannot certify compliance over this period, the Manager must describe in a letter all violations that occurred in the last three months.

A10. FUTURE MODIFICATIONS

The SBI reserves the right to modify these investment guidelines at any time to ensure that the Manager is in compliance with Minnesota statutes and SBI policy. The Manager will be notified in advance of changes to these guidelines.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

Investment Manager Guidelines

Internal Short-Term

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
INVESTED TREASURER'S CASH POOL**

The investment actions of the Minnesota State Board of Investment (SBI) cash manager will be governed and evaluated based on the following guidelines:

1. RISK/RETURN OBJECTIVES

The primary objectives of the Invested Treasurer's Cash Pool (ITC) are to *preserve capital, and maintain a high degree of liquidity*. Within these constraints the portfolio should *provide a level of current income that is appropriate to the level of risk in the portfolio*. Due to the emphasis placed on safety of principle and liquidity, it is acceptable for the manager to underperform the benchmark over time.

2. BENCHMARKS

ITC is evaluated against a blended benchmark. That benchmark's composition shall be 20% Lehman 1-3 Year Government Bond Index and 80% iMoneyNet All Taxable Index. SBI reserves the right to change the benchmarks upon notification to the Manager.

3. CURRENCY

All securities will pay both principal and interest in U.S. Dollars.

4. LEVERAGE

The Manager may not leverage the portfolio at any time. Leverage exists when the market value of the assets in the portfolio exceeds the owner's (SBI) equity in the assets when viewing the portfolios at any time. Leverage is presumed to exist if the owner's equity is unable to satisfy all of the obligations existing in the portfolio.

5. ELIGIBLE INVESTMENTS AND PORTFOLIO CONSTRAINTS

The Manager may hold only fixed income investments that meet the criteria in *Minnesota Statutes*, section 11A.24. References to quality categories of rating organizations do not include modifiers that may be used within categories. The investments must satisfy the following criteria and constraints listed below:

- (a) Governmental bonds, notes, bills, mortgages, and other evidences of indebtedness provided the issue is backed by the full faith and credit of the Government. The obligations in which the Board may invest under this subdivision include guaranteed or insured issues of:

- (i) The United States, its agencies and its instrumentalities, or organizations created and regulated by an act of Congress;
 - (ii) Canada and its provinces;
 - (iii) The International Bank of Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, or any other United States Government sponsored organization of which the United States is a member.
- (b) The manager may invest in securities issued by any U.S. state or U.S. territory, or any municipality, political subdivision, agency or instrumentality thereof, provided that such securities may not be purchased by the manager directly from the issuer or the issuer's agent. All purchases of securities under this subdivision must be transacted in the secondary market.
- (c) U.S. and Canadian corporate obligations, including private placements, rated "A" or better by Moody's, Standard & Poor's (S&P), or Fitch/IBCA (Fitch) at time of purchase.
- (d) Banker's acceptances (BAs), bank notes and deposit notes of U.S. banks rated "A" or better by Moody's, S&P, or Fitch at the time of purchase.
- (e) Commercial Paper, including asset backed and private placement commercial paper of U.S. corporations or their Canadian subsidiaries. All commercial paper must have at least two of the following minimum ratings at time of purchase: Corporate commercial paper- A-1 from S&P, P-1 from Moody's, F-1 from Fitch; Asset Backed commercial paper- A-1+ from S&P, P-1 from Moody's, F-1+ from Fitch.
- (f) Repurchase Agreements that are backed by collateral meeting the requirements of paragraph 5.a and:
- (i) With a dealer, the dealer must be a primary dealer recognized by the New York Federal Reserve Bank, and:
 - (1) If done on a tri-party basis, the dealer must have short-term obligation ratings no lower than A2/P2 by S&P and Moody's, respectively.
 - (2) If done on a hold in custody basis, the dealer must have short-term obligation ratings no lower than A1/P1 by S&P and Moody's, respectively, and have net excess regulatory capital of at least \$200 million.

- (ii) With a bank, the bank must have deposit ratings of A1/P1 by S&P and Moody's, respectively, and be among the largest one hundred (100) banks as rated by deposits.
- (iii) If done on a delivery versus payment (DVP) basis, the counterparty may be any federally regulated bank or dealer.
- (iv) Securities must be collateralized at 102%.
- (g) The SBI shall maintain the ability to invest in Treasury/Agency only money market mutual funds in the event staff is unable to invest cash balances.

For any security listed above, if the rating is dropped below the allowable limit by Moody's, S&P, or Fitch, then in conjunction with the Executive Director/Chief Investment Officer the appropriate course of action will be determined and executed.

6. PROHIBITED SECURITIES AND INSTRUMENTS

- (a) Convertible bonds.
- (b) Structured securities that are leveraged and/or tied to more than one index, range notes, or inverse floaters
- (c) Futures and options contracts and swap agreements.
- (d) The Manager may not purchase securities from the SBI's List of Restricted Iran Companies. The SBI will periodically provide the Manager with an updated list and Manager must follow direction provided.

7. LIMITATIONS

- (a) The portfolio may not hold a security that exceeds five (5) years from settlement to its final legal maturity. The portfolio may not hold a corporate security with a legal final maturity longer than three years. However, corporate securities with variable rate and/or demand features may have a stated final maturity of up to 5 years, provided the variable rate/demand feature is 6 months or less.
- (b) The weighted average maturity (WAM) of the ITC portfolio shall not exceed (365 days.) When calculating the WAM, a corporate security with a variable rate feature or demand feature shall be deemed to have a maturity equal to the period remaining until the next reset date or the next date on which the principal may be recovered on demand. A callable security, for which the call option has been exercised by the issuer shall be deemed to have a maturity equal to the call date.

- (c) With the exception of securities listed in paragraph 5.a, 5.f and 5.g, the manager shall not hold as of the date of purchase more than the lesser of 10 percent of the issuer's total outstanding debt or 5 percent of the value of the portfolio in one issuer's name. The manager may exceed this limitation for a period of up to three business days after acquisition.
- (d) Under normal conditions, securities listed in paragraphs 5.c to 5.e shall not exceed in total 75% of the value of the portfolio with the following additional asset type restrictions:
 - (i) Commercial Paper shall not exceed 60%
 - (ii) Corporate bonds shall not exceed 60%
 - (iii) Certificates of Deposit shall not exceed 40%

8. COMMUNICATION

- (a) The manager is expected to report periodically on returns and portfolio statistics to the Executive Director/Chief Investment Officer and Chief Operating Officer. In addition, the manager will meet with the Executive Director/Chief Investment Officer or Chief Operating Officer periodically to review the results of the manager's investment decision-making process.

9. SEPARATE ACCOUNT

- (a) The SBI's portfolio will be managed as a separate account. All assets will be held in custody by the SBI's custodian bank.

10. COMPLIANCE WITH GUIDELINES

- (a) The manager must immediately inform the SBI Executive Director/Chief Investment Officer and Chief Operating Officer, in writing, if the manager becomes aware of any violations of these guidelines.
- (b) The manager shall have 30 days to remedy any violations of these guidelines.
- (c) Within twenty (20) business days following the SBI's June 30 fiscal year end, the manager must certify, in writing, that they are in compliance with these guidelines and have been in compliance over the last twelve months. If the manager has violated the guidelines in the past twelve months and cannot certify compliance over this period, the manager must describe in the letter all violations that occurred in the last twelve months.

11. FUTURE MODIFICATIONS

- (a) The SBI reserves the right to modify these investment guidelines at any time. The manager will be notified in advance of changes to the investment guidelines.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
BOND PORTFOLIO GUIDELINES (GPB5)**

I. CURRENCY

- (a) All securities will pay both interest and principal in US Dollars.

II. ELIGIBLE SECURITIES

- (a) Asset-Backed Securities including Collateralized Mortgage Obligations and Collateralized Debt Obligations.
 - (1) Acceptable collateral includes credit card receivables, auto loan receivables, auto dealer inventory financing, home equity loans, agricultural loans, student loans, and other consumer and commercial loans.
 - (2) Rating must be AAA by at least two (2) nationally recognized statistical rating organizations, ("NRSRO").
 - (3) Sponsor must be investment grade, unless security is insured. IF insured, the insurer must be rated AAA by at least two (2) NRSROs.
 - (4) If the rating is reduced below the level of AAA by either NRSRO or if the rating is deemed to be below AAA the security must be sold as soon as possible.
 - (5) The final cash flow payment date will not exceed two years assuming a zero (o) pre-payment speed.
- (b) Commercial Paper including asset backed commercial paper of U.S. and foreign corporations.
 - (1) Commercial paper must be rated at least A1/P1 by at least two (2) NRSRO's.
- (c) Domestic and Foreign Corporate Debt.
 - (1) Domestic Debt must be rated A by at least two (2) NRSROs or if unrated, be determined by the manager to be of comparable quality. Foreign debt must be rated AA by at least two (2) NRSROs.
 - (2) If the rating is reduced below the level of A by either NRSRO or if the rating is deemed to be below A the security must be sold as soon as possible.

- (d) Repurchase Agreements
 - (1) Collateralized at 102% by US Treasury and Agency securities.
 - (2) Repo counter parties will be restricted to Primary Dealers with ratings of A2/P2 or better.
 - (3) Maximum maturity of 60 days.
- (e) Supranational and sovereign debt obligations including debt of subdivisions and agencies of foreign states.
 - (1) Rating must be AA by at least two (2) NRSROs.
- (f) Short term cash sweep funds of the account's custodian bank.
- (g) United States Treasury Debt Obligations.
 - (1) No minimum rating required.
 - (2) No concentration limitations.
- (h) United States Government Agency Securities including debt of Government Sponsored Enterprises (GSE) and US Agency mortgage-backed securities.
 - (1) No minimum rating required.
 - (2) No concentration limitations.
- (i) The manager may invest up to 5% of the market value of the portfolio in non-rated securities. All non-rated security investments must be approved by the SBI Executive Director/Chief Investment Officer prior to purchase.

III. PROHIBITED SECURITIES AND INSTRUMENTS

- (a) Convertible bonds
- (b) Structured notes comprising range notes, inverse floaters, dual index floaters, leveraged or de-leveraged floaters.
- (c) Futures and options, contracts and swap agreements.

IV. MATURITY

- (a) The weighted average maturity of the cash portfolio will not exceed 3 years. Final legal maturity of any single security shall not exceed 5 years.

V. PORTFOLIO CONCENTRATION LIMITS

- (a) No more than five percent (5%) of the market value of the portfolio's assets shall be invested in any single issuer excluding U.S. Treasury, Agency or repurchase agreements.
- (b) No more than 20% of the market value of the portfolio's assets shall be invested in dollar-denominated international securities.
- (c) Maximum exposure to corporate debt will be 40%.

VI. COMMUNICATION

- (a) The manager is expected to report periodically on returns and portfolio statistics to the Executive Director/Chief Investment Officer and Chief Operating Officer. In addition, the manager will meet with the Executive Director/Chief Investment Officer or Chief Operating Officer periodically to review the results of the manager's investment decision-making process.

VII. COMPLIANCE WITH GUIDELINES

- (a) The manager must immediately inform the SBI Executive Director/Chief Investment Officer and Chief Operating Officer, in writing, if the manager becomes aware of any violations of these guidelines.
- (b) The manager shall have 30 days to remedy any violations of these guidelines.

- (c) Within twenty (20) business days following the SBI's June 30 fiscal year end, the manager must certify, in writing, that they are in compliance with these guidelines and have been in compliance over the last twelve months. If the manager has violated the guidelines in the past twelve months and cannot certify compliance over this period, the manager must describe in the letter all violations that occurred in the last twelve months.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**MINNESOTA STATE BOARD OF INVESTMENT
INVESTMENT GUIDELINES
SHORT TERM INVESTMENT FUND INVESTMENT GUIDELINES FOR
RETIREMENT AND NON RETIREMENT ASSETS – GP15, GP60**

Account Structure

These guidelines affect the investment parameters of the Minnesota State Board of Investment (“SBI”) Retirement Short Term investment Fund Account (the “Retirement STIF” and the Non-Retirement Short Term investment Fund Account (the “Non-Retirement STIF”)(each, and “Account”). The Retirement STIF will be set up as a shell with assets invested in one of the two sub portfolios (each a “portfolio”): Cash (GP15), Directed (GPB5). The Non-Retirement STIF will consist only of a cash portfolio (GP60). Participants will own pro rata interests of their respective Accounts. The accounts will employ the book value method of accounting. Realized gains and losses will be flowed through income on the day they are realized. Losses in excess of income will be carried over to the next day until they are gone, or as directed by the SBI. The SBI acknowledges that the Accounts’ structure entails a higher level of risk relative to a typical short term investment fund and that the SBI is willing to bear realized and unrealized gains and losses, and a more variable level of income than a typical short term investment fund. All portfolios will be accounted for at market for the purpose of measuring performance. SBI will participate in securities lending with respect to the securities in the cash and bond portfolios.

Investment Objectives

The investment objective of each Account is to outperform the typical short-term investment fund over an interest rate cycle. The manager(s) will endeavor to generate positive monthly income for the Accounts. The objective of each Cash portfolio is to maintain a minimum \$1.00 Net Asset Value, to provide liquidity and current income with a goal of exceeding the iMoney Net “All Taxable Money Fund Average” by 10 basis points. The Directed portfolio will hold the assets of the SBI’s CD/REPO program. No performance benchmark has been specified for the Directed Portfolio. The objective of the Bond portfolio will be to match or exceed the total rate of return of the Lehman Brothers 1 to 3 year Government Bond Index. The accounts will be actively managed to meet these objectives.

Cash Portfolio Guidelines (GP15 and GP60)

I Currency

- A. All securities will pay both interest and principal in US Dollars.

II Eligible Securities

A. Asset – Backed Securities

1. Acceptable collateral includes credit card receivables, auto loan receivables, auto dealer inventory financing, home equity loans, agricultural loans, student loans, and other consumer and commercial loans.
2. Rating must be AAA by at least two (2) nationally recognized statistical rating organizations, (“NRSRO”).
3. Sponsor must be investment grade, unless security is insured. IF insured, the insurer must be rated AAA by at least two (2) NRSROs.
4. If the rating is reduced below the level of AAA by either NRSRO or if the rating is deemed to be below AAA the security must be sold as soon as possible.
5. Aggregate par value of Asset –backed securities may not exceed 20 percent of total par value of the portfolio.
6. The final cash flow payment date will not exceed two years assuming a zero (0) pre-payment speed.

B. Commercial Paper including asset backed commercial paper of U.S. and foreign corporations

1. Commercial paper must be rated at least A1/P1 by at least two (2) NRSRO’s
2. At time of purchase, the portfolio shall hold no more than the lesser of 10 percent of the issuers total outstanding commercial paper or 5 percent of the market value of the portfolio in any one issuer.

C. Domestic and Foreign Corporate Debt

1. Domestic Debt must be rated A by at least two (2) NRSRO’s or if unrated, be determined by the manager to be of comparable quality. Foreign debt must be rated AA by at least two (2) NRSROs
2. Aggregate par value of domestic and foreign debt shall not exceed 20 percent of total par value of the portfolio.
3. No more than five percent of total par value of the portfolio may be in any one issuer.
4. Maximum maturity of two (2) years.
5. If the rating is reduced below the level of A by either NRSRO or if the rating is deemed to be below A the security must be sold as soon as possible.

D. Repurchase Agreements

1. collateralized at 102% by US Treasury and Agency securities
2. Repo counter parties will be restricted to Primary Dealers with ratings of A2/P2 or better.
3. Maximum maturity of 60 days.

- E. Supranational and sovereign debt obligations including debt of subdivisions and agencies of foreign states.
 - 1. Rating must be AA by at least two (2) NRSROs.
 - 2. Aggregate par value of supranational and sovereign debt may not exceed 20 percent of total par value of the portfolio.
 - 3. No more than five (5) percent of total par value of the portfolio may be invested in any single issuer.
- F. Short term cash sweep funds of the account's custodian bank.
- G. United States Treasury Debt Obligations
 - 1. No minimum rating required
 - 2. No concentration limitations
 - 3. Maximum maturity of two (2) years
- H. United States Government Agency Securities including debt of Government Sponsored Enterprises (GSE) and US Agency mortgage – backed securities.
 - 1. No minimum rating required
 - 2. No concentration limitations
 - 3. Maximum maturity of two (2) years

III Prohibited Securities and Instruments

- A. Convertible bonds
- B. Structured notes comprising range notes, inverse floaters, dual index floaters, leveraged or de-leveraged floaters.
- C. Futures and options, contracts and swap agreements

IV Maturity

- A. The weighted average maturity of the cash portfolio will not exceed 90 days.

V Portfolio Concentration Limits

- A. No more than 40 percent of the total par value of the cash portfolio will be invested in any combination of corporate notes (whether domestic or foreign), asset backed securities and supranational and sovereign debt obligations.

March 2015

Executive Director and Chief Investment Officer/
Chief Operating Officer

Date _____

**RESOLUTION OF THE
MINNESOTA BOARD OF INVESTMENT
CONCERNING PROXY VOTING**

WHEREAS, as a stockholder, the Minnesota State Board of Investment (SBI) is entitled to sponsor and cosponsor shareholder resolutions and participate in corporate annual meetings by casting its votes by proxy or through direct attendance at the meetings; and

WHEREAS, the SBI has previously established a Proxy Committee:

NOW THEREFORE, BE IT RESOLVED THAT:

1. To advise and assist the SBI in the implementation of proxy voting guidelines previously adopted by the Board the SBI hereby authorizes and reaffirms the establishment of the SBI Proxy Committee composed of a representative selected by each member of the SBI to be chaired by the designee of the Governor and convened as necessary in accord with the Guidelines.
2. The SBI further authorizes the SBI Proxy Committee to review the Guidelines periodically and report to the SBI as necessary.
3. The SBI further directs its staff to advise and assist the Proxy Committee in the implementation of this resolution and directs its Executive Director to obtain such consulting and reporting services as may be necessary.
4. This resolution shall take effect immediately.

Adopted this 4th day
of March, 2015

Governor Mark Dayton
Chair, Minnesota
State Board of Investment

MINNESOTA STATE BOARD OF INVESTMENT

Proxy Voting Guidelines

The Minnesota State Board of Investment (SBI) has formulated proxy voting guidelines by which it casts votes on a wide range of corporate governance and social responsibility issues.

As a stockholder, the Board is entitled to participate in corporate annual meetings by casting its votes by proxy or through direct attendance at the meetings. The following guidelines constitute an effort by the SBI to manage and control its proxy voting.

**Overview
of the SBI**

By the Minnesota Constitution, the Board is composed of the Governor, the State Auditor, the Secretary of State, and the Attorney General. The Board employs a professional staff to carry out its policies. The Board and staff are assisted by a seventeen member Investment Advisory Council.

The SBI invests the pension assets of the three statewide public employee retirement systems:

- Minnesota State Retirement System (MSRS)
- Public Employees Retirement Association (PERA)
- Teachers Retirement Association (TRA)

The SBI also invests the cash balances of state government funds and assets of several trust funds.

Statutory Purpose

According to statute, state assets are to be responsibly invested by the SBI to maximize the total rate of return without incurring undue risk.¹ Only a small portion of the SBI's equity holdings are in non-pension accounts. The focus, therefore, of the SBI's proxy voting activities is the extensive domestic and international equity holdings within the pension asset portfolios.

**Fiduciary
Responsibility**

As fiduciaries of pension assets, members of the Board and the executive director owe a fiduciary duty to the members of the plans, to the taxpayers of the state and political subdivisions who help to finance the plans, and to the State of Minnesota.²

In addition to the general standard of fiduciary conduct, members of the Board, the executive director, the members of the Investment Advisory Council, staff, and members of Board committees must carry out their duties in accordance with the prudent person standard as articulated in statute.³

**Voting
Process**

The Board recognizes its fiduciary responsibility to cast votes on proxy issues. The Board delegates proxy voting responsibilities to its Proxy Committee. Each Board member appoints one member to the Proxy Committee. The four member Committee meets only if it has a quorum and casts votes on proxy issues based on a majority vote of those present. In the unusual event that it reaches a tie vote or a quorum is not present, the Committee will cast a vote to abstain.

The Committee has formulated guidelines by which it casts votes on a wide range of corporate governance and social responsibility issues. These guidelines encompass both domestic and international proxy issues. Each year the Committee reviews existing guidelines and determines which issues it will review on a case-by-case basis. The Proxy Committee also may review certain corporate governance issues pertaining to companies headquartered in Minnesota.

Domestic voting: The SBI directly votes shares held in all domestic equity manager portfolios.

International voting: The SBI delegates to international equity managers the voting of shares held in the managers' portfolios following the Proxy Voting Guidelines, where feasible. The SBI believes that several factors affecting the voting of international proxies, including time constraints and lack of company specific information, support the conclusion that the SBI's international equity managers can more efficiently and effectively vote the proxies in their portfolios.

Corporate Governance Issues

**Routine
Matters**

In general, the SBI **supports** management on routine matters of corporate governance. These issues include:

- uncontested election of directors.
- selection of auditors and approval of financial statements.
- management proposals on non-executive compensation issues including savings plans and stock options.
- limits on director and officer liability or increases in director and officer indemnification permitted under the laws of the state of incorporation.

The SBI directs the Proxy Committee, at its discretion, to review the positions taken by directors and withhold votes from or vote against some or all of the directors standing for election if they have taken positions on issues which are potentially not in the best interests of shareholders.

Shareholder Rights

In general, the SBI **opposes** proposals that would restrict shareholder ability to effect change. Such proposals include:

- instituting supermajority requirements to ratify certain events.
- creating classified boards.
- barring shareholders from participating in the determination of the rules governing the board's actions, such as quorum requirements and the duties of directors.
- prohibiting or limiting shareholder action by written consent.
- granting certain stockholders superior voting rights over other stockholders.

In general, the SBI **supports** proposals that preserve shareholder rights to effect change. Such proposals include:

- having boards of directors comprised of a majority of independent directors.
- having compensation committees comprised entirely of independent directors.
- requiring shareholder approval of poison pill plans.
- repealing classified boards.
- adopting secret ballot of proxy votes.
- reinstating cumulative voting.
- adopting anti-greenmail provisions.

Executive Compensation

In general, the SBI **supports** efforts to have executive compensation linked to a company's long-term performance and to encourage full disclosure of compensation packages for principal executives. Accordingly, the SBI evaluates compensation packages on a case-by-case basis, including compensation agreements that are contingent upon corporate change in control.

Buyouts

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

Special Cases

The SBI evaluates the following proposals on a case-by-case basis:

- hostile takeovers.
- recapitalization plans.
- contested election of directors.

Social Responsibility Issues

Tobacco

The SBI supports shareholder resolutions that call for a company to reduce its involvement in tobacco production, product marketing and other related lines of business in order to diversify its business in a manner that will reduce or eliminate potential liability to legal claims associated with tobacco that may negatively impact the value of the SBI's holdings.

In furtherance of this policy, the SBI has sponsored and co-sponsored shareholder resolutions to reduce youth access to tobacco products, to request companies to voluntarily comply with FDA regulations, to eliminate smoking in restaurants, and other tobacco related issues.

**Northern
Ireland**

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

The SBI **supports** resolutions that request companies to submit reports to shareholders concerning their labor practices or their sub-contractors' labor practices in Northern Ireland.

In addition to casting proxy votes, the SBI sponsors and cosponsors Northern Ireland resolutions as required by *Minnesota Statutes*, Section 11A.241.

**Environmental
Protection/Awareness**

In general, the SBI **supports** resolutions that require a corporation to report or disclose to shareholders company efforts in the environmental arena. Resolutions that request the adoption of various environmental policies are evaluated on a case-by-case basis.

MINNESOTA STATE BOARD OF INVESTMENT

- Sudan** *Minnesota Statutes*, Section 11A.243 requires the SBI to make its best efforts to identify all “scrutinized companies” with operations in Sudan in which the SBI has direct or indirect holdings or could possibly have holdings in the future. The SBI will engage each scrutinized company. The legislation calls for the SBI to: encourage companies with inactive business operations to continue to refrain from initiating active operations; and to notify companies with active business operations that it may be subject to divestment by the State Board of Investment. In general, the SBI **supports** resolutions consistent with this legislation.
- Iran** *Minnesota Statutes*, Section 11A.244 requires the SBI to make its best efforts to identify all “scrutinized companies” with operations in Iran in which the SBI has direct or indirect holdings or could possibly have holdings in the future. The SBI will engage each scrutinized company. The legislation calls for the SBI to: encourage companies with inactive business operations to continue to refrain from initiating active operations; and to notify companies with active business operations that it may be subject to divestment by the State Board of Investment. In general, the SBI **supports** resolutions consistent with this legislation.
- Other Issues** In general, the SBI **supports** proposals that require a company to report or disclose to shareholders company efforts concerning a variety of social responsibility issues. In the past, these reporting resolutions have included issues such as affirmative action programs, animal testing procedures, and nuclear plan safety procedures.
- In general, the SBI **opposes** proposals that require a company to institute a specific business action in response to such issues. As an example, the SBI voted against a shareholder proposal which would have required a utility to phase out operations of a nuclear power plant.

1 *Minnesota Statutes*, Section 11A.01.

2 *Minnesota Statutes*, Section 356A.04, subdivision 1.

3 *Minnesota Statutes*, Section 11A.09, and Section 356A.04, subdivision 2.

TAB

C

- b. The private equity investment strategy, which includes leveraged buyouts and venture capital, is to establish and maintain a broadly diversified private equity portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location.
- c. The strategy for resource investments is to establish and maintain a portfolio of resource investment vehicles that provide an inflation hedge and additional diversification. Resource investments will include oil and gas investments, energy service industry investments and other investments that are diversified geographically and by type.
- d. The strategy for yield-oriented investments is to target funds that typically provide a current return and may have an equity component such as subordinated debt or mezzanine investments. Yield-oriented investments will provide diversification by including investments in the private equity, resource and real estate categories.

ACTION ITEMS:

1) Investment with an existing real estate manager, Blackstone, in Blackstone Real Estate Partners VIII, L.P. (BREP VIII).

Blackstone is seeking investors for a new \$13 billion real estate fund, Blackstone Real Estate Partners VIII. This fund is a successor to seven real estate funds managed by Blackstone Real Estate Partners. The SBI invested in the three most recent funds. BREP VIII will focus on investments in distressed and/or undermanaged properties at below market prices.

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

More information on the BREP VIII fund is included as **Attachment C**.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$150 million, or 20% of BREP VIII 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 Blackstone 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 Blackstone or reduction or termination of the commitment.

2) Investment with an existing resource manager, EnCap Investments, L.P. (EnCap) in EnCap Energy Capital Fund X, L.P. (EnCap X).

EnCap is seeking investors for a new \$4.825 billion resource fund, EnCap X. This fund is a successor to nine resource funds managed by EnCap. The SBI invested in the last three of the prior funds. Like the prior funds, EnCap X will focus on providing growth capital through the development of low-risk oil and gas drilling opportunities.

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

More information on the EnCap X fund is included as **Attachment D**.

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$100 million, or 20% of EnCap X, 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 EnCap 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 EnCap or reduction or termination of the commitment.

3) Investment with an existing private equity manager, Oaktree Capital Management (Oaktree), in Oaktree Opportunities Fund X, L.P. and Oaktree Opportunities Funds Xb, L.P. (Funds X and Xb).

Oaktree is seeking investors for a new \$3.0 billion private equity fund, Opportunities Fund X, and potentially an additional \$7.0 billion for Opportunities Fund Xb. These funds are successors to eleven private equity funds managed by Oaktree. The SBI did not invest in any of the eleven prior funds. These funds will focus on investing, in connection with episodes of financial distress, in debt or equity securities or other obligations at substantial discounts to their original value.

In addition to reviewing the attractiveness of the Oaktree 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 Opportunities Fund X and Opportunities Fund Xb 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 \$50 million, or 20% of Opportunities Fund X, whichever is less, and \$100 million, or 20% of Opportunities Fund Xb, 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 Oaktree 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 Oaktree or reduction or termination of the commitment.

4) Investment with an existing yield-oriented manager, Kohlberg Kravis Roberts & Co. (KKR), in KKR Lending Partners II, L.P. (KKRLP II).

KKR is seeking investors for a new \$1.5 billion yield-oriented fund, KKR Lending Partners II. This fund is a successor to KKRLP I fund managed by KKR. The SBI did not invest in the prior dedicated direct lending fund, but has invested in other KKR funds, most recently the 2006 Fund and the Millennium Fund. KKR will make investments primarily in senior debt securities of middle market companies in the United States and elsewhere.

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

More information on KKRLP II 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 \$75 million, or 20% of KKR Lending Partners II, 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.

5) Investment with a new yield-oriented manager, Avenue Capital Group II, LLC (Avenue), in Avenue Energy Opportunities Fund, L.P. (Energy Opportunities Fund).

Avenue is seeking investors for a new \$750 million yield-oriented fund, Avenue Energy Opportunities Fund. This will be the Firm's first fund focusing exclusively on the energy and utilities sectors, but it has invested in these sectors in its previous six Special Situations Funds. The SBI did not invest in any of the six prior funds. Avenue Energy Opportunities Partners will make investments primarily in debt, select equity securities, or other obligations of North American energy and utility companies in financial stress or distress.

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

More information on the Avenue Energy Opportunities Fund 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 Avenue Energy Opportunities Fund 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 Avenue 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 Avenue or reduction or termination of the commitment.

6) Investment with a new private equity manager, MHR Fund Management LLC (MHR), in MHR Institutional Partners IV, L.P. (MHR Fund IV).

MHR is seeking investors for a new \$2.75 billion private equity fund, MHR Fund IV. This fund is a successor to three private equity funds managed by MHR. Like the prior funds, MHR will focus on gaining control of distressed companies and creating value through the restructuring process and company growth.

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

More information on the MHR Fund IV is included as **Attachment H**.

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 \$75 million, or 20% of MHR Fund IV, whichever is less. Approval by the SBI of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by MHR 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 MHR or reduction or termination of the commitment.

ATTACHMENT A

Minnesota State Board of Investment
Pooled Alternative Investments
Combined Funds
December 31, 2014

Combined Funds Market Value \$59,965,876,550

Amount Available for Investment **\$4,456,466,952**

	Current Level	Target Level	Difference
Market Value (MV)	\$7,536,708,358	\$11,993,175,310	\$4,456,466,952
MV +Unfunded	\$12,463,817,084.66	\$20,988,056,793	\$8,524,239,708

Asset Class	Market Value	Unfunded Commitment	Total
Private Equity	\$4,570,459,066	\$2,985,959,344	\$7,556,418,410
Real Estate	\$666,127,436	\$135,093,868	\$801,221,304
Resource	\$1,447,108,523	\$1,140,341,743	\$2,587,450,267
Yield-Oriented	\$853,013,332	\$665,713,771	\$1,518,727,104
Total	\$7,536,708,358	\$4,927,108,727	\$12,463,817,085

Cash Flows
December 31, 2014

Year	Capital Calls	Distributions	Net Invested
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)
3 year Total	\$3,519,021,943	(\$6,115,136,989)	(\$2,596,115,046)

ATTACHMENT B

Minnesota State Board of Investment

-Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
I. REAL ESTATE								
Blackstone								
Blackstone Real Estate Partners V	100,000,000	97,030,342	86,761,564	95,172,526	4,174,052	10.27	1.88	8.68
Blackstone Real Estate Partners VI	100,000,000	98,737,973	105,233,004	91,327,874	3,520,125	13.35	1.99	7.75
Blackstone Real Estate Partners VII	100,000,000	86,901,513	102,211,333	24,629,618	16,638,636	23.20	1.46	3.09
Blackstone Strategic Partners (CSFB)								
Strategic Partners III RE	25,000,000	25,752,810	9,365,147	4,886,226	9,006	-9.09	0.55	9.50
Strategic Partners IV RE	50,000,000	49,485,825	23,943,520	22,442,342	1,102,388	-1.56	0.94	6.54
Colony Capital								
Colony Investors II	80,000,000	78,482,328	2,600	90,022,404	1,517,672	4.68	1.15	19.75
Colony Investors III	100,000,000	100,000,000	4,559,800	171,942,105	0	14.57	1.77	17.00
Silverpeak Real Estate Partners								
Silverpeak Legacy Pension Partners II	75,000,000	70,753,841	33,025,048	44,736,036	9,857,501	1.83	1.10	9.50
Silverpeak Legacy Pension Partners III	150,000,000	66,143,137	23,540,849	2,698,581	83,274,488	-14.13	0.40	6.61
T.A. Associates Realty								
Realty Associates Fund VII	75,000,000	75,000,000	38,831,360	37,922,599	0	0.35	1.02	10.12
Realty Associates Fund VIII	100,000,000	100,000,000	63,375,108	18,965,283	0	-2.89	0.82	8.50
Realty Associates Fund IX	100,000,000	100,000,000	86,199,548	55,491,204	0	10.42	1.42	6.35
Realty Associates Fund X	100,000,000	85,000,000	89,078,555	6,424,523	15,000,000	10.88	1.12	2.83
Real Estate Total	1,155,000,000	1,033,287,769	666,127,436	666,661,321	135,093,868		1.29	
II. RESOURCE								
Apache Corp.								
1986 Net Profits Interest	30,000,000	30,000,000	2,756,040	57,718,059	0	12.17	2.02	28.00
EIG Global Energy Partners								
EIG Energy Fund XIV	100,000,000	107,481,599	53,689,521	82,556,532	8,292,604	7.95	1.27	7.70
EIG Energy Fund XV	150,000,000	111,957,172	107,966,243	40,791,181	38,042,828	12.93	1.33	4.57
EIG Energy Fund XVI	200,000,000	31,500,000	23,011,223	0	168,500,000	-34.80	0.73	1.30
EnCap Energy								
EnCap Energy Capital Fund VII	100,000,000	93,493,872	25,033,319	126,297,613	7,058,871	19.51	1.62	7.50
EnCap Energy Capital Fund VIII	100,000,000	72,436,884	79,106,374	18,184,757	27,563,116	16.81	1.34	4.25
Encap Energy Fund IX	100,000,000	32,078,309	36,646,260	0	67,921,691	17.40	1.14	2.06
Energy & Minerals Group								
NGP Midstream & Resources	100,000,000	98,687,797	143,729,296	105,834,420	1,623,226	25.00	2.53	7.75
The Energy & Minerals Group Fund II	100,000,000	76,474,723	134,960,832	190,941	23,535,884	35.56	1.77	3.27
The Energy & Minerals Group Fund III	200,000,000	105,090,175	102,389,463	170,915	94,919,663	-5.15	0.98	0.82
Energy Capital Partners								
Energy Capital Partners II-A	100,000,000	77,710,914	113,765,952	28,412,880	26,229,619	23.76	1.83	4.45
Energy Capital Partners III	200,000,000	31,165,469	28,836,411	0	168,834,531	-14.96	0.93	1.03
First Reserve								
First Reserve Fund X	100,000,000	100,000,000	2,219,305	182,429,002	0	31.20	1.85	10.16
First Reserve Fund XI	150,000,000	150,000,000	80,885,852	82,340,975	0	1.86	1.09	8.02
First Reserve Fund XII	150,000,000	144,172,721	121,720,616	46,583,478	5,827,279	4.37	1.17	6.17
First Reserve Fund XIII	200,000,000	10,638,564	7,572,010	40,685	189,361,436	-31.31	0.72	1.16
NGP								
Natural Gas Partners IX	150,000,000	137,292,360	102,111,996	165,101,957	10,047,449	18.86	1.95	7.19
NGP Natural Resources X	150,000,000	101,038,450	120,368,832	7,513,593	48,961,550	16.33	1.27	3.23
Natural Gas Capital Resources XI	150,000,000	0	0	0	150,000,000	0.00	0.00	0.06
Sheridan								
Sheridan Production Partners I	100,000,000	100,000,000	89,946,004	82,750,000	0	13.65	1.73	7.75
Sheridan Production Partners II	100,000,000	95,750,000	69,764,970	7,000,000	4,250,000	-10.52	0.80	4.25
Sheridan Production Partners III-B	100,000,000	628,005	628,005	0	99,371,995	0.00	1.00	0.06
Resource Total	2,830,000,000	1,707,597,013	1,447,108,523	1,033,916,989	1,140,341,743		1.45	
III. YIELD-ORIENTED								
Audax Group								
Audax Mezzanine Fund III	100,000,000	60,368,445	50,216,461	20,078,847	39,631,555	8.05	1.16	4.74
Citicorp Mezzanine								
CM Liquidating Partnership	100,000,000	88,029,296	5,217,087	132,324,719	0	15.96	1.56	15.16
Crescent Capital Group								
TCW/Crescent Mezzanine Partners III	75,000,000	68,868,042	5,823,578	156,868,939	29,701,079	36.00	2.36	13.75
Gold Hill Venture Lending								
Gold Hill Venture Lending	40,000,000	40,000,000	2,135,526	62,355,021	0	10.59	1.61	10.26
Gold Hill 2008	25,852,584	25,852,584	22,705,471	16,020,728	0	13.12	1.50	6.50

Minnesota State Board of Investment

-Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
GS Mezzanine Partners								
<i>GS Mezzanine Partners 2006 Institutional</i>	100,000,000	74,999,888	16,628,181	112,722,855	25,000,112	4.39	1.72	8.73
<i>GS Mezzanine Partners V</i>	150,000,000	112,057,963	32,410,059	126,369,514	52,327,832	9.84	1.42	7.19
Merit Capital Partners								
<i>William Blair Mezzan. Cap. Fd. III</i>	60,000,000	57,243,241	503,596	112,755,951	2,756,759	15.51	1.98	15.00
<i>Merit Mezzanine Fund IV</i>	75,000,000	70,178,571	28,015,429	73,220,957	4,821,429	8.16	1.44	10.04
<i>Merit Mezzanine Fund V</i>	75,000,000	53,632,653	48,849,061	13,289,711	21,367,347	6.48	1.16	5.03
Merit Energy Partners								
<i>Merit Energy Partners B</i>	24,000,000	24,000,000	25,847,795	177,126,751	0	24.60	8.46	18.50
<i>Merit Energy Partners C</i>	50,000,000	50,000,000	57,675,330	483,461,062	0	62.56	10.82	16.18
<i>Merit Energy Partners D</i>	88,000,000	70,938,303	85,694,578	295,643,618	0	49.45	5.38	13.60
<i>Merit Energy Partners E</i>	100,000,000	39,983,197	54,846,361	65,313,722	0	33.09	3.01	10.21
<i>Merit Energy Partners F</i>	100,000,000	57,841,607	46,812,524	25,570,667	42,158,394	4.59	1.25	8.77
<i>Merit Energy Partners H</i>	100,000,000	81,860,748	80,936,708	3,339,129	18,139,252	2.02	1.03	3.91
<i>Merit Energy Partners I</i>	200,000,000	4,100,000	4,100,000	0	195,900,000	0.00	1.00	0.21
Portfolio Advisors								
<i>DLJ Investment Partners II</i>	27,375,168	23,164,217	720,880	34,829,566	4,955,172	10.58	1.53	15.00
<i>DLJ Investment Partners III</i>	100,000,000	57,419,984	15,098,102	59,411,216	44,579,305	6.51	1.30	8.53
Prudential Capital Partners								
<i>Prudential Capital Partners I</i>	100,000,000	97,768,017	19	153,982,506	6,975,419	11.06	1.57	13.70
<i>Prudential Capital Partners II</i>	100,000,000	94,945,892	21,976,113	114,654,364	5,456,076	8.71	1.44	9.50
<i>Prudential Capital Partners III</i>	100,000,000	93,721,919	74,220,900	64,419,854	9,184,548	13.23	1.48	5.71
<i>Prudential Capital Partners IV</i>	100,000,000	44,588,357	45,068,397	2,490,228	55,411,643	8.53	1.07	2.95
Summit Partners								
<i>Summit Subordinated Debt Fund II</i>	45,000,000	40,500,000	159,568	93,649,473	4,500,000	56.28	2.32	17.42
<i>Summit Subordinated Debt Fund III</i>	45,000,000	42,690,965	7,007,897	53,666,733	2,850,000	8.65	1.42	10.87
<i>Summit Subordinated Debt Fund IV</i>	50,000,000	41,855,902	21,771,987	31,377,162	11,644,098	8.97	1.27	6.76
Windjammer Capital Investors								
<i>Windjammer Mezzanine & Equity Fund II</i>	66,708,861	52,095,147	1,545,849	79,742,572	14,360,347	8.87	1.56	14.75
<i>Windjammer Senior Equity Fund III</i>	75,000,000	64,451,545	59,124,430	77,372,146	13,139,865	19.15	2.12	8.99
<i>Windjammer Senior Equity Fund IV</i>	100,000,000	40,181,635	37,901,444	3,798,730	60,853,542	3.74	1.04	2.85
<i>Yield-Oriented Total</i>	2,371,936,613	1,673,338,121	853,013,332	2,645,856,741	665,713,771		2.09	
IV. PRIVATE EQUITY								
Adams Street Partners								
<i>Adams Street Global Secondary Fund 5</i>	100,000,000	36,620,000	31,223,608	7,384,676	63,380,000	6.87	1.05	2.54
Advent International								
<i>Advent International GPE VI-A</i>	50,000,000	47,725,005	55,362,976	32,587,980	2,274,995	18.24	1.84	6.75
<i>Advent International GPE VII</i>	90,000,000	55,080,000	64,452,367	4,140,083	34,920,000	21.18	1.25	2.29
Affinity Ventures								
<i>Affinity Ventures IV</i>	4,000,000	4,000,000	2,360,484	1,541,970	0	-0.55	0.98	10.50
<i>Affinity Ventures V</i>	5,000,000	4,500,000	3,154,717	1,218,342	500,000	-0.83	0.97	6.49
APAX Partners								
<i>Apax VIII - USD</i>	200,000,000	62,899,370	65,519,129	0	137,100,630	4.08	1.04	1.82
aPriori								
<i>DLJ Merchant Banking Partners III</i>	125,000,000	121,917,361	7,953,003	279,830,846	3,082,639	19.43	2.36	14.25
Banc Fund								
<i>Banc Fund VII</i>	45,000,000	45,000,000	39,440,700	812,725	0	-1.42	0.89	9.75
<i>Banc Fund VIII</i>	98,250,000	98,250,000	122,044,775	12,377,973	0	11.43	1.37	6.68
<i>Banc Fund IX</i>	77,625,000	6,986,250	6,955,238	0	70,638,750	-1.09	1.00	0.56
Blackstone								
<i>Blackstone Capital Partners IV</i>	70,000,000	72,181,020	26,262,181	169,394,001	2,090,288	37.46	2.71	12.47
<i>Blackstone Capital Partners V</i>	140,000,000	130,735,397	98,629,568	112,563,240	11,187,308	7.58	1.62	8.91
<i>Blackstone Capital Partners VI</i>	100,000,000	55,621,487	68,375,395	6,093,079	44,394,934	15.84	1.34	6.43
Blackstone Strategic Partners (CSFB/ DLJ)								
<i>DLJ Strategic Partners</i>	100,000,000	95,073,049	3,412,475	169,849,489	3,376,951	22.41	1.82	13.95
<i>Strategic Partners II-B</i>	100,000,000	83,864,542	4,435,882	155,993,542	10,335,458	35.15	1.91	11.46
<i>Strategic Partners III VC</i>	25,000,000	24,375,164	9,633,023	23,282,199	624,836	6.61	1.35	9.58
<i>Strategic Partners III-B</i>	100,000,000	76,591,271	44,230,901	72,555,861	16,566,633	7.23	1.52	9.58
<i>Strategic Partners IV VC</i>	40,500,000	39,173,621	24,989,617	31,255,886	1,161,485	9.82	1.44	6.54
<i>Strategic Partners IV-B</i>	100,000,000	89,999,212	35,197,252	109,809,232	10,000,788	13.92	1.61	6.77
<i>Strategic Partners V</i>	100,000,000	70,380,016	77,183,634	38,614,856	29,619,984	33.47	1.65	3.37
<i>Strategic Partners VI</i>	150,000,000	27,920,848	31,010,234	0	122,079,152	36.43	1.11	0.71

Minnesota State Board of Investment

-Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
BLUM Capital Partners								
<i>Blum Strategic Partners II</i>	50,000,000	40,185,889	74,998	89,708,870	2,127,584	22.42	2.23	13.45
<i>Blum Strategic Partners III</i>	75,000,000	74,806,485	10,045,888	65,431,373	193,515	-0.43	1.01	9.58
<i>Blum Strategic Partners IV</i>	150,000,000	147,168,674	75,143,019	67,180,550	15,258,645	-0.86	0.97	7.12
Carval Investors								
<i>CVI Global Value Fund</i>	200,000,000	190,000,000	71,543,096	243,844,218	10,000,000	9.97	1.66	7.97
<i>CVI Credit Value Fund I</i>	100,000,000	95,000,000	138,612,537	46,917,065	5,000,000	21.28	1.95	4.25
<i>CVI Credit Value Fund A II</i>	150,000,000	142,500,000	171,083,408	428,690	7,500,000	14.37	1.20	2.17
Chicago Growth Partners (William Blair)								
<i>William Blair Capital Partners VII</i>	50,000,000	48,150,000	1,561,275	64,492,866	1,650,000	7.95	1.37	13.82
<i>Chicago Growth Partners I</i>	50,000,000	52,441,998	19,118,403	40,242,061	300,000	3.03	1.13	9.43
<i>Chicago Growth Partners II</i>	60,000,000	56,858,323	54,090,709	36,195,525	2,889,677	16.90	1.59	6.81
Court Square Capital Partners								
<i>Court Square Capital Partners</i>	100,000,000	80,294,872	754,416	180,410,942	10,505,273	28.93	2.26	13.05
<i>Court Square Capital Partners II</i>	175,000,000	158,869,943	103,471,647	136,583,798	17,770,263	10.42	1.51	8.32
<i>Court Square Capital Partners III</i>	175,000,000	53,956,825	50,852,604	7,281,629	121,043,175	6.40	1.08	2.58
Crescendo								
<i>Crescendo IV</i>	101,500,000	101,500,000	14,816,024	34,972,153	0	-7.00	0.49	14.81
CVC Capital Partners								
<i>CVC European Equity Partners V</i>	133,098,667	121,559,609	93,691,052	72,314,697	11,539,058	10.77	1.37	6.77
<i>CVC Capital Partners VI</i>	274,667,786	22,459,586	17,260,838	545,893	252,715,810	-32.60	0.79	1.48
Diamond Castle Partners								
<i>Diamond Castle Partners IV</i>	100,000,000	91,160,587	7,333,839	91,366,896	8,879,898	1.39	1.08	8.31
DSV Partners								
<i>DSV Partners IV</i>	10,000,000	10,000,000	31,639	39,196,082	0	10.61	3.92	29.72
Elevation Partners								
<i>Elevation Partners</i>	75,000,000	69,116,776	2,854,050	107,494,921	11,968,814	11.44	1.60	9.62
Fox Paine & Company								
<i>Fox Paine Capital Fund II</i>	50,000,000	46,074,444	16,778,541	73,394,027	12,178,394	19.21	1.96	14.50
GHJM Marathon Fund								
<i>GHJM Marathon Fund V</i>	50,000,000	50,030,209	10,411,672	86,476,813	46,502	12.43	1.94	10.25
<i>TrailHead Fund</i>	20,000,000	10,014,187	10,319,490	6,955	9,985,813	1.40	1.03	2.85
GS Capital Partners								
<i>GS Capital Partners 2000</i>	50,000,000	50,000,000	5,090,430	107,802,925	0	23.45	2.26	14.33
<i>GS Capital Partners V</i>	100,000,000	66,390,364	25,784,369	161,954,514	26,041,099	17.37	2.83	9.75
<i>GS Capital Partners VI</i>	100,000,000	68,659,033	30,738,839	67,331,955	23,507,961	5.01	1.43	7.91
GTCR Golder Rauner								
<i>GTCR VI</i>	90,000,000	90,000,000	2,254,442	77,813,800	0	-3.86	0.89	16.50
<i>GTCR VII</i>	131,250,000	129,390,615	434,481	306,551,141	1,859,375	21.92	2.37	14.90
<i>GTCR IX</i>	75,000,000	69,539,933	48,888,750	67,602,926	5,460,067	12.97	1.68	8.50
<i>GTCR X</i>	100,000,000	86,466,544	103,492,558	14,451,682	13,533,456	15.47	1.36	4.06
<i>GTCR Fund XI</i>	110,000,000	7,975,000	7,431,033	0	102,025,000	-6.88	0.93	1.13
Hellman & Friedman								
<i>Hellman & Friedman Capital Partners V</i>	160,000,000	146,115,880	8,319,450	408,813,493	15,917,142	27.95	2.85	10.08
<i>Hellman & Friedman Capital Partners VI</i>	175,000,000	168,619,702	61,331,118	255,261,765	7,502,917	12.55	1.88	7.75
<i>Hellman & Friedman Capital Partners VII</i>	50,000,000	36,150,322	36,954,945	4,778,890	13,849,678	9.10	1.15	5.70
IK Investment Partners								
<i>IK Fund VII</i>	187,889,027	93,655,200	80,219,899	7,279,701	94,233,827	-11.00	0.93	1.30
Kohlberg Kravis Roberts								
<i>KKR Millennium Fund</i>	200,000,000	200,000,000	67,506,094	343,728,867	0	16.53	2.06	12.06
<i>KKR 2006 Fund</i>	200,000,000	208,782,222	157,294,008	156,934,900	11,648,497	7.87	1.51	8.26
Leonard Green & Partners								
<i>Green Equity Investors VI</i>	200,000,000	97,867,725	99,898,994	2,022,133	102,132,275	4.43	1.04	2.80
Lexington Capital Partners								
<i>Lexington Capital Partners VI-B</i>	100,000,000	98,365,297	51,904,610	88,533,253	1,634,703	8.42	1.43	9.02
<i>Lexington Capital Partners VII</i>	200,000,000	151,089,836	126,177,127	93,926,241	48,910,164	18.77	1.46	5.55
<i>Lexington Capital Partners VIII</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	0.82
Merced Capital								
<i>Merced Partners II</i>	75,000,000	63,768,881	23,140,321	104,406,983	0	24.42	2.00	7.75
<i>Merced Partners III</i>	100,000,000	100,000,000	98,429,318	29,997,107	0	8.40	1.28	4.65
<i>Merced Partners IV</i>	125,000,000	71,875,000	71,013,722	0	53,125,000	-1.79	0.99	1.47
Nordic Capital								
<i>Nordic Capital Fund VIII</i>	186,171,277	68,291,555	61,206,518	49,418	117,879,722	-18.77	0.90	1.30
Oaktree Capital Management								
<i>Oaktree Principal Fund VI</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.01

Minnesota State Board of Investment

-Alternative Investments -

As of December 31, 2014

Investment	Total Commitment	Funded Commitment	Market Value	Distributions	Unfunded Commitment	IRR %	MOIC*	Period Years
Paine & Partners								
<i>Paine & Partners Capital Fund IV</i>	100,000,000	0	0	0	100,000,000	0.00	0.00	0.05
PERMIRA								
<i>Permira V</i>	187,924,529	64,771,667	56,242,523	174,697	123,152,862	-20.25	0.87	1.00
Public Pension Capital Management								
<i>Public Pension Capital</i>	92,000,000	838,921	838,921	0	91,161,079	-27.59	1.00	0.63
RWI Ventures								
<i>RWI Ventures I</i>	7,603,265	7,603,265	493,449	6,094,262	0	-4.57	0.87	8.50
Sightline Healthcare								
<i>Sightline Healthcare Fund III</i>	20,000,000	20,000,000	668,519	6,268,468	0	-11.61	0.35	15.94
<i>Sightline Healthcare Fund IV</i>	7,700,000	7,753,673	2,718,773	4,621,834	0	-1.31	0.95	11.27
Silver Lake Partners								
<i>Silver Lake Partners II</i>	100,000,000	89,878,650	50,905,073	106,175,489	11,117,218	10.38	1.75	10.50
<i>Silver Lake Partners III</i>	100,000,000	85,480,811	77,066,108	73,323,072	15,397,854	17.89	1.76	7.75
<i>Silver Lake Partners IV</i>	100,000,000	22,765,767	29,351,516	92,857	77,327,090	48.97	1.29	2.26
Split Rock Partners								
<i>Split Rock Partners</i>	50,000,000	45,372,727	32,276,552	3,961,529	4,627,273	-3.67	0.80	9.67
<i>Split Rock Partners II</i>	60,000,000	50,705,000	42,485,905	7,770,098	8,595,000	-0.39	0.99	6.67
Summit Partners								
<i>Summit Ventures V</i>	25,000,000	24,125,000	98,429	33,274,796	875,000	8.11	1.38	16.75
<i>Summit Partners Growth Equity Fund VIII</i>	100,000,000	58,500,000	54,967,614	10,098,648	41,500,000	10.53	1.11	3.66
T. Rowe Price	98,424,155	98,424,155	46,156,673	60,211,993	0	8.55	1.08	6.82
Thoma Cressey								
<i>Thoma Cressey Fund VI</i>	35,000,000	33,915,000	699,866	34,128,882	1,085,000	0.31	1.03	16.36
<i>Thoma Cressey Fund VII</i>	50,000,000	50,000,000	7,890,634	98,172,406	0	23.67	2.12	14.35
<i>Thoma Cressey Fund VIII</i>	70,000,000	68,932,574	73,713,021	106,102,406	770,000	16.15	2.61	8.67
Thomas, Mc Nerney & Partners								
<i>Thomas, Mc Nerney & Partners I</i>	30,000,000	29,400,000	11,578,934	10,504,694	600,000	-5.53	0.75	12.15
<i>Thomas, Mc Nerney & Partners II</i>	50,000,000	46,125,000	51,109,551	13,574,160	3,875,000	7.90	1.40	8.50
Varde Fund								
<i>Varde Fund IX</i>	100,000,000	100,000,000	42,868,402	158,166,635	0	14.90	2.01	6.52
<i>Varde Fund X</i>	150,000,000	150,000,000	226,620,600	0	0	11.94	1.51	4.70
<i>Varde Fund XI</i>	200,000,000	180,000,000	196,717,680	0	20,000,000	7.83	1.09	1.48
Vestar Capital Partners								
<i>Vestar Capital Partners IV</i>	55,000,000	52,761,494	2,290,807	95,631,368	746,945	13.58	1.86	15.04
<i>Vestar Capital Partners V</i>	75,000,000	74,939,471	62,811,655	23,187,761	385,758	2.55	1.15	9.03
<i>Vestar Capital Partners VI</i>	100,000,000	33,844,565	33,785,153	4,464,332	66,155,435	12.34	1.13	3.27
Warburg Pincus								
<i>Warburg Pincus Equity Partners</i>	100,000,000	100,000,000	4,696,289	158,591,853	0	10.03	1.63	16.51
<i>Warburg Pincus Private Equity VIII</i>	100,000,000	100,000,000	46,958,892	193,549,119	0	15.73	2.41	12.71
<i>Warburg Pincus Private Equity IX</i>	100,000,000	100,000,000	35,408,409	143,080,606	0	10.55	1.78	9.43
<i>Warburg Pincus Private Equity X</i>	150,000,000	150,000,000	121,342,506	92,202,492	0	8.67	1.42	7.19
<i>Warburg Pincus Private Equity XI</i>	200,000,000	114,083,377	127,725,344	5,605,000	85,916,623	15.98	1.17	2.03
Wayzata								
<i>Wayzata Opportunities Fund</i>	100,000,000	93,180,000	31,441,271	142,295,234	6,820,000	9.97	1.86	9.03
<i>Wayzata Opportunities Fund II</i>	150,000,000	57,450,000	60,359,472	144,214,350	92,550,000	17.19	3.56	7.19
<i>Wayzata Opportunities Fund III</i>	150,000,000	33,165,000	30,968,880	136,917	116,835,000	-8.50	0.94	2.54
Welsh, Carson, Anderson & Stowe								
<i>Welsh, Carson, Anderson & Stowe VIII</i>	100,000,000	100,000,000	123,147	128,668,552	0	3.12	1.29	16.44
<i>Welsh, Carson, Anderson & Stowe IX</i>	125,000,000	123,750,000	19,452,881	185,122,647	1,250,000	11.19	1.65	14.51
<i>Welsh, Carson, Anderson & Stowe X</i>	100,000,000	98,578,466	53,914,206	92,517,894	2,000,000	6.73	1.49	9.04
<i>Welsh, Carson, Anderson & Stowe XI</i>	100,000,000	90,931,929	74,524,087	55,095,051	9,068,071	13.50	1.43	6.44
<i>Welsh, Carson, Anderson & Stowe XII</i>	150,000,000	0	0	0	150,000,000	0.00	0.00	0.00
Private Equity Total	10,523,603,706	7,541,321,640	4,570,459,066	7,210,113,799	2,985,959,344		1.56	
Alternatives Total	16,880,540,319	11,955,544,543	7,536,708,358	11,556,548,850	4,927,108,727		1.60	

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

REAL ESTATE MANAGER SUMMARY PROFILE
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I. Background Data

Name of Fund:	Blackstone Real Estate Partners VIII L.P. ("BREP VIII")
Type of Fund:	Real Estate Limited Partnership
Total Fund Size:	TBD; current estimate \$15 billion
Fund Manager:	The Blackstone Group L.P.
Manager Contact:	Allie Sweeney 345 Park Avenue New York, NY 10154 Phone (212) 583-5081

II. Organization and Staff

The Blackstone Group L.P. was founded in 1985 and became a public company in 2007. Within Blackstone Group, Blackstone's Real Estate Group was established in 1991 and is the largest private equity real estate investment manager in the world with \$80 billion assets under management across three strategies: opportunistic, core+ and debt as of September 30, 2014. BREP VIII is Blackstone Real Estate Group's eighth global real estate fund pursuing an opportunistic strategy. Blackstone Real Estate Group has invested close to \$34 billion of investor capital with this strategy since 1991.

Jon Gray is the Global Head of Real Estate for Blackstone. John Schreiber is the Co-Founder of Blackstone Real Estate Advisors and Co-Chair of the BREP Investment Committee. Ken Caplan is the Global Chief Investment Officer, Kathleen McCarthy is the Global Chief Operating Officer and Bill Stein is the Global Head of Asset Management. Anthony Myers is the Head of Europe and Christopher Heady is the Head of Asia. As of December 31, 2014 Blackstone had 320 professionals in the Real Estate Group (181 located in the United States, 79 located in Europe and 60 located in Asia).

All investment and disposition decisions of BREP VIII will be reviewed and approved by the Investment Committee of its General Partner, which currently is co-chaired by Jon Gray and John Schreiber. Stephen Schwarzman, Chairman, CEO and Co-Founder of Blackstone and Hamilton ("Tony") James, President of Blackstone, are also members of the Investment Committee.

III. Investment Strategy

Blackstone intends to continue to focus on acquiring high quality assets by targeting large, complicated situations where competition is limited and its ability to move quickly is an advantage. Blackstone's goal is to acquire distressed and/or undermanaged properties at below market prices, improve the properties through hands-on management and targeted investments, and thereby create assets that can be sold to core and other real estate owners at higher values. Its portfolios include a mix of hotels, office, retail, industrial, residential investments in top locations in the US, Europe, Asia, and Latin America. At this time, investment themes are expected to be:

Large, Complex Transactions. Blackstone's size, expertise and reputation allow it to underwrite, source and be the preferred buyer for opportunities that other investors may avoid.

Public-to-Private Transactions. Blackstone buys publicly traded companies that are often composed of a mix of assets that collectively trade at discounts to private market values and creates value through a variety of strategies. These strategies include selling individual assets, taking advantage of a lower cost of debt capital, implementing more efficient tax structures, uncovering hidden assets, streamlining corporate expenditures and other operational improvements.

Mispriced Sectors. With nearly \$137 billion in gross real estate assets under management, Blackstone can identify potentially mispriced asset classes more rapidly than its competitors and can deploy significant amounts of capital to seek to take advantage of trends.

Dispositions by Motivated Sellers. Blackstone continues to make investments where legacy recapitalizations or motivated sellers are selling assets, notwithstanding the normalization of real estate conditions in the U.S.

Innovative Investment Opportunities. Blackstone actively encourages creativity in order to identify non-traditional opportunities to create value.

International Investments. BREP VIII, much like BREP VII, is expected to benefit from international diversification due to Blackstone's presence in Europe, Asia and Latin America. BREP VIII will invest alongside BREP Europe IV and BREP Asia, taking 20% of each investment. In Europe, motivated sellers have allowed Blackstone to acquire properties at significant discounts to replacement cost. In Asia, Blackstone believes that recent volatility and limited capital have created attractive prices for high quality assets in a market with solid long-term real estate fundamentals. In Latin America, Blackstone believes the opportunity is created by capital dislocation and long term growth potential in the region.

IV. Investment Performance

The historical investment performance of Blackstone Real Estate (BREP) as of September 30, 2014 is presented below:

Fund	Inception Date	Total Invested Capital	SBI Investment	Net IRR from Inception*	Net MOIC from Inception*
BREP Fund I	1994	\$467 million	\$0	40%	2.4
BREP Fund II	1996	\$1,219 million	\$0	19%	1.8
BREP Fund III	1999	\$1,415 million	\$0	21%	2.0
BREP Fund IV	2003	\$2,737 million	\$0	14%	1.5
BREP Fund V	2006	\$5,771 million	\$100 million	11%	1.7
BREP Fund VI	2007	\$10,894 million	\$100 million	14%	1.9
BREP Fund VII	2011	\$12,229 million	\$100 million	27%	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 BREP.

V. General Partner's Investment

Blackstone's investment will be at least \$300 million, plus up to an additional 10% in each Investment on a side-by-side basis (based on an annual election).

VI. Takedown Schedule

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

VII. Management Fee

No management fee shall be charged for the four month period following the Effective Date for any Limited Partner that participates in the Initial Closing, which is anticipated to occur during the second quarter of 2015.

BREP VII's management fees are 1.5% per annum if such Limited Partner has aggregate Capital Commitments of less than \$300 million, 1.25% per annum if such Limited Partner has aggregate Capital Commitments equal to or greater than \$300 million, and 1.15% per annum if such Limited Partner has aggregate Capital Commitments equal to or greater than \$500 million.

Management Fees will be generally reduced by an amount equal to the sum of 80% of any Additional Fees and 70% of acquisition fees, but the General Partner may reduce acquisition fees by 70% and any fees so reduced will not be subject to the management fee offset.

VIII. Distributions

Upon disposition of an Investment (calculated separately for each Limited Partner with respect to its pro rata share):

- First, 100% to the Limited Partner until it receives a return of contributions for the Investment that has been disposed of, Allocated Fees and Expenses that have not been recouped on all Investments that have been disposed of, recouped losses on Investments previously disposed of, unrealized losses on Investments not disposed of, and an 8% compound annual return on contributions with respect to Investments disposed of, plus Allocated Fees and Expenses;
- Second, 80% to the General Partner and 20% to the Limited Partner until the General Partner receives its 20% carried interest with respect to Investments that have been disposed of; and
- Thereafter, 80% to the Limited Partner and 20% to the General Partner.

Current Income is generally distributed as described above, except that distributions are made on an Investment-by-Investment basis and will not take into account a return of capital contributions or any write-downs, but will take into account actual recouped losses from prior dispositions.

IX. Investment Period and Term

The Investment Period will be five years from the Last Equalization Date (as defined in the Limited Partnership Agreement), which is expected to be in the fourth quarter of 2015. The Term will be five years from the last day of the Investment Period, subject to two one year extensions unless the L.P. Advisory Committee objects.

** 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. Nothing contained herein should be construed as an offer to sell or the solicitation of an offer to buy an interest in any Blackstone Real Estate fund or any current or future Blackstone fund.*

RESOURCE MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	EnCap Energy Capital Fund X, L.P.
Type of Fund:	Resource Limited Partnership
Target Fund Size:	\$5 billion
Fund Manager:	EnCap Investments L.P.
Manager Contact:	Chuck Bauer 1100 Louisiana Street, Suite 4900 Houston, TX 77002 (713) 659-6100

II. Organization and Staff

EnCap Investments L.P. (the "Firm") is led by a group of seven Managing Partners: the four Founders – David B. Miller, Gary R. Petersen, D. Martin Phillips and Robert L. Zorich; and three additional managing partners – Jason M. DeLorenzo, E. Murphy Markham IV and Douglas E. Swanson, Jr. The Managing Partners comprise the Firm's management and upstream investment committees. Additionally, the investment staff has 22 oil and gas investment professionals, including four petroleum engineers.

Since its inception in 1988, EnCap has raised 18 institutional oil and gas investment funds totaling approximately \$21 billion of capital commitments. The Firm raised its first six funds (three reserve acquisition funds and three mezzanine debt funds) between 1988 and 1993. In 1994 EnCap transitioned to a private equity-focused model based on the belief that it offered a more attractive risk/return equation and better alignment of interest with management teams of EnCap's portfolio companies. Since that time the Firm has raised nine upstream private equity funds totaling approximately \$15 billion in capital commitments. In 2008 EnCap launched a second investment platform focused solely on the midstream oil and gas sector which has raised \$5.5 billion through three institutional funds. In total, 90% of the total capital invested by EnCap since 1988 has been focused on upstream private equity investments.

III. Investment Strategy

Fund X will primarily focus on providing growth capital, typically making commitments of \$250 million to \$400 million per transaction, to proven management teams whose principal objective is value creation through the development of low-risk drilling opportunities in known producing regions and/or the acquisition and exploitation of oil and natural gas reserves. Fund X will seek experienced, qualified management teams that possess or are capable of developing deep portfolios of opportunities, and that hold unique market advantages based on technical and/or geographic expertise. These teams often times have

built successful upstream companies in the past, and will generally represent start-up entities that will target the most highly economic basins in North America.

A substantial number of the opportunities sought by Fund X management teams may involve the application of advanced horizontal drilling and multistage fracture technologies to both conventional and unconventional reservoirs. EnCap believes the application of these technologies will play a significant role in establishing economic drilling opportunities, optimizing production, and de-risking overall reserves potential, all of which create compelling investment opportunities for Fund X.

Broadly speaking, Fund X portfolio companies will employ the following strategies:

- **Low-Risk Drilling in Known Producing Regions.** Companies employing this strategy will concentrate on establishing leasehold positions in areas where hydrocarbons are known to be present in large quantities, and where advanced drilling and completion technologies have unlocked reserves previously deemed uneconomic. Once companies have demonstrated the economic viability of a project area by drilling wells and establishing cash flow, these areas become attractive to larger energy companies, both public and private. These buyers have a continual need to grow production, and in many instances will pay premium prices for assets of this nature.
- **Acquisition and Exploitation.** This strategy involves purchasing proven reserves in economic areas with a focus on exploiting the undeveloped reserves and enhancing operations. This may involve improving the performance of acquired reserves through operational improvements, or utilizing enhanced techniques to recover previously bypassed reserves. As a result of these enhancements, the property becomes more attractive to potential buyers. Many EnCap companies employing this strategy have historically focused on acquiring non-core assets from larger oil and gas companies and paying closer attention to the properties.

The average life cycle of an EnCap portfolio company is 3-5 years. Approximately half of the capital commitments in EnCap's more recent upstream funds were allocated to repeat management teams.

IV. *Investment Performance*

The historical investment performance of EnCap as of September 30, 2014 is presented below:

Fund	Inception Date	Total Commitments (in millions)	MSBI Investment (in millions)	Net IRR from Inception*	Net MOIC from Inception *	Fund Status
EnCap I	1994	\$104	\$0	25%	1.9x	Realized
EnCap II	1996	\$115	\$0	4%	1.1x	Realized
EnCap III	1997	\$469	\$0	24%	2.4x	Realized
EnCap IV	2001	\$570	\$0	67%	2.1x	Realized
EnCap V	2004	\$931	\$0	28%	1.8x	Liquidating
EnCap VI	2006	\$1,656	\$0	25%	1.8x	Liquidating
EnCap VII	2007	\$2,752	\$100	20%	1.5x	Liquidating
EnCap VIII	2010	\$3,953	\$100	17%	1.3x	Liquidating
EnCap IX	2013	\$4,467	\$100	25%	1.2x	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 EnCap.

V. *General Partner's Investment*

The General Partner will make a cash commitment equal to 3.0% of the aggregate commitments.

VI. *Takedown Schedule*

Commitments are expected to be drawn as needed during the Commitment Period, with not less than 10 days' prior written notice.

VII. *Management Fee*

The management fee will be 1.5% of aggregate commitments during the commitment period, paid quarterly in advance. Following the commitment period the fee will be 1.5% of aggregate capital contributions, less amounts distributed to partners as a return of capital and any write down or write off of an investment.

VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to the limited partner until it receives 100% of its capital contributions.

Second, 100% to the limited partner until it has received an 8% annual return, compounded annually, on its aggregate capital contributions.

Third, 80% to the General Partner and 20% to the limited partner until the General Partner has received its 20% carried interest.

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

IX. Investment Period and Term

The investment period will be five years from the final closing.

The term of the Partnership will be 10 years, but may be extended for two consecutive one-year periods at the election of the General Partner and approval of the Advisory Board.

X. Key-Person Termination

If (i) prior to April 1, 2016, two or more of the Founders cease to be involved in the day-to-day operations of EnCap or (ii) four or more of the Managing Partners cease to be involved in the day-to-day operations of EnCap, then the Partnership's ability to make investments will be limited, although these limitations may be removed within 120 days upon the affirmative vote of at least 50% in interest of Limited Partners.

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

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Oaktree Opportunities Funds X, L.P. and Xb, L.P.
<i>Type of Fund:</i>	Private Equity Limited Partnership
<i>Total Fund Size:</i>	\$3.0 billion (Fund X) \$7.0 billion (Fund Xb)
<i>Fund Manager:</i>	Oaktree Capital Management, L.P.
<i>Manager Contact:</i>	Lisa Kenyon 333 South Grand Avenue, 28 th Floor Los Angeles, CA 90071 (213) 830-6250

II. Organization and Staff

Oaktree Capital Management, L.P. ("Oaktree" or the "Manager") is forming Oaktree Opportunities Fund X, L.P. ("Fund X") and potentially Oaktree Opportunities Fund Xb, L.P. ("Fund Xb" and together with Fund X, the "Fund" or the "Funds") to take advantage of opportunities arising from financial distress, as well as to provide Oaktree with flexibility to react to changing market conditions and to address the issues of fund size, supply in the distressed debt marketplace and other timing considerations. Oaktree will be the investment manager of both Funds, and Oaktree Opportunities Fund X GP, L.P. will be the general partner of Fund X and, if formed, Oaktree Opportunities Fund Xb GP, L.P. will be the general partner of Fund Xb (collectively, the "General Partner").

The Fund is being organized as two funds, Fund X and Fund Xb, although whether there will be a Fund Xb (and its size) is unknown at this time. The decision to form Fund Xb will reside exclusively with Oaktree. If Fund Xb is formed, it will invest using the same investment strategy and investment professionals. This two-fund structure is being offered to provide Oaktree with flexibility to react to changing market conditions and to address the issues of fund size, supply in the distressed debt marketplace and other timing considerations.

If Fund Xb is formed, then it shall be entitled to make investments, including co-investments alongside Fund X, in any of the following circumstances:

- a) a determination by the General Partner that it is appropriate that Fund Xb begin to invest in light of market conditions;
- b) a determination by Oaktree that an investment of Fund X exceeds the capacity of Fund X or otherwise is not prudent for Fund X to make on its own; or

- c) if 80% of Fund X's capital commitments have been drawn, committed for investment or reasonably reserved for follow-on investments (or, if earlier, once Fund X's investment period ends).

If formed, the final closing for Fund Xb shall be held no later than 18 months after the later of the initial closing and the initial investment date of Fund X.

Oaktree was formed in 1995 and is a global investment management firm headquartered in Los Angeles, California. Since opening its first international office in Singapore in 1998, Oaktree and its affiliates have expanded their presence to 19 offices in 12 different countries. As of September 30, 2014, Oaktree and its affiliates had \$93 billion in assets under management and a staff of over 900 people. Oaktree emphasizes an opportunistic, value-oriented and risk-controlled approach to investments in distressed debt, control investing, corporate debt (including high yield debt and senior loans), real estate, convertible securities and listed equities.

Oaktree is indirectly controlled by Oaktree Capital Group, LLC ("OCG"), a publicly-traded company listed on the New York Stock Exchange under the ticker symbol "OAK." OCG is indirectly controlled by eight Principals of the firm, who hold approximately 96% of OCG's voting power. The Principals, outside directors and certain executive officers indirectly own approximately 43% of Oaktree's equity interests. Current and former employees of Oaktree and certain institutional investors hold approximately 28% of Oaktree's equity interest and the remaining 29% of the equity is held by the public stockholders.

The current senior executives of Oaktree are Howard Marks, Bruce Karsh, Jay Wintrob, John Frank, Sheldon Stone, Larry Keele, Stephen Kaplan and David Kirchheimer. The original founders formed Oaktree after having managed funds in the high yield bond, distressed debt, private equity and convertible securities areas of TCW for approximately ten years. Ultimate responsibility for management of the firm resides with the board of directors, which consists of Oaktree's eight senior executives and four outside directors. Howard Marks, Co-Chairman, and Bruce Karsh, Co-Chairman and Chief Investment Officer, exercise oversight of the entire firm, with day-to-day management delegated to Jay Wintrob, CEO. An investment may initially be championed by any member of the Distressed Debt team. The Portfolio Managers for the Fund are Bruce Karsh, Robert O'Leary, Rajath Shourie, and Pedro Urquidi. Portfolio Managers have ultimate authority for their investment strategies, subject to oversight from Messrs. Marks or Karsh, in his capacity as Chief Investment Officer and Co-Chairman.

III. Investment Strategy

The Fund will seek to realize capital appreciation without subjecting the principal to undue risk. The Fund will seek to achieve this objective primarily by (i) investing, in connection with episodes of financial distress, in debt or equity securities or other obligations at substantial discounts to their original value and (ii) realizing gains through sales of restructured debt obligations or newly issued securities obtained through exchanges resulting from reorganizations and restructurings.

The Fund will invest primarily in situations where a company or its owners are undergoing, considered likely to undergo, or have undergone (a) reorganizations under U.S. federal bankruptcy laws or similar laws in other countries or (b) other extraordinary transactions, such as debt restructurings, reorganizations and liquidations outside of bankruptcy. The Fund may also invest in situations where Oaktree does not expect a company or its owners to undergo reorganization, restructuring or other similar extraordinary transaction if Oaktree believes the prices of such investments reflect a high market expectation of reorganization, restructuring or other similar extraordinary transaction. Most investments will be in secured debt obligations (such as publicly traded and privately placed debt securities, bank loans and mortgages), unsecured debt securities and other debt obligations (such as trade credit), and equity securities of U.S. entities. The investments may be in both public and private instruments. The Fund may also invest in the securities or obligations of non-U.S. entities and in mortgages, real estate properties, and other investments related to real property. Potential categories for the types of investments that may be made within the Fund include:

- Corporate distressed debt opportunities in a restructuring;
- Corporate distressed debt opportunities not in a restructuring;
- Distressed real estate investments;
- Portfolios of non-performing loans;
- Platform investments in distressed assets, markets and/or sectors;
- Opportunistic equity investments in distressed industries;
- Post-organization equities; and
- Stressed high-yield bonds.

To implement the Fund's investment strategy, Oaktree will seek to create value at all stages of the investing process. The foundation for all investments is the analysis by Oaktree of a company's fundamentals and intrinsic value. Oaktree typically invests in senior claims where they believe the value to be received for a claim is more certain and the key variable is timing. Next, Oaktree utilizes trade execution in an attempt to obtain relatively low purchase prices in order to provide downside protection. After an investment is made, Oaktree will seek to continue to add value by actively participating in relevant restructurings, whether inside or outside of formal bankruptcy proceedings. When appropriate, Oaktree will seek to add value by leading the restructuring negotiations and engineering capital structures that provide both flexibility and room for growth. After a reorganization, Oaktree closely monitors the progress of each investment, sometimes holding board seats, and occasionally by providing financial and strategic advice. Oaktree also seeks to determine the optimal time and strategy for exiting and maximizing the return on the investment.

IV. Investment Performance

Previous fund performance as of September 30, 2014 for investments in Funds I through IX is shown below:

Fund	Inception Date	Total Invested	Net IRR from Inception	Net MOIC from Inception*	Fund Status
OCM Opportunities	1995	\$771 million	10.2	1.6	Realized
OCM Opportunities II	1997	\$1.6 billion	8.5	1.5	Realized
OCM Opportunities III	1999	\$2.1 billion	11.9	1.5	Realized
OCM Opportunities IV/IVB	2001	\$3.5 billion	33.7	1.7	Realized
OCM Opportunities V	2004	\$1.2 billion	14.3	1.7	Liquidating
OCM Opportunities VI	2005	\$1.8 billion	9.0	1.6	Liquidating
OCM Opportunities VII	2007	\$3.6 billion	8.1	1.4	Liquidating
OCM Opportunities VIIb	2008	\$9.8 billion	17.7	1.8	Liquidating
Oaktree Opportunities VIII	2009	\$4.5 billion	11.5	1.4	Liquidating
Oaktree Opportunities VIIIb	2011	\$2.7 billion	11.1	1.2	Liquidating
Oaktree Opportunities IX	2013	\$3.8 billion	8.3	1.1	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) are provided by Oaktree.

V. General Partner's Investment

The General Partner and its affiliates will make aggregate capital commitments to the Fund equal to at least 2.5% of the total capital commitments to the applicable Fund; provided that the aggregate Capital Commitments of the General Partner and its affiliates as of the date of the final admission of limited partners to the Fund will not (a) be less than \$20 million or (b) be required to exceed \$100 million.

VI. Takedown Schedule

The General Partner will draw down capital commitments from time to time as needed to fund investments and operations (including partnership expenses, organizational expenses and management fees). Capital calls may be made in increments of up to 15% of a limited partner's total capital commitment on not less than ten days' prior written notice to the limited partners.

VII. Fees

During the investment period, Oaktree will receive quarterly in advance a management fee equal to 1.60% per annum charged on capital commitments. During the liquidation period, Oaktree will receive quarterly in advance a management fee equal to 1.60% per annum on the lesser of (a) the amount of aggregate capital contributions and (b) the cost basis of the investments held by the Fund as of the close of the last business day of the immediately preceding calendar quarter.

Any transaction fees, break-up fees or other similar fees received by the General Partner or Oaktree in connection with the Fund's investments, net of any related expenses paid by the General Partner or Oaktree, will reduce on a dollar-for-dollar basis the management fee and, to the extent necessary to absorb any excess deal fees, the carried interest otherwise payable to the General Partner.

VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to the limited partner until such limited partner receives 100% of its capital contributions.

Second, 100% to the limited partner until such limited partner has received an amount equal to interest at the rate of 8% per annum, compounded annually as of the end of each fiscal year, on capital contributions.

Third, 80% to the General Partner and 20% to the limited partner until the General Partner has received an amount that is equal to 20% of the amounts distributed to such limited partner.

Thereafter, 20% carried interest and 80% to the limited partner.

IX. Key-Person Termination

If (a) Bruce Karsh plus more than one of Pedro Urquidi, Robert O'Leary and Rajath Shourie (the "Portfolio Principals") cease to be actively involved on an ongoing basis in, or in a supervisory role on an ongoing basis with respect to, the business operations or investment recommendations or decisions of Oaktree in respect of the Fund, unless qualified replacements therefor have been elected, or (b) the Portfolio Principals or their qualified replacements, together with the investment professionals of Oaktree cease to be entitled to receive directly or indirectly in the aggregate at least 50% of the carried interest, then the investment period will be suspended, and the Fund will engage only in certain limited activities for a period of up to 180 days after notice of such event is given to the limited partners. A majority interest of the limited partners may vote to restart the investment period.

X. Investment Period and Term

The final closing for Fund X shall be held no later than 360 days after the later of its first closing, which is expected to be held on February 11, 2015, and its initial investment date. The investment period for Fund X terminates three years after the investment period start date.

If Fund Xb is formed, the investment period will not begin until such date as determined by the General Partner in its discretion on or after the earlier of (a) the date on which 10% or more of Fund Xb's capital commitments have been invested, committed for investment or reasonably reserved for follow-on investments in distressed companies or (b) at least 80% of Fund X's capital commitments are drawn down, committed for investment or reasonably reserved for follow-on investments (or, if earlier, once Fund X's investment period ends). If formed, Fund Xb will be required to have its final closing no later than 18 months after the later of February 11, 2015 and the initial investment date of Fund X.

The Fund terms are ten years from the start of the investment periods, subject to a five-year extension at the discretion of the General Partner. Thereafter, the fund may be extended by the General Partner with the consent of two-thirds in interest of the limited partners for additional one-year periods. No management fee will be payable by the Fund after the 11th anniversary of the investment period start date.

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YIELD-ORIENTED MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	KKR Lending Partners II L.P.
<i>Type of Fund:</i>	Yield-Oriented
<i>Total Fund Size:</i>	\$1.25 - \$1.5 billion
<i>Fund Manager:</i>	KKR Credit Advisors (US) LLC
<i>Manager Contact:</i>	Ari Barkan 9 West 57 th Street New York, NY, 10019 Phone: 212-271-9107

II. Organization and Staff

Kohlberg Kravis Roberts & Co. (“KKR” or the “General Partner”), one of the world’s oldest and most experienced private equity firms, is located in New York, NY and has over twenty office locations around the world. Founded in 1976 by Jerome Kohlberg, Henry R. Kravis and George R. Roberts, KKR seeks to provide its investors with long-term capital appreciation through multiple business platforms. During the first two decades, KKR focused on building a leading private equity business. Throughout the 1990s, they remained an active private equity investor, expanding into new industries and geographies. They invested considerable time and expense to develop the knowledge and relationships to acquire companies in complex, regulated industries such as banking, insurance and power generation and transmission.

In 2004, KKR Credit was established to take advantage of the differentiated networks of capabilities within KKR in order to find and invest in the most attractive risk-adjusted ideas across below-investment grade credit. Beginning in 2008, KKR Credit began to accept additional institutional mandates that sought to take advantage of the financial crisis and resulting credit market dislocations. These mandates were generally broad in scope and flexible in approach. They enabled KKR Credit’s portfolio managers to invest up and down a company’s capital structure in a variety of facilities and securities, depending on where the team found attractive risk/reward through their diligence process.

In recent years, KKR Credit has expanded to include adjacent investment strategies in alternative credit which leverage the knowledge and relationships developed in the leveraged credit business. These strategies include direct lending, mezzanine, distressed or special situations investing, and long/short credit.

KKR is comprised of over 1,000 people with approximately 200 private market investment professionals and approximately 130 public market investment

professionals. The Direct Lending strategy team is co-lead by Erik Falk (joined KKR in 2008; located in New York office) and Chris Sheldon (joined KKR in 2004; located in San Francisco office). All direct lending investment decisions are approved by a five-member global private credit investment committee, and are re-underwritten on a quarterly basis by a nine-member Portfolio Management Committee Working Group. Idea generation for the Direct Lending strategy comes from KKR Credit's approximately 20 credit industry research analysts and a seven-person Capital Solutions Group that focuses on sourcing attractive deal flow for KKR. In addition, they have the ability to leverage the broader KKR platform, which contains hundreds of investment, capital markets, and client service professionals.

III. Investment Strategy

KKR Credit has established its second dedicated direct lending fund, KKR Lending Partners II, L.P. ("KKRLP II" or the "Fund"), as an investment vehicle for investors seeking to take advantage of the opportunities that KKR sees in the market for originated senior debt securities, typically referred to as 'Direct Lending' or 'Originated Credit.' KKR Credit believes that Direct Lending investments to middle market companies in the United States and elsewhere through alternative financing vehicles such as KKRLP II offer investors the potential to earn attractive risk-adjusted returns.

KKR believes the limited types and numbers of participants targeting the middle market has created inefficiencies in supply and demand. While middle market companies continue to need debt capital, the number of traditional financing options available to them has been greatly reduced following the global financial crisis. KKR Credit believes that the ongoing dislocation in the credit markets has created an environment where liquidity and capital resources are increasingly scarce. Since the global credit crisis in 2008, there has been a secular change in the Direct Lending market. Traditional capital providers were wounded by the significant deleveraging in the market, often leading to massive losses in their loan portfolios. Banks and other traditional sources of credit have been significantly impacted and their ability to provide financing has been greatly reduced.

For the following reasons, KKR believes Direct Lending is currently an attractive credit investment opportunity:

- Current structural supply and demand imbalance between borrowers and suppliers of capital; an imbalance that KKR expects will persist for an extended period of time;
- Investments are typically characterized by highly negotiated, customized, private transactions with negotiated covenant packages;
- Middle market loans are not vintage-year dependent unlike many broadly syndicated financings;
- The Direct Lending transactions that the Funds expect to target are primarily floating rate loans, providing investors with an inflation hedge;

- Middle market issuers have, in KKR's experience, exhibited a trend towards traditional "relationship" lending;
- "Illiquidity premium" on these private transactions provides the potential for higher spreads and all-in yields relative to the traded senior bank loan market; and
- Leveraged lending guidelines causing banks to step away from many underwritings, creating opportunities for other players to lend to the middle market.

KKR believes that the collective ability of traditional providers of debt capital to middle-market companies has been and will continue to be greatly reduced over the next several years. In their view, this will continue to result in opportunities for non-traditional providers of capital, including alternative asset managers, to lend to the middle market. The Fund will seek to take advantage of these market inefficiencies by investing primarily in originated senior debt issued by middle-market companies typically with EBITDA of \$25 million or more, the segment of the middle market which they believe to be the most underserved. KKR believes at that size, particularly in the United States, these companies are too large for regional banks to accommodate their financing needs and too small for large Wall Street firms to be incentivized to spend significant time and resources conducting due diligence.

KKR intends to originate Direct Lending transactions through a variety of channels, including but not limited to the following:

- Financial Sponsors
- Advisors / Intermediaries
- Banks
- Directly from Borrowers

KKR has a dedicated sourcing team with direct coverage and sourcing responsibilities for credit investments. Once an idea is sourced, KKR's and KKR Credit's collective resources are available to be utilized in the investment due diligence and structuring process. For each loan, KKR Credit employs a bottom-up, fundamental due diligence process. KKR places a great deal of emphasis on avoiding losses; therefore capital preservation is a critical element of the Credit team's approach to managing loans after origination. Given the private, negotiated nature of Direct Lending investments, lenders are generally able to access frequent borrower performance reporting which, combined with other negotiated terms in these arrangements, can enable lenders to assert influence over a borrower's business and identify early signs of credit deterioration.

IV. Investment Performance

Previous fund performance as of September 30, 2014 for KKR Lending Partners I is shown below

Fund	Inception Date	Total Equity Commitments	SBI Investment	Net IRR from Inception*	Net MOIC from Inception*	Fund Status
KKR Lending Partners I	2011	\$460 million	N/A	11.4%	1.1	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) are provided by KKR.

In addition, from KKR Credit's inception in 2004 through the launch of KKRLP I in 2011, KKR Credit invested ~\$1.8 billion across 43 individual transactions in directly originated loans. This track record of 43 transactions generated a hypothetical 17% levered gross annualized IRR as of June 30, 2014.

V. General Partner's Investment

The General Partner (together with its affiliates) will commit at least \$50 million in aggregate to the Fund and any parallel funds.

VI. Takedown Schedule

The General Partner will draw down capital commitments from time to time as needed to fund investments and operations (including partnership expenses, organizational expenses and management fees). Capital calls will be made on not less than ten days' prior written notice to the limited partners.

VII. Fees

During the investment period, KKR will receive quarterly in advance a management fee equal to 1.50% per annum on invested capital. The management fee will be reduced to 1.25% on invested capital for investors who contribute \$75 million or more.

KKR or its affiliates may be paid transaction fees, including arranging, originating and structuring fees, and monitoring fees in connection with the purchase, monitoring or disposition of the Fund's investments, and KKR may be entitled to receive break-up or similar fees in connection with unconsummated transactions ("Other Fees"). For any management fee period, the management fee payable by the Fund with respect to each limited partner will be reduced, but not below zero, by an amount

equal to the Fund's share of 100% of such net Other Fees received during the immediately preceding management fee period.

VII. Distributions

Distributions will be made in the following order and priority:

First, 100% to the limited partner until the limited partner receives 100% of its capital contributions.

Second, 100% to the limited partner until the limited partner has received an 8% annual return, compounded annually, on its aggregate capital contributions.

Third, 100% to the General Partner until the General Partner has received an amount that is equal to 15% of the amounts distributed to the limited partner.

Thereafter, 85% to the limited partner and 15% to the General Partner.

IX. Key-Person Termination

If (a) there are fewer than three Key Persons (defined below) devoting the Required Involvement (defined below) for any consecutive period of 90 days, unless resulting from a death or disability, in which case for any consecutive period of 180 days (a "Key Person Event"), or (b) there are fewer than two KKR Credit Executives (defined below) devoting the relevant Required Involvement for any consecutive period of 90 days, unless resulting from a death or disability, in which case for any consecutive period of 180 days (a "KKR Credit Executive Event"), then each Limited Partner will have 45 days from the date it receives written notice from the Fund of the occurrence of such Key Person Event or KKR Credit Executive Event (21 days, in certain circumstances) to provide written notice to the General Partner of such Limited Partner's election to reduce its unused Capital Commitment for new investments. Except to the extent of such a reduction in its unused Capital Commitment, any such electing Limited Partner will remain obligated as a Limited Partner of the Fund.

"Key Person" means each of Marc Ciancimino, Erik A. Falk, Craig J. Farr, Christopher A. Sheldon, Jamie M. Weinstein and Nathaniel M. Zilkha and any other individual who is not disapproved as a Key Person by the Advisory Committee (or, if approval is sought by the General Partner from the Limited Partners, a majority in interest of the Limited Partners) within 30 days of receiving notice from the General Partner of a replacement Key Person.

"KKR Credit Executive" means each of Erik A. Falk, Christopher A. Sheldon and Nathaniel M. Zilkha and any other individual who is not disapproved as a KKR Credit Executive by the Advisory Committee (or, if approval is sought by the General Partner from the Limited Partners, a majority in Interest of the limited partners) within 30 days of receiving notice from the General Partner of such appointment.

“Required Involvement” means, (i) as to each of Marc Ciancimino, Erik A. Falk, Christopher A. Sheldon, Jamie M. Weinstein and Nathaniel M. Zilkha (or any replacement), such person is devoting the substantial majority of his business time to the management and operation of (a) the Fund, any Parallel Funds, any Feeder Funds, any KKR Vehicles and any Alternative Vehicles, (b) any other funds, vehicles or accounts sponsored, managed or advised by KKR Credit (or any of its direct or indirect subsidiaries or its successors) and (c) any business activities of KKR Credit or investments and portfolio companies of the foregoing funds, vehicles and accounts and (ii) as to Craig J. Farr, such person is devoting the substantial majority of his business time to the activities of KKR and its affiliates.

X. Investment Period and Term

The fund term will be six years with two one-year extensions at the discretion of the General Partner.

The investment period for the Fund will commence on the first closing date and will continue until the earliest of:

- a. The date on which the aggregate capital commitments of the partners to the Fund have been invested (and are not subject to restoration);
- b. The third anniversary of the commencement of the investment period, provided that the investment period may be extended with the consent of the Fund’s Advisory Committee or a majority in interest of the limited partners;
- c. The date on which limited partners holding interests representing 75% of the aggregate capital commitments of the limited partners to the Fund elect to terminate the investment period;
- d. The election of all limited partners to reduce their respective capital commitments to the Fund to zero pursuant to a Key Person Event; and
- e. The date on which the General Partner elects to terminate the investment period. At the end of the investment period, all partners will be released from any further obligation to provide capital for investments, other than as set forth under the takedowns schedule.

** 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.*

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	Avenue Energy Opportunities Fund, L.P
<i>Type of Fund:</i>	Private Equity Limited Partnership
<i>Target Fund Size:</i>	Approx. \$750 Million - \$1 Billion
<i>Fund Manager:</i>	Avenue Capital Management II, LLC
<i>Manager Contact:</i>	Matthew Kimble 399 Park Avenue, 6 th Floor New York, NY 10022 212-878-3589

II. Organization and Staff

Avenue Capital Group was founded in 1995 by Marc Lasry and Sonia Gardner. Since its inception, Avenue has invested over \$40 billion in North American distressed debt and other securities across a variety of industries (including energy and utilities) through a series of private investment funds. Mr. Lasry and Ms. Gardner previously managed distressed debt investments for the Robert Bass Group, Inc., and in 1991 founded Amroc Investments, LLC, a firm focused on bank debt and trade claims.

Today Avenue is a global alternative investment firm based in New York with approximately \$13.3 billion under management through a number of U.S., European and Asian private investment funds as of December 31, 2014. The Firm has approximately 200 employees, including over 60 investment professionals, across nine offices around the world. The Avenue U.S. Team is comprised of 23 investment professionals, five of which are focused on North American energy and utility investments: Matt Kimble, Portfolio Manager; Craig Hart, Managing Director; Stephen Burnazian, Jason Hammerman and Kiran Ramineni. These five individuals, along with Mr. Lasry and Ms. Gardner, will lead the investment of the Energy Opportunities Fund, while leveraging the investment expertise, operational capabilities and sourcing network of the broader Avenue team and platform.

Avenue has been active in the U.S. energy and utility sectors since 1997, and across its U.S. funds has generated over \$1.4 billion in total gains from over 30 energy-related stressed or distressed situations as of September 30, 2014.

III. Investment Strategy

Avenue Energy Opportunities Fund, L.P. (the "Fund") is being established by Avenue Capital Group (the "Firm") to make investments primarily in debt, select equity securities

or other obligations of North American energy and utility companies in financial stress or distress. These companies may be:

- Undergoing restructuring, reorganization or bankruptcy
- Experiencing operational or financial difficulty in which Avenue expects a turnaround
- In turmoil
- Undervalued because of discrete extraordinary events

The Firm believes that by focusing on companies with hard assets, and investing in the senior part of the capital structure the portfolio will exhibit substantial downside protection and moderate volatility.

Avenue intends to focus on three categories of investment. This is an estimation based on a current portfolio outlook; the Fund's actual portfolio may differ materially:

- **Bank Debt and Secured Bond** (approximately 50% of portfolio). These instruments generally have a lower risk/return profile, a moderate current yield, and are fairly liquid.
- **Asset Sales & Liquidations (25%)**. Investments in unsecured bonds and under-secured bank debt. These investments generally rely on asset sales to provide a cash return.
- **Reorganizations (25%)**. Investments in which Avenue will ultimately receive new equity in a less-levered company. These investments generally provide no current yield and are fairly illiquid, and provide a higher risk/return profile

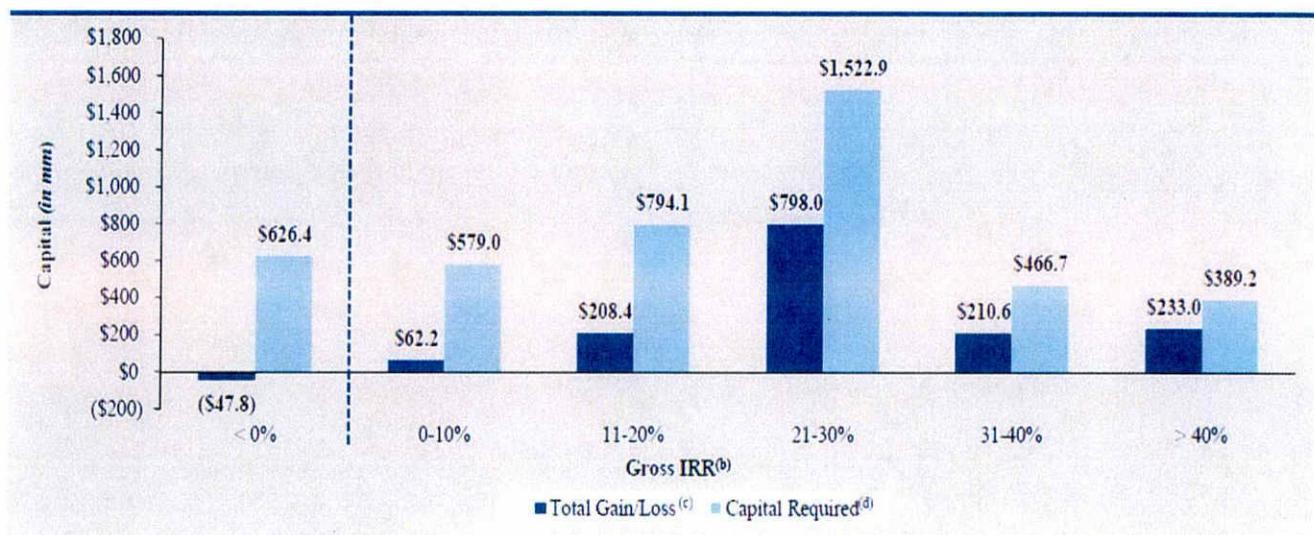
The Firm expects to find opportunities across four energy sectors: Exploration and Production, Independent Power Production, Energy Services & Refining, and (to a lesser extent) Coal.

Avenue has historically been an active participant on creditors' committees and steering committees, and will seek to influence reorganization, bankruptcy or restructuring as appropriate.

The optimal exit from the Fund's investments will occur via a refinancing or secondary market sales.

IV. Investment Performance

The Avenue Energy Opportunities Fund will be the Firm's first fund focusing exclusively on the energy and utilities sectors. However, the firm has invested in these sectors since 1997. The performance as of September 30, 2014 for these investments is presented below:



Historically, over 70% of the capital deployed in energy and utilities by the Avenue team has been to investments that generated a gross IRR of over 10%. The loss ratio of these investments is 1.22%.

The estimated performance as of December 31, 2014 for Avenue's U.S. Special Situations Funds is presented below. The SBI has not participated in any of these prior funds. The energy and utilities team for the current U.S. Special Situations Fund is comprised of the same individuals as the Energy Opportunities Fund; energy and utilities has historically represented a portion of the U.S. Special Situations Funds..

Fund	Inception Date	Total Committed Capital	SBI Investment	Net IRR from Inception *	Net MOIC from Inception *	Fund Status
Fund I	1998	\$133 million	N/A	10.1%	1.31x	Distributed
Fund II	2000	\$570 million	N/A	20.7%	1.58x	Distributed
Fund III	2002	\$821 million	N/A	18.4%	1.33x	Distributed
Fund IV	2005	\$1.7 billion	N/A	8.7%	1.40x	In Distribution
Fund V	2007	\$6.1 billion	N/A	11.8%	1.32x	In Distribution
Fund VI	2010	\$1.9 billion	N/A	8.0%	1.29x	In Distribution

* Net IRR and Multiple of Invested Capital (MOIC) were provided by the General Partner as of the aforementioned dates. All information excludes co-investments.

V. General Partner's Investment

Avenue Energy Opportunities Partners, LLC (the "General Partner"), the principals and various senior professionals of the Investment Manager will collectively make a minimum commitment of 2.5% of the aggregate commitments of the limited partners to the Fund.

VI. Takedown Schedule

Commitments will be drawn down pro rata from the partners on an as-needed basis with a minimum of ten (10) business days' prior written notice to the limited partners.

VII. Fees

The partnership will pay a management fee to the Investment Manager quarterly in advance during the term of the partnership at the following rate:

- (i) during the investment period, 1.5% per annum of capital commitments;
- (ii) thereafter, 1.25% per annum of the aggregate unreturned capital contributions of limited partners.

The management fee will commence as of the initial closing. A limited partner participating in a closing that occurs after the date the management fee commenced will contribute to the Fund and the Fund will pay to the Investment Managers, an amount equal to the investment management fee that would have been paid had such limited partner been admitted to the Fund on the date of the initial closing, plus an interest equivalent thereon at the prime rate plus 2% from and including the date of the initial closing.

Fee income, including commitment, break-up, directors' or similar income realized with respect to investments or proposed investments by the Fund will first be applied to unreimbursed out-of-pocket expenses related to the applicable transaction and thereafter will be paid to the Investment Managers; provided, that 100% of any excess amount allocable to the investments or proposed investments by the Fund after payment of such out-of-pocket expenses will be used to reduce the investment management fees otherwise payable by the limited partners by an identical amount, or, at the discretion of the General Partner, be directly paid to the Fund.

VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to all investors until they have received cumulative distributions in an amount equal to their aggregate capital contributions and preferred return of 8%.

Second, 100% to the General Partner until the cumulative distributions made to the General Partner equal 20% of the distributed profits.

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

IX. Key-Person Termination

If, at any time during the investment period, any of Marc Lasry, Sonia Gardner or Matthew Kimble cease to devote (a) substantially all of his or her business time and attention to the affairs of the Fund, the General Partner, the Investment Manager and the Other Clients or (b) such time as is reasonably necessary for the management of the business of the Fund, the investment activities of the Fund will be automatically suspended. The General Partner will promptly (but no later than seven business days following such suspension) notify the Limited Partners of such suspension and the General Partner will have 120 days from the date of such suspension to present a plan for the future operation of the Fund to the Limited Partners for their approval. If such plan is approved by a vote of at least 66-2/3% in interest of the Limited Partners, the Investment Period will automatically resume.

X. Investment Period and Term

The term of the Fund will end on the fifth anniversary of the date of the final closing, unless extended for up to two consecutive one-year periods at the sole discretion of the General Partner, *provided*, that the term of the Fund may be ended at any time upon the affirmative vote of at least 75% in interest of the Limited Partners.

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

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

<i>Name of Fund:</i>	MHR Institutional Partners IV, L.P.
<i>Type of Fund:</i>	Private Equity Limited Partnership
<i>Total Fund Size:</i>	\$2.75 billion
<i>Fund Manager:</i>	MHR Fund Management LLC
<i>Manager Contact:</i>	Emily Fine 40 West 57 th Street, 24 th Floor New York, NY 10019 (212) 262-0005

II. Organization and Staff

MHR Fund Management LLC (“MHR” or the “Manager”) has formed MHR Institutional Partners IV (the “Partnership” or “Fund IV”) to generate returns for its limited partners by gaining control of distressed companies and creating value through the restructuring process and company growth. Fund IV is the fourth in a series of funds that have been following the same investment strategy since 1998. As of September 30, 2014, MHR managed \$5.9 billion of assets.

MHR was founded in 1996 by Mark Rachesky. Prior to founding MHR, Mr. Rachesky was the sole Managing Director of Icahn Holding Corporation. Today MHR is headquartered in New York and has 27 investment professionals with diverse backgrounds, complimentary skills and experience sourcing, researching and investing in distressed companies and assets. The Principals of MHR are Mark Rosenberg, Emily Fine, Ron Jakubek, Keith Whittaker, David Gutterman, Pierre Huon, Janet Yeung, Kallie Steffes, Jason Caloras, Raymond Miller, Michael Sirignano, and Sergei Filipov.

MHR believes that the breadth and depth of the teams experience provide the necessary skillset to successfully originate, evaluate, accumulate, manage and realize investments for the fund.

III. Investment Strategy

MHR pursues a control focused, private equity strategy to invest in distressed middle market companies. MHR seeks to achieve control of an investment at lower valuations than traditional private equity strategies by acquiring debt, structuring loans or purchasing equity of a distressed company. MHR does not utilize leverage to generate returns, and MHR investments generally have a lower Debt/EBITA ratio than other LBOs. MHR uses

its industry and portfolio company relationships to source deals and seeks to capitalize on inefficiencies found in various industries.

When entering an investment, MHR focuses on companies with hard assets, long-term contracts, free cash flow generation, contracted backlog and/or a strong balance sheet. These factors, together with strong covenants, collateral protections and equity participation, when applicable, provide downside protection and upside potential. A key element of MHR's strategy is the idea that it can effectuate control and create value in its investments without majority ownership or paying a control premium. As such, the Firm may attempt to gain board seats and influence or change management while owning less than a majority stake. Often times other large investors in a portfolio company welcome MHR's role in leading a turnaround or growth process.

Once in a position of control, MHR believes it has the experience necessary to execute complicated turnaround and restructuring processes. Further, once the company is restructured, MHR seeks to create long-term value by improving operations, growing the company, and making a successful exit. MHR uses its industry relationships to implement strategies that may include replacing the management team, participating on the board of directors, improving profitability, pursuing strategic M&A opportunities, and/or expanding product lines.

MHR's target investment size is \$100 million to \$300 million, and over 90% of prior funds exposure was North America. The primary focus of Fund IV will be North America, but MHR will evaluate investments in other regions including the current focus of sourcing U.S. corporate credit exposure from distressed European banks. MHR does not typically seek to invest in very large bankruptcies or trading oriented strategies that larger private equity funds pursue. Rather, the Firm focuses on smaller deals that are more difficult to source and analyze, where its industry connections and smaller size give what MHR perceives to be a competitive advantage.

IV. Investment Performance

Previous fund performance as of September 30, 2014 for investments in Funds I through III is shown below:

Fund	Inception Date	Total Invested	Net IRR from Inception *	Net MOIC from Inception*	Fund Status
Fund I	1998	\$256 million	17%	2.3	Liquidating
Fund II	2003	\$782 million	16%	1.9	Active
Fund III	2007	\$3.1 billion	11%	1.5	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 MHR.

V. General Partner's Investment

The General Partner and its affiliates will commit to invest 2% of targeted capital commitments.

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 five business days' prior written notice to the limited partners.

VII. Fees

The Partnership will pay a management fee to the Manager quarterly in advance, starting on the date of the initial investment, at the following rate:

- (i) during the commitment period of up to 7.5 years (commencing on the initial investment date and ending 6 years after the final closing date), 1.75% per annum of capital commitments;
- (ii) after the commitment period, 1.75% per annum of the cost basis of unrealized portfolio investments as calculated on January 1 and July 1 of each year.

If the General Partner or any of its affiliates receive any transaction, break-up, director or advisor fees in connection with a portfolio investment or potential portfolio investment, generally 100% of the amount of such fees will be applied ratably to offset expenses relating to the portfolio investment and thereafter to reduce the management fees payable to the partnership.

VIII. Distributions

Distributions will be made in the following order and priority:

First, 100% to the limited partner until the limited partner receives 100% of its capital contributions.

Second, 100% to the limited partner until the limited partner has received an 8% annual return, compounded annually, on its aggregate capital contributions (the "Preferred Return").

Third, 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

In the event of the death or permanent disability of Mr. Rachesky, or in the event that he ceases to devote the requisite working time to the Partnership and in the event the General Partners is subject to a disabling event, the Partnership will be dissolved unless limited partners whose commitments represent at least 75% of all commitments vote to continue the Partnership.

X. Investment Period and Term

The commitment period ends six years after the final closing date. The Partnership's term will be ten years from the final closing date, subject to extension by the General Partner for up to three 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.*

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INVESTMENT ADVISORY COUNCIL REPORT

DATE: February 25, 2015

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

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

As noted in prior meetings, Staff is in the process of revising the quarterly reports to the State Board of Investment and the Investment Advisory Council. We anticipate that these changes will take place over the course of the next several quarters.

The current section has been restructured and streamlined from prior reports. The focus of this section will be to present 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.

Hopefully, you will find our revisions helpful. However, please note that this remains a work-in progress and we anticipate additional revisions over the next year.

The report includes the following sections:

	Page
• Public Markets Economic and Market Overview	3
• Public Markets Manager Activity	5
• PIMCO Update	7
• Non-Retirement Manager Update	9
• Deferred Compensation Manager Update	11
• Manager Performance Summaries	A-1

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Public Markets Economic and Market Overview Fourth Quarter 2014

Overview

The U.S. economy continued to improve in the fourth quarter, albeit at a slower rate. One indication of its improvement was the Federal Open Market Committee's expected decision to conclude its asset purchase program in October. The Committee stated an improvement in the labor market and "sufficient underlying strength in the broader economy" as some of the points supporting their decision. Not to disappoint, the initial fourth quarter GDP estimate came in at 2.6% and the unemployment rate ticked down to 5.6% to close the year. The 12-months ended seasonally adjusted CPI increased 0.8%, but was impacted by the sixth straight month of declines in the gasoline and fuel oil indices.

The price of oil, and the Energy sector overall, was a running headline in the fourth quarter. The price of a light, sweet crude oil futures contract declined from \$91.16/barrel on September 30th to \$53.27/barrel on December 31st. The wallets of U.S. consumers are benefitting from the price decline as the average price of a gallon of gas closed the year at \$2.61, down (24%) from the beginning of the quarter.

Within the *Russell 3000 Index*, while the Energy sector was the largest detractor, declining (13.3%), the Index overall gained 5.2%. The Consumer Discretionary sector was the top performer, advancing 8.7%. Small Cap stocks bounced back in the fourth quarter as the *Russell 2000 Index* charged ahead by 9.7%. The market was not as kind to International and Emerging Market equities. The *MSCI ACWI Free ex USA (net) Index* declined (3.9%) and the *MSCI Emerging Markets Free (net) Index* dropped (4.5%).

In Fixed Income markets, the *Barclays Aggregate Index* gained 1.8% for the quarter. Within the U.S. Treasuries market, 30-year yields fell from 3.2% to 2.8% and 10-year yields slid from 2.5% to 2.2%. Yield changes within Fixed Income sectors ranged from Floating Rate bonds which increased from 1.0% to 1.6% to Mortgage-Backed Securities (MBS) which decreased from 2.9% to 2.6%.

SBI Portfolio

Quarterly performance for the SBI's portfolio had a similar story as the overall markets. For the equity allocation, domestic equities returned 5.2%, which was in line with the *Russell 3000 Index*, and international and emerging market stocks declined by (3.0%), which was 70 basis points (bps) better than its aggregate benchmark. The fixed income allocation added 1.7%, which slightly trailed the *Barclays Aggregate Index* by 10 bps.

Domestic Equity

Domestically, large cap growth managers trailed the *Russell 1000 Growth Index* slightly as poor stock selection, particularly in the Consumer Discretionary sector, was a drag on performance. Large cap value managers also slightly trailed its benchmark, the *Russell 1000 Value Index*, for the quarter. A combination of poor stock selection and an underweight in the strong-performing Utilities and Financial Services sectors had the biggest impact. Within small cap equity, active small cap growth managers collectively trailed the *Russell 2000 Growth Index*, mainly due to

McKinley's relative underperformance of 476 basis points. Specific to McKinley, subpar stock selection in the Materials & Processing sector impaired returns. Moreover, an overweight to the out-of-favor Energy sector, along with an underweight in the favorable Health Care sector, further derailed performance. It was a similar story for active small cap value managers as the overall portfolio trailed the *Russell 2000 Value Index* for the quarter. Poor stock selection in the Materials and Processing sector was the largest drag on relative performance. Also, with the bullish rally, cash was a contributor to underperformance.

International Equity

Internationally, active managers outperformed the *MSCI ACWI Free ex USA (net) Index* for the quarter, as stock selection and sector allocation added alpha. On a sector level, consumer discretionary was the biggest contributor and on a country level, the United Kingdom, Germany, and Canada were the biggest contributors. Semi-passive international managers outperformed due to astute stock selection in the energy, telecommunications, and industrials sectors.

Emerging Markets Equity

Within Emerging Markets, performance was in-line with the *MSCI Emerging Markets Free (net) Index*. During the quarter, active managers benefitted from an overweight position and smart stock selection in India, and also underweight positions in Russia and Brazil. However, these positive relative contributions were offset by negative stock selection in Mexico and Malaysia. The passive Emerging Markets portfolio produced positive tracking error primarily due to avoiding restricted stocks (Iran and Sudan) in the benchmark, coupled with the subsequent overweight positions in non-restricted names.

Fixed Income

For the SBI's Fixed Income allocation, active managers slightly underperformed the *Barclays Aggregate Index* by 10 bps while the semi-passive managers performed in line with the Index. The portfolio's underweight in duration detracted from performance as oil prices and general weakness in the Euro zone led to a rally in Treasury prices. The overweight in corporate bonds also diminished performance as credit spreads widened during the quarter. Positive performance was generated through the portfolio's overweight in Commercial MBS, which outperformed by 23 bps.

Public Markets Manager Activity Fourth Quarter 2014

Manager Summary

For the quarter, the vast majority of investment managers performed in line with our expectations and no commentary was necessary. There were some noteworthy manager developments for the quarter involving McKinley, Pyramis, AQR, PIMCO, and Neuberger Berman.

Pyramis (International Developed Markets Equity)

On October 15, Pyramis announced the appointment of a new CEO/President, Jeff Lagarce. A few days earlier, Abigail Johnson was appointed CEO of Fidelity, Pyramis' parent company. Staff had a call with Pyramis to discuss the change in management and has no concerns. Staff does not expect any material impact to their investment process at this time, but will continue to monitor for any organizational impact.

AQR (International Developed Markets Equity)

Ten years ago, AQR sold a minority interest of the firm to an outside investor, Affiliated Managers Group, Inc. (AMG). In December 2014, AQR announced that they had restructured that agreement to modestly increase AMG's ownership percentage, which will remain below 30%. AQR intends to invest the proceeds of the transaction into the investment strategies run by the company. The Founding Principals (3) and Principals (18) will enter into multi-year agreements to commit themselves to AQR. Staff has no concerns with the change, but will continue to monitor.

PIMCO (Fixed Income)

Saumil Parikh, the primary portfolio manager on the SBI strategy since Bill Gross' September 2014 departure, left the firm effective mid-January. PIMCO has requested to transition the SBI portfolio to Marc Seidner. Marc is CIO of Non-traditional strategies and head of portfolio management in the New York office, in addition to being a generalist portfolio manager and a member of the Investment Committee. Mr. Seidner had previously been with PIMCO for five years before leaving in January 2014 and rejoining the firm in November of 2014. Members of the SBI met with key PIMCO personnel in January, including Mr. Seidner, in our ongoing evaluation and monitoring of the organization. Staff is confident in Mr. Seidner's ability to manage the SBI portfolio, but will continue to monitor the situation. Please refer to the "PIMCO Update" on **page 7**.

Neuberger Berman (Fixed Income)

Neuberger Berman is now 100% employee-owned after purchasing the remaining common equity shares held by non-employees. Neuberger announced its intentions of purchasing the 48% of common equity held by non-employees in 2011 and has been acquiring the non-employee equity since the announcement. The remaining shares were purchased in December 2014. Staff has no concern with the ownership change.

McKinley (Domestic Small Cap Growth and International Developed Markets)

The firm has experienced asset losses and staff turnover in past few years. In 2014, through the end of October, assets under management have decreased by approximately \$650 million, over 9% of the firm assets. Regarding personnel turnover, five employees departed in 2013. Staff will continue to monitor. Despite these challenges, performance has improved the past several years as momentum has regained favor in each portfolio.

Manager Meetings

During the due diligence trip to meet with PIMCO, Staff also met with two current fixed income managers (Western Asset and Dodge & Cox) and two prospective fixed income managers (Doubleline Capital and Trust Company of the West).

Staff reviewed and affirmed that Western Asset (Pasadena, California) and Dodge & Cox (San Francisco, California) continue to adhere to their investment philosophy and process. Western has restructured and realigned their securitized desk and mortgage teams which will enable them to branch out and have improved focus on areas such as Collateralized Mortgage Back Securities (CMBS). The organization has continued to improve its risk management function and its integration into its day-to-day operation. Staff also discussed Dodge & Cox's strategy to navigate the current low interest rate environment to better understand why Dodge & Cox maintain the shortest duration positioning with the SBI's fixed income portfolio.

Staff met with members of the fixed income groups at Doubleline Capital Management and Trust Company of the West (both of Los Angeles, California). Each of these organizations have established strong fixed income franchises. These organizations will remain on staff's radar for continued monitoring in the event there is a determination that either firm has viable strategies for the SBI in the future.

Staff has commenced a more formalized and systematic "Annual Review" process for the Public Markets managers. During the first quarter of 2015, the following SBI Stock and Bond managers are scheduled for Annual Reviews at the SBI office:

Investment Manager	Asset Class
• Acadian Asset Management LLC	International Equity
• State Street Global Advisors (SSgA)	International Equity
• Goldman Sachs Asset Management	Fixed Income
• Aberdeen Asset Management Inc.	Fixed Income
• Jacobs Levy Equity Management, Inc.	Domestic Equity
• INTECH Investment Management LLC	Domestic Equity
• McKinley Capital Management, LLC	Domestic Equity International Equity
• Marathon Asset Management LLP	International Equity

PIMCO Update January 2015 Meeting

At the November 2014 IAC meeting, staff reported that they would be meeting with PIMCO at their Newport Beach office to further monitor and evaluate the organization. Staff (Cassie Boll, Aaron Griga and Ryan Hill) met with PIMCO in January 2015. Prior to the trip, PIMCO announced the departure of Saumil Parikh, the portfolio manager assigned to the SBI portfolio in September of 2014. Marc Seidner, CIO of Non-Traditional Strategies, was assigned to the SBI portfolio upon departure of Mr. Parikh. The due diligence trip allowed staff to evaluate PIMCO in light of recent organizational changes, and to meet with and evaluate Mr. Seidner.

Investment Process

SBI staff discussed PIMCO's investment process with several key people at the organization. Discussions, which centered on PIMCO's investment process and risk management, included the following:

David Fisher, the Total Return product manager,
Matthew Putnicki, a senior member of PIMCO's portfolio risk team,
Marc Seidner, CIO Non-traditional strategies,
Mohit Mittal, manager of investment grade credit,
Daniel Hyman, co-head of the agency mortgage team, and
Craig Dawson, head of strategic business.

PIMCO stressed that their investment process has not changed with the departure of Bill Gross. The process still begins with the Investment Committee. The Investment Committee members define a set of market views which are translated into portfolio targets. The portfolio managers then use these targets and market themes when implementing portfolio strategies. Although the investment process has not changed, ideas and the exchange of information are now more readily accepted throughout the firm. The six CIO's were put in place to provide stability and to move away from having only one key person.

Overall Organization and Retention Program

PIMCO, who is a majority owned subsidiary of Allianz, continues to operate autonomously as their relationship with Allianz remains strong. PIMCO has been allowed to increase expenses to roll out a new employee retention program. The program applies to all employees that are not participating in the PIMCO profit pool including senior portfolio managers below the level of managing director. The program consists of a bonus that is awarded in the 4th quarter and is paid out over the next 12 to 30 months. PIMCO plans on growing other areas of their business such as equities and alternative investments but is planning on slower, organic growth rather than pursuing acquisitions.

Outflows

PIMCO continues to see outflows with \$9.5 billion having left in November and \$19.4 in December. This left assets in the Total Return mutual fund at \$143.4 billion at the end of December, down from \$222 billion prior to Gross' departure. PIMCO continues to state that they

have sufficient liquidity to meet redemptions and that outflows have not impacted their investment strategy.

Performance as of Dec 31, 2014

	Last Quarter	1 year	Last 3 Years	Last 5 Years	Since Inception	Inception Date
PIMCO	2.09	5.55	4.42	5.93	7.22	10/01/2008
Barclays Aggregate Index	1.79	5.97	2.66	4.45	5.25	10/01/2008

Marc Seidner

As mentioned above, PIMCO recently announced the departure of SBI's portfolio manager, Saumil Parikh. Marc Seidner will be replacing Mr. Parikh as the portfolio manager for the SBI's separately held portfolio. Mr. Seidner had previously been with PIMCO for five years before leaving in January 2014. He returned to the firm in November 2014 and is now CIO of Non-Traditional Strategies. In addition to his CIO duties he is managing director and head of portfolio management in the New York office. He is also a generalist portfolio manager and a member of the Investment Committee. Mr. Seidner has 27 years of investment experience including experience managing core and core plus portfolios.

Staff Assessment and Approach

PIMCO continues to have strong investment capabilities and a deep bench of talent. Although the departure of SBI's portfolio manager is concerning, staff understands there will be shifting within PIMCO's organization. Our concerns would increase if there were a large number of departures or material changes in PIMCO's executive team. PIMCO is in the process of recruiting top talent and has put a retention policy in place to help prevent departures. Staff believes Mr. Seidner is a very capable replacement for Mr. Parikh as its portfolio manager. In addition to Mr. Seidner's experience as a portfolio manager, his participation on the Investment Committee provides him with a broader perspective in the overall management of the SBI portfolio. Staff will continue to monitor the developments at PIMCO. However, we anticipate that the transitioning of the organization that began with Mr. Gross' departure will subside over the next couple of quarters. PIMCO remains a leading asset management company with significant strengths and expertise in managing fixed income portfolios of type and scale similar to SBI's.

Non-Retirement Manager Update Fourth Quarter 2014

Domestic Equities

GE Asset Management

The performance in the domestic equity portfolio lagged the benchmark for the quarter and for the year. Stock selection in energy, financials, and utilities contributed to the underperformance for the quarter. For the year, stock selection in energy, financials, and industrials detracted from relative performance.

Internal Stock Pool

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

Fixed Income

RBC Global Asset Management

The fixed income portfolio tracked the benchmark for the quarter and for the year. For the quarter, the portfolio benefited from out-of-benchmark allocation but the slightly short duration detracted from performance. For the year, excess yield and spread tightening in municipals and agency CMBS benefited performance.

Internal Bond Pool

The portfolio slightly underperformed the benchmark for the quarter and outperformed for the year. For the quarter, the portfolio's underweight to duration and overweight in the corporate sector detracted from returns.

Management of the internal bond pool transitioned to Aaron Griga and Cassie Boll, both Investment Officers, from Mike Menssen beginning of 3Q2014. Mike Menssen will continue to have oversight of the portfolio as part of his responsibilities as Director of Public Markets.

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**Deferred Compensation Managers
Fourth Quarter 2014**

Domestic Equities

Janus Twenty

The domestic equity portfolio outperformed its benchmark for the quarter and underperformed for the year. Stock selection will have the most impact to the portfolio's performance due to its concentrated investment strategy. The portfolio currently has 32 holdings. For the quarter, relative performance benefited from stock selection in energy, industrials, and information technology. The one year relative underperformance resulted from holdings with global earnings exposure in the consumer discretionary and consumer staples sectors.

Vanguard Institutional Index Plus

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

Vanguard Mid-Cap Index

The mid-cap equity portfolio tracked the benchmark for the quarter and the year.

T. Rowe Price

The small cap equity portfolio underperformed the benchmark for the quarter and outperformed for the year. For the quarter, stock selection in financials and materials detracted from relative performance. For the year, stock selection in health care, industrials and consumer discretionary benefited relative performance.

International Equities

Fidelity Diversified International

The portfolio outperformed the benchmark for the quarter and the year. The portfolio benefited from positive stock selection in the information technology, consumer discretionary and health care sectors, along with an underweight in energy.

Vanguard Total International Stock Index

The portfolio underperformed the benchmark for the quarter by 50 basis points and for the year by 100 basis points. Tracking error is due to fair value pricing. This price adjustment to the NAV should even out over a longer period of time.

Fixed Income

Dodge & Cox Income Fund

The portfolio underperformed the benchmark for the quarter and the year. The portfolio's defensive duration positioning and overweight to corporate bonds detracted from performance for both the quarter and the year.

Vanguard Total Bond Market Index

The portfolio underperformed the benchmark for the quarter and the year by 10 basis points.

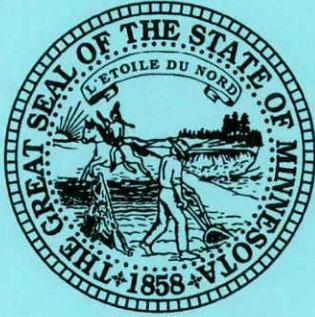
Balanced and Conservative Options**Vanguard Balanced**

The portfolio matched the benchmark return for the quarter and the year.

Galliard Capital Management (Stable Value)

The stable value portfolio outperformed the benchmark for the quarter and the year. For the quarter, holdings in structured securities, such as Agency MBS, CMBS, and ABS, benefited returns as they outperformed like-duration Treasuries. An overweight to non-Treasury sectors, particularly structured securities, and positions in intermediate corporate bonds benefited returns for the year.

During the quarter, American General Life replaced RBC as a wrap provider for the portfolio.



**STATE BOARD
OF INVESTMENT**

**Domestic Equity Manager
Performance Summaries**

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Domestic Equity

Table of Contents

	Page
Domestic Equity Performance Summary_____	A-5
Active Manager Performance Summary_____	A-6
(quarter, 1, 3, 5-year periods)	
Semi-Passive and Passive Manager Performance Summary_____	A-8
(quarter, 1, 3, 5-year periods)	
Domestic Equity Market Values_____	A-9
Active Manager Performance Summary_____	A-10
(by calendar year)	
Semi-Passive and Passive Manager Performance Summary_____	A-11
(by calendar year)	

**COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS**

Periods Ended December 31, 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Russell 1000 Growth Aggregate	3.7	9.6	21.6	16.4
<i>Russell 1000 Growth Index</i>	4.8	13.0	20.3	15.8
Russell 1000 Value Aggregate	4.7	13.1	21.7	15.2
<i>Russell 1000 Value Index</i>	5.0	13.5	20.9	15.4
Russell 2000 Growth Aggregate	7.6	-3.4	16.8	14.2
<i>Russell 2000 Growth Index</i>	10.1	5.6	20.1	16.8
Russell 2000 Value Aggregate	9.0	7.5	21.9	17.7
<i>Russell 2000 Value Index</i>	9.4	4.2	18.3	14.3
Active Manager Aggregate	5.2	9.3	20.9	15.5
<i>Benchmark</i>	6.0	11.0	20.3	15.6
Semi-Passive Aggregate	5.3	14.2	21.4	16.1
<i>Benchmark</i>	4.9	13.2	20.6	15.6
Passive Manager (BlackRock)	5.2	12.6	20.5	15.6
<i>Russell 3000 Index</i>	5.2	12.6	20.5	15.6
Total Aggregate	5.2	12.3	21.0	15.8
<i>Russell 3000 Index</i>	5.2	12.6	20.5	15.6

Calendar Years

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

**COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS**

Periods Ended December 2014

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	4.8	13.0	20.3	15.8	--
INTECH	7.4	12.8	21.2	16.3	7.7
<i>Benchmark</i>	4.8	13.0	20.3	15.8	8.5
Jacobs Levy	5.3	12.9	20.5	17.4	7.4
<i>Benchmark</i>	4.8	13.0	20.3	15.8	8.5
Sands Capital	3.8	9.1	24.5	20.2	10.7
<i>Benchmark</i>	4.8	13.0	20.3	15.8	8.5
Winslow-Large Cap	5.6	11.0	20.2	15.2	9.7
<i>Benchmark</i>	4.8	13.0	20.3	15.8	8.5
Zevenbergen Capital	-2.1	3.4	21.5	14.7	10.3
<i>Benchmark</i>	4.8	13.0	20.3	15.8	9.1
Aggregate	3.7	9.6	21.6	16.4	
Russell 1000 Value Index	5.0	13.5	20.9	15.4	--
Barrow, Hanley	4.1	13.0	20.9	14.7	8.4
<i>Benchmark</i>	5.0	13.5	20.9	15.4	8.0
Earnest Partners	6.5	14.0	18.6	13.5	6.5
<i>Benchmark</i>	5.0	13.5	20.9	15.4	7.2
LSV Asset Mgmt.	4.9	14.0	24.7	17.0	9.4
<i>Benchmark</i>	5.0	13.5	20.9	15.4	8.0
Systematic Financial Mgmt.	3.8	11.6	21.2	14.3	7.8
<i>Benchmark</i>	5.0	13.5	20.9	15.4	8.0
Aggregate	4.7	13.1	21.7	15.2	

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

Note: All aggregates include the performance of terminated managers

**COMBINED RETIREMENT FUNDS
ACTIVE DOMESTIC EQUITY MANAGERS**

Periods Ended December 2014

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	10.1	5.6	20.1	16.8	--
McKinley Capital	5.2	2.0	24.0	17.6	7.2
<i>Benchmark</i>	<i>10.1</i>	<i>5.6</i>	<i>20.1</i>	<i>16.8</i>	<i>9.1</i>
Next Century Growth	10.2	-6.5	12.7	12.1	2.8
<i>Benchmark</i>	<i>10.1</i>	<i>5.6</i>	<i>20.1</i>	<i>16.8</i>	<i>4.4</i>
Aggregate	7.6	-3.4	16.8	14.2	
Russell 2000 Value Index	9.4	4.2	18.3	14.3	--
Goldman Sachs	8.1	7.4	20.4	17.5	10.3
<i>Benchmark</i>	<i>9.4</i>	<i>4.2</i>	<i>18.3</i>	<i>14.3</i>	<i>8.2</i>
Hotchkis & Wiley	9.9	13.0	27.0	21.2	9.8
<i>Benchmark</i>	<i>9.4</i>	<i>4.2</i>	<i>18.3</i>	<i>14.3</i>	<i>8.2</i>
Martingale Asset Mgmt.	10.2	7.3	22.6	17.4	8.0
<i>Benchmark</i>	<i>9.4</i>	<i>4.2</i>	<i>18.3</i>	<i>14.3</i>	<i>8.2</i>
Peregrine Capital	8.4	4.1	19.3	15.7	11.0
<i>Benchmark</i>	<i>9.4</i>	<i>4.2</i>	<i>18.3</i>	<i>14.3</i>	<i>10.2</i>
Aggregate	9.0	7.5	21.9	17.7	
Active Mgr. Aggregate (2)	5.2	9.3	20.9	15.5	

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

(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 2014
Versus Manager Benchmarks

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Semi-Passive Managers (2)					
BlackRock Institutional	5.3	14.2	21.9	16.0	9.8
<i>Benchmark</i>	4.9	13.2	20.6	15.6	9.4
INTECH	4.6	11.6	20.0	--	15.1
<i>Benchmark</i>	4.9	13.2	20.6	--	15.2
JP Morgan	5.6	15.0	21.8	16.4	9.8
<i>Benchmark</i>	4.9	13.2	20.6	15.6	9.4
Mellon Capital	5.5	15.9	21.7	16.4	9.1
<i>Benchmark</i>	4.9	13.2	20.6	15.6	9.4
Semi-Passive Aggregate (R1000)	5.3	14.2	21.4	16.1	
Passive Manager (R3000)					
BlackRock Institutional	5.2	12.6	20.5	15.6	9.1
<i>Benchmark</i>	5.2	12.6	20.5	15.6	9.0
Total Aggregate (3)	5.2	12.3	21.0	15.8	10.5
<i>Benchmark</i>	5.2	12.6	20.5	15.6	10.7
<i>Russell 3000 Index</i>	5.2	12.6	20.5	15.6	11.0
<i>Russell 1000 Index</i>	4.9	13.2	20.6	15.6	11.2
<i>Russell 2000 Index</i>	9.7	4.9	19.2	15.5	9.7

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

(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) 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, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Russell 1000 Growth Aggregate	\$2,880,098,945	9.7%	\$2,776,610,648	9.9%
INTECH	\$587,683,894	2.0%	\$547,161,826	1.9%
Jacobs Levy	\$682,462,223	2.3%	\$648,083,346	2.3%
Sands Capital	\$695,508,374	2.4%	\$670,172,818	2.4%
Winslow-Large Cap	\$307,025,537	1.0%	\$290,840,152	1.0%
Zevenbergen Capital	\$607,418,917	2.1%	\$620,352,506	2.2%
Russell 1000 Value Aggregate	\$3,014,224,554	10.2%	\$2,878,941,972	10.3%
Barrow Hanley	\$835,071,337	2.8%	\$802,213,235	2.9%
Earnest Partners	\$565,730,766	1.9%	\$531,135,240	1.9%
LSV Asset Mgmt.	\$842,112,563	2.8%	\$802,480,751	2.9%
Systematic Financial Mgmt.	\$771,309,888	2.6%	\$743,112,745	2.6%
Russell 2000 Growth Aggregate	\$754,327,910	2.6%	\$701,302,488	2.5%
McKinley Capital	\$386,855,528	1.3%	\$367,893,968	1.3%
Next Century Growth	\$367,472,382	1.2%	\$333,408,521	1.2%
Russell 2000 Value Aggregate	\$1,107,007,845	3.7%	\$1,015,178,546	3.6%
Goldman Sachs	\$274,081,551	0.9%	\$253,559,559	0.9%
Hotchkis & Wiley	\$260,975,024	0.9%	\$237,500,521	0.8%
Martingale Asset Mgmt.	\$218,423,911	0.7%	\$198,122,100	0.7%
Peregrine Capital	\$353,527,360	1.2%	\$325,996,366	1.2%
Semi-Passive Manager Aggregate	\$11,371,158,446	38.5%	\$10,800,905,323	38.5%
BlackRock Institutional	\$2,492,259,601	8.4%	\$2,366,069,380	8.4%
INTECH	\$2,718,869,730	9.2%	\$2,599,124,405	9.3%
JP Morgan	\$3,244,616,246	11.0%	\$3,071,944,546	10.9%
Mellon Capital	\$2,915,412,870	9.9%	\$2,763,766,992	9.8%
Passive Manager	\$10,431,160,851	35.3%	\$9,910,936,695	35.3%
BlackRock Institutional	\$10,431,160,851	35.3%	\$9,910,936,695	35.3%
Total Portfolio	\$29,557,978,551	100.0%	\$28,083,875,672	100.0%

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

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

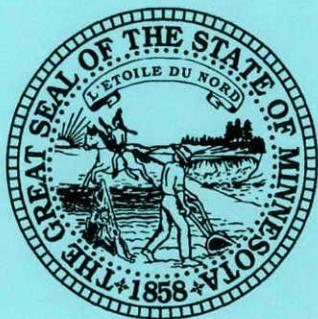
(1) The Active Manager Aggregate Benchmark is the aggregate of the weighted average of the active manager benchmarks and is not the Russell 3000.

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

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

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

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



STATE BOARD OF INVESTMENT

International Equity Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

International Managers

Table of Contents

	Page
International Manager Performance Summary _____ (quarter, 1, 3, 5 year periods)	A-16
International Manager Market Values _____	A-18
International Manager Performance Summary _____ (by calendar year)	A-19

**COMBINED RETIREMENT FUNDS
INTERNATIONAL MANAGERS
Periods Ended December 2014**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Developed Markets (2)					
Acadian	-2.3	-1.7	13.4	7.7	5.2
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Columbia	-1.2	-5.6	11.7	7.1	1.9
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	3.0
J.P. Morgan	-4.1	-5.1	10.3	5.3	5.0
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Marathon Asset Management	-2.6	-4.0	13.3	8.6	8.4
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.1
McKinley	0.0	-2.7	13.3	6.6	4.8
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Pyramis (Fidelity)	-2.4	-5.6	12.9	7.2	6.7
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Aggregate	-2.2	-4.1	12.4	7.0	
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	
Active Emerging Markets (3)					
Capital International	-3.9	-5.9	2.5	-0.7	9.7
<i>Benchmark</i>	-4.5	-2.2	4.0	1.8	10.4
Morgan Stanley	-5.1	-2.4	5.9	2.9	11.1
<i>Benchmark</i>	-4.5	-2.2	4.0	1.8	10.4
Aggregate	-4.5	-4.1	4.2	1.0	
<i>Benchmark</i>	-4.5	-2.2	4.0	1.8	
Semi-Passive Developed Markets (2)					
AQR	-2.5	-4.4	12.7	6.6	5.6
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Pyramis (Fidelity)	-2.7	-4.0	12.2	6.6	6.0
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
State Street	-4.1	-5.1	11.7	5.0	4.5
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	5.0
Aggregate	-3.0	-4.4	12.2	6.1	
<i>Benchmark</i>	-3.7	-4.3	10.5	5.2	

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

(2) 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).

(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).

COMBINED RETIREMENT FUNDS
INTERNATIONAL MANAGERS
Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Passive Developed Markets (2)					
State Street	-3.6	-3.9	10.8	5.7	6.4
Benchmark	-3.7	-4.3	10.5	5.2	6.1
Passive Emerging Markets (3)					
State Street	-4.1	-2.1	4.2	--	4.2
Benchmark	-4.5	-2.2	4.0	--	4.0
Equity Only (4) (6)					
State Street	-3.3	-4.0	9.9	5.1	6.7
Benchmark	-3.9	-3.9	9.0	4.4	6.3
Total Program (5) (6)					
State Street	-3.3	-4.0	9.9	5.1	6.9
Benchmark	-3.9	-3.9	9.0	4.4	6.3
SBI Int'l Equity Target (6)	-3.9	-3.9	9.0	4.4	6.3
MSCI ACWI Free ex USA (7)	-3.9	-3.9	9.0	4.4	6.5
MSCI World ex USA (net)	-3.7	-4.3	10.5	5.2	6.2
MSCI EAFE Free (net)	-3.6	-4.9	11.1	5.3	6.0
MSCI Emerging Markets Free (8)	-4.5	-2.2	4.0	1.8	7.8

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

**COMBINED RETIREMENT FUNDS
INTERNATIONAL STOCK MANAGERS
Periods Ended December 2014**

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Active Developed Markets	\$2,354,028,295	27.0%	\$2,406,608,092	26.7%
Acadian	\$362,126,886	4.2%	\$370,769,012	4.1%
Columbia	\$337,832,839	3.9%	\$341,847,134	3.8%
J.P. Morgan	\$290,645,723	3.3%	\$303,141,906	3.4%
Marathon	\$723,097,215	8.3%	\$742,132,204	8.2%
McKinley	\$297,369,509	3.4%	\$297,310,324	3.3%
Pyramis (Fidelity)	\$342,956,124	3.9%	\$351,407,511	3.9%
Active Emerging Markets	\$1,483,506,291	17.0%	\$1,553,746,567	17.3%
Capital International	\$703,454,876	8.1%	\$731,985,312	8.1%
Morgan Stanley	\$780,051,415	9.0%	\$821,761,256	9.1%
Semi-Passive Developed Markets	\$1,137,362,640	13.1%	\$1,172,439,818	13.0%
AQR	\$334,360,307	3.8%	\$342,774,849	3.8%
Pyramis (Fidelity)	\$501,140,966	5.8%	\$515,022,271	5.7%
State Street	\$301,861,368	3.5%	\$314,642,699	3.5%
Passive Developed Markets	\$3,437,102,775	39.5%	\$3,567,002,044	39.6%
State Street	\$3,437,102,775	39.5%	\$3,567,002,044	39.6%
Passive Emerging Markets	\$293,452,816	3.4%	\$306,155,752	3.4%
State Street	\$293,452,816	3.4%	\$306,155,752	3.4%
Total Portfolio	\$8,705,452,818	100.0%	\$9,005,952,273	100.0%

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

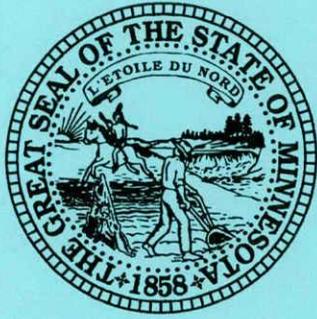
	2014	2013	2012	2011	2010
Active Developed Markets (1)					
Acadian	-1.7	26.1	17.6	-12.9	13.9
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Columbia	-5.6	23.9	19.0	-12.1	15.2
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
J.P. Morgan	-5.1	19.5	18.4	-10.2	7.6
<i>Benchmark</i>	-4.3	21.0	16.4	-12.2	8.9
Marathon	-4.0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

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

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

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

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



STATE BOARD OF INVESTMENT

Bond Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Bond Managers

Table of Contents

	Page
Bond Manager Performance Summary _____ (quarter, 1, 3, 5-year periods)	A-24
Bond Manager Market Values _____	A-25
Bond Manager Performance Summary _____ (by calendar year)	A-26

**COMBINED RETIREMENT FUNDS
BOND MANAGERS
Periods Ended December 2014**

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
Active Managers					
Barclays Aggregate Index	1.8	6.0	2.7	4.4	
Aberdeen	1.9	6.7	4.2	6.2	5.8
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.8</i>
Columbia (RiverSource)	1.5	5.8	3.8	5.5	5.8
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.8</i>
Dodge & Cox	1.2	6.0	5.1	5.6	6.8
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.8</i>
PIMCO	2.1	5.5	4.4	5.9	7.2
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.3</i>
Western	1.7	7.0	4.4	6.2	9.0
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>7.9</i>
Active Mgr. Aggregate	1.7	6.2	4.4	5.9	
Semi-Passive Managers					
BlackRock	1.7	6.0	3.0	4.7	5.8
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.8</i>
Goldman	1.7	6.1	3.2	5.2	6.1
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.7</i>
Neuberger	1.9	6.1	3.1	5.2	7.0
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>6.8</i>
Semi-Passive Mgr. Aggregate	1.8	6.1	3.1	5.0	
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	
Historical Aggregate (2)	1.7	6.1	3.8	5.5	8.1
<i>Benchmark</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>7.9</i>
Barclays Aggregate Index (3)	1.8	6.0	2.7	4.4	7.9

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

(2) Includes performance of terminated managers.

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

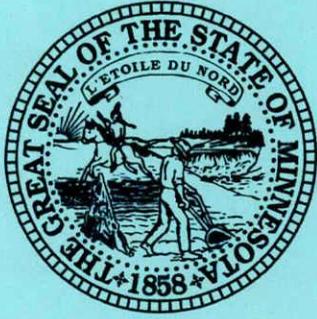
COMBINED RETIREMENT FUNDS
BOND MANAGERS
Periods Ending December 2014

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Semi-Passive	\$7,244,056,550	50.3%	\$7,117,742,793	50.3%
BlackRock	\$1,947,308,427	13.5%	\$1,914,836,273	13.5%
Goldman	\$2,718,585,651	18.9%	\$2,672,784,876	18.9%
Neuberger	\$2,578,162,472	17.9%	\$2,530,121,644	17.9%
Active Managers	\$7,154,968,713	49.7%	\$7,037,425,656	49.7%
Aberdeen	\$1,113,715,771	7.7%	\$1,093,088,826	7.7%
Columbia (RiverSource)	\$1,212,656,160	8.4%	\$1,194,411,417	8.4%
Dodge & Cox	\$1,527,752,600	10.6%	\$1,509,978,014	10.7%
PIMCO	\$1,618,556,451	11.2%	\$1,585,386,507	11.2%
Western	\$1,682,287,731	11.7%	\$1,654,560,892	11.7%
Total Portfolio	\$14,399,025,263	100.0%	\$14,155,168,448	100.0%

COMBINED RETIREMENT FUNDS
BOND MANAGERS
Calendar Year Returns

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

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



STATE BOARD OF INVESTMENT

Non-Retirement Manager Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Non-Retirement Managers

Table of Contents

	Page
Non-Retirement Manager Performance Summary _____ (quarter, 1, 3, 5-year periods)	A-30
Non-Retirement Manager Market Values _____	A-31
Non-Retirement Manager Performance Summary _____ (by calendar year)	A-32

NON-RETIREMENT MANAGERS
Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
GE Asset Management	4.0	13.2	21.2	14.0	10.3
<i>S&P 500 Index</i>	4.9	13.7	20.4	15.5	9.9
RBC Global Asset Management (2)	0.9	2.5	1.0	3.6	5.4
<i>Barclays Intermediate Government</i>	0.9	2.5	1.0	2.8	5.6
Internal Stock Pool	4.9	13.7	20.4	15.5	9.5
<i>S&P 500 Index</i>	4.9	13.7	20.4	15.5	9.4
Internal Bond Pool - Trust	1.7	6.0	3.9	4.7	6.6
<i>Barclays Aggregate</i>	1.8	6.0	2.7	4.4	6.1

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

(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 2014

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
GE Asset Management	\$62,501,700	2.1%	\$57,419,510	2.0%
RBC Global Asset Management	\$233,126,786	7.9%	\$228,461,010	8.0%
Internal Stock Pool	\$1,735,303,024	58.5%	\$1,659,646,129	58.2%
Internal Bond Pool - Trust	\$933,621,102	31.5%	\$905,582,488	31.8%
Total Portfolio	\$2,964,552,613	100.0%	\$2,851,109,138	100.0%

NON-RETIREMENT MANAGERS
Calendar Year Returns

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

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



STATE BOARD OF INVESTMENT

Deferred Compensation Plan Minnesota College Savings Plan Performance Summaries

Fourth Quarter 2014

MINNESOTA STATE BOARD OF INVESTMENT

Deferred Compensation Plan and Minnesota College Savings Plan

Table of Contents

	Page
Deferred Compensation Plan	
Fund Manager Performance Summary _____ (quarter, 1, 3, 5 year periods)	A-36
Fund Manager Performance Summary _____ (by calendar year)	A-39
Fund Manager Market Values _____	A-42
Minnesota College Savings Plan	
Fund Manager Performance Summary _____ (quarter, 1, 3, 5 year periods)	A-43

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS (1)
Periods Ended December 2014

457 Mutual Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (2)
Large Cap Equity					
Janus Twenty	5.9	8.9	21.1	11.7	4.3
<i>S&P 500</i>	<i>4.9</i>	<i>13.7</i>	<i>20.4</i>	<i>15.5</i>	<i>4.6</i>
Vanguard Institutional Index Plus	4.9	13.7	20.4	15.4	4.6
<i>S&P 500</i>	<i>4.9</i>	<i>13.7</i>	<i>20.4</i>	<i>15.5</i>	<i>4.6</i>
Mid Cap Equity					
Vanguard Mid-Cap Index	6.6	13.8	21.3	17.1	10.5
<i>CRSP US Mid Cap (3)</i>	<i>6.6</i>	<i>13.8</i>	<i>21.4</i>	<i>17.1</i>	<i>10.5</i>
Small Cap Equity					
T. Rowe Price Small-Cap Stock	9.2	6.9	20.2	18.1	10.5
<i>Russell 2000</i>	<i>9.7</i>	<i>4.9</i>	<i>19.2</i>	<i>15.5</i>	<i>7.9</i>
Balanced					
Vanguard Balanced Index Inst. Fund	3.9	10.0	13.2	11.4	7.5
<i>60% CRSP US Tot Mkt, 40% Barclays Agg (4)</i>	<i>3.9</i>	<i>10.0</i>	<i>13.2</i>	<i>11.4</i>	<i>7.5</i>
Bond					
Dodge & Cox Income Fund	0.9	5.5	4.6	5.2	6.1
<i>Barclays Aggregate</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>5.5</i>
Vanguard Total Bond Market Index Inst.	1.7	5.9	2.6	4.4	4.7
<i>Barclays Aggregate</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>4.4</i>	<i>4.7</i>
Fixed Interest					
Galliard Capital Management	0.5	1.8	2.3	2.9	4.9
<i>3-Year Constant Maturity Treasury +45bp</i>	<i>0.4</i>	<i>1.3</i>	<i>1.1</i>	<i>1.2</i>	<i>3.8</i>
International					
Fidelity Diversified International	-1.1	-3.2	13.1	6.5	6.8
<i>MSCI EAFE Free</i>	<i>-3.6</i>	<i>-4.9</i>	<i>11.1</i>	<i>5.3</i>	<i>3.8</i>
Vanguard Total International Stock Index	-4.2	-4.1	9.3	--	2.1
<i>FTSE Global All Cap ex US (5)</i>	<i>-3.7</i>	<i>-3.1</i>	<i>9.5</i>	<i>--</i>	<i>2.4</i>

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

- (1) Money Market Account and Fixed Interest Accounts are also offered in the Supplemental Investment Fund, which is described within Tab A Performance for these accounts are reported under the Deferred Compensation Plan accounts within Tab A.
- (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 2014

MN Target Retirement Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
SSgA					
Income Fund	0.5	3.6	6.1	--	5.3
Income Fund Benchmark	0.6	3.8	6.3	--	5.5
2015 Fund	0.5	4.0	6.8	--	6.5
2015 Fund Benchmark	0.6	4.2	7.0	--	6.7
2020 Fund	0.8	5.3	8.8	--	8.3
2020 Fund Benchmark	0.9	5.5	9.0	--	8.4
2025 Fund	1.2	5.9	10.9	--	9.6
2025 Fund Benchmark	1.4	6.2	11.0	--	9.7
2030 Fund	1.5	6.3	12.1	--	10.2
2030 Fund Benchmark	1.7	6.6	12.3	--	10.4
2035 Fund	1.7	6.4	13.0	--	10.6
2035 Fund Benchmark	1.8	6.7	13.2	--	10.7
2040 Fund	1.7	6.4	13.7	--	10.5
2040 Fund Benchmark	1.9	6.6	13.9	--	10.6
2045 Fund	1.7	6.2	14.3	--	10.5
2045 Fund Benchmark	1.9	6.5	14.5	--	10.6
2050 Fund	1.7	6.2	14.3	--	10.5
2050 Fund Benchmark	1.9	6.5	14.5	--	10.7
2055 Fund	1.7	6.2	14.3	--	10.5
2055 Fund Benchmark	1.9	6.5	14.5	--	10.7
2060 Fund	1.7	6.2	14.3	--	10.5
2060 Fund Benchmark	1.9	6.5	14.5	--	10.7

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 2014

SSgA Index Funds	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception (1)
S&P 500 Index Fund	4.9	13.7	20.4	--	16.0
<i>S&P 500</i>	<i>4.9</i>	<i>13.7</i>	<i>20.4</i>	<i>--</i>	<i>16.0</i>
DJ-UBS Roll Select Commodity Index Fund	-11.2	-15.3	--	--	-8.6
<i>DJ-UBS Roll Select Commodity Index</i>	<i>-11.2</i>	<i>-15.2</i>	<i>--</i>	<i>--</i>	<i>-8.4</i>
Russell Small/Mid Cap Index Fund	6.4	7.5	--	--	21.2
<i>Russell Small Cap Completeness Index</i>	<i>6.4</i>	<i>7.4</i>	<i>--</i>	<i>--</i>	<i>21.2</i>
Global All-Cap Equity ex-US Index Fund	-4.3	-4.2	9.3	--	2.3
<i>MSCI ACWI ex USA IMI</i>	<i>-3.9</i>	<i>-3.9</i>	<i>9.2</i>	<i>--</i>	<i>2.2</i>
Global Real Estate Securities Index Fund	7.6	15.5	15.2	--	9.3
<i>FTSE EPRA/NAREIT Dev Liquid</i>	<i>7.7</i>	<i>15.0</i>	<i>14.6</i>	<i>--</i>	<i>8.6</i>
Long Government Bond Index Fund	8.4	24.6	4.2	--	10.7
<i>Barclays Long Government</i>	<i>8.4</i>	<i>24.7</i>	<i>4.2</i>	<i>--</i>	<i>10.7</i>
Bond Index Fund	1.8	6.0	2.7	--	3.7
<i>Barclays Aggregate</i>	<i>1.8</i>	<i>6.0</i>	<i>2.7</i>	<i>--</i>	<i>3.7</i>
Inflation Protected Bond Index Fund	0.0	3.6	0.4	--	2.4
<i>Barclays U.S. TIPS</i>	<i>0.0</i>	<i>3.6</i>	<i>0.4</i>	<i>--</i>	<i>2.4</i>
High Yield Bond Index Fund	-1.2	2.1	7.7	--	6.9
<i>Barclays U.S. High Yield Very Liquid</i>	<i>-1.2</i>	<i>2.1</i>	<i>7.9</i>	<i>--</i>	<i>7.1</i>
U.S. Short-Term Gov/Credit Index Fund	0.2	0.7	1.7	--	1.6
<i>Barclays 1-3 Yr Govt/Credit</i>	<i>0.2</i>	<i>0.8</i>	<i>0.9</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 (1)
Calendar Year Returns

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

Numbers in blue include returns prior to retention by SBI.

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

- (1) Money Market Account and Fixed Interest Accounts are also offered in the Supplemental Investment Fund, which is described within Tab A. Performance for these accounts are reported under the Deferred Compensation Plan accounts within Tab A.
- (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	2014	2013	2012	2011	2010
SSgA					
Income Fund	3.6	5.1	9.7	4.6	9.6
Income Fund Benchmark	3.8	5.3	9.8	4.8	10.1
2015 Fund	4.0	5.6	11.0	6.9	12.1
2015 Fund Benchmark	4.2	5.8	11.0	7.1	12.5
2020 Fund	5.3	8.8	12.5	7.3	13.6
2020 Fund Benchmark	5.5	9.1	12.5	7.4	13.9
2025 Fund	5.9	13.2	13.7	5.9	14.6
2025 Fund Benchmark	6.2	13.5	13.7	6.0	14.7
2030 Fund	6.3	16.0	14.3	4.9	15.1
2030 Fund Benchmark	6.6	16.3	14.1	5.0	15.3
2035 Fund	6.4	18.1	14.9	3.5	15.7
2035 Fund Benchmark	6.7	18.5	14.7	3.6	15.8
2040 Fund	6.4	19.7	15.5	1.5	15.9
2040 Fund Benchmark	6.6	20.0	15.3	1.6	16.1
2045 Fund	6.2	21.3	16.0	0.0	16.2
2045 Fund Benchmark	6.5	21.6	15.8	0.1	16.2
2050 Fund	6.2	21.4	15.9	0.1	16.1
2050 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2055 Fund	6.2	21.4	15.9	0.1	16.1
2055 Fund Benchmark	6.5	21.7	15.8	0.1	16.2
2060 Fund	6.2	21.4	16.0	--	--
2060 Fund Benchmark	6.5	21.7	15.8	--	--

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

Numbers in blue include returns prior to retentional by SBI.

MN STATE 457 DEFERRED COMPENSATION PLAN
FUND OPTIONS
Calendar Year Returns

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

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

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

Numbers in blue include returns prior to retention by SBI.

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

	December 31, 2014		September 30, 2014	
	Market Value	Percent	Market Value	Percent
Large Cap Equity	\$1,524,049,341	26.2%	\$1,453,782,968	25.7%
Janus Twenty	\$540,394,987	9.3%	\$518,973,155	9.2%
Vanguard Institutional Index Plus	\$983,654,354	16.9%	\$934,809,813	16.5%
Mid Cap Equity	\$416,082,332	7.1%	\$388,767,466	6.9%
Vanguard Mid-Cap Index	\$416,082,332	7.1%	\$388,767,466	6.9%
Small Cap Equity	\$598,147,784	10.3%	\$566,069,115	10.0%
T. Rowe Price Small-Cap Stock	\$598,147,784	10.3%	\$566,069,115	10.0%
Balanced	\$675,243,700	11.6%	\$647,940,694	11.5%
Vanguard Balanced Index Inst. Fund	\$675,243,700	11.6%	\$647,940,694	11.5%
Bond	\$390,067,754	6.7%	\$376,678,978	6.7%
Dodge & Cox Income Fund	\$206,412,954	3.5%	\$200,588,201	3.6%
Vanguard Total Bond Market Index Inst.	\$183,654,799	3.2%	\$176,090,777	3.1%
Stable Value	\$1,528,554,816	26.3%	\$1,534,440,964	27.2%
Galliard Stable Value Composite - Since Retention	\$1,528,554,816	26.3%	\$1,534,440,964	27.2%
International	\$419,226,751	7.2%	\$433,438,125	7.7%
Fidelity Diversified International	\$269,050,778	4.6%	\$277,542,341	4.9%
Vanguard Total International Stock Index	\$150,175,973	2.6%	\$155,895,784	2.8%
Target Retirement Funds	\$268,405,190	4.6%	\$249,036,380	4.4%
Income Fund	\$35,278,724	0.6%	\$33,978,284	0.6%
2015 Fund	\$33,995,510	0.6%	\$33,979,697	0.6%
2020 Fund	\$61,837,438	1.1%	\$58,690,166	1.0%
2025 Fund	\$48,514,935	0.8%	\$44,289,102	0.8%
2030 Fund	\$29,852,538	0.5%	\$25,821,066	0.5%
2035 Fund	\$22,987,776	0.4%	\$19,950,786	0.4%
2040 Fund	\$13,284,576	0.2%	\$12,254,521	0.2%
2045 Fund	\$9,156,925	0.2%	\$8,142,790	0.1%
2050 Fund	\$6,782,522	0.1%	\$5,871,566	0.1%
2055 Fund	\$2,993,718	0.1%	\$2,537,049	0.0%
2060 Fund	\$3,720,526	0.1%	\$3,521,353	0.1%

MINNESOTA COLLEGE SAVINGS PLAN
STATIC OPTIONS (1)
Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Equity					
MNCSP US Intl Equity Allocation	3.3	8.1	16.6	12.6	6.6
MNCSP US Intl Equity Allocation Benchmark	3.2	8.6	17.0	12.9	7.7
MNCSP Equity Interest Allocation	2.7	--	--	--	2.5
MNCSP Equity Interest Benchmark	2.6	--	--	--	2.4
MNCSP Intl Eq Index Allocation Benchmark	-3.7	-4.2	--	--	--
MNCSP Intl Eq Index Allocation	-4.3	-5.3	--	--	3.4
MNCSP US LC Equity Allocation	4.8	--	--	--	7.2
MNCSP US LC Equity Allocation Benchmark	4.9	--	--	--	7.3
Fixed Income					
MNCSP Fixed Income Allocation	1.1	4.8	1.5	3.7	4.2
MNCSP Fixed Income Allocation Benchmark	1.2	5.3	2.1	4.4	5.1
MNCSP Principal Interest Allocation	0.3	1.3	1.4	1.9	2.8
MNCSP Principal Interest Allocation Benchmark	0.0	0.0	0.1	0.1	1.5
Cash					
MNCSP Money Market Allocation	0.0	0.0	0.0	-0.1	0.4
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 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception(1)
Allocation Options					
MNCSP Aggressive Allocation	2.8	--	--	--	2.5
MNCSP Aggressive Allocation Benchmark	2.8	--	--	--	2.6
MNCSP Moderate Allocation	2.4	6.8	10.5	9.1	4.9
MNCSP Moderate Allocation Benchmark	2.4	7.4	10.9	9.7	5.7
MNCSP Conservative Allocation	1.5	--	--	--	0.5
MNCSP Conservative Allocation Benchmark	1.5	--	--	--	0.5
Managed Allocation Options					
MNCSP Managed 0-4 Yrs	2.8	--	--	--	2.6
*MNCSP Managed 0-4 Yrs - Bench	2.8	--	--	--	2.6
MNCSP Managed 5-8 Yrs	2.7	--	--	--	2.4
*MNCSP Managed 5-8 Yrs - Bench	2.6	--	--	--	2.4
MNCSP Managed 9-10 Yrs	2.4	--	--	--	2.1
*MNCSP Managed 9-10 Yrs - Bench	2.4	--	--	--	2.1
MNCSP Managed 11-12 Yrs	2.1	--	--	--	1.8
*MNCSP Managed 11-12 Yrs - Bench	2.2	--	--	--	1.9
MNCSP Managed 13-14 Yrs	1.9	--	--	--	1.6
*MNCSP Managed 13-14 Yrs - Bench	1.9	--	--	--	1.6
MNCSP Managed 15 Yrs	1.6	--	--	--	1.3
*MNCSP Managed 15 Yrs - Bench	1.5	--	--	--	1.2
MNCSP Managed 16 Yrs	1.3	--	--	--	1.1
*MNCSP Managed 16 Yrs - Bench	1.3	--	--	--	1.0
MNCSP Managed 17 Yrs	1.2	--	--	--	1.0
*MNCSP Managed 17 Yrs - Bench	1.1	--	--	--	0.9
MNCSP Managed 18+ Yrs	0.9	--	--	--	0.8
*MNCSP Managed 18+ Yrs - Bench	0.9	--	--	--	0.7

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

**MINNESOTA COLLEGE SAVINGS PLAN
ALLOCATION OPTIONS UNDERLYING FUNDS**

Periods Ended December 2014

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years (1)
TIAA-CREF:Bond Idx;Inst	1.7	5.9	2.5	4.3	--
Barclays Agg (SBI Toolbox Returns)	1.8	6.0	2.7	4.4	4.7
TIAA-CREF:EM Eq Idx;Inst	-4.7	-3.2	3.6	--	--
MSCI:Emer Markets	-4.4	-1.8	4.4	2.1	8.8
TIAA-CREF:Eq Idx;Inst	5.2	12.5	20.4	15.6	7.9
Russell 3000 Index	5.2	12.6	20.5	15.6	7.9
TIAA-CREF:Hi-Yld;Inst	-0.7	2.5	7.6	8.6	--
BofAML:1-3 BB US HY CP	0.7	1.9	6.5	7.1	6.8
TIAA-CREF:Infl Bond;Inst	-0.1	3.4	0.2	3.9	4.1
Barclays U.S. TIPS Index	0.0	3.6	0.4	4.1	4.4
TIAA-CREF:Intl Eq Ix;Inst	-4.1	-5.5	11.1	5.4	4.5
MSCI EAFE USD Index	-3.6	-4.9	11.1	5.3	4.4
TIAA-CREF:Money Mkt;Inst	0.0	0.0	0.0	0.0	1.7
MFR Avg All-Taxble	0.0	0.1	0.1	0.1	1.4
TIAA-CREF:Real Est;Inst	14.2	28.1	15.9	16.9	7.1
NAREIT All Equity Index	12.9	28.0	16.4	16.9	8.3
TIAA-CREF:S&P500 Idx;Ins	4.9	13.6	20.3	15.3	7.6
S&P 500 Index	4.9	13.7	20.4	15.5	7.7

